

VETERINARY INSTRUMENTATION

A  HENRY SCHEIN® COMPANY

Multiple metacarpal bone
fracture in a 1.7kg Chihuahua
repaired using the
1.0mm plating system.



All images and
implants to
scale



Tel: 0845 130 9596
Fax: 0845 130 8687
E-mail: info@vetinst.com
Website: www.vetinst.com

Case: Mark Bush
Dick White Referrals

Welcome

Dear Colleague,

Welcome to the 2015 Veterinary Instrumentation catalogue.

This is my first introduction to the Veterinary Instrumentation catalogue. After over 25 years of producing the catalogue, John has asked me to take the lead on the catalogue as he becomes less involved in the day to day running of the business and focuses on the parts he really enjoys (producing the catalogue was not one of them!).

As a practicing orthopaedic veterinary surgeon and the Technical Director of Veterinary Instrumentation I am very aware of the improved clinical outcomes we can offer compared to just 10-15 years ago and increasing client expectations. Veterinary Instrumentation has always strived to develop instruments and implants which give better clinical outcomes, many of which have been designed or inspired by veterinary surgeons. With extensive experience in design and engineering, I hope that I, and my Quality Control and Product Development Team can do our little bit to develop the veterinary surgical industry further. If you think you have an idea which would improve veterinary surgery please get in touch and we will try to realise it together.

As veterinary surgery continues to evolve, our new catalogue has grown and I felt it necessary to perform a re-shuffle of the contents to make it more user friendly and the products easier to find. There is additional editorial content and product information to better present treatment options and demonstrate products' intended use. Please let me know if this is an improvement on previous editions as I am always looking for ways to enhance the catalogue. As ever, our 2015 catalogue includes many new products which I hope you will find of interest.

With a very personal interest in smaller patients, I have been working hard to improve the range of implants at the smaller end of the spectrum. Our 1mm system continues to be popular (see front cover) as the number of patients we see below 1kg continues to rise.

We have not neglected larger patients and have also been working developing implants at the upper end for cases that would be challenging, if not impossible to manage via other means. Locking technology continues to develop and is becoming increasingly widespread. We have many new locking plates which should be useful in difficult cases. The 1mm kit and many of our locking kits are now available for loan, whereby we charge a fee to cover carriage and wear and tear and you just pay for the implants you use. The loan kits are proving very popular so please always check that they are available.

Dr Yves Samoy has continued to evolve TTA Rapid to provide an alternative surgical technique that does not involve a Maquet hole, whilst the new Leibinger C-Lox Spinal system has had very good initial results. Romain Pizzi BVSc MSc DZooMed MANZCVSc(Surg) FRES FRGS MRCVS has written an introduction to Canine Laparoscopy and Thoracoscopy in Chapter 2 and we have extended the Ethicon range of products connected with this speciality.

Special thanks must go to Gareth Arthurs MA VetMB CertVR CertSAS DSAS (Orth) PGCertMedEd FHEA MRCVS for his special guidance on several projects during the last twelve months. Both Gareth and I will be attending many of the scientific meetings during 2015 and I very much look forward to seeing you there.

Best regards.....



David Strong, BVM&S, MRCVS
Technical Director.



Charities

There are many Charities out there doing a lot of good work who need support. We as a company support a number, mostly veterinary but not all. Below are some logos of some of the Charities which we assist. Visit the charity page at www.vetinst.com to find out more about the great work they do.



Celebrating over 25 years of serving the veterinary community



Free UK Delivery

FREE U.K. DELIVERY



LIFE TIME WARRANTY AGAINST
MANUFACTURING DEFECTS



NO MINIMUM ORDER VALUE
FREE U.K. DELIVERY



LOAN KITS & UNITS AVAILABLE
INCLUDING 1.0MM PLATING KIT,
LOCKING PLATING KITS & V.A.C.
THERAPY UNIT.



ALL OUR PRODUCTS ARE SUPPORTED
BY OUR EXPERIENCED VET TECH TEAM
0845 130 9596



100% OF OUR UK CUSTOMERS SURVEYED
BETWEEN 2009-2014 WOULD RECOMMEND
VETERINARY INSTRUMENTATION TO A
COLLEAGUE (227 REPLIES)



PRODUCTS 2015

Arthrex Meniscal Instrumentation



New to the Arthrex range is the Meniscal Probe Cutter and Stifle Distractor.

The Probe Cutter incorporates a hook for meniscal probing and a spring loaded cutter is advanced by means of a slider in the tubular handle.

The Arthroscopic Stifle Distractor sigmoid shape permits both stifle distraction and subluxation for optimal meniscal examination. Available in 3 sizes.

See page 43 for further details.

TPLO Narrow Head 3.5mm Broad Locking Plates



An intermediate 3.5mm Locking TPLO Plate developed following customer requests.

This Plate has similar strength in the shaft and mid section to the 3.5mm Broad Plate, but only 3 screw holes in the head section for use with smaller proximal segments.

See page 65 for further details.

TTA Rapid Technique No Maquet Hole



This technique uses a very similar osteotomy to the original technique with the exception of the distal end.

A new L-Shaped Saw Guide has been developed and is now available.

See page 54 for further details regarding the technique.

TTA Rapid Petite



Advancements of just 3mm are required for most cats and many smaller dogs.

For these smaller patients, the TTA Rapid Petite system has been developed.

The system features dedicated instrumentation and a dedicated selection of both cages and screws which the surgeon will find are better tailored to those smaller patients.

See page 56 for further details.



PRODUCTS 2015

Arthrex Synergy Arthroscopy Tower



Synergy features the most advanced technology and provides the highest quality HD image available. In combination with the new high definition optics, the Synergy System provides industry unrivalled depth of vision and focus.

See page 89 for further details.

Ethicon Laparoscopy Products



FLEXIPATH Trocars are sterile single-patient-use instruments that consist of a mechanical obturator and a flexible sleeve.

When activated, the mechanical obturator expands the flexible sleeve, which becomes secured to the mechanical obturator for placement. The flexible sleeve incorporates holes (for sutures or skin staples) to secure it to the skin.

See page 105 for further details.

Loan Kits

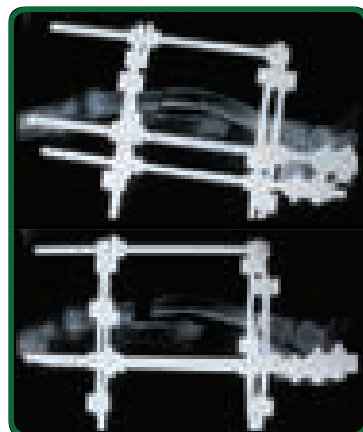


We now are able to offer Loan Kits & Units for certain procedures. These include the 1.0mm Plating Set, The LokRod™ Plating System, Locking (Star Drive) Plating Kits and V.A.C. Therapy Unit.

The Kits and Units are available on loan for a set fee which includes courier delivery and collection charges. Consumables are charged separately. T's & C's apply. U.K. only.

Please contact the Vet Tech Team on 0845 130 9596 or email info@vetinst.com for further details.

Circular ESF



The use of circular, or ring fixators requires patience and experience, but offers additional versatility over other systems.

By maintaining wire tension across a ring, similar construct stiffness can be achieved using small diameter wires than linear or free-form external fixation. Along with good flexibility over the direction of pin placement, circular ESF can be particularly useful when managing small fragments.

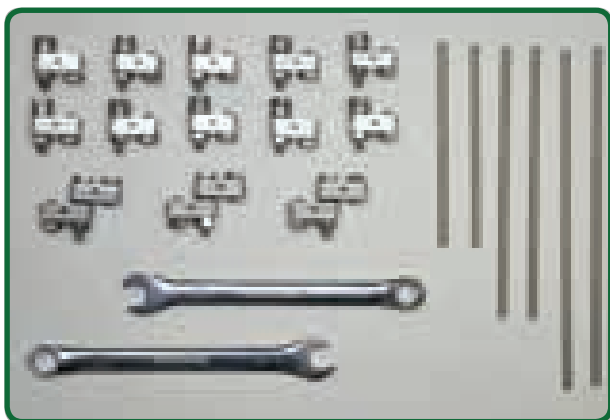
Frames are often constructed to allow adjustment of spacing and angular relationships between rings; this is very useful for adjusting bone length and in the management of angular limb deformities.

See Page 161 for further details.



PRODUCTS 2015

Standard Fixator (SF) Kits

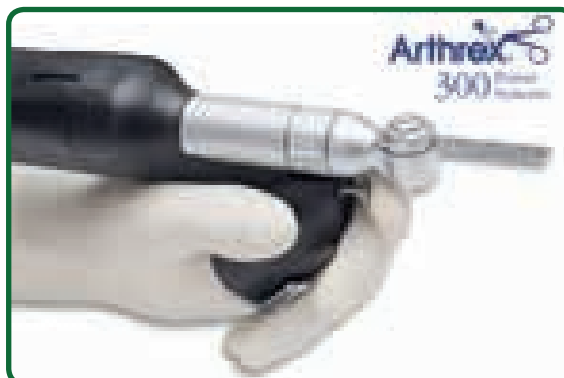


The Standard Fixator is the most adaptable standard linear ESF fixation system and is the recommended system to use. The ESF clamp design is a 2 part, 2 bolt mechanism body which can be dismantled, allowing clamps to be easily added or removed from an ESF frame at any time, and by using 2 rather than 1 bolt to secure the clamp, better stability of the clamp - connecting bar and clamp-ESF pin interface is achieved.

The system is available in 3 sizes - Mini, Small and Large and available in Kits.

See page 149 for further details.

Arthrex V-300 Modular Small Bone Power System



The Arthrex V-300 Modular Power System has the advantages of hose and cable free operation combined with a novel ergonomic design producing a well balanced handpiece.

Battery operated it boasts minimal weight and maximum power.

A wide range of attachments are available including the popular Jacob's Chuck, AO Quick Release Chuck, Sagittal Saw, Wire/ Pin Drivers, Reciprocating Saw and a very useful Bur Adaptor.

See page 176 for further details.

C-Lox (Patent Pending)



Developed over several years by Rita Leibinger Medical in co-operation with Professor Dr. Franck Forterre, Bern University (Switzerland), C-Lox is gaining quite a following amongst European Spinal Surgeons for Intervertebral Distraction Fusion.

Manufactured in pure titanium C-Lox cages feature integrated spikes that stand proud of the bearing surfaces and engage with adjacent vertebral end-plates. Additional locking screw fixation provides a secure primary fixture.

See page 186 for further details.

Cruciate Head Cortical Self Tapping Screws



Following surgeon requests we have now added 1.5mm, 2.0mm & 2.4mm Cortical Self Tapping Screws with a Cruciate Head to our range.

The Cruciate Head design improves the security of grip when driving the smaller screws and is less likely to cause rounding off of the screw heads.

Specific sized screwdrivers have also been designed as well as inserts for those surgeons using or preferring the Modular Screwdriver Handle.

See pages 202 for further details.



PRODUCTS 2015

Cuttable Malleable Locking Plates



The VI Cuttable Malleable Locking Plates come into their own when pronounced contouring is necessary. They are well suited to situations when bone thickness or bone quality makes application of more conventional implants challenging such as many complicated pelvic fractures as well as situations where mono-cortical application is desirable.

See page 259 for further details.

Midmark VetAssure Autoclave



Designed and manufactured in Italy, the VetAssure is built to the highest standard delivering quality, efficiency, speed, simplicity and reliability.

The VetAssure B and S class autoclaves meet the highest standards required for vacuum sterilisation and are suitable for all wrapped, non-wrapped, solid, hollow and porous loads, meeting the BS EN13060 standard for steam penetration and resulting in dry packs and instruments.

See Page 380 for further details.

Midmark Cardell Touch Multiparameter Monitor



Midmark has designed the precision and consistency you expect from the Cardell® name into a fast, light, and intuitive touch screen vital signs monitor. Above all, an anaesthesia monitor should be safe, reliable, and user-friendly.

The Cardell® Touch is highly advanced, yet easy to use. With veterinary specific algorithms and exclusive Cardell® Blood Pressure Technology, the Touch is the latest innovation from the most trusted name in veterinary vital signs monitoring.

See Page 407 for further details.

Advance Anaesthesia Specialists Products



Inspiring cold, dry air can be a cause of heat loss for animals under anaesthesia. The Darvall Heated Smooth Wall Breathing Circuit solves this longstanding problem in small animal anaesthesia.

Darvall heated smooth wall breathing circuits provide warm inspired gas to the patient from the moment of intubation and begins to warm patients from the inside, from their very first breath after induction, reducing loss of body temperature prior to surgery.

The totally new Darvall Heated Circuits with thermostatic control, warm inspired gas which can minimize heat loss in anaesthesia.

See Pages 396 for further details.

The Company

Veterinary Instrumentation was founded by John Lapish BSc., BVetMed., MRCVS. in 1986. Working in Sheffield as a small animal orthopaedic surgeon John was frustrated by the lack of appropriate instrumentation for veterinary surgical procedures. Most of the available instruments at that time were simply the smaller variants of products designed for use in human surgery. Living in Sheffield, centre of the UK surgical trades, John was ideally placed to try and develop one or two ideas of his own. So, working with skilled local instrument makers, John began to develop a range of instruments (initially for his own use) designed specifically for veterinary surgery. Requests for these products and suggestions for new items began to trickle in from colleagues and this reinforced the conclusion that a need existed for a specialist instrumentation service to meet the needs of the profession, and small animal orthopaedics in particular.

Today the Veterinary Instrumentation range of implants and instruments includes over 4,500 items which are stocked for immediate despatch. Innovation remains a key part of our activity and John works with leading veterinary specialists from all over the world to turn new ideas into practical working instruments.

Our products have the professional backup of veterinary and nursing personnel to advise on the selection and use of both instruments and implants. We are always happy to discuss any aspect of instrumentation and can help locate almost any item.

In January 2012 Veterinary Instrumentation was acquired by Henry Schein Inc, a Fortune 500® company and a member of the NASDAQ 100® Index. Henry Schein is recognised for its excellent customer service and highly competitive prices in exactly the same way as Veterinary Instrumentation and this partnership will maintain our high customer service levels as well as increasing the product range and offering even better value to customers.

Quality

Veterinary Instrumentation's strap line is 'Designed by Vets for Vets' and we fully understand how important it is that all instruments and implants are of the highest quality. We work exclusively with a number of manufacturers to ensure that all our products are not only exclusive to us but are of the highest quality, in terms of design, manufacture and materials. For example, there are over 200 different variants of stainless steel, thus a stainless steel screw from one manufacturer may be very different from another. Although quality standards are not mandatory within the veterinary market, we work to British and European human standards whenever they apply. For example, all our screws are manufactured by a human orthopaedic company to comply with BS 3531 and ISO 5835, so you can have complete confidence that you are buying the best. We have also designed them to work with all other manufacturers' products, even those where there is not a published specification (e.g. S.O.P™) to allow you the freedom to choose your supplier.



Life Time Warranty

Veterinary Instrumentation has been offering a lifetime warranty against manufacturing defect on its surgical instruments for over 25 years and we are delighted that many of our instruments are still providing good service after decades of use. We seek to minimise problems by offering the highest quality products but if you purchase an instrument that either fails or does not perform, we will gladly repair or replace the instrument free of charge.

Our Veterinary Team – Here to help you:



**John Lapish BSC.,
BVetMed., MRCVS.**

Over 30 years experience as a veterinary surgeon with an interest in orthopaedics and trauma. In 2003 John was awarded the BSAVA 'Simon Award' in recognition of the welfare benefits of the range of instruments he has developed for use in small animal surgery.



**David Strong BVM&S.,
MRCVS.**

Technical Director

A practising orthopaedic surgeon with interests in all aspects of surgery. David also has extensive CAD and engineering skills to facilitate the development of new instruments and implants.



**Gareth Arthurs MA.,
VetMB., CertVR., CertSAS.,
DSAS(Orth.), PGCertMedEd.,
FHEA., MRCVS., RCVS.
Recognised Specialist
in Small Animal Surgery.
(Orthopaedics).**

Consultant

Gareth offers a wealth of experience from all aspects of veterinary surgery. He has a particular interest in implant design, manufacture and quality.



**Linda Capewell
VN
Over 30 years
experience**



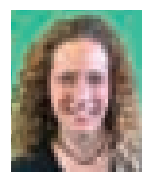
**Gill Fletcher
VN
Over 25 years
experience**



**Natalie Crowley
VN
Over 20 years
experience**



**Dawn Sewell
RVN
Over 20 years
experience**



**Rachel Beauchamp
RVN, DipHE CVN,
RCVS DipAVN
Over 10 years
experience**



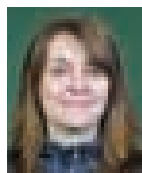
**Tina Tattersley
RVN
Over 12 years
experience**



**Nicola Gore
RVN
Over 20 years
experience**



**Jodie Crofts
RVN
Over 15 years
experience**



**Sally Briggs
RVN
Over 10 years
experience**



**Emma Austin
RVN
Over 10 years
experience**

Our veterinary team undertake continuing professional development to ensure that you receive up to date advice and technical support on all aspects of veterinary surgery.



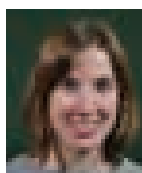
**Steve Fletcher
Managing
Director**



**David McCartney
Operations
Manager**



**Chris Pignou
Quality
Engineer**



**Gillian Butterwick
Product
Development
Engineer**



**Sally Thexton
National
Accounts
Manager**



**Rob Jordan
Purchasing
Manager**



**Sue Worthington
Warehouse
Manager**



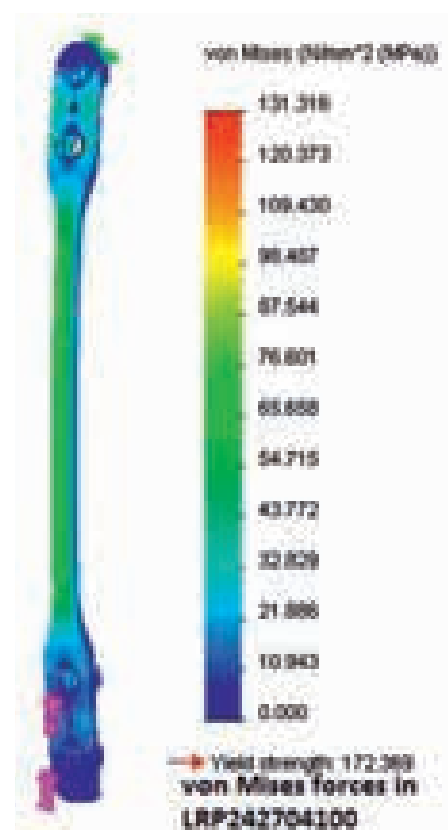
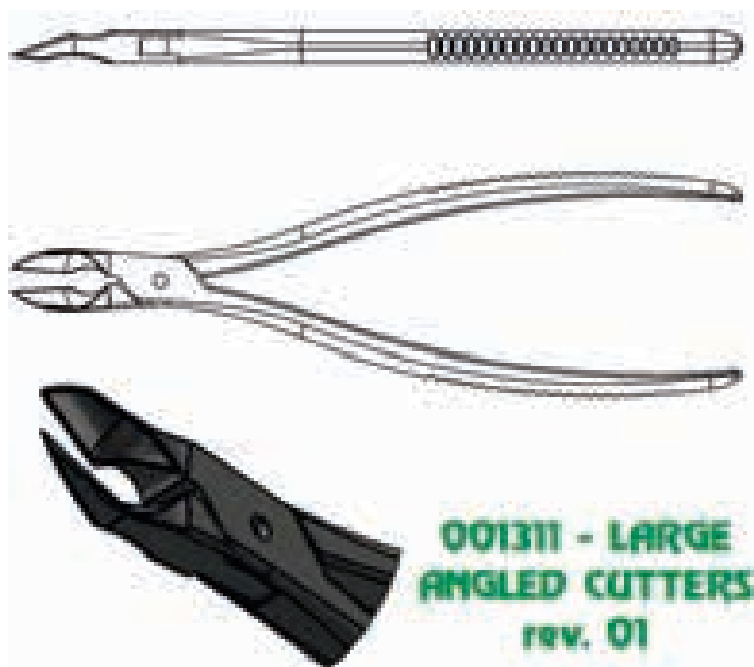
Warehouse Operatives Team

Our Administration and Warehouse Team are always looking for new ways to improve our service. If you have any suggestions as to how we can improve our service to you please contact Steve on (0114) 2588530 or email info@vetinst.com

Product Development

Development and improvement of veterinary instruments, implants and techniques is at our very core; we have now been doing so for 28 years. In the early days of the company, instrument design consisted of producing hand-drawn sketches or making prototypes using existing products. Often several prototype versions were produced over a number of cycles of improvement before settling on a finished pattern

Today, the design process is more sophisticated, but still starts with an idea or a clinical problem that requires a better solution. Now that the whole process can be digitalised, the process is more streamlined and the results more precise. Most of our new products are created by our Technical Director, David Strong, MRCVS using 3D CAD modelling software. The 3D models he creates can be programmed into a prototype production machine or directly into final production machines. The 3D CAD models are also used to generate full design specifications as 2D drawings containing additional information including material, hardness tolerances, surface finish and dimensional tolerances. These drawings are not only used for manufacture, but for our multi-stage quality control process.



Simplified 2D representations taken directly from his 3D Solidworks™ models are used in our implant profiles for manual templating and digital templating ensuring perfect scaling.

3D CAD modelling also allows finite element analysis (FEA) to be conducted to iron out stress risers and optimise designs prior to creating a physical item.

This is especially important with low volume or custom plate manufacture where either a very quick turn-around is required or testing by other means is not practical.

From the FEA data, we can be confident of the performance of our products and are proud to support a number of external projects with implants for unbiased peer review as we feel this may offer greater integrity of results than in-house validation. We always pay close attention to the results of these reviews and are pro-active in making improvements in the rare cases where recommendations for improvements are made.

If you have any product ideas that you would like to discuss with our design team, please contact David Strong on David@vetinst.com

Returns

Veterinary Instrumentation has always operated a flexible approach to product returns, particularly regarding orthopaedic plates and screws. We fully understand that some procedures may require a range of plate options and screw sizes to be available as it may not be possible for the surgeon to make an informed decision until the operation is underway. To access this service, please mention that you may be returning products when you place the order and return all unwanted products/sizes in or with their original packaging. This is necessary to comply with our “sale or return” policy in our Terms and Conditions. Your order will then be invoiced as normal and a credit raised when the goods are returned. Postage costs for returned products are always the responsibility of the customer. Any returns after more than 30 days may be declined. Also please note that any products which are ordered specifically for a customer i.e. they are not listed in the catalogue, will incur a 25% restocking charge. Please refer to our Terms and Conditions for further information.

Customer Feedback

Veterinary Instrumentation is always seeking to improve and values comments from customers. Our customer survey results for 2014 are shown below. 8% of questionnaires returned in 2014 (30 out of 400).

	Excellent (%)	Good (%)	Average (%)	Poor (%)
Quality of Products	90	10	0	0
Customer Support	87	13	0	0
Delivery Times	83	14	3	0
After Sales Service	79	21	0	0
Catalogue	87	13	0	0

Thank you for taking the time to complete our questionnaire, a £2 donation was made to PetSavers for every survey returned.

100%
Recommendation

All 30 replies said they would recommend Veterinary Instrumentation to a colleague.

Free U.K. Delivery



Veterinary Instrumentation has always offered free UK delivery by Royal Mail as part of its service. There is also no minimum order value to qualify for free delivery unlike most other veterinary suppliers. The only exception to free delivery is large pieces of equipment for example lights or clinical furniture which are highlighted in the catalogue with a star *.

Exhibitions



Each year Veterinary Instrumentation attends many exhibitions both in the UK and Overseas. During 2015 we will be attending the following exhibitions:

BVOA/BSAVA	April
WSAVA	May
ECVS	July
BEVA	Sept
BVOA	Oct
SEVC	Oct
LVS	Nov
NAVC	Jan 2016
VOS	Mar 2016

For 2015, Veterinary Instrumentation will be organising a number of surgical demonstrations on the booth, both to launch new products and initiatives but also to allow surgeons to get hands on with new surgical techniques. Please see www.vetinst.com for a demonstration timetable at each exhibition.

We are also very pleased to bring specific equipment to an exhibition if you would like to examine it more closely, just let our Vet Tech Team know in advance and we will organise it.

Logos

In the 2015 catalogue we have used six logos to identify or highlight additional product features or benefits:



NEW PRODUCTS

Due to the large number of new products which Veterinary Instrumentation launch each year, it can be difficult to easily see which products are new for 2015. We have therefore inserted the logo to identify that a product is new for 2015.




LOAN KITS

We are now able to offer Loan Kits and Units for certain procedures. These include the 1.0mm Plating Set, LokRod™ Plating System, Locking (Star Drive) Plating Kits and the V.A.C. Therapy Unit. The Kits are available on loan for a set fee - this includes courier delivery and collection charges. Consumables are charged separately. T's & C's apply. U.K. only. For further details or to check availability, please call 0845 130 9696 or email info@vetinst.com




VIDEOS

Whilst Veterinary Instrumentation strives to include all relevant information regarding each instrument in this catalogue, we know the best way to understand an instrument is to see it in action. We have therefore upgraded our website www.vetinst.com to allow you to view short sequences (15-30 secs) of many instruments being used. To view the clips visit www.vetinst.com and click on the large  on the front page and select an instrument from the list shown or enter the product code in the search box (top left of screen)




FINANCE AVAILABLE

One of the many advantages of becoming part of Henry Schein is that Veterinary Instrumentation is able to offer products and services which we have not been previously able to. Veterinary Instrumentation is therefore very pleased to be able offer a number of finance services to its customers. Products which are eligible are highlighted with the . This service will be particularly useful for capital equipment purchases or clinic expansion. To find out what finance options are available please call, fax or email the usual contact details.



ON SITE DEMONSTRATION

In conjunction with Henry Schein Veterinary Equipment (HSVE ) , Veterinary Instrumentation is now pleased to be able to offer its UK customers on-site demonstrations on a wide range of its veterinary equipment. The demonstration will be undertaken by our in-house equipment specialist, Gillian Sutcliffe and can be arranged by ringing the Vet Tech Team on (0845) 130 9596 or emailing info@vetinst.com.

All equipment available for demonstration is highlighted in the catalogue by the on-site demo logo.

New Website

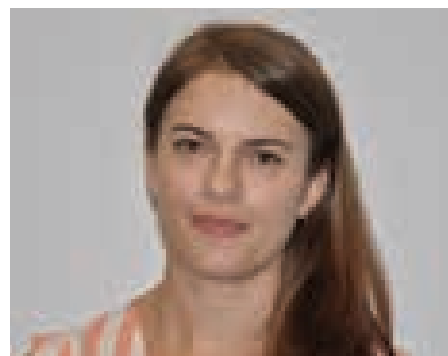
www.vetinst.com



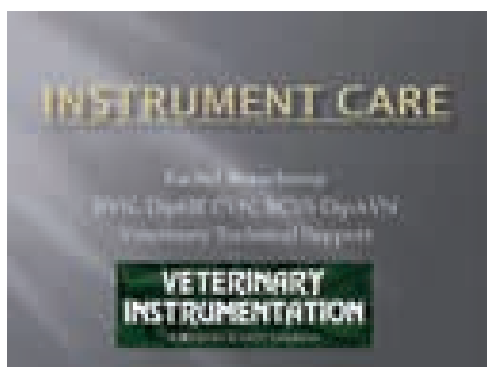
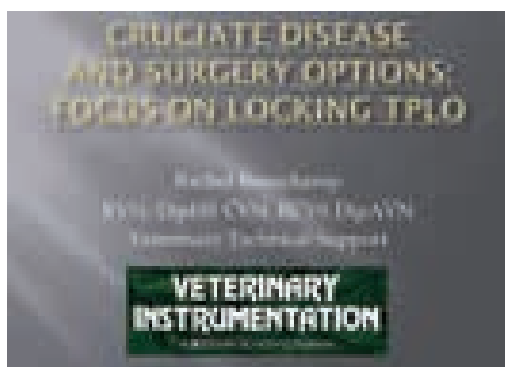
During 2014, Veterinary Instrumentation has been redeveloping its website. We have changed the structure and navigation routes to make the site more intuitive and updated the content. The site will remain open access to all and the focus will be on providing technical support and guidance, product information and the best possible training materials. A new development will be a live Q and A section whereby you will be able to email technical questions to our vet tech teams. Initially these will be answered by our UK team, but the intension is to develop this with our US and Australian Vet Tech teams to provide 24 hour technical support on the whole VI range. The webshop has been entirely rebuilt to include access to previous orders, favourite product lists, order tracking, account information as well as many other features. The site is currently entering Beta phase and we are looking for volunteer clinics who would be happy to work with us to fine tune its development. If you would be interested in working with Veterinary Instrumentation during Beta testing please email steve@vetinst.com with Website in the subject line. All participants will be acknowledged and rewarded. The new website will go live in October 2015.

National Sales Manager

Veterinary Instrumentation is delighted to announce that during 2014 we appointed our first field based UK sales representative, Sally Thexton. Sally joined Veterinary Instrumentation from CJ Medical where she was a specialist in human surgical soft tissue and patient handling devices. Sally has been working in human medicine for almost 5 years but has always been interested in working with vets having undertaken her degree in equine science. Sally's role is to visit clinics every day to make sure that we are giving the best possible service. She will also bring new products for you to view, let you know about the many training courses we are running and help us to improve. Sally's email address is Sallyt@vetinst.com and her mobile is 07919 533 841 Please contact her directly if you would like a visit or if she can help in any way.



Free Nurse Training - At your practice



Another service which Sally is now coordinating is Free Nurse Training at your practice. These 1 hour training courses are provided at your practice at a time which is convenient to you. We have a number of general training courses available including Instrument Care and an introduction to cruciate surgery as well as specific courses on surgical procedures e.g. TTA Rapid or Locking TPLO. The idea behind these courses is that if your nursing team have more detailed understanding of a technique

they'll be able to help you more in the Operating Room. All the training is provided by experienced Veterinary Nurses who are members of our vet tech team. Specific training courses can be developed if you require something more specific. Please contact Sally Thexton, sallyt@vetinst.com or call her mobile 07919 533 841 to discuss your requirements.

Henry Schein Veterinary Equipment (U.K.)



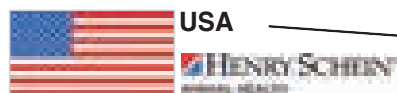
During 2014 Henry Schein Animal Health launched a new division in the UK, Henry Schein Veterinary Equipment. This division is focussed on promoting a wide range of veterinary equipment from Anaesthesia machines to Dental units to Ultrasound. Gillian Sutcliffe has been appointed as Product Equipment Specialist. Gillian's role is to undertake on site demonstrations and training so if you have any equipment requirements please contact Gillian on 07881 108902 or email her at Gillian.Sutcliffe@henryschein.co.uk She will be delighted to undertake demonstrations and answer any technical questions you may have.

A HENRY SCHEIN® COMPANY

Since Henry Schein opened his pharmacy in Queens, New York in 1932, the organisation has become a Fortune 500® Company and the largest provider of health care products and services to office-based practitioners. With more than 17,000 Team Schein Members and operations or affiliates in 28 countries, Henry Schein, Inc. remains committed to the values-based culture that Henry and his wife, Esther, infused in their business eight decades ago, and to serving our customers, supplier partners, investors, society and Team Schein. By holding fast to our historical values and focusing on our future, we are certain that our best years are yet to come.

Over the course of over 82 years, Henry Schein, Inc. has frequently reinvented the organisation to meet customer needs, taking advantage of new technologies and tapping into burgeoning markets. Below are some of the changes that Henry Schein has undergone and innovations we have introduced over the course of eight decades

During 2013, many Henry Schein companies launched Veterinary Instrumentation products through their Catalogue and Sales representatives. These products are available to order by telephone or directly through their websites. Catalogues may also be available upon request - please contact your local Henry Schein Company for further details.



USA

Henry Schein Animal Health

TEL: (855) SCHEIN1 7243461

WEB: www.henryschein.com



Worldwide Distributors

	Country	Distributor		Country	Distributor
	Spain	Instrumvet, S.L.		Canada	Kruth Halling
	Portugal	Medinfar Sorologico Serve		Chile	Equiposvet
	Turkey	Inter Pet		South Africa	Diag Import & Export Surgical Systems
	Greece	Pet Health Ltd		New Zealand	Shoof International
	Israel	Pet Vet		China	Wislong Animal Health Co. Ltd Beijing Hai Tai Tong da Tecnology
	Croatia	Fiziovet		Japan	Tsugawa Trading Co. Ltd
	Hungary	Vet Net Products		South Korea	Hipposcience
	Estonia	Ou-Est Doma		Malaysia	Pet Arcade
	Slovakia	Meditools		Taiwan	Dr Kunyang Tsai
	Bulgaria	Infinita		Thailand	Best Equipment Centre Co. Ltd
	Latvia	K J Serviss		U.A.E.	Lillidale Animal Health
	Lithuania	Ruta Kaminskaite		Ireland	Pan Vet
	Russia	Meshcherskiy Pereulok		Italy	Foschi
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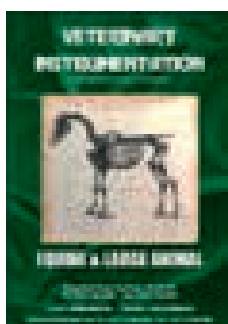
Plate Profiles

In 2015 we extended our range of Plate Profiles to 28 pages to facilitate correct selection. All images are to scale, unless otherwise indicated – please compensate for X-Ray magnification.



DVDs and Procedural Step by Step Guides

Free DVDs and step by step guides to TTA, TTO, TPLO, Lateral Suture, Iso-toggle, TTAR and many more.



Equine and Large Animal Catalogue

Our Equine and Large Animal Catalogue has many unique and exclusive products. Request your free copy from the website, email info@vetinst.com or ask for a copy to be sent with your next order.



Posters and Instrument Care Guides

A free General Orthopaedic and General Surgical poster are currently available. Guides are currently available for care and maintenance of surgical instruments and sharpening and care of dental instruments.



Training Courses

Veterinary Instrumentation is pleased to support many training courses throughout the year, providing training equipment and instruments.

There are many training courses scheduled throughout 2015 including TTA Rapid, Feline Orthopaedics and Rodent Dentistry.

Please view the training courses page on our website www.vetinst.com or contact linda@vetinst.com for further information.



Training Equipment

VI has a limited amount of equipment which can be loaned for training courses.

Loan Equipment

VI has a limited amount of equipment which can be loaned in critical situations.

Set Up Services

VI has extensive experience in setting up new orthopaedic and surgical practices. Standard recommended lists are available or call for a free bespoke service.

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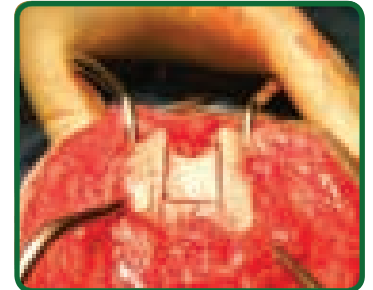
Product Development and Prototyping

VI can make your product ideas reality. We offer royalties on successful projects.

Contact 0845 130 9596 or email info@vetinst.com for further information

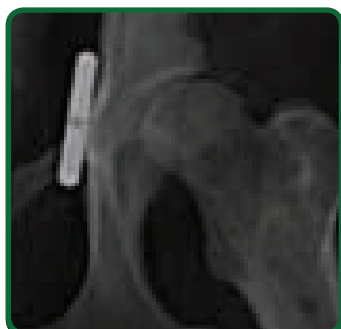
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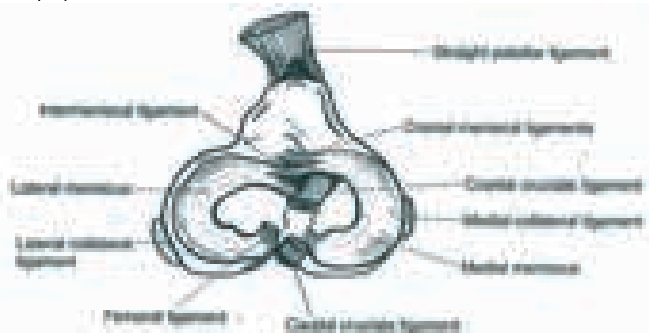


Examination and Surgery of the Meniscus

Introduction

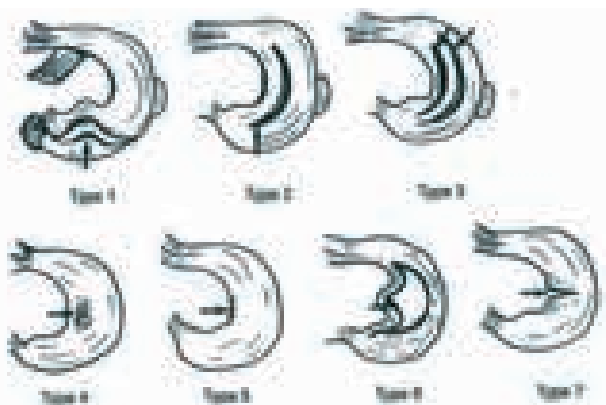
Menisci contribute greatly to the normal function of the stifle joint. The stifle joint is not a simple hinge as knee replacements in both man and dogs which were based on the hinge premise have discovered. The menisci are the interface between the two articular surfaces. They transmit load, absorb energy and lubricate the joint. Importantly they contribute to joint stability to both shear and rotational forces.

When the cranial cruciate ligament fails the menisci become vulnerable to damage as the femur is free to move relative to the tibia creating excessive crushing and shearing forces. The lateral meniscus is relatively securely attached to the femur so moves with it avoiding injury. The medial meniscus is, however, firmly attached to the tibia and subject to repetitive trauma. Injuries to the lateral meniscus are uncommon whereas medial injuries are common. The incidence and severity of meniscal injuries are related to the weight of the dog and the duration of the injury.



The meniscus is avascular except around the periphery and generally does not heal. Despite active research in man to find repair and replacement techniques these are not readily applicable to the canine patient.

Classification of Meniscal Injuries



The crushing and shearing forces resulting from a cruciate deficient stifle create a number of relatively specific meniscal injuries. These were classified by Bennett and May in 1991 into seven types.

1. Caudal detachment with folded caudal horn
2. Longitudinal tear
3. Multiple longitudinal tears
4. Fibrillation/tearing of the surface
5. Axial fringe tear
6. Bucket handle tear (similar to type 2 or 3 but inner concave portion, or portion between two longitudinal tears, of meniscus becomes lax and displaced from the tibial surface give the appearance of a bucket handle)
7. Transverse tear

Diagnosis

Meniscal damage may be suspected in a stifle which seems significantly more painful than might be expected with cruciate rupture alone. Some patients may exhibit an audible and palpable click on walking. This occurs as the femur rolls over a detached meniscus which has folded over. MRI in larger patients may suggest a meniscal injury.

A definitive diagnosis is provided by examination of the meniscus either by direct visualisation via arthotomy or by arthroscopy.

The caudal horn is not easy to expose regardless of technique. Veterinary Instrumentation offers a substantial range of instruments designed to make exposure easier. Caudal detachments, longitudinal and bucket handle tears may be difficult to identify without detailed probing of the surface of the meniscus. The detached areas often fall back into position when not loaded.

Surgical Management of Meniscal Injuries

The poor healing characteristics of the meniscus leaves removal of the damaged area as the only real surgical option. The damaged areas are made slippery by synovial fluid and are difficult to grasp and cut without dedicated instruments. Typically, damaged areas are grasped and retracted as far as they can be and detached from their remaining attachments using knives of various designs. Arthroscopic punches may be used to 'tidy up' less distinct areas of damage in both open and arthroscopic approaches. (see chapter 2)

Meniscal Release

This procedure remains contentious. Recognising the important function of the meniscus anti-release surgeons seek to preserve as much intact meniscus as possible. However, all the tibial plateau levelling techniques leave the stifle unstable in certain circumstances leaving the meniscus vulnerable to injury from the resulting crushing and shearing forces.

Pro-release surgeons argue that releasing the meniscus removes it from harm by the femur and that no meniscus is better than a damaged one. It is certainly the case that meniscal release reduces the incidence of late meniscal injury which might be linked to the initial injury. Longer term outcomes in terms of the development of degenerative joint disease (DJD) are less predictable.

Ultimately the evidence is unclear so surgeons must make their own decision.



Meniscal release is performed by transecting the medial horn by a radial cut just caudal to the medial collateral ligament at 'x'. (illustrated). The caudal horn of the medial meniscus will rotate caudally into the caudal compartment of the joint capsule. If the meniscus does not move significantly it has not been released. Alternatively the meniscus may be released by transection of the meniscotibial ligament 'y'.



Photo: Geoff Robins

Video

Geoff Robins has created a video illustrating a number of meniscal surgery procedures. It is available free of charge on the VI cruciate DVD or as a download from www.vetinst.com

Arthroscopic Stifle Lever VSTL



Exposure of the medial meniscus for examination and treatment is never easy. Many instruments have been developed for the purpose. The original technique required a Hohman to advance the tibia. Standard Hohmans are not designed for the purpose and can cause trauma to both tibia and trochlea. The original stifle lever addresses these issues but is a little bulky for arthroscopic use. The arthroscopic version is finer, longer and has a substantial teflon handle allowing better manipulation of the joint. A notch on the handle alerts the surgeon as to the position of the tip.

Developed for stifle surgery by Ian Holdsworth.

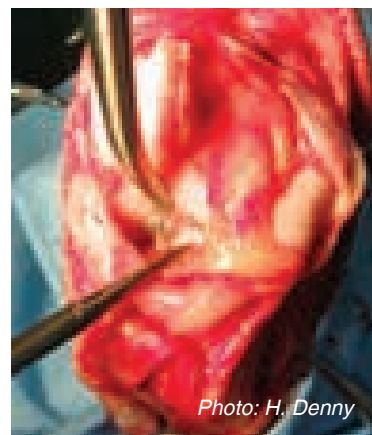
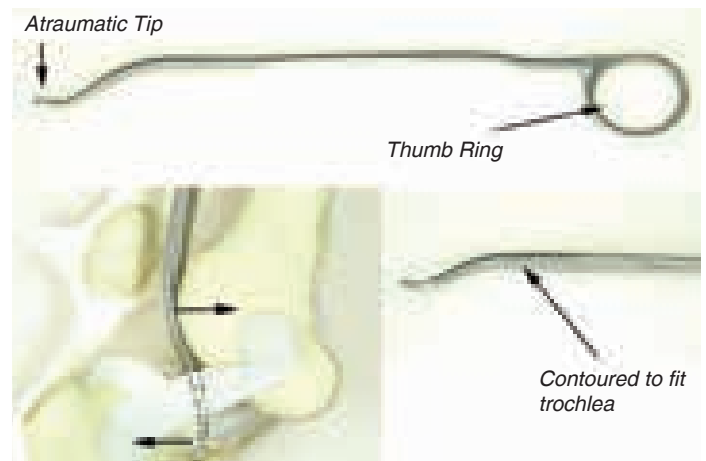
Very effective in open arthrotomies.

Please note the Arthroscopic Stifle Lever now has a white teflon handle.

ARTHROSCOPIC STIFLE LEVER VSTL

AR-17-02	Arthroscopic Stifle Lever VSTL 280mm	£155.00
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Stifle Lever



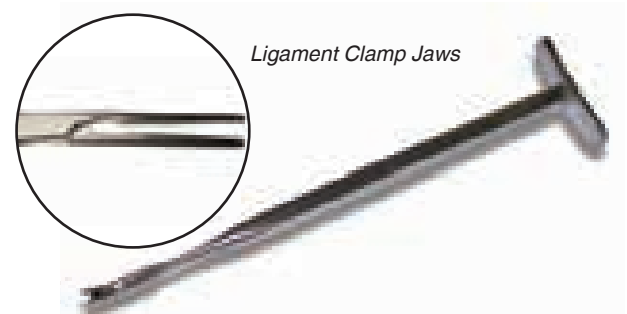
Examination and management of meniscal injuries is made extremely difficult by the limited access to the medial meniscus during routine approaches. Exposure of the medial meniscus is typically achieved by either use of a stifle distractor or by a Hohman retractor. Hohman retractors are not designed for levering against articular cartilage in that the blade does not 'fit' the trochlea. The stifle lever is designed to substitute for the Hohman.

The caudal surface of the stifle lever is contoured to fit the trochlea of large dogs. The load is dissipated over a large area minimising trauma. The ring style handle is convenient for retraction by the surgeon using the thumb. The tip atraumatically hooks behind the caudal aspect of the tibial plateau.

STIFLE LEVER

001115	Stifle Lever	>20kg	225mm	£62.50
001115S	Stifle Lever Small	<20kg	165mm	£57.50

Meniscectomy Instruments



Damage to the medial meniscus following CCL rupture increases with:

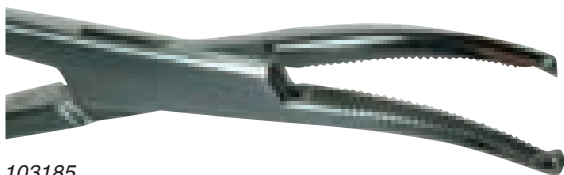
1. time after injury.
2. size of the dog.

Removal of severely damaged cartilage is assisted by instruments designed for the purpose. The jaws of the Ligament Clamp have multiple small teeth for maximum grip in the presence of synovial fluid.

MENISCECTOMY INSTRUMENTS

001100	Meniscectomy Instrument Set	£110.00
001107	Meniscectomy Knife 165mm	£70.00
001110	Ligament/ Cartilage Clamp 140mm	£65.00

Toothed Halsteads



103185

TOOTHED HALSTEADS		
103185	Halstead Mosquito Forceps 1/2 Teeth Cof 125mm	£26.50
103180	Halstead Mosquito Forceps 1/2 Teeth Str 125mm	£26.50

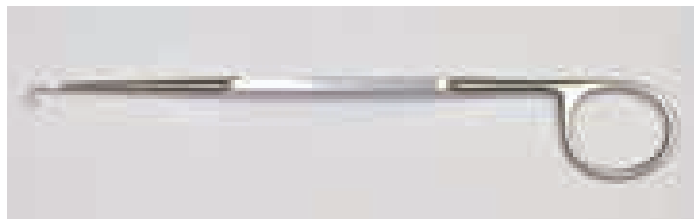
Fat Pad Retractor



Visualisation of the medial meniscus is maximised by retraction of the fat pad. Previously this has been achieved by use of a Senn ("Cats Paw") Retractor. The Fat Pad Retractor has the same clawed foot but has a much more practical means of holding the instrument.

FAT PAD RETRACTOR		
001114	Fat Pad Retractor 180mm	£26.50
833305	Senn Cats Paw Retractor 165mm	£26.50

Fat Pad Retractor Small



Following surgeon request for a smaller Fat Pad Retractor with only 2 prongs, we have added it to our range.

Total length 180mm

FAT PAD RETRACTOR SMALL		
001114S	Fat Pad Retractor Small 180mm	£26.50

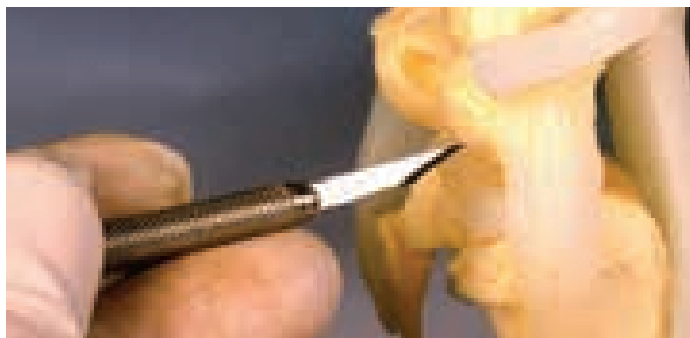
Hook Knife and Push Knife

These three hand held knives can deal with most meniscal tears. Their low profile makes them suitable for both open and arthroscopic surgeries.



MENISCUS KNIVES		
AR-17-19XS	Hook Knife 150mm	£89.50
AR-17-19X	Hook Knife 225mm	£89.50
AR-17-11X	Push Knife 225mm	£89.50

Beaver Type Scalpel Handle



Holds Beaver and Swann Morton fine blades. Ideal for delicate control without cluttering field of view.

BEAVER TYPE SCALPEL HANDLE		
06054	Beaver Type Scalpel Handle (VI) 130mm	£14.95
06051	Beaver Type Scalpel Handle 130mm	£19.95
06052	Beaver Type Scalpel Handle 100mm	£19.95
06053	Beaver Type Scalpel Handle 80mm	£19.95

Swann Morton Beaver Type Blades



The 64 blade (best for meniscal release) cuts around the tip as well as the ventral surface. The 65 blade (best for trimming flaps) is essentially a scaled down No. 11 blade. The 65a blade is even smaller. Very useful in restricted areas minimising risk to articular cartilage.

SWANN MORTON FINE BEAVER TYPE BLADES		
05904	No 64 Blades (25) Beaver Type	£27.50
05905	No 65 Blades (25) Beaver Type	£27.50
05906	No 65(a) Blades (25) Beaver Type	£27.50

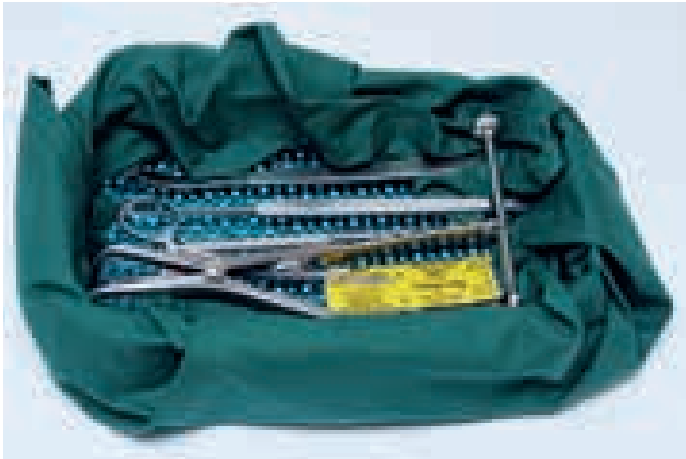
Meniscus Probes



Visualisation of the caudal horns of the meniscus can be a challenge. Often the process of exposing the caudal horn can result in distortions. A normal meniscus can look damaged and occasionally a bucket handle tear can sit back and look normal. It is helpful to gently probe the meniscus to establish its true condition. Dimensions refer to length of tip. Use 1mm in dogs <30kg and for dogs >30kg use 2mm.

MENISCUS PROBE		
001408	Meniscus Probe 1mm Tip 190mm	£38.50
001409	Meniscus Probe 2mm Tip 220mm	£38.50
AR-17-10	Meniscus Probe 2.2mm Black Shaft for Arthroscopy 220mm	£69.50

Meniscus Surgery Set



Management of meniscal injuries has three phases all of which will require special instrumentation.

- Exposure of the meniscus, particularly the caudal horn of the medial meniscus. This will require that the tibia is advanced and distracted relative to the femur.
- Examination of the meniscus for lesions. A visual examination is not enough. The surface of the meniscus should be probed for defects and tears. The circumferential attachments should be checked for security.
- Lesions discovered must be managed by debridement or meniscal release.

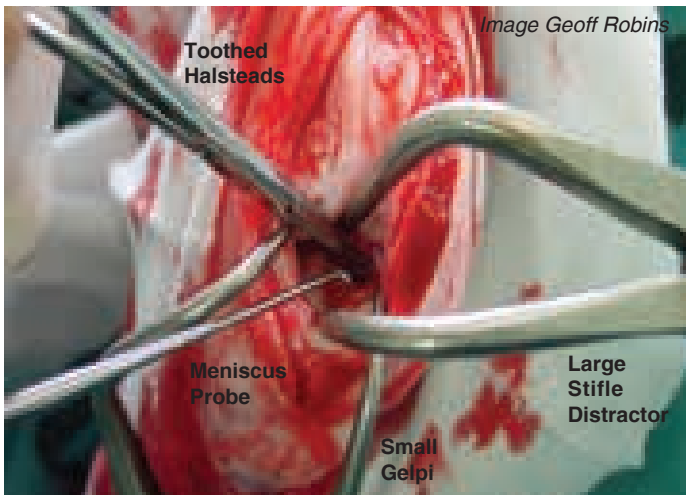
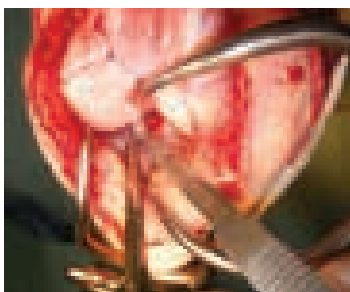


Image Geoff Robins



The tear is grasped mid section and sectioned from its axial attachments.



The damaged segment of meniscus is removed from the joint.



The abaxial attachments are also sectioned.

Case: Geoff Robins

The Meniscus Surgery Set includes all the essential instruments for the examination and management of meniscal injuries in a stainless steel autoclave case. Purchased as a set there are significant savings.

- Large Stifle Distractor
- Hohman Retractor 8mm
- Meniscus Probe 1mm
- MicroToothed Halsteads
- Beaver Type Scalpel Handle
- 25 x No 65 Blade (mini no 11)
- Stainless Case
- Silicone Protective Insert
- Small Balloon Cloth Drape



MENISCUS SURGERY SET

001116 Meniscus Surgery Set

£345.00

Step by Step Guide to Meniscal Surgery

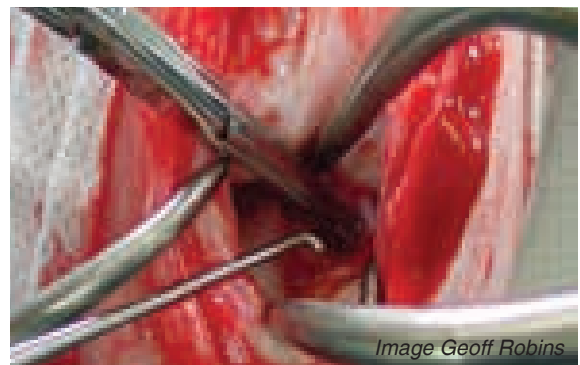


Image Geoff Robins

For a Step by Step Guide to Meniscal Surgery please contact our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

Meniscus Surgery Set - Enhanced



Following surgeon requests for a meniscus surgery kit that includes instruments for smaller patients we have developed an enhanced kit. The kit includes all the instruments included in the standard Meniscus Surgery kit plus a small Stifle Joint Distractor (001113), a Push knife (AR-17-11X) and a Pull Knife (AR-17-19X.) The Pull and Push knives are standard instruments in man for the removal of meniscal tears. The small Stifle Joint Distractor is also useful as small local muscle and tissue retractors in and around canine joints e.g. elbow exploration.

MENISCUS SURGERY SET - ENHANCED		
001117	Meniscus Surgery Set - Enhanced	£545.00

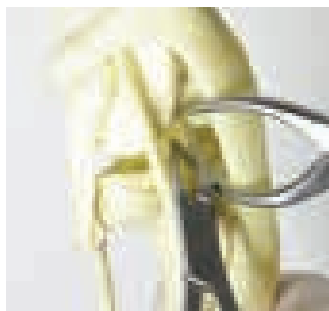
Small & Mini Gelpi Retractors for Arthrotomy



Small and Mini Gelpi Retractors used with or without orthogonally placed stifle distractors help to improve exposure significantly when working through a mini stifle arthrotomy. The short, sharp points on our patterns provide easy access into the arthrotomy incision and maximum holding power once in place. Also available with blunt tips – these hold in place less well, but are less traumatic to the surrounding tissues such as the patella tendon, long digital extensor tendon and the joint capsule.

SMALL & MINI GELPI FOR ARTHROTOMY		
0013302	Gelpi Mini Curved (45mm Spread) 90mm Long Sharp Tips	£115.00
0013303	Gelpi Mini Curved (45mm Spread) 90mm Long Blunt Tips	£115.00

Small Stifle Ronguers



These mini ronguers are a cost effective solution for the rapid debridement of crCL remnants during cruciate surgery. They have offset jaws for improved visibility. They can also be used to apply traction to damaged meniscal tissue prior to sharp resection and if visibility permits, to trim peripheral tags of residual meniscus

SMALL STIFLE RONGUER		
001301	Small Stifle Ronguer 1.75mm Bite 140mm Long	£69.50

Coughlan Soft Tissue Mangeurs



Developed by Andrew Coughlan of Northwest Surgeons, the manger is designed to rapidly remove soft tissues eg. fat pad which can obscure the operative field. Also ideal for the removal of the remnants of the ruptured cranial cruciate ligament.

COUGHLAN SOFT TISSUE MANGEURS		
001108S	Coughlan Soft Tissue Mangeur - Very Small 2mm x 8mm Shaft 115mm Long	£155.00
001108	Coughlan Soft Tissue Mangeur - Small 2.5mm x 10mm Shaft 160mm Long	£155.00
001109	Coughlan Soft Tissue Mangeur - Large 5mm x 12mm Shaft 180mm Long	£155.00

NEW

Arthrex Canine Meniscus Knife.
Arthrex Canine Stifle Distractor.

For Arthrex instrumentation for Meniscal Surgery, see Page 43.

Stifle Distractors



Damage to the medial meniscus is commonly associated with rupture of the Cranial Cruciate Ligament (C.C.L.). It is most frequently found in larger dogs with a longstanding injury. Failure to deal with meniscal damage is a serious omission in C.C.L. repair. Exposure of the medial meniscus for examination and repair is extremely difficult. For further information see our web site or request our free DVD 'Surgical Management of Canine Cranial Cruciate Disease'.

WHICH DISTRACTOR?

>5kg	001113VSX	Miniature
5kg	001113VS	Very Small
5-15kg	001113	Small
15-50kg	001112	Standard
50kg	001112/L	Large

001112 the original stifle distractor remains the most useful

Stifle Distractor



Stifle Distractor Tips

The Stifle Distractor is designed to separate the femoral component of the stifle from the tibia. Ideally the two joint surfaces should move away from each other in a parallel fashion so that the meniscus is exposed in its natural state and minimally distorted by the examination. One tip is placed in the intercondylar notch and the other on the cranial intercondylar area. Neither tip should involve articular cartilage. Test distractions (by squeezing the handles) will allow the surgeon to find the exact point at which a full distraction will expose the medial (usually) meniscus. The spinlock is then engaged to powerfully open up the stifle joint. The distractor is self-retaining leaving the surgeon with two free hands to examine the meniscus and deal with any pathology.

When closed the tips overlap making the points atraumatic as they enter the joint. Additionally the overlapping feature reduces the profile of the tips as they enter the joint.

Money-back guarantee! If this instrument is not an improvement on whatever you are currently using, we will give you a full refund.

STIFLE DISTRACTOR

001112/L	Large Stifle Distractor min spread 10mm max spread 40mm 210mm Long	£195.00
001112	Stifle Distractor min spread 8mm max spread 30mm 190mm Long	£195.00

Small Stifle Joint Distractor



→ | 6mm | ←

The Small Distractor is also useful as small local muscle and tissue retractors in and around canine joints e.g. elbow exploration. Total length 130mm.

SMALL JOINT DISTRACTOR/ RETRACTOR 6MM WIDE TIPS

001113	Small Joint Distractor/ Retractor 6mm Wide Tips	£155.00
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Very Small Stifle Joint Distractor

The Very Small Distractor is extremely useful as a small joint retractor during the meniscal release procedure. It is used to open a small window, caudal to the medial collateral. Total length 140mm.



→ | 3 mm | ←

VERY SMALL JOINT DISTRACTOR/ RETRACTOR 3MM WIDE TIPS

001113VS	V Small Joint Distractor/ Retractor 3mm Wide Tips	£155.00
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Miniature Stifle Distractor



Although the tips on our Very Small Stifle Distractor are very small the rest of the instrument remains too bulky for very small and miniature dogs. The Miniature Stifle Retractor has been scaled down all round making it ideal for smaller breeds. Small breeds get meniscal injuries too. As is the case with all our stifle distractors the retaining tips are overlapping creating a low profile, atraumatic entry into the joint.

MINIATURE STIFLE DISTRACTOR

001113VSX	Miniature Stifle Distractor 100mm	£155.00
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Spinlock Stifle Distractor

The working tips of our Spinlock Stifle Distractors are just the same as the ratchet version. The spin lock offers a more secure distraction as it is impossible for the distractor to slip. In addition the spinlock variant allows the surgeon to 'crank' open the joint in the manner of the larger versions of this instrument. Many of our Gelpi self retaining retractors are also available with a spinlock. See page 128.



SPINLOCK STIFLE DISTRACTORS		
001113SL	Spinlock Small Stifle Distractor 140mm 6mm Tips	£155.00
001113VSSL	Spinlock Very Small Stifle Distractor 140mm 3mm Tips	£155.00

Extra Articular Joint Distraction

External Stifle Distractor



Osteoarthritic stifles can be very 'tight' making examination and treatment of meniscal lesions difficult. Distraction of the articular surfaces using intra-articular instruments clutters the operative field. Originally developed for arthroscopic use the extra articular distractor works very well in open surgery.

Pins are placed above and below the stifle approximately along the line of the medial collateral ligament. The standard distractor uses 2.5mm pins. For those TPLO surgeons who wish to use the proximal tibial pin as their proximal jig pin a version is available which takes 3.2mm (1/8") pins.

Turning the thumb screw distracts the joint from the medial side exposing the medial meniscus. For better view of the caudal horn the pins may be twisted relative to one another which brings the tibial plateau forward.

JOINT SURGERY PRACTICAL DVD

The University of Sydney's Centre for Veterinary Education produces a range of excellent teaching DVDs. Veterinary Instrumentation is pleased to have been appointed a distributor.

Surgical Approaches to the Bones and Joints of the Dog
Dr. Wing Tip Wong

This DVD includes all the common approaches to the shoulder, elbow, hip, stifle and hock joints as well as the humerus and ilial shaft. Bone models are included to highlight the approach. The DVD is suitable for general practitioners contemplating any surgical procedure involving canine joints.

Procedures include:
 Caudal approach to shoulder
 Distal humerus via olecranon
 Lateral approach to humerus
 Lateral approach to elbow
 Medial approach to elbow
 Dorsal approach to hip
 Lateral approach to stifle
 Medial approach to hock
 Approach to ilial shaft

Duration: 40 minutes



SURGICAL APPROACHES DVD DR WING TIP WONG		
DVDSAW	Surgical Approaches DVD Dr Wing Tip Wong	£72.50

Small & Mini Gelpi Retractors for Arthrotomy



Small and Mini Gelpi Retractors used with or without orthogonally placed stifle distractors help to improve exposure significantly when working through a mini stifle arthrotomy.

The short, sharp points on our patterns provide easy access into the arthrotomy incision and maximum holding power once in place.

Also available with blunt tips – these hold in place less well, but are less traumatic to the surrounding tissues such as the patella tendon, long digital extensor tendon and the joint capsule.

SMALL & MINI GELPI FOR ARTHROTOMY		
0013302	Gelpi Mini Curved (45mm Spread) 90mm Long Sharp Tips	£115.00
0013303	Gelpi Mini Curved (45mm Spread) 90mm Long Blunt Tips	£115.00

EXTRA ARTICULAR STIFLE DISTRACTOR		
AR-17-01	Extra Articular Stifle Distractor 2.5mm Pins 80mm	£195.00
AR-17-01/TPLO	Extra Articular Stifle Distractor 3.2mm Pins 80mm	£195.00

Management of Cranial Cruciate Disease

Rupture of the Canine Cruciate Ligament (CrCL) remains, by a significant margin, the most commonly encountered veterinary orthopaedic condition in both general and referral practice.

It is now generally agreed that most ruptures of the Cranial Cruciate Ligament (CrCL) in the dog are part of a degenerative process rather than a purely traumatic condition. Trauma may be involved at the point of rupture but the ligament is largely degenerate at this stage. This is particularly true of young, large and giant breeds. This is a very different situation to cruciate ligament rupture in man and how things used to be in veterinary surgery 30 years ago when a cruciate rupture was something which occurred when a dog caught its hind leg in a hole whilst running.

This change in circumstance makes it difficult for us to compare outcomes of the various techniques which have been practiced for the past 50 years. The choice of techniques is huge, suggesting that none are perfect. They may be divided broadly into two groups. Those which attempt to replace the anatomy or function of the original ligament and those which seek to moderate the effects of a cruciate deficient stifle.

Techniques which replace either the physical ligament or its function include:

- Patsaama
- Over the Top Technique
- DeAngelis lateral suture and derivatives
- TightRope and similar techniques.

All of the above attempt to stabilise the stifle by replacing the ligament or its function.

Techniques which moderate the effects of the cruciate deficient stifle by altering the dynamics of the forces acting on it include:

- Tibial Plateau Levelling Osteotomy (TPLO) Radial cut
- Tibial Plateau Levelling Osteotomy (TPLO) Wedge cut
- Tibial Tubercle Advancement (TTA)
- Triple Tibial Osteotomy (TTO)
- MMT
- TTA Rapid.

All of the above alter the forces acting on the stifle to make it stable under 'load'. Normal canine activity creates a huge variety of loads and these techniques do not create stability in all circumstances, leaving the meniscus vulnerable.

Which is the best?

On the basis of published work to date, there are few scientific grounds, in terms of outcome, to choose between any of the available techniques. In the hands of a competent surgeon the likely outcome is 'good'. It seems that the differences between surgeons is as great as the difference between techniques. However, there are many differences between the various techniques in terms of expertise required, necessary equipment and cost. Without the relevant data many surgeons elect to have 'faith with the theory' pending definitive results.

Some small dogs appear to respond well to extra-capsular techniques whereas some kind of tibial geometry altering technique is perhaps preferable to a lateral suture in large and working dogs.

Having said that, the techniques are not mutually exclusive. An indication for a tibial plateau technique is a failed lateral suture. The reverse is not true. A failed tibial plateau technique is unlikely to respond to a lateral suture. Currently there are no published techniques which combine a tibial plateau altering procedure with one which stabilises the stifle. Late meniscal injuries are always a risk in an unstable stifle.

Ultimately it will be a decision for the individual surgeon as to which techniques will be offered to the client. The client will make their choice based on their own circumstances.

We have taken the view that until there is evidence to the contrary we will support all the available techniques by the provision of training materials, instrumentation and implants.

Cruciate Training

The best training in any of the available techniques is by attending an organised training course ideally involving hands on training in the company of an experienced surgeon. Veterinary Instrumentation run some labs as do our training partners. Please check our training page on the website www.vetinst.com for available courses. BSAVA, ECVS, ESVOT and other bodies also run cruciate labs.

However, we do appreciate that access to courses is not always possible and we therefore offer a training DVD free of cost to provide guidance. Included on each technique is:

Video.

A colour pictorial Step by Step Guide.

Frequently asked questions on the technique.

Instrument and implant check lists.

All are very much a personal view but may be of interest. In addition hard paper copy guides are also available for most techniques. Again see below for availability. Most videos are also available via the web at www.vetinst.com but the quality will be lower than the disc version.

It is recommended that cadaver work or further observation is carried out prior to performing any new technique on clinical cases.

When we have updates they will be posted on www.vetinst.com



CRUCIATE MANAGEMENT TRAINING MATERIAL

DVDALL	DVD includes information on Over the Top, Lateral Suture System, TPLO by Closing Wedge, FiberWire, TTA, TTO.	£FOC
BR LATSUT	Step by Step Guide to CCL Lateral Suture	£FOC
BR LBS	Step by Step Guide to Lateral Button Suture	£FOC
BR LIGAIISO	Step by Step Guide to LigaFiba Iso Toggle Suture	£FOC
BR TTA	Step by Step Guide to TTA	£FOC
BR TTA RAP	Step by Step Guide to TTA Rapid	£FOC
BR TPLO	Step by Step Guide to TPLO by Radial Cut	£FOC
BR TTO	Step by Step Guide to TTO	£FOC
BR PAT	Step by Step Guide to Patella Luxation	£FOC

Cranial Cruciate Ligament Lateral Suture System



Which Suture?

(Approx)	
STRENGTH	WEIGHT
50lb	10 - 15kg
80lb	15 - 20kg
100lb	20+kg
100lb x 2	40kg

These are guidelines only

The use of monofilament nylon as a lateral suture (De Angelis style) is accepted as a method of repair of the cranial cruciate ligament (CCL). Heavy gauge monofilament nylon (100lb, 80lb and 50lb breaking strain) is difficult to tie without making a large knot, which tends to stretch and irritate the soft tissues causing pain and seromas. In addition it is difficult to sterilise. Autoclaving reduces the strength and increases the elasticity of nylon. Veterinary Instrumentation's Lateral Suture System uses nylon sterilized by Ethylene Oxide together with a crimp tube, a method of joining the nylon already well established in other industries. For procedure details see www.vetinst.com or request our free DVD 'Surgical Management of Canine Cranial Cruciate Disease'.

Some CCL deficient patients benefit from the use of double sutures. This is particularly true of very large dogs and 100lb line. Passing a second needle behind the fabella risks damaging both the first line and the peri-fabellar structures which ultimately will hold the nylon sutures. Double line, swaged on sutures allows the placement of two lines with one pass of the needle. Available as single sterile pack. The double line is also available swaged on as a loop without crimps and will, therefore, be of interest to those surgeons using the self-locking McKee/Miller knot (VCOT 1999;12:78-80).



CRANIAL CRUCIATE LIGAMENT LATERAL SUTURE SYSTEM
DVDALL Surgical Management of Canine CCL Disease
 - covers OTT, Lateral Suture, TPLO, TTA, & TTO **£FOC**

Sterile CCL Packs

Sterile Leader Line + Crimp + Needle

Most surgeons now prefer our sterile procedure packs. Available as a single or discounted multi-pack.

This pack contains everything required for a single procedure.

Multi-packs offer significant savings (15%+) over single packs.

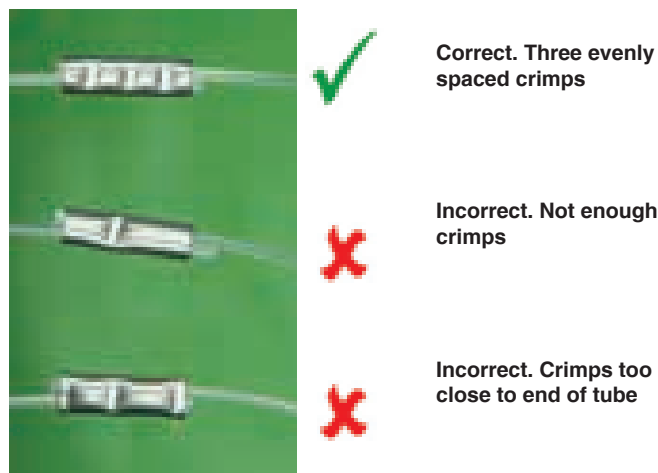
STERILE LEADER LINE + CRIMP + NEEDLE		
091155	50lb nylon line x 500mm on swaged-on v. small fabella needle + 10mm crimp (sterile)	£16.50
091156	80lb nylon line x 800mm on swaged-on small fabella needle + 12mm crimp (sterile)	£17.50
091157	100lb nylon line x 800mm on swaged-on medium fabella needle + 12mm crimp (sterile)	£18.50
091155/5	50lb nylon line x 500mm on swaged-on v. small fabella needle + 10mm crimp (sterile) 5 Pack	£72.50
091156/5	80lb nylon line x 800mm on swaged-on small fabella needle + 12mm crimp (sterile) 5 Pack	£77.50
091157/5	100lb nylon line x 800mm on swaged-on medium fabella needle + 12mm crimp (sterile) 5 Pack	£82.50
091159	5 of each sterile CCL pack (50lb, 80lb and 100lb.) 15 in total	£195.00

Double Leader Line + Needle + Crimps

For the application of double lines with the single pass of a needle

DOUBLE LEADER LINE + NEEDLE + CRIMPS		
091165	50lb Double line (500mm x 2 as loop) on v small fabella needle plus 2 x 10mm crimps (sterile)	£19.50
091166	80lb Double line (800mm x 2 as loop) on small fabella needle plus 2 x 12mm crimps (sterile)	£20.50
091167	100lb Double line (800mm x 2 as loop) on medium fabella needle plus 2 x 12mm crimps (sterile)	£21.50
091165/5	50lb Double line (500mm x 2 as loop) on v small fabella needle plus 2 x 10mm crimps 5 Pack (sterile)	£87.50
091166/5	80lb Double line (800mm x 2 as loop) on small fabella needle plus 2 x 12mm crimps 5 Pack (sterile)	£92.50
091167/5	100lb Double line (800mm x 2 as loop) on medium fabella needle plus 2 x 12mm crimps 5 Pack (sterile)	£97.50
091169	5 of each sterile Double line CCL pack (50lb, 80lb and 100lb.) 15 in total (sterile)	£245.00

Correct Crimping

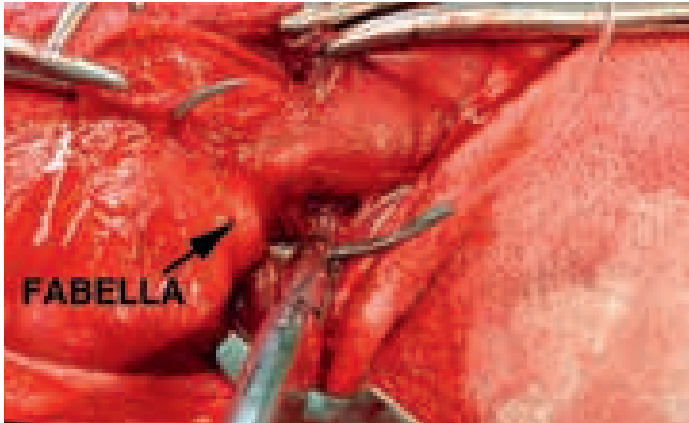


Lateral Suture

Lateral Suture Step by Step Summary

Detailed step by step guides of this and other cruciate techniques are available free of charge on request from Veterinary Instrumentation or may be downloaded from www.vetinst.com. An introduction is given here.

Management of the ruptured Cranial Cruciate Ligament (CrCL) by placing a non-absorbable suture between the lateral fabella and the proximal, cranial tibia has been routine since DeAngelis first reported the technique in 1970. Today it remains the most common extra-capsular technique.



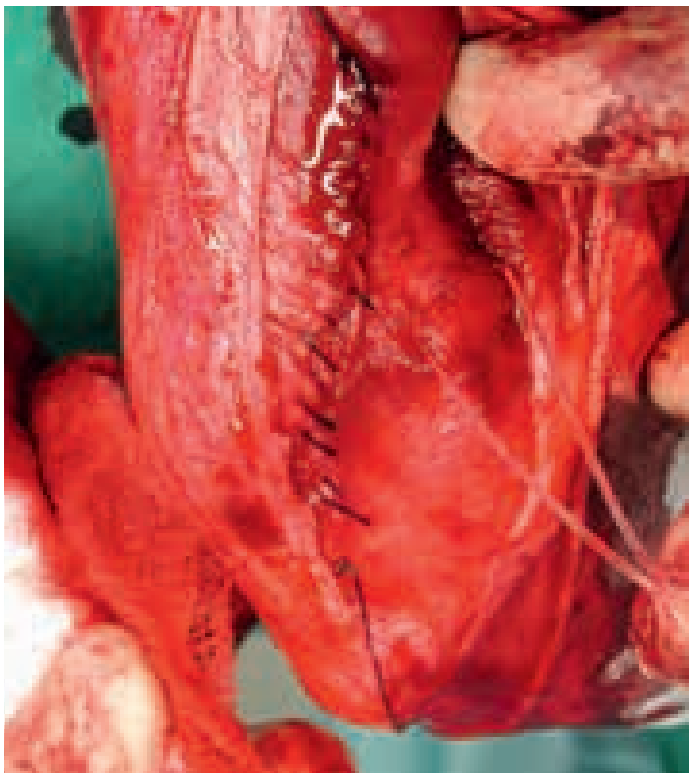
The lateral fabella is exposed.

Passing the nylon suture behind the fabella appears to be the most difficult part of the procedure.

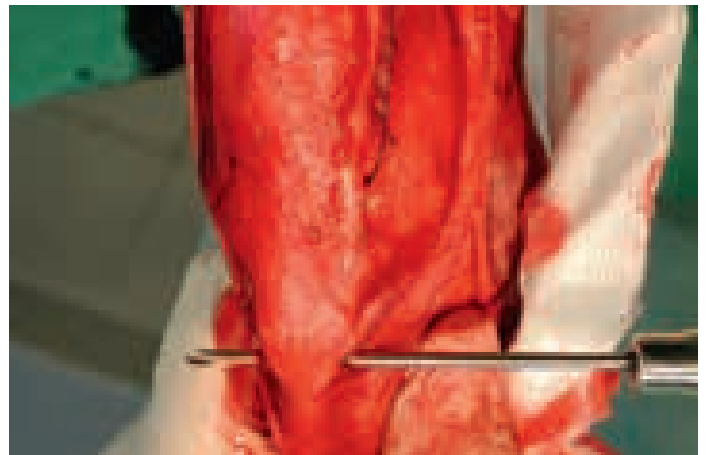
The nylon may be passed around the fabella using either dedicated cruciate/fabella needles or appropriate graft passers. By walking the needle tip over the edge of the fabella it is possible to locate and penetrate the femorofabella ligament.

Avoid placing the suture distal to the fabella.

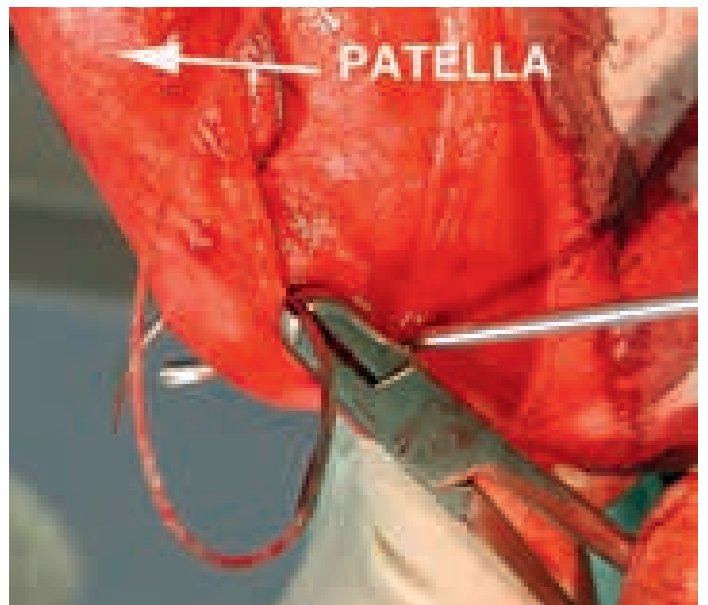
Keep the needle as close as possible to the fabella.



A single strand of monofilament nylon is pulled through. If the nylon is in the correct place it should be possible to virtually lift the dog up from the table without tearing through. Test the loop thoroughly.



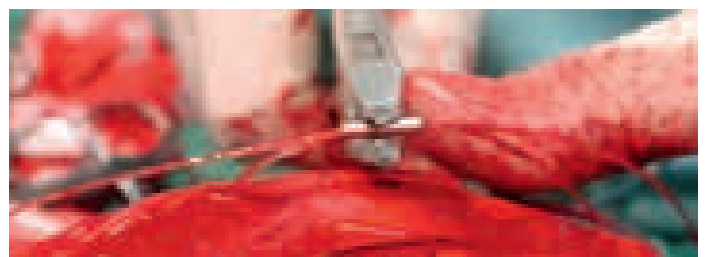
Drill hole (2.5 to 3.5mm diameter) in the proximal tibia close to the insertion of the straight patella ligament with a bone tunnel borer or drill. The hole should be as cranial and proximal as possible to maximise isometry.



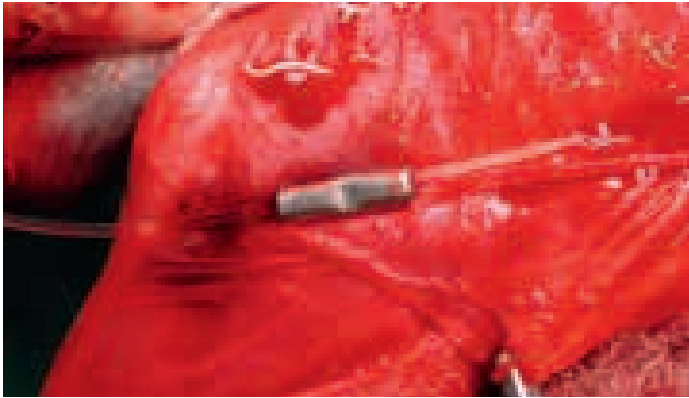
The top strand of the nylon is passed through the distal patella ligament in the lateral to medial direction. The needle should be passed behind the distal insertion to firmly locate it close to the hole in the proximal tibia. The needle is then passed back through the tibial tunnel.



One free end of the nylon is passed through crimp tube. The other free end is fed through the other end of crimp tube. The crimp is free to slide at this time.

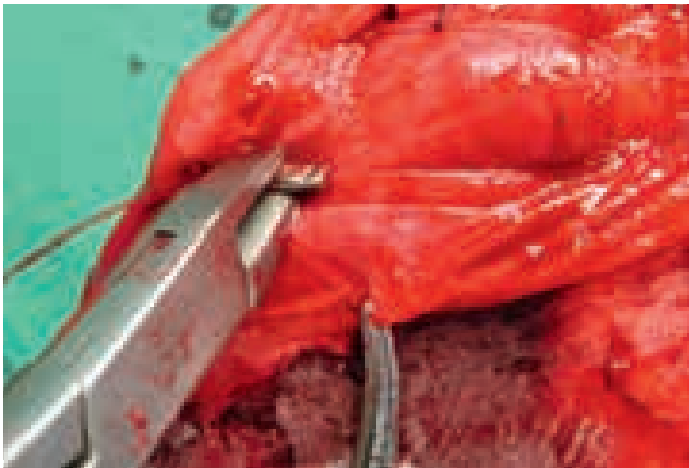


Gently crimp middle of tube so that nylon can be pulled through with some difficulty (about 60% of a full crimp). Pulling the free ends through will create tension on the loop.

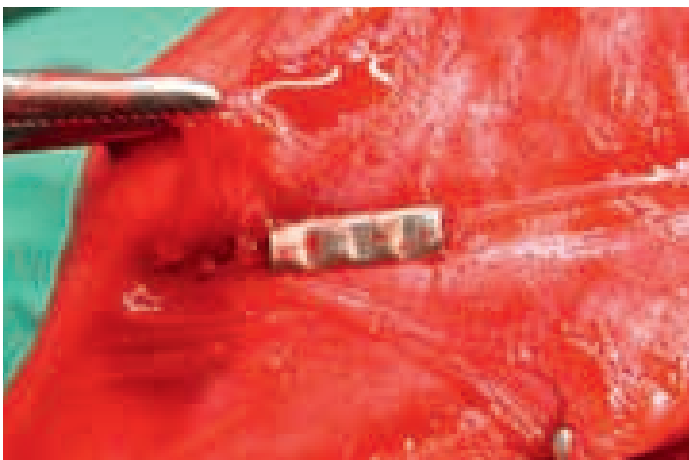


Pull the nylon suture tight enough to eliminate anterior drawer and check through the full range of motion.

Take care not to create an outward rotation of the tibia on the femur. Too much tension is as great a technical error as too little.



The crimp is oval in shape. It is important that the crimp is crimped across the wide part i.e. at right angles to the two strands of nylon. In addition, care should be taken to make sure that all the crimps are in the same plane on the tube, otherwise the crimps neutralise each other. Tensioning the loop tends to pull the crimp flat to the soft tissues. In order to crimp across the wide part it helpful to pull one strand of nylon to tip the crimp to give the crimper access to the wide part of the crimp.



Squeeze the crimp hard in middle and both ends. Do not crimp too close to the end of the tube. Leave around 1mm uncrimped.

Cut off the free ends close to the crimp. The crimp should sit over the tibialis cranialis muscle close to the tibia. The illustration shows a crimp tube correctly crimped and in the correct position.

VI Starter Kits

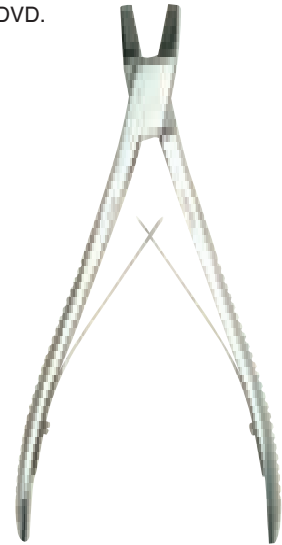


VI Lateral Suture Starter Kits

If you are new to the lateral suture system our kits represent the most economical means. All kits include a procedural DVD.



091154



VI STARTER KITS

091154 CCL Suture System (Swaged on) Basic Kit Crimping Forceps
2 x each size nylon/needle/crimp sterile packs **£195.00**

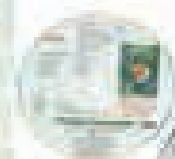
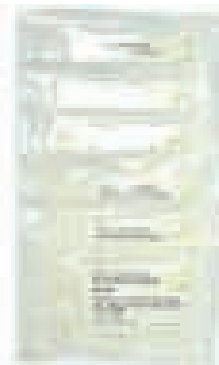


091150



VI STARTER KITS

091150 CCL Suture System (Swaged on) Compound Action Kit
2 x each size nylon/needle/crimp sterile packs **£215.00**



091151



VI STARTER KITS

091151 CCL Suture System (Swaged on) Basic Kit Plus
Forceps 2 x each size nylon/needle/crimp sterile packs
plus Heavy Duty Needleholders **£225.00**

Nylon Lateral Button Suture

Mono-filament nylon remains the most commonly used material for lateral suture techniques.

Although less strong and more prone to premature failure than the braids, many surgeons prefer its handling characteristics. Its mono-filament nature makes it more forgiving to aseptic technique and its ability to stretch allows it to also be more forgiving to isometric placement. These can be very distinct advantages.

Despite this, maximising isometry should always be the aim as it will help limit the joint becoming excessively tight or excessively loose during flexion/extension, prolonging the cycle life of the prosthesis and its attachments as well as providing better mechanical function through a greater range of motion.

Isometry for lateral suture techniques is improved by using tibial anchorage points more caudal and more proximal than originally described. The most isometric anchorage points on the tibia are in the region of the Tubercle of Gerdy or Gerdy's Sister (the two prominences either side of the long digital extensor groove – see fig 1.). Although Gerdy's sister may provide the more isometric anchorage point of the two, the Tubercle of Gerdy itself may provide a more mechanically advantageous anchorage point in resisting cranial tibial thrust.

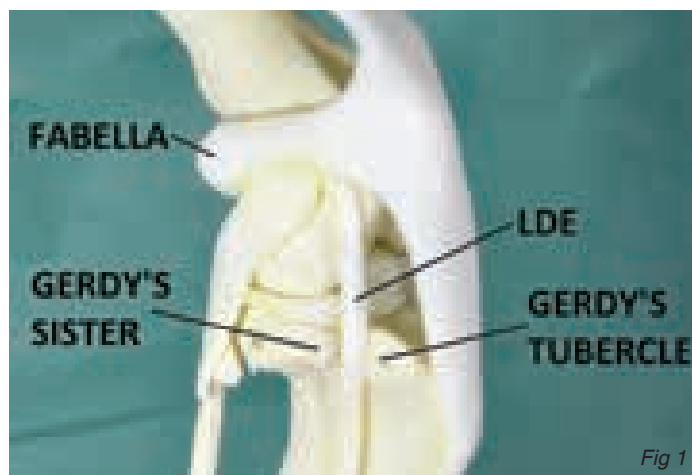


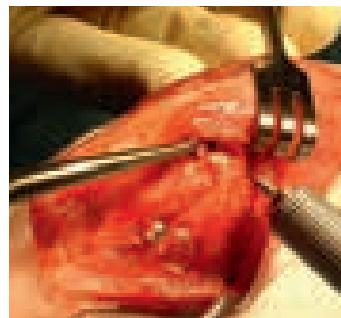
Fig 1

Using the most frequent method whereby the suture is placed through a tibial bone tunnel and then back in a loop under the patella ligament (see lateral suture technique) becomes progressively problematic as the tibial bone tunnel is placed more caudally. The suture assumes a more unpredictable path under the patella ligament on its return loop, which may then start to impinge on intra-articular structures including the lateral femoral condyle. If there are osteophytes present on the margin of the lateral trochlea ridge, the suture may rub over these during flexion/extension resulting in abrasion, bruising and pain.

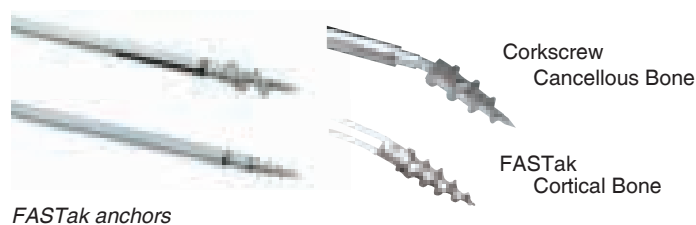
Lateral button techniques solve this problem as both ends of the line pass through the same bone tunnel emerging from the same hole on the lateral aspect of the tibia in the region of the Tubercle of Gerdy. This change in path makes the prosthesis less liable to rub against the lateral femoral condyle and the whole loop is kept more reliably extra-capsular. For a caudally positioned tibial bone tunnel, many surgeons find lateral button techniques easier to perform well compared with the standard lateral suture technique.

As with the more traditional lateral suture techniques, the anchorage position on the femoral aspect of the joint is the lateral fabella/fabello-tibial ligament. Where the lateral fabella/fabello-tibial ligament offers insufficient security, a second bone tunnel (a femoral bone tunnel) or a suture anchor may be used instead, providing a femoral anchorage point just cranial and just distal to the lateral fabella. The LigaFiba® Isotoggle (page 39) and the Arthrex Tightrope (page 41) are examples of techniques designed to specifically take advantage of combined tibial and femoral bone tunnels. Because of the increase in suture working length, low stretch braids are recommended for techniques involving two bone tunnels.

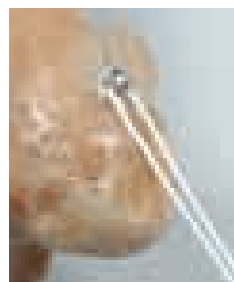
Suture anchor pins (page 44), suture screws (page 44), Arthrex Corkscrews, FASTak anchors (page 41), devices such as interference screws (page 36) and the Arthrex SwiveLock (page 43) are examples of some of the devices available for achieving suitable anchorage in the femoral condyle. For techniques using any of these anchors, the high strength braided materials are again recommended because of their increased abrasion resistance against the anchor.



Suture Screws



FASTak anchors



Suture anchor pins

Medical grade ultra-high-molecular-weight-polyethylene (UHMWPE) is the material of choice for the lateral buttons, providing excellent biocompatibility, strength and shock absorption, whilst being soft enough to minimise suture wear. These buttons are recommended for use with nylon techniques.

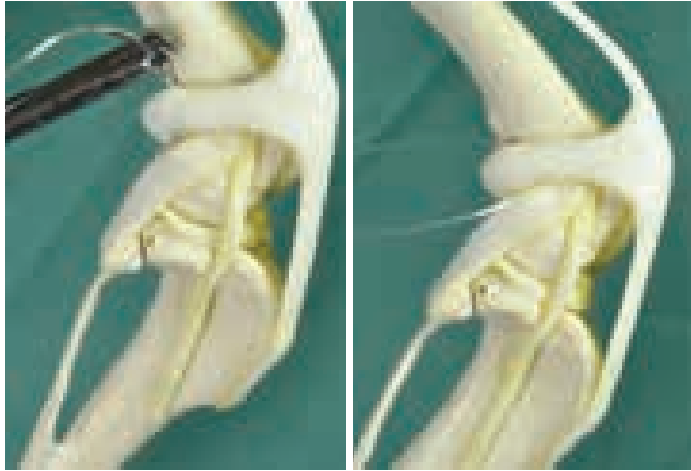
High strength braids such as LigaFiba® and Fiberwire are stronger than the UHMWPE buttons and where very high peak or chronic loading is expected, such as with very heavy or active patients, where good isometry cannot be achieved or in select patients with steeper tibial plateau angles, they may fail and the stronger titanium buttons can be used instead (fig 2 and page 37).



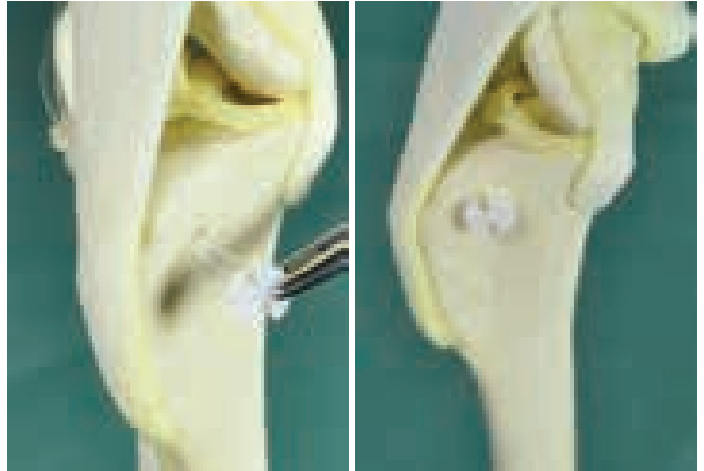
Selection of titanium buttons

Fig 2

Nylon Lateral Button Suture Step by Step Summary



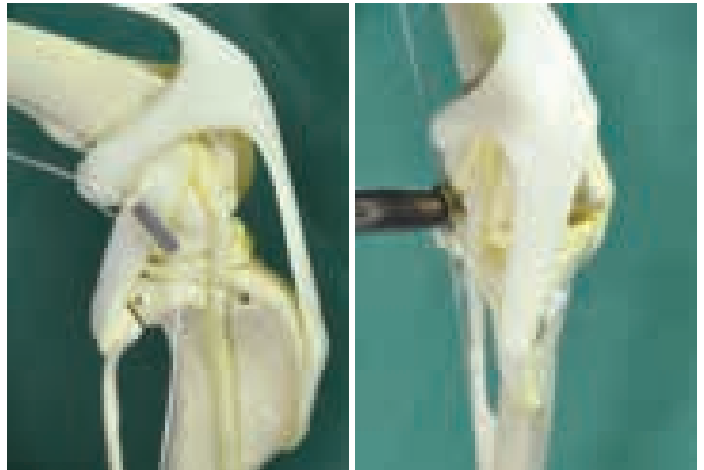
1. Pass around lateral fabella



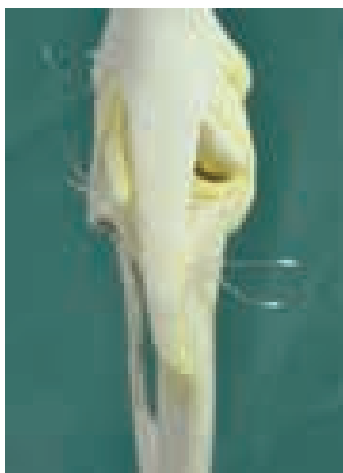
4. Hold the slotted button in forceps or needle-holders and position button so that as the prosthesis tightens, the button becomes captive. Ensure button is seated down onto bone surface with no soft-tissue entrapment.



2. Drill hole from Tubercle of Gerdy – Anti-Skid drill advisable.



5. Tension and crimp (or tie, if preferred).

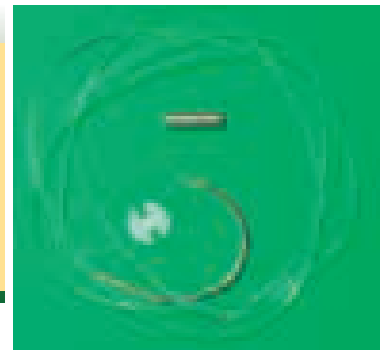


3. Pass line both ways to create a loop medially

Which Suture?

(Approx)	
STRENGTH	WEIGHT
50lb	4 - 10kg
80lb	10 - 20kg
100lb	20 - 50kg

These are guidelines only

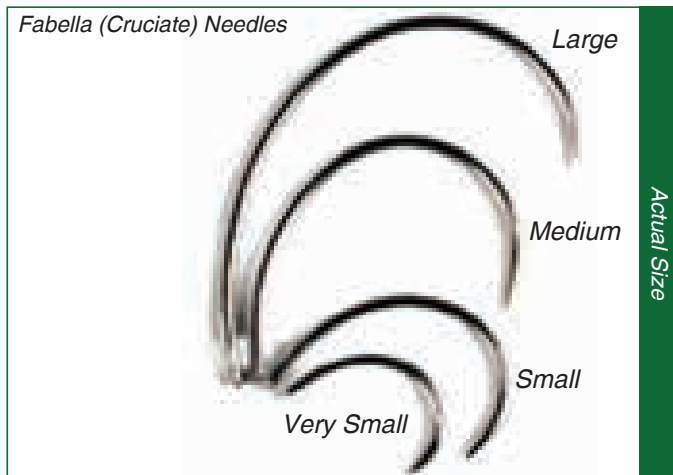


NYLON LATERAL BUTTON SUTURE		
NLBS50	50lb Nylon Lateral Button Suture	£24.95
NLBS80	80lb Nylon Lateral Button Suture	£24.95
NLBS100	100lb Nylon Lateral Button Suture	£24.95
H090102AS	Anti-Skid Drill 2.0mm 100mm Long	£25.50
H090112AS	Anti-Skid Drill 2.5mm 115mm Long	£25.50
H090106SAS/L	Anti-Skid Drill 3.5mm 180mm Long	£28.00
NLBSKIT	Nylon Lateral Button Suture Starter Kit contains 2 of each 50lb/ 80lb/ 100lb Nylon Lateral Button plus Crimping Forceps, Heavy Duty Needle Drivers, + one of each Anti-Skid drill	£295.00

Implants

Fabella (Cruciate) Needles

Most surgeons now use our sterile procedure packs which include swaged on needle and appropriate crimps. However, if you wish to sterilise your own nylon we offer appropriate needles. They are shown below approximately actual size. Bear in mind that leader line passed through a regular needle creates more damage as it passes through the femoro-fabella ligament. It is this ligament which is relied on for the holding power of the suture. Cruciate needles will pass through a hole created with a 2.7mm bone tunnel borer into the tibial crest.



FABELLA (CRUCIATE) NEEDLES

091144VS	Fabella Needle Very Small - Pack of 6 Has Regular Eye	£11.95
091144	Fabella Needle Small - Pack of 6 Has Regular Eye	£11.95
091145	Fabella Needle Medium - Pack of 6 Has Regular Eye	£11.95
091146	Fabella Needle Large - Pack of 6 Has Regular Eye	£11.95

Sterile Leader Line + Crimp

For use with separate Fabella (Cruciate) Needles

STERILE LEADER LINE + CRIMP

091142	10mm Tube Crimp + 500mm x 50lb Nylon (Sterile Pack)	£14.50
091137	12mm Tube Crimp + 800mm x 80lb Nylon (Sterile Pack)	£15.50
091147	12mm Tube Crimp + 800mm x 100lb Nylon (Sterile Pack)	£16.50

Sterile Nylon Leader Line

Also useful for other ligament replacement procedures, e.g. hip toggle, collateral ligament repair.

STERILE NYLON LEADER LINE

091141	500mm x 50lb Nylon (Sterile Pack)	£7.50
091139	800mm x 80lb Nylon (Sterile Pack)	£8.00
091148	800mm x 100lb Nylon (Sterile Pack)	£8.50

Crimps

CRIMPS

091140	10mm Tube Crimp for 50lb Line (Non Sterile)	£7.75
091136	12mm Tube Crimp for 80lb + 100lb Line (Non Sterile)	£7.75
091133	14mm Tube Crimp (Non Sterile) Suitable for Nylon over 100lb	£7.75
091140/10	10mm Tube Crimp for 50lb Line (Non Sterile) 10 Pack	£50.00
091136/10	12mm Tube Crimp for 80lb+100lb Line (Non Sterile) 10 Pack	£50.00
091133/10	14mm Tube Crimp (Non Sterile) Suitable for Nylon over 100lb 10 Pack	£50.00

Double Leader Line Loop on Needle



McKee/Miller Self Locking Knot

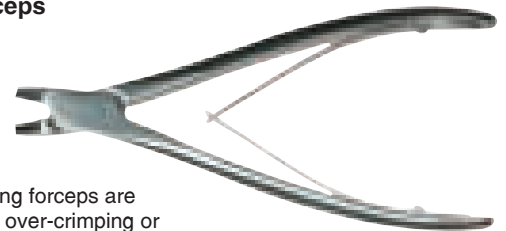
For use with McKee/Miller knot

DOUBLE LEADER LINE + NEEDLE

091160	50lb Double Line (500mm x 2 as loop) on v small fabella needle	£16.95
091161	80lb Double Line (800mm x 2 as loop) on small fabella needle	£17.95
091162	100lb Double Line (800mm x 2 as loop) on medium fabella needle	£18.95

Instruments

Crimping Forceps

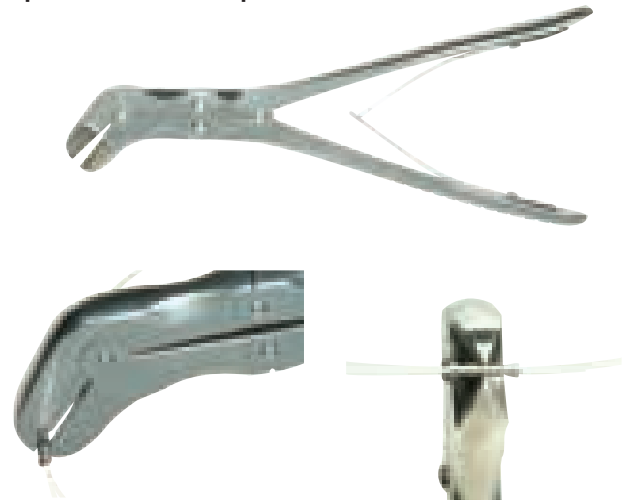


Dedicated crimping forceps are required to avoid over-crimping or under-crimping, both of which will lead to early implant failure.

CRIMPING FORCEPS

091135	Crimping Forceps 195mm Long	£125.00
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Compound Action Crimper

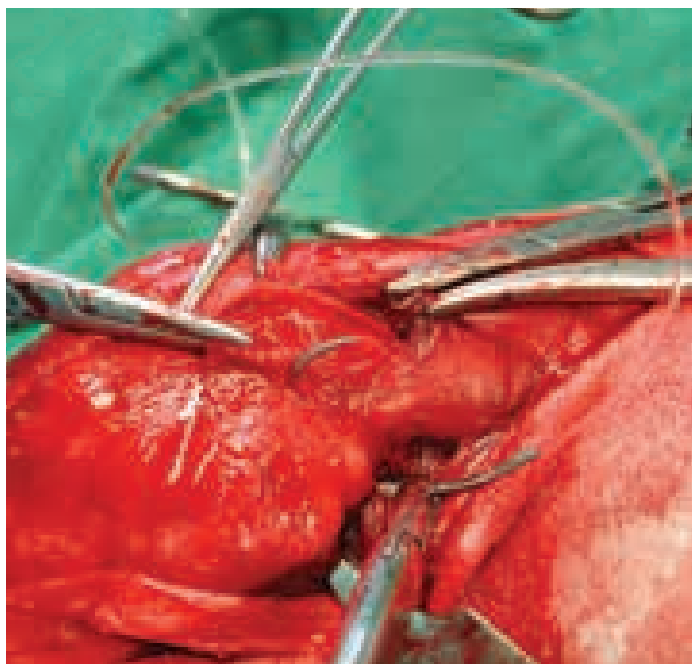


The Compound Action Crimper delivers a more powerful and controlled crimp than our simple action device. The angle of the jaws gives the surgeon a better view than straight variants. The handles sit almost parallel to the table surface which is more comfortable. In the relaxed position the Compound Action Crimper sits more easily in the hand than market alternatives.

COMPOUND ACTION CRIMPER

091135C	Compound Action Crimper 230mm Long	£185.00
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Heavy Duty Needle Driver



Cruciate needles are large. Most needleholders are designed for use with skin suture needles and will be damaged locking onto the bigger needle. It is cost effective to purchase a dedicated cruciate needle driver for your cruciate kit rather than keep replacing your standard needleholders. The TC inserts ensure maximum lock on giving you control over the trickiest part of the procedure.

HEAVY DUTY NEEDLE DRIVER		
091153	Heavy Duty Needle Driver with Tungsten Jaws 195mm Long	£72.50

Bone Tunnel Borer



Bone tunnels are required in many procedures, e.g. tension band wiring, hip toggling and embrocation techniques. The Bone Tunnel Borer is a simple hand instrument which causes minimal soft tissue damage and minimal fuss in setting up compared with orthopaedic drills.

BONE TUNNEL BORER		
001070	Bone Tunnel Borer 2mm 160mm Long	£52.50
001073	Bone Tunnel Borer 2.5mm 165mm Long	£52.50
001071	Bone Tunnel Borer 2.7mm 165mm Long	£52.50
001072	Bone Tunnel Borer 3.5mm 180mm Long	£52.50

Countersinking Bone Tunnel Borer



Bone Tunnel Borer



Bone Tunnel Borer - Close Up

In order to minimise the stress and abrasion of the nylon as it passes through the bone tunnel, countersinking the hole is advisable. To reduce time and instrumentation the self-countersinking instrument incorporates a countersink on the shaft.

COUNTERSINKING BONE TUNNEL BORER		
001075	Bone Tunnel Borer with Countersink 2.5mm 165mm	£62.50

Loop Tension Devices

Prior to crimping it is suggested that the loop be tensioned sufficiently to eliminate the anterior draw, but not enough to create an outward rotation. This may be achieved by a number of methods:

- a) Partial crimp - see video, does not require additional instrumentation
- b) Simple tension device requiring a pair of gelpis 091132
- c) A dedicated loop tensioner 091132A

CCL Tensioning Device



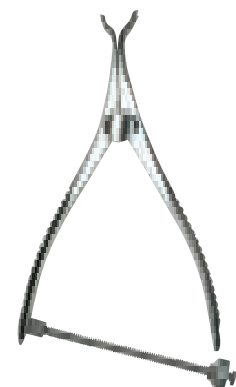
091132 - Tensioning Device (Gelpis not included)

CCL LOOP TENSIONER		
091132	CCL Tensioning Device (Pair - Gelpis not included)	£67.50

CCL Loop Tensioning



detail in use



Leader line gripped by thumbscrew.

Does not require use of extra crimps - less wasteful. Speed lock type action gives more 'feel' than ratchet type. Jaws designed specifically for crimping system.

The literature tells us little about the correct tension. We recommend that the anterior draw is eliminated but that an outward rotation of the tibia is not created.

Remember over tensioning is as big a technical error as under tensioning!

Instructions on use on www.vetinst.com

CCL LOOP TENSIONER		
091132A	CCL Loop Tensioner 175mm	£155.00

LigaFiba®

LigaFiba® is a new, extremely strong surgical suture material. It is composed entirely of Ultra High Molecular Weight Polyethylene, the same hard wearing material from which we make acetabular cups. Until now it has not been possible to spin it fine enough to produce flexible strands that are easily tied.

Weight for weight it is 15 x stronger than steel and 2.5 x stronger than nylon. It has very good abrasion characteristics which is important when used in hostile environments such as lateral sutures and hip toggles.

LigaFiba® is available in four breaking strains.

75lb (34kg)	<0.5mm in diameter	Dogs and cats <5kg
150lb (70kg)	0.6mm in diameter	Dogs up to 15kg
250lb (113kg)	1.0mm in diameter	Dogs 15 - 30kg
500lb (230kg)	1.6mm in diameter	Dogs over 30kg

LigaFiba® as a medial colateral repair using suture screw



Picture Jean-Benoit Lefebvre

Rose et al in Veterinary Surgery 41 (2012) 266-272 found that LigaFiba® out performed Fiber tape, FiberWire, Xgen Orthofiber and Mason Leader Line with respect to tensile strength, stiffness at failure, loading at elongation and resistance to cyclic elongation.

It is our experience that abrasion plays a significant part in most lateral suture failures but we do not have, as yet, comparable data on abrasion resistance.

We are confident that the Ultra High Molecular Weight Polyethylene composition of LigaFiba® gives it excellent abrasion resistance also.



LigaFiba® has a number of applications in veterinary orthopaedics and is available in a range of sterile presentations.

- Ligament and Tendon Repairs
- Cruciate Lateral Sutures
- Bone Tunnel Cruciate Procedures
- Hip Toggle Procedure

As a braided material the use of LigaFiba® requires strict attention to aseptic technique during implantation.

LigaFiba® Lateral Suture with Crimp Starter Kit



The LigaFiba® Lateral Suture With Crimp Starter Kit contains everything needed at a substantial discount.

The Kit contains the following:

- Compound Action Crimpers for LigaFiba®
- Heavy Duty Needle Driver
- 2 x 150lb LigaFiba® Lateral Suture with Crimp
- 2 x 250lb LigaFiba® Lateral Suture with Crimp
- 2 x 500lb LigaFiba® Lateral Suture with Crimp
- LigaFiba® Scissors

LIGA FIBA® LATERAL SUTURE WITH CRIMP STARTER KIT

LFLSCRSTARTER LigaFiba® Lateral Suture with Crimp Starter Kit

£345.00

LigaFiba® Lateral Button Suture with Crimp Starter Kit



The LigaFiba® Lateral Button Suture With Crimp Starter Kit contains everything needed at a substantial discount.

The Kit contains the following:

- Compound Action Crimpers for LigaFiba®
- Heavy Duty Needle Driver
- 2 x 150lb LigaFiba® Lateral Button Suture with Crimp
- 2 x 250lb LigaFiba® Lateral Button Suture with Crimp
- 2 x 500lb LigaFiba® Lateral Suture Button with Crimp
- LigaFiba® Scissors

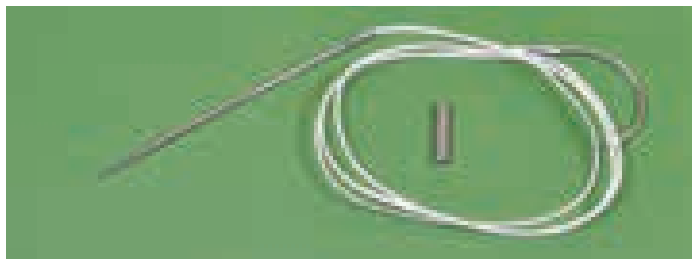
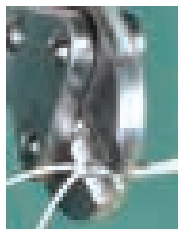
LIGA FIBA® LATERAL BUTTON SUTURE WITH CRIMP STARTER KIT

LFLBSSTARTER LigaFiba® Lateral Button Suture with Crimp Starter Kit

£345.00

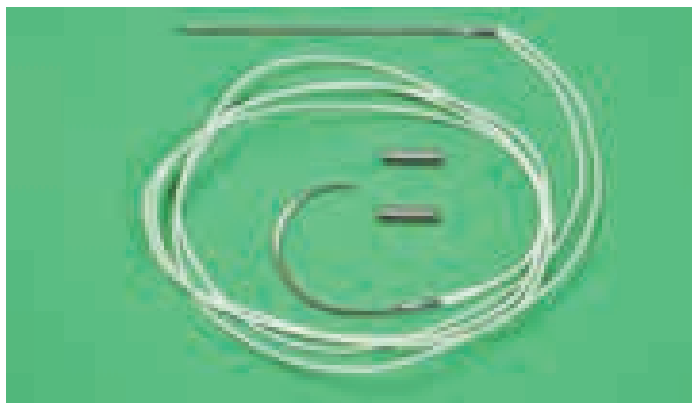
LigaFiba® Lateral Sutures with Crimp

LigaFiba® does knot securely but for maximum security requires 6 throws which creates a rather bulky knot. Crimping creates a secure, low profile, radio-dense join between the free ends of LigaFiba®. For convenience we now offer a lateral suture pack which includes an appropriate crimp. To make passing the LigaFiba® through the crimp a simple process the 25mm of LigaFiba® nearest the needle has been processed to minimise fraying. Always cut the lateral suture near the needle. Supplied sterile.



LIGAFIBA® LATERAL SUTURES WITH CRIMP		
LFLSCR75	75lb LigaFiba® Lateral Suture (300mm) + Crimp	£26.50
LFLSCR150	150lb LigaFiba® Lateral Suture (500mm) + Crimp	£26.00
LFLSCR250	250lb LigaFiba® Lateral Suture (500mm) + Crimp	£26.00
LFLSCR500	500lb LigaFiba® Lateral Suture (600mm) + Crimp	£26.00
LFLSCR150/5	150lb LigaFiba® Lateral Suture (500mm) + Crimp Pack of 5	£120.00
LFLSCR250/5	250lb LigaFiba® Lateral Suture (500mm) + Crimp Pack of 5	£120.00
LFLSCR500/5	500lb LigaFiba® Lateral Suture (600mm) + Crimp Pack of 5	£120.00
LFLSCRSET	5 of each LigaFiba® Lateral Suture + Crimp Pack (150, 250, 500lb) 15 in total	£295.00

Double LigaFiba® Lateral Sutures with Crimp

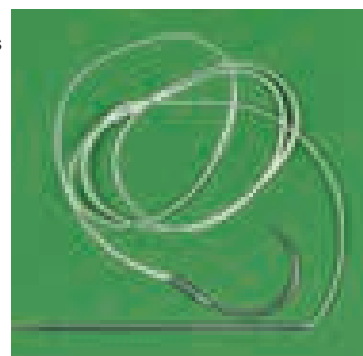


The 500lb LigaFiba® is quite bulky and many surgeons prefer to use a double strand of 250lb LigaFiba® for dogs over 30kg(66lb) Use of two separate 250lb lateral sutures on separate needles increases the trauma around the fabella and risks damaging the first LigaFiba® loop. To save time and minimise trauma to both implants and patient there is now available a double strand of 250lb LigaFiba® swaged onto standard curved and straight needles. Supplied with two crimps. Supplied Sterile.

DOUBLE LIGAFIBA® LATERAL SUTURES		
LFLSCR250D	Double 250lb LigaFiba® Lateral Suture (500mm) with 2 Crimps	£31.50

LigaFiba® Lateral Sutures

Extreme strength, minimal stretch and good abrasion characteristics make LigaFiba® an ideal material for lateral sutures. The loop may be either tied or crimped at the end of the procedure. LigaFiba® for any given diameter is more than twice as strong as monofilament nylon. Lateral sutures are supplied sterile with size appropriate cruciate needle on one end and a straight round bodied needle at the other. Supplied Sterile.



LIGAFIBA® LATERAL SUTURES		
LFLS75	75lb LigaFiba® Lateral Suture (300mm)	£20.95
LFLS150	150lb LigaFiba® Lateral Suture (500mm)	£20.95
LFLS250	250lb LigaFiba® Lateral Suture (500mm)	£20.95
LFLS500	500lb LigaFiba® Lateral Suture (600mm)	£20.95

Double LigaFiba® Lateral Suture



The 500lb LigaFiba® is quite bulky and many surgeons prefer to use a double strand of 250lb LigaFiba® for dogs over 30kg(66lb) Use of two separate 250lb lateral sutures on separate needles increases the trauma around the fabella and risks damaging the first LigaFiba® loop. To save time and minimise trauma to both implants and patient there is now available a double strand of 250lb LigaFiba® swaged onto standard curved and straight needles. Supplied Sterile.

DOUBLE LIGAFIBA® LATERAL SUTURES		
LFLS250D	Double 250lb LigaFiba® Lateral Suture (500mm)	£26.50

LigaFiba® Crimps

LigaFiba® ties very well but many surgeons prefer the low profile, security and speed of crimps to complete lateral sutures. Crimps are available for all sizes of LigaFiba®. Please note that only the LigaFiba® Crimper is powerful enough for LigaFiba® Crimps.



LIGAFIBA® CRIMPS		
LFCRIMP75	Crimp for 75lb LigaFiba®	£8.50
LFCRIMP150	Crimp for 150lb LigaFiba®	£8.50
LFCRIMP250	Crimp for 250lb LigaFiba®	£8.50
LFCRIMP500	Crimp for 500lb LigaFiba®	£8.50
091135M	LigaFiba® Compound Action Crimpers 245mm	£195.00

LigaFiba® Tendon and Ligament Sutures



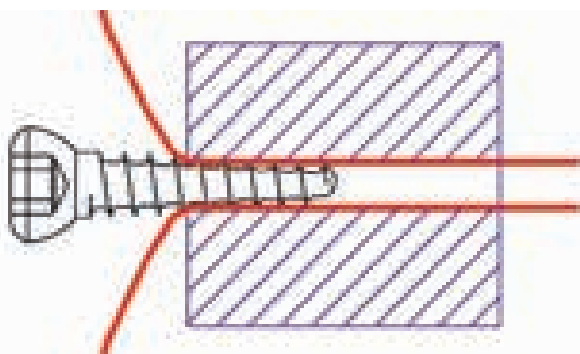
LigaFiba® is available in sterile single lengths for use in conjunction with any suitable suture anchor system. A tendon repair suture is also available with a round bodied needle at either end. LigaFiba® is so tough it is difficult to cut and will damage standard scissors. Use our special T.C. Scissors with a custom cutting edge.

LIGAFIBA®		
LF150500	150lb LigaFiba® x 500mm <15kg	£14.00
LF250600	250lb LigaFiba® x 600mm 15 - 30kg	£14.50
LF500600	500lb LigaFiba® x 600mm >30kg	£15.00
LFTRS150	150lb LigaFiba® Tendon Repair Suture	£22.00
LFS140TC	LigaFiba® Scissors T.C. 145mm	£87.50

LigaFiba® IsoToggle Locking Interference Screw

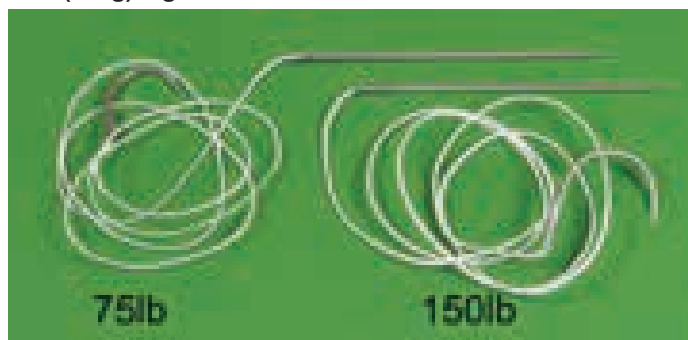
The Iso Toggle suture is an extra-capsular suture placed isometrically through bone tunnels. Placement of the tunnels is illustrated on a free CD. The LigaFiba® knots very well but there is now an alternative.

The Locking Interference Screw offers an alternative to tying over a button. The Screw has a tapered, soft profile thread which jams the LigaFiba® into the bone tunnel. The Screw may be partially introduced as a temporary measure to assess joint stability and range of movement. Once the surgeon is satisfied, the screw is driven home to lock the suture.



LIGAFIBA® ISO TOGGLE INTERFERENCE LOCKING SCREWS		
LFIS253518SS	Interference Screw 3.5 Stainless 18mm	£22.00
LFIS253518TI	Interference Screw 3.5 Titanium 18mm	£28.00
LFIS354523SS	Interference Screw 4.5 Stainless 23mm	£22.00
LFIS354523TI	Interference Screw 4.5 Titanium 23mm	£28.00

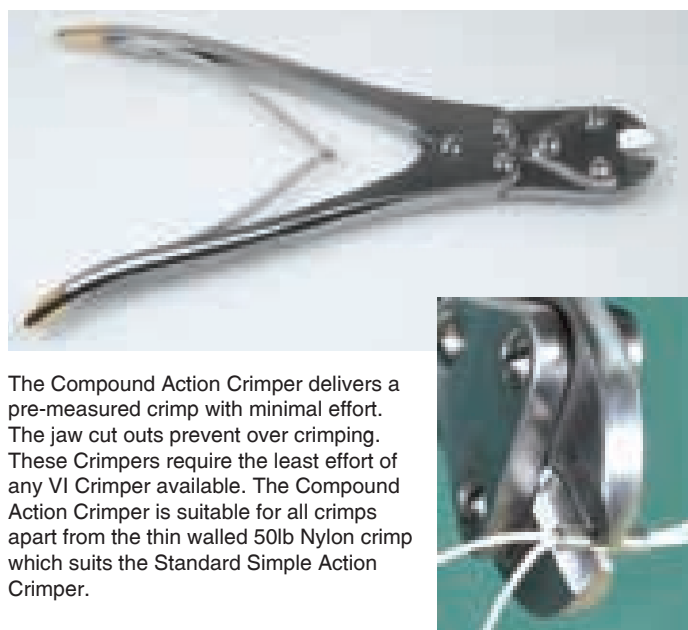
75lb (34kg) LigaFiba® Lateral Sutures



At less than 0.5mm in diameter the 75lb LigaFiba® is as strong as nylon 2.5 x as thick. Suitable for small dogs and cats weighing less than 5kg. LigaFiba® ties very well with minimal creep and a small soft knot. Alternatively a dedicated crimp may be used with our standard LigaFiba® Crimper 091135M.

75LB (34KG) LIGAFIBA® LATERAL SUTURES		
LFLS75	75lb LigaFiba® Lateral Suture (300mm)	£21.50
LFLSCR75	75lb LigaFiba® Lateral Suture (300mm) with Crimp	£26.50
LFLBS75	75lb LigaFiba® Lateral Button Suture (300mm) with Button & Crimp	£29.50

Compound Action Crimpers for LigaFiba®



The Compound Action Crimper delivers a pre-measured crimp with minimal effort. The jaw cut outs prevent over crimping. These Crimpers require the least effort of any VI Crimper available. The Compound Action Crimper is suitable for all crimps apart from the thin walled 50lb Nylon crimp which suits the Standard Simple Action Crimper.

LIGAFIBA® COMPOUND ACTION CRIMPERS		
091135M	LigaFiba® Compound Action Crimpers 245mm	£195.00

LigaFiba® Scissors



LigaFiba® is so tough it is difficult to cut and will damage standard scissors. Use our special T.C. Scissors with a custom cutting edge.

LIGAFIBA® SCISSORS		
LFS140TC	LigaFiba® Scissors T.C. 145mm	£87.50

Instruments

Lateral Suture Tension Device



This is the Standard Lateral Suture Tension Device in the USA. Ratchet based, it relies on the jaws pulling against crimps attached to the free ends of the loop. It is simple and effective but does require two extra crimps which are ultimately discarded. Remember, over tensioning loops creates as many problems as under tensioning.

LATERAL SUTURE TENSIONER		
091158	Lateral Suture Tensioner 170mm	£155.00

Cannulated Drills

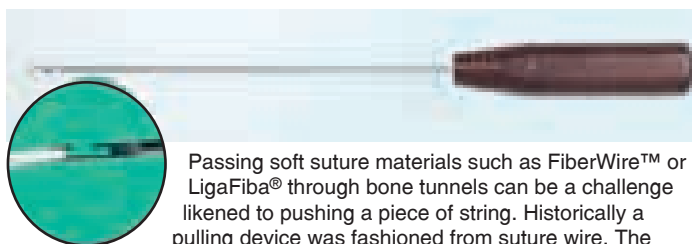
For maximum control over the alignment of bone tunnels use of cannulated drills is preferred. A fine guide wire is drilled through where the bone tunnel or screw hole is required. Only when the surgeon is satisfied that the guide wire is correctly positioned is the drill driven along the wire to create the hole. The guide wire can be repositioned if necessary without causing undue trauma to the bone.



Available for Jacobs chuck or AO Quickfit.

CANNULATED DRILLS		
H090112CAN	2.5mm 130mm Long 1.1mm Cannulation	£75.00
H090104CAN	2.7mm 130mm Long 1.1mm Cannulation	£75.00
H090106CAN	3.5mm 130mm Long 1.1mm Cannulation	£75.00
S090112CAN	2.5mm 130mm Long 1.1mm Cannulation AO Quickfit	£85.00
S090104CAN	2.7mm 130mm Long 1.1mm Cannulation AO Quickfit	£85.00
S090106CAN	3.5mm 130mm Long 1.1mm Cannulation AO Quickfit	£85.00
090065	Guide Wire 1.1mm x 178mm (Pack of 10)	£28.50

PushPull Suture Passer



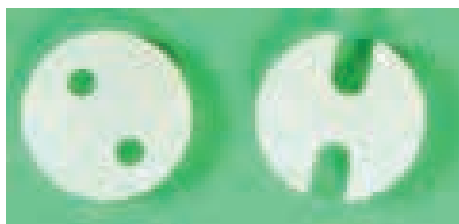
Passing soft suture materials such as FiberWire™ or LigaFiba® through bone tunnels can be a challenge likened to pushing a piece of string. Historically a pulling device was fashioned from suture wire. The PushPull Suture Passer hooks onto the suture material and may then be either pushed through a bone tunnel or pulled back through one.

Diameter is 2.0mm therefore minimum bone tunnel size is 2.0 when pulling, allow more for thicker sutures and 2.0 plus at least twice the suture diameter when pushing.

PUSHPULL SUTURE PASSER		
001050PP	PushPull Suture Passer 235mm	£66.50

LigaFiba® Accessories

Ormrod Buttons

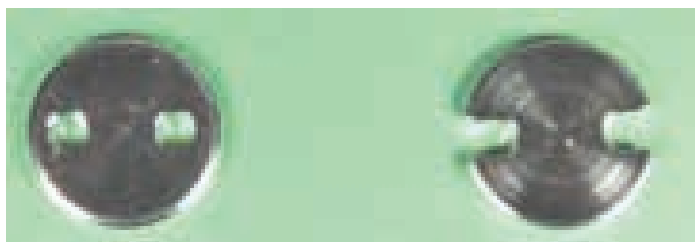


Use to prevent sutures from 'cheese wiring' through bone, e.g. at hip toggle. Made from 1020 Medical Grade UHMWPE. (Ultra High Molecular Weight Polyethylene).

ORMROD BUTTONS		
090166/E	Ormrod Button 6mm Diameter (sterile) 2 Holes	£11.00
090166/F	Ormrod Button 6mm Diameter (sterile) 2 Slots	£11.00
090166/A	Ormrod Button 9mm Diameter (sterile) 2 Holes	£11.00
090166/B	Ormrod Button 9mm Diameter (sterile) 2 Slots	£11.00
090166/C	Ormrod Button 11mm Diameter (sterile) 2 Holes	£11.00
090166/D	Ormrod Button 11mm Diameter (sterile) 2 Slots	£11.00

Part Code	Description	Overall Diameter	Male Diameter	Male Width	Thickness
090166A	ORMROD BUTTON 2 HOLES	6mm	1.5mm		2mm
090166B	ORMROD BUTTON 2 SLOTS	6mm		2mm	2mm
090166C	ORMROD BUTTON 2 HOLES	9mm	2mm		2mm
090166D	ORMROD BUTTON 2 SLOTS	9mm		2mm	2mm
090166E	ORMROD BUTTON 2 HOLES	11mm	2mm		1.2mm
090166F	ORMROD BUTTON 2 SLOTS	11mm		2mm	1.2mm

Titanium Buttons



Titanium is very biocompatible and our range of Titanium Buttons has been loosely modelled on the familiar six sizes of UHMWPE Ormrod button we have been supplying for some time.

Despite being slightly lower profile, these resist higher peak loading than their UHMWPE equivalents.

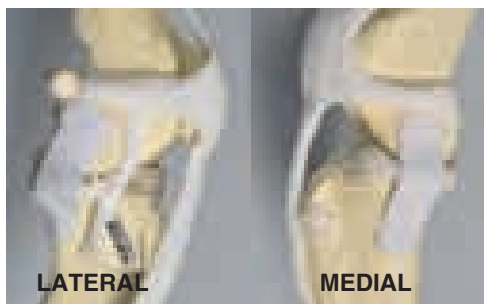
Their overall diameters have been maintained to try and limit pressure osteolysis and the subsequent subsidence that is occasionally seen with lower footprint buttons.

Their edges have been made as smooth as possible to reduce suture wear.

The titanium buttons are used for ligament replacement/ joint imbrocration procedures, especially around the hip and stifle.

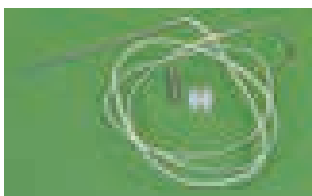
TITANIUM BUTTONS		
TIBUT6H	Titanium Button 6mm 2 Holes	£18.50
TIBUT6S	Titanium Button 6mm 2 Slots	£18.50
TIBUT9H	Titanium Button 9mm 2 Holes	£18.50
TIBUT9S	Titanium Button 9mm 2 Slots	£18.50
TIBUT11H	Titanium Button 11mm 2 Holes	£18.50
TIBUT11S	Titanium Button 11mm 2 Slots	£18.50

LigaFiba® Lateral Button Suture



During the placement of standard lateral sutures there is a tendency for the proximal strand of the suture to drift up the straight patella ligament. This reduces the isometry of the suture and the the suture can become

intra-articular which is undesirable. Use of a toggle button at the proximal tibia hole keeps both strands of suture at the hole. Application is straight forward. The suture is passed around the fabella using the swaged on curved cruciate needle. The suture is then passed through the hole from lateral to medial and then back through the hole from medial to lateral. The suture is swaged onto a straight needle to facilitate this part of the procedure. The toggle button is placed into the loop on the medial surface and retained into position by pulling the loop tight from the lateral side. The button prevents the suture from pulling through. The LigaFiba® suture is then tensioned and crimped in the usual way. Each pack includes the lateral suture, the correct number and size of crimp plus an appropriate button.



Also now available with titanium buttons instead of UHMWPE buttons.

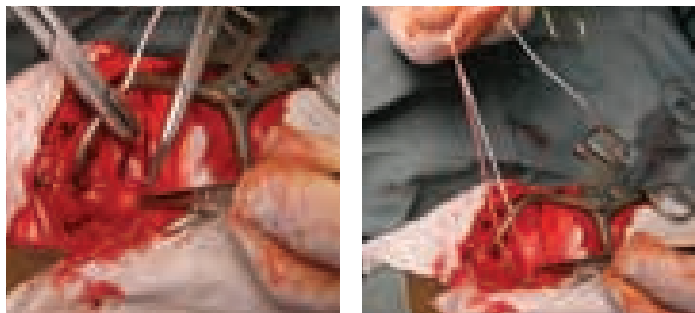
LIGAFIBA® LATERAL BUTTON SUTURE

LFLBS75	75lb LigaFiba® Lateral Button Suture	£29.50
LFLBS150	150lb LigaFiba® Lateral Button Suture	£29.50
LFLBS250	250lb LigaFiba® Lateral Button Suture	£29.50
LFLBS250D	250lb LigaFiba® Lateral Button Suture Double	£33.50
LFLBS500	500lb LigaFiba® Lateral Button Suture	£29.50
LFLBSSTARTER	LigaFiba® Lateral Button Suture Starter Kit	£345.00
LFLBS150TI	150lb LigaFiba® Lateral Button Suture Ti Button	£33.50
LFLBS250TI	250lb LigaFiba® Lateral Button Suture Ti Button	£33.50
LFLBS250DTI	250lb LigaFiba® Lateral Button Suture Double/Ti Button	£37.50
LFLBS500TI	500lb LigaFiba® Lateral Button Suture Ti Button	£33.50

Lateral Button Suture Step by Step Summary

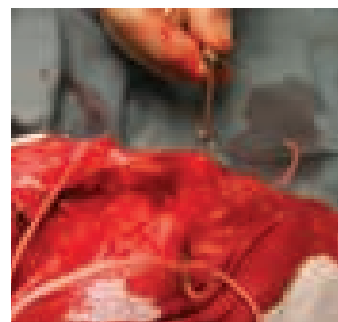
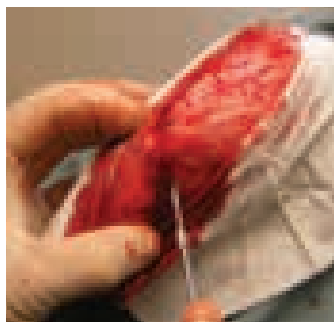
Detailed step by step guides of both the original lateral suture technique and the lateral button suture technique are available free of charge on request from Veterinary Instrumentation or may be downloaded free of charge from www.vetinst.com. The simple modifications to the standard lateral suture technique are illustrated below for your information.

Special thanks to Geoff Robins for the images.



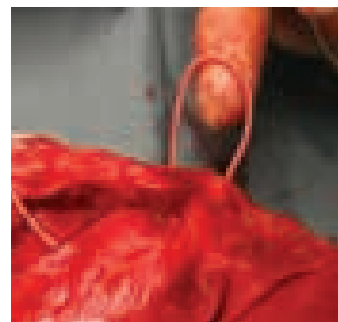
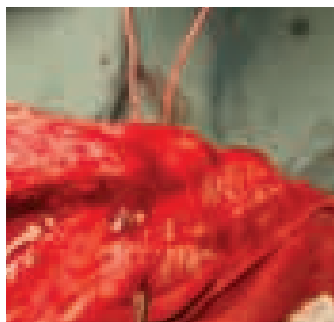
Pass LigaFiba® around Lateral Fabella.

Be sure to pass the curved needle through substantial fibrous tissue around the fabella. When tension is applied to the suture in the physiological direction the LigaFiba® should be held by the bone of the fabella. LigaFiba® placed in soft tissue will 'cheese wire' its way through losing tension.



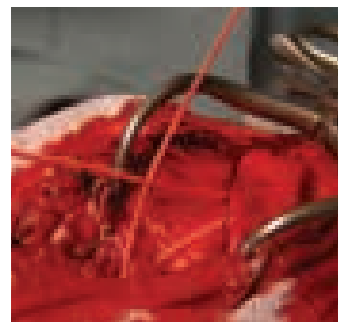
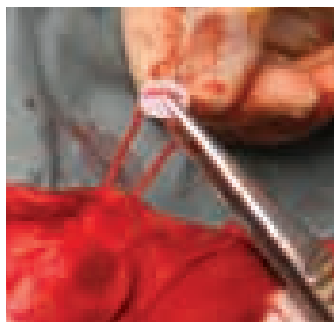
Create quasi-isometric hole in proximal tibia

Using a drill or bone tunnel borer, a hole is placed through the proximal tibia in a position which is as isometric as possible with respect to the fabella. It is important that as the knee flexes and extends, the LigaFiba® loop is not repeatedly loaded and unloaded against the bone. There are a number of possible positions for the hole (see Simon Roe VCOT 2008). The most common position used is very cranial and very proximal on the tibial tubercle. The straight needle is passed lateral to medial through the hole.



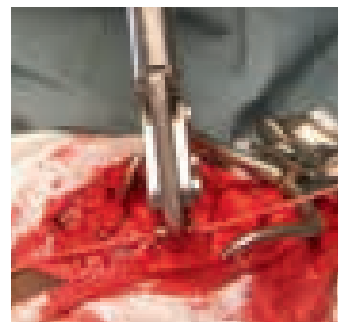
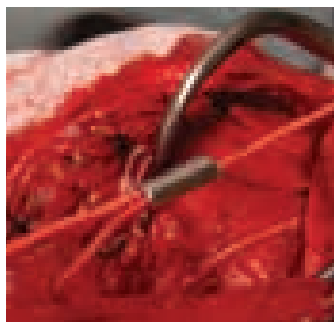
Create a loop on the medial side

Pass the straight needle back from medial to lateral to create a loop of LigaFiba® on the medial side.



Place slotted button within the loop

The slotted button is placed within the loop and the slack within the loop is drawn through to the lateral side so that the button sits on bone at the medial side. Both strands of LigaFiba® exit the lateral tibia at the isometric point.

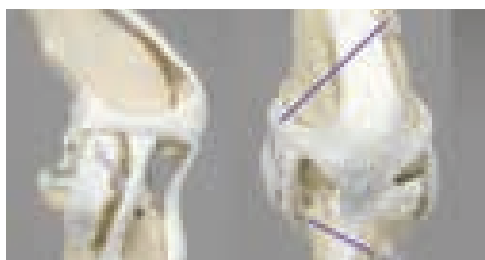


Tension and crimp or knot

Sufficient tension is applied to the loop to eliminate anterior drawer yet allow a full range of motion. The free ends knot very well but a crimp provides a secure, low profile, radio dense joint.

The closure is routine.

LigaFiba® Iso Toggle Sutures



The strength and flexibility of LigaFiba® makes it an ideal material for extracapsular sutures. The Iso Toggle suture is placed via bone tunnels across the stifle at isometric points. The use of isometric points maximises the range of movement of the stifle and protects the suture from repeated stretching and abrasion.

The suture is anchored over buttons on the medial side.

Available in all three sizes of LigaFiba®

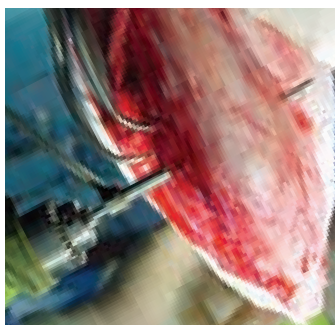
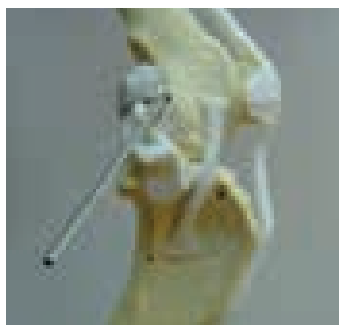
- 150lb** Dogs up to 15kg
- 250lb** Dogs 15-30kg
- 500lb** Dogs over 30kg

Free DVD available showing the placement of the Iso Toggle Suture. The Starter Kit comprises 2 x 250lb sutures, 2 x 500lb sutures and the required 2.5mm and 3.5mm Antiskid Drills.

LIGAFIBA® ISO TOGGLE SUTURES		
LFITS150	150lb Iso Toggle Suture Set	£79.50
LFITS250	250lb Iso Toggle Suture Set	£79.50
LFITS500	500lb Iso Toggle Suture Set	£79.50
LFISOKIT	Iso Toggle Starter Kit (250 & 500lb) x 2 of each	£295.00
DVDALL	Free Procedure DVD	£FOC
BRLIGAISO	Step by Step Guide to LigaFiba® Iso Toggle Suture	£FOC

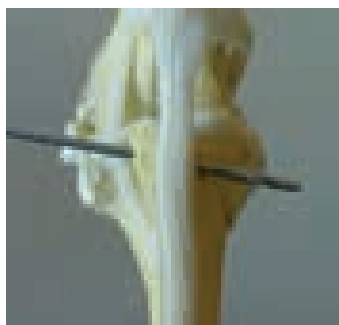
LigaFiba® IsoToggle Suture Step by Step Summary

The full IsoToggle Step by Step guide is available on request from Veterinary Instrumentation or by download from www.vetinst.com. An introduction to the technique is given here.



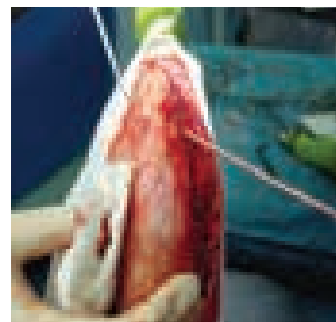
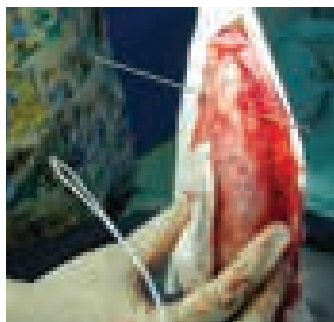
Placement of femoral bone tunnel

The tunnel must start just cranial to and just distal to the lateral fabella. It should exit through cortical bone avoiding the medial trochlea ridge and a breakout through the caudal aspect of the femur. Drill guides may be used to limit soft tissue issues.



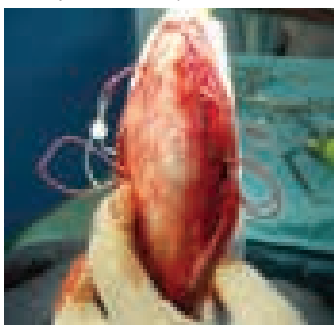
Placement of tibial bone tunnel

The tunnel passes from the Tubercle of Gerdy on the lateral aspect of the tibial plateau to exit from the middle of the medial proximal tibia.



Pass the suture through the tibial bone tunnel

Using the guide needle the loop end of the IsoToggle suture through the tibia from medial to lateral. Leave the button in situ on the end of the suture to prevent pull out. The suture is then passed under the Long Digital Extensor, (some surgeons prefer to pass the suture over the top of the LDE).

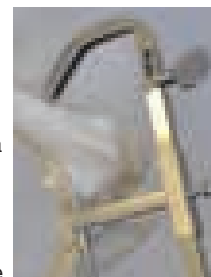


Pass the suture through the femur, tension and tie

Using the guide needle the suture is passed through the femur from lateral to medial. The exit hole in the femur should be cleared of soft tissue as it is important that the toggle button sits on clean bone. The slotted button is fed into the loop and pulled down onto bone by withdrawing excess LigaFiba® from the lateral side of the stifle. The IsoToggle suture is pulled tight from the medial aspect of the tibia and tied over the button. Care should be taken to ensure that there is no slack in the suture. The tension on the loop should be enough to eliminate the anterior drawer but not enough to cause rotation of the tibia on the femur.

Iso Toggle Aiming Device

Placement of the tibial bone tunnel is straight forward but the femoral bone tunnel can be more challenging. The tunnel must start just cranial to and just distal to the lateral fabella. It should exit through cortical bone avoiding the medial trochlea ridge and a breakout through the caudal aspect of the femur. Some time should be spent judging the angle of the drill. Alternatively, the Adjustable Drill Guide (ADJDG2035) with an appropriately sized drill slider may be used to pre-determine the line of the tunnel and offer protection of the soft tissues. The arms of the guide have sufficient 'spring' in them so if pre-stressed the guide is self retaining.



Iso Toggle Consumables

ISO TOGGLE CONSUMABLES		
H090102AS	2.0mm Antiskid Drill (150lb) 100mm	£25.50
H090112AS	2.5mm Antiskid Drill (250lb) 115mm	£25.50
H090106SAS/L	3.5mm Antiskid Drill (500lb) 180mm	£28.00
090166/E	Ormrod Button 6mm Diameter Sterile 2 Holes (150lb)	£11.00
090166/F	Ormrod Button 6mm Diameter Sterile 2 Slots (150lb)	£11.00
090166/A	Ormrod Button 9mm Diameter Sterile 2 Holes (250lb)	£11.00
090166/B	Ormrod Button 9mm Diameter Sterile 2 Slots (250lb)	£11.00
090166/C	Ormrod Button 11mm Diameter Sterile 2 Holes (500lb)	£11.00
090166/D	Ormrod Button 11mm Diameter Sterile 2 Slots (500lb)	£11.00
ADJDG2035	Adjustable Drill Guide 175mm	£205.00



Arthrex is a highly innovative global surgical company specialising in joint surgery and arthroscopy products. Their veterinary division Arthrex Vet Systems is introducing the most appropriate of the human products to the veterinary market. In addition Arthrex Vet Systems is working with leading veterinary surgeons, to develop innovative solutions to veterinary joint surgery problems.

Veterinary Instrumentation is very pleased to have been appointed UK distributor for Arthrex joint surgery products.

FiberWire™

Many Arthrex products are based around FiberWire™, a new composite material consisting of a multi-stranded long chain ultra high molecular weight polyethylene core with a polyester braided jacket. Compared to monofilament nylon, FiberWire™ is stronger, and does not stretch. In addition and very importantly FiberWire™ has much better wear characteristics. Most lateral suture loops fail by abrasion, usually at the fabella. Use of FiberWire™ extends the working life of the lateral suture. FiberWire™ is five times more resistant to abrasion than standard polyester suture. FiberWire™ ties very well with a creep free soft knot which again compares very well with nylon.

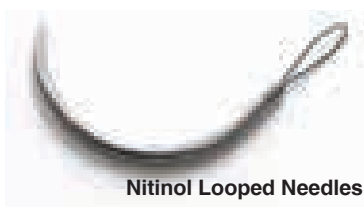
FiberWire™ is available in various presentations, such as free strands, swaged onto needles or attached to suture anchors.

FiberTape™ is as the name suggests a broader, immensely strong version of FiberWire™ and forms the basis of the TightRope cruciate technique.

FIBERWIRE™		
AR-7200	#2 (M5) FiberWire™ with Tapered Needle (12)	£185.00
AR-7201	#2 (M5) FiberWire™ without Needles (12)	£185.00
AR-7202	#2 (M5) FiberWire™ with Reverse Cut Needles (12)	£185.00
AR-7205	#2 (M5) FiberWire™ with two Tapered Needles (12)	£420.00
AR-7206	#2 (M5) FiberWire™ with 1/2 Circle Needles (12)	£210.00
AR-7210	#5 (M7) FiberWire™ without Needles (12)	£210.00
AR-7211	#5 (M7) FiberWire™ with Needles (12)	£210.00
AR-7220	2-0 FiberWire™ with Tapered Needles (12)	£190.00
AR-7237	FiberTape (6)	£625.00
BRFIBER	FiberWire™ Literature	£FOC

Nitinol Suture Passers

Nitinol is a highly sprung material used in stents and other intravascular structures. Attached to a needle the loop springs open making threading very easy and when pulled through causes less damage to the soft tissues than regular eyed needles.



Nitinol Looped Needles

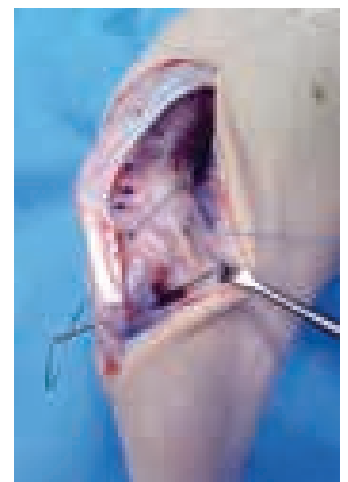
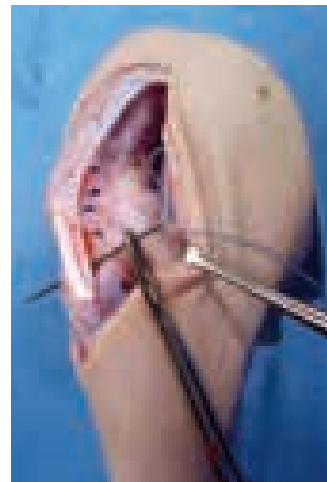
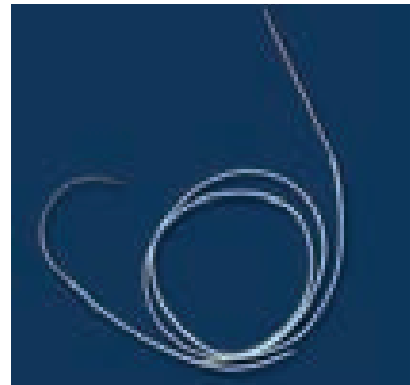


Nitinol Flexible Suture Passer

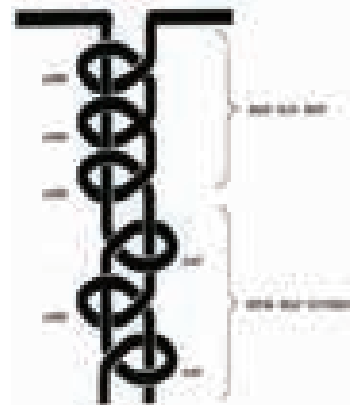
Passing soft flexible sutures through bone tunnels can be a challenge. The Arthrex suture passer is 200 or 600mm long stiff yet flexible with a nitinol loop at the tip which expands for easy passage of the suture c.f. suture wire loops.

NITINOL SUTURE PASSERS		
VAR-5000	Small Nitinol Looped Needle (5)	£47.50
VAR-1255-08	Nitinol Flexible Suture Passer (200mm)	£57.50
VAR-1255-18	Nitinol Flexible Suture Passer (600mm)	£77.50

Arthrex FiberWire™ Canine Cruciate Lateral Suture



FiberWire™ ties very well using a number of knots including the standard surgeons knot. It is sometimes useful to initially create a sliding knot which can be used to create tension in the loop. The knot may be locked using 3 further half hitches.



A special FiberWire™ lateral suture has been developed by Arthrex in conjunction with James L. Cook, DVM, PhD, at the Comparative Orthopaedic Laboratory, University of Missouri, consisting of a swaged on curved needle for fabella placement and a straight needle at the other end for easy passage through the proximal tibia. The #5 FiberWire™ (7 metric) is for use in dogs 15kg to 50kg. The #2 FiberWire (5 metric) is used for smaller patients.

A Step by Step Guide on how to use the new suture can be viewed or downloaded as a pdf by visiting our web site www.vetinst.com. A video of the technique may also be viewed on the web site. Alternatively ask our vet tech team for a **free** training pack which includes a step by step brochure, video and sample. If your suture tying technique needs revision we can send you a free CD rom on Arthroscopic Suture techniques.

FIBERWIRE™ CANINE CRUCIATE LATERAL SUTURE		
VAR-2000	#5 (M7) FiberWire™ Lateral Suture (10)	£355.00
VAR-2002	#2 (M5) FiberWire™ Lateral Suture (10)	£355.00
BRCCLS	FiberWire™ Lateral Suture Step by Step Guide	£FOC
DVDARTHREX	Arthrex Multi DVD (contains all Arthrex Brochures)	£FOC

Arthrex Isometric Lateral Suture Anchor System

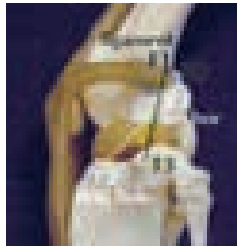
The lateral fabella and the proximal tibial crest are not the ideal isometric points to substitute for the cranial cruciate ligament. They are used because they are the nearest convenient points to pass a suture using a needle. Using Arthrex FiberWire™ and Arthrex suture anchors it is possible to place a lateral suture at the most isometric points. As the stifle flexes and extends the distance between the isometric points does not change.

F1 (lateral fabella) is isometric with T3 (posterior wall of LDE sulcus).

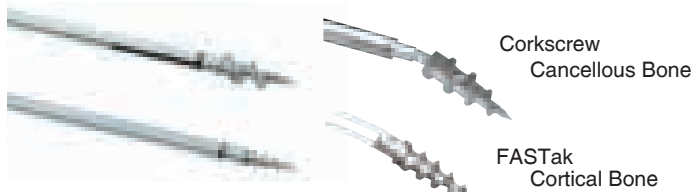
F2 (posteroventral femoral condyle) is isometric with T2.

In large dogs a suture may be placed at both pairs of positions.

A step by step guide is available by post or can be downloaded from www.vetinst.com from the documents download page. A video is also available on the website.



Arthrex Suture Anchors



Corkscrew
Cancellous Bone

FASTak
Cortical Bone

Corkscrew suture anchors are designed for cancellous bone and are supplied pre-loaded and sterile on a disposable screwdriver type applicator. Pre-drilling is not required. The Corkscrew anchor is supplied pre-loaded with either a strand of #5 FiberWire or two strands of #2 FiberWire. Additional, non sterile stand alone Corkscrew anchors are also available which may be inserted using the same applicator. Should pre-drilling be necessary use a 2.5mm drill.

FASTak II suture anchors are designed for cortical bone. They are supplied sterile pre-loaded with #2 (5 Metric) FiberWire and are used in the Isometric procedure. The anchor requires no pre-drilling and is inserted directly using the disposable screwdriver handle applicator. Additional FASTak anchors are available which may be inserted using the same applicator.

The applicator of both anchors is laser marked with an insertion line. When inserted to this line the eyelet of the anchor is below the bone surface.

ARTHREX SUTURE ANCHORS		
VAR-2100	Corkscrew Suture Anchor 5x15mm Screwdriver type with one #5 (7 Metric) FiberWire™ (5 pack)	£345.00
VAR-2100/S	As above - Single Pack	£90.00
VAR-2102	Corkscrew Suture Anchor 5x15mm Screwdriver type with one #2 (Metric 5) FiberWire™ and one #2 (5 Metric) TigerWire™ (5 pack)	£345.00
VAR-2102/S	As above - Single Pack	£90.00
VAR-2200	FASTak II with # 2 (5 Metric) FiberWires™ in Screwdriver Applicator (5 pack)	£345.00
VAR-2200/S	As above - Single Pack	£90.00
VAR-2201	FASTak II Anchor only (5 pack)	£230.00
VAR-2201/S	As above - Single Pack	£70.00
BRCCLS	Arthrex CCL Literature	£FOC

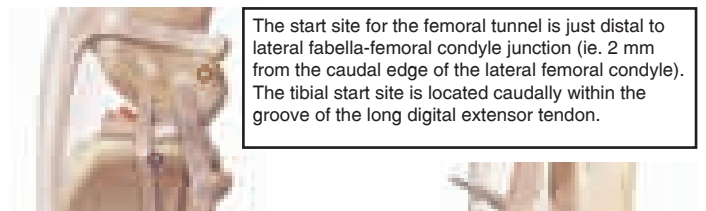
Arthrex TightRope for CrCL Repair

The TightRope technique for CrCL repair takes the best aspects of the lateral suture but adds the benefits of isometric positioning and the use of the immensely strong Arthrex FiberTape. The isometric points are accessed by use of bone tunnels which create very secure fixation points c.f. the lateral fabella.

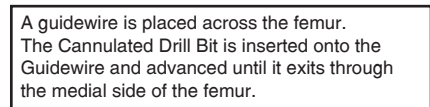
A full free step by step guide of the TightRope technique is available from Veterinary Instrumentation or as a download from www.vetinst.com. The technique is summarised here.



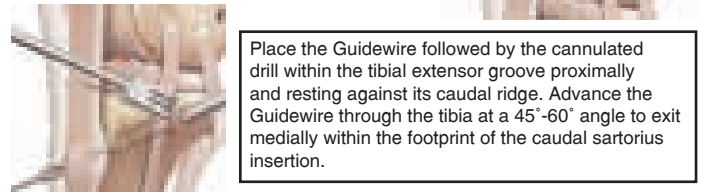
TightRope Surgical Technique



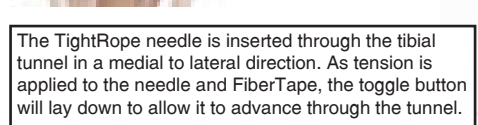
The start site for the femoral tunnel is just distal to lateral fabella-femoral condyle junction (ie. 2 mm from the caudal edge of the lateral femoral condyle). The tibial start site is located caudally within the groove of the long digital extensor tendon.



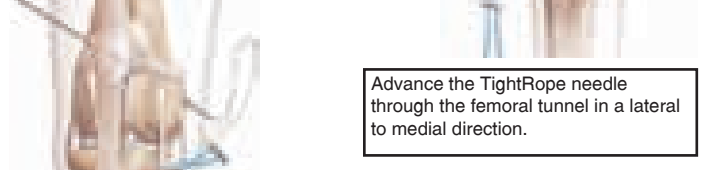
A guidewire is placed across the femur. The Cannulated Drill Bit is inserted onto the Guidewire and advanced until it exits through the medial side of the femur.



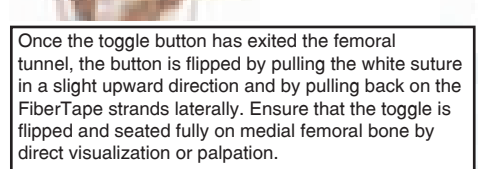
Place the Guidewire followed by the cannulated drill within the tibial extensor groove proximally and resting against its caudal ridge. Advance the Guidewire through the tibia at a 45°-60° angle to exit medially within the footprint of the caudal sartorius insertion.



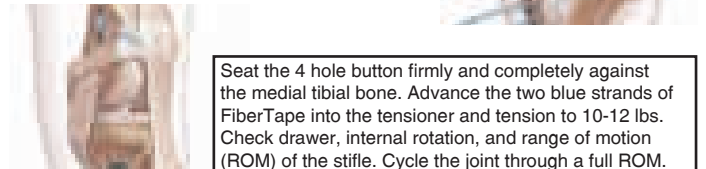
The TightRope needle is inserted through the tibial tunnel in a medial to lateral direction. As tension is applied to the needle and FiberTape, the toggle button will lay down to allow it to advance through the tunnel.



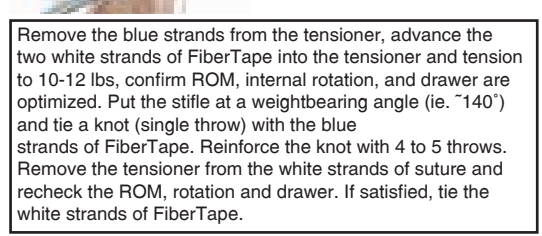
Advance the TightRope needle through the femoral tunnel in a lateral to medial direction.



Once the toggle button has exited the femoral tunnel, the button is flipped by pulling the white suture in a slight upward direction and by pulling back on the FiberTape strands laterally. Ensure that the toggle is flipped and seated fully on medial femoral bone by direct visualization or palpation.



Seat the 4 hole button firmly and completely against the medial tibial bone. Advance the two blue strands of FiberTape into the tensioner and tension to 10-12 lbs. Check drawer, internal rotation, and range of motion (ROM) of the stifle. Cycle the joint through a full ROM.



Remove the blue strands from the tensioner, advance the two white strands of FiberTape into the tensioner and tension to 10-12 lbs, confirm ROM, internal rotation, and drawer are optimized. Put the stifle at a weightbearing angle (ie. ~140°) and tie a knot (single throw) with the blue strands of FiberTape. Reinforce the knot with 4 to 5 throws. Remove the tensioner from the white strands of suture and recheck the ROM, rotation and drawer. If satisfied, tie the white strands of FiberTape.



FiberTape is a braided material but provided that standard aseptic protocols are followed infection rates are low. Try to minimise dragging FiberTape across skin. Do not unpack the TightRope until all the bone tunnels are complete.

ARTHREX TIGHTROPE		
VAR-2800	TightRope CCL	£190.00
VAR-8920DC	Cannulated Drill Bit 3.5mm	£110.00
VAR-8920P	Guidewire for TightRope (Pack of 6) 1.2mm	£70.00
VAR-11796	FiberWire™ Scissors	£250.00
VAR-2800-MULTI	TightRope CCL 5 Pack with Free Cannulated Drill Bit	£950.00
BRTIGHT	TightRope Training Pack (Guide + DVD)	£FOC

Please note Veterinary Instrumentation cannot supply Arthrex products outside of the UK.

Mini TightRope



Arthrex have produced a smaller version of the TightRope for dogs less than 18kg.

The technique is the same as for the standard TightRope CCL but the guide wire and 2.7mm cannulated drills are smaller. Some users report that the Tensioner is more useful with the Mini TightRope (VAR-1529).

The MiniTightRope also has an application in the management of coxofemoral luxations, see next page.

ARTHREX MINI TIGHTROPE

VAR-2801	Mini TightRope Single Set	£140.00
VAR-8911DC	Cannulated Drill Bit 2.7mm (use with VAR-8920P)	£110.00
VAR-1529	Tensioner with Tensiometer	£495.00
VAR-8920P	1.2mm (0.049") Guidewire (Pack of 6)	£70.00

Arthrex SwiveLock Anchor Knotless CrCL Technique

Don Hulse has developed the knotless SwiveLock technique of CrCL repair based on his work on isometric points for the anchorage of lateral sutures. The system involves drilling a bone tunnel in the proximal tibia drilled from point T3 (caudal to the LDE). A double strand of FiberTape is secured on the medial tibia using a toggle. The FiberTape is tensioned and secured at point F2 just distal to the lateral fabella using the new SwiveLock anchor.

Step by Step guide and brochure is available free of charge **BRSWIV**



The F2 site is drilled with the Spade Tip Drill creating a blind tunnel of fixed depth. Aim towards trochlea

Tap the tunnel to the full depth indicated by black mark on tap



Pass a guide wire from site T3 just caudal to LDE sulcus. The wire should exit on caudomedial aspect of tibia. Follow through with the cannulated drill

Pass the nitinol suture passing wire through the tunnel to retrieve the FiberTape threaded onto the suture button.

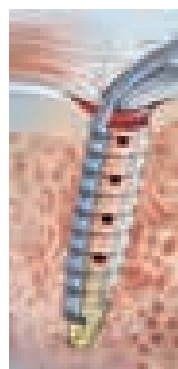


Pull button tight onto bone. No soft tissue should be between button and bone.

Pass both strands of FiberTape through the SwiveLock and mark at black laser line



Move the eyelet to the mark and insert into blind tunnel until edge of anchor is at the tunnel entrance.



The Fiber Tape is locked into position by screwing in the anchor. When a 1/4 of the way in test for tension and range of motion. Reposition eyelet if necessary and re-screw.



SWIVELock ANCHOR SYSTEM

VAR-2323PSLG	SwiveLock Kit includes VAR-2323PSLG, AR-7237 and VAR-8920G	£220.00
VAR-2323PSLC	SwiveLock 5.5mm x 19.1mm Single	£130.00
AR-7237	FibreTape (6)	£625.00
VAR-8920G	Suture Button	£47.50

ASSOCIATED PRODUCTS

VAR-1927CTB	Tap for SwiveLock	£205.00
VAR-1530C-25	Cannulated Drill 2.5mm	£110.00
VAR-1255-08	Nitinol Flexible Suture Passer (200mm)	£57.50
VAR-1927D	Spade Tip Drill for 5.5 SwiveLock	£110.00
VAR-1530K	Guide Wire 1.04mm (0.041") pack of x 4	£80.00
BRSWIV	SwiveLock Lateral Suture Step by Step Guide	£FOC

Arthrex SwiveLock



The Arthrex SwiveLock can be used in a number of different locations for ligamentous replacement and/or augmentation. The primary veterinary application is in the treatment of patients with cranial cruciate ligament insufficiency. Smaller SwiveLock sizes have recently been made available, permitting this knotless augmentation technique to be used down to a patient weight of around 7kg.

Kits are also available and include FiberTape, a suture button, SwiveLock anchor and sterile marker.

MINI SWIVELock		
VAR-2324PSLC	Suture Anchor PEEK SwiveLock C 4.75 x 19.1mm VET - 5 Pieces	£525.00
VAR-2324PSLC-1	Suture Anchor PEEK SwiveLock C 4.75 x 19.1mm VET - Single	£105.00
VAR-2325PSLC	Suture Anchor PEEK SwiveLock C 3.5 x 14.8mm VET - 5 Pieces	£525.00
VAR-2325PSLC-1	Suture Anchor PEEK SwiveLock C 3.5 x 14.8mm VET - Single	£105.00
VAR-2324PSLG	Suture Anchor Kit 4.75mm	£155.00
VAR-2325PSLG	Suture Anchor Kit 3.5mm	£155.00

Arthrex Meniscal Probe Cutter



The arthroscopic probe cutter consists of a re-usable handle and replaceable blades. The tip of the tubular handle incorporates a hook for meniscal probing and a spring loaded cutter is advanced by means of a slider in the main body of the handle. Tubular shaft diameter 4.4mm.

ARTHREX MENISCAL PROBE CUTTER		
VAR-4000	Canine Meniscal Probe Cutter Blades Pack of 5	£250.00
VAR-4001	Canine Meniscal Probe Cutter	£625.00

Arthrex Stifle Distractor



Available in three sizes, the sigmoid shape of these arthroscopic stifle distractors permits both stifle distraction and subluxation for optimal meniscal examination. The shaft fits nicely in the femoral notch and the tip is anatomically contoured to avoid slippage off the caudal edge of the tibial plateau.

Placing the tip between the caudal medial meniscotibial ligament and the caudal cruciate ligament allows assessment of both menisci at the same time without repositioning. Tip diameter on all three sizes is 4mm. Can also be used for open arthrotomy.

ARTHREX STIFLE DISTRACTOR		
VAR-4010-13	Arthrex Canine Stifle Distractor 13mm	£135.00
VAR-4010-20	Arthrex Canine Stifle Distractor 20mm	£135.00
VAR-4010-27	Arthrex Canine Stifle Distractor 27mm	£135.00

Arthrex Suture Tensioner



Tying a loop of FiberWire is straight forward in the lateral suture technique. Where the FiberWire/FiberTape runs through bone tunnels, 'taking up the slack' can be more problematic. This is particularly true in the new TightRope where two separate loops must be adjusted to the same tension before tying. This calibrated tension device deals with this problem.

ARTHREX SUTURE TENSIONER WITH TENSIONOMETER		
VAR-1529	Suture Tensioner with Tensiometer	£495.00

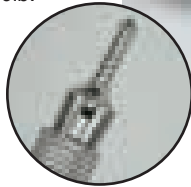
Suture Screws

Suture Screw Set

Suture screws are a versatile, economic suture anchor. Used together with LigaFiba®, suture screws offer a solution to joint stabilisation. Sizes range from 2.0mm up to 4.0mm to cover the full range of patients. Suture screws are now available as a boxed set including 2 of each suture screw (16) together with the new universal introducer which fits all the screws.

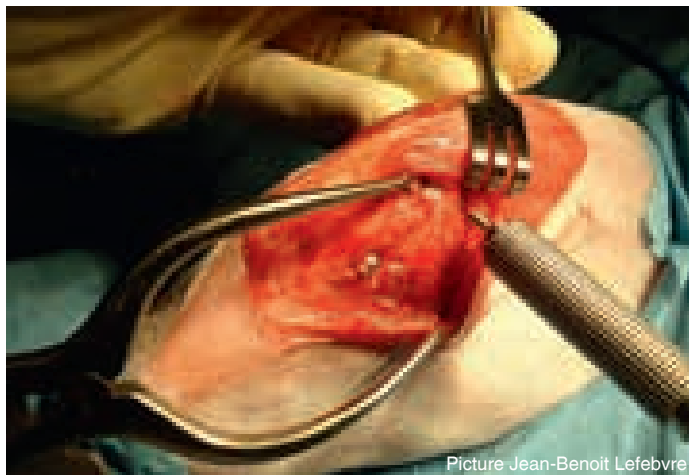
Applications include: shearing injuries, isometric lateral sutures, medial collateral replacement.

Also included in the kit is one of each LigaFiba® sterile suture packs: 150lb, 250lb & 500lb.



SUTURE SCREW SET

SSITKIT	Suture Screw Set (16 Screws + Introducer + 3 Suture Packs)	£485.00
SSITUN	Insertion Tool for all Suture Screws 135mm	£105.00



Picture Jean-Benoit Lefebvre

Suture Screws

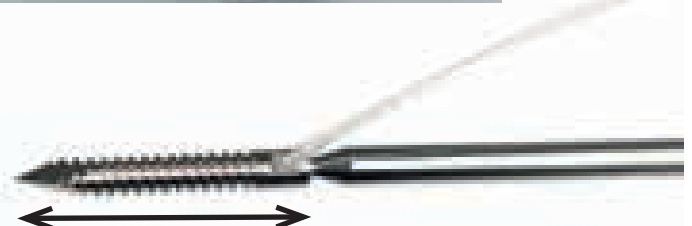
Presentation is a self-tapping screw with an eyed head. Use where a suture anchor would seem appropriate. Thread forms are the same as equivalent AO type. Requires dedicated insertion tool (see price table below). Predrill with standard pilot drill for the screw size and screw in using dedicated insertion tool.



SUTURE SCREWS

SS2006	2.0mm Diameter 6mm Long 1.0mm Hole Cortical	£19.50
SS2010	2.0mm Diameter 10mm Long 1.0mm Hole Cortical	£19.50
SS2708	2.7mm Diameter 8mm Long 1.5mm Hole Cortical	£19.50
SS2714	2.7mm Diameter 14mm Long 1.5mm Hole Cortical	£19.50
SS3512	3.5mm Diameter 12mm Long 2.0mm Hole Cortical	£19.50
SS3520	3.5mm Diameter 20mm Long 2.0mm Hole Cortical	£19.50
SS4016	4.0mm Diameter 16mm Long 2.0mm Hole Cancellous	£19.50
SS4024	4.0mm Diameter 24mm Long 2.0mm Hole Cancellous	£19.50
SSITUN	Universal Insertion Tool for all Suture Screws	£105.00

Suture Anchor Pin



A threaded suture anchor is machined into the tip of a trochar pin. Immediately proximal to the suture anchor is a narrow break off point. The construct is stable during axial drilling of the pin into bone. Once in position with the hole of the anchor just above the surface of the bone the shaft of the pin is rocked to and fro. The stainless steel undergoes work hardening and becomes very brittle, ultimately breaking off leaving the anchor in position ready for placement of sutures. The suture anchor pin is extremely easy to position and place without pre-drilling. Length of pin into the bone is (approx) 2.5mm - 12mm, 3.0mm - 14mm and 4.0mm - 20mm.

SUTURE ANCHOR PIN

SAP2.5	Suture Anchor Pin 2.5mm Diameter 1.0mm Hole 17mm Suture Anchor Length, 125mm Overall Length	£19.95
SAP3	Suture Anchor Pin 3mm Diameter 1.0mm Hole 21mm Suture Anchor Length, 127mm Overall Length	£19.95
SAP4	Suture Anchor Pin 4mm Diameter 2.0mm Hole 26mm Suture Anchor Length, 136mm Overall Length	£19.95

Suture Anchor Materials

Ideally the material selected should be strong with a high resistance to abrasion. FiberWire™ and braided polyethylene have these qualities but are braided and must, therefore, be used with care. Monofilament materials cause less problems in infected areas (e.g. shearing injuries). Make sure that the material selected fits the anchor you have in mind.

SUTURE ANCHOR MATERIALS

091141	500mm x 50lb Nylon (Sterile Pack)	£7.50
091139	800mm x 80lb Nylon (Sterile Pack)	£8.00
LF150500	LigaFiba® 150lb (68kg) 0.6mm x 600mm	£14.00
LF250600	LigaFiba® 250lb (113kg) 1mm x 600mm	£14.50
LF500600	LigaFiba® 500lb (226kg) 1.5mm x 600mm	£15.00
AR-7201	FiberWire™ No 2 (12)	£185.00
AR-7210	FiberWire™ No 5 (12)	£210.00
BRFIBER	FiberWire™ Literature	£FOC

Over The Top (OTT)

Curved Graft Passer



Photography: Hamish Denny

The repair of the cranial cruciate ligament (CCL) by the 'Over the Top' technique requires a curved graft passer to pull the graft through the stifle joint. This design of graft passer has been developed over many years to:

1. minimise damage to intra - articular structures.
2. feel right in use. The handle is comfortable.
3. for graft insertion anterior to posterior or vice versa.

This design is used by most recognised orthopaedic surgeons. Please see our free DVD 'Surgical Management of Canine Cranial Cruciate Disease' (Code: DVDALL) for details and video of the technique.

The small eyed graft passers are appropriate for placement of lateral suture wire or monofilament nylon as described by M. L. Olmstead.

CURVED GRAFT PASSER		
001051	Very Small Curved Graft Passer 2cm 165mm	£59.50
001052	Small Curved Graft Passer 3cm 175mm	£59.50
001053	Large Curved Graft Passer 4.5cm 185mm	£59.50
001054	Very Large Curved Graft Passer 6cm 205mm	£59.50
001055	Extra Large Curved Graft Passer 8cm 220mm	£59.50
001056	2cm Graft Passer with Small Eye 165mm	£59.50
001057	3cm Graft Passer with Small Eye 170mm	£59.50
001058	4.5cm Graft Passer with Small Eye 185mm	£59.50
001057AR	Aneurism Needle 3cm Angled Right Small Eye	£59.50

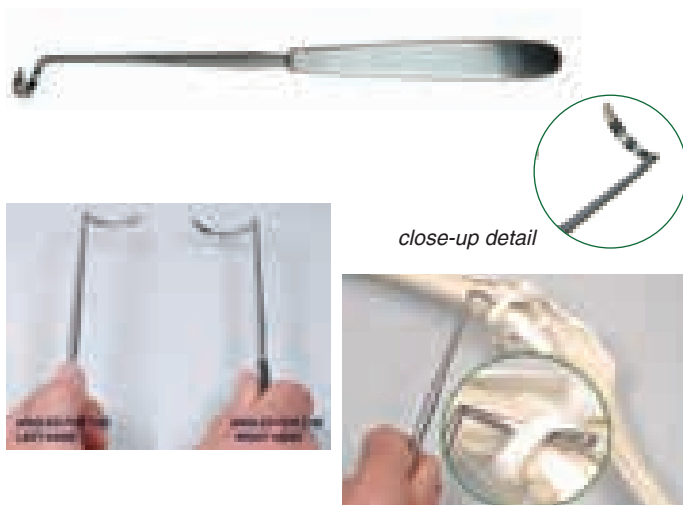
Straight Graft Passer



Designed to pass through a 2.7mm hole, the straight graft passer is useful for pulling graft and nylon through bone tunnels.

STRAIGHT GRAFT PASSER		
001050	Straight Graft Passer	£57.50

Aneurism Needles



The sharp tip of the angled graft passer is passed around the fabella by rotating the wrist. The eye is small and accepts all suture materials. Total length 210mm.

ANEURISM NEEDLES		
001057AL	Aneurism Needle 3cm Angled Left Small Eye	£59.50
001057AR	Aneurism Needle 3cm Angled Right Small Eye	£59.50
001058AL	Aneurism Needle 4.5cm Angled Left Small Eye	£59.50
001058AR	Aneurism Needle 4.5cm Angled Right Small Eye	£59.50

CCL Staples

The attachment of the fascia lata graft to the distal femur is the weakest part of the OTT repair. The small spikes under the head of the staple are designed to engage the graft and firmly fix it to the periosteum. Also useful for re-attaching avulsed ligaments and transfixing the biceps tendon. Made from cobalt chrome.



CCL STAPLES		
090125	6mm Wide CCL Staple	£38.50
090126	8mm Wide CCL Staple	£38.50
090127	11mm Wide CCL Staple	£38.50
090128	16mm Wide CCL Staple	£38.50

CCL Staple Introducer



The Staple Introducer holds the staple to facilitate the initial insertion and alignment whilst being struck by a mallet. In case of difficulty starting the staple, pre-drill with 2.0mm pin or drill bit. Accepts all sizes of CCL Staple.

CCL STAPLE INTRODUCER		
090129	Staple Introducer 130mm	£185.00
091130	CCL Kit in Stainless Box (Introducer with 8 Staples)	£445.00

Tibial Tuberosity Advancement (TTA)



The TTA procedure developed by Tepic and Montavon is designed to bring the tibial plateau to sit at 90° to the straight patella ligament. This effectively neutralises the shear forces within the stifle under loading, making the stifle stable.

This is achieved by advancing the tibial tubercle and stabilising the created defect using a titanium cage and plate. The cage is selected for both thickness and width. The implants are secured using titanium screws.

Titanium is very osteoconductive resulting in rapid healing. The use of stainless steel implants is not recommended.

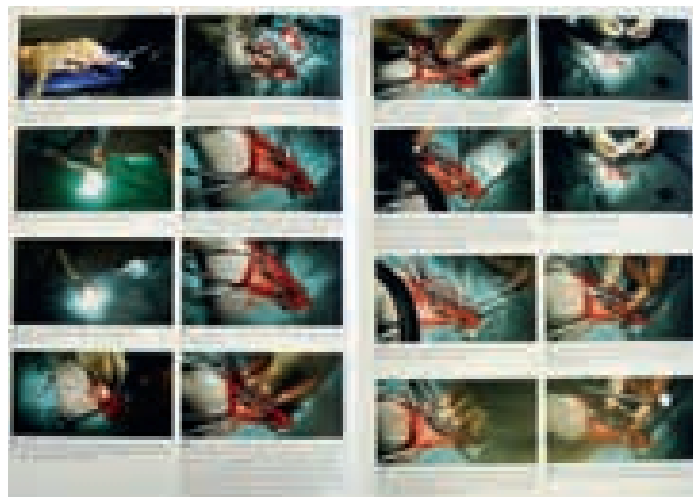
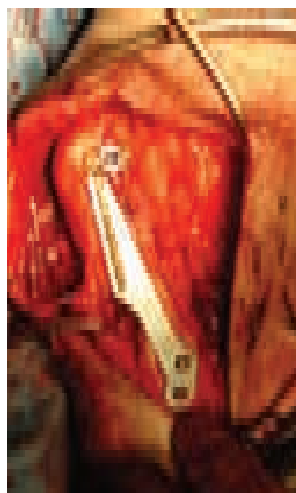
TTA Procedure

The TTA procedure is best learnt by attending a recognised training course and Veterinary Instrumentation supports numerous training providers with equipment and implants.

Before attending a course it is useful to review the Veterinary Instrumentation step by step guide and DVD.

The free DVD includes both video footage, a step by step guide and some frequently asked questions on the TTA procedure.

The free Step by Step guide is a photographic sequence of a TTA case beginning with assessment of the radiographs and following the procedure in 28 steps.



Call or email for a copy to be sent or download at www.vetinst.com

TTA PROCEDURE		
DVDALL	TTA Procedural DVD	£FOC
BRITA	TTA Step by Step Guide	£FOC

TTA Starter Kit



The Starter Kit represents a cost effective solution to setting up for TTA.

The Starter Kit contains the following:

TTA Instrument Set

- TTA Drill Guide (4 Hole)
- TTA Drill Guide (8 Hole)
- TTA Fork Holder
- TTA Spreader + Inserts
- TTA Plate Bender
- TTA 2.4 Cross Head Screwdriver
- TTA Plate and Fork Overlay
- TTA Mallet
- Depth Gauge
- TTA Cage Forceps
- Block End Serrated Dissecting Forceps
- 2.5 Hex Head Screwdriver and Sleeve
- Premium Equipment Box
- 1.8mm, 2.0mm, 2.5mm Drill Bits - Hard



TTA Implant set (Titanium)

- One of each Cage (3, 4.5, 6, 7.5, 9, 10.5 & 12),
- One of each Fork
- One of each Plate

TTA Titanium Screw Set in a Screw Box

2.4mm Self Tapping Screws

- 12mm – 38mm 4 of each

2.7mm Self Tapping Screws

- 12mm – 28mm 3 of each

3.5mm Self Tapping Screws

- 16mm – 36mm 3 of each

The TTA Starter Kit saves over 10% compared to the component price.

TTA SETS		
TTAPREM	TTA Starter Set in a Premium Aluminium Box	£3,500.00
TTAINST	TTA Instrument Set in a Stainless Box	£995.00
TTASCR	TTA Screw Set in a Stainless Box	£995.00

TTA Instrumentation



The TTA procedure does require some essential instruments. Positioning of the fork and cage is impossible without the following instruments. The set is less expensive than buying the instruments individually.

TTA INSTRUMENTATION		
TTA554	TTA Drill Guide (4 Hole)	£145.00
TTA555	TTA Drill Guide (8 Hole)	£155.00
TTA666	TTA Fork Holder	£110.00
TTA444	TTA Spreader and 3, 6, 9, 12 & 15mm Inserts	£175.00
TTA445	4.5, 7.5 & 10.5mm Insert Set	£70.00
TTA333	TTA Plate Bender	£110.00
TTA777	1.9mm Pins (Set of two)	£20.00
TTA24	TTA 2.4 Cross Head Screwdriver	£115.00
TTAPFO	TTA Plate and Fork Overlay	£FOC
TTATAN	Common Tangent TTA/ MMT Advancement Overlay	£FOC
001323	TTA Mallet (140g)	£54.50
TTAFCP	TTA Cage Forceps	£74.50
SDHS35F	2.5mm Hex Screwdriver and Sleeve	£87.50
H090208	1.8mm Drill Bit Hard	£20.50
H090102	2.0mm Drill Bit Hard	£21.00
H090112	2.5mm Drill Bit Hard	£21.50
TTAINST	TTA Set (Includes all of the above in a box)	£995.00
DG242735	Depth Gauge for 2.4, 2.7 & 3.5 Ti Screws	£115.00

TTA Saw Guide



Creating the TTA osteotomy freehand is something of a challenge. The position and plane of the saw cut are critical to the rest of the procedure. The TTA Saw Guide is a useful assistant to the surgeon in that the guide may be positioned securely in the correct place so that the surgeon can concentrate on the saw without having to constantly worry about the cut.

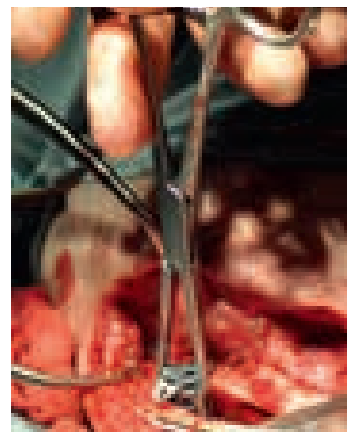
The instrument serves both left and right sides and is secured using standard pointed reduction forceps. The TTA cut is not straight along its length but curves proximally at the distal end. The straight section is cut using the guide. The guide is then removed and the less critical distal curve is cut freehand.

TTA SAW GUIDE		
TTA999	TTA Saw Guide	£145.00

TTA Cage Forceps

Manipulating the TTA cage into the correct position can be an awkward part of the procedure, particularly the smaller sizes.

The TTA Cage Forceps grasp the cage firmly along the spine allowing it to be extracted from the case and placed into the tibial crest osteotomy.

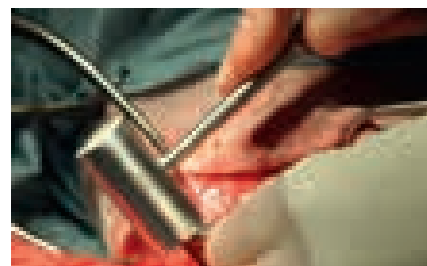


TTA CAGE FORCEPS		
TTAFCP	TTA Cage Forceps	£74.50

TTA Mallet

The TTA Fork needs to be gently tapped home for maximum stability.

The 140 gram Mallet is the ideal weight.



TTA MALLET		
001323	TTA Mallet 140g 155mm	£54.50

Premium TTA Case



The TTA procedure involves a large number of instruments and implants. Organising the kit so that the appropriate instrument or implant is readily accessible can be a challenge. Veterinary Instrumentation's Premium TTA Case has a designated space for each instrument and implant. In addition to providing space for standard TTA instruments, positions for useful additional items such as the mallet, cage forceps and depth gauge are also included. Setting up for a procedure is therefore a simple process.

The screw rack has space for 3.5, 2.7 and 2.4 screws of appropriate lengths. The plates and cages are to be found on the free standing lower trays while the basic instrumentation is located on the top tray.

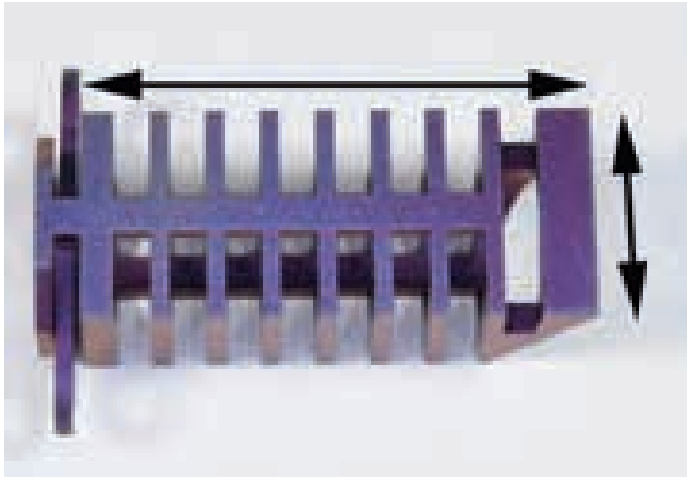
Like all our premium boxes the TTA case is constructed from anodised aluminium and includes integral reusable filters. If sterilised on an open tray the case may be placed directly from the autoclave onto the operating table. Alternatively the bagged case may be sterilised and stored. When required the outer bag is removed and the case tipped fully sterile onto the table. NB No TTA implants, instruments or screws are included.

PREMIUM TTA CASE		
TTABOX	Premium TTA Case (Box and Insert only)	£395.00

TTA Implants

TTA Cages

See page 483 for TTA implant profiles



TTA CAGES TITANIUM

TTAC310	Cage 3 x 10mm Titanium Screw 2.4mm	£50.00
TTAC313	Cage 3 x 13mm Titanium Screw 2.4mm	£50.00
TTAC316	Cage 3 x 16mm Titanium Screw 2.4mm	£50.00
TTAC4512	Cage 4.5 x 12mm Titanium Screw 2.4mm	£51.50
TTAC4515	Cage 4.5 x 15mm Titanium Screw 2.4mm	£51.50
TTAC4518	Cage 4.5 x 18mm Titanium Screw 2.4mm	£51.50
TTAC616	Cage 6 x 16mm Titanium Screw 2.4mm	£52.00
TTAC619	Cage 6 x 19mm Titanium Screw 2.4mm	£52.00
TTAC622	Cage 6 x 22mm Titanium Screw 2.4mm	£52.00
TTAC7513	Cage 7.5 x 13mm Titanium Screw 2.4mm	£55.00
TTAC7516	Cage 7.5 x 16mm Titanium Screw 2.4mm	£55.00
TTAC7519	Cage 7.5 x 19mm Titanium Screw 2.4mm	£55.00
TTAC919	Cage 9 x 19mm Titanium Screw 2.4mm	£57.50
TTAC922	Cage 9 x 22mm Titanium Screw 2.4mm	£57.50
TTAC925	Cage 9 x 25mm Titanium Screw 2.4mm	£57.50
TTAC10519	Cage 10.5 x 19mm Titanium Screw 2.4mm	£60.00
TTAC10522	Cage 10.5 x 22mm Titanium Screw 2.4mm	£60.00
TTAC10525	Cage 10.5 x 25mm Titanium Screw 2.4mm	£60.00
TTAC1222	Cage 12 x 22mm Titanium Screw 2.4mm	£62.50
TTAC1225	Cage 12 x 25mm Titanium Screw 2.4mm	£62.50
TTAC1228	Cage 12 x 28mm Titanium Screw 2.4mm	£62.50
TTAC13522	Cage 13.5 x 22mm Titanium Screw 2.4mm	NEW £65.00
TTAC13525	Cage 13.5 x 25mm Titanium Screw 2.4mm	NEW £65.00
TTAC13528	Cage 13.5 x 28mm Titanium Screw 2.4mm	NEW £65.00
TTAC1522	Cage 15 x 22mm Titanium Screw 2.4mm	£67.50
TTAC1525	Cage 15 x 25mm Titanium Screw 2.4mm	£67.50
TTAC1528	Cage 15 x 28mm Titanium Screw 2.4mm	£67.50
TTAC1531	Cage 15 x 31mm Titanium Screw 2.4mm	£67.50

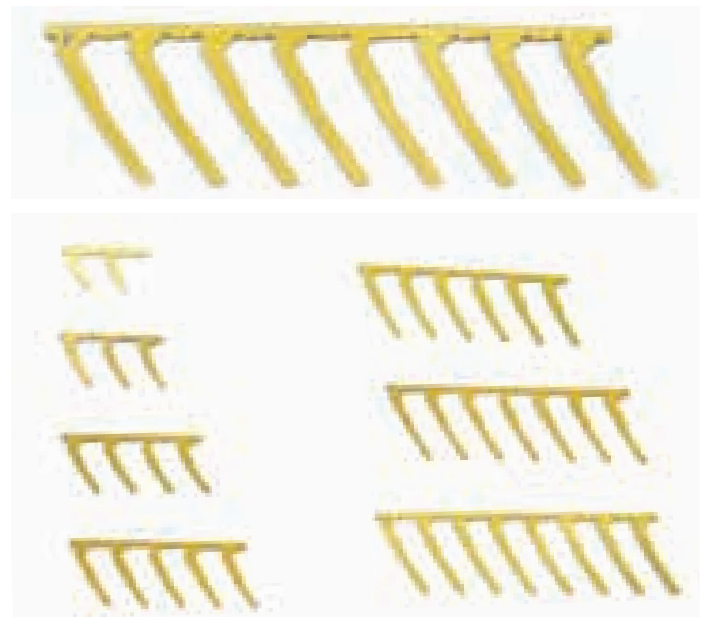
TTA Plates



TTA PLATES TITANIUM

TTAP2	Plate 2 Hole Titanium Screw 2.4mm	£22.50
TTAP3	Plate 3 Hole Titanium Screw 2.4 + 2.7mm	£22.50
TTAP4	Plate 4 Hole Titanium Screw 2.4 + 2.7mm	£22.50
TTAP5	Plate 5 Hole Titanium Screw 2.7mm	£22.50
TTAP6	Plate 6 Hole Titanium Screw 2.7 + 3.5mm	£29.50
TTAP7	Plate 7 Hole Titanium Screw 3.5mm	£29.50
TTAP8	Plate 8 Hole Titanium Screw 3.5mm	£29.50

TTA Forks



TTA FORK TITANIUM

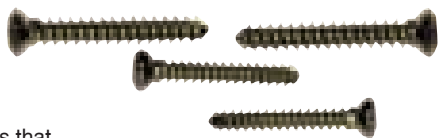
TTAF2	Fork 2 Prong Titanium	£29.50
TTAF3	Fork 3 Prong Titanium	£29.50
TTAF4	Fork 4 Prong Titanium	£29.50
TTAF5	Fork 5 Prong Titanium	£29.50
TTAF6	Fork 6 Prong Titanium	£34.00
TTAF7	Fork 7 Prong Titanium	£34.00
TTAF8	Fork 8 Prong Titanium	£34.00

Titanium Screws

Titanium screws and plates are very commonly used in man particularly for facio maxillary repairs.

The most important benefit in this application is that Titanium does not interfere with MRI

scans. Compared to stainless steel, Titanium is lighter and much more osteo compatible. The major application in veterinary orthopaedics is in conjunction with the TTA cruciate procedure.



TITANIUM SCREWS 2.4MM CRUCIATE HEAD 1.8MM PILOT

TICS2410	Titanium 2.4mm Self Tapping Cortical Screw 10mm	£7.00
TICS2412	Titanium 2.4mm Self Tapping Cortical Screw 12mm	£7.00
TICS2414	Titanium 2.4mm Self Tapping Cortical Screw 14mm	£7.00
TICS2416	Titanium 2.4mm Self Tapping Cortical Screw 16mm	£7.00
TICS2418	Titanium 2.4mm Self Tapping Cortical Screw 18mm	£7.00
TICS2420	Titanium 2.4mm Self Tapping Cortical Screw 20mm	£7.00
TICS2422	Titanium 2.4mm Self Tapping Cortical Screw 22mm	£7.00
TICS2424	Titanium 2.4mm Self Tapping Cortical Screw 24mm	£7.00
TICS2426	Titanium 2.4mm Self Tapping Cortical Screw 26mm	£7.00
TICS2428	Titanium 2.4mm Self Tapping Cortical Screw 28mm	£7.00
TICS2430	Titanium 2.4mm Self Tapping Cortical Screw 30mm	£7.00
TICS2432	Titanium 2.4mm Self Tapping Cortical Screw 32mm	£7.00
TICS2434	Titanium 2.4mm Self Tapping Cortical Screw 34mm	£7.00
TICS2436	Titanium 2.4mm Self Tapping Cortical Screw 36mm	£7.00
TICS2438	Titanium 2.4mm Self Tapping Cortical Screw 38mm	£7.00
TICS2440	Titanium 2.4mm Self Tapping Cortical Screw 40mm	£7.00

TITANIUM SCREWS 2.7MM HEX HEAD 2.0MM PILOT

TICS2706	Titanium 2.7mm Self Tapping Cortical Screw 6mm	£7.00
TICS2708	Titanium 2.7mm Self Tapping Cortical Screw 8mm	£7.00
TICS2710	Titanium 2.7mm Self Tapping Cortical Screw 10mm	£7.00
TICS2712	Titanium 2.7mm Self Tapping Cortical Screw 12mm	£7.00
TICS2714	Titanium 2.7mm Self Tapping Cortical Screw 14mm	£7.00
TICS2716	Titanium 2.7mm Self Tapping Cortical Screw 16mm	£7.00
TICS2718	Titanium 2.7mm Self Tapping Cortical Screw 18mm	£7.00
TICS2720	Titanium 2.7mm Self Tapping Cortical Screw 20mm	£7.00
TICS2722	Titanium 2.7mm Self Tapping Cortical Screw 22mm	£7.00
TICS2724	Titanium 2.7mm Self Tapping Cortical Screw 24mm	£7.00
TICS2726	Titanium 2.7mm Self Tapping Cortical Screw 26mm	£7.00
TICS2728	Titanium 2.7mm Self Tapping Cortical Screw 28mm	£7.00
TICS2730	Titanium 2.7mm Self Tapping Cortical Screw 30mm	£7.00
TICS2732	Titanium 2.7mm Self Tapping Cortical Screw 32mm	£7.00

TITANIUM SCREWS 3.5MM HEX HEAD 2.5MM PILOT

TICS3516	Titanium 3.5mm Self Tapping Cortical Screw 16mm	£7.00
TICS3518	Titanium 3.5mm Self Tapping Cortical Screw 18mm	£7.00
TICS3520	Titanium 3.5mm Self Tapping Cortical Screw 20mm	£7.00
TICS3522	Titanium 3.5mm Self Tapping Cortical Screw 22mm	£7.00
TICS3524	Titanium 3.5mm Self Tapping Cortical Screw 24mm	£7.00
TICS3526	Titanium 3.5mm Self Tapping Cortical Screw 26mm	£7.00
TICS3528	Titanium 3.5mm Self Tapping Cortical Screw 28mm	£7.00
TICS3530	Titanium 3.5mm Self Tapping Cortical Screw 30mm	£7.00
TICS3532	Titanium 3.5mm Self Tapping Cortical Screw 32mm	£7.00
TICS3534	Titanium 3.5mm Self Tapping Cortical Screw 34mm	£7.00
TICS3536	Titanium 3.5mm Self Tapping Cortical Screw 36mm	£7.00

DRILL BITS - STAINLESS STEEL 420 HARD

H090208	1.8 (dia mm)	80 (length mm)	£20.50
H090102	2.0	100	£21.00
H090112	2.5	115	£21.50

TTA SCREW SET

TTASCR	TTA Screw Set in a Stainless Box	£995.00
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Forkless TTA Plates

The original TTA technique used a plate through which forks were implanted into the tibial tuberosity by pre-drilling the holes and then securing by gentle use of a mallet. This meant that the final plate position had to be pre-planned prior to completion of the tibial tuberosity osteotomy and advancement. The procedure has evolved to use a forkless plate that uses screws in the tibial tuberosity instead of forks.

This has a number of advantages:

- The position of the plate on the tibial tuberosity does not have to be decided until after the tibial tuberosity osteotomy and advancement parts of the procedure.
- Screws can be angled in different directions at the surgeon's preference depending on position and bone stock. This compares to the forked plate where there is no choice; fork position and direction is pre-determined by the fork drill guide.
- Because each screw is individually selected and placed, screw length can be measured using a depth gauge and an appropriate length chosen that matches the thickness of the tibia tuberosity at that location. This compares favourably to the forks whereby the length of the forks cannot be adjusted with the risk that the forks could be short and not fully engaged engaging the tibial tuberosity, which risks fork pull-out or tibia tuberosity fracture.
- For most sizes of plate, there are less screws placed in the tibial tuberosity than forks. This means less holes in the tibial tuberosity, that should mean a lower risk of fracture to the tibial tuberosity.
- The distal two screw holes in the plate are the same as on the forked plate, and placement is identical. However, the forked plate is attached to the tibial tuberosity pre-advancement therefore as the tibial tuberosity is advanced, the distal screw holes move caudally relative to the tibial diaphysis. Therefore there is a risk that the screw holes can move more caudal than the bone of the tibia; this particularly happens in small breed dogs, and/or if this translation is not appreciated prior to advancement. In other words, the screw holes are too caudal relative to the tibia; the plate then has to be contoured further to wrap it and the distal screw holes around the distal tibia, which is awkward and suboptimal. This potential problem does not happen with the forkless plate because it is attached to the tibial tuberosity after the advancement is achieved therefore plate position and orientation with respect to both the tibial tuberosity and the diaphysis can be balanced until correct.

In summary, the forkless plate offers a number of key advantages in comparison with the original forked plate, and no obvious disadvantages.

Forkless TTA Plates are screwed onto the tibial crest using 2.4mm screws. The distal part of the Forkless Plate is secured using 2.7 or 3.5mm screws as appropriate. The rest of the procedure is as per the standard technique.

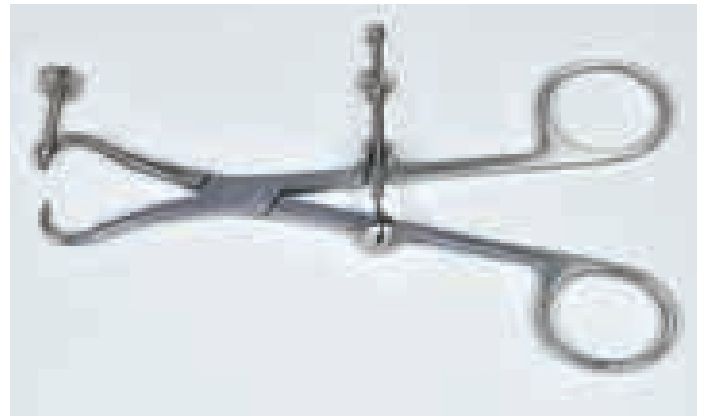
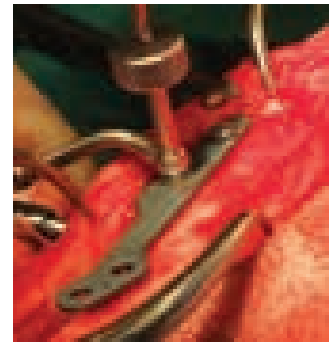
Starter Set (one of each size) is discounted by over 15%.

See page 483 for plate profiles.

FORKLESS TTA PLATES

TTAX42	Forkless TTA Plate (same length as TTAP3) 2.4+2.7 screw	£26.00
TTAX52	Forkless TTA Plate (same length as TTAP4) 2.4+2.7 screw	£26.00
TTAX65	Forkless TTA Plate (same length as TTAP5) 2.7 screw	£26.00
TTAX78	Forkless TTA Plate (same length as TTAP6) 2.7+3.5 screw	£33.00
TTAX91	Forkless TTA Plate (same length as TTAP7) 3.5 screw	£33.00
TTAX104	Forkless TTA Plate (same length as TTAP8) 3.5 screw	£33.00
TTAXSET	Forkless TTA Plate Set - one of each size	£155.00

Forkless Plate Forceps



Holding the Forkless TTA Plate in position presents some challenges particularly once the osteotomy has been made. Some surgeons prefer to place the proximal screw first and swing the plate cranial before making the osteotomy. A variant on the plate holding drill guide forceps has been developed specifically for the thin TTA Plates. The Forceps hold the plate in position and allow the surgeon to drill the pilot hole through the guide in exactly the right position.

FORKLESS TTA PLATE FORCEPS

TTAXFCP	Forkless TTA Plate Forceps (145mm)	£125.00
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TTA Spinlock Reduction Forceps



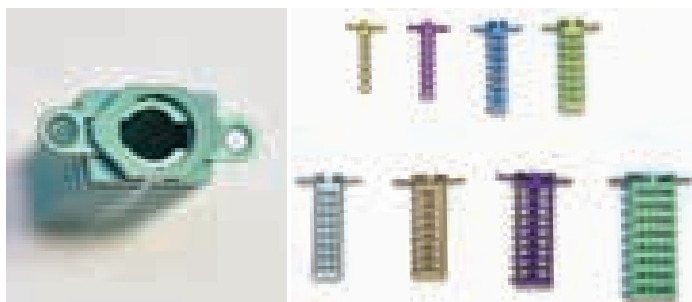
Photo Alex Li

Regardless of style of plate used it is desirable to compress the distal part of the osteotomised tibial shaft against the tibial tubercle while applying the plate. This will increase stability of the repair and reduce healing times. 'Soft ratchet' type forceps are very nice but very expensive and prone to wear. The Spinlock Reduction Forceps are the right size and have the correct degree of spread for most TTA procedures.

TTA SPINLOCK REDUCTION FORCEPS

001245SL	TTA Spinlock Reduction Forceps 180mm	£115.00
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TTA Cuttable Cages



Unlike conventional TTA cages, cuttable TTA cages can be trimmed to length intra-operatively. This permits a smaller cage inventory to cover a larger range of patient sizes. The cages may be trimmed by 3mm increments.

Our cages should be cut using the special TTA cage cutters shown, which are designed with narrow jaws to reach in between the fins of the cage. These cutters should only be used for cuttable TTA cages.

If you purchase one of each cuttable cage (9 cages) we can offer the cutters free of charge; value £175.00

TTA CUTTABLE CAGES		
TTACUT316	Cuttable Cage 3 x 16mm	£50.00
TTACUT4518	Cuttable Cage 4.5 x 18mm	£51.50
TTACUT622	Cuttable Cage 6 x 22mm	£52.50
TTACUT7522	Cuttable Cage 7.5 x 22mm	£55.00
TTACUT926	Cuttable Cage 9 x 26mm	£57.50
TTACUT10526	Cuttable Cage 10.5 x 26mm	£60.00
TTACUT1228	Cuttable Cage 12 x 28mm	£62.50
TTACUT13528	Cuttable Cage 13.5 x 28mm	NEW £65.00
TTACUT1532	Cuttable Cage 15 x 32mm	£67.50
TTACUT1	Cuttable Cage Set (9) with FREE Cage Cutters	£495.00

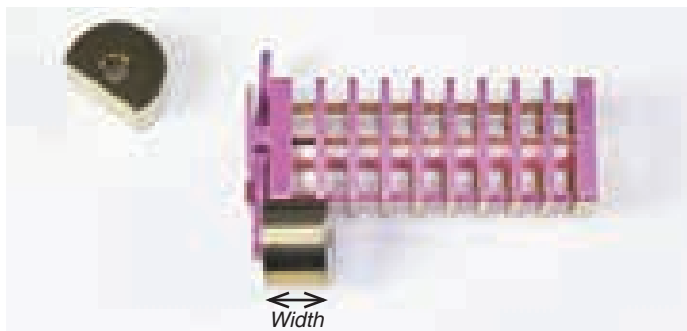
TTA Cuttable Cage Cutters



Our TTA cage cutters are designed with special slim jaws to enable them to reach into the structure of our cuttable cages and cut them to length. The slim jaws makes them unsuitable for making heavy cuts and they should only be used for cutting cuttable TTA cages.

TTA CUTTABLE CAGE CUTTERS		
TTACACUT	TTA Cuttable Cage Cutter	£175.00

TTA Spacers



The standard TTA procedure assumes no co-existing issues with patellar luxation and creates a cranial advancement only.

In cases of concurrent patellar luxation, placement of TTA spacers under the cranial or caudal cage lugs permits either a medial or lateral tibial tuberosity transposition to be performed alongside this advancement, helping to re-align the quadriceps mechanism (see below). It is suggested that the tibial tuberosity is moved a maximum of 50% of its width.

Individually, spacers are individually more expensive than washers, but are less expensive for creating a displacement of 2mm or more since fewer are required. With fewer components, spacers may result in a more stable construct than washers. Spacers are available in 2, 4, 6 and 8mm widths. Available in titanium only.

TTA SPACERS TITANIUM		
TTASP2	TTA Spacer Titanium 2mm	£11.95
TTASP4	TTA Spacer Titanium 4mm	£11.95
TTASP6	TTA Spacer Titanium 6mm	£11.95
TTASP8	TTA Spacer Titanium 8mm	£11.95

TTA Washers



An alternative to TTA spacers is the use of stackable titanium TTA washers. Their use permits adjustments in 1mm increments with simplified inventory management over holding several sizes of TTA spacer.

TTA WASHERS - TITANIUM		
PW24TI	2.4mm TTA Washer - Titanium	£10.50

TTA RAPID (patent pending)

Tibial Tuberosity Advancement (TTA) as a technique for the surgical management of cranial cruciate ligament insufficiency has gained increasing acceptance and popularity in recent years. As we learn more, efforts are being made to simplify the technique, to make it more user friendly and overcome some of the pitfalls of the original technique.

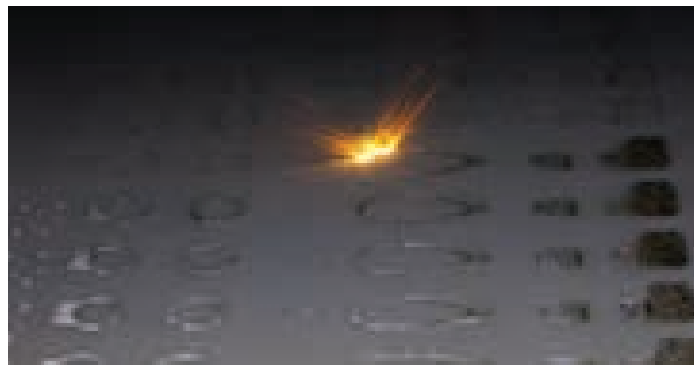
Developed in collaboration with Rita Leibinger Medical and Dr Yves Samoy, University of Ghent, TTA Rapid is one of the newer developments in both implant technology and technique.

The Implants



The manufacture of TTA Rapid cages has only been made possible with advances in materials and manufacturing technology. The cages are made by an additive manufacturing (AM) 3D printing process known as selective laser sintering (SLS). The process is interesting to watch. Although other materials can be used in the process, TTA Rapid cages start life as a very fine, commercially pure titanium powder. A very thin layer of titanium powder is deposited on

the working bed of the SLS machine and a modified print head carrying a high intensity laser is used to selectively melt the powder to bond (sinter) regions together. As further layers of powder are applied and the laser sintering process repeated, a solid three dimensional structure begins to form within the 'sand-pit' of metal powder. Electron beam melting (EBM) is a similar procedure that uses an electron beam instead of a laser.



Once the full structure has been created, the cages are separated from the powder and various chemical and other finishing processes are performed to leave the cages in their final, implantable state.

Through this process, shapes can be created that would either be impossible to produce using more conventional technologies or cost prohibitive. In the case of TTA Rapid, a very porous honeycomb titanium lattice with a modulus similar to that of cancellous bone is generated



permitting very rapid bony ingrowth to occur. Titanium is also very biocompatible, MRI compatible and typically needs to be inoculated with requires 10 times as many infectious units for an implant associated infection to develop when compared to stainless steel.

The lattice found in the TTA Rapid cages is bound on 4 sides by an anatomically shaped, rigid shell of the same material with one side carrying lugs with screw holes in them. With the lattice, cage and screw lugs being one piece, the cages are very stable in situ.

The constructs are so stable that auxiliary implants such as plates, wires, forks and staples are rarely indicated. This has a number of benefits:

- Reduced morbidity and biological cost that may be associated with the dissection and placement of additional implants.
- Reduced potential for cold conduction with superficially sited metallic implants.
- Fewer additional holes created in the tibial diaphysis which may contribute to crack propagation and failure of the tibial shaft.
- Metals of different electro-potentials are avoided in the same construct. Theoretically this reduces the potential for galvanic corrosion to occur (all components are titanium).
- Simplified inventory management.
- Potential time savings in the placement of implants.

The TTA Rapid Techniques

Meniscal injuries are identified in about one third of cruciate disease patients undergoing surgery. Current wisdom is that appropriate management of meniscal pathology is important, if not vital to success.

It must also be noted that there are several commonly used techniques used for calculating an advancement and not one of them has yet been shown to be 100% reliable. It is useful to know several of the techniques and to be familiar with the limitations of each of them.

Advancement calculations and good meniscal examination are the two most challenging aspects of performing TTA Rapid for many surgeons.



The TTA Rapid techniques create an incomplete osteotomy, freeing up the tibial tuberosity, but leaving sufficient cranial cortex and tibial shaft to be structurally sound. Levering the tibial tuberosity cranially and then inserting and securing a cage into the osteotomy gap to maintain the advancement. An incomplete osteotomy reduces stability less than the complete osteotomy seen in the original TTA technique and is subjectively more comfortable for patients.

There are now two recognised TTA Rapid techniques. The original involves drilling of a

'Maquet' hole at the distal extent of the osteotomy. This provides a fixed location point for the guides used when making the osteotomy and in theory helps force distribution around the circumference of the hole making cracking around this point less likely. The technique of drilling a hole at the end of a 'crack' has been common and accepted practice in various engineering applications for decades.

Tibial tuberosity fractures as a complication are seen sporadically with most other of the advancement techniques. This challenging complication has been overcome with TTA Rapid and is virtually unheard of due to the excellent support offered to the tibial tuberosity by these advanced implants.

The next potentially weak area is at the distal terminus of the osteotomy. The lever arm of the limb in use is greatest here and the tibial diameter approaching its narrowest. This is the same point at which the Maquet hole has been created. A body of surgeons believes the Maquet hole is directly responsible for tibial shaft fractures, especially where it is over-sized in proportion to the tibial shaft diameter, so a second technique has evolved that doesn't use a Maquet hole at all.



Avoiding the use of a Maquet hole leaves more bone stock behind, which may leave it stronger. There are still questions remaining over force distribution in this region and it is still unproven whether one technique is genuinely better than the other.

With patients often very comfortable just days following TTA Rapid, it is easy to forget that this is still a major osteotomy technique and suitable case selection and client education to ensure sufficient post-op rest is achieved is perhaps more important in most cases than the TTA Rapid technique used.

Both TTA Rapid techniques are described in the following pages. More comprehensive information is covered in our Step-by-Step guides and other training materials. Experienced surgeons may find adopting TTA Rapid very intuitive, but attending one of the many TTA Rapid courses held throughout the year and gaining cadaver experience before performing TTA Rapid on a patient is strongly advised. We will be demonstrating the technique on saw-bones at a number of conferences during 2015. This provides additional introduction to the technique but is still no substitute for a more comprehensive training in a wet-lab environment.

TTAR Original Technique (using Maquet hole) Advancement Calculations



Calculation of the advancement is performed using the surgeon's technique of choice – classic TTA, common tangent, etc. Using the TTA Rapid template provided, a visual check is performed to confirm cage selection. The template is adjusted so that one of the lines extending proximally from the cage represents the chosen line of the osteotomy. The template is positioned so that the top of the cage sits approximately 3mm below the proximal extent of the tibia along this line and that the Maquet hole mark on the template just touches the cranial cortex. The calculated advancement

and the thickness of the cranial cortex in the region of the Maquet hole are recorded for later use. Note that each cage width requires a unique osteotomy length. The final length of implant is determined intra-operatively. The approach is through a medial skin incision.

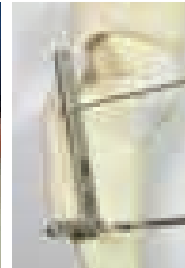
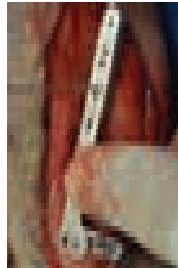
Using the Drill Guide



Insert a 1.25mm 'K' Wire behind the patellar ligament in the region of the distal infra-patellar bursa. This pin indicates the position of the proximal extent of the cage relative to the bone.



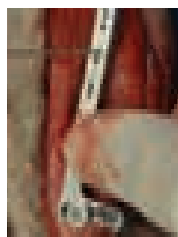
Use of pegs in the two arms of the guide allows the surgeon to precisely place the Maquet hole which ultimately dictates the length and position of the osteotomy.



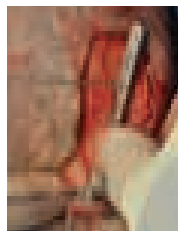
The Drill Guide is dropped over the guide pin using the numbered hole in the vertical arm, corresponding with the size of the cage measured during pre-operative planning.



A peg is placed into the holes in the horizontal arm of the Drill Guide, corresponding to the thickness of cranial cortex at Maquet hole level measured pre-operatively. Use of the Drill Guide ensures correct positioning of the Maquet hole.



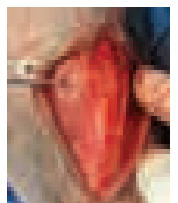
The Drill Guide is pressed against the medial aspect of the tibia with protruding peg forced up against the cranial aspect of the tibia. Correct use of the Drill Guide will place the Maquet hole just caudal to the cranial cortex of the tibia. The plane of drill should be approximately parallel to the axis of stifle rotation to avoid medial or lateral displacement of the tibial tuberosity during advancement. The correct plane approximates to being at right angles to the sagittal plane of the tibia.



The Drill Guide is now in the optimal position and a 2 or 3 mm hole, depending on the size of the dog, can be drilled. NOTE: the Maquet hole in the TTA Rapid Drill Guide is designed for a 3mm Drill Bit. If using a 2mm Drill Bit, 1.8/2.0 Sleeve/Guide (TTAR164007024) should be inserted in the hole of the TTA Rapid Drill Guide, to maintain optimal positioning. The Drill Guide and the positioning wire can now be removed.

Using the Saw Guide

Sawing the crista tibiae



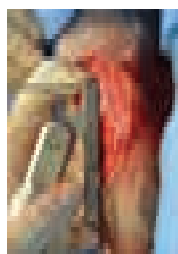
A 2.5mm Pin is placed through the joint capsule at the intersection of the femoral condyle and the tibial plateau. On the lateral side, the pin should emerge just cranial to "Gerdy's Tubercle" which landmarks the cranial border of the Long Digital Extensor (LDE). This Pin is used as the proximal fixation of the Saw Guide.



The appropriate size Anchoring Device (3 or 2mm depending on the Maquet hole drilled) for the saw guide is placed into the Maquet hole. Make sure the slot in the device is facing proximally .

The hole of the Saw Guide is slid over the 2.5mm Pin and the body is placed on top of the Anchoring Device and can be clamped in place if desired.

Use the Saw Guide to create the osteotomy. Optionally, a scalpel blade may be used to open the fascia/ periosteum prior to the osteotomy. If necessary the osteotomy may be completed with a hand saw with the Saw Guide removed.



The osteotomy is created in the same plane as the guide pin i.e. at 90 degrees to the sagittal plane. NOT at 90 degrees to the bone surface. Ensure that the osteotomy is complete proximally and distally.

Opening the Osteotomy

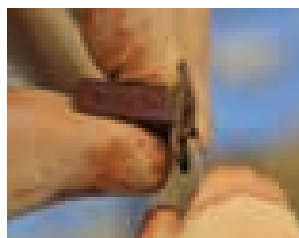


This is a critical part of the procedure, and should be performed slowly and carefully allowing the bone time to adjust. This will make hinge failure unlikely.

Start with the smallest Spreader inserted as shown in the most proximal section of the osteotomy. The handle is rotated downwards to minimise forces on the fragment, gently. A second Spreader can be used to maintain displacement but should NEVER be used to advance displacement as a hinge fracture will result. Work up through the Spacers until the correct advancement is achieved. Details of this part of the procedure should be viewed on the video either online or from the free DVD.



The depth of the osteotomy is measured with a Drill Depth Gauge at the proximal extent of the osteotomy. This measurement is rounded up to select the correct cage length.

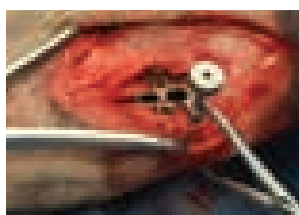


The cage ears should be contoured slightly up on the tibia side, slightly down on the cranial (crista tibiae) side.

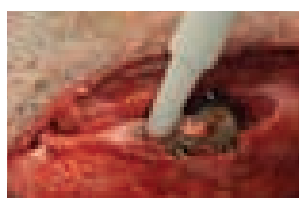
Elevate the periosteum in the cage area, and insert the cage into the osteotomy.



Fitting the Cage



2.4mm Screws are used in the cage. The screws are directed to avoid the articular surfaces and the osteotomy. Start with the most cranial proximal screw, then the most distal caudal. Screw orientation is medio-proximal to latero-distal in the tibial crest mimicking the angle of the forks in the original TTA. The tibial screws are placed cranio-medio-proximal to caudo-latero-distal. Remove all forceps and re-tighten all screws.



TTA RAPID STEP BY STEP GUIDE

BRTTARAP Step by Step Guide to TTA Rapid

£FOC

Caution: TTA Rapid patients are often subjectively more comfortable in their early post-operative recovery than many patients undergoing other osteotomy surgeries. TTA Rapid still involves a major osteotomy and both appropriate patient selection and appropriate client education for post-operative management are indicated.

New TTA Rapid Technique (No Maquet hole)

With the exception of the distal end, this technique uses a very similar osteotomy to the original technique.



Advancement Calculations

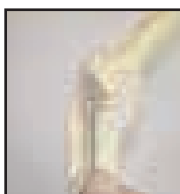
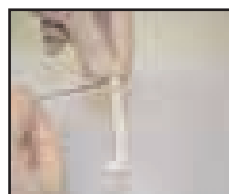
Calculation of the advancement is performed using the surgeon's technique of choice – classic TTA, common tangent, etc. Using the TTA Rapid template provided, a visual check is performed to confirm cage selection. The template is adjusted so that one of the lines extending proximally from the cage represents the chosen line of the osteotomy. The template is positioned so that the top of the cage sits approximately 3mm below the proximal extent of the tibia along this line and

that the Maquet hole marker on the template just touches the cranial cortex in the region of the simulated Maquet hole are recorded for later use. Note that each cage width requires a unique osteotomy length. The final length of implant is determined intra-operatively. The approach is through a medial skin incision.

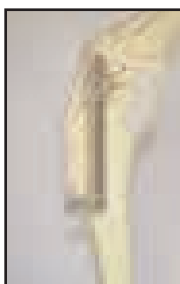
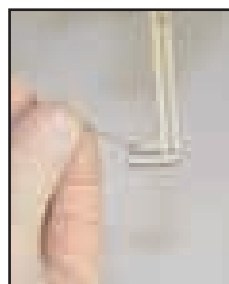
Using the new, L-Shaped Saw guide



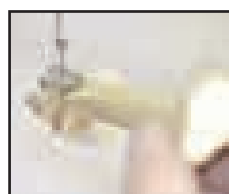
With the limb placed lateral side down, a 2.5mm pin is placed vertically through the joint capsule at, or just cranial to the Tubercle of Gerdy so as to be just touching the proximal tibia.



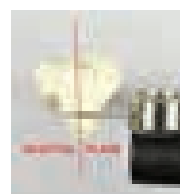
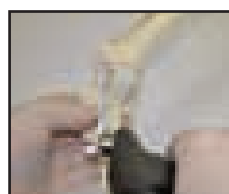
The L-shaped saw guide is dropped over the 'Gerdy pin' using the hole in the vertical arm of the saw guide that corresponds to the advancement.



The thumb-pin is placed through the hole in the horizontal arm of the saw guide corresponding to the thickness of the cranial cortex (as measured from the pre-operative radiographs). Typically this is around 3mm for a smaller dog and around 5mm for a large dog.



The guide is pushed caudally at its distal extent so that the thumb pin sits firmly against the cranial cortex.



The guide should be positioned so that the slot is vertical to the operating table. Positioning flat against the medial cortex results in an oblique osteotomy.

A saw is driven along the saw-guide creating the osteotomy. Cut the cranio-proximal trans-cortex last to hold the osteotomy open until the cut is almost completed. The osteotomy terminates in the distal hole of the saw-guide slot. Opening the osteotomy and fitting the cage are undertaken as per original technique (see previous column).

TTA Rapid Implants

TTA Rapid Cages - Standard

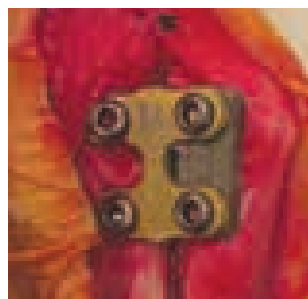


See plate profile on page 484.

For use with 2.4mm TTA Rapid Screws.

TTA RAPID CAGES TITANIUM		
TTAR310	TTA Rapid Cage 3/10 Titanium	£155.00
TTAR313	TTA Rapid Cage 3/13 Titanium	£155.00
TTAR316	TTA Rapid Cage 3/16 Titanium	£155.00
TTAR4512	TTA Rapid Cage 4.5/12 Titanium	£155.00
TTAR4515	TTA Rapid Cage 4.5/15 Titanium	£155.00
TTAR4518	TTA Rapid Cage 4.5/18 Titanium	£155.00
TTAR616	TTA Rapid Cage 6/16 Titanium	£155.00
TTAR619	TTA Rapid Cage 6/19 Titanium	£155.00
TTAR622	TTA Rapid Cage 6/22 Titanium	£155.00
TTAR7516	TTA Rapid Cage 7.5/16 Titanium	£155.00
TTAR7519	TTA Rapid Cage 7.5/19 Titanium	£155.00
TTAR7522	TTA Rapid Cage 7.5/22 Titanium	£155.00
TTAR919	TTA Rapid Cage 9/19 Titanium	£155.00
TTAR922	TTA Rapid Cage 9/22 Titanium	£155.00
TTAR925	TTA Rapid Cage 9/25 Titanium	£155.00
TTAR10519	TTA Rapid Cage 10.5/19 Titanium	£155.00
TTAR10522	TTA Rapid Cage 10.5/22 Titanium	£155.00
TTAR10525	TTA Rapid Cage 10.5/25 Titanium	£155.00
TTAR1222	TTA Rapid Cage 12/22 Titanium	£155.00
TTAR1225	TTA Rapid Cage 12/25 Titanium	£155.00
TTAR1228	TTA Rapid Cage 12/28 Titanium	£155.00
TTAR13522	TTA Rapid Cage 13.5/22 Titanium	£155.00
TTAR13525	TTA Rapid Cage 13.5/25 Titanium	£155.00
TTAR13528	TTA Rapid Cage 13.5/28 Titanium	£155.00
TTAR1522	TTA Rapid Cage 15/22 Titanium	£155.00
TTAR1525	TTA Rapid Cage 15/25 Titanium	£155.00
TTAR1528	TTA Rapid Cage 15/28 Titanium	£155.00

TTA Rapid Patellar Luxation Spacers



NEW

Especially designed to work with TTA Rapid cages, these can be fitted beneath the cranial or caudal screw holes of a TTA Rapid cage to create either a lateral displacement

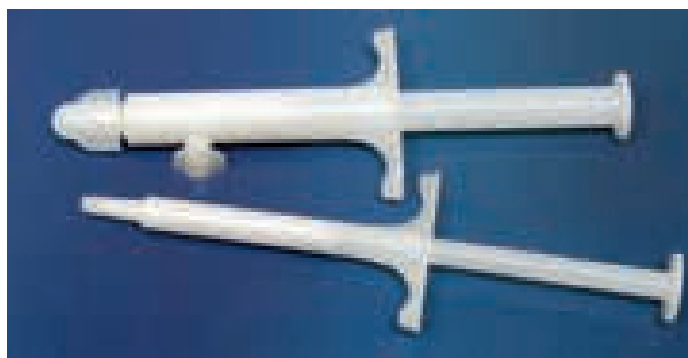
or a medial displacement of the tibial tuberosity in the correction of concurrent patellar luxation.

TTA RAPID PATELLAR LUXATION SPACERS		
TTAR13280202	TTA Rapid Patellar Luxation Spacer 2 Holes 2mm Height	£25.00
TTAR13280203	TTA Rapid Patellar Luxation Spacer 2 Holes 3mm Height	£25.00
TTAR13280204	TTA Rapid Patellar Luxation Spacer 2 Holes 4mm Height	£25.00
TTAR132801002	TTA Rapid Patellar Luxation Spacer 3 Holes 2mm Height	£30.00
TTAR132801004	TTA Rapid Patellar Luxation Spacer 3 Holes 4mm Height	£30.00
TTARSPACERSET	TTA Rapid Patellar Luxation Spacer Set (One of each of the above sizes - 5 Spacers in total)	£125.00

TTA Rapid 2.4mm Titanium Screws - 2.0mm Hex Head

TTA RAPID SCREWS 2.4MM TITANIUM WITH 2.0MM HEX HEAD		
TTARSC2406	TTA Rapid 2.4mm Screw Titanium 6mm	£7.00
TTARSC2408	TTA Rapid 2.4mm Screw Titanium 8mm	£7.00
TTARSC2410	TTA Rapid 2.4mm Screw Titanium 10mm	£7.00
TTARSC2412	TTA Rapid 2.4mm Screw Titanium 12mm	£7.00
TTARSC2414	TTA Rapid 2.4mm Screw Titanium 14mm	£7.00
TTARSC2416	TTA Rapid 2.4mm Screw Titanium 16mm	£7.00
TTARSC2418	TTA Rapid 2.4mm Screw Titanium 18mm	£7.00
TTARSC2420	TTA Rapid 2.4mm Screw Titanium 20mm	£7.00
TTARSC2422	TTA Rapid 2.4mm Screw Titanium 22mm	£7.00
TTARSC2424	TTA Rapid 2.4mm Screw Titanium 24mm	£7.00
TTARSC2426	TTA Rapid 2.4mm Screw Titanium 26mm	£7.00
TTARSC2428	TTA Rapid 2.4mm Screw Titanium 28mm	£7.00
TTARSC2430	TTA Rapid 2.4mm Screw Titanium 30mm	£7.00
TTARSC2432	TTA Rapid 2.4mm Screw Titanium 32mm	£7.00
TTARSC2434	TTA Rapid 2.4mm Screw Titanium 34mm	£7.00
TTARSC2436	TTA Rapid 2.4mm Screw Titanium 36mm	£7.00
TTARSC2438	TTA Rapid 2.4mm Screw Titanium 38mm	£7.00
TTARSC2440	TTA Rapid 2.4mm Screw Titanium 40mm	£7.00

NanoPaste Bone Substitutes



Hydroxyapatite paste. 2.5ml is adequate for cages up to 10.5mm. To completely fill the osteotomy and lattice of larger cages, a 5ml size is also available.

NANOPASTE		
PAS2.5	NanoPaste Syringe 2.5ml	£74.50
PAS5	NanoPaste Syringe 5ml	£115.00

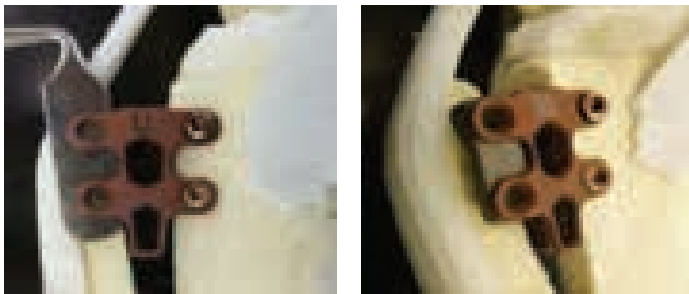
Using TTA Rapid Patellar Luxation Spacers

Medial or lateral displacement of the tibial tuberosity can be created at the same time as performing a TTA Rapid permitting quadriceps re-alignment.



The displacement is maintained using dedicated spacers.

Spacers may be inserted before the ears of the cage are snugged down against the medial cortex (the snugging process creating the displacement) or by fixing the cage on one side of the osteotomy and then using a spreader beneath the ears of the cage that are not attached to move the tuberosity as necessary.

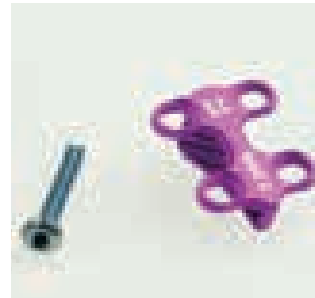


In the same way that any advancement should be created slowly, medial or lateral displacement should also be created slowly to avoid snapping the cranial cortex at the distal extent of the osteotomy.

Greater cage lengths are typically required to ensure full support the lateral cortices on both sides of the osteotomy. It is unknown how far the tibial tuberosity can be safely displaced, but it is thought no more than about half the width of the tibial tuberosity and preferably less.

New TTA Rapid Petite

Advancements of just 3mm are required for most cats and many smaller dogs. For these smaller patients, it is desirable to downsize the screws from 2.4mm to 2.0mm diameter.



The TTA Rapid 'Petite' system accommodates this change and features dedicated instrumentation and a dedicated selection of both cages and screws which the surgeon will find are better tailored to these smaller patients. The slot width is smaller on the 'Petite' saw guide as only thin blades are ever used. The procedure is essentially the same as the newer TTA Rapid technique that does not feature the Maquet hole.

TTA Rapid Cages - 'Petite'

For use with 2.0mm TTA Rapid Screws.

TTA RAPID CAGES 'PETITE' TITANIUM		
TTAR132002308	TTA Rapid Cage Titanium 3/08	£175.00
TTAR132002310	TTA Rapid Cage Titanium 3/10	£175.00
TTAR132002313	TTA Rapid Cage Titanium 3/13	£175.00

TTA Rapid 2.0mm Titanium Screws - 1.5 mm Hex Head

TTA RAPID SCREWS 2.0MM TITANIUM WITH 1.5MM HEX HEAD		
TTARSC2006	TTA Rapid 2.0mm Screw Titanium 6mm	£7.00
TTARSC2008	TTA Rapid 2.0mm Screw Titanium 8mm	£7.00
TTARSC2010	TTA Rapid 2.0mm Screw Titanium 10mm	£7.00
TTARSC2012	TTA Rapid 2.0mm Screw Titanium 12mm	£7.00
TTARSC2014	TTA Rapid 2.0mm Screw Titanium 14mm	£7.00
TTARSC2016	TTA Rapid 2.0mm Screw Titanium 16mm	£7.00
TTARSC2018	TTA Rapid 2.0mm Screw Titanium 18mm	£7.00
TTARSC2020	TTA Rapid 2.0mm Screw Titanium 20mm	£7.00

TTA Rapid 'Petite' Drill Sleeve Guide

Used to position pilot holes for 2.0mm screws.

TTA RAPID 'PETITE' DRILL SLEEVE GUIDE		
TTAR128312181	TTA Rapid 'Petite' Drill Sleeve Guide	£75.00
TTAR20DRIVER	TTA Rapid 2.0mm Screwdriver, Insert and Sleeve	£165.00

TTA Rapid L-Shaped 'Petite' Saw Guide



Using the modified technique without a Maquet hole, this guide is used for the TTA Rapid 'Petite' system for advancements of 3mm.

TTA RAPID L-SHAPED 'PETITE' SAW GUIDE		
TTAR132404100	TTA Rapid Saw Guide	£275.00

TTA Rapid Starter Kit - Original Technique

This kit was developed during 2013 based on the most frequently requested cage and screw sizes. The kit is supplied in 2 aluminium autoclaveable trays and was the most popular initial TTA Rapid purchase in both 2013 and 2014.



The Kit contains:

Instrument Tray - Complete with old style saw and drill guide.

Implant Tray containing

6mm x 16mm Cage	x 1
7.5mm x 16mm Cage	x 1
7.5mm x 19mm Cage	x 1
9mm x 19mm Cage	x 1
9mm x 22mm Cage	x 1
10.5mm x 22mm Cage	x 1
10.5mm x 25mm Cage	x 1
12mm x 22mm Cage	x 1 (8 cages in total)

Screws

1 x 8mm	4 x 26mm	
2 x 10mm	4 x 28mm	
4 x 12mm	4 x 30mm	
4 x 14mm	4 x 32mm	
4 x 16mm	2 x 34mm	
4 x 20mm	2 x 36mm	
4 x 22mm	2 x 38mm	
4 x 24mm	1 x 40mm	(54 Screws in total)

2 x 2.5ml Nanopaste

Starter Kit price is discounted by over 10% compared to component price.

TTA RAPID STARTER KIT - ORIGINAL

TTARCOURSEKIT TTA Rapid Starter Kit - Original	£3,200.00
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TTA Rapid Complete Kit - Original

TTA RAPID PREMIUM INSTRUMENT AND IMPLANT KIT

TTARPREMALL TTA Rapid Premium Instrument and Implant Kit	£7,500.00
TTARPREMIMP TTA Rapid Premium Implant Kit	£6,450.00
TTARPREMINST TTA Rapid Premium Instrument Kit	£1,550.00

TTA RAPID INSTRUMENT AND IMPLANT TRAYS - ORIGINAL

TTAR132500000 TTA Rapid Implant Tray - Supplied Empty	£345.00
TTAR132500010 TTA Rapid Instrument Tray - Supplied Empty.	£345.00

TTA Rapid Starter Kit – New Technique

This kit contains the same implants as the Original kit but the instruments have been changed to include the New L Shaped Saw guide required for the new technique. The kit is presented in two newly designed metal trays – one for the implants and one for the instruments.



The Kit contains:

Instrument Tray - Complete with new L-Shaped Saw guide.

Implant Tray containing

6mm x 16mm Cage	x 1	9mm x 22mm Cage	x 1
7.5mm x 16mm Cage	x 1	10.5mm x 22mm Cage	x 1
7.5mm x 19mm Cage	x 1	10.5mm x 25mm Cage	x 1
9mm x 19mm Cage	x 1	12mm x 22mm Cage	x 1
(8 cages in total)			

Screws

1 x 8mm	4 x 22mm	2 x 34mm
2 x 10mm	4 x 24mm	2 x 36mm
4 x 12mm	4 x 26mm	2 x 38mm
4 x 14mm	4 x 28mm	1 x 40mm
4 x 16mm	4 x 30mm	(54 Screws in total)
4 x 20mm	4 x 32mm	

2 x 2.5ml Nanopaste

Starter Kit price is discounted by over 10% compared to component price.

TTA RAPID STARTER KIT - NEW TECHNIQUE

TTARNEWSTARTKIT TTA Rapid Starter Kit - New Technique	£3,350.00
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TTA Rapid Complete Kit - New Technique

TTA RAPID PREMIUM INSTRUMENT AND IMPLANT KIT

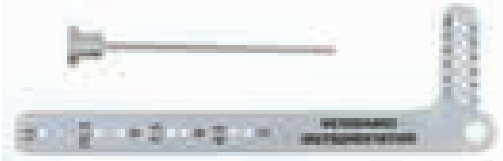
TTARNEWPREMALL TTA Rapid Premium Instrument and Implant Kit - New Technique	£7,500.00
TTARNEWPREMIMP TTA Rapid Premium Implant Kit - New Technique	£6,550.00
TTARNEWPREMINST TTA Rapid Premium Instrument Kit - New Technique	£1,700.00

TTA RAPID INSTRUMENT AND IMPLANT TRAYS - NEW TECHNIQUE

TTAR132500000/A TTA Rapid Implant Tray - New Technique Supplied Empty	£445.00
TTAR132500010/A TTA Rapid Instrument Tray - New Technique Supplied Empty.	£445.00

TTA Rapid Instrumentation

TTA Rapid Maquet Hole Drill Guide - Original



The Drill Guide is an L shaped device developed to facilitate the correct positioning of the Maquet hole during the TTA Rapid procedure. The vertical arm of the guide carries numbers which correspond to the size of the cage, while the horizontal arm carries a scale in mm.

This is supplied with a Guide Pin, and is used in conjunction with a 1.2mm 'K' or 'A' Wire.

TTA RAPID MAQUET HOLEDRILL GUIDE - STANDARD

TTAR132403000	TTA Rapid Maquet Hole Drill Guide - Standard	£65.00
TTAR132403010	TTA Rapid Drill Guide Pin (replacement only)	£8.75
TTAR144101010	TTA Rapid K Wire Single Trochar Tip 1.2mm x 100mm	£3.75

TTA Rapid Drill Guide - Long Version



The Drill Guide Long Version is an L shaped device developed to facilitate the correct positioning of the Maquet hole during the TTA Rapid procedure. The vertical arm of the guide carries numbers which correspond to the size of the cage, while the horizontal arm carries a scale in mm. For use with 13.5mm and 15mm TTA Rapid cages.

This is supplied with a Guide Pin, and is used in conjunction with a 1.2mm 'K' or 'A' Wire.

TTA RAPID DRILL GUIDE - LONG VERSION

TTAR132403115	TTA Rapid Drill Guide - Long Version	£65.00
TTAR132403010	TTA Rapid Drill Guide Pin (replacement only)	£8.75
TTAR144101010	TTA Rapid K Wire Single Trochar Tip 1.2mm x 100mm	£3.75

TTA Rapid Saw Guide - Original Technique



The Saw Guide has been developed to ensure a sufficiently large cranial fragment is created for screw placement. The Saw Guide consists of 2 pieces. The Saw Guide itself has a 2mm hole at the top and is slotted, while the second part is an anchoring device which is placed in the Maquet hole. This peg is slotted to allow the cut to reach the Maquet hole, and is supplied with a 2mm and 3mm anchor.

TTA RAPID SAW GUIDE

TTAR132405000	TTA Rapid Saw Guide & 'U' Shaped Pins	£295.00
TTAR132405020	TTA Rapid 'U' Shaped Pins 2mm (replacement)	£105.00
TTAR132405030	TTA Rapid 'U' Shaped Pins 3mm (replacement)	£105.00
TTAR144101510	TTA Rapid K Wire Single Trochar Tip 1.5mm x 100mm	£4.00
TTAR144102510	TTA Rapid K Wire Single Trochar Tip 2.5mm x 100mm	£4.00

TTA Rapid Bending Iron

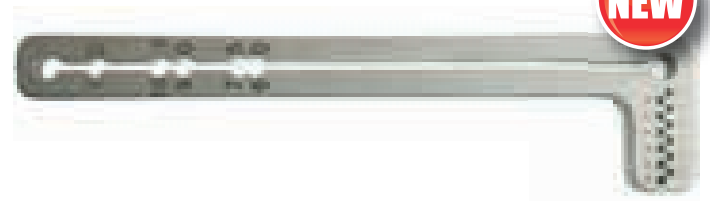


This is used for contouring the cage ears for accurate placement and is common to the original and modified techniques. The use of other devices to create this contour is likely to result in damage to the cage ears.

TTA RAPID BENDING IRON

TTAR132402000	TTA Rapid Bending Iron	£40.00
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TTA Rapid L-Shaped Saw Guide - New Technique



The new saw guide is used in the modified TTA Rapid technique without a Maquet hole. A separate drill guide for creating a Maquet hole is therefore not required.

TTA RAPID L-SHAPED SAW GUIDE- NEW TECHNIQUE

TTAR132404000	TTA Rapid Saw Guide	£295.00
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TTA Rapid Lever Spreader



These are used to open the osteotomy incrementally to the required width. Available in two double-ended sizes. The spreaders measure 1mm wider than their stated size to permit insertion of a cage beneath them.

TTA RAPID LEVER SPREADER

TTAR132400013	TTA Rapid Lever Spreader Double-ended 3mm & 9mm Broad	£40.00
TTAR132401013	TTA Rapid Lever Spreader Double-ended 6mm & 12mm Broad	£40.00
TTAR132401513	TTA Rapid Lever Spreader Double-ended 13.5mm & 15mm Broad	£40.00

TTA Rapid Universal Spreader



Permits incremental opening of the osteotomy in a very controlled manner. 160mm length.

TTA RAPID UNIVERSAL SPREADER

TTAR132408016	TTA Rapid Universal Spreader	£245.00
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TTA Rapid Screwdriver Handle – AO Coupling



A high quality modular screw-driver with a familiar coupling and rotating base-cap.

TTA RAPID SCREWDRIVER HANDLE - AO COUPLING		
TTAR10386300	TTA Rapid Screwdriver Handle - AO Coupling	£125.00

TTA Rapid Screwdriver Inserts



TTA RAPID SCREWDRIVER INSERTS		
TTAR20342420	TTA Rapid Screwdriver Insert for 2.4mm Hex Screws AO Fitting 100mm Long	£70.00
TTAR20346242	TTA Rapid Screw Holding Sleeve for 2.4mm Hex Screws	£40.00

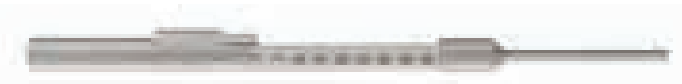
TTA Rapid Cage Holding Forceps - Angled



Used to remove cages from implant trays.

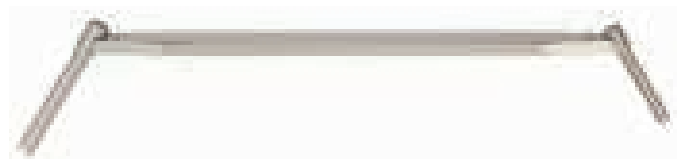
TTA RAPID CAGE HOLDING FORCEPS - ANGLED		
TTAR164005016	TTA Rapid Cage Holding Forceps - Angled - 160mm Long	£40.00

TTA Rapid Depth Gauges



TTA RAPID DEPTH GAUGES		
TTAR164242735	TTA Rapid Depth Gauge for 2.4mm Screws 150mm Long - reads to 40mm	£110.00
TTAR164152020	TTA Rapid 'Petite' Depth Gauge for 2.0mm Screws	NEW £110.00

TTA Rapid Drill Sleeve Guide for 2.4mm Screws & 2.0mm Maquet Hole (1.8/ 2.0mm)



Used in conjunction with the L-shaped drill guide in the standard technique for drilling a 2.0mm Maquet hole and for accurate positioning of pilot holes for 2.4mm screws.

TTA RAPID DRILL SLEEVE GUIDE FOR 2.4MM SCREWS & 2.0MM MAQUET HOLE		
TTAR164007024	TTA Rapid Drill Sleeve Guide for 2.4mm Screws & 2.0mm Maquet Hole (1.8/ 2.0mm)	£75.00

TTA Rapid Conversion Kit – Original



This Kit will appeal to the surgeon who is experienced with TTA or similar techniques, and would like to add the basics for TTA Rapid to an existing setup. It does not include a storage case.

Kit contains:

- TTA Rapid Saw Guide Complete
- TTA Rapid Drill Guide Complete
- TTA Rapid Lever-Spreader Double-ended 3mm and 9mm
- TTA Rapid Lever-Spreader Double-ended 6mm and 12mm

The Kit price is discounted by over 10% compared to the component price.

TTA RAPID CONVERSION KIT		
TTARMIN	TTA Rapid Conversion Kit - Instruments Only - Original	£395.00

TTA Rapid Conversion Kit – New Technique

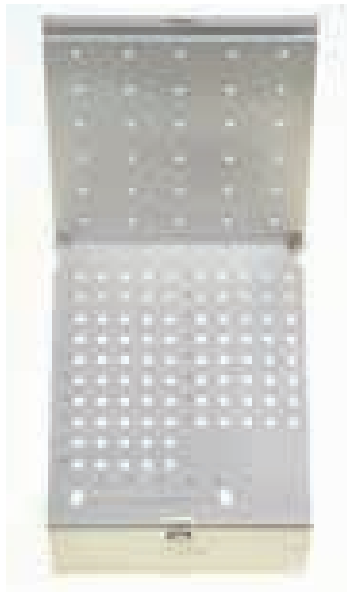


Kit contains:

- New L Shaped Saw Guide
- Drill Guide Pin
- TTA Rapid Lever-Spreader Double-ended 3mm and 9mm
- TTA Rapid Lever-Spreader Double-ended 6mm and 12mm

TTA RAPID CONVERSION KIT		
TTARNEWMIN	TTA Rapid Conversion Kit - New Technique	£345.00

TTA Rapid Screw Rack



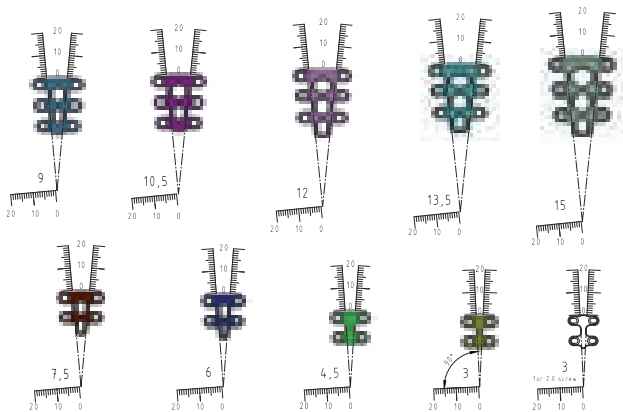
TTA Rapid Screw Rack designed for holding TTA Rapid Standard 2.4mm Titanium Screws from 6mm to 40mm in length or TTA Rapid 'Petite' 2.0mm Titanium Screws from 6mm in length. Please note supplied empty.

TTA RAPID SCREW RACK		
TTAR2103624	TTA Rapid Screw Rack - Standard for 2.4mm Screws for 6 - 40mm in length	£85.00
TTAR1500520	TTA Rapid Screw Rack - 'Petite' for 2.0mm Screws for 6mm to 20mm in length	£85.00

TTA RAPID ACCESSORIES		
TTAR144101010	TTA Rapid K Wire Single Trochar Tip 1.2mm x 100mm	£3.75
TTAR144101510	TTA Rapid K Wire Single Trochar Tip 1.5mm x 100mm NEW	£4.00
TTAR144102510	TTA Rapid K Wire Single Trochar Tip 2.5mm x 100mm	£4.00
TTAR148008018	TTA Rapid 1.8mm Drill Bit Round Shaft	£20.50
TTAR148008020	TTA Rapid 2.0mm Drill Bit Round Shaft	£21.00
TTAR148008030	TTA Rapid 3.0mm Drill Bit Round Shaft	£21.50
TTAR148008118	Twist Drill 1.8mm AO 140/ 30mm AO Shaft	£26.50
TTAR148008120	Twist Drill 2.0mm AO AO Shaft	£26.50
TTAR148012030	Twist Drill 3.0mm AO 110/ 85mm AO Shaft	£26.50

TTA Rapid Acetate

Template - TTA Rapid



TTA RAPID ACETATE		
TTARACE	TTA Rapid Acetate	£FOC

Additional useful instruments for TTA Rapid

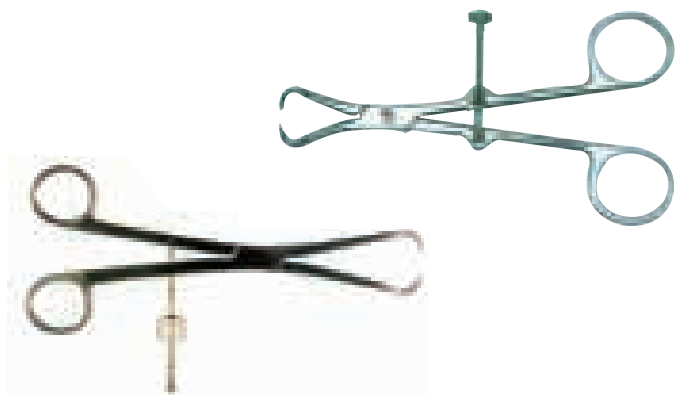
Adjustable Bone Saw



Useful for completing/ squaring off the osteotomy, this saw comes complete with five, fine chrome plated blades. Blade length is adjustable from 40mm to 100mm. Handle length 130mm. Blade length 155mm.

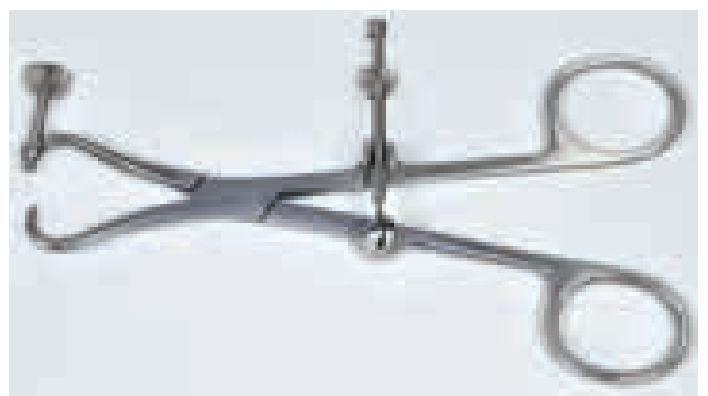
ADJUSTABLE BONE SAW		
001000	Adjustable Bone Saw c/w 5 Fine Blades	£59.50

Reduction Forceps with Spinlock



REDUCTION FORCEPS WITH SPINLOCK		
001203	Very Large Fragment Forceps with Spinlock 215mm Long	£135.00
001245SL	Large Fragment Forceps with Spinlock 180mm Long	£112.50

Plate Holding/ Drill Guide Forceps



Used to snug the TTA Rapid cage ears against the medial cortex prior to drilling pilot holes.

PLATE HOLDING/ DRILL GUIDE FORCEPS		
001225	1.5/2.0 Plate Holding/ Drill Guide Forceps 140mm Long 'Petite' TTA Rapid	£120.00
001226	2.4/2.7 Plate Holding/ Drill Guide Forceps 145mm Long Standard TTA Rapid	£120.00

VI Black Series Battery Powered Surgical Saws and Drills

The VI Black Series range of power tools have robust steel construction, with German motors and adjustable speed triggers making them much smoother, quieter and more reliable than many other models.

Based on hand surgery power tools, these are smaller than the standard human surgery power tools used for more general orthopaedics and are well suited to our patients. Their size also makes them ideal for travelling surgeons and for other situations where space is at a premium.

VI Black Series Battery Powered Drill



Supplied complete Battery, Battery Charger, Battery Transfer Sleeve and Aluminium Storage Case.

The VI Black Series Range is fully autoclavable at 134°C (not batteries) and is small enough to fit inside larger autoclave bags.

The Drill has a reverse and is fitted with a standard 3 jaw 'Jacobs' Style Chuck with through cannulation.

- Drill max speed: 0-1100RPM
- Drill max noise: <40dB
- Drill weight: 990g

VI Black Series Battery Powered Saw

We currently stock a range of 9 Blades for the Saw which have been specifically selected for our patients. Ideal for TTA cruciate surgery and excisional arthroplasty Supplied in an Aluminium Storage Case.



- Saw speed: 0-15000 osc/min
- Saw max noise: <50dB
- Saw weight: 782g

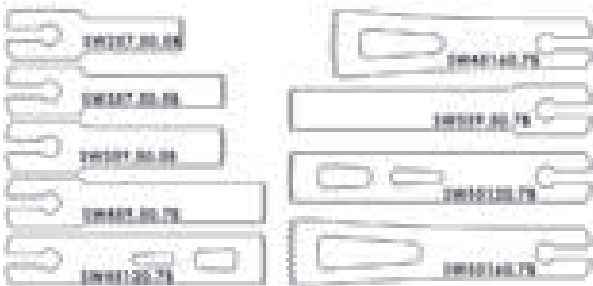
VI Black Series Battery Powered Drill/ Saw Set



Drill/ Saw Set

- Black Series Drill
- Black Series Sagittal Saw
- 2 x Battery Chargers
- 2 x Batteries
- 2 x Battery Transfer Sleeves
- Supplied in Aluminium Storage Cases.

VI Black Series Saw Blades



BLADES NOT SHOWN TO SCALE

VI has designed the range of Black Series Blades for commonly encountered small animal orthopaedic procedures. They fit the Black Series Handpiece and are well suited to the tibial osteotomy procedures that use linear cuts in the treatment of canine cruciate disease.

VI BLACK SERIES BATTERY POWERED SURGICAL DRILL AND SAW		
BLACKDRILL	VI Black Series Drill Set	£2,250.00
BLACKSAW	VI Black Series Saw Set	£2,250.00
BLACKKIT	VI Black Series Drill/ Saw Set	£3,950.00
BLACKBAT	VI Black Series Spare Battery	£175.00
BLACKDRILL-SC	VI Sterilisation Case for Drill	NEW £175.00
BLACKSAW-SC	VI Sterilisation Case for Saw	NEW £175.00

See page 175 for Saw Blades.

VETERINARY INSTRUMENTATION

A HENRY SCHEIN COMPANY

LATERAL ARTHROSCOPY

LIGAMENT REPAIR ISO-TORQUE

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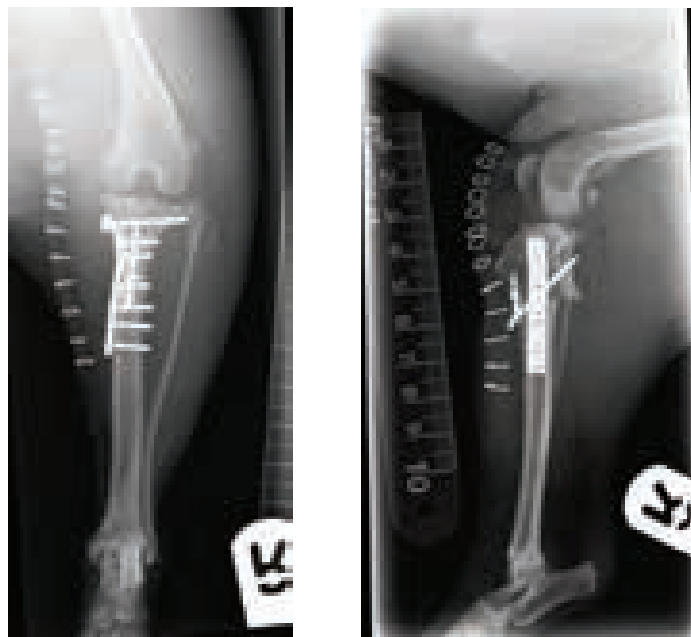
info@vetinst.com T: 0845 130 9596

Tibial Plateau Levelling Operation by Wedge Osteotomy

TPLO closing wedge or Closing Wedge Osteotomy Tibial Plateau Levelling Osteotomy (CWO-TPLO) was the original version of TPLO surgery that preceded the curved osteotomy Slocum TPLO procedure; the latter has since gained widespread use worldwide. CWO-TPLO was originally popular in some territories when availability of the Slocum TPLO procedure training courses, equipment and implants was limited and difficult to access. CWO-TPLO surgery offers advantages and disadvantages compared to TPLO surgery.

Advantages of CWO-TPLO surgery compared to TPLO surgery:

- CWO-TPLO is simpler to perform, there is more room for error in terms of osteotomy positioning, it requires less specialised equipment and there is arguably less risk of damage to the popliteal artery.
- CWO-TPLO can be performed in any dog, regardless of Tibial Plateau Angle (TPA). Conversely, for TPLO surgery the higher the TPA, the higher the required rotation of the tibial plateau segment for TPLO surgery therefore the less contact at the osteotomy site post rotation and reduction, and the larger the amount of tibial tuberosity that is left exposed that could potentially fracture. CWO-TPLO is arguably simpler, safer and more appropriate in dogs with high TPAs.



However, disadvantages of CWO-TPLO surgery include:

- Post-reduction, the transverse CWO-TPLO osteotomy appears to be inherently less stable than the curved CWO-TPLO osteotomy.
- CWO-TPLO moves the distal tibia relative to the entire proximal tibia i.e. the plateau is not disassociated from the tibial tuberosity. Therefore with the greater stifle flexion that is assumed following CWO-TPLO, the tibial tuberosity assumes a more distal / flexed position relative to the femoral trochlear sulcus. In turn, the patella seems to have a more distal position in the trochlear sulcus that could approach patella baja, although this does not seem to be a clinically significant problem. Arguably this could be a positive feature as the patella may engage the femoral trochlear sulcus more reliably, making patellar luxation less likely, although this is unproven.
- It is not possible to correct concurrent cruciate ligament disease and patellar luxation with CWO-TPLO surgery as the relationship between the tibial tuberosity and the tibial plateau is not changed. In contrast, TPLO surgery separates the plateau from the tuberosity therefore it is possible to treat concurrent patellar luxation and cranial cruciate disease; the plateau is rotated to reduce the TPA and concurrently the tibial tuberosity is rotated medially, or rarely laterally.

Tips and tricks for CWO-TPLO surgery.

There are many different ways to perform this operation with subtle differences in technique. Here are some tips to make it as straightforward as possible:

- When planning the wedge, the angle of the wedge is calculated from the TPA but the size of the wedge should be smaller than a full cranio-caudal wedge of bone from the proximal tibia. This is to preserve as much bone stock as possible, and to minimise size discrepancies of the osteotomised surfaces of the proximal and distal tibia.
- Use a cranial K-wire and tension band to make osteotomy reduction easier and more stable.
- Plan and pre-place the holes for the distal K-wire and proximal tension band prior to making the osteotomy. This will make implant placement and osteotomy reduction simpler later.
- Once the osteotomy is complete, place the K-wire in the cranial cortex of the distal fragment, aim into the proximal segment, hold the osteotomy in reduction and drive the K-wire into the proximal segment. This will stabilise the reduction.
- Ensure that reduction and alignment are good, particularly that there is no axial malalignment of the tibia. Then place the cranial tension band, placing it through the hole in the tibial tuberosity proximally and the K-wire distally.
- Place the medial plate; various options are possible including a DCP, T plate, TPLO plate and locking plates. Remember that this is an inherently unstable osteotomy in the cranial to caudal plane. Coupled with a short proximal tibial segment, this makes stable fixation more of a challenge. Using locking screws proximally and/or as long a plate as possible should help to stabilise the osteotomy as good as possible.



CWO-TPLO - 9 Weeks Post-Op.

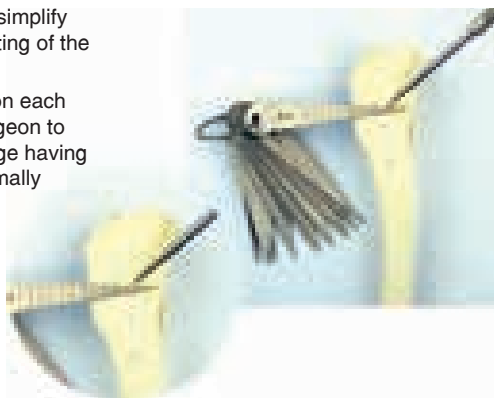
Images and Case courtesy of Gareth Arthurs.

Wedge Osteotomy Gauge Set 9° to 30°

The wedge gauges simplify the marking and cutting of the appropriate wedge.

The parallel marks on each gauge allow the surgeon to mark and cut a wedge having equal borders proximally and distally.

With both borders the same length the resulting closure is better, both functionally and cosmetically.



WEDGE OSTEOTOMY GAUGE SET - 9° TO 30°		
001493	Wedge Osteotomy Gauge Set	£117.50

Bone Scribe



A very sharp marking point with an easy to hold handle enables the surgeon to mark bone prior to cutting or rotating (Slocum procedure).

BONE SCRIBE		
001494	Bone Scribe 195mm	£25.00

Plate Holding/ Drill Guide Forceps



Temporary fixation of the head of TPLO plates aids in positioning, while screws are placed. The spherical ball tip of these forceps seats well in the round holes of the head plate, as well as in conventional DCP holes, whilst allowing drilling through the hole.

Also very useful for plate osteosynthesis in fracture repair.

PLATE HOLDING/ DRILL GUIDE FORCEPS		
001225	1.5/2.0 Plate Holding/ Drill Guide Forceps 140mm Long	£120.00
001226	2.4/2.7 Plate Holding/ Drill Guide Forceps 145mm Long	£120.00
001227	3.5 Plate Holding/ Drill Guide Forceps 150mm Long	£120.00
0012SET	Plate Holding/ Drill Guide Forceps Set (one of each size)	£295.00

Very Large Fragment Forceps

For use in situations where a very wide 'gape' is required or where the bulk of the instrument must be well away from the jaw tips.

The spinlock version has been recommended for repositioning of the stifle, prior to placement of a lateral suture wire or nylon in CrCL repair.



VERY LARGE FRAGMENT FORCEPS		
001202	Very Large Fragment Forceps 205mm Long	£92.50
001203	Very Large Fragment Forceps with Spinlock 215mm Long	£135.00

TPLO Wedge Kit



Kit includes; multisaw , stainless converter, shroud, wedge osteotomy set, blade 70mm x 12mm, blade 70mm x 25mm. 1 x TPLO0272739, 1 x TPLO353555, 1 x TPLO353579 and CD rom on the technique. Gives a 10% discount over individual purchases. (You will also need 2.7/3.5mm AO type bone plate benders).

TPLO WEDGE KIT		
TPLOWEDGEKIT	TPLO (closing wedge) Start up kit	£625.00
001287	2.7/3.5 AO Type bone plate benders (pair)	£67.50

Our longer benders(240mm) with 4mm and 6mm slots are designed with TPLO plates in mind to make bending and twisting much easier.

EXTRA LENGTH BONE PLATE BENDING LEVERS		
001288L	3.5/4.5 AO TPLO Bending Levers 240mm Long	£89.50

TPLO BY WEDGE OSTEOTOMY PLATES

TPLO202026	2.0mm DCP 26mm Overall Length	£35.00
TPLO202031	2.0mm DCP 31mm Overall Length	£35.00
TPLO242434	2.4mm DCP 34mm Overall Length	£35.00
TPLO242441	2.4mm DCP 41mm Overall Length	£35.00
TPLO272739	2.7mm DCP 39mm Overall Length	£35.00
TPLO272745	2.7mm DCP 45mm Overall Length	£35.00
TPLO273539	2.7/3.5 DCP 39mm Overall Length Allows use of 3.5 cancellous screw in head	£35.00
TPLO273545	2.7/3.5 DCP 45mm Overall Length 2.5mm Thick	£39.00
TPLO353555	3.5mm DCP 55mm Overall Length	£49.00
TPLO353557	3.5mm DCP 57mm Overall Length Heavy Duty	£49.00
TPLO353559	3.5mm DCP 59mm Overall Length	£49.00
TPLO353562	3.5mm DCP 62mm Overall Length	£49.00
TPLO353565	3.5mm DCP 65mm Overall Length	£49.00
TPLO353577	3.5mm DCP 77mm Overall Length	£49.00
TPLO353577X	3.5mm DCP 77mm Overall Length Extra Shaft Hole	£49.00
TPLO353579	3.5mm DCP 79mm Overall Length Heavy Duty	£53.00
TPLO354579	3.5/4.5 DCP 79mm Overall Length Heavy Duty Allows 4.5 screws in head	£53.00
TPLO 35456579	79mm Overall Length Heavy Duty Allows 4.5/6.5 screws in head	£58.00
TPLO 45659030	4.5mm DCP 90mm Overall Length Will accept 6.5 cancellous screws in head 3.0mm Thick	£97.50
TPLO 45659035	4.5mm DCP 90mm Overall Length Will accept 6.5 cancellous screws in head 3.5mm Thick	£97.50
TPLO 45659045	4.5mm DCP 90mm Overall Length Will accept 6.5 cancellous screws in head 4.5mm Thick	£97.50
TPLO0	Angle Finder & Plate Overlay	£FOC

See plate profiles on page 481.

TPLO Plates with Locking Screw Holes

Since the beginning of the millennium, the advent of locking plate technology has revolutionised TPLO surgery arguably more than any other surgical procedure. Locking TPLO plates have made the procedure quicker and simpler with less dissection and therefore biological trauma required, and post-operative osteotomy stability is better.

- TPLO locking plates use locking screws in the proximal tibial plateau segment and the plate is pre-contoured to match the shape of the proximal tibia.

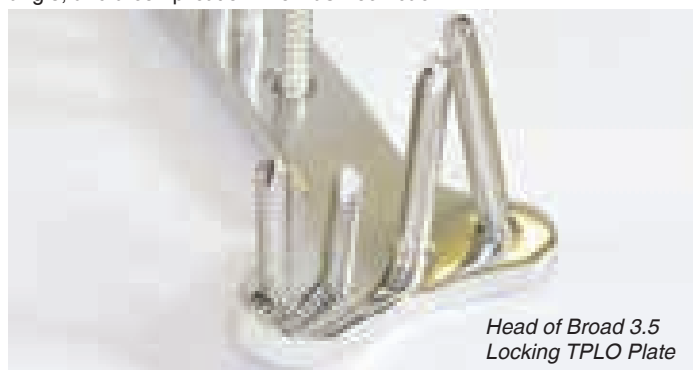
This means that the plate does not need to be contoured to the shape of the proximal tibia during surgery, which saves time and avoids potential plate weakening by doing so.

- The position and direction of the locking screws in the tibial plateau segment of the plate is designed so that the screws are positioned adjacent to, but reliably angled and directed away from the joint. This means that so long as the plate is placed correctly, intra-articular screw placement should be impossible. This is a significant advantage as the potential for intra-articular screw placement is a potential complication when TPLO is performed without locking screws; because if this happens, the surgery has to be revised to re-direct the intra-articular screw.

- Given the specific position and direction of the locking screws in the tibial plateau section, the plate should not be contoured. This is because contouring the plate may result in inappropriate direction of the locking screws into the stifle joint.

- As locking plates do not rely on friction generated between the plate and the bone for stability, it is not necessary to elevate soft tissues beneath the locking part of the plate. For locking TPLO application, this means that elevation of the soft tissues medial to the tibial plateau i.e. the medial buttress is no longer required. This saves time as removing the medial buttress can be time consuming, it can bleed, it minimises iatrogenic trauma, and minimises chance of medial collateral ligament damage that could occur with over-exuberant removal of the medial buttress.

- As locking screws are angle stable, placement of locking screws in the tibial plateau segment means maximal stability of the tibial plateau. In other words, the chances of post-operative instability of the tibial plateau segment developing should be minimised. Post-op instability can lead to loss of osteotomy reduction, post-operative increase in tibial plateau angle, and a complication known as "rock-back".



Head of Broad 3.5 Locking TPLO Plate

- Locking screws rely on locking of the screw head into the plate for security instead of screwing the screw very tightly into the bone so as to generate high frictional forces between the screw head, plate hole and bone. This means that for locking screws, the risk of stripping a screw in the bone is longer a possible complication, compared to non-locking screw where screw thread stripping in the bone is a real complication, particularly in the cancellous metaphyseal bone of the tibial plateau.

The disadvantage of locking plates for TPLO surgery is that a slightly expanded inventory of implants and equipment is needed. Equipment needed includes a locking plate, locking drill guide, drill bit appropriate to the core diameter of the locking screws (e.g. for a 3.5mm locking screw, a 2.8mm drill bit rather than a 2.5mm drill bit is used), and locking screws.

Use of locking plates for TPLO surgery is strongly recommended over non-locking plates.

Tips and tricks for locking TPLO plating.

- The TPLO procedure is performed in the normal way, except that soft tissue elevation in the proximal tibial plateau segment is not necessary

- Once the tibial plateau is rotated and the osteotomy is stabilised, the TPLO locking plate is applied to the tibia and positioned appropriately. Use a K-wire or needle to ensure that the plate is correctly positioned and is over bone at all points, particularly the proximal screw hole adjacent to the joint and the caudal proximal locking screw hole if the bone is not visible because of overlying soft tissue.

- In the distal tibial diaphysis segment, a single non-locking screw is placed to secure the plate to the bone

- Using the locking drill guide, all the proximal locking screws are placed in the tibial plateau segment.

- In the distal tibial diaphyseal segment, a non-locking screw is placed in compression using the compression guide; this is to compress the osteotomy.

- The remaining distal screws are placed; these may be either locking or non-locking screws at the surgeon's preference, and depending on the plate configuration.

NB before placement of locking screws in the distal tibial diaphysis segment, all non-locking screws must be fully tightened.



VI Locking TPLO Plates



Locking TPLO Plate showing both converging and diverging Locking Screws

VI Lock TPLO plates are available in 2.7mm, 3.5mm and 3.5mm broad, covering the vast majority of TPLO patients.

The head section is both wider and shallower than any other locking design maximising the area of bone spanned to give very even force distribution across the whole of the proximal segment whilst also permitting a very proximal osteotomy. The locking holes are both convergent and divergent to maximise pull-out resistance and angled to avoid articular surfaces.

TPLO PLATES WITH LOCKING SCREW TECHNOLOGY

TPLO27LPCL	TPLO Plate Locking 2.7 Left	£80.00
TPLO27LPCR	TPLO Plate Locking 2.7 Right	£80.00
TPLO35LPCL	TPLO Plate Locking 3.5 Left	£80.00
TPLO35LPCR	TPLO Plate Locking 3.5 Right	£80.00
TPLO35BLPCL	TPLO Plate Broad Locking 3.5 Left	£90.00
TPLO35BLPCR	TPLO Plate Broad Locking 3.5 Right	£90.00
LSDG2724	Locking Screw Drill Guide for small 2.7	£52.50
LSDG35	3.5 Locking Screw Drill Guide	£52.50

For plate profiles see page 482

TPLO Narrow Head Broad Locking Plate



An intermediate 3.5mm locking TPLO plate developed following customer requests. This plate has similar strength in the shaft and mid-section to the 3.5mm broad, but only three screw-holes in the head section for use with smaller proximal segments.

See page 482 for profiles.

TPLO NARROW HEAD BROAD 3.5 LOCKING PLATES		
TPLO35MLPCR	TPLO Narrow Head Broad Locking Plate Right 3.5	£80.00
TPLO35MLPCL	TPLO Narrow Head Broad Locking Plate Left 3.5	£80.00

TPLO353555 Locking Plates



Philip Moses of Brisbane, Australia developed the original Clover-leaf TPLO353555. Seeing the advantages of using locking technologies, he has now specified left and right pre-contoured locking-versions of this popular plate.

All the screws remain parallel to avoid the joint space and allow for optimal load sharing perpendicular to the screw shafts. All locking holes are stacked, allowing for use of either standard 3.5mm cortical screws or 3.5mm locking screws. There are two dynamic compression holes in the shaft for compression.

TPLO 353555 LOCKING PLATES		
TPLO353555RL	3.5mm DCP 55mm Length Locking Right	£80.00
TPLO353555LL	3.5mm DCP 55mm Length Locking Left	£80.00

For plate profiles see page 481

Locking TPLO Starter Set

The VILock TPLO system is available as a start up kit offering substantial discounts over regular pricing. The kit includes all that you will need to offer locking TPLO to your clients.



The VILock TPLO Starter Kit includes the following:

- TPLO Saw and Hose
- 18, 24 & 30mm VI Pattern TPLO Blades
- TPLO Basic Jig
- TPLO Rotation Chart
- Slocum Rotation Gauges
- Bone Scribe
- 8 VILock TPLO Plates (2 x 2.7, 4 x 3.5, 2 x 3.5 Broad)
- DVD Step by Step Guide
- Plate Acetates

All Starter Kits are discounted by over 10% compared to the component price.

The VILock TPLO Starter Kit is also available with a Battery Powered TPLO Saw.



VILOCK TPLO STARTER KIT		
TPLOVILOCKKIT	VILock TPLO Starter Kit with Air Power	£3,500.00
TPLOLOCKBATKIT	VILock TPLO Starter Kit with Battery Power	£4,650.00

TPLO Saw - Battery Power



See page 177 for further details

Tibial Plateau Levelling Osteotomy - Standard

Tibial Plateau Levelling Osteotomy (TPLO) was originally developed by Barclay Slocum in the 1980s. Slocum realised that given the standing angle of the dog's knee, the cranial cruciate ligament deficient stifle had a tendency to subluxate cranially because of the opposing forces generated between the tibial plateau and the femoral condyles. He speculated that making a corrective osteotomy and changing (flattening) the tibial plateau angle should neutralise cranial tibial thrust and therefore the instability resulting from cranial cruciate ligament rupture. The osteotomy was originally designed as a wedge osteotomy, which still exists as a separate procedure for cranial cruciate ligament rupture and has its own advantages and disadvantages; see other section on CWO-TPLO on p.XX. The wedge osteotomy then evolved into the curved / crescentic osteotomy that differs by separating the tibial plateau from both the tibial metaphysis and the tibial tuberosity. A radial saw blade with a TPLO specific oscillating saw is used that makes the crescentic osteotomy (see pX for saws and blades). Once the tibial osteotomy is made, it is rotated by a calculated amount by inserting a rotation pin (tables are available to determine the correct amount of rotation for each blade size, see p. XX). The aim is to achieve a Tibial Plateau Angle (TPA) of 5 to 7 degrees. Once rotated, the tibial plateau segment is temporarily held in position by a single K-wire, or fracture reduction forceps. Then the plate and screws are applied for definitive stabilisation.

TPLO was originally developed with many claims, including complete return of function, re-gaining full muscle mass, and the halting of progression of degenerative joint disease. Nowadays it is accepted that whilst TPLO does not achieve all these goals as it does not restore completely normal stifle biomechanics, it is arguably the best surgical procedure available for addressing the cranial cruciate ligament deficient stifle. For this reason, it is very popular amongst specialist surgeons, and evidence is starting to emerge that it offers the best outcome compared to other surgical techniques, including other osteotomies, to address cranial cruciate ligament rupture such as TTA or extra-capsular stabilisation.

The original TPLO surgical technique was very specific, and surgeons all followed a very similar protocol. With the passage of time, surgeons have evolved individual variations on the original technique. For example, use of a jig is no longer universal, many surgeons have adopted a minimal soft tissue elevation technique as compared to the original extensive soft tissue elevation and packing technique, and stabilisation of the rotated tibial plateau can be achieved using pointed fracture reduction forceps rather than placement of a temporary stabilising K-wire.

The procedure can also be modified to address concurrent patellar luxation with cranial cruciate ligament disease, by axially rotating the tibial tuberosity and diaphysis relative to the tibial plateau, although this may cause a concurrent internal / external rotational deformity of the distal limb.

The TPLO procedure can be performed in almost any dog. For many surgeons, TPLO is the procedure of choice for the majority of patients with cranial cruciate ligament disease. The higher the TPA, the greater the rotation required to achieve a TPA of 5 to 7 degrees. It has been suggested that when the TPA exceeds 30 degrees, the amount of rotation required becomes excessive, and this could lead to fracture of the tibial tuberosity. This has led to some surgeons to choose the CWO-TPLO procedure for such dogs. Also a double osteotomy comprising a combination of wedge osteotomy and crescentic osteotomy has been described, but this is not for the faint hearted.

Reasons not to choose a TPLO would include inexperience or lack of familiarity with the technique, uncontrollable skin disease or pyoderma that increases the risk of surgical site infection, inability of the owner to restrict the patient appropriately post-operatively that could lead to implant failure and failure of reduction, or ability of the owner to accept the list of potential complications associated with an osteotomy procedure, or the associated cost.

Tibial Plateau Levelling by Radial Osteotomy

Slocum

Slocum Style Plates



The original cast Slocum Plate met neither the current metallurgical specification nor the manufacturing process requirements for stainless steel implants. While we are allowed to use our judgement regarding implants it would be relatively hard to defend the use of a non-standard implant should anything go wrong.

In view of the above we have produced a Slocum Style Plate, machined from 316LVM. The only clear advantage of the cast Slocum Plate was its malleability. Our Plate has been modified in the head region to make contouring easier, while retaining the stiffness of 316LVM elsewhere for stability and rapid healing. The lower profile makes closure easier.

Plate profiles on page 482.

SLOCUM STYLE TPLO PLATES		
TPLOS35BL	TPLO Plate Broad Slocum Style 3.5mm Left	£75.00
TPLOS35BR	TPLO Plate Broad Slocum Style 3.5mm Right	£75.00
TPLOS35L	TPLO Plate Slocum Style 3.5mm Left	£75.00
TPLOS35R	TPLO Plate Slocum Style 3.5mm Right	£75.00
TPLOS27BL	TPLO Plate Broad Slocum Style 2.7mm Left	£75.00
TPLOS27BR	TPLO Plate Broad Slocum Style 2.7mm Right	£75.00
TPLOS27L	TPLO Plate Slocum Style 2.7mm Left	£55.00
TPLOS27R	TPLO Plate Slocum Style 2.7mm Right	£55.00
TPLOS24L	TPLO Plate Slocum Style 2.4mm Left	£55.00
TPLOS24R	TPLO Plate Slocum Style 2.4mm Right	£55.00
TPLOS20L	TPLO Plate Slocum Style 2.0mm Left	£55.00
TPLOS20R	TPLO Plate Slocum Style 2.0mm Right	£55.00
BRTPLO	TPLO Radial Cut Step by Step Guide	£FOC

Delta Style TPLO Plates - Contoured

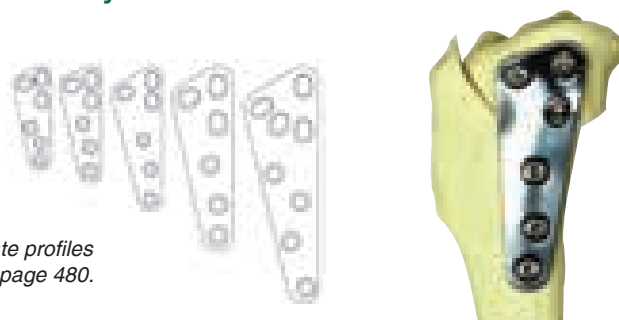


Plate profiles on page 480.

Veterinary Instrumentation is now able to supply the familiar triangular TPLO range in all the standard sizes, 3.5 Broad, 3.5 Standard, 2.7, 2.7B and 2.4. These plates are not easy to contour so we offer only the pre-contoured options which may need a final clinical 'tweak'.

DELTA STYLE TPLO PLATES		
TPLODEL35BL	3.5 Broad Delta Plate Left	£75.00
TPLODEL35BR	3.5 Broad Delta Plate Right	£75.00
TPLODEL35L	3.5 Delta Plate Left	£60.00
TPLODEL35R	3.5 Delta Plate Right	£60.00
TPLODEL27BL	2.7 Broad Delta Plate Left	£60.00
TPLODEL27BR	2.7 Broad Delta Plate Right	£60.00
TPLODEL27L	2.7 Delta Plate Left	£60.00
TPLODEL27R	2.7 Delta Plate Right	£60.00
TPLODEL24L	2.4 Delta Plate Left	£60.00
TPLODEL24R	2.4 Delta Plate Right	£60.00

Pre-Contoured Slocum Style TPLO plates



TPLO Plates manufactured from implant specification Stainless Steel (ASTM F 138, ISO 5832-1) are extremely difficult to contour appropriately without leaving stress riser marks in vulnerable places. Our pre-contoured plates are pre-bent and polished to leave no stress riser. A final intra-operative 'tweak' may be necessary in individual cases.

PRE-CONTOURED TPLO PLATES	
TPLOS35RPC 3.5 Right Slocum Style Pre-contoured Plate	£82.50
TPLOS35LPC 3.5 Left Slocum Style Pre-contoured Plate	£82.50

For plate profiles see page 482

Locking TPLO Plates are also available. See pages 64-65 for the complete range.

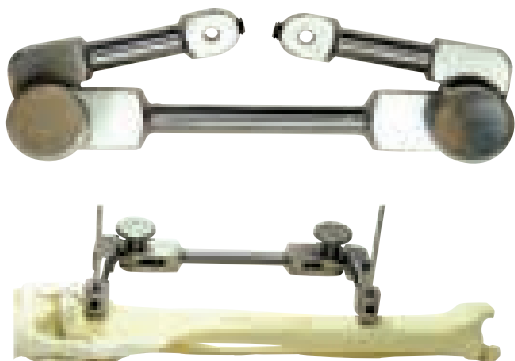
XS TPLO Jig

Designed by David Strong, this is our smallest TPLO jig to date. The cranked design allows the arm to pass through a greater range of motion without obstructing access for creating the osteotomy or applying implants. The single hinge reduces instrument bulk. The teardrop shaped holes accept 1.6mm and 2.0mm Ellis Pins. 2mm A-wires or K-wires are used as alignment bars. A 2.0mm Allen Key is provided. The main body is only 60mm long.



XS TPLO JIG	
TPLOJIGXS XS TPLO Jig 60mm	£285.00

TPLO Jig



Once the radial cut is made in the proximal tibia the two parts are essentially unstable. The proximal segment has to be rotated while maintaining alignment. The jig is placed prior to the cut and keeps the two segments under control until the rotation is complete and the two parts fixed internally. Supplied with a 2.5mm Allen Key.

TPLO JIG	
TPLOJIG TPLO Jig 120mm	£235.00
TPLO32 Slocum Guide Pin 3.2mm Thread 25mm	£7.25

Standard Slocum Style TPLO Jig



This Jig is a replica of the well known TPLO Jig and includes Alignment Bars. Available in two sizes 3.5mm plate size and 2.7mm plate size. Supplied with a 2.5mm Allen Key.

SLOCUM STYLE TPLO JIG		
TPLOJIG/S	Slocum Style Jig Standard (3.2 Pin)	£315.00
TPLO32	Slocum Guide Pin 3.2mm Thread 25mm	£7.25
TPLOJIG/SS	Slocum Style Jig Small (2.4 Pin)	£315.00
TPLO24	Slocum Guide Pin 2.4mm, Thread 20mm	£7.25
TPLOJIG/ROD35	Replacement Alignment Bars (Set of 2) Standard	£27.50
TPLOJIG/ROD27	Replacement Alignment Bars (Set of 2) Small	£27.50

Slocum Rotation Gauges

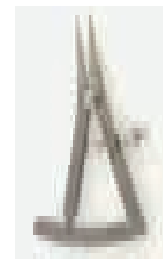


The Rotation Gauges simplify the rotation procedure. The correct measurement, in millimetres, is read from the table and the appropriate gauge selected. The bone is marked using the scribe or an osteotome. No more fiddling around with rulers.

SLOCUM TPLO ROTATION GAUGES 5 TO 15MM		
001492	Slocum Rotation Gauges	£89.50

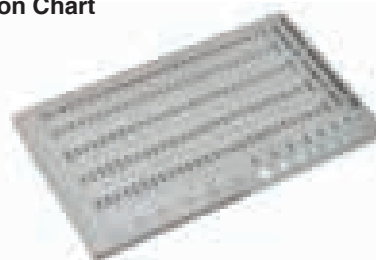
TPLO Rotation Gauge Divider Type

This instrument is an alternative to the feeler gauge type measuring system. Spring loaded, adjusting the set screw fixes the points at any predetermined distance from 0-20 mm as read from the scale. The tibial plateau may then be rotated the distance between the points.



TPLO ROTATION GAUGE DIVIDER TYPE		
001499	TPLO Rotation Gauge Divider Type 90mm	£67.50

TPLO Rotation Chart



The rotation data for blades 12mm, 15mm, 18mm, 21mm, 24mm, 27mm, 30mm & 34mm are displayed on this double sided, laser marked, stainless steel gauge.

Incorporates also a drill gauge and a ruler for measuring screws and rotation.

TPLO ROTATION CHART		
TPLOROT	TPLO Rotation Chart	£69.50

Slocum TPLO Guide Pin

End threaded negative pin. Drive directly into the tibia for jig attachment.

SLOCUM TPLO GUIDE PIN 3.2MM

TPLO32	Slocum Guide Pin 3.2mm Thread 25mm	£7.25
TPLO24	Slocum Guide Pin 2.4mm Thread 20mm	£7.25

For screws see Chapter 7.

For power tools and saw blades see Chapter 5.

Delta TPLO Plate Benders with Curved Slots



Plate benders with slots tend to distort the delta plate. The curved slots help grip and support the the plate during the bending process. In addition the plate is much less likely to end up on the floor.

DELTA TPLO PLATE BENDERS WITH CURVED SLOTS

TPLODELBEND	Delta TPLO Plate Benders (Pair) 230mm	£135.00
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TPLO Starter Kit



The Delta TPLO Starter Kit

2 versions of the TPLO Starter Kit are available, with either Slocum Style or Delta Style Plates.

The Delta TPLO Starter Kit includes the following:

TPLO Saw and Hose or TPLO Saw - Battery Power.

18, 24 & 30mm VI Pattern TPLO Blades

TPLO Basic Jig

TPLO Rotation Chart

Slocum Rotation Gauges

Bone Scribe

10 Delta Style TPLO Plates (2 x 2.7, 2 x 2.7 Broad, 4 x 3.5, 2 x 3.5 Broad)

DVD Step by Step Guide

Plate Acetates

The Slocum TPLO Starter Kit is the same except 10 TPLO Slocum Style Plates are included rather than the Delta Plates.

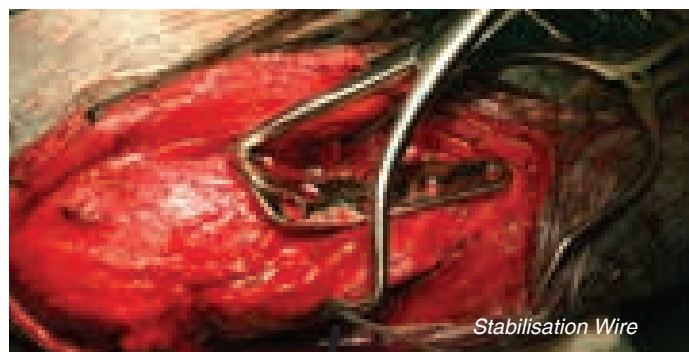
All Starter Kits are discounted by over 10% compared to the component price.

TPLO STARTER KIT

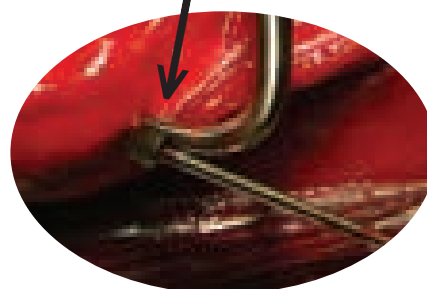
TPLODKIT	TPLO Starter Kit with Delta Style Plates Air Power	£3,500.00
TPLOSKIT	TPLO Starter Kit with Slocum Style Plates Air Power	£3,500.00
TPLOPOWDKIT	TPLO Starter Kit with Delta Style Plates Battery Power	£4,650.00
TPLOPOWSKIT	TPLO Starter Kit with Slocum Style Plates Battery Power	£4,650.00



TPLO Wire Guide and Reduction Forceps



Stabilisation Wire



Once the osteotomy has been performed and the proximal segment rotated it is essential that the construct is stabilised prior to plate application. As is often the case the ideal position for the initial, temporary, stabilisation and the semi-permanent wire are one and the same.

The new TPLO reduction forceps are designed to stabilise and compress across the osteotomy site. At the tip is a wire guide tube which allows a stabilising wire to be driven across the osteotomy at exactly the correct position without skidding or slippage at start up.

The action is spinlock allowing the surgeon full flexibility on positioning and compression.

The forceps are handed and significantly cheaper when purchased as a set.

TPLO REDUCTION FORCEPS WITH WIRE GUIDE

TPLORFR	TPLO Reduction Forceps with Wire Guide Right 215mm	£135.00
TPLORFL	TPLO Reduction Forceps with Wire Guide Left 215mm	£135.00
TPLORFSET	TPLO Reduction Forceps with Wire Guide Right & Left	£220.00

Ligaclip Re-usable Clip Applicators & Titanium Clips



Severe haemorrhage from the popliteal artery is at best very time consuming and at worst life threatening. Ligation by standard techniques is made very difficult due the inaccessible location. Clips are the system of choice and 'Liga Clips' are recognised as the industry standard. Veterinary Instrumentation is delighted to have been appointed distributor for Ethicon speciality products.

The clips are available in a range of sizes but the medium and large seem to be most useful in this situation.

Application is simple and achievable in very awkward situations without the requirement for a massive dissection.

The clips are manufactured from malleable titanium. Ligation is secure and permanent.

For further information regarding the Ligaclip range and pricing see page 293.

TPLO Saws



Slocum TPLO blades create a patented bi radial cut which means that the tibial plateau segment fits the distal tibia section exactly with maximum bone contact. While this is a good thing, the design of the blade does not cut very efficiently and needs regular hand sharpening if excess heat is not to be produced. Veterinary Instrumentation has been looking at TPLO blades for a number of years and is introducing a range of radial blades which cut better and are cheaper to replace than the Slocum original. They have the same triangular Stryker connection.

TPLO SAWS		
TPLOSW	TPLO Saw	£2,350.00
HALLHOSEVI	VI Hose – Halls Fitting	£475.00

TPLO Saw Blades VI Pattern



We have sold TPLO saw blades from various manufacturers over the years but have always thought that none of them cut as well as they should.

In addition, some of the blade lengths available did not match the clinical requirement. We have, therefore, designed our own.

Previously available blades either have no 'set' or a one sided 'set'. The 'set' of a saw is the way that alternate teeth protrude outside the blade of the saw. The set, which is found on most woodworking and metal working saws, is there to create a slot in the material slightly larger than the body of the blade so that the blade does not produce friction in the slot. Friction creates heat which although not serious in either wood or metal is very serious in bone. Thermal necrosis along the saw cut of TPLO osteotomies is a common cause of delayed union and failure.

In addition to heat, friction leads to jamming of the blade in the slot which is both frustrating and destructive. VI TPLO Blades have a full bilateral set for maximum efficiency.

TPLO SAW BLADES VI PATTERN		
TPLOVI12	TPLO Saw Blades VI Pattern 12mm	£275.00
TPLOVI15	TPLO Saw Blades VI Pattern 15mm	£275.00
TPLOVI18	TPLO Saw Blades VI Pattern 18mm	£275.00
TPLOVI21	TPLO Saw Blades VI Pattern 21mm	£275.00
TPLOVI24	TPLO Saw Blades VI Pattern 24mm	£275.00
TPLOVI27	TPLO Saw Blades VI Pattern 27mm	£275.00
TPLOVI30	TPLO Saw Blades VI Pattern 30mm	£275.00
TPLOVI34	TPLO Saw Blades VI Pattern 34mm	£275.00

VI Black Series Battery Operated TPLO Saw



For surgeons who prefer the convenience of battery operated surgical power-tools to their air-powered counterparts, we have developed our new black series TPLO saw.

The popular consensus is that in line TPLO saws are more user friendly than pistol grip units as they are both easier to keep aligned and are more comfortable to operate.

This unit is heavy enough to dampen vibrations and assist with the cut and has plenty of power for use with the largest of our blades.

Compatible with standard triangular drive blades and supplied in transportation case with battery, charger and sterile battery transfer sleeve.



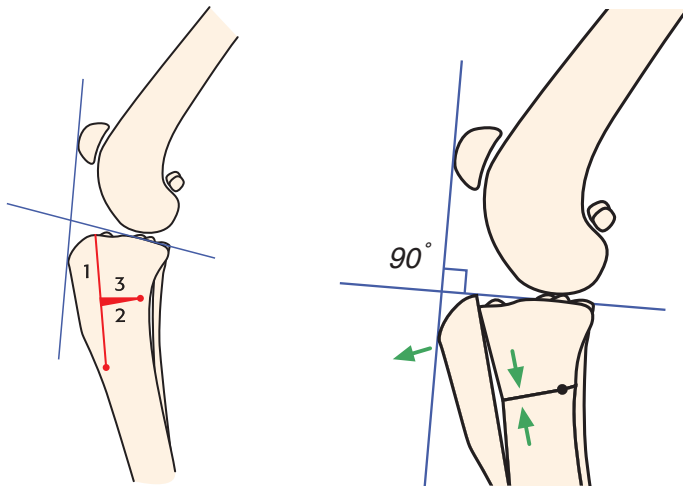
TPLO SAW BLADES VI PATTERN		
BLACKTPLO	TPLO SAW – Battery Powered	£3,500.00
BLACK TPLOBAT	Spare battery	£175.00
BLACKTPLOCHARUK	Charger unit UK	£125.00
BLACKTPLOCHAREU	Charger Unit EU	£125.00
BLACKTPLOCHARUSA	Charger Unit USA	£125.00
BLACKHEXKEY	Spare Hex key	£15.00

Triple Tibial Osteotomy



A cruciate management technique combining tibial plateau levelling and tibial tubercle advancement.

Based on the work of Slocum, Tetric and Montavon, the Triple Tibial Osteotomy has been developed by Dr Warrick Bruce to overcome some of the problems encountered in the Slocum TPLO technique, the Montavon TTA (Tibial Tubercle Advancement) and the closing wedge TPLO technique.



Some of the problems include:

Work by Tetric suggests that the tibial plateau should be perpendicular to the patella ligament to minimise shear strain at the CrCL. The Slocum technique does not always address this issue.

The bi-radial Slocum blade is inefficient and difficult to resharpen resulting in the generation of significant amounts of heat which leads to delayed healing and other complications.

The Montavon TTA technique creates a large defect in the cranial tibia which requires an expensive titanium cage and plate to prevent collapse during the healing phase.

The closing wedge TPLO shortens the tibia and creates a defect in the tibia which has to be protected from the pull of the straight patella ligament by a figure of eight wire.

The TTO technique deals with all of these problems:

A long osteotomy is made in the tibial crest to allow the tibial tubercle to move forward. The angle correction is made by making a small wedge osteotomy in the caudal tibia which, when closed creates a small tibial tubercle advancement. A free instructional DVD is available which fully describes and explains the procedure through video, stills and text files.

The DVD also includes an instrument check list.

Multi Saw

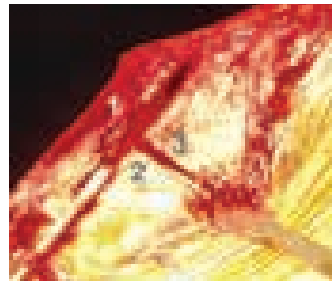
One of the advantages of the TTO (and TWO) procedure is that it uses simple flat blades which are easily replaced when they become blunt. The TTO uses a saw guide to direct the saw very accurately ensuring a 'good fit' once the osteotomy is complete. Surgical air or battery driven saws are ideal for the procedure but the Multi Saw with a sterile shroud and convertor works very well. Make sure that the blade selected fits through the saw guide (cut thickness less than 1.0mm)

See chapter 5 for more details on Saws and Blades

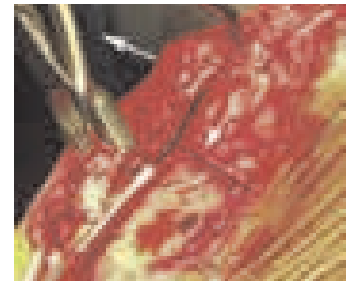


Case Warrick Bruce

Osteometer and Saw Guide



Three Osteotomies

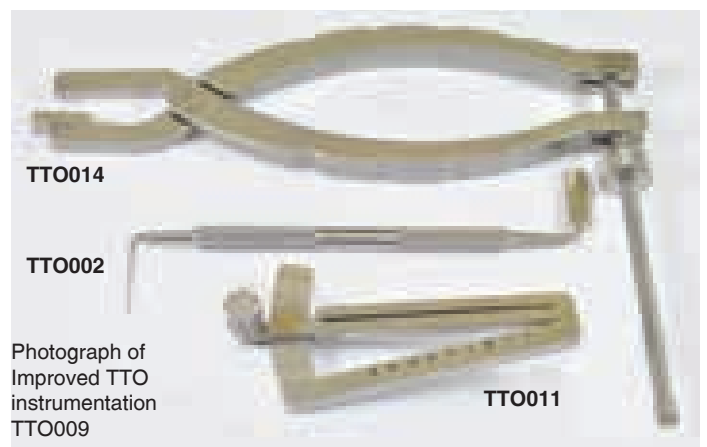


TPLO + TTA

Triple Tibial Osteotomy

Some instrumentation is required to make the procedure easier and to minimise errors. Warrick Bruce's original instrument Set comprises a Saw Guide, Measuring/ marking Gauge (Osteometer) and a Bone Manipulation Device (Wedgie). The Saw Guide works with flat oscillating blades with a maximum cut thickness of 1mm (thickness at the teeth). See Chapter 5.

The original Set (Code TTO008) is very reasonably priced and offers the surgeon a very cost effective route to management of CrCL rupture by tibial plateau levelling surgery. Warrick's new, more sophisticated designs are shown below. Available as a Set (Code TTO009).

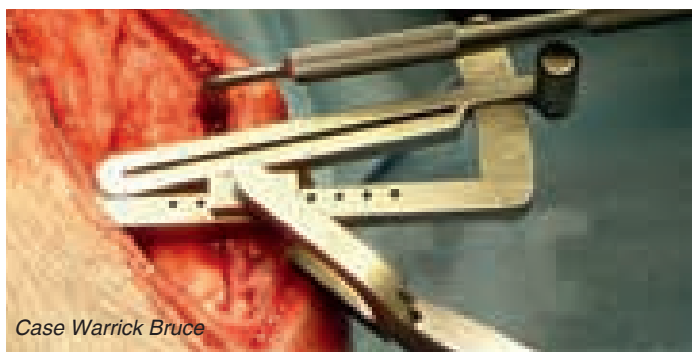


Photograph of Improved TTO instrumentation
TTO009

TTO INSTRUMENTATION

TTO008	Basic TTO Instruments Kit (contains TTO006 TTO004 TTO002 & DVDALL)	£255.00
TTO006	Basic Osteometer	£95.00
TTO004	Saw Cutting Guide (Standard 62mm)	£95.00
TTO002	Wedgie Segment Manipulator	£95.00
TTO004L	Saw Cutting Guide (Long 76mm)	£95.00
DVDALL	DVD Illustrating the procedure	£FOC
BRTTO	TTO Step by Step Guide	£FOC

Improved TTO Instrumentation



Warrick Bruce has designed two new instruments to make the TTO procedure easier and to eliminate some of the practical difficulties encountered using the original instrumentation.

The new combined Osteometer and Saw Guide interlock to become a single instrument which is much easier to manage than the original two separate instruments. The thumbscrew locks the Osteometer onto the Saw Guide for secure accurate osteotomies. The Osteometer still has holes for fixation to the tibia using 1.6 arthrodesis wires.



Alternatively Warrick's second new instrument 'the Clasper' may be used to lock the osteometer onto the tibia prior to cutting. The 'Clasper' has an additional role in that it is used to replace the kern bone holders in the original technique. The 'Clasper' grasps the tibia crest prior to closure and incorporates location holes for the very large fragment forceps to lock into.

The 'Wedgie', used for manipulating the three osteotomies remains unchanged.

IMPROVED TTO INSTRUMENTATION BY WARRICK BRUCE		
TT0011	Improved Combination Osteometer/ Sawguide	£275.00
TT0014	TTO Clasper	£275.00
TT0002	Wedgie Segment Manipulator	£95.00
TT0009	Enhanced TTO Instrument Set (all of above)	£575.00

TTO Starter Kits



TTO Basic Starter Set plus Multi Saw Kit
 TTO Basic Instrument Set
 Very Large Fragment Forceps
 Tissue Protector 2.0mm
 10 x TTO Plates (common sizes)
 Arthrodesis Wire (1.6mm x 10)
 Multi Saw Surgical Kit
 2 x Sagittal Saw Blades
 TTO DVD/ Step by Step Guide
 Plate Overlay Acetate

An Enhanced Kit with the Improved TTO Osteometer and the new Clasper is also available. Both Kits are available with or without the Multi Saw Surgical Kit. All Starter Kits are discounted by at least 10% compared to the component price.

TTO STARTER KITS		
TT0BKIT	TTO Starter Set Basic	£925.00
TT0AKIT	TTO Starter Set Enhanced	£1,250.00
TT0BKITPOW	TTO Starter Set Basic plus Multi Saw Kit	£1,350.00
TT0AKITPOW	TTO Starter Set Enhanced plus Multi Saw Kit	£1,675.00

TTO Plates

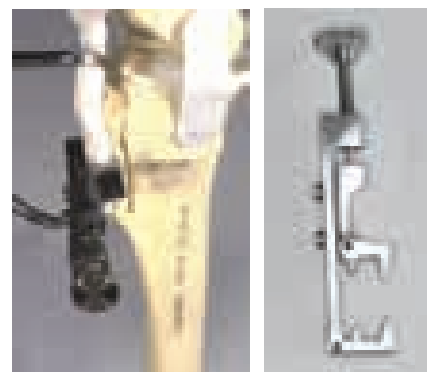
The Standard TTO Plate is a cloverleaf TPLO Plate. Being positioned over the caudal 2/3 of the tibia the plate selected is typically a little smaller than is the case with a wedge TPLO. Use the free plate overlay for the final selection. Thicker plates are harder to contour and a selection of pre-contoured plates are available.

TTO AND TPLO BY WEDGE OSTEOTOMY PLATES		
TPLO202026	2.0mm DCP 26mm Overall Length	£30.00
TPLO202031	2.0mm DCP 31mm Overall Length	£30.00
TPLO242434	2.4mm DCP 34mm Overall Length	£35.00
TPLO242441	2.4mm DCP 41mm Overall Length	£35.00
TPLO272739	2.7mm DCP 39mm Overall Length	£35.00
TPLO272745	2.7mm DCP 45mm Overall Length	£35.00
TPLO273539	2.7/3.5 DCP 39mm Overall Length Allows use of 3.5 cancellous screw in head	£35.00
TPLO273545	2.7/3.5 DCP 45mm Overall Length 2.5mm Thick	£39.00
TPLO353555	3.5mm DCP 55mm Overall Length	£49.00
TPLO353557	3.5mm DCP 57mm Overall Length Heavy Duty	£49.00
TPLO353559	3.5mm DCP 59mm Overall Length	£49.00
TPLO353562	3.5mm DCP 62mm Overall Length	£49.00
TPLO353565	3.5mm DCP 65mm Overall Length	£49.00
TPLO353577	3.5mm DCP 77mm Overall Length	£49.00
TPLO353577X	3.5mm DCP 77mm Overall Length Extra Shaft Hole	£49.00
TPLO353579	3.5mm DCP 79mm Overall Length Heavy Duty Allows 4.5 screws in head	£53.00
TPLO 35456579	79mm Overall Length Heavy Duty Allows 4.5/6.5 screws in head	£58.00
TPLO 45659030	4.5mm DCP 90mm Overall Length Will accept 6.5 cancellous screws in head 3.0mm Thick	£105.00
TPLO 45659035	4.5mm DCP 90mm Overall Length Will accept 6.5 cancellous screws in head 3.5mm Thick	£105.00
TPLO 45659045	4.5mm DCP 90mm Overall Length Will accept 6.5 cancellous screws in head 4.5mm Thick	£97.50
TPLO0	Angle Finder & Plate Overlay	£FOC

PRE CONTOURED TTO PLATES		
TPLO353555PCR	3.5 mm Plate 55mm overall length Right	£60.00
TPLO353555PCL	3.5 mm Plate 55mm overall length Left	£60.00
TPLO353557PCR	3.5 mm Plate 57mm overall length Right	£60.00
TPLO353557PCL	3.5 mm Plate 57mm overall length Left	£60.00
TPLO353579PCR	3.5 mm Plate 79mm overall length Right	£65.00
TPLO353579PCL	3.5 mm Plate 79mm overall length Left	£65.00

TCO Clamp

An alternative to the Kern Bone Holding Clamp the TCO Clamp is lighter with a smaller lever arm. The effect of this is to reduce the likelihood of a TCO fracture. The TCO Clamp incorporates locating holes for the tips of the Very Large Fragment Forceps.



TCO CLAMP		
TT0012	TCO Clamp 65mm	£89.50

For all screws see chapter 7. For suitable saw blades see chapter 5.

Patellar Luxation

Patellar luxation is a common condition of the canine stifle joint whereas cats are rarely affected. Small dogs are affected more frequently than large dogs and patellar luxation tends to be medial in small dogs and lateral in large dogs, but this is not absolute. Patellar luxation is usually caused by a number of related conformational deformities of the hindlimb that results in a malalignment of the quadriceps mechanism including the patella relative to the femoral trochlear sulcus. Deformities include bowing of the distal femur and tibia, excessive medialisation or lateralisation and torsional deformities of tibial tuberosity, insufficient depth of the trochlear sulcus and/or inadequate height of the trochlear ridge(s), and (sub)luxation of the hip. Secondary changes include excessive laxity of the joint capsule and retinaculum soft tissues opposite the direction of patellar luxation, and excessive soft tissue tension in the same direction as patellar luxation.



Patellar luxation severity is graded from 1 to 4.

- **Grade 1** is the least severe; the patella tracks normally in the trochlear sulcus unless it is manually luxated. True grade 1 cases rarely if ever cause a clinical problem and no lameness is seen; surgery is of limited benefit if any.
- **Grade 2** patellar luxation is the most common; the patella intermittently luxates and reduces to track normally in the femoral trochlear sulcus; this covers a broad range of severity i.e. the patella may luxate rarely to frequently. Grade 2 cases show an intermittent skipping lameness of variable severity; corrective surgery is beneficial to all but the least severely affected.
- **Grade 3** the patella is permanently luxated unless it is reduced by manipulation but it immediately luxates again once released.
- **Grade 4** is the most severe and least common; the patella is permanently luxated and cannot be reduced.
- **Grade 3 and 4** cases have a more severe gait abnormality because the patella is permanently tracking in an abnormal position and the patient may not be able to extend the stifle normally. The worst affected cases have a severe gait abnormality. Corrective surgery is indicated and beneficial as it can dramatically improve limb function. However, the surgery is more challenging (particularly if corrective osteotomies are indicated), and the complication rate is high.

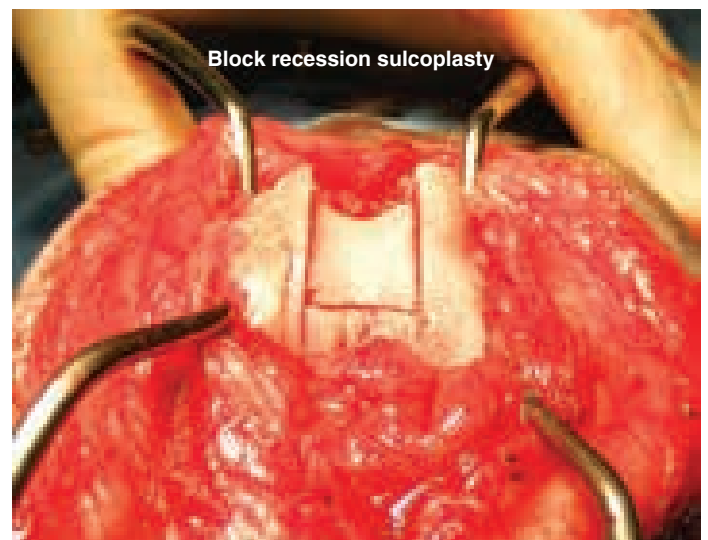
Each case of patellar luxation must be assessed individually and treated on its own merit. In other words, quadriceps mechanism alignment should be carefully assessed clinically and radiographically, and the depth of the trochlear sulcus should be assessed by visual inspection; sky-line radiographs or CT imaging may also be helpful. Soft tissue tension should also be carefully assessed.

If the quadriceps mechanism is maligned it should be corrected, usually by performing a tibial tuberosity transposition. Tibial tuberosity transposition is arguably the most important and commonly performed component of patellar luxation surgery. The tuberosity should be transposed to a position that straightens the axis of the quadriceps mechanism and restores normal patellar tracking. Performing tibial tuberosity transposition requires a saw; either a power saw with thin blade or finger saw, K or A-wires and orthopaedic wire as a figure-of-8 tension band to stabilise the osteotomy.

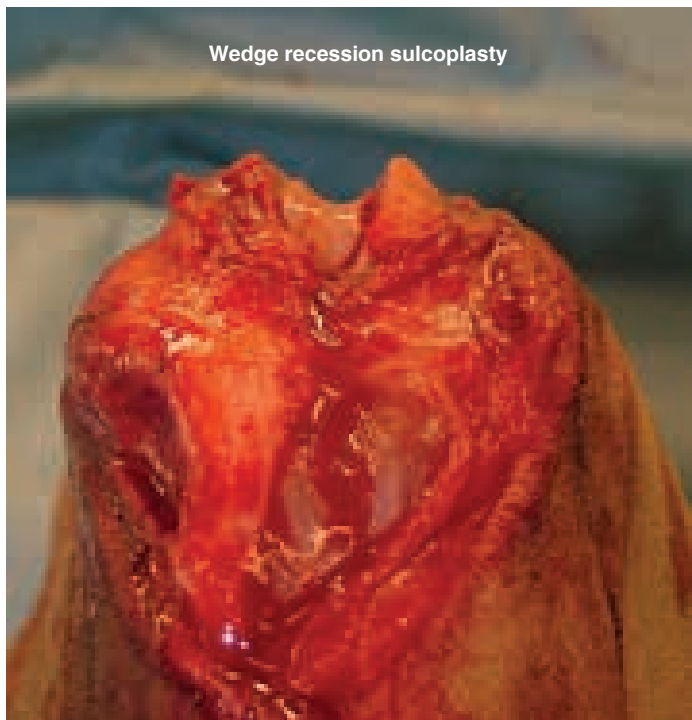


Rarely, corrective osteotomies of the femur and/or tibia may need necessary if significant deformity exists. Veterinary Instrumentation has developed a Corrective Osteotomy Sawguide System to assist with performing an accurate femoral osteotomy. In addition, a wide range of femoral supracondylar plates are available for stabilisation of the femur post osteotomy.

If trochlear sulcus depth is inadequate and/or femoral trochlear ridge height is insufficient, then the trochlear sulcus should be deepened. Trochlear block recession sulcoplasty is technically the best way of performing this, but is also the most challenging; a sharp X-Acto saw and a Modular Osteotome with Ultra-thin blades is required.



Wedge recession sulcoplasty is easier to perform but does not preserve as much articular cartilage, and does not deepen the trochlea as much proximally where additional depth is usually very important. Wedge recession sulcoplasty requires a hard back or X-Acto saw. Abrasion sulcoplasty is a somewhat out-dated technique and is not recommended as it preserves no articular cartilage; however it might be performed if there is already no good articular cartilage present, or other options are not possible due to equipment or skill constraints. A trochlear rasp is ideal for abrasion sulcoplasty, or for smoothing off the exposed subchondral bone for optimal graft stability with the other sulcoplasty techniques.



Wedge recession sulcoplasty

If the soft tissues on one side of the patella (in the direction of luxation) are too tight, they should be released. Usually the joint capsule and retinaculum is too tight only in grade 4 and very severe grade 3 patellar luxations. The excessively tight soft tissues should be cut until normal patellar tracking is restored. Often, release in the region of and just proximal to the patella is required but occasionally, release all the way up to the proximal femur may be necessary. If the soft tissues on one side of the patella lack tension (opposite the direction of luxation), normal loose tension should be restored. The excessive soft tissue can either be resected or imbricated using a Modified-Mayo "vest-over-pants" type suture.

It is important to appreciate that these soft tissue tension abnormalities likely develop secondary to patellar luxation rather than directly causing it. Correcting the soft tissue problems alone, although easier, is unlikely to successfully correct patellar luxation. Not performing at least one of tibial tuberosity transposition or femoral sulcoplasty result in higher risk of patellar relaxation.

For further details, please ask for a copy of our free step-by-step guide for patellar luxation.



PATELLA LUXATION STEP BY STEP GUIDE
BRPAT Step by Step Guide to Patellar Luxation £FOC

X-Acto Saw



Although not stainless, this fine toothed hard backed saw is ideal for wedge trochleaplasty. Provided the blade is kept absolutely dry, apart from the actual procedure, you will get several procedures from it before it needs replacing. Handle is aluminium. Consider also the Hard Backed Orthopaedic Saw (001004).

X-ACTO SAW		
XACTOB/H	X-Acto Saw Complete 270mm	£28.50
XACTOHANDLE	X-Acto Saw Handle only 140mm	£21.50
XACTOBLADE	X-Acto Saw Blade 0.3mm cut 140mm	£14.50
XACTOSTERILE	X-Acto Saw Blade Sterile 0.3mm cut 140mm	£20.50

Hard Backed Orthopaedic Saw



140mm Long 23mm Deep 0.4mm Cut.

In the style of the X-Acto Saw Blade but is stiffer and has slightly bigger teeth, more suitable for bone. It is made from stainless steel and can be autoclaved. The stiff back helps to guide the saw better than with hacksaw type blades which often deviate.

Use for wedge sulcoplasty and osteotomies up to 23mm deep.

HARD BACKED ORTHOPAEDIC SAW (STAINLESS)		
001004	Orthopaedic Hard Back Saw 0.4mm cut Stainless Steel 145mm	£39.50

Modular Osteotome with Ultra-thin Interchangeable Blades and Diamond Rasp



The osteotome is supplied as a comfortable handle into which fits a large range of blades. The blades are very thin (1.1mm) making them suitable for a variety of procedures including block sulcoplasty. The block including the articular cartilage may be harvested with minimal breakage of the block. Supplied as a handle plus the following blades 4mm, 6mm, 8mm, 10mm, 12mm, 15mm and 20mm. A new diamond-coated 6mm rasp has been added to the range to tidy up the corners of the sulcoplasty. Total length of Osteotome and Blade is 230mm.

MODULAR OSTEOTOME		
001380	Modular Osteotome Complete with 7 Blades	£225.00
001382	Modular Osteotome Replacement Blade 4mm	£27.50
001383	Modular Osteotome Replacement Blade 6mm	£27.50
001384	Modular Osteotome Replacement Blade 8mm	£27.50
001385	Modular Osteotome Replacement Blade 10mm	£27.50
001386	Modular Osteotome Replacement Blade 12mm	£27.50
001387	Modular Osteotome Replacement Blade 15mm	£27.50
001388	Modular Osteotome Replacement Blade 20mm	£27.50
001389	Modular Diamond Rasp 6mm	£52.50
001390	Modular Osteotome Replacement Blade 5mm (June 2014)	£26.50

Gordon Coronoid Osteotome



Originally developed for surgery on the medial coronoid, its thin, sharp blade and narrow widths are making this tool increasingly popular amongst surgeons for block sulcoplasty.

GORDON CORONOID OSTEOTOME

AR-17-30	Gordon Coronoid Osteotome (4mm)	£62.50
AR-17-29	Gordon Coronoid Osteotome (2mm)	£62.50

Universal Sulcoplasty Rasp



At 210mm long, this rasp is the same size as our established rectangular sulcoplasty rasp. One end is rectangular for adjusting block sulcoplasties and the other end has a triangular section for adjusting wedge sulcoplasties. We have worked on the tooth geometry to improve efficiency and control over the standard rectangular rasp. Where the rectangular sulcoplasty rasp cuts on push and the pull strokes, both ends of the universal rasp cut only on the pull stroke. The rectangular tip has two medium and two fine surfaces and the triangular tip has two fine surfaces.

UNIVERSAL SULCOPLASTY RASP

001021	Universal Sulcoplasty Rasp 210mm Long	£49.50
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Rectangular Sulcoplasty Instruments



A rectangular sulcoplasty retains the maximum articular cartilage. Creation of the sulcoplasty can be a challenge in that most osteotomes are too thick and the block tends to break up. Our super slim 8mm osteotome minimises breakup. The rectangular rasp is designed to tidy up the corners of the sulcoplasty to maximise 'fit'.

RECTANGULAR SULCOPLASTY INSTRUMENTS

001017	Super Slim Osteotome 8mm 180mm	£49.50
001018	Rectangular Bone Rasp 210mm	£39.50

Osteophyte Rasp



Most stifles requiring cruciate repair will exhibit some osteophytes. In some cases they may be bulky necessitating removal. The Osteophyte Rasp is a small yet very effective rasp to keep in the cruciate set.

OSTEOPHYTE RASP

001019	Osteophyte Rasp	£49.50
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Trochlea Rasp



Designed for deepening the trochlea groove, the trochlea rasp has a range of diameters to suit breeds from chihuahuas to bull terriers. For larger breeds perform a wedge or block trochleaplasty using a hard backed

saw. An accurately contoured trochlea is essential for a successful trochleaplasty. Articular cartilage is removed to be replaced by fibrocartilage. Total length 190mm.

TROCHLEA RASP

001020	Trochlea Rasp 11mm max 5mm min Diameter	£56.50
001022	Trochlea Rasp Small 8mm max 3mm min Diameter	£56.50

Corrective Osteotomy Sawguide System

Corrective osteotomy is a recognised procedure in the management of patella luxation particularly in medium and large dogs.



Positioning the osteotomy at the CORA (centre of rotation) can be a challenge.

Creating an accurate osteotomy at the site is a further challenge.

The new osteotomy and sawguide system allows the surgeon to create accurate osteotomies positioned at the correct site.



The Osteometer/ Sawguide is successfully employed in the TTO technique of cruciate management to create accurate small wedge osteotomies. In the TTO technique the sawguide is located into guide holes drilled into the bone. This is not an option in more cylindrical bones. The spinlock saw guide clamp incorporates an appropriate guide hole and can be clamped to virtually any bone. Once the osteotomy angle is determined the sawguide is secured into position using a 1.6mm K wire. The sawguide may then be moved very accurately from proximal to distal cuts to create the precalculated osteotomy.

CORRECTIVE OSTEOTOMY SAWGUIDE SYSTEM

TT0011	Osteometer/ Sawguide	£275.00
TT0013	Saw Guide Attachment Forceps 9 1/2" 245mm	£145.00

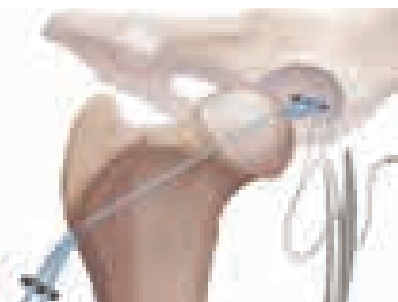
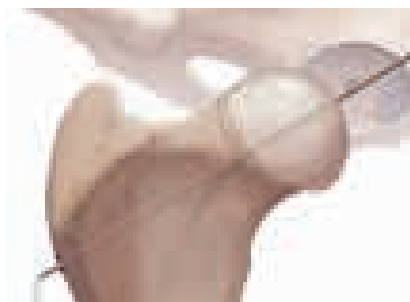
Hip Toggle

TightRope for Coxofemoral Luxation Repair

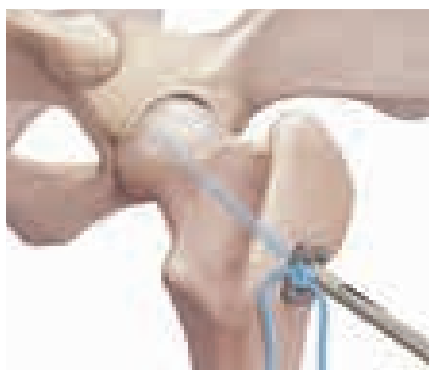
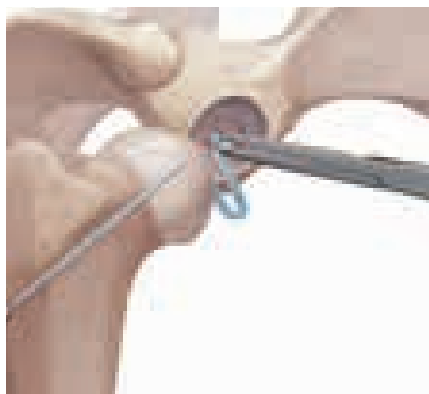
A good outcome using the hip toggle technique for coxofemoral luxation depends on the use of strong materials in this hostile environment, accurate placement of bone tunnels and application of the correct tension prior to closure. Arthrex offers both implants and instrumentation to address all of these issues.



Placement of a guide wire using the aiming device ensures accurate positioning of the drill and bone tunnel.



A hole large enough to accept the toggle is drilled through the fossa of the acetabulum (3.5mm TightRope. 2.7mm MiniTightRope). The lead needle is passed through the bone tunnel and the TightRope toggle is pulled through. Once the toggle is through, the lead needle is removed.



The toggle is pushed completely through the fossa hole. The slack in the FiberTape is removed from the lateral femur and the head replaced. A low tension (22-31 Newtons) is applied to each pair of FiberTape strands which are tied off with four throws.

ARTHREX COXOFEMORAL REPAIR

VAR-2800	TightRope Single Set	£190.00
VAR-2801	Mini TightRope Single Set	£140.00
VAR-2810	Femoral Aiming Guide	£995.00
VAR-8933-20C	Cannulated Drill Bit 2.0mm (use with VAR-8933K)	£110.00
VAR-8911DC	Cannulated Drill Bit 2.7mm (use with VAR-8920P)	£110.00
VAR-8920DC	Cannulated Drill Bit 3.5mm (use with VAR-8920P)	£110.00
VAR-8933K	1.1mm (0.045") Guidewire (Pack of 6)	£70.00
VAR-8920P	1.2mm (0.049") Guidewire (Pack of 6)	£70.00
VAR-1255-08	Nitinol Flexible Suture Passer (200mm)	£57.50
VAR-1529	Tensioner with Tensiometer	£495.00
VAR-11796	FiberWire Scissors	£250.00

Being the world's largest surgical company with a focus on ligamentous repair and joint reconstruction in humans, Arthrex knows a thing or two about joint stabilisation and their quality is second to none.

Other means of management should be considered when hip dysplasia is present; load sharing between structures is limited and premature implant failure or pull-through should be anticipated.

Hip Toggle Procedure

The hip toggle procedure is a well established technique for the management of traumatic and unstable subluxation of the the coxo-femoral joint. Although somewhat invasive it does have the advantage that by replacing the round ligament the hip has, postoperatively, a full range of movement.

However, the suture is placed into a very hostile abrasive environment and historically had a high failure rate. Newer materials have, to a degree, addressed this problem. LigaFiba® is spun Ultra High Molecular Weight Polyethylene. This is the same high wear material used for acetabular cups in Total Hip Replacement. For any given weight (or diameter) LigaFiba® is 2.5 x stronger than the traditional monofilament nylon. In addition the softer more flexible nature of the material allows a relatively larger implant to be passed along bone tunnels. LigaFiba® has in addition better wear characteristics than nylon.



Veterinary Instrumentation is pleased to offer an updated range of hip toggles based on LigaFiba®. The range includes the new 2.0mm and 2.5mm toggle. Use of a dedicated introducer facilitates the introduction of the toggle through the acetabulum into the pelvis.

Notes on the use the the Hip Toggle system

1. Expose femoral head and floor of acetabulum via a cranio-lateral approach. Perform a trochanteric osteotomy if necessary. The text 'An Atlas of Surgical Approaches to the Bones and Joints of the Dog and Cat' by Piermattei is an almost essential part of any veterinary surgeons library. Code BK02 see page 321.
2. Clear soft tissues (mostly shredded round ligament) from acetabulum and fovea of femoral head.
3. Drill a hole through the acetabular fossa (effectively the origin of the round ligament). Drill size required
 - 3mm Toggle plus 250lb LigaFiba 4.5mm drill
 - 3mm Toggle plus 80lb Nylon 4.8mm drill
 - 2.5mm Toggle plus 250lb LigaFiba 4mm drill
 - 2mm Toggle plus 150lb LigaFiba 2.7mm drill
4. Load the toggle into the insertion tool. The 'long' end goes into the inserter tip. The suture is retained onto the inserter shaft by sliding the silicone ring over the toggle and inserter.
5. Push projecting toggle into hole in acetabulum.
6. Insert plunger and eject toggle into pelvic canal. Toggle should 'flip' out preventing pull out. Check toggle security.
7. Drill a bone tunnel (2.5-3.5mm) from fovea exiting from proximal lateral femur.
 - a. Use Adjustable Drill Guide for best results. (ADJDG2035)
 - b. 'Eyeball' it
 - c. Drill from fovea to femur (requires severe external rotation of femur)
8. Pass free suture ends down the femoral neck tunnel from fovea to femur. LigaFiba® will require a suture puller or alternatively a folded loop of fine cerclage wire may be passed from lateral to medial to exit at the fovea. Pass the LigaFiba® through the loop and pull back. Check there are no soft tissues (usually joint capsule) interposed between head and acetabulum.
9. Pass ends of the suture through holes in Ormrod button, pull tight and tie temporarily. Check that coxo-femoral joint has a full comma of movement. Tie securely over button. Over-tightening is a technical error and will result in premature failure of the suture.

NOTE: The implant always breaks within a few weeks of placement regardless of technique and material. The toggle provided temporary stability only. If it becomes necessary to remove the suture, locate the Ormrod button and remove both button and suture. It is not possible to retrieve the toggle which, lying extra-articularly, does not cause a problem.

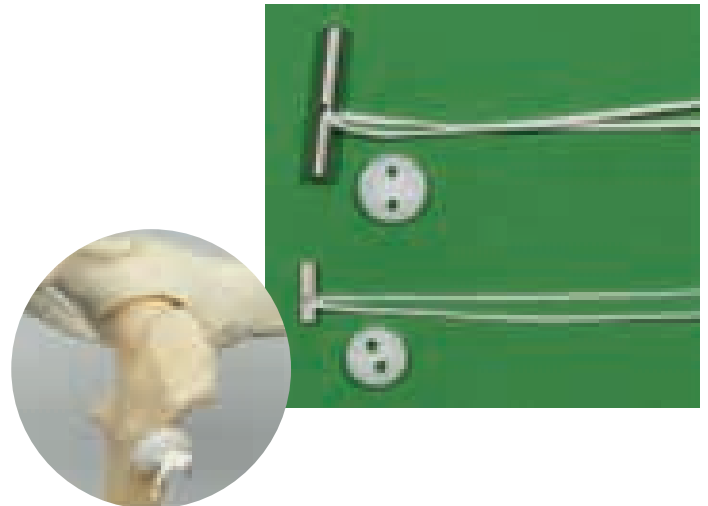
Hip Toggle Introducer

The Hip Toggle has an 'eye' to hold the suture and is made from stainless steel 316LVM. Use the adjustable drill guide to accurately place the hole in the femoral neck, (see chapter 7).

All sterile packs contain a nylon Ormrod button for secure fixation of the suture. Available with monofilament nylon or braided LigaFiba®. LigaFiba® is easier to work with, is stronger and ties better. However, it is a braided material with higher infection risks.



LigaFiba® Hip Toggles



Braided polyethylene is 2.5 x stronger than monofilament nylon and has the additional benefit of a high resistance to abrasion. These properties are ideal for a hip toggle suture. Additionally the braided material conforms better and will therefore pass through a smaller hole. The new 2mm toggle and 150lb (68kg) will pass through a 2.7mm bone tunnel.

HIP TOGGLES		
HIPTOGLF250	Hip Toggle 3.0mm + 250lb LigaFiba® Ormrod Button (Sterile Pack) Dogs over 10kg	£26.00
HIPTOGLF250M	Hip Toggle 2.5mm + 250lb LigaFiba® Ormrod Button (Sterile Pack) Dogs over 10kg	£26.00
HIPTOGLF150	Hip Toggle 2.0mm + 150lb LigaFiba® Ormrod Button (Sterile Pack) Dogs under 10kg	£26.00
HIPTOG	Hip Toggle 3.0mm + 80lb Nylon Ormrod Button (Sterile Pack)	£21.00
HIPINTLF250	Hip Toggle Introducer + Hip Toggle with 250lb LigaFiba® + Ormrod Button (sterile pack)	£105.00
HIPINT	Hip Toggle Introducer + Hip Toggle with 80lb Nylon + Ormrod Button (sterile pack)	£105.00
HIPTOGKITLF	Contains Introducer, Hip Toggle with 250lb Drill Guide 3.5 & 4.5mm Drills (discounted)	£295.00
HIPTOGKIT	Contains Introducer, Hip Toggle with 80lb Nylon, Drill Guide, 3.5 & 4.8mm Drills (discounted)	£295.00
ADJDG2035	Adjustable Drill Guide 2.0, 2.5, 3.5mm Drills	£205.00
TOG	Hip Toggle only 3.0mm (non sterile)	£11.50
TOGM	Hip Toggle only 2.5mm (non sterile)	£11.50
TOGS	Hip Toggle only 2.0mm (non sterile)	£11.50
TIBUT6H	Titanium Button 6mm 2 Holes (non sterile)	£18.50
TIBUT9H	Titanium Button 9mm 2 Holes (non sterile)	£18.50
TIBUT11H	Titanium Button 11mm 2 Holes (non sterile)	£18.50

Hip Toggle Break-off Style



Placing a hip toggle has been a popular technique for managing hip luxations for many years. Despite being very intuitive in that it attempts to replace what was broken, the technique was not without problems. Placing the toggle was difficult in that the insertion point through the fovea of the acetabulum was both deep and dark, additionally the toggle itself, even the largest versions were small and difficult to hold and insert. Another major issue was that the inside of the hip joint is a very hostile environment for the toggle retaining suture which was subject to both tension and abrasion. Early failures were common.



The break-off hip toggle combined with the new suture material LigaFiba addresses these problems. The toggle is supplied as a 150mm pin with a break off point just above the toggle. Positioned into the inserter, the distal half of the toggle may be pushed into the hole in the acetabulum. Rocking the pin against the inserter breaks off the toggle which is then pushed through the hole using the broken off pin as a 'pusher'.

LigaFiba® is very strong (2.5 x as strong as monofilament nylon) with good abrasion resistance. It is easy to handle and requires a smaller acetabular hole for any given diameter of nylon. Despite being braided we have had very few reports of infection.

HIP TOGGLES BREAK OFF		
HIPTOG25BOP	2.5mm Break Off Hip Toggle with 150lb LigaFiba®	£35.00
HIPTOG30BOP	3.0mm Break Off Hip Toggle with 250lb LigaFiba®	£35.00
HIPTOG25APP	2.5mm Break Off Hip Toggle Applicator	£62.50
HIPTOG30APP	3.0mm Break Off Hip Toggle Applicator	£62.50

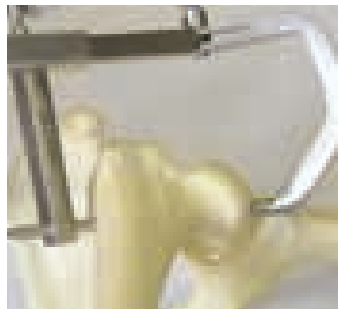
Surgical Technique for Break Off Toggle

Most chronic hip luxations are in the cranio-dorsal position. The initial dissection is to expose the head of the femur prior to creating the bone tunnel and to expose the acetabulum. It is important to clear the acetabulum of soft tissue prior to the toggling procedure. Preserve the joint capsule as far as is possible.



Key points to this procedure are:

- Careful dissection and clearing of acetabulum
- Accurate positioning of the femoral bone tunnel
- Accurate positioning of the acetabular hole
- Careful reduction and tensioning of the suture.
- Over tensioning is as great a technical error as under tensioning.
- Check for a full range of motion before final tying.



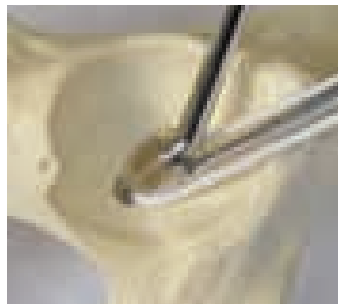
Drill a bone tunnel from the fovea to the lateral femur. Use of a drill guide will help direct the the drill. Use 2.5mm drill.

Drill a hole through the acetabular fossa large enough to allow the toggle and LigaFiba® to pass. 4.0mm drill for 3.0 toggle, 3.2mm drill for 2.5mm toggle.



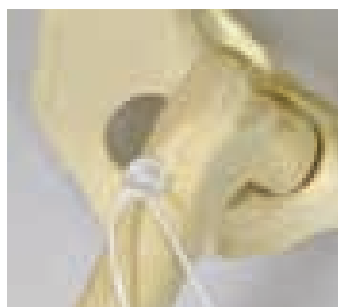
Load the break off toggle into the applicator from the distal end. Pull the LigaFiba® back along the shaft of the applicator to retain the toggle.

Place the tip of the toggle through the hole in the acetabular fossa. Pressing the applicator into position will retain the LigaFiba®.



Rock the shaft of the toggle pin to and fro until the shaft breaks off. Using the shaft, push the toggle through the hole in the acetabular fossa and ensure that it flips and engages.

Pass a suture puller or folded fine wire from lateral femur through the bone tunnel and pull the LigaFiba® strands through. See video clip on www.vetinst.com



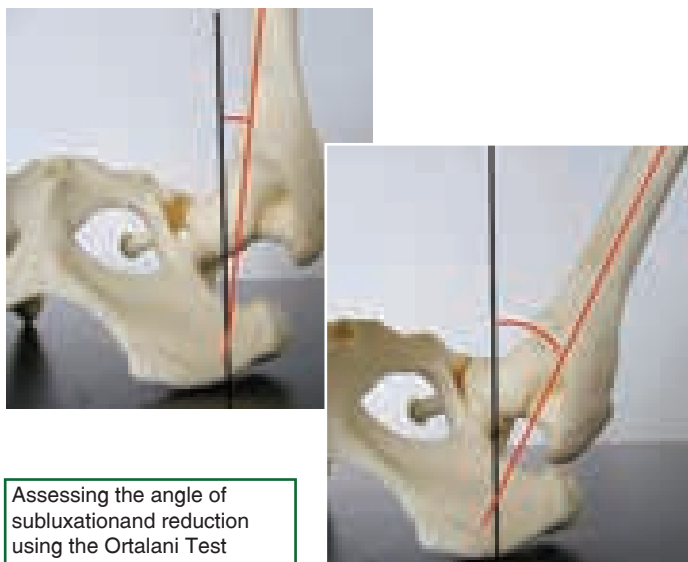
The strands are pulled tight but tied loosley over the button. Check for full range of motion and complete tie. Do not over tighten which will lead to early failure.

TRIPLE AND DOUBLE PELVIC OSTEOTOMY

Triple pelvic osteotomy (TPO) was described by Barclay Slocum in 1986 as a means to improve dorsal acetabular cover of the femoral head, reducing dorsal hip subluxation and damage to the dorsal acetabular rim. Performed early enough, TPO helps to mitigate progression of degenerative joint disease and maximises hip congruity and surgery is typically performed between five to eight months of age.

Different methods can be used to assess the amount of correction required. Candidates should ideally have no evidence of osteo-arthritis and an intact dorsal acetabular rim (DAR). The quality of clunk when performing the Ortolani test gives an impression of the quality of the dorsal acetabular rim. When testing hip instability using the Ortolani test, suitable candidates should have angle of reduction not exceeding 30-35°.

Dorsal Acetabular Rim Skyline radiographs are used by some surgeons to better define the integrity of the DAR and to provide additional information for planning the extent of a correction.

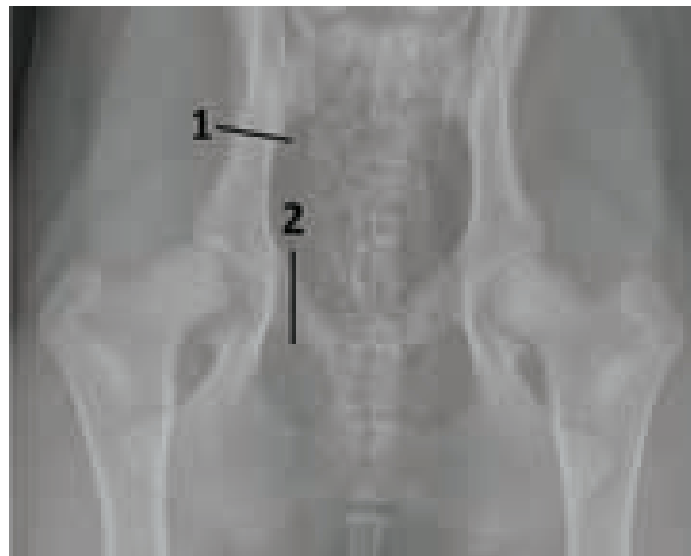


Assessing the angle of subluxation and reduction using the Ortolani Test

TPO involves cutting the ilium, ischium and pubis to free the acetabular segment. The acetabular segment is rotated ventrally and the ilial osteotomy is plated to maintain rotational correction. The pubic osteotomy may be wired to improve stability, though this is not always very effective and has largely been dropped.



TPO had fallen out of favour with many surgeons because of a number of factors including the difficulty in diagnosing dogs early enough that degenerative changes are not already present, that results can be sub-optimal if the envelope is pushed to include dogs that are borderline of the inclusion criteria, plus the improvements in outcome with total hip replacement providing preferable alternative options for many cases.



Recently, the procedure has been refined in an attempt to create a more stable construct with less post-operative implant failure problems. The advent of locking implants including locking TPO plates has improved construct stability and reduced complications such as implant loosening and screw pull-out.

Performing a double pelvic osteotomy (DPO) where only the ilium and pubis are cut, and the ischium remains intact, is less de-stabilising to the pelvis than TPO. The technique was first described at ESVOT in 2006 following in-vitro studies by P. Haudiquet and J. Guillon and was followed by publication of a clinical case series by Aldo Vezzoni et al in VCOT in 2010.

In contrast to TPO, DPO creates quite a lot of tension in the pelvis as the acetabular segment is twisted outwards, and achieving the correct amount of rotation can be challenging. Due to the influence of these torsional forces, it is suggested that a correction of an additional 5° on TPO be performed. Locking implants are particularly helpful in managing the increased forces of DPO.

An intermediate option is to perform a modified TPO or a 2.5 pelvic osteotomy. This is half-way between the DPO and the TPO, whereby an incomplete osteotomy of the ischium (line 3) – only the dorsal ischial cortex is cut. This reduces the torsional forces inherent in DPO without as much destabilisation of the pelvis as TPO.

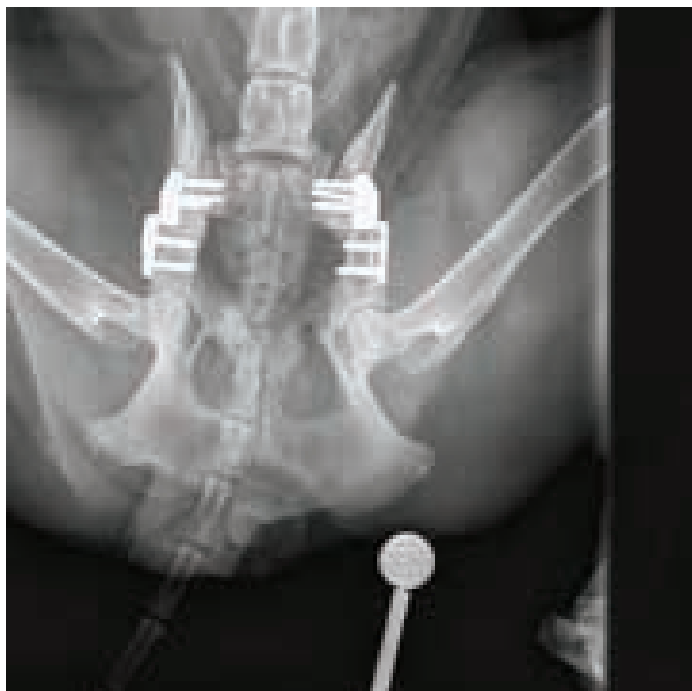
Slocum Style TPO/ DPO Plates – Non-Locking and Locking



Locking

A stepped implant minimising issues relating to pelvic narrowing. The original Slocum plate was designed for 3.5mm non-locking screws with three screw-holes on either side of the iliac osteotomy and a small hole on the caudal part of the plate for the addition of a cerclage wire.

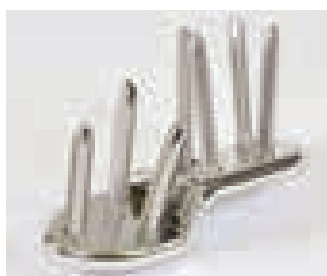
Veterinary Instrumentation Slocum style TPO/DPO plates have the same lay-out as the original Slocum plate and are available in non-locking and locking variants. The non-locking versions feature round non-locking holes and DCP holes like the original Slocum plate. The locking version features three parallel stacked locking holes caudally (will accept cortical or locking screws), one DCP hole for compression on the cranial segment permitting osteotomy compression and two parallel stacked locking screws cranially. The caudal part of both plate styles has a hole for additional cerclage wire fixation.



X-Ray and Case: Jean-Benoit Lefebvre.

LOCKING SLOCUM STYLE TPO & DPO PLATES 3.5MM		
09910320L	Slocum Style TPO/ DPO Plate 20 Left	£75.00
09910420R	Slocum Style TPO/ DPO Plate 20 Right	£75.00
09910525L	Slocum Style TPO/ DPO Plate 25 Left	£80.00
09910625R	Slocum Style TPO/ DPO Plate 25 Right	£80.00
09910730L	Slocum Style TPO/ DPO Plate 30 Left	£85.00
09910830R	Slocum Style TPO/ DPO Plate 30 Right	£85.00
09920320L	Slocum Style TPO/ DPO Plate 20 Left Locking	£80.00
09920420R	Slocum Style TPO/ DPO Plate 20 Right Locking	£80.00
09920525L	Slocum Style TPO/ DPO Plate 25 Left Locking	£85.00
09920625R	Slocum Style TPO/ DPO Plate 25 Right Locking	£85.00
09920730L	Slocum Style TPO/ DPO Plate 30 Left Locking	£90.00
09920830R	Slocum Style TPO/ DPO Plate 30 Right Locking	£90.00
LSDG35XL	3.5 Locking Screw Drill Guide Extra Long	£52.50

VI Locking TPO/ DPO Plates



The Veterinary instrumentation TPO/DPO plates are similar to, but have larger footprints than the Slocum style plates. They are available in both 2.7mm and 3.5mm sizes. Both feature divergent stacked locking holes on cranial and caudal sections to maximise implant security and a compression hole on the cranial portion.



The 2.7mm plates have three screw holes cranially and caudally. The 3.5mm plate has four holes cranially and three holes caudally.

VI LOCKING TPO & DPO PLATES		
09930320L	3.5 TPO/ DPO Locking Plate 20 Left	£90.00
09930420R	3.5 TPO/ DPO Locking Plate 20 Right	£90.00
09930525L	3.5 TPO/ DPO Locking Plate 25 Left	£95.00
09930625R	3.5 TPO/ DPO Locking Plate 25 Right	£95.00
09930730L	3.5 TPO/ DPO Locking Plate 30 Left	£100.00
09930830R	3.5 TPO/ DPO Locking Plate 30 Right	£100.00
09940320L	2.7 TPO/ DPO Locking Plate 20 Left	£90.00
09940420R	2.7 TPO/ DPO Locking Plate 20 Right	£90.00
09940525L	2.7 TPO/ DPO Locking Plate 25 Left	£95.00
09940625R	2.7 TPO/ DPO Locking Plate 25 Right	£95.00
09940730L	2.7 TPO/ DPO Locking Plate 30 Left	£100.00
09940830R	2.7 TPO/ DPO Locking Plate 30 Right	£100.00
LSDG2724XL	2.7 Locking Screw Drill Guide Extra Long	£52.50
LSDG35XL	3.5 Locking Screw Drill Guide Extra Long	£52.50



XL Locking drill guides

Extra-long locking drill-guides simplify working in deeper spaces, especially useful for TPO/ DPO.

XL LOCKING DRILL GUIDES		
LSDG2724XL	2.7mm Locking Screw Drill Guide - Extra Long	£52.50
LSDG35XL	3.5mm Locking Screw Drill Guide - Extra Long	£52.50

VI Twistable TPO/DPO Plates

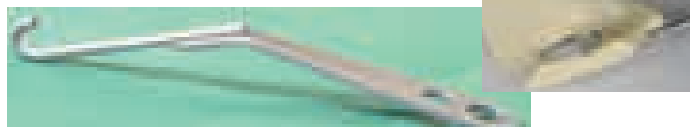


Supplied flat to be twisted prior to surgery or supplied pre-bent to 30°, these plates offer flexibility over desired rotation

and are used with non-locking screws in either 3.5mm or 4mm diameter. Neither addressing pelvic narrowing or featuring locking holes, these are being superseded by other plate designs.

TRIPLE PELVIC OSTEOTOMY PLATE		
090167	Large TPO Plate	£55.00
090179	Small TPO Plate	£50.00
090167L30	Large TPO Plate Prebent 30° Left	£60.00
090167R30	Large TPO Plate Prebent 30° Right	£60.00
090179L30	Small TPO Plate Prebent 30° Left	£55.00
090179R30	Small TPO Plate Prebent 30° Right	£55.00
HDTPODVD	TPO Technique DVD Hamish Denny	£50.00

Van Vooren Gigli Wire Passer



Developed by Nick VanVooren, this device simplifies passage of Gigli wire around the ischium and pubis for TPO and the pubis for DPO. The wire is passed down the tube, where the bend forces it back on itself for easy retrieval. Total length 160mm.

GIGLI WIRE PASSER		
001518	Gigli Wire Passer - 160mm Long	£69.50

Femoral Head and Neck Excisional Arthroplasty

Excision Arthroplasty Rasp



Designed specifically to remove any bone spurs following excision arthroplasty. Failure to remove bone spurs is the most common cause of problems with this procedure. Teeth cut on the back stroke.

EXCISION ARTHROPLASTY RASP

001010 Excision Arthroplasty Rasp 170mm Long **£57.50**

Disarticulator

Rupture of the round ligament (Teres) can be extremely difficult to achieve. The disarticulator is designed to elevate the femoral head ready for excision. The notch at the tip of the instrument engages and ruptures the round ligament. The disarticulator is also particularly useful in manipulation of the humeral head in OCD lesions, investigation of elbow lesions and as a general tissue retractor. If you cannot see the cut end of the round ligament you probably have not resected it.



DISARTICULATOR

001090 Small Disarticulator 145mm Long **£52.50**

001091 Large Disarticulator 195mm Long **£55.00**

Hatt Spoon



An alternative to the disarticulator in large dogs. The edge of the spoon is sharp. As used by Martin Olmstead. Our pattern has a fibre handle and a finer shaft for better balance.



HATT SPOON

001092 Hatt Spoon 230mm (17mm x 30mm Scoop) **£65.00**

001093 Hatt Spoon 230mm (12mm x 18mm Scoop) **£65.00**

001094 Hatt Spoon 230mm (7mm x 12mm Scoop) **£65.00**

00109SET Hatt Spoon Set of 3 (as above) **£125.00**

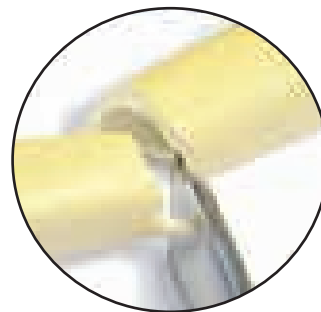
Hohman Retractors

Hohman Retractors are deceptively useful instruments with a number of uses:

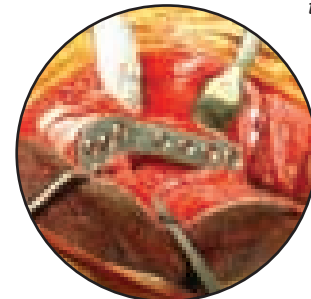
- Bone levers as an aid to fracture reduction.
- Bone levers as an aid to elevating the site of interest, examples include exposing the femoral head and the acetabulum during hip surgery and also joint distraction during stifle surgery.
- As soft tissue retractors to improve bone visualisation and access whilst performing many joint and fracture procedures.
- As positioning aids to aid implant placement on bones.

In some cases, the Hohman Retractor will achieve more than one of these uses at the same time – eg simultaneous soft tissue distraction and fracture reduction. Often multiple Hohman Retractors are used at the same time. For many applications, having an assistant available to hold these instruments in place is a distinct advantage.

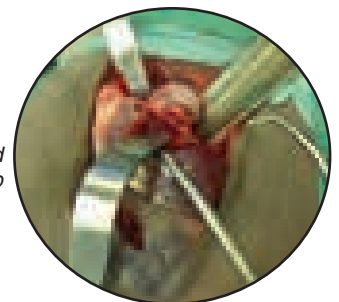
In multiplying the force available at the working end, the mechanical advantage offered by Hohman Retractors not only makes certain applications feasible, but allows for much greater control in use and can significantly reduce fatigue in the hands of the operator.



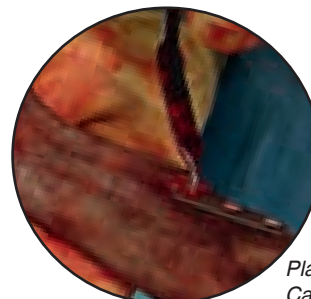
*Gutter Hohman
Used for fracture reduction*



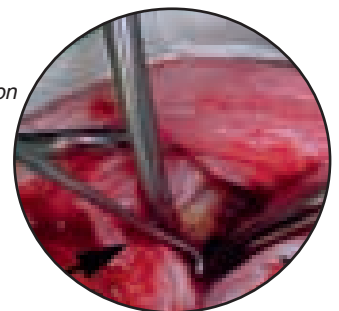
*Working around
the hip*



*Hohman retractors for exposure
Case: Simon Roch & Toby Gemmill*



*Plate manipulation
Case: Noel Fitzpatrick*



Joint distraction

Because of their varied uses, the large variation in the size of our patients and the individual manner in which surgeons prefer to use these instruments, there are now well in excess of a dozen different designs to choose from.

Anatomy of a Hohman Retractor



**Hohman Retractors with Short Tips
18mm & 12mm Blades**



001041



001042

These are the archetypal Hohman Retractors often described in textbooks as 'Hohman'.

Our 240mm long version with an 18mm wide blade (001041) is the ideal companion for manipulating the larger bones of dogs over about 20kg where considerable force may be required and where there may be a considerable depth of tissue overlying the bone. If you perform fracture surgery in patients over 20kg, this instrument can help avoid considerable frustration, especially where the bone ends have over-riden.

For slightly smaller dogs, smaller bones and for working in areas which require less force to be applied, 001042, with a shorter overall length at 175mm and a 12mm wide blade works very well. This is a very useful size for procedures such as retracting the fascia lata during CrCL repair.

HOHMAN RETRACTORS WITH SHORT TIP		
001041	Hohman Retractor 18mm Short Narrow Tip Total Length 240mm	£56.50
001042	Hohman Retractor 12mm Short Narrow Tip Total Length 175mm	£56.50

Mini Hohman 6mm & 8mm Blade and Short Tip



Manipulation of smaller bones and small bone fragments requires careful retraction of soft tissues to minimise devascularisation. The finer build of these retractors makes them ideal for these purposes with 001048 (8mm wide blade) being particularly well suited to the long bones of cats.

Mini Hohmans allow delicate, precise retraction of the vital soft tissues allowing placement of screws or wires.

MINI HOHMAN 6MM AND 8MM SHORT TIP		
001047	Mini Hohman Retractor 6mm Short Tip 165mm Long	£56.50
001048	Mini Hohman Retractor 8mm Short Tip 165mm Long	£56.50

Micro Hohman 4mm with Short Narrow Tip



For some patients and some procedures, even our mini 6mm Hohman is too big. The micro 4mm Hohman is scaled down even further. Two versions are available, the standard version and a version with a long, narrow shaft to work within standard instrument portals for arthroscopy.

MICRO HOHMAN 4MM SHORT NARROW TIP		
001049	Micro Hohman Retractor 4mm Short Tip 160mm Long	£56.50
001049A	Micro Hohman Retractor 4mm Short Tip with narrow shaft for arthroscopy 160mm Long	£64.50

Hohman Retractor Broad with Short Narrow Tip



001045



001046

Broad Hohman Retractors are useful for working around larger muscle bellies, where the broad blade provides more effective retraction than the standard version, with less focal pressure on soft tissues.

The 48mm Hohman can be used in larger dogs for elevation of the femoral head and neck during excisional arthroplasty or toggling. The 24mm is most useful for retracting muscle during plating and cerclage procedures.

HOHMAN RETRACTOR BROAD WITH SHORT NARROW TIP		
001045	Hohman Retractor 48mm Short Narrow Tip 260mm Long	£56.50
001046	Hohman Retractor 24mm Short Narrow Tip 185mm Long	£56.50

Mini Hohman Broad Blade with Narrow Tip



A very useful instrument for improving visualisation and access to the mid-diaphysis of cat and small dog bones, but equally at home for the carpus and tarsus of larger patients, especially where ligaments and tendons need displacement. The blade is 15mm wide and the overall length is 120mm.

MINI HOHMAN BROAD BLADE SHORT TIP		
001040	Mini Hohman 15mm Broad Blade 120mm Long	£64.50

Hohman Retractor with Long Broad Tip



001043



001044

Useful in and around the shoulder joint and other retraction situations when a blunt tip is desirable.

HOHMAN RETRACTOR WITH LONG BROAD TIP		
001043	Hohman Retractor 24mm Long Broad Tip 280mm Long	£59.50
001044	Hohman Retractor 18mm Long Broad Tip 175mm Long	£59.50

Gutter Hohman



The Gutter Hohman is the brain-child of Haralabos Haralabidis, DVM from Athens. The gutter profile of the blade's top surface helps to prevent bones from slipping off sideways until reduction has been achieved. This instrument is most useful for oblique fractures of the long bones of medium size dogs.

GUTTER HOHMAN RETRACTOR		
001035	Gutter Hohman Retractor 180mm Long	£67.50

Retractors designed specifically for use in and around the Hip Joint

With the large muscle bulk normally present around the hip, it is very difficult to perform quality surgery without the exposure achieved through adequate retraction. Although some of the standard hohman retractor patterns can be used around the hip, there are various Hohman retractors that have been designed specifically for veterinary hip surgery.

Swan-Neck Hohman



Suggested by Martin Owen for elevation and exposure of the femoral head and neck, the cranked neck of this instrument helps to keep the femur and your hand out of the surgical field. Suitable for medium to large dogs.

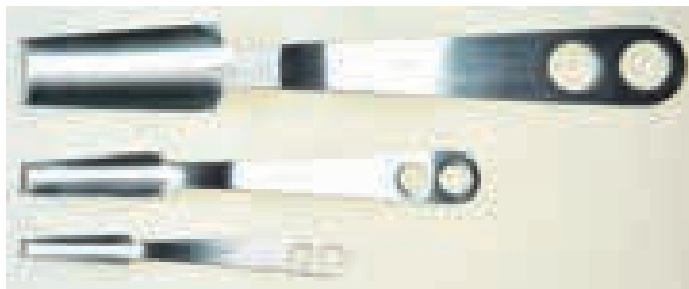
SWAN-NECK HOHMAN

001034 Medium Swan-Neck Hohman 11mm Blade, Short Tip 220mm Long **£69.50**

Hip Hohman



Originally developed as a Hohman specifically for Total Hip Replacement (THR), this style has proved useful in elevating the head of the femur for other hip procedures such as toggling and femoral head and neck excisional arthroplasty (FHNEA). The multiple small teeth at the end lip of these instruments sit securely on the femoral neck outside the zone of articular cartilage.



Three sizes are available. Approximate guidelines are as follows:

Large	> 30kg
Medium	10 - 30kg
Small	< 10kg

HIP HOHMAN

001038 Large Hip Hohman 255mm Long 25mm Wide Blade **£69.50**
001037 Medium Hip Hohman 175mm Long 13mm Wide Blade **£69.50**
001036 Small Hip Hohman 125mm Long 8mm Wide Blade **£69.50**
0010300SET Hip Hohman Set of 3 (as above) **£160.00**

Hohman Retractor 20mm Wide with Short Kinked Tip



This Hohman is designed for femoral head and neck retraction for THR after the femoral head has been removed in order to visualise the acetabulum for acetabular reaming. The idea is that the bent tip of the Hohman is engaged caudoventral to the acetabulum with the osteotomised surface of the femoral neck behind it, and then the Hohman is retracted to pull the femoral neck out of the way of the reamer.

By letting the Hohman do all the work for you, this leaves the surgeon or assistant less fatigued than having to get a rake retractor or Meyerding on the greater trochanter to physically pull the femur out of the way. More predictable retraction makes reaming much easier!

Total length 200mm.

HOHMAN RETRACTOR 20MM WIDE WITH SHORT KINKED TIP

001039 Hohman 20mm Wide with Short Kinked Tip 200mm Long **£69.50**

OCD Curette



Loose flaps of cartilage at the OCD lesion must be removed. The double ended OCD curette is designed to perform this task within the limited space available. Healthy fibrocartilage within the lesion should not be disturbed.

OCD CURETTE

001030 OCD Curette 215mm Long **£52.50**
001032 OCD Curette Small 180mm Long **£52.50**

Adjustable Bone Saw



Useful for many bone procedures, this saw comes complete with five, fine chrome plated blades. Blade length is adjustable from 40mm to 100mm. Procedures include trochleoplasty, tibial crest transplants, amputations, trochanteric osteotomy and excision arthroplasty. Also useful for splitting multi-rooted teeth prior to extraction. Blade material is hard enough to cut stainless steel implants. Handle length 130mm. Blade length 155mm.

ADJUSTABLE BONE SAW		
001000	Adjustable Bone Saw c/w 5 Fine Blades	£59.50
001001	Spare Fine Blades Pack of 5 Chrome Plated	£17.50
001000SS	Adjustable Bone Saw Blade (Single) Sterile	£7.75

Rhinotomy/ Plaster Saw Blade



This is a curved stainless blade with a radius of 15mm. Useful for rhinotomy, plaster cutting and osteotomies where access is limited, e.g. radius, ulna and ilium during a TPO. Total length 85mm.

RHINOTOMY/ PLASTER SAW BLADE		
001003	Rhinotomy/ Plaster Saw Blade (single) 85mm Long	£15.95

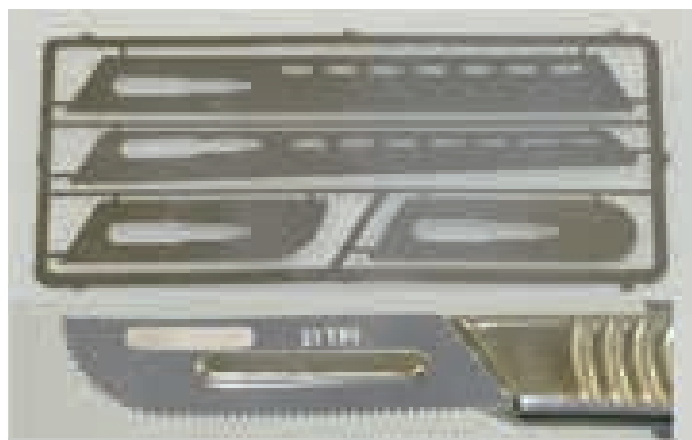
Coarse Stainless Blade



Very useful for larger patients. The tooth pitch is 15 teeth per inch. This blade does not clog easily.

COARSE STAINLESS BLADE		
001002	Coarse Stainless Blade (single) 140mm Long	£15.95

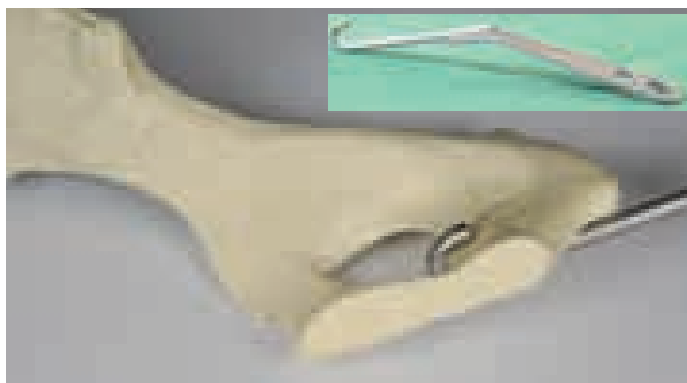
Saw Blades for Scalpel Handles



Four different blades are included in the Saw Set. All Saws fit the No3 scalpel handle. The blades are very thin (0.25mm) making them suitable for a variety of small bone cutting procedures. Scapel Blade Kit includes 3 sets of Blades and a free Scapel Handle (0803VI).

SCALPEL FIT SAW BLADES		
SBLSET	Scalpel Fit Saw Blades (4 different Blade styles)	£18.95
SBLKIT	Scapel Saw Blade Kit (3 of above plus Handle)	£52.50

Gigli Wire Passer - Nick VanVooren



Minimally invasive passing of Gigli wire around the ischium for TPO/ DPO can be challenging. This device, developed by Nick VanVooren simplifies this process. The wire is simply passed down the tube, where the bend forces it back on itself for easy retrieval. Total length 160mm.

GIGLI WIRE PASSER		
001518	Gigli Wire Passer - 160mm Long	£69.50

Gigli Wire - 10m Spools

Eyed wire will not pass through the tube of the wire passer, so wire without eyes is required. Simply cut to length before autoclaving. We would advise allowing another 10-15mm more than with eyed wires to allow attachment to the handles.

GIGLI WIRE - 10M SPOOLS		
001519	Gigli Wire - 10m Spool	£82.50

VI Handles for Gigli Wire

Attachment of non-eyed wires to these handles is achieved by means of a thumb screw. The wire is gripped more firmly if it is wrapped once around the handles before tightening the screw.



VI HANDLES FOR GIGLI WIRE		
001514	VI Handles for Gigli Wire 110mm (Pair)	£57.50

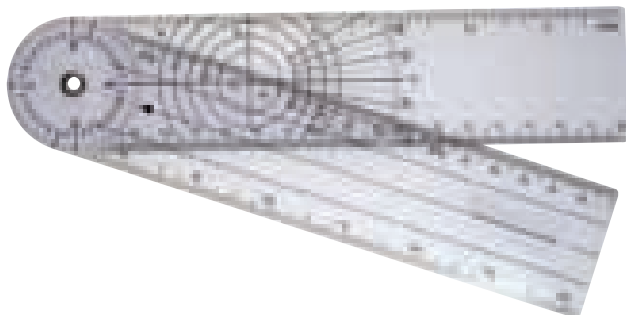
Gigli Saw

Essentially a bone cutting wire. More useful in large dogs. Hard to persuade the saw to cut where you want it to. Can be threaded through holes to make inaccessible cuts. e.g. ulna osteotomies.



GIGLI SAW		
001515	Gigli Saw Handles (pair) 75mm	£42.50
001516	Gigli Saw 30cm	£11.00
001517	Gigli Saw 50cm	£12.00

Goniometer



The Goniometer may be used for the calculation of tibial plateau angles, wedge resections, angles of anteversion etc. Also used to measure pre and post-op range of motion of joints together with the effect of physiotherapy. Clients may use to measure progress. 360° measurement.

GONIOMETER

GONIO	Goniometer 6" 150mm (illustrated)	£16.50
GONIO2	Goniometer 12" 300mm	£25.00

Stainless Steel Goniometers

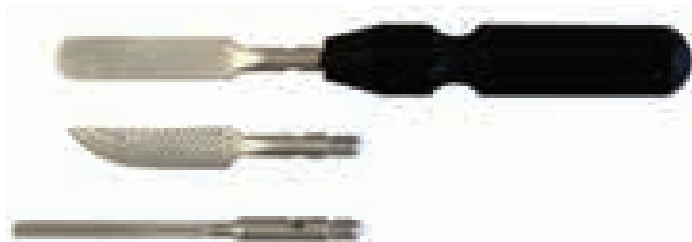


For intra surgery use or where a more robust instrument is required. The Femoral Neck Goniometer is useful for assessing implant size in hip replacement.

STAINLESS STEEL GONIOMETERS

GONIO3	Stainless Steel Goniometer 340mm Long	£66.50
HE-GONIO	Femoral Neck (Stainless Steel) Goniometer 120mm Long	£66.50

Combination Bone Rasp Set



The three Interchangeable Rasp Blades offer a range of cutting surfaces, flat, round and 'putti' style. The handle has an ergonomic design which is easy to grip even when wet.

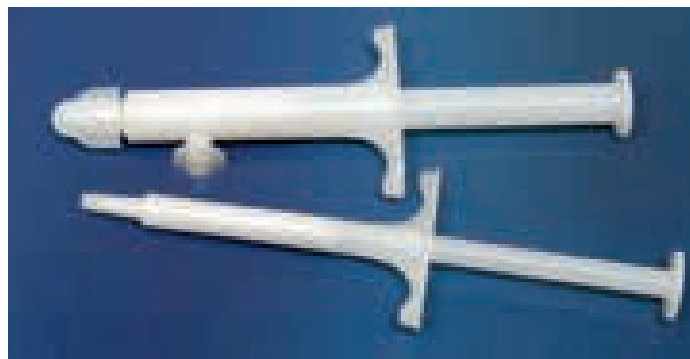
COMBINATION BONE RASP SET

001015	Combination Bone Rasp with 3 Interchangeable Heads	£165.00
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NanoPaste Bone Substitutes

The sterile presentation is an aqueous paste supplied in a syringe (2.5ml or 5.0ml). The paste may be injected directly into a defect where it conforms to fill the space. The paste is readily colonised by bone cells and acts as a scaffold encouraging penetration of host bone. The putty-like consistency means that the paste may be pressed onto bone where it sticks until resorbed. NanoPaste is very similar to Ostim™ which has an established clinical record.

Applications include: joint arthrodesis, TTA Rapid, non-unions, delayed unions and filling spine cages.



NanoPaste and TTA Rapid

Use to save time harvesting autograft or when the quality of the autograft is poor. NanoPaste will extend autograft.

NanoPaste may be injected directly into the defect where it conforms to the defect shape.

Nano HA paste conforms to ENISO 13779-1:200 and ASTM F1185-88 for medical grade HA.

NanoPaste is also available in a granule formulation 'ReproBone' (see page 269) which may be used alone or as an extender of natural cancellous bone graft.

NANOPASTE

PAS2.5	NanoPaste Syringe 2.5ml	£74.50
PAS5	NanoPaste Syringe 5ml	£115.00

Veterinary Tissue Bank

Veterinary Tissue Bank is Europe's first tissue bank dedicated to helping companion animals.

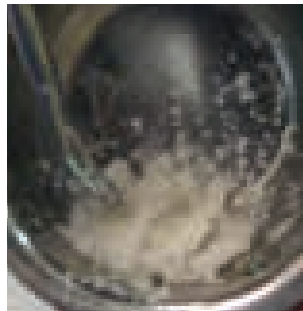
Products are available in various presentations, and have many applications from use during procedures such as TTA rapid and joint arthrodesis to dealing with the difficult non-union case.



DBM

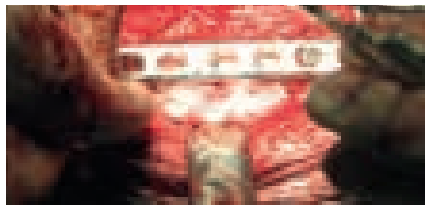
Demineralised Bone Matrix (DBM) is cortical bone which has been cut, milled into fine particles and washed to remove soft tissues, cells and marrow elements. Further processing removes minerals to leave collagen matrix and endogenous bone growth factors such as bone morphogenic proteins.

DMB is used where osteoinduction is required but the graft does not require any structural properties, for example in small joint arthrodesis.



DBM is rehydrated with saline prior to use.

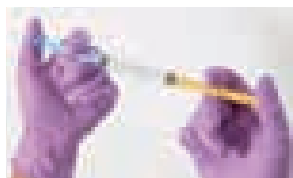
Packed around a comminuted tibial fracture in a 2 year old German Shepherd Dog.



Available in either Canine or Feline Powder, or now as DBM Putty (Canine only).

DBM Putty

A new product, this is supplied as a two part product for reconstitution. DBM particulates are mixed with nanocrystalline hydroxyapatite aqueous suspension prior to use, in the syringes provided. The addition of hydroxyapatite provides a high surface area for osteoconduction, and allows the putty-like texture to form. The product sticks well to the bone surface and conforms to the defect, improving contact to bone. It can be injected into the surgical site direct from the syringe, e.g. in TTA, and will also pass through a 14g needle for non-invasive surgery such as MIPO procedures.



Cancellous Chips



Cancellous Chips offer structure to a graft as well as providing a scaffold for osteoconduction.

This is available in canine and feline variants. Canine is available in 3 chip sizes for closer matching to defect size, and 3 pack sizes. The product consists of morcelised cancellous bone, processed to remove soft tissue, cells and marrow elements, freeze-dried and irradiated after packing for sterility.

Useful in TTA Rapid, filling corrective osteotomies, fracture repair, spinal fusions among other procedures. It is also useful for extending an autograft where harvesting has not produced sufficient material.

Graft Selection

- Osteoinduction → DBM
- Osteoconduction → Cancellous Chips
- Osteoconduction and osteoinduction → DBM Putty

VETERINARY TISSUE BANK PRODUCTS		
DBMPUTC1101	DBM Putty 1cc	£115.00
C0901	DBM Canine 0.1-0.5mm Granules 1cc	£90.00
C0903	DBM Canine 0.1-0.5mm Granules 3cc	£190.00
C0905	DBM Canine 0.1-0.5mm Granules 5cc	£280.00
C1001	DBM Canine 0.5-1.0mm Granules 1cc	£90.00
C1003	DBM Canine 0.5-1.0mm Granules 3cc	£190.00
C1005	DBM Canine 0.5-1.0mm Granules 5cc	£280.00
C0101	Cancellous Chips Canine 2-4mm Chip Size Coarse 1cc	£59.50
C0103	Cancellous Chips Canine 2-4mm Chip Size Coarse 3cc	£140.00
C0105	Cancellous Chips Canine 2-4mm Chip Size Coarse 5cc	£235.00
C0201	Cancellous Chips Canine 1-2mm Chip Size Medium 1cc	£59.50
C0203	Cancellous Chips Canine 2-4mm Chip Size Medium 3cc	£140.00
C0205	Cancellous Chips Canine 2-4mm Chip Size Medium 5cc	£235.00
C0301	Cancellous Chips Canine <1mm Chip Size Fine 1cc	£59.50
C0303	Cancellous Chips Canine <1mm Chip Size Fine 3cc	£140.00
C0305	Cancellous Chips Canine <1mm Chip Size Fine 5cc	£235.00
FL105	Cancellous Chips Feline <2mm Chip Size Fine 1cc	£59.50

Bone Mill

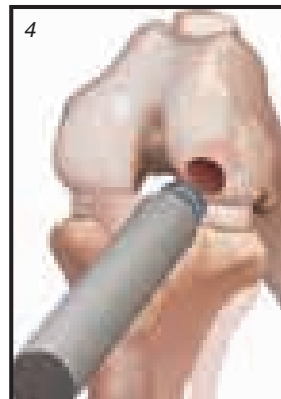
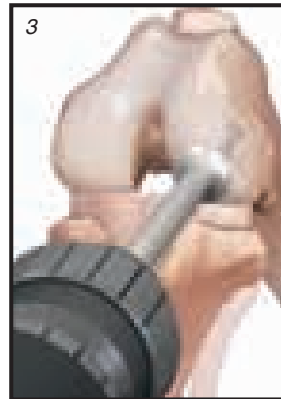
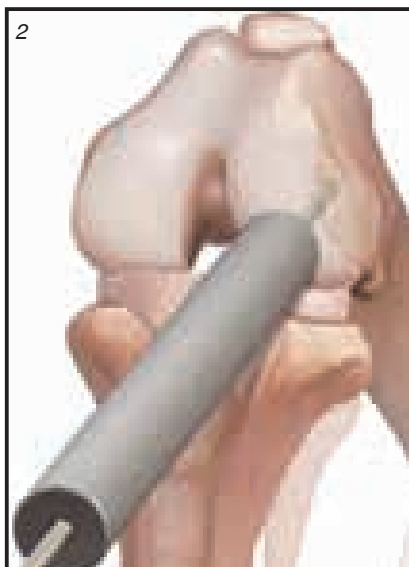
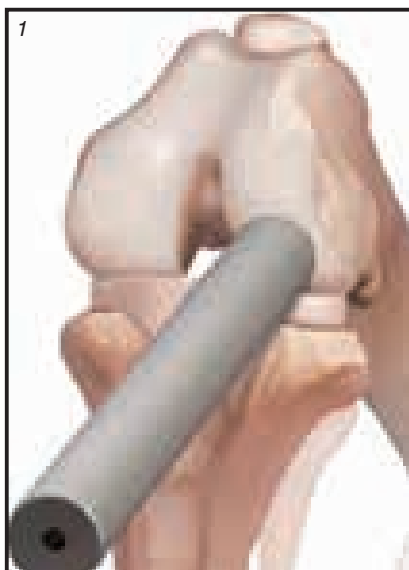
The best bone graft available is living autograft. It is osteoinductive, osteogenic and osteoconductive containing growth factors (BMPs). The bone mill quickly reduces cortico-cancellous bone pieces to a granular paste ready for immediate application.

Bone segments usually harvested from the iliac crest are placed into the top feeder. They are pushed down onto the mill which is manually rotated to create fine bone chips into the final receptacle.



BONE MILL		
BONEMILL	Bone Mill	£915.00

Arthrex SynACART™



SynACART™ is a new surgical treatment for OCD, developed by Noel Fitzpatrick and Arthrex. The procedure briefly involves debridement of the lesion, production of a suitable socket and implantation of a suitable size SynACART™ Resurfacing Core. Implantation requires identifying a complete ring of viable hyaline cartilage which may require extreme flexion of the joint if for example in the femur the lesion is more caudal. For a brochure and surgical guide please call 0845 130 9596, email info@vetinst.com or see our website.



ARTHREX SYNACART™

VAR-2500-08	Resurfacing Core SynACART™ 8 mm x 8 mm	£475.00
VAR-2500-10	Resurfacing Core SynACART™ 10 mm x 8 mm	£475.00
VAR-2500-20	Resurfacing Core SynACART™ 20 mm x 8 mm	£595.00
VAR-2500-25	Resurfacing Core SynACART™ 25 mm x 8 mm	£705.00
VAR-2502-08DC	Drill SynACART™ Cannulated, 8 mm	£115.00
VAR-2502-10DC	Drill SynACART™ Cannulated, 10 mm	£130.00
VAR-2502-20DC	Drill SynACART™ Cannulated, 20 mm	£150.00
VAR-2502-25DC	Drill SynACART™ Cannulated, 25 mm	£180.00
VAR-2503-08	Guide SynACART™ 8 mm	£65.00
VAR-2503-10	Guide SynACART™ 10 mm	£70.00
VAR-2503-20	Guide SynACART™ 20 mm	£85.00
VAR-2503-25	Guide SynACART™ 25 mm	£95.00
VAR-2504-08	Implant Holder SynACART™ 8 mm	£60.00
VAR-2504-10	Implant Holder SynACART™ 10 mm	£60.00
AR-1250L	Drill Tip Guide 2.4mm (non-sterile) (Pack of 6)	£85.00
VAR-2500C	SynACART™ Instrument Case	£335.00
BRSYNA	Arthrex SynACART™ Literature	£FOC

Arthrex ACP & ABPS Autologous Blood Products



Collect whole blood



Centrifuge for 5 minutes



Decant platelet rich plasma (ACP)

ACP (PRP) in sub syringe



Apply to target area



Apply to target area

ACP Autologous Conditioned Plasma

Outside the bloodstream, platelets become activated and release proliferative and morphogenic proteins relevant to healing in a variety of tissue types including bone, tendon and cartilage. Arthrex ACP significantly increases the levels of both platelets (x2) and growth factors TGF, PDGF, EGF, VEGF, IGF-1 compared to whole blood. In vitro studies using cell cultures and ACP derived plasma has demonstrated increased proliferation of tenocytes, osteoblasts and chondrocytes. Clinical studies comparing treatments using ACP with a Hyaluronic Acid and Depomedrone combination are encouraging.

An information pack on the use of ACP and ABPS which includes published studies is available free on request.

High concentrations of growth factors like those found in ACP have been shown to have regenerative and modulating effects on impaired cartilage and tendons.

The procedure requires the use of only 10ml of blood together with the Arthrex double syringe primed with ACD-A which is then spun down using a dedicated centrifuge and rotor. Depending on usage Arthrex will supply the Centrifuge and Rotor on free loan.

The Centrifuge is the same as is used with the Arthrex-ABPS system, with easily interchangeable rotors for users of both

Free loan of Centrifuge and Rotor

Provided the surgeon is prepared to commit to an initial purchase of 2 boxes (40 units) of syringes (£1,790) and an annual purchase of 5 boxes, Arthrex is prepared to offer its Centrifuge with Rotor/ accessories (value over £3,500) on free loan.

Please call for details.

ACP CONSUMABLES

VABS-10014-20	Arthrex ACP Double Syringe x 20	£895.00
VABS-10014	Arthrex ACP Double Syringe x 5	£285.00

ABPS CONSUMABLES

VAR-1011	ABPS Syringe (Single)	£185.00
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ACP/ ABPS EQUIPMENT

ABS-10019	Arthrex Centrifuge	£3,025.00
VAR-1021	Rotor for ABPS	£675.00
ABS-10021	Rotor for ACP	£675.00
VAR-1040	Arthrex Incubator	£675.00

ARTHREX CUE SYSTEM

Canine Unicompartmental Elbow System for Medial Compartment Disease.



See Chapter 8 page 284 for more information.

First UK course was held December 2012. Courses will be running periodically during 2015



E-Mail info@vetinst.com to be kept informed of dates.

Arthroscopic Stifle Surgery in Dogs

Pat Ridge BVSc Cert VR Cert SAS MRCVS,
Ridge Referrals, South Devon.

The first report of stifle arthroscopy in dogs was back in 1978 (1) and in the UK in 1981 (2). Since then stifle arthroscopy has struggled to be accepted or practiced widely in the UK although in the USA it is more commonly employed in private referral and academic practice. Without doubt the learning curve is steep and the equipment needed considerable but the benefits in accuracy of joint examination and reduced morbidity have been demonstrated (3, 4).

Positioning is critical to success and we use a moulding vacuum table bag (Olympic Vac Pac) and a custom stifle brace (Veterinary Instrumentation) with the patient in dorsal recumbency and the table tilted 30 degrees from horizontal. Portals are created medial and lateral to the straight patella tendon with an egress cannula placed in the medial suprapatella pouch (5). A complete examination of the femoropatella and then femorotibial joint can then be performed and this can include examination of the caudal femorotibial joint where necessary. Arthroscope size varies according to patient size but we usually use a 2.4mm 'scope although we regularly perform joint examinations in patients as small as cats (6) using a 1.9mm 'scope and for patients in excess of 60kg we use a 4mm 'scope.

The fat pad in dogs is considerably larger than that in humans and in order to create a viewing window a motorized shaver (Adapteur Power System, Arthrex) should be used to remove the inflamed fat pad, synovium and torn fibres of cranial cruciate ligament (CCL). The majority of dogs will require a 3mm aggressive style shaver blade (Dissector Range, Arthrex) and this is attached to suction so that the debried tissue is removed from the viewing area. In order that the joint is distended a fluid ingress system is required and we use a fluid pump that automatically maintains the pressure as suction is used (Continuous Wave II Pump, Arthrex), which is available on free loan with an annual purchase commitment.

Meniscal injury occurs in around 40% of dogs with CCL damage (7, 8) and isolated medial (9) and lateral (10) meniscal injury have also been reported in the dog. Examination of both menisci can be extremely challenging via an arthrotomy whilst the CCL is intact and recently Hulse and others (11) have suggested that the remaining functional CCL in partial tears may be "saved" by performing a tibial plateau leveling osteotomy. During arthroscopy both menisci may be completely examined, including careful palpation of the caudal horn, with the CCL intact. This is made easier with the use of a stifle distractor (Veterinary Instrumentation) applied via insertion of 2mm Ellis pins into the medial femoral condyle and proximal tibia. The use of this particular instrument does not "crowd" the joint space with instruments so reduces the risk for articular cartilage damage and leaves plenty of space for instruments to be inserted to palpate structures or remove torn portions of meniscus, whilst at the same time allowing stifle flexion and extension.

Meniscal resection is without doubt one of the most challenging arthroscopic procedures but with practice can be accomplished in a matter of minutes. These may be the common "bucket handle" tears, complex horizontal cleavage tears or "parrot beak" tears. We routinely perform meniscal resection with a combination of hook knives (Dr Fritz), fine angled punches (Slender Punch, Arthrex) and shavers (2mm to 3.5mm Dissector, Arthrex). Indeed some studies have shown that this may be all that is required in some patients with CCL tears and concurrent medial meniscal injury (12) and in selected patients this has become our approach to management in combination with rehabilitation (unpublished work).

Elbow arthroscopy has had wider acceptance since the first reports in 1993 (13). Work published by Meyer Linderberg and others (14) suggested that longer term dogs undergoing arthroscopy for coronoid fragmentation had a better outcome with a shorter convalescence than dogs that underwent an arthrotomy. Elbow arthroscopy is certainly easier than stifle arthroscopy and most dogs will accept a 2.4mm scope safely. The Dr Fritz set of forceps and hand burs are well designed and elbow arthroscopy does not require the same level of instrumentation as stifle arthroscopy, a pressurised cuff provides sufficient fluid ingress. As we develop our understanding of elbow disease and in particular coronoid fragmentation and its progression to medial compartment

syndrome arthroscopy plays a more and more important role, cartilage destruction is the key indicator of the extent of disease and arthroscopy remains the gold standard or cartilage assessment.

The understanding of shoulder lameness in dogs is in my view even more exciting and has advanced dramatically in the last few years, the traditional "dustbin diagnosis" of bicipital tenosynovitis has been replaced with a better recognition of other conditions including medial shoulder instability and lameness associated with damage to the lateral glenohumeral ligament. As in human medicine arthroscopy has remained the gold standard for investigation of intra articular shoulder injuries and arthroscopically guided reconstructions are being developed (15, 16, 17). One of the most useful developments has been the notion of using more than one portal and suspended limb shoulder arthroscopy with lateral and craniomedial portals has allowed us to examine the shoulder in far more detail, a simple ceiling hook, pulley and tilting table make complete examination of the shoulder easy and with minimal morbidity.

Arthroscopy has not been limited to canine examination either with feline shoulder, elbow and stifle arthroscopy with a 1.9mm scope proving beneficial for both diagnostic purposes and therapeutic interventions, as we do more we will learn more and this exciting field of orthopaedics will continue to advance.

For those who are interested both the ESVOT Arthroscopy Working Group and the Arthrex VA3 group have regular meetings providing an invaluable forum for discussion and practical experience in small animal arthroscopy.

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10. Williams, R. A. (2010) Isolated lateral meniscus tear in a Boxer. *Veterinary Record* 11, 419- 420
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Arthroscopic
Distractor
(AR-17-01)

Arthroscopes



Synergy features the most advanced technology and provides the highest quality HD image available. In combination with the new high definition optics, the Synergy system provides industry unrivalled depth of vision and focus.

HD Vision - 1080p

- Ergonomic and autoclavable camera head
- Programmable camera head buttons
- High-definition optics
- Progressive scan technology

LED Light Source

- Solid state "Xenon Bright" LED light source comparable to 300 watt Xenon Light Sources
- Cost-effective 30.000 hours bulb life (14 years at 40 hours/week)
- Low heat generation, stable, reliable

Image Management System

- Network based system allows live video streaming to any authorized remote viewer
- HD still capture and video recording
- Export images to the SynergyHD3 Surgeon iPad App:
- Review / edit still images and video
- Annotate on stills
- Create presentations and postoperative reports for patients



The Synergy system is also available with a 3mm Sheathless Arthroscope which eliminates bulky scope sheaths, obturators, switching sticks. The sheathless arthroscope is designed and constructed with additional structural support along its length to stand up to normal stresses without a sheath. Available in 30° and 70°.

Standard Arthroscopes available in 1.9mm, 2.4mm and 2.7mm.



PREMIUM SYNERGY PACKAGE

AR-5995-14STI	ArthroCart with CableGuards	£2,695.00
AR-3210-0001	SYNERGY HD3 Camera Head	£6,880.00
AR-3200-0001T	SYNERGY HD3 Console with Tablet and Turret	£17,350.00
AR-5995SAT	Arm for Tablet	£205.00
UP-DR80MD	Colour Printer Digital Medical Sony	£1,470.00
61529	LANCOM L-320agn Wireless Access Point Router	£235.00
AR-5995SAS-FP30	Articulating Arm 300 + 350mm	£540.00
AR-3250-2606	Arthrex SYNERGY Standard Display 26"	£2,640.00
		£32,000.00

Pre-owned and demonstration models may be available, please contact the Vet Tech team on 0845 130 9596

Arthroscopes

An arthroscope is a rigid endoscope consisting of a system of lenses, which collects and transmits an image from the tip of the instrument along the shaft to an eyepiece or camera. A light post close to the eyepiece allows light to be passed into the shaft and down optic fibres surrounding the lens system to illuminate the subject area at the tip.

The diameter refers to the outside diameter of the unsheathed shaft of the telescope. Three sizes are commonly used in small animal arthroscopy: 2.7mm, 2.4mm and 1.9mm. Arthroscope technology has improved so much that optically the new 2.4mm arthroscope is as good as the older 2.7mm version. The 2.4mm arthroscope is fine for most procedures but can prove a little large in small elbows. As the diameter of the arthroscope becomes smaller, there is less space for optical fibres, which has implications for light transmission and image size. Recent improvements in construction such as the use of rod lens systems as opposed to optic fibres has improved the performance of the smaller arthroscopes. Additionally the smaller arthroscopes are fragile and care must therefore be exercised to avoid damage in use, cleaning and storage.

The viewing angle is the angle between the lens face and a line drawn at right angles to the long axis of the arthroscope (see above right). A 0° scope views straight ahead from the front of the lens, while a 90° scope sees an image at right angles to the long axis of the scope. Most veterinary arthroscopes have a viewing angle of 30°, which is a compromise between field of view and distortion. The user needs to be aware which way the lens is pointing. The light post is used as a reference point and is positioned opposite the angle of view. Rotating the scope along its long axis will allow the surgeon to view a large area within the joint with minimal repositioning. An oblique viewing angle does offer the surgeon a limited ability to see 'around corners'.

Each arthroscope will require a dedicated sheath, which protects the arthroscope as well as delivering fluid to the tip. The sheath reduces the effective working length and increases the working diameter of the arthroscope.

Schematic of the tip of a typical arthroscope



All arthroscopes are now available in autoclavable versions. Autoclaving, especially of fine arthroscopes, will significantly reduce the working life of the instrument. Autoclavable arthroscopes may be soaked and we recommend this method of sterilisation to preserve your arthroscope. If your arthroscope is not marked autoclavable, it may only be soaked.



Arthrex Arthroscopes

Arthrex are leaders in the field of arthroscopy with a deserved reputation for innovation and quality. We are pleased to offer their top of the range arthroscopes and sheaths at a very competitive price. 2.7, 2.4 and 1.9 arthroscopes are offered here but 4.0 are also available. Please e-mail or call our Vet Tech team for a quotation.
+44 114 2588530 info@vetinst.com

2.4 Arthroscope x 10cm, 30°



2.4 Sheath with Single Stopcock 3.2mm x 85cm



Obturator, Blunt



ARTHREX ARTHROSCOPES AND SHEATHS

AR-3350-2730	2.7mm Arthroscope x 18cm 30 Degree	£1,745.00
AR-3350-2770	2.7mm Arthroscope x 18cm 70 Degree	£1,745.00
AR-3370-2701	Sheath for 2.7mm Arthroscope - Single valve	£755.00
AR-3370-2702	Sheath for 2.7mm Arthroscope - Double valve	£755.00
AR-3375-2702	2.7mm Obturator Semi Sharp	£215.00
AR-3350-2430	2.4mm Arthroscope x 10.0cm, 30 Degree	£1,595.00
AR-3370-2401	2.4mm Sheath 3.2mm Dia x 8.5cm Working Length. 1 Stopcock	£745.00
AR-3370-2402	2.4mm Sheath 3.5mm Dia x 6.5cm Working Length. 2 Stopcock	£745.00
AR-3375-2401	2.4mm Obturator Blunt	£205.00
AR-3350-1930	1.9mm Arthroscope, 30 Degree	£2,150.00
AR-3370-1901	1.9mm Sheath	£745.00
AR-3375-1901	1.9mm Obturator Blunt	£205.00
AR-3375-1902	1.9mm Obturator Sharp	£205.00
BXS2506050	Arthroscope Sterilisation/ Storage Box 250 x 60 x 50mm	£95.00

Arthroscopy Repairs

Most damaged or broken arthroscopes can be repaired. Although never cheap the repair is normally a full refurbishment to new standard and may be considerably cheaper than a new arthroscope. The same applies to hand instruments which by their nature are delicate and vulnerable. Send your repair to our Vet Tech team for a quotation.

Arthroscopic Instrumentation

Irrigation and Working Cannulae, Trochar Changing System designed by VAN BREE

Cannulae and portals: In order to fully examine the joint under investigation it may be necessary to manipulate some intra-articular structures. The instruments used must be small and be introduced either directly through the peri-articular soft tissues or via a dedicated cannula. Where serial insertions and withdrawals or a range of instruments are required, particularly through multiple layers of soft tissue, a cannula is preferable to minimize trauma, (trying to re-find a portal can be frustrating). Sets of cannulae dedicated to the most common joints are now available. Initially a small diameter cannula is inserted using a trochar, the portal may then be enlarged by the use of a 'switching stick'. The stick is inserted into the joint through the small cannula which is then withdrawn. Larger cannulae may be slid down the changing stick and introduced into the joint. Exchanging a small cannula for a larger one can be surprisingly difficult without such an aid. The system is colour coded for ease of use.

Cannula Sets



CANNULA SETS	
I-17-755	Working Cannula Set "shoulder and elbow" designed by VAN BREE, D:2.3 / 2.9 / 3.5mm; WL:3.5-5cm and 7-8 cm, includes Sharp Trochar and Changing Rod £595.00
I-17-500	Working Cannula Set "elbow" designed by VAN BREE, consist of 3 Cannulas D:2.3 / 2.9 / 3.5mm; WL:3.5-5cm. includes 1 Sharp Trochar and 1 Changing Rod (2.3mm) £390.00
I-17-700	Working Cannula Set "shoulder" designed by VAN BREE, consist of 2 Cannulas D:2.9 / 3.5mm, WL:7-8cm. includes 1 Sharp Trochar and 1 Changing Rod (2.8mm) £265.00



EGRESS CANNULA	
I-18-518	Egress Cannula, with Sharp Trochar Stopcock, ID:3mm, WL:7mm £175.00



Thanks to Noel Fitzpatrick for the photograph

For further information about the Arthroscopic Stifle Lever see page 20.

Arthroscopy Starter Kit

Instrument choice is determined by personal choice and patient selection. However a Starter Kit is a useful starting point and offers a discounted approach to setting up.

The Arthroscopy Kit described is discounted by 10% compared to buying the individual components.

In addition to arthroscopic hand instrumentation a suitable camera and light source will be required. Several options, including pre-owned units, are available. Please telephone or e-mail to discuss options.

Code	Description
AR-3350-2430	2.4 Arthroscope x 10.0cm, 30°
I-18-518	Egress Cannula, Sharp Trocar, Stopcock IØ 3mm, WL 7cm
I-17-755	Working Cannula Set "shoulder & elbow" Designed by van Bree, D: 2.3/2.9/3.5mm;WL: 3.5-5cm
S140-2438F	Target Instrument designed Dr.Lehmann for canine arthroscopy; comp.with S110-1932
AR-17-09S	Hook Probe, 2.2mm, silicon handle comp. autoclavable, colour code: red
AR-17-06S	Curette, small 2.7mm, silicon handle yellow, autoclavable, colour code: red
AR-17-07S	Ring Curette, 2.7mm, silicon handle red, autoclavable, colour code: black
AR-17-19S	Hook Knife, 2.7mm, silicon handle orange, autoclavable, colour code: blue
AR-17-11S	Smilie Knife, 2.7mm, silicon handle yellow, autoclavable, colour code: red
AR-17-05S	Banana Knife, 2.7mm, silicone handle autoclavable, colour code: green
AR-17-03S	Bayonett Knife 2.7mm silicon handle yellow, autoclavable, colour code: black
AR-17-12S	Micro Picking Knife, designed by Brian Beale 2.7mm, silicon handle, colour code: yellow
AR-17-13	Special Elevator, 2.7mm, with handle colour code: metal
I-17-822	Milling Drill for arthroscopy
AS-17-561	Mini Rongeur - high performance 2.2/2.7mm 11cm colour code: black.
AS-17-662	Alligator Grasping Forceps with Ratchet OD: 2.7mm; WL: 12cm, high quality
AS-17-762	Universal Rongeur and Grasping Forceps OD: 3.4mm, WL: 12cm without Ratchet
AS-17-531	Mini Rongeur and Biopsy Forceps OD: 2mm, WL: 11cm
AS-17-632	Universal Rongeur and Grasping Forceps Fenestrated, OD: 2.7mm; WL: 12cm
AR-08-100	Pressure Infusion Cuff for 500-1000ml complete with Manometer and Hand Pump
DE-5-17	Cleaning Brush, small, 17cm
DE-10-425	Soak Basin for Chemical Solution Disinfection
DE-10-25	Camera Covers Disposable (30)

ARTHROSCOPY STARTER KIT	
ARTHROKIT	Arthroscopy Starter Kit £8,250.00

Hand Instruments

Hand instruments for investigation are designed to move or retract intra-articular structures and usually take the form of blunt probes or grasping forceps. Where intra-articular surgery or sampling is involved additional cutting instruments will be required.



AR-17-09S Hook Probe 2.2mm, with silicon handle **£185.00**



AR-17-13 Elevator, heavy, 2.7mm, with metal handle **£185.00**



AR-17-03S Bayonet Knife 2.7mm, with silicon handle **£185.00**



AR-17-05S Banana Knife 2.7mm, with silicon handle **£185.00**



AR-17-06S Curette 2.7mm, curved, with silicon handle **£185.00**



AR-17-07S Ring Curette 2.7mm, small, with silicon handle **£185.00**



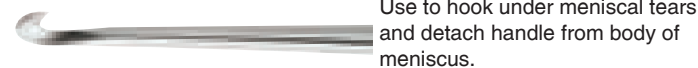
AR-17-11S Meniscus Knife, Smillie, 2.7mm, with silicon handle **£185.00**

Hold tear with clamp and push knife against 'handle' to detach from body of meniscus.



AR-17-12S Micro Picking Knife, acc to Dr Brian Beale 2.7mm, with silicon handle **£185.00**

Use to pick area to encourage regeneration.



AR-17-19S Hook Knife 2.7mm, with silicon handle **£185.00**

Use to hook under meniscal tears and detach handle from body of meniscus.

Inserts for interchangeable hand instrument (AR-17-00) are available. Please call for details.



001049A Arthroscopic Hohman 4mm **£64.50**

Milling Drill designed by VAN RYSSSEN & VAN BREE



This hand driven bur allows curettage of both cartilage and bone through the smallest working cannula. Much cheaper and easier than shaver systems.

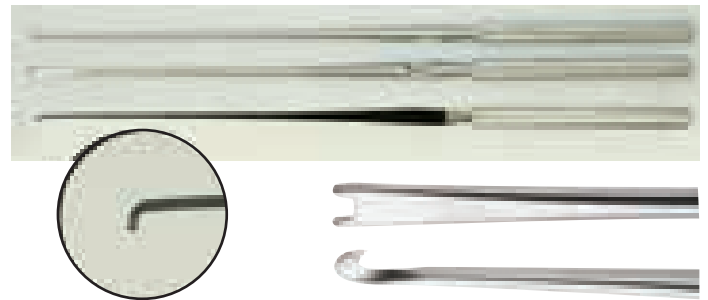
MILLING DRILL

I-17-822 Milling Drill for arthroscopy complete OD: 2.2mm, WL: 12cm **£375.00**

I-17-821 Replacement Bur and Shaft **£130.00**

Arthroscopy Hand Instrument Set

A useful set of three arthroscopy instruments for examination and intra-articular surgery. The two hand held knives can deal with most meniscal tears, whilst the black shaft of the hook probe minimises reflection.



ARTHROSCOPY HAND INSTRUMENT SET

AR-17-19X Pull Knife **£89.50**

AR-17-11X Push Knife **£89.50**

AR-17-10 Hook Probe 2.2mm, with Stainless Handle Black Shaft **£69.50**

AR-17-SET Arthroscopy Hand Instrument Set **£175.00**

Gordon Coronoid Osteotome



Designed and developed by Ian Holsworth, this narrow osteotome is used for arthroscopic sub-total coronoidectomies.

GORDON CORONOID OSTEOTOME

AR-17-30 Gordon Coronoid Osteotome (4mm) **£62.50**

AR-17-29 Gordon Coronoid Osteotome (2mm) **£62.50**

Suture Passing Wire



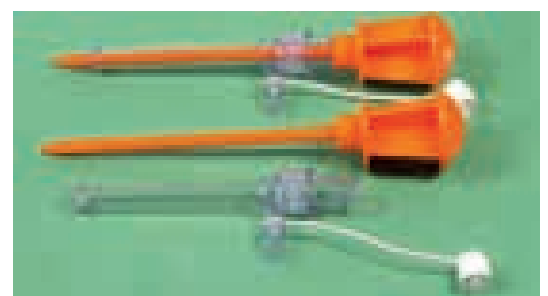
Passing soft suture material through bone tunnels of soft tissues without causing additional trauma can be a challenge to the surgeon. The Arthrex Suture Passing Wire consists of a Nitinol loop attached to a flexible yet stiff wire. The wire may be pushed through bone tunnels of soft tissues and as the tip emerges the Nitinol loop naturally springs open to receive the suture which may then be pulled back through.

SUTURE PASSING WIRE

AR-1255-18 Suture Passing Wire 600mm **£77.50**

Crystal Cannula

Clear cannula has a lip at the tip to minimise 'fall out'.



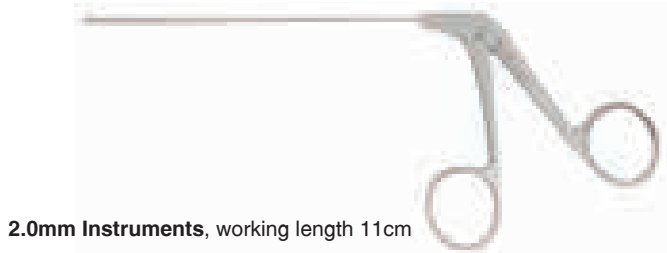
CRYSTAL CANNULA

AR-6560 Crystal Cannula 5.75mm x 700mm (5 Pack) **£120.00**

Arthroscopic Punches, Biopsy Forceps, Rongeurs and Grasping Forceps

Arthroscopic forceps and rongeurs should be selected according to patient and portal size. A very small pair of grasping or cutting forceps will fit any portal but will be easily damaged if used on large fragments. Various designs are available for grasping cutting, or nibbling intra-articular structures.

2.0mm Instruments



2.0mm Instruments, working length 11cm



AS-17-531 Mini Rongeur and Biopsy Forceps OD: 2.0mm **£595.00**



AS-17-551 Mini Punch for arthroscopy, OD: 2.0mm **£595.00**



AS-17-521 Mini Scissor for arthroscopy OD: 2.0mm **£595.00**

2.2/ 2.7mm Instruments



AT-19-231 Mini Rongeur - High performance 2.2mm / 2.7mm 11cm **£925.00**

2.7mm Instruments

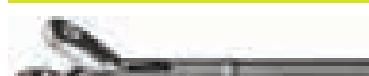
2.7mm Instruments, working length 12cm



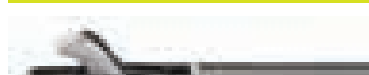
AS-17-662 Alligator Grasping Forceps with Ratchet OD: 2.7mm with overstraining protection **£795.00**



AS-17-632 Universal Rongeur and Grasping Forceps Fenestrated OD: 2.7mm with overstraining protection **£725.00**



AS-17-641 Biopsy and Spoon OD: 2.7mm with overstraining protection **£725.00**



AS-17-672 Arthroscopic Punch OD: 2.7mm with overstraining protection **£825.00**



AS-17-621 Arthroscopic Hook Scissors, OD: 2.7mm **£725.00**

3.4mm Instruments



AS-17-762 Universal Rongeur and Grasping Forceps, Fenestrated without Ratchet, OD: 3.4mm working length 12cm with overstraining protection **£825.00**

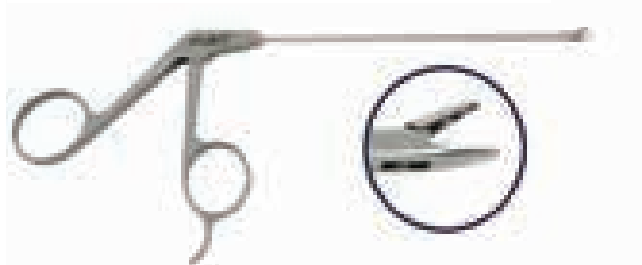
Arthrex Hand Instruments

Useful Additions to the VAR-3000S Arthroscopy Set Angled Slender Meniscus Punches



In the human knee management of meniscal tears is by arthroscopy punches. Most human arthroscopy punches are too large for the canine stifle even with appropriate distraction. Our External Stifle Distractor (AR-17-01, page 63) offers the best possible access. The Arthrex slender punches are small enough and the best available. The straight one is included in VAR-3000S. If you can afford them the punches angled left and right work best of all.

Slender Pointed Grasping Forceps



Pointed grasping forceps may be used for gentle dissection and grasping of small intra-articular objects.

Small Probe



ARTHREX ADDITIONAL HAND INSTRUMENTS		
AR-11000	Slender Punch Straight	£1,075.00
AR-11420	Slender Punch Angled Left	£1,095.00
AR-11430	Slender Punch Angled Right	£1,095.00
VAR-11700NR	Slender Pointed Graspers Straight	£1,095.00
AR-30000	Small Probe	£225.00

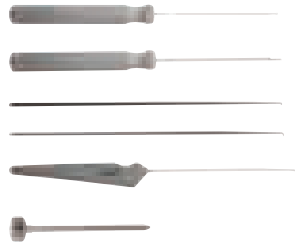
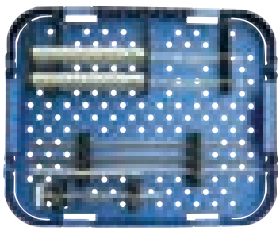
Canine Arthroscopy Set (VAR-3000S)



Working with leading canine arthroscopic surgeons the Arthrex set comprises a comprehensive range of instruments as three modules within a custom autoclave case.

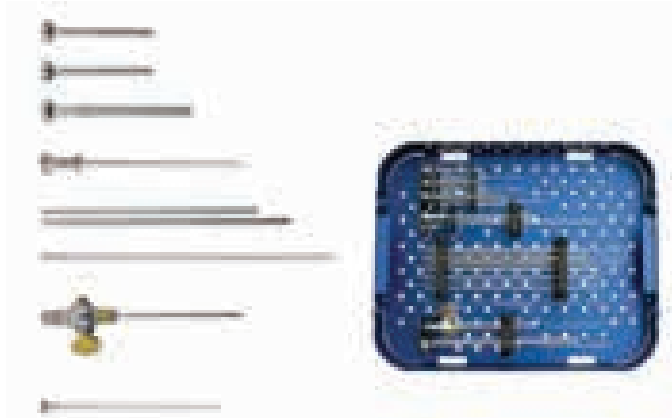
All the instruments are available separately but when bought as the boxed set there is a saving of 10%.

Main Instrument Tray



- VAR-3008 Small Cup Curette, 2.5 mm diameter
- VAR-3009 Banana Knife, 2.5 mm diameter
- AR-5021 Graduated Black Probe, 1.5 mm Tip
- AR-5007 Graduated Black Probe, 2.5 mm Tip
- AR-10020 Probe, Stainless Steel
- AR-3033 Obturator, Blunt

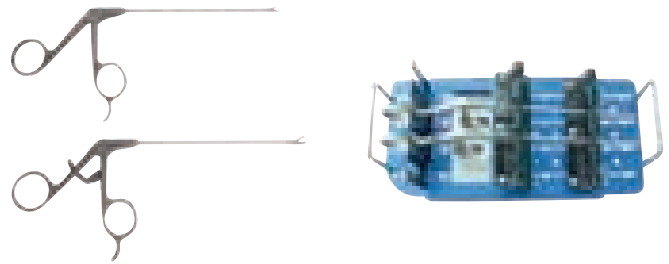
Canine Cannula Set (VAR-3002S)



- VAR-3002 Cannulas (2.9, 3.7 & 4.3 mm)
- VAR-3003 Cannulated Obturator
- VAR-3004-2.9 Switching Stick, 2.9 mm
- VAR-3004-3.7 Switching Stick, 3.7 mm
- VAR-3005 Dilation Needles, qty. 5
- VAR-3006 Stifle Outflow Cannula with Stopcock
- VAR-3007 Stifle Outflow Obturator

The Cannula Set is available separately. The stand alone Cannula Set does not include the Outflow Cannula and Obturator.

Forceps Tray



- VAR-11600SR Grasper, Alligator Hook Tip
- VAR-11100 Punch, Slender Straight Tip

The forceps tray secures a Series I Grasper and Slender Punch in an upright position for easy accessibility. The tray has space for two further forceps.



Grasper-Alligator Diameter 2.75mm with Hooked Tip Self Release

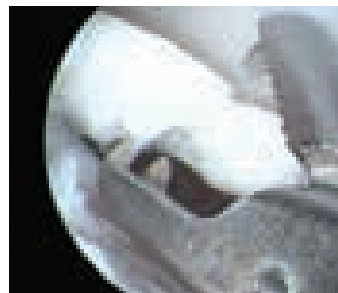


Photo Mark Owen

Grasping and maintaining a grip on fragments can be very challenging for both surgeon and instrument. Once locked on, the surgeon is understandably reluctant to let go, sometimes taking an instrument beyond its working limits.

The VAR-11600SR Alligator forcep is toothed for maximum grip and has a self releasing handle.

The Alligator grasper is one of a range of canine arthroscopy instruments available as a set from Arthrex Vet Systems through Veterinary Instrumentation. Call or e-mail for a full brochure.

The Canine Arthroscopy Set combined with an Arthrex Camera and Light source would comprise a start up set for arthroscopy of the canine stifle, elbow, shoulder and hock.

ARTHREX HAND INSTRUMENTS

VAR-3000S	Canine Arthroscopy Set Boxed	£5,195.00
VAR-11100	Punch Slender Tip	£1,050.00
VAR-11600SR	Grasper-Alligator Ø 2.75mm with Hook Tip	£1,050.00
VAR-3002S	Canine Cannula Set	£2,095.00
VAR-3006	Outflow Cannula with Stopcock	£475.00
VAR-3007	Outflow Cannula Obturator	£245.00
VAR-3009	Banana Knife	£425.00
BRCANARTH	Canine Arthroscopy Literature	£FOC

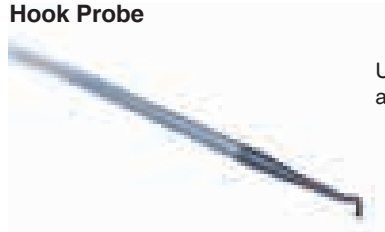
BLACK DIAMOND SERIES



The black diamond coating on the working tips serves two purposes. The coating is anti-reflective and provides an extra hard surface for a sharp edge and a long life.

New style grip provides fatigue free control of the working tip.

Hook Probe



Use to gently manipulate intra-articular structures.

HOOK PROBE		
LEI165011010	Hook Probe 1.0mm Tip	£155.00
LEI165011015	Hook Probe 1.5mm Tip	£155.00

Hook Knife



Typically used for release of the meniscus of meniscal lesions.

HOOK KNIFE		
LEI165013022	Hook Knife 2.2mm	£155.00

Meniscus Knife



Sometimes called the 'Push Knife', the cutting blade is in the groove behind the two protective tips.

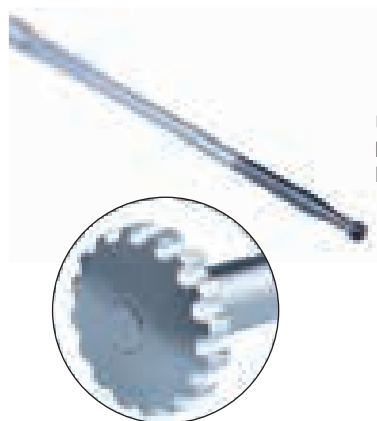
MENISCUS KNIFE		
LEI165013025	Meniscus Knife or Push Knife 2.5mm	£155.00

Spoon Curette



SPOON CURETTE		
LEI165012015	Spoon Curette 1.5mm	£155.00
LEI165012030	Spoon Curette 2.7mm	£155.00

Ball Head Bur 2.3mm



Use to debride both cartilage and bone. Very effective and much less expensive than a full shaver.

Improved design of the mushroom handle offers better grip in the gloved hand.

BALL HEAD BUR		
LEI165011023	Ball Head Bur 2.3mm	£215.00

Banana Knife



BANANA KNIFE		
LEI165013000	Banana Knife 2.5mm x 12mm	£155.00

Elevator



ELEVATOR		
LEI165014000	Elevator (Penfield Style) 2.5mm	£155.00

Curette with Hole



This curette has a lower profile than the standard.

CURETTE WITH HOLE		
LEI165012028	Curette with Hole 2.7mm	£155.00

VAN RYSSEN Signature Series



The shaft of standard arthroscopy forceps is typically offset from the axis of the human hand and wrist. Rotating the standard forceps requires the operator to make adjustments to minimise undesired movement of the forceps tip within the joint. This series of forceps developed in association with Bernadette Van Ryssen at the University of Ghent has a number of important advantages. The PRO series handle design allows intensive contact, stable guidance and balanced handling, which results in even greater precision.

The ratchet based locking mechanism allows the surgeon to securely grasp intra-articular objects. Importantly the locking mechanism may be switched off when free cutting and grasping is required.

If a traditional finger ring handle is preferred, select the Standard option.

Most arthroscopy forceps fail when corrosion attacks the internal mechanisms. Corrosion develops because during procedures, saline under pressure within the joint is forced up into the forceps. Standard cleaning techniques, even ultrasonics, do not penetrate inside the tube shaft and the operating mechanism. The shaft of each of the van Ryssen series forceps incorporates an angled flushing port for rinsing the forcep internals.

Biopsy Forceps

The Cup Biopsy Forceps pinch off a sample soft tissue approximately the diameter of the shaft. The forceps have a switchable locking ratchet.



BIOPSY FORCEPS - PRO SERIES HANDLE

LEI165102010	Biopsy Cup Forceps, 2.0 mm, Rotatable, PRO	£845.00
LEI165102710	Biopsy Cup Forceps, 2.7 mm, Rotatable, PRO	£825.00
LEI165103510	Biopsy Cup Forceps, 3.5 mm, Rotatable, PRO	£825.00

BIOPSY FORCEPS - STANDARD HANDLE

LEI165102040	Biopsy Cup Forceps, 2.0 mm, Rotatable, Standard	£825.00
LEI165102740	Biopsy Cup Forceps, 2.7 mm, Rotatable, Standard	£765.00
LEI165103540	Biopsy Cup Forceps, 3.5 mm, Rotatable, Standard	£765.00

Grasping Forceps

The Grasping Forceps securely grip fragile bone, cartilage and soft tissue. The Forceps switchable locking ratchet.



GRASPING FORCEPS - PRO SERIES HANDLE

LEI165102020	Grasping Forceps, 2.0 mm, with Ratchet, Rotatable, PRO	£845.00
LEI165102720	Grasping Forceps, 2.7 mm, with Ratchet, Rotatable, PRO	£825.00
LEI165103520	Grasping Forceps, 3.5 mm, with Ratchet, Rotatable, PRO	£825.00

GRASPING FORCEPS - STANDARD HANDLE

LEI165102045	Grasping Forceps, 2.0 mm, Rotatable, Standard	£825.00
LEI165102745	Grasping Forceps, 2.7 mm, Rotatable, Standard	£745.00
LEI165103545	Grasping Forceps, 3.5 mm, Rotatable, Standard	£745.00

Pro series handle



Flushing port

Grasping Forceps 1x2 Teeth

The 1x2 teeth provide a secure grip. The forceps have a switchable locking ratchet.



GRASPING FORCEPS - ROTATABLE PRO			
LEI165102030	Grasping Forceps, 2.0 mm, 1x2 teeth, Rotatable, PRO		£845.00
LEI165102730	Grasping Forceps, 2.7 mm, 1x2 teeth, Rotatable, PRO		£825.00
LEI165103530	Grasping Forceps, 3.5 mm, 1x2 teeth, Rotatable, PRO		£825.00
GRASPING FORCEPS - ROTATABLE STANDARD			
LEI165102050	Grasping Forceps, 2.0 mm, 1x2 teeth, Rotatable, Standard		£825.00
LEI165102750	Grasping Forceps, 2.7 mm, 1x2 teeth, Rotatable, Standard		£745.00
LEI165103550	Grasping Forceps, 3.5 mm, 1x2 teeth, Rotatable, Standard		£745.00

Hook Punch

The 'hook' nature of the punch prevents the tissue under investigation from slipping away. As the jaws close the tips contact the tissue first holding it for the punch action.



HOOK PUNCH - PRO SERIES HANDLE			
LEI165102015	Hook Punch Forceps, 2.0mm, Rotatable, PRO		£745.00
LEI165102715	Hook Punch Forceps, 2.7mm, Rotatable, PRO		£685.00
LEI165103515	Hook Punch Forceps, 3.5mm, Rotatable, PRO		£685.00
HOOK PUNCH - STANDARD HANDLE			
LEI165102055	Hook Punch Forceps, 2.0mm, Rotatable, Standard		£745.00
LEI165102755	Hook Punch Forceps, 2.7mm, Rotatable, Standard		£685.00
LEI165103555	Hook Punch Forceps, 3.5mm, Rotatable, Standard		£685.00

Hook Scissors

The 'hook' nature of the scissors prevents the tissue under investigation from slipping away. As the scissors close the tips contact the tissue first holding it for the scissor action.



HOOK SCISSORS - PRO SERIES HANDLE			
LEI165102025	Hook scissors, 2.0mm, Rotatable, PRO		£745.00
LEI165102725	Hook scissors, 2.7mm, Rotatable, PRO		£685.00
LEI165103525	Hook scissors, 3.5mm, Rotatable, PRO		£685.00
HOOK SCISSORS - STANDARD HANDLE			
LEI165102065	Hook scissors, 2.0mm, Rotatable, Standard		£745.00
LEI165102765	Hook scissors, 2.7mm, Rotatable, Standard		£685.00
LEI165103565	Hook scissors, 3.5mm, Rotatable, Standard		£685.00

Biopsy and Grasping Forceps

The Biopsy and Grasping forceps securely grasp soft tissue before pinching off a sample.

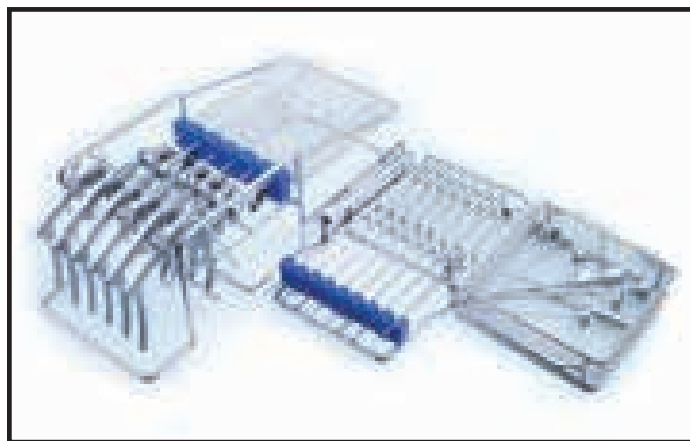


BIOPSY AND GRASPING FORCEPS - PRO			
LEI165102035	Biopsy and Grasping Forceps, 2.0 mm, Rotatable, PRO		£845.00
LEI165102735	Biopsy and Grasping Forceps, 2.7 mm, Rotatable, PRO		£825.00
LEI165103535	Biopsy and Grasping Forceps, 3.5 mm, Rotatable, PRO		£825.00
BIOPSY AND GRASPING FORCEPS - STANDARD			
LEI165102060	Biopsy and Grasping Forceps, 2.0 mm, Rotatable, Standard		£825.00
LEI165102760	Biopsy and Grasping Forceps, 2.7 mm, Rotatable, Standard		£765.00
LEI165103560	Biopsy and Grasping Forceps, 3.5 mm, Rotatable, Standard		£765.00

Premium sterilisation cases for VAN RYSSSEN Signature Series



However good your forceps are, if they are stored or autoclaved without adequate protection they will be damaged easily. When investing in forceps, consider getting the purpose designed storage and sterilisation case. This holds the forceps securely while preventing pressure or contact on the tips. The mesh internal tray and perforated container allow good steam access during autoclaving, and is available for both the PRO series and standard handles.



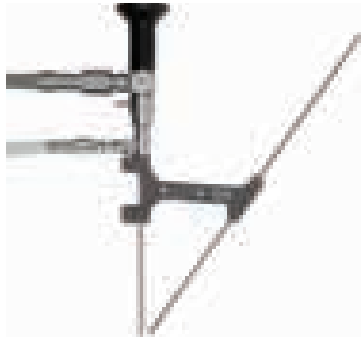
Premium Sterilisation Boxes for VAN RYSSSEN Signature Series

Premium Sterilisation boxes with internal tray for holding either PRO or standard handles.

PREMIUM STERILISATION BOXES FOR VAN RYSSSEN SIGNATURE SERIES		
LEI165500020	Premium Sterilisation Boxes for VAN RYSSSEN Signature series – standard handles	£445.00
LEI165500000	Premium Sterilisation Boxes for VAN RYSSSEN Signature series – PRO handles	£445.00

Shoulder Aiming Device

Developed and tested at the Veterinary Faculty of Vienna, Austria by Dr Lehman.



Due to the dense muscle mass in shoulder joints, creating a puncture for a working cannula is often quite difficult. If a clean puncture allowing access directly to the joint is not achieved the first time, the risk of a subsynovial oedema increases greatly.

The shoulder puncture system has been specifically designed to help eliminate this risk. The system allows you to align your arthroscope accurately in the joint space. Simply attach the puncture system to the arthroscopic sheaths and maintain your arthroscopic vision in a parallel direction to the shoulder joint rim. At this point you will find the working triangulation portal in an ideal position. After a puncture is created with the desired trochar, simply replace the trochar with a working cannula and start working with your instruments. Useful for both cranial and caudal approaches. View at www.vetinst.com/videos

See VCOT 2004; 17:1-56 for review

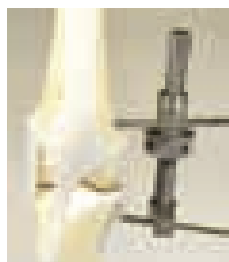
SHOULDER AIMING DEVICE

S140-2438F	Aiming Device by Dr Lehman for the canine shoulder for 2.4 Scope T140-2432 and Changing Rod I-17-028	£425.00
S140-1938F	Aiming Device by Dr Lehman for the canine shoulder for 1.9 Scope T110-1930 and Changing Puncture Rod I-17-028	£425.00
I-17-028	Changing & Puncture Rod	£105.00
DVDLEHMAN	DVD on use of Aiming Device.	£FOC

Joint Distraction

Arthroscopic Joint Distractor

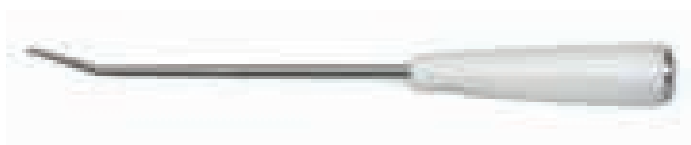
Osteoarthritic stifles can be very 'tight' making examination and treatment of intra-articular lesions difficult. Distraction of the articular surfaces using intra-articular instruments is difficult and clutters the operative field. Extra-articular distraction is very effective and leaves potential instrument portals available for more appropriate instrumentation.



ARTHROSCOPIC DISTRACTOR

AR-17-01	Arthroscopic Distractor	£195.00
AR-17-01/TPLO	Arthroscopic Distractor. 1/8" (3.2mm) Pins	£195.00

Arthroscopic Stifle Lever VSTL



For further information including a detailed product description see page 20. Developed by Ian Holdsworth.

ARTHROSCOPIC STIFLE LEVER VSTL

AR-17-02	Arthroscopic Stifle Lever VSTL 280mm	£155.00
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Light Sources & Cables

Halogen light sources are inexpensive but not as good as the Xenon based systems, which are, unfortunately, significantly more expensive to purchase and maintain. Xenon light sources have a higher intensity and are essential if the unit is to be used for laparoscopic work. Thus Xenon is preferable but halogen can be used successfully in most joint investigations. Both Xenon and Halogen bulbs have a limited life (Xenon typically 500 hours, Halogen typically 2000 hours) and bulb failure is at best embarrassing so always carry a spare. The light cable carries light from the source to the arthroscope by fibre optics. Each cable has dedicated connectors to couple with the light source and the arthroscope. Connections on both light source and arthroscope vary from manufacturer to manufacturer. Convertors are available for both light source and arthroscope but it is wise, if possible, to purchase the appropriate cable for the system.

Xenon Light Source



XENON LIGHT SOURCE

48-XE-300	Xenon Light Source	£3,850.00
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FIBRE LIGHT CABLE

KW-48-231	Fibre Light Cable 4.8mm 2.3m both sides compatible to Wolf Autoclavable	£495.00
KS-48-231	Fibre Light Cable 4.8mm 2.3m unit side compatible to Storz endoscope side compatible to Wolf Autoclavable	£445.00
KS-48-300	Fibre Light Cable 4.8mm 3.0m Storz/ Storz	£475.00

Cameras & Monitors

Direct viewing of the joint through the eyepiece is possible. However, practicality and the issue of contamination dictate that a camera system is an essential part of the equipment. Arthroscopic cameras work in a very similar fashion to video cameras in common usage. The image at the eyepiece of the arthroscope is focussed on a light responsive electronic chip(s). The signal created is transferred to a camera controller, which processes the image into a signal recognized by the monitor and/or recording system.

Most veterinary cameras have a single chip, which is sufficient for most users.

The connection of the camera head to the eyepiece of the arthroscope is also variable. To maximise the choice and longevity of the instrumentation it is advised that a clip on camera head compatible with DIN standard eyepieces be selected. The camera heads are fully immersible.

Storz Arthroscopy – Cameras and Light Sources (Ex Demo/Pre owned)

Top quality equipment from a major human arthroscopic company but at a discount price.

Two levels are currently available as two starter kits

Standard Level in HD Quality or Basic Level in SD Quality.

Arthroscopy is difficult enough without working with poor quality images. Buy the best 'scope' and camera you can afford.

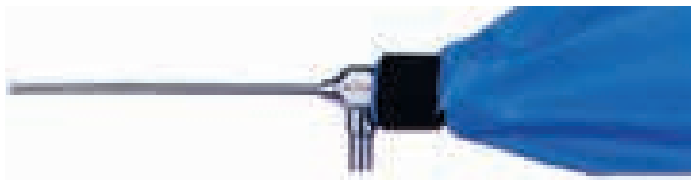
Please phone for current stock and availability.

Storz arthroscopy camera & light sources ex-demo/ pre-owned

STANDARD LEVEL IN HD QUALITY KIT	
IR8101-1502	Camera, Control Unit, High Definition
IR8001	Camera Head, High Definition, 3-Chip
20161401-1	Light Source Power LED 175 watt
IR8305	26" HD Flat Screen monitor HB
STORZ CAMHD	As Above (List price £33,201) £16,000

BASIC LEVEL IN SD QUALITY KIT	
20213011	Camera Control Unit, Standard Definition, CCU, Telecam SL II
20212030	Camera Head, 1-Chip, PAL, Telecam
20131501	Light Source XENON NOVA 175
RR8302	Monitor 19"
STORZ CAMSD	As Above (List price £18,595) £9,000

Camera Covers



CAMERA COVERS	
DE-10-25	Camera Covers Disposable Polyethylene 13 x 235cm Sterile Pack of 30 £150.00
CAMPT	Camera Cover with Perforated Tip 250cm x 12.5cm Sterile Pack of 60 £150.00
CAMET	Camera cover with Elasticised tip 250cm x 12.5cm Sterile Pack of 60 £175.00
DE-10-25-SINGLE	Single Camera Cover Disp 13 x 235cm Sterile £6.45
DE-10-01	Camera Cover Reusable Waterproof Washable Autoclavable 12 x 200cm Single £85.00

Monitor



Flat Screen Professional Monitor



Pre-owned Cathode Ray Tube Type Monitor

Professional monitors offer a better image than domestic screens as they have a better resolution. Some pre-owned units are always available. Ring for details.

Image Capture

Good practice dictates that a record is made of any arthroscopic procedure. Subsequent investigations can be compared to earlier ones and images can be shared and compared with colleagues or tutors as part of a training programme. Domestic video recorders will create a permanent record of a procedure. However the data is relatively crude and difficult to manipulate. Still video printers capture an image from a video stream which can then be printed onto photographic paper.

Digital video and data storage technology now allows the surgeon to record and store very large amounts of data in a digital format. The digital information can subsequently be manipulated by appropriate computer software to create both still and moving images in a variety of formats for storage or display. If clinical presentations are anticipated then a digital system is very desirable. Domestic DVD or combined DVD/ Hard drive recorders offer huge storage capacities at reasonable prices.

The data is stored as Digital Video (DV) which can be converted into many other formats. The major arthroscopy companies offer sophisticated data storage systems which are able to capture and store still and movie files via sterile touch screens or camera finger controls. Permanent records are maintained on DVD discs or computer hard drives.

We usually have some pre-owned Sony video printers in stock. Ring for details.

USB Based Image Capture System



The latest version of the image capture device captures both still images and mpegs directly onto a USB stick ready for transfer to permanent storage.

Capture is activated by pressing a button on the front panel or if the surgeon prefers to keep control there is an optional foot control.

USB BASED IMAGE CAPTURE SYSTEM

46-USB-200	USB Image Capture Jpeg and Mpeg	£2,650.00
46-USB-15-1	Footswitch for USB Capture System	£165.00

Free Loan Offer

Arthrex Continuous Wave III Arthroscopy Pump



Provided the surgeon is prepared to commit to the purchase of 100 patient infusion sets per year Arthrex is prepared to offer its Continuous Wave Arthroscopy Pump (AR-6475) (value over £3,950) on free loan, with an initial purchase of 2 boxes of tubing.

This pump has been in use in the human sector for some 15 years and is very reliable. Line pressure and flow rate are user defined. This means that the fluid pressure does not have to be continually monitored and adjusted by nursing staff. In addition, if the tube pressure is correct, any problems with fluid flow can be immediately localised to the arthroscope. This is not the case with inflated cuffs where only the pressure within the bag is known.

Setup of the unit is very straightforward. The machine tubing (or combination tubing) is simply looped around the rollers as shown in the picture. A clip down transparent cover provides additional security. A new patient tubing set must be used for each patient. If you are running more than 3 procedures a day, it may be worth considering separate machine & patient tubing sets to keep costs down.

Two modes of operation are available – Normal and Flush, which increases the flow rate to 100% and the pressure by 50% to a maximum of 120mmHg. The maximum flowrate available is 1500ml/minute, which is measured in percent with a range of 10-100%. Pressure range is 0-120mmHg, measured in increments of 1mmHg. On start-up, default flowrate is 100%, pressure set at 0mmHg. Settings are changed on the easy-clean front touch panel.



ARTHROSCOPY INFUSION PUMP AND TUBING

AR-6475	Arthroscopy Pump	£3,950.00
AR-6415	Combination Machine and Patient Tube (10)	£340.00
AR-6420	Machine Tube Set (10)	£370.00
AR-6425	Patient Only Tube Set (20)	£225.00

Hand Pressure Infusion Cuffs

Hand Pressure Infusion Cuffs



HAND PRESSURE INFUSION CUFFS

AR-08-100	Pressure Infusion Cuff for 500-1000ml complete with Pressure Gauge and Hand Pump Reusable	£315.00
AR-08-300	Pressure Infusion Cuff for 3000-5000ml complete with Pressure Gauge and Hand Pump Reusable	£365.00
AR-08-110	Pressure Infusion Cuff for 500-1000ml without Pressure Gauge Luer Lock (fem) Reusable	£205.00
AR-10-948	Silicon Tube 7x2mm 3m Autoclavable Luer-Lock (m) Needle (f) Sterile Bags/ Bottles	£140.00
X-7-20-10	Spare Silicon Tube 1 Metre Size: 7 x 2mm Colour: Natural	£14.00
AR-10-9	Spare Needle for Infusion Bottles/ Bags ID: 5.5mm comp. to Silicon Tubes 7 x 2mm	£49.50
X-180-26	Silicon Tube ID: 5mm 180cm LLm both ends Autoclavable	£47.50
X-5-15-10	Spare Silicon Tube 1m Autoclavable size: 5 x 1.5mm Colour: Nature	£12.00
LLM-1250	Spare Luer-Lock Connector (m) comp. to Silicon Tubes 5 x 1.5mm	£18.50

Pressure Pump Infusor

Pressure Pump Infusor

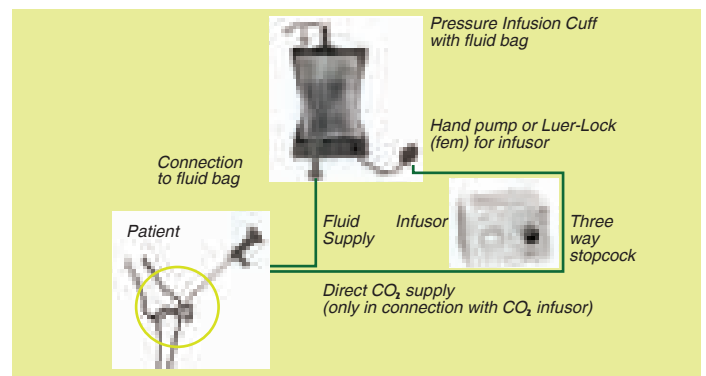


Features:

- automatic control
- pressure continuously adjustable
- max. 300mm Hg pressure
- easy handling
- no mechanical parts
- for fluid and CO₂ supply

PRESSURE PUMP INFUSOR

AR-10-100	Pneumatic Pressure Infusor for Infusion Cuffs for veterinary arthroscopy complete 4mm Tube to Central Pressure Supply - DIN Tube Connection - Front Side Luer-Lock (f) Universal Table Fixator Easy Pressure Setting Automatic Regulation (0-300mmHg)	£1,350.00
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PRESSURE PUMP INFUSOR CO₂ AND ACCESSORIES

AR-10-901	CO ₂ Infusor for large/ small animal arthroscopy DIN Connector Tube to Pressure Reducer (DIN type) Pressure Setting 0-300mm Hg Tube Connection Luer-Lock(f)	£1,745.00
AR-10-903	Reduction Valve for CO ₂ Bottles UK Fitting	£185.00
AR-10-922	Sterile Filter System for CO ₂ Infusor Disposable Box with 50 Pieces	£225.00

Arthrex Free Loan Offer – Shaver System

Virtually the only powered instrument in use in veterinary arthroscopy is the shaver. The shaver is essentially a motorized bur. It may be used to debride cartilage, bone or soft tissues. A range of tips of different designs and sizes are available to manage the different tissues. Tips designed for soft tissues are typically larger and more aggressively toothed. Suction may be applied to the cutting tip via the hand piece to remove debris. The hand piece is driven by a control box operated by finger or foot controls. The speed and direction of cut are selectable. The tips (known as blades) are disposable. Resist the urge to try cleaning and re-using – they are extremely difficult to clean effectively, and if any distortion occurs during cleaning and sterilising they will not function safely.



Arthrex Adapteur APS II Console

The Arthrex Adapteur II shaver is a current shaver with a value of over £11,450. It takes a range of blades down to 2.0mm, and has the capability to accept 2 handpieces if necessary. Arthrex offer the APS shaver on FREE loan to Veterinary Instrumentation customers provided that the surgeon is prepared to purchase up front two boxes of blades (total of 10 blades). The unit is supplied as standard with one foot controlled hand-piece. This unit is also available with an alternative hand control. Please specify which you prefer when ordering.



Action	Minimum Speed RPM	Maximum Speed RPM
Forward/reverse	500	8000
Oscillation	500	6000

Shaver Blades and Burs

Unless you have used these before, selecting shaver blades can seem difficult. The following types cover the most useful applications. Other types are available - full list available on request. All supplied in boxes of 5.



Sabre

Aggressive general soft tissue resection applications, while leaving smooth tissue edges.



Dissector

Aggressive resection of meniscus, synovium & cartilage.



Oval Burs

For rapid, aggressive bone resection.



Round Burs, 8 flute

Ideal for soft tissue, osteochondral and osteophyte resection, or bony site preparation.

ARTHREX SHAVER SYSTEM		
ARTSHAV	Arthrex Shaver System Complete (specify foot or hand control)	Free Loan or £11,450
AR-7200SR	Shaver Blade Small Joint Sabre 2.0mm Box of 5	£395.00
AR-7300SR	Shaver Blade Small Joint Sabre 3.0mm Box of 5	£375.00
AR-7300DS	Shaver Blade Small Joint Dissector 3.0mm Box of 5	£375.00
AR-7300BT	Shaver Burr Small Joint Oval Burr 10 Flute 3.0mm Box of 10	£375.00
AR-7300RBE	Shaver Burr Small Joint Round Burr 8 Flute 3.0mm Box of 5	£375.00

Linovatec Shaver Blades

We can still source blades for Linovatec shaver systems, although we rarely now find consoles or handpieces.

LINVATEC SHAVER SYSTEM AND BURS		
SBC9960	2mm Linovatec Micro Gator Shaver Blade	£155.00
SBC9950	2mm Linovatec Micro Cuda Shaver Blade	£155.00
SBC9911	2.9mm Linovatec Micro Spherical Shaver Blade	£150.00
SBC9961	2.9mm Linovatec Micro Gator Shaver Blade	£155.00
SBC9962	3.5mm Linovatec Micro Gator Shaver Blade	£155.00
SBC9264	3.5mm Linovatec Gator Shaver Blade	£155.00
SBC9253	3.5mm Linovatec Cuda Shaver Blade	£155.00
SBC9111	4.5mm Linovatec Spherical Shaver Blade	£155.00
SBH9110	Shaver Blade Linovatec H9110 3.5mm Spherical	£155.00

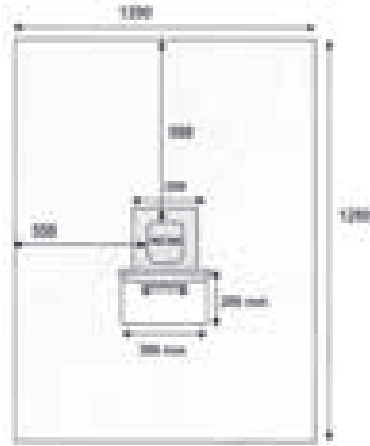
Arthroscopic Procedure Electrosurgical System (OPES)

ARTHROSCOPIC PROCEDURE ELECTROSURGICAL SYSTEM (OPES)		
AR-9610	Monopolar Handpiece Disposable Box of 5	£95.00
VAR-1005-01	Ground Pad	£60.00
VAR-1005-06	Cable	£85.00
	Ablation Wands and Electrodes from	£95.00
BROPES	Opes Literature	£FOC

Fluid Management

Sterile Incise drape with Fluid Collection Pouch.

Arthroscopy is messy. Collection of fluid run off will minimise what falls to the floor. This opaque plastic film drape has a 100mm x 100mm incise area and a 200mm x 300mm fluid collection pouch. Free sample on request.



INCISE DRAPE WITH FLUID COLLECTION POUCH STERILE		
DD198961	Incise Drape with Pouch Box of 40	£175.00
FCP2527	Fluid Collection Pouch 25cm x 27cm 200 Sterile	£305.00

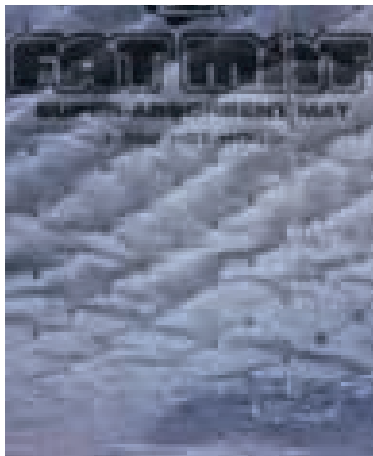
Super Absorbent Matting

Water, saline, blood or any other fluid on the theatre floor represent a significant slip hazard to personnel. In addition free running fluid is much more likely to run and penetrate porous areas creating a longer term biosecurity hazard.

Super Absorbent Matting is splash resistant and absorbs 6.5 litres of water (3.5 litres of saline) per mat.

Supplied in 200cm x 40cm mats, perforated every 25cm for easy tearing. Also available as a 23 metre roll.

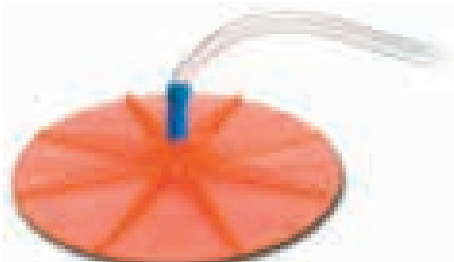
Free sample on request



SUPER ABSORBENT MATTING		
ABMAT40200	Super Absorbent Mat 200cm x 40cm	£8.00
ABMATROLL	Super Absorbent Matting 23 metre roll x 80cm	£185.00

Puddle Vac Floor Suction Device

The Puddle Vac can collect an average of 700ml of fluid per minute. Simply place where required. Connect to standard suction apparatus.



PUDDLE VAC FLOOR SUCTION DEVICE		
PV9321	Puddle Vac Pack of 5	£72.50

Sterility

Arthroscopes

Distilled water and an enzymatic cleaner are used to remove gross contamination from arthroscopes, sheaths and trochars. Arthroscopes are available which can be autoclaved. However, repeated autoclaving of even these arthroscopes will significantly reduce their working life. Sterility is more commonly achieved by soaking in an anti-microbial solution. Historically glutaraldehyde based solutions were the norm but health and safety concerns have led to the use of safer chemicals based on oxidation.

Camera systems

Most cameras used for veterinary arthroscopy cannot be autoclaved but the head and cable can usually be soaked in the same solution as the arthroscope. Care should be exercised to avoid contact of the sterilizing fluid with the electrical contacts at the end of the cable. An alternative is the use of a sterile disposable camera sleeve to separate the camera head and cable from the sterile arthroscope eyepiece.

Perasafe

Perasafe is a rapid, instrument compatible, user and environmentally friendly, chemical sterilant. Supplied as a safe, space-saving powder, Perasafe is activated by simply dissolving in luke-warm tap water. Provides rapid sterilisation and re-use of endoscopy instruments. Aldehyde-free formulation gives efficacy without harm to instruments, health risks to nursing staff and avoids the need for special fume extraction or waste disposal systems.

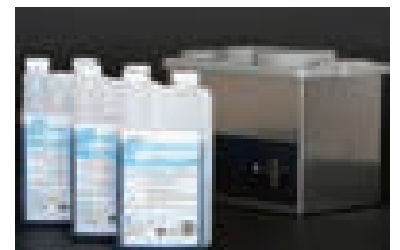


Perasafe is a pale blue/white powder which, when in solution, sterilises within 10 minutes. Suitable for all surgical instruments and fibrescopes. Formulated not to damage surgical instruments. Supplied in the following packs.

PERSAFE		
100100	Perasafe Cold Sterilant 24 x 81g (5 litres)	£205.00
100101	Perasafe Cold Sterilant 6 x 81g (5 litres)	£72.50
DE-10-425	Soak Basin for Chemical Solution Disinfection consisting of Basin (perforated) Tray & Cover for Basin size: 42 x 16 x 9.5cm	£135.00
DE-5-17	Cleaning Brush for Small Cannulae with ID: 2-4mm Length 17cm	£26.50

Rapizyme

- Three new enzymes
- Easy to use measured bottle
- 2ml per litre dilution
- Removes all organic material
- Ideal for endoscopes
- Low foam for ultrasonics
- Complete rinsibility
- Biodegradable
- Tested by The Royal Institute of Public Health



RAPIZYME		
RAPIZYME1	Bottle 1 Litre	£49.50

Positioning Aids

Manipulation of arthroscopes and instrumentation inside a joint via an image on a monitor screen can be very demanding. Careful positioning of the patient and the surgeon is essential.

An operating table, fully adjustable for height and tilt is a prerequisite for good arthroscopy. Once fully draped, orientation around a canine limb can be difficult. Full use should be made of channels, ties and sand bags to fix the overall position of the dog. Sandbags may also be necessary to act as a fulcrum to open a joint maximally for investigation, e.g. elbow.

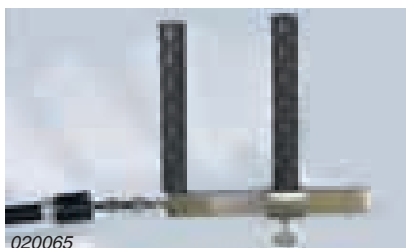
To provide multiple fixed positioning during an investigation a Multi-arm Positioning Device is available which when attached between the distal limb and the table may be locked into an infinite range of positions. An optional accessory allows the stifle to be accurately positioned for an investigation.



020062

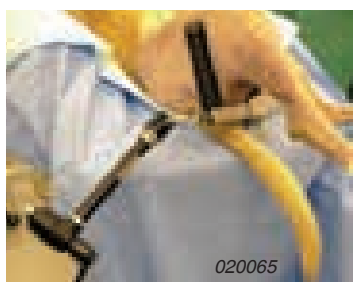


026000



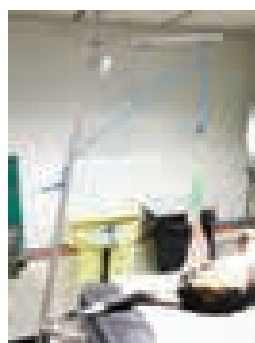
020065

MULTI-ARM		
026000	Multi-arm Positioning Device with Single Foot Attachment	£285.00
020062	Double Limb Support for Multi-arm	£165.00
020065	Stifle Brace Attachment for Multi-arm (designed by Schulz and Ian Holsworth)	£165.00
MULTIARMSET	Multi-arm Set includes all of above	£495.00



020065

Table Top Stand for Hanging Limb Preparation



Suspension of a limb can provide significant benefits in both arthroscopy and other orthopaedic procedures. The shoulder joint is distracted and 360 degree access becomes available.

Height 1.2m (48")

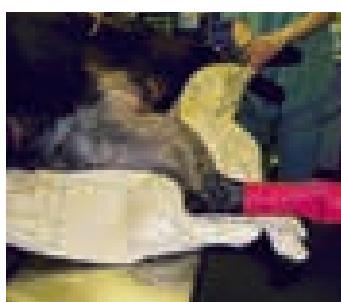
In 2012 our limb suspension stand was re-designed to give greater table-top stability. A cleat for tying off limb suspension ropes has also been added and the shaft can be dismantled for storage.

TABLETOP STAND FOR HANGING LIMB PREPARATION		
R463	Tabletop Stand for Hanging Limb Preparation	£185.00

Vac Pac Vacuum Positioning Device.



Thanks to Pat Ridge for the photographs



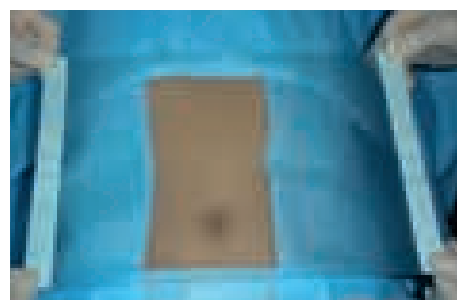
Simply mould the bead filled bag around or under the patient and hook up to any vacuum source, as the air is removed the bag solidifies in the set position. Especially useful for arthroscopy or any surgery requiring secure accurate positioning. The Vac Pac is:

- Re-useable
- Repairable
- Radiolucent
- Warm

VAC-PAC			
VP23	Vac-Pac Size 23	45 x 50cm	£345.00
VP30	Vac-Pac Size 30	72 x 90cm	£465.00
VP31	Vac-Pac Size 31	98 x 90cm	£465.00
VP32	Vac-Pac Size 32	118 x 90cm	£465.00

Clear Adhesive Antibacterial Surgical Drapes with Povidine

The majority of human surgeries use clear adhesive drapes over the incision site. Benefits include fluid and pathogen resistance, antibacterial, transparent and permeable. 4 sizes available.



CLEAR ADHESIVE SURGICAL DRAPES WITH POVIDINE			
AD1420	14cm x 20cm	20 Pieces/ Box	£39.50
AD2030	20cm x 30cm	20 Pieces/ Box	£49.50
AD3045	30cm x 45cm	20 Pieces/ Box	£74.50
AD4560	45cm x 60cm	10 Pieces/ Box	£74.50
ID6650	loban™ Drape 56 x 45cm	Single	£34.50

Redmark Cradles

Available individually or as a Set of 3, these cradles are the best available.

REDMARK CRADLES			
026022	Redmark Cradles - Set of 3 (S, M, L)		£225.00
026022L	Redmark Cradle - Large over 32kg		£105.00
026022M	Redmark Cradle - Medium 13kg - 32kg		£100.00
026022S	Redmark Cradle - Small up to 13kg		£95.00

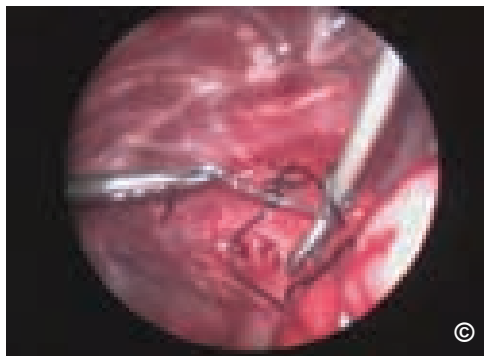
See Chapter 18 for Drapes and Draping.

Canine Laparoscopy and Thoracoscopy

Romain Pizzi BVSc MSc DZooMed MANZCVSc(Surg) FRES FRGS MRCVS

The first canine laparoscopy was performed over 100 years ago by George Kelling in Dresden. He used a cystoscope and inflated the abdomen with filtered air, and termed the procedure 'Celioscopy' (Lhermette and Sorbel, 1998). While advances such as the use of carbon dioxide for insufflation, the rod lens "Hopkins" endoscope design, and glass fiber light transmission all improved the image quality and illumination, laparoscopy did not gain widespread medical acceptance, until after the development of the charged couple device and the first video-assisted laparoscopic cholecystectomy was performed by Mouret in 1987. The fact the operator no longer had to use their eye to look down the endoscope, and could instead use a video camera, led to a rapid and widespread acceptance of laparoscopy, to the stage that it is the recognised standard for many human surgical procedures in developed countries we see today.

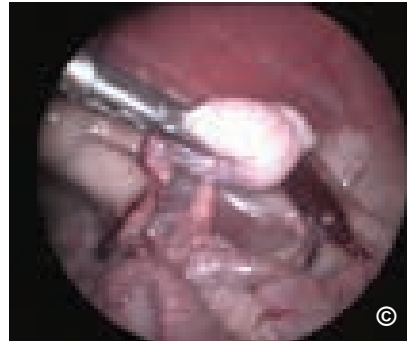
While veterinary laparoscopic work was already active before the advent of the video camera and its widespread human acceptance (Harrison and Wildt, 1980), currently endosurgery techniques are still limited to referral centres and a minority of veterinary first-opinion practices in the UK. Laparoscopy is more widespread in first opinion practice in North America, and some European countries, such as Italy. Limited uptake appears mainly due to the initial equipment costs, but also in part to the learning curve needed by the operator. A recent study (Pope et al, 2014) suggests that as many as 80 laparoscopic ovariectomies are needed for a new operator to be judged safe and competent with even this relatively simple laparoscopic technique. There is a recent increase in practices taking up laparoscopy in the UK, and this appears to be partly as a method of client retention, in the increasingly competitive veterinary marketplace, aiming to act as an indicator of the quality of services and level of skills offered by a particular veterinary practice.



*PRAA lig art ligation
Intraporeal
ligation of the
ligamentum
arteriosum during
a thoracoscopic
procedure for
a vascular ring
anomaly (persistent
right aortic arch)*

Minimally invasive surgery (MIS) techniques such as laparoscopy and thoracoscopy hold numerous advantages for veterinary patients such as reduced morbidity, reduced post-operative pain, shorter hospitalisation, reduced risk of wound infections or dehiscence (Freeman, 1998; van Goethem et al, 2006; Culp et al, 2009; Hodgson-Moore and Ragni, 2012; Mayhew et al, 2012), but also have the advantages for the surgeon of providing an illuminated and magnified view, via the endoscope, of areas more difficult to visualise during open surgery, such as the chest, diaphragm, and pelvis.

The economic justification for initiating MIS in practices differs dependant on case load. In a very busy first opinion practice, the time taken to reprocess laparoscopic instruments may negate the increased fees charged for a laparoscopic ovariectomy. The benefit of these procedures may be more in building surgeon experience with MIS, to allow other procedures with a higher cost premium to be undertaken.



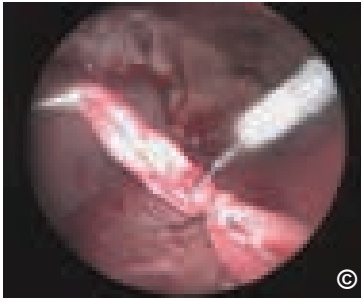
*Cryptorchidectomy
Laparoscopic
cryptorchidectomy is one of
the simplest laparoscopic
procedures, with clear
benefits to the patient, and
advantages to the surgeon.*

Laparoscopic-assisted cryptorchidectomy is an excellent addition to a practice repertoire, being a relatively simple procedure, with clear benefits to the patient, that is often much faster than an open procedure and allows a practice to charge a premium for this. Similarly laparoscopic organ biopsies, such as liver and kidney, hold similar clear advantages for both patient and practice. Thoracoscopy can result in excellent visualisation of the chest, particularly regions not easily examined in open surgery, but needs a 30degree endoscope, and should only be undertaken by surgeons already comfortable with open thoracic surgery, in case of the need for emergency conversion (Pizzi, 2012).

In contrast to human MIS, veterinary techniques are still less standardised, with differing opinions as to some techniques, as an evidence base continues to be developed. Even laparoscopic neutering is not standardised (Mayhew et al, 2007; Case et al, 2011). While the two port laparoscopic ovariectomy is the most commonly employed technique (Dupre et al, 2009), this is in part due to this procedure only needing a single sterile operator, rather than it holding significant benefits over the 3 port technique, which can be easier when initially learning laparoscopy. Others instead prefer a single port technique, using a larger diameter "operating laparoscope" with an instrument channel. While single port surgery may be undertaken in humans for the benefits in post-operative cosmesis (as it is done through the navel and is hence invisible), it is unclear if a single larger incision holds any significant advantage in canine ovariectomies, and does limit visualisation during the procedure.

Equally contentious, just as in human surgery, are the different types of access to the abdomen undertaken in laparoscopic surgery (Varma et al, 2008). Blind access with a sharp trocar after insufflation with a veress needle has largely fallen from favour in human general surgery (due to the risks of serious vascular injury on entry), and is not permitted in the USA, and no longer taught to human surgery trainees in the UK, but still popular with gynaecologists and veterinarians in the UK. Open access, sometimes referred to as "Hasson technique" has become the standard in human general surgery in the USA and UK, as it is perceived as safer. It is the author's preferred technique (Pizzi et al, 2011) (and successfully used in obese bears up to 360kg in weight), and more commonly used by veterinarians in the USA, Spain, and Italy. A variety of disposable and re-usable optical trocars are also popular with individual surgeons. Despite strong opinions, a Cochrane review of the subject in humans was unable to yield a definitive demonstration that one technique was safer than the other (Ahmad et al, 2008). Either technique can be safe in an experienced practitioner's hands, and is largely down to personal preference.

For all its benefits, laparoscopic surgery does carry some specific risks that surgeons need to be aware of. Initial entry into the abdomen, and blind entry of instruments (under visualisation) can risk trauma, particularly to the spleen, particularly during the initial learning curve (Pope et al, 2014). Loss of tactile feedback means operators need to take care which instruments are used to grasp sensitive tissues, such as bowel, if not to cause crushing and post-operative necrosis. Electrosurgical instruments (both monopolar and bipolar), as well as harmonic scalpels (Ethicon) and tissue feedback bipolar instruments (Enseal, Ethicon; Ligasure, Covidien) all generate heat at their tips and care must be taken never to inadvertently rest these on non-target tissues such as bowel between use, with the risk of thermal necrosis resulting in perforation 2-3 days after surgery. Unrecognised bowel perforation carries a poorer prognosis if incurred during laparoscopy than in open surgery (van der Voort, 2004). As MIS is more physiological

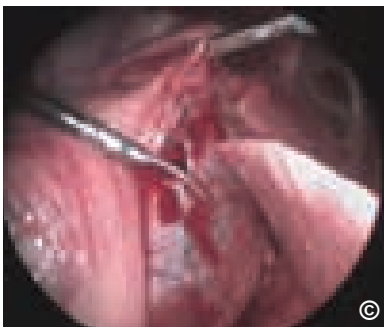


T lung biopsy
Taking a thoracoscopic lung biopsy by means of an extracorporeally ties loop ligature (Meltzer knot). Note the use of soft thoracoports (Ethicon), which don't risk damage to ribs or the intercostal neurovascular bundle, from leveraging MIS instruments through the metal cannulas commonly used for veterinary laparoscopy.

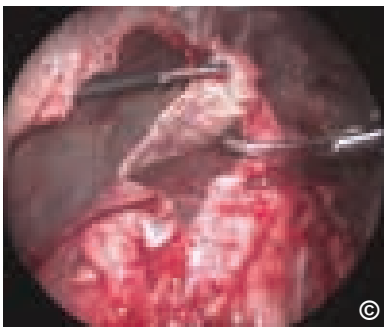
surgery, with less tissue damage and hence a much reduced post-operative inflammatory response, post-operative bowel perforations take longer to manifest clinical signs and typically present 2-3 days later to the veterinarian than would typically be the case with open surgery cases, and hence carry a poor prognosis.

Laparoscopy and thoracoscopy carry the advantages, not just of smaller less painful incisions and faster post-operative recovery, but also of enhanced visualisation, which combined with the more physiological nature of the surgery, allows the conscientious and careful surgeon to perform safer surgery (Pizzi, 2012).

For those interested www.veterinarylaparoscopy.com has videos of some common veterinary procedures, and the human MIS website www.websurg.com is also useful. While the standard human laparoscopic procedures (cholecystectomies, appendectomies, and colorectal neoplasia resection) are not really applicable to veterinary patients, much can be learned about safe MIS surgical techniques and approaches from watching human MIS, and systems such as the WHO safe surgery initiative www.who.int/patientsafety (Haynes et al, 2009).



Thorac pericardiectomy1
Thoracoscopic sub-total pericardiectomy. Note the visualisation of the phrenic nerve, which should not be incised.



Thorac restrictive pericard
Thoracoscopic pericardiectomy in a case of restrictive (fibrotic) pericarditis. A sub-total pericardiectomy is ideally needed in these cases, as a simple window will not resolve clinical signs as in pericardial effusion. If this is not possible due to large epicardial adhesions, then the window should be fenestrated to resolve the restriction.

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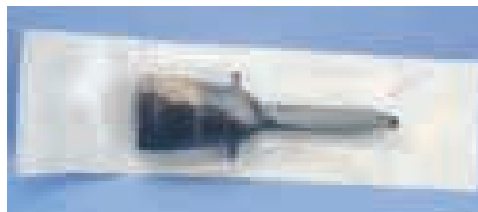
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Ethicon Laparoscopy Trocars

Flexipath Trocars & Endopath Trocar



FLEXIPATH Trocars are sterile single-patient-use instruments that consist of a mechanical obturator and a flexible sleeve. When activated, the mechanical obturator expands the flexible sleeve, which becomes secured to the mechanical obturator for placement. The flexible sleeve incorporates holes (for sutures or skin staples) to secure it to the skin.



ENDOPATH
Surgical Thoracic Trocar Sleeve with Rounded Tip Obturator
Features
•Thoracic trocar sleeve.

- Rounded tip obturator.
- Designed to prevent puncture or laceration to internal structures once the cavity has been entered.
- Incorporates stability threads on the sleeve which enhance security as instruments are inserted and withdrawn.

The Thoracic Trocar Sleeve consists of a rounded tip obturator which is designed to prevent puncture or laceration to internal structures once the cavity has been entered. The device incorporates stability threads on the sleeve which enhance security as instruments are inserted and withdrawn. This can be used in patients for Thoracoscopic or minimally invasive procedures to establish a port access to internal organs where insufflation is not required. It is a sterile single-use instrument.

ETHICON FLEXIPATH & ENDOPATH TROCARS

JJFP007	Flexipath Trocar 7mm Diameter 80mm Long Flexible - Box of 6	£365.00
JJFP015	Flexipath Trocar 15mm Diameter 80mm Long Flexible - Box of 6	£375.00
JJFP020	Flexipath Trocar 20mm Diameter 80mm Long Flexible - Box of 6	£395.00
JJTT012	Endopath Trocar 10/12mm Diameter 80mm Long Rigid - Box of 6	£245.00

Ethicon Trocar Pack

ETHICON TROCAR PACK

JJFPK02	Trocar Pack 15mm Obutrator 3 x 15mm Flexible Sleeves	£POA
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Laparoscopes for Minimally Invasive Surgery

Standard Laparoscopes



Good optics are a pre-requisite for successful laparoscopy. The more you see the easier it becomes. Fritz 'scopes have a patented large image optical system taking in a wide field of vision producing a full screen, very high definition image.

All the laparoscopes are autoclavable and have standard eyepiece and light cable connectors.

LAPAROSCOPES - STANDARD		
T281-5000	Wide Angle Telescope, 0° OD: 5mm WL: 29cm Standard Light Cable Connectors Autoclavable	£2,825.00
T281-5030	Wide Angle Telescope 30° OD: 5mm WL: 29cm Standard Light Cable Connectors Autoclavable	£2,825.00
T141-2430	Wide Angle Telescope 30° OD: 2.4mm WL: 14cm Large Image Technology	£2,415.00
S140-2433	Examination Sheath OD: 3.2mm WL: 12cm Compatible with T140-2430 and T141-2430	£325.00
T181-4030	Wide Angle Telescope 30° Large Image Technology OD: 4mm WL: 18cm Autoclavable	£2,625.00
S180-4033	Examination Sheath OD: 5.5mm WL: 17cm compatible to T181-4030 Stopcock inc. Blunt Trochar	£395.00

Electrocautery & Suction

Laparoscopy will require a bipolar electrocautery generator to power the handpieces. The GIMA unit is very effective and reasonably priced.

See Chapter 21 page 423.



Adequate suction is also a pre-requisite for Laparoscopy. Our new Hospivac unit with 2 x 2litre bottle capacity and foot control is a high capacity suction unit for many hospital procedures.

See Chapter 21 page 420.

ELECTROSURGERY & SUCTION		
HF122	GIMA 122 Bipolar Electrocautery Kit	£995.00
185H350	Hospivac 350 Suction Unit*	£685.00

* Carriage extra

Laparoscopy Start Up Kit

Instrument choice is determined by personal choice and patient selection. However, a starter kit is a useful starting point and offers a discounted approach to setting up.

The Laparoscopy kit described is discounted by 10% compared to buying the individual components.

In addition to laparoscopic hand instrumentation a suitable camera, light source, CO₂ insufflator and electrocautery generator will be required. Several options, including pre-owned units, are available please telephone or e-mail to discuss options.

Code Description

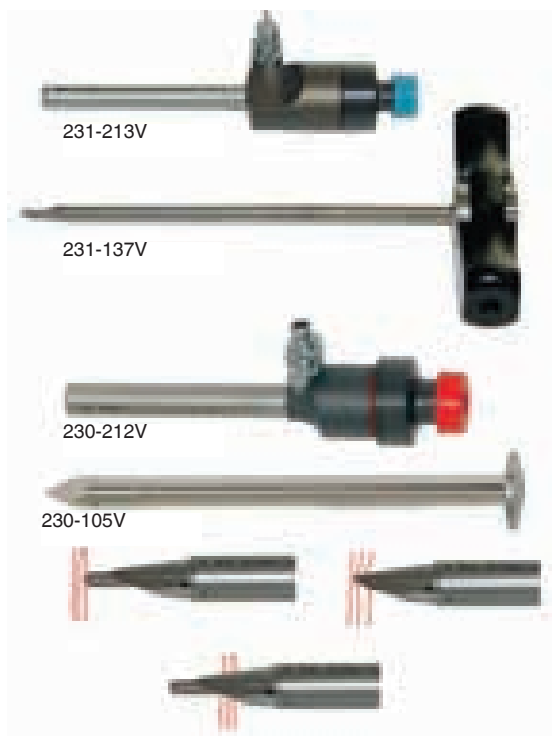
T281-5030	Wide Angle Telescope, 30° OD: 5mm, WL: 29cm, Standard Light Cable Connectors, Autoclavable
DE4680-52	Sterilizing & Storing Tray, 460 x 80 x 52mm Perforated Stainless Steel with Silicon Bars
230-212V	Cannula only with Magnetic Valve ID: 10mm, WL: 7cm, Inflation Stopcock, 55g
230-213V	Cannula only with Magnetic Valve ID: 10 mm WL: 7cm, 45g
230-137V	Safety Trochar only compatible to Cannulas with ID: 10mm, WL: 7cm, fully dismantable, Cork Screw Handle
231-213V	Cannula only, Magnetic Valve ID: 5.5mm, WL: 7cm, Inflation Stopcock
231-212V	Cannula only, Magnetic Valve ID: 5.5mm, WL: 7cm, 30g
231-137V	Safety Trochar only compatible to Cannulas ID: 5.5mm, WL: 7cm, fully dismantable, Cork Screw Handle
230-505	Reducer Adapter for Trocar Cannulas with ID: 10 to 5.5mm
L-19-120	Veress Needle, D: 2mm, 12cm, LL(f)
531.23H11V	Atraumatic Grasper, curved, 5mm 33cm insulated, rotatable, dismantable, inside ratchet, HF Connector
531.02H05V	Mini - Metzenbaum Scissors 5mm 33cm insulated, rotatable, dismantable
531.40H11V	Dissecting Forceps, (Maryland) 5mm, 31cm, insulated, dismantable, Silicon Handle, inside ratchet
X-300-26	Silicon Tube, ID: 5mm, 3m, LLm both ends
BP-05-321	Bipolar Grasping & Cutting Forceps 5mm, WL: 320mm, disposable, Universal Connector
BP2-533-10	Bipolar Grasping Forceps with std. handle 5mm, WL: 34cm, jaws: 13 4.5mm with hook totally dismantable
BP-500-11	Bipolar Cable, 5m, comp.to Martin Unit to Martin/ Berchtold Instrument

LAPAROSCOPY STARTER KIT

LAPROKIT	Laparoscopy Starter Kit	£6,450.00
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Trochars and Cannulae

Trochar Cannulas with Magnetic Valving



Safety trochar tissue pressure exposes the sharp tip

Trochar Cannulas are designed with different types of valves to reduce or to avoid CO₂ loss when changing instruments and telescope during laparoscopy and thoracoscopy. Our reusable and patented magnetic valve trocar system has several advantages compared to other valve types. They are lightweight and because of the valve construction, the insertion of instruments and scopes will pass smoothly through without scratching or touching the front lens like in a so called automatic valve system. In addition there is nearly no gas loss even when changing instruments. There are no mechanical parts to clean inside except the magnetic flap itself which is a great help to your staff.

5.5MM INNER DIAMETER CANNULAE FOR 5MM 'SCOPES		
231-213V	Cannula only, Magnetic Valve, ID: 5.5mm, WL: 7cm, Inflation Stopcock	£295.00
231-212V	Cannula only, Magnetic Valve, ID: 5.5mm, WL: 7cm, 30g	£335.00
231-137V	Safety Trochar only, comp. to cannulas ID: 5.5mm, WL: 7cm, fully dismantable	£385.00
231-105V	Trochar only, with Sharp Tip compatible to ID: 5.5mm, WL: 7cm	£150.00

10MM INNER DIAMETER TROCHARS & CANNULAE FOR 10MM 'SCOPES		
230-212V	Cannula only, Magnetic Valve, ID: 10mm, WL: 7cm, Inflation Stopcock, 55g	£365.00
230-213V	Cannula only, Magnetic Valve, ID: 10mm, WL: 7cm, 45g	£335.00
230-137V	Safety Trochar only, compatible to Cannulas with ID: 10mm, WL: 7cm, fully dismantable, cork screw handles	£425.00
230-105V	Trochar only with Pyramidal Tip for Trochars Cannulas ID: 10mm, WL: 7cm	£155.00

ACCESSORIES		
230-505	Reducer Adapter for Trochar Cannulas with ID: 10 to 5.5mm	£37.50
231-211	Sealing Caps, for Trochar Cannula 5.5mm 10 pcs	£32.50
230-211	Sealing Caps for Trochars and Reducer Adapters	£32.50
231-215	Magnetic Valve Flap 5.5mm, 2 pcs.	£41.50
230-215	Magnetic Valve Flap 8/ 10mm, 2 pcs.	£41.50

Palpation, Dissection and Puncture Instruments

Laparoscopy First Puncture Needle, Veress



LAPAROSCOPY NEEDLE VERESS		
L-19-100	Veress Needle 2mm x 100mm Luer Lock	£130.00

Thoracoscopy First Puncture Needle, Long Version



THORACOSCOPY NEEDLE		
TR-03-201	Thoracoscopy Needle 3mm x 200mm includes Sharp Trochar	£155.00

Palpation Probe and Puncture Cannula



5mm diameter, 330mm long protected interchangeable needle with outer tube. Consists of:

- L-33 Inside tube Luer lock Connector
- L-33-2 Outside Tube/ Probe
- L-210 Needle 1 x 26mm

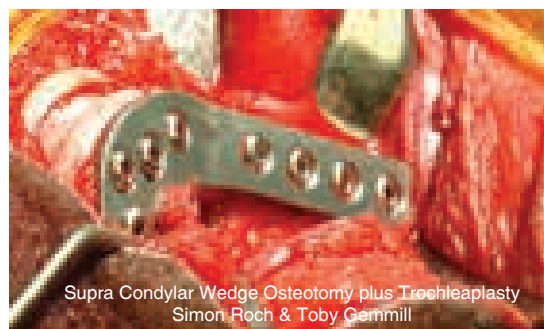


PALPATION PROBE & PUNCTURE CANNULA		
L-33-210	Palpation Probe/ Cannula	£235.00
L-210	Injection Cannula 1 x 26mm compatible to L-33/47	£57.50
L-218	Injection Cannula 1.9 x 26mm compatible to L-33/47	£57.50
L-218R	Injection Cannula 2 x 28mm Blunt compatible to L-33/47	£57.50

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Supra Condylar Wedge Osteotomy plus Trochleoplasty
Simon Roch & Toby Gemmill

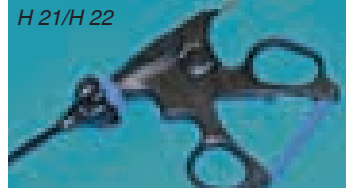
Designed by Vets for Vets

Hand Instruments

Fritz hand instruments have a modular construction. The handles, the connecting tubes and the working jaw tips are interchangeable.

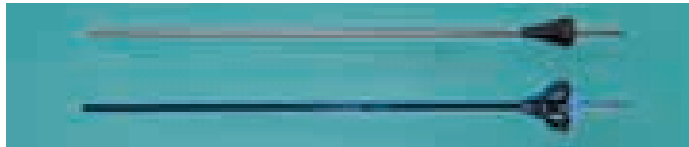
Easily stripped down for cleaning, compatible to 5mm and 10mm trochar cannulas. All handles have a High Frequency connector.

Handles



The handles may have plastic coated or stainless handles. They may or may not have a ratchet. The ratchet may be external or enclosed. See individual instruments for exact construction.

Tubular sheaths



5mm or 10mm diameter options.

Different working lengths which may be rotated through 360 degrees.

Insulated or stainless steel.

5mm Instruments Complete

Scissors



Mini-Metzenbaum Scissors
531.02H05V



Hook Scissors 531.04H05V

SCISSORS

531.02H05V	Mini-Metzenbaum Scissors	£495.00
531.04H05V	Hook Scissors	£475.00

Biopsy Forceps



Biopsy Forceps 531.60H01V



Biopsy Forceps 531.61H01V

BIOPSY FORCEPS

531.60H01V	Biopsy Forceps	£475.00
531.61H01V	Biopsy Forceps - Double Action Jaw	£475.00

5mm Instruments Complete



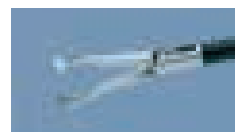
531.40H11V Dissecting Forceps, 5mm, 31cm, insulated, dismantlable, rotatable, consisting of: jaws insert (53 M 40), sheath (53 R 1) handle (H 01) colour code: black



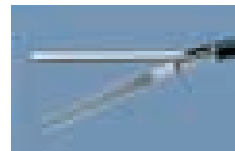
531.23H11V Atraumatic Grasper, curved 5mm, 33cm insulated, rotatable, dismantlable, inside ratchet, consisting of: jaws insert (53 M 23), sheath (53 R 1) handle (H11, HF-connector), colour code: black



531.22H21V Grasping Forceps, universal use, 5mm, 33cm, insulated, dismantlable, rotatable, outside ratchet, consisting of: jaws insert (53 M 22), sheath (53 R 1) handle (H 21, HF-connector), colour code: black



531.27H11V Babcock Grasping Forceps, 5 mm, 33 cm, insulated, dismantlable, rotatable, inside ratchet, consisting of: jaws insert (53 M 27), sheath (53 R 1) handle (H 11, HF-connector), colour code: black



531.35H21V DeBaakey Grasping Forceps, 5mm, 33cm, insulated, dismantlable, rotatable, HF-connector consisting of: jaws insert (53 M 35) sheath (53 R 1) handle (H 21, HF-connector) colour code: black



531.36H21V Bowel Grasping Forceps, 5mm, 33cm, insulated, dismantlable, rotatable, outside ratchet, consisting of: jaws insert (53 M 36), sheath (53 R 1) handle (H 21), colour code: black



536.30H52V Claw Grasping Forceps, 5mm, 33cm, metal, fixed tube, outside ratchet, consisting of: jaws insert (53 M 36), sheath (53 R 6) handle (H 52), metal *Only available with Axial handles (the frog)

5MM HAND INSTRUMENTS

531.40H11V	Dissecting Forceps	£475.00
531.23H11V	Atraumatic Grasper	£475.00
531.22H21V	Grasping Forceps	£485.00
531.27H11V	Babcock Grasping Forceps	£485.00
531.35H21V	DeBaakey Grasping Forceps	£485.00
531.36H21V	Bowel Grasping Forceps	£485.00
536.30H52V	Claw Grasping Forceps	£485.00

BIPOLAR FORCEPS

BP-05-321	Bipolar Grasping & Cutting Forceps 5mm, WL: 320mm, disposable, Universal Connector	£295.00
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Laparoscope Instrument Cleaning Kit

Laparoscope Instrument Cleaning Kit consists of:

- 3 x General Brush Nylon Bristles
- 3 x Laparoscopic Trumpet Valve Brush
- 3 x Nylon Twisted Wire Brush 3mm diameter
- 3 x Nylon Twisted Wire Brush 5mm diameter
- 3 x Nylon Twisted Wire Brush 10mm diameter

LAPAROSCOPE INSTRUMENT CLEANING KIT

LAPROCLEAN	Laparoscope Instrument Cleaning Kit	£160.00
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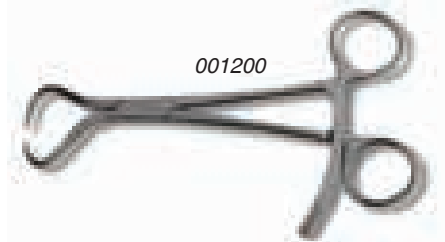
Fragment Forceps - Pointed Reduction Forceps



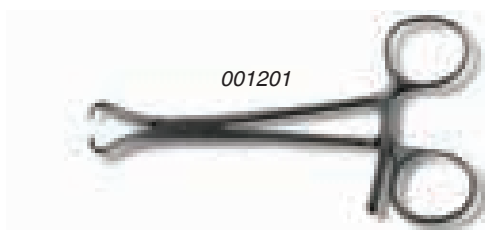
Introduction

Ideal for fragment reduction, these forceps gently hold fragments in position whilst permanent fixation is being applied. Particularly useful in the repair of fractures of the distal femur, acetabulum and distal tibia.

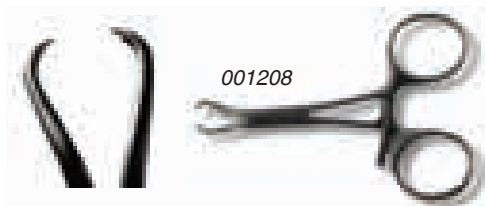
The smaller sizes are useful in the repair of the long bones of the miniature dog and cat as well as the smaller bones of the distal limbs in large patients.



001200



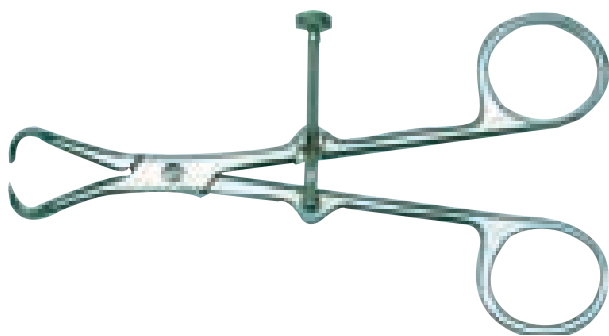
001201



001208

FRAGMENT FORCEPS		
001200	Fragment Forceps 160mm Long	£71.50
001201	Small Fragment Forceps 135mm Long	£71.50
001208	Very Small Fragment Forceps 100mm Long	£69.50
001208M	Miniature Fragment Forceps 135mm Long	£76.50
001200SET	Fragment Forceps Set of 4 (as above)	£225.00

Pointed Reduction Forceps with Spinlock



Where delicate reduction of fragments is undertaken, ratchet forceps can be frustrating in that they do not give as much 'feel' as is desirable. The spinlock version is used initially with the spinlock flipped out giving the surgeon maximum control. Once the forceps are in place the spinlock is flipped back into position and then gently tightened.

POINTED REDUCTION FORCEPS WITH SPINLOCK		
001201SL	Small Fragment Forceps with Spinlock 135mm Long	£92.50
001245SL	Large Fragment Forceps with Spinlock 180mm Long	£112.50

Very Large Fragment Forceps

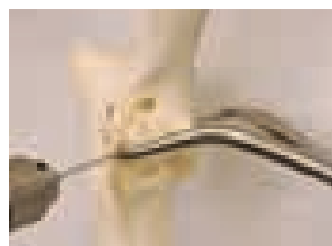


For use in situations where a very wide 'gape' is required or where the bulk of the instrument must be well away from the jaw tips.

The spinlock version has been recommended for repositioning of the stifle, prior to placement of a lateral suture wire or nylon in CrCL repair.

VERY LARGE FRAGMENT FORCEPS		
001202	Very Large Fragment Forceps 205mm Long	£92.50
001203	Very Large Fragment Forceps with Spinlock 215mm Long	£135.00

Reduction Forceps with Hard Wire Guide



It is often useful to place a temporary or permanent wire close to the point of forcep reduction. The reduction forceps are a familiar pattern but the addition of a wire guide enables accurate placement of wires up to 1.6mm across the fragment.

REDUCTION FORCEPS WITH WIRE GUIDE		
001201W	Reduction Forceps with Wire Guide 140mm Long Gape 10-25mm	£85.00
001200W	Reduction Forceps with Wire Guide 170mm Long Gape 15-40mm	£85.00
001202W	Reduction Forceps with Wire Guide 200mm Long Gape 25-65mm	£97.50

Twin Point Fragment Forceps



When lag screwing, it is often the case that the exact point where screw placement should be performed is occupied by the point of the reduction forceps. Twin point fragment forceps are designed to give secure fixation of bone fragments while allowing drilling and screwing between the jaw points. Especially useful in repairs of fractures of the humeral condyles and the small bones distal to the carpus/hock.

TWIN POINT FRAGMENT FORCEPS

001205	Twin Point Fragment Forceps Straight 170mm Long	£76.50
001206	Twin Point Fragment Forceps Curved 165mm Long	£76.50

Ikuta Bone Clamps



001207B



001207D

001207B plus 2mm 'K' wire in cat stifle

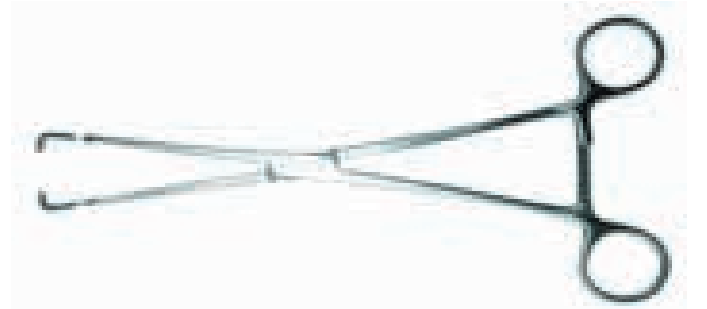


Ikuta slotted clamps are designed to allow the passage of wires or screws at the point of maximum pressure. The Ikuta clamps are suitable for bones up to 20mm in diameter. The smaller sizes are for wires, the larger for small screws. For even larger screws use 001205 or 001206, Twin Point Fragment Forceps. Alternatively for a springier action try 001219 Long Ratchet Schroeders, a vusellum forcep. See elsewhere in this chapter for further details and pictures.

IKUTA BONE CLAMPS

001207A	Straight for Wires to 2.0mm 125mm Long	£71.50
001207B	Curved for Wires to 2.0mm 125mm Long	£71.50
001207C	Straight for Screws & Wires to 3.0mm 125mm Long	£71.50
001207D	Curved for Screws & Wires to 3.0mm 125mm Long	£71.50
001207SET	Ikuta Bone Forceps Set of 4 (as above)	£225.00

Long Ratchet Schroeder Tenaculum



Reduction of a fractured central tarsal bone

A larger, springier version of the straight Twin Point Forceps. This forcep is recommended by Jon Dee for reduction of small fragments prior to drilling and screwing. The addition of the longer ratchet increases its range of application over the standard Schroeder.

LONG RATCHET SCHROEDER TENACULUM

001219	Long Ratchet Schroeder Tenaculum Str 240mm Long	£99.50
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Large Twin Point Reduction Forceps with Spinlock



When using pointed reduction forceps to reduce and compress fractures the position of the jaw tip is exactly where the pilot hole for the screw should be. Use of twin point reduction forceps allows the pilot to be drilled at exactly the correct position. These large forceps are the correct size for most elbows, especially Spaniel elbows, which are most likely to be affected by IOHC.

TWIN POINT REDUCTION FORCEPS WITH SPINLOCK

001204	Twin Point Reduction Forceps with Spinlock 215mm Long	£160.00
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Bone Holding Forceps

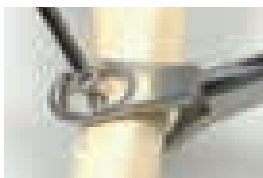
Introduction

Sadly there is no such instrument as a universal bone holding forcep. The range of sizes and shapes of bones and bone fragments is immense. Additionally the function required will vary also. Some applications require gentle holding others require aggressive clamping and manipulation. Select appropriate forceps for the procedure.

VI Bone Holding Forceps



A general purpose bone holder for use in maintaining fracture reduction in I/M pinning. Also very useful for lag screwing and bone plating in that drills and screws can be passed through the centre of the jaw at the point of maximum compression. A very popular forcep.



VI BONE HOLDING FORCEPS		
001210	Bone Holding Forceps 155mm Long	£71.50

Reduction Forceps Serrated Jaws



These reduction forceps have serrated jaws and spinlock which provides secure incremental control.

REDUCTION FORCEPS SERRATED JAWS		
001217	Reduction Forceps Serrated Jaws Spinlock 190mm Long	£79.50
001217/L	Reduction Forceps Serrated Jaws Spinlock 240mm Long	£89.50

Small Serrated Bone Holding Forceps

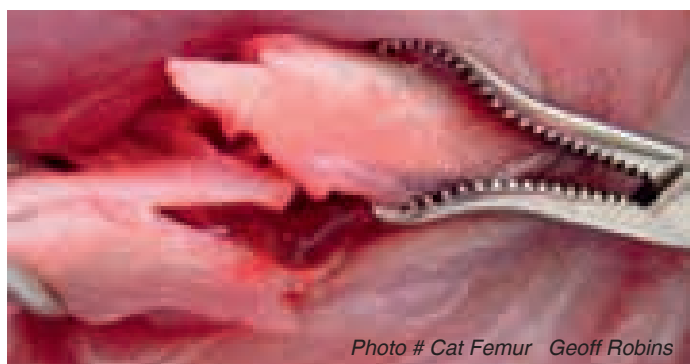


Photo # Cat Femur Geoff Robins

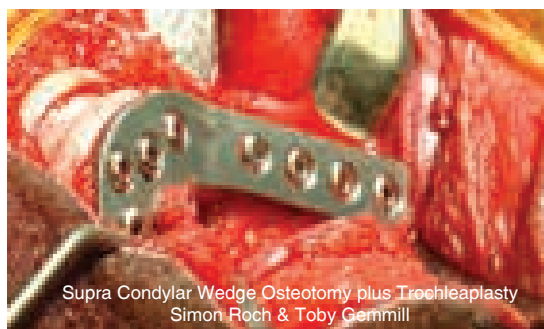
Manipulation of the long bones of cats and small dogs is difficult without crushing. The serrated jaws of this forcep are contoured to maximise grip and support. The tips are sharp. They may be used as small fragment forceps.

SMALL SERRATED BONE HOLDING FORCEPS		
001218L	Small Serrated Bone Holding Forceps with Ratchet 12mm Grasp 180mm Long	£69.50
001218	Small Serrated Bone Holding Forceps 7mm Grasp 140mm	£69.50
001218S	X Small Serrated Bone Holding Forceps 5mm Grasp 140mm	£69.50
001218XS	X Small Serrated Bone Holding Forceps 3mm Grasp 140mm	£69.50
001218SET	Serrated Bone Holding Forceps Set of 4 (as above)	£225.00
001218LG	Small Serrated Bone Holding Forceps with Spinlock 12mm Grasp 180mm Long	£69.50

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Supra Condylar Wedge Osteotomy plus Trochleoplasty
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Designed by Vets for Vets

Small Curved Serrated Reduction Forceps

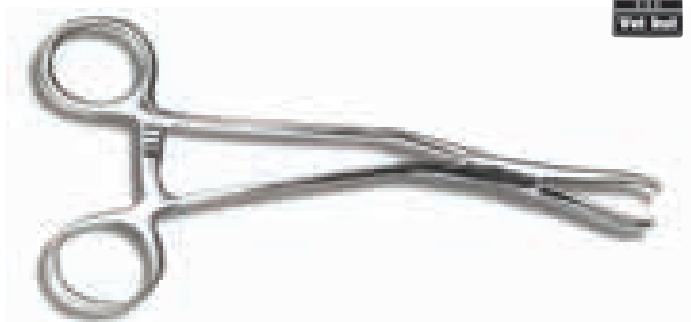


A nice forcep for the manipulation of small bones or small bone fragments. You cannot have too many bone holding forceps!

SMALL CURVED SERRATED REDUCTION FORCEPS

001996 Small Curved Serrated Reduction Forceps 145mm Long **£69.50**

Dingmans Forceps



Useful for manipulation of bone fragments.

DINGMANS FORCEPS (LONG RATCHET)

001470 Dingmans Forceps Long Ratchet 215mm Long **£92.50**

Self Centering Bone Holding Forceps

Some fracture reductions require that the bone forceps jaws be angled from the handles. Such forceps require:

1. A sophisticated hinge mechanism to allow the jaws to maintain alignment as they open and close.
2. A special locking device which can cope with the laxity at the hinge.

The spinlock and the special jaw make the instrument very nice to use but very expensive.

The veterinary pattern reflects the special requirements of veterinary anatomy i.e. the handles typically have to stand up from the bone compared with the human situation where the limbs are effectively cylinders and the handles can drop away from the bone.



Self Centering Forceps Veterinary Pattern

SELF CENTERING BONE HOLDING FORCEPS

001209	Self Centering Forceps Very Small - 150mm Long	£235.00
001211	Self Centering Forceps Small - 190mm Long	£235.00
001212	Self Centering Forceps Large - 240mm Long	£235.00
001209V	Self Centering Forceps Very Small - 150mm Vet Pattern	£235.00
001211V	Self Centering Forceps Small - 190mm Vet Pattern	£235.00
001212V	Self Centering Forceps Large - 240mm Vet Pattern	£235.00

Kern Bone Holding Forceps



Kern Bone Holding Forceps give a very firm controllable grip on long bones, facilitating manipulation and reduction of fragments. A quick release ratchet locks the jaws.

Kerns are very useful in general orthopaedics and for surgery around the hip joint, in particular:

- femoral shaft fractures
- triple pelvic osteotomy
- hip toggle
- fractures of the acetabulum

KERN BONE HOLDING FORCEPS

001216	Mini Kern Bone Holding Forceps 4.75" 125mm Long	£71.50
001213	Kern Bone Holding Forceps 6.75" 170mm (small) Long	£71.50
001214	Kern Bone Holding Forceps 8.5" 215mm (large) Long	£71.50
001213SET	Kern Bone Holding Forceps Set of 3 (as above)	£175.00

Lowman Bone Clamp Veterinary Pattern Small Dog/ Cat Size



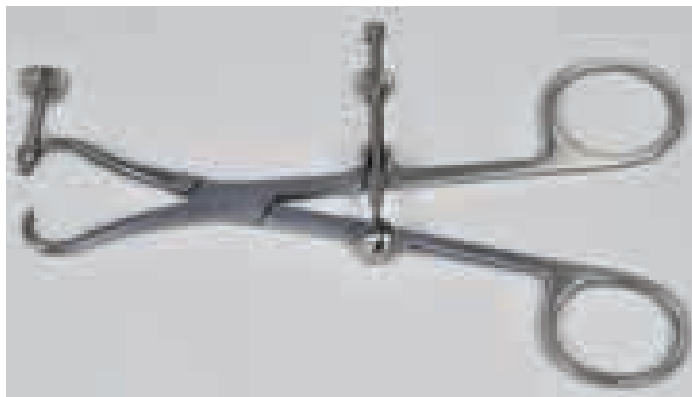
A traditional clamp has been extensively reworked for veterinary patients to include patterns for cats and medium dogs. The human patterns are typically much too big.

- Lightweight
- Requires minimal exposure
- Use to reduce oblique fractures
- Secures plate to fracture prior to screw placement

LOWMAN BONE CLAMP VETERINARY PATTERN

001991	Lowman Bone Clamp Veterinary Pattern 60mm Long	£82.50
001993	Lowman Bone Clamp Large <30mm 220mm Long	£135.00

Plate Holding/ Drill Guide Forceps



Temporary fixation of a bone plate at a fracture is an essential part of bone plating. Unfortunately there is an equal desire for the placement of bone reduction forceps and drill guides. The new range of VI Bone Holding/ Drill Guide Forceps attempts to address two of these requirements.



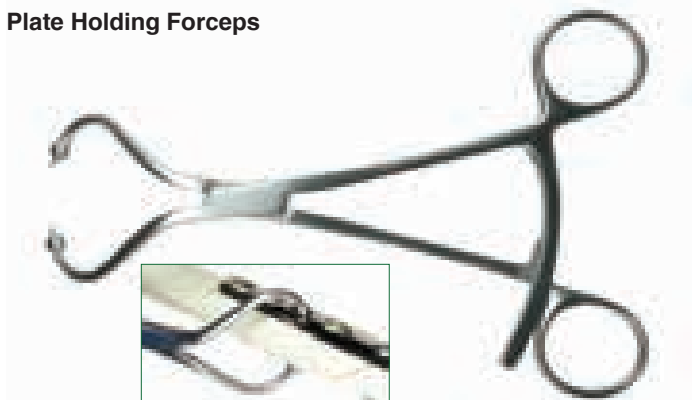
All DCPs and many other plates are designed to hold and interact with spherical headed bone screws. This range of forceps has a spherical ball tip on one side of the jaw and a pointed tip on the other to allow the maximum range of positions for each forceps without compromising the reduced fracture. Incorporated into the ball tip is a drill guide of an appropriate size which just protrudes through the ball to engage in the bone under the plate. As pressure is applied the ball tip engages the edges of the plate hole producing a secure fix of the plate on the bone with a drill guide in situ, hands free ready for drilling. The pointed tip is offset relative to the drill guide to prevent contact between drill tip and forceps.



Available for 1.5/2.0, 2.4/2.7 and 3.5 screws and plates.

PLATE HOLDING/ DRILL GUIDE FORCEPS		
001225	1.5/2.0 Plate Holding/ Drill Guide Forceps 140mm Long	£120.00
001226	2.4/2.7 Plate Holding/ Drill Guide Forceps 145mm Long	£120.00
001227	3.5 Plate Holding/ Drill Guide Forceps 150mm Long	£120.00
0012SET	Plate Holding/ Drill Guide Forceps Set (one of each size)	£295.00

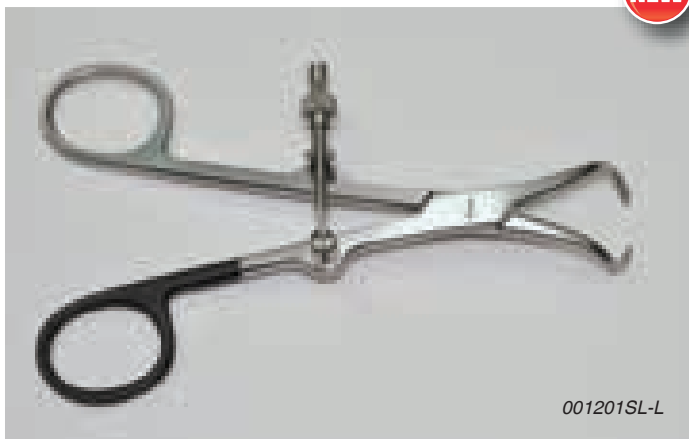
Plate Holding Forceps



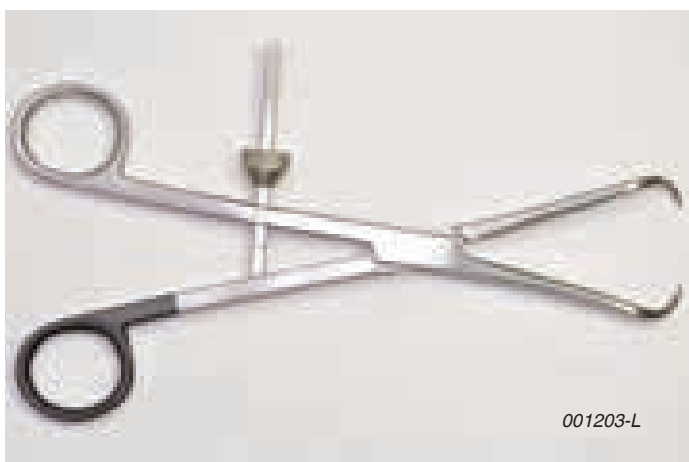
These Forceps are designed to maintain plate position through a hole in the plate. Without fixation, bone plates tend to slip and slide over the bone surface. The ball, just behind the point of the jaw, locates in the bone plate causing minimal interference elsewhere in the operation site. Also useful as reduction forceps in soft, young bone as the balls prevent over penetration of bone.

PLATE HOLDING FORCEPS		
001215	Plate Holding Forceps 160mm Long	£89.50

Left Handed Orthopaedic Instruments



001201SL-L



001203-L

For many years, left handed orthopaedic surgeons have been underserved by lack of left handed bone holding and reduction forceps.

Veterinary Instrumentation is proud to announce that we are now able to supply a limited range of true left handed bone holding forceps and reduction forceps with plans to expand the range over the coming years. Differences typically include substitution of a left hand thread with a right hand thread (this may sound odd, but it works!) and swapping the side of any adjustment nut from right to left. For ratcheted instruments, the ratchet design will be adjusted to better suit left hand use.

Left handed instruments are quality inspected by left handed members of VI technical staff. One black handle indicates the instrument is for left handed use.

LEFT HANDED ORTHOPAEDIC INSTRUMENTS		
001200-L	Fragment Forceps 160mm Long - Left Handed	£81.50
001201-L	Small Fragment Forceps 135mm Long - Left Handed	£81.50
001201SL-L	Small Fragment Forceps with Spinlock - Left Handed	£102.50
001202-L	Very Large Fragment Forceps 205mm Long - Left Handed	£102.50
001203-L	Very Large Fragment Forceps with Spinlock - Left Handed	£145.00
001208M-L	Miniature Fragment Forceps 135mm Long - Left Handed	£86.50
001208-L	Very Small Fragment Forceps 100mm Long - Left Handed	£79.50

Implant Cutters

Cutting orthopaedic implants with a hacksaw is hard work and very time consuming. Stainless steel and titanium both have the property of work hardening and can form a very hard surface glaze that can make the material harder to cut, the harder you try to cut it. At manufacture, A-wires, K-wires and Steinman pins have all already undergone work-hardening as they are going through the drawing process. This is advantageous as it increases their strength and stiffness significantly, but from the outset makes them much harder to cut than the soft, annealed wire that is normally used for cerclage and tension band purposes.

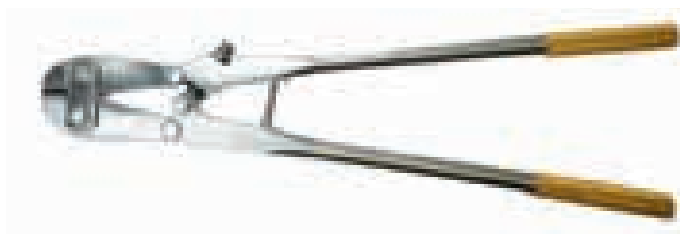
Where possible, it is desirable to use dedicated implant cutters instead of hacksaws. There are many different designs available. Compound action cutters make cutting implants easier. Close cutting cutters can be helpful for working in tighter spaces or when pins are cut and are going to be left in situ. Safety cutters leave blunter edges. Industrial finish cutters provide an inexpensive entry point, but despite being selected for their high quality, they are not particularly corrosion resistant and will water-mark very easily. Copious lubrication prior to autoclaving and dry storage will minimise these changes.

All of our surgical finish cutters are made of stainless steel and with the exception of our safety cutters and our parallel action pliers, have tungsten carbide (TC) jaws. Surgical finish cutters provide better economy in the longer term as they will outlast industrial finish instruments. As with all tungsten carbide instruments, avoid cutting at the tips as this may fracture the hard-wearing, but brittle insert.

If it is necessary to cut fish hooks for removal from the skin, mouth or elsewhere, TC jaws are essential. Fish hooks are normally very hard and are very likely to damage non TC jaws.

Instruments with sprung action handles make cutters easier to use when making a number of cuts.

Implant Cutter Surgical Finish to 6mm Capacity



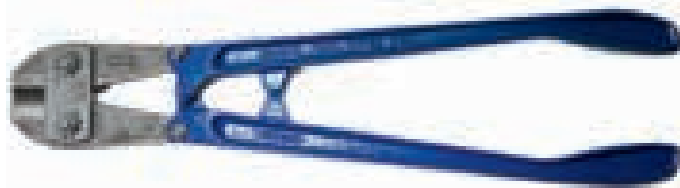
This is our most powerful implant cutter. TC jaws for prolonged life.

At 630mm long, they will not fit into most autoclaves and many surgeons choose to use them operated by an un-scrubbed assistant with just the jaws sterilised in a chemical sterilant.

IMPLANT CUTTERS SURGICAL FINISH

001231VL Implant Cutter Stainless to 1/4" 6mm Capacity
TC Jaws Compound Action 630mm Long **£305.00**

Implant Cutter Industrial Finish to 6mm Capacity



Implant Cutter Industrial Finish to 1/4" 6mm capacity, TC jaws, Compound Action, 460mm Long.

IMPLANT CUTTER INDUSTRIAL FINISH TO 1/4" 6MM CAPACITY

001232 Implant Cutter Industrial Finish to 1/4" 6mm
Capacity 460mm Long **£155.00**

Implant Cutter Surgical Finish to 4mm Capacity



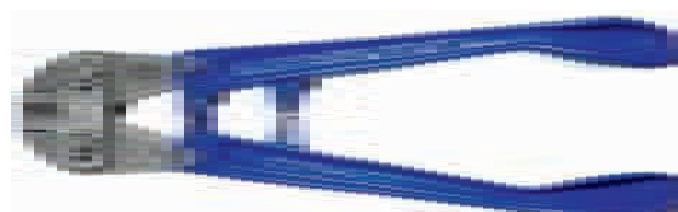
Implant Cutter Surgical Finish to 4mm Capacity, TC Jaws, Compound Action, 490mm Long.

Substantially built and a popular choice amongst surgeons with access to longer chambered autoclaves.

IMPLANT CUTTER SURGICAL FINISH TO 4MM CAPACITY

001231 Implant Cutter Surgical Finish to 4mm Capacity
TC Jaws Compound Action 490mm Long **£355.00**

Implant Cutter Industrial Finish to 4mm Capacity



Implant Cutter Industrial Finish to 4mm Capacity, TC Jaws, Compound Action, 350mm Long

IMPLANT CUTTER INDUSTRIAL FINISH TO 4MM CAPACITY

001233 Implant Cutter Industrial Finish to 4mm
Capacity 350mm Long **£140.00**

Implant Cutter Surgical Finish to 4mm Capacity Detachable Handles

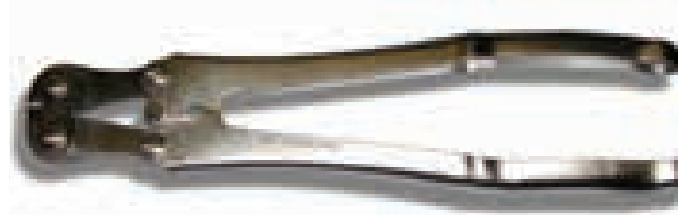


Detachable handles allows these to be stripped down from 485mm long to 370mm long, permitting use with many smaller autoclaves.

IMPLANT CUTTERS SURGICAL FINISH DETACHABLE HANDLES

001231/A Implant Cutter Stainless to 4mm capacity. Detachable
Handles to allow autoclaving in Little Sister type
autoclaves. Length stripped down 370mm Long. **£425.00**

Implant Cutter Surgical Finish to 4mm Capacity



Implant Cutter Surgical Finish to 4mm Capacity, TC Jaws, Compound Action, 370mm Long.

IMPLANT CUTTERS SURGICAL FINISH TO 4MM CAPACITY

001234 Implant Cutter Stainless to 4mm Capacity
TC Jaws Compound Action 370mm Long **£265.00**

Implant Cutter Surgical Finish to 3mm Capacity

Implant Cutter Surgical Finish to 3mm Capacity, TC Jaws, Sprung Compound Action, 260mm Long.



IMPLANT CUTTERS SURGICAL FINISH TO 3MM CAPACITY		
001228	Implant Cutter Stainless to 3mm Capacity 260mm Long	£245.00

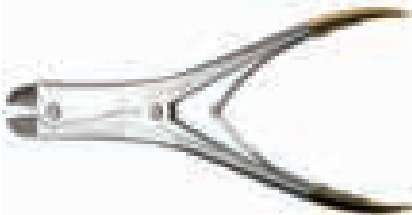
Implant Cutter Surgical Finish to 2.5mm Capacity



Implant Cutter Surgical Finish to 2.5mm Capacity, TC Jaws End Cut, Sprung Compound Action, 230mm Long.

IMPLANT CUTTERS SURGICAL FINISH TO 2.5MM CAPACITY		
001236	Implant Cutter Stainless to 2.5mm Capacity Close Cut 230mm Long	£245.00

Implant Cutter Surgical Finish to 2.2mm Capacity



Implant Cutter Surgical Finish to 2.2mm Capacity, TC Jaws, Sprung Compound Action, 230mm Long.
A favourite amongst staff at VI and a veritable work-horse, ideal for use with 'A' wires, 'K' wires and cuttable plates. A refined instrument that produces a crisp, close cut. Also great for cutting fish hooks.

IMPLANT CUTTERS SURGICAL FINISH TO 2.2MM CAPACITY		
001237	Implant Cutter Stainless to 2.2mm Capacity 230mm Long	£245.00

Implant Cutter Surgical Finish to 2.2mm Capacity - Oblique Jaws



Similar to 001237, but with oblique jaws favoured by many surgeons. Tungsten Carbide jaws.

IMPLANT CUTTERS SURGICAL FINISH TO 2.2MM CAPACITY OBLIQUE JAWS		
001246	Implant Cutter Stainless to 2.2mm Capacity 170mm Long Oblique Jaw Stainless Steel	£245.00

Implant Cutter Surgical Finish to 2.0mm & 1.6mm Capacity



really close cut



Simple and robust, but requiring more power to operate than 001237. An economical solution and provides a really close cut. Ideal for A-wires and K-wires, but hard work on many of the larger cuttable plates. Also great for cutting fish hooks. Thanks to Geoff Robins for the inspiration!

IMPLANT CUTTER SURGICAL FINISH TO 2.0MM & 1.6MM CAPACITY		
001237/1	Implant Cutter Stainless to 2.0mm Capacity Simple Action 255mm Long	£165.00
001237/2	Implant Cutter Stainless to 1.6mm Capacity Simple Action 215mm Long	NEW £165.00

Implant Cutter Industrial Finish to 2.0mm Capacity



Implant Cutter Industrial Finish to 2.0mm Capacity, 165mm Long.

IMPLANT CUTTERS INDUSTRIAL FINISH TO 2.0MM CAPACITY		
001235	Safety Cutter Stainless to 2mm Capacity 165mm Long	£80.00

Implant Cutter Surgical Finish to 1.6mm Capacity - Shear Action End Cutting



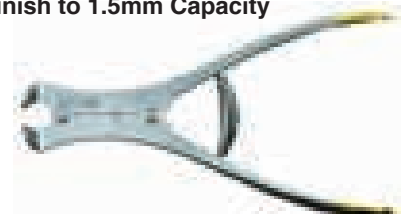
NEW

An efficient shearing action that produces a square end to a cut pin rather than the more typical sharp edge. The jaws catch the loose pin end preventing it from flying off. This cutter cuts pins to 1.5mm below the face of the cutter. Also useful for cutting cerclage wire cleanly. TC Jaws.

IMPLANT CUTTERS SURGICAL FINISH TO 1.6MM CAPACITY SHEAR ACTION		
001247	Safety Cutter Stainless to 1.6mm Capacity 220mm Long Shear Action End Cutting	£225.00

Implant Cutter Surgical Finish to 1.5mm Capacity

Implant Cutter Surgical Finish to 1.5mm Capacity, 150mm Long



IMPLANT CUTTERS SURGICAL FINISH TO 1.5MM CAPACITY		
001238	Implant Cutter Stainless to 1.5mm Capacity Close Cut 150mm Long	£225.00

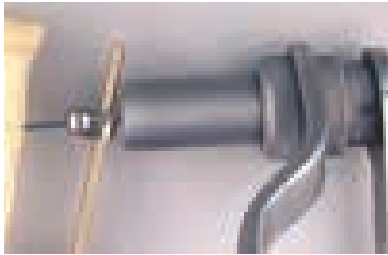
Implant Cutter Surgical Finish to 1.5mm Capacity

A small, but very neatly formed implant cutter with 1.5mm capacity that we use with our 1.0mm Plating Kit. Great for work where accuracy is important. TC Jaws. For light use only.



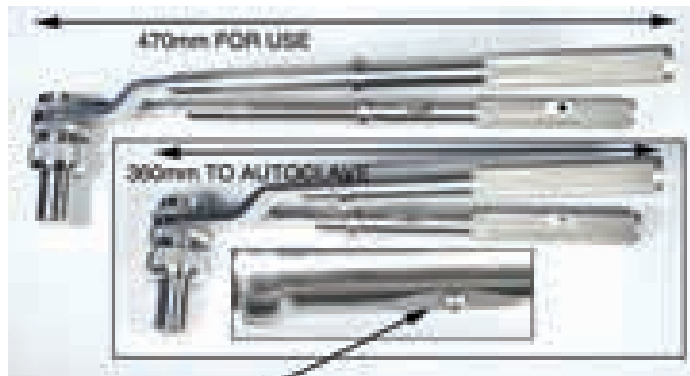
IMPLANT CUTTERS SURGICAL FINISH TO 1.5MM CAPACITY		
001230	Implant Cutter Stainless to 1.5mm Capacity 170mm Long	£215.00

Safety Cutter Surgical Finish to 4mm Capacity



Most standard cutters leave a sharp edge at the end of the pin. Most do not retain the free end of the implant either, such that it can fly off at high speed away from the surgical site unless measures are taken to prevent this.

Using our safety cutters, the free end of the pin is retained temporarily inside the body of the cutter to prevent it from flying off. The shear cut produces a much neater and less sharp point than standard cutters. Of particular use in trimming external fixation pins, this cutter will cut pins up to 4mm in diameter with a cut 5mm below the end face of the cutter.



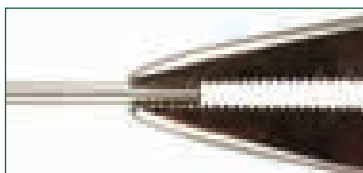
PUSH BUTTON HANDLE TO OPEN/ CLOSE

To make this cutter easier to use, we have designed it with telescopic handles, so that it can collapse from 470mm to 360mm to fit inside most veterinary autoclaves. The head is easily stripped down for cleaning.

IMPLANT CUTTERS SURGICAL FINISH TO 4.0MM CAPACITY

001229	Implant Cutter Stainless to 4.0mm Capacity 360mm Long	£315.00
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Pin Grip



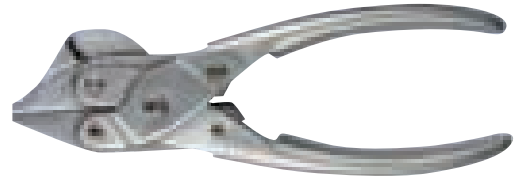
In situations where pins and wires are inserted for temporary fixation, removal can be performed with a minimum of trauma using pin grips. The jaws are especially designed to be inserted through a small skin

incision. A groove in the jaw of the stainless version locates the pin and the device can be locked in position for easy withdrawal - especially useful where threaded pins have been used.

PIN GRIP

001241	Pin Grip (Stainless Steel) Modified Jaw 175mm Long	£82.50
001242	Pin Grip (Industrial Finish) 165mm Long	£57.50

Parallel Action Pliers

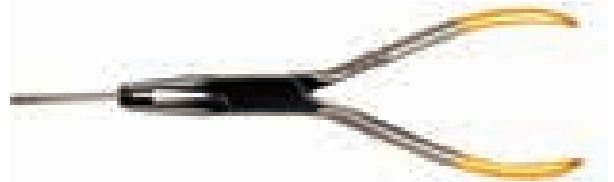


Useful for bending, holding and cutting small pins and wires, parallel action pliers may also be used in conjunction with bone plate benders for contouring smaller plates. The industrial version will stain and rust with autoclaving. These changes can be minimised by copious lubrication prior to autoclaving together with dry storage. Will cut arthrodesis and 'K' wires to a maximum of 2.0mm.

PARALLEL ACTION PLIERS

001290	Parallel Action Pliers (Stainless Steel) 170mm	£77.50
001291	Parallel Action Pliers (Industrial Finish) 165mm	£55.00

'K' Wire/ 'A' Wire Extraction Forceps



Designed to firmly grip wires 0.9mm to 2.0mm. Tungsten Carbide jaws maximise grip, fine nose minimises trauma to surrounding tissue.

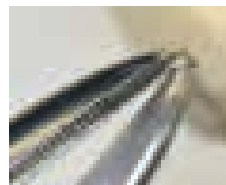
'K' WIRE/ 'A' WIRE EXTRACTION FORCEPS

001244	'K' Wire/ 'A' Wire Remover - 140mm Long	£79.50
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Dental Forceps for Pin and Wire Extraction



NEW



Borrowed from human dentistry, these have been found to work extremely well for pin, wire and screw extraction. The grooved tips provide excellent levels of grip and without the requirement to support brittle tungsten carbide come to a point, facilitating work very close to the bone surface as well as work in confined spaces. The need for more extensive surgical

approach is reduced. The anatomically shaped handles and cranked jaws make these a pleasure to use.

DENTAL FORCEPS FOR PIN AND WIRE EXTRACTION

001248	Dental Forceps for Pin and Wire Extraction	£67.50
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Wire Contouring Pliers



Use to contour both soft and hard wires. The jaw design has multiple anvil shapes and a pair of soft wire cutters.

WIRE CONTOURING PLIERS

001245	Wire Contouring Pliers 150mm Long	£77.50
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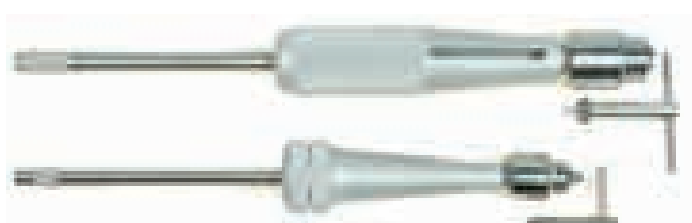
Small Pin Vice



This Small Pin Chuck holds wires and instruments up to a diameter of 1.0mm. Particularly useful for fingertip control over insertion of Arthrodesis and 'K' Wires.

SMALL PIN VICE		
001223	Small Pin Vice 100mm Long	£165.00

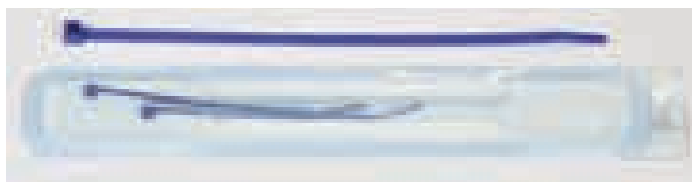
Jacobs Chuck



The standard instrument for insertion of intra-medullary pins, external fixator pins, arthrodesis and "K" wires. The Standard Chuck has a 1/4" (6mm) capacity. The Small Chuck has a capacity of 5/32" (4mm) and is particularly useful for placing smaller pins in cats and miniature dogs. The Standard Chuck can be quite unwieldy in small patients.

JACOBS CHUCK		
001220	Small Jacobs Chuck with Handle 5/32" Capacity 260mm	£235.00
001605S	Replacement 5/32" Chuck (& Key) only - no Handle	£165.00
001606S	Spare Key for 5/32" Chuck	£29.50
001221	Standard Jacobs Chuck with Handle 1/4" Capacity	£235.00
001605	Replacement 1/4" Chuck (& Key) only - no Handle	£165.00
001606	Spare Key for 1/4" Chuck	£29.50

BoneBinder by Aesculap



Cable ties are a very versatile self locking fixation system widely used in non surgical industries. They have been used surgically with some success but the materials used in industrial ties have not been cleared for implantation. Aesculap, after extensive testing and studies, has produced a range of implant grade ties for use in veterinary orthopaedics. The ties may be used for temporary or long term reduction and fixation of bone fragments. The BoneBinder also includes a radio-opaque strip.

Supplied sterile in 5 packs of 2 ties. Available in 3 sizes

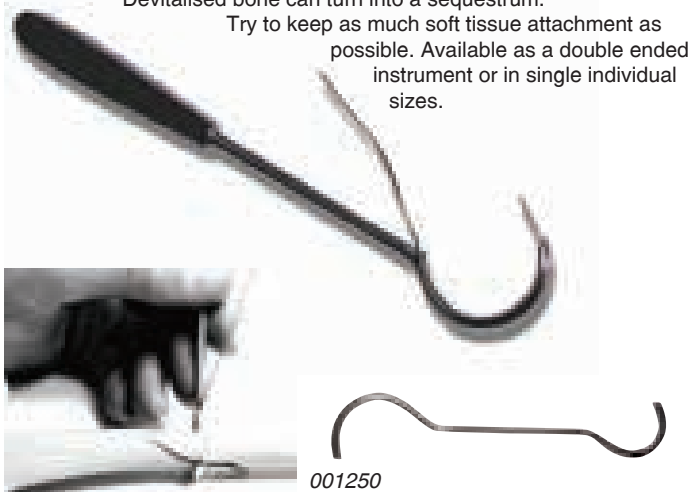
BONE BINDER		
VB302	BoneBinder Small 2.5 x 90mm (5 packs of 2) Sterile	£32.50
VB303	BoneBinder Medium 3.5 x 120mm (5 packs of 2) Sterile	£32.50
VB304	BoneBinder Large 4.5 x 180mm (5 packs of 2) Sterile	£32.50

Wire Passers

These devices are used to direct orthopaedic cerclage wire around long bones with minimal trauma. Devascularisation of bone fragments is a serious risk, particularly where cerclage wire is being applied.

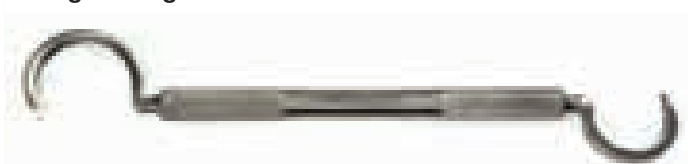
Devitalised bone can turn into a sequestrum.

Try to keep as much soft tissue attachment as possible. Available as a double ended instrument or in single individual sizes.



WIRE PASSERS		
001250	Wire Passer Double-ended 145mm	£49.50
001252	Wire Passer Single-ended 20mm Diameter 205mm	£32.50
001253	Wire Passer Single-ended 30mm Diameter 220mm	£32.50
001254	Wire Passer Single-ended 40mm Diameter 250mm	£32.50
001256	Wire Passers Single-ended Set of 3 (as above)	£80.00
001257	XXL Wire Passer Single-ended 55mm Diameter	£36.50

Strong Cerclage Wire Passers



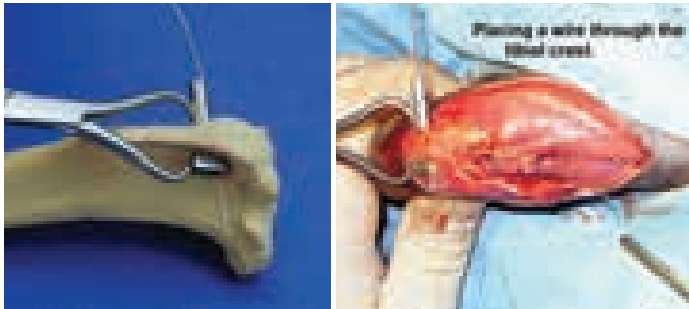
To even the most experienced of surgeons, passing good cerclage wires can be a bit of a challenge. Most Cerclage passers are of deep profile making them difficult to pass between bones which may be in close approximation such as those of the lower limbs. Most are also poor for manipulating fragments. This device sets out to address these shortcomings. Another feature of the new passer is that the instrument may be left in situ during tightening, minimising migration and oblique wires

Designed by David Strong MRCVS, the low profile of these devices aims to allow easier passage between bones. Having an open channel and with wire passable from the tip or handle end should simplify function. The flat on the internal aspect of the tip aims to give better feel for use as a reduction aid and to assist with close passage of the device around the bone.

Available as a three instrument set, each device is double ended giving internal diameters of 12.5mm and 15mm on the smallest instrument, 20mm and 25mm on the medium instrument and 30mm and 40mm on the largest instrument.

STRONG CERCLAGE WIRE PASSERS		
CWPSM	Strong Cerclage Wire Passer Small	£64.50
CWPMD	Strong Cerclage Wire Passer Medium	£64.50
CWPLG	Strong Cerclage Wire Passer Large	£64.50
CWPSET	Strong Cerclage Wire Passer Set of 3	£135.00

Lesser Wire Passer/ Retrieval Forceps



Arnie Lesser is a well known ACVS diplomate who has been working on this design for some time. The serrated tube style tip fixes the position of the drill hole, minimising 'skate' and providing soft tissue protection during drilling. The tube guides the cerclage wire or nylon through the hole (no more disappearing holes!). The loop on the other jaw 'captures' the implant and pulls it from the blind side. Applications include:

- hemi-cerclage
- passage of lateral sutures through tibial crest
- passage of sutures for hip sling for coxo femoral subluxation
- placement of lag screw holes
- passage of ischial wires in TPO procedure

A video illustrating how the Lesser Wire Passer/Retriever works is available on the website www.vetinst.com/videos

LESSER WIRE PASSER/ RETRIEVAL FORCEPS

001268	Lesser Wire Passer/ Retrieval Forceps 150mm Long	£105.00
001269	Lesser Wire Passer/ Retrieval Forceps Large 190mm Long	£105.00

'Sismey' Wire Introducer

A useful kit including wire passing and suture passing needles. The needles may be positioned in a wide variety of different angles.



"SISMEY" WIRE INTRODUCER

001255	Sismey Wire Introducing Set 135mm Long	£77.50
V1497C	Spare Needles - Large	£10.50
V1497D	Spare Needles - Small	£10.50
V1497B	Spare Hollow Tubes (3)	£24.50

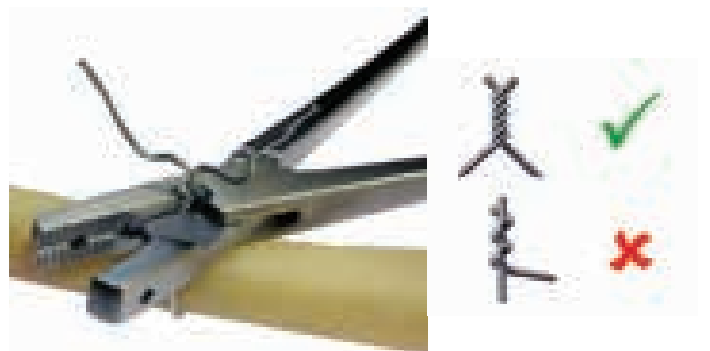
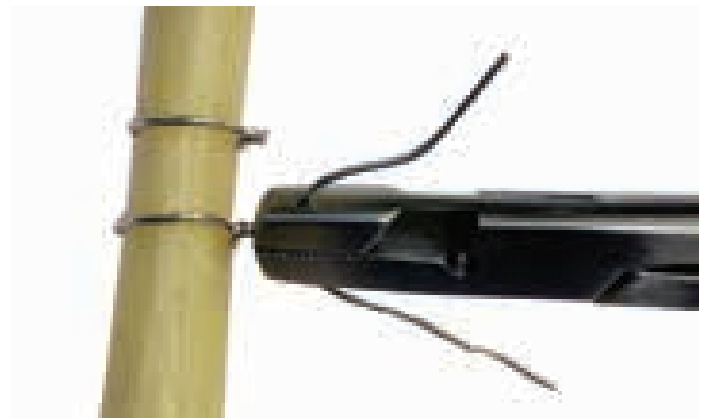
Cerclage Wire Twisters & Tighteners

Cerclage wire can be a useful means of fragment fixation. However, successful and reliable application is challenging, and imperfect application can lead to complications. Cerclage wires can loosen very easily; loose wires interfere with fracture healing which in turn can lead to delayed or non-union at the fracture site. It is arguably better to not place a cerclage wire at all, than to place a bad cerclage wire. Cerclage wire is tightened either by twisting or tensioning the wire in a single or double loop; the loop methods result in a more secure wire construct and without the protruding knot that may interfere with soft tissues. Carefully follow the rules of cerclage wire application including:

- only apply to a fracture that is fully reconstructable i.e. no comminution
- only apply to oblique or spiral fractures; the length of the fracture should be at least twice the diameter of the bone
- place a minimum of two cerclage wires, and more if fracture length allows
- cerclage wires should be spaced about 1cm apart.

Wire Twister/ Shear Cutter

STILL THE BEST BY FAR

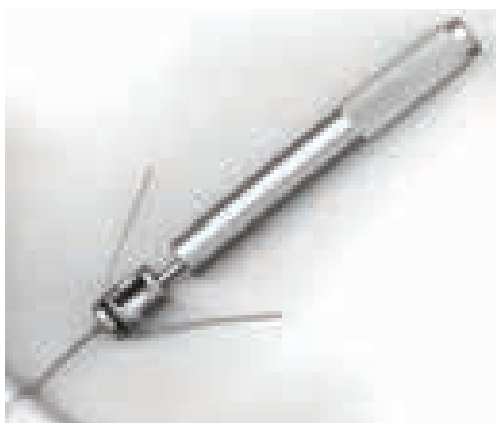


- Jaws lock onto wire to enable easy twisting under tension for kink-free cerclage. The wire must be twisted under tension to create an even spiral.
- Improved design, long life shear action cutter will cut 18 gauge (1.2mm) wire twisted double.
- Serrated jaws grip and turn cut ends. Jaws have fenestration for extra grip.
- Not designed to cut 'A' + 'K' Wires, Pins or fish hooks.
- Available with Tungsten Carbide Jaws for extra grip.

WIRE TWISTER/ SHEAR CUTTER

001260	Wire Twister/ Shear Cutter 165mm Long	£82.50
001261	Wire Twister/ Shear Cutter - Tungsten Carbide Jaws 165mm Long (not fenestrated)	£97.50

Twisterz - Wire Twister



Features "J" slots for quick capture and release.
 Textured handle for better grip and control.
 Bell shaped nut provides better leverage for tightening.
 Reduced threads require less turning of the nut for locking at wire and handle.

TWISTERZ - WIRE TWISTER		
200010.00	Twisterz Wire Twisters 155mm	£147.50

Wire Twister/ Spinner



The Wire Twister/ Spinner is a surgical version of a wire twisting plier used by aero mechanics and scaffolders.
 The distinguishing feature of the instrument is the spinner which is based on the principle of a slow spiral being pulled through a threaded boss to create a rotational moment. The jaws are clamped onto the two strands of wire. Pulling the spinner places tension and twists the wire evenly.

WIRE TWISTER/ SPINNER		
001265	Wire Twister/ Spinner 250mm Long	£275.00

Orthopaedic Wire Kit

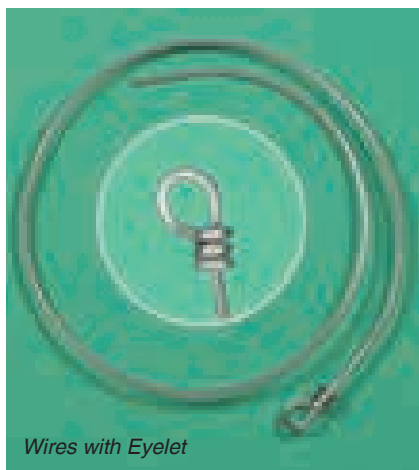


Cerclage wire can be a very useful means of fragment fixation. This kit contains our most popular cerclage instruments and a roll of wire.

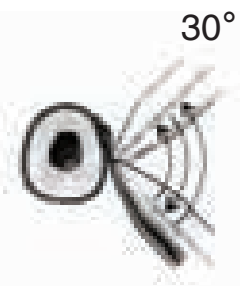
Kit contains 1x Wire Twister, 1x Set of 3 Single Ended Wire Passers and 10m roll of 1.0mm Orthopaedic Wire
 The price is discounted by over 10% compared to the component parts.

ORTHOPAEDIC WIRE KIT		
OWKIT	Orthopaedic Wire Kit	£175.00

Wire Tightener for Eyed Wires



Wires with Eyelet

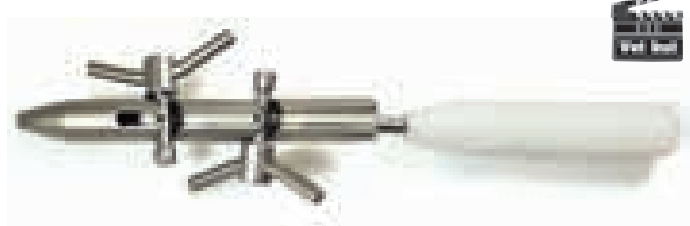


30°

Used to tension eyed wires very tightly. The cerclage is finished by kinking the wire back against the eye. See page 248 for Wire Loops.

WIRE TIGHTENER FOR EYED WIRES		
001262	Wire Loop Tightener 125mm Long	£112.50

Wire Tightener with Two Cranks for Double Loop Cerclage and Eyed Wire



Use with single crank for eyelet wires. Use both cranks to tighten double loops.

For a video showing how this product works visit www.vetinst.com/videos

WIRE TIGHTENER WITH TWO CRANKS		
001264	Wire Tightener with Two Cranks 285mm Long	£145.00

VI Orthopaedic Starter Kits and Practice Set up service

In 2014, we completely revised our orthopaedic starter kits, presenting some of the more popular start-up selections and to indicate the sorts of procedure that can be performed with each kit.

As all practices are different, we have incorporated flexibility into our start-up options, allowing surgeons to customise their purchases to their personal preferences and case-load.

These kits offer big discounts over purchase of the individual components. We assist many practices in setting up for orthopaedics every year. Please contact our dedicated and experienced Vet-Tech team to see how we can help you further. You will be allocated a named contact to personally guide, assist and support you.

VI Orthopaedic Starter Kit - Standard

Offered at a 20+% discount on the components price, this is a basic kit providing all of the necessary orthopaedic equipment, including power-drill to allow the surgeon to perform:

- crCL repair using the nylon lateral suture system
- Meniscal surgery in patients c. 15-50kg
- basic patella luxation surgery (wedge sulcoplasty and tibial tuberosity transposition)
- FHNEA on smaller patients
- basic fracture repairs using pins and wires



Kit Contents

Variable Speed Orthopaedic Drill complete with Drill, Chuck, Shroud, Extension and 2 x Batteries

Standard Jacobs Chuck with Handle ¼" Capacity

Lateral Suture Starter Kit containing Crimping Forceps, 2 x each size Nylon/ Needle/ Crimp Sterile Packs (50lb, 80lb & 100lb) and Heavy Duty Needle Drivers

2.7mm Drill Bit

3.5mm Drill Bit

Meniscus Surgery Set - See page 61 for details

Adjustable Bone Saw with 5 x Fine Blades

Orthopaedic Hard Back Saw 0.4mm cut Stainless Steel

Small Disarticulator 145mm Long

Small Angled Cutter 15mm Blade 170mm Long

Small Curved Ronguer 4mm Bite 170mm Long

Excision Arthroplasty Rasp 170mm Long

Mallet 300g 220mm Long

Osteotome Swedish 15mm x 205mm

Volkman Curette Double-ended Small 4mm/ 6mm 205mm Long

Mini Hohman Retractor 8mm Short Tip 165mm Long

Periosteal Elevator AO Type Curved Tip

Implant Cutter Surgical Finish to 4mm Capacity TC Jaws Compound Action 370mm Long

Implant Cutter Stainless Steel to 2.2mm Capacity Simple Action 215mm Long

Wire Twister/ Shear Cutter 165mm Long

'K' Wire Bender 140mm Long

Wire Passer Double-ended 145mm

Bone Pin Roll

1.6mm, 2.0mm, 2.4mm, 2.8mm, 3.2mm, 3.6mm, 4.0mm, 4.8mm and 6.35mm Steinman Pin – Trochar Tip (One of each, 9 in total)

K/A Wire Storage Tube & Dispenser 1.1/1.4/1.6/2.0mm

1.1mm, 1.4mm, 1.6mm & 2.0mm Arthrodesis Wire – Pack of 10 (40 in total)

Orthopaedic Wire 1.0mm x 10m Roll

Orthopaedic Wire 0.8mm x 10m Roll

X-ray Marker with Scale – Left & Right

Component Price £2,500+ Offer Price £1,995.00

ORTHOPAEDIC STARTER KIT STANDARD

ORTHOKIT1 VI Orthopaedic Starter Kit Standard

£1,995.00

TRAINING



At Veterinary Instrumentation we understand the importance of training for both traditional techniques and new ones. We are particularly enthusiastic about hands-on sessions which at least attempt to give delegates a feel for how things will be clinically. Cadaver work is particularly important and unfortunately increasingly hard to come by.

Hamish Denny takes a delegate through the examination of the meniscus

Please keep checking www.vetinst.com for up and coming training courses. You will find there details of courses run by ourselves but also links to other training partners who run courses using our loan wet lab instrumentation. In addition you will find other training resources such as 'step by step' guides and videos designed for home study.

VI Orthopaedic Starter Kit - Enhanced

Offered at a 20+% discount on the components price, this kit provides greater range and refinement of instruments and implants to cover a greater range of patients over those of ORTHOKITONE, including the choice of power tools specifically designed for orthopaedics (either a Black Series electric drill and saw kit or a mini-driver air power kit). ORTHOKITTWO provides a firm basis of the necessary orthopaedic equipment to allow the surgeon to perform many orthopaedic procedures, including, but not limited to:

- **CrCL repair using the nylon lateral suture and lateral button suture systems**
- **Power tooling for corrective osteotomies and CrCL surgery by osteotomy (eg TTA, TTA Rapid, TTO or crCWO)**
- **Meniscal surgery in a range of patient sizes c.5-50 kg**
- **Patella luxation surgery (wedge sulcoplasty, block sulcoplasty and tibial tuberosity transposition)**
- **FHNEA on both small and larger patients**
- **Hip toggling**
- **other ligamentous repairs**
- **Basic fracture repairs using pins and wires**



This Kit is suitable for practices with a medium to high orthopaedic case-load.

Components:

- VI Black Series Drill/ Saw Set
- Black Series Saw Blade 0.95mm Cut Thickness 40mm Working Length 16mm Width
- Black Series Saw Blade 0.95mm Cut Thickness 40mm Working Length 12mm Width
- Standard Jacobs Chuck with Handle ¼" Capacity
- 2.0mm, 2.5mm, 2.7mm and 3.5mm Drill Bit
- LigaFiba Lateral Suture with Crimp Starter Kit
- PushPull Suture Passer 235mm Long
- Suture Anchor Pins 2.5mm, 3.0mm & 4.0mm (3 in total)
- Enhanced Meniscus Surgery Set
- Arthroscopic Stifle Lever VSTL 280mm Long
- Adjustable Bone Saw with 5 x Fine Blades
- Orthopaedic Hard Back Saw 0.4mm cut Stainless Steel 145mm
- Modular osteotome complete with 7 Blades
- Universal Sulcoplasty Rasp 210mm Long
- Hatt Spoon Set of 3
- Small Angled Cutter 15mm Blade 170mm Long x2
- Large Angled Cutter 19mm Blade 230mm Long x2
- Small Curved Rongeur 4mm Bite 170mm Long
- Excision Arthroplasty Rasp 170mm Long
- LigaFiba® Hip Toggle Starter kit
- Mallet 300g 220mm Long
- Mallet 140g 155mm Long
- Osteotome Swedish 15mm x 205mm
- Osteotome Light 10mm 140mm Long
- Volkman Curette Double-ended Small 4mm/ 6mm 205mm Long

- Hohman Retractor 18mm Short Narrow Tip 240mm Long (x2)
- Hohman Retractor 12mm Short Narrow Tip 175mm Long (x2)
- Periosteal Elevator AO Type Curved Tip
- Implant Cutter Surgical Finish to 4mm Capacity TC Jaws
- Implant Cutter Stainless Steel to 2.2mm Capacity Simple Action
- Wire Twister/ Shear Cutter 165mm Long
- 'K' Wire Bender 140mm Long
- Stubby Pin Punch 50mm Long
- Wire Passer Double-ended 145mm
- IM Pin Box complete with Steinman Pins Trochar Tips (30 in total)
- K/A Wire Storage Tube & Dispenser 1.1/1.4/1.6/2.0mm
- 1.1mm, 1.4mm, 1.6mm & 2.0mm Arthrodesis Wire – Pack of 10 (30 in total)
- Orthopaedic Wire 1.0mm x 10m Roll
- Orthopaedic Wire 0.8mm x 10m Roll
- Orthopaedic Wire 0.7mm x 10m Roll
- X-ray Marker with Scale – Left & Right (x2)

For those with compressed air, this kit is also available with a MiniDriver set at the same price

Component Price £8,500.00+ Offer Price £6,495.00

VI ORTHOPAEDIC STARTER KIT ENHANCED		
ORTHOKITTWO	VI Orthopaedic Starter Kit Enhanced with Electric Power (Black Series)	£6,495.00
ORTHOKITTHREE	VI Orthopaedic Starter Kit Enhanced with Air Power (MiniDriver)	£6,495.00

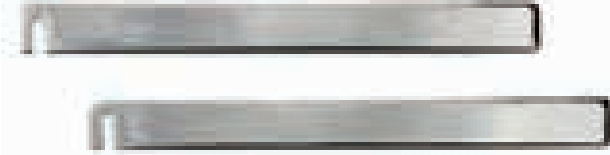
The instrument list described above can be customised to your requirements. Please contact the Vet tech team to discuss your individual preferences.

Surgeons may also be interested in adding Joint Surgery kits (Chapter 1), ESF kits (Chapter 4) and Plating kits (Chapter 7) to their set up kits. Please contact the Vet Tech team to discuss additional discounts which will be applicable.

Bone Plate Contouring

Bone Plate Bending Levers

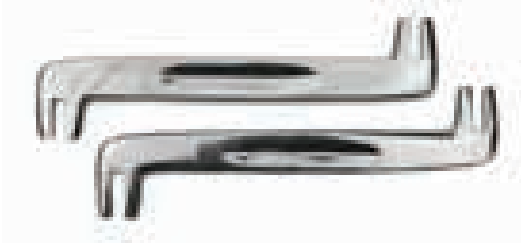
001286 1.5/2.0mm



001287 2.7/3.5mm



001288 3.5 Broad/4.5mm



Bone plates appropriate for the repair of load bearing long bones are very stiff.

Accurate contouring of plates is essential for precise fracture reduction, however, marking of plates during the bending process will lead to reduced fatigue strength. Contoured plates should be placed with adequate support to minimise cyclical loading.

Bone plate benders used in pairs are the most economic method of plate contouring.

BONE PLATE BENDING LEVERS

001280	1.0 Bending Levers (Pair) 130mm Long	£62.50
001286	AO Type 1.5/2.0 Bending Levers (Pair) 130mm Long	£57.50
001285	AO Type 2.4 Bending Levers (Pair) 140mm Long	£62.50
001287	AO Type 2.7/3.5 Bending Levers (Pair) 140mm Long	£67.50
001288	AO Type 3.5/4.5 Broad Bending Levers (Pair) 200mm Long	£77.50

Extra Long Bending Levers



Today's implant stainless steel (316 LVM) is much stiffer than 20 years ago yet the design of standard plate contouring equipment remains unchanged. Bending and twisting 3.5mm and 4.5mm plates using standard benders is a challenge. Most TPLO plates require careful contouring and are much stiffer than the original cast Slocum plates.

Our longer benders (240mm) with 4mm and 6mm slots are designed with TPLO plates in mind to make bending and twisting much easier.

EXTRA LENGTH BONE PLATE BENDING LEVERS

001288L	3.5/4.5 TPLO Bending Levers 240mm Long	£89.50
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Delta TPLO Plate Benders with Curved Slots

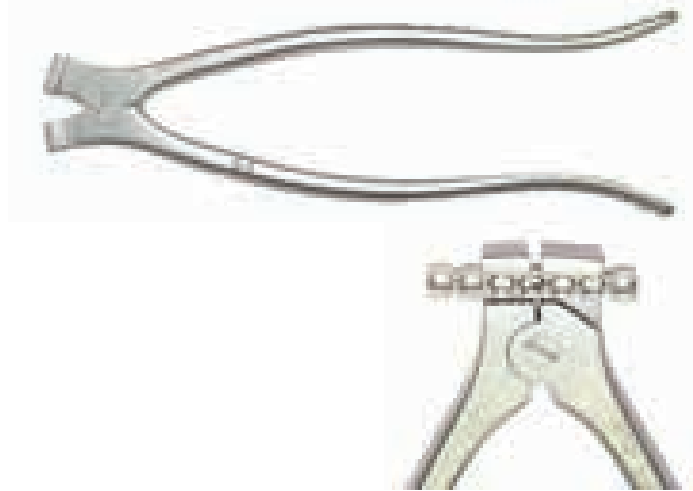


Plate benders with slots tend to distort the Delta plate. The curved slots help grip and support the the plate during the bending process. In addition the plate is much less likely to end up on the floor.

DELTA TPLO PLATE BENDERS WITH CURVED SLOTS

TPLODELBEND	Delta TPLO Plate Benders (Pair) 230mm Long	£135.00
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Reconstruction Plate Pliers



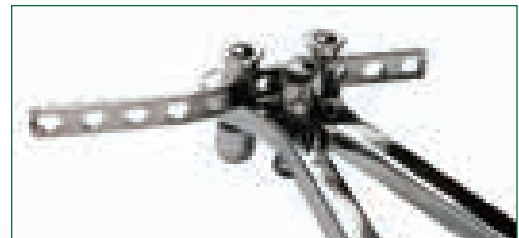
RECONSTRUCTION PLATE PLIERS

001284A	Reconstruction Plate Pliers for 2.7 Plates 280mm Long	£185.00
001284	Reconstruction Plate Pliers for 3.5 Plates 290mm Long	£185.00

Plate Bending Pliers - Roller Type



001283



001283SMALL

PLATE BENDING PLIERS - ROLLER TYPE

001283SMALL	Plate Bending Pliers Roller Type 230mm Long Suitable for 3.5 mm Plates	£215.00
001283	Plate Bending Pliers Roller Type 15" 380mm Long Suitable for 3.5 and 4.5mm Plates	£215.00

Bone Plate Press



Tips on the use of the Plate Press



- The press works at maximum efficiency when the handle is approximately parallel with the base.
- Place the plate to be contoured in between the anvils.
- Adjust the gap between the anvils using screw A until the handle is parallel with the base.
- Pressure on the handle will bend the plate.
- Readjust the press using screw A to bring the handle parallel once again.
- Contouring the plate should be accomplished using several small adjustments rather than one big one.

Bone plates suitable for 3.5mm and 4.5mm screws are extremely difficult to contour in a controlled manner. Most human orthopaedic presses, if large enough to contour the plate, are too large to fit in the typical veterinary surgeon's autoclave.

The Small Bone Plate Press is designed for all small animal plates and will fit in your autoclave. Will contour 2.7, 3.5, 3.5 broad and 4.5 narrow plates.

The Large Bone Plate Press will contour all plates but is 410mm long so check your autoclave before purchase.

Must be adequately supported in use.

BONE PLATE PRESS		
001281	Bone Plate Press Small 285mm Long For plates up to and including 4.5mm narrow	£525.00
001282	Bone Plate Press Large 16" 410mm Long for all plates	£525.00

AO Type Plate Bending Pliers



These Pliers will contour 2.7mm and 3.5mm narrow plates. 3.5 DCP's will require multiple small bends. Also useful for bending guide pins in the Slocum TPLO technique. Available elsewhere for £1000 or more.

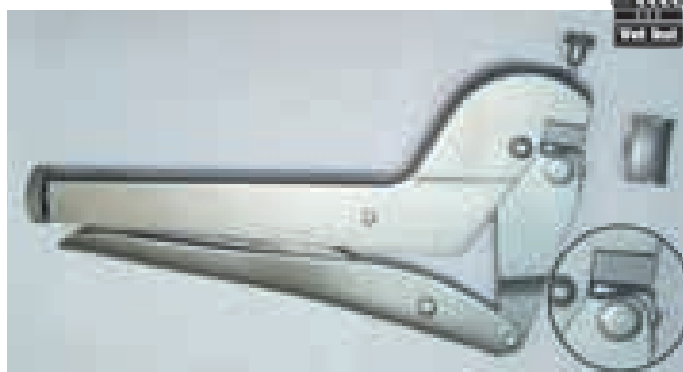
AO PLATE BENDING PLIERS		
001289A	AO Plate Bending Pliers 2.0/2.7mm	£365.00
001289B	AO Plate Bending Pliers 2.7/3.5mm	£425.00

Tips on the use of the Plate Pliers



- These notes apply to all bone plate pliers.
- The pliers work at maximum efficiency when the handles are approximately parallel with each other.
- Place the plate to be contoured in between the anvils.
- Adjust the gap between the anvils using screw B until the handles are parallel with each other.
- Squeezing the handles together will bend the plate.
- Readjust the pliers using screw B to bring the handles parallel once again.
- Contouring the plate should be accomplished using several small adjustments rather than one big one.

Heavy Duty Bone Plate Pliers to 4.5mm



The largest Bone Plate Pliers in the range, these will contour all plates other than the 4.5 broad. The bending head has 3 interchangeable anvils and the 'hammer' side has 3 different shapes which rotate. This offers the surgeon 6 different contouring options to match different plates and different shapes.

HEAVY DUTY PLATE BENDING PLIERS		
001289C	Heavy Duty Plate Bending Pliers	£595.00
001289SA	Small Anvil for 2.7 Plates (for existing users)	£55.00

Bone Gouge Forceps (Rongeurs)

Introduction

Rongeurs vary with respect to bite size and jaw angle. Where a rongeur has a specific function it is indicated in the description. Punch type forceps and some smaller rongeurs are described in Chapter 6 Spinal Surgery.

Simple Action Rongeurs

Typically simple action rongeurs offer a wide bite but rely on the physical strength of the surgeon. Most small rongeurs have a simple action.

VI Small Curved Rongeurs



A good general purpose rongeur for small bone nibbling procedures, e.g. excision arthroplasty, arthrodesis, sequestrum removal.

SMALL CURVED RONGEURS

001300 Small Curved Rongeur 4mm Bite 170mm Long **£71.50**

Mini-Friedman



Useful in bulla osteotomy.

MINI-FRIEDMAN

142501 Mini-Friedman Rongeur Curved 3mm Bite 155mm Long **£77.50**

Micro-Friedman



A small spine rongeur.

MICRO-FRIEDMAN

142502 Micro-Friedman Rongeur Curved 2.2mm Bite 155mm Long **£77.50**

Lempert Straight



Useful for spines and bulla osteotomy.

LEMPERT STRAIGHT

6730/10 Lempert Rongeurs Straight 3mm Bite 190mm Long **£99.50**

Compound Action Rongeurs

The compound action give a mechanical advantage to the surgeon but reduces the bite width.

Jansen



Compound action, powerful but small bite.

JANSEN

142200 Jansen Rongeur Curved 4mm Bite 190mm Long **£220.00**

Ruskin



A heavy duty compound action rongeur.

RUSKIN

142270 Ruskin (Liston) Rongeur Curved 6mm Bite 230mm Long **£195.00**

Stille-Luer



A very large rongeur.

STILLE-LUER

142305 Stille-Luer Heavy Compound Action Curved 8mm Bite 225mm **£255.00**

Bone Cutters Simple Action Cutters

Small Angled Cutters



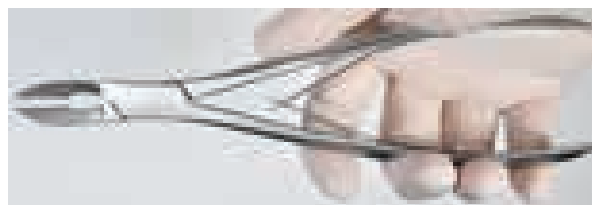
A very useful small cutter. The jaw is angled to allow cutting where access is restricted, e.g. excision arthroplasty in cats and small dogs and tibial crest transplant. The design allows for transection of the tibial crest while retaining distal periosteal



attachments. Also useful for articular cartilage removal in arthrodesis, digit and tail amputations.

SMALL ANGLED CUTTERS		
001310	Small Angled Cutter 15mm Blade 170mm Long	£71.50

Large Angled Cutters



Our Large Angled Cutters are a similar style to our popular Small Angled Cutters, only more powerful and more robust due to their size. The simple action allows for a wide jaw opening. The angled jaws, which are more slender than similar sized

Liston's, offer better visibility and access into tight spots. The notch in the jaws serves to improve visibility further and make accurate cuts more achievable.

LARGE ANGLED CUTTERS		
001311	Large Angled Cutters 19mm Jaw 230mm Long	£85.00

Liston



A widely used bone cutter with the following jaw options: straight, angled and curved.

LISTON		
141700	Liston 25mm Blade Str 5" 12.5cm Long	£95.00
141705	Liston 25mm Blade Cof 6" 15cm Long	£99.50
141710	Liston 25mm Blade Aof 6" 15cm Long	£105.00
141730	Liston 25mm Blade Str 7" 18cm Long	£95.00
141735	Liston 25mm Blade Cof 7" 18cm Long	£99.50
141740	Liston 25mm Blade Aof 7" 18cm Long	£105.00
141755	Liston 30mm Blade Str 8" 20cm Long	£105.00
141760	Liston 30mm Blade Cof 8" 20cm Long	£120.00
141764	Liston 30mm Blade Aof 8" 20cm Long	£140.00
141745	Liston 30mm Blade Str 9" 23cm Long	£160.00

Compound Action Bone Cutter

All three following designs are similar but vary according to size of bite.

McIndoe



Compound jointed action gives power but reduces bite size.

MCINDOE		
141900	McIndoe 15mm Blade Aof 170mm Long	£195.00

Ruskin



Similar in design to McIndoe but larger.

RUSKIN		
141940	Ruskin (Liston) 25mm Blade Str 190mm Long	£195.00
141960	Ruskin (Liston) 25mm Blade Aof 190mm Long	£195.00

Horsley



Heavy duty compound action cutters.

HORSLEY		
141660	Horsley Cutter 35mm Blade Aof 260mm Long	£195.00
141660S	Horsley Cutter 35mm Blade Str 260mm Long	£165.00
141660XL	Horsley Cutter 35mm Blade Aof 450mm Long	£225.00

Periosteal Elevators

Bone Lever/ Periosteal Elevator



One end of this instrument is bent for use as a hook for retrieving and manipulating bone fragments. The other end is a periosteal elevator useful for clearing soft tissue from bone prior to plating, drilling or burring.

BONE LEVER/PERIOSTEAL ELEVATOR

001270 Bone Lever/ Periosteal Elevator 4mm/ 7mm 195mm Long **£51.50**

Freer Periosteal Elevator



The Freer Elevator is a fine instrument which is particularly useful in spinal work.

FREER PERIOSTEAL ELEVATOR

7350/05 Freer Periosteal Elevator 5mm 180mm Long **£49.50**

AO Type Periosteal Elevator



The AO type instrument is the archetypal 'periosteal elevator'. Available in a curved 6mm tip and a square 6mm tip.

AO TYPE PERIOSTEAL ELEVATORS

001271 Curved 6mm Fibre Handle AO Type 180mm Long **£57.50**

001274 Square Ended Tip AO Type 6mm 190mm Long **£51.50**

Howarth Dissector (Modified)



Developed by Richard Whitelock specifically to clear soft tissues from the proximal tibia in the TPLO procedure. It is also useful as a general purpose periosteal elevator. One end acts as a curved periosteal elevator and the other end is straight.

HOWARTH DISSECTOR (MODIFIED)

001273 Howarth Dissector (Modified) 225mm Long **£51.50**

Very Fine Periosteal Elevator



VERY FINE PERIOSTEAL ELEVATOR

001272 Very Fine 2mm/ 3mm Periosteal Elevator 180mm Long **£49.50**

MIPO Minimally Invasive Plate Osteosynthesis Elevator



Hole in tip takes through suture material which is used to pull through the plate



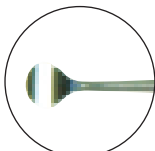
This instrument is not so much a periosteal elevator more a dissecting probe to clear a tunnel under muscle layers for the plate. The periosteum is in fact left intact.

Thanks to Andy Moores for the design and photograph.

MIPO ELEVATOR

001276 MIPO Elevator 280mm Long **£67.50**

Molt Periosteal Elevator 2/4 (4mm/6mm)



Molt is a Double Ended Periosteal Elevator. The two tips are round and dish-shaped. 4mm and 6mm diameters.



MOLT PERIOSTEAL ELEVATOR 2/4 (4MM/6MM)

001275 Molt Periosteal Elevator 200mm **£45.00**

Offset Pin Punch



When it becomes necessary to bend over the shaft of an arthrodesis wire or 'K' wire, usually to minimise back out, the pin becomes difficult to press home with a standard pin punch. The Offset Pin Punch has an angled, bigger 'foot' for this purpose. Also suitable for driving 'Rush Pins' either commercially available or home made.

OFFSET PIN PUNCH

001364 Offset Pin Punch 135 mm Long **£67.50**

'K' Wire/ Small Pin Punch



The cut ends of 'K' Wires, Arthrodesis Wires and small pins used for fragment fixation e.g. distal femoral fractures, should be buried beneath the bone or articular surface to minimise soft tissue irritation. The tip of the punch is concave to locate onto the pin end. The other end is struck with a mallet. Use 001360 for Pins and 001361 for Wires.

'K' WIRE/ SMALL PIN PUNCH

001360 Pin Punch 135mm Long **£51.50**

001361 Small Pin Punch 1.6mm Tip 135mm Long **£51.50**

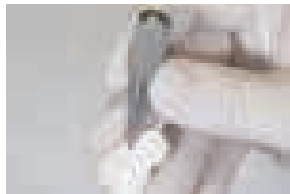
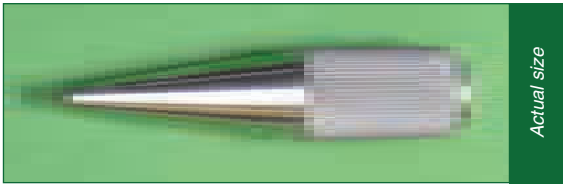
IM Pin Punch



Following surgeon feedback, we have developed an IM Pin Punch with a larger diameter tip (6mm) better suited to driving larger pins.

IM PIN PUNCH		
001374	IM Pin Punch 135mm Long 6mm Tip	£67.50

'Stubby' Punch



The reduced working length allows the stubby punch to be held between thumb and forefinger much closer to the patient for increased control. This is especially useful when working without an assistant. 50mm long.

'STUBBY' PUNCH		
001363	'Stubby' Punch 50mm Long	£51.50

'K' Wire Bender



Small wires are commonly used to re-attach bone fragments which have been produced either by trauma or electively by osteotomy. To minimise pin migration into the bone, the cut ends of 'K' wires and arthrodesis wires should either be buried or bent sharply and cut 5-10mm from the bend. The cut ends are then rotated to the most comfortable position (see photo). Bending with fingers or pliers is difficult to control and is very likely to damage the repair.

The 'K' Wire/ Small Pin Bender is designed to slip over the wire concentrating all the bending forces at the pin/bone interface. The instrument is double ended, the small end is for 0.9mm and 1.1mm wires, the large end is for 1.4mm, 1.6mm & 2.0mm wires.

'K' WIRE/ SMALL PIN BENDER		
001362	'K' Wire/ Small Pin Bender 140mm Long	£51.50

Offset Type Wire Bender

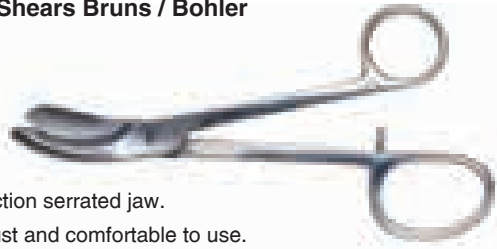


A robust design for the accurate and reliable creation of bends close to the bone surface. The three cannulations (1.1mm, 1.6mm and 2.0 mm) cater for the full range of our arthrodesis wires. The short length of each cannulation makes these easy to clean.

OFFSET TYPE WIRE BENDER		
001373	Offset Type Wire Bender	£62.50

Plaster Cutting

Plaster Shears Bruns / Bohler



Simple action serrated jaw.
Very robust and comfortable to use.
Very efficient for removing bandages.

PLASTER SHEARS BRUNS/ BOHLER		
161405	Plaster Shears Bruns/ Bohler 245mm Long	£99.00

Plaster Spreaders



In human orthopaedics plaster spreaders are used to expand initial cuts in casts. Typically these spreaders are too large for veterinary patients leaving surgeons to resort to inappropriate instruments and fingers to remove casts. The VI cast spreader has been scaled down to suit the smaller cast usually applied to our patients.

PLASTER SPREADERS		
161410	Plaster Spreaders 230mm	£142.50

Plaster Shears Stille



Very powerful compound action.

PLASTER SHEARS (STILLE)		
161406	Plaster Shears Stille 245mm Long	£165.00

Engels Plaster Saw



A simple cast saw for removal of plaster casts. Quiet and inexpensive.

ENGELS PLASTER SAW		
001510	Engels Plaster Saw 145mm Long	£62.50

Please see Chapter 5 for Power Tools including cast cutter.

Self Retaining Retractors

Where scrubbed surgical assistance is lacking, self retaining retractors are an invaluable aid.

Adequate retraction is essential for good visualisation of the fracture site or lesion.

In addition retraction will minimise damage to the soft tissues. Both are key elements of successful orthopaedic surgery.

Gelpi Self Retaining Retractor



The Gelpi is an extremely versatile Self Retaining Retractor useful in almost any orthopaedic procedure.

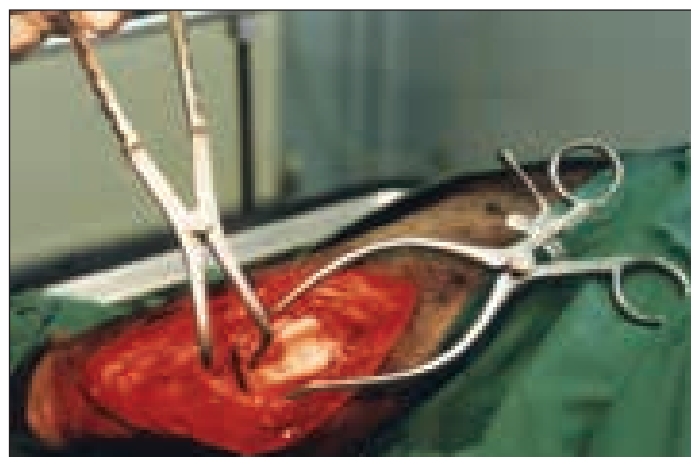
Veterinary Instrumentation Gelpis are different from standard Gelpis in two respects:

1. Short tips give focal retraction for precise exposure of the fracture or lesion.
2. The teeth on the ratchet are smaller than usual giving finer control over the spread of the tips.

Gelpis are virtually an extra pair of hands and are invaluable in circumstances where the surgeon is working alone, which is the norm in general practice. The curved shape sits nicely on our patients.

Useful in the following procedures and many more:

- All arthrotomy procedures
- Femoral Head and Neck Excision
- CrCL Surgery
- Meniscal examination
- Fracture Repairs
- Wobbler
- Laminectomies
- Rib Retractors in small patients



Two pairs of Gelpis placed at right angles to one another may be used to create a window into a joint or fracture site.



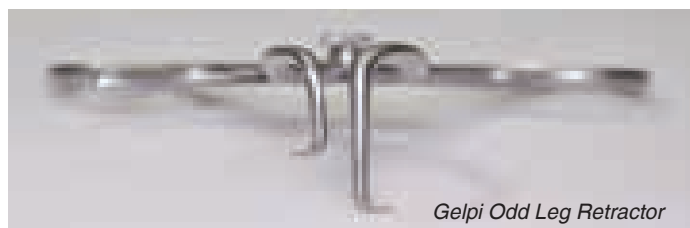
Mini Gelpi and Small Stifle Retractor



Gelpis are available in a number of lengths. Measurement 'a' gives the depth of the tips.



Gelpi Odd Leg Retractor



Gelpi Odd Leg Retractor



GELPI SELF RETAINING RETRACTOR

001330	Gelpi Self Retaining Retractor 120mm Spread (a=20mm) 180mm Long	£170.00
001330SL	Gelpi Self Retaining Retractor with Spinlock for extra strength (a=20mm) 180mm Long	£170.00
001330S	Gelpi Self Retaining Retractor Sharp Tips (a=20mm) 180mm Long	£170.00
001331	Gelpi Long Reach (a=40mm) 200mm Long	£170.00
001331L	Gelpi Very Long Reach (a=60mm) 200mm Long	£170.00
001332	Gelpi Small 50mm Spread (a=15mm) 135mm Long	£170.00
0013301	Gelpi Mini Flat 45mm Spread (a=15mm) 90mm Long	£110.00
0013302	Gelpi Mini Curved 45mm Spread (a=15mm) 90mm Long	£115.00
0013303	Gelpi Mini Curved 45mm Spread 90mm Long Blunt Tips	£115.00
001333	Odd Leg Gelpi Pair (a=25/40mm) 205mm Long	£345.00
001334	Odd Leg Gelpi Short Pair (a=20/30mm) 130mm Long	£345.00

TECA Retractor - Pieter Nelissen



Image courtesy of Pieter Nelissen, Dick White Referrals

Achieving adequate exposure is essential to the proper performance of lateral bulla osteotomy and debridement. Maintaining a dissection as close to the aural cartilages as possible helps avoid iatrogenic damage to the surrounding structures. In most cases, especially in broad headed breeds such as Shar Peis and Staffordshire Bull Terriers, this will mean working down a narrow and surprisingly deep corridor.

Following the suggestion from Pieter Nelissen of Dick White Referrals, we have developed a purpose made TECA Retractor based on our small gelpis. The 40mm long legs are at 80° to the handles to reach deep into the hole created. The cross-over tips are only 3mm across when closed enabling insertion with no edges protruding to snag tissues.

TECA RETRACTOR		
001338	TECA Retractor 105mm Long 40mm Cross-over Legs	£175.00

Bungee Gelpi Self Retaining Retractors

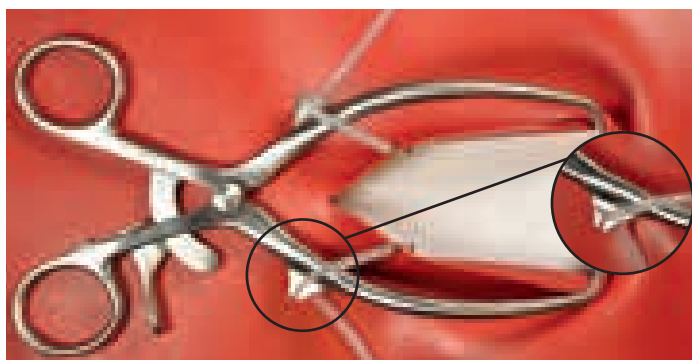
The Bungee Gelpis have been developed in house over the course of the last couple of years by David Strong.

Based on our current standard Gelpis (001330), they are designed to be as user friendly as regular gelpis in normal use, but with the 'party trick' of bungee slots.

These bungee slots are similar to those found on the VI Ring Retractor and the Lone Star Ring retractor and will accept the full range of Lone Star and VI Elastic Stays, allowing the standard 2 points retraction of standard Gelpis to be transformed into four or six (if the slots are double loaded).

This has several advantages:

- Better retraction with fewer retractors cluttering a wound
- Greater stability of Gelpi's within a wound with four or six point retraction preventing the tips from sliding towards each other, which can be very frustrating. Easier for surgeries which are often performed in a more vertical position, such as perineal hernia repair.
- More useful shape to retracted hole – more rectangular than round, square or diamond, but is very adaptable to suit the situation.
- Multi-layer retraction such as creating deep retraction with tips and improved skin retraction with the elastic stays.



BUNGEE GELPI SELF RETAINING RETRACTOR		
001330BUNGEE	Gelpi Bungee Retractor	£185.00
701HOOK	Sterile Ring Retractor Hooks Set of 10	£29.50

Travers



A blunt multi-pronged flat retractor with a relatively wide gape, suitable for skin or large exposures.

TRAVERS SELF RETAINING RETRACTOR		
703050	Travers Self Retaining Retractors 90mm Spread 8" 20cm Long	£225.00
703051	Travers Self Retaining Retractors 70mm Spread 6.5" 16.5cm Long	£210.00
703053	Travers Mini 43mm Spread 95mm Long	£120.00

Wests



A sharp multi pronged curved retractor which can sit quite nicely on our patients without distorting the surgical site.

WESTS SELF RETAINING RETRACTOR		
703250	Wests Self Retaining Retractor 50mm Spread 5.5" 14cm Long	£170.00
703253	Wests Mini 40mm Spread 95mm Long	£120.00

Weislander



Similar to Wests but flat. Available with sharp or blunt prongs.

WEISLANDER SELF RETAINING RETRACTOR		
702150	Weislander Self Retaining Retractor Sharp Tips 60mm Spread 14cm Long	£180.00
702152	Weislander Self Retaining Retractor Blunt Tips 60mm Spread 14cm Long	£180.00

Finsen Self Retaining Retractor

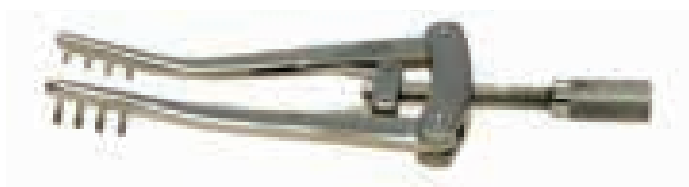


Spring Loaded Retractor for small incisions. The blade width is 14mm. Very reasonably priced.

FINSEN SELF RETAINING RETRACTOR

252374 Finsen Self Retaining Retractor 75mm Long **£49.50**

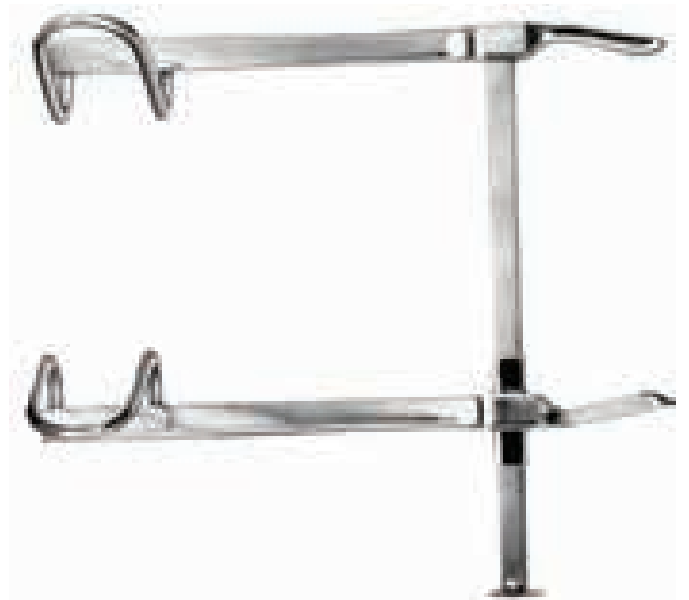
Aln Skin Retractor



ALN SKIN RETRACTOR

252370 Aln Skin Retractor 75mm Long **£42.50**

Gosset Retractor



Good as a Rib Retractor, Laparotomy Retractor and for retraction of ventral cervical structures during cervical fenestration.

GOSSET RETRACTOR

701550 Gosset Retractor Large 130mm Spread **£225.00**

710600 Gosset Retractor Small 100mm Spread **£225.00**

'Stubby' Osteotome



Available from 3mm to 14mm and as a set at a significantly discounted price. 70mm long

'STUBBY' OSTEOTOME

001366 'Stubby' Osteotome 3mm 70mm Long **£51.50**

001367 'Stubby' Osteotome 4mm 70mm Long **£51.50**

001368 'Stubby' Osteotome 6mm 70mm Long **£51.50**

001369 'Stubby' Osteotome 8mm 70mm Long **£51.50**

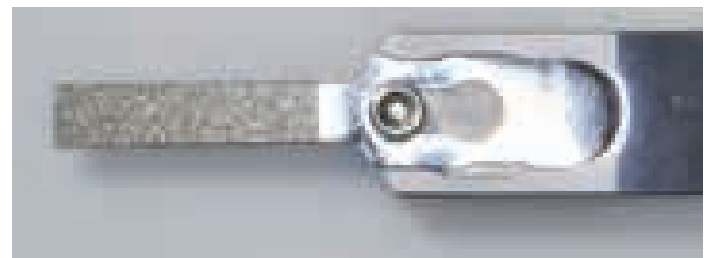
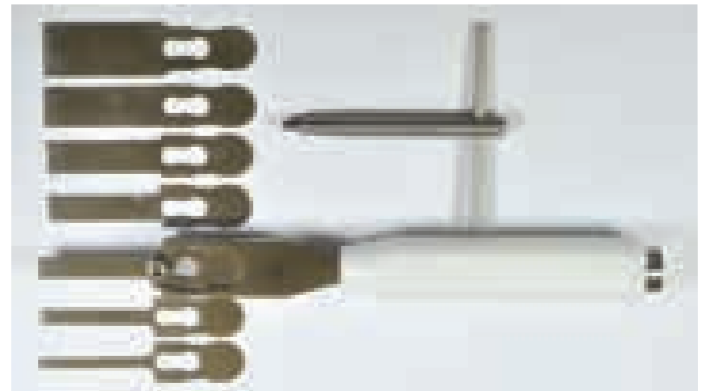
001370 'Stubby' Osteotome 10mm 70mm Long **£51.50**

001371 'Stubby' Osteotome 12mm 70mm Long **£51.50**

001372 'Stubby' Osteotome 14mm 70mm Long **£51.50**

0013SET 'Stubby' Osteotome Set (one of each) **£200.00**

Modular Osteotome with Ultra-thin Interchangeable Blades and Diamond Rasp



The Osteotome is supplied as a comfortable handle into which fits a large range of blades. The blades are very thin (1.1mm) making them suitable for a variety of procedures including block sulcoplasty. The block including the articular cartilage may be harvested with minimal breakage of the block. Supplied as a handle plus the following blades 4mm, 6mm, 8mm, 10mm, 12mm, 15mm and 20mm. A diamond-coated 6mm rasp has been added to the range to tidy up the corners of the sulcoplasty. A 5mm blade has also been added to the range.

MODULAR OSTEOTOME

001380 Modular Osteotome complete with 7 Blades **£225.00**

001382 Modular Osteotome Replacement Blade 4mm **£27.50**

001383 Modular Osteotome Replacement Blade 6mm **£27.50**

001384 Modular Osteotome Replacement Blade 8mm **£27.50**

001385 Modular Osteotome Replacement Blade 10mm **£27.50**

001386 Modular Osteotome Replacement Blade 12mm **£27.50**

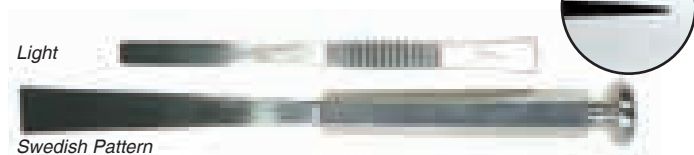
001387 Modular Osteotome Replacement Blade 15mm **£27.50**

001388 Modular Osteotome Replacement Blade 20mm **£27.50**

001389 Modular Diamond Rasp 6mm **£52.50**

001390 Modular Osteotome Replacement Blade 5mm **£26.50**

Osteotomes

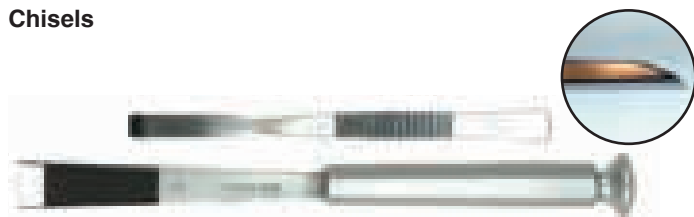


Use an osteotome to make a precise elective cut, e.g. trochanteric osteotomy, excision arthroplasty.

OSTEOTOMES		
623880	Osteotome Swedish 30mm 205mm Long	£51.50
623870	Osteotome Swedish 25mm 205mm Long	£51.50
623860	Osteotome Swedish 20mm 205mm Long	£51.50
623850	Osteotome Swedish 15mm 205mm Long	£51.50
623840	Osteotome Swedish 12mm 205mm Long	£51.50
001341	Osteotome Light 15mm 140mm Long	£51.50
001342	Osteotome Light 12mm 140mm Long	£51.50
001343	Osteotome Light 10mm 140mm Long	£51.50
001344	Osteotome Light 8mm 140mm Long	£51.50
001345	Osteotome Light 6mm 140mm Long	£51.50
001346	Osteotome Light 4mm 140mm Long	£51.50

Veterinary Instrumentation offer a sharpening service for both osteotomes and chisels. Please contact a member of the Vet Tech Team on 0845 130 9596 for further details or to arrange this service.

Chisels



Use a chisel where heavier bone removal is required, e.g. sequestrum removal.

CHISELS		
001350	Chisel 12mm 140mm Long	£51.50
001351	Chisel 10mm 140mm Long	£51.50
001352	Chisel 8mm 140mm Long	£51.50
001353	Chisel 6mm 140mm Long	£51.50
001354	Chisel 4mm 140mm Long	£51.50
162340	Chisel Swedish Pattern 12mm 205mm Long	£51.50
162350	Chisel Swedish Pattern 15mm 205mm Long	£51.50
162360	Chisel Swedish Pattern 20mm 205mm Long	£51.50
162370	Chisel Swedish Pattern 25mm 205mm Long	£51.50

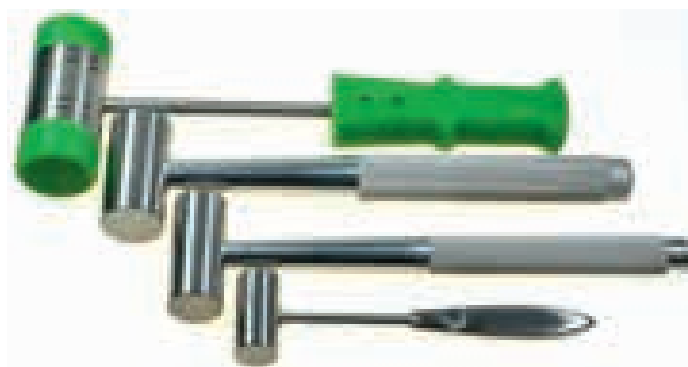
Gouges



Use a gouge where bone contouring is essential.

GOUGES		
001355S	Gouge 12mm 140mm Long	£49.50
001355	Gouge 12mm 205mm Long	£49.50
001356	Gouge 10mm 140mm Long	£49.50
001357	Gouge 8mm 140mm Long	£49.50
001358	Gouge 6mm 140mm Long	£49.50
001359	Gouge 4mm 140mm Long	£49.50

Orthopaedic Mallet



For use with osteotomes, chisels, gouges and staples. Different weights are available according to surgeon preference and patient size.

ORTHOPAEDIC MALLETS		
001323	Mallet 140g 155mm Long	£54.50
001320	Mallet 300g 220mm Long	£52.50
001321	Heavy Mallet 500g 240mm Long	£62.50
001325	Nylon Faced Mallet 500g 240mm Long	£62.50
001326	Nylon Faced Mallet 300g	£62.50

Trepine

Stainless steel and re-usable with a retractable stylet. Extend the stylet to provide secure location at the trephine site until trephine teeth bite. Withdraw the stylet to harvest the bone. Push the bone core out using the stylet. Where a very long core is required the stylet may be removed completely.

- Creation of window for bone graft harvest.
- Cortical bone biopsy.
- Available in three diameters.



TREPINES		
001425	Trepine 8mm o/d 6mm Core 170mm Long	£92.50
001426	Trepine 6mm o/d 4mm Core 115mm Long	£92.50
001427	Trepine 5mm o/d 3mm Core 115mm Long	£92.50

Bone Curette

Volkman/ Brun



Useful for heavy curettage and collection of cancellous bone grafts. Autoclaveable Tip protectors are available for use with Bone Curettes, please see page 354 for further details

VOLKMAN		
782200	Volkman Single Ended Curette 4mm 170mm Long	£44.50
782205	Volkman Single Ended Curette 3mm 170mm Long	£44.50
782210	Volkman Single Ended Curette 5mm 170mm Long	£44.50
782220	Volkman Single Ended Curette 6mm 170mm Long	£44.50
782600	Volkman Curette Double Ended Small 4mm/ 6mm 200mm	£52.50
782610	Volkman Curette Double Ended Medium 5mm/ 6mm 200mm	£52.50
782620	Volkman Curette Double Ended Large 6mm/ 8mm 200mm	£52.50

Orthopaedic Distractors

VI Pattern Orthopaedic Distractor



Application:

- Overcoming muscle contraction prior to fracture reduction.
- Accurate alignment of bone fragments prior to plating.

Features:

- Locking wing nuts fix the distractor as a scaffold for the bone fragments to facilitate plating.
- Three joints maximise flexibility.
- Use with external fixation pins 3.2mm to 4.0mm.

VI PATTERN ORTHOPAEDIC DISTRACTOR

001500 VI Pattern Orthopaedic Distractor 330mm Long **£425.00**

AO Pattern (Human) Orthopaedic Distractor



- Two joints
- Heavier
- More powerful with tommy bar lever

AO PATTERN (HUMAN) ORTHOPAEDIC DISTRACTOR

001502 Orthopaedic Distractor AO Pattern 410mm Long **£355.00**

Small Distractor with Ratchet



The Small Ratcheted Distractor uses 1.5 or 1.6 'K' or 'A' wires as distraction pins. The pins are driven into place through the tubes on the distractor arm. Threaded pins may be used for additional security. Squeezing the arms of the distractor separates the pins and thus the bone fragments and the ratchet holds them in the new position. Range of distraction 12mm - 60mm.

SMALL DISTRACTOR WITH RATCHET

001503 Small Distractor with Ratchet 185mm Long **£175.00**

Bone Scribe



A very sharp marking point with an easy to hold handle enables the surgeon to mark bone prior to cutting or rotating (Slocum procedure). One end is pointed and the other is sharpened as a blade.

BONE SCRIBE

001494 Bone Scribe (Double Ended) 200mm Long **£25.00**

Stainless Vernier Caliper

Useful for very accurate measurement of screws, drill bits and bone intra-operatively.

Supplied with full instructions for use.

Accurate to 0.1mm.



STAINLESS VERNIER CALIPER

001490 Vernier Caliper Stainless Steel **£94.50**
001490D Digital Vernier (Non Autoclavable) **£39.50**

VI Metric Ruler



Following requests, our Metric Ruler has been over-hauled to provide a greater range of hole sizes, making it the most comprehensive metric ruler we have seen on the market.

Hole sizes - 0.9, 1.0, 1.1, 1.25, 1.4, 1.5, 1.6, 1.8, 2.0, 2.5, 2.7, 3.0, 3.2, 3.5, 4.0, 4.5, 5.0, 5.5 and 6.5mm.

VI METRIC RULER

001504 Metric Ruler - VI **£39.50**

Orthopaedic Ruler

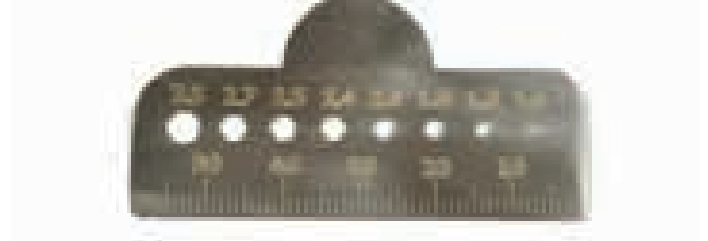


Used to measure pins, wires, drills and screw diameter.

ORTHOPAEDIC RULER

001498 Orthopaedic Ruler Imperial 175mm Long **£29.50**

Drill & Screw Gauge



Measures screws up to 60mm and drills from 1.1mm to 3.5mm.

DRILL AND SCREW GAUGE

001496 Drill and Screw Gauge 60mm Long **£22.50**

Esmarch Bandage



Exsanguination of the distal limbs makes visualisation of the small bones and associated structures much easier, eg carpal arthrodesis. Wrap from digits and then unwrap from digits. Made from latex rubber, supplied non-sterile.

ESMARCH BANDAGE		
090169	Esmarch Bandage 75mm	£26.50

Radiographic Reference Ball

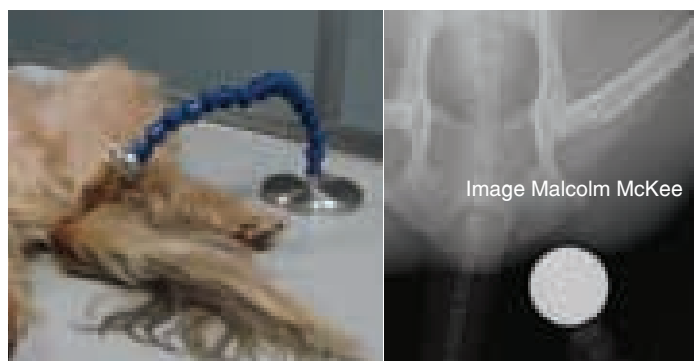


Image Malcolm McKee

Taking radiographs where the area of interest is not close to the plate creates some challenges in scaling. This is true of both digital and analogue systems. When using the radiograph for templating implants e.g. total hip replacement, it is very important to make accurate measurements.

The Reference Ball is 25mm in diameter and is attached to a stable base by a flexible neck which allows the ball to be placed at the same level above the plate as the area of interest. Using a spherical object as a reference eliminates errors created by ruler orientation which might not be quite parallel with the plate.

Also available in a 10mm version for smaller patients.

RADIOGRAPHIC REFERENCE BALL		
XRAY25MM	Radiographic Reference Ball 25mm Diameter	£74.50
XRAY10MM	Radiographic Reference Ball 10mm Diameter	£74.50

Chandler's Gonadal Shield



Developed by Russell Chandler

Exposure of the patient's gonads to radiation is undesirable particularly where repeated imaging is likely.

The Gonad Shield uses a similar 'goose neck' arrangement on a solid base as is used in the Reference Ball.

There are three different sized shields to cover the typical patient range:

- 50 x 25 x 1.8mm
- 75 x 40 x 1.8mm
- 100 x 50 x 1.8mm

CHANDLER'S GONADAL SHIELD		
GSHSET	Chandler's Gonadal Shield Set of 3 with Base	£185.00
GSHSMALL	Chandler's Gonadal Shield 50 x 25 x 1.8mm	£60.00
GSHMED	Chandler's Gonadal Shield 75 x 40 x 1.8mm	£60.00
GSHLARGE	Chandler's Gonadal Shield 100 x 50 x 1.8mm	£60.00

Xray Marker with Scale



Using digital media regardless of whether the xray was taken on an analogue or digital xray machine it is very important to incorporate a reliable scale. When viewed on different screens an xray may appear to be a different size. This is particularly important when the original is not available for comparison. When sending digital radiographs to colleagues for opinion a scale is especially important.

VI's Left and Right Markers are 50mm long and include a scale marked at 5mm intervals. For use when measuring particular structures or lesions the marker should be positioned at the same level as the structure under examination. A purpose designed stand is available which incorporates a clip to hold the appropriate marker.

XRAY MARKERS WITH SCALE		
XRAYMARK1	Xray Marker with Scale Set Left and Right	£6.75
XRAYHOLD1	Xray Marker Stand	£38.50

Dressing & Support

Medipaws



Waterproof/ breathable, facilitates compliance, reduces rewraps, saves resources.
Available in 8 colour-coded sizes

A professional waterproof but breathable cover for dressings and casts. Available in 8 colour-coded sizes, they have a durable no-skid bottom, and elasticised straps with Velcro closures as well as an upper cord lock.

Medipaw X

Medipaw X delivers the same waterproof/ breathable protection and features a new extra durable moulded rubber bottom. Available in 8 colour-coded sizes.



Buy a starter set of boots or suits and receive a display dog for your clinic absolutely FREE.

T&C apply.

MEDIPAWS			
200015	Medipaw Boot Extra Small Wide	Orange	£12.00
200020	Medipaw Boot Extra Small	Yellow	£12.00
200031	Medipaw Boot Extra Small #2	Pink	£13.00
200025	Medipaw Boot Small	Blue	£13.00
200030	Medipaw Boot Medium	Red	£14.00
200035	Medipaw Boot Large	Green	£15.00
200037	Medipaw Boot Large Wide	Grey	£17.00
200040	Medipaw Boot Extra Large	Purple	£17.00
200055	Medipaw Boot (Set of 5 – XS, S, M, L, XL)		£67.50
200050	Medipaw Boot Set of 8 (+ Free display dog)		£105.00

MEDIPAW X			
200097	Medipaw X Boot Extra Small Wide	Orange	£24.00
200093	Medipaw X Boot Extra Small	Yellow	£24.00
200092	Medipaw X Boot Extra Small #2	Pink	£24.00
200094	Medipaw X Boot Small	Blue	£26.00
200095	Medipaw X Boot Medium	Red	£28.00
200096	Medipaw X Boot Large	Green	£30.00
200099	Medipaw X Boot Large Wide	Grey	£34.00
200098	Medipaw X Boot Extra Large	Purple	£34.00
200090	Medipaw X Boot Set of 3 S, M & L		£75.00
200091	Medipaw X Boot Set of 8 (+ Free display dog)		£195.00

Medipaw Protective Suit For Dogs and Cats

From the manufacturers of the popular Medipaw protective boot comes a new addition to the patient protection range.

The Medipaw suit is available in a range of sizes to fit dogs and cats. The suit is a 2 piece design, which makes fitting & removing easier. The two parts have an easy Velco closure. The top gives full coverage of the thorax.

Indications for use are many. This suit can be used as an alternative to an Elizabethan collar to discourage post-operative interference with wounds, to reduce the incidence of tick infestation, to protect drain tube sites, during the treatment of skin conditions etc. An alternative use for the Medipaw Protective Suit is in the management of anxiety in dogs.

Features include a wide opening for litter tray use, a port opening, and internal pockets in both top and bottom parts which can take ice packs to relieve swelling or pads for absorption.

Machine washable, the suit is made of 95% cotton, 5% Lycra

Colour coded stitching and logo indicate size, for easy recognition and re-ordering.



MEDIPAW PROTECTIVE SUIT			
SUITPSS-XXS	Two Piece Suit XXS	Pink	£18.00
SUITPSS-XS	Two Piece Suit XS	Yellow	£19.00
SUITPSS-S	Two Piece Suit S	Blue	£20.00
SUITPSS-S+	Two Piece Suit S+	Orange	£21.00
SUITPSS-M	Two Piece Suit M	Red	£22.00
SUITPSS-L	Two Piece Suit L	Green	£23.00
SUITPSS-XL	Two Piece Suit XL	Purple	£24.00
SUITPSS-S-CAT	Two Piece Suit S Cat	Blue	£18.00
SUITPSS-M-CAT	Two Piece Suit M Cat	Red	£18.00
SUITPSS-L-CAT	Two Piece Suit L Cat	Green	£18.00
SUITALL	Starter Set (10 in total)	(+Free Display Dog)	£175.00

Thera-Paw



Thera-Paw acts as a reusable bandage with a protective base.

- The ultra-cushioned sole alleviates pain, reducing lameness and promoting more even weight distribution.
- The use of perforated top-sole material and cut-out design allow the paw to breathe and keeps the injured site free from moisture build-up.
- The rubberized, non-skid base and toe-cap are waterproof, protect the site from further injury, and provide better traction.
- The vertical closure design runs parallel to the carpal/ tarsal bones, dispersing pressure over a wide area.
- Thera-Paw is easily cleaned by rinsing it under warm water. Mild detergent may be used. It air dries in under 1 hour, and is ready for immediate reapplication.
- The front opening and closing mechanism makes it easy to slip Thera-Paw into place.
- The outer safety strap provides additional security, to ensure that Thera-Paw stays on even the most active dogs.
- The dual closing mechanism reduces the risk that a dog can remove the garment.

THERA-PAW		
200002	Thera-paw Small (T/B)	£16.50
200003	Thera-paw Small/ Medium (T/C)	£17.00
200003#2	Thera-paw Small/ Medium#2 (T/D)	£17.50
200004	Thera-paw Medium (T/E)	£18.00
200005	Thera-paw Medium/ Large (T/F)	£18.00
200006	Thera-paw Large (T/G)	£19.00
2000SET	Thera-paw Set of 6 (as above)	£95.00

Tarso-Flex X

Tarso-Flex X are a range of supports designed to stabilise and support the tarsal.

Thick Tarsal Wrap with versatile support.

Neoprene.

Velcro closure.

Self adhesive foam padding.

Nylon support wraps are placed on outer wrap for additional support.

Easily fitted & cleaned.

More info on www.therapaw.com



TARSO-FLEX X			
CODE	Size	Max Tibia	Price
200080	S	14cm	£87.50
200081	M	16.5cm	£90.00
200082	L	21.5cm	£92.50

Carpo-Flex Range

Carpo-Flex are a range of supports designed to stabilise and support the carpus, helping reduce carpal deviation and hyperextension.

Available in 3 support grades.

Carpo-flex Sports Wrap - Light Support

Carpo-flex X - Moderate Support

Carpo-flex Splint Kit - Strong Support to Complete Immobilisation



*Carpo-flex
Sports Wrap -
Light Support*



*Carpo-flex
X - Moderate
Support*



*Carpo-flex
Splint Kit -
Strong Support
to Complete
Immobilisation*

Made from neoprene, with elastic straps.

Add L for Left or R for Right to code.

More info on www.therapaw.com

CARPO-FLEX SPORTS WRAP (LIGHT)

CODE	Size	Carpus	Price
200011	XS	11.5cm	£40.00
200012	S	12.5cm	£40.00
200013	M	15cm	£42.50
200014	L	17.5cm	£42.50

Add L for Left or R for Right to the code when ordering.

CARPO-FLEX X (MODERATE)

CODE	Size	Carpus	Price
200070	XS	9.5cm	£65.00
200071	S	10cm	£65.00
200072	M	14.5cm	£70.00
200073	L	19.5cm	£70.00
200074	XL	21.5cm	£75.00

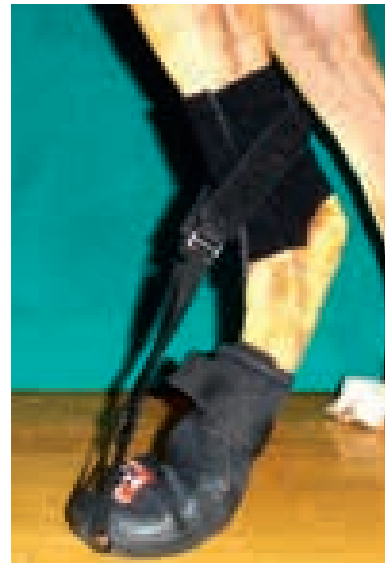
Add L for Left or R for Right to the code when ordering.

CARPO-FLEX SPLINT KIT (STRONG)

CODE	Size	Carpus	Price
200060	XS	9.5cm	£82.50
200061	S	10cm	£82.50
200062	M	14.5cm	£87.50
200063	L	19.5cm	£87.50
200064	XL	21.5cm	£92.50

Add L for Left or R for Right to the code when ordering.

Dorsi-flex



Dorsi-flex is a physical aid to normal placement of the hind foot which is aimed to help reduce knuckling, assist with tarsal/ hock flexion & digital extension and act as a mobility aid for unstable or weak distal hind limbs. Includes a Thera-Paw boot plus adjustable tension straps & tarsal anchor strap. Easily fitted & cleaned

More info on www.therapaw.com

DORSI-FLEX

CODE	Size	T'paw	Max Tibia	Price
200018	TINY	S (T/B)		£70.00
200019	XXS	S/M (T/C)		£72.50
200021	XS	S/M#2 (T/D)	11.5cm	£75.00
200022	S	M (T/E)	14cm	£77.50
200023	M	M/L (T/F)	16.5cm	£80.00
200024	L	L (T/G)	21.5cm	£82.50

Forelimb Dorsi-flex Assist



This device aids with dorsi-flexion of the forepaw, and also helps stabilise and support the carpus.

It is based on the Thera-paw boot, with the addition of a Velcro strapping mechanism to maintain dorsiflexion.

Useful for dogs affected by brachial plexus avulsion, radial nerve problems and other similar conditions.

For the Forelimb Dorsi-Flex Assist to be most effective the patient should have moderate triceps control and be able to extend the elbow.

Now available in 4 off the shelf sizes.

Add L for Left and R for Right to Code

FORELIMB DORSI-FLEX ASSIST

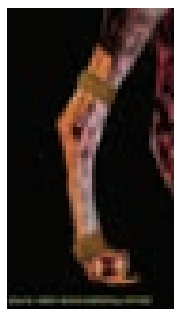
200026	Forelimb Dorsi-flex Assist Small/ Medium T/D	£115.00
200027	Forelimb Dorsi-flex Assist Medium T/E	£125.00
200028	Forelimb Dorsi-flex Assist Medium/ Large T/F	£145.00
200029	Forelimb Dorsi-flex Assist Large T/G	£165.00

Add L for Left or R for Right to the code when ordering.

Thermo Plastic Splinting



Marq-Easy Thermo Plastic Splinting Rectangular Sheets



The wide variety of shapes and sizes of animal patients makes splinting a challenge. Thermal plastic, widely used in human medicine, is heated in hot water and moulded to a specific custom shape for the patient. The thermal plastic material is available in a variety of rectangular- sized flat sheets. White.

MARQ-EASY THERMO PLASTIC SPLINTING RECTANGULAR SHEETS		
940A	Thermo Plastic Splinting Sheet - 1/8" Thick 4" x 9" For narrow long legs	£18.50
940B	Thermo Plastic Splinting Sheet - 1/8" Thick 6" x 12"	£30.00
940C	Thermo Plastic Splinting Sheet - 1/8" Thick 12" x 24"	£92.50

Velcro Straps

Use in areas that do not require dressing to help hold the splint in proper position. Kit includes Velcro 1" x 36" strap and 12" hook patch with one side adhesive. Both can be trimmed to customise the splint.

VELCRO STRAPS		
940V	Velcro Straps	£9.75

Compact Foam Lining



This special foam padding with one adhesive side can be placed into the splint for patient comfort.

Blue. 16" x 24" x 3/8" thickness.

COMPACT FOAM LINING		
940X	Compact Foam Lining Blue 16" x 24" x 3/8" thickness	£39.50
940CD	CD illustrating the use of Thermoplastic Splinting	FREE

Thermo Plastic Splinting Starter Kit

A useful starter kit containing 1x Thermo Plastic Splinting sheet (940A), 1x Thermo Plastic Splinting Sheet (940B), 1x Velcro straps (940V), 1x Compact Foam Lining (940X) and 1x CD illustrating the use of thermoplastic splinting (940CD).

Discounted by 10+% compared to component price.

THERMO PLASTIC SPLINTING STARTER KIT		
940KIT	Thermo Plastic Splinting Starter Kit	£80.00

Splints

Padded Splints

Made from green foam lined plastic, splints provide temporary first aid support until surgery is appropriate. Alternatively use for longer term support where other forms of fixation are inappropriate.



PADDED SPLINTS		
090120	Padded Splint Small 210mm Long	£5.50
090121	Padded Splint Medium 310mm Long	£6.00
090122	Padded Splint Large 410mm Long	£6.50

Adjustable Thomas Splints

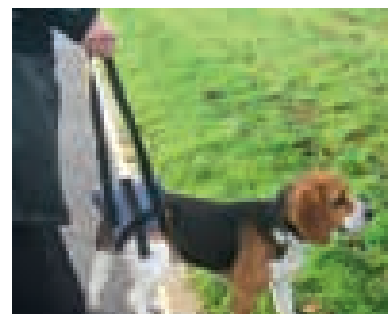
Used for temporary stabilisation of fractures, particularly of the proximal limb pending internal/ external fixation. May also be used as sole means of fracture management where severity of fracture or economics preclude a more sophisticated repair. Take care not to allow distal ring to sit at fracture site. Stainless steel manufacture. Splint is adjustable for length.



ADJUSTABLE THOMAS SPLINTS			
		(diameter of circle mm)	
272100	Hind Leg Size 1	100	£32.50
272110	Hind Leg Size 2	120	£33.50
272120	Hind Leg Size 3	150	£34.50
272130	Hind Leg Size 4	160	£35.50
272140	Fore Leg Size 2	100	£34.50
272150	Fore Leg Size 3	140	£35.50
272160	Fore Leg Size 4	180	£36.50

Handy Canis Harness

A simple harness which provides balance and support whilst helping minimise owner's back strain.



HANDY CANIS HARNESS			
227250	XS	Yorkshire Terrier	£26.50
227252	S	Dachshund	£27.50
227254	M	Basset Hound	£28.50
227256	L	Retriever, German Shepherd	£29.50
227258	XL	St Bernard	£31.00

Help 'Em up Harness

Two handle support assistance harness.

Fully adjustable, with neoprene/ mesh/ microfleece pads.

Ergonomic sternal T pad, neoprene strap sleeves with microfleece high friction areas. Belly band standard (bitches or most males) and U (males with penis level with or between hind legs)

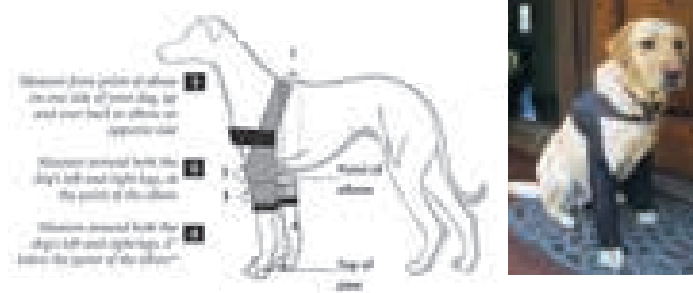
Machine washable, air drying recommended

See www.vetinst.com for sizing or call 0845 130 9695
U Band available on request.



HELP 'EM UP HARNESS		
HEU-S	Help 'Em Up Harness Small - Red Flash	£105.00
HEU-M	Help 'Em Up Harness Medium - Orange Flash	£110.00
HEU-L	Help 'Em Up Harness Large - Blue Flash	£115.00
HEU-XL	Help 'Em Up Harness Extra Large - Gold Flash	£120.00

DogLeggs



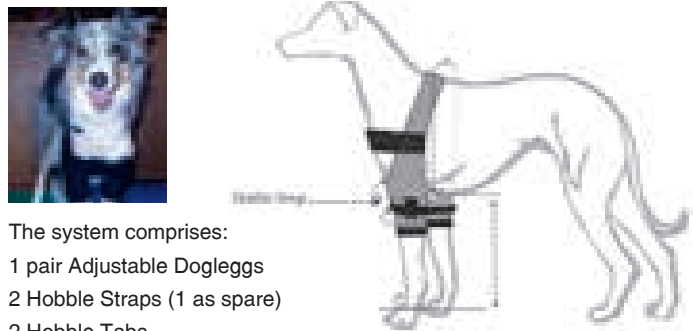
- Hygromas – Adjustable DogLeggs treat the cause of the hygroma, not just the symptom.
- Use to prevent decubital ulcers and pressure wounds.
- Dogs with hip dysplasia to protect the elbows from added stress.
- Post surgical coverage. • Elbow dysplasia. • Arthritis.
- Neurologic dogs - to provide proprioception to the limbs.
- Lick Granuloma. • Older dogs to help with pressure.

PLEASE PROVIDE MEASUREMENTS 1 - 3 (as shown in diagram above) WHEN ORDERING.

DOGLEGGs INCLUDES CHEST STRAP		
0746A	Small 6”/4” (150mm/100mm)	£105.00
0746B	Medium 8”/6” (200mm/150mm)	£107.50
0746C	Medium/ Large 10”/8” (250mm/200mm)	£110.00
0746D	Large 12”/10” (300mm/250mm)	£112.50
0746E	Extra Large 14”/12” (350mm/300mm)	£115.00

REPLACEMENT CHEST STRAPS		
0746AS	16”/400mm	£14.00
0746BS	18”/450mm	£14.50
0746CS	20”/500mm	£15.00
0746DS	22”/550mm	£15.50
0746ES	24”/600mm	£16.00

Shoulder Stabilisation System



The system comprises:

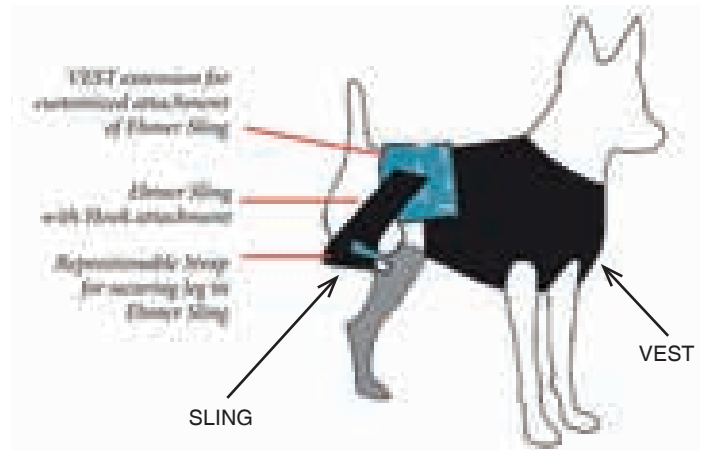
- 1 pair Adjustable DogLeggs
- 2 Hobble Straps (1 as spare)
- 2 Hobble Tabs

The DogLeggs Shoulder Stabilization System limits abduction, flexion and extension of the shoulder, while allowing for full weight-bearing. The patient’s gait is altered with a short limited stride. The DogLeggs Shoulder Stabilization System can be worn continuously for several months with minimal irritation. The device can be removed and reapplied easily for rehabilitation therapy and is simple enough for the patient’s owner to manage. The typical use is for Medial Shoulder Instability (MSI), but it can be used anytime there is the need to provide additional stability to the front legs.

PLEASE PROVIDE MEASUREMENTS 1 - 4 (as shown in diagram for standard DogLeggs) WHEN ORDERING.

SHOULDER STABILISATION SYSTEM		
DLSSS	Shoulder Stabilisation System (measurements required)	£160.00

Vest for Ehmer Sling



The system requires a vest of an appropriate size plus the Ehmer extension. The Vest utilizes the latest generation of light weight, latex free, adhesive free, breathable, antimicrobial, antibacterial, bactericidal “fabric.” Care: Machine wash gentle, in lukewarm water with mild detergent, air dry. Ehmer Style Sling works for both left and right legs. The Sling attaches directly to The VEST, one strap under the belly and one on the same side as the leg to be restricted.

Because there are such a wide variety of sizes and shapes of dogs who will wear the same size VEST, we can provide an extension that attaches directly to the VEST and allows for longer backed dogs and customized placement of the Ehmer Sling.

The VEST and Ehmer Sling are machine washable and very durable

EHMER SLING		
DLESLING-XS	Extra Small Ehmer Sling	£90.00
DLESLING-S	Small Ehmer Sling	£90.00
DLESLING-M	Medium Ehmer Sling	£90.00
DLESLINGM/L	Medium/ Large Ehmer Sling	£90.00
DLESLING-L	Large Ehmer Sling	£90.00
DLESLING-XL	Extra Large Ehmer Sling	£90.00
DLESLINGXXL	Extra Extra Large Ehmer Sling	£90.00

PLEASE NOTE THE VEST FOR THE EHMER SLING IS SUPPLIED SEPARATELY.

VEST Sizing Information: (chest measurement)

XSmall.....	15-18”	M/L	30-34”
Small.....	20-24”	Large.....	34-38”
S/M.....	24-28”	XLarge	38-44”
Medium.....	26-30”	XXL.....	44-52”

VESTS FOR EHMER SLING (REQUIRED)		
DLV1	Extra Small Vest for Ehmer Sling 15-18”	£120.00
DLV2-S	Small Vest for Ehmer Sling 20-24”	£160.00
DLVS/M	Small/ Medium Vest for Ehmer Sling 24-28”	£160.00
DLV2-M	Medium Vest for Ehmer Sling 26-30”	£160.00
DLV2-M/L	Medium/ Large Vest for Ehmer Sling 30-34”	£160.00
DLV2-L	Large Vest for Ehmer Sling 34-38”	£160.00
DLV3-XL	Extra Large Vest for Ehmer Sling 38-44”	£170.00
DLV3-XXL	Extra Extra Large Vest for Ehmer Sling 44-52”	£170.00

Mobility Carts

Trolleys to support dogs' hind limbs in the event of partial or total loss of mobility.

Characteristics:

- Welded, galvanized metal and aluminium chassis
- Height and length adjustable
- Adjustable straps
- Synthetic protective fur, removable for washing
- Soft rubber wheels
- Reinforcement hoop to lift the animal and to help it to cross the pavement.

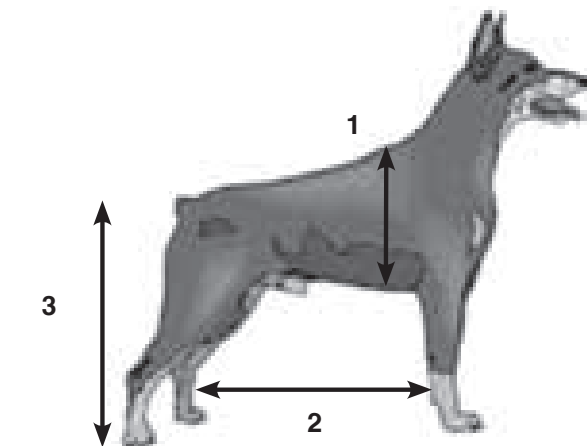
Indications:

- Paralysis or paresis of dogs' rear limbs, particularly in German Shepherds, Labradors, Dachshunds, Poodles, Fox Terriers etc.
- Functional re-education following a slipped disc
- Temporary immobilization of the rear limbs following surgery or injury, fitting a plaster cast, a splint, external fixators, etc...

On request:

- Axle offset to improve the mobility of a handicapped animal, allowing use of the hind feet
- Inflatable wheels for the large model
- Model for cats
- Model made to measure with the following information:
 1. Thoracic strap, circumference of chest behind point of elbow
 2. Space between the front and back feet
 3. Height under the tail

CANIS-MOBILE				
CODE	1 (Circumference mm)	2 min/max	3 min/max	Price
260400	Small Dog 410 max	160/260mm	170/270mm	£445.00
260402	Medium Dog 660 max	250/350mm	240/380mm	£475.00
260404	Large Dog 900 max	350/500mm	410/560mm	£525.00



Mobility Assist



Degenerative myelopathy (CDRM) is not uncommon, particularly in the German Shepherd, Boxer and Pembroke Corgi. It is a difficult condition to manage either medically or surgically. Whilst the progression of the degeneration can be delayed by dietary supplements, treatment options are very limited. Sooner or later the control over the hind limb deteriorates to the point where walking and particularly turning is difficult. Excoriation of the toes and dorsal surface of the foot typically follows. Affected dogs are well in themselves and owners are often highly motivated. Keeping the dog as active as possible is important to delay progression. The Biko physio brace has been developed to assist the dog in walking and turning for as long as possible. The system is based on elastic straps which run from a chest harness to the hind feet. As the the hind foot reaches the end of the stride and the weight is transferred to the opposite foot the strap helps to bring the trailing foot straight forward ready for the next stride thereby compensating for the loss of muscle tone.

Dogs suffering from neurological deficits, both temporary and permanent, due to disc pathology will also benefit from the Biko brace.

The brace is simple to apply and is tolerated very well. Dogs resume useful levels of activity significantly improving the length and the quality of their lives. Physiotherapy occurs whenever the dog is walking which makes

it more effective than sessional hydrotherapy or physiotherapy. Use of the Biko brace delays euthanasia or use of a cart. Feedback from owners is excellent.

For best results the brace should be exactly the correct length. Selection of the appropriate brace requires that the patient is measured as shown.

Once fitted the programme supplied should be followed closely for best results. Use of the Biko brace may be combined with other therapies such as physio or hydrotherapy.

Should scuffing continue we recommend the use of Therapaws (see page 135).

Measurements

Before the dog can be measured for the Biko device an appropriate harness must be in position. This may be supplied by the veterinary surgeon or purchased elsewhere. If there is any difficulty we can supply (see pricing section). The caudal ring of the harness should sit just behind the scapulae in the centre of the spine. If the ring is too far back it will limit the effectiveness of the Biko device. Some harnesses drop the ring too far caudally e.g. a large harness on a stocky dog. A DVD illustrating the benefits of the Biko Brace and the measurements required is available free of charge code: DVDBIKO.

Ordering

When ordering please provide Measurement A and B in cm to enable correct sizing.

Please note that the Biko Physio Brace (measurement A) and the Biko Cuffs (measurement B) are supplied as separate components.

Measurement 'A' is the distance from the Harness ring to the cranial aspect of the proximal metatarsus.

Measurement 'B' is the circumference around the foot at the level of the proximal metatarsus.



BIKO CANINE PHYSIO BRACE

BIK01	Biko Physio Brace Size 1 (40 - 45cm)	£80.00
BIK02	Biko Physio Brace Size 2 (46 - 51cm)	£80.00
BIK03	Biko Physio Brace Size 3 (52 - 59cm)	£80.00
BIK04	Biko Physio Brace Size 4 (60 - 67cm)	£80.00
BIK05	Biko Physio Brace Size 5 (68 - 75cm)	£80.00
BIK06	Biko Physio Brace Size 6 (76 - 82cm)	£80.00
BIK07	Biko Physio Brace Size 7 (83 - 92cm)	£80.00

BIKO CANINE CUFFS

BCUFF1	Biko Cuff Size 1 (5 - 7cm)	£35.00
BCUFF2	Biko Cuff Size 2 (7.5 - 10cm)	£35.00
BCUFF3	Biko Cuff Size 3 (10.5 - 13cm)	£35.00
BCUFF4	Biko Cuff Size 4 (13.5 - 18cm)	£35.00

Biko Sizing Guide

Please note the sizing guide shown below should only be considered a general guide and should be used in conjunction with accurate measurement as described on the previous page.

Biko Physio Brace

Measurement 'A' is the distance from the ring to the cranial aspect of the proximal metatarsus.



Most medium Cross-breeds and Terriers typically fall into the 40-60cm range.



Chow Chows & Collies tend to fall into the 55-68cm range.

A cm	Size Needed
40	Size 1
41	Size 1
42	Size 1
43	Size 1
44	Size 1
45	Size 1
46	Size 2
47	Size 2
48	Size 2
49	Size 2
50	Size 2
51	Size 2
52	Size 3
53	Size 3
54	Size 3
55	Size 3
56	Size 3
57	Size 3
58	Size 3
59	Size 3
60	Size 4
61	Size 4
62	Size 4
63	Size 4
64	Size 4
65	Size 4
66	Size 4
67	Size 4

BIKO CANINE PHYSIO BRACE ACCESSORIES

BIH1	Harness Extra Small - Small Black	£11.50
BIH2	Harness Small - Medium Black	£12.50
BIH3	Harness Medium - Large Black	£15.50
BIH4	Harness Large - Extra Large Black	£20.50
DVDBIKO	Biko DVD	£FOC

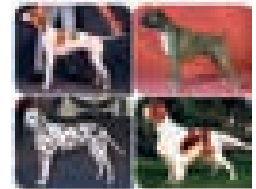
Ordering

When ordering please provide Measurement A and B in cm to enable correct sizing.

Please note that the Biko Physio Brace (measurement A) and the Biko Cuffs (measurement B) are supplied as separate components.

Harnesses are also supplied as a separate component.

A cm	Size Needed
68	Size 5
69	Size 5
70	Size 5
71	Size 5
72	Size 5
73	Size 5
74	Size 5
75	Size 5
76	Size 6
77	Size 6
78	Size 6
79	Size 6
80	Size 6
81	Size 6
82	Size 6
83	Size 7
84	Size 7
85	Size 7
86	Size 7
87	Size 7
88	Size 7
89	Size 7
90	Size 7
91	Size 7
92	Size 7



Examples of breeds that tend to fall into the 64-75cm range include Boxers, Dalmations, Pointers etc.



German Shepherds have the highest rate of CDRM. They usually fall into the 68-85cm range.



Giant breeds, e.g. Irish Wolfhounds would usually be 85cm+.

Biko Cuffs. Measurement 'B' is the circumference around the foot at the level of the proximal metatarsus.	B cm	Cuff Size Needed
	5 - 7cm	Size 1
	7.5 - 10cm	Size 2
	10.5 - 13cm	Size 3
	13.5 - 18cm	Size 4

The correct measurement of the patient is very important to get the right size.

For more information including videos view online at www.biko.co.at/indexenglish.php

Veterinary Physiotherapy

David Prydie BVMS, CertSAO, CCRT, MRCVS
Physio-vet Referrals, Crewe.

In recent years there has been a marked increase of interest from both the veterinary profession and the public in the application of physiotherapy in animals. However, historically, the profession has been slow to embrace this exciting discipline and this has led to many lay people offering rehabilitation services. It is important that control of physiotherapy and the rehabilitation of animals remains with the veterinary profession. This will ensure appropriate standards are met and that CPD is mandatory. The profession will then be in a position to advise the public accordingly. Proper training in physiotherapy is essential. There are many courses springing up but not all meet the standards recognised by the special interest group BVRMSA (British Veterinary Rehabilitation and Sports Medicine Association. www.bvrmsa.org.uk).

Physiotherapy has many applications in veterinary practice and can help increase practice turnover and profit. It also offers the chance of bonding with clients and provides a service not available over the internet.

Traditionally, vets have considered this a nurses' job and many treatment sessions can be carried out by suitably trained and supervised nurses. However, the diagnosis and treatment plan must be drawn up by a suitably trained vet or ACPAT Cat A physiotherapist (Association of Chartered Physiotherapy in Animal Therapy). This treatment plan will be bespoke for each patient and will change as the patient progresses through the recovery schedule.

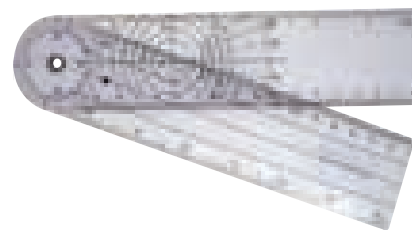
Another preconception is that physiotherapy equals hydrotherapy. Whilst hydrotherapy is a useful part of physiotherapy there is much more that can be done. Other pieces of equipment (modalities) include therapeutic laser, therapeutic ultrasound, pulsed electromagnetic therapy (PEMT), electrical muscle stimulation (EMS), hot and cold therapy (Canine Icer) and the underwater treadmill (UWTM). For example, laser, ultrasound, pulsed electromagnetic therapy help as part of a multimodal approach to the management of OA. Core stability, proprioceptive retraining and strengthening are essential parts of any recovery program (wobble boards, physio balls/peanuts, UWTM, EMS). Other opportunities for physiotherapy include post operatively where it will significantly speed wound healing and return to function (laser, ultrasound, Canine Icer;) as part of a treatment plan for elbow and hip dysplasia (laser, UWTM) spinal and neurological cases (PEMT, EMS) muscle atrophy (EMS, UWTM) as part of a weight loss program (UWTM) general fitness (UWTM) and pain control (laser, EMS, PEMT).

Most of the equipment in physiotherapy is straight forward to use. However, its application can only be learnt by attending suitable courses such as the CRI course. (www.caninerehabinstitute.com)



Goniometer

The Goniometer may be used to measure pre and post-op range of motion of joints together with the effect of physiotherapy. Clients may use to measure progress. 360° measurement.



GONIOMETER		
GONIO	Goniometer 6"/ 150mm (illustrated)	£16.50
GONIO2	Goniometer 12"/ 300mm	£25.00

Theraband Exercise Ball Range

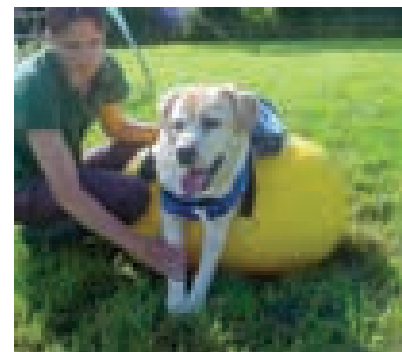
Theraband Anti-burst balls are a range of exercise therapy balls that may be used as a rehabilitation/ physiotherapy aid to help improve an animal's muscular strength and to help achieve functional movements and postures. The patient's body responds to the balls movements using muscles, especially core muscles, to retain balance. The exercise balls can be used to help improve co-ordination, balance and flexibility. Assisted exercises may aid a patient's muscular strength for standing and walking and may be beneficial for patients that are unable to stand and walk independently. A pump is required for initial inflation and maintenance.



THERABAND EXERCISE BALL RANGE		
PY091342310	Theraband Exercise Ball 45cm	£18.00
PY091342328	Theraband Exercise Ball 55cm	£20.50
PY091342336	Theraband Exercise Ball 65cm	£23.00
PY091342344	Theraband Exercise Ball 75cm	£29.50
PY091342351	Theraband Exercise Ball 85cm	£35.50
PYTEBSET	Theraband Exercise Ball Set (One of each)	£105.00
PYAA9055	Air Pump (required)	£15.00

Physio-Roll Ball Range

The Physio-Roll is a variation on the traditional shaped spherical exercise ball. Due to the 'peanut-like' shape, the movement of the ball is limited to side to side and forwards and backwards providing greater stability. A pump is required for initial inflation and maintenance.



PHYSIO-ROLL BALL RANGE		
PYAA9081A	Physio-Roll Ball 300mm Blue	£43.50
PYAA9081B	Physio-Roll Ball 400mm Red	£43.50
PYAA9081C	Physio-Roll Ball 550mm Yellow	£58.50
PYAA9081D	Physio-Roll Ball 700mm Blue	£73.50
PYAA9081E	Physio-Roll Ball 850mm Red	£83.50
PYRBSET	Physio-Roll Ball Set (one of each)	£255.00
PYAA9055	Air Pump (required)	£15.00

Wobble Cushions & Wobble/ Rocker Board Sets.

The main function of Wobble Cushions, Boards and Rockers is to improve proprioception and re-educate balance. They provide a challenging surface to stand on, aiding co-ordination, strength and circulation and are a useful rehabilitation aid.

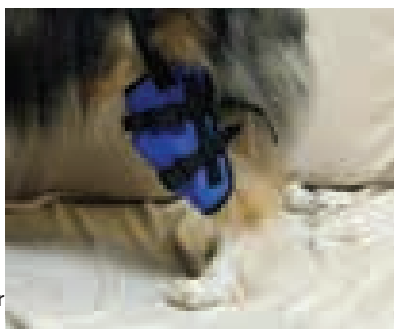


WOBBLE CUSHIONS AND WOBBLE ROCKER BOARD SETS

PY091338540	Dynair Senso Wobble Cushion 36cm Green	£28.50
PYXET73T	Rocker Board	£32.50
PYXET736	Wobble Board	£49.50

Canine Icer™ - Stifle Icer.

The Stifle Icer allows you to apply a consistent, even application of cold therapy to the stifle joint and surrounding muscles. It can be used following surgery such as cruciate surgery or an injury and can aid recovery by helping reduce inflammation and oedema. The Icer is custom-made of strong and insulating Neoprene® or Denier Cordura® Fabric with a soft lining of cotton Lycra® pockets that holds the ice packs. The Stifle Icer is held in place with Velcro® which allows maximum adjustability.



Additional ice packs are available for your Canine Icer™

Measurements = length from thigh to hock.

CANINE ICER - STIFLE ICER

PYCIS-S	Stifle Icer - Small 13cm (5") - 18cm (7") with Ice Pack	£41.50
PYCIS-M	Stifle Icer - Medium 19cm(7.25") - 23cm (9") with Ice Pack	£41.50
PYCIS-L	Stifle Icer - Large 24cm (9.25") - 28cm (11") with Ice Pack	£41.50
PYCIS-XL	Stifle Icer - X Large 28+cm (11") with Ice Pack	£41.50
PYCI-IP	Spare Ice Pack - 41cm (16") x 23cm (9")	£13.50

Canine Icer™ - Leg Weight Cuffs

The Canine Icer™ leg weight wrap can be placed at any point on the dog's leg. Each wrap contains a separate weight bag of either 2 or 4 oz. Leg weights can provide extra resistance and can be used a physiotherapy aid.

Weights should only be used under direct supervision by a Veterinary Surgeon or Physiotherapist.



CANINE ICER - LEG WEIGHT CUFFS

PYCILC-S	Legweight Cuffs - Small (for dogs 10kg or under)	£23.00
PYCILC-M	Legweight Cuffs - Medium (for dogs 10kg - 40kg)	£23.00
PYCILC-L	Legweight Cuffs - Large (40kg +)	£23.00

Gulick II Measuring Tape



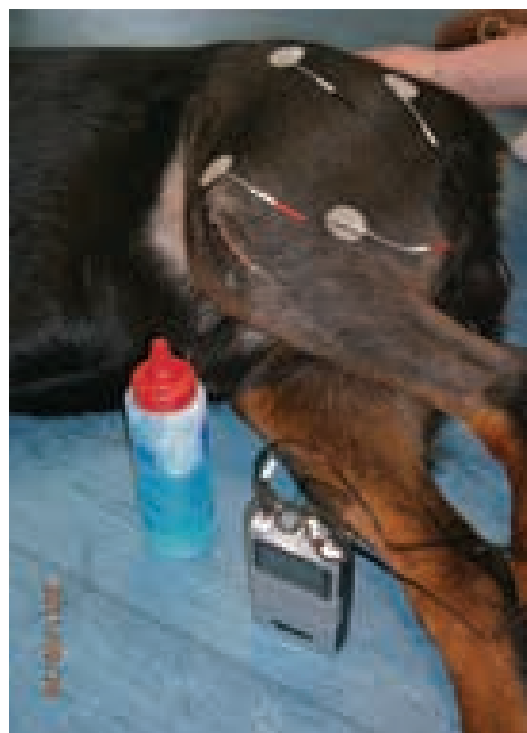
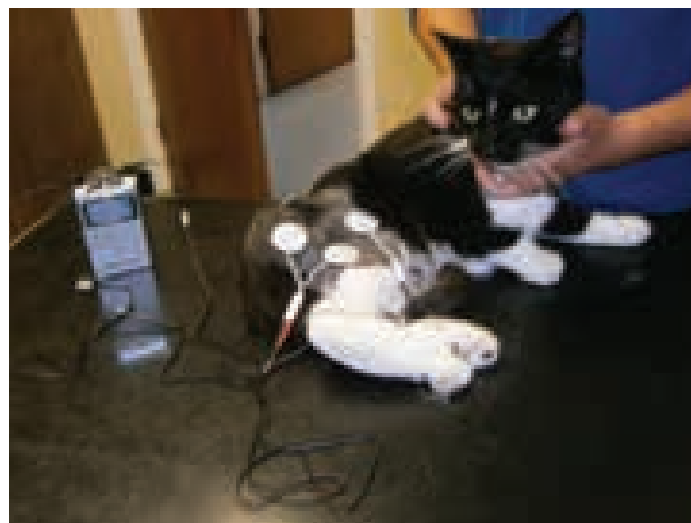
The Gulick II Measuring Tape makes it easy for veterinary professionals to accurately and repeatably measure various body dimensions. It eliminates the guesswork by applying a known amount of tension (4oz) to the measuring tape.

NEW

GULICK II MEASURING TAPE

PYGULICKII	Gulick II Measuring Tape Model 67020	£55.00
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Electro-Muscle Stimulation Unit and Self Adhesive Electrodes.



The E.M.S. Series 3 Unit provides an electrical impulse which causes muscle contraction. This provides a wide range of benefits including increasing muscle strength and the range of movement of joints and can be of particular use for patients with musculoskeletal injuries, peripheral neuropathies and post-operative rehabilitation following orthopaedic surgery. The primary use is to help attenuate muscle atrophy, re-educate muscle function and strengthen muscles.

Not to be confused with the TENS machine.

Features of EMS Series 3 Unit:

- Large clear digital display
- Easy to use 1 touch operation.
- Protective control cover
- Selectable modes: constant, sync and alternate.
- 5 year warranty (unit only)

Battery powered. Replacement self-adhesive electrodes are available.

ELECTRO-MUSCLE STIMULATION UNIT

PY091362466	Physio-Med Electro-Muscle Stimulation Unit 3 Series	£44.50
PY091362763	Electrode Valutrode Fabric 5 x 5cm (Pack of 4)	£5.75
PY091362797	Electrode Valutrode Lite 5 x 5cm (Pack of 4)	£5.75

Westville Therapy Systems™
Pulsed Electromagnetic Therapy Unit & Phototherapy Unit



Westville Therapy Systems are designers of veterinary pulsed electromagnetic therapy units. They are a portable, cost effective solution to animal physiotherapy and injury repair. All Westville products are designed as a result of scientific research and only use pulsed field therapy. All frequencies and treatment guidelines are purely the intellectual property of Dr. D.C. Somerville.

The Biomag 2 Unit has a range of frequencies offering a range of treatment options from soft tissue injuries, fracture repair enhancement and pain relief.

Applicator specifics:

The Triple Concentric Applicator is valuable in canine therapy since it can be placed under the dog (or even under the dog bed) to allow the provision of pain relief.

The Canine Leg Applicator has dual coils and wraps around the limb. It can be used to treat soft tissue injuries and to enhance the repair of long bone fractures. It may also be used for tendon injuries. Available in 2 sizes.

The Canine Jacket is an extremely versatile design. Having 4 coils in pockets, 2 on each side, it allows treatment to be given to hip and shoulder, for instance in arthritic dogs. However, by reversing one coil on each side, it also enables treatment of the fore or rear areas of the spine.

The Westville Imita Units offer both phototherapy treatment (laser) and pulsed magnetic therapy.

The Imita 30 (VR) has 30 high intensity visible red emitters for healing of wounds and scar reduction, but has also proved useful for deeper tendon injuries according to the manufacturer. The unit also has a single pulsed coil with individual switch control. This allows the option of additional PMF treatment to be offered simultaneously.

The Imita 30 (B) has 30 high intensity blue emitters. It is designed specifically for application to infected wounds due to the antibacterial effect claimed by the manufacturer. As with the above applicator, a single field coil is included and can be used simultaneously to the phototherapy if required.

For further information regarding pulsed magnetic field therapy and photo therapy for veterinary use please view Westville Therapy Systems website www.westvilletherapy.co.uk

Regular training courses are offered by Dr D.C. Somerville on both pulsed electro-magnetic therapy and phototherapy treatment. Call for details.

PULSED ELECTROMAGNETIC THERAPY UNIT AND PHOTOTHERAPY UNIT		
PYBMG	Biomag 2 Pulsed Electromagnetic Therapy Unit	£575.00
PYTCP	Triple Concentric Applicator	£125.00
PYCA1S	Canine Leg Applicator Small	£105.00
PYCA1L	Canine Leg Applicator Large	£115.00
PYCJ1	Canine Jacket (measurements for Canine Jacket = Base of neck to the top of tail)	£185.00
PYITAB	Imita Unit 30 (VR)	£265.00
PYITAR	Imita Unit 30 (B)	£265.00

K9 Float Coat



The use of water treadmills and/ or swimming as non weight bearing exercise are becoming increasingly popular in canine rehabilitation. Necessary precautions should include the use of a quality life preserver with the means of rapid removal from the water.

The Float Coat has a durable nylon shell with an ergonomic fit. The coat has high buoyancy and a low profile assistance handle. The handle and coat are strong enough to support and lift the dog from the water. Secured by quick release buckles the Float Coat is supplied in green. Also useful for dogs who love the water but are not as strong a swimmer as they used to be.

K9 FLOAT COAT					
CODE	SIZE	GIRTH	LENGTH	VET PRICE	RRP
02978A	XXS	12"-19"	9"	£62.50	£105.00
02978B	XS	17"-24"	12"	£62.50	£105.00
02978C	S	23"-30"	16"	£62.50	£105.00
02978D	M	27"-32"	21"	£75.00	£115.00
02978F	L	31"-40"	25"	£75.00	£115.00
02978G	XL	35"-48"	35"	£75.00	£115.00

Measurements: Girth = measurement around widest part of ribcage. Length = distance from back of neck to the base of tail.

Web Master Harness

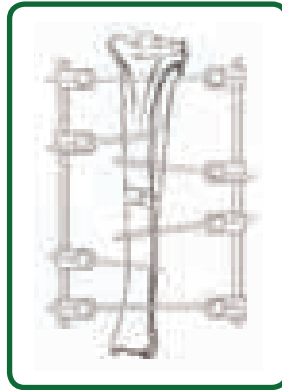


The safe use of hydrotherapy should include either a float coat or, for experienced swimmers, a safety harness. Patients should not be swimming with a simple collar. The Web Master Harness is comfortable and cushioned in all the right areas but strong enough to lift the dog from the water.

Manufactured from heavy duty nylon with quick release buckle. Designed with hydrotherapy in mind but also useful as a mobility assist in any dog unsure of its footing into cars or up steps etc.

Colour is black and red.

WEB MASTER HARNESS					
CODE	SIZE	GIRTH	LENGTH	VET PRICE	RRP
02979A	XXS	12"-19"	10"	£57.50	£90.00
02979B	XS	17"-24"	13"	£57.50	£90.00
02979C	S	18"-30"	16"	£57.50	£90.00
02979D	M	23"-36"	19"	£62.50	£105.00
02979E	L	31"-48"	22"	£62.50	£105.00



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Step By Step Guide **NEW** to External Fixation

For your FREE copy please contact the Vet Tech Team
on 0845 130 9596 or email info@vetinst.com

Code: BREXFIX

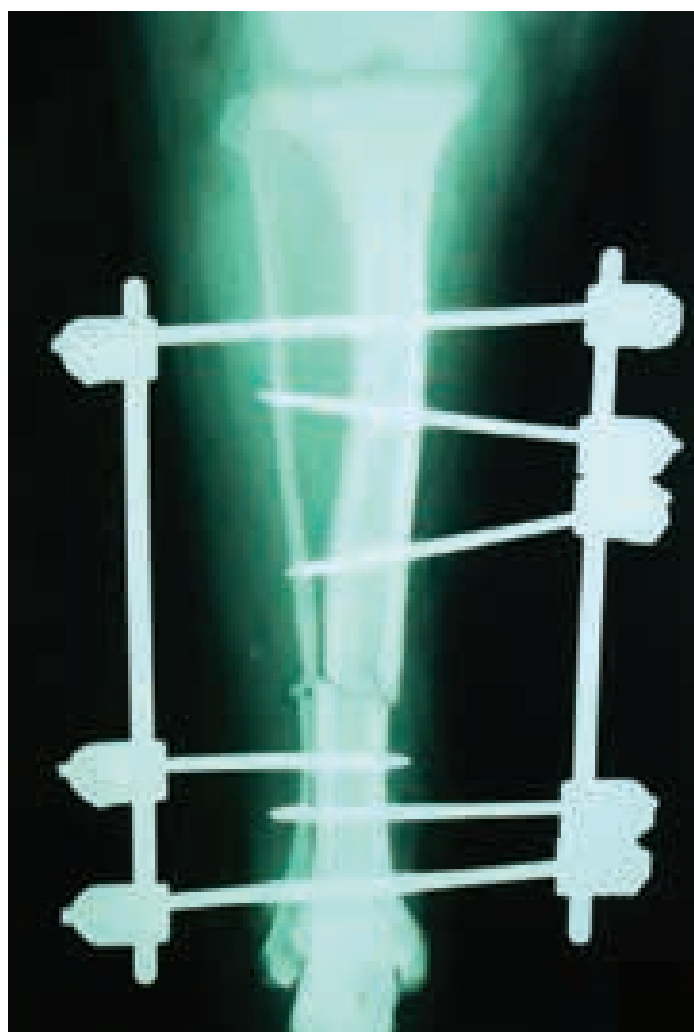


Introduction

External Skeletal Fixation (ESF) is an excellent technique for fracture and osteotomy stabilisation and repair. It can be used for long bone fractures, spinal fractures and luxations, trans-articular immobilisation for joint instability, arthrodesis, angular limb deformity correction, and limb lengthening (distraction osteogenesis).

ESF has a number of advantages compared to internal fixation, and is applicable in many fracture scenarios. Advantages include:

1. Compared to internal fixation, ESF are more straightforward to apply for the inexperienced surgeon.
2. Limb use and joint mobility are maintained.
3. ESFs are well tolerated by most patients.
4. Compared to internal fixation, there is relatively low set-up and implant costs and many components are re-usable i.e. the connecting bars and clamps.
5. ESFs are modular, versatile and adaptable which makes them applicable and bespoke to a diverse range of applications.
6. ESFs are particularly useful in the management of fracture instabilities when there are open wounds, or in the presence of infection.
7. ESFs can be applied using minimally invasive or closed surgical techniques, which preserves the biology of the fracture site that should optimise bone healing.



There are four types of ESF: linear, free-form, circle, and hybrid.

Linear ESFs have three basic components i.e. the pins, clamps and connecting bars. Internally, the pins penetrate the skin and fixate the bone. Externally, the pins are secured to the connecting bar by clamps. The connecting bars give the ESF frame its length and structural rigidity. Single clamps attach the ESF pins to the connecting bars. Double clamps allow two connecting bars to be attached together; this is useful when building a type IB or type III ESF frame, or a transarticular fixator. Note that two spanners are required when using Double clamps.

Linear ESF is readily available and the most widely used system as it is the simplest and easiest type of ESF to learn to use and apply. Numerous different linear ESF systems exist.

For a full explanation of ESF application including how to plan and perform ESF application correctly, please refer to our step-by-step guide for ESFs. In short, rules of linear ESF application include:

1. **Place 4 pins per bone segment;** absolute minimum is 2 pins per bone segment.
2. **Pin diameter should be about 25% bone diameter** at the point of insertion. Smaller pins are weaker resulting in a less stiff frame, but larger pins make a bigger hole in the bone and increase the risk of bone fracture. Particular care needs to be taken in certain bones such as the radius, where the cranio-caudal thickness is much less than the medio-lateral width.
3. **Use threaded pins.** Threaded pins have pull-out resistance 10 times higher than smooth (trochar) pins. Threaded pins can be placed at any angle relative to the long bone but smooth pins should be placed at diverging angles to increase pull-out resistance; an angle of 70 degrees to the long axis of the bone is recommended for smooth pins.
4. **50% bone diameter** is the minimum distance between a pin and the fracture, or a pin and the end of the bone.
5. **Pre-drill the pin tract** with a drill bit 10% smaller than the pin, prior to pin placement .
6. **Use the far-near-near-far principle** i.e. place pins as near, and as far away, from the fracture as possible.
7. **Place the connecting bar 1cm or a finger's width away from the skin** to maximise frame stiffness but allow for soft tissue swelling.

ESF pin choice and application

Positive Threaded Pins

Positive threaded pins are the pin of choice for ESF application as they have excellent resistance to pull-out, and no inherent point of weakness. End threaded pins are used as half pins (type IA and IB ESF frames), and centre threaded pins as full pins (type II frames).

Positive Pins Insertion Data

Pin Code	Shank Size (MM)	Thread Size (MM)	KE+ Clamp	Drill Bit Code	Pre Drill Size
CET/CMT0018	1.6	2.0	S	H090101	1.5
CET/CMT0019	2.0	2.4	S	H090202	1.9
CET0020/CMT0023	2.4	3.2	S/M	H090203	2.3
CET0020A/CMT0023A	2.7	3.5	M	H090112	2.5
CET0020B/CMT0023B	3.0	3.6	M/L	H090104	2.7
CET0021/CMT0024	3.2	4.0	M/L	H090205	3.0
CET/CMT0024A	3.5	4.3	M/L	H090105S H090105L	3.2
CET0022/CMT0025	4	4.8	M/L	H090207	3.8

Positive Threaded Pins - Cortical



End Thread

The fine threads of these pins are proud of the shank eliminating the weak point where the thread ends in other pins. The major benefit of positive pins is that the additional thread diameter creates a larger bone pin interface for a given shaft diameter. This style of pin is useful where a good pull out resistance is required and where it is anticipated that the frames will be left in situ for long periods - 6 weeks plus. Use KE Plus Clamps if available. Place at right angles to the bone.



Mid Thread

The Mid Threaded Pin provides good pull out resistance in frames where the fixation pins are supported on either side of the limb by connecting bars. i.e. Type II frames.

POSITIVE THREADED PINS - END THREAD

CET0014	0.8mm Shank 1.0mm Threads 60mm Long - End Thread	NEW	£8.50
CET0015	1.0mm Shank 1.2mm Threads 65mm Long - End Thread	NEW	£8.50
CET0016	1.2mm Shank 1.5mm Threads 70mm Long - End Thread		£8.50
CET0017	1.4mm Shank 1.65mm Threads 70mm Long - End Thread		£8.50
CET0018	1.6mm Shank 2.0mm Threads 70mm Long - End Thread		£8.50
CET0026	1.8mm Shank 2.2mm Threads 80mm Long - End Thread	NEW	£8.50
CET0019	2.0mm Shank 2.4mm Threads 85mm Long - End Thread		£8.50
CET0020	2.4mm Shank 3.2mm Threads 100mm Long - End Thread		£9.00
CET0020A	2.7mm Shank 3.5mm Threads 110mm Long - End Thread		£9.00
CET0020B	3.0mm Shank 3.6mm Threads 120mm Long - End Thread		£9.25
CET0021	3.2mm Shank 4.0mm Threads 130mm Long - End Thread		£9.25
CET0024A	3.5mm Shank 4.3mm Threads 130mm Long - End Thread		£11.50
CET0022	4.0mm Shank 4.8mm Threads 150mm Long - End Thread		£11.50

POSITIVE THREADED PINS - MID THREAD

CMT0013	0.9mm Shank 1.0mm Threads 85mm Long - Mid Thread	NEW	£10.00
CMT0014	1.1mm Shank 1.3mm Threads 85mm Long - Mid Thread	NEW	£10.00
CMT0015	1.2mm Shank 1.5mm Threads 85mm Long - Mid Thread	NEW	£10.00
CMT0016	1.4mm Shank 1.8mm Threads 85mm Long - Mid Thread	NEW	£10.00
CMT0017	1.6mm Shank 2.0mm Threads 85mm Long - Mid Thread	NEW	£10.00
CMT0018	1.6mm Shank 2.0mm Threads 85mm Long - Mid Thread		£11.00
CMT0018A	1.8mm Shank 2.2mm Threads 90mm Long - Mid Thread	NEW	£11.00
CMT0019	2.0mm Shank 2.4mm Threads 105mm Long - Mid Thread		£11.00
CMT0019A	2.2mm Shank 2.7mm Threads 105mm Long - Mid Thread	NEW	£11.50
CMT0023	2.4mm Shank 3.2mm Threads 105mm Long - Mid Thread		£11.50
CMT0023A	2.7mm Shank 3.5mm Threads 115mm Long - Mid Thread		£11.50
CMT0023B	3.0mm Shank 3.6mm Threads 120mm Long - Mid Thread		£12.50
CMT0024	3.2mm Shank 4.0mm Threads 130mm Long - Mid Thread		£12.50
CMT0024A	3.5mm Shank 4.3mm Threads 140mm Long - Mid Thread		£13.50
CMT0025	4.0mm Shank 4.8mm Threads 150mm Long - Mid Thread		£14.50

CMT0017 has a 16mm thread length.

CMT0018 has a 20mm thread length.

Positive Threaded Pins – Cancellous



The coarser threads of these pins are appropriate for use in metaphyseal bone.

POSITIVE THREADED PINS - CANCELLOUS

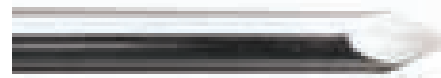
CANET0026	2.4mm Shank 3.5mm Threads 115mm Long Cancellous End Thread	£10.00
CANET0027	3.2mm Shank 4.8mm Threads 150mm Long Cancellous End Thread	£11.00
CANMT0029	2.4mm Shank 3.5mm Threads 150mm Long Cancellous Mid Thread	£11.00
CANMT0030	3.2mm Shank 4.8mm Threads 180mm Long Cancellous Mid Thread	£12.00

Pearson Positive Threaded Pins

PEARSON POSITIVE THREADED PINS

EXL12	6.35mm Pearson Positive End Threaded Pin	£42.50
EXL13	6.35mm Pearson Positive Mid Threaded Pin	£42.50

Trochar Pins



The smooth shanks of trochar pins provide minimal pull out resistance therefore there is little advantage to their use. When used, trochar pins should be placed at diverging angles to maximise pull-out resistance.

TROCHAR PINS

001556	Trochar Pin 2mm	£4.75
001557	Trochar Pin 3mm	£4.75
001558	Trochar Pin 4mm	£4.75
EXL10	1/4" Trochar Pin	£13.00
EXL11	5/16" Trochar Pin	£15.00

Cortical Negative Threaded Pins (Ellis type)



The short fine negative thread engages the trans (far)cortex and the smooth shank engages the cis (near) cortex. The thread/shank junction (the weakest part of the pin) is positioned in the medullary cavity and protected from potential failure. Ellis type pins have better pull out resistance over Trochar pins and the angle of placement is not as critical.

CORTICAL NEGATIVE THREADED PINS (ELLIS TYPE)

001528	Ellis Pin 1.1mm	£5.75
001529	Ellis Pin 1.6mm	£5.75
001533	Ellis Pin 1.8mm	£5.75
001550	Ellis Pin 2mm	£5.75
001530	Ellis Pin 2.4mm - (3/32")	£5.75
001550A	Ellis Pin 2.7mm - (7/64")	£5.75
001551	Ellis Pin 3mm	£5.75
001531	Ellis Pin 3.2mm - (1/8")	£5.75
001551A	Ellis Pin 3.6mm - (9/64")	£5.75
001552	Ellis Pin 4mm	£5.75

Bicortical Negative Threaded Pins



Negative Bicortical Pins have had a bad reputation for early failure at the thread pin junction. Where selection of pin and frame are appropriate failure of negative threaded pins is rare.

The important criterion is thread diameter not shaft diameter. For any given thread diameter both positive and negative threaded pins are equally strong. Virtually all human pins are negative threaded!

BICORTICAL FINE NEGATIVE THREADED PINS					
CODE	Shaft Diameter	Thread Diameter	Thread Length	Overall Length	Price
BCNET08	0.8mm	0.8mm	8mm	70mm	£6.75
BCNET10	1.0mm	1.0mm	10mm	70mm	£6.75
BCNET11	1.1mm	1.1mm	12mm	70mm	£6.75
BCNET13	1.3mm	1.3mm	12mm	70mm	£6.75
BCNET15	1.5mm	1.5mm	12mm	70mm	£6.75
BCNET16	1.6mm	1.6mm	20mm	70mm	£6.75
BCNET18	1.8mm	1.8mm	24mm	85mm	£7.50
BCNET20	2.0mm	2.0mm	24mm	85mm	£7.50
BCNET24	2.4mm	2.4mm	25mm	100mm	£7.50
BCNET27	2.7mm	2.7mm	30mm	110mm	£8.00
BCNET30	3.0mm	3.0mm	35mm	130mm	£8.00
BCNET35	3.5mm	3.5mm	40mm	130mm	£8.00
BCNET40	4.0mm	4.0mm	45mm	150mm	£8.00
BCNET50	5.0mm	5.0mm	50mm	150mm	£10.00

Coarse Negative Threaded Pins



The thread on this pin is similar to a self-tapping cortical screw. The drilling tip is, again, the long Trochar. In young bone, use without pre-drilling; in older, hardened bone, use smaller pilot hole.

The much improved pull out resistance means that these pins can be placed parallel within the same bone fragment; useful when fragment is smaller or when aligning proximal and distal fragments. More prone to pin fracture than Ellis pins. Always use four pins on either side of the fracture if possible.

COARSE NEGATIVE THREADED PINS		
001567	Coarse Negative Threaded Pin 2mm	£7.50
001568	Coarse Negative Threaded Pin 3mm	£8.00
001569	Coarse Negative Threaded Pin 4mm	£8.50

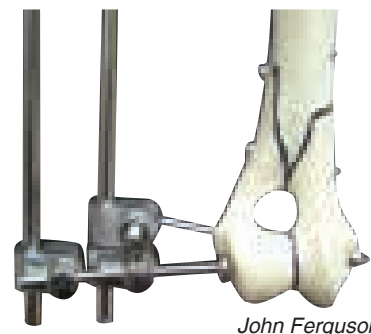
Negative Pins (Ellis Type and Bicortical -VE Threaded) Insertion Data

Pin Code Ellis Bicort	Shank Size (mm)	KE+ Clamp	Pre Drill Size	Drill bit code
001528 BCNET11	1.1	S	-	-
001529 BCNET16	1.6	S	1.1	H090100
001550 BCNET20	2	S	1.5	H090101
001530	2.4	S/M	1.8	H090208
BCNET24 001550A	2.7	S/M	2.0	H090102
001551 BCNET30	3	S/M/L	2.3	H090203
001531	3.2	M/L	2.4	H090209
01551A BCNET35	3.6	M/L	2.7	H090104
001552 BCNET40	4	M/L	3.0	H090205
BCNET50	5	L	3.5	H090106S H090106L

Threaded ESF Pin with Olive



Used almost exclusively in the management of complex humeral fractures involving a variant on the 'Y' or 'T' fracture. The olive, positioned at the end of the threaded portion of the pin, acts as the screw head. Bone fragments may be compressed and incorporated into the external fixator frame. The bone fragment involved is usually the lateral condyle.



John Ferguson

THREADED ESF PIN WITH OLIVE		
001534	Threaded ESF Pin with Olive Small 2.4mm Shank 25mm x 3.2mm Thread	£22.50
001535	Threaded ESF Pin with Olive Medium 3.2mm Shank 40mm x 4.0mm Thread	£22.50
001537	Threaded ESF Pin with Olive Large 4mm Shank 55mm x 4.8mm Thread	£22.50
001536	Threaded ESF Pin with Olive Small 2.4mm Shank 33mm x 3.2mm Thread	£22.50

Pre-drilling ESF Pin Tracts

Pre-drilling a pin tract hole in the bone into which the ESF pin is subsequently inserted is very important as the ESF pins do not have drilling ends. Otherwise insertion of an ESF pin directly into the bone may cause impaction, micro-fracturing of the bone and excessive heat production with bone necrosis, all of which can lead to pin loosening. A drill bit that is about 10% smaller than the shank (core) diameter of the pin, or at least 0.1mm smaller should be used. A slow speed (electric) drill at about 150rpm is advisable, using flush to cool the pin and minimise heat generated in the bone that could cause bone necrosis and pin loosening. An appropriate drill guide is used to protect the soft tissues and minimise drill wobble and skidding. Once the hole is drilled, a K-wire can be used to maintain the pin tract (before the drill guide is removed) so it can be easily re-identified once the ESF pin is ready to be inserted.

PRE-DRILLS		
H090202	1.9mm Pre-drill for 2.0mm Shank Positive Pin	£21.50
H090203	2.3mm Pre-drill for 2.4mm Shank Positive Pin.	£21.50
H090205	3.0mm Pre-drill for 3.2mm Shank Positive Pin	£24.00
H090207	3.8mm Pre-drill for 4.0mm Shank Positive Pin	£26.00
H090101	1.5mm Pre-drill for 2.0mm Shank Negative Pin	£19.50
H090102	2.0mm Pre-drill for 2.4mm Shank Negative Pin	£21.00
H090104	2.7mm Pre-drill for 3.2mm Shank Negative Pin	£21.50
H090106L	3.5mm Pre-drill for 4.0mm Shank Negative Pin	£26.00

Self-Centring Drill-Guides

Whether it be for external fixation or screw application, it is desirable for implants to be positioned fairly centrally into bones. Sized for the most popular drill-bits, these devices will help achieve accurate positioning of pilot holes.



PRE-DRILLS		
CDG11	Self-centring drill-guide for Ø1.1mm drill, 10mm spread	£95.00
CDG15	Self-centring drill-guide for Ø1.5mm drill, 12mm spread	£95.00
CDG20	Self-centring drill-guide for Ø2.0mm drill, 14mm spread	£95.00
CDG25	Self-centring drill-guide for Ø2.5mm drill, 18mm spread	£95.00
CDG32	Self-centring drill-guide for Ø3.2mm drill, 23mm spread	£95.00
CDGSET	Set of 5 self-centring drill-guides	£375.00

STANDARD FIXATORS (SF)

SF Clamps



The standard fixator is the most adaptable standard linear ESF fixation system and is the recommended system to use. The ESF clamp design is a 2 part, 2 bolt mechanism body which can be dismantled. This means that ESF clamps can easily be added or removed from an ESF frame at any time, and by using two rather than one bolt to secure the clamp, better stability of the clamp-connecting bar and clamp-ESF pin interface is achieved.

The system is available in three different sizes, Mini, Small, and Large, as shown in the table below.

Clamp	Pin Shaft Dia	Bar Dia	Spanner
Mini	0.9 - 2.5mm	3.2mm	7mm
Small	2.0 - 3.2mm	6.3mm	8mm
Large	3.2 - 4.8mm	9.5mm	10mm

SF Bars



Connecting bars for the mini system are 3.2mm stainless steel. The Small system has Carbon Fibre and Titanium 6.3mm connecting bars, and the Large system has 9.5mm carbon fibre and aluminium connecting bars. Carbon Fibre is radiolucent meaning that the connecting bar does not obscure the image when a radiograph is taken. Considering bending strength, Titanium is stiffer than Carbon Fibre which in turn is stiffer than Aluminium.

As for all linear ESF systems, the size of system chosen is chosen by measuring the size of the bone to be fixed. The craniocaudal and mediolateral dimensions of the bone are measured at the point of intended ESF pin application, and an ESF pin that has a shank diameter approximately 25% the narrowest dimension of the bone is chosen. When the size of ESF pins has been determined, the size of ESF clamp that will accommodate such ESF pins is determined, and therefore the size of connecting bar that is compatible with the clamp. As a generalisation, the mini system is suitable for cats and small dogs, the small for medium sized dogs, and the large for larger dogs.

SF Mini Range

STANDARD FIXATORS (SF) CLAMPS - MINI		
001740	Mini Single Clamp	£15.50
001743	Mini Double Clamp	£23.00

STANDARD FIXATORS (SF) BARS - MINI		
001595	Mini 1/8" (3.2mm) Bar x 30mm Stainless Steel	£6.50
001559	Mini 1/8" (3.2mm) Bar x 50mm Stainless Steel	£7.00
001590	Mini 1/8" (3.2mm) Bar x 75mm Stainless Steel	£7.25
001596	Mini 1/8" (3.2mm) Bar x 100mm Stainless Steel	£7.50
001573	Mini 1/8" (3.2mm) Bar x 125mm Stainless Steel	£8.00
001560	Mini 1/8" (3.2mm) Bar x 150mm Stainless Steel	£8.25
001574	Mini 1/8" (3.2mm) Bar x 175mm Stainless Steel	£8.75
001575	Mini 1/8" (3.2mm) Bar x 200mm Stainless Steel	£9.25

INSERT DRILL SLEEVES - MINI		
SL2015	Insert Drill Sleeve 2.0mm o/d 1.5mm i/d	£44.50
SL2720	Insert Drill Sleeve 2.7mm o/d 2.0mm i/d	£44.50

STANDARD FIXATORS (SF) SPANNERS & WRENCHES - MINI		
001566	Mini Spanner 7mm	£11.00
001566T	Mini T Bar Wrench 7mm	£18.50

SF Small Range

STANDARD FIXATORS (SF) CLAMPS - SMALL		
001741	Small Single Clamp	£16.00
001744	Small Double Clamp	£25.00

STANDARD FIXATORS (SF) BARS - SMALL		
001862C	Small 1/4" (6.3mm) Bar x 100mm Carbon	£9.00
001863C	Small 1/4" (6.3mm) Bar x 150mm Carbon	£12.00
001864C	Small 1/4" (6.3mm) Bar x 200mm Carbon	£14.50
001865C	Small 1/4" (6.3mm) Bar x 250mm Carbon	£18.00
001866C	Small 1/4" (6.3mm) Bar x 300mm Carbon	£22.00
001862TI	Small 1/4" (6.3mm) Bar x 100mm Ti	£9.50
001863TI	Small 1/4" (6.3mm) Bar x 150mm Ti	£12.50
001864TI	Small 1/4" (6.3mm) Bar x 200mm Ti	£15.50
001865TI	Small 1/4" (6.3mm) Bar x 250mm Ti	£18.00

INSERT DRILL SLEEVES - SMALL		
SL3525	Insert Drill Sleeve 3.0mm o/d 2.5mm i/d	£44.50
SL4532	Insert Drill Sleeve 4.5mm o/d 3.2mm i/d	£44.50

STANDARD FIXATORS (SF) SPANNERS & WRENCHES - SMALL		
001565	Medium Spanner 8mm	£11.00
86685	Medium Angled Wrench 8mm	£15.00
001565T	Medium T Bar Wrench 8mm	£21.00

SF Large Range

STANDARD FIXATORS (SF) CLAMPS - LARGE		
001742	Large Single Clamp	£17.50
001745	Large Double Clamp	£27.00

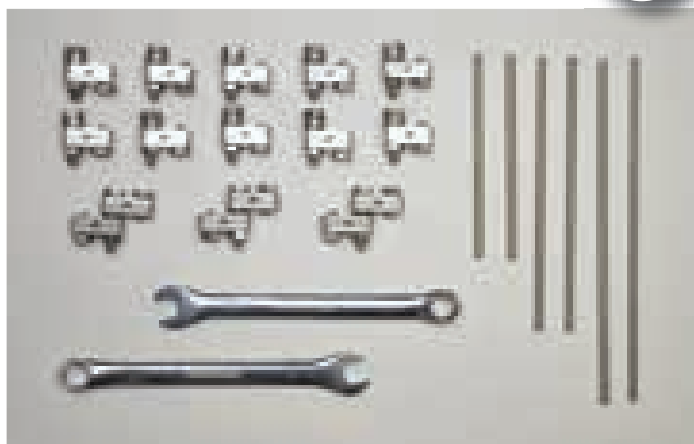
STANDARD FIXATORS (SF) BARS - LARGE		
001870C	Large 3/8" (9.5mm) Bar x 100mm Carbon	£9.50
001871C	Large 3/8" (9.5mm) Bar x 150mm Carbon	£12.00
001872C	Large 3/8" (9.5mm) Bar x 200mm Carbon	£14.50
001873C	Large 3/8" (9.5mm) Bar x 250mm Carbon	£17.00
001874C	Large 3/8" (9.5mm) Bar x 300mm Carbon	£20.00
001870TI	Large 3/8" (9.5mm) Bar x 100mm Aluminium	£9.50
001871TI	Large 3/8" (9.5mm) Bar x 150mm Aluminium	£10.50
001872TI	Large 3/8" (9.5mm) Bar x 200mm Aluminium	£11.50
001873TI	Large 3/8" (9.5mm) Bar x 250mm Aluminium	£12.50
001874TI	Large 3/8" (9.5mm) Bar x 300mm Aluminium	£13.50

INSERT DRILL SLEEVES - LARGE		
SL4532	Insert Drill Sleeve 4.5mm o/d 3.2mm i/d	£44.50
SL5540	Insert Drill Sleeve 5.5mm o/d 4.0mm i/d	£44.50

STANDARD FIXATORS (SF) SPANNERS & WRENCHES - LARGE		
001564	Large Spanner 10mm	£11.00
86687	Large Angled Wrench 10mm	£15.00
001564T	Large T Bar Wrench 10mm	£23.00

SF Kits

Mini SF Starter Kit (stainless steel bars)



Kit contains
 10 x Mini Single Clamps
 3 x Mini Double Clamps
 2 x 7mm Spanner
 6 x Ø3.2mm Stainless Steel Connecting Bars; 2 each of length 75mm, 100mm and 125mm.

MINI SF STARTER KIT (STAINLESS STEEL BARS)		
0017601SS	SF Mini Starter Kit with Stainless Bars	£275.00

Small SF Starter Kit (Carbon Bars or Titanium Bars)



Kit contains
 10 x Small Single Clamps
 3 x Small Double Clamps
 6 x Ø6.3mm Carbon connecting bars; 2 each of length 150mm, 200mm, 250mm.
 2 x 8mm spanner
 Titanium kit contains 6 Titanium Connecting Bars of the same lengths.

SMALL SF STARTER KIT (CARBON BARS OR TITANIUM BARS)		
0017602C	SF Small Starter Kit with Carbon Bars	£325.00
0017603TI	SF Small Starter Kit with Titanium Bars	£325.00

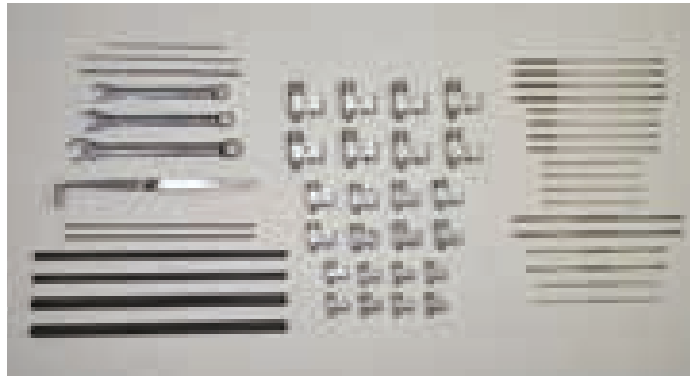
Large SF Starter Kit (Carbon or Aluminium Bars)



Kit contains
 10 x Large Single Clamps
 3 x Large Double Clamps
 8 x Ø9.5mm carbon connecting bars; 2 each of length 150mm, 200mm, 250mm, 300mm.
 2 x 10mm spanner
 Aluminium kit contains 6 Aluminium connecting bars of the same lengths.

LARGE SF STARTER KIT (STAINLESS STEEL BARS)		
0017604C	SF Large Starter Kit with Carbon Bars	£375.00
0017605AL	SF Large Starter Kit with Aluminium Bars	£350.00

SF Full Kit (Includes Pins and Drill Bits- No Double Clamps)



With Stainless Steel / Titanium / Aluminium Bars
 8 x Mini Single Clamps
 8 x Small Single Clamps
 8 x Large Single Clamps
 4 x 2.0/2.4 End Threaded Pins 85mm long
 2 x 2.0/2.4 Mid Threaded Pins 105mm long
 4 x 2.7/3.5 End Threaded Pins 110mm long
 2 x 2.7/3.5 Mid Threaded Pins 115mm long
 4 x 3.5/4.3 End Threaded Pins 130mm long
 2 x 3.5/4.3 Mid Threaded Pins 140mm long
 2 x Mini 3.2mm Bar 150mm Long Stainless Steel
 2 x Small 6.3mm Bar 200mm Long Titanium
 2 x Large 9.5mm Bar 200mm Long Aluminium
 1 x 1.9mm drill bit
 1 x 2.5mm drill bit
 1 x 3.2mm drill bit
 1 x 7mm spanner
 1 x 8mm spanner
 1 x 10mm spanner
 1 x Tissue Protector
 1 x Stainless Steel box
 Also available with Stainless Steel/Carbon Bars
 Same as above except:
 2 x Mini 3.2mm Bar 150mm Long Stainless Steel
 2 x Small 6.3mm Bar 200mm Long Carbon
 2 x Large 9.5mm Bar 200mm Long Carbon
 Kit discounted by over 15% compared to component parts.

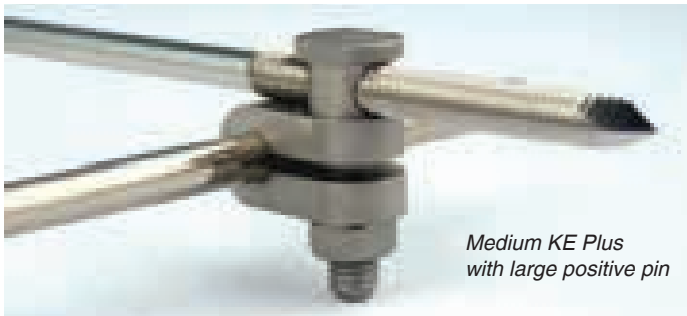
SF FULL KIT (INCLUDES PINS AND DRILL BITS- NO DOUBLE CLAMPS)		
0017690SALT	SF Full Kit with Steel/Titanium/Aluminium Bars	£825.00
0017695SC	SF Full Kit with Steel/Carbon Bars	£825.00

KE Plus

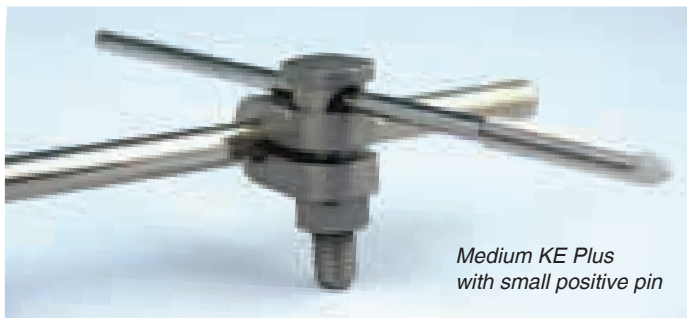
The KE plus linear ESF system is an evolution of the original KE system. Although it is a versatile system that has functioned well over time, it has no advantage over the SF system. The KE plus clamp is designed to allow a wider range of positive threaded pins to be used than the original KE clamp, but clamp stability and security is not as good as the SF system. KE Plus is compatible with existing KE systems and is a useful addition to expand the range of the KE system. KE Plus clamps have a matt finish compared with the polished standard KE clamps. The KE Plus system is available in small, medium and large sizes, as indicated below.

One important limitation of the KE plus system is that once the fixator has been applied to the patient, additional clamps cannot be added or removed from the connecting bar without removing the entire fixator, disassembling, and starting from the beginning. This is because the clamps cannot pass those already present on the connecting bar. This can be overcome by using the split clamp but this clamp is weaker and less secure than the standard KE plus clamp.

Single KE Plus Clamp



*Medium KE Plus
with large positive pin*



*Medium KE Plus
with small positive pin*

Double Clamps



Used to attach a connecting bar to another connecting bar. If possible, the fixation pins in the proximal fragment should be linked to the pins in the distal fragment via single clamps and a single connecting bar. This is not always possible because of the shape of the bones or the angle of placement of the pins.

It may be necessary to connect the pins in the proximal fragment to a short connecting bar and the pins in the distal segment to another short connecting bar. Finally the two short connecting bars are joined by a long connecting bar using double clamps. The frame is not as rigid as the single connecting bar frame. Double clamps may be used to connect long bars proximally and distally, as in type III frames.

Please note that two spanners are required when using Double clamps.

Connecting Bars

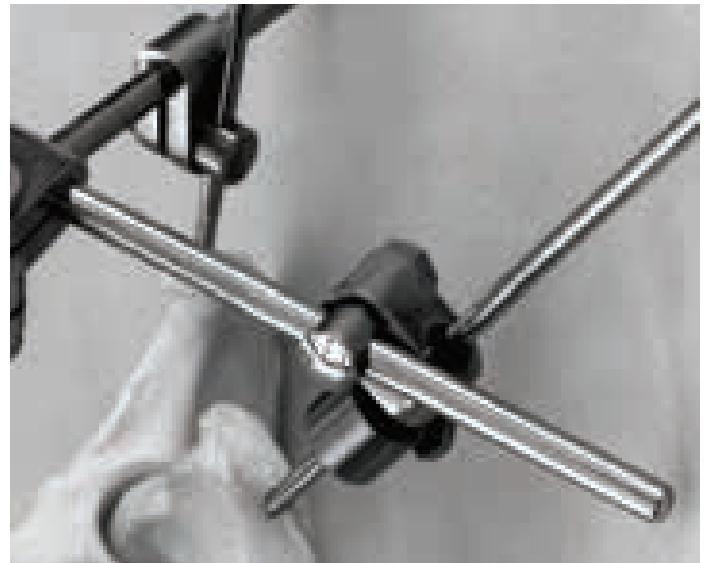
Connecting Bars are available in 5/16" for large clamps, 3/16" for medium clamps and 1/8" for small clamps. The thicker the bar, the stronger the frame. The shorter the bar between bone fragments, the stronger the frame. Rigidity is important early in fracture healing. When significant callus is present, it is often helpful to introduce some slight axial motion by either removing some pins or moving the clamps further away from the bone. This is known as staging down or dynamising. Bars are available in a variety of lengths.

Split Clamp



Split Clamp allow the addition of an extra pin to the assembled KE plus frame without the need to dismantle the entire frame. This clamp is not as secure as the KE plus single clamp.

ESF Hinge



Designed specifically to maintain reduction of luxated hips by means of a simple frame on the pelvis, the ESF hinge is also useful in transarticular frames where continued mobility is desirable, e.g. hock and elbow.

Attaches to standard KE equipment. Relatively weak in abduction. Supplied with instructions for use.

Extra Large Clamps and Bars



Standard KE clamps made very much larger. Bars are 7/16" 11mm in diameter.

Clamps will accept up to 5/16" 8mm pins. Suitable for foals and calves.

KE Plus Small Range

CLAMPS - SMALL		
001527	Small Single KE Plus Clamp	£17.00
001546	Small Single KE Plus Clamp - Pack of 6	£92.50
001594	Small Double Clamp	£25.00
001547S	Small Split Clamp Single	£22.50

CONNECTING BARS - SMALL		
001595	Small Connecting Bar 1/8" (3.2mm) x 30mm	£6.50
001559	Small Connecting Bar 1/8" (3.2mm) x 50mm	£7.00
001590	Small Connecting Bar 1/8" (3.2mm) x 75mm	£7.25
001596	Small Connecting Bar 1/8" (3.2mm) x 100mm	£7.50
001573	Small Connecting Bar 1/8" (3.2mm) x 125mm	£8.00
001560	Small Connecting Bar 1/8" (3.2mm) x 150mm	£8.25
001574	Small Connecting Bar 1/8" (3.2mm) x 175mm	£8.75
001575	Small Connecting Bar 1/8" (3.2mm) x 200mm	£9.25

ESF HINGE - SMALL			
001597	ESF Hinge Joint	Small	£50.00

SPANNERS & WRENCHES - SMALL		
001566	Small Spanner 7mm	£11.00
001566T	Small T Bar Wrench 7mm	£18.50

KE Plus Medium Range

CLAMPS - MEDIUM		
001526	Medium Single KE Plus Clamp	£17.50
001545	Medium Single KE Plus Clamp - Pack of 6	£95.00
001592	Medium Double Clamp	£27.00
001547M	Medium Split Clamp Single	£23.00

CONNECTING BARS - MEDIUM		
001588	Medium Connecting Bar 3/16" (4.8mm) x 75mm	£8.25
001576	Medium Connecting Bar 3/16" (4.8mm) x 100mm	£8.50
001587	Medium Connecting Bar 3/16" (4.8mm) x 150mm	£9.00
001589	Medium Connecting Bar 3/16" (4.8mm) x 200mm	£9.25
001589XL	Medium Connecting Bar 3/16" (4.8mm) x 250mm	£10.25
001589XXL	Medium Connecting Bar 3/16" (4.8mm) x 300mm	£11.25

ESF HINGE - MEDIUM			
001598	ESF Hinge Joint	Medium	£52.50

SPANNERS & WRENCHES - MEDIUM		
001565	Medium Spanner 8mm	£11.00
86685	Medium Angled Wrench 8mm	£15.00
001565T	Medium T Bar Wrench 8mm	£21.00

KE Plus Large Range

CLAMPS - LARGE		
001525	Large Single KE Plus Clamp	£18.00
001544	Large Single KE Plus Clamp - Pack of 6	£97.50
001584	Large Double Clamp	£29.00
001547L	Large Split Clamp Single	£23.50

CONNECTING BARS - LARGE		
001586	Large Connecting Bar 5/16" (8mm) x 100mm	£13.00
001563	Large Connecting Bar 5/16" (8mm) x 150mm	£15.00
001585	Large Connecting Bar 5/16" (8mm) x 240mm	£18.50
001549	Large Connecting Bar 5/16" (8mm) x 340mm	£24.50

ESF HINGE - LARGE			
001599	ESF Hinge Joint	Large	£55.00

SPANNERS & WRENCHES - LARGE		
001564	Large Spanner 10mm	£11.00
86687	Large Angled Wrench 10mm	£15.00
001564T	Large T Bar Wrench 10mm	£23.00

Extra Large Range

CLAMPS - EXTRA LARGE		
EXL01	Extra Large Single Clamp	£44.50
EXL02	Extra Large Double Clamp	£84.50

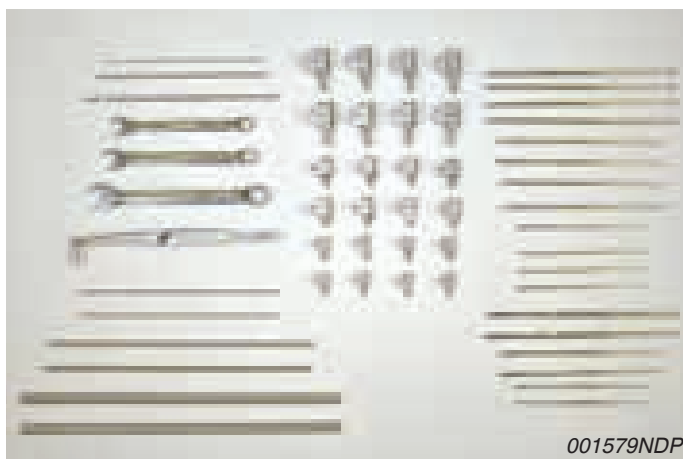
CONNECTING BARS - EXTRA LARGE		
EXL09	Extra Large Connecting Bar 100mm	£27.50
EXL05	Extra Large Connecting Bar 150mm	£27.50
EXL06	Extra Large Connecting Bar 200mm	£33.50
EXL07	Extra Large Connecting Bar 300mm	£38.50
EXL08	Extra Large Connecting Bar 400mm	£47.50

SPANNER - EXTRA LARGE		
001562	Extra Large Spanner 13mm	£11.00

Boxed KE+ ESF Kits (Spanners included)



The full kit comprises one of each "standard kit" (see overleaf) plus a compartmentalised stainless steel box in which to sterilise it. However typically, double clamps weaken frames and are to be avoided if possible. 001579ND is based on single clamps only. For ideal construction use at least 3 pins in each fragment. Kits save 10% on component costs.



001579NDP

NB: pins are only supplied with Kit 001579NDP which includes positive pins of all appropriate sizes.

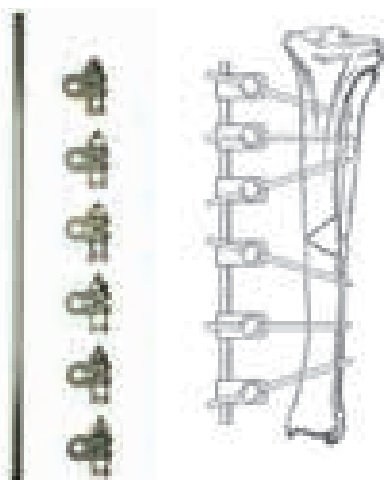
BOXED KE+ ESF KITS (SPANNERS INCLUDED)		
001579	Boxed Full KE+ Kit (including doubles) in Stainless Box. S/ M/ L Std Kits + Spanners.	£745.00
001579ND	Boxed Full KE+ Kit No Doubles. As above but with no double clamps	£585.00
001579NDP	Full KE+ Kit in Stainless Steel Box. Includes for each of the 3 sizes: 8 Single Clamps, 2 Long Bars, Spanner, 2 Mid Thread Positive Pins, 4 End Thread Positive Pins, the correct Predrill and an ESF Tissue Protector	£825.00

KE Plus Kits



When purchased as kits there is typically a 10% reduction in total cost. All single clamps will be KE+.

KE+ Type One Kit (Ia)



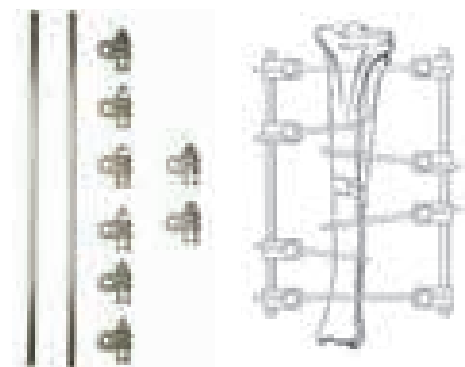
Contains a long bar and 4 or 6 KE Plus single clamps. Pins and spanners are not included. This is the minimum frame you should try to use. Two pins only in the distal fragment is more acceptable than 2 pins proximally. Pin complications are usually fewer in the distal fragment.

TYPE ONE KE+ KIT

001570	Unilateral KE+ Kit Large 4 Clamps 1 Bar 240mm	£77.50
001571	Unilateral KE+ Kit Medium 4 Clamps 1 Bar 150mm	£67.50
001572	Unilateral KE+ Kit Small 4 Clamps 1 Bar 100mm	£65.00
001570P	Unilateral KE+ Kit Large 6 Clamps 1 Bar 240mm	£112.50
001571P	Unilateral KE+ Kit Medium 6 Clamps 1 Bar 200mm	£97.50
001572P	Unilateral KE+ Kit Small 6 Clamps 1 Bar 150mm	£95.00

NB: No pins or spanners are supplied with these kits.

KE+ Type Two Kit - Modified (IIb)



Contains two long bars and 6 or 8 KE Plus clamps. Pins and spanners are not included. Use to create a bilateral frame using a long (preferably mid-threaded) pin proximally and distally.

TYPE TWO KE+ KIT (MODIFIED)

001520	Bilateral KE+ Kit Large 6 Clamps 2 Bars, 240mm	£130.00
001521	Bilateral KE+ Kit Medium 6 Clamps 2 Bars, 200mm	£105.00
001522	Bilateral KE+ Kit Small 6 Clamps 2 Bars, 100mm	£100.00
001520P	Bilateral KE+ Kit Large 8 Clamps 2 Bars, 240mm	£160.00
001521P	Bilateral KE+ Kit Medium 8 Clamps 2 Bars, 200mm	£140.00
001522P	Bilateral KE+ Kit Small 8 Clamps 2 Bars, 100mm	£135.00

NB: No pins or spanners are supplied with these kits.

KE+ Standard Kit



Consists of 8 Single KE Plus Clamps, 2 Double Clamps, 2 Long Bars, 2 Short Bars. Some fractures and some patients require more elaborate frames using either more clamps or more connecting bars. The Standard Kit will enable you to deal with most situations.

STANDARD KE+ KIT

001580	Large Standard KE+ Kit 4mm. 8 Single + 2 Double Clamps & Bars 2 Long + 2 Short	£240.00
001581	Medium Standard KE+ Kit 3mm. 8 Single + 2 Double Clamps & Bars 2 long + 2 Short	£205.00
001582	Small Standard KE+ Kit 2mm. 8 Single + 2 Double Clamps & Bars 2 Long + 2 Short	£195.00
001578	Stainless Box with Partitions	£150.00

NB: No pins or spanners are supplied with these kits.

Spanner Size and Clamp Type Reference Chart

Clamp Type	Clamp Size	Clamp Code	Spanner Size	Spanner Code
KE+	Small	001527	7mm	001566
	Medium	001526	8mm	001565
	Large	001525	10mm	001564
KE+ Double Clamps	Small	001594	7mm	001566
	Medium	001592	8mm	001565
	Large	001584	10mm	001564
KE+ Extra Large Clamps	Single	EXL01	13mm	001562
	Double	EXL02	13mm	001562
KE+ Split Clamps	Small	001547S	7mm	001566
	Medium	001547M	8mm	001565
	Large	001547L	10mm	001564
KE+ ESF Hinge Joints	Small	001597	7mm	001566
	Medium	001598	8mm	001565
	Large	001599	10mm	001564
SF Clamps Single	Mini	001740	7mm	001566
	Small	001741	8mm	001565
	Large	001742	10mm	001564
SF Clamps Double	Mini	001743	7mm	001566
	Small	001744	8mm	001565
	Large	001745	10mm	001564

Linear Distractors

Uniplanar Dynamic Distractor

Uniplanar external fixator distraction devices are most frequently used for:

- Restoration of lost bone length from trauma or growth plate anomalies.
- Restoration of joint congruity (most commonly the elbow).
- Incremental correction of uncomplicated angular limb deformities

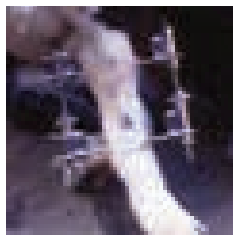
Application of linear frames is more straight-forward than for ring fixators, but application is restricted to a single plane and larger pin diameters are normally required to create a rigid enough construct.

Frames will typically be constructed with one or more full pins towards the ends of the bone, with further pins in the mid-section. Straight bones may allow these additional pins to also be through pins, but in bones with significant bowing (such as the radius on many patients), half pins may be necessary.

We offer two linear distraction systems. KE Plus and Vumex.

KE Plus Linear Distractors

These use the nuts and bolts of the familiar KE Plus design coupled to sliders running freely on threaded bar connecting rods. The addition of locking nuts to the threaded bar holds either the proximal or distal sliders in position. Distraction is created by turning a knurled adjuster to force proximal and distal sliders apart. A typical assembly is shown below.



Sliding Single Clamps



Comprising a slider holding a single KE Plus Bolt with associated nut. These offer some flexibility over pin angulation, but at the expense of construct rigidity compared with sliding double clamps

Sliding Double Clamps



Comprising a slider holding two KE Plus Bolts with associated nuts. These offer less flexibility over pin angulation and create a more rigid construct than sliding single clamps.

Knurled Adjusters



Small – one full rotation = 0.75mm movement
 Medium – one full rotation = 1.0mm movement
 Large – one full rotation – 1.25mm movement

It is advised that these are used in combination with lock-nuts to prevent loosening.

Wire Insert Guide



Used for the accurate placement of parallel pins across a frame.

WIRE INSERT GUIDE		
0019722	Wire Insert Guide for M4 Rings and Wires	NEW £49.50
001819	Wire Insert Guide for M6 Rings and Wires	£49.50

Small M4 0.75mm per rotation - use pins up to 3/32"/2.4mm diameter

UNIPLANAR DYNAMIC DISTRACTOR - SMALL		
001910	Sliding Single Clamp 3/32" Pins	£29.50
001911	Sliding Double Clamp 3/32" Pins	£49.00
001951	Knurled Adjuster - Small	£15.50
001960	Locking Nut - Small	£4.50
001920	Threaded Rod - Small 50mm Pitch 0.75mm	£13.50
001921	Threaded Rod - Small 75mm Pitch 0.75mm	£17.50
001922	Threaded Rod - Small 100mm Pitch 0.75mm	£19.50
001923	Threaded Rod - Small 150mm Pitch 0.75mm	£21.50
0019722	Wire Insert Guide - M4	£49.50
001566	Small Spanner	£11.00
001900	Radius Assembly - Small 3/32" Does not include pins	£265.00

Medium M6 1.0mm per rotation - use pins up to 3/16"/4.8mm diameter

UNIPLANAR DYNAMIC DISTRACTOR - MEDIUM		
001912	Sliding Single Clamp 1/8" Pins	£32.50
001913	Sliding Double Clamp 1/8" Pins	£60.00
001952	Knurled Adjuster - Medium	£16.50
001961	Locking Nut - Medium	£5.00
001930	Threaded Rod - Medium 75mm Pitch 1.0mm	£18.50
001931	Threaded Rod - Medium 150mm Pitch 1.0mm	£22.50
001932	Threaded Rod - Medium 200mm Pitch 1.0mm	£26.50
001819	Wire Insert Guide - M6	£49.50
001565	Medium Spanner	£11.00
001901	Radius Assembly - Medium 1/8" Does not include pins	£295.00

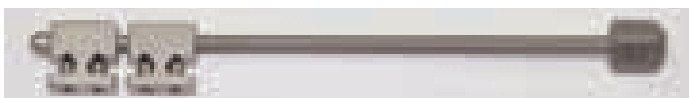
Large M8 1.25mm per rotation - use pins up to 5/32"/4.0mm with singles or 1/4"/6.3mm with doubles

UNIPLANAR DYNAMIC DISTRACTOR - LARGE		
001914	Sliding Single Clamp 5/32" Pins	£33.50
001915	Sliding Double Clamp 5/32" Pins	£63.50
001953	Knurled Adjuster - Large	£17.50
001962	Locking Nut - Large	£5.50
001940	Threaded Rod - Large 100mm Pitch 1.25mm	£20.50
001941	Threaded Rod - Large 200mm Pitch 1.25mm	£27.50
001564	Large Spanner	£11.00
001902	Radius Assembly - Large 5/32" Does not include pins	£335.00

Vumex Linear Distraction Units

Lightweight, self-contained and nicely engineered devices effective in small fragment distraction. The prime veterinary application is in the correction of elbow incongruity where only one of the antebrachial bones has been cut.

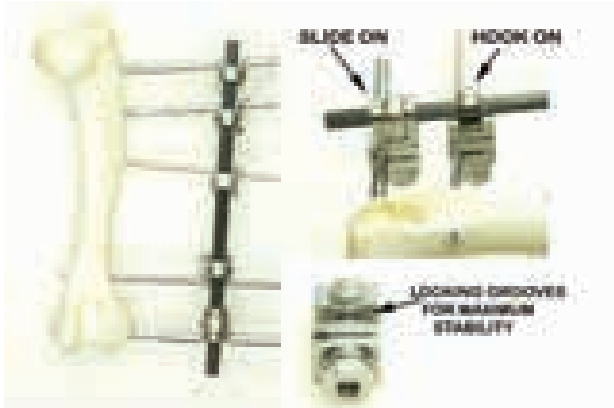
Fishmouth type clamps do not require that the pin passes through the clamp prior to attaching the distractor.



VUMEX EXTERNAL FIXATION		
F0702.0120	Allen key 2.0mm A/F Disposable	£5.75
F0702.0130	Allen key 3.0mm A/F Disposable	£5.75
F0302.0407	Fishmouth Distractor 100mm 1.6-3.2mm Pins	£110.00
F0302.0415	Fishmouth Distractor 150mm 1.6-3.2mm Pins	£110.00
F0302.0615	Distractor M4 Double Hole 150mm 2.0-4.0mm Pins	£110.00
F0302.0620	Distractor M4 Double Hole 200mm 2.0-4.0mm Pins	£110.00
F0304.0620	Distractor M6 Fishmouth 200mm 2.0-4.0mm Pins	£110.00

Linear Fixators

Small Linear Fixator (SLF)



The Small Linear Fixator is designed for use in the stabilisation of fractures requiring pins with thread diameters ranging from 1.5mm to 4mm.

The clamps are of two types. The 'slide on' type is fed onto the end of the bar. The 'hook on' type may be fitted into the middle of an existing frame. Each type of clamp is available as two variants, the 4.0mm variant and the 2.5mm variant. The 4.0mm variant is used to connect bars to each other and for pin thread diameters 4.0mm, 3.5mm and 3.0mm. The 2.5 variant is used for pins with thread diameters 2.5mm, 2.0mm and 1.5mm.

A feature of all the clamps is a system of internal locking grooves which interlock when tightened giving very rigid angular fixation (c.f. KE type systems).

The clamps may be used with either Stainless Steel or Carbon Fibre Bars of 4.0mm in diameter. This is a beautifully engineered system which costs little more than KE.

Available as a set including clamps, wrenches, carbon bars and pins of all sizes saving 10% on component costs.

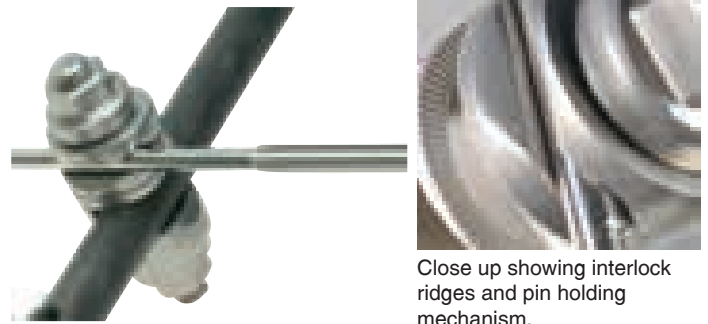
SMALL LINEAR FIXATOR

015301	Small Linear Kit. 8 Slide On (4.0), 8 Hook On (4.0), 8 Slide On (2.5), 8 Hook On (2.5), Spanner, 1 of each Carbon Bar, 6 of each Pin. Stainless Box. Kit is discounted 10%	£825.00
015300	Small Linear Clamp 'Slide On' 4.0mm Shaft	£16.50
015310	Small Linear Clamp 'Hook On' 4.0mm Shaft	£18.50
015305	Small Linear Clamp 'Slide On' 2.5mm Shaft	£16.50
015315	Small Linear Clamp 'Hook On' 2.5mm Shaft	£18.50
001566	7mm Spanner	£11.00
001566T	7mm 'T' Wrench	£18.50
015203	Stainless Bar 75mm	£6.50
015205	Stainless Bar 100mm	£6.50
015210	Stainless Bar 150mm	£9.00
015215	Stainless Bar 200mm	£9.00
015200C	Carbon Fibre Bar 75mm	£9.00
015205C	Carbon Fibre Bar 100mm	£10.00
015210C	Carbon Fibre Bar 150mm	£14.00
015215C	Carbon Fibre Bar 200mm	£15.00

SMALL LINEAR FIXATOR PINS

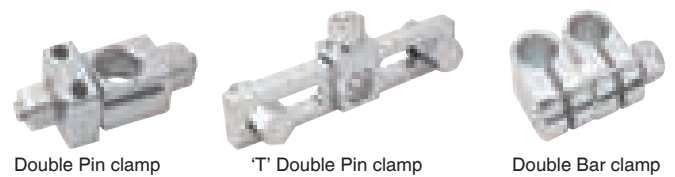
CODE	Overall Length	Shaft Dia	Thread Dia	Thread Lgth (mm)	Price
015100	80	4.0	4.0	35	£6.00
015105	80	4.0	3.5	30	£6.00
015110	80	4.0	3.0	25	£6.00
015115	60	2.5	2.5	20	£6.00
015120	50	2.5	2.0	15	£6.00
015125	50	2.5	1.5	12	£6.00

Linear Fixator (LF)



Close up showing interlock ridges and pin holding mechanism.

NEW medium size clamp for 1/4"/6.3mm bars and pins 2.0 to 4.0mm so compatible with SF bars.



The Linear Fixator (LF) is designed around carbon or stainless bars from 1/4"/6.3mm to 3/8"/9.5mm. Pins from 2 to 5mm shaft diameter are gripped by the clamps.

The clamps are 'Clip on' in style and may be fitted into the middle of an existing frame. The clip on clamp is springloaded and clips onto the bar in a semi-retained fashion pending tightening. Additionally the pin clamp is springloaded, the pins clip in and are retained pending insertion and tightening. The tightening of the clamp to the bar and the clamp to the pins are separate operations. There is minimal slipping and sliding during assembly. The large clamp offers multi-point fixation to pins 3.5mm to 5.0mm and fits an 11.00mm bar. A feature of the clamps is a system of internal locking grooves which interlock when tightened giving very rigid angular fixation (c.f. KE type systems).

The clamps are used with radiolucent Carbon Fibre Bars.

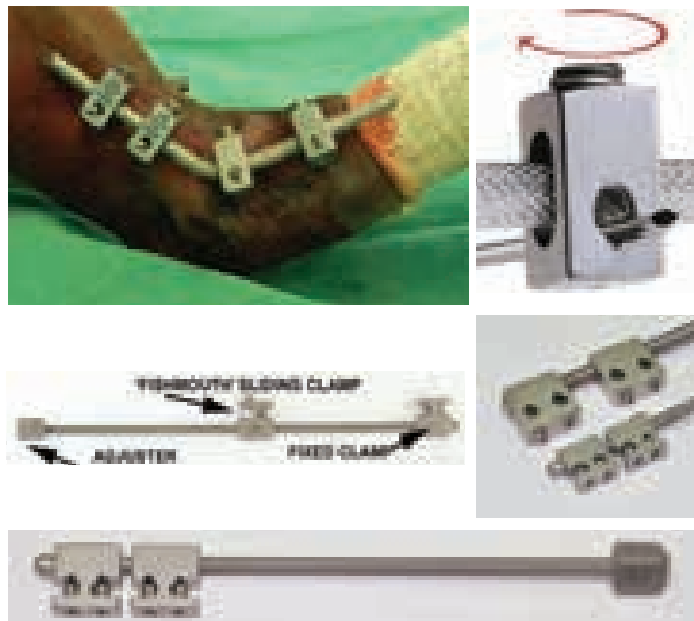
Available as a set including both clamp styles, wrenches and carbon bars saving 10% on component costs. Use standard pins between 2.0mm and 6.0mm in diameter.

LINEAR FIXATOR SYSTEM (LF)

015590	Large Linear Kit: 8 Large Clip On Single Clamps, Large Spanner, 1 of each 11.0mm Bar (except 350mm). Spanner Stainless Box Kit is discounted 10%	£275.00
015594	Large Linear Clamp 'Clip On'	£22.50
015595	Large Linear Double Bar Clamp	£26.50
015596	Large Linear Double Pin Clamp	£22.50
015597	Large Linear 'T' Double Pin Clamp	£30.00
015550	Carbon Fibre Bar 11.0mm x 150mm	£17.50
015555	Carbon Fibre Bar 11.0mm x 200mm	£22.50
015560	Carbon Fibre Bar 11.0mm x 250mm	£25.00
015565	Carbon Fibre Bar 11.0mm x 300mm	£27.50
015570	Carbon Fibre Bar 11.0mm x 350mm	£36.00
015580	Large Linear Spanner 11mm across flats	£11.00
015585	Large Linear Box Wrench 11.00mm across flats	£22.50

Vumex

Vumex External Fixation

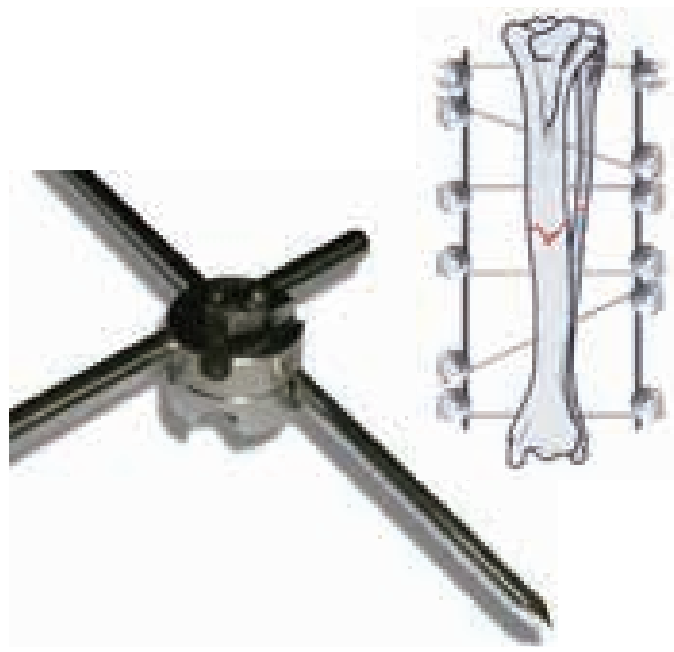


The Vumex external fixation system is appropriate for small dogs and cats, together with rabbits, guinea pigs and exotics. The system is lightweight. The bars are knurled for maximum grip and are easily contoured. The grub screw pushes the bar against the pin which is locked with a minimum of three point fixation.

The distraction devices are self contained and very effective in small fragment distraction. The fishmouth type does not require that the pin passes through the clamp prior to attaching the distractor.

VUMEX EXTERNAL FIXATION		
F0101.3040	Beta Clamp (up to 3mm Wire, 4mm Rod)	£17.00
F0102.3040	Beta Clamp Add on (up to 3mm Wire, 2mm Rod)	£20.00
F0101.4040	Beta Clamp (up to 4mm Wire/ Rods)	£22.50
F0202.40	Bi-axial Uniplanar Hinge Joint	£26.50
F0401.2015	Straight Rod Knurled 2mm x 150mm	£27.00
F0401.2507	Straight Rod Knurled 2.5mm x 75mm	£30.50
F0401.2510	Straight Rod Knurled 2.5mm x 100mm	£30.50
F0401.2515	Straight Rod Knurled 2.5mm x 150mm	£30.50
F0401.2520	Straight Rod Knurled 2.5mm x 200mm	£30.50
F0401.3007	Straight Rod Knurled 3mm x 75mm	£39.50
F0401.3010	Straight Rod Knurled 3mm x 100mm	£39.50
F0401.3015	Straight Rod Knurled 3mm x 150mm	£39.50
F0401.3020	Straight Rod Knurled 3mm x 200mm	£39.50
F0401.3025	Straight Rod Knurled 3mm x 250mm	£39.50
F0401.3030	Straight Rod Knurled 3mm x 300mm	£39.50
F0401.4015	Straight Rod Knurled 4mm x 150mm	£44.50
F0401.4020	Straight Rod Knurled 4mm x 200mm	£44.50
F0402.2502	Large L Rod Knurled 2.5mm	£62.50
F0402.3002	Large L Rod Knurled 3.0mm	£67.50
F0402.4002	Large L Rod Knurled 4.0mm	£75.00
F0403.4003	Large Z Rod Knurled 4.0mm	£80.00
F0703.01	Bender Tube Pair	£40.00
F0702.0120	Allen key 2.0mm A/F Disposable	£5.75
F0702.0130	Allen key 3.0mm A/F Disposable	£5.75
F0302.0407	Fishmouth Distractor 100mm 1.6-3.2mm Pins	£110.00
F0302.0415	Fishmouth Distractor 150mm 1.6-3.2mm Pins	£110.00
F0302.0615	Distractor M4 Double Hole 150mm 2.0-4.0mm Pins	£110.00
F0302.0620	Distractor M4 Double Hole 200mm 2.0-4.0mm Pins	£110.00
F0304.0620	Distractor M6 Fishmouth 200mm 2.0-4.0mm Pins	£110.00

Meynard Fixation Clamps

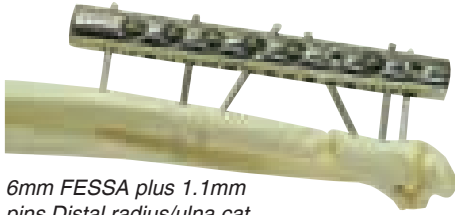


Stainless Steel External Fixators. Very simple, very inexpensive ESF system widely used with success in France and Spain. The clamps split allowing placement of pins, (both positive threaded and negative threaded) mid frame. Not as strong as KE or KE Plus type so more clamps are needed. Bars are available in all sizes. There are now Meynard clamps available which fit standard KE bars. Very useful for mid frame and positive threaded pins. Clamps which work with KE bars carry a KE suffix. Uses a 7mm spanner.

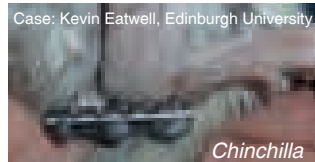
MEYNARD CLAMPS				
	Clamp diameter	Fixation Pin diameter	Bar diameter	
260002	12	1.0	2	£5.25
260003	12	1.2	2	£5.25
260004	12	1.6	2	£5.50
260005	14	1.5	3	£5.50
260005KE	14	1.5	3	£5.50
260006	14	2.0	3	£5.50
260007	16	2.0	4	£6.00
260013KE	16	2.4	3.2	£6.75
260013	16	2.4	4	£7.00
260008	16	3.0	4	£7.25
260014KE	24	3.0-3.2	4.8	£8.25
260015KE	24	4.0	6.3	£10.75
260009	24	4.0	6	£10.75
MEYNARD CONNECTING BARS				
260030	3mm for 14mm Clamps. 50mm Long		£9.25	
260040	4mm for 16mm Clamps. 100mm Long		£10.25	
260042	4mm for 16mm Clamps. 200mm Long		£10.25	
260060	2mm for 12mm Clamps. 500mm Long cut to length		£9.25	
260062	3mm for 14mm Clamps. 500mm Long cut to length		£11.25	
260064	4mm for 16mm Clamps. 500mm Long cut to length		£14.50	
260068	6mm for 24mm Clamps. 500mm Long cut to length		£17.00	
SPANNERS				
001566	Spanner Small 7mm		£11.00	
86104	Small Socket 7mm		£6.25	
001566T	Small T Wrench 7mm		£18.50	

FESSA External Fixation

FESSA External Fixation - Stainless Steel



6mm FESSA plus 1.1mm pins Distal radius/ulna cat



Case: Kevin Eatwell, Edinburgh University

Chinchilla

Developed for use in the French army FESSA is a lightweight tubular fixator with a number of interesting features.

- The tube incorporates the pin clamping mechanism and is thus very strong and has extremely good angular pin rigidity.
- Available in 6 and 8mm & 12mm (new) diameter Tubes.

- 6mm Tube accepts pins of shaft diameter 0.9mm to 1.8mm making it extremely useful in the management of fractures in cats and exotics.
- 8mm Tube accepts pins of shaft diameter 1.6mm to 3.2mm.
- 12mm Tube accepts pins of shaft diameter up to 4mm and M5 Grub Screws.
- Design allows placement of multiple parallel pins close together in small fragments.
- Pins can be placed at right angles to tube or angled through adjacent holes. Pins are locked into position by hex driven grub screws.



The Starter Kit contains the following:

- One of each 6mm tube and one of each 8mm tube (6 in total)
 - 1 x 6mm Hinge and one 8mm Hinge
 - 1 x 1.5mm Hex Screwdriver and one 2.0mm Hex Screwdriver
 - 10x 1.5 Locking Screws and 10 x 2.0 Locking Screws
- All contained in a Stainless Steel Box with Silicone Insert.

FESSA EXTERNAL FIXATION

015500	FESSA Starter Set in Stainless Box	£525.00
015502	FESSA Tube 6mm x 30mm	£28.50
015504	FESSA Tube 6mm x 45mm	£31.00
015506	FESSA Tube 6mm x 65mm	£33.50
015507	FESSA Hex Driver Screwdriver Type 1.5mm	£57.50
015508	FESSA Hex Driver Allen Key Type 1.5mm	£9.50
015509	FESSA 6mm (1.5 Hex) Locking Screws (10)	£27.50
015534	FESSA 6mm Hinge	£65.00
015510	FESSA Tube 8mm x 100mm	£38.50
015512	FESSA Tube 8mm x 150mm	£41.00
015514	FESSA Tube 8mm x 200mm	£46.00
015516	FESSA Hex Driver Screwdriver Type 2.0mm	£57.50
015517	FESSA Hex Driver Allen Key Type 2.0mm	£9.50
015520	FESSA 8mm (2.0 Hex) Locking Screws (10)	£27.50
015536	FESSA 8mm Hinge	£65.00
015540	FESSA Tube 12mm x 125mm	£48.50
015542	FESSA Tube 12mm x 175mm	£51.00
015544	FESSA Tube 12mm x 225mm	£56.00
015545	FESSA 12mm (2.5 Hex) Locking Screws (10)	£27.50
SDHS35F	FESSA Hex Driver Screwdriver 2.5 Hex	£87.50

FESSA Ultra-Lightweight Titanium FESSA



Actual Size

Illustrated is 5.0mm x 30mm FESSA plus 4 x 1.0mm bicortical pins. Weight 1.5 gram.

Standard Stainless Steel FESSA is already very light. The tubular structure acts as both clamp and bar. Birds, small furies and exotics demand even lighter constructs.

Using Titanium tube of 5.0mm in diameter enables the surgeon to apply FESSA constructs weighing from as little as 1.5 grams.

Titanium Fessa tubes (015521 & 015522) are both supplied with 6 x M3 grub screws. Suitable for pins 0.8mm to 1.6mm. For full range of pins see page 146. Uses 1.5 hex drivers, the same as 6.0mm FESSA



The Kit contains:

- 2 x 5mm x 30mm Ti Fessa
- 2 x 5mm x 45mm Ti Fessa
- 1.5 Hex Driver
- Small Pin Vice
- 10 x M3 Grub Screws
- 6 x 0.8 Bicortical Negative Pins
- 6 x 1.0 Bicortical Negative Pins
- 6 x 1.5 Bicortical Negative Pins

The Kit is supplied in Stainless Box with Silicone Insert.

Discounted by more than 20%

TITANIUM FESSA

015530	Titanium FESSA Set in Stainless Steel Box	£545.00
015521	5mm x 30mm Titanium FESSA	£62.50
015522	5mm x 45mm Titanium FESSA	£67.50
015509	FESSA 5mm (1.5 Hex) Locking Screws (10)	£27.50
015508	1.5 Hex Allen Key	£9.50
BCNET08	0.8mm Bicortical Negative Pins	£6.75
BCNET10	1.0mm Bicortical Negative Pins	£6.75
BCNET15	1.5mm Bicortical Negative Pins	£6.75

Pin Reference Chart

			CLAMP STYLE		BAR DIAMETER				
			KE Plus	Small	Medium	Large	Mini	Small	Large
			1/8" / 3.2mm	3/16" / 4.8mm	5/16" / 8mm	1/8" / 3.2mm	1/4" / 6.3mm	1/3" / 9.5mm	
POSITIVE THREADED PINS - END THREAD									
Code	Shaft Diameter								
CET0018	1.6mm shank 2.0mm threads	Predrill 1.5mm H090101	●	●		●			
CET0019	2.0mm shank 2.4mm threads	Predrill 1.9mm H090202	●	●	●	●	●		
CET0020	2.4mm shank 3.2mm threads	Predrill 2.3mm H090203	●	●	●	●	●		
CET0020A	2.7mm shank 3.5mm threads	Predrill 2.5mm H090112	●	●	●		●		
CET0020B	3.0mm shank 3.6mm threads	Predrill 2.7mm H090104	●	●	●		●	●	
CET0021	3.2mm shank 4.0mm threads	Predrill 3.0mm H090205	●	●	●		●	●	
CET0024A	3.5mm shank 4.3mm threads	Predrill 3.2mm H090105		●	●		●	●	●
CET0022	4.0mm shank 4.8mm threads	Predrill 3.8mm H090207		●	●		●	●	●
POSITIVE THREADED PINS - MID THREAD									
CMT0018	1.6mm shank 2.0mm threads	Predrill 1.5mm H090101	●	●		●			
CMT0019	2.0mm shank 2.4mm threads	Predrill 1.9mm H090202	●	●	●	●	●		
CMT0023	2.4mm shank 3.2mm threads	Predrill 2.3mm H090203	●	●	●	●	●		
CMT0023A	2.7mm shank 3.5mm threads	Predrill 2.5mm H090112	●	●	●		●		
CMT0023B	3.0mm shank 3.6mm threads	Predrill 2.7mm H090104	●	●	●		●	●	
CMT0024	3.2mm shank 4.0mm threads	Predrill 3.0mm H090205	●	●	●		●	●	●
CMT0024A	3.5mm shank 4.3mm threads	Predrill 3.2mm H090105		●	●		●	●	●
CMT0025	4.0mm shank 4.8mm threads	Predrill 3.8mm H090207		●	●		●	●	●
TROCHAR PINS									
001556	Trochar Pin 2mm		●	●		●	●		
001557	Trochar Pin 3mm		●	●	●		●	●	
001558	Trochar Pin 4mm			●	●			●	●
CORTICAL NEGATIVE THREADED PINS (ELLIS TYPE)									
001528	Ellis Pin 1.1mm		●			●			
001529	Ellis Pin 1.6mm		●	●		●			
001533	Ellis Pin 1.8mm		●	●		●			
001550	Ellis Pin 2mm		●	●	●	●	●		
001530	Ellis Pin 2.4mm - (3/32")		●	●	●	●	●		
001550A	Ellis Pin 2.7mm - (7/64")		●	●	●		●		
001551	Ellis Pin 3mm		●	●	●		●	●	
001531	Ellis Pin 3.2mm - (1/8")		●	●	●		●	●	
001551A	Ellis Pin 3.6mm - (9/64")		●	●	●		●	●	●
001552	Ellis Pin 4mm						●	●	●
BICORTICAL FINE NEGATIVE THREADED PINS									
BCNET08	0.8mm					●			
BCNET10	1.0mm		●			●			
BCNET11	1.1mm		●	●		●			
BCNET15	1.5mm		●	●		●			
BCNET16	1.6mm		●	●	●	●	●		
BCNET18	1.8mm		●	●	●	●	●		
BCNET20	2.0mm		●	●	●	●	●		
BCNET24	2.4mm		●	●	●		●	●	
BCNET30	3.0mm		●	●	●		●	●	●
BCNET35	3.5mm		●	●	●		●	●	●
BCNET40	4.0mm			●	●			●	●
BCNET50	5.0mm			●	●				●

Acrylic Pin External Fixation System



APEF Base Kit

An Acrylic Pin External Fixator (APEF) is created by replacing mechanical connecting clamps and rigid connecting bars with mouldable acrylic columns.

APEF is indicated for any fracture or arthrodesis where a comparable sized bar/column fixator would be appropriate. Research has shown the acrylic columns provide equal or greater strength when compared to the traditional KE designs in all standard configurations. The illustration shows use of frame alignment kit APFAK422. Please bear in mind that, ultimately, the acrylic has to be poured which will have implications for the repair.



The Kit includes:

- Carrying Case
- Sterilisation Tray
- 4 x 3mm (1/8") Diameter Centrally Threaded Full Pins
- 4 x 3mm (1/8") Diameter End Threaded Half Pins
- 8 x 3mm (1/8") Diameter Medium Smooth Pins
- 8 x 2mm (3/32") Diameter Small Smooth Pins
- Frame Alignment Kit
- 1 x Double Acrylic Tube Pack
- 1 x Single Acrylic Tube Pack
- 1 x Half Acrylic Tube Pack
- Procedural Video

APEF BASE KIT

APBKUNST	APEF Base Kit. Includes Carrying Case (non sterile) Sterilisation Tray	£655.00
G70029-000	Pin Sterilization Tray Only (Anodised Aluminium)	£100.00

APEF TIPS

- Rather than wait a fixed time to pour, wait until the mix starts to thicken. The setting time will vary with ambient temperature.
- Once cut, roll up the bag to minimise waste.
- Use cotton wool to help clot.
- Remember to orientate the tube so that the acrylic runs down the tube.

Acrylic Tube Packs



These convenient, premeasured, easy mix dispensing packs contain both powder and liquid separated by a temporary divider. These packs contain the appropriate amount of tubing and plugs.

ACRYLIC TUBE PACKS

APNSPS50	Single Tube Pack (50ml). 150mm x 21mm Tube plus Acrylic and Plugs	£59.50
APNSPDM50	Double Mini Tube Pack (50ml). 300mm x 15mm Tube plus Acrylic and Plugs	£54.50
APNSPH25	Half Tube Pack (25ml). 150mm x 15mm Tube plus Acrylic and Plugs	£44.50
APNSPQ12	Quarter Tube Pack (12.5ml). 150mm x 10mm Tube plus Acrylic and Plugs	£39.50

Acrylic Bi-Packs

These convenient, premeasured, easy mix and dispensing packs contain both powder and liquid separated by a temporary divider. You will require tubing; see below.

ACRYLIC BI-PACKS

APNSBT150	Triple Acrylic Bi-Pack (150ml)	£62.50
APNSBH25	Half Acrylic Bi-Pack (25ml)	£37.50
APNSBQ12	Quarter Acrylic Bi-Pack (12.5ml)	£32.50

APEF Tubing

APEF TUBING

APTK21	21mm (1") Diameter Tube Kit 152cm (60") Tubing 10 Endplugs	£13.00
APTK15	15mm (5/8") Diameter Tube Kit 152cm (60") Tubing 10 Endplugs	£12.50
APTK10	10mm (3/8") Diameter Tube Kit 122cm (48") Tubing 8 Endplugs	£11.50

APEF Pins & Frame Alignment Kit



APEF Pins come in either 3.2mm (1/8") diameter or 2.4mm (3/32") diameter. The threaded pins have a positive profile thread. APEF functions very well with all Veterinary Instrumentation ESF Pins.

APEF PINS

APPINETH18	End Threaded Half Pin 3.2mm Shank	£20.50
APPINCTH18	Centrally Threaded Full Pin.3.2mm Shank	£20.50
APPINSM332	Small 2.4mm Non-threaded Pin	£20.50
APPINSM18	Medium 3.2mm Non-threaded Pin	£20.50
APFAK422	Frame Alignment Kit	£265.00

Please note that unfortunately due to importation restriction from the USA we will no longer be able to supply APEF products once current stock levels have been depleted.

Please call 0845 130 9596 to check current stock levels of the above listed APEF products.

Epoxy

Epoxy ESF Putty

Epoxy ESF Putty is a simple to use, quick and convenient alternative to the standard bar and clamp system. The putty, once mixed, stiffens in 5 minutes and within 1 hour is fully cured. The putty can be applied and then the fracture reduced allowing precise manipulation of the fracture site. The versatility of the system allows the putty to be used in place of clamps, to cover sharp ends of cut pins, and many other applications.



There are two pack sizes in a bar format with the premeasured catalyst in the centre of the bar ready for mixing. The product is clean and has a long shelf life. Only mix the quantity you need, cutting the required amount off the end of the bar. If you find you don't have enough, more can be prepared in a matter of seconds. ESF putty sticks to itself very well and may be used for repairs and corrections. Particularly useful in fractures in small furries where proximal and distal fragments may be attached together with 'blobs' of putty in place of clamps regardless of fixation pin site.

Typical Applications

- ESF applications requiring multiple pins of various sizes placed at various angles.
- ESF applications in rabbits and guinea pigs
- Fractures of the jaw
- Protecting sharp ends of cut pins
- Joining non-standard pins and bars
- Use to add a pin mid frame

EPOXY ESF PUTTY		
EPOXY1	Epoxy ESF Putty 55G	£14.50
EPOXY2	Epoxy ESF Putty 110G	£26.50



Lower pictures by Andy Moores

Pin Cutters

Safety Pin Cutter to 4mm



SAFETY PIN CUTTER TO 4MM		
001229	Safety Cutter to 4mm Stainless 36cm Long	£315.00

Pin Insertion



Correct pin insertion requires slow axial rotation under pressure and without hand wobble. The ideal instrument is the Variable Speed Orthopaedic Drill. It is a low speed, high torque device that offers maximal control and is of course useful elsewhere in veterinary orthopaedics.

A Jacobs hand chuck can be used particularly where bone is young and soft. However, use of a hand

chuck produces wobble and a pin tract hole that is not circular. This reduces the pin / bone interface contact area, increasing the chance of premature pin loosening. The small Jacobs hand chuck gives a big enough for 2, 3 and 4mm pins.

For further details about the drill and spare chucks see Chapter 5 - Power Tools

PIN INSERTION		
001600	Variable Speed Orthopaedic Drill Kit	£365.00
001220	Small Jacobs Chuck and Handle 5/32" (4mm) Capacity	£235.00
001221	Standard Jacobs Chuck and Handle 1/4" (6.35mm) Capacity	£235.00

ESF Tissue Protector



Protection of soft tissue is very important when placing an ESF frame. Protection prevents tissues from getting wrapped around the drill bit, and helps to maintain access to the pin tract in the bone. Once a connecting bar with clamps is in position, pin placement through a drill guide presents a specific problem because standard drill guide tissue protectors cannot be removed once the pin is in position. The ESF Tissue Protector splits along its length to allow removal. The tip has small serrations to encourage grip on the bone surface.

ESF TISSUE PROTECTOR		
001548	ESF Tissue Protector	£72.50

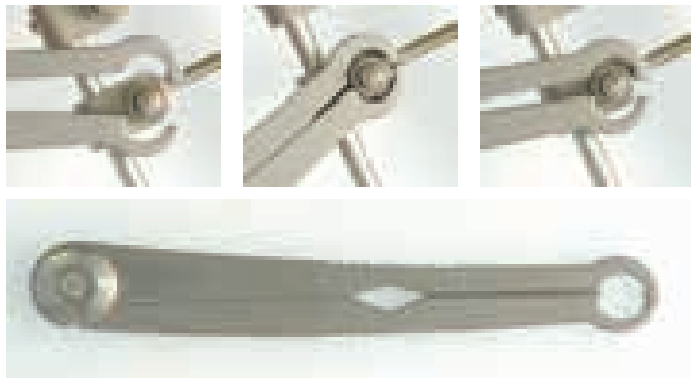
Spanners & Wrenches



Standard spanners, sockets or combination spanners are available for all clamp sizes see reference chart.

SPANNERS		
001566	Spanner Small 7mm	£11.00
001565	Spanner Medium 8mm	£11.00
001564	Spanner Large 10mm	£11.00
86012	Socket Drive Handle	£16.50
86104	Small Socket 7mm	£6.25
86105	Medium Socket 8mm	£6.25
86107	Large Socket 10mm	£6.25
86685	Angled Wrench Medium 8mm	£15.00
86687	Angled Wrench Large 10mm	£15.00

Quick Ratchet Spanner



Use of our quick ratchet spanner will save time tightening clamps. Unlike conventional ratchet handles and socket sets the quick ratchet is not thicker than a regular spanner and can be used in very confined spaces.

QUICK RATCHET SPANNER		
001565QR	Quick Ratchet Spanner 8mm (Medium)	£45.00
001564QR	Quick Ratchet Spanner 10mm (Large)	£47.50

'T' Bar Wrenches



Useful for speedy tightening of clamps in that the wrench can be 'spun' using the shaft.

'T' BAR WRENCHES		
001566T	Small 'T' Wrench - 7mm	£18.50
001565T	Medium 'T' Wrench - 8mm	£21.00
001564T	Large 'T' Wrench - 10mm	£23.00

Spanner Size and Clamp Type Reference Chart

Clamp Type	Clamp Size	Clamp Code	Spanner Size	Spanner Code
KE Plus	Small	001527	7mm	001566
	Medium	001526	8mm	001565
	Large	001525	10mm	001564
KE+ Double Clamps	Small	001594	7mm	001566
	Medium	001592	8mm	001565
	Large	001584	10mm	001564
KE+ Extra Large Clamps	Single	EXL01	13mm	001562
	Double	EXL02	13mm	001562
KE+ Split Clamps	Small	001547S	7mm	001566
	Medium	001547M	8mm	001565
	Large	001547L	10mm	001564
KE+ ESF Hinge Joints	Small	001597	7mm	001566
	Medium	001598	8mm	001565
	Large	001599	10mm	001564
SF Clamps Single	Mini	001740	7mm	001566
	Small	001741	8mm	001565
	Large	001742	10mm	001564
SF Clamps Double	Mini	001743	7mm	001566
	Small	001744	8mm	001565
	Large	001745	10mm	001564

Table Top Stand for Hanging Limb Preparation



Suspension of a limb can provide significant benefits in both arthroscopy and other orthopaedic procedures. The shoulder joint is distracted and 360 degree access becomes available. Height 1.2m (48")

During 2012 our limb suspension stand was re-designed to give greater table-top stability. A cleat for tying off limb suspension ropes has also been added and the shaft can be dismantled for storage.

TABLETOP STAND FOR HANGING LIMB PREPARATION		
R463	Tabletop Stand for Hanging Limb Preparation	£185.00

Circular ESF

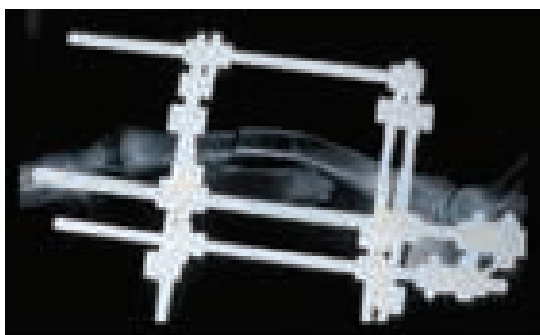
The use of circular, or ring fixators requires patience and experience, but offers additional versatility over other systems.

By maintaining wire tension across a ring, similar construct stiffness can be achieved using smaller diameter wires than linear or free-form external fixation. Coupled with good flexibility over the direction of pin placement, circular ESF can be particularly useful when managing small fragments.

Frames are often constructed to allow adjustment of the spacing and angular relationship between the rings; this is very useful for adjusting bone length (capitalising on the phenomenon of distraction osteogenesis) and in the management of angular limb deformities.

In veterinary patients, true circular frames are reserved exclusively for the lower limb as full 360° access is required for positioning of the components. When frames are applied close to joints, full rings may restrict full joint movement and impinge on soft tissues. In these circumstances, part rings are normally substituted. Part rings are not as stiff as full rings.

Circular style frames are sometimes used in locations where anatomical constraints completely prevent the use of full rings. All rings in an assembly of this type will be part rings or 'arches'. The same anatomical restrictions will often prevent the use of full wires and half pins of a slightly greater diameter will often be required to achieve a similar stiffness; application to the axial skeleton an infrequent, but perhaps the most obvious example.



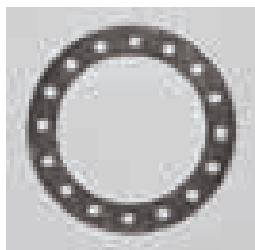
Case:
Alex Li

Frames are often hybridised with linear components to improve their versatility. Posts holding KE Plus or SF clamps may be added to a circular ESF construct to achieve additional points of fixation or longer, hybrid rods may be used to leave a circular frame at one end of the bone and a linear frame at the other end of the bone. Most commonly this is used for the management of juxta-articular fractures.

Our standard M6 system can get a bit heavy for smaller patients. A smaller, M4 system is now available for smaller patients.

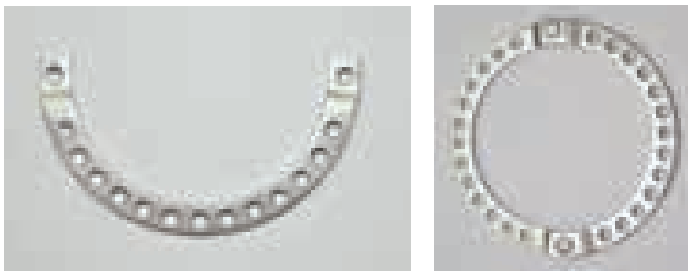
Rings and connection plates

Full Rings



FULL RINGS			
0019701	40mm Aluminium Ring M4	NEW	£29.50
0019702	50mm Aluminium Ring M4	NEW	£32.50
0019703	60mm Aluminium Ring M4	NEW	£35.00
001809	50mm Carbon Ring M6		£35.00
001810	70mm Carbon Ring M6		£38.50
001840	70mm Aluminium Ring M6		£37.50
001811	100mm Carbon Ring M6		£45.00
001843	100mm Aluminium ring M6		£41.50

Half Rings



Bolt together to create full rings or add connection plates between two half rings to create oblong rings. Sold in pairs.

HALF RINGS			
001846/2	120mm Stainless Half Ring M6 (pair)		£54.00
001848/2	160mm Stainless Half Ring M6 (pair)		£58.00
0019704	M6 Nut and Bolt (1 pair, 4 items), (2x 001828 & 2x 001855)		£4.50

Connection Plates



Sold in pairs, except for twisted plates – sold in 4's.

CONNECTION PLATES			
001820/2	2 hole Connection Plates (x2)		£14.00
0018933/2	3 hole Connection Plates (x2)		£15.00
0018934/2	4 hole Connection Plates (x2)		£16.00
0018935/2	5 hole Connection Plates (x2)		£17.00
0018936/2	6 hole Connection Plates (x2)		£18.00
0018937/2	7 hole Connection Plates (x2)		£19.00
0018938/4	Twisted Connection Plate. 2 Hole twisted, permitting hinging between half rings (x4)		£32.00
0019704	M6 Nut and Bolt (1 pair, 4 items), (2x 001828 & 2x 001855)		£4.50

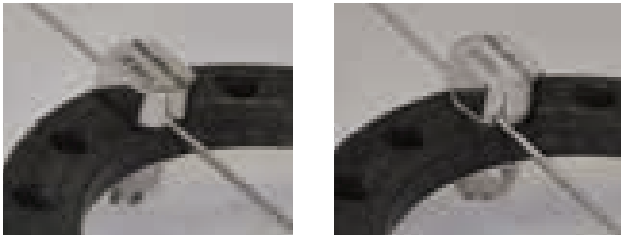
5/8 Rings

Used where anatomy would impinge on full rings.



5/8 RINGS			
0019705	40mm Aluminium 5/8 Ring M4	NEW	£32.50
0019706	50mm Aluminium 5/8 Ring M4	NEW	£35.50
0019707	60mm Aluminium 5/8 Ring M4	NEW	£38.00
001812	50mm Carbon 5/8 Ring M6		£38.00
001815	70mm Carbon 5/8 Ring M6		£41.50
001841	70mm Aluminium 5/8 Ring M6		£40.50
001816	100mm Carbon 5/8 Ring M6		£48.00
001847	120mm Stainless Steel 5/8 ring M6		£34.50
001849	160mm Stainless Steel 5/8 ring M6		£37.00

Wire Bolts

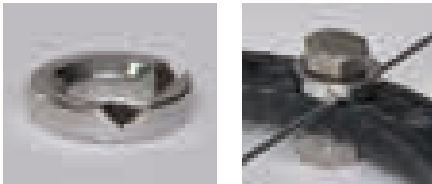


Wires are attached to rings using bolts. The wire either passes through the cannulation or is placed alongside. Now supplied in pairs as bolt, nut and standard washer (6 components).

WIRE BOLTS

0019708	Cannulated Wire Bolt Assembly (x2) – M4 (2x 0019801, 2x 0019802, 2x 0019804)	NEW	£16.50
0019709	Offset Wire Bolt Assembly (x2) – M4 (2x 0019801, 2x 0019802, 2x 0019805)	NEW	£16.50
0019710	Cannulated Wire Bolt Assembly (x2) – M6 (2x 001851, 2x 001852, 2x 001855)		£16.50
0019711	Offset Wire Bolt Assembly (x2) – M6 (2x 001854, 2x 001852, 2x 001855)		£16.50

Slotted Washers

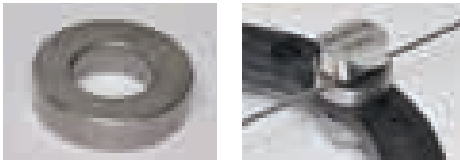


An alternative fixation method for wires with incorporated offset. Supplied in pairs. Use with connecting bolts.

SLOTTED WASHERS

0019712/2	M4 slotted washer (x2)	NEW	£8.00
001852S/2	M6 slotted washer (x2) – note: now as pair		£8.00

Spacing Washers

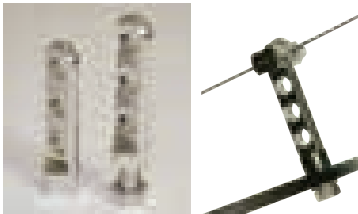


Create a small stand-off from rings. For use with all bolt style or slotted washers. Sold in pairs.

SPACING WASHERS

0019713/2	2mm M4 Spacing Washers (x2)	NEW	£8.00
0019714/2	3mm M4 Spacing Washers (x2)	NEW	£8.00
001852A/2	2mm M6 Spacing Washers (x2)		£8.00
0019715/2	3mm M6 Spacing Washers (x2)	NEW	£8.00
0019716/2	4mm M6 Spacing Washers (x2)	NEW	£8.00

Post for Offset Wire



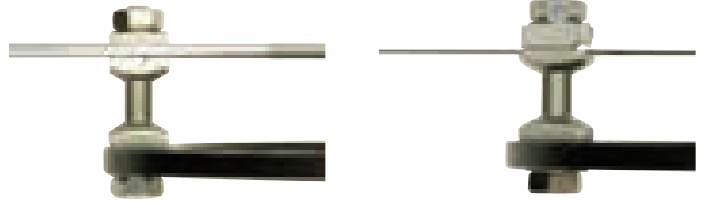
Used with wire bolts to place wires standing off from a ring. Female fitting posts can be attached to threaded rods. Supplied in pairs

NEW

POST FOR OFFSET WIRE

0019717	Male Post 2 Holes M6 (2x 0018942, 2x 001852, 2x 001855)	£12.50
0019718	Male Post 3 Holes M6 (2x 0018943, 2x 001852, 2x 001855)	£12.50
0019719	Male Post 4 Holes M6 (2x 0018944, 2x 001852, 2x 001855)	£12.50
0019720	Female Post 2 Holes M6 (2x 0018952, 2x 001852, 2x 001828)	£12.50
0019721	Female Post 4 Holes M6 (2x 0018954, 2x 001852, 2x 001828)	£12.50

Combination Wire/ Pin Post



Creates a 20mm stand-off from a ring for clamping an additional pins or wires.

COMBINATION POST

001857	Combination Wire/Pin Post M6	£27.50
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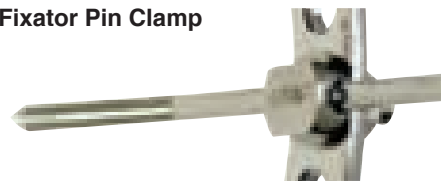
Wire Guide

The guide is used to improve the accuracy of wire placement and incorporates a thumb-screw to clamp it to the ring.

WIRE GUIDE

0019722	Wire Guide For M4 rings and wires	NEW	£49.50
001819	Wire Guide For M6 rings and wires		£49.50

Fixator Pin Clamp

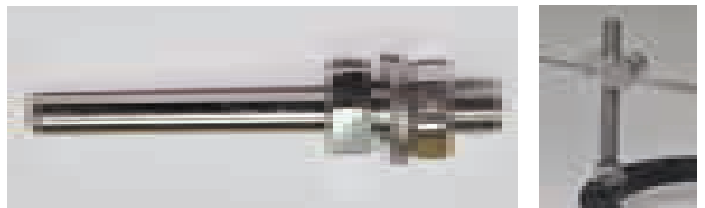


Permits the use of a half pin in place of a wire. Comes complete with washer and standard nut.

FIXATOR CLAMP

0019723	M4 Fixator Pin Clamp – 2.5mm	£9.50
001853	M6 Fixator Pin Clamp – 4mm	£9.50

Posts for Linear ESF clamps

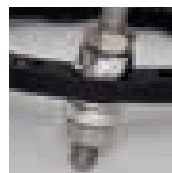


Permits the use of KE Plus or SF clamps for the placement of half pins. Comes complete with 1x washer and 1x standard nut.

POSTS FOR LINEAR ESF CLAMPS

0019724	Post For Small KE Plus M4 – 28mm Long (1x 0019806, 1x 0019801, 1x 0019802)	NEW	£24.00
0019725	Post For Mini SF M4 – 28mm Long (1x 0019807, 1x 0019801, 1x 0019802)	NEW	£24.00
0019726	Post For Medium KE Plus M6 – 35mm Long (1x 001837, 1x001855, 1x 001852)		£24.00
0019727	Post for Small SF M6 – 35mm Long (1x 0019808, 1x 001855, 1x 001852)	NEW	£24.00

Spherical Washers

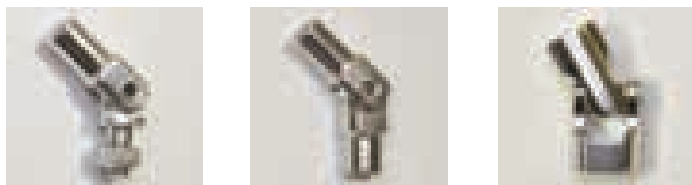


A development from conical washers permitting threaded ESF rods to be locked in position at an angle relative to ESF rings. When applied to the frame, the two washers closest to the ring describe a sphere. Around 10° of angulation can be created in multiple planes.

SPHERICAL WASHERS

0019809	Spherical Washers M4 (4 components)	NEW	£27.50
0019810	Spherical Washers M6 (4 components)	NEW	£27.50

Hinges and Universal Joints



These allow a greater angle to be created between ESF rods and ESF rings than spherical washers and are necessary where larger corrections are required. Universal joints provide for multi-planar adjustments. The hinge joints feature cannulated pivot pins, making alignment with the desired centre of rotation easier (trans-articular frames). Male to female hinge joints are typically used connected to rings. Female to female hinge joints create a slightly heavier construct, but can be used away from a ring to connect two sections of threaded rod. Female to female hinges can also be used to connect hybrid bars for hinged trans-articular linear frames.

HINGES AND UNIVERSAL JOINTS		
0019728	Hinge Joint Male To Female M4	£45.00
0019729	Hinge Joint Female To Female M4	£45.00
0019730	Universal Female To Female Joint M4	£55.00
0019731	Hinge Joint Male To Female M6	£45.00
0019732	Hinge Joint Female To Female M6	£45.00
0019733	Universal Female To Female Joint M6	£55.00

Threaded Rod

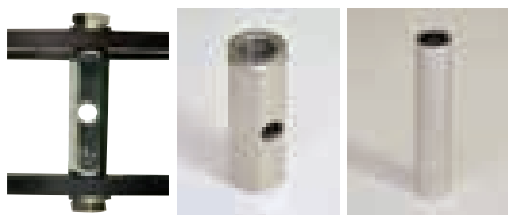
Stainless Steel.



THREADED ROD		
001920	Threaded Rod – M4 x 50mm Long	£13.50
001921	Threaded Rod – M4 x 75mm Long	£17.50
001922	Threaded Rod - M4 x 100mm Long	£19.50
001923	Threaded Rod – M4 x 150mm Long	£21.50
001930	Threaded Rod – M6 x 75mm Long	£18.50
0019734	Threaded Rod – M6 x 100mm Long	£20.50
001931	Threaded Rod – M6 x 150mm Long	£22.50
001932	Threaded Rod – M6 x 200mm Long	£26.50

Spacers

Used between adjacent ESF rings to give fixed spacing. Threaded spacers are compatible with bolts or threaded rods. Tubular spacers slide on threaded rods and are sandwiched in place between rings as nuts are tightened either side of the rings.



Tubular spacers slide on threaded rods and are sandwiched in place between rings as nuts are tightened either side of the rings.

SPACERS		
0019735	Spacer 15mm M4 Hex – Threaded	NEW £14.50
0019736	Spacer 25mm M4 Hex – Threaded	NEW £15.50
0019737	Spacer 20mm M6 Hex – Threaded	NEW £12.50
0019738	Spacer 30mm M6 Hex – Threaded	NEW £13.50
001832	Spacer 40mm M6 Hex – Threaded	£14.50
0019739	Spacer 30mm M6 Lightweight Tubular	NEW £12.50
0019740	Spacer 40mm M6 Lightweight Tubular	NEW £13.50

Locking nuts

Steam autoclavable to 134°. Helps prevent frame loosening. Full stainless steel version offers increased longevity.



LOCKING NUTS		
0019741/4	Locking Nut M4 Nylon (x4)	NEW £4.00
0019742/4	Locking Nut M4 Stainless (x4)	NEW £6.00
001845N/4	Locking Nut M6 Nylon (x4)	£4.00
0019743/4	Locking Nut M6 Stainless (x4)	£6.00

Adjusting Nuts



Small and lightweight, but requiring a spanner to make adjustments

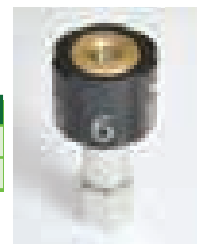
The M4 size provides 0.75mm adjustment per rotation.

The M6 size provides 1.0mm adjustment per rotation.

LOCKING NUTS		
0019744	Adjusting Nut - M4	£10.50
0019745	Adjusting Nut - M6	£10.50

Small motors

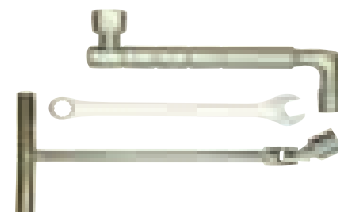
SMALL MOTORS		
0019746	Small Motor M6 40mm	£52.50
0019747	Small Motor M6 60mm	£52.50



Small components / Spares

SMALL COMPONENTS / SPARES		
0019801/10	Standard M4 Nut (Pack of 10)	£7.50
001855/10	Standard M6 Nut (Pack of 10)	£7.50
0019802/10	Standard M4 Washer (Pack of 10)	£7.50
001852/10	Standard M6 Washer (Pack of 10)	£7.50
0019803/10	Standard M4 Connecting Bolt (Pack of 10)	£11.50
001828/10	Standard M6 Connecting Bolt (pack of 10)	£11.50
0019804	M4 Cannulated Wire Bolt	£6.00
001851	M6 Cannulated Wire Bolt	£6.00
0019805	M4 Offset Wire Bolt	£6.00
001854	M6 Offset Wire Bolt	£6.00
0019806	Small KE+ M4 post	£21.50
0019807	Mini SF M4 Post	£21.50
0019808	Small SF M6 Post	£21.50

Wrenches and spanners



WRENCHES AND SPANNERS		
001566	7mm Spanner	£11.00
001817	10mm Open Ended Spanner	£11.00
001838	10mm Angled Wrench	£35.00
001821	10mm Box Spanner	£24.00

Wire tensioner

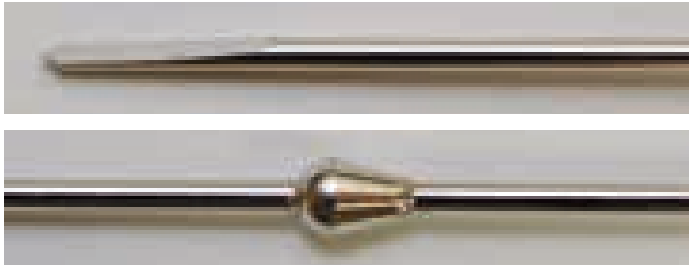


Automatically grabs wires and by twisting the body, tension is applied to the desired level prior to final clamping. Read tension scale applied on body. (001885)

Wires must be placed under tension in the Ilizarov system. This is particularly true of the larger rings. It is recommended that 60-90kg of tension is applied. (001830)

ADJUSTING NUTS		
001830	Tension Device Mechanical	£135.00
001885	Dyno Tensioning Device	£275.00

Ilizarov Wires



Quick cutting fine wires for use with circular external fixators. Olive wires prevent bone segments from sliding back and forth.

ILIZAROV WIRES

0019748	1.0mm Ilizarov Wire For Use With M4 System (pack 5)	NEW	£19.50
0019749	1.2mm Ilizarov Wire For Use With M4 System (pack 5)	NEW	£19.50
001881	1.5mm Ilizarov Wire For Use With M6 System (pack 5)		£19.50
001882	1.8mm Ilizarov Wire For Use With M6 System (pack 5)		£19.50
0019750	1.0mm Ilizarov Olive Wire For Use With M4 System (pack 5)	NEW	£57.50
0019751	1.2mm Ilizarov Olive Wire For Use With M4 System (pack 5)	NEW	£57.50
001883	1.5mm Ilizarov Olive Wire For Use With M6 System (pack 5)		£57.50
001884	1.8mm Ilizarov Olive Wire For Use With M6 System (pack 5)		£57.50

Combined with a female to female hinge with or without a triangulation bar, hybrid bars can be used to create simple but effective trans-articular linear frames.

Hybrid Bars

Combine the best features of ring and linear fixators using hybrid bars. Also used with female/female hinges to create hinged linear frames.

M4 KE+ HYBRID BAR

0019752	Small KE+ 60mm	NEW	£27.00
0019753	Small KE+ 80mm	NEW	£32.50
0019754	Small KE+ 100mm	NEW	£34.50



M6 KE+ HYBRID BAR

001837A	Medium KE+ 100mm		£27.00
001837B	Medium KE+ 150mm		£32.50
001837C	Medium KE+ 200mm		£34.50
001837F	Large KE+ 150mm		£33.50
001837G	Large KE+ 200mm		£39.50
001937H	Large KE+ 250mm		£43.50

M4 SF HYBRID BAR

0019755	Mini SF 60mm	NEW	£9.00
0019756	Mini SF 80mm	NEW	£11.50
0019757	Mini SF 100mm	NEW	£14.00

M6 SF HYBRID BAR

001862SS	Small SF x 100mm		£9.00
001863SS	Small SF x 150mm		£11.50
001864SS	Small SF x 200mm		£14.00
001871SS	Large SF x 150mm		£10.00
001872SS	Large SF x 200mm		£11.00
001873SS	Large SF x 250mm		£12.00

Circular ESF Kits

Well rounded starter kits presenting a number of options for the most commonly used frames.

Small (M4) Kit

A newly configured kit for the smaller patient.

Contents:

- 3x 40, 50 and 60mm Rings (Aluminium)
- 2x 40, 50 and 60mm 5/8 Rings (Aluminium)
- 4x 50, 75, 100 and 150 Threaded Rods
- 6x2 Cannulated Bolts
- 6x2 Offset Bolts
- 4x Fixation Pin Clamps
- 3x2 Slotted Washers
- 8x Spacing Washers (4 each of 2mm and 3mm)
- 3x Spherical Washers
- 3x Male To Female Hinges
- 3x Female to Female Hinges
- 3x Adjuster Nuts
- 30x Nuts
- 20x Nylon Locking Nuts
- 20x Connecting Bolts
- 1x M4 Wire Guide
- 1x pack 1.0mm Ilizarov wires
- 1x pack 1.2mm Ilizarov wires
- 1x pack 1.0mm Ilizarov olive wires
- 1x pack 1.2mm Ilizarov olive wires
- 2x 7mm Spanners
- Stainless steel container

NEW

SMALL (M4) KIT

0019850	Circular ESF Kit - M4 Aluminium	£1,500.00
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Large (M6) Kits

A re-configured kit to present the items in most popular use.

Contents:

- 3x 50, 70 and 100mm Rings (please select aluminium or carbon)
- 2x 50, 70 and 100mm 5/8 Rings (please select aluminium or carbon)
- 3x 100, 150 and 200mm Threaded Rods
- 6x2 Cannulated Bolts
- 6x2 Offset Bolts
- 4x Fixation Pin Clamps
- 3x2 Slotted Washers
- 8x Spacing Washers (4 each of 2mm and 3mm)
- 2x 3 Hole and 4 Hole Male Posts
- 2x 2 Hole and 3 Hole Female Posts
- 3x Spherical Washers
- 3x Male to Female Hinges
- 3x Female to Female Hinges
- 3x Adjuster Nuts
- 30x Nuts
- 20x Nylon Locking Nuts
- 20x Connecting Bolts
- 1x M6 Wire Guide
- 2x pack 1.5mm Ilizarov wires
- 1x pack 1.8mm Ilizarov wires
- 2x pack 1.5mm Ilizarov olive wires
- 1x pack 1.8mm Ilizarov olive wires
- 2x 10mm Spanners
- 1x Angular Wrench
- Stainless steel container

NEW

LARGE (M6) KITS

0019851	Circular ESF Kit - M6 Aluminium	£1,750.00
0019852	Circular ESF Kit - M6 Carbon	£1,750.00

Electrical Power

Variable Speed Orthopaedic Drill



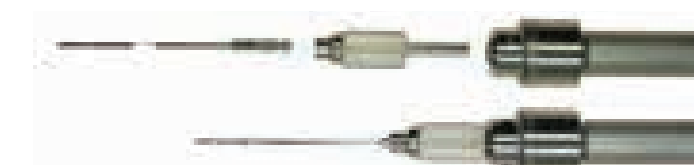
Our model has a removable battery pack. This feature makes charging easier and a spare battery pack can be maintained on charge. The battery charges more quickly than you can discharge the one in the drill. This remains the best drill we have found.

All the original features remain.

- Excellent control over speed 0-600rpm via trigger
- Stainless Steel Chuck (6.35mm capacity) and Extension
- 80mm through Chuck cannulation
- Autoclavable Shroud
- Low Speed, High Torque
- Supplied as a Complete Kit including Stainless Chuck, Key, Extension, Autoclavable Shroud, 2 Batteries and a Charger.

VARIABLE SPEED ORTHOPAEDIC DRILL & ACCESSORIES		
001600	Variable Speed Orthopaedic Drill (Complete Kit). Drill, Chuck, Key, Shroud, Extension & 2 x Batteries	£365.00
001605	Spare Chuck (& Key) 1/4" 6.35mm	£165.00
001606	Spare Key for Standard Chuck	£29.50
001607	Drill Extension	£59.50
001661A	Waterproof Shroud - New style drill post 2014	£19.50
001613	Spare Rechargeable Battery - New style drill post 2014	£44.50
001661CH	Battery Charger/ Replacement - New style drill post 2014	£95.00

Synthes Quick Fit Adaptor - Jacobs



Converts Large Jacobs Chuck to take Synthes Fit Drills and Taps. Adds 40mm length.

SYNTHES QUICK FIT ADAPTOR		
001612	Synthes Quick Fit Adaptor - Jacobs	£135.00

Accessories for Variable Speed Orthopaedic Drill Pre 2014

ACCESSORIES FOR VARIABLE SPEED ORTHOPAEDIC DRILL - PRE 2014		
001605	Spare Chuck (& Key) 1/4" 6.35mm	£165.00
001606	Spare Key for Standard Chuck	£29.50
001607	Drill Extension	£59.50
001620	Spare Drill Shroud - Pre 2014	£19.50
001610	Spare Rechargeable Battery - Pre 2014	£44.50
001611	Battery Charger - Spare/ Replacement - Pre 2014	£95.00

Mini Re-chargeable Drill Accessories

Due to the new design Variable Speed Orthopaedic Drill (Code 001600), our Mini Drill has been discontinued. However, we are still able to provide accessories for use with these drills.

MINI RECHARGEABLE DRILL ACCESSORIES		
001661A	Waterproof Shroud for Mini Rechargeable Drill	£19.50
001605S	Spare Chuck with Key 5/32" (4mm)	£165.00
001662	Mini Drill Extension to fit 5/32" (4mm) Chuck	£59.50
001666	Mini Drill Extension to fit 1/4" (6.3mm) Chuck	£59.50
001663	Battery Charger - Spare/ Replacement	£60.00
001664	Spare Battery for Mini Rechargeable Drill	£44.50

TRAINING

At Veterinary Instrumentation we understand the importance of training for both traditional techniques and new ones.

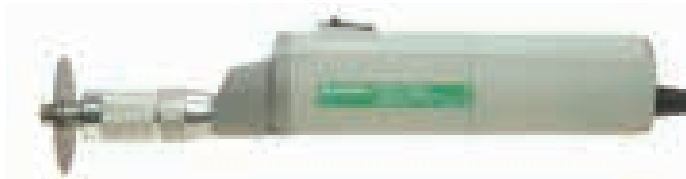


We are particularly enthusiastic about hands-on sessions which give delegates a feel for how things will be clinically. Cadaver work is particularly important and unfortunately increasingly hard to come by.

Hamish Denny takes a delegate through the examination of the meniscus

Please keep checking www.vetinst.com for up and coming training courses. You will find there details of courses run by ourselves but also links to other training partners who run courses using our loan wet lab instrumentation. In addition you will find other training resources such as Step by Step Guides and videos designed for home study.

Desoutter Cast Cutter



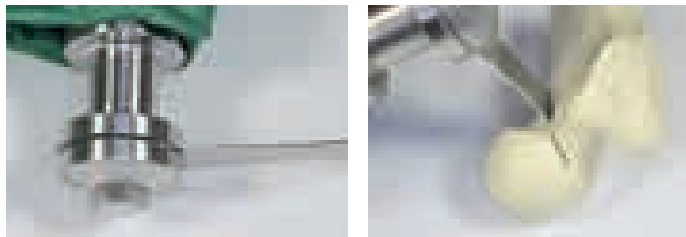
Removal of casts without a power saw is extremely hard work and very time consuming. This has implications for procedure costs and anaesthetic risk. The Desoutter Saw is extremely reliable and makes short work of all cast materials. (The harder synthetics require the diamond blade).

DESOUTTER CAST CUTTER

001700	Desoutter Cast Cutter CC4	£725.00
001710	Spare Blade for Gypsum Casts 64cm	£29.50
001720	Diamond Blade for Resin Casts 64mm	£110.00
001721	Diamond Blade for Resin Casts 80mm	£110.00

Multi Saw

Multi Saw Battery Powered

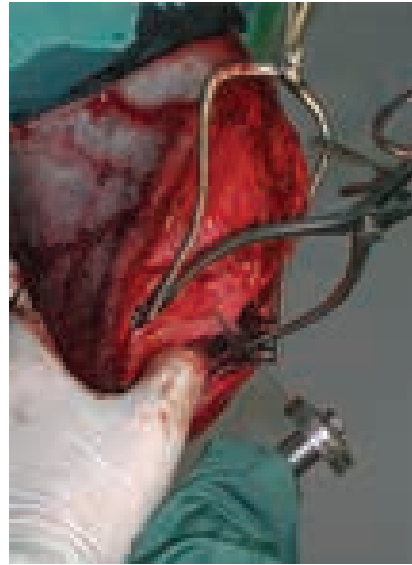


The Multi Saw is a multi-function oscillating saw which may be used as a cast cutter and a surgical oscillating saw. The Standard Rechargeable Saw is supplied as a Kit including Charger, Battery (x2), Titanium Nitride Coated Blade and S82-103 Blade. The Multi Saw has adjustable speed control. The Saw cuts best at full speed but early users may wish to start the osteotomy at a lower setting.

Our Stainless Attachment converts the Multi Saw into a Surgical Saw in a similar fashion to our Orthopaedic Drill. With the Converter and Shroud in place, all exposed surfaces are sterile. Excellent for total femoral head and neck excision, TPLO by Wedge Osteotomy and TTA. A wide range of blades fit the Multi Saw. We recommend either the Desoutter S82 series or the Halls SB5071 series. The latter offers a slimmer cut 0.8mm c.f. 1.2mm.

MULTI SAW BATTERY POWERED

001708	Multi Saw Surgical Kit incl Converter, Shroud, Titanium Nitride Coated Blade and S82-103 Blade	£445.00
001708.134	Multi Saw Surgical Kit incl Converter, Shroud, Titanium Nitride Coated Blade and SB5071-134 Blade Suitable for TTO and TTA Rapid	£445.00
001702	Stainless Converter (c/w Spanner)	£125.00
001703	Waterproof Shroud for Multi Saw	£19.50
001705	Multi Saw Diamond Blade	£51.50
001714	Multi Saw Titanium Nitride Coated Blade	£46.50
001701B	Spare Battery for Multi Saw	£95.00



Multi Saw in use during a closing wedge TPLO operation

Multi Saw Variable Speed 240volt



The well established Multi Saw is also available in a mains powered (240v) version. This plug in version has the advantage of reliability of power and significantly the speed of the saw is variable allowing a slow start speed. The disadvantage is that a flex is not convenient and care should be taken to eliminate electrical hazards in theatre.

The option of a slow speed is also an advantage when used as a cast saw.

The Surgical Attachment and Blades are common to both Battery and Mains Powered Saws.

MULTI SAW, VARIABLE SPEED MAINS POWERED 240V

001711	Multi Saw Kit incl Converter, Shroud Diamond Blade and S82-103 Blade	£445.00
001703MAINS	Shroud for Corded Multi Saw	£19.50

Slocum Blade Adaptor



This Adaptor converts our standard Multi Saw into a radial/ bi-radial blade driver. The mount is in fact the old Stryker triangular mount. Please bear in mind the following, once mounted the saw sits at right angles to the long axis of the saw c.f. standard Slocum type saws. Additionally the cut is less aggressive in that the oscillation is 4° rather than the 6° of standard saws. The cut will, therefore, be slower. Ideal as a budget alternative or as a back up to your air saw.

MULTI SAW SLOCUM BLADE ADAPTOR

001707	Multi Saw Slocum Blade Adaptor	£135.00
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Multi Saw Blades

Cast Blades

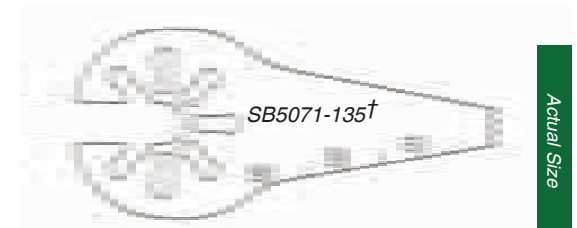
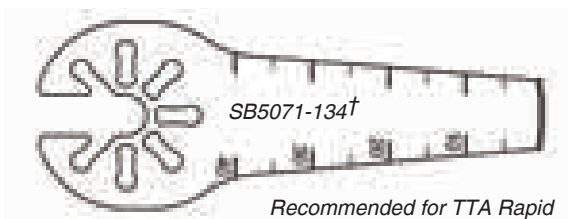
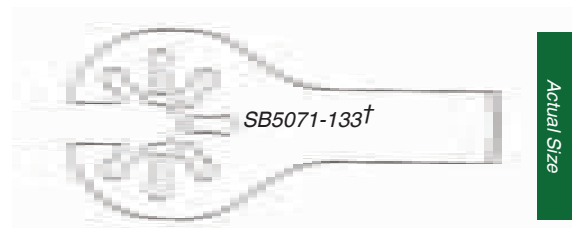
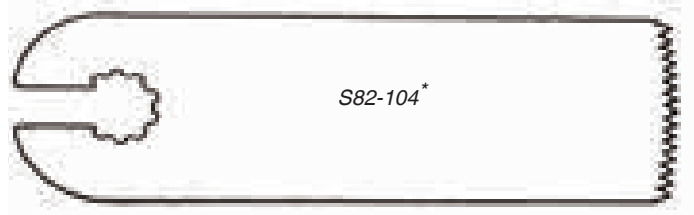
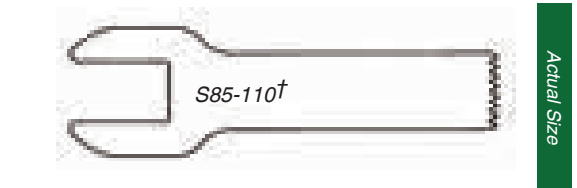
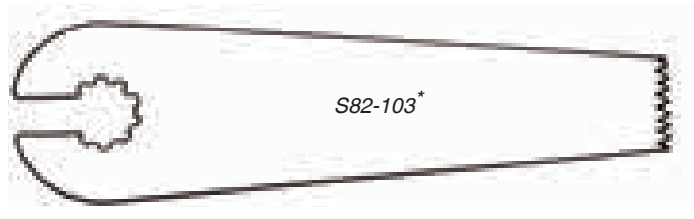
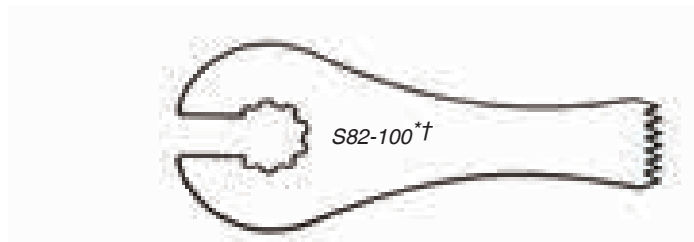
CAST BLADES		
001705	Diamond Multi Saw Blade 63mm for Resin Casts	£49.50

Surgical Blades

Other patterns available - phone for full list

MULTI SAW BLADES				
CODE	CUT THICKNESS	LENGTH	WIDTH	PRICE
S82-100	0.9mm	45mm	12mm	£51.50
S82-103	1.2mm	70mm	12mm	£51.50
S82-104	1.2mm	70mm	25mm	£51.50
SB5071-134	0.4mm	41mm	9.0mm	£61.50
SB5071-232	0.4mm	41mm	19.5mm	£61.50
SB5071-135	0.6mm	30mm	5.0mm	£61.50
SB5071-133	0.4mm	25mm	9.5mm	£61.50
S85-110	0.4mm	33mm	10.0mm	£51.50

All blades with a central hole bigger than 6mm will fit the Multi Saw.



*Also fits Desoutter M171/M172

† Suitable for use with TTO and TTA Rapid Sawguide

Guide to Saw Blades

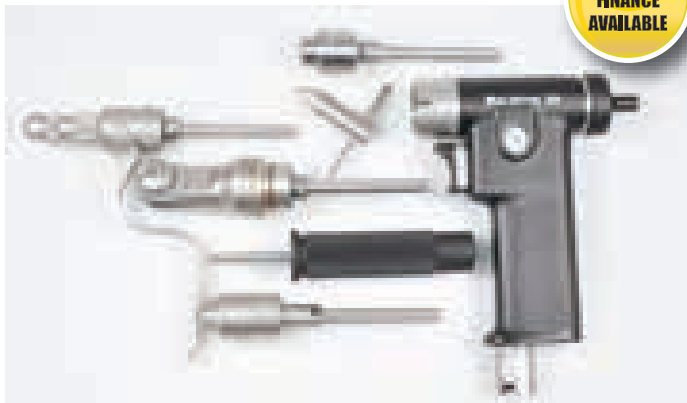
A Veterinary Instrumentation Saw Blade guide is available. Either download from www.vetinst.com or request a paper copy with your next order. The Guide includes blades for all major manufacturers including the VI Power Tool Range, 3Ms MiniDriver & MaxiDriver, Synthes, Halls, Linvatec, Zimmer and Desoutter.

VI MiniDriver

The MiniDriver Is Dead!! Long Live the MiniDriver!!

3Ms Orthopaedic was sold to Linvatec who killed off the MiniDriver and the MaxiDriver as they competed with their own product range. The MiniDriver remains in widespread use and in many ways is the ideal small animal orthopaedic power system particularly when used with the Mark II saw. Veterinary Instrumentation is pleased to announce that we are having the entire MiniDriver range re-manufactured including the K220 which takes a larger blade than the original Mark I saw. In fact we have improved on some of the accessories. New MiniDriver Sets are available from £3,950. Some say the torque on the MiniDriver is too low. OK then buy the high torque chuck which more than triples the torque!

MiniDriver Sets



Illustrated above is the basic MiniDriver set comprising

K200	Handpiece Mark II
K110	4mm Chuck
K111	Wire Driver
K114B	AO Quick Release Chuck
K120	Sagittal Saw Mark I Push Button Release
3MHOSEVI	MiniDriver Hose

Also available with the Mark II Saw

When purchased as a set the savings are considerable.

MINIDRIVER SETS

VIMDB1	MiniDriver Basic Set (inc Mk I Saw)	£3,950.00
VIMDB2	MiniDriver Basic Set (inc MkII Saw)	£4,250.00

K200 MiniDriver Handpiece

Fully re-furbished to the new K200 standard, the handpiece is the centre of the modular system.

Handpiece has forward and reverse button plus locking trigger.

Power output with Medical Air @ 7bar input is 0.78 Newton Meters.

Speed variable
0-1100rpm.



K200 MINIDRIVER HANDPIECE

K200VI	K200 Handpiece	£2,650.00
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K111 Wire Driver

Re-attachment of osteotomies or small bone fragments is often best achieved using 'K' or arthrodesis ('A') wires. Driving a long pin in a chuck often results in bending and kinking making driving difficult. Incrementally advancing the wire through a chuck is fiddly and time consuming. The wire driver allows the easy incremental advancement of the wire through the handpiece via the use of a clutch arrangement.



K111 WIRE DRIVER

K111VI	Wire Driver 0.7 to 1.8mm	£725.00
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K211 Pin Driver

Similar to the Wire Driver in operation the Pin Driver has a larger capacity (1.6 to 4mm).



K211 PIN DRIVER

K211VI	K211 Pin Driver 1.6 to 4mm	£875.00
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K120 Mark I Sagittal Saw



The K120 Sagittal Saw uses a push button mechanism for blade attachment. It is relatively widely available and less expensive than the more robust Mark II K220.

K120 MARK I SAGITTAL SAW

K120VI	K120 Sagittal Saw Attachment	£775.00
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K220 Mark II Sagittal Saw



The Mark II Saw is more robust in construction than the K120 Saw. Blade attachment is by use of a Hex Wrench. While this gave a more rigid attachment of the blade to the saw it was also the weak point of the attachment. We have re-engineered the blade holding mechanism to make it stronger and made the whole attachment from stainless steel.

The Mark II Saw drives a larger range of blades including longer ones up to 42mm useful in the TTO and TTA procedures.

K220 MARK II SAGITTAL SAW

K220VI	K220 Mark II Sagittal Saw Attachment	£1,025.00
K201VI	Replacement Wrench for K220K	£135.00

MiniDriver Hose

The Standard Hose is a 3 meter long double hose which vents back at the wall gas outlet or the regulator. In the UK the standard drive gas is bottle sterile Medical Air delivered at 7bar (100psi). Elsewhere in the world Nitrogen may be used.

The Standard Hose supplied is fitted with an MA7 gas probe (Medical Air @ 7bar) which prevents connection to other gases e.g. Oxygen.

MINIDRIVER HOSE

3MHOSEVI	MiniDriver Hose	£475.00
3MHOSEVIUS	MiniDriver Hose US Schrader	£475.00

K110 Small (4mm) Jacobs Chuck

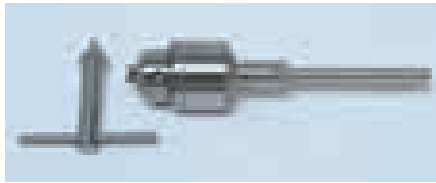
Both Jacobs Chuck Attachments are through cannulated for driving long pins.
4mm Capacity with Key.



K110 SMALL (4MM) CHUCK		
K110VI	K110 4mm Chuck Attachment	£425.00

K109 Large (6.25mm) Jacobs Chuck

Both Jacobs Chuck Attachments are through cannulated for driving long pins.
6.25mm Capacity with Key.



K109 LARGE (6.25MM) CHUCK		
K109VI	K109 6.25mm Chuck Attachment	£425.00

K210 Hi Torque Large (6.25mm) Jacobs Chuck

Using the standard chucks the MiniDriver has a torque of 0.78 Newton Meters, which makes heavy weather of driving large pins without pre-drilling. By adding a set of gears the chuck speed is reduced but the stall torque is increased to 2.8 Newton Meters ideal for driving pins.



K210 HI TORQUE LARGE (6.25MM) CHUCK		
K210VI	K210 Hi Torque 6.25mm Chuck Attachment	£875.00

K107VI & K108VI Keyless Chuck Attachment

Chuck Keys wear quickly, become lost and can be awkward to use in some situations.

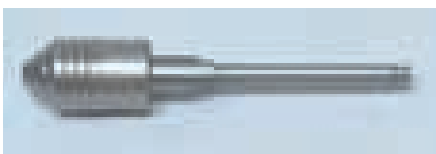


The Keyless Chuck, as are found on most DIY drills allow the surgeon to quickly switch drills and pins without a key. The distal part of the Chuck is held using fingers and the chuck opened or closed by engaging the drill in either the forward or reverse drive respectively. The downside is that the Chuck is slightly bulkier than the keyed equivalent.

K108VI & K107VI KEYLESS CHUCK ATTACHMENTS		
K108VI	Keyless Chuck Attachment 0 - 3.2mm	£575.00
K107VI	Keyless Chuck Attachment 0 - 6.3mm	£575.00

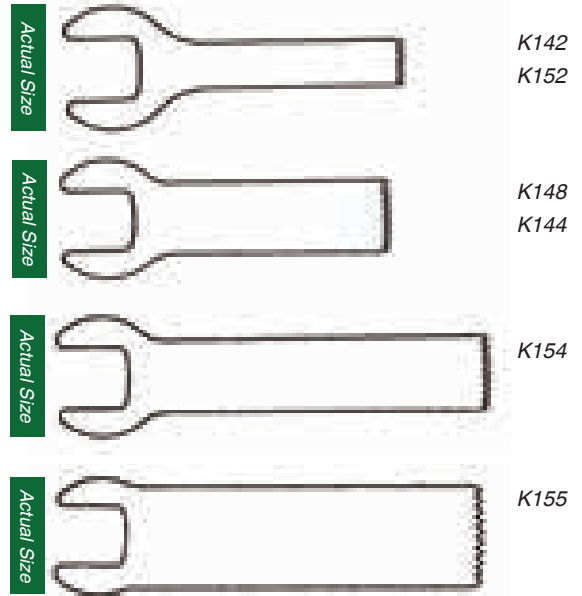
K114B AO Quick Release Attachment

Many drills and taps are available with a quick release fitting, the most common of which is to the Synthes or AO standard. Drills may be changed quickly without the use of a chuck key. The original version was made from relatively soft aluminium. The re-manufactured K114B is made from stainless steel and is easier to use than the original.



K114B AO QUICK RELEASE ATTACHMENT		
K114BVI	K114B AO Quick Release Attachment	£545.00

K220 Blades



Other patterns available

K220 BLADES				
CODE	CUT THICKNESS	LENGTH	WIDTH	PRICE
K141	1.0mm	14.2mm	6.4mm	£57.50
K142	1.0mm	30.0mm	6.4mm	£57.50
K144	1.0mm	30.0mm	10.2mm	£57.50
K146	0.65mm	27.4mm	19.0mm	£57.50
K147	0.65mm	27.4mm	14.0mm	£57.50
K148	0.65mm	27.4mm	9.5mm	£57.50
K149	0.65mm	42.7mm	19.1mm	£57.50
K152	0.65mm	30.0mm	6.4mm	£57.50
K154	0.65mm	42.7mm	9.5mm	£57.50
K155	0.65mm	42.7mm	14.0mm	£57.50

'Samoy Rapid-Cut' Saw Blades

Named after Yves Samoy, the surgeon responsible for developing the TTA Rapid technique, the titanium nitride on the 'Samoy Rapid-Cut' signature series makes for a very hard cutting surface for a blade that will stay sharp much longer than standard blades.

SAMOY RAPID-CUT SAW BLADES		
SAMOYMINID1	Samoy Rapid Blade for Minidriver 42mm x 14mm x 0.65mm (K155)	£65.00
SAMOYMINID2	Samoy Rapid Blade for Minidriver 27mm x 9.5mm x 0.65mm (K148)	£65.00

K120 Blades



Other patterns available - phone for full list

K120 BLADES				
CODE	CUT THICKNESS	LENGTH	WIDTH	PRICE
K121	1.0mm	15.1mm	6.4mm	£57.50
K122	1.0mm	31.0mm	6.4mm	£57.50
K123	1.0mm	15.1mm	10.4mm	£57.50
K124	1.0mm	31.0mm	10.4mm	£57.50
K125	1.0mm	15.1mm	16.5mm	£57.50
K131	0.7mm	15.1mm	6.4mm	£57.50
K132	0.7mm	31.0mm	6.4mm	£57.50
K133	0.7mm	15.1mm	10.4mm	£57.50
K134	0.7mm	31.0mm	10.4mm	£57.50
K135	0.7mm	15.1mm	16.5mm	£57.50

MaxiDriver Modular System

The MaxiDriver remains the workhorse of very many human and veterinary orthopaedic units. It is extremely reliable and almost infinitely repairable. Its robust construction will tolerate a good deal of abuse.

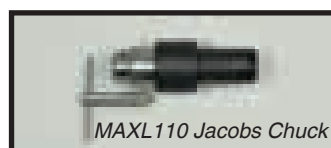
Veterinary Instrumentation is re-manufacturing the handpieces and attachments and has taken steps to ensure that all spares are available or can be re-made. The New MaxiDriver has a full 1 year warranty. The handpiece is significantly bigger than the MiniDriver (940g vs 480g). The modular system takes 15 quick release attachments. All attachments also available in new re-manufactured condition. Please phone for details. A huge range of saw blades is available making the MaxiDriver Kit an extremely good value introduction to orthopaedic power.



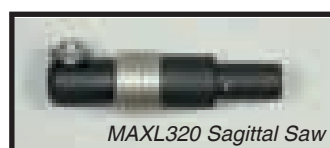
MAXL100R



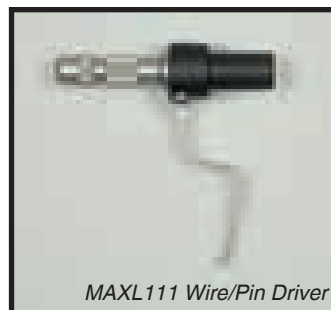
MAXKITR Basic MaxiDriver Set



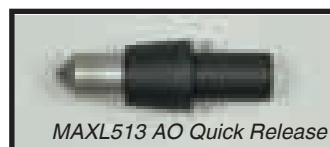
MAXL110 Jacobs Chuck



MAXL320 Sagittal Saw



MAXL111 Wire/Pin Driver



MAXL513 AO Quick Release



MAXIDRIVER MODULAR SYSTEM

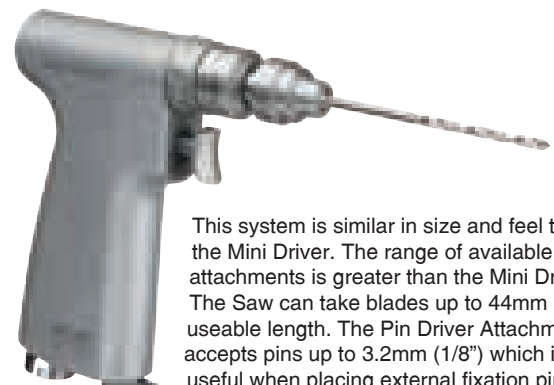
MAXL100R	MaxiDriver Handpiece Refurbished to new	£2,650.00
MAXL110	Jacobs Chuck Attachment 6.35mm Capacity	£475.00
MAXL111	Wire/Pin Driver 1.6 to 4mm Capacity	£525.00
MAXL320	Sagittal Saw Large Attachment	£575.00
MAXL140	Reciprocating Saw Attachment	£475.00
MAXL513	AO Quick Release Attachment	£575.00
MAXIHOSE	3 Metre MA7 Hose to fit MaxiDriver	£475.00
MAXIKITR	MaxiDriver Basic Kit with 'as new' Handpiece	£4,450.00

Orthopaedic Equipment



Desoutter is a long established U.K. company providing high quality air driven equipment for orthopaedic surgeons. Excellent equipment with high quality, local backup.

MPZ Modular System



This system is similar in size and feel to the Mini Driver. The range of available attachments is greater than the Mini Driver. The Saw can take blades up to 44mm useable length. The Pin Driver Attachment accepts pins up to 3.2mm (1/8") which is very useful when placing external fixation pins.

Air and corded versions are available.

A full colour stand alone brochure is available which illustrates all the MPZ options, together with other De Soutter small bone equipment.



Small Jacobs Chuck



Wrench Tightening Sagittal Saw



Quick Release Sagittal Saw



Wire Driver



AO Quick Release Chuck

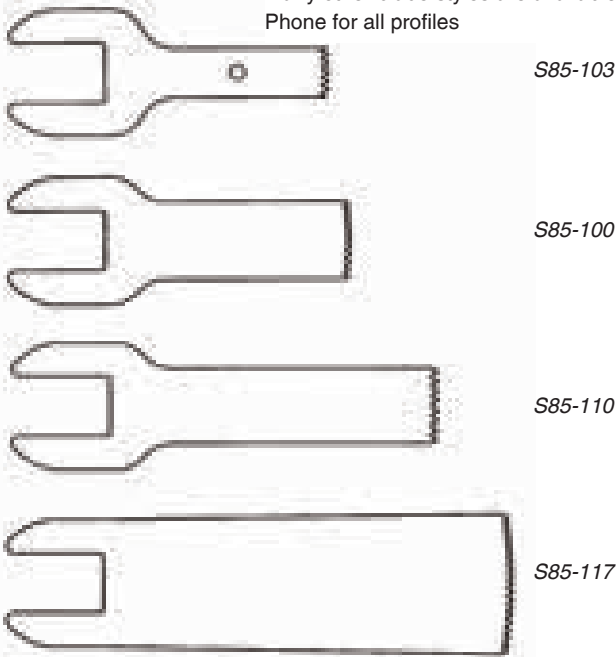
MPZ MODULAR SYSTEM

MPZ226414	Multidrive MPZ Handpiece	£3,750.00
MPZ14110	Small Jacobs Chuck Attachment max 4.0mm	£575.00
MPZ14240	Large Jacobs Chuck Attachment max 6.3mm	£625.00
MPZ14140	AO Attachment	£650.00
MPZ14230	Sagittal Saw Attachment (Quick Release)	£2,250.00
MPZ14210	Sagittal Saw Attachment (Wrench Fitting)	£2,150.00
MPZ14220	Reciprocating Saw Attachment	£2,150.00
MPZ14260	Wire Driver Attachment 0.6 to 1.8mm Gold Nose	£1,925.00
MPZ14270	Pin Driver Attachment 1.8 to 3.2mm Silver Nose	£1,925.00
MPZ10900	3 Metre Hose MA7 Fitting	£595.00
BRDESOUTSM	Small Bone Surgery Brochure	£FOC
BRDESOUTLB	Large Bone Surgery Brochure	£FOC

MPZ Blades for Sag Saw with Wrench 14210(SZ-450)

MPX Blades for Sag Saw with Wrench 12300(MX-600)

Many other blade styles are available
Phone for all profiles

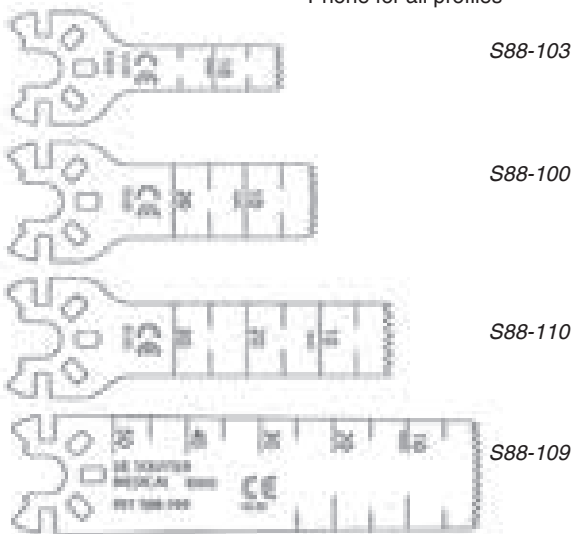


MPZ/MPX BLADES TO FIT WRENCH FITTING SAG SAW SZ-450/NX-600				
CODE	CUT THICKNESS	LENGTH	WIDTH	PRICE
S85-100	0.7mm	23mm	10.4mm	£57.50
S85-103	0.7mm	11mm	6.4mm	£57.50
S85-107	0.7mm	44mm	19mm	£57.50
S85-109	0.7mm	44mm	17mm	£57.50
S85-110	0.7mm	33mm	10mm	£57.50
S85-117	0.7mm	48mm	17mm	£57.50

MPZ Blades for Quick Release Sag Saw 14230(NZ-450)

MPX Blades for Quick Release Sag Saw 144400(NX-600)

Many other blade styles are available
Phone for all profiles



MPZ/MPX BLADES TO FIT QUICK RELEASE SMALL SAG SAW NZ-450/NX-600				
CODE	CUT THICKNESS	LENGTH	WIDTH	PRICE
S88-100	0.6mm	25mm	10.0mm	£57.50
S88-103	0.6mm	22mm	6.4mm	£57.50
S88-109	0.6mm	46mm	15mm	£57.50
S88-110	0.6mm	35mm	10mm	£57.50

MPX 600 Modular System

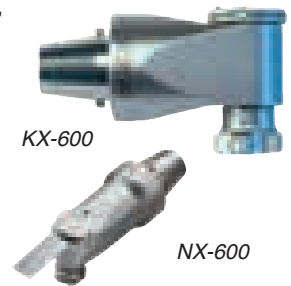


Heavier duty than the MPZ system, the MPX will be of particular interest to those surgeons with a high through put of Closing Wedge TPLOs and TTOs. The working blade length goes up to 100mm. High power, high torque coaxial motor.

A massive 27 quick release attachments, including 3 different saws which take all the blades styles illustrated on this page.

Air, battery and corded versions available. Air hose is the same as the Slocum saw.

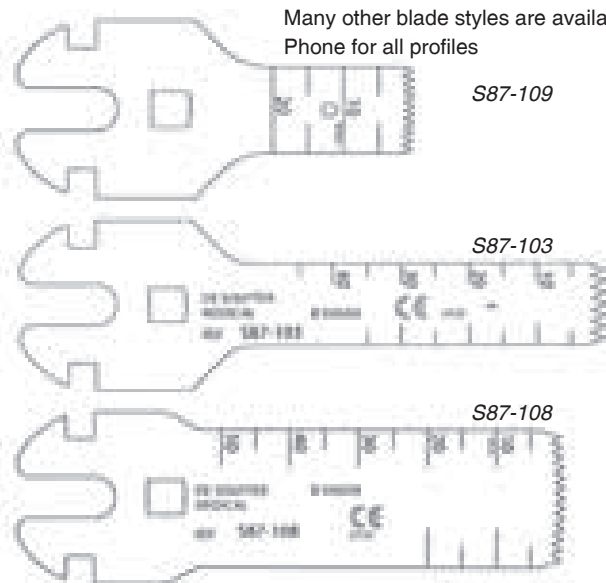
Full colour stand alone brochure is available which illustrates all the MPX options together with other De Soutter large bone equipment.



MPX-600 MODULAR SYSTEM		
MPX226464	MPX Handpiece	£3,950.00
MPX11720	Jacobs Chuck 4mm Capacity	£795.00
MPX11710	Jacobs Chuck 6.35mm Capacity	£795.00
MPX11930	Wire Pin Driver 0.6 to 3.2mm	£2,250.00
MPX12380	MPX Sagittal Saw Large Blade Head KX-600	£1,950.00
MPX14400	Mini Sagittal Saw Quick Release Head NX-600	£1,950.00
MPX12300	Mini Sagittal Saw Wrench Fit MX-600	£2,150.00
MPX11730	AO Quick Release Attachment	£675.00
MPX11760	Oscillating Drill	£1,775.00
MPX5300	3 Metre MA7 Hose to fit MPX & Slocum Saw	£495.00
BRRDLBS	Large Bone Surgery Brochure	£FOC

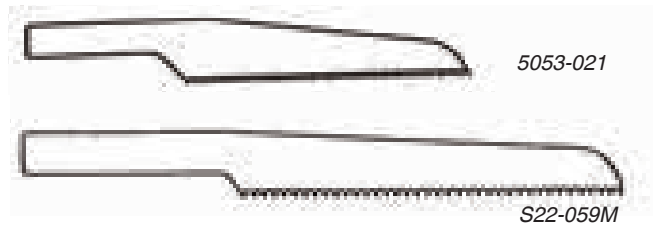
MPX Blades for Large Quick Release Sag Saw KX-600

Many other blade styles are available
Phone for all profiles



MPX BLADES TO FIT LARGE QUICK RELEASE SAG SAW 12380(KX-600)				
CODE	CUT THICKNESS	LENGTH	WIDTH	PRICE
S87-103	0.8mm	60mm	13mm	£57.50
S87-108	0.75mm	52mm	20mm	£57.50
S87-109	0.8mm	32mm	12mm	£57.50

Reciprocating Saw Blades



RECIPROCATING SAW BLADES

CODE	CUT THICKNESS	LENGTH	WIDTH	PRICE
5053-021	0.6mm	39mm	N/A	£57.50
S22-059M	0.6mm	60mm	N/A	£57.50

POWER TOOL SERVICE AND REPAIR

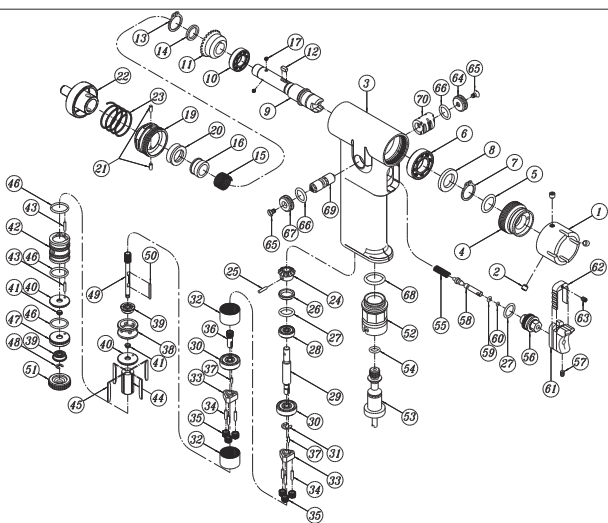
Power tools can transform surgery when working properly but can be very frustrating when working sub-optimally or if they fail mid procedure.

Regular maintenance in the clinic is the key to a long and happy life but periodic service or repair is essential to replace worn parts.

Veterinary Instrumentation offers a full repair service for most power tools and their accessories. We work directly with the manufacturers who are best placed to provide the correct parts for your machine. Botched repairs can be very expensive.

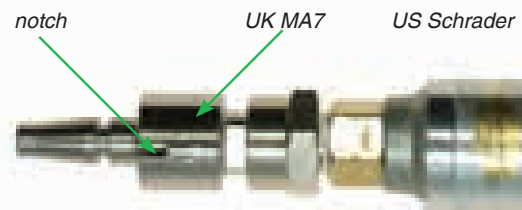
As with any machine, to minimise failure in use, a regular service programme is ideal. Service loaners are available provided we have sufficient notice. We may not be able to offer a loaner for an emergency repair.

Typical service costs for a MiniDriver which will include new rotor vanes, bearings, and o-rings plus set up to new specification is between £250 and £300.



MiniDriver * MaxiDriver * Aesculap * DeSoutter * Halls

Air Regulators and Hose Probes



All the air equipment runs on Medical Air at 7 Bar (100PSI). Drills and Saws can be run from compressors as their air requirement is intermittent. High speed drills need bottled gas or a big compressor. A Twin Dial Regulator is best to control gas pressure (001756). One dial gives bottle pressure, the other one gives line pressure (7 Bar).

UK supplied hoses come with an MA7 probe (Medical Air 7 Bar pressure). Schrader fittings on hoses purchased from the USA look similar to UK MA7 probes. Many will however not lock into UK MA7 sockets. The best solution is to change the probe. A cheaper alternative is to use a Schrader/ MA7 Converter (001758).

AIR REGULATORS AND HOSE PROBES

001756	Medical Air Regulator MA7 Outlet *	£395.00
001758	Schrader / MA7 Converter (plug in)	£85.00
001759	Hose Conversion US Schrader to UK Probe	P.O.A.

Carriage is extra for all items marked *

Air Instrument Care Products

Orthopaedic Air instruments are expensive to buy and replace. Regular basic maintenance will ensure continuing excellent performance and minimal repair bills. Many instruments which come to us for repair have simply not been lubricated. Follow manufacturer's recommendations exactly.



AIR INSTRUMENT CARE PRODUCTS

M105	Blitz Spray Cleaner	£24.50
M317	Lubricant for MiniDriver and Minos	£22.00
M316	VI Air Instrument Oil	£12.00

Replacement Air Hoses – what do I need?

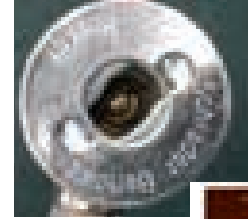
To get the correct hose you will need to know 2 things – the make / model of instrument the hose is to fit, and the type of supply outlet you have.

Outlet connectors cause most fitting issues. Most usual outlet – UK MA7. This will only accept UK MA7 probes. If your hose pushes in, but will not click home, the hose usually has a US Schrader fitting. A common symptom of eBay purchases! Hoses sourced outside the UK & USA are very unlikely to be compatible with UK outlets as each country has its own connectors for safety reasons. Hose outlet connectors are shown with the relevant outlet. Schrader hoses can be as shown but can also have no gutter round the probe.

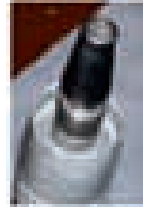
A UK MA7 probe will fit a Schrader socket, but a Schrader probe will NOT fit a UK MA7 outlet without a special adaptor



UK MA7



SCHRADER



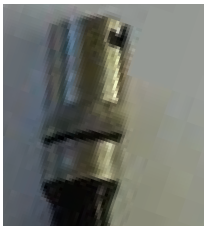
Common Instrument Connectors:



3M Connector – fits MiniDriver, MicroDriver, Minos A200.



MaxiDriver. Fits nothing else!



Halls Connector. Fits most Halls Air Tools, Surgairtome Spinal System, VI air equipment, Whittemore TPLO Saw and many others.

AIR HOSES		
3MHOSEVI	VI Hose 3M Fitting UK MA7 (3 metre)	£475.00
3MHOSEVIUS	VI Hose 3M Fitting US Schrader (3 metre)	£475.00
HALLHOSEVI	VI Hose Halls Fitting UK MA7 (3 metre)	£475.00
MAXIHOSE	MaxiDriver Hose MA7 (3 metre)	£475.00
MPZ10900	De Soutter MPZ Hose MA7 (3 metre)	£595.00
MPX5300	De Soutter MPX Hose MA7 (3 metre) Also fits original Slocum Saw	£495.00
GA468	Aesculap Air Hose MA7 fits GA200 Motor (3 metre)	£925.00
001758	MA7 Male to Schrader Female Plug in Adaptor	£85.00

POWER TOOLS COMPARISON

Modular Systems	V300 Arthrex (Battery)	Air De Soutter MPX 600	Air De Soutter MPZ	Air MiniDriver	Air MaxiDriver
Handpiece	£3,000	£3,950	£3,750	£2,650	£2,650
AO Quick Release	£950	£675	£650	£545	£575
4mm Jacobs Chuck	£850	£795	£575	£425	
6.25mm Jacobs Chuck		£795	£625	£425	£475
High Torque Chuck 6.25mm				£875	
Wire Driver	£1,100	£2,250	£1,925	£725	£525
Oscillating Saw	£1,200	£2,150	£2,250	£1025	£575
Battery	£200				
Charger	£950				
Hose		£495	£595	£445	£475
Set including Handpiece, Drill, Saw, AO, Wire Driver, 4mm Chuck, plus Hose or Batteries (x 2) plus Charger	£8,260	£11,110	£10,370	£4,250	£4,450*
Warranty Period	12 months	12 months	12 months	12 months	12 months

* does not include 4mm Chuck

VI Black Series Battery Powered Surgical Saws and Drills

VI Black Series power tools have very robust steel construction and feature German motors making them smoother, quieter and more reliable than many similar battery powered units.

These are based on human hand surgery power tools, so are smaller than the standard human power tools used in more general human orthopaedics, but are ideally suited to most of our smaller patients.

The VI Black Series range is fully steam autoclavable at 134°C (not batteries) and is small enough to fit inside most autoclaves.

VI Black Series Battery Powered Drill



Supplied complete with Battery, Battery Charger, Battery Transfer Sleeve and Aluminium Storage Case.

The drill has a reverse and is fitted with a 4.8mm capacity 3 jaw chuck with 3.0mm through cannulation for driving smaller pins, wires and drill bits.

Drill max speed: 0-1100RPM
Drill max noise: <40dB
Drill weight: 990g

VI BLACK SERIES BATTERY POWERED SURGICAL DRILL

BLACKDRILL	VI Black Series Drill Set	£2,250.00
BLACKBAT	VI Black Series Spare Battery	£175.00
BLACKCHUCKKEY	VI Black Series Drill Spare Chuck Key	£22.50

VI Black Series Battery Powered Saw

Supplied complete with battery, battery charger, aluminium battery transfer sleeve and storage case.

Saw speed: 0-15000 osc/min
Saw max noise: <50dB
Saw weight: 782g



VI BLACK SERIES BATTERY POWERED SURGICAL SAW

BLACKSAW	VI Black Series Saw Set	£2,250.00
BLACKBAT	VI Black Series Spare Battery	£175.00

VI Black Series Battery Powered Drill/ Saw Set



Drill/ Saw Set

- Black Series Drill
- Black Series Saw
- 2 x battery chargers
- 2 x batteries
- 2 x battery transfer sleeves
- 2x storage cases

VI BLACK SERIES BATTERY POWERED SURGICAL DRILL AND SAW

BLACKKIT	VI Black Series Drill/ Saw Set	£3,950.00
BLACKBAT	VI Black Series Spare Battery	£175.00
BLACKCHARGE	VI Black Series Charger Unit (UK)	£125.00
BLACKCHARGEEU	VI Black Series Charger Unit (EU)	£125.00
BLACKCHARGEUSA	VI Black Series Charger Unit (USA)	£125.00

12 months warranty on Body

6 months warranty on Batteries

'I can't bear to be without them. They go everywhere with me.'

Mike Guillard.

Black Series Aluminium Steriliser Cases



Designed specifically for the VI Black Series Drill and Saw and suitable for use in larger autoclaves. Cases outer dimensions are 300x205x70mm.

VI BLACK SERIES ALUMINIUM STERILISER CASES

BLACKDRILL-SC	Steriliser Case for Black Series Drill	£175.00
BLACKSAW-SC	Steriliser Case for Black Series Saw	£175.00

Use of Sterile Transfer Sleeve - Step by step



1. With battery cap removed, insert sterilised sterile transfer sleeve into end of handle.



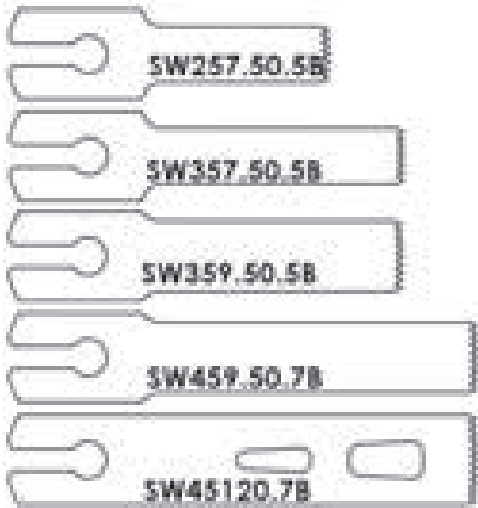
2. Non-sterile assistant inserts non-sterile battery and removes transfer sleeve.



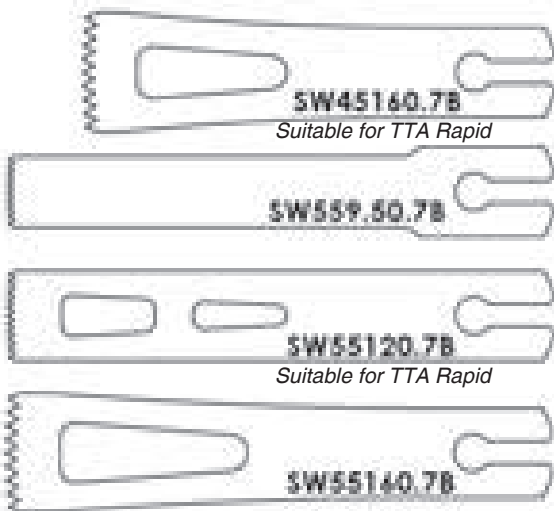
3. Insert battery end-cap.

VI Black Series Saw Blades

We stock a range of Black Series Saw Blades which have been specifically designed for veterinary patients. Ideal for TTA/TTO style cruciate surgeries, other elective osteotomies and excisional arthroplasty.



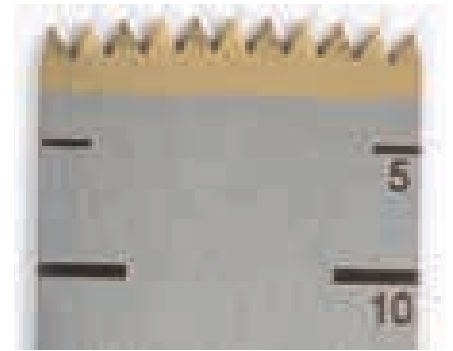
BLADES TO SCALE



VI BLACK SERIES SAW BLADES				
CODE	CUT THICKNESS	WORKING LENGTH	WIDTH	PRICE
BLACKSW257505B	0.75	20	7.5	£37.50
BLACKSW357505B	0.75	30	7.5	£37.50
BLACKSW359505B	0.75	30	9.5	£37.50
BLACKSW459507B	0.95	40	9.5	£37.50
BLACKSW451207B	0.95	40	12	£37.50
BLACKSW451607B	0.95	40	16	£37.50
BLACKSW559507B	0.95	50	9.5	£37.50
BLACKSW551207B	0.95	50	12	£37.50
BLACKSW551607B	0.95	50	16	£37.50

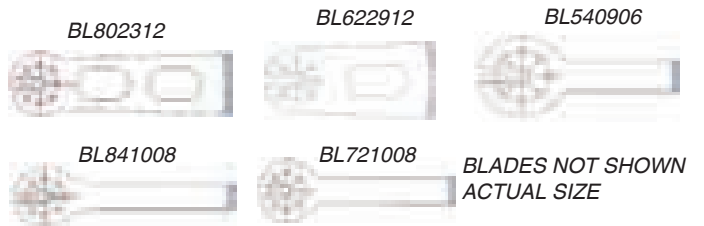
'Samoy Rapid-Cut' Saw Blades with Black Series Fitment

Named after Yves Samoy, the surgeon responsible for developing the TTA Rapid technique, the titanium nitride on the 'Samoy Rapid-Cut' signature series makes for a very hard cutting surface for a blade that will stay sharp much longer than standard blades. These blades are particularly well suited to TTA Rapid and techniques involving other linear osteotomies of the proximal tibia.



SAMOY RAPID-CUT SAW BLADE WITH BLACK SERIES FITMENT		
SAMOYBLACK1	Samoy Rapid Blade for Black series (Same dimensions as SW451607B) 40mm x 16mm x 0.95mm	£47.50
SAMOYBLACK2	Samoy Rapid Blade for Black series (Same dimensions as SW451207B) 40mmx12mmx0.95mm	£47.50
SAMOYMINID1	Samoy Rapid Blade for Minidrivers 42mm x 14mm x 0.65mm (K155)	£65.00
SAMOYMINID2	Samoy Rapid Blade for Minidrivers 27mm x 9.5mm x 0.65mm (K148)	£65.00

Blue Line Saw Blades (Please note - does not fit Black Series)

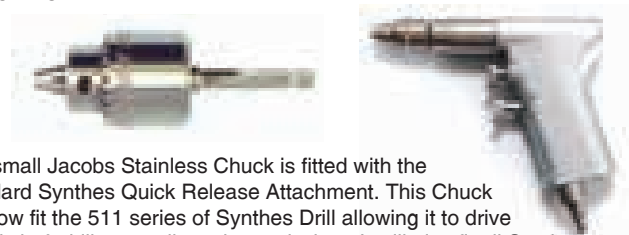


BLUE LINE SAW BLADES		
		Blade Length (mm)
BL540906	Saw Blade 54mm x 9 x 0.6mm	30mm
BL622912	Saw Blade 62mm x 29 x 1.2mm	40mm
BL721008	Saw Blade 72mm x 10 x 0.8mm	50mm
BL802312	Saw Blade 80mm x 23 x 1.2mm	55mm
BL840608	Saw Blade 84mm x 6 x 0.8mm	58mm
BL840808	Saw Blade 84mm x 8 x 0.8mm	58mm
BL841008	Saw Blade 84mm x 10 x 0.8mm	58mm

NB Blue Line Power Tools have been discontinued.

Synthes

Jacobs Chuck (4mm) with Synthes Quick Release Attachment



The small Jacobs Stainless Chuck is fitted with the standard Synthes Quick Release Attachment. This Chuck will now fit the 511 series of Synthes Drill allowing it to drive round shaft drills as well as pins and wires. It will also fit all Synthes tap handles making it a useful hand driver.

4MM JACOBS CHUCK WITH SYNTHES QUICK RELEASE ATTACHMENT		
SYN4MM	4mm Chuck with Synthes Quick Release Fitting	£185.00



NEW

New inclusion for 2015

Arthrex V-300 Modular Small Bone Power System



Designed for the same range of human surgical procedures as the ever popular Mini-Driver, this offering from Arthrex has the advantages of hose and cable free operation combined with a novel ergonomic design producing a very well balanced handpiece.

Even though this unit is battery operated, which is often associated with higher handpiece weights, it boasts minimal weight and maximum power. The PEEK handpiece housing is durable and light, and no handpiece lubrication is required. Handling of the unit is intuitive.

Batteries are Lithium-Ion technology, giving a very long battery life. Batteries carry a 1 year warranty.

A wide range of attachments is available, including the popular Jacob's chuck, AO quick release chuck and sagittal saw. Additional attachments include wire and pin drivers, reciprocating saw and a very useful bur adaptor, which takes round shaft 2.35mm diameter burs. This is the standard bur which fits Minos & Surgairetome spinal drills along with HP fit dental burs, so a wide range of burs will fit. Although not running as fast as an air powered bur, this attachment still reaches 15,000 RPM, which is the equivalent of the maximum a shaft drive bur system such as the Freedom can reach.

TRY BEFORE YOU BUY

Trial set available.

Please phone our Vet Tech Team for details.



Jacobs Chuck



AO Quick Release



Sagittal Saw



Bur Adapter

ARTHREX V300 MODULAR POWER SYSTEM

AR-300	Handpiece AR-300	£3,000.00
AR-300L	Battery, Unsterile, Li-Ion for AR-300	£200.00
AR-300ATK	Aseptic Transfer Kit for AR-300	£60.00
AR-300LBH	Battery Housing for AR-300	£200.00
AR-300/600	Charging Station for AR-300/AR-600 Batteries	£950.00
V-300T	Autoclave Basket	£700.00
AR-300C	Arthrex 300 Sterilisation Tray	£1,000.00
AR-300SAG	Sagittal Saw Attachment	£1,200.00
AR-300SR	Reciprocating Saw Attachment	£1,500.00
AR-300B	Bur Attachment Ø 2.35 mm	£550.00
AR-300DA0-2	Drill Attachment AO	£950.00
AR-300DJ	Drill Keyed Jacobs Chuck	£850.00
AR-300WD16	Wire Driver Attachment 0.6-1.6mm	£1,100.00
AR-300PD24	Pin Driver Attachment 1.2-2.4mm	£1,000.00

ARTHREX V300 BURRS AND BLADES

AR-300-040S	Sagittal Saw Blade 40 x 14 x 0.6mm	£35.00
AR-300-041S	Sagittal Saw Blade 40 x 9.5 x 0.6mm	£35.00
AR-300-042S	Sagittal Saw Blade 25 x 9.4 x 0.7mm	£35.00
AR-300-043S	Sagittal Saw Blade 25 x 9.4 x 0.6mm	£35.00
AR-300-044S	Sagittal Saw Blade 25 x 5.5 x 0.6mm	£35.00
AR-300-045S	Sagittal Saw Blade 16 x 5.5 x 0.6mm	£35.00
AR-300-406S	Sagittal saw Blade 17 x 9.4 x 0.55mm with stop (Box of 5)	£175.00
AR-300-450S	Sagittal Saw Blade – Angled 19 x 10 x 0.6mm	£56.00
AR-300-500S	Reciprocating Saw Blade 15 x 5.5 x 0.6mm (Box of 5)	£280.00
AR-300-501S	Reciprocating Saw Blade 25 x 0.6mm (Box of 5)	£280.00
AR-300-502S	Reciprocating Saw Blade 40 x 0.6mm (Box of 5)	£280.00
AR-300-B001	Bur, Straight, 13.0mm, diam 2.0mm (Box of 5)	£280.00
AR-300-B101	Bur, Conical, 13.0mm, diam 2.9mm (Box of 5)	£280.00
AR-300-B201	Bur, Straight, 19.5mm, diam 2.0mm (Box of 5)	£280.00



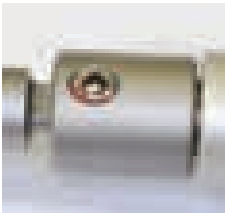
TPLO Saws and Blades



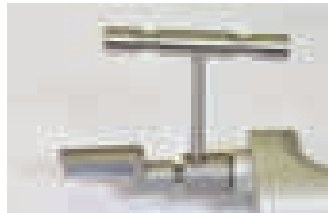
The VI TPLO is based on the very robust and reliable Halls Sternum Saw. As such it takes the industry standard Halls Hose, the same as the Surgairtome and the Halls range of saws and drills.

The blade hub rotates back and forth 6 degrees. As the blade diameter increases this 6 degrees will move the teeth on the saw a greater distance. You will find, therefore, that the bigger blades cut more efficiently than the smaller ones. In addition, where the patient is small the tibia has a relatively low inertia and will therefore be moved back and forth by the blade further reducing the cutting efficiency. It is suggested that the tibia be supported by a sandbag to minimise this effect.

TPLOSCREW



TBHEX32



Using the VI TPLO Saw the Blade is tightened into the saw hub using a single Hex Drive Grub Screw. This Grub Screw is larger and more effective than the 3 small Grub Screws on the original Slocum Saw.

Replacement Grub Screws are available. A 'T' Bar Type Wrench is also available for greater comfort and efficiency. The Saw is supplied with an Allen Key Type Wrench.

TPLO SAW		
TPLOSW	TPLO Saw	£2,350.00
HALLHOSEVI	VI Hose – Halls Fitting	£475.00
TBHEX32	'T' Bar Hex Drive 3.2mm	£45.00
TPLOSCREW	Slocum TPLO-replacement standard 1/4" x 1.5 hex grub screw x 3	£13.50

De Soutter 'Slocum' Saw



It may come as a surprise to many users that the original Slocum Saw was a modified De Soutter product. As De Soutter distributors we are now pleased to be able to offer the original saw to existing and new users. Many of the original saws are still in use but are coming to the end of their life. It is now possible to replace like for like to minimise any change in the technique. Standard grub screws are 5mm using a 2.5hex drive which is prone to failure. Upgrading to 5mm cap screws requiring a 4mm T bar drive is much more robust.

DE SOUTTER SLOCUM SAW		
DPX-SAW	De Soutter Slocum Saw (includes Stryker Adaptor)	£3,150.00
TBHEX25	2.5mm 'T' Bar Hex Driver (Slocum)	£45.00
SLOSCREW	Slocum TPLO - Replacement Screw	£13.50
SLOCUMREV	TPLO screw heavy duty upgrade (Includes 'T' Bar driver plus 3 x 5mm stainless cap screws)	£55.00

VI Black Series Battery Operated TPLO Saw



For surgeons who prefer the convenience of battery operated surgical power-tools to their air-powered counterparts, we have developed our new black series TPLO saw.

The popular consensus is that in line TPLO saws are more user friendly than pistol grip units as they are both easier to keep aligned and are more comfortable to operate.

This unit is heavy enough to dampen vibrations and assist with the cut and has plenty of power for use with the largest of our blades.

Compatible with standard triangular drive blades and supplied in transportation case with battery, charger and sterile battery transfer sleeve.



VI BLACK SERIES TPLO SAW		
BLACKTPLO	TPLO Saw – Battery Powered	£3,500.00
BLACKTPLOBAT	Spare Battery	£175.00
BLACKTPLOCHARUK	Charger Unit UK	£125.00
BLACKTPLOCHAREU	Charger Unit EU	£125.00
BLACKTPLOCHARUSA	Charger Unit USA	£125.00
BLACKHEXKEY	Spare Hex key	£15.00

TPLO Saw Blades VI Pattern



We have sold TPLO saw blades from various manufacturers over the years but have always thought that none of them cut as well as they should. In addition some of the blade lengths available did not match the clinical requirement. We have, therefore, designed our own.

Currently available blades either have no 'set' or a one sided 'set'. The 'set' of a saw is the way that alternate teeth protrude outside the blade of the saw. The set, which is found on all woodworking and metal working saws, is there to create a slot in the material, wood, metal or bone, which is slightly larger than the blade so that the blade does not produce friction in the slot. Friction leads to jamming of the blade in the slot which is both frustrating and destructive.

VI TPLO Blades have a full bilateral set for maximum efficiency.

TPLO BLADES VI PATTERN

TPLOV12	TPLO Blades VI Pattern 12mm	£275.00
TPLOV15	TPLO Blades VI Pattern 15mm	£275.00
TPLOV18	TPLO Blades VI Pattern 18mm	£275.00
TPLOV21	TPLO Blades VI Pattern 21mm	£275.00
TPLOV24	TPLO Blades VI Pattern 24mm	£275.00
TPLOV27	TPLO Blades VI Pattern 27mm	£275.00
TPLOV30	TPLO Blades VI Pattern 30mm	£275.00
TPLOV34	TPLO Blades VI Pattern 34mm	£275.00

For further information regarding the TPLO Starter Kit see page 68.

DESCRIPTION	VI CODE	HEX DRIVER	VI CODE
WHITTEMORE SAW GRUB SCREW	TPLOSCREW	1/8"	TBHEX32 (T BAR) TPLOHEX32 (ALLEN KEY)
SLOCUM SAW SCREW	SLOCSCREW	2.5MM	TBHEX25 (T BAR)
AESULAP SAW GRUB SCREW	SPECIAL ORDER FROM AESULAP	3.0MM	TBHEX30 (T BAR) F07020130 (ALLEN KEY)
TPLO JIGS	JIGSCREW	2.5MM	TBHEX25 (T BAR)
ARTHROSCOPIC DISTRACTOR	JIGSCREW	2.5MM	TBHEX25 (T BAR)
FESSA 6MM	015509	1.5MM	015507 (SDRIVER) 015508 (ALLEN KEY)
FESSA 8MM	015520	2.0MM	015516 (SDRIVER) 015517 (ALLEN KEY)

Modular Stainless TPLO Blades



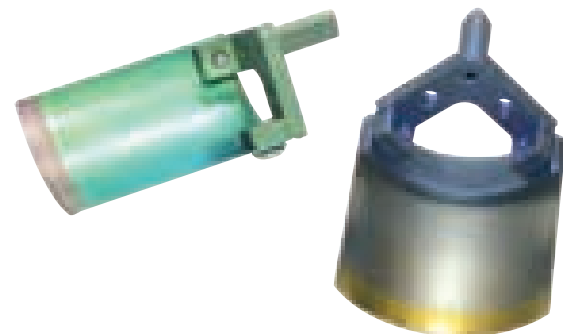
All the Blades fit the standard hub. The 30mm Blade requires a Collar which is supplied with the hub. The Blades have a 'set' which makes the teeth slighter wider at the tips which reduces friction and heat as the Blade passes through the bone.

For those who purchased our Stainless Steel Hub system taking semi disposable radial cut blades we are pleased to inform you that in addition to the 24mm Blade, 18 and 30mm Blades are now available. The Blades are long lasting with a tooth 'set' to reduce heat generation. When they get dull simply fit a new one.

MODULAR STAINLESS TPLO SAW BLADES

TPLOBHUB	Hub for 18, 24 & 30mm Blades includes Collar	£445.00
TPLOB18	18mm Radial Cut Stainless Blade	£175.00
TPLOB24	24mm Radial Cut Stainless Blade	£175.00
TPLOB30	30mm Radial Cut Stainless Blade	£175.00
TPLOB30COL	Collar for 30mm Blade	£175.00
TBHEX32	3.2mm 'T' Bar Hex Driver (Whittemore/ VI)	£45.00

TPLO Radial Saw Blades



We are now able to supply radial cut blades in the following sizes: 15, 18, 21, 24, 27, & 30mm.

Mandrels are available for the following sizes: 15, 18 & 24, 21 & 27 and 30mm.

The theoretical benefits of a bi-radial blade are well known. However, in practice the bi-radial blade is not very efficient at cutting bone even when new. After hand sharpening the efficiency falls still further. An inefficient blade creates heat.

Our titanium blades are light, thin, hard and replaceable. In addition the blades have a 'set' (the teeth are alternately offset as in all wood cutting saws) which creates a slot slightly wider than the blade. This reduces the friction and heat still further as well as preventing the blade jamming in the osteotomy. When the blade becomes worn simply replace with new sharp blade.

RADIAL CUT TPLO BLADES

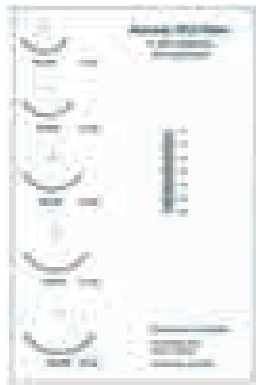
TPMDRL15	Mandrel for 15mm Blades	£365.00
TPMDRL1824	Mandrel for 18 & 24mm Blades	£365.00
TPMDRL2127	Mandrel for 21 & 27mm Blades	£365.00
TPMDRL30	Mandrel for 30mm Blades	£365.00
TPBL15	15mm Blade	£225.00
TPBL18	18mm Blade	£225.00
TPBL21	21mm Blade	£225.00
TPBL24	24mm Blade	£225.00
TPBL27	27mm Blade	£225.00
TPBL30	30mm Blade	£225.00

Aesculap TPLO Saw Blades

Aesculap TPLO Blades are, as you would expect, engineered to very high standards and have a number of important features.



- Blade is slightly thicker at the cutting edge which reduces friction and heat at the level of the blade body.
- Cutouts in the blade body further reduce heat generated by friction, the single biggest problem associated with TPLO.
- Available in 18, 20, 24, 27 and 30mm
- TPLO Blade Template available printed onto a clear acetate. The blade profile is a useful planning aid for radial cut TPLOs.



AESCULAP TPLO SAW BLADES		
GC544R	Aesculap Radial Saw Blade 18mm	£305.00
GC545R	Aesculap Radial Saw Blade 20mm	£305.00
GC546R	Aesculap Radial Saw Blade 24mm	£310.00
GC547R	Aesculap Radial Saw Blade 27mm	£315.00
GC548R	Aesculap Radial Saw Blade 30mm	£315.00
GCTEM	TPLO Blade Template	£FOC

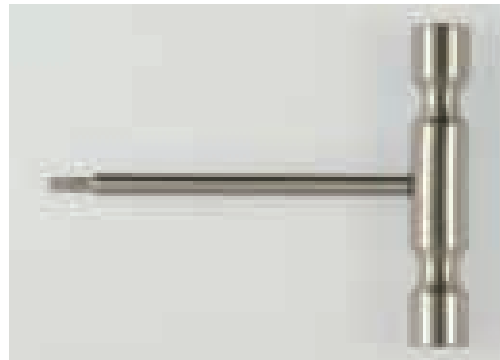
Aesculap Power Lubricants - Sterilit

This is the especially formulated lubricant for all Aesculap power tools.



AESCULAP STERILIT SPRAY (300ML)		
GB600	Aesculap Sterilit Spray (300ml)	£64.50

TPLO Saw Hex Driver 'T' Bar Type



The fitting on most TPLO Saw Blades is of the triangular Stryker Type. The means of attachment to the saw is by Hex Drive Grub Screws which are notorious for working loose. Our 'T' Bar Hex Drivers allow the surgeon to quickly, easily and firmly attach the blade to the saw.

Available in 2.5mm (Slocum), 3.0mm (Aesculap) and 3.2mm (Whittemore/ VI).

'T' BAR HEX DRIVERS		
TBHEX25	2.5mm 'T' Bar Hex Driver (Slocum)	£45.00
TBHEX30	3.0mm 'T' Bar Hex Driver (Aesculap)	£45.00
TBHEX32	3.2mm 'T' Bar Hex Driver (Whittemore/ VI)	£45.00

TPLO Saw Blade Protractor



Use to accurately measure the tibial plateau slope. In addition the protractor is marked with blade outline to further assist in the planning of the TPLO procedure.

TPLO PROTRACTOR		
TPLOPRO	TPLO Protractor	£26.00

Slocum Flat Blade Converter



Allows any saw with a Slocum type drive to drive flat blades
Huge range of blades available
Friction grip allows infinite range of blade angles
Use for osteotomies, wedge TPLOs, TTO, TTA.

SLOCUM FLAT BLADE CONVERTOR		
001770	Slocum Flat Blade Converter	£125.00

Bur Systems

Halls (Linvatec) Spinal Bur System

Surgairtome II

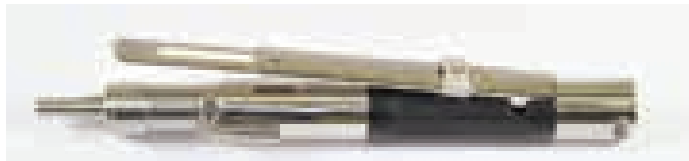


This is the current replacement for the Minos A200. Similar performance to the Minos but has an air brake, so the bur stops immediately the trigger is released. Not as robust as the Minos as the drive is through gears but preferred by some surgeons e.g. Simon Wheeler.

SURGAIRTOME II	
505800	Surgairtome II Kit. Includes Hose, Medium Bur Guard, Motor and Case £4,975.00
5058	Surgairtome Motor £3,975.00
5042-35E	Halls UK Hose MA-7 £725.00
HALLHOSEVI	VI Hose – Halls Fitting £475.00

3M Spinal Bur System

New Minos A200



The Minos A200 remains the industry standard for veterinary high speed burs. It has a deserved reputation for build quality and reliability. We are maintaining around 100 of these units and they seem to be infinitely repairable. 3Ms stopped making the Minos some years ago and for a while the only source was the pre-owned market.

Veterinary Instrumentation is pleased to announce that we have found the engineer who made the original Minos and he is now re-making them exclusively for us. He is also making the bur guards.

The body is machined from solid aluminium and will tolerate much abuse. The bur locking mechanism seems better than the others on the market. New units carry a full 12 months warranty.

The most cost effective way to purchase the Minos is as a set which comprises: A200 motor, medium bur guard and hose. Any other size bur guard may be substituted on request and all products are available separately. The hose is the same as for the MiniDriver.

The bur guards support the burs and reduce vibration. The Minos and other high speed burs should not be used without an appropriate bur guard. Without the guard, risks to surgeon and patient are significant.



NEW MINOS A200	
MINOSA200	New Minos A200 set (Motor, Hose, Medium Bur Guard) £3,675.00
3MHOSEVI	Hose with 3M Fitting £475.00
VIMBG	Medium Bur Guard for 45-50mm Burs £350.00
VILBG	Long Bur Guard for 65-70mm Burs £375.00
VIXBG	Extra Long Bur Guard for 95mm Burs £400.00

Bur Guards



Burs should not be driven without a Bur Guard which supports the shaft of the bur. Without Bur Guards burs vibrate and can bend causing injury to both patient and surgeon.

The shortest guard available is the medium for burs 45-51mm long

VI BUR GUARDS

VIMBG	Medium Bur Guard for Burs 45-51mm Long	£350.00
VILBG	Long Bur Guard for Burs 70mm Long	£375.00
VIXBG	Extra Long Bur Guard for Burs 95mm Long	£400.00

Halls Bur Guards

Burs and Bur Guards are common to both the Minos and the Surgairtome II. A bur guard should always be used when driving burs. Spinning at 100,000 rpm the shaft needs support. These are the original Halls Guards.



HALLS BUR GUARDS

1375-023	Extra Long Halls Bur Guard	£695.00
1375-011	Long Halls Bur Guard	£495.00
1375-012	Medium Halls Bur Guard	£495.00

Electric Flexidrive Bur System



For the occasional spinal surgeon, this budget system performs very well. The burs run at 0 - 15,000 rpm controlled via a foot pedal and the flexidrive is easy to use. Now supplied with removable, autoclavable handpiece. Use sterile autoclavable film to shroud the flexible shaft. Supplied as a complete kit including burs and instructions. When you are cutting more than one back per month think about a Minos/ Surgairtome.

ELECTRIC FLEXIDRIVE BUR SYSTEM

001640A	Mini Drill (Electric Drive) 15,000 rpm Freedom Full Kit incl Burs	£695.00
D235A	Spare Handpiece	£115.00
D295051/2	Spare Inner Drive Flex	£65.00
D295051/3	Spare Outer Drive Flex	£65.00
001641	Collet for HP Burs	£15.00
001785	1.6mm Round Short Carbide Bur	£7.45
HP8	2.3mm Round Short Carbide Bur	£4.75
M30R	3.0mm Round Short Carbide Bur	£33.50

Bur Brush



When burs stop cutting mid procedure the reason is usually clogging of the cutting flutes. High speeds (100,000 rpm) minimise the problem. Dremel type flexdrive units are particularly prone. Our Bur Brush is used to clean the bur without damaging it. It may be more convenient to change the bur and clean them up afterwards.

BRUSH

A315	Bur Brush	£25.50
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Burs

All surgical burs have a 2.36mm shank (HP fitting) and will fit in all high speed surgical bur machines e.g. 3M's Minos, Halls Surgairtome & Freedom. We have selected Komet burs for their high quality. All are single pack and non sterile. In human surgery, burs are regarded as disposable items. In veterinary surgery the cost precludes using burs as disposables. However, use of burs which are less than sharp extends procedure time and creates heat. We do advise that burs are checked and changed on a regular basis.

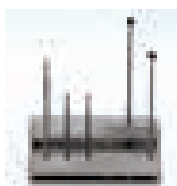
Diamond burs are sharper and create less heat than carbide equivalents. Adequate irrigation is essential. Please see chart for options and prices.

BURS		HEAD SIZE	OVERALL LENGTH	BUR GUARD	ORDER CODE (Carbide)	PRICE £	ORDER CODE (Diamond)	PRICE £	
BUR TYPE	<i>illustrations are actual size</i>		1.8	50mm	Medium	M18R	£33.50	-	-
			2.0	50mm	Medium	M20R	£33.50	M20D	£89.50
			2.3	50mm	Medium	M23R	£33.50	-	-
			3.0	50mm	Medium	M30R	£33.50	M30D	£92.50
			4.0	50mm	Medium	M40R	£66.50	M40D	£92.50
			5.0	50mm	Medium	M50R	£66.50	-	-
			6.0	50mm	Medium	M60R	£66.50	M60D	£92.50
			1.8	72mm	Long	L18R	£40.50	-	-
			2.0	72mm	Long	L20R	£40.50	L20D	£59.50
			3.0	70mm	Long	L30R	£53.50	L30D	£59.50
			4.0	69mm	Long	L40R	£53.50	L40D	£62.50
			5.0	69mm	Long	L50R	£72.50	L50D	£77.50
			6.0	69mm	Long	L60R	£72.50	L60D	£92.50
			6.5	69mm	Long	L65R	£75.00	-	-
			2.0	95mm	Extra Long	X20R	£57.50	X20D	£67.50
			2.3	95mm	Extra Long	X23R	£57.50	X23D	£67.50
			3.0	95mm	Extra Long	X30R	£57.50	X30D	£67.50
			4.0	95mm	Extra Long	X40R	£77.50	X40D	£97.50
			5.0	95mm	Extra Long	X50R	£97.50	X50D	£97.50

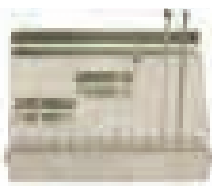
Bur Stands



Bur Block x 6



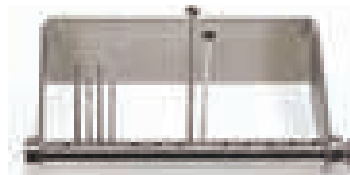
Bur Block Split Level



Bur Rack Flip Out



Bur Rack (Rotating) folded flat for autoclaving



Bur Rack (Rotating) rotated out for use.

(NB Bur Stands do not include Burs)

BUR BLOCKS HP BURS (2.36MM SHAFT)		
BUR6	Basic Bur Block for 6 Burs	£28.50
BURSP12	Bur Block Split Level for 12 Burs	£57.50
BURRACK	Bur Rack Flip Out for 12 Burs	£82.50
BURROT	Bur Rack Rotating for 24 Burs	£270.00

Surgery of the Spine

Introduction

Spinal surgery used to be a common procedure for small animal orthopaedic surgeons in the UK but as time passes and with the availability of more neurologists experienced in spinal surgery with the availability of facilities for on-site advanced imaging, spinal surgery is gradually shifting away from main-stream orthopaedics and into the domain of surgical neurology. Spinal surgery can be very rewarding, and it is still possible to perform it successfully with relatively modest equipment, but there are a number of critical factors to achieving a successful outcome.

Making the correct diagnosis: Patient signalment and neurological examination should lead to gross localisation of the neurological lesion i.e. upper motor neuron vs. lower motor neuron, central vs. peripheral neuropathy, the most likely spinal segment affected i.e. C1-C5, C6-T2, T3-L3 and L4-S3, and left vs. right sided.

Most patients requiring spinal surgery have spinal cord compression caused by intervertebral disc extrusion or protrusion, soft tissue hypertrophy associated with instability, spinal fracture or luxation, or neoplasia. Plain radiographs may indicate the location of a fracture, luxation or neoplasia, but are rarely sufficiently to reliably identify location and lateralisation of intervertebral disc disease.

Myelography can be used for precise lesion localisation and was successfully used for many years, but it comes with a number of drawbacks including risks and side effects associated with cisternal or lumbar puncture, and injection of contrast agents into the subarachnoid space.

Over the last decade, MRI has become established as the technique of choice for imaging the spinal canal and cord, with CT +/-contrast coming a close second. Given the choice, both CT and MRI are preferable to myelography as they are safer, arguably quicker, have far fewer risks or side effects, and are much less likely to result in a false diagnosis. For example, a low volume high velocity (LVHV) disc extrusion or Fibro-Cartilaginous Embolus (FCE) cannot be definitively diagnosed using myelography, but the diagnosis can be made from good quality MR images, particularly a high field unit. This increases diagnostic accuracy, closely guides prognosis, decision making and treatment options, and potentially avoids unnecessary surgery from a misleading myelogram.

Spinal surgery

With experience, some spinal surgeries are relatively straightforward to perform. For example, thoracolumbar hemilaminectomy for spinal decompression caused by intervertebral disc extrusion is not technically difficult. In addition to a standard orthopaedic kit, specific equipment required includes a burr system to remove the bulk of the laminar bone, rongeurs for fine removal of bone as the spinal cord is approached, a set of probes, hooks and curettes for exploring adjacent to the spinal cord and retrieval of extruded disc material.

The critical parts to making spinal surgery a success are:

- comprehensive neurological and orthopaedic assessment of the patient
- accurate lesion localisation, ideally by MRI or CT scan
- training and familiarity with the procedure to be undertaken
- familiarity with the surgical anatomy
- accurate surgical technique with careful dissection at the correct disc space
- in particular, very gentle exploration and probing of the spinal canal; the spinal cord and nerve roots do not tolerate rough handling. This requires very careful technique in order to avoid slippage of the hand that could lead to concussion of the spinal cord with potentially irreversible damage.

Veterinary Instrumentation is pleased to offer a full range of equipment with which to perform routine spinal surgery, including general surgical equipment, (see Chapter 3), Gelpis and Odd-legged Gelpis for retraction and visualisation, Burrs, Rongeurs, Nerve Hooks and Curettes for retrieval of extruded disc material, and Bone wax and Lyostypt for haemostasis.



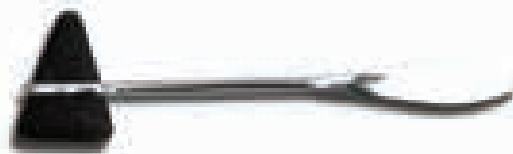
Sharp and Wheeler's textbook "Small Animal Spinal Disorders" is an excellent read for anybody interested in spinal surgery and neurology, whether you are a beginner, or wanting to increase your knowledge and competence.

BOOK

BK05 Small Animal Spinal Disorders **£115.00**

For more challenging cases such as fractures and luxations, then a full range of implants are also available, including screws, external skeletal fixator pins, locking plates.

Percussion Mallet



Designed for consistent neurological examination. Much better than whatever you are using at the moment!

PERCUSSION MALLET

001322 Percussion Mallet 180mm Long **£27.00**

Rongeurs & Punches

All rongeurs and spine forceps cut with one part of the jaw inserted into the compromised spinal canal. Our spine instruments are designed to minimise the size of the lower jaw. In many cases this will reduce the cutting strength of the instrument which should only be used on appropriate bone thickness. A selection of rongeurs will be required.

Duck-Billed Daniel Rongeurs



Actual Size



Designed by Simon Wheeler BVSc PhD, these rongeurs can remove full thickness lamina bone in small dogs. They are, however, best used to remove the layer of deep cortical bone overlying the spinal cord once the superficial cortex and cancellous bone have been removed using power tools; this is particularly true of the medium and large dog.

DUCK-BILLED DANIEL RONGEURS

001400 Duck-Billed Daniel Rongeurs 3mm Bite 177mm Long **£92.50**

Daniel Rongeur



Actual Size



The jaws of this instrument are straight and the bite is small. Also suitable for bulla osteotomy.

DANIEL RONGEUR

001402 Daniel Rongeurs AOF 4mm Bite 130mm Long **£92.50**

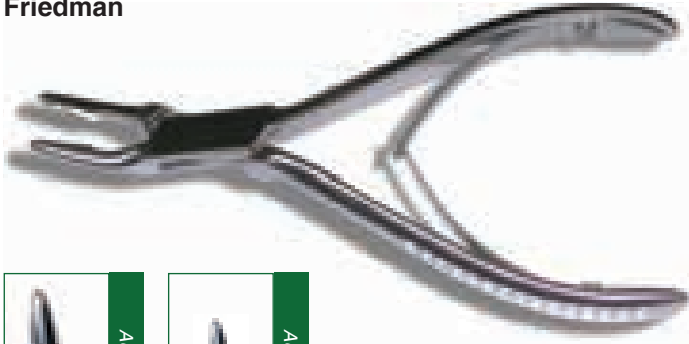
Lempert Rongeur



A useful rongeur with a small bite favoured by Simon Wheeler for incremental bone nibbling around the spine. A selection of small rongeurs is desirable when operating on the spine.

LEMPERT RONGEUR		
6730/10	Lempert Rongeurs Str 3mm Bite 190mm Long	£99.50

Friedman



142501



142502

Very fine rongeurs for incremental removal of bone overlying the spine.

FRIEDMAN		
142501	Mini Friedman Curved 3mm Bite 160mm Long	£77.50
142502	Micro Friedman Curved 2.2mm Bite 155mm Long	£77.50

Micro Spine Rongeur Set



Very fine rongeurs with a 1.75mm (width) bite. Available in three variations, straight, curved and angled. Significant savings when purchased as a set of three.

MICRO SPINE RONGEURS		
142600	Micro Spine Rongeurs Set of 3	£155.00

Laminectomy Rongeurs

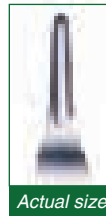
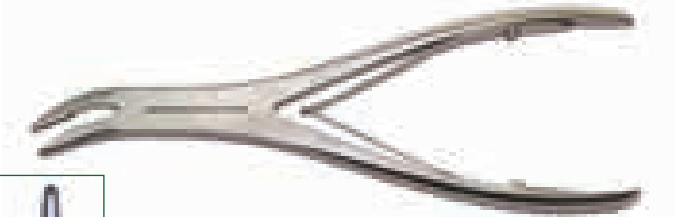


These rongeurs have been developed specifically for laminectomy in the dog. Features:

- Sigmoid shaped for maximum visualisation of surgical site and ease of grip.
- Lower jaw is very slim, with no cutting edge to minimise trauma to the spinal cord.
- Available in jaw widths of 2, 3 and 4mm. Length 16cm.
- Stronger than Duck-Billed Daniels.

LAMINECTOMY RONGEURS		
001432	Laminectomy Rongeurs 2mm 160mm	£185.00
001433	Laminectomy Rongeurs 3mm 160mm	£185.00
001434	Laminectomy Rongeurs 4mm 160mm	£185.00

Compound Action Spinal Rongeurs



Much more powerful than the Daniels, this instrument can nibble through full thickness lamina. The jaws are very fine and angled to allow the surgeon to enlarge the inter-vertebral foramen. Available in 2, 3, 4 and 5mm jaw widths. Length 190mm.

COMPOUND ACTION SPINAL RONGEURS		
001429	Compound Action Spinal Rongeurs 2mm 190mm	£265.00
001430	Compound Action Spinal Rongeurs 3mm 190mm	£265.00
001431	Compound Action Spinal Rongeurs 4mm 190mm	£265.00
001440	Compound Action Spinal Rongeurs 5mm 190mm	£265.00

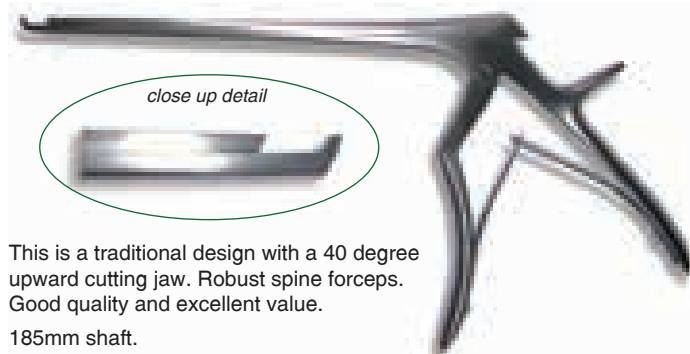
Stille-Luer Rongeurs



Length 225mm.

STILLE-LUER RONGEURS		
142305	Stille-Luer Heavy Compound Action Rongeurs Curved 8 mm 225mm Long	£255.00

Smith-Kerrison Punch Forceps



This is a traditional design with a 40 degree upward cutting jaw. Robust spine forceps. Good quality and excellent value.

185mm shaft.

SMITH-KERRISON PUNCH FORCEPS

001445	Smith-Kerrison Punch Forceps 2mm	£155.00
001446	Smith-Kerrison Punch Forceps 3mm	£155.00

Modular Forceps with Rotating Punch & Rongeur Inserts



The standard handpiece accepts six different inserts which can be changed very quickly and simply even mid-procedure. Each insert will rotate 360° in 40° increments without impairing cutting efficiency. Full kit with 6 inserts supplied in stainless case for autoclaving. Length 28cm.

Full set with six inserts in case:

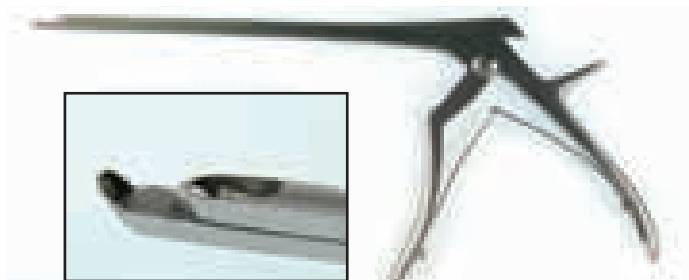
- Rongeur 1.5mm insert
- 40° 1.0mm insert
- Rongeur 2.0mm insert
- 40° 2.0mm insert
- Rongeur 3.0mm insert
- 40° 3.0mm insert

Replacement inserts can be purchased separately.

MODULAR FORCEPS WITH PUNCH & RONGEUR INSERTS

001448	Kerrison Modular Multi-Position Inserts	£495.00
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Kerrison Self Clearing



Standard Kerrison require that the jaws be cleared of debris after each bite for maximum efficiency. The Self Clearing Kerrison incorporates a channel along which bone debris moves much in the same way as a paper hole punch. Significant time and frustration is eliminated. Available in 2mm and 3mm.

SELF CLEARING KERRISON RONGEURS

001143	Self Clearing Kerrisons 2mm Bite 210mm Shaft	£285.00
001144	Self Clearing Kerrisons 3mm Bite 210mm Shaft	£285.00

Modular Kerrison with 3 Inserts Self Clearing



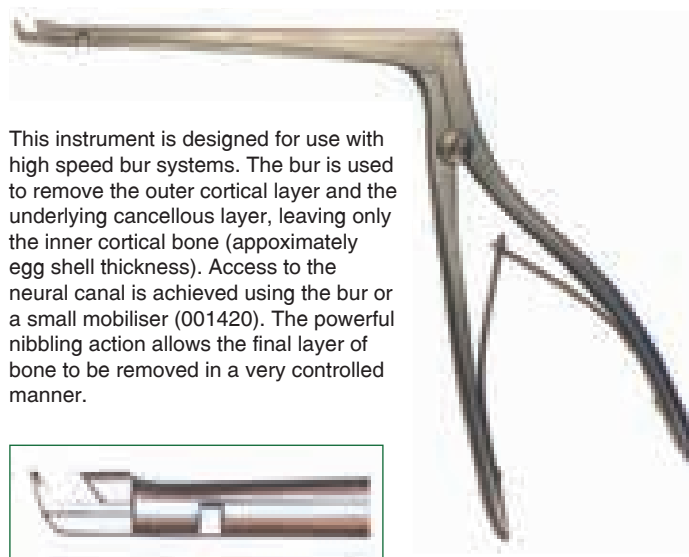
Some purchasers of our full modular set found that they did not use the rongeur style inserts very much. In addition we got feedback that the shaft of the Kerrison should be shorter and if possible with a smaller jaw. As a result of your comments we have produced this set with three shorter inserts, the smallest of which is 1.5mm. This is as small as we can go while retaining the self clearing feature of the system.

Shaft length is 100mm.

MODULAR KERRISON WITH THREE INSERTS 1.5MM, 2.5MM & 3.5MM

001415	Modular Kerrison with 3 Inserts	£395.00
001416	Spare 1.5mm Insert	£95.00
001417	Spare 2.5mm Insert	£95.00
001418	Spare 3.5mm Insert	£95.00

40° Bone Punch Forceps (Low Profile)



This instrument is designed for use with high speed bur systems. The bur is used to remove the outer cortical layer and the underlying cancellous layer, leaving only the inner cortical bone (approximately egg shell thickness). Access to the neural canal is achieved using the bur or a small mobiliser (001420). The powerful nibbling action allows the final layer of bone to be removed in a very controlled manner.

From a surgical standpoint the foot should be as small as possible, for strength the foot needs to be as large as possible. This wedge shape is a good compromise. In addition the foot is polished to minimise friction and trauma to the spine. Overall length 21cm.

40° BONE PUNCH FORCEPS

001438	Spine Punch Forceps 2mm 40° Upward Cut	£265.00
001439	Spine Punch Forceps 3mm 40° Upward Cut	£265.00
001441	Spine Punch Forceps 4mm 40° Upward Cut	£265.00

Gelpi Odd Leg Retractor



001333



These are long established, but frequently overlooked instruments that have proven very popular amongst surgeons who have discovered them. This asymmetric pattern is most typically used for a dorsal approach to the spine where the long arm extends deep to retract the longissimus dorsi muscle as the short arm engages with axial structures. They are supplied in matched, opposite pairs to create a rectangular window of exposure.



001334



GELPI ODD LEG RETRACTORS		
001333	Gelpi Odd Legs 205mm Long - Pair	£345.00
001334	Gelpi Short Odd Legs 130mm Long - Pair	£345.00

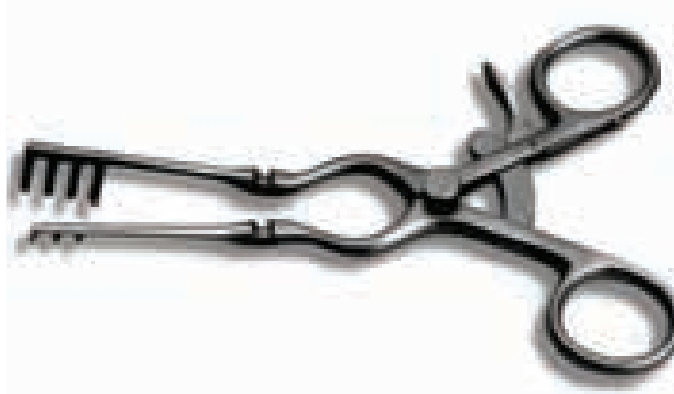
Spike & Shield Odd Leg Retractor



Operates in a similar fashion to the odd leg Gelpis but the muscle retaining shield creates a wider field of view. Supplied in pairs left and right.

SPIKE & SHIELD ODD LEG RETRACTOR		
001480	Large 25 x 25mm Shield 180mm Long - Pair	£325.00
001482	Small 12 x 12mm Shield 125mm Long - Pair	£325.00

Cone Laminectomy Retractor



Similar in size to a Travers retractor but with articulated arms, the cone retractor allows a very flexible field of retraction, with the additional benefit that it can be folded away from the operation site. Maximum retraction, minimum interference.

CONE LAMINECTOMY RETRACTOR		
001335	Cone Laminectomy Retractor 160mm Long	£325.00

C-Lox – Patent Pending

Developed over several years by Rita Leibinger Medical in cooperation with Professor Dr. Franck Forterre, Bern University (Switzerland), C-Lox is gaining quite a following amongst European spinal surgeons for intervertebral distraction fusion.



Manufactured in pure titanium using the same advanced selective laser sintering (SLS) 3D printing technology as TTA Rapid cages, a trabecular structure approaching the same Young's modulus as cancellous bone is created. In theory this reduces the risk of subsidence commonly seen with many of the more basic metallic implants. The trabecular structure also encourages early vascularisation and bone through-growth.

C-Lox cages feature integrated spikes that stand proud of the bearing surfaces and engage with adjacent vertebral end-plates. Additional locking screw fixation provides for a secure primary fixation.

Technique Summary

1. Preliminary cage size is selected following imaging
2. From a ventral approach, the affected intervertebral disc space is identified and exposed
3. Drill adjacent vertebral bodies using a 2.5mm drill-bit and distract the intervertebral disc space using the C-Lox Distractor
4. Perform laminectomy
5. Use the C-Lox Spinal Disk Broaching Curette is used to remove all remnants of the nucleus pulposus and to create a bed for a C-Lox cage
6. Use trial cage (template, no spikes) to confirm cage selection
7. Insert final cage
8. Mark start point for screws using dedicated guide and drill-bit
9. Insert special C-Lox self-drilling, self-tapping titanium locking screws



A multi-centre European C-Lox study is currently in progress headed by Dr Franck Forterre and Günter Schwarz.

With early results showing great promise, the decision has been made to make C-Lox available to experienced spinal surgeons outside of the trial group and not to deny a greater patient population access to C-Lox surgery.

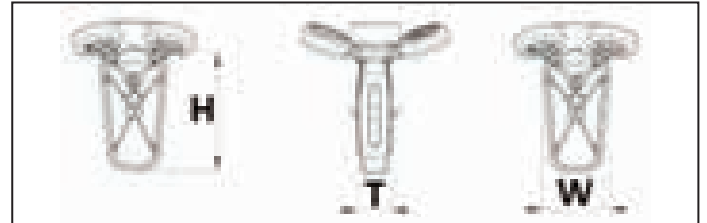
The full C-Lox kit contains all the C-Lox instrumentation and drill bits, 1 of each trial cage, 1 of each implantable cage and 5 screws of each screw length. The full kit is available for purchase, but UK customers may like to start by hiring our short term loan kit for specific cases (subject to availability and terms of use). Please contact our UK Office for further details.

C-Lox Cages

C-Lox implantable cages. SLS manufactured in commercially pure titanium. Locking screw holes. Spiked vertebral contact surfaces.



NEW



C-LOX IMPLANTABLE CAGES

CLOX134140408	C-Lox Cage 14x4x8mm	£250.00
CLOX134140608	C-Lox Cage 14x6x8mm	£250.00
CLOX134160408	C-Lox Cage 16x4x8mm	£250.00
CLOX134160510	C-Lox Cage 16x5x10mm	£250.00
CLOX134160608	C-Lox Cage 16x6x8mm	£250.00
CLOX134160710	C-Lox Cage 16x7x10mm	£250.00
CLOX134180510	C-Lox Cage 18x5x10mm	£250.00
CLOX134180710	C-Lox Cage 18x7x10mm	£250.00
CLOX134200612	C-Lox Cage 20x6x12mm	£250.00
CLOX134200812	C-Lox Cage 20x8x12mm	£250.00

C-Lox Trial Cages

Size and colour matched to implantable cages. Smooth sides (no spikes) and a closed structure simplifies insertion, removal and cleaning.



C-LOX TRIAL CAGES

CLOX1349140408	C-Lox Trial Cage 14x4x8mm	£125.00
CLOX1349140608	C-Lox Trial Cage 14x6x8mm	£125.00
CLOX1349160408	C-Lox Trial Cage 16x4x8mm	£125.00
CLOX1349160510	C-Lox Trial Cage 16x5x10mm	£125.00
CLOX1349160608	C-Lox Trial Cage 16x6x8mm	£125.00
CLOX1349160710	C-Lox Trial Cage 16x7x10mm	£125.00
CLOX1349180510	C-Lox Trial Cage 18x5x10mm	£125.00
CLOX1349180710	C-Lox Trial Cage 18x7x10mm	£125.00
CLOX1349200612	C-Lox Trial Cage 20x6x12mm	£125.00
CLOX1349200812	C-Lox Trial Cage 20x8x12mm	£125.00

C-Lox Screws

Self-drilling, self-tapping, locking, titanium. Specific to the C-Lox system. Entry point is defined using screw centring sleeve and 1.8mm C-Lox drill-bit. 2.0mm hex-drive.



C-LOX SCREWS

CLOX24532410	Self Drilling, Self Tapping Locking Screw 10mm	£10.00
CLOX24532412	Self Drilling, Self Tapping Locking Screw 12mm	£10.00
CLOX24532414	Self Drilling, Self Tapping Locking Screw 14mm	£10.00
CLOX24532416	Self Drilling, Self Tapping Locking Screw 16mm	£10.00
CLOX24532418	Self Drilling, Self Tapping Locking Screw 18mm	£10.00
CLOX24532420	Self Drilling, Self Tapping Locking Screw 20mm	£10.00

C-Lox Distractor

Used to distract the intervertebral disk space. 90mm deep. Drill 2.5mm holes for legs.



C-LOX DISTRACTOR		
CLOX134075016	C-LOX Distractor, 90mm deep	£175.00
CLOX148008125	C-LOX Drill Bit 2.5mm AO quick release	£26.50

C-Lox Spinal Disk Broaching Curette

Used for removing disk material and creating bed for cage. 220mm long.



C-LOX SPINAL DISK BROACHING CURETTE		
CLOX134070022	C-LOX Spinal Disk Broaching Curette	£160.00

C-Lox Implant Placement Rod

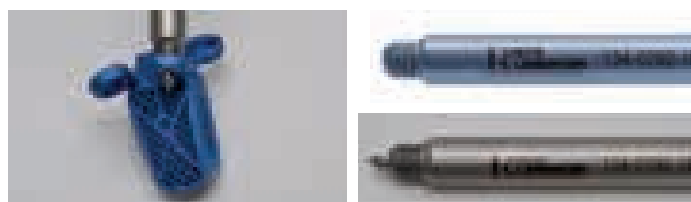
Threaded tip engages with trial cages and with implantable cages. 220mm long.



C-LOX IMPLANT PLACEMENT ROD		
CLOX134075022	C-LOX Implant Placement Rod	£55.00

C-Lox Screw Centring Drill Sleeve for 1.8mm drill

Screws into locking holes. Matched to be marginally shorter than C-Lox drill-bit allowing screw entry point to be defined whilst eliminating any possibility of over-penetration.



C-LOX SCREW CENTRING DRILL SLEEVE FOR 1.8MM DRILL		
CLOX134079218	C-Lox Screw Centring Drill Sleeve	£50.00

C-Lox AO Coupling Drill-Bit, 1.8mm

Anti-skid tip and length matched to C-LOX drill sleeve. AO fitment.



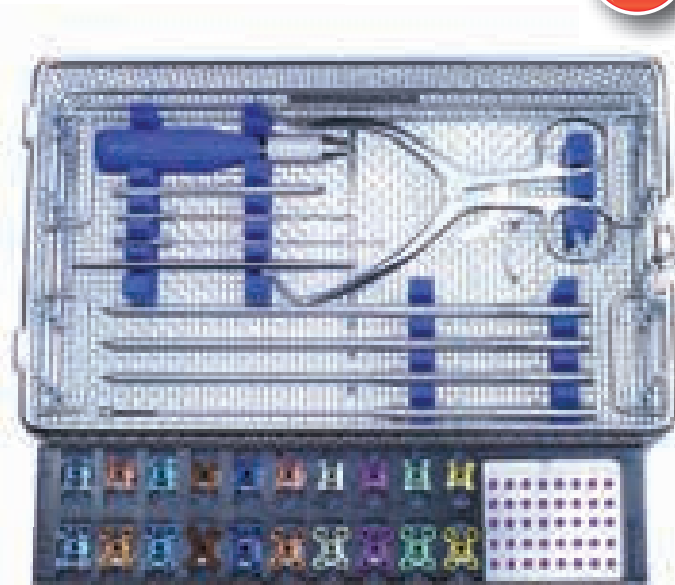
C-LOX AO COUPLING DRILL-BIT, 1.8MM		
CLOX148008118	C-Lox AO Coupling Drill Bit 1.8mm	£26.50

C-Lox Screw-driver



C-LOX SCREW-DRIVER		
CLOX128091024	C-Lox Screw-driver – AO handle	£125.00
CLOX134090024	C-Lox Screw-driver Shaft for 2.4mm Screws	£70.00

C-LOX COMPLETE KIT



The full C-Lox kit in a stainless steel wire box with silicone inserts and acetyl implants tray.

Contents:

- 1x each size implantable cage
- 1x each size trial cage
- 5x each screw length
- 1x C-Lox Distractor
- 1x C-Lox Spinal Disk Broaching Curette
- 3 x C-Lox Implant Placement Rods
- 1x C-Lox Screw Centring Drill Sleeve
- 1x C-Lox Screwdriver handle
- 1x C-Lox Screwdriver insert
- 1x 1.8mm and 2.5mm drill-bits

C-LOX COMPLETE KIT		
CLOXKIT	C-Lox Full Kit	£4,750.00

For more information on C-Lox, customers are invited to visit the Rita Leibinger spinal web-site www.spinevet.com

During 2015 Veterinary Instrumentation will be running C-Lox training courses, please contact our Vet Tech team for further details.

C-LOX Loan Kit

We now offer a C-Lox Loan Kit.

This kit is available for experienced spinal surgeons only. A charge of £100 is applied to cover the courier charges (both delivery and return).

The kit will be supplied non-sterile with a full set of implants. Implants used will be charged for separately upon return of the set. (UK Only).

Please call a member of our Vet Tech team for further details and availability.

C-LOX LOAN KIT		
LOANCLOX	Loan C-Lox Set	£100.00

Caspar Modular Self Retaining Retractor



The Caspar self retaining retractor is a modular retractor which utilises a ratchet rack mechanism to distract a variety of blades and other inserts. Although designed as a spinal retractor the Caspar has many other applications.

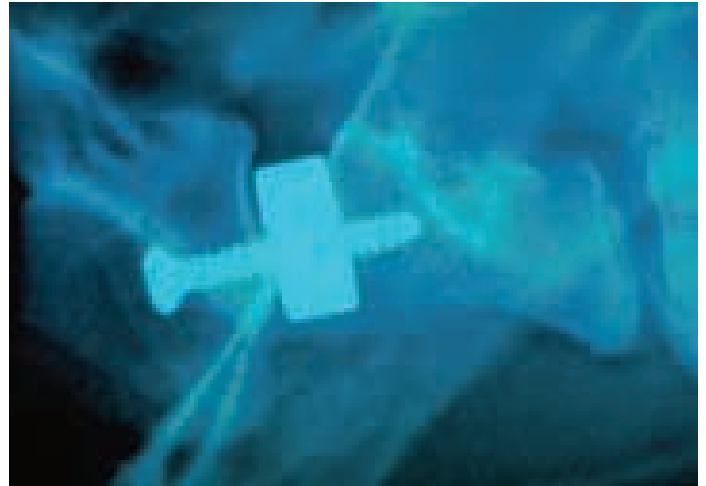
'Not just a one trick pony' Andrew Wills.

Uniquely veterinary inserts include the cervical distraction pins (2.5mm dia).

CASPAR MODULAR SELF RETAINING RETRACTOR

001485	Caspar Retractor with Standard Blades x 6 170mm Long	£345.00
001486	Caspar Cervical Distractor Pins x 2	£54.50
001489	Set Extended Length Blades 8, 10, 12 & 15cm	£165.00

Wobblers

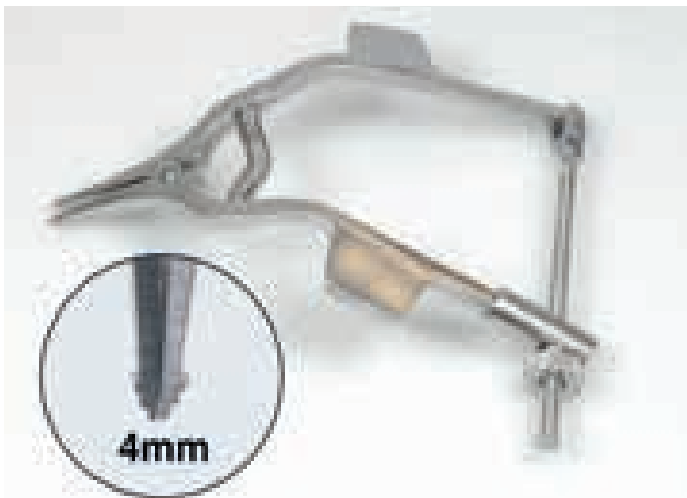


At the present time, distraction fusion techniques seem to offer the best chances of success. The rapid improvement following surgery encourages the owners to persevere to long term stabilisation. The McKee Washer has been shown to give a relatively high success rate for this most difficult condition. Each size washer has its own distractor to facilitate insertion. The Washer is maintained in situ by a 3.5mm position screw.

WOBBLERS

090250	6.0 McKee Wobbler Washer No 2	£35.50
090251	7.5 McKee Wobbler Washer No 1	£35.50
090255	6.0 Wobbler Washer Distractor 200mm	£53.50
090256	7.5 Wobbler Washer Distractor 200mm	£53.50

Small Spine Distractor



The tips of the small distractor are designed to fit into inter-vertebral spaces. The surfaces pushing against the end plates are serrated for maximum grip. Tips when closed 4mm. Overall length 140mm. Tips are staggered for easy introduction.

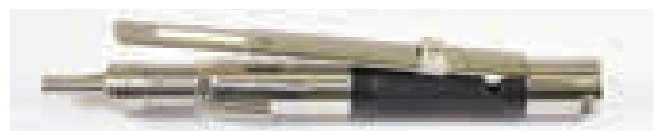
SMALL SPINE DISTRACTOR

001491	Small Spine Distractor	£255.00
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MINOS A200 BUR

**Strong Dependable
Easy to maintain and repair**

- 100,000rpm for bur self cleaning
- Body machined out of solid aluminium
- Reliable lever action bur grip
- Bur guards and angled drives available
- 12 month warranty
- Sensibly priced serving



Minos Kit: Motor, Hose, Bur Guard. £3,675.00

Burley Disc Scoop



The Burley Disc Scoop is designed to remove material without repeated insertions into the disc space. As the scoop is moved around, the nuclear material travels along the channel and out.

BURLEY DISC SCOOP		
001501	Burley Disc Scoop 155mm	£62.50

McKee Distractor with Speedlock



The odd legs of this dedicated distractor engage the intra vertebral space cranial to and caudal to the space involved. The speedlock opens the disc space leaving it uncluttered by instrumentation. An alternative to washers is fusion using bone cement with or without screws. See page 261 for full list.

MCKEE DISTRACTOR WITH SPEEDLOCK		
090257	McKee Distractor with Speedlock 240mm	£265.00

Hand Instruments

Freer Periosteal Elevator



Finer than a standard orthopaedic elevator, this instrument is useful in cats and miniature dogs. Particularly good around the spine. 5mm tip.

FREER PERIOSTEAL ELEVATOR		
7350/05	Freer Periosteal Elevator 5mm 180mm Long	£49.50

Very Fine Periosteal Elevator



Even smaller than the Freer this double ended instrument is suitable for very fine work. 2 and 3mm tips.

VERY FINE PERIOSTEAL ELEVATOR		
001272	Very Fine Periosteal Elevator 2mm/ 3mm 180mm	£49.50

Dandy Nerve Hook



The Dandy Nerve Hook is useful for manipulation of nerves and nerve roots. Also useful for manipulation of the medial meniscus during CCL procedures.

DANDY NERVE HOOK		
001408	Dandy Nerve Hook 1mm 190mm	£38.50
001409	Dandy Nerve Hook 2mm 220mm	£38.50

Chase Spinal Hook



Based on a suggestion from Damian Chase of Pride Veterinary Centre This probe is useful for manipulation of the spinal cord and nerve roots during certain surgeries.

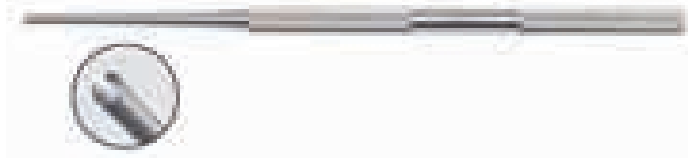
CHASE SPINAL HOOK		
001451	Chase Spinal Hook 8mm 90° Offset 145mm	£49.50

Bone Curette

Following requests for a House Curette with smaller scoops, this set of two bone curettes have been designed with 1mm and 2mm scoops. This is the smallest scoop we can provide whilst still being strong enough to elevate bone.

BONE CURETTE

001411	Bone Curette 1.0mm Scoop 145mm	£39.50
001412	Bone Curette 2.0mm Scoop 145mm	£39.50

Bone Tamper

Bone Tamper - also can be used as a bone filling instrument.

BONE TAMPER

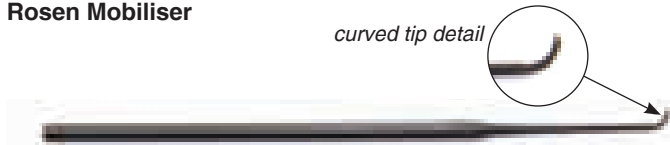
001413	Bone Tamper 1.0mm Scoop 150mm	£23.50
001414	Bone Tamper 2.0mm Scoop 150mm	£23.50

House Curette

The House Curette is a strong small curette to lift bone from around the spinal cord. Double ended 2.5 and 3.0mm scoops.

HOUSE CURETTE

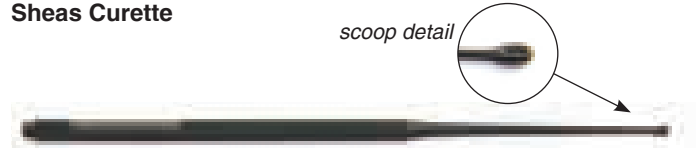
7262/05	House Curette 2.5 and 3.0mm Scoops 150mm	£49.50
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Rosen Mobiliser

With care, intraneural canal structures can be manipulated. Removal of disc debris is essential to achieve decompression of the cord. The curved tip of this instrument is very useful.

ROSEN MOBILISER

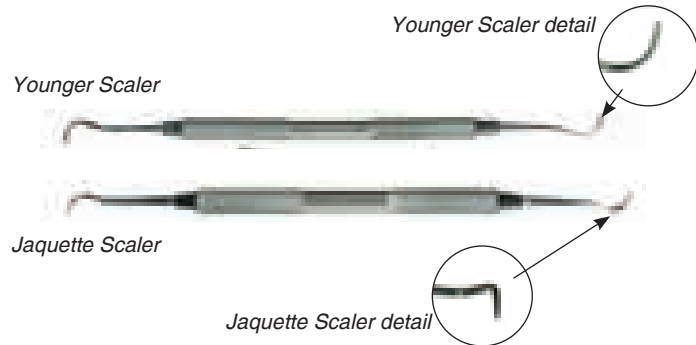
001420	Rosen Mobiliser 160mm	£49.50
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Sheas Curette

Fenestration of discs, particularly cervical discs, can be a useful procedure. The Sheas Curette is a very small scoop. 2.5mm in diameter.

SHEAS CURETTE

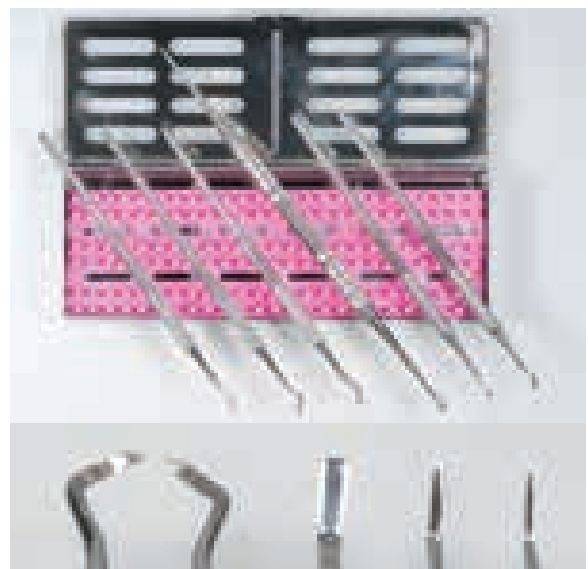
001410	Sheas Disc Curette 2.5mm Diameter 170mm	£49.50
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Younger Good Scaler Jaquette Scaler

Both instruments are recommended by Simon Wheeler for the removal of wafer thin bone overlying the spinal cord during laminectomy. The Younger Good scaler is blunt backed and useful for removal of disc material from both disc spaces and neural canal. This is not a standard scaler in that all the sharp surfaces are softened to minimise spinal trauma. The Jaquette scaler is sharp and best suited to hooking out the final lamina.

YOUNGER GOOD SCALER JAQUETTE SCALER

001422	Younger Good Scaler 175mm	£42.50
001424	Small Jaquette Scaler 165mm	£42.50

FitzExcavator Set

Designed and developed by Noel Fitzpatrick this excavator set includes all the necessary hand instruments for surgical management of canine inter-vertebral disc disease.

The set consists of 5 cutting instruments: one left, one right, plus 3 straight instruments 2.00mm, 1.00mm and 0.5mm.

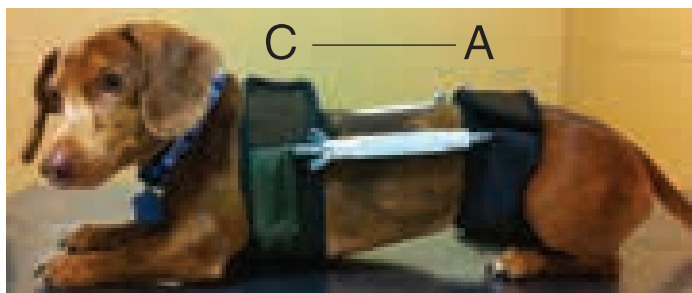
Set also includes 001275 Molt Periosteal Elevator (4mm/6mm).

The six instruments are supplied in a stainless autoclavable case.

FITZEXCAVATOR SET

001428	FitzExcavator Set	£275.00
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MB Spinal Brace



Many cases of disc disease, spinal fractures or instabilities are not amenable to surgical treatment for a variety of reasons, from the right patient signalment (i.e. age, underlying diseases) to economic considerations. The "MB Spinal Brace" (MBSB) developed by Mark Besancon DVM is designed to help support cases of thoracic and lumbar IVDD, vertebral fractures or instabilities. The durable and comfortable neoprene harnesses encircle the patient at the desired locations and are connected by two parallel adjustable metal rods that lay on the lateral aspects of the chest and abdomen. The MBSB supports and restricts the range of motion of the patient in several planes giving the body a better chance of healing. The expandable metal connection rods can be placed in a neutral position strictly for support, or extended to apply minimal to moderate decompressive forces on the spine. These back braces are commonly used in the human medical field and now they are available for veterinary use.



Several indications for use include:

- Medical IVDD treatment
- Medical spinal fracture treatment.
- Pre and post-surgical spine support.

For further information and to view an application guide visit www.vetinst.com

To order the correct size please measure:

1. The circumference of the chest in cm (C)
2. The circumference of the abdomen (A)
3. The length of the back (Distance from C to A)

Available as Kits in a range of sizes. The Kits come with a range of Harnesses plus one set of Connecting Rods.

Small Kit - suitable for toy breed/ Chihuahuas includes:

- 4 x Neoprene Harnesses - 12"-18"
- 1 x pair of Connecting Rods - 5/16"

Medium Kit - suitable for Dachshunds/ Pugs/ Shih Tzus and Terriers includes:

- 5 x Neoprene Harnesses - 18"-30"
- 1 x pair of Connecting Rods - 3/8"

Large Kit - suitable for Boxers/ Labs/ G.S.Ds/ Huskies and Bassett Hounds includes:

- 6 x Neoprene Harnesses - 28"-38"
- 1 x pair of Connecting Rods - 1/2"

MB SPINAL BRACE		
MBSSJ1243A	MB Spinal Brace Small Kit	£115.00
MBSMJ1243B	MB Spinal Brace Medium Kit	£155.00
MBSLJ1243C	MB Spinal Brace Large Kit	£195.00

Bone Wax



It will not help you if you hit a venous sinus but will control the blood from cut cancellous bone which obscures the visual field. The wax physically blocks the blood vessels.

BONE WAX		
001460	Bone Wax 12 x 2.5g	£31.50

Veterinary Instrumentation Bone Cement



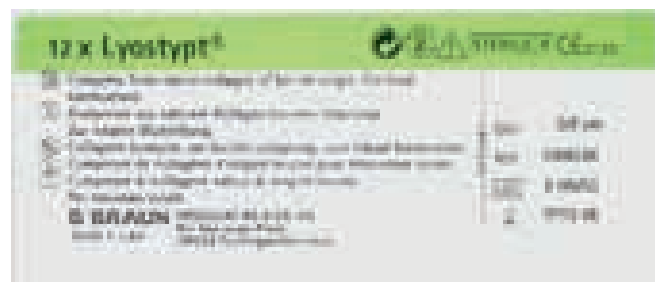
An alternative is the distraction of the disc space using a small screw and filling the space with Gentamycin BC1G Bone Cement.

Bone cement is also used for stabilising spinal fractures. Use screws or pins to provide 'keying' points.

For full list of available Bone Cement see page 261.

VETERINARY INSTRUMENTATION BONE CEMENT VACUUM MIX		
BC1	High Viscosity	£55.00
BC1G	High Viscosity with Gentamycin	£65.00
BC3G	Low Viscosity (syringe) with Gentamycin	£65.00

Lyostypt®



Lyostypt® is a wet-stable collagen haemostat. Collagen leads to thrombocyte adhesion and to activation of coagulation factor XII. Replacement for Gelfoam. Size 30 x 50mm. 12 units per pack.

- Achieves haemostatis very swiftly.
- Is completely absorbable.
- Can be removed easily.
- Can be applied endoscopically.
- Can be combined with fibrin glue and antibiotics.

LYOSTYPT®		
1069128	Lyostypt® (12 units)	£130.00



Contents

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Implant Designs and Specifications

For many years, veterinary orthopaedics have been complicated by the use of two incompatible plating systems: AO/ ASIF type cortical screws plus compression type plates, and Sherman type screws plus Sherman and Venables type plates. The two systems differed both in their metallurgy and their strength.

All our implants are now made from stainless steel of the latest human specification, exceeding DIN 17443 and ISO 5832/1 (all are versions of stainless 316LV). This is the same specification material used by other manufacturers. In addition, where international standards have been applied to screw threads e.g. 3.5 cortical screws (DIN 58812) our implants meet these standards. It is now safe to use implants from a variety of sources provided they meet the above specifications. All implants made in Europe must be compatible with each other.

Round hole plates may be used with cortical screws. Only cortico-cancellous screws with spherical heads can be used to achieve compression using compression plates.

Self-Tapping Cortical Screws

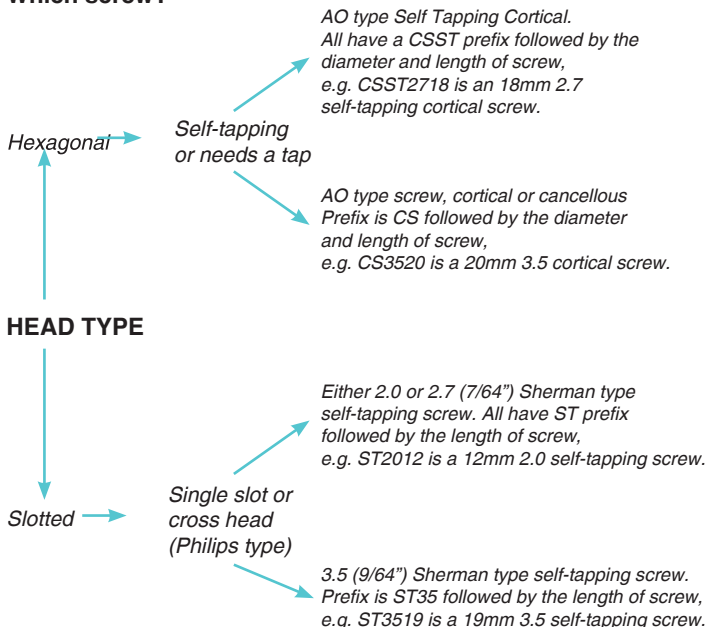
After many years of being advised by AO that self-tapping screws were unacceptable, it now seems that they are fine and are supplied as self-tapping cortical screws. The pull out resistance is unaffected provided the self-tapping flutes sit outside the bone. In our view long holes in hard bone should be pre-tapped e.g. a trans-condylar screw in the mature humerus or a position screw through the calcaneus. Veterinary Instrumentation's cortical kits are now available with self-tapping cortical screws or regular cortical screws which require a tap.

Implant Codes

To minimise confusion regarding ordering, we have given our implants codes which accurately describe the item in question. For example: C2706052 is a compression plate for 2.7 screws which has 6 holes and is 52mm long.

To further assist in decision making and ordering, templates are printed on pages 428 to 454 which show the exact shape of all the plates available. Each outline is described by its own code. Acrylic overlays of these templates for use during fracture planning with radiographs are available free of charge from Veterinary Instrumentation.

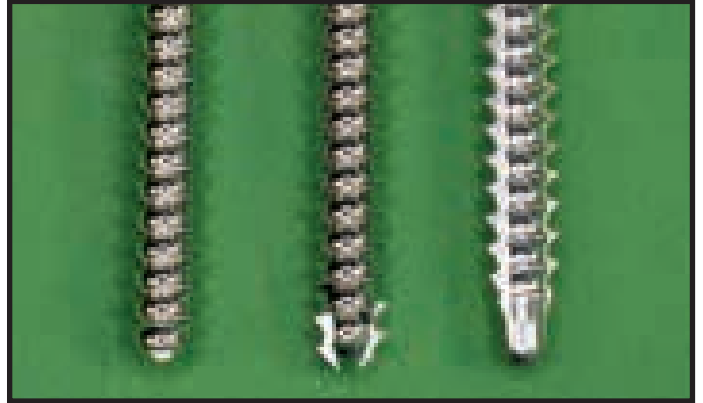
Which screw?



SELF-TAPPING

OR

NON SELF TAPPING ?



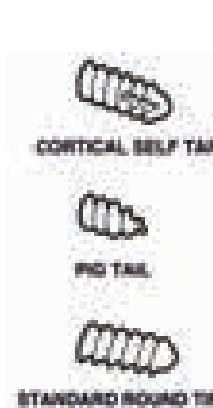
There is a significant trend towards the use of self tapping screws over the traditional pre-tapped type. This trend is occurring in both veterinary and human orthopaedics. It takes roughly twice as long to drill, tap and insert a traditional screw compared with a self tapper. Any saving in time reduces morbidity and saves money. These savings are most pronounced in lengthy procedures involving long plates and multiple screws.

Self-tapping screws are particularly suited to the proximal tibia where cortices are thin. Most self tapping screws are therefore used in the TPLO and TTO procedures. Self tappers are less suitable for use in hard cortical bone or dense bone such as the calcaneus or the distal humerus. This is not surprising in that the short self tapping flutes on the screw are less efficient at cutting threads than a purpose designed tap. Once the short cutting flutes on the screw tip are full of bone debris the tapping becomes inefficient, increasing the risk of splits.

It is suggested that as a new set up, the surgeon opts for a self tapping kit. However, taps should also be purchased and used in appropriate situations. e.g. calcaneus, distal humerus and distal 1/3 of the tibia. The thread form of both screws is identical and the self-tapping threads will follow a pre-tapped pilot hole.



To achieve the same pull out resistance as standard screws it is important that the self tapping flutes sit outside the trans cortex.

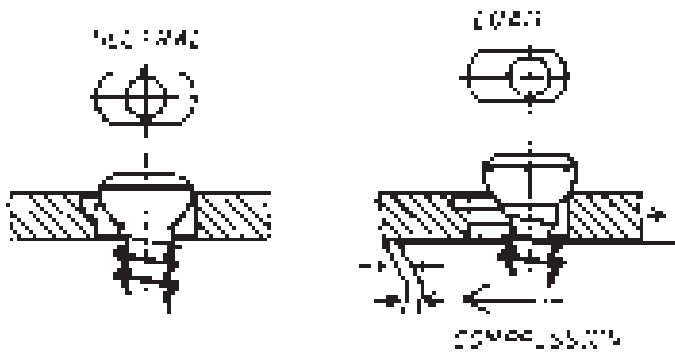


The self tapping effect of the screw may be achieved in different ways.

Cortical self tappers have 1-3 self tapping flutes cut into the tip of the screw to cut a thread as the screw is inserted.

Cancellous screws have a 'pigtail' tip which does not cut through cancellous bone but rather expands and eases the screw through, minimising damage to the fragile bone. There is one important consequence to this. In the proximal tibia during the TPLO procedure, if the pilot hole for the longest screw penetrates the proximal fibula and a full length cancellous screw is selected then the 'pigtail' will not be able to penetrate through what is effectively three trans cortical layers and will jam resulting in either a loose screw or possibly the head shearing off.

Compression Plates and Cortical Screws (AO/ ASIF type)



By carefully positioning screws within the special holes of compression plates, compression can be exerted at the reduced fracture site as the screw is tightened. As the spherical head of the screw strikes the rear edge of the hole in the plate, the screw, (and the attached bone) are forced away from the edge of the hole and towards the fracture site.

The object of compression is to provide for primary bone union. A special guide must be used to position accurately the screw hole within the plate. The oval shaped holes in DCP's allow a greater range of screw angulations than round hole plates. Cortical screws are available in both tapped and self tapping formats.



AO type screws and plates have, for many years, been the human and veterinary standard implants. They were originally designed in the 1950s by the AO study group [Arbeitsgemeinschaft für Osteosynthesefragen (English: Association for the Study of Internal Fixation, AO/ASIF)] which continues to this day to lead the world in implant design. The design of the spherical screw head and the compression hole are particularly important as, unless made to very exacting specifications, they will not work properly together.

The composition and design of AO type implants are laid down in very detailed international standards. The specification for plates and screws are detailed below. Provided implants are made to these exacting standards it is safe to mix and match sources. Be very wary about using implants which may not comply.

Materials

BS 7252-1:1997 ISO 5832-1:1997

Metallic materials for surgical implants. Specification for wrought stainless steel.

BS 7252-3:1997 ISO 5832-3:1996

Metallic materials for surgical implants. Specification for wrought titanium 6al4v.

BS 7252-9:1993 ISO 5832-9:1992

Metallic materials for surgical implants. Specification for high nitrogen stainless steel

BS ISO 5832-2:1999

Implants for surgery. Metallic materials. Unalloyed titanium.

Bone Screws

BS 3531-5.3:1991, ISO 5835:1991

Implants for osteosynthesis. Bone screws and auxiliary equipment. Specification for the dimensions of screws having hexagonal drive connection, spherical under-surfaces and asymmetrical thread.

BS 3531-5.6:1991, ISO 6475:1989

Implants for osteosynthesis. Bone screws and auxiliary equipment. Specification for the mechanical requirements and test methods for screws having asymmetrical thread and spherical undersurface.

BS 3531-5.4:1993, ISO 9268:1988

Implants for osteosynthesis. Bone screws and auxiliary equipment. Specification for screws having symmetrical and asymmetrical thread and conical undersurfaces.

Bone Plates

BS 3531- 23.1:1991 ISO 9585:1990

Implants for osteosynthesis. Bone plates. Method for determination of bending strength and stiffness.

BS 3531- 23.2:1993 ISO 9269:1988

Implants for osteosynthesis. Bone plates. Specification for holes and slots for use with screws of 4.5mm 4.2mm 4.0mm 3.9mm 3.5mm and 2.9mm nominal sizes.

BS 3531- 23.3:1991 ISO 5836:1988

Implants for osteosynthesis. Bone plates. Specification for holes corresponding to screws with asymmetrical thread and spherical under surfaces.

Quality Control & Product Development Team

Veterinary Instrumentation is pleased to have its own 'in-house' Quality Control and Product Development Team.

Chris joined Veterinary Instrumentation just over 5 years ago and has over 40 year's experience working in manufacturing. His role comprises of quality checks of instrumentation and implants involving the tolerances and specification checks following manufacturing of the instruments and implants.

David is a practising surgeon with interests in all aspects of surgery. He also has extensive CAD and engineering skills to facilitate the development of new instruments and implants.

Gillian recently joined the Veterinary Instrumentation Team, assisting both Chris & David as our Product Development Engineer. Her role comprises of the technical drawing of new products, along with setting tolerances and checking specifications of instruments and implants.



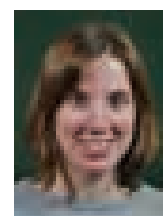
Chris Pignon

Quality Engineer



David Strong BVM&S., MRCVS.

Technical Director



Gillian Butterwick

Product Development Engineer

AO Type Screws, Drills, Taps & Screwdrivers

Drill & Equipment for Cortical Screws and Cancellous Screws

CORTICAL = CS

CORTICAL SELF TAPPING = CSST

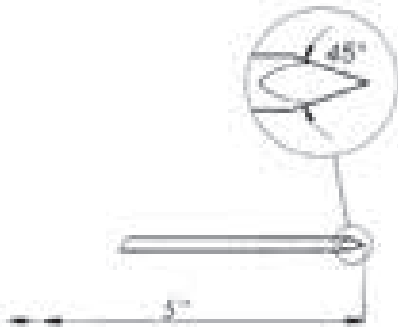
CANCELLOUS = CAN

	Cortical 1.5mm	Cortical 1.5mm	Cortical 2.0mm	Cortical Self Tapping 2.0mm	Small Cancellous 2.2mm	Cortical Self Tapping 2.4mm	Cortical 2.7mm	Cortical Self Tapping 2.7mm	Small Cancellous 3.0mm	Cortical 3.5mm	Small Cancellous 3.5mm	Cortical Self Tapping 3.5mm	Cancellous 4.0mm	Cortical 4.5mm	Cortical 5.5mm	Cancellous 6.5mm
Pilot Drill	1.1mm	1.5mm	1.5mm	1.5mm	1.5mm	1.8mm	2.0mm	2.0mm	2.0mm	2.5mm	2.0mm	2.5mm	2.5mm	3.2mm	4.0mm	3.2mm
Jacobs Hard	H090100	H090101	H090101	H090101	H090101	H090208	H090102	H090102	H090102	H090112	H090102	H090112	H090112	H090205S	H090107	H090105S
Jacobs Soft	N/A	090101	090101	090101	090101	N/A	090102	090102	090102	090112	090102	090112	090112	090105	090107	090105
Synthes Fit	S090100S	S090101S	S090101S	S090101S	S090101S	N/A	S090102S	S090102S	S090102S	S090112S	S090102S	S090112S	S090112S	S090105S	S090107	S090105S
Tap																
Quick Fit	TD0015		TD0020	N/A	N/A	N/A	TS0027	N/A	N/A	TS12535	TS17535	N/A	TS17535	TS00045	TS00055	TS00065
'T' Bar	TBT015		TBT020	N/A	N/A	N/A	TBT027	N/A	N/A	TBT12535	TBT17535	N/A	TBT17535	TBT045	N/A	TBT065
Clearance Drill	1.5mm	2.0mm	2.0mm	2.0mm	2.0mm	2.4mm	2.7mm	2.7mm	3.0mm	3.5mm	3.5mm	3.5mm	4.0mm	4.5mm	5.5mm	6.5mm
Jacobs Hard	H090101	H090102	H090102	H090102	H090102	H090209	H090104	H090104	H090205	H090106S	H090106S	H090106S	H090107	H090108S	H090109	N/A
Jacobs Soft	090101	090102	090102	090102	090102	N/A	090104	090104	N/A	090106	090106	090106	090107	090108	N/A	N/A
Synthes Fit	S090101S	S090102S	S090102S	S090102S	S090102S	N/A	S090104S	S090104S	N/A	S090106S	S090106S	S090106S	S090107	S090108S	S090109	N/A
Screwdriver Type	1.5 Hex	1.5 Hex	1.5 Hex	1.5 Hex	1.5 Hex	1.5 Hex	2.5 Hex	2.5 Hex	2.5 Hex	2.5 Hex	2.5 Hex	2.5 Hex	2.5 Hex	3.5 Hex	3.5 Hex	3.5 Hex
Hex Head	SDHS20F	SDHS20F	SDHS20F	SDHS20F	SDHS20F	SDHS20F	SDHS35F	SDHS35F	SDHS35F	SDHS35F	SDHS35F	SDHS35F	SDHS35F	SDHS350	SDH3500	SDH3500
Cruciate Head	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Wires

Wires are simple, but very versatile implants. Our specially selected, stainless steel grade 316LVM wires are both very hard and very stiff improving their driving characteristics and performance in situ. Cutting with sufficiently robust implant cutters with hard jaws is obligatory. These wires will damage cutters with stainless steel edges, eg: combined wire twisters/shear cutters.

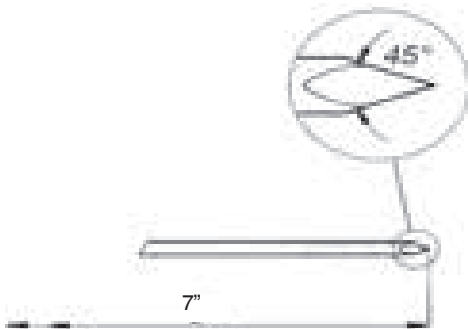
Arthrodesis Wire



Rather like small Intra-medullary Pins, Arthrodesis Wires have trochar points at each end. They are used for the fixation of small bone fragments, produced either electively or as a result of trauma, e.g. distal femoral fractures, tibial crest transplants and femoral neck fractures. 5" 125mm Long. Supplied in packs of ten.

ARTHRODESIS WIRE TROCHAR POINTED AT BOTH ENDS. PACK OF 10 (5", 125MM LENGTH)			
090054		0.8mm	£23.50
090020	0.035"	0.9mm	£23.50
090060		1.0mm	£23.50
090021	0.045"	1.1mm	£23.50
090061		1.25mm	£23.50
090024		1.4mm	£23.50
090062		1.5mm	£23.50
090022	0.0625"	1.6mm	£23.50
090026	0.0712"	1.8mm	£23.50
090023	0.08"	2.0mm	£23.50

Arthrodesis Wire (Extra Long)



Rather like small Intra-medullary Pins, Arthrodesis Wires have trochar points at each end. They are used for the fixation of small bone fragments, produced either electively or as a result of trauma, e.g. distal femoral fractures, tibial crest transplants and femoral neck fractures. 7" 178mm Long. Extra long. Supplied in packs of ten.

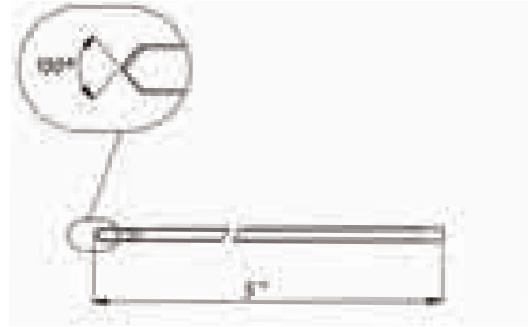
ARTHRODESIS WIRE TROCHAR POINTED AT BOTH ENDS. PACK OF 10 (7", 178MM LENGTH)			
090064		0.9mm	£28.50
090065		1.1mm	£28.50
090066		1.4mm	£28.50
090067		1.6mm	£28.50
090068		1.8mm	£28.50
090069		2.0mm	£28.50

Arthrodesis Wire Extra Fine

Arthrodesis Wires - Extra Fine. 70mm long with one trochar end and one blunt end. Useful for exotics. Supplied in packs of ten.

ARTHRODESIS WIRE EXTRA FINE PACK OF 10 (70MM LENGTH)		
090056	0.6mm	£23.50
090055	0.7mm	£23.50

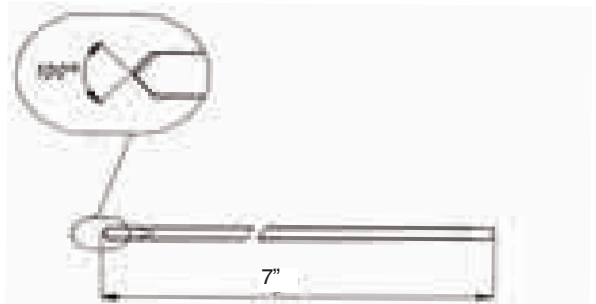
Kirschner Wire



One tip bayonet, the other blunt, these Pins are supplied in packs of ten. 5" 125mm Long.

KIRSCHNER WIRE - PACK OF 10 (5" 125MM)			
090030	0.035"	0.9mm	£25.50
090070		1.0mm	£25.50
090031	0.045"	1.1mm	£25.50
090071		1.25mm	£25.50
090034		1.4mm	£25.50
090072		1.5mm	£25.50
090032	0.0625"	1.6mm	£25.50
090073		1.8mm	£25.50
090033	0.08"	2.0mm	£25.50

Kirschner Wire (Extra Long)



One tip bayonet, the other blunt, these Pins are supplied in packs of ten. 7" 178mm Long. Extra long.

KIRSCHNER WIRE - PACK OF 10 (7" 178MM)			
090074	0.035"	0.9mm	£30.00
090075	0.045"	1.1mm	£30.00
090076		1.4mm	£30.00
090077	0.0625"	1.6mm	£30.00
090078		1.8mm	£30.00
090079	0.08"	2.0mm	£30.00

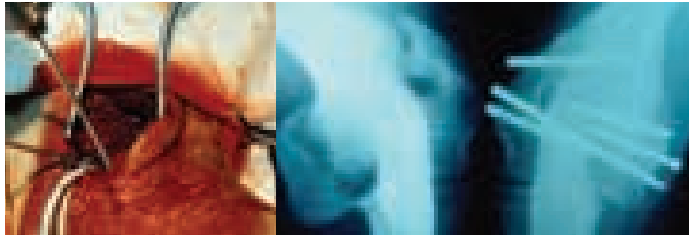
Please note the Extra Long (7") Wires do not fit in our Standard Wire Holders (09039) or Dispenser (090039E) but can be stored in Bone Pin Tube (090039d).

Threaded Pins and Wires

Threaded Wires have a much greater pull out resistance than smooth wires. They are very easy to insert using Standard Drills fitted with Jacobs Chucks or Wire Drivers. Although having only trochar tips they will self tap in all but the hardest of cortical bone. Driven across fragments, threaded wires act as mini position screws which can be cut off flush to the bone surface or buried. It may be possible to place several Threaded Wires at angles to each other in a relatively small area.

Available in Coarse or Fine Thread pitches. Use the coarse in cancellous or metaphyseal bone.

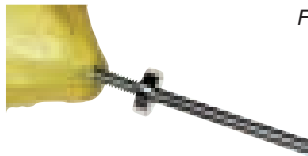
Coarse Threaded Small Fragment Pins



Use Threaded Pins where you might use a 2mm fixation screw or 'K' Wire, e.g. tibial crest transplant. Drive in with slow speed drill. Relatively coarse threads. 0.8mm thread pitch.

COARSE THREADED SMALL FRAGMENT PINS - 2.0MM DIAMETER		
090036	Threaded Pins 5mm Thread Single	£8.95
090037	Threaded Pins 10mm Thread Single	£8.95
090027	Threaded Pins 15mm Thread Single	£8.95
090028	Threaded Pins 20mm Thread Single	£8.95

Fine Threaded Small Fragment Pins 2.0mm



Fine Threaded Pin plus Threaded Washer

Use singly to re-attach small bone fragments. Use in multiples to re-attach larger fragments e.g. humeral condyles. (4 x 2.0 Threaded Pins have similar properties to one 3.5 Screw

while interfering less with the healing process). Use Threaded Washer to create screw effect. Very easy to insert using an orthopaedic drill.

Thread pitch is 0.4mm for use in cortical bone. Self drilling. Cut off excess pin. For maximum pull out resistance drill through trans cortex and cut off trochar cutting tip.

FINE THREADED FRAGMENT PINS 2.0MM		
090300	Fine Threaded Washer 5.0mm Diameter Single	£6.25
090305	Fine Threaded Pin 5mm Thread Length Single	£7.50
090310	Fine Threaded Pin 10mm Thread Length Single	£8.00
090315	Fine Threaded Pin 15mm Thread Length Single	£8.25
090320	Fine Threaded Pin 20mm Thread Length Single	£8.50
090325	Fine Threaded Pin 25mm Thread Length Single	£8.75
090330	Fine Threaded Pin 30mm Thread Length Single	£9.25
090340	Fine Threaded Pin 40mm Thread Length Single	£9.75
0903111	Fine Threaded Pin Set Comprising 5 of each Pin plus 5 Washers in Stainless Case	£295.00

Fully Threaded Arthrodesis Wires

FULLY THREADED WIRES		
090091	Fully Threaded Wire Single 0.8	£11.25
090092	Fully Threaded Wire Single 1.0	£11.25
090093	Fully Threaded Wire Single 1.5	£11.25
090094	Fully Threaded Wire Single 2.0	£11.25

Arthrodesis Wire Box



This Box will store all diameters of Arthrodesis and 'K' Wires in four compartments.

In addition there is a space for a 'K' Wire Bender and a 'K' Wire Punch.

ARTHRODESIS & 'K' WIRE ORGANISER AUTOCLAVABLE		
001124	Stainless Box for Arthrodesis & 'K' Wires	£110.00
0900200	Arthrodesis & 'K' Wire Organiser Plastic (Autoclavable)	£12.95

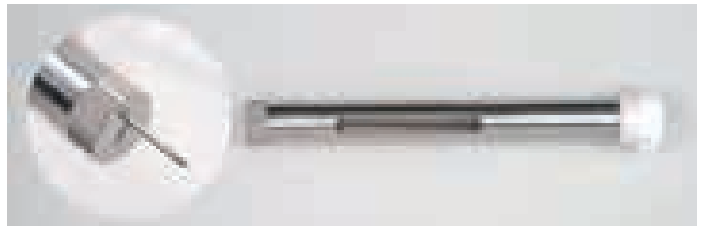
'A' Wire/ 'K' Wire Holders for 5" / 125mm wires

The simplest solution for storing 'A'/'K' wires is to have a tube dedicated for each size marked clearly with the diameter. There is no possibility for confusion. Each tube is 165mm long and 12mm diameter and will take any wire less than 150mm in length. Coding is 090039 with a suffix of the size required. A tube for 1.6mm Wires is therefore 0900391.6.



K WIRE / A WIRE HOLDERS FOR 5"/125MM WIRES		
0900390.8	0.8mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900390.9	0.9mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900391.0	1.0mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900391.1	1.1mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900391.2	1.25mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900391.4	1.4mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900391.5	1.5mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900391.6	1.6mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900391.8	1.8mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
0900392.0	2.0mm Arthrodesis Wire/ 'K' Wire Holder	£32.50
090039SET	Arthrodesis Wire/ 'K' Wire Holder Set (10)	£275.00

'A' Wire/ 'K' Wire Dispenser



The Tube is sub divided into four sections each of which has a window through which the Wires may be viewed. The knurled dispensing tip is rotated until the hole is over the desired wire size and the Wire shaken out. Total length 175mm. For Wires 125mm.

Marked with the standard sizes of 0.9, 1.1, 1.6 and 2.0mm.

'A' WIRE/ 'K' WIRE DISPENSER		
090039E	A' Wire/ 'K' Wire Dispenser 0.9, 1.1, 1.6 & 2.0mm	£87.50

Small Pin Vice



This Small Pin Chuck holds wires and instruments up to a diameter of 1.0mm. Particularly useful for fingertip control over insertion of Arthrodesis and 'K' Wires.

SMALL PIN VICE		
001223	Small Pin Vice 100mm	£165.00

Kirschner Wire/ Small Pin Punch



001360 'K' Wire Punch

KIRSCHNER WIRE/ SMALL PIN PUNCH		
001360	'K' Wire/ Small Pin Punch 135mm	£51.50
001361	Very Small Pin Punch 1.6mm Tip 135mm	£51.50

IM Pin Punch



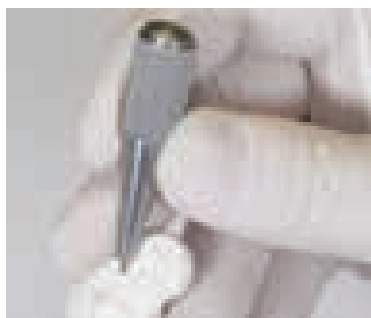
Following surgeon feedback, we have developed an IM Pin Punch with a larger diameter tip (6mm) better suited to driving larger pins.

IM PIN PUNCH		
001374	IM Pin Punch 135mm Long 6mm Tip	£67.50

'Stubby' Pin Punch



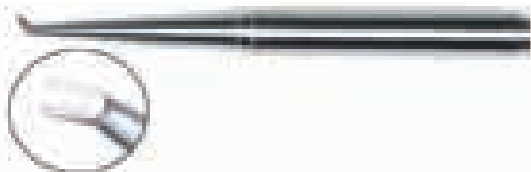
Actual Size



The reduced working length allows the stubby punch to be held between thumb and forefinger much closer to the patient for increased control. This is especially useful when working without an assistant. 50mm.

'STUBBY' PIN PUNCH		
001363	Stubby Pin Punch 50mm	£51.50

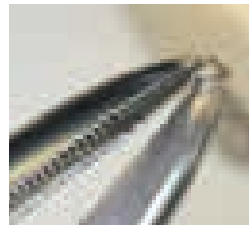
Offset Pin Punch



When it becomes necessary to bend over the shaft of an Arthrodesis Wire or 'K' Wire, usually to minimise pin migration into the bone, the pin becomes difficult to press home with a Standard Pin Punch. The Offset Pin Punch has an angled, bigger 'foot' for this purpose. Also suitable for driving 'Rush Pins' either commercially available or home made varieties.

OFFSET PIN PUNCH		
001364	Offset Pin Punch 135mm	£67.50

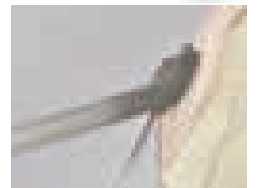
Dental Forceps for Pin and Wire Extraction



Borrowed from human dentistry, these have been found to work extremely well for pin, wire and screw extraction. The grooved tips provide excellent levels of grip and come to a point, facilitating work very close to the bone surface as well as work in confined spaces. The need for more extensive surgical approach is reduced. The anatomically shaped handles and cranked jaws make these a pleasure to use.

DENTAL FORCEPS FOR PIN AND WIRE EXTRACTION		
001248	Dental Forceps for Pin and Wire Extraction	£67.50

Offset Type Wire Bender



A robust design for the accurate and reliable creation of bends close to the bone surface. The three cannulations (1.1mm, 1.6mm and 2.0 mm) cater for the full range of our arthrodesis wires. The short length of each cannulation makes these easy to clean.

OFFSET TYPE WIRE BENDER		
001373	Offset Type Wire Bender	£62.50

'K' Wire Bender

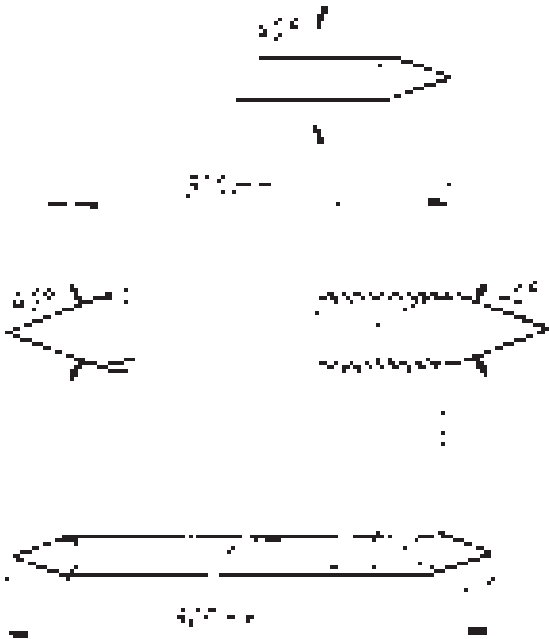


Small wires are commonly used to re-attach bone fragments which have been produced either by trauma or electively by osteotomy. To minimise pin migration into the bone, the cut ends of 'K' Wires and Arthrodesis Wires should either be buried or bent sharply and cut 5-10mm from the bend. The cut ends are then rotated to the most comfortable position (see photo). Bending with fingers or pliers is difficult to control and is very likely to damage the repair.

The 'K' Wire/ Small Pin Bender is designed to slip over the wire concentrating all the bending forces at the pin/ bone interface. The instrument is double ended, the small end is for 0.9mm and 1.1mm Wires, the large end is for 1.4mm, 1.6mm & 2.0mm Wires.

'K' WIRE/ SMALL PIN BENDER		
001362	'K' Wire Bender. 140mm	£51.50

Steinman Intra-Medullary Pins



Simple, cheap and often the best technique for the repair of long bones. I/M pinning does not resist compression and rotation very effectively. It may be helpful to add an external fixator for two weeks if in any doubt. Smooth Pins are most likely to migrate. The Threaded Pins are negatively cut and do reduce backing out particularly if the distal fragment is small.

Our Trochar tips are designed to cut bone but care must be exercised to avoid heat necrosis during insertion. Can be cut in half to produce cheap ESF pins. Most Pin Chucks will only take 1/4" pins.* Do not purchase a 5/16" Pin unless you have a Chuck to insert it. Use 1.0mm wire minimum as a cerclage.

STEINMAN INTRA-MEDULLARY PINS TROCHAR TIPS (12", 300MM LENGTH)			
090000	1/16"	1.6mm	£5.25
090001	5/64"	2.0mm	£5.50
090002	3/32"	2.4mm	£5.75
090003	7/64"	2.8mm	£6.00
090004	1/8"	3.2mm	£6.25
090005	9/64"	3.6mm	£6.50
090006	5/32"	4.0mm	£7.50
090007	3/16"	4.8mm	£9.00
090008	1/4"	6.35mm	£10.00
090009*	5/16"	8.0mm	£10.00
090153	15/64"	6mm	£10.00
STEINMAN INTRA-MEDULLARY PINS SCREW POINT TROCHAR TIPS (12", 300MM LENGTH)			
090010	1/16"	1.6mm	£6.25
090011	5/64"	2.0mm	£6.50
090012	3/32"	2.4mm	£6.75
090013	7/64"	2.8mm	£7.00
090014	1/8"	3.2mm	£7.25
090015	9/64"	3.6mm	£7.50
090016	5/32"	4.0mm	£9.00
090017	3/16"	4.8mm	£10.00
090154	7/32"	5.6mm	£11.00
090018	1/4"	6.35mm	£11.00
090019*	5/16"	8.0mm	£11.00
090040	Leighton Bone Pin Introducer		£125.00

*Do not fit standard Jacobs Chuck.

Bone Pin Storage

Bone Pin Roll

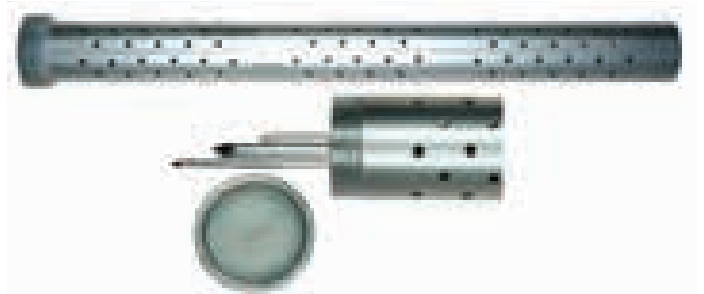
Bone Pin storage and sterilisation is difficult. Pins are long and sharp. The Bone Pin Roll stores at least one of each Pin.

An added advantage is that the pins do not penetrate sterilisation bags.



BONE PIN ROLL		
090038	Bone Pin Roll	£41.50

Bone Pin Tubes



BONE PIN TUBES		
090039A	I/M Pin Storage/ Autoclave Tube 320mm	£57.50
090039C	I/M Pin Storage/ Autoclave Tube 225mm	£57.50
090039D	I/M Pin Storage/ Autoclave Tube 180mm	£57.50
090039B	I/M Pin Storage/ Autoclave Tube 150mm	£57.50

IM Pin Box

Keep all your 300mm IM Pins arranged and in size order safely within our IM pin box. The hard box will reduce the chance of personal injury and the risks of perforating packaging.

The Box is fully autoclavable, but also makes an excellent stock-

box. At a glance will show you quickly see how many of each size pin it is holding. The box features a platform with a clearly marked metric and imperial pin gauge to make it very user friendly.

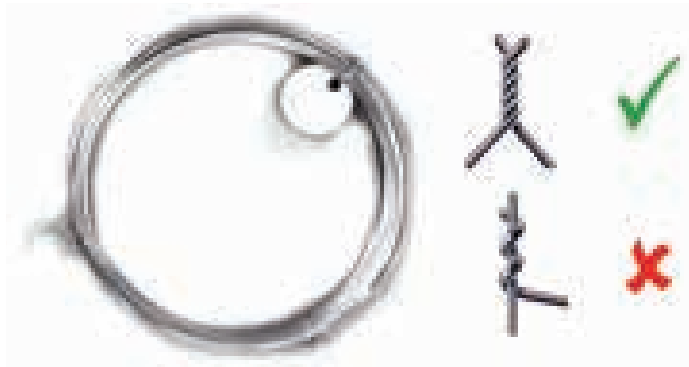
Supplied either empty or filled with three Steinmann pins of each size (30 pins total) representing a saving of over 10%. The Pin sizes are, 1.6mm, 2.0mm, 2.4mm, 2.8mm, 3.2mm, 3.6mm, 4.0mm, 4.8mm, 6.35mm, 8.0mm. Box external dimensions 308x138x64mm.

For Protective Autoclaveable Tips see page 354.



IM PIN BOX		
IMPBOX	IM Pin Box Empty	£255.00
IMPBOXTRO	IM Pin Box Complete with Steinman Pins Trochar Tips (30 in total)	£395.00
IMPBOXSCR	IM Pin Box Complete with Steinman Pins Screw Point Trochar Tips (30 in total)	£425.00

Orthopaedic Wire



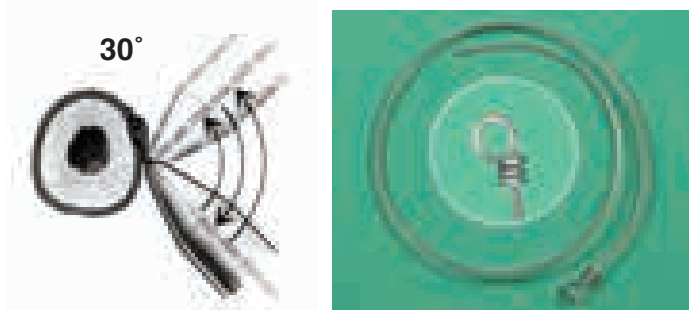
Cerclage Wire is an extremely useful method of fragment fixation. Use as thick a Wire as seems possible. Twist evenly under tension. The best instrument is our Wire Twister/ Cutter 001260. Minimise wire movement on periosteum. Tension wire banding should be performed where muscular forces must be transferred beyond a fracture or osteotomy, e.g. Tibial crest avulsion or trochanteric osteotomy. 1.0mm Wire is the most useful for mid-sized dogs. All are supplied in 10 metre rolls.

ORTHOPAEDIC WIRE (IN 10M ROLLS)

OW0210	0.2 (diameter in mm)	£10.00
OW0310	0.3	£10.50
OW0410	0.4	£12.00
OW0510	0.45	£14.00
OW0610	0.56	£16.00
OW0710	0.71	£18.00
OW0810	0.8	£21.00
OW0910	0.9	£23.50
OW1010	1.0	£38.50
OW1012	1.25	£43.50
OW1015	1.5	£56.00

For convenience and identification rolls of Orthopaedic Wire can be marked with Padlock Security Tags (see page 373) This also has the added advantage of stopping rolls of wire unraveling in the operating theatre.

Wires with Eyelet



The free end of the wire is threaded through the eye. The cerclage is tightened using the special tightener. Requires 001262 Wire Tightener or for Wire Twisting Instruments.

ORTHOPAEDIC WIRE (WITH EYELET)

CWWE22	Orthopaedic Wire with Eyelet 22g x 12" (6 pack)	£25.00
CWWE20	Orthopaedic Wire with Eyelet 20g x 12" (6 pack)	£25.00
CWWE18	Orthopaedic Wire with Eyelet 18g x 12" (6 pack)	£25.00
001262	Wire Loop Tightener for above	£112.50
200010.00	Twisterz Wire Twisters	£147.50

Cerclage Wire Passers



These devices are used to direct orthopaedic cerclage wire around long bones with minimal trauma. Devascularisation of bone fragments is a serious risk, particularly where cerclage wire is being applied. Devitalised bone can turn into a sequestrum. Try to keep as much soft tissue attachment as possible. Available as a double ended instrument or in single individual sizes.

WIRE PASSERS

001250	Wire Passer Double-ended 145mm	£49.50
001252	Wire Passer Single-ended 20mm Diameter 205mm	£32.50
001253	Wire Passer Single-ended 30mm Diameter 220mm	£32.50
001254	Wire Passer Single-ended 40mm Diameter 250mm	£32.50
001256	Wire Passers Single-ended Set of 3 (as above)	£80.00
001257	XXL Wire Passer Single-ended 55mm Diameter	£36.50

Strong Wire Passer



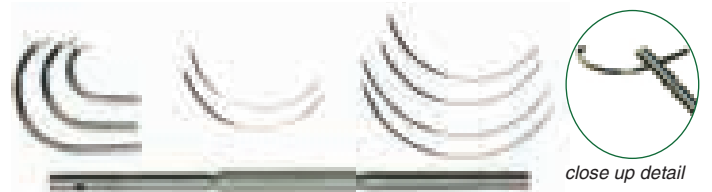
Good cerclage wire placement can be challenge. The low profile of these wire passers allows easier passage between bones, e.g. in lower limb. The open wire channel and ability to pass wire from handle or tip of instruments should help simplify wire placement, while the flat channel back and tip give better feel. Available as a three instrument set, each device is double ended giving internal diameters of 12.5mm and 15mm on the smallest instrument, 20mm and 25mm on the medium instrument and 30mm and 40mm on the largest instrument.

STRONG CERCLAGE WIRE PASSERS

CWPSM	Strong Cerclage Wire Passer Small	£64.50
CWPMD	Strong Cerclage Wire Passer Medium	£64.50
CWPLG	Strong Cerclage Wire Passer Large	£64.50
CWPSET	Strong Cerclage Wire Passer Set of 3	£135.00

'Sismey' Wire Introducer

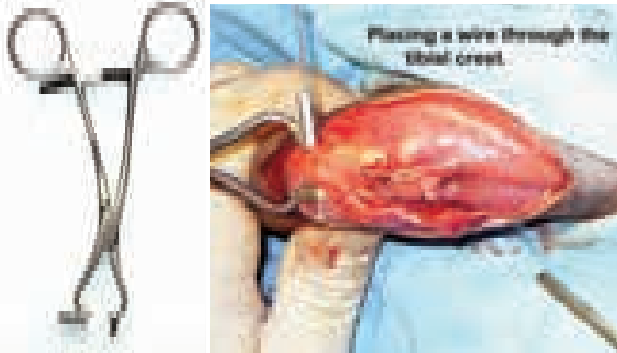
A useful kit including wire passing and suture passing needles. The needles may be positioned in a wide variety of different angles.



"SISMEY" WIRE INTRODUCER

001255	Sismey Wire Introducing Set 135mm Long	£77.50
V1497C	Spare Needles - Large	£10.50
V1497D	Spare Needles - Small	£10.50
V1497B	Spare Hollow Tubes (3)	£24.50

Lesser Wire Passer



The serrated tube style tip fixes the position of the drill hole, minimising 'skate' and providing soft tissue protection during drilling. The tube guides the cerclage wire or nylon through the hole (no more disappearing holes!). The loop on the other jaw 'captures' the implant and pulls it from the blind side.

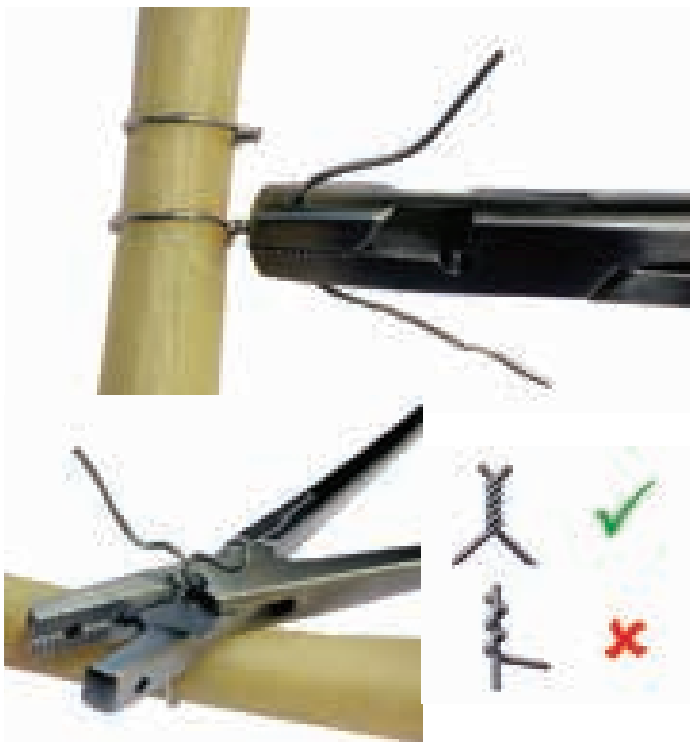
Many applications – wherever you would 'lose' a hole!

A video illustrating how the Lesser Wire Passer/ Retriever works is available on-line

LESSER WIRE PASSER/RETRIEVAL FORCEPS		
001268	Lesser Wire Passer/Retrieval Forceps	£105.00

Wire Twister/ Shear Cutter

STILL THE BEST BY FAR



- Jaws lock onto wire to enable easy twisting under tension for kink-free cerclage. The wire must be twisted under tension to create an even spiral.
- Improved design, long life shear action cutter will cut 18 gauge (1.2mm) wire twisted double.
- Serrated jaws grip and turn cut ends. Jaws have fenestration for extra grip.
- Not designed to cut 'A' + 'K' Wires, Pins or fish hooks.
- Available with Tungsten Carbide Jaws for extra grip.

WIRE TWISTER/ SHEAR CUTTER		
001260	Wire Twister/ Shear Cutter 165mm Long	£82.50
001261	Wire Twister/ Shear Cutter - Tungsten Carbide Jaws 165mm Long (not fenestrated)	£97.50

Orthopaedic Wire Kit



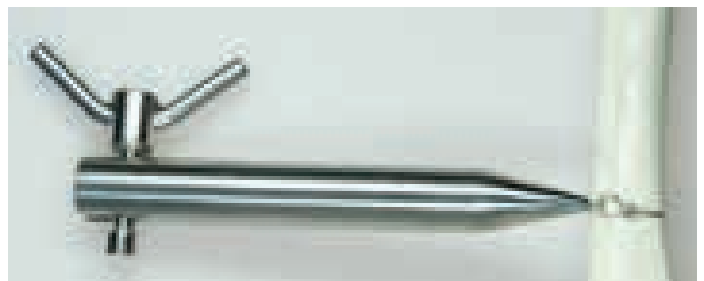
Cerclage wire can be a very useful means of fragment fixation. This kit contains our most popular cerclage instruments and a roll of wire.

Kit contains 1x Wire Twister, 1x Set of 3 Single Ended Wire Passers and 10m roll of 1.0mm Orthopaedic Wire

The price is discounted by over 10% compared to the component parts.

ORTHOPAEDIC WIRE KIT		
OWKIT	Orthopaedic Wire Kit	£175.00

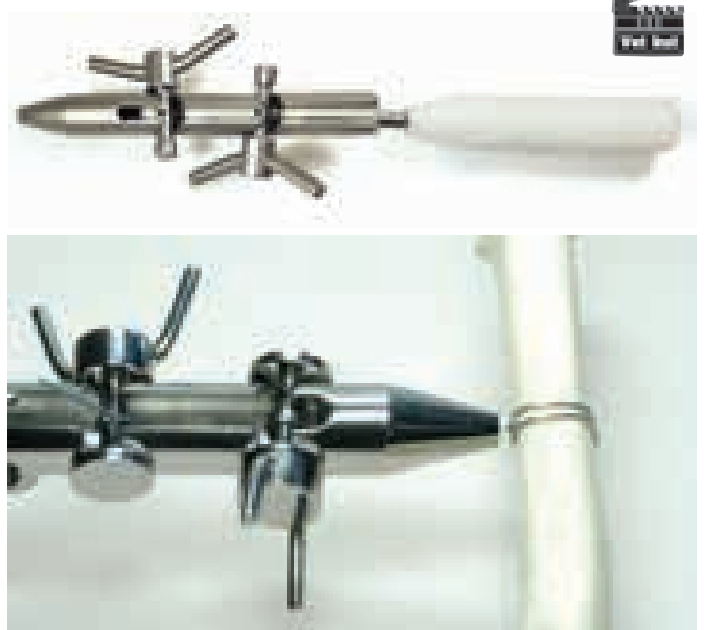
Wire Tightener for Eyed Wires



Used to tension eyed wires very tightly. The cerclage is finished by kinking the wire back against the eye. See previous page for Wire Loops.

WIRE TIGHTENER FOR EYED WIRES		
001262	Wire Loop Tightener 125mm Long	£112.50

Wire Tightener with Two Cranks for Double Loop Cerclage and Eyed Wire



Use with single crank for eyelet wires. Use both cranks to tighten double loops.

For a video showing how this product works visit www.vetinst.com/videos

WIRE TIGHTENER WITH TWO CRANKS		
001264	Wire Tightener with Two Cranks 285mm Long	£145.00

Screws

Strict attention to design, materials, manufacturing and quality control is essential to achieving optimal screw performance. Screws often present the weakest link in a construct and selecting the best screws affordable should be a major consideration when making any screw purchases.

1.0mm Screws

1.0mm Cortical Self Tapping Screws

Available 4mm to 15mm length. Use 0.7mm pilot drill and 1.0mm cruciate screwdriver. The threads on the screws are very fine. Caution must be exercised at the final tightening.



1.0MM CORTICAL SELF TAPPING SCREWS-CRUCIATE HEAD (USE 0.7MM PILOT)

CSST1004	4mm	£4.75
CSST1005	5mm	£4.75
CSST1006	6mm	£5.25
CSST1007	7mm	£5.25
CSST1008	8mm	£5.75
CSST1009	9mm	£5.75
CSST1010	10mm	£6.25
CSST1011	11mm	£6.25
CSST1012	12mm	£7.00
CSST1013	13mm	£7.00
CSST1014	14mm	£7.50
CSST1015	15mm	£7.50

1.5mm Screws

1.5mm Cortical Screws Hex Head

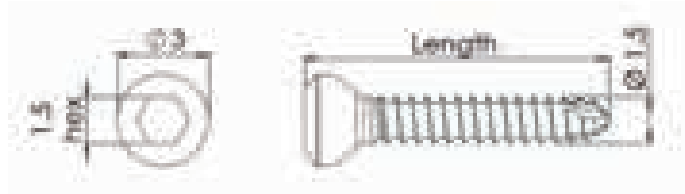


Available 6mm to 34mm length. Use 1.1mm Pilot Drill and 1.5mm Hex screwdriver. Use extreme care when tightening as the threads have a very fine pitch. Use in combination with 1.5/2.0 Plates. The head is slightly smaller than the 2.0 Cortical Screw.

1.5MM CORTICAL SCREWS - HEX HEAD 1.5MM (USE 1.1MM PILOT)

CS1506	6mm	£4.40
CS1507	7mm	£4.40
CS1508	8mm	£4.40
CS1509	9mm	£4.40
CS1510	10mm	£4.75
CS1511	11mm	£4.75
CS1512	12mm	£4.75
CS1514	14mm	£5.50
CS1516	16mm	£5.50
CS1518	18mm	£6.00
CS1520	20mm	£6.00
CS1522	22mm	£6.50
CS1524	24mm	£6.50
CS1526	26mm	£6.50
CS1528	28mm	£6.50
CS1530	30mm	£6.75
CS1532	32mm	£6.75
CS1534	34mm	£6.75

1.5mm Cortical Self Tapping Screws Hex Head



Use of Self Tapping Screws can save considerable time and trauma. Pull out strength is not affected provided the self tapping flutes lie outside of the cortex. Add an extra 1mm when measuring screw length with a depth gauge.

Self Tapping Screws are less effective in dense cortical bone. e.g. calcaneus. It is advised that an appropriate tap be available should the need arise. Drill data: Pilot Drill 1.1mm, Clearance Drill 1.5mm.

1.5MM CORTICAL SELF TAPPING SCREWS - HEX HEAD 1.5MM USE 1.1MM PILOT

CSST1506	6mm	£4.75
CSST1507	7mm	£4.75
CSST1508	8mm	£4.75
CSST1509	9mm	£4.75
CSST1510	10mm	£5.25
CSST1511	11mm	£5.25
CSST1512	12mm	£5.25
CSST1514	14mm	£5.75
CSST1516	16mm	£5.75
CSST1518	18mm	£6.25
CSST1520	20mm	£6.25
CSST1522	22mm	£6.50
CSST1524	24mm	£6.50

1.5mm Cortical Self Tapping Screws Cruciate Head



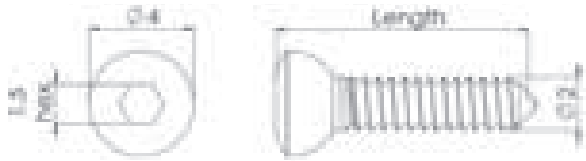
Following surgeon requests we have now added 1.5mm Cortical Self Tapping Screws with cruciate head to our range.

1.5MM CORTICAL SELF TAPPING SCREWS - CRUCIATE HEAD USE 1.1MM PILOT

CSXT1506	6mm	£4.75
CSXT1507	7mm	£4.75
CSXT1508	8mm	£4.75
CSXT1509	9mm	£4.75
CSXT1510	10mm	£5.25
CSXT1511	11mm	£5.25
CSXT1512	12mm	£5.25
CSXT1514	14mm	£5.75
CSXT1516	16mm	£5.75
CSXT1518	18mm	£6.25
CSXT1520	20mm	£6.25
CSXT1522	22mm	£6.50
CSXT1524	24mm	£6.50

2.0mm Screws

2.0mm Cortical Screws Hex Head



Available 6mm to 34mm length, the spherical head of these Screws provides for compression when used in association with 2.0mm Compression Plates.

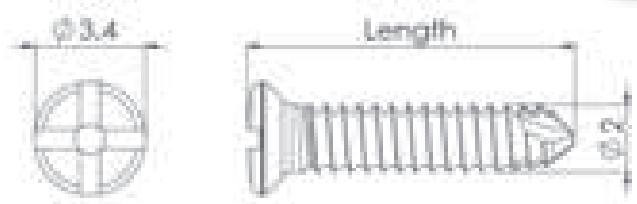
2.0MM CORTICAL SCREWS - HEX HEAD 1.5MM (USE 1.5MM PILOT)		
CS2006	6mm	£4.40
CS2007	7mm	£4.40
CS2008	8mm	£4.40
CS2009	9mm	£4.40
CS2010	10mm	£4.75
CS2011	11mm	£4.75
CS2012	12mm	£4.75
CS2014	14mm	£5.50
CS2016	16mm	£5.50
CS2018	18mm	£6.00
CS2020	20mm	£6.00
CS2022	22mm	£6.75
CS2024	24mm	£6.75
CS2026	26mm	£6.75
CS2028	28mm	£6.75
CS2030	30mm	£6.75
CS2032	32mm	£6.75
CS2034	34mm	£6.75

2.0mm Cortical Self Tapping Screws Hex Head

This type of Screw is becoming increasingly popular in both human and veterinary orthopaedics. Self tapping flutes at the tip obviate the need for pre-tapping which saves time and reduces time related complications. Pull out strength is not affected provided the self-tapping flutes lie outside the bone cortex. Allow an extra 1mm when measuring screw length. Drill data: Pilot Drill 1.5mm, Clearance Drill 2.0mm.

2.0MM CORTICAL SELF TAPPING SCREWS - HEX HEAD 1.5MM (USE 1.5MM PILOT)		
CSST2006	6mm	£4.75
CSST2007	7mm	£4.75
CSST2008	8mm	£4.75
CSST2009	9mm	£4.75
CSST2010	10mm	£2.25
CSST2011	11mm	£5.25
CSST2012	12mm	£5.25
CSST2014	14mm	£5.75
CSST2016	16mm	£5.75
CSST2018	18mm	£6.25
CSST2020	20mm	£6.25
CSST2022	22mm	£6.75
CSST2024	24mm	£6.75
CSST2026	26mm	£6.75
CSST2028	28mm	£6.75
CSST2030	30mm	£6.75
CSST2032	32mm	£7.25
CSST2034	34mm	£7.25
CSST2036	36mm	£7.25
CSST2038	38mm	£7.25
CSST2040	40mm	£7.25

2.0mm Cortical Self Tapping Screws Cruciate Head



2.0MM CORTICAL SELF TAPPING SCREWS - CRUCIATE HEAD (USE 1.5MM PILOT)		
CSXT2006	6mm	£4.75
CSXT2007	7mm	£4.75
CSXT2008	8mm	£4.75
CSXT2009	9mm	£4.75
CSXT2010	10mm	£5.25
CSXT2011	11mm	£5.25
CSXT2012	12mm	£5.25
CSXT2014	14mm	£5.75
CSXT2016	16mm	£5.75
CSXT2018	18mm	£6.25
CSXT2020	20mm	£6.25
CSXT2022	22mm	£6.75
CSXT2024	24mm	£6.75
CSXT2026	26mm	£6.75
CSXT2028	28mm	£6.75
CSXT2030	30mm	£6.75
CSXT2032	32mm	£7.25
CSXT2034	34mm	£7.25
CSXT2036	36mm	£7.25
CSXT2038	38mm	£7.25
CSXT2040	40mm	£7.25

2.2mm Cancellous Screws



Available from 8mm to 24mm length. Self tapping. Do not use in cortical bone unless using as a salvage screw for a stripped 2.0mm Cortical Screw.

2.2MM CANCELLOUS SELF TAPPING SCREWS - HEX HEAD 1.5MM (USE 1.5MM PILOT)		
CAN2208	8mm	£5.50
CAN2210	10mm	£6.00
CAN2212	12mm	£6.00
CAN2214	14mm	£6.00
CAN2216	16mm	£6.00
CAN2218	18mm	£6.50
CAN2220	20mm	£6.50
CAN2222	22mm	£6.50
CAN2224	24mm	£6.50

2.4mm Screws

2.4mm Cortical Self Tapping Screws Hex Head



When working with cats and other smaller patients it is often the case that 2.0mm screws and plates are too small and 2.7mm screws and plates are too large. The jump from 2.0 DCPs to 2.7 DCPs is huge. 2.4mm screws are used in veterinary surgery but until recently have not been available as a full range of cortical screws and DCPs.

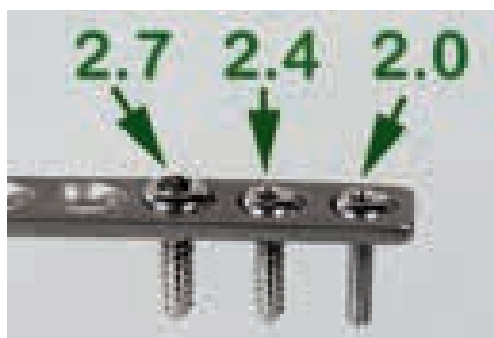
Currently only available in the self tapping format. A quick fit tap is also available.

The screwdriver required is the same as 1.5 & 2.0 screws (SDHS20F).

Available as a full set comprising 5 of each screw 6mm through 30mm, one of each plate, 1.8 drill, 2.4 Drill & Load/ Neutral Drill Guide. All are contained in a Stainless Screw Box/ Instrument Case.

2.4 CORTICAL SELF TAPPING SCREWS - HEX HEAD 1.5 (USE 1.8MM PILOT)

CSST2406	6mm	£4.75
CSST2407	7mm	£4.75
CSST2408	8mm	£4.75
CSST2409	9mm	£5.25
CSST2410	10mm	£5.25
CSST2411	11mm	£5.25
CSST2412	12mm	£5.25
CSST2414	14mm	£5.75
CSST2416	16mm	£5.75
CSST2418	18mm	£6.25
CSST2420	20mm	£6.25
CSST2422	22mm	£7.00
CSST2424	24mm	£7.00
CSST2426	26mm	£7.50
CSST2428	28mm	£7.50
CSST2430	30mm	£8.00
CSST2432	32mm	£8.00
CSST2434	34mm	£8.50
CSST2436	36mm	£8.50
CSST2438	38mm	£9.00
CSST2440	40mm	£9.00
CORTSTKIT24	Kit including Case, Screws, Plates, Drills, Load/ Neutral Drill Guide, Bending Levers and Screwdriver	£1,375.00



2.0mm, 2.4mm and 2.7mm Screws may be used with all 2.4mm Implants.

2.4mm Cortical Self Tapping Screws Cruciate Head

NEW



2.4MM CORTICAL SELF TAPPING SCREWS - CRUCIATE HEAD (USE 1.8MM PILOT)

CSXT2406	6mm	£4.75
CSXT2407	7mm	£4.75
CSXT2408	8mm	£4.75
CSXT2409	9mm	£5.25
CSXT2410	10mm	£5.25
CSXT2411	11mm	£5.25
CSXT2412	12mm	£5.25
CSXT2414	14mm	£5.75
CSXT2416	16mm	£5.75
CSXT2418	18mm	£6.25
CSXT2420	20mm	£6.25
CSXT2422	22mm	£7.00
CSXT2424	24mm	£7.00
CSXT2426	26mm	£7.50
CSXT2428	28mm	£7.50
CSXT2430	30mm	£8.00
CSXT2432	32mm	£8.00
CSXT2434	34mm	£8.50
CSXT2436	36mm	£8.50
CSXT2438	38mm	£9.00
CSXT2440	40mm	£9.00

For Instrumentation see pages 242-248



Drill Bits see page 250-251
Screws see pages 202-209
Plate Profiles see page 456-484



2.7mm Screws & Plates

2.7mm Cortical Screws Hex Head

Use with 2.7mm compression and 2.7mm reconstruction plates to obtain compression at fracture site.



2.7MM CORTICAL SCREWS - HEX HEAD 2.5MM (USE 2MM PILOT)		
CS2706	6mm	£3.50
CS2707	7mm	£3.50
CS2708	8mm	£3.50
CS2709	9mm	£3.50
CS2710	10mm	£4.00
CS2711	11mm	£4.00
CS2712	12mm	£4.00
CS2713	13mm	£4.00
CS2714	14mm	£5.00
CS2716	16mm	£5.00
CS2718	18mm	£5.00
CS2720	20mm	£5.50
CS2722	22mm	£5.50
CS2724	24mm	£5.50
CS2726	26mm	£6.00
CS2728	28mm	£6.00
CS2730	30mm	£6.75
CS2732	32mm	£6.75
CS2734	34mm	£7.50
CS2736	36mm	£7.50
CS2738	38mm	£8.25
CS2740	40mm	£8.25

2.7mm Cortical Self Tapping Screws Hex Head

This type of Screw is becoming increasingly popular in both human and veterinary orthopaedics. Self tapping flutes at the tip obviate the need for pre-tapping which saves time and reduces time related complications. Pull out strength is not affected.

2.7MM CORTICAL SELF TAPPING SCREWS - HEX HEAD 2.5MM (USE 2MM PILOT)		
CSST2706	6mm	£3.75
CSST2707	7mm	£3.75
CSST2708	8mm	£3.75
CSST2709	9mm	£3.75
CSST2710	10mm	£4.25
CSST2711	11mm	£4.25
CSST2712	12mm	£4.25
CSST2713	13mm	£4.25
CSST2714	14mm	£5.25
CSST2716	16mm	£5.25
CSST2718	18mm	£5.25
CSST2720	20mm	£6.00
CSST2722	22mm	£6.00
CSST2724	24mm	£6.00
CSST2726	26mm	£6.75
CSST2728	28mm	£6.75
CSST2730	30mm	£7.25
CSST2732	32mm	£7.25
CSST2734	34mm	£8.00
CSST2736	36mm	£8.00
CSST2738	38mm	£8.25
CSST2740	40mm	£8.25

3.0mm Cancellous Screws



Available from 12mm to 36mm length. Self tapping. Do not use in cortical bone unless using as a salvage screw for a stripped 2.7mm Cortical Screw.

3.0MM CANCELLOUS FULL THREAD SELF TAPPING SCREWS - HEX HEAD 2.5MM (USE 2MM PILOT)		
CAN3012	12mm	£5.25
CAN3014	14mm	£5.25
CAN3016	16mm	£5.25
CAN3018	18mm	£6.00
CAN3020	20mm	£6.00
CAN3022	22mm	£6.00
CAN3024	24mm	£6.00
CAN3026	26mm	£6.50
CAN3028	28mm	£6.50
CAN3030	30mm	£7.00
CAN3032	32mm	£7.00
CAN3034	34mm	£7.00
CAN3036	36mm	£7.00

www.vetinst.com Bone Plate Profiles

2.4 DCPs



All our Bone Plate Profiles are printed on the pages inside the back cover. They are also in the document download section of www.vetinst.com A full set of profiles printed on clear acetates as an aid to fracture planning is available free of charge. Remember the profiles are actual size so you will have to compensate (5-10%) for magnification depending on the position of the bone and the head of the x-ray unit.

Designed by Vets for Vets

3.5mm Screws

3.5mm Cortical Screws Hex Head



Use with 3.5mm Compression and 3.5mm Reconstruction Plates to obtain fracture site compression. See page 242 for Tap.

3.5MM (1.25 PITCH) CORTICAL SCREWS - HEX HEAD 2.5MM (USE 2.5MM PILOT)

CS3508	8mm	£4.45
CS3509	9mm	£4.45
CS3510	10mm	£4.45
CS3511	11mm	£4.45
CS3512	12mm	£4.45
CS3513	13mm	£4.45
CS3514	14mm	£4.45
CS3515	15mm	£4.45
CS3516	16mm	£5.50
CS3518	18mm	£5.50
CS3520	20mm	£5.50
CS3522	22mm	£5.50
CS3524	24mm	£5.75
CS3526	26mm	£5.75
CS3528	28mm	£5.75
CS3530	30mm	£6.25
CS3532	32mm	£6.25
CS3534	34mm	£6.25
CS3536	36mm	£6.25
CS3538	38mm	£6.25
CS3540	40mm	£6.25
CS3542	42mm	£6.75
CS3544	44mm	£6.75
CS3545	45mm	£7.25
CS3546	46mm	£7.25
CS3548	48mm	£7.25
CS3550	50mm	£7.25
CS3555	55mm	£9.50
CS3560	60mm	£11.50
CS3565	65mm	£11.50
CS3570	70mm	£11.50
CS3575	75mm	£13.50
CS3580	80mm	£13.50
CS3585	85mm	£13.50
CS3590	90mm	£13.50
CS3595	95mm	£18.50
CS35100	100mm	£18.50
CS35105	105mm	£18.50
CS35110	110mm	£18.50

3.5mm Cortical Self Tapping Screws - Hex Head



This type of Screw is becoming increasingly popular in both human and veterinary orthopaedics. Self tapping flutes at the tip obviate the need for pre-tapping which saves time and reduces time related complications. Pull out strength is not affected provided the self tapping flutes are positioned outside the cortex. Add an additional 2mm to screw length c.f. pre-tapped Cortical Screws.

3.5MM (1.25 PITCH) CORTICAL SELF TAPPING SCREWS - HEX HEAD 2.5MM (USE 2.5MM PILOT)

CSST3508	8mm	£4.75
CSST3509	9mm	£4.75
CSST3510	10mm	£4.75
CSST3511	11mm	£4.75
CSST3512	12mm	£4.75
CSST3513	13mm	£4.75
CSST3514	14mm	£4.75
CSST3515	15mm	£4.75
CSST3516	16mm	£4.75
CSST3518	18mm	£5.75
CSST3520	20mm	£5.75
CSST3522	22mm	£5.75
CSST3524	24mm	£6.00
CSST3526	26mm	£6.00
CSST3528	28mm	£6.00
CSST3530	30mm	£6.75
CSST3532	32mm	£6.75
CSST3534	34mm	£6.75
CSST3536	36mm	£6.75
CSST3538	38mm	£6.75
CSST3540	40mm	£7.25
CSST3542	42mm	£7.25
CSST3544	44mm	£7.25
CSST3545	45mm	£7.75
CSST3546	46mm	£7.75
CSST3548	48mm	£8.25
CSST3550	50mm	£8.25
CSST3555	55mm	£9.25
CSST3560	60mm	£9.25



For Instrumentation
see pages 242-248

Drill Bits see page 250-251
Screws see pages 202-209
Plate Profiles see page 456-484




3.5mm Cancellous Screws



The much coarser thread gives a much bigger "bite" to bone. Use on metaphysis or other cancellous bone. The Screw needs its own tap. See page 242

3.5MM (1.75 PITCH) SMALL CANCELLOUS SCREWS - HEX HEAD 2.5MM (USE 2.0MM PILOT)		
CAN3510	10mm	£5.00
CAN3512	12mm	£5.00
CAN3514	14mm	£5.00
CAN3516	16mm	£6.00
CAN3518	18mm	£6.00
CAN3520	20mm	£6.00
CAN3522	22mm	£6.00
CAN3524	24mm	£6.75
CAN3526	26mm	£6.75
CAN3528	28mm	£6.75
CAN3530	30mm	£7.00
CAN3532	32mm	£7.00
CAN3534	34mm	£7.00
CAN3536	36mm	£7.00
CAN3538	38mm	£7.00
CAN3540	40mm	£7.50
CAN3545	45mm	£8.00
CAN3550	50mm	£8.50
CAN3555	55mm	£9.50
CAN3560	60mm	£9.50

4mm Cancellous Screws Full Threaded



Use in cancellous bone where greater screw / bone interface is desirable. Self tapping.

4MM CANCELLOUS FULL THREAD SELF TAPPING SCREWS - HEX HEAD 2.5MM (USE 2.5MM PILOT)		
CNF4010	10mm	£4.75
CNF4012	12mm	£4.75
CNF4014	14mm	£4.75
CNF4016	16mm	£5.75
CNF4018	18mm	£5.75
CNF4020	20mm	£5.75
CNF4022	22mm	£5.75
CNF4024	24mm	£6.00
CNF4026	26mm	£6.00
CNF4028	28mm	£6.00
CNF4030	30mm	£6.75
CNF4032	32mm	£6.75
CNF4034	34mm	£6.75
CNF4035	35mm	£6.75
CNF4036	36mm	£6.75
CNF4038	38mm	£6.75
CNF4040	40mm	£7.25
CNF4045	45mm	£7.25
CNF4050	50mm	£8.25
CNF4055	55mm	£9.25
CNF4060	60mm	£9.25

4.0mm Screws

4.0mm Cancellous Screws Part Threaded



4MM CANCELLOUS PART THREAD SELF TAPPING SCREWS - HEX HEAD 2.5MM (USE 2.5MM PILOT)		
CNP4010	10mm	£4.75
CNP4012	12mm	£4.75
CNP4014	14mm	£4.75
CNP4016	16mm	£5.75
CNP4018	18mm	£5.75
CNP4020	20mm	£5.75
CNP4022	22mm	£5.75
CNP4024	24mm	£6.00
CNP4026	26mm	£6.00
CNP4028	28mm	£6.00
CNP4030	30mm	£7.00
CNP4035	35mm	£7.00
CNP4040	40mm	£7.50
CNP4045	45mm	£8.00
CNP4050	50mm	£8.50
CNP4055	55mm	£9.50
CNP4060	60mm	£10.50

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4.5mm Screws

4.5mm Cortical Screws Hex Head



The standard human cortical screw is suitable for very large dogs and equines. Because it is a human product made in large numbers, 4.5mm screws are relatively inexpensive. See Tap on page 242.

4.5MM CORTICAL SCREWS - HEX HEAD 3.5MM (USE 3.2MM PILOT)

CS4512	12mm	£5.50
CS4514	14mm	£5.50
CS4516	16mm	£5.50
CS4518	18mm	£5.50
CS4520	20mm	£5.50
CS4522	22mm	£5.50
CS4524	24mm	£6.25
CS4526	26mm	£6.25
CS4528	28mm	£6.25
CS4530	30mm	£6.25
CS4532	32mm	£6.25
CS4534	34mm	£6.25
CS4536	36mm	£6.25
CS4538	38mm	£6.25
CS4540	40mm	£7.00
CS4542	42mm	£7.00
CS4544	44mm	£7.00
CS4546	46mm	£7.00
CS4548	48mm	£7.00
CS4550	50mm	£7.00
CS4552	52mm	£7.00
CS4554	54mm	£7.00
CS4556	56mm	£7.75
CS4558	58mm	£7.75
CS4560	60mm	£7.75
CS4562	62mm	£7.75
CS4564	64mm	£7.75
CS4566	66mm	£7.75
CS4568	68mm	£7.75
CS4570	70mm	£7.75
CS4575	75mm	£10.50
CS4580	80mm	£12.00
CS4585	85mm	£14.00

4.5mm Cortical Self Tapping Screws Hex Head



Use of Self Tapping Screws can save considerable time and trauma. Reducing surgery time will reduce morbidity. Pull out strength is not affected provided the self tapping flutes lie outside of the cortex. Add an extra 6mm when assessing screw length.

Self Tapping Screws are less effective in dense cortical bone. e.g. calcaneus. It is advised that an appropriate tap be available should the need arise.

Drill data: Pilot Drill 3.2mm Clearance Drill 4.5mm

4.5MM CORTICAL SELF TAPPING SCREWS - HEX HEAD=3.5MM PILOT=3.2MM

CSST4512	12mm	£6.00
CSST4514	14mm	£6.00
CSST4516	16mm	£6.00
CSST4518	18mm	£6.00
CSST4520	20mm	£6.00
CSST4522	22mm	£6.00
CSST4524	24mm	£6.75
CSST4526	26mm	£6.75
CSST4528	28mm	£6.75
CSST4530	30mm	£6.75
CSST4532	32mm	£6.75
CSST4534	34mm	£6.75
CSST4536	36mm	£6.75
CSST4538	38mm	£6.75
CSST4540	40mm	£7.25
CSST4542	42mm	£7.25
CSST4544	44mm	£7.25
CSST4546	46mm	£7.25
CSST4548	48mm	£7.25
CSST4550	50mm	£7.25
CSST4552	52mm	£7.25
CSST4554	54mm	£7.25
CSST4556	56mm	£8.00
CSST4558	58mm	£8.00
CSST4560	60mm	£8.00
CSST4562	62mm	£8.00
CSST4564	64mm	£8.00
CSST4566	66mm	£8.00
CSST4568	68mm	£8.00
CSST4570	70mm	£8.00
CSST4575	75mm	£11.00
CSST4580	80mm	£13.00
CSST4585	85mm	£15.00



For Instrumentation
see pages 242-248

Drill Bits see page 250-251
Screws see pages 202-209
Plate Profiles see page 456-484

5.5mm Screws

5.5mm Cortical Screws Hex Head



This Cortical Screw is suitable for equines. Nearly twice as strong as 4.5mm Cortical Screws. Use with 4.5mm plates. Drill data: Pilot Drill 4.0mm, Clearance Drill 5.5mm.

5.5MM CORTICAL SCREWS - HEX HEAD 3.5MM (USE 4.0MM PILOT)		
CS5524	24mm	£13.00
CS5526	26mm	£14.00
CS5528	28mm	£15.00
CS5530	30mm	£16.00
CS5532	32mm	£17.00
CS5534	34mm	£18.00
CS5536	36mm	£19.00
CS5538	38mm	£20.00
CS5540	40mm	£21.00
CS5542	42mm	£22.00
CS5544	44mm	£23.00
CS5546	46mm	£24.00
CS5548	48mm	£25.00
CS5550	50mm	£26.00
CS5552	52mm	£27.00
CS5554	54mm	£28.00
CS5556	56mm	£29.00
CS5560	60mm	£30.00
CS5564	64mm	£31.00
CS5570	70mm	£32.00
CS5580	80mm	£33.00
CS5590	90mm	£34.00
CS55100	100mm	£35.00

6.5mm Screws

6.5mm Cancellous Screws



This very large Screw has an application in the closing wedge TPLO procedure in very large dogs. Bone stock is poor in the proximal tibia. The 6.5mm self tapping, fully threaded cancellous screw gives maximum pull out resistance. Pilot Drill 3.2mm, Screwdriver SDH3500 and Tap TBT065 or TS00065. Only use the tap for the fibular head screw. Drill data: Pilot Drill 3.2mm, Clearance Drill 6.5mm.

6.5MM CANCELLOUS SCREWS - FULL THREADED - HEX HEAD 3.5MM (USE 3.2MM PILOT)		
CNF6525	25mm	£9.50
CNF6530	30mm	£10.00
CNF6535	35mm	£11.00
CNF6540	40mm	£12.00
CNF6545	45mm	£13.00
CNF6550	50mm	£14.00
CNF6555	55mm	£15.00
CNF6560	60mm	£16.00
CNF6565	65mm	£17.00
CNF6570	70mm	£18.00
CNF6575	75mm	£19.00

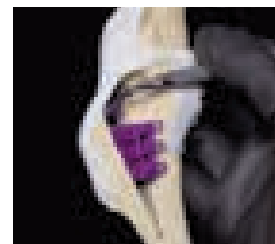
2015 EXHIBITIONS



Each year Veterinary Instrumentation attends many exhibitions both in the UK and Overseas. During 2015 we will be attending the following exhibitions:

BVOA/BSAVA	April
WSAVA	May
ECVS	July
BEVA	September
BVOA	October
SEVC	October
LVS	November
NAVC	January 2016
VOS	March 2016

Surgical Demonstrations



For 2015, Veterinary Instrumentation will be organising a number of surgical demonstrations on the booth, both to launch new products and initiatives but also to allow surgeons to get hands on with new surgical techniques. Please see www.vetinst.com for a demonstration timetable at each exhibition.

Special Requests

We are also very pleased to bring specific equipment to an exhibition if you would like to examine it more closely, just let our Vet Tech Team know in advance and we will organise it.

Implant Selection

We are often asked which plate is most suitable for a particular case. Selecting an implant of suitable strength and stiffness is vital. Too weak and an implant will fail, and too stiff an implant may delay bone healing. Templating is an essential part of the selection process and helps to guide implant selection. There may be more than one suitable plate option.

When more than one plate might suit an application, one implant style may be preferable to others. There are a number of different reasons why this might be so; often the final decision will come down to individual surgeon preference, experience, and what equipment the surgeon has available.

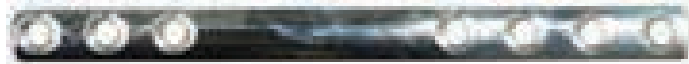
It is important that the plate chosen is sufficiently stiff and strong for its intended purpose, but not so stiff as to stress protect the bone potentially contributing to osteopenia or non-union. Stiff implants can also create significant stress risers at the end of the implant that can cause bone fracture. Here we describe a range of plates available and their differences; on the opposite page is a guide to selecting an appropriate plate for a specific fracture scenario.

Round Hole



Where compression cannot be achieved, round holes provide a more stable screw/plate interface than compression holes. Round holes can be spaced closer together than compression holes, which can be very useful when working with small fragments.

Biological Healing Plates (BHPs)



When fractures cannot be re-constructed, compression holes are unnecessary, and round holes are more stable. BHPs have a solid and stiff mid-section, designed to bridge a non-reconstructed fracture in bridging mode.

Compression/Dynamic Compression Plates (DCPs)



The dynamic compression plate has been the standard setting implant for human and veterinary orthopaedics for decades. It continues to be our most popular plate style. The design of the plate holes allows for a large range of screw insertion angles compared to round holes. Fracture compression permits primary bone healing with minimum callus. Placing a screw at the end of a plate hole furthest from the fracture will compress the fractured bone ends together as the screw is tightened. Compression plates can also be used in neutralisation and bridging modes. Care needs to be taken in bridging mode as the plate is subject to greater bending forces that can cause premature failure.

ASYM® Plates



A new plate design, combining the established principles of round hole and compression plates. These are more adaptable than symmetrical compression plates and particularly suit a fracture or osteotomy scenario where one fragment is significantly smaller than the other. The round holes provide greater screw stability in the smaller fragment whilst compression can still be applied from the longer segment.

Limited Contact Compression Plates



Because of their undercuts, these plates undergo a more complex manufacturing process than regular plates, making them more expensive. However, with the resultant reduced bone contact, they cause less periosteal vascular damage than regular plates, in theory facilitating more rapid bone healing. The undercuts also allow the plates to be contoured evenly, and make failure over a hole less likely. Limited contact plates can be used to create compression in the same way as dynamic compression plates.

Locking Plates



Our stacked-hole locking design can be used with locking screws or non-locking screws. No other locking system so far tested and published, outperforms ours. Locking screws have a larger core diameter than standard non-locking cortical screws, so are stronger and stiffer than cortical screws. Locking plates have a number of advantages, i.e. excellent bone holding characteristics in poor quality bone. The plate is not compressed onto the bone therefore associated periosteal damage is avoided, accurate plate contouring is not essential, and mono-cortical screws can be used as they are angle stable.

Cutable Plates



Available in 1.0mm to 3.5mm sizes, the versatility of these plates lies in their close hole spacing and they can be cut to length intra-op. They are not as stiff or as strong as compression plates of the equivalent size so they are often used in conjunction with other fixation methods e.g. in combination with IM pinning, double plating including stacked plating, edge-loaded, or where elastic osteogenesis is considered advantageous.

Cutable Malleable Plates



Less stiff and less strong than the cuttable plates, but easy to contour in multiple directions and with close hole spacing that makes them very adaptable for non-load-bearing situations. Typically these plates would be used as neutralisation plates where the surface anatomy of the bone makes it challenging to accurately contour a regular plate e.g. the humeral condyle or the pelvis. Relatively weak plates that should only be used on small bones or in conjunction with other fixation devices.

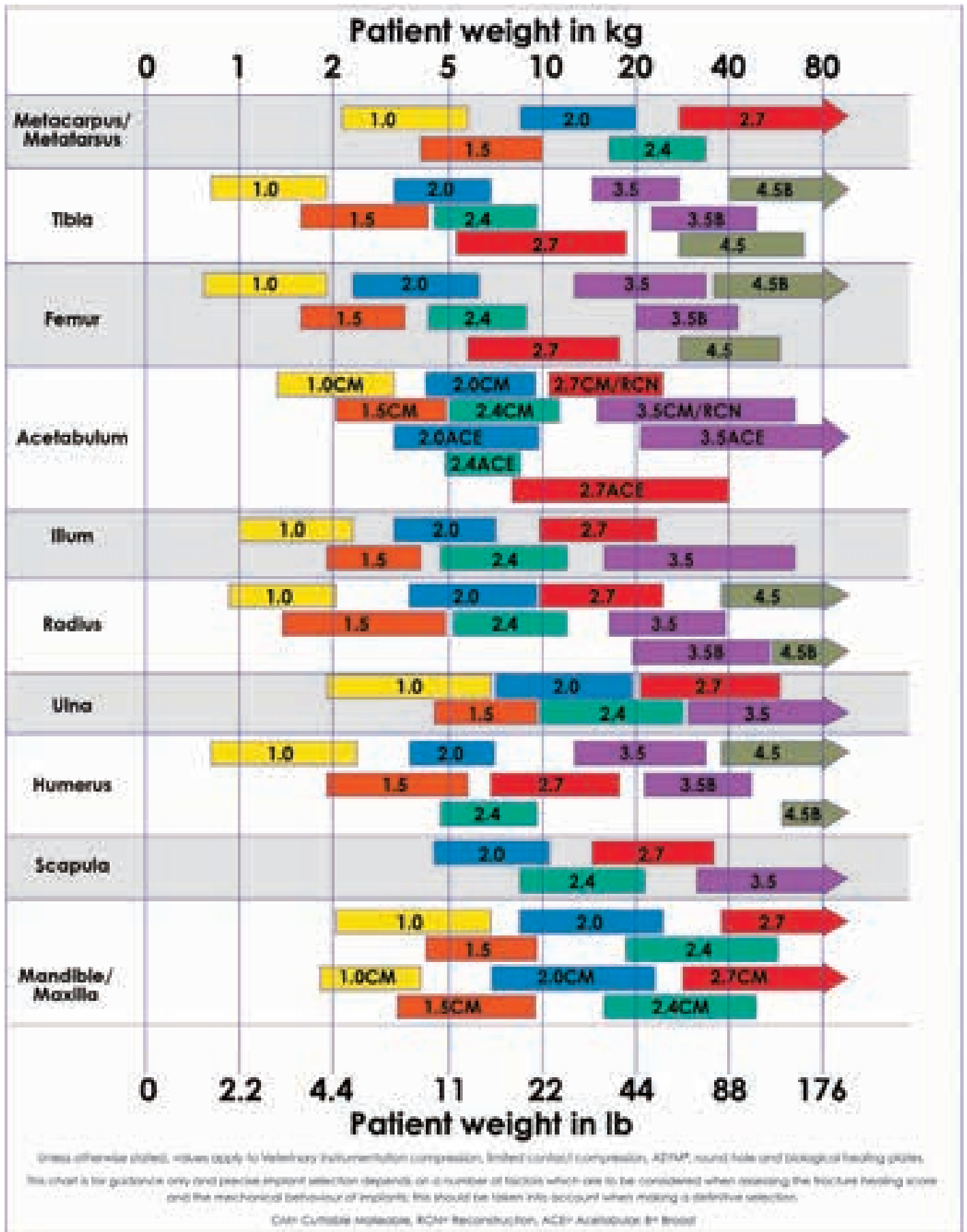
Reconstruction Plates



Easy to contour in multiple directions, these are both stronger and stiffer than the cuttable malleable plates, but less strong and stiff than compression plates. Typically these plates are used as neutralisation plates where the surface anatomy of the bone is challenging to accurately contour a regular plate over e.g. the humeral condyle or the pelvis.

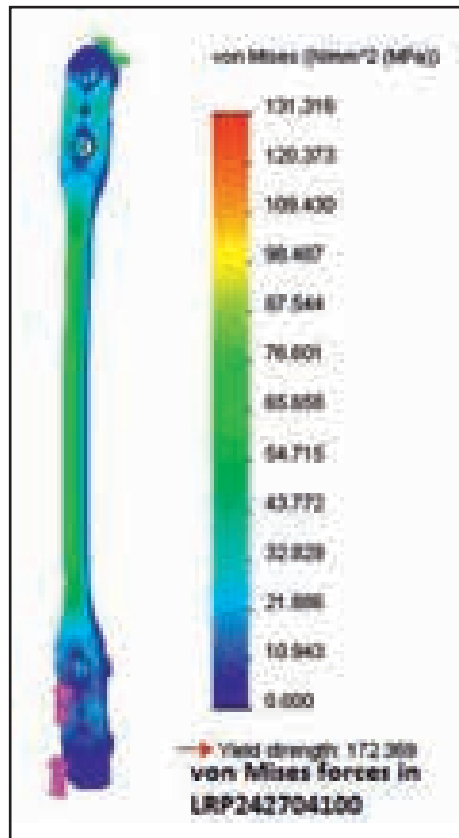
VETERINARY INSTRUMENTATION

Plate Selection Chart



Introduction to Implant Design

Our in house Product Development Team is headed by our Technical Director, David Strong BVM&S, MRCVS and is responsible for the design, development and specification of all of our new products. David's own clinical orthopaedic experience feeds into many of the designs and forms a common point of reference for the development of ideas from other surgeons. David is responsible for drawing and specifying all custom solutions and working from scaled radiographs can normally create 3D electronic models and issue scaled templates to surgeons within a matter of hours enabling the confirmation of design intent.



New products are subjected to finite element analysis under due diligence so that every effort can be taken to eliminate potential stress risers and other potential areas of weakness. Once a product has been coded and a full manufacturing specification created, the drawings are passed to the production team to confirm the item can be manufactured, confirm pricing and arrange a production schedule.

1.0mm Plates

1.0mm Plates

All the 1.0mm Plates are manufactured from 316LVM stainless steel sheet of 1.0mm thickness. Implants currently available consist of a range of straight plates, cuttable plates and an extensive range of 'T' plates for radial fractures.








1.0mm Compression Plates

Use with 1.0mm cortical screws if compression is required. Plate profiles page 476.

1.0 MM COMPRESSION PLATES				
	No. of Holes	Thickness (mm)	Length (mm)	
C100210	2	1.0	10	£27.50
C100314	3	1.0	14	£30.00
C100418	4	1.0	18	£35.00
C100522	5	1.0	22	£42.50
C100626	6	1.0	26	£47.50
C100730	7	1.0	30	£60.00
C100834	8	1.0	34	£75.00
C100938	9	1.0	38	£85.00
C101042	10	1.0	42	£95.00

1.0mm Cuttable Plates

-  1.0mm Cuttable Malleable 3.0mm Spacing
-  1.0mm Cuttable 3.0mm Spacing
-  1.0mm Cuttable 3.0mm Spacing with spaces
-  1.0mm Cuttable 4.0mm Spacing
-  1.0mm Cuttable 4.0mm Spacing with spaces





The Veterinary Instrumentation range of Cuttable 1.0mm Plates gives flexibility for new management options for a number of different fracture scenarios. All of our Cuttable Plates have round holes. The range is suited to fractures of the small bones of the pes and manus, such as the metacarpal bones, as well as other fine bones such as the ulna and fibula. They should also find a home in the management of long bone fractures on very small animals as well as jaw and pelvic repairs where space is at a premium. In 2012 we added a 1.0mm Cuttable Plate with Spaces to give the surgeon additional options. Versions are available with either 3mm or 4mm hole spacing.

Use the dedicated Compound Action Implant Cutters (001230) to cut plates. Plate profiles on page 476.

CUTTABLE 1.0MM PLATE		
CP10390	Cuttable Plate 1.0mm 30 Holes 90mm Long	£95.00
CP10491	Cuttable Plate 1.0mm 23 Holes 91mm Long	£95.00
CM10390	Cuttable Malleable Plate 1.0mm 30 Holes 90mm Long	£115.00

CUTTABLE 1.0MM PLATE WITH SPACES		
CP1039027	Cuttable Plate 1.0mm 27 Holes 90 mm 3mm Spaces	£100.00
CP1049120	Cuttable Plate 1.0mm 20 Holes 91 mm 4mm Spaces	£100.00
001230	Compound Action Implant Cutter T.C. Jaws	£215.00

1.0mm 'T' Plates

-  Series 'A' 4.6mm between head and shaft holes
-  Series 'B' 6.6mm between head and shaft holes
-  Series 'C' 7.4mm between head and shaft holes
-  Series 'C' 9.4mm between head and shaft holes

The 1.0mm 'T' Plates have been designed by Veterinary Instrumentation to provide options for the repair of distal radial fractures in very small dogs and in cats. These fractures can be difficult to manage, partly because of the small sizes of the bones involved and partly because the area has relatively poor vascularity resulting in what is often a prolonged healing time.

The spacing between the head holes and the shank holes increases from the A-series to the B-series with two extended options in the C-series to permit fracture repair at different levels of the distal radius. As can be seen, the C-series plates have space for a third head screw. This provides greater repair stability and the C-series are strongly advised when the distal fragment is large enough. Plate profiles on page 476.

1.0 MM 'T' PLATES					
	SERIES	holes	thickness (mm)	length (mm)	
T101016	A	5	1.0	16	£35.00
T101020	A	6	1.0	20	£35.00
T101024	A	7	1.0	24	£35.00
T101018	B	5	1.0	18	£35.00
T101022	B	6	1.0	22	£35.00
T101026	B	7	1.0	26	£35.00
T101021	C	6	1.0	21	£35.00
T101027	C	7	1.0	27	£35.00

1.5mm Plates

1.5mm Compression Plates



The increasing popularity of smaller patients has created quite a demand for dedicated 1.5mm compression plates. We took the plunge early in 2014 to add to our existing range of 1.5mm plates creating the compression plate range you see below. These are 1.5mm specific implants. Because they do not have screw holes large enough for 2.0mm screws, these can be narrower and lower profile than 1.5/2.0mm implants or 2.0mm implants whilst maintaining sufficient material around the screw holes for strength. Plate profiles on page 457.

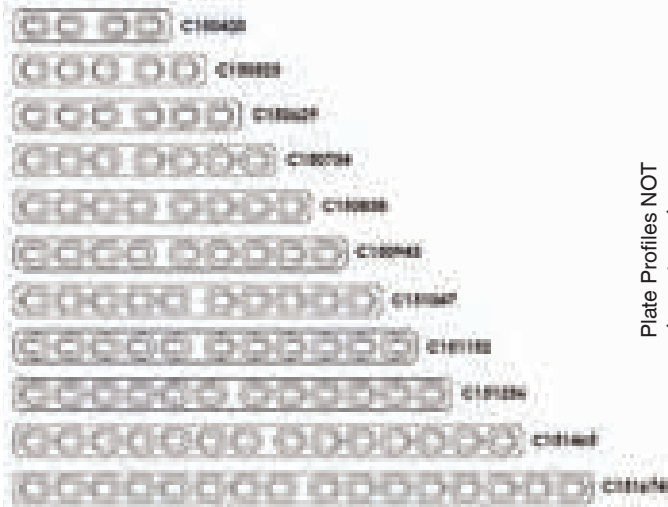
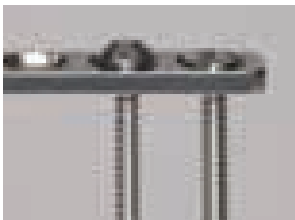


Plate Profiles NOT shown to scale

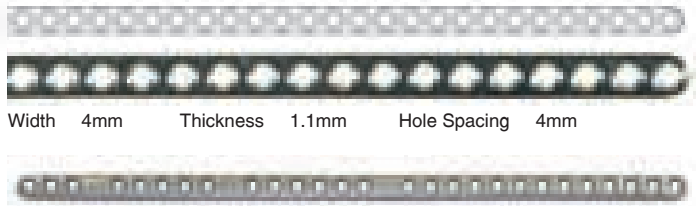


For the lowest profile constructs, we recommend the use of cruciate drive screws. The screw-heads are significantly lower than the equivalent screw with a hex drive socket.

1.5 MM COMPRESSION PLATES

	No. of Holes	Thickness (mm)	Length (mm)	
CP150420	4	1.0	20	£27.50
CP150525	5	1.0	25	£30.00
CP150629	6	1.0	29	£35.00
CP150734	7	1.3	34	£42.50
CP150838	8	1.3	38	£47.50
CP150943	9	1.3	43	£55.00
CP151047	10	1.3	47	£60.00
CP151152	11	1.3	52	£67.50
CP151256	12	1.3	56	£75.00
CP151465	14	1.3	65	£95.00
CP151674	16	1.3	74	£105.00

1.5mm Cuttable Plate

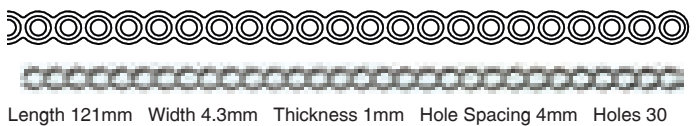


Use for fracture stabilisation of very small bones e.g metacarpals and metatarsals. 1.5 mm screws are an exact match but 2.0 will pass through the holes. This plate is cuttable and stackable. The plate profile is convex for added strength. Plate profiles on page 471.

CUTTABLE 1.5MM PLATE		
CP15413030	Cutttable Plate 1.5/2.0 Screws 30 Holes 120 mm Long	£90.00

CUTTABLE 1.5MM PLATE WITH SPACES		
CP15413027	Cutttable Plate 1.5/2.0 screws 27 Holes 120 mm Long	£95.00

1.5mm Cuttable Malleable Plate



This notched version of the Standard Cuttable 1.5mm Plate enables easy three dimensional contouring. Plate profile on page 471.

CUTTABLE MALLEABLE 1.5MM PLATE		
CM15413030	Cutttable Malleable 1.5mm Plate 1.5 Screws 30 Holes 121mm Long	£115.00

1.5mm Cuttable Broad Plate

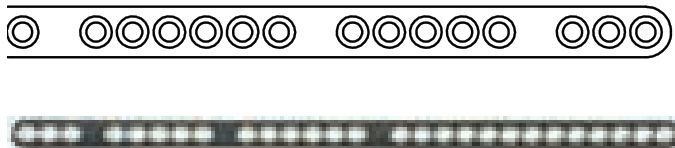


Length 121mm Width 5.5mm Thickness 1.8mm Hole Spacing 4mm Holes 30

These have exactly the same spacing as the Standard 1.5 Cuttable Plates, but in a significantly more robust profile. Plate profile on page 471.

CUTTABLE BROAD 1.5MM PLATE		
CP15413030B	Cutttable Broad 1.5mm Plate 1.5 Screws 30 Holes 121mm Long	£95.00

1.5mm Cuttable Broad Plate with Spaces



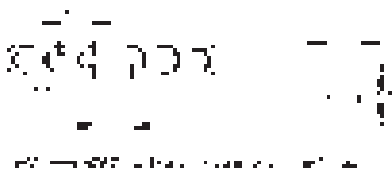
Length 121mm Width 5.5mm Thickness 1.8mm Hole Spacing 4 & 8mm Holes 27

These have exactly the same spacing as the Standard 1.5 Cuttable Plates with Spaces, but in a significantly more robust profile. Plate profile on page 471.

CUTTABLE BROAD WITH SPACES 1.5MM PLATE		
CP15413027B	Cutttable Broad with Spaces 1.5mm Plate 1.5 Screws 27 Holes 121mm Long	£100.00

2.0mm Plates

2.0mm Compression Plates



Use with 2.0mm Cortical Screws if compression is required. Plate profiles page 457.

2.0MM COMPRESSION PLATES				
	No. of Holes	Thickness (mm)	Length (mm)	
CP20422	4	1.0	22	£27.50
CP20527	5	1.0	27	£30.00
CP20632	6	1.0	32	£35.00
CP20737	7	1.5	37	£42.50
CP20842	8	1.5	42	£47.50
CP201052	10	1.5	52	£60.00
CP201262	12	1.5	62	£75.00
CP201472	14	1.5	72	£95.00
CP201682	16	1.5	82	£105.00
CP201892	18	1.5	92	£115.00

2.0mm ASYM® Plates

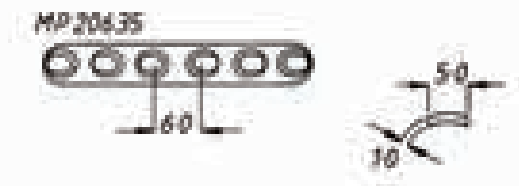


Plate Profiles NOT shown to scale

2.0MM ASYM®			
CODE	No of. Holes	Length in mm	
ASYM20030437	4/3	37	£42.50
ASYM20030542	5/3	42	£47.50
ASYM20030647	6/3	47	£53.00
ASYM20030752	7/3	52	£60.00
ASYM20040652	6/4	52	£60.00
ASYM20030857	8/3	57	£67.00
ASYM20040757	7/4	57	£67.00
ASYM20030962	9/3	62	£75.00
ASYM20040862	8/4	62	£75.00
ASYM20031067	10/3	67	£87.00
ASYM20040967	9/4	67	£87.00
ASYM20031172	11/3	72	£95.00
ASYM20041072	10/4	72	£95.00
ASYM20KIT	Set of 2.0mm ASYM® Plates (as above) unboxed		£825.00

Plate profiles on page 457.

Mini Bone Plates



Use with 2mm Cortical Screws if compression is required. Plate profiles on page 457.

2.0MM MINI BONE PLATES			
	3 (number of holes)	17 (length in mm)	
MP20317			£27.50
MP20423		23	£30.00
MP20529		29	£32.50
MP20635		35	£35.00
MP20741		41	£37.50

2.0mm Cuttable Plate



Width 5.0mm Thickness 1.4mm Hole Spacing 5.0mm

This Plate is cuttable and stackable. The holes are round. The plate profile is convex for added strength.

Also available in a notched version for easy three dimensional contouring. This is the cuttable malleable plate.

Plate profiles on page 471.

CUTTABLE 2.0MM PLATE		
CP205150	Cuttable Plate 2.0 Screws 30 Holes 150 mm long	£90.00
CM205150	Cuttable, Malleable Plate 2.0 Screws 30 Holes 150mm	£115.00

2.0mm Cuttable Plate with Spaces



Width 5.0mm Thickness 1.4mm Hole Spacing 5.0mm

Plate profile on page 471.

CUTTABLE 2.0MM WITH SPACES PLATE		
CP20515027	Cuttable Plate 2.0 Screws 27 Holes 150 mm long	£95.00

For Instrumentation
see pages 242-248

Drill Bits see page 250-251
Screws see pages 202-209
Plate Profiles see page 456-484

2.0mm Cuttable Broad Plate



Length 150mm Width 6mm Thickness 2.0mm Hole Spacing 5mm Holes 30

These have exactly the same spacing as the Standard 2.0 Cuttable Plates, but in a significantly more robust profile. Plate profile on page 471.

CUTTABLE 2.0MM BROAD PLATE		
CP205150B	Cutttable Broad 2.0mm Plate 2.0 Screws 30 Holes 150 mm Long	£95.00

2.0mm Cuttable Broad with Spaces Plate



Length 150mm Width 6mm Thickness 2.0mm Hole Spacing 5 & 10mm Holes 27

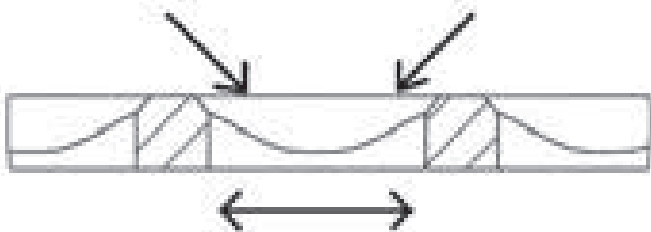
These have exactly the same spacing as the Standard 2.0 Cuttable Plates with Spaces, but in a significantly more robust profile. Plate profile on page 471.

CUTTABLE 2.0MM BROAD WITH SPACES PLATE		
CP20515027B	Cutttable Broad with Spaces 2.0mm Plate 2.0 Screws 27 Holes 150 mm Long	£100.00

2.0mm Double Compression Cuttable Plate



Length 150mm Width 5.5mm Thickness 1.5mm Hole spacing 6mm Holes 25



A new unique plate design developed by Veterinary Instrumentation. The Double Compression Cuttable Plate allows compression no matter where the Plate is positioned. Plate profile on page 471.

DOUBLE COMPRESSION CUTTABLE 2.0MM PLATE		
DCCP206150	Double Compression Cuttable Plate 2.0 2.0 Screws 25 Holes 150mm Long	£105.00

2.4mm Plates

2.4mm Compression Plates



2.0 DCPs are often too small and 2.7 DCPs are often too large. The 2.4 DCP falls exactly in between the 2.0 and the 2.7 in terms of weight and hole size and spacing. Plate profiles on page 458.

2.0mm and 2.7mm cortical screws may be used with the 2.4 mm DCP plate.

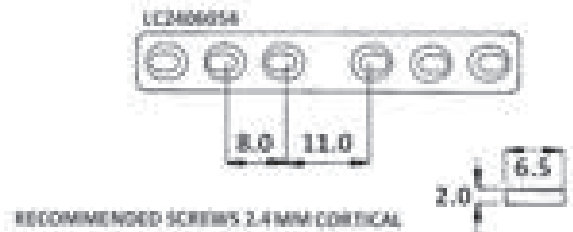
2.4 DCPs have a matt finish to distinguish them from 2.0 and 2.7 plates.

Use LNDG24 Load Neutral Drill Guide to obtain compression with 2.4 cortical screws.

Use BX24CS as an equipment box for 2.4mm screws and plates.

2.4MM COMPRESSION PLATES			
	Holes	Length mm	
C240431	4	31	£29.50
C240538	5	38	£32.50
C240645	6	45	£37.50
C240752	7	52	£42.50
C240859	8	59	£47.50
C240966	9	66	£52.50
C241073	10	73	£67.50
C241180	11	80	£72.50
C241287	12	87	£77.50
C2414101	14	101	£85.00
C2416115	16	115	£95.00
H090208	1.8 Pilot Drill for 2.4 System		£20.50
H090209	2.4 Clearance Drill for 2.4 System		£22.50
LNDG24	Load/ Neutral Drill Guide for 2.4 System		£155.00

2.4mm Limited Contact (LC) Compression Plate



Following requests we have now added a range of Limited Contact (LC) Plates with cutaways. See profiles on page 458.

2.4MM LIMITED CONTACT (LC) COMPRESSION PLATES			
LC2404038	4(number of holes)	38(length in mm)	£52.50
LC2405046	5	46	£55.00
LC2406054	6	54	£60.00
LC2407062	7	62	£65.00
LC2408070	8	70	£70.00
LC2409078	9	78	£75.00
LC2410086	10	86	£80.00
LC2411094	11	94	£85.00
LC2412102	12	102	£90.00

2.4mm ASYM® Plates



Plate Profiles NOT shown to scale

Plate profiles on page 458.

2.4MM ASYM® PLATES			
CODE	No of. Holes	Length in mm	
ASYM240304052	4/3	52	£42.50
ASYM240305059	5/3	59	£47.50
ASYM240306066	6/3	66	£52.50
ASYM240307073	7/3	73	£67.50
ASYM240406073	6/4	73	£67.50
ASYM240308080	8/3	80	£72.50
ASYM240407080	7/4	80	£72.50
ASYM240309087	9/3	87	£77.50
ASYM240408087	8/4	87	£77.50
ASYM240310094	10/3	94	£81.00
ASYM240409094	9/4	94	£81.00
ASYM240311101	11/3	101	£85.00
ASYM240410101	10/4	101	£85.00
ASYM24KIT	Set of 2.4mm ASYM® Plates (as above) unboxed		£855.00

2.0/2.4/2.7 Veterinary Cuttable Plate



Width 7.1mm Thickness 1.2mm Hole Spacing 6.0mm

This is a familiar plate with a curved 1/4 tubular profile, 300mm long with a hole every 6mm. The following screws 2.0mm, 2.2mm, 2.4mm, 2.7mm, 3.0mm all fit making the plate a very useful implant to have available. For added strength these plates can be stacked. Plate profile on page 471.

2.0/2.4/2.7 VETERINARY CUTTABLE PLATE		
VCP202427	2/2.4/2.7 Cuttable Plate 300mm 50 Holes	£125.00

2.0/2.4/2.7 Veterinary Cuttable Broad Plate



Length 300mm Width 7.1mm Thickness 2mm Hole Spacing 6mm Holes 50

These have exactly the same spacing as the standard 2.0/2.4/2.7 VCP but in a significantly more robust profile. Plate profile on page 471.

2.0/2.4/2.7 VETERINARY CUTTABLE BROAD PLATE		
VCP202427B	2.0/2.4/2.7 CuttableBroad Plate 300mm 50 holes	£145.00

2.4mm Cuttable Plate



Width 5.5mm Thickness 1.8mm Hole Spacing 5.5mm

Plate profile on page 471.

CUTTABLE 2.4MM PLATE		
CP2455150	Cuttable Plate 2.4 Screws 27 Holes 150mm Long	£90.00
CM2455150	Cuttable, Malleable Plate 2.4 Screws 27 Holes 150mm	£115.00

2.4mm Cuttable Plate with Spaces



Width 5.5mm Thickness 1.8mm Hole Spacing 5.5mm

Plate profile on page 471.

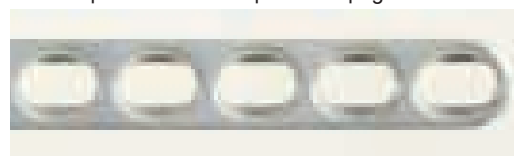
CUTTABLE 2.4MM PLATE WITH SPACES		
CP245515024	Cuttable Plate 2.4 Screws 24 Holes 150 mm Long	£95.00

2.4mm Double Compression Cuttable Plate



Length 150mm Width 6.5mm Thickness 1.8mm Hole Spacing 7mm Holes 21

A unique Plate design developed by Veterinary Instrumentation. The Double Compression Cuttable Plate allows compression no matter where the Plate is positioned. Plate profile on page 471.



DOUBLE COMPRESSION CUTTABLE 2.4MM PLATE		
DCCP247150	Double Compression Cuttable Plate 2.4 21 Holes 150mm Long	£105.00

2.7mm Plates

2.7mm Compression Plates



Use with 2.7mm Cortical Screws to produce fracture site compression. Plate profiles on page 459.

2.7MM COMPRESSION PLATES				
	no. of holes	thickness (mm)	length (mm)	
C2702020	2	2.0	20	£25.00
C2704036	4	2.0	36	£29.00
C2705044	5	2.0	44	£32.50
C2706052	6	2.0	52	£35.00
C2707060	7	2.5	60	£37.50
C2708068	8	2.5	68	£40.00
C2709076	9	2.5	76	£45.00
C2710084	10	2.5	84	£47.50
C2712100	12	2.5	100	£50.00
C2714116	14	2.5	116	£52.50
C2716132	16	2.5	132	£55.00
C2718148	18	2.5	148	£59.50

2.7mm ASYM® Plates

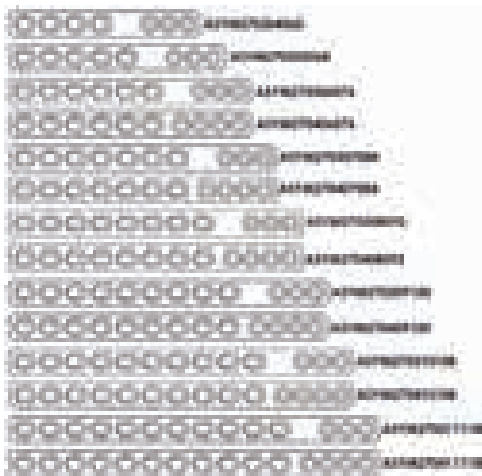
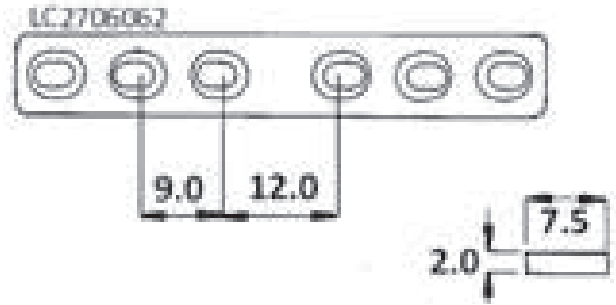


Plate Profiles NOT shown to scale

2.7MM ASYM® PLATES			
CODE	No of. Holes	Length in mm	
ASYM270304060	4/3	60	£37.50
ASYM270305068	5/3	68	£40.00
ASYM270306076	6/3	76	£45.00
ASYM270406076	6/4	76	£45.00
ASYM270307084	7/3	84	£47.50
ASYM270407084	7/4	84	£47.50
ASYM270308092	8/3	92	£48.75
ASYM270408092	8/4	92	£48.75
ASYM270309100	9/3	100	£50.00
ASYM270409100	9/4	100	£50.00
ASYM270310108	10/3	108	£51.25
ASYM270410108	10/4	108	£51.25
ASYM270311118	11/3	118	£52.50
ASYM270411118	11/4	118	£52.50
ASYM27KIT	Set of 2.7mm ASYM® Plates (as above) unboxed		£625.00

Plate profiles on page 459.

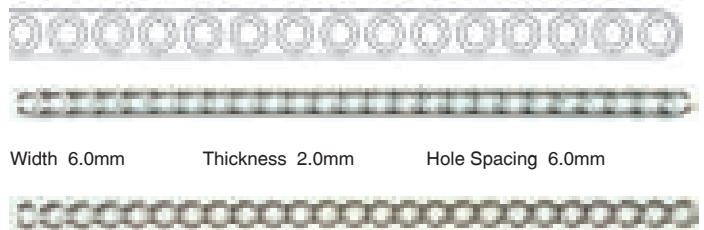
2.7mm Limited Contact (LC) Compression Plate



Following requests we have now added a range of Limited Contact (LC) Plates with cutaways. See profiles page 461.

2.7MM LIMITED CONTACT (LC) COMPRESSION PLATES			
LC2702026	2 (number of holes)	26 (length in mm)	£40.00
LC2704044	4	44	£45.00
LC2705053	5	53	£47.50
LC2706062	6	62	£50.00
LC2707071	7	71	£55.00
LC2708080	8	80	£60.00
LC2709089	9	89	£62.50
LC2710098	10	98	£65.00
LC2712116	12	116	£70.00
LC2714134	14	134	£75.00
LC2716152	16	152	£80.00

2.7mm Cuttable Plate



This Plate is cuttable and stackable. The cuttable malleable plate profile is convex for added strength. Also available in a notched style for easy 3 dimensional contouring. Plate profiles on page 471.

CUTTABLE 2.7MM PLATE		
CP276150	Cuttable Plate 2.7 Screws 25 Holes 150 mm Long	£90.00
CM276150	Cuttable, Malleable Plate 2.7 Screws 25 Holes 150mm	£115.00

2.7mm Cuttable Plate with Spaces



Exactly the same profile as our regular cuttable 2.7 but with spaces. Plate profile on page 471.

CUTTABLE 2.7MM PLATE		
CP27615022	Cuttable Plate 2.7 Screws 22 Holes 150 mm Long	£95.00

2.7mm Cuttable Broad Plate



Length 150mm Width 8mm Thickness 2.5mm Hole Spacing 6mm Holes 25

These have exactly the same spacing as the standard 2.7 Cuttable Plates, but in a significantly more robust profile. Plate profile on page 471.

CUTTABLE 2.7MM BROAD PLATE

CP276150B Cuttable Broad 2.7 Plate 2.7 Screws
25 Holes 150 mm Long **£95.00**

2.7mm Cuttable Broad Plate with Spaces



Length 150mm Width 8mm Thickness 2.5mm Hole Spacing 6 & 12mm Holes 22

These have exactly the same spacing as the standard 2.7 Cuttable Plates with spaces, but in a significantly more robust profile. Plate profile on page 471.

CUTTABLE 2.7MM BROAD PLATE WITH SPACES

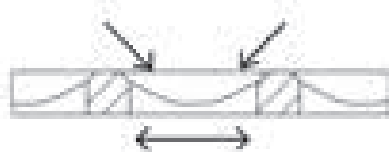
CP27615022B Cuttable Plate 2.7 Broad Plate with Spaces
2.7 Screws 22 Holes 150 mm Long **£100.00**

2.7mm Double Compression Cuttable Plate



Length 150mm Width 7mm Thickness 2mm Hole spacing 8mm Holes 19

A unique plate design developed by Veterinary Instrumentation. The Double Compression Cuttable Plate allows compression no matter where the Plate is positioned. Plate profile on page 471.

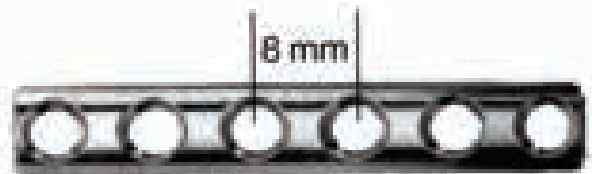


DOUBLE COMPRESSION CUTTABLE 2.7MM PLATE

DCCP278150 Double Compression Cuttable 2.7 Plate
2.7 Screws 19 Holes 150 mm Long **£105.00**

2.7mm Quarter Tubular Plate

Thin but strong due to the curved profile. Fits the shape of small femurs quite well. Has a wider hole spacing than 2.7mm DCP.



2.7MM 1/4 TUBULAR PLATES

T2703023	3 (No. of Holes)	23 (Length in mm)	£16.00
T2704031	4	31	£17.00
T2705039	5	39	£18.00
T2706047	6	47	£19.00
T2707055	7	55	£20.00
T2708063	8	63	£21.00

For Instrumentation see pages 242-248

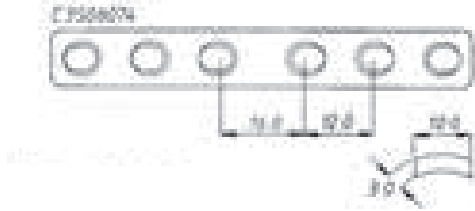


Drill Bits see page 250-251
Screws see pages 202-209
Plate Profiles see page 456-484



3.5mm Plates

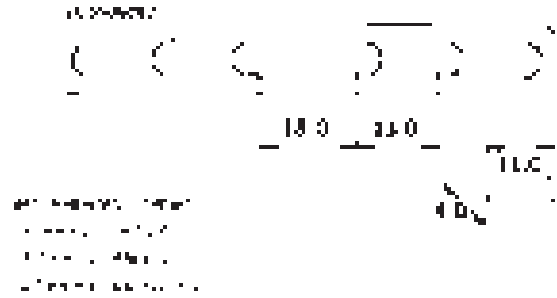
3.5mm Compression Plate



Use with 3.5mm Cortical or 3.5mm or 4.0mm Cancellous Screws to produce fracture compression. Plate profiles page 461.

3.5MM COMPRESSION PLATES			
CODE	No. of Holes	Length in mm	Price
C3502026	2	26	£26.00
C3503038	3	38	£27.00
C3504050	4	50	£28.50
C3505062	5	62	£29.00
C3506074	6	74	£31.00
C3507086	7	86	£33.50
C3508098	8	98	£35.50
C3509111	9	111	£37.50
C3510122	10	122	£41.00
C3512146	12	146	£43.50
C3514170	14	170	£46.00
C3516194	16	194	£52.50
C3518218	18	218	£65.00
C3520242	20	242	£75.00

3.5mm Limited Contact (LC) Compression Plate

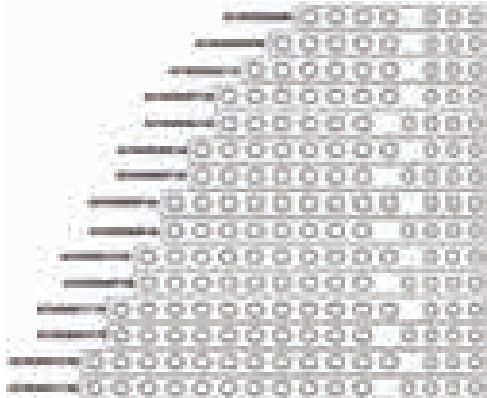


Following requests we have now added a range of Limited Contact (LC) Plates with cutaways. See profiles page 466.

3.5MM LIMITED CONTACT (LC) COMPRESSION PLATES			
CODE	No. of Holes	Length in mm	Price
LC3502030	2	30	£38.00
LC3503043	3	43	£40.00
LC3504056	4	56	£45.00
LC3505069	5	69	£47.50
LC3506082	6	82	£52.50
LC3507095	7	95	£57.50
LC3508108	8	108	£60.00
LC3509121	9	121	£62.50
LC3510134	10	134	£65.00
LC3512160	12	160	£68.50
LC3514186	14	186	£70.00
LC3516212	16	212	£80.00

3.5mm ASYM® Plates

Plate Profiles NOT shown to scale



3.5MM ASYM®			
CODE	No. of. Holes	Length in mm	Price
ASYM350304086	4/3	86	£33.50
ASYM350305098	5/3	98	£35.50
ASYM350306110	6/3	110	£37.50
ASYM350307122	7/3	122	£41.00
ASYM350406122	6/4	122	£41.00
ASYM350308134	8/3	134	£42.25
ASYM350407134	7/4	134	£42.25
ASYM350309146	9/3	146	£43.50
ASYM350408146	8/4	146	£43.50
ASYM350310158	10/3	158	£44.75
ASYM350409158	9/4	158	£44.75
ASYM350311170	11/3	170	£46.00
ASYM350410170	10/4	170	£46.00
ASYM350312182	12/3	182	£49.25
ASYM350411182	11/4	182	£49.25
ASYM35KIT	Set of 3.5mm ASYM®M Plates (as above) unboxed		£595.00

Plate profiles page 462.

www.vetinst.com

Bone Plate Profiles

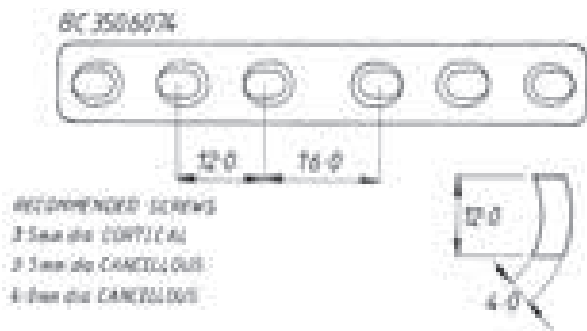
2.4 DCPs



All our Bone Plate Profiles are printed on the pages inside the back cover. They are also in the document download section of www.vetinst.com A full set of profiles printed on clear acetates as an aid to fracture planning is available free of charge. Remember the profiles are actual size so you will have to compensate (5-10%) for magnification depending on the position of the bone and the head of the x-ray unit.

Designed by Vets for Vets

Broad 3.5mm Compression Plate

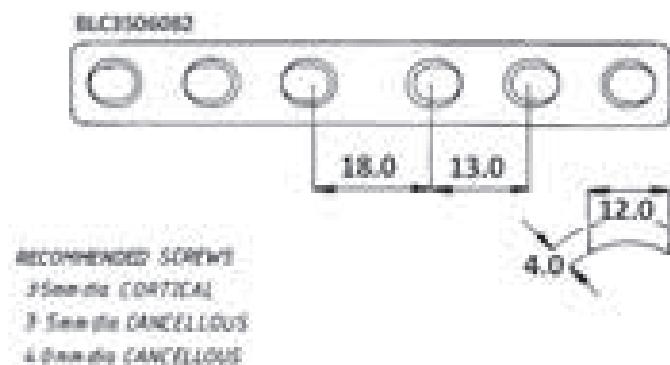


This Plate is made from the same plate profile as the Standard 4.5 Narrow Compression Plate but drilled for 3.5 Screws. These Plates are usually impossible to contour without a Bone Plate Press or Roller Type Pliers, see page 248. Plate profiles on page 463.

BROAD 3.5MM COMPRESSION PLATES

CODE	4 (number of holes)	50 (length in mm)	£47.50
BC3504050	4	50	£47.50
BC3505062	5	62	£50.00
BC3506074	6	74	£50.00
BC3507087	7	87	£52.50
BC3508098	8	98	£57.50
BC3509110	9	110	£62.50
BC3510122	10	122	£67.50
BC3511134	11	134	£72.50
BC3512146	12	146	£77.50
BC3513158	13	158	£82.50
BC3514170	14	170	£87.50
BC3515182	15	182	£92.50
BC3516194	16	194	£97.50
BC3518218	18	218	£110.00
BC3520242	20	242	£120.00
BC3522266	22	266	£130.00

Broad 3.5mm Limited Contact (LC) Compression Plate

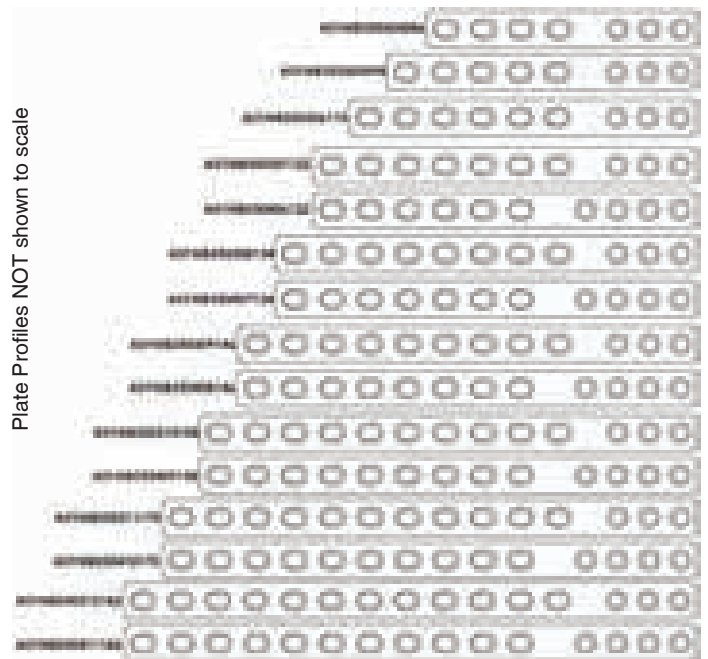


Following requests we have now added a range of Limited Contact (LC) Plate with cutaways. Plate profiles on page 466.

BROAD 3.5MM LIMITED CONTACT (LC) COMPRESSION PLATES

CODE	4 (number of holes)	56 (length in mm)	£60.00
BLC3504056	4	56	£60.00
BLC3505069	5	69	£65.00
BLC3506082	6	82	£70.00
BLC3507095	7	95	£75.00
BLC3508108	8	108	£80.00
BLC3509121	9	121	£85.00
BLC3510134	10	134	£90.00
BLC3512160	12	160	£100.00
BLC3514186	14	186	£110.00
BLC3516212	16	212	£120.00

Broad 3.5mm ASYM® Plates



BROAD 3.5MM ASYM® PLATES

CODE	No of. Holes	Length in mm	
ASYMB350304086	4/3	86	£52.50
ASYMB350305098	5/3	98	£57.50
ASYMB350306110	6/3	110	£62.50
ASYMB350307122	7/3	122	£67.50
ASYMB350406122	6/4	122	£67.50
ASYMB350308134	8/3	134	£72.50
ASYMB350407134	7/4	134	£72.50
ASYMB350309146	9/3	146	£77.50
ASYMB350408146	8/4	146	£77.50
ASYMB350310158	10/3	158	£82.50
ASYMB350409158	9/4	158	£82.50
ASYMB350311170	11/3	170	£87.50
ASYMB350410170	10/4	170	£87.50
ASYMB350312182	12/3	182	£92.50
ASYMB350411182	11/4	182	£92.50
ASYMB35KIT	Set of 3.5mm ASYM® Plates (as above) unboxed		£1,075.00

Plate profiles on page 464.

3.5mm Cuttable Plate



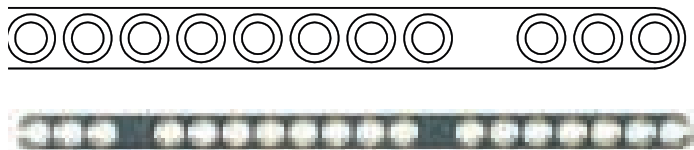
Length 150mm Width 8mm Thickness 2.5mm Hole Spacing 7.5mm Holes 20

This is a new size exclusively available through Veterinary Instrumentation. Plate profile on page 471.

CUTTABLE 3.5MM PLATE

CP3575150	Cuttable Plate 3.5 Screws 20 Holes 150 mm Long	£90.00
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3.5mm Cuttable Plate with Spaces

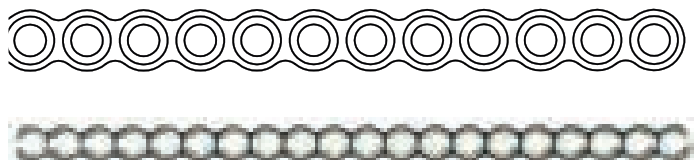


Length 150mm Width 8mm Thickness 2.5mm Hole Spacing 7.5 & 15mm Holes 18

This size of plate is exclusively available through Veterinary Instrumentation. This is the same profile as the Standard 3.5mm Cuttable but with Spaces. Plate profile on page 471.

CUTTABLE 3.5MM PLATE WITH SPACES		
CP357515018	Cuttable 3.5 Plate with Spaces 3.5 Screws 18 Holes 150 mm Long	£95.00

3.5mm Cuttable Malleable Plate



Length 150mm Width 8mm Thickness 2.5mm Hole Spacing 7.5 Holes 20

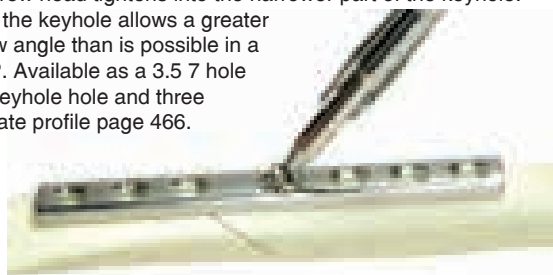
This size of plate is exclusively available through Veterinary Instrumentation. The version is notched for easy three dimensional contouring but remember this results in a weaker plate. Plate profile on page 471.

CUTTABLE MALLEABLE 3.5MM PLATE		
CM3575150	Cuttable Malleable 3.5 Plate 3.5 Screws 20 Holes 150 mm Long	£115.00

Veterinary IF Plate (Keyhole plate)



Occasionally a lag screw has to be placed exactly where the neutralisation plate required to protect it should sit. This usually results in a compromise of one or the other being placed in a less than ideal position or a fiddle trying to feed the screw through the plate at the same time as reducing the fracture. Veterinary Instrumentation's Keyhole Plate allows the plate to be placed after the lag screw. Before tightening the screw it is a simple matter to fit the protecting plate over the head of the screw. The screw head tightens into the narrower part of the keyhole. The design of the keyhole allows a greater range of screw angle than is possible in a standard DCP. Available as a 3.5 7 hole DCP i.e. the keyhole hole and three either side. Plate profile page 466.



VETERINARY IF PLATE (KEYHOLE PLATE)		
IF3507094	3.5 Narrow IF (Interfragmentary DCP) 7 Hole 94mm	£97.50

4.5mm Plates

Narrow 4.5mm Compression Plate



Use with 4.5mm Cortical Screws to produce fracture site compression. Plate profiles on page 467.

NARROW 4.5MM COMPRESSION PLATES			
C45239	2 (number of holes)	39 (length in mm)	£28.50
C45355	3	55	£29.50
C45471	4	71	£30.50
C45587	5	87	£33.50
C456103	6	103	£35.00
C457119	7	119	£37.50
C458135	8	135	£39.50
C459151	9	151	£41.00
C4510167	10	167	£43.50
C4511183	11	183	£45.50
C4512199	12	199	£49.00
C4513211	13	211	£52.00
C4514230	14	230	£55.00
C4515246	15	246	£57.50
C4516265	16	265	£67.50
C4518296	18	296	£77.50
C4520327	20	327	£87.50

Broad 4.5mm Compression Plate



This is the strongest plate available for veterinary orthopaedics. Plate profiles on page 468.

BROAD 4.5MM COMPRESSION PLATES			
B4505087	5 (number of holes)	87 (length in mm)	£42.50
B4506103	6	103	£45.00
B4507119	7	119	£47.50
B4508135	8	135	£50.00
B4509151	9	151	£52.50
B4510167	10	167	£55.00
B4511183	11	183	£57.50
B4512199	12	199	£60.00
B4513215	13	215	£62.50
B4514231	14	231	£67.50
B4515247	15	247	£72.50
B4516263	16	263	£77.50
B4517279	17	279	£82.50
B4518295	18	295	£87.50

AO Type Screws & Plates

1.0mm Screws and Plates

Introduction

Management of fractures in dogs such as the Papillon and Chihuahua weighing less than a kilo is very challenging. Even 1.5 and 2.0mm screws are too large. Metacarpals in even some medium size patients require very small implants. To deal with fractures in tiny bones we are introducing our exclusive range of 1.0mm implants and equipment.

The range includes T-plates, compression plates and 5 different cuttable strips. Due to the small size, dedicated instrumentation is required.

Although relatively new, the new 1.0mm Implant System is proving its worth. As well as being useful for distal radial fractures in miniature and sub-miniature breeds, it has also found favour for repairing some of the smaller bones in larger patients.

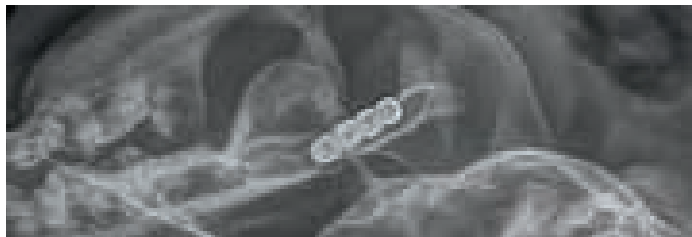
The largest of these has been a greyhound patient of Alessandro Piras's. Alessandro managed to repair a fragmented type I fracture of accessory carpal bone using two screws. The fragment was too small for any other type of implant.



1mm Plate used to repair lateral malleolar fracture in a cat. Case: David Strong.



Repair of a type 1 accessory carpal bone fracture in a greyhound. Case: Alessandro Piras



A mandibular fracture in a cat has been repaired with four holes of one of our Cuttable Malleable Plates by Graham Oliver.



Case: Mark Bush of Dick White Referrals.



Graham has also managed to repair a fractured calcaneous in a 1kg dog using a four-hole 1.0mm DCP.

1.0mm Plating Set



The 1.0mm Plating Set includes all the 1.0mm Instrumentation and a full set of 1.0mm Implants.

Everything is laid out in an easily accessible format in a Premium Filtered Case.

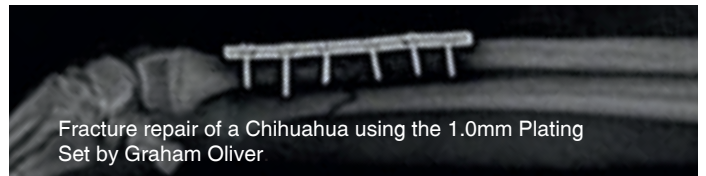
The Plates are housed in a removable tray for easy access and inventory control.

1.0mm Kit Contents:

- Cruciate Screwdriver Insert x 1
- 0.7mm Drill Bits x 2
- Plate Holding Forceps x 1
- Plate Bending Irons x 1 pair
- Miniature Pointed Reduction Forceps x1
- 3mm Grasp Serrated Bone Holding Forceps x 1
- 5mm Grasp Serrated Bone Holding Forceps x 1
- Small Compound Action Implant Cutters x 1
- 1 each of 'T' Plate T101016-T101027
- 1 each of DCP Plate C100210-C101042
- 1 each of Cuttable Plate CP10390-CP1049120
- 8 each of CSST Screws 4mm - 7mm
- 6 each of CSST Screws 8mm & 9mm
- 4 each of CSST Screws 10mm & 11mm
- 2 each of CSST Screws 12mm - 15mm
- Lightweight Screwdriver x 1
- 1.0mm Drill Bit x 1
- Screw Holding Forceps x 1
- Drill Guide x 1

1.0MM PLATING SET IN PREMIUM BOX

CORTSTP10 1.0mm Plating Set In Premium Box **£2,950.00**



Fracture repair of a Chihuahua using the 1.0mm Plating Set by Graham Oliver

1.0mm Loan Plating Set

We now offer a loan 1.0mm Plating Set.

The charge is for rental of the Set including delivery and return collection by courier. The Set will be supplied non-sterile with a full set of implants. Implants used will be charged for separately upon return of the Set. (UK only)

Please call a member of our Vet Tech Team for further details and availability.

LOAN 1.0MM PLATING SET IN PREMIUM BOX

LOAN1.0MM 1.0mm Plating Set In Premium Box - Loan Set **£100.00**

Implants

All the 1.0mm Plates are manufactured from 316LVM stainless steel sheet of 1.0mm thickness. Implants currently available consist of a range of straight plates, cuttable plates and an extensive range of 'T' plates for radial fractures.

1.0mm Cortical Self Tapping Screws

Available 4mm to 15mm length. Use 0.7mm pilot drill and 1.0mm cruciate screwdriver. The threads on the screws are very fine. Caution must be exercised at the final tightening.



1.0MM CORTICAL SELF TAPPING SCREWS-CRUCIATE HEAD (USE 0.7MM PILOT)		
CSST1004	4mm	£4.75
CSST1005	5mm	£4.75
CSST1006	6mm	£5.25
CSST1007	7mm	£5.25
CSST1008	8mm	£5.75
CSST1009	9mm	£5.75
CSST1010	10mm	£6.25
CSST1011	11mm	£6.25
CSST1012	12mm	£7.00
CSST1013	13mm	£7.00
CSST1014	14mm	£7.50
CSST1015	15mm	£7.50

1.0mm Compression Plates



Use with 1.0mm cortical screws if compression is required. Plate profiles page 476.

1.0 MM COMPRESSION PLATES				
	No. of Holes	Thickness (mm)	Length (mm)	
C100210	2	1.0	10	£27.50
C100314	3	1.0	14	£30.00
C100418	4	1.0	18	£35.00
C100522	5	1.0	22	£42.50
C100626	6	1.0	26	£47.50
C100730	7	1.0	30	£60.00
C100834	8	1.0	34	£75.00
C100938	9	1.0	38	£85.00
C101042	10	1.0	42	£95.00

1.0mm Cuttable Plates

	1.0mm Cuttable Malleable 3.0mm Spacing
	1.0mm Cuttable 3.0mm Spacing
	1.0mm Cuttable 3.0mm Spacing with spaces
	1.0mm Cuttable 4.0mm Spacing
	1.0mm Cuttable 4.0mm Spacing with spaces

The Veterinary Instrumentation range of Cuttable 1.0mm Plates gives flexibility for new management options for a number of different fracture scenarios. All of our Cuttable Plates have round holes. The range is suited to fractures of the small bones of the pes and manus, such as the metacarpal bones, as well as other fine bones such as the ulna and fibula. They should also find a home in the management of long bone fractures on very small animals as well as jaw and pelvic repairs where space is at a premium. In 2012 we added a 1.0mm Cuttable Plate with Spaces to give the surgeon additional options. Versions are available with either 3mm or 4mm hole spacing.

Use the dedicated Compound Action Implant Cutters (001230) to cut plates. Plate profiles on page 476.

CUTTABLE 1.0MM PLATE		
CP10390	Cutttable Plate 1.0mm 30 Holes 90mm Long	£95.00
CP10491	Cutttable Plate 1.0mm 23 Holes 91mm Long	£95.00
CM10390	Cutttable Malleable Plate 1.0mm 30 Holes 90mm Long	£115.00

CUTTABLE 1.0MM PLATE WITH SPACES		
CP1039027	Cutttable Plate 1.0mm 27 Holes 90 mm 3mm Spaces	£100.00
CP1049120	Cutttable Plate 1.0mm 20 Holes 91 mm 4mm Spaces	£100.00
001230	Compound Action Implant Cutter T.C. Jaws	£215.00

1.0mm 'T' Plates

	Series 'A' 4.6mm between head and shaft holes
	Series 'B' 6.6mm between head and shaft holes
	Series 'C' 7.4mm between head and shaft holes
	Series 'C' 9.4mm between head and shaft holes

The 1.0mm 'T' Plates have been designed by Veterinary Instrumentation to provide options for the repair of distal radial fractures in very small dogs and in cats. These fractures can be difficult to manage, partly because of the small sizes of the bones involved and partly because the area has relatively poor vascularity resulting in what is often a prolonged healing time.

The spacing between the head holes and the shank holes increases from the A-series to the B-series with two extended options in the C-series to permit fracture repair at different levels of the distal radius. As can be seen, the C-series plates have space for a third head screw. This provides greater repair stability and the C-series are strongly advised when the distal fragment is large enough. Plate profiles on page 476.

1.0 MM 'T' PLATES					
	SERIES	holes	thickness (mm)	length (mm)	
T101016	A	5	1.0	16	£35.00
T101020	A	6	1.0	20	£35.00
T101024	A	7	1.0	24	£35.00
T101018	B	5	1.0	18	£35.00
T101022	B	6	1.0	22	£35.00
T101026	B	7	1.0	26	£35.00
T101021	C	6	1.0	21	£35.00
T101027	C	7	1.0	27	£35.00

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Bone Plate Profile

2.4 DCPs

All our bone plate profiles are printed on the pages inside the back cover. They are also in the document download section of www.vetinst.com A full set of profiles printed on clear acetates as an aid to fracture planning is available free of charge. Remember the profiles are actual size so you will have to compensate (5-10%) for magnification depending on the position of the bone and the head of the x-ray unit.

Designed by Vets for Vets

ASYM® Plates

When plating fractures in the proximal or distal third of a bone, unless the surgeon resorts to either using a shorter plate than desirable or modifying the plate to remove holes at one end, standard 'off-the-shelf' compression plates can be impossible to apply whilst maintaining the gap between the two sets of screw holes over the fracture line. This is because these plates are essentially symmetrical.

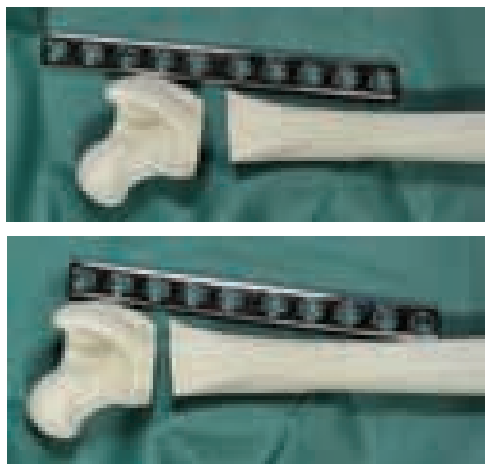


Plate modification to remove holes is time consuming, wasteful and without the right equipment and attention to detail, can leave a sharp or rough end that can hold bacteria and irritate soft tissues or leave contaminants on the plate surface.

ASYM® Plates offer a simple 'off-the-shelf' solution to this familiar problem and are available in the same standard thicknesses and widths as standard compression plates, but with an asymmetric hole arrangement that makes them significantly more suitable for these fractures.

The shorter side of ASYM® Plates carry either three or four round holes.

Round holes have some benefits. They can be packed closer together than compression slots – this helps the surgeon to maximise screw count in the smaller fragment and makes ASYM® Plates more adaptable to fragment length. Round holes are also intrinsically more stable than compression slots and where space is at a premium, this may make all of the difference between success and failure.

The longer side carries regular compression holes in standard spacing to permit compression as normal. ASYM® Plates are priced to match the equivalent length of compression plate



There are 70 plates in the ASYM® range, which covers 2.0mm, 2.4mm, 2.7mm, 3.5mm, and 3.5mm broad sizes.

ASYM® plates are available individually, as unboxed sets to include all lengths of a particular size, or as boxed sets to include either half of the plates in the range or the complete ASYM® plate range. The unboxed sets attract a 5% discount over the individual components price, the half boxed set a 5% discount with free steriliser box and the full set, a 7.5+% discount with free steriliser box.

2.0mm ASYM® Plates

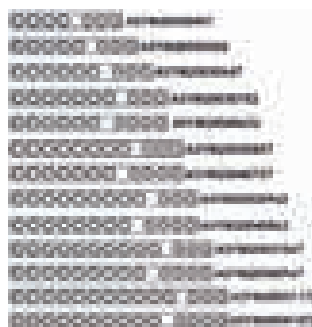


Plate Profiles NOT shown to scale

2.0MM ASYM® PLATES			
CODE	No of. Holes	Length in mm	
ASYM20030437	4/3	37	£42.50
ASYM20030542	5/3	42	£47.50
ASYM20030647	6/3	47	£53.00
ASYM20030752	7/3	52	£60.00
ASYM20040652	6/4	52	£60.00
ASYM20030857	8/3	57	£67.00
ASYM20040757	7/4	57	£67.00
ASYM20030962	9/3	62	£75.00
ASYM20040862	8/4	62	£75.00
ASYM20031067	10/3	67	£87.00
ASYM20040967	9/4	67	£87.00
ASYM20031172	11/3	72	£95.00
ASYM20041072	10/4	72	£95.00
ASYM20KIT	Set of 2.0mm ASYM® Plates (as above) unboxed 5% Discount		£825.00

See plate profiles on page 457.

2.4mm ASYM® Plates

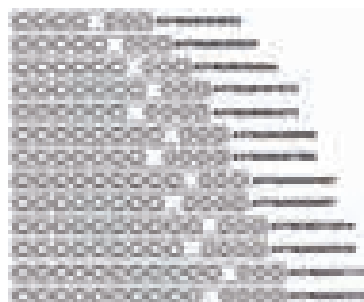


Plate Profiles NOT shown to scale

2.4MM ASYM® PLATES			
CODE	No of. Holes	Length in mm	
ASYM240304052	4/3	52	£42.50
ASYM240305059	5/3	59	£47.50
ASYM240306066	6/3	66	£52.50
ASYM240307073	7/3	73	£67.50
ASYM240406073	6/4	73	£67.50
ASYM240308080	8/3	80	£72.50
ASYM240407080	7/4	80	£72.50
ASYM240309087	9/3	87	£77.50
ASYM240408087	8/4	87	£77.50
ASYM240310094	10/3	94	£81.00
ASYM240409094	9/4	94	£81.00
ASYM240311101	11/3	101	£85.00
ASYM240410101	10/4	101	£85.00
ASYM24KIT	Set of 2.4mm ASYM® Plates (as above) unboxed 5% Discount		£855.00

See plate profiles on page 458.

2.7mm ASYM® Plates

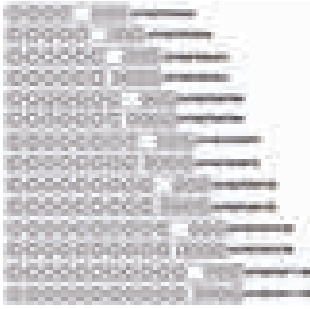
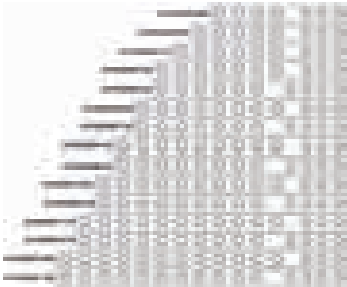


Plate Profiles NOT shown to scale

2.7MM ASYM® PLATES			
CODE	No of. Holes	Length in mm	
ASYM270304060	4/3	60	£37.50
ASYM270305068	5/3	68	£40.00
ASYM270306076	6/3	76	£45.00
ASYM270406076	6/4	76	£45.00
ASYM270307084	7/3	84	£47.50
ASYM270407084	7/4	84	£47.50
ASYM270308092	8/3	92	£48.75
ASYM270408092	8/4	92	£48.75
ASYM270309100	9/3	100	£50.00
ASYM270409100	9/4	100	£50.00
ASYM270310108	10/	108	£51.25
ASYM270410108	10/4	108	£51.25
ASYM270311118	11/3	118	£52.50
ASYM270411118	11/4	118	£52.50
ASYM27KIT	Set of 2.7mm ASYM® Plates (as above) unboxed 5% Discount		£625.00

See plate profiles on page 459.

3.5mm ASYM® Plates



See plate profiles on page 462.

Plate Profiles NOT shown to scale

3.5MM ASYM® PLATES			
CODE	No of. Holes	Length in mm	
ASYM350304086	4/3	86	£33.50
ASYM350305098	5/3	98	£35.50
ASYM350306110	6/3	110	£37.50
ASYM350307122	7/3	122	£41.00
ASYM350406122	6/4	122	£41.00
ASYM350308134	8/3	134	£42.25
ASYM350407134	7/4	134	£42.25
ASYM350309146	9/3	146	£43.50
ASYM350408146	8/4	146	£43.50
ASYM350310158	10/3	158	£44.75
ASYM350409158	9/4	158	£44.75
ASYM350311170	11/3	170	£46.00
ASYM350410170	10/4	170	£46.00
ASYM350312182	12/3	182	£49.25
ASYM350411182	11/4	182	£49.25
ASYM35KIT	Set of 3.5mm ASYM® Plates (as above) unboxed 5% Discount		£595.00

Broad 3.5mm ASYM® Plates

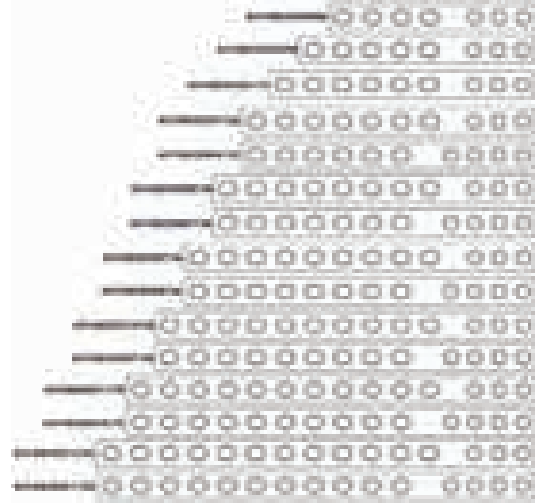


Plate Profiles NOT shown to scale

3.5MM ASYM® PLATES BROAD			
CODE	No of. Holes	Length in mm	
ASYMB350304086	4/3	86	£52.50
ASYMB350305098	5/3	98	£57.50
ASYMB350306110	6/3	110	£62.50
ASYMB350307122	7/3	122	£67.50
ASYMB350406122	6/4	122	£67.50
ASYMB350308134	8/3	134	£72.50
ASYMB350407134	7/4	134	£72.50
ASYMB350309146	9/3	146	£77.50
ASYMB350408146	8/4	146	£77.50
ASYMB350310158	10/3	158	£82.50
ASYMB350409158	9/4	158	£82.50
ASYMB350311170	11/3	170	£87.50
ASYMB350410170	10/4	170	£87.50
ASYMB350312182	12/3	182	£92.50
ASYMB350411182	11/4	182	£92.50
ASYMB35KIT	Set of Broad 3.5mm ASYM® Plates (as above) unboxed 5% Discount		£1,075.00

See plate profiles on page 464.

ASYM® PLATE KITS - BOXED

ASYMBOX	ASYM® Plate Kit Box - empty	£245.00
ASYMKITA	ASYM® Starter Kit - Half Box Set For box details visit www.vetinst.com Free box (35 plates in total)	£1,875.00
ASYMKITB	ASYM® Starter Kit - Complete One of each plate - all sizes Free box (70 plates in total)	£3,500.00



Cuttable and Cuttable Malleable (Reconstruction) Plates

Veterinary Instrumentation now offers a comprehensive range of Cuttable Plates. They are available either as a standard strip of round holes or as a version with notches between the holes for easy contouring. These are described as Cuttable Malleable or Cuttable Reconstruction Plates.

Using Standard Wire Cutters 001236, 001237, 001228 or 001230 (page 114 & 115) a strip with the desired number of holes can be cut from the length. With care the plate can be cut between holes, although it is easier to cut across a hole.

Cuttable Plates may be stacked to double the strength along all or part of the construct.

Plates are available in 1.0, 1.5, 2.0, 2.4, 2.7 and 3.5mm. Hole spacing is smaller than the equivalent DCP which may be useful where bone fragments are small. The smaller sizes are particularly useful in the repair of metacarpals and metatarsals. Plate profiles on page 471.

The Malleable Plates may be twisted and bent using Parallel Action Pliers (001290 page 116) and/ or Wire Contouring Pliers (001245 page 116)

AO type Reconstruction Plates



Reconstruction plates are designed for easy contouring in 3 dimensions. However contouring is not easy without dedicated bending pliers. (page 248) Notching between holes facilitates multiplanar bending. Useful for reconstruction of non-load bearing bone. Especially useful in the pelvis. Plate profiles on page 475.



CUTTABLE PLATE RANGE			
CP10390	1.0mm Cuttable 30 Holes 90mm Long 3mm Spacing		£95.00
CP10491	1.0mm Cuttable 23 Holes 90mm Long 4mm Spacing		£95.00
CP15413030	1.5mm Cuttable Plate 30 Holes 120mm Long		£90.00
CP205150	2.0mm Cuttable Plate 30 Holes 150mm Long		£90.00
CP2455150	2.4mm Cuttable Plate 27 Holes 150mm Long		£90.00
CP276150	2.7mm Cuttable Plate 25 Holes 150mm Long		£90.00
CP3575150	3.5mm Cuttable Plate 20 Holes 150mm Long		£90.00
CUTTABLE WITH SPACES			
CP1039027	1.0mm Cuttable Plate with Spaces 23 Holes 90mm Long		£100.00
CP1049120	1.0mm Cuttable Plate with Spaces 20 Holes 90mm Long		£100.00
CP15413027	1.5mm Cuttable Plate with Spaces 27 Holes 120mm Long		£95.00
CP20515027	2.0mm Cuttable Plate with Spaces 27 Holes 150mm		£95.00
CP245515024	2.4mm Cuttable Plate with Spaces 24 Holes 150mm		£95.00
CP27615022	2.7mm Cuttable Plate with spaces 22 Holes 150mm		£95.00
CP357515018	3.5mm Cuttable Plate with spaces 18 Holes 150mm		£95.00
CUTTABLE BROAD			
CP15413030B	1.5mm Cuttable Broad Plate 30 Holes 120mm		£95.00
CP205150B	2.0mm Cuttable Broad Plate 30 Holes 150mm		£95.00
CP276150B	2.7mm Cuttable Broad Plate 25 Holes 150mm		£95.00
CUTTABLE BROAD WITH SPACES			
CP15413027B	1.5mm Cuttable Broad Plate with Spaces 27 holes 120mm long		£100.00
CP20515027B	2.0mm Cuttable Broad Plate with Spaces 27 Holes 150mm		£100.00
CP27615022B	2.7mm Cuttable Broad Plate with Spaces 22 Holes 150mm		£100.00
CUTTABLE MALLEABLE PLATES			
CM10390	1.0mm Cuttable Malleable Plate 30 Holes 90mm Long		£115.00
CM15413030	1.5mm Cuttable Malleable Plate 30 Holes 120mm Long		£115.00
CM205150	2.0mm Cuttable Malleable Plate 30 Holes 150mm Long		£115.00
CM2455150	2.4mm Cuttable Malleable Plate 27 Holes 150mm Long		£115.00
CM276150	2.7mm Cuttable Malleable Plate 25 Holes 150mm Long		£115.00
CM3575150	3.5mm Cuttable Malleable Plate 20 Holes 150mm Long		£115.00
DOUBLE COMPRESSION CUTTABLE PLATES			
DCCP206150	2.0 Double Compression Cuttable Plate 25 Holes 150mm		£105.00
DCCP247150	2.4 Double Compression Cuttable Plate 21 Holes 150mm		£105.00
DCCP278150	2.7 Double Compression Cuttable Plate 19 Holes 150mm		£105.00
2.0/2.4/2.7 VETERINARY CUTTABLE			
VCP202427	2.0/2.4/2.7 Veterinary Cuttable Plate 50 Holes 300mm Long		£125.00
VCP202427B	2.0/2.4/2.7 Veterinary Cuttable Broad Plate 50 Holes 300mm Long		£145.00

2.7MM RECONSTRUCTION PLATES			
	no. of holes	length (mm)	
RC270540	5	40	£42.50
RC270648	6	48	£46.50
RC270756	7	56	NEW £50.50
RC270864	8	64	£54.50
RC270972	9	72	NEW £59.50
RC271080	10	80	£64.50
RC271188	11	88	NEW £69.50
RC271296	12	96	£74.50
3.5MM RECONSTRUCTION PLATES			
	5 (number of holes)	58 (length in mm)	
RC350558			£49.50
RC350670	6	70	£54.50
RC350782	7	82	£67.50
RC350894	8	94	£72.50
RC3509106	9	106	NEW £75.50
RC3510118	10	118	£77.50
RC35011130	11	130	NEW £80.50
RC3512142	12	142	£82.50

Biological healing plates

BHP3508130



BHP2008065

These Plates are designed to bridge a comminuted section of shattered long bone. It effectively acts as a bridging plate. No attempt is made to reconstruct. The fracture site is not disturbed to minimise de-vitalisation and contamination. The Plate maintains length and permits weight bearing. Use of these plates avoids leaving empty screw holes over the fracture site which significantly weakens the construct. Plates are available in 7 or 8 hole versions. Each type of Plate is available in a range of lengths.

BHP2008065 the Cat Femur Plate is contoured for the average cat femur. Use when proximal and distal sections are intact and the body of the femur is un-reconstructable. If it cannot be reconstructed it is better not to try.

All holes are round as compression is not required and there is better screw/ plate contact with round holes.

BIOLOGICAL HEALING PLATES		
BHP2007060	2.0mm 7 Hole 60mm Long	£27.00
BHP2008065	2.0mm 8 Hole 65mm Long	£27.50
BHP2008070	2.0mm 8 Hole 70mm Long	£28.00
BHP2008075	2.0mm 8 Hole 75mm Long	£28.00
BHP2008080	2.0mm 8 Hole 80mm Long	£28.00
BHP2706063	2.7mm 6 Hole 63mm Long	£29.00
BHP2707067	2.7mm 7 Hole 67mm Long	£29.50
BHP2707073	2.7mm 7 Hole 73mm Long	£30.00
BHP2707079	2.7mm 7 Hole 79mm Long	£30.50
BHP2708075	2.7mm 8 Hole 75mm Long	£31.00
BHP2708081	2.7mm 8 Hole 81mm Long	£31.50
BHP2708085	2.7mm 8 Hole 85mm Long	£32.00
BHP3507120	3.5mm 7 Hole 120mm Long	£32.50
BHP3507130	3.5mm 7 Hole 130mm Long	£33.00
BHP3507142	3.5mm 7 Hole 142mm Long	£33.50
BHP3508130	3.5mm 8 Hole 130mm Long	£34.00
BHP3508142	3.5mm 8 Hole 142mm Long	£34.50
BHP3508154	3.5mm 8 Hole 154mm Long	£35.00
BHPB3508130	Broad 3.5mm 8 Hole 130mm Long	£47.50
BHPB3507130	Broad 3.5mm 7 Hole 130mm Long	£45.00
BHPB3508142	Broad 3.5mm 8 Hole 142mm Long	£47.50
BHPB3507142	Broad 3.5mm 7 Hole 142mm Long	£45.00
BHPB3508154	Broad 3.5mm 8 Hole 154mm Long	£50.00
BHP4507138	4.5mm 7 Hole 138mm Long	£45.00
BHP4507151	4.5mm 7 Hole 151mm Long	£50.00
BHP4507164	4.5mm 7 Hole 164mm Long	£52.50
BHP4508150	4.5mm 8 Hole 150mm Long	£52.50
BHP4508163	4.5mm 8 Hole 163mm Long	£55.00
BHP4508176	4.5mm 8 Hole 176mm Long	£57.50

- Plate profiles 2.0mm page 457
- 2.7mm page 460
- 3.5mm page 466
- Broad 3.5mm page 466
- 4.5mm page 469

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Bone Plate Profiles

2.4 DCPs



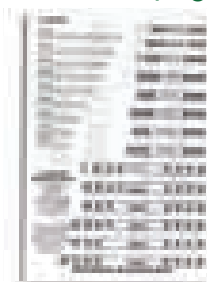
All our Bone Plate Profiles are printed on the pages inside the back cover. They are also in the document download section of www.vetinst.com A full set of profiles printed on clear acetates as an aid to fracture planning is available free of charge. Remember the profiles are actual size so you will have to compensate (5-10%) for magnification depending on the position of the bone and the head of the x-ray unit.

Designed by Vets for Vets

For Instrumentation see pages 242-248



Drill Bits see page 250-251
Screws see pages 202-209
Plate Profiles see page 456-484



T Plates



'T' Plates are mainly used for distal radial fractures, but find a number of other uses such as with cranial, pelvic or certain scapula fractures.

They are especially useful where small fragments are involved.

Our 'T' Plates are available in straight patterns with either two or three head holes and as left or right cranked versions.

Despite already having a substantial range of 'T' Plates, we have offered fracture advice on a number of cases over the last year where existing 'T' Plates have appeared to have been a bit of a compromise. We continue to develop our range of 'T' Plates to try and 'fill the gaps' and present the most comprehensive and genuinely useful veterinary T-plate selection available.

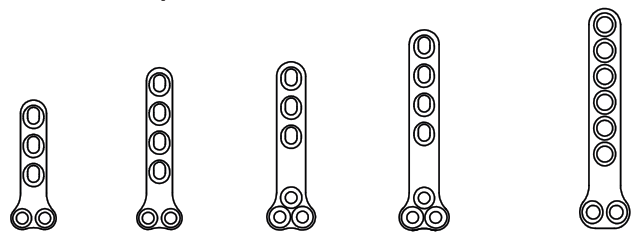
Having added a series of 1.0mm 'T' Plates to our range in 2012; the biggest developments for 2013 were our 1.5mm 'T' Plates and our Hybrid Anatomical 'T' Plates. We have also reviewed our more established ranges and interpolated several new and interesting options which we hope should prove useful. – see profiles pages 472, 473 and 481.



'T' Plates - Round Hole

T PLATES ROUND HOLE		
TC204018	2mm 'T' Plate 4 Hole 18mm 2 Holes Distally	£18.50
TC205024	2mm 'T' Plate 5 Hole 24mm 2 Holes Distally	£18.50
TL204018	2mm 'T' Plate 4 Hole Angle L 18mm 2 Holes Distally	£18.50
TR204018	2mm 'T' Plate 4 Hole Angle R 18mm 2 Holes Distally	£18.50
OL204018	2mm 'T' Plate 4 Hole 18mm Oblique L 2 Holes Distally	£18.50
OR204018	2mm 'T' Plate 4 Hole 18mm Oblique R 2 Holes Distally	£18.50
TC270532	2.7mm 'T' Plate 5 Hole 32mm 2 Holes Distally	£21.00
TL270532	2.7mm 'T' Plate 5 Hole Angle L 32mm 2 Holes Distally	£21.00
TR270532	2.7mm 'T' Plate 5 Hole Angle R 32mm 2 Holes Distally	£21.00
OL270532	2.7mm 'T' Plate 5 Hole 32mm Oblique L 2 Holes Distally	£21.00
OR270532	2.7mm 'T' Plate 5 Hole 32mm Oblique R 2 Holes Distally	£21.00
TC270639	2.7mm 'T' Plate 6 Hole 39mm 2 Holes Distally	£21.00
TC350655	3.5mm 'T' Plate 6 Hole 55mm 2 Holes Distally	£37.50
TC350662	3.5mm 'T' Plate 6 Hole 62mm 2 Holes Distally	£37.50
TC350777	3.5mm 'T' Plate 7 Hole 77mm 2 Holes Distally	£37.50
TC350877	3.5mm 'T' Plate 8 Hole 77mm 2 Holes Distally	£37.50

'T' Plates - Compression



T151520 T151525 T1515626 T1515731 T152034

For further 'T' Plate options, please also view our TPLO Plates. – see profiles pages 472 and 481 Also consider our Butterfly Plates (page 231) or Titanium Mesh System (page 265) for flat bone fractures.

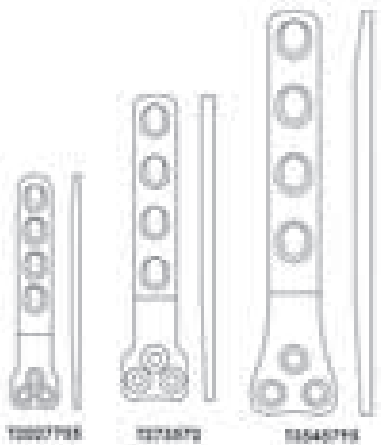
T PLATES COMPRESSION				
T101016	1.0mm	Series A	5 Hole Length 16mm	£35.00
T101020	1.0mm	Series A	6 Hole Length 20mm	£35.00
T101024	1.0mm	Series A	7 Hole Length 24mm	£35.00
T101018	1.0mm	Series B	5 Hole Length 18mm	£35.00
T101022	1.0mm	Series B	6 Hole Length 22mm	£35.00
T101026	1.0mm	Series B	7 Hole Length 26mm	£35.00
T101021	1.0mm	Series C	6 Hole Length 21mm	£35.00
T101027	1.0mm	Series C	7 Hole Length 27mm	£35.00
T151520	1.5mm	2 Holes Head 3 Holes Shaft	20mm Long	£35.00
T151525	1.5mm	2 Holes Head 4 Holes Shaft	25mm Long	£35.00
T1515626	1.5mm	3 Holes Head 3 Holes Shaft	26mm Long	£35.00
T1515731	1.5mm	3 Holes Head 4 Holes Shaft	31mm Long	£35.00
T1515836	1.5mm	3 Holes Head 5 Holes Shaft	36mm Long	£37.50
T1515940	1.5mm	3 Holes Head 6 Holes Shaft	40mm Long	£37.50
TPLO202026	2.0mm	DCP	26mm Overall Length	£35.00
TPLO202031	2.0mm	DCP	31mm Overall Length	£35.00
TPLO242434	2.4mm	DCP	34mm Overall Length	£35.00
TPLO242441	2.4mm	DCP	41mm Overall Length	£35.00
TPLO272739	2.7mm	DCP	39mm Overall Length	£35.00
TPLO272745	2.7mm	DCP	45mm Overall Length	£35.00
TPLO273539	2.7/3.5	DCP	39mm Overall Length Allows use of 3.5 Cancellous Screw in head	£35.00
TPLO273545	2.7/3.5	DCP	45mm Overall Length Allows use of 2.7 and 3.5 Screws in Head 2.5mm Thick	£39.00
TPLO353555	3.5mm	DCP	55mm Overall Length	£49.00
TPLO353557	3.5mm	DCP	57mm Overall Length Heavy Duty	£49.00
TPLO353559	3.5mm	DCP	59mm Overall Length	£49.00
TPLO353562	3.5mm	DCP	62mm Overall Length	£49.00
TPLO353565	3.5mm	DCP	65mm Overall Length	£49.00
TPLO353577	3.5mm	DCP	77mm Overall Length 7 Holes	£49.00
TPLO353577X	3.5mm	DCP	77mm Overall Length 8 Holes	£49.00
TPLO353579	3.5mm	DCP	79mm Overall Length Heavy Duty	£53.00
TPLO354579	3.5/4.5	DCP	79mm Overall Length Heavy Duty Allows 4.5 Screws in Head	£53.00
TPLO 35456579	3.5/4.5	DCP	79mm Overall Length Heavy Duty Will accept 6.5 Cancellous Screws in Head 4.5mm Thick	£58.00
TPLO 45659030	4.5mm	DCP	90mm Overall Length Will accept 6.5 Cancellous Screws in Head 3.0mm Thick	£97.50
TPLO 45659035	4.5/6.5mm	DCP	90mm Overall Length Will accept 6.5 Cancellous Screws in Head 3.5mm Thick	£97.50
TPLO 45659045	4.5mm	DCP	90mm Overall Length Will accept 6.5 Cancellous Screws in Head 4.5mm Thick	£97.50

See pages 472, 473 and page 481 for 'T' Plate profiles.

Hybrid Anatomical 'T' Plates

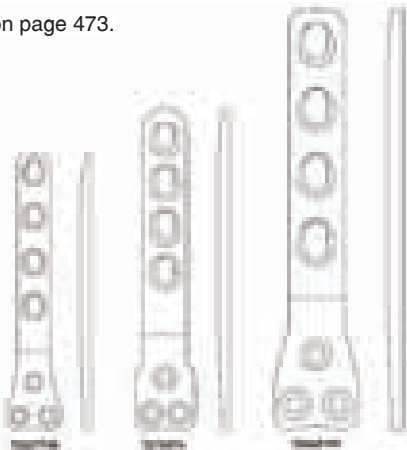


The first three sizes have been very well received over the last two years. Applied to the distal radius, the distal section is thinned to better fit beneath the extensor tendons. The distal section features smaller diameter screw holes than the shaft, helping maximise screw count and facilitate a better fit to a distal fragment. Smaller diameter screws have smaller screw-heads, further minimising extensor tendon impingement.



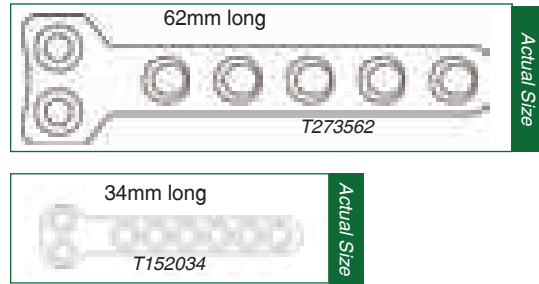
How well these plates fit is only apparent when you use one; we have had a lot of positive feed-back. For 2015, we have developed three new sizes offering the same benefits as the originals, but with slightly wider spread of the distal holes to provide greater rotational stability.

Plate profiles on page 473.



HYBRID ANATOMICAL 'T' PLATES		
T2027755	Hybrid Anatomical 'T' Plate, 3x2mm Head Screws, 4x 2.7mm Shaft Screws, 55mm long	£55.00
T2027758	Hybrid Anatomical 'T' Plate, 3x2mm Head Screws, 4x 2.7mm Shaft Screws, 58mm long	NEW £55.00
T273572	Hybrid Anatomical 'T' Plate, 3x2.7mm Head Screws, 4x 3.5mm Shaft Screws, 72mm long	£65.00
T354576	Hybrid Anatomical 'T' Plate, 3x2.7mm Head Screws, 4x 3.5mm Shaft Screws, 76mm long	NEW £65.00
T3545795	Hybrid Anatomical 'T' Plate, 3x3.5mm Head Screws, 4x 4.5mm Shaft Screws, 95mm long	£75.00
T3545799	Hybrid Anatomical 'T' Plate, 3x3.5mm Head Screws, 4x 4.5mm Shaft Screws, 99mm long	NEW £75.00

Hybrid 'T' Plates



The problem with many distal radius fractures is that the distal segment is so small that it is difficult to place sufficient screws. 'T' Plates help but often the head portion is too bulky. Hybrid 'T' Plates provide a solution. The screwholes in the head are smaller and closer together than those in the shaft. Three sizes are available; 1.5/2.0, 2.0/2.4/2.7, and 2.7/3.5. Hybrid 'T' Plates will accept the same screw in the head as in the shaft but with reduced range of screw angle. The longer plate is useful for complex distal radius fractures and corrective osteotomies.

Use the smallest size Load/ Neutral Drill Guide for hole placement.

HYBRID 'T' PLATES		
T152034	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 34mm Long Cuttable Shaft Width 4.5mm Shaft Thickness 1.1mm	£37.50
T202025	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 25mm Long Shaft Width 5.1mm Shaft Thickness 1.5mm	NEW £37.50
T202027	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 27mm Long Shaft Width 5.1mm Shaft Thickness 1.5mm	£37.50
T202032	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 32mm Long Shaft Width 5.1mm Shaft Thickness 1.5mm	£37.50
T2020636	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 36mm Long, Shaft Width 5.1mm Shaft Thickness 1.5mm	£37.50
T2020742	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 42mm Long Shaft Width 5.1mm Shaft Thickness 1.5mm	£37.50
T202042	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 42mm Long 8 Hole Shaft Width 5.1mm Shaft Thickness 1.5mm	£40.00
T202050	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 50mm Long 8 Hole Shaft Width 5.1mm Shaft Thickness 1.5mm	£40.00
T2020750	Hybrid 'T' Plate - 1.5 or 2.0mm Head 2.0mm Shaft 50mm Long 7 Hole Shaft Width 5.1mm Shaft Thickness 1.5mm	£42.50
T20242736	Hybrid 'T' Plate - 2.0, 2.4 or 2.7mm Head 2.0 2.4 or 2.7mm Shaft 36mm Long Shaft Width 7.4mm Shaft Thickness 2mm	£42.50
T20242744	Hybrid 'T' Plate - 2.0, 2.4 or 2.7mm Head 2.0, 2.4 or 2.7mm Shaft 44mm Long Shaft Width 7.4mm Shaft Thickness 2mm	£42.50
T20242752	Hybrid 'T' Plate - 2.0, 2.4 or 2.7mm Head 2.0 2.4 or 2.7mm Shaft 52mm Long Shaft Width 7.4mm Shaft Thickness 2mm	£42.50
T20242771	Hybrid 'T' Plate - 2.0, 2.4 or 2.7mm Head 2.0 2.4 or 2.7mm Shaft 71mm Long Shaft Width 7.4mm Shaft Thickness 2mm	£47.50
T273562	Hybrid 'T' Plate - 2.7 or 3.5mm Head 3.5mm Shaft 62mm Long Shaft Width 9.5mm Shaft Thickness 2mm	£47.50
T273585	Hybrid 'T' Plate - 2.7 or 3.5mm Head 3.5mm Shaft 85mm Long Shaft Width 9.5mm Shaft Thickness 2mm	£42.50

Plate profiles page 473.

Supracondylar Plates

Supracondylar femoral fractures in mature animals can be very difficult to repair. Small distal fragment size makes placement of sufficient implants a challenge. In medium and large dogs there are often multiple small fragments in the supracondylar area. The forces acting on the distal femur are complex requiring a special plate to neutralise them. The 2.7 and 3.5mm plates were developed by Mark Glyde using finite element analysis.

Available in a range of sizes and lengths. 2.0, 2.4, 2.7, 3.5 narrow and 3.5 broad (two lengths). Use Bending Templates to pre-contour plates.

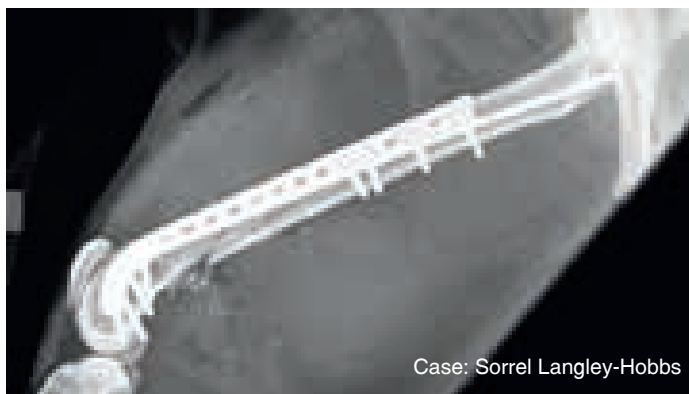
An extra long version for cats has been developed in conjunction with Sorrel Langley-Hobbs.



SUPRACONDYLAR PLATES

152700	Supracondylar Plate 2.0mm 50mm Long Right Shaft Width 5.5mm Shaft Thickness 2mm	£60.00
152710	Supracondylar Plate 2.0mm 50mm Long Left Shaft Width 5.5mm Shaft Thickness 2mm	£60.00
152700XL	Supracondylar Plate 2.0mm 120mm Extra Long Cutable Right Shaft Width 5.5mm Shaft Thickness 2mm	£125.00
152710XL	Supracondylar Plate 2.0mm 120mm Extra Long Cutable Left Shaft Width 5.5mm Shaft Thickness 2mm	£125.00
152711R	Supracondylar Plate 2.4mm 62mm Long Right Shaft Width 6.5mm Shaft Thickness 2mm	£80.00
152711L	Supracondylar Plate 2.4mm 62mm Long Left Shaft Width 6.5mm Shaft Thickness 2mm	£80.00
152711R-XL	Supracondylar Plate 2.4mm 112mm Extra Long Right Shaft Width 6.5mm Shaft Thickness 2mm	£125.00
152711L-XL	Supracondylar Plate 2.4mm 112mm Extra Long Left Shaft Width 6.5mm Shaft Thickness 2mm	£125.00
152712	Supracondylar Plate 2.7mm Left 69mm Long	£80.00
152714	Supracondylar Plate 2.7mm Right 69mm Long	£80.00
152715N	Supracondylar Plate 3.5 Narrow Left 135mm Long	£135.00
152717N	Supracondylar Plate 3.5 Narrow Right 135mm Long	£135.00
152715	Supracondylar Plate 3.5mm Broad Left 135mm Long	£155.00
152717	Supracondylar Plate 3.5mm Broad Right 135mm Long	£155.00
152716	Supracondylar Femur 3.5mm Broad Left 173mm Long	£155.00
152718	Supracondylar Femur 3.5mm Broad Right 173mm Long	£155.00
BT152700	Bending Template for 2.0 Supracondylar Plate	£9.50
BT152711	Bending Template for 2.4 Supracondylar Plate	£9.50
BT152714	Bending Template for 2.7 Supracondylar Plate	£9.50
BT152717	Bending Template for 3.5 Supracondylar Plate	£9.50

See page 480 for profiles.



Case: Sorrel Langley-Hobbs

Supracondylar Osteotomy Plates (SCOP)

Angular correction of the distal femur by means of a supra-condylar osteotomy (aka distal femoral osteotomy/DFO) is an accepted technique for correction of patella luxation in medium and large dogs with a limb alignment deformity.



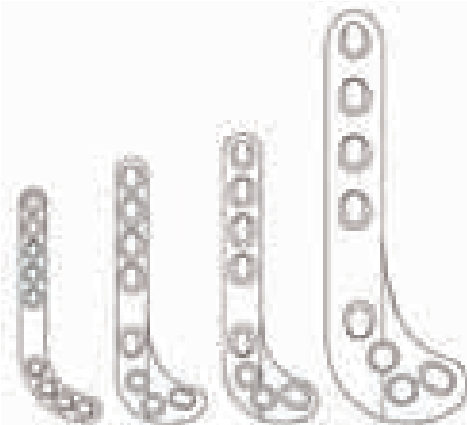
Photo: Simon Roche & Toby Gemmill

Original 2014

The distal femur is a difficult area over which to appropriately contour a plate and place sufficient screws. Using finite element analysis (FEA), Mark Glyde designed a preformed plate specifically for this area. Screw hole placement allows for a good bone grab when performing a closing wedge osteotomy. Available in 2.0mm, 2.4mm, 2.7mm, 4.5mm narrow and 4.5mm broad sizes.



Where there is space to do so, all new production of our SCOP plates features thinning to the proximal end and smoothing to cranio-distal edge over which there is high motion during stifle flexion/extension.



SUPRACONDYLAR OSTEOTOMY PLATES

152602	2.0 Supracondylar Osteotomy Plate Right	£85.00
152603	2.0 Supracondylar Osteotomy Plate Left	£85.00
152606	2.4 Supracondylar Osteotomy Plate Right	£85.00
152607	2.4 Supracondylar Osteotomy Plate Left	£85.00
152600	2.7 Supracondylar Osteotomy Plate Right	£85.00
152605	2.7 Supracondylar Osteotomy Plate Left	£85.00
152610	3.5 Supracondylar Osteotomy Plate Right	£125.00
152615	3.5 Supracondylar Osteotomy Plate Left	£125.00
152620	3.5 Brd Supracondylar Osteotomy Plate Right	£155.00
152625	3.5 Brd Supracondylar Osteotomy Plate Left	£155.00

See page 480 for profiles.

Acetabular Plates

Accurate repair of fractures of the acetabulum is essential if full function is to be restored and long term arthritic changes are to be avoided. Seven sizes are available, singly or as a set. The plates are pre-contoured three dimensionally to ensure a good fit. Holes are round.



ACETABULAR PLATES

AP200400XS	2.0mm Acetabular Plate 4 Hole Extra Small	£37.50
AP200400	2.0mm Acetabular Plate 4 Hole Size 0	£37.50
AP200401	2.0mm Acetabular Plate 4 Hole Size 1	£37.50
AP200401L	2.0mm Acetabular Plate 4 Hole Large	£37.50
AP240406	2.4mm Acetabular Plate 4 Hole	£42.50
AP270602	2.7mm Acetabular Plate 6 Hole Size 2	£42.50
AP270603	2.7mm Acetabular Plate 6 Hole Size 3	£42.50
AP350604	3.5mm Acetabular Plate 6 Hole Size 4	£52.50
AP350605	3.5mm Acetabular Plate 6 Hole Size 5	£52.50
AP350607	3.5mm Acetabular Plate 6 Hole Extra Large	£52.50
APSET	Set of Acetabular Plates Set of 10	£395.00

See page 475 for actual size profiles.

Butterfly Plates

1.5mm

1.0mm Plate Thickness



2.4mm

1.5mm Plate Thickness



2.0mm

1.5mm Plate Thickness



2.7mm

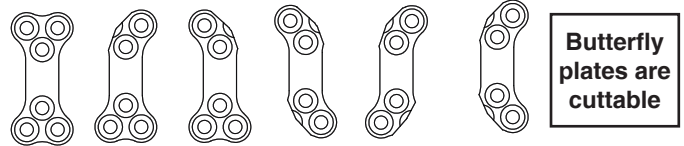
2.0mm Plate Thickness



Our range of Butterfly Plates has been developed with the express purpose of being used in our small animal species. They are better suited to most of our fracture and osteotomy scenarios than the equivalent human plates and should prove useful for numerous procedures including revision and embrocation of TTA repairs and their analogues as well as cranial and pelvic surgery, especially where small fragments are involved.

Pelvic stenosis is not an uncommon finding after conservative management of pelvic fractures in cats. Pelvic splitting is becoming a more common procedure for addressing this problem. Our butterfly plate range offers new plating options for stabilising the pelvis following symphyseal distraction.

The six hole versions are particularly interesting as they have surprising versatility. They are thin enough to be cuttable, such that one hole can be removed from either one or both ends to provide six different hole configurations - see below.



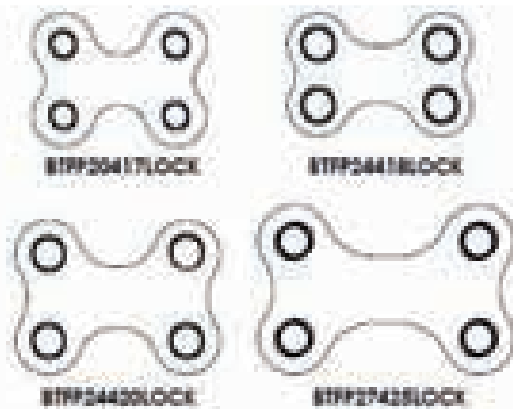
As yet an unexplored area is to investigate their potential for placement across the pelvic symphysis, following similar principles to trans-epiphyseal stapling as an alternative technique for Juvenile Pelvic Symphysiodesis in the treatment of Hip Dysplasia. Placement in a similar manner may also be beneficial to patient comfort in a convalescent period following symphyseal fracture.

Plate profiles on page 475.

BUTTERFLY PLATES

BTFP15414	1.5mm Butterfly Plate 4 Hole 14mm Length	£42.50
BTFP15415	1.5mm Butterfly Plate 4 Hole Wide Head 15mm Length	£44.50
BTFP15619	1.5mm Butterfly Plate 6 Hole 19mm Length	£47.50
BTFP20416	2.0mm Butterfly Plate 4 Hole 16mm Length	£42.50
BTFP20417	2.0mm Butterfly Plate 4 Hole Wide Head 17mm Length	£44.50
BTFP20623	2.0mm Butterfly Plate 6 Hole 23mm Length	£47.50
BTFP24418	2.4mm Butterfly Plate 4 Hole 18mm Length	£42.50
BTFP24420	2.4mm Butterfly Plate 4 Hole 14mm Wide Head 20mm Length	£44.50
BTFP24626	2.4mm Butterfly Plate 6 Hole 26mm Length	£47.50
BTFP27421	2.7mm Butterfly Plate 4 Hole 21mm Length	£42.50
BTFP27425	2.7mm Butterfly Plate 4 Hole Wide Head 25mm Length	£44.50
BTFP27630	2.7mm Butterfly Plate 6 Hole 30mm Length	£47.50

Locking Butterfly Plates



Following surgeon feedback, we are pleased to offer a selection of our Butterfly Plates with locking holes.

See plate profiles on page 475 and locking screws on page 253-254.

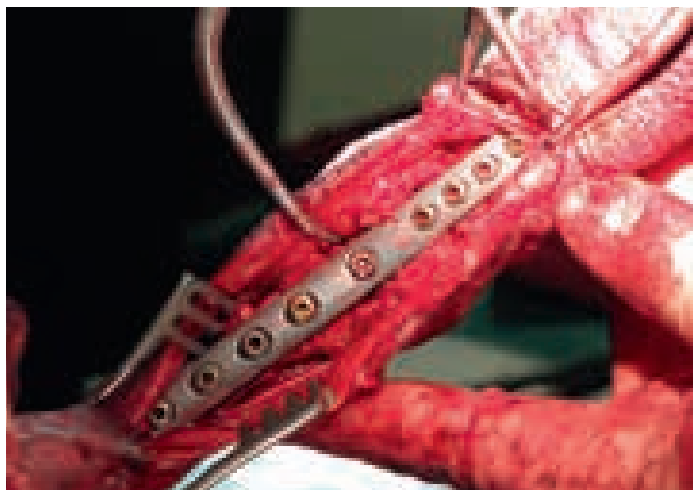
LOCKING BUTTERFLY PLATES

BTFP20417LOCK	2.0mm Locking Butterfly Plate 4 Hole 17mm Long	£54.50
BTFP24418LOCK	2.4mm Locking Butterfly Plate 4 Hole 18mm Long	£54.50
BTFP24420LOCK	2.4mm Locking Butterfly Plate 4 Hole 20mm Long	£54.50
BTFP27425LOCK	2.7mm Locking Butterfly Plate 4 Hole 25mm Long	£54.50

Hybrid Arthrodesis Plates

Pancarpal Arthrodesis Plates

Pancarpal arthrodesis is a common salvage procedure in veterinary orthopaedics following hyper-extension injuries.



Pancarpal arthrodesis plates achieve both appropriate screw hole spacing and appropriate screw size for the radius, radio-carpal bone and metacarpus (typically the third metacarpal bone). Most of these plates are hybrids with smaller screw holes for the metacarpus and larger screw holes for the radius and radio-carpal bone.

Standard plates that are small enough to fit the metacarpus will not normally have the strength to bridge the carpus. Standard plates which are sufficiently strong may be too stiff in the metatarsal region and predispose to fracture at the end of the plate; they may also be excessively bulky making skin closure more challenging.

Despite being the compression side of the carpus, a dorsal approach is significantly less invasive than a plantar approach. VI pancarpal arthrodesis plates are designed for dorsal application.

Our pancarpal arthrodesis plates take all of these considerations into account creating a plate with:

- Appropriate sized and spaced screw-holes proximally
- Appropriate sized and spaced screw-holes distally
- Sufficient strength through the mid-portion
- Thinning to the distal portion reducing stress riser effects and aiding skin closure
- An offset incorporated into the underside of the plate to automatically create an angle of around 5°

Many of our plates now also feature proximal thinning to remove the large step at the proximal end of the plate and reduce the magnitude of the stress riser effect that may contribute to radial fracture.

As a particular VI speciality, we have the most comprehensive range of pancarpal arthrodesis plates on the market. The addition of two new sizes and solutions to suit nearly every cat and dog.

Current advice is to achieve at least 50% coverage of the metacarpal segment with up to 75% being preferable.

Round Hole Pancarpal Arthrodesis Plates



Offer good screw-plate security, but no facility for generating compression.

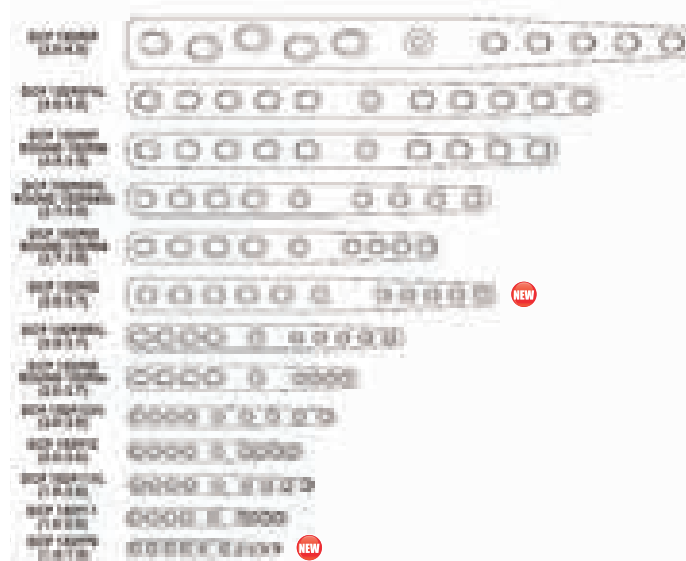
PANCARPAL ARTHRODESIS PLATES ROUND HOLES

152906	2.0/2.7mm Arthrodesis Plate Round Holes	£50.00
152904	2.7/3.5mm Arthrodesis Plate Round Holes	£50.00
152904XL	2.7/3.5mm Arthrodesis Plate Round Holes extended length	£55.00
152908	3.5/3.5mm Arthrodesis Plate Round Holes	£50.00
HDCADV D	Carpal Arthrodesis Technique DVD. Hamish Denny	£50.00

DCP Style Pancarpal Arthrodesis Plates



Pancarpal arthrodesis plates in DCP style are our most popular, we have therefore extended the range the furthest. This year we have brought out a new 1.0mm/1.5mm hybrid size (152970) for patients around the 1kg mark and a new 2.0/2.7 size (152902) which should suit many slender boned patients around 10-15kg in weight. 152902 is a slightly thicker profile than the shorter 2.0/2.7mm plates to compensate for the greater span. The top surface is sculpted to facilitate easier closure of soft tissues in patients that typically have very little additional skin to spare.



PANCARPAL ARTHRODESIS PLATES DCP STYLE

152970	1.0/1.5mm Compression Arthrodesis Plate	NEW £70.00
152911	1.5/2.0mm Compression Arthrodesis Plate	£62.50
152911XL	1.5/2.0mm Compression Extended Length	£65.00
152902	2.0/2.7mm Compression Arthrodesis Plate	NEW £70.00
152912	2.0/2.0mm Compression Arthrodesis Plate	£65.00
152912XL	2.0/2.0mm Compression Extended Length	£67.50
152905	2.0/2.7mm Compression Arthrodesis Plate	£67.50
152905XL	2.0/2.7mm Compression Extended Length	£70.00
152903	2.7/3.5mm Compression Arthrodesis Plate	£70.00
152903XL	2.7/3.5mm Compression Extended Length	£72.50
152907	3.5/3.5mm Compression Arthrodesis Plate	£75.00
152907XL	3.5/3.5mm Compression Extended Length	£80.00
152909	3.5/4.5mm Pancarpal Arthrodesis Plate 185mm	£155.00

See plate profiles on page 478.

Locking Pancarpal Arthrodesis Plates

Our locking pancarpal arthrodesis plates were developed following a lively debate at a BVOA scientific meeting on the merits of incorporating locking screws into pancarpal arthrodesis plates five years ago. The three plates in the current range offer a variety of hole combinations. The jury is still out on the optimal hole configuration with all three proving popular. We welcome feedback from surgeons on these and any comments from surgeons who would like to see us extend this range.

LOCKING PANCARPAL ARTHRODESIS

152907XLLS	Locking Pancarpal Arthrodesis - All 3.5 locking holes	£125.00
152907XLL	Locking Pancarpal Arthrodesis - All 3.5 locking holes except 2 DCP holes above and below radial carpal bone hole	£125.00
152903XLL	Locking Pancarpal Arthrodesis - Double hybrid, Proximal 3.5, Distal 2.7	£125.00

Canine Forelimb Salvage Plates

Our first two production level canine limb salvage plates are presented below. They are designed to be the major implant in a construct that allows an early return to weight-bearing following resection of an osteosarcoma in the distal radius. These are available off the shelf for immediate dispatch, minimising delays to surgery. On request, plates can be shortened at VI with dispatch the same or following day. Orthogonal plating is often employed to increase stability. A number of options are available to fill the void created:

- An ulna roll-up technique is proving popular
- Bone blocks are available in a range of sizes from the Veterinary Tissue Bank (VTB)
- Metallic spacers are also available, please phone for details

To better serve prospective forelimb salvage patients, we would like to invite surgeon feedback on these plates and ideas to develop this range further. Imaging from patients that do not go to surgery due to the lack of implants are a particular area that we would like to focus on.

Elective fore-limb shortening may be a consideration if even these plates prove too short in very long legged patients, but we are not aware of any study into the long term effects of doing so.

152903XXL (Profile shown on right).

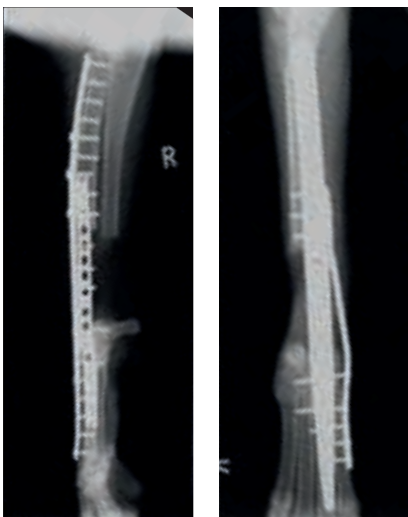
A 2.7/3.5mm DCP style forelimb salvage plate using the same cold drawn profile as 3.5mm broad DCPs. 262mm long. Designed to be customisable by cutting to length where facilities exist (eg Veterinary Instrumentation). In exceptionally large dogs with no or very minimal radial pro-curvatum, this may also be of use as a medial orthogonal plate. Plates can be shortened on request.

152903XXL	2.7/3.5mm Canine Limb Salvage Plate 262mm Long	NEW £155.00
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See plate profile on page 479.

152980

At 320mm long, this is currently our largest forelimb salvage plate. It features a combination of 3.5mm and 4.5mm standard cortical screw holes with a number of 3.5mm stacked locking holes. This is a big implant with the same profile as a 4.5mm broad DCP. The plate was originally commissioned by Bill Oxley at Willows Specialist Referral Hospital. It can be shortened on request.



Photographs: Bill Oxley

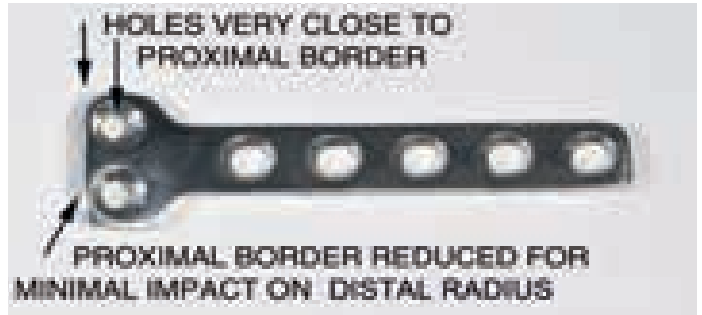
152980	Super XXL Forelimb Salvage Plate	NEW £285.00
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See plate profile on page 479.



Plate Profile shown to scale

Partial Carpal Arthrodesis Plates



This is normal!!
Thanks to Alessandro Piras for the photo.

Where instability lies in the intercarpal or carpometacarpal joints and the radiocarpal joint is undamaged, partial carpal arthrodesis offers an outcome with a relatively normal range of movement.

The problem is that the normal radiocarpal joint is capable of such a degree of extension that the distal radius tends to impinge on any implant placed onto the radial carpal bone. The image above shows a greyhound in full carpal extension illustrating the point very well. VI Partial Carpal Arthrodesis Plates have been engineered to have an extremely low profile. Additionally the proximal screw holes are very close to the proximal border of the plate thereby minimising the implant profile on the radial carpal bone.

The proximal plate is precontoured for best possible fit and to allow best position and angles of screws.

The largest plate accepts 2.7 and 3.5mm screws. Using 3.5 screws a smaller degree of screw angulation is possible. The medium plate takes 2.7, 2.4 and 2.0 screws. The smallest plate takes 1.5 and 2.0mm screws. See page 478 for profiles.

Our TTO/ TWO plates have also been used successfully for partial carpal arthrodesis. See page 481 for actual size profiles.



PARTIAL CARPAL ARTHRODESIS PLATE		
152930	Partial Carpal Arthrodesis Plate 2.7/3.5mm 65mm	£55.00
152931	Partial Carpal Arthrodesis Plate 2.0/2.4/2.7mm 50mm	£60.00
152932	Partial Carpal Arthrodesis Plate 1.5/2.0mm	£65.00

Elbow Arthrodesis Plates



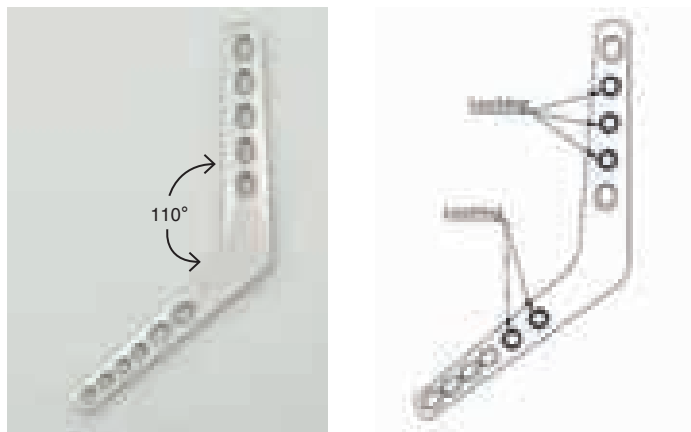
Severe elbow DJD is difficult to manage. Despite advances in elbow replacement, outcomes are not entirely predictable and even when pain free, dogs rarely have a normal gait.

Where funds are limited or elbow replacement has failed, arthrodesis may present a realistic option. The results are a pain free limb, albeit with an abnormal gait.

The single size elbow arthrodesis plate currently available will fit most Labradors and is available either as a non-locking plate or as a non-locking and locking hybrid.

Applied medially with an inbuilt 110° bend, the distal segment engages with the ulna.

For patients of different sizes, please contact our offices with patient details and we will explore possible solutions for you.



ELBOW ARTHRODESIS PLATES		
152950	Elbow Arthrodesis Plate 3.5/2.7 Right	£145.00
152951	Elbow Arthrodesis Plate 3.5/2.7 Left	£145.00
152950LOCK	Elbow Arthrodesis Plate 3.5/2.7 Right - Locking	NEW £165.00
152951LOCK	Elbow Arthrodesis Plate 3.5/2.7 Left - Locking	NEW £165.00

Plate profiles on page 476.

Forelimb Salvage Plate

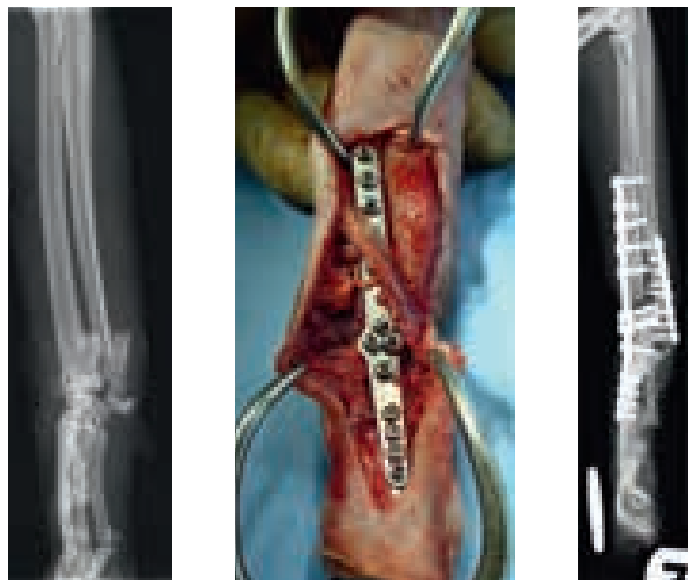


Photo: Simon Roch

Carpal injuries can be so severe that reconstruction is impossible and salvage is indicated. When the distal radius is involved, a simple pancarpal arthrodesis may not be enough. The forelimb salvage plate is designed for such injuries. The length and screw positions allow some reconstruction of the distal radius together with arthrodesis of the carpus. Also useful for small dogs.

FORELIMB SALVAGE PLATE 1.5/2.0MM		
152910	Forelimb Salvage Plate 1.5/2.0mm	£115.00

Plate profile on page 478.

www.vetinst.com
Bone Plate Profiles

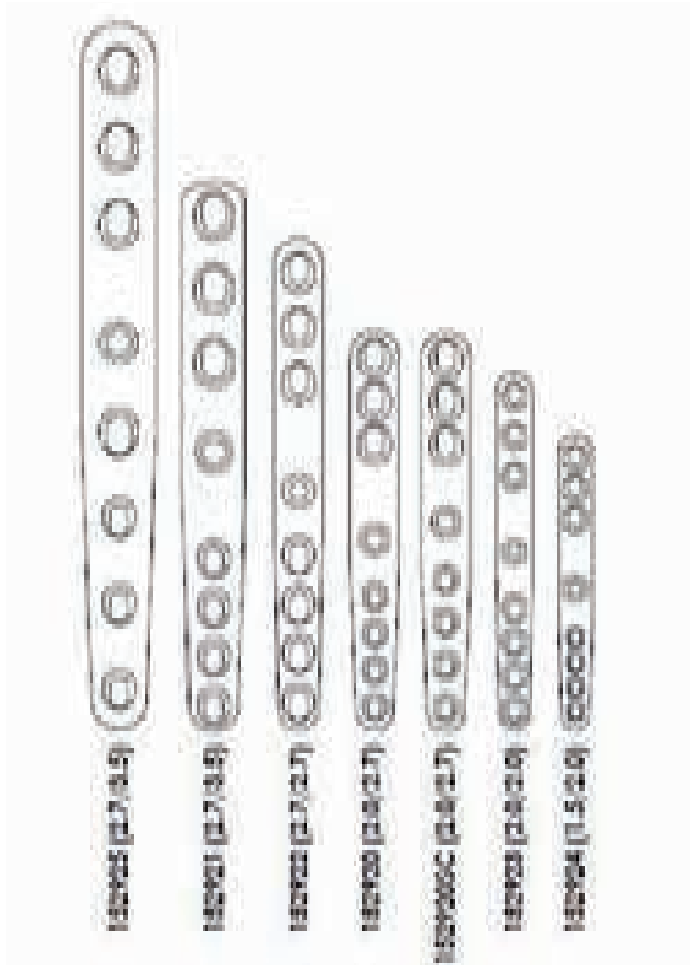
2.4 DCPs



All our Bone Plate Profiles are printed on the pages inside the back cover. They are also in the document download section of www.vetinst.com A full set of profiles printed on clear acetates as an aid to fracture planning is available free of charge. Remember the profiles are actual size so you will have to compensate (5-10%) for magnification depending on the position of the bone and the head of the x-ray unit.

Designed by Vets for Vets

Hybrid Intertarsal Arthrodesis Plates



Where the tibio-tarsal joint can be preserved, intertarsal arthrodesis is preferred to pantarsal arthrodesis, allowing a near normal range of motion to be maintained.

Hybrid plates are very helpful in permitting larger diameter screws to be used in the calcaneus and smaller diameter screws to be used in the metatarsals. Hybridisation is also helpful for thinning the plates distally, aiding closure of soft tissues. Many of the early intertarsal arthrodesis plates were modified pancarpal plates with length adjustments made to squeeze them onto the lateral aspect of the limb.

For most patients, the use of modified pancarpal plates results in sub-optimal screw placement with the biggest criticism being that the spacing of the holes for engaging the fourth tarsal bone and the proximal metatarsal bone was too great. Site specific plates provide a very much better fit. In 2013, with the help of Geoff Robins, we extended our range of intertarsal plates by another four sizes to cover much more of the population.

Our intertarsal plates all now have a rounded proximal end to limit damage to overlying soft tissues.



Case: Dr Neal Johnson

Occasionally we still find surgeons with patients where current sizes do not fit. If you are one of these surgeons please follow the lead of Alex Li and get in touch with us. The new 152920SC (the SC stands for 'short calcaneus') came about as an answer to his direct clinical requirement and is now a stock item and ready for immediate dispatch for other patients.

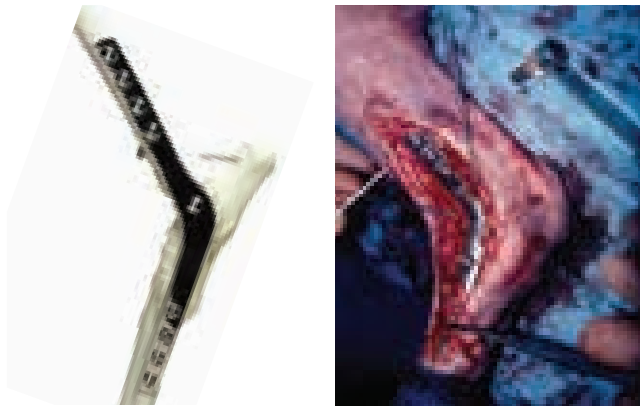


Case: Alex Li

HYBRID INTERTARSAL ARTHRODESIS PLATE		
152924	Hybrid Intertarsal Arthrodesis Plate 1.5/2.0mm	£105.00
152923	Hybrid Intertarsal Arthrodesis Plate 2.0/2.0mm	£105.00
152920	Hybrid Intertarsal Arthrodesis Plate 2.0/2.7mm	£105.00
152922	Hybrid Intertarsal Arthrodesis Plate 2.7/2.7mm	£105.00
152921	Hybrid Intertarsal Arthrodesis Plate 2.7/3.5mm	£105.00
152925	Hybrid Intertarsal Arthrodesis Plate 2.7/3.5mm	£105.00
152920SC	Hybrid Intertarsal Arthrodesis Plate 2.0/2.7mm – Short Calcaneus	NEW £105.00

Plate profiles on page 476.

Pantarsal Arthrodesis Plate (medial)



Our original pantarsal arthrodesis plates were derived from a series of custom implants we created for Malcolm McKee (McKee, W.M., May, C., Macias, C. & Lapish, J.P. (2004) Pancarpal Arthrodesis with a Customised Medial or Lateral Bone Plate in 13 Dogs. Veterinary Record 154, 165-170).

These plates are designed for medial application avoiding the need to either displaced or resected the fibula. Lateral application is possible and may be necessary as situations dictate. For lateral application, the distal fibula will need to be managed.

The original custom plates featured a round hole to engage with the fourth tarsal bone. Due to the variable position of the fourth tarsal bone, we dropped these holes from production versions having viewed them as non-essential.

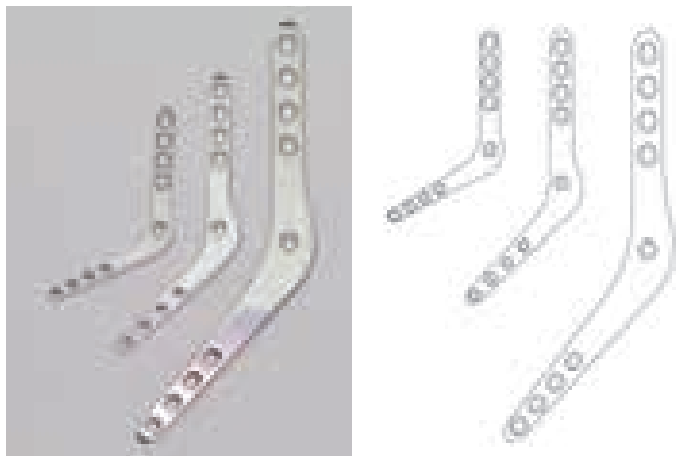


Plate angulation is set to match the normal standing angles of the target patient population. Occasionally we do manufacture custom/semi-custom pantarsal arthrodesis plates at other angles to meet particular patients' needs. Please contact the office with patient details should you need to explore custom solutions. If we feel there is sufficient demand, we will often perform full production runs.

PANTARSAL ARTHRODESIS PLATE		
152918	2.0/2.7 Pantarsal Plate Right Cat 120°	£105.00
152917	2.0/2.7 Pantarsal Plate Left Cat 120°	£105.00
152916	2.0/2.7 Pantarsal Plate Right Dog 140°	£105.00
152915	2.0/2.7 Pantarsal Plate Left Dog 140°	£105.00
152914	2.7/3.5mm Pantarsal Plate Right Short.	£105.00
152913	2.7/3.5mm Pantarsal Plate Left Short	£105.00

Plate profiles on page 477.

Medial Pantarsal Arthrodesis Plates with T4 Slots

Although we are unaware of any arthrodesis failures using plates omitting a fourth tarsal bone screw, cadaveric studies by Loic Dejardin have shown that the additional screw adds significantly to construct stiffness. Surgeons requesting custom plates also tend to prefer them with the extra hole. We now also have a range of pantarsal plates with T4 slot. The slot provides flexibility over screw position and angulation enabling good engagement with the fourth tarsal bone in almost all cases.



The feline pantarsal arthrodesis plate has a 120° angulation. Although 2.0mm screws are a better fit, 1.5mm screws can also be used distally.

FELINE PANTARSAL ARTHRODESIS PLATES WITH SLOT FOR T4 (MEDIAL)		
152918-T4	2.0/2.7 Feline Pantarsal Plate with T4 Slot - 120° Right	£115.00
152917-T4	2.0/2.7 Feline Pantarsal Plate with T4 Slot - 120° Left	£115.00

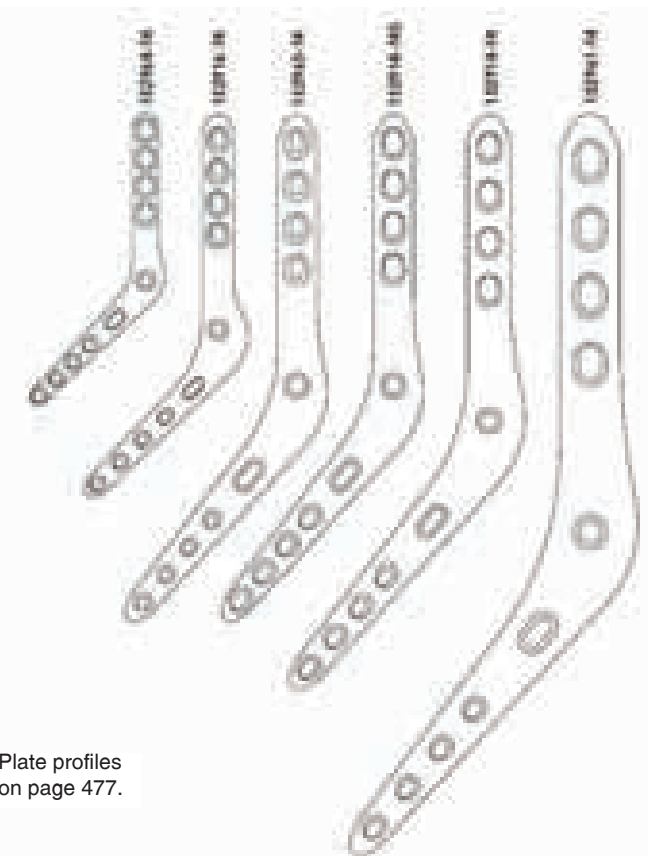


Plate profiles on page 477.

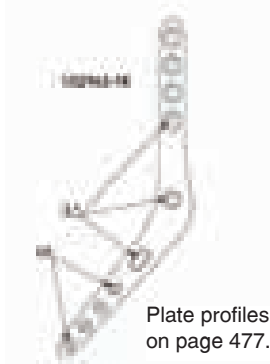
CANINE PANTARSAL ARTHRODESIS PLATES WITH SLOT FOR T4 (MEDIAL)		
152916-T4	2.0/2.7 Canine (Small) Pantarsal Plate with T4 Slot - 140° Right	£115.00
152915-T4	2.0/2.7 Canine (Small) Pantarsal Plate with T4 Slot - 140° Left	£115.00
152914-T4S	2.7/3.5 Canine Pantarsal Plate with T4 Slot - Right Short	£115.00
152913-T4S	2.7/3.5 Canine Pantarsal Plate with T4 Slot - Left Short	£115.00
152914-T4	2.7/3.5 Canine Pantarsal Plate with T4 Slot - Right Hand	£115.00
152913-T4	2.7/3.5 Canine Pantarsal Plate with T4 Slot - Left Hand	£115.00
152960-T4	2.7/3.5/4.5 Canine Pantarsal Plate with T4 Slot - Left Hand	£135.00
152961-T4	2.7/3.5/4.5 Canine Pantarsal Plate with T4 Slot - Right Hand	£135.00

New sizes for 2015!

We have four new plates joining our current line-up for medial pantarsal arthrodesis.



The first is a variant of our feline 2.0/2.7mm size, but with canine angulation. Codes 152964-T4 and 152965-T4



The second carries the same outline as our smaller 2.7/3.5mm size, but with holes for 2.0mm screws distally and 2.7mm screws proximally, suiting many tall, but fine boned patients such as whippets.

Plate profiles on page 477.

CANINE PANTARSAL ARTHRODESIS PLATES WITH SLOT FOR T4		
152964-T4	2.0/2.7 Canine Pantarsal Plate with T4 slot – 140° Left	£115.00
152965-T4	2.0/2.7 Canine Pantarsal Plate with T4 slot – 140° Right	£115.00
152962-T4	2.0/2.7/3.5mm Medial Pantarsal Arthrodesis Plate Left With T4	£115.00
152963-T4	2.0/2.7/3.5mm Medial Pantarsal Arthrodesis Plate Right With T4	£115.00

Hindlimb Salvage

From time to time we receive enquiries for pantarsal arthrodesis plates with an extended proximal arm for managing trauma or tumors. The images below show a custom pantarsal arthrodesis plate we created for Toby Gemmill and incorporating a trabecular tantalum block.



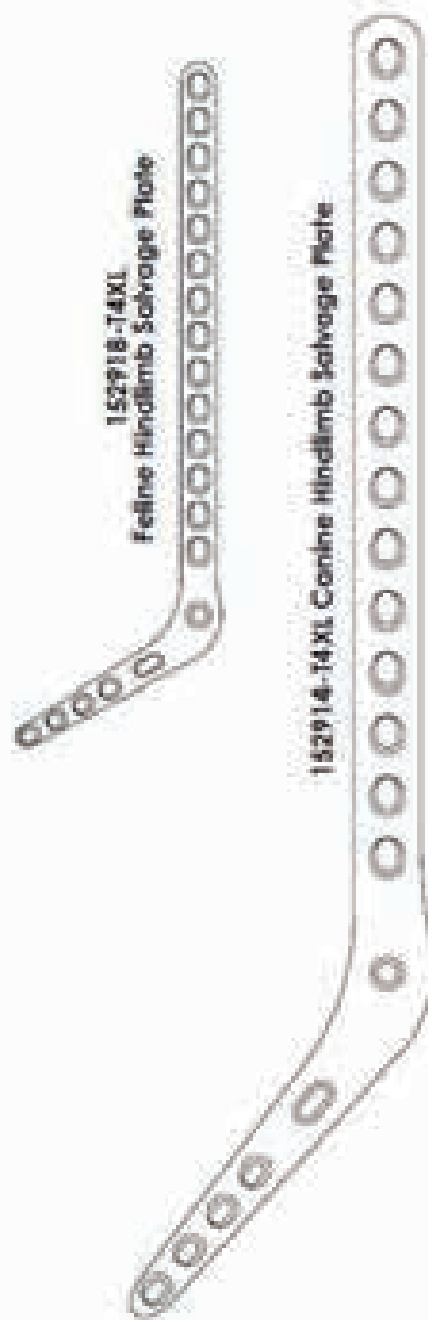
Case and photos: Toby Gemmill.

Site specific implants for these challenging cases have not been available off the shelf and turn-around times have often been too great for interim management whilst custom implants are manufactured.

Alternative solutions are often less than ideal and include complicated external fixation frames, elective limb shortening to use standard implants or double plating. Our hindlimb salvage project aims to develop a range of stock implants to provide more eloquent and functional solutions for these patients.

If you cannot find the plate that you need here, please contact our office as this is an active area of development and we may already have something suitable in stock and ready for dispatch or something that can be modified to work for you.

See profiles on page 479.



HINDLIMB SALVAGE PLATES	
152917-T4XL Feline (120°) hindlimb salvage plate 2.0/2.7 left	£185.00
152918-T4XL Feline (120°) hindlimb salvage plate 2.0/2.7 right	£185.00
152913-T4XL Canine (140°) hindlimb salvage plate 2.7/3.5 left	£185.00
152914-T4XL Canine (140°) hindlimb salvage plate 2.7/3.5 right	£185.00

Pantarsal Arthrodesis by Dorsal Hybrid Plate

The concept of a dorsal plate is not new. Contoured DCPs have been used with success for pantarsal arthrodesis for some time. However, there is a fundamental problem with the use of DCPs. The plate loading takes place across the weakest plane of the plate on the compression side of the joint resulting in a relatively weak construct which leads to cycling and plate failure usually at the hole closest to the bend. In addition use of the same diameter screw in both metatarsals and the tibia can result in a mismatch. A large screw in the distal metatarsal makes the metatarsal involved very vulnerable to fracture.

Although requiring more initial dissection than the medial approach, the dorsal plate makes alignment easier and does not involve screwing metatarsals to each other. Stability across the talocrural joint is achieved by a screw which passes through the plate and crosses the joint into the calcaneus.

Noel Fitzpatrick and VI have revisited the dorsal plate and developed a range plates which allow the surgeon to benefit from the advantages of dorsal plating whilst minimising the risks of failure. The Plates are hybrid in nature and taper distally to reduce the stress riser at the end of the plate. The vulnerable area on either side of the bend is substantially thicker and stronger than the plate proximally and distally to reduce stress at the joint. For maximum stability it is essential that a screw is placed across the talocrural joint. To facilitate this the holes on either side of the bend are extended into slots to increase the range of screw angles possible.

An aiming device is available to assist the surgeon in placing these vital screws.

The shape of the cranial plate lends itself to being placed by minimally invasive plate osteosynthesis (MIPO) to preserve as much soft tissue as possible.

Feline Dorsal Pantarsal Arthrodesis Plate



Case: Noel Fitzpatrick



Feline Cranial Pantarsal Arthrodesis MIPO

Case: Noel Fitzpatrick

Developed in collaboration with Noel Fitzpatrick we offer a dedicated dorsal plate with holes placed in exactly the correct positions and machined to allow appropriate screw angulation to secure the talus. The Plate is a hybrid having smaller holes distally in a range of sizes. The Plate tapers distally to reduce the stress riser effect on the metatarsals.

Plate profile shown on page 477.

FELINE DORSAL PANTARSAL PLATE

152941	Feline Dorsal Pantarsal Arthrodesis Plate 2.0/2.0mm Calcaneal Holes accept 2.0 or 2.4mm Screws	£115.00
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Canine Dorsal Pantarsal Arthrodesis Plate



The Canine Dorsal Pantarsal Range developed by Noel Fitzpatrick currently comprises two hybrid plates which covers the typical patient range. Each plate has the following features:

- Plate is much stronger around the bend to transfer stress away from vulnerable areas.
- Plate tapers distally to minimise stress riser on metatarsal at the end of the plate.
- Full hybrid. Metatarsal holes smaller than tibia holes.
- Slots above and below the bend to maximise screw angle options.



During MIPO application the distal end of the plate is fed from the joint down through the distal keyhole. The proximal half of the plate is pushed through and retrograded back up the tibia. All screw holes may be accessed through keyholes.



CANINE DORSAL PANTARSAL ARTHRODESIS PLATE

152946	Canine Dorsal Pantarsal Arthrodesis Plate 2.4/2.7/3.5mm	£145.00
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Plate profile shown on page 477.

Custom Implants and New Implants under Development

Many long established implant designs continue to serve extremely well. However, we still offer orthopaedic advice on a weekly basis where current solutions are sub-optimal.

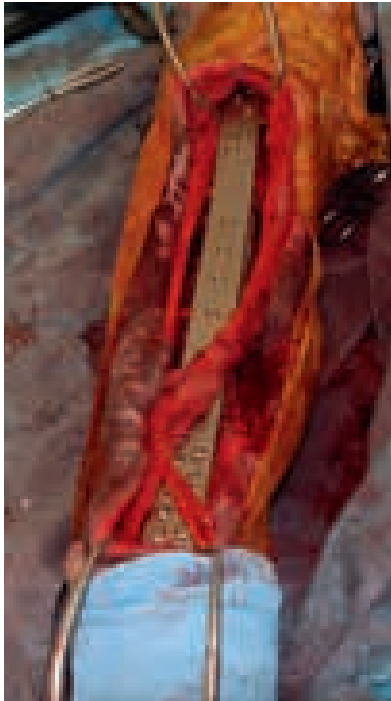
As any reader of previous editions of this catalogue will be aware, we are constantly adding to our implant range. It is the clinical desire, and in many cases, the absolute clinical requirement to develop new workable solutions that will be suitable for as many of our patients as possible that drives implant design at VI.

Over the last couple of years we have developed our 1.0mm system, our butterfly plates, our LokRod™ system and most recently our ASYM® plates. At the same time we have expanded our selection of cuttable plates, biological healing plates, T-plates, TTO plates, TPLO plates, acetabular plates and intertarsal plates. Our range of pantarsal and pancarpal arthrodesis plates has also been extended and updated.

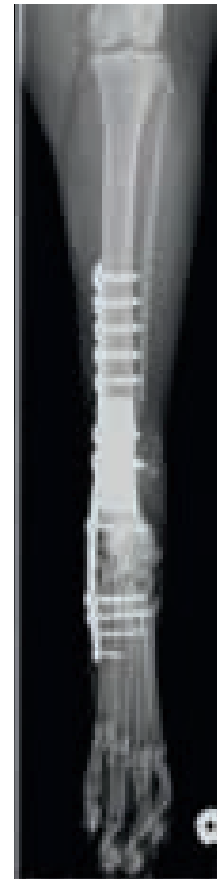
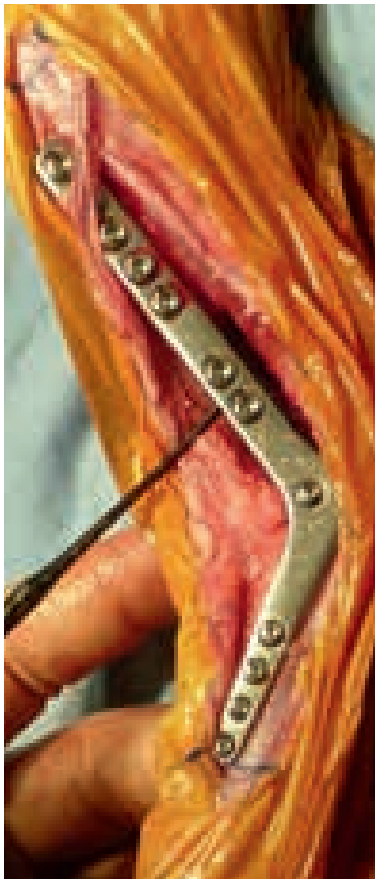
We continue to work with colleagues around the world in creating custom implants for individual patients. In cases where a few patients may benefit from a particular design, it may be economical for us to put certain 'custom' designs into small scale production. This enables us to offer a more economical 'off-the-shelf' solution available for immediate dispatch for the next patient of similar proportions and with a similar problem.

Our Technical Director, David Strong, is also an orthopaedic surgeon and designs all of our new orthopaedic implants. He works from scaled radiographs or CT imagery. With David's clinical and design know-how, no prior implant design experience is required from a surgeon commissioning a VI plate.

If you do not find what you are looking for as a 'standard' profile, please ask. We may already have a suitable plate in stock and both these and patient specific implant solutions may be more economical than you think!



Limb salvage plate following resection of distal radius osteosarcoma. Case and pictures: Neil Burton & Alberto Gines.



Custom pantarsal arthrodesis plate incorporating a trabecular tantalum implant.

Case and photos: Toby Gemmill.

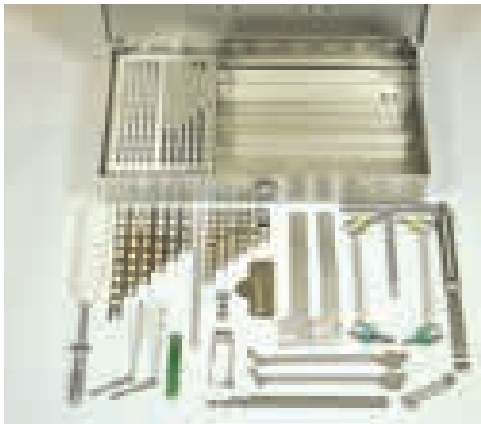


AO Plating Kits

AO Cortical and Cortical Self Tapping Kits

Savings may be made by purchasing pre-assembled kits. The price is typically discounted by 5% compared to the component price.

The description cortical means that the pilot hole must be pre-tapped prior to screw placement. Cortical Self Tapping means that the screw itself has a self tapping tip and cuts its own thread. Self tappers work very well in all but the hardest cortical bone. It recommended that surgeons using self tappers keep a tap 'just in case'. Each Kit contains all you need including screws and implants. Full details of what the kit includes is available at www.vetinst.com/kits.



Examples of the Self Tapping Kits are shown below:

1.5mm Cortical Self Tapping Kit (CORTSTKIT1.5)



- Hex Screwdriver and Sleeve 1.5/2.0/2.4
- Load Neutral Guide
- Bending Levers
- Drill Bits 1.1mm and 1.5mm
- Mini Plates 3mm to 7mm (5 in total)
- 'T' Plates 1 x 5 Hole 2x 6 Hole 1 x 7 Hole
- 5 x CSST Screws 6mm-20mm (40 in total)
- 5 x Cuttable/ Malleable Plates including a 27 Hole and 30 Hole plus Broad Version
- Stainless Steel Equipment/ Screw Box

1.5/2.0mm Cortical Self Tapping Kit (CORTSTKIT1.5/2.0)

- Hex Screwdriver and Sleeve
- Load/ Neutral Drill Guide
- Double Drill Guide/ Sleeve
- Insert Sleeve
- Screw Length and Drill Gauge
- Bending Templates
- Depth Gauge
- Bending Levers
- Combination Drill, Tap, Insert Sleeve
- 3 Drill Bits
- 5 x 1.5 CSST Screws 6mm – 20mm (40 in total)
- 5 x 2.0 CSST Screws 6mm – 20mm (40 in total)
- 1x DCP 4 – 8 Hole (5 in total)
- 1x 4 and 5 Hole 'T' Plates
- 1x Cuttable and Cuttable/ Malleable Plate
- Stainless Steel Equipment/ Screw Box

2.0mm Cortical Self Tapping Kit (CORTSTKIT2)

- Hex Screwdriver and Sleeve
- Load/ Neutral Drill Guide
- Tissue Protector
- Double Drill Guide/ Sleeve
- Insert Sleeve
- Screw Length and Drill Gauge
- Bending templates
- Depth Gauge
- Bending Levers
- 2 Drill Bits
- 2.0 CSST Screws 6mm – 16mm (32 in total)
- 1x DCP 4 – 7 Hole (4 in total)
- 1x 4 Hole 'T' Plates
- 1x Cuttable and Cuttable/ Malleable Plate
- Stainless Steel Equipment/ Screw Box

2.4mm Cortical Self Tapping Kit (CORTSTKIT24)

- Hex Screwdriver and Sleeve
- Load/ Neutral Drill Guide
- 2 Drill Bits
- Bending Levers & Bending Templates
- 5 x 2.4 CSST Screws 6mm – 30mm (65 in total)
- 1 x DCP 4 – 14 Hole (10 in total)
- Stainless Steel Equipment/ Screwbox

2.7/3.5mm Cortical Self Tapping Kit (CORTSTKIT2735)

- Hex Screwdriver and Sleeve
- 2.7 & 3.5 Load/ Neutral Drill Guide
- Depth Gauge
- Screw Length and Drill Gauge
- Small Countersink
- 2x Insert Sleeve
- Bending Levers
- 2x Triple Drill Guide/ Sleeve
- 2x Bending Templates
- 2.7 CSST Screws 6mm – 30mm (44 in total)
- 3.5 CSST Screws 10mm – 32mm (51 in total)
- 1x 2.7 DCP 4 – 10 Hole (6 in total)
- 1x 3.5 DCP 4 – 10 Hole (6 in total)
- 1x 5 Hole 'T' Plate
- 1x Cuttable/ Malleable Plate
- Stainless Steel Equipment/ Screw Box

AO CORTICAL & CORTICAL SELF TAPPING PLATING KITS		
CORTSTKIT1.5	1.5mm Cortical Self Tapping Kit in Stainless Box	£1,475.00
CORTKIT1.5/2	1.5/2.0mm Cortical Kit in Stainless Box	£1,775.00
CORTSTKIT1.5/2	1.5/2.0mm Cortical Self Tapping Kit in Stainless Box	£1,575.00
CORTKIT2	2.0mm Cortical Kit in Stainless Box	£1,350.00
CORTSTKIT2	2.0mm Cortical Self Tapping Kit in Stainless Box	£1,250.00
CORTSTKIT2.4	2.4mm Cortical Self Tapping Kit in Stainless Box	£1,375.00
CORTKIT2.7/3.5	2.7/3.5mm Cortical Kit in Stainless Box	£2,250.00
CORTSTKIT2735	2.7/3.5mm Cortical Self Tapping Kit in Stainless Box	£2,175.00
CORTKIT4.5	4.5mm Cortical Kit in Stainless Box	£1,400.00
CORTSTKIT4.5	4.5mm Cortical Self Tapping Kit in Stainless Box	£1,250.00
CORTKIT4.5/5.5	4.5/5.5mm Cortical Kit in Stainless Box	£2,575.00

AO Cortical Self Tapping Kits with Limited Contact (LC) Compression Plates

Contains same implants and instruments except DCPs are replaced with Limited Contact Compression Plates.

AO CORTICAL SELF TAPPING KITS WITH LIMITED CONTACT COMPRESSION PLATES		
LCORTSTKIT24	2.4mm Cortical Self Tapping Kit with Limited Contact Compression Plates in Stainless Box	£1,475.00
LCORTSTKIT2735	2.7/3.5mm Cortical Self Tapping Kit with Limited Contact Compression Plates in Stainless Box	£2,350.00

AO Plating Kits

AO Cortical and Cortical Self Tapping Kits in Premium Boxes



In 2013 Veterinary Instrumentation launched a range of AO Cortical Self Tapping Kits in Premium boxes. The boxes were designed with a screw tray, 2 insert trays for implants and the base compartment for instruments.

Savings may be made by purchasing pre-assembled kits. The price is typically discounted by 5% compared to the component price.

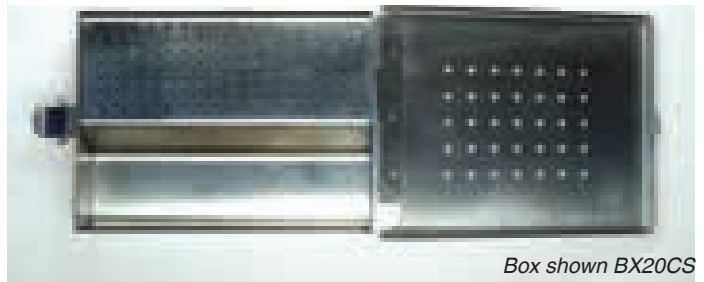
Each kit contains all you need including screws and implants. Full details of what the kit includes is available at www.vetinst.com/kits.

An example of the 1.5/2.0/2.4 Self Tapping Kit is shown below:

- Hex Screwdriver and Sleeve
- Double Drill Guide/ Sleeve
- Screw Length and Drill Gauge
- Depth Gauge
- Load/ Neutral Drill Guide x 2
- Insert Sleeve x 2
- Bending Templates x 2
- Bending Levers x 2
- Combination Drill, Tap, Insert Sleeve x 2
- 5 x Drill Bits
- 5 x 1.5 CSST Screws 6mm – 20mm (40 in total)
- 5 x 2.0 CSST Screws 6mm – 20mm (40 in total)
- 1 x DCP 4 – 8 Hole (5 in total)
- 2 x 'T' Plates
- 2 x Cuttable and Cuttable/ Malleable Plate
- 1 x Cuttable Plate with spaces
- 2 x Cortical Tap - Dental Fit
- 2 x Tap Handle
- 1 x Cortical Tap
- 5 x 2.4 CSST Screws 6mm – 30mm (65 in total)
- 1 x DCP 4 – 14 Hole (10 in total)
- Premium Equipment/ Screwbox with Insert Trays

AO CORTICAL SELF TAPPING PLATING KITS IN PREMIUM BOXES		
CORTSTP10	1.0mm Cortical Self Tapping Kit in Premium Box	£2,950.00
CORTSTP152024	1.5/2.0/2.4mm Cortical Self Tapping Kit in Premium Box	£3,750.00
CORTSTP2735	2.7/3.5mm Cortical Self Tapping Kit in Premium Box	£2,550.00

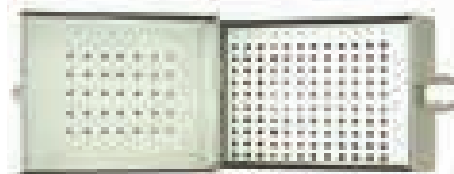
AO Equipment and Screw Boxes



Box shown BX20CS

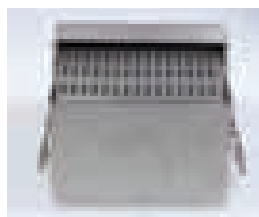
AO EQUIPMENT / SCREW BOX		
BX1520CS	Box for 1.5 & 2.0mm Screws and Equipment	£185.00
BX20CS	Box for 2.0 AO Screws and Equipment	£185.00
BX24CS	Box for 2.4 AO Screws and Equipment	£185.00
BX27CS	Box for 2.7 AO Screws and Equipment	£185.00
BX35CS	Box for 3.5 AO Screws and Equipment	£185.00
BX2735CS	Box for 2.7/3.5 Screws and Equipment	£185.00

Screw Box 145mm x 105mm x 55mm deep for AO Type Screws



This Screw Box has a hinged lid with a stainless perforated insert. The maximum screw length is 50mm but the marking of the holes is indicated.

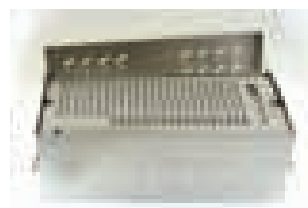
SCREW BOX		
SH2000CS	Box for 2.0 Screws marked 6 - 28mm	£140.00
SH2700CS	Box for 2.7 Screws marked 6 - 28mm	£140.00
SH3500CS	Box for 3.5 Screws marked 10 - 32mm	£140.00
SH2735CS	Box for 2.7 & 3.5 Screws marked 6 - 32mm	£140.00
SH4500CS	Box for 4.5 Screws marked 14 - 36mm	£140.00
SH55CS	Box for 5.5 Screws marked 28 - 50mm	£140.00
SH202735CS	Box for 2.0, 2.7 & 3.5 Screws marked 6 - 34mm	£140.00



Screw Box 105mm x 90mm x 80mm

Clip on lid style screw box 80mm deep i.e. slightly deeper than the above. Maximum screw length 60mm. Screw holes marked as indicated.

SCREW BOX		
SH3540CS	Box for 3.5/4.0 Screws max length 60mm	£140.00
SHTTA242735	Box for TTA Screws 2.4/2.7/3.5 to 38mm	£140.00



Screw Box 310mm x 140mm x 115mm deep

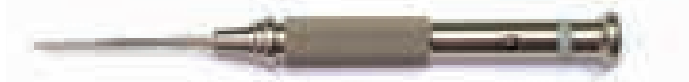
Large multi-size screwbox with a clip on lid. Insert may be lifted out with integral handles the base being used for instrument storage.

SCREW BOX LARGE		
SH20273540	Box for 2.0/2.7/3.5/4.0 Screws max length 100mm	£185.00
SH455565CS	Box for 4.5/5.5/6.50 Screws max length 105mm	£185.00

Quick Release Tap Handle Dental Fit

TD0015

Metal Handle



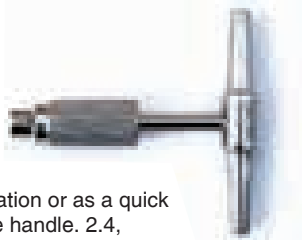
Suitable for Dental Fit 1.5 and 2.0mm Taps. Also accepts Screwdriver and Countersink Attachments for the 1.5/2.0 Systems.

QUICK RELEASE TAP HANDLE DENTAL FIT

DC20	Handle for 1.5mm & 2mm Tap (Dental Fit) 120mm	£155.00
TD0015	1.5mm Cortical Tap (Dental Fit)	£65.00
TD0020	2.0mm Cortical Tap (Dental Fit)	£65.00
SDD1500	1.5/2.0/2.4mm Hex Dental Fit Screwdriver Attachment	£65.00
COUDEM	Mini Countersink Dental Fit for 1.5/2.0mm Screws 55mm	£82.50

Tap Handle

A Tap is essentially a cutting tool designed to pre-cut screw threads into the pilot hole prior to screw placement. The profile is similar to the screw in question but has long flutes to allow bone debris to be cleared. Taps are available as stand alone 'T' bar configuration or as a quick release version which require a separate handle. 2.4, 2.7, 3.5, 4.0, 4.5 and 6.5mm Quick Release Taps require Synthes Type Quick Release Handle. 1.5 and 2.0mm Quick Release Taps require a Small Dental Fit Handle. (DC20)



TAP HANDLE

QRCS01	Handle for 2.4, 2.7, 3.5, 4.0, 4.5 Taps. Synthes Fit 75mm	£155.00
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Teflon Tap Handle with Rotating Cap

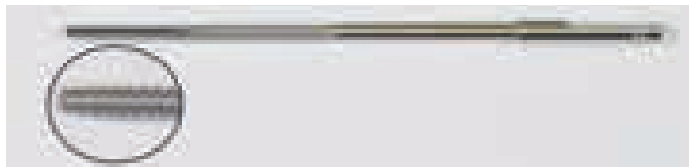


The working tip of this instrument is a Quick Release Chuck of the Synthes Type which accepts Drills, Taps and Screwdriver Attachments. Inclusion of this handle would mean that you would not require separate tap handles and screwdriver. The rotating cap which sits in the palm allows the tip to be spun with the fingers.

QUICK RELEASE TAP HANDLE WITH TEFLON HANDLE

QRCS01F	Quick Release with Teflon Handle 155mm	£125.00
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Taps



QUICK RELEASE TAPS

TD0015	1.5mm Cortical Tap (will only fit DC20)	£65.00
TD0020	2.0mm Cortical Tap (will only fit DC20)	£65.00
TS0024	2.4mm Cortical Tap	£65.00
TS00027	2.7mm Cortical Tap	£65.00
TS12535	3.5mm (1.25 pitch) Cortical Tap	£65.00
TS17535	3.5mm (1.75 pitch) Small Cancellous Tap	£65.00
TS00045	4.5mm Cortical Tap	£65.00
TS00045L	4.5mm Extra Long Tap (195mm)	£65.00
TS00055	5.5mm Cortical Tap	£65.00
TS00065	6.5mm Cancellous Tap	£65.00

T Bar Taps

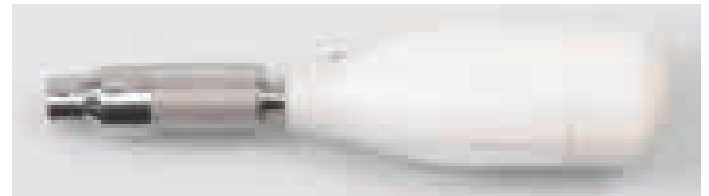
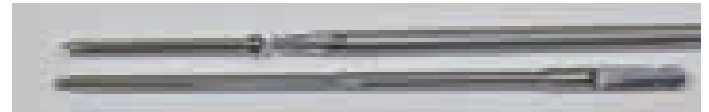


These taps require no additional handle.

T BAR TAPS

TBT015	T Bar Tap 1.5mm Cortical	£85.00
TBT020	T Bar Tap 2.0mm Cortical	£85.00
TBT027	T Bar Tap 2.7mm Cortical	£85.00
TBT12535	T Bar Tap 3.5 (125pitch) Cortical	£85.00
TBT17535	T Bar Tap 3.5 (175pitch) Small Cancellous	£85.00
TBT045	T Bar Tap 4.5mm Cortical	£85.00
TBT065	T Bar Tap 6.5mm Cancellous	£85.00

Locking Screw Taps

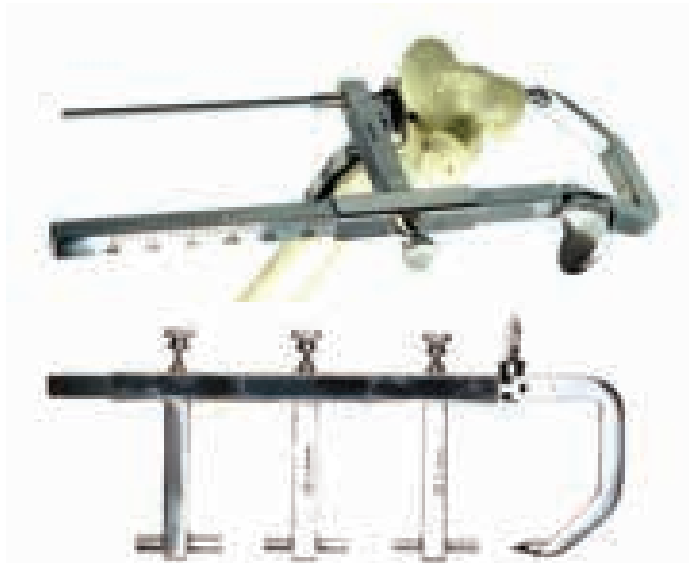


Since the introduction of locking screws into veterinary orthopaedics we have had the feedback that the self tapping feature works well in relatively soft bone (e.g. proximal tibia for TPLO) but it is less effective in dense cortical bone where getting the screw started can be a challenge. Starting the screw at any angle other than 90 degrees to the plate will have serious consequences when the locking threads meet the plate. In addition if the screw does not tap the trans cortex efficiently a disc of bone may be punched from the bone surface as the screw exits.

LOCKING SCREW TAP

TSLS35	Tap for 3.5 Locking Screws	£85.00
TSLS27	Tap for 2.7 Locking Screws	£85.00
TSLS24	Tap for 2.4 Locking Screws	£85.00
TSLS20	Tap for 2.0 Locking Screws	£85.00
QRCS01F	Quick Release Tap Handle	£125.00
TSLSET	Handle and Locking Tap Set (one of each Tap)	£425.00

Adjustable Drill Guide



Our Adjustable Drill Guide allows accurate placement of drill holes by predetermination of drill entry and exit points. Locks onto bone to minimise errors.

- The swivelling point allows use of the guide where access is limited.
- Supplied with 2.0, 2.5 and 3.5 Drill Sleeves. Use the appropriate Sleeve for the Drill in use.
- A scale on the instrument measures hole depth.
- Applications include condyle fractures, femoral neck tunnels and screw holes, ununited anconeal process.

In our view this design has significant advantages over 'CEG' and 'C' guides.

DRILL GUIDES & INSERTS		
ADJDG2035	Adjustable Drill Guide for 2.0/2.5/3.5mm Drills 175mm	£205.00
ADJDG45	Adjustable Drill Guide 4.5mm Drills 190mm	£205.00
ADJSL55	Slider to fit 5.5 Cortical (equine) Screws fits ADJDG45 75mm	£75.00

Drill Guides and Inserts



Use of an appropriate sized Drill Guide enables the surgeon to control exactly the entry and exit points of drills. This ability is extremely important in lag screwing.

Various Insert Sleeves are available for each drill size, with an accurate guidance system, and provide exact positioning of holes for lag screwing, (e.g. for a 3.5mm Cortical Screw, Drill 3.5 lag hole in proximal cortex, insert SL3525 and drill through it into the trans cortex. Finally tap and insert Screw.)

SMALL DRILL GUIDE (DOES NOT INCLUDE INSERT SLEEVES)		
CEG2735	Small Drill Guide i/d 3.5mm 'C' Guide 135mm	£82.50
LARGE DRILL GUIDE (DOES NOT INCLUDE INSERT SLEEVES)		
CEG4565	Large Drill Guide i/d 6.5mm 'C' Guide 140mm	£99.50

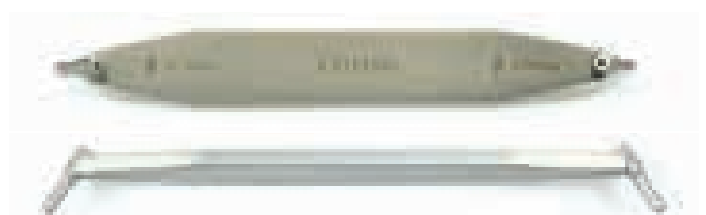
Triple Drill Guides



Triple Drill Guides are used to accurately position drills and 'K' or arthrodesis wires. The three holes in the head allow for the placement of parallel anti-rotation wires.

TRIPLE DRILL GUIDE/SLEEVES		
SLG1115	Double Drill Guide/ Sleeve for 1.1 & 1.5mm Drills 100mm	£130.00
SLG0020	Triple Drill Guide/ Sleeve for 2.0mm Drills 115mm	£120.00
SLG0025	Triple Drill Guide/ Sleeve for 2.5mm Drills 115mm	£120.00

Drill Guide 0.7mm/1.0mm

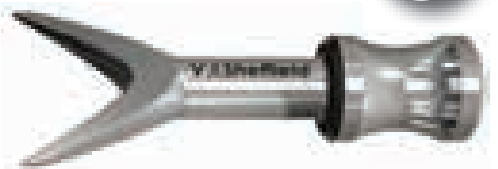


Due to the size limitations, this device serves only as a drill guide and cannot be used as an insert sleeve or tap guide.

DRILL GUIDE 0.7MM /1.0MM		
CDTIS10	Drill Guide 0.7mm/1.0mm	£120.00

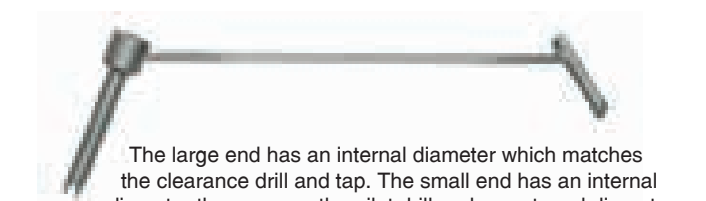
Self-Centring Drill-Guides

Whether it be for external fixation or screw application, it is desirable for implants to be positioned fairly centrally into bones. Sized for the most popular drill-bits, these devices will help achieve accurate positioning of pilot holes.



PRE-DRILLS		
CDG11	Self-centring drill-guide for Ø1.1mm drill, 10mm spread	£95.00
CDG15	Self-centring drill-guide for Ø1.5mm drill, 12mm spread	£95.00
CDG20	Self-centring drill-guide for Ø2.0mm drill, 14mm spread	£95.00
CDG25	Self-centring drill-guide for Ø2.5mm drill, 18mm spread	£95.00
CDG32	Self-centring drill-guide for Ø3.2mm drill, 23mm spread	£95.00
CDGSET	Set of 5 self-centring drill-guides	£375.00

Combination Drill, Tap and Insert Sleeve

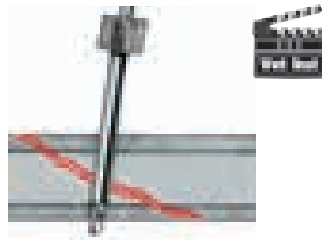


The large end has an internal diameter which matches the clearance drill and tap. The small end has an internal diameter the same as the pilot drill and an external diameter which fits the clearance drill hole, ie. the same as an insert sleeve. This single instrument contains all the guides and sleeves you need to place a lag screw.

COMBINATION DRILL, TAP & INSERT SLEEVE		
CDTIS20	Combination Drill, Tap & Insert Sleeve for 2.0 Screws 100mm	£120.00
CDTIS24	Combination Drill, Tap & Insert Sleeve for 2.4 Screws 105mm	£120.00
CDTIS27	Combination Drill, Tap & Insert Sleeve for 2.7 Screws 110mm	£120.00
CDTIS35	Combination Drill, Tap & Insert Sleeve for 3.5 Screws 115mm	£120.00
CDTIS45	Combination Drill, Tap & Insert Sleeve for 4.5 Screws 130mm	£120.00

Insert Sleeves

Drill Sleeves centre smaller drills in the placement of lag screws.

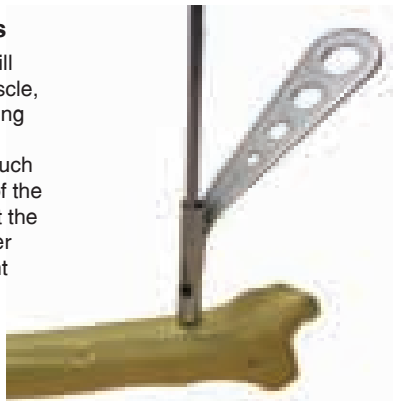


INSERT SLEEVES

SL2015	Insert Sleeve 2.0mm o/d 1.5mm i/d	£44.50
SL2418	Insert Sleeve 2.4mm o/d 1.8mm i/d	£44.50
SL2720	Insert Sleeve 2.7mm o/d 2.0mm i/d	£44.50
SL3520	Insert Sleeve 3.5mm o/d 2.0mm i/d	£44.50
SL3525	Insert Sleeve 3.5mm o/d 2.5mm i/d	£44.50
SL3527	Insert Sleeve 3.5mm o/d 2.7mm i/d	£44.50
SL4532	Insert Sleeve 4.5mm o/d 3.2mm i/d	£44.50
SL5540	Insert Sleeve 5.5mm o/d 4.0mm i/d	£44.50
SL6545	Insert Sleeve 6.5mm o/d 4.5mm i/d	£44.50

Tissue Protection Sleeves

Rotating pins, drills and taps will "pick up" soft tissues, skin, muscle, nerve and blood vessels, causing serious damage. Use of tissue protection sleeves minimises such damage. The teeth at the top of the guide locate on the bone whilst the stainless tube provides a barrier between soft tissue and implant equipment.



TISSUE PROTECTION SLEEVES

TP2020	For Drill/ Taps to 2.0mm 90mm	£65.00
TP0024	For Drill/ Taps to 2.4mm 90mm	£65.00
TP0027	For Drill/ Taps to 2.7mm 90mm	£65.00
TP0035	For Drill/ Taps to 3.5mm 90mm	£65.00
TP0045	For Drill/ Taps to 4.5mm 90mm	£65.00

Drill Stops



Photo: Jean-Beniot Lefebvre

Drilling to a pre-measured depth can be a challenge even with a 'C' arm! A more reasonably priced option is to use a drill stop which is tightened onto the drill bit at the required depth. The Set includes 4 Stops to cover all the standard drill sizes.

2.0, 2.5, 2.7, 3.2, 3.5 & 4.5mm

The stop is tightened onto the drill bit using the hex driver provided.

DRILL STOPS

DRILLSTOP	Drill Stop Set in Stainless Case	£105.00
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Screwdrivers & Screwholding Sleeves

Screwdrivers with screw holding sleeves hold the screw until it has engaged in the threaded hole. The sleeve is slid back up the shaft to release the screw without disengaging it.

Hex Screwdriver Handle & Insert for 1.0mm Screws

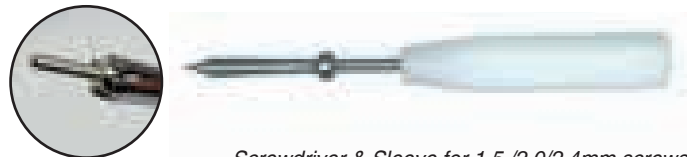


The 1.0mm Screwdriver consists of an Insert and Handle. The Insert is a dedicated crosshead screwdriver tip for use with our 1.0mm screws. The central 'pip' on the end engages with a small recess in the centre of our 1.0mm screwheads.

SCREWDRIVER FOR 1.0MM SCREWS

SDIN1.0	Screwdriver Insert for 1.0mm Screws	£65.00
SDMMH	Screwdriver Handle for 1.0mm Screws	£155.00

Hex Screwdriver for 1.5, 2.0 & 2.4 Screws



Screwdriver & Sleeve for 1.5./2.0/2.4mm screws.

HEX SCREWDRIVER & SCREW HOLDING SLEEVE 1.5/2.0/2.4 SCREWS

SSH2000	Screwholding Sleeve to fit SDHS20F	£47.50
SDHS20F	1.5mm Hex Screwdriver + Sleeve - with Teflon Handle for 1.5/2.0/2.4mm Screws 125mm	£87.50

Hex Screwdriver Inserts & Handle for 1.5/2.0/2.4mm Screws



NEW

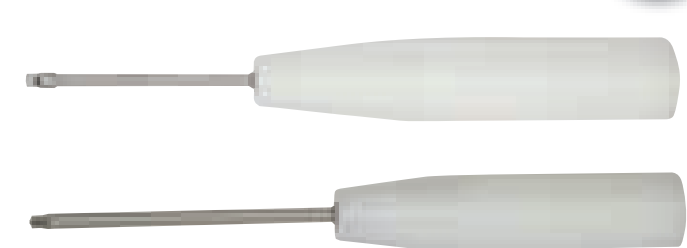
Hex Screwdriver Insert & Handle for 1.5/2.0/2.4 Screws

HEX SCREWDRIVER INSERTS & HANDLE FOR 1.5/ 2.0/2.4MM SCREWS

SDD1500	Hex Screwdriver Insert for 1.5/2.0/2.4mm Screws	£65.00
DC20	Hex Screwdriver Handle for 1.5/2.0/2.4mm Screws	£155.00

Cruciate Screwdrivers

Cruciate Head Screwdrivers for 1.5/ 2.0 & 2.4 Screws



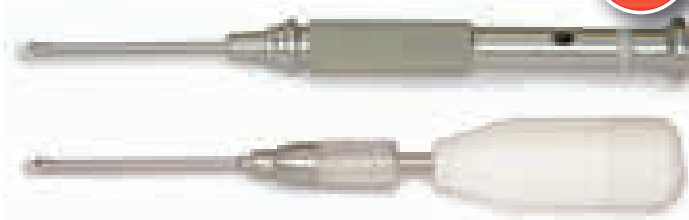
NEW

Cruciate Screwdrivers for 1.5/2.0 and 2.4 Screws

CRUCIATE SCREWDRIVER 1.5/2.0 AND 2.4 SCREWS

SDX1520	Cruciate Screwdriver for 1.5/2.0 Screws	£115.00
SDX24	Cruciate Screwdriver 2.4mm Screws	£115.00

Cruciate Screwdriver Inserts & Handle for 1.5/2.0 and 2.4 Screws



CRUCIATE SCREWDRIVER INSERTS & HANDLE FOR 1.5/2.0 AND 2.4 SCREWS		
SDXQRD1520	Cruciate Screwdriver Insert for 1.5/2.0 Screws	£95.00
DC20	Cruciate Screwdriver Handle for 1.5/2.0 Screws	£155.00
SDXQR24	Cruciate Screwdriver Insert for 2.4mm Screws	£95.00
QRCS01F	Cruciate Screwdriver Handle for 2.4mm Screws	£125.00

Hex Screwdriver for 2.7/3.5/4.0 Screws



HEX SCREWDRIVERS & SCREW HOLDING SLEEVES 2.7/3.5/4.0 SCREWS		
SSH2741	Screwholding Sleeve to fit SDH535F	£47.50
SDHS35F	2.5mm Hex Screwdriver + Sleeve with Teflon Handle for 2.7/3.5/4.0mm Screws, 200mm	£89.50

Hex Screwdriver Inserts & Handle for 2.7/3.5/4.0mm Screws

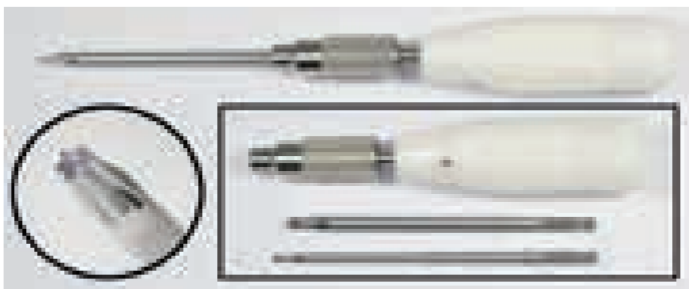


HEX SCREWDRIVER INSERTS & HANDLE FOR 2.7/3.5/4.0MM SCREWS		
SDH35S	Hex Screwdriver Insert for 2.7/3.5/4.0mm Screws	£62.50
QRCS01F	Hex Screwdriver Handle for 2.7/3.5/4.0mm Screws	£125.00

Hex Screwdriver for 4.5/ 5.5/6.5mm Screws

HEX SCREWDRIVERS & SCREW HOLDING SLEEVES 4.5/5.5/6.5 SCREWS		
SSH4500	Screwholding Sleeve to fit SDH3500	£47.50
SDH3500	3.5mm Hex Screwdriver for 4.5/5.5/6.5mm Screws, 250mm Long	£89.50

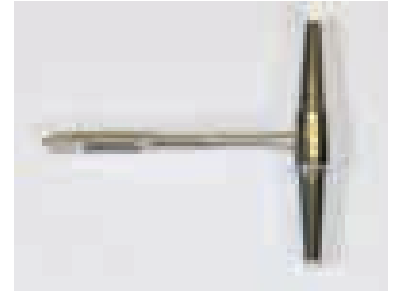
Star Drive Screwdriver Set



STAR DRIVE SCREWDRIVER INSERTS		
SDT1535	Star Drive Insert for 3.5 Locking Screws	£72.50
SDT82427	Star Drive Insert for 2.7 (2.4 head) and 2.4 Locking Screws	£72.50
SDT620	Star Drive Insert for 2.0 Locking Screws	£72.50
QRCS01F	Quick Release Handle	£125.00
SDTSET	Handle and Star Drive Insert Set (one of each)	£325.00

Countersinks

If the screw is destined to screw down onto the surface of the bone without a plate, it is helpful to contour the top of the screw hole to fit the screw head. This procedure is especially important when lag screwing relatively small fragments. Failure to countersink may lead to fracture of the bone fragment. Our premium countersinks provide best fit to screw head when using AO type screws.



COUNTERSINKS - DENTAL FIT		
COUDEN	Mini Countersink Dental Fit for 1.5/ 2.0mm Screws 55mm	£82.50
DC20	Handle for 1.5/2.0mm Dental Fit	£155.00

COUNTERSINKS - AO QUICK COUPLING		
COU2535	Small Countersink AO Quick Fit Coupling 70mm 2.7/3.5	£65.00
COU4565	Large Countersink AO Quick Fit Coupling 130mm 4.5	£65.00
QRCS01F	Quick Release Handle	£125.00

COUNTERSINKS - KNURLED HANDLE / T HANDLE		
COU1520	Mini Countersink with Handle for 1.5/ 2.0mm Screws	£95.00
COU2535T	Small Countersink 'T' Handle 2.7/ 3.5 Screws 130mm	£75.00
COU4565T	Large Countersink 'T' Handle 4.5 Screws 175mm	£75.00

Premium Countersinks



Premium Countersinks

The drawbacks of using standard countersinks is that cone shaped recesses are created that only allow point contact with the hemi-spherical underside of AO type screw. This may contribute to premature screw loosening and in some cases the wedge effect created may predispose to split propagation from the hole. Optimal screw stability and force transfer is only achieved if the shape of the countersink recess matches the size and shape of the screw-head. This is achieved with our range of premium countersinks. Available only with AO quick release coupling.

COUNTERSINKS - PREMIUM		
COUPREM20	Premium Countersink 2.0mm AO Quick Fit Coupling	£85.00
COUPREM2427	Premium Countersink 2.4/ 2.7mm AO Quick Fit Coupling	£85.00
COUPREM3540	Premium Countersink 3.5/ 4.0mm AO Quick Fit Coupling	£85.00
COUPREM4565	Premium Countersink 4.5/ 6.5mm AO Quick Fit Coupling	£85.00

Hex Drive Shaft

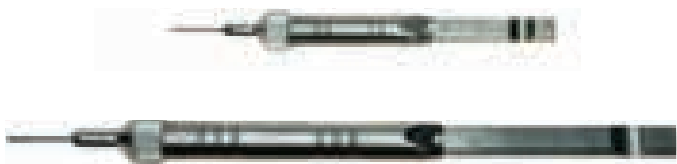
The battery drills we use as a base for our shrouded orthopaedic drills have adjustable torque settings. While it is advised that the final tightening of the screw is performed by hand, much time and effort can be saved by power driving. Risks are low, particularly in the proximal tibia. To power drive using our drill we have created two hex driver extensions to fit into a standard Jacobs chuck. Use 2.5 hex for 2.7, 3.5 and 4.0mm screws and the 3.5 hex for 4.5 and 5.5 screws.



HEX DRIVE SHAFTS FOR POWER DRIVERS

DS25HEX	2.5 Hex Drive Shaft for 2.7, 3.5 & 4.0 Screws	£49.50
DS35HEX	3.5 Hex Drive Shaft for 4.5 & 5.5 Screws	£49.50

Depth Gauge



Accurate measurement of hole depth is essential in order to select the appropriate screw size. A range of Gauges are available for various screw sizes. Hole depth is read from the instrument. Add extra to the measured length to ensure maximal screw thread/bone interface engagement. See chart for additional amount required. Chart supplied with depth gauge or available on request. Use in Self-tapping or Cortical Systems.

DEPTH GAUGE

DG1520	For 1.5mm & 2.0mm Screws 115mm	£115.00
DG2027	For 2.0mm & 2.7mm Screws 135mm	£115.00
DG242735	For 2.4mm, 2.7mm & 3.5mm Screws 180mm	£115.00
DG2735	For 2.7mm & 3.5mm Screws 175mm	£115.00
DG4565	For 4.5mm & 6.5mm Screws 290mm	£235.00

Load Neutral Drill Guides



To exert compression at the fracture site, the cortical screw must be positioned precisely within the slot in the compression plate. The Load/Neutral Drill Guide has two tips, one for compression (load) and one where no compression is exerted (neutral). There is one combination for each screw/plate size. Each guide is marked with the drill size to be used.

LOAD NEUTRAL DRILL GUIDES

LNDG15	For 1.5mm Compression Plates	£155.00
LNDG20	For 2.0mm Compression Plates	£155.00
LNDG24	For 2.4mm Compression Plates	£155.00
LNDG27	For 2.7mm Compression Plates	£155.00
LNDG35	For 3.5mm Compression Plates	£155.00
LNDG45	For 4.5mm Compression Plates	£155.00
LNDG55	For 5.5mm Compression Plates	£155.00

Screw Holding Forceps



A useful instrument for selecting screws with minimal handling. Can be used with any style of screw.

SCREW HOLDING FORCEPS

SF2055	Screw Holding Forceps 2.4/2.7/3.5/4.5 Screws	£24.50
SF1024	Screw Holding Forceps 1.0/1.5/2.0/2.4 Screws	£24.50

Plate Holding Clip

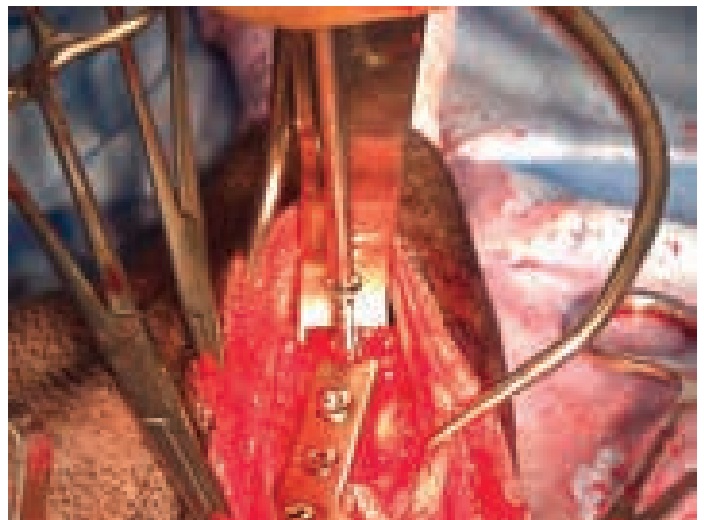
A useful little clip for holding plates in sequence. Labelled with size.



PLATE HOLDING CLIP

BPC2	Plate Holding Clip 2.0mm	£9.95
BPC27	Plate Holding Clip 2.7mm	£9.95
BPC35	Plate Holding Clip 3.5mm	£9.95

Whiting Bone Plate Retractor



Developed by Colin Whiting the Bone Plate Retractor is designed to expose the end hole(s) of the plate for screw placement. It is often the case that a plate is pushed under soft tissues to avoid unnecessarily large exposures only to find that it is very difficult to access the last screw hole. The bone plate lever slides along the plate until the tip drops over the end. The handle is then elevated and the tip of the lever hooks onto the end of the plate. As the retractor is lifted the end hole of the plate is exposed allowing free insertion of drills taps and screws.

WHITING BONE PLATE RETRACTOR

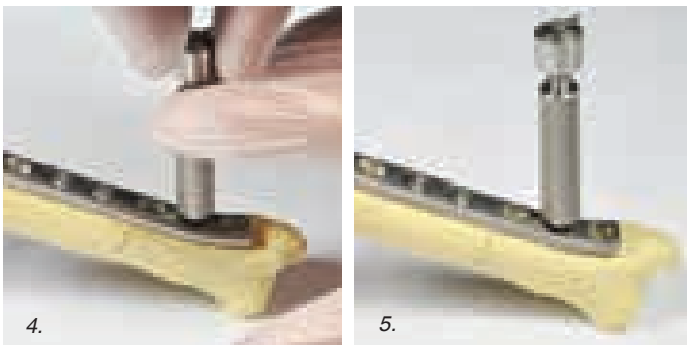
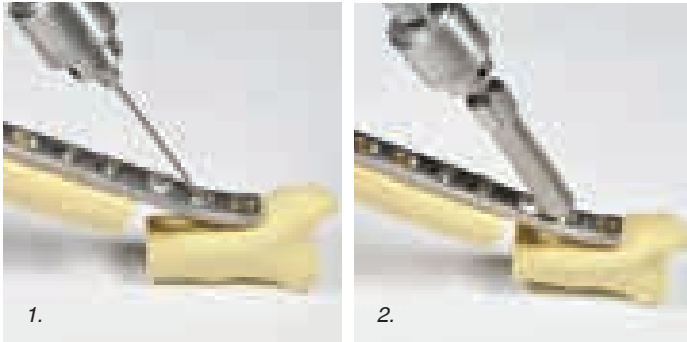
BPR3535	Whiting Bone Plate Retractor 3.5/3.5 Broad	£75.00
BPR2427	Whiting Bone Plate Retractor 2.4/2.7	£70.00
BPRSET	Whiting Bone Plate Retractor Set	£135.00

Copenhagen Plate Assistant

This device has developed in association with our Danish Distributor, hence the name.

The device has two functions:

1. Manipulation of bone fragments.
2. Temporary stabilisation of plate fragment constructs prior to screw placement.



A small diameter threaded wire, smaller than the anticipated pilot hole for the final screw, is placed through the plate hole into the bone fragment.

The closed Plate Assistant is slid down the wire and the wire is bent over the end of the Plate Assistant, the bend acting as a location point for distraction.

The two parts of the Plate Assistant are then unscrewed and as the two ends of the device separate the bone fragment is pulled up to the plate.

Further unscrewing will temporarily fix the plate to the bone allowing screw fixation elsewhere in the Plate.

Removal of the wire and Plate Assistant allows placement of a screw through the hole involved.

The small diameter of the wire does not compromise the pilot hole for the Screw.

COPENHAGEN PLATE ASSISTANT		
COPENSET	Copenhagen Plate Assistant Set of 2 plus Set of 10 x 1.6mm Part Threaded Wires	£195.00
COPEN16	Copenhagen Plate Assistant (Single)	£95.00
COPENPTWIRE	Part Threaded Wires Set of 10 x 1.6mm	£60.00

Bone Plate Contouring



Bone Plate Bending Levers



Bone plates appropriate for the repair of load bearing long bones are very stiff. Accurate contouring of plates is essential for precise fracture reduction, however, marking of plates during the bending process may lead to reduced fatigue strength. Contoured plates should be placed with adequate support to minimise cyclical loading. Bone plate benders used in pairs are the most economic method of plate contouring.

BONE PLATE BENDING LEVERS		
001280	1.0 Bending Levers (Pair) 130mm	£62.50
001286	AO Type 1.5/2.0 Bending Levers (Pair) 130mm	£57.50
001285	AO Type 2.4 Bending Levers (Pair) 140mm	£62.50
001287	AO Type 2.7/3.5 Bending Levers (Pair) 140mm	£67.50
001288	AO Type Broad 3.5/4.5 Bending Levers (Pair) 200mm	£77.50

Extra Long Bending Levers

Today's implant stainless steel is much stiffer than 20 years ago yet the design of standard plate contouring equipment remains unchanged. Bending and twisting 3.5mm and 4.5mm plates using standard benders is a challenge. Most TPLO plates require careful contouring and are much stiffer than the original cast Slocum plates.

Our longer benders (240mm) with 4mm and 6mm slots are designed with TPLO plates in mind to make bending and twisting much easier.



EXTRA LENGTH BONE PLATE BENDING LEVERS		
001288L	3.5/4.5 TPLO Bending Levers 240mm	£89.50

Delta TPLO Plate Benders with Curved Slots



Plate benders with slots tend to distort the Delta plate. The curved slots help grip and support the the plate during the bending process. In addition the plate is much less likely to end up on the floor.

DELTA TPLO PLATE BENDERS WITH CURVED SLOTS		
TPLODELBEND	Delta TPLO Plate Benders (Pair) 230mm	£135.00

Reconstruction Plate Pliers



Reconstruction Plate Pliers

RECONSTRUCTION PLATE PLIERS

001284A	Reconstruction Plate Pliers for 2.7 Plates 280mm	£185.00
001284	Reconstruction Plate Pliers for 3.5 Plates 290mm	£185.00

Plate Bending Pliers - Roller Type



001283 Roller Type Plate Bending Pliers



PLATE BENDING PLIERS - ROLLER TYPE

001283	Plate Bending Pliers Roller Type 15" 380mm Suitable for 3.5 and 4.5mm Plates	£215.00
001283SMALL	Plate Bending Pliers Roller Type Small 230mm	£215.00

Bone Plate Press



001282

Bone plates suitable for 3.5mm and 4.5mm screws are extremely difficult to contour in a controlled manner. Most human orthopaedic presses, if large enough to contour the plate, are too large to fit in the typical veterinary surgeon's autoclave.

The Small Bone Plate Press is designed for all small animal plates and will fit in your autoclave. Will contour 2.7, 3.5, 3.5 broad and 4.5 narrow plates.

The Large Bone Plate Press will contour all plates but is 410mm long so check your autoclave before purchase.



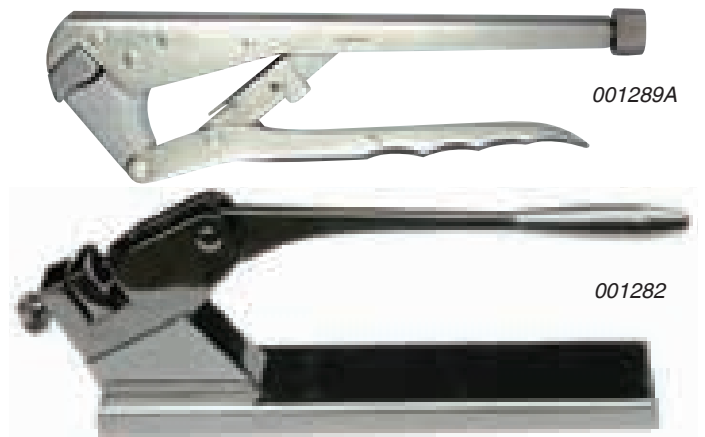
Tips on the use of the plate press

- Use only on a stable surface.
- The press works at maximum efficiency when the handle is approximately parallel with the base.
- Place the plate to be contoured in between the anvils.
- Adjust the gap between the anvils using screw A until the handle is parallel with the base.
- Pressure on the handle will bend the plate.
- Readjust the press using screw A to bring the handle parallel once again.
- Contouring the plate should be accomplished using several small adjustments rather than one big one.

BONE PLATE PRESS

001281	Bone Plate Press Small 285mm For plates up to and including 4.5mm narrow	£525.00
001282	Bone Plate Press Large 16" 410mm For all plates	£525.00

Plate Bending



001289A

001282

PLATE BENDING

001280	A0 type 1.0 Bending Levers (pair) 110mm	£62.50
001286	A0 type 1.5/2.0 Bending Levers (pair) 130mm	£57.50
001285	A0 type 2.4 Bending Levers (pair) 140mm	£62.50
001287	A0 type 2.7/3.5 Bending Levers (pair) 140mm	£67.50
001288	A0 type 3.5/4.5 Broad Bending Levers (pair) 200mm	£77.50
001288L	A0 type 3.5/4.5 Broad Bending levers Long version 240mm	£89.50
001283	Plate Bending Pliers Roller Type 15" 380mm	£215.00
001283SMALL	Plate Bening Pliers Roller Type Small 230mm	£215.00
001284A	Reconstruction Plate Pliers 2.7mm plates 280mm	£185.00
001284	Reconstruction Plate Pliers 3.5mm plates 280mm	£185.00
001281	Bone Plate Press Small 285mm	£525.00
001282	Bone Plate Press Large 16" 410mm	£525.00
001289A	2.0/2.7mm Bone Plate Contouring Pliers 195mm	£365.00
001289B	A0 style 2.7/3.5mm Plate Bending Pliers 220mm	£425.00
001289C	A0 style Heavy Duty Plate Bending Pliers 250mm	£595.00

AO Type Plate Bending Pliers



These pliers will contour 2.7mm and 3.5mm narrow plates. 3.5 DCP's will require multiple small bends. Also useful for bending guide pins in the Slocum TPLO technique. Available elsewhere for £1000 or more.

AO PLATE BENDING PLIERS		
001289A	AO Plate Bending Pliers 2.0/2.7mm	£365.00
001289B	AO Plate Bending Pliers 2.7/3.5mm	£425.00

Tips on the use of the plate pliers



- These notes apply to all bone plate pliers.
- The pliers work at maximum efficiency when the handles are approximately parallel with each other.
- Place the plate to be contoured in between the anvils.

- Adjust the gap between the anvils using screw B until the handles are parallel with each other.
- Squeezing the handles together will bend the plate.
- Readjust the pliers using screw B to bring the handles parallel once again.
- Contouring the plate should be accomplished using several small adjustments rather than one big one.

Heavy Duty Bone Plate Pliers to 4.5mm



The largest bone plate pliers in the range, these will contour all plates other than the 4.5 broad. The bending head has 3 interchangeable anvils and the 'hammer' side has 3 different shapes which rotate. This offers the surgeon 6 different contouring options to match different plates and different shapes.

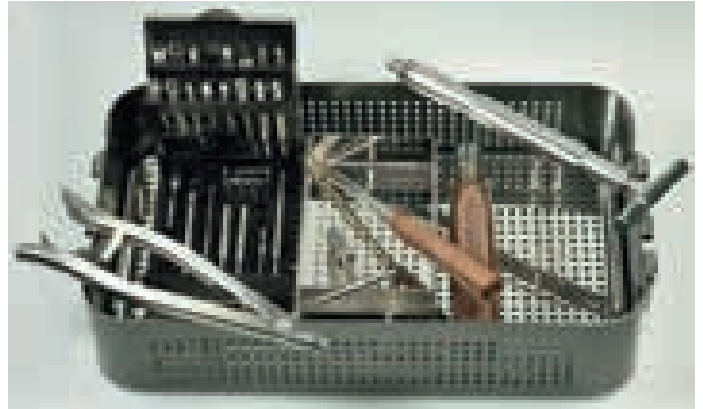
HEAVY DUTY PLATE BENDING PLIERS		
001289C	Heavy Duty Plate Bending Pliers	£595.00
001289SA	Small Anvil for 2.7 Plates (for existing users)	£55.00

Bending Templates

To avoid repeated entry into the operation site when contouring plates, an 'aluminium' bending template is contoured to the bone. The steel plate is then bent to match the template using irons or a bone plate press.

BENDING TEMPLATES		
BT200737	Bending Template 37mm for 2mm DCPs & Round Hole Plates	£8.75
BT240752	Bending Template 52mm for 2.4mm DCPs & Round Hole Plates	£8.75
BT270760	Bending Template 60mm for 2.7 DCPs & Round Hole Plates	£8.75
BT350786	Bending Template 86mm for 3.5 DCPs & Round Hole Plates	£9.75
BT450590	Bending Template 90mm for 4.5 DCPs Broad 3.5 DCPs & HD & Round Hole Plates	£9.75
BT4507120	Bending Template 120mm for 4.5 DCPs & Broad 3.5 DCPs & HD & Round Hole Plates	£9.75
BT4509150	Bending Template 150mm for 4.5 DCPs Broad 3.5 DCPs & HD & Round Hole Plates	£9.75

Screw Salvage Kit



Removal of embedded screws can be a challenge particularly when fatigue and fracture leaves a headless portion of screw in situ exactly where a replacement is necessary. Ideally the screw should be removed without creating so much damage that a replacement cannot be set. The VI Screw Salvage Set contains all the tools you might need for 3.5, 4.0, 4.5 and 6.5mm screws. 2.7mm can also be extracted but leaves a big hole.

A loan set is also available. The charge is for 7 days rental and includes a return collection by courier. All losses and breakages will be charged accordingly. Mainland UK only.

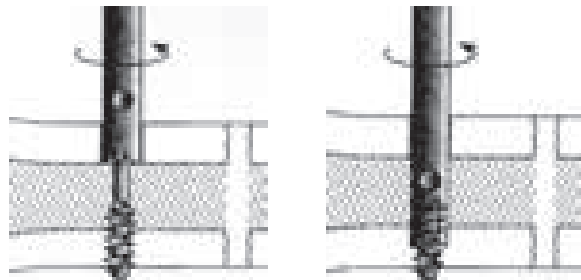
SCREW SALVAGE KIT		
SCSKIT	Full Screw Salvage Kit	£1,950.00
SCSKITLOAN	Full Screw Salvage Kit - Loan	£150.00

Screw Extraction Trepine

Once the head of a screw has become detached the shaft can be very difficult to extract, particularly when the screw has been in situ for some time. The Screw Extraction Trepine is designed to 'core out' the screw shaft either in its entirety or partially to allow the screw to be grasped by extraction forceps. The internal diameter is a little larger than the screw to be extracted. The external diameter is small enough in most cases to allow the replacement of the screw by a larger one.



The Trepine fits directly into a Jacobs Chuck.



SCREW EXTRACTION TREPHINES		
SCET20	Extraction Trepine for 2.0 Screws o/d 2.7mm	£52.50
SCET24	Extraction Trepine for 2.4 Screws o/d 3.5mm	£52.50
SCET27	Extraction Trepine for 2.7 Screws o/d 3.5mm	£52.50
SCET35	Extraction Trepine for 3.5 Screws o/d 4.5mm	£52.50
SCET45	Extraction Trepine for 4.5 Screws o/d 5.5mm	£52.50
SCETSET	Extraction Trepine Set (one of each in a free Steel Case)	£225.00

Drill Bits

WHICH DRILL DIAMETER		1.5	2.0	2.7	3.5	4.0	4.5	5.5
AO CORTICAL	- Pilot	1.1	1.5	2.0	2.5	2.5	3.2	4.0
	- Clear	1.5	2.0	2.7	3.5	4.0	4.5	5.5
SHERMAN TYPE	- Pilot	-	1.6	2.4	2.7	-	-	-
	- Clear	-	2.0	2.7	3.5	-	-	-

Drill Bits - Soft

Made from DIN 58812 Stainless Steel (the same as implants). The Drill Bits are compatible with all current plating systems. Replace Drill every ten holes. Blunt Drills cause heat necrosis. Cheap but do not last long.

DRILL BITS - STAINLESS STEEL 316 IMPLANT QUALITY - SHORT LIFE

DRILL BIT	(diameter in.)	(diameter mm)	Length	Price
090101	1/16	1.5	127mm	£11.00
090111	1/16	1.6	127mm	£11.00
090102	5/64	2.0	127mm	£11.00
090103	3/32	2.4	127mm	£11.50
090112		2.5	127mm	£11.50
090104	7/64	2.7	127mm	£11.50
090105	1/8	3.2	127mm	£12.00
090106	9/64	3.5	127mm	£12.00
090113		3.6	127mm	£12.00
090107	5/32	4.0	127mm	£12.00
090108	11/64	4.5	127mm	£14.00
090118	3/16	4.8	127mm	£14.00
090109	1/4	6.35	127mm	£14.00
090115S	Drill Box S/Steel Empty (for I/Q Drills)			£115.00
090116	Drill Box S/S Complete with I/Q Drills (9)			£175.00

Drill Bits - Hard

Expensive but last a long time. All Quick Fit Drills, and those round shank Drills with a diameter of 3.2mm or more, come in short and long lengths. These Drills are much stiffer than implant quality ones. Particularly recommended for Drills less than 3.2mm diameter. Drill fragments do not cause a problem. G suffix indicates Golden Titanium Nitride Coating.

DRILL BITS - STAINLESS STEEL 420 HARD - NOT IMPLANT QUALITY - LONG LIFE - ROUND SHANK

DRILL BIT	(dia in)	(dia mm)	Length	Price
H090100	0.045	1.1	60	£19.50
H090101	1.5		60	£19.50
H090208	1.8		80	£20.50
H090102	5/64	2.0	100	£21.00
H090209	2.4		115	£23.50
H090112	2.5		115	£21.50
H090112G	2.5		115	£29.50
H090104	7/64	2.7	130	£21.50
H090105S	1/8	3.2	130	£22.50
H090105L	1/8	3.2	180	£23.50
H090106S	9/64	3.5	130	£23.50
H090106L	9/64	3.5	180	£26.00
H090107S	5/32	4.0	130	£26.00
H090107/L	5/32	4.0	180	£26.00
H090108S	11/64	4.5	130	£26.00
H090108L	11/64	4.5	180	£30.00
H090109S	5.5		130	£26.00
H090109/L	5.5		180	£30.00
H090202	1.9mm Predrill for 2.0mm Shank Positive Pin			£21.50
H090203	2.3mm Predrill for 2.4mm Shank Positive Pin			£21.50
H090205	3.0mm Predrill for 3.2mm Shank Positive Pin			£24.00
H090207	3.8mm Predrill for 4.0mm Shank Positive Pin			£26.00
090117	Drill Box S/S complete with Hard Drills (10)			£275.00

Drill Bits Aesculap AO Quick Fit




Following surgeon feedback we have added a limited range of Aesculap Drill Bits to our range.

DRILL BITS - AESCULAP AO QUICK FIT

	(diameter mm)	(length in mm)	Price
GC310R	1.1	35mm	£27.50
GC312R	1.5	60mm	£27.50
GC314R	2.0	75mm	£25.50
GC315R	2.5	85mm	£26.50
GC316R	2.7	75mm	£27.50
GC320R	3.5	85mm	£27.50

Drill Bits - AO Quick Fit

Quick Fit Drills have a Quick Release Coupling which enables them to be quickly switched using a Quick Release Drill Attachment as supplied with the MiniDriver, MaxiDriver, MPX, MPZ Systems and most other powered systems. G suffix indicates Golden Titanium Nitride Coating.

DRILL BITS - AO QUICK FIT

DRILL BIT	(dia in.)	(dia mm)	Length	Price
S090100S	0.045	1.1	60	£28.00
S090101S		1.5	60	£28.50
S090101L		1.5	95	£30.50
S090208		1.8	80	£29.50
S090102S	5/64	2.0	100	£26.75
S090102L	5/64	2.0	125	£28.75
S090209		2.4	115	£28.75
S090112S		2.5	110	£27.25
S090112SG		2.5	110	£35.00
S090112L		2.5	180	£29.00
S090104S	7/64	2.7	100	£28.50
S090104L	7/64	2.7	125	£30.50
S090105S	1/8	3.2	145	£29.50
S090105L	1/8	3.2	195	£31.50
S090106S	9/64	3.5	110	£30.00
S090106L	9/64	3.5	195	£32.00
S090107	5/32	4.0	145	£29.00
S090108S	11/64	4.5	145	£30.50
S090108L	11/64	4.5	195	£32.50
S090109		5.5	145	£36.00
S090SET	Drill Box Complete with AO Drills (10)			£345.00

Anti-skid Drills



H090104AS

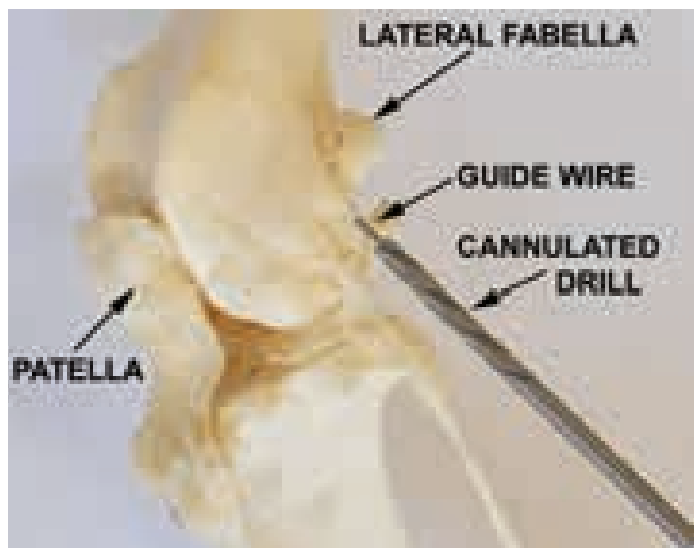
Unless a Bone Drill is driven at 90 degrees to the bone surface there is a tendency for the Drill to 'skid' over the bone surface placing the hole inappropriately. The Anti-skid Drill has a special tip to bite into the bone at virtually any useful angle, accurately predetermining the hole position.

Made from hard multi use 420 stainless steel.

Available in all useful sizes. 1.5, 2.0, 2.5, 2.7, 3.2, 3.5, & 4.5mm

ANTI-SKID DRILLS			
H090101AS	Anti-Skid Drill 1.5mm	60mm long	£25.50
H090102AS	Anti-Skid Drill 2.0mm	100mm long	£25.50
H090112AS	Anti-Skid Drill 2.5mm	115mm long	£25.50
H090104AS	Anti-Skid Drill 2.7mm	130mm long	£26.50
H090105SAS	Anti-Skid Drill 3.2mm	130mm long	£26.50
H090106SAS	Anti-Skid Drill 3.5mm	130mm long	£26.50
H090106SAS/L	Anti-Skid Drill 3.5mm	180mm long	£28.00
H090108SAS	Anti-Skid Drill 4.5mm	130mm long	£28.00
O90117AS	Drill Box with Anti-skid Drills (7)		£255.00

Cannulated Drills

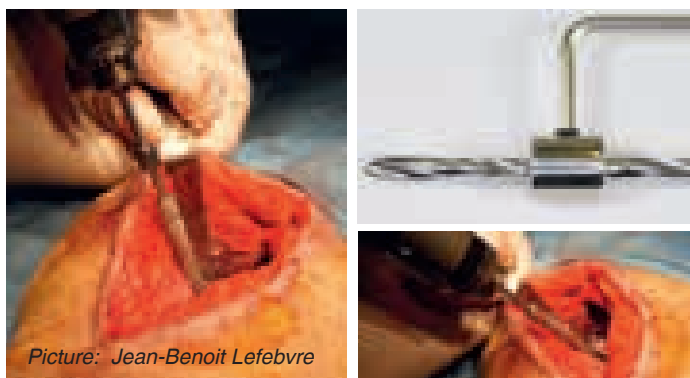


For maximum control over the alignment of bone tunnels use of Cannulated Drills is preferred. A Fine Guide Wire is drilled through where the bone tunnel or screw hole is required. Only when the surgeon is satisfied that the guide wire is correctly positioned is the Drill driven along the Wire to create the hole. The Guide Wire can be repositioned if necessary without causing undue trauma to the bone.

Available for Jacobs Chuck or AO Quickfit.

CANNULATED DRILLS			
H090112CAN	2.5mm 130mm long 1.1mm Cannulation		£75.00
H090104CAN	2.7mm 130mm long 1.1mm Cannulation		£75.00
H090106CAN	3.5mm 130mm long 1.1mm Cannulation		£75.00
S090112CAN	2.5mm 130mm long 1.1mm Cannulation AO Quickfit		£85.00
S090104CAN	2.7mm 130mm long 1.1mm Cannulation AO Quickfit		£85.00
S090106CAN	3.5mm 130mm long 1.1mm Cannulation AO Quickfit		£85.00
O90065	Guide Wire 1.1mm x 178mm (pack of 10)		£28.50

Drill Stops



Picture: Jean-Benoit Lefebvre

Drilling to a pre-measured depth can be a challenge even with a 'C' arm! A more reasonably priced option is to use a Drill Stop which is tightened onto the Drill Bit at the required depth. The Set includes 4 Stops to cover all the standard Drill Sizes.

2.0, 2.5, 2.7, 3.2, 3.5 & 4.5mm

The Stop is tightened onto the Drill Bit using the Hex Driver provided.

DRILL STOP SET		
DRILLSTOP	Drill Stop Set in Stainless Case	£105.00

Mini Drill Bits - Dental Fit

In stainless steel - hard.

DRILL BITS - DENTAL FIT			
D090100	0.052 (dia in.)	1.1 (dia mm)	£67.50
D090101		1.5	£70.00
D090102		2.0	£72.50

Drill Bits 0.7mm and 1.0mm



Use a 0.7mm Drill Bit for a Pilot Hole and a 1.0mm Drill Bit for Lag Screwing. At this size, these Drills are very delicate and most power tools are too heavy to provide adequate control to prevent breakages. Our Step Drills have the same shaft as our Cruciate Screwdriver Insert for use in our lightweight Modular Screwdriver.

DRILL BITS 0.7MM AND 1.0MM		
10MDB07	0.7mm Drill Bit	£55.00
10MDB10	1.0mm Drill Bit	£55.00

Drill Case

Folding Box to fit all the standard sizes of Drill. Ideal for autoclaves. Case has holes for 1.1, 1.5, 2.0, 2.5, 2.7, 3.2, 3.5, 4.0, 4.5, and 5.5mm Drills.



DRILL CASE		
O90115S	Drill Box S/Steel Empty (for I/Q Drills)	£115.00
O90116	Drill Box S/S Complete with I/Q Drills (9)	£175.00
O90115H	Drill Box for Hard Drills Empty	£115.00
O90117	Drill Box Complete with Hard Drills (10)	£275.00
O90114AS	Drill Box for Anti-Skid Drills Empty	£115.00
O90117AS	Drill Box Complete with Anti-Skid Drills (7)	£255.00
S090115	Drill Box for AO Drills Empty	£115.00
S090SET	Drill Box Complete with AO Drills (10)	£345.00

Locking Screws

The angular security of locking plate systems depends on a rigid interface between screw and plate. This is achieved by the use of interlocking threads.

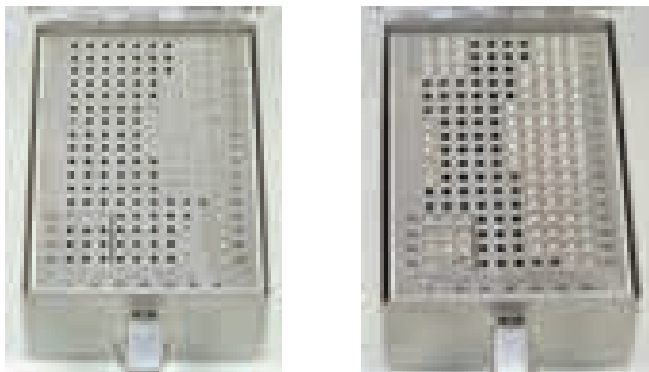
Threaded systems are the most common. The modulus of bone and stainless steel differs greatly and the ideal screw thread for one will not suit the other. Stainless steel demands fine threads whereas bone needs a relatively coarse thread. If we use a fine thread in the plate and a coarse thread in the bone, when the head of screw engages the plate, the screw moving faster through the bone than the plate would have the effect of pulling the plate towards the bone. This is exactly what we do not want. Some systems compromise by using the same thread in both screw head and bone plate.

At Veterinary Instrumentation and in the industry Standard Locking Screw the problem is solved by some ingenious engineering. The threads on the head of our screws are fine as required but have a twin start. The threads taper down the head as a double helix. The pitch (the distance between the tips of the threads) of each individual fine thread is the same as the threads on the bone screw but because of the double helix the number of threads per millimeter of locking thread is double that of the bone screw giving the fine threads required for metal on metal. The screw moves through the bone at the same rate as it moves through the plate maintaining the relative positions of both bone fragment and plate.

There is an additional benefit of the double helix. As the screw head approaches the plate a single start thread may have to wait 360 degree rotation before the threads start to engage. In the 3.5 screw this might mean that the plate is pushed around one millimeter before the head of the screw engages. With a twin start thread the screw head will engage within 180 degrees of contact.

Locking Screw Sets

Available with either Hex (3.5mm only) or Star Drive Head. Sets discounted by over 5% from component price.



3.5 Set includes 3 x 12-20mm, 4 x 22-26mm, 5x 28-40mm, 4x 42-50mm, 3x 52-58mm Locking Screws and 5 Locking Plugs.

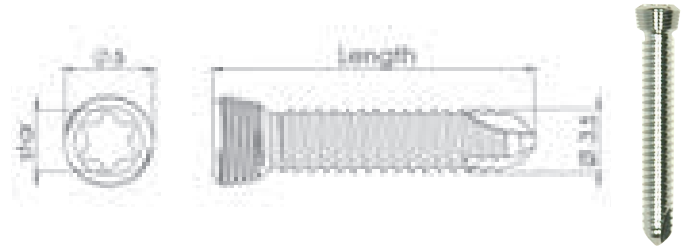
2.7 Set includes 3 x 6-8mm, 4 x 10-16mm, 5x 18-28mm, 4x 30-32mm, 3x 34-40mm Locking Screws and 5 Locking Plugs.

2.4 Set includes 3 x 6-8mm, 4 x 10-16mm, 5x 18-28mm, 4x 30-32mm, 3x 34-40mm Locking Screws and 5 Locking Plugs.

LOCKING SCREW SETS		
LS35KIT	3.5 Hex Drive Locking Screw Set	£1,495.00
LS35STARKIT	3.5 Star Drive Locking Screw Set	£1,495.00
LS27STARKIT	2.7 Star Drive Locking Screw Set	£995.00
LS24STARKIT	2.4 Star Drive Locking Screw Set	£995.00
LS20STARKIT	2.0 Star Drive Locking Screw Set	£995.00

Locking Screws - Star Drive

Locking Screw Star Drive 3.5mm



VI screws are an exact fit for standard locking plates but utilise the Star Drive rather than Hex drive.

LOCKING SCREW STAR DRIVE 3.5MM USE 2.7MM PILOT PLUS DRILL SLEEVE		
LS35STAR10	Locking 3.5 Screw Star Drive 10mm	£12.50
LS35STAR12	Locking 3.5 Screw Star Drive 12mm	£12.50
LS35STAR14	Locking 3.5 Screw Star Drive 14mm	£13.25
LS35STAR16	Locking 3.5 Screw Star Drive 16mm	£13.25
LS35STAR18	Locking 3.5 Screw Star Drive 18mm	£13.75
LS35STAR20	Locking 3.5 Screw Star Drive 20mm	£13.75
LS35STAR22	Locking 3.5 Screw Star Drive 22mm	£14.50
LS35STAR24	Locking 3.5 Screw Star Drive 24mm	£14.75
LS35STAR26	Locking 3.5 Screw Star Drive 26mm	£15.00
LS35STAR28	Locking 3.5 Screw Star Drive 28mm	£15.25
LS35STAR30	Locking 3.5 Screw Star Drive 30mm	£15.75
LS35STAR32	Locking 3.5 Screw Star Drive 32mm	£16.00
LS35STAR34	Locking 3.5 Screw Star Drive 34mm	£16.25
LS35STAR36	Locking 3.5 Screw Star Drive 36mm	£16.50
LS35STAR38	Locking 3.5 Screw Star Drive 38mm	£16.75
LS35STAR40	Locking 3.5 Screw Star Drive 40mm	£17.00
LS35STAR42	Locking 3.5 Screw Star Drive 42mm	£17.25
LS35STAR44	Locking 3.5 Screw Star Drive 44mm	£17.50
LS35STAR45	Locking 3.5 Screw Star Drive 45mm	£17.50
LS35STAR46	Locking 3.5 Screw Star Drive 46mm	£17.75
LS35STAR48	Locking 3.5 Screw Star Drive 48mm	£18.00
LS35STAR50	Locking 3.5 Screw Star Drive 50mm	£18.50
LS35STAR52	Locking 3.5 Screw Star Drive 52mm	£19.00
LS35STAR54	Locking 3.5 Screw Star Drive 54mm	£19.50
LS35STAR56	Locking 3.5 Screw Star Drive 56mm	£20.00
LS35STAR58	Locking 3.5 Screw Star Drive 58mm	£21.00
LS35STAR60	Locking 3.5 Screw Star Drive 60mm	£22.00
LSDG35	Locking Screw Drill Guide for 3.5	£52.50
H090104	2.7mm Pilot Drill	£21.50
SHLS35	3.5 Locking Screwbox	£140.00

Locking Plug Star Drive



Use to protect locking holes during contouring.

LOCKING PLUG STAR DRIVE		
LSP35STAR	Locking Plug for LS35STAR** screws	£8.00
LSP24STAR	Locking Plug for LS2724STAR** and LS2424STAR**	£8.00
LSP20STAR	Locking Plug for LS20STAR**	£8.00

Locking Screw Star Drive 2.7mm



This Screw fits the 2.7mm Locking TPLO Plate. It has the Standard Locking Screw 2.7 cortical bone thread but the head is based on the 2.4mm Locking Screw. This Screw will not fit the 3.5mm Locking TPLO Plate.

Use LS2724 2.7mm Locking Drill Guide

Use 2.0mm Pilot Drill.

LOCKING SCREW STAR DRIVE 2.7MM WITH SMALL (2.4MM) HEAD		
LS2724STAR06	Locking 2.7mm Screw (2.4 Head) Star Drive 6mm	£12.00
LS2724STAR08	Locking 2.7mm Screw (2.4 Head) Star Drive 8mm	£12.00
LS2724STAR10	Locking 2.7mm Screw (2.4 Head) Star Drive 10mm	£12.50
LS2724STAR12	Locking 2.7mm Screw (2.4 Head) Star Drive 12mm	£13.00
LS2724STAR14	Locking 2.7mm Screw (2.4 Head) Star Drive 14mm	£13.25
LS2724STAR16	Locking 2.7mm Screw (2.4 Head) Star Drive 16mm	£13.25
LS2724STAR18	Locking 2.7mm Screw (2.4 Head) Star Drive 18mm	£13.75
LS2724STAR20	Locking 2.7mm Screw (2.4 Head) Star Drive 20mm	£13.75
LS2724STAR22	Locking 2.7mm Screw (2.4 Head) Star Drive 22mm	£14.50
LS2724STAR24	Locking 2.7mm Screw (2.4 Head) Star Drive 24mm	£14.75
LS2724STAR26	Locking 2.7mm Screw (2.4 Head) Star Drive 26mm	£15.00
LS2724STAR28	Locking 2.7mm Screw (2.4 Head) Star Drive 28mm	£15.25
LS2724STAR30	Locking 2.7mm Screw (2.4 Head) Star Drive 30mm	£15.75
LS2724STAR32	Locking 2.7mm Screw (2.4 Head) Star Drive 32mm	£16.00
LS2724STAR34	Locking 2.7mm Screw (2.4 Head) Star Drive 34mm	£16.25
LS2724STAR36	Locking 2.7mm Screw (2.4 Head) Star Drive 36mm	£16.50
LS2724STAR38	Locking 2.7mm Screw (2.4 Head) Star Drive 38mm	£16.75
LS2724STAR40	Locking 2.7mm Screw (2.4 Head) Star Drive 40mm	£17.00
LSDG2724	Locking Screw Drill Guide for small 2.7	£52.50
H090102	2.0mm Pilot Drill	£21.00
SHLS27	2.7 Locking Screwbox	£140.00

Locking Screw Star Drive 2.4mm



The 2.4 Locking Screw has the same head as the 2.7mm Locking Screw (LS2724** series) and may therefore be used in both 2.4 Locking Plates and 2.7 Locking Plates where desirable. The Pilot Drill is 1.8mm and as with other Locking Screw sizes requires a dedicated drill sleeve.

LOCKING SCREW STAR DRIVE 2.4MM		
LS2424STAR06	Locking 2.4 Screw Star Drive 6mm	£12.00
LS2424STAR08	Locking 2.4 Screw Star Drive 8mm	£12.00
LS2424STAR10	Locking 2.4 Screw Star Drive 10mm	£12.50
LS2424STAR12	Locking 2.4 Screw Star Drive 12mm	£13.00
LS2424STAR14	Locking 2.4 Screw Star Drive 14mm	£13.25
LS2424STAR16	Locking 2.4 Screw Star Drive 16mm	£13.25
LS2424STAR18	Locking 2.4 Screw Star Drive 18mm	£13.75
LS2424STAR20	Locking 2.4 Screw Star Drive 20mm	£13.75
LS2424STAR22	Locking 2.4 Screw Star Drive 22mm	£14.50
LS2424STAR24	Locking 2.4 Screw Star Drive 24mm	£14.75
LS2424STAR26	Locking 2.4 Screw Star Drive 26mm	£14.75
LS2424STAR28	Locking 2.4 Screw Star Drive 28mm	£15.25
LS2424STAR30	Locking 2.4 Screw Star Drive 30mm	£15.75
LS2424STAR32	Locking 2.4 Screw Star Drive 32mm	£16.00
LS2424STAR34	Locking 2.4 Screw Star Drive 34mm	£16.25
LS2424STAR36	Locking 2.4 Screw Star Drive 36mm	£16.50
LS2424STAR38	Locking 2.4 Screw Star Drive 38mm	£16.75
LS2424STAR40	Locking 2.4 Screw Star Drive 40mm	£17.00
LSDG2424	Locking Screw Drill Guide for Small 2.4	£52.50
H090208	1.8mm Pilot Drill	£20.50
SHLS24	2.4 Locking Screwbox	£140.00

VI Locking TPO/ DPO Plates



Over the past three years we have been developing a locking version of TPO/ DPO plates. The Plate has a slightly larger 'footprint' than the original Slocum plate. The Locking Screws placed at diverging angles give better security than regular cortical screws. One hole next to the osteotomy site on the sacral side is a regular DCP hole so that a regular screw can pull the plate down to the sacral section of the ilium and then create compression at the osteotomy. Available in both 3.5 and 2.7mm formats. Will also accept regular Cortical Screws.

For the complete range and further information see chapter 1.

Locking Screw Taps



Since the introduction of Locking Screws into veterinary orthopaedics we have had the feedback that the self tapping feature works well in relatively soft bone (e.g. proximal tibia for TPLO) but it is less effective in dense cortical bone where getting the screw started can be a challenge. Starting the screw at any angle other than 90 degrees to the plate will have serious consequences when the locking threads meet the plate. In addition if the screw does not tap the trans cortex efficiently a disc of bone may be punched from the bone surface as the screw exits.

LOCKING SCREW TAP		
TLS35	Tap for 3.5 Locking Screws	£85.00
TLS27	Tap for 2.7 Locking Screws	£85.00
TLS24	Tap for 2.4 Locking Screws	£85.00
TLS20	Tap for 2.0 Locking Screws	£85.00
QRCS01F	Quick Release Tap Handle	£125.00
TLSSET	Handle and Locking Tap Set (one of each Tap)	£425.00

Locking Screw Star Drive 2.0mm



The 2.0 Locking Screw has the standard twin start thread and fits all Plates with the Standard 2.0mm Locking Hole including 2.0mm Locking TPLO Plates. The drive is the T6 Star Drive and the Pilot Drill required is 1.5mm.

LOCKING SCREW STAR DRIVE 2.0MM		
LS20STAR06	Locking 2.0 Screw Star Drive 6mm	£12.00
LS20STAR07	Locking 2.0 Screw Star Drive 7mm	£12.00
LS20STAR08	Locking 2.0 Screw Star Drive 8mm	£12.00
LS20STAR10	Locking 2.0 Screw Star Drive 10mm	£12.50
LS20STAR12	Locking 2.0 Screw Star Drive 12mm	£13.00
LS20STAR14	Locking 2.0 Screw Star Drive 14mm	£13.25
LS20STAR16	Locking 2.0 Screw Star Drive 16mm	£13.25
LS20STAR18	Locking 2.0 Screw Star Drive 18mm	£13.75
LS20STAR20	Locking 2.0 Screw Star Drive 20mm	£13.75
LS20STAR22	Locking 2.0 Screw Star Drive 22mm	£14.50
LS20STAR24	Locking 2.0 Screw Star Drive 24mm	£14.75
LS20STAR26	Locking 2.0 Screw Star Drive 26mm	£14.75
LS20STAR28	Locking 2.0 Screw Star Drive 28mm	£15.25
LS20STAR30	Locking 2.0 Screw Star Drive 30mm	£15.25
LSDG20	Locking Screw Drill Guide for 2.0	£52.50
H090101	1.5 Locking Screw Pilot Drill	£19.50
SHLS20	2.0 Locking Screwbox	£140.00

Star Drive Screwdriver Set



All VILock Screws are available with the international 'Torx' Style Star Drive. The interface between the screw head and screwdriver is significantly stronger and the stripping of screw heads consequently much rarer. The tip of the screwdriver is tapered and 'picks up' the screws without the requirement for a screw holding sleeve.

Many surgeons do not possess the relevant Star Drive Screwdrivers so we are pleased to offer a modular handle plus inserts for the standard 3.5mm, 2.7/2.4mm and 2.0mm Screws.

The handle and inserts are available separately but are cheaper as the set. The handle is made from white autoclavable Teflon which does not 'shed' like the traditional fibre type. The cap revolves in the palm of the hand for extra comfort.

STAR DRIVE SCREWDRIVER INSERT		
SDT1535	Star Drive Insert for 3.5 Locking Screws	£72.50
SDT82427	Star Drive Insert for 2.7 (2.4 head) and 2.4 Locking Screws	£72.50
SDT620	Star Drive Insert for 2.0 Locking Screws	£72.50
QRCS01F	Quick Release Handle	£125.00
SDTSET	Handle and Star Drive Insert Set (one of each)	£325.00

Locking Screws - Hex Drive

Locking Screw Hex Drive 3.5mm



VI Screws are an exact fit for Standard Locking Plates but utilise the conventional Hex Drive rather than a Star Drive.

LOCKING SCREW 3.5MM USE 2.7MM PILOT PLUS DRILL SLEEVE		
LS3510	Locking 3.5 Screw Hex Drive 10mm	£12.50
LS3512	Locking 3.5 Screw Hex Drive 12mm	£12.50
LS3514	Locking 3.5 Screw Hex Drive 14mm	£13.25
LS3516	Locking 3.5 Screw Hex Drive 16mm	£13.25
LS3518	Locking 3.5 Screw Hex Drive 18mm	£13.75
LS3520	Locking 3.5 Screw Hex Drive 20mm	£13.75
LS3522	Locking 3.5 Screw Hex Drive 22mm	£14.50
LS3524	Locking 3.5 Screw Hex Drive 24mm	£14.75
LS3526	Locking 3.5 Screw Hex Drive 26mm	£15.00
LS3528	Locking 3.5 Screw Hex Drive 28mm	£15.25
LS3530	Locking 3.5 Screw Hex Drive 30mm	£15.75
LS3532	Locking 3.5 Screw Hex Drive 32mm	£16.00
LS3534	Locking 3.5 Screw Hex Drive 34mm	£16.25
LS3536	Locking 3.5 Screw Hex Drive 36mm	£16.50
LS3538	Locking 3.5 Screw Hex Drive 38mm	£16.75
LS3540	Locking 3.5 Screw Hex Drive 40mm	£17.00
LS3542	Locking 3.5 Screw Hex Drive 42mm	£17.25
LS3544	Locking 3.5 Screw Hex Drive 44mm	£17.50
LS3545	Locking 3.5 Screw Hex Drive 45mm	£17.50
LS3546	Locking 3.5 Screw Hex Drive 46mm	£17.75
LS3548	Locking 3.5 Screw Hex Drive 48mm	£18.00
LS3550	Locking 3.5 Screw Hex Drive 50mm	£18.50
LS3552	Locking 3.5 Screw Hex Drive 52mm	£19.00
LS3554	Locking 3.5 Screw Hex Drive 54mm	£19.50
LS3555	Locking 3.5 Screw Hex Drive 55mm	£19.75
LS3556	Locking 3.5 Screw Hex Drive 56mm	£20.00
LS3558	Locking 3.5 Screw Hex Drive 58mm	£21.00
LS3560	Locking 3.5 Screw Hex Drive 60mm	£22.00
LSDG35	3.5 Locking Screw Drill Guide	£52.50
H090104	2.7mm Pilot Drill	£21.50
SHLS35	3.5 Locking Screwbox	£140.00

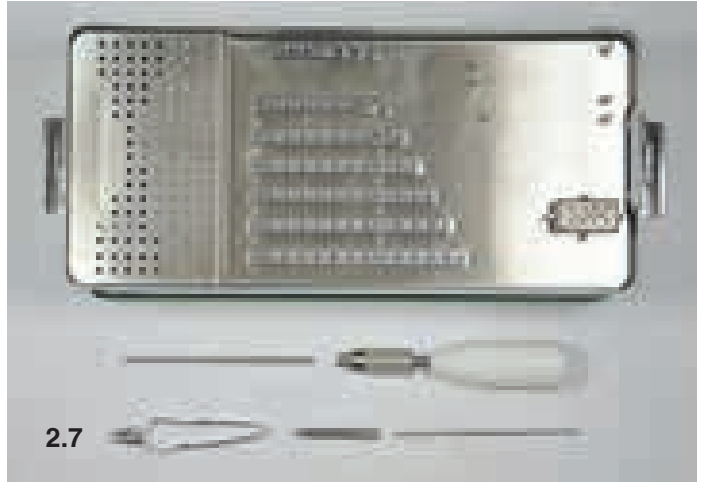
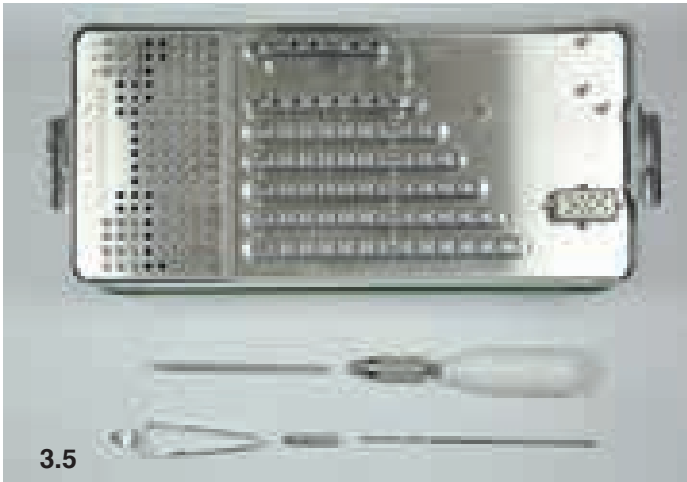
Locking Plug



Use to protect locking holes during contouring.

LOCKING PLUG HEX DRIVE 2.7/3.5MM		
LSP35	Locking Plug for LS35** Screws	£8.00

Locking Plate and Screw Set in Premium Box



The 3.5 Set contains the following:

- 1 of each Plate from 4 to 14 Hole
- 3 of each Screw from 12mm to 20mm
- 4 of each Screw from 22mm to 26mm
- 5 of each Screw from 28mm to 38mm
- 4 of each Screw from 40mm to 48mm
- 3 of each Screw from 50mm to 58mm
- 5 Locking Plugs plus Box
- Drill Guide
- 2.7mm Drill - Hard
- 1x Star Drive Screwdriver for 3.5 locking screws
- 1x Screw Holding Forceps
- All held in a Premium Box with Insert

The 2.7 Set contains the following:

- 1 of each Plate from 4 to 14 Hole
- 3 of each Screw from 6mm to 10mm
- 4 of each Screw from 12mm to 14mm
- 5 of each Screw from 16mm to 22mm
- 4 of each Screw from 24mm to 32mm
- 3 of each Screw from 34mm to 40mm
- 5 Locking Plugs plus Box
- Drill Guide
- 2mm Drill – Hard
- 1x Star Drive Screwdriver for 2.7 Locking Screws
- 1x Screw Holding Forceps
- All held in a Premium Box with Insert

The Locking Plate and Screw Set contains a wide selection of Locking Plates and Screws as well all the essential instruments required.

Available with Hex Head Screws in 3.5mm (only) or with Star Drive Head Screws in 3.5mm, 2.7mm and 2.4mm.

The price is discounted by over 5% compared to the component parts.

Loan Locking Plating Kits

We now offer loan 3.5mm, 2.7mm, 2.4mm & 2.0mm Locking Screw (Star Drive) Plating Kits.

The charge is for rental of the Kit including delivery and return collection by courier. The Kit will be supplied non-sterile with a full set of implants. (UK only)

Implants used will be charged for separately upon return of the Set.

Please call a member of our Vet Tech Team for further details and availability.

LOCKING SCREW SETS		
LS35KITALL	3.5 Locking Screw (Hex Head) and Plate Kit in Premium Box	£2,150.00
LS35STARKITALL	3.5 Locking Screw (Star Head) and Plate Kit in Premium Box	£2,150.00
LS27STARKITALL	2.7 Locking Screw (Star Head) and Plate Kit in Premium Box	£1,725.00
LS24STARKITALL	2.4 Locking Screw (Star Head) and Plate Kit in Premium Box	£1,725.00
LS20STARKITALL	2.0 Locking Screw (Star Head) and Plate Kit in Premium Box	NEW £1,375.00
LS35BOX	3.5 Locking Screw Premium Box with Insert only	£275.00
LS27BOX	2.7 Locking Screw Premium Box with Insert only	£275.00
LS24BOX	2.4 Locking Screw Premium Box with Insert only	£275.00
LS20BOX	2.0 Locking Screw Premium Box with Insert only	NEW £275.00

LOAN LOCKING PLATING PLATE SETS		
LOAN3.5STAR	Loan 3.5 Locking Screw (Star Head) and Plate Kit in Premium Box	£100.00
LOAN2.7STAR	Loan 2.7 Locking Screw (Star Head) and Plate Kit in Premium Box	£100.00
LOAN2.4STAR	Loan 2.4 Locking Screw (Star Head) and Plate Kit in Premium Box	£100.00
LOAN2.0STAR	Loan 2.0 Locking Screw (Star Head) and Plate Kit in Premium Box	NEW £100.00

Locking Plates



fine threads lock head into plate.
large core to resist bending.
coarser threads than head but still finer than cortical screw for max bone screw interface.

Standard DCP or Round Hole Plates are held into position by being trapped between the head of the screw and the bone. Tightening the screw pulls the bone up to the plate. When the screw is tight the threads of the screw pull against the bone holding the plate in position. The situation with locking screws and plates is very different. Although the threads of the screw shaft engage the bone, the interface between bone and screw is not related to attachment of the plate. In locking plates and screws it is the interface between the screw head and the plate which attaches the plate to the screw. As the screw is tightened the bone maintains its position relative to the plate, it is not drawn up to it. The screw head engages with the plate. This has a number of implications:

Contouring of Plates

With standard DCPs the plate must be contoured exactly. When the screws are tightened the bone fragments will be pulled towards the plate and assume the contour of the plate. If the plate is not contoured correctly the screws will pull the fragments out of alignment. Using a locking plate and screws once the plate is applied the bone fragments will be held in position relative to one another as is the case with external fixation. Indeed locking plates are sometimes referred to as 'internal, external fixation'. Locking plates do not therefore require contouring in the same way as DCP type plates. This has particular relevance in the TPLO procedure where contouring the plate is very important and very time consuming. If a Standard Locking TPLO Plate fits all TPLO osteotomies there are significant savings in terms of time and morbidity.

Screw Angulation and Numbers

In order to fit and lock into the plate the screw must be inserted at a fixed angle relative to the hole in the plate. Drill Guides are provided which screw into the locking holes to ensure that this happens. It is not always desirable that the screws are at 90 degrees to the plate, particularly close to joints. The angle of the screw is dictated by the plate not the surgeon. The rigid attachment of the screw to the plate gives any locking construct a high degree of angular rigidity relative to a DCP construct where a spherical screw head in an oval hole results in a relatively flexibility. This means in any given situation that to achieve the same rigidity as a DCP construct a locking construct needs less screws. Again this has particular implications in terms of time and morbidity. It also offsets, to a degree, the higher costs of locking screws and plates.

Screw Diameter and Strength

The increased angular rigidity places greater stresses onto the screw. Because we are not relying on the threads of the screw in the bone to pull the plate to the bone they do not need to be as coarse as standard Cortical Screws. They need, only, to hold their position in the bone. Thus for the same outside diameter of screw we can increase the core diameter without increasing the likelihood of bone/ screw interface failure. Increasing the diameter of the core hugely affects the AMI (resistance to bending) of the screw. The AMI of standard 3.5 cortical screws as used in SOP™ is 1.6, the AMI of standard locking screw is 2.6. A SOP™ screw is far more likely to fail than is a standard locking screw. Screw failure is the typical mode of failure of SOP™ constructs. Standard Cortical Screws are not designed for use as Locking Screws.

Minimally Invasive Plate Osteosynthesis (MIPO)

MIPO aims to interfere with the patient's natural response to fracture as little as possible while establishing and maintaining stabilisation of the fracture. Locking plates do not need close contouring to the bone, indeed it is not necessary to have contact between the plate and the bone. The periosteum is therefore preserved and the fracture is not disturbed. Additionally the angular stability of locking screws coupled with the need for fewer screws are desirable features in any MIPO procedure. Locking Screws were developed for osteoporitic bone where Standard DCPs and Screws tend to strip out. The bone screw interface is under far less stress using locking technology. This is an important quality in juvenile bone also. Veterinary MIPO candidates tend to be young.

VILock 2.0 Plates with Stacked Locking Holes

Our 2.0mm stacked hole locking plates can be used either with our 2.0mm locking screws or with 2.0mm cortical/cortical self-tap screws. In common with all locking plate constructs, when used with locking screws, precise contouring to the bone surface is not required. Leaving a small gap between plate and bone helps minimise damage to the periosteal blood supply. Closely positioned holes (6mm between centres) makes these plates very useful for smaller fragments. Plate profiles on page 469.

LOCKING 2.0 PLATES

LPSH200425	2.0mm Locking Plate 4 Hole 25mm Long	£52.50
LPSH200531	2.0mm Locking Plate 5 Hole 32mm Long	£54.00
LPSH200637	2.0mm Locking Plate 6 Hole 37mm Long	£56.00
LPSH200743	2.0mm Locking Plate 7 Hole 43mm Long	£58.00
LPSH200849	2.0mm Locking Plate 8 Hole 49mm Long	£60.00
LPSH200955	2.0mm Locking Plate 9 Hole 55mm Long	£62.00
LPSH201061	2.0mm Locking Plate 10 Hole 61mm Long	£64.00
LPSH201167	2.0mm Locking Plate 11 Hole 67mm Long	£66.00
LPSH201273	2.0mm Locking Plate 12 Hole 73mm Long	£68.00
LPSH201379	2.0mm Locking Plate 13 Hole 79mm Long	£70.00
LPSH201485	2.0mm Locking Plate 14 Hole 85mm Long	£72.00
LS20PSET	2.0mm Locking Plate Set	£675.00

VILock 2.4 Plates with Stacked Locking Holes



VI 2.4 locking plates have stacked locking holes as is the case with our 2.7 plates. The twin start hole in the plate is the same size as the 2.7 locking plate. The following screws may be used, locking 2.4 (LS2424**), locking 2.7 screws (LS2724**), cortical 2.4, cortical 2.7 and cancellous 3.0.

Hole spacing is 7mm, the same as the 2.4 DCP. Plate profiles on page 470.

LOCKING 2.4 PLATES

LPSH240431	2.4mm Locking Plate 4 Hole 31mm Long	£42.50
LPSH240538	2.4mm Locking Plate 5 Hole 38mm Long	£44.00
LPSH240645	2.4mm Locking Plate 6 Hole 45mm Long	£46.00
LPSH240752	2.4mm Locking Plate 7 Hole 52mm Long	£48.00
LPSH240859	2.4mm Locking Plate 8 Hole 59mm Long	£50.00
LPSH240966	2.4mm Locking Plate 9 Hole 66mm Long	£52.00
LPSH241073	2.4mm Locking Plate 10 Hole 73mm Long	£54.00
LPSH241180	2.4mm Locking Plate 11 Hole 80mm Long	£56.00
LPSH241287	2.4mm Locking Plate 12 Hole 87mm Long	£58.00
LPSH241394	2.4mm Locking Plate 13 Hole 94mm Long	£60.00
LPSH241401	2.4mm Locking Plate 14 Hole 101mm Long	£62.00
LPSH241508	2.4mm Locking Plate 15 Hole 108mm Long	£64.00
LPSH241615	2.4mm Locking Plate 16 Hole 115mm Long	£66.00
LPSH241722	2.4mm Locking Plate 17 Hole 122mm Long	£68.00
LPSH241829	2.4mm Locking Plate 18 Hole 129mm Long	£70.00
LS24PSET	2.4mm Locking Plate Set	£795.00

VILock 2.7 Plates with Stacked Locking Holes

VILock plates accept perfectly the standard 2.7mm twin start locking screw. Locking plates with combination holes have the disadvantage that the combination hole occupies a lot of space which results in hole spacing being too large. The consequence is that it may not be possible to place the desired number of screws in any bone fragment.



In that situations which demand locking screws and plates rarely need DCP holes the VI locking plate offers only stacked holes which will take both locking and standard cortical screws but will not offer compression. The hole spacing is the same as that of a standard 2.7mm DCP. Plate profiles on page 470.

LOCKING 2.7 PLATES		
LPSH2704034	2.7mm Locking Plate 4 Hole 34mm Long	£42.50
LPSH2705042	2.7mm Locking Plate 5 Hole 42mm Long	£44.00
LPSH2706050	2.7mm Locking Plate 6 Hole 50mm Long	£46.00
LPSH2707058	2.7mm Locking Plate 7 Hole 58mm Long	£48.00
LPSH2708066	2.7mm Locking Plate 8 Hole 66mm Long	£50.00
LPSH2709074	2.7mm Locking Plate 9 Hole 74mm Long	£52.00
LPSH2710082	2.7mm Locking Plate 10 Hole 82mm Long	£54.00
LPSH2711090	2.7mm Locking Plate 11 Hole 90mm Long	£56.00
LPSH2712098	2.7mm Locking Plate 12 Hole 98mm Long	£58.00
LPSH2713106	2.7mm Locking Plate 13 Hole 106mm Long	£60.00
LPSH2714114	2.7mm Locking Plate 14 Hole 114mm Long	£62.00
LPSH2715122	2.7mm Locking Plate 15 Hole 122mm Long	£64.00
LPSH2716130	2.7mm Locking Plate 16 Hole 130mm Long	£66.00
LPSH2717138	2.7mm Locking Plate 17 Hole 138mm Long	£68.00
LPSH2718146	2.7mm Locking Plate 18 Hole 146mm Long	£70.00
LS27PSET	2.7mm Locking Plate Set	£795.00

VILock 3.5 Plates with Stacked Locking Holes

Locking Plates with dual or combination holes are useful but typically the interval between holes is too large, limiting how many screws are possible in a fragment. The Stacked Locking Hole allows the use of both 3.5 Cortical Screws with limited angulation (7 degrees) and Standard Locking Screws having full angle security through the same round hole. While the mixing of locking and non locking screws in the same fragment is rarely indicated, it can be useful to place a screw outside the angular limitations of the locking hole.



The cutaways underneath the plate are designed to offer low contact between plate and bone when using regular cortical screws. In addition they help create an even resistance to bending for easier contouring and reduced stress concentration at the screw holes. Plate profiles on page 470.

3.5MM LOCKING PLATES			
LPSH3504046	3.5mm Locking Plate	46mm 4 Hole	£42.50
LPSH3505056	3.5mm Locking Plate	56mm 5 Hole	£44.00
LPSH3506066	3.5mm Locking Plate	66mm 6 Hole	£46.00
LPSH3507076	3.5mm Locking Plate	76mm 7 Hole	£48.00
LPSH3508086	3.5mm Locking Plate	86mm 8 Hole	£50.00
LPSH3509096	3.5mm Locking Plate	96mm 9 Hole	£52.00
LPSH3510106	3.5mm Locking Plate	106mm 10 Hole	£54.00
LPSH3511116	3.5mm Locking Plate	116mm 11 Hole	£56.00
LPSH3512126	3.5mm Locking Plate	126mm 12 Hole	£58.00
LPSH3513136	3.5mm Locking Plate	136mm 13 Hole	£60.00
LPSH3514146	3.5mm Locking Plate	146mm 14 Hole	£62.00
LPSH3515156	3.5mm Locking Plate	156mm 15 Hole	£64.00
LPSH3516166	3.5mm Locking Plate	166mm 16 Hole	£66.00
LPSH3517176	3.5mm Locking Plate	176mm 17 Hole	£68.00
LPSH3518186	3.5mm Locking Plate	186mm 18 Hole	£70.00
LS35PSET	3.5mm Locking Plate Set		£795.00

Locking Pancarpal Arthrodesis

At the 2009 BVOA scientific meeting there was a lengthy discussion regarding the value of incorporating Locking Screws into pancarpal constructs. Locking Screws add angular security which was generally regarded to be a good thing. The presence of compression holes was also considered to be desirable.

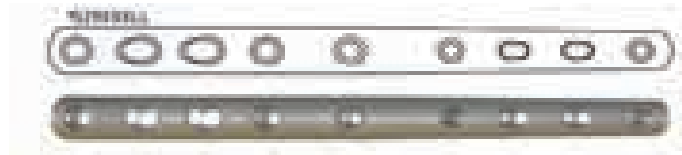
Aaron Moles (Perth) considers that once the cartilage has been removed the carpus effectively becomes a comminuted fracture and questions whether placing a single screw in a small fragment (the radial carpal bone) is appropriate. All good fun! Veterinary Instrumentation has produced a small number of plates which offer a variety of combinations. Feedback from surgeons is appreciated. All radial carpal bone holes are round.



In this Plate all holes are locking and will accept either 3.5 locking (LS35** series) or 2.7 locking with a 3.5 head (LS2735** series).



This Plate is as above but includes two DCP holes above and below the radial carpal bone hole. The above two plates have the same dimensions and hole spacing as 152907XL (see page 232)

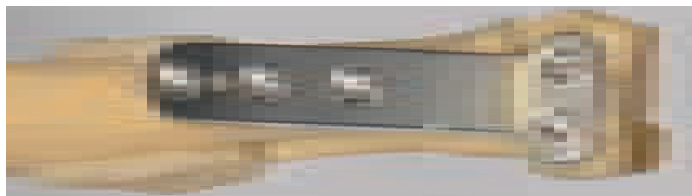


This Plate is effectively a double hybrid in that it includes both locking and DCP holes of two different sizes. Proximal holes are 3.5, distal are 2.7 (2.7 or LS2724** series).

LOCKING PANCARPAL ARTHRODESIS		
152907XLLS	Locking Pancarpal Arthrodesis - All 3.5 locking holes	£125.00
152907XLL	Locking Pancarpal Arthrodesis - All 3.5 locking holes except 2 DCP holes above and below radial carpal bone hole	£125.00
152903XLL	Locking Pancarpal Arthrodesis - Double hybrid Proximal, 3.5 Distal 2.7	£125.00

Locking T-Plates

Locking constructs offer inherently better angular stability than non-locking constructs. This can be useful when managing small fragments where only a low screw count is possible, such as with distal radial fractures, and corrective osteotomies or wedge osteotomies positioned towards the end of a bone.



Precise contouring is less important compared with non-locking implants as the underside of the plate does not need to sit flat on the surface of the bone. This can help save significant time in theatre.

Stepping the plate off from the bone surface or positioning it at a slight angle to the bone surface can be used to good advantage when correcting angular limb deformities; the cortices do not re-align into an undesired position as screws are tightened.



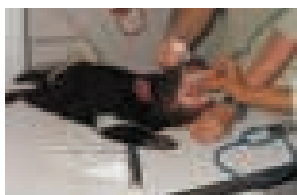
Locking screws fully seated into VI locking T-plates sit completely flat, minimising interference with over-lying tissues.

All of our locking T-plates feature a small hole between the proximal screw holes. This permits the engagement of positional aids such as an A-wire or the tips of pointy reduction forceps.

2.0mm Locking T-Plates



Case: *Tazmanian Devil*, distal radial fracture repaired with 2.0mm locking T-Plate. Case and images courtesy of Phil Moses, Veterinary Specialist Services, Australia



VI low profile 2.0mm locking T-plates do not have the stacked locking feature of our larger locking implants and should only be used with locking screws.

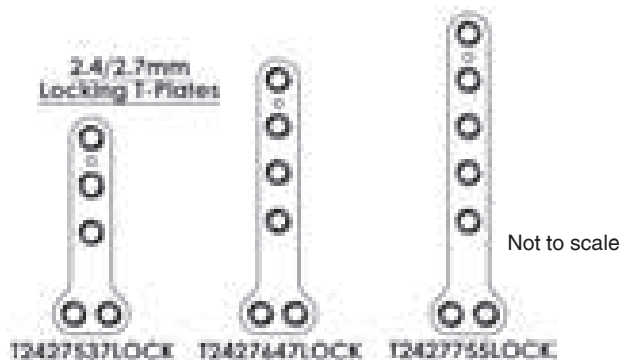
Limited contact undercuts reduce the impact of these plates on underlying periosteal blood supply and reduce stress concentration at the screw-holes. The additional reduction hole at the proximal end of these plates will accept A-wires up to 1.2mm in diameter.

See page 474 for plate profiles

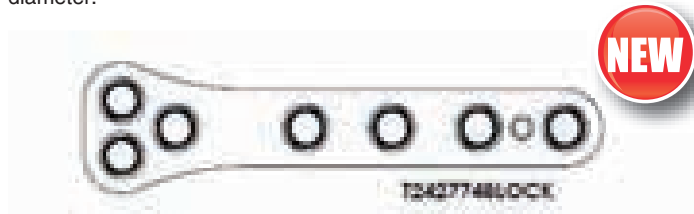
2.0MM LOCKING T-PLATES		
T2020532LOCK	2.0mm Locking T-Plate 5 Holes 32mm Long	£65.00
T2020632LOCK	2.0mm Locking T-Plate 6 Holes 32mm Long	£65.00
T2020850LOCK	2.0mm Locking T-Plate 8 Holes 50mm Long	£70.00
LSDG20	2.0mm Locking Screw Drill Guide	£52.50
SDT620	Star Drive Insert for 2.0mm Locking Screws	£72.50
QRCS01F	Quick Release Handle	£125.00
090021	1.1mm Arthrodesis Wire Pack of 10 125mm Long	£23.50

See page 254 for 2.0mm Star Drive Locking Screws

2.4/2.7mm Locking T-Plates



VI 2.4mm and 2.7mm locking screws have the same size head, so these plates will accept either. Where necessary, the shallow stacked locking feature will also support the use of standard cortical or cortical self-tapping screws. Limited contact undercuts reduce the impact of these plates on underlying periosteal blood supply and reduce stress concentration at the screw-holes. The additional reduction hole at the proximal end of these plates will accept A-wires up to 1.5mm in diameter.



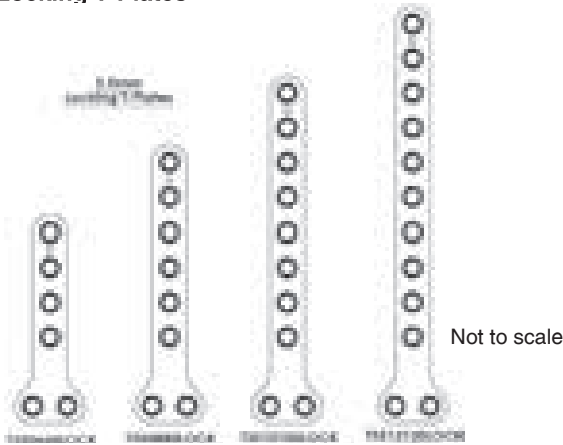
T2427748LOCK is similar to T2427647LOCK featured above, but has three locking screw holes in the head section and four locking screw holes in the shaft.

2.4/ 2.7MM LOCKING T-PLATES		
T2427537LOCK	2.4/ 2.7mm Locking T-Plate 5 Holes 37mm Long	£65.00
T2427647LOCK	2.4/ 2.7mm Locking T-Plate 6 Holes 47mm Long	£70.00
T2427755LOCK	2.4/ 2.7mm Locking T-Plate 7 Holes 55mm Long	£75.00
T2427748LOCK	2.4/ 2.7mm Locking T-Plate 3 Head 4 Shaft 48mm	£75.00 NEW
LSDG2424	2.4mm Locking Screw Drill Guide	£52.50
LSDG2724	2.7mm Locking Screw Drill Guide	£52.50
SDT82427	Star Drive Insert for 2.4/ 2.7mm Locking Screws	£72.50
QRCS01F	Quick Release Handle	£125.00
090061	1.25mm Arthrodesis Wire Pack of 10 125mm Long	£23.50

See page 253 for 2.4mm & 2.7mm Star Drive Locking Screws.

See page 474 for plate profiles

3.5mm Locking T-Plates



Designed for use with our 3.5mm locking screws, these plates also have a stacked feature, allowing the use of standard cortical or cortical self-tapping screws. Our new T350766LOCK features three screw holes in the head section and four screw holes in the shaft section.

Limited contact undercuts reduce the impact of these plates on underlying periosteal blood supply and reduce stress concentration at the screw-holes.

The additional reduction hole at the proximal end of these plates will accept A-wires up to 1.8mm in diameter.

See page 474 for plate profiles.

3.5MM LOCKING T-PLATES		
T350660LOCK	3.5mm Locking T-Plate 6 Holes 66mm Long	£70.00
T350766LOCK	3.5mm Locking T-Plate 3 Head 4 Shaft 60mm	£75.00
T350880LOCK	3.5mm Locking T-Plate 8 Holes 80mm Long	£80.00
T3510100LOCK	3.5mm Locking T-Plate 10 Holes 100mm Long	£90.00
T3512120LOCK	3.5mm Locking T-Plate 12 Holes 120mm Long	£100.00
LSDG35	3.5mm Locking Screw Drill Guide	£52.50
SDT1535	Star Drive Insert for 3.5mm Locking Screws	£72.50
QRCS01F	Quick Release Handle	£125.00
090024	1.4mm Arthrodesis Wire Pack of 10 125mm Long	£23.50

See page 252 for 3.5mm Star Drive Locking Screws

Cuttable Malleable Locking Plates



VI cuttable malleable locking plates come into their own when pronounced contouring is necessary. They are well suited to situations where bone thickness or bone quality makes application of more conventional implants challenging, such as with many more complicated pelvic fractures as well as situations where mono-cortical application is desirable. As locking implants, intimate bone contact, though desirable, is not essential.

The low profile makes these implants useful for craniomaxillofacial surgery and for other areas with limited soft tissue coverage. Manufactured from stainless steel grade 316LVM, they are stiffer than titanium implants of similar dimensions, but are still cuttable with standard implant cutters offering good versatility.

Use should ideally be reserved for when low load applications or when load sharing is possible between these and other implants such as with double plating techniques or when load sharing is possible with the bone. Use to span large defects is not recommended.

2.0mm Cuttable Malleable Locking Plate



With a low profile of only 1.3mm, holes are for use with locking screws only. Contouring can be achieved with standard small bending irons such as those used for the VI 1.0mm system. For side contouring, the small VI roller style bending pliers are useful. Only very heavy contouring necessitates the use of locking plugs. Implant cutters such as 001237 make easy work of these implants. 7.0mm between hole centres. Plate profile on page 469.

2.0MM CUTTABLE MALLEABLE LOCKING PLATES		
CM20LOCK	2.0mm Cuttable Malleable Locking Plate 15 Holes 103mm Long	£125.00

2.4mm Locking Cuttable Malleable Plates



With a low profile of only 1.8mm, these plates offer a shallow stacked locking feature for use with cortical/cortical self-tapping screws, but are much better suited for use with locking screws. Contouring can be achieved with standard small bending irons designed for plates of 2.4mm and up. For side contouring, the small VI roller style bending pliers are useful. Only heavy contouring necessitates the use of locking plugs. Implant cutters such as 001237 work well for cutting these plates. 8.5mm between hole centres. Plate profile on page 469.

2.4MM LOCKING CUTTABLE MALLEABLE PLATES		
CM24LOCK	2.4mm Cuttable Malleable Locking Plate 15 Holes 125mm Long	£125.00

2.7mm Locking Cuttable Malleable Plates



With a low profile of only 2.5mm, these plates offer a shallow stacked locking feature for use with cortical/cortical self-tapping screws, but are better suited for use with locking screws. Contouring can be achieved with standard small bending irons designed for plates of 2.7mm and up. For side contouring, the VI roller style bending pliers or reconstruction plate pliers are useful. Only heavy contouring necessitates the use of locking plugs. Implant cutters such as 001237 can be used to cut these plates. 10.0mm between hole centres. Plate profile on page 469.

2.7MM LOCKING CUTTABLE MALLEABLE PLATES		
CM27LOCK	2.7mm Cuttable Malleable Locking Plate 15 Holes 148mm Long	£125.00

3.5mm Locking Cuttable Malleable Plates



With a low profile of 3.5mm, these plates offer a full stacked locking feature for use with cortical/cortical self-tapping screws or locking screws. Contouring can be achieved with bending irons designed for plates of 3.5mm and up. For side contouring, the small VI roller style bending pliers or reconstruction plate pliers are useful. Heavy contouring necessitates the use of locking plugs. Heavy duty implant cutters rated to cut 3.0mm or more are recommended to cut these plates. 14.0mm between hole centres. Plate profile on page 469.

3.5MM LOCKING CUTTABLE MALLEABLE PLATES		
CM35LOCK	3.5mm Cuttable Malleable Locking Plate 15 Holes 205mm Long	£125.00

LokRod™ Plating System

LokRod™ Plates are new devices conceived and designed over the last few years by our Product Development Manager, David Strong.

LokRod™ Plates should prove useful as an alternative for more traditional fixation modalities, particularly in the management of comminuted long-bone fractures with only small proximal and distal fragments. In some cases, these new implants even may prove to be the only practical choice.

The first sizes to be made available are designed for stabilisation of the feline femur and tibia. These are bones that represent a high proportion of many practices' fracture caseload and often show a high degree of comminution. David is continuing their development with a range of new sizes due to become available over the course of the next 12 months.



Screw Number and Small Fragments

By utilising the strongest coupling of any locking plate technology currently in common use, it is possible to reduce the screw count to minimalist levels. The current suggested minimums are to engage four cortices for locking implants. Our smaller locking rod plates are designed to work with this minimalist level as a matter of routine.

Because of the increased shaft cross-sectional area of the larger locking rod plates, these will be designed to have three locking screws each end, providing a better balance with the total cross sectional area of the screws.

The low screw count combined with the close grouping of these screws allows small fragments to be grabbed with greater confidence, making LokRod™ Plates particularly well suited to small fragment work. This close grouping also makes these plates user friendly for minimally invasive application as only small incisions are required each end to access all screw holes.

LokRod™ Plates and MIPO

Over the last decade Minimally Invasive Plate Osteosynthesis (MIPO) has been gaining increasing attention because of preservation of fracture biology and the consequent comparatively rapid healing rates reported. LokRod™ Plates have several features which make them particularly well suited to MIPO application. Many of these are shown below.

In addition, LokRod™ Plates have several other distinct advantages over other implant systems:

Use standard, tried and tested locking screws;

Transferability of other plating techniques;

Reduced inventory and application to a greater range of bones than interlocking nails;

Avoidance of placement through the middle of a fracture haematoma and minimal disruption to intra-medullary vasculature (arguably more sympathetic to the biology of the area than intra-medullary devices);

Extra-medullary application minimises the creation and mobilisation of fat thrombi – especially important for compromised trauma patients;

Direct visualisation allows for more confidence in engaging screw holes compared with inter-locking nails, without reliance on jigs and/or fluoroscopy;

Sitting outside of the bone, LokRod™ Plates can be removed more easily than intra-medullary devices. Since there are no screw-holes in the shaft, there is no tissue ingrowth, so minimally invasively extraction is more practical than with standard plates.

Application

LokRod™ Plates must be used with standard locking screws with a twin start thread. Locking Implant Drill Guides are required for the use of any twin thread locking screw-holes (see page 215)

At least four cortices must be engaged in each fragment and preferably six in the larger versions.

It is mechanically stronger to place the implant as close to the functional axis of the bone as possible, so it is advised to have the underside of the plate holes snugged up to the bone as close as possible. Reduction forceps (page 95) or a device such as the Copenhagen Plate Assistants (page 183) will help.

Spanning of the whole bone reduces adverse screw loading and will improve implant life as well as reduce the chances of bone splitting at these sites.

Plate-rod constructs and double plating are possible, but will constrain the plane of flexibility. This may have a negative influence of the fatigue life of the implants and might also result in an excessively stiff construct, delaying bone healing.

Contouring is possible, but will also contribute to constraining the plane of flexibility and might also adversely impact on the fatigue life of the implant or the loading of the screw-bone interface. If they are going to be contoured, we would recommend using a roller style implant bender (eg page 108) to make the bend as gradual as possible.

Keeping the locking screws parallel to each other and perpendicular to the direction of limb loading forces should maximise construct strength.



Loan LokRod™ Plating Set

We now offer a loan LokRod™ Plating Set.

The Set consists of a 2.4mm Locking Plating Kit and 3 x LokRod™ Plates (one of each size)

A 2.7mm LokRod™ Plating Set is also available upon request.

The charge is for rental of the Set including delivery and return collection by courier. The Set will be supplied non-sterile with a full set of implants. Implants used will be charged for separately upon return of the Set. (UK only)

Please call a member of our Vet Tech Team for further details and availability.

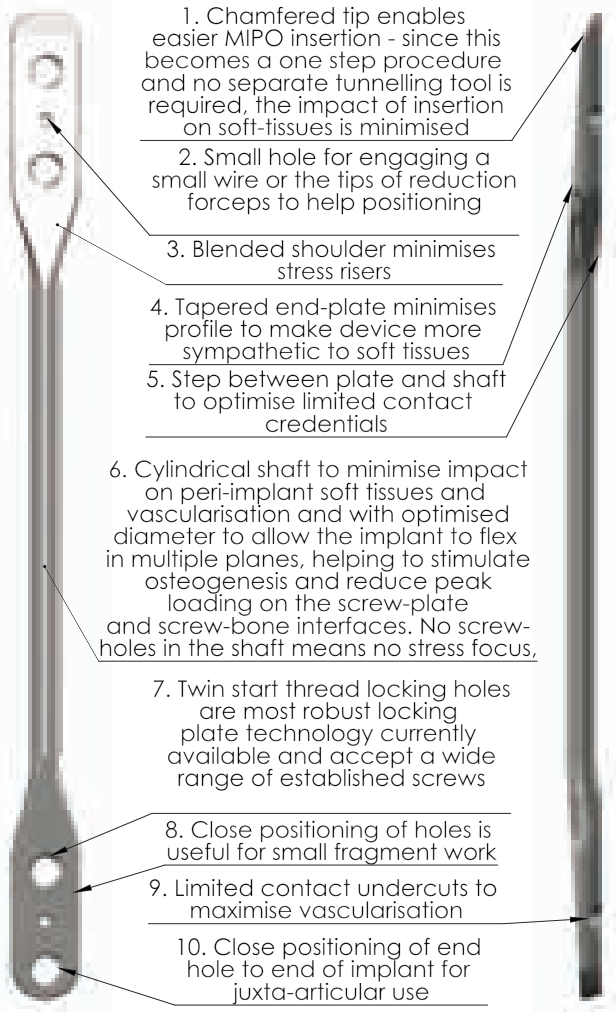
LOAN LOKROD™ PLATING SET

LOANLOKROD Loan LokRod™ 2.4mm Plating Set

£100.00

A 2.7mm LokRod™ Plating Set is also available upon request.

Anatomy of a LokRod™ Plate



1. Chamfered tip enables easier MIPO insertion - since this becomes a one step procedure and no separate tunnelling tool is required, the impact of insertion on soft-tissues is minimised
2. Small hole for engaging a small wire or the tips of reduction forceps to help positioning
3. Blended shoulder minimises stress risers
4. Tapered end-plate minimises profile to make device more sympathetic to soft tissues
5. Step between plate and shaft to optimise limited contact credentials
6. Cylindrical shaft to minimise impact on peri-implant soft tissues and vascularisation and with optimised diameter to allow the implant to flex in multiple planes, helping to stimulate osteogenesis and reduce peak loading on the screw-plate and screw-bone interfaces. No screw-holes in the shaft means no stress focus,
7. Twin start thread locking holes are most robust locking plate technology currently available and accept a wide range of established screws
8. Close positioning of holes is useful for small fragment work
9. Limited contact undercuts to maximise vascularisation
10. Close positioning of end hole to end of implant for juxta-articular use



LOKROD™ PLATES		
LRP24270480	LokRod™ Plate 4 Hole 80mm Long	£95.00
LRP24270490	LokRod™ Plate 4 Hole 90mm Long	£95.00
LRP242704100	LokRod™ Plate 4 Hole 100mm Long	£95.00

Plate profiles on page 474.

ACCESSORIES FOR LOKROD™ PLATES		
LSDG2724	Locking Screw Guide for small 2.7 (2.4 Head)	£52.50
LSDG2424	Locking Screw Guide for 2.4	£52.50
COPENSET	Copenhagen Plate Assistant Set	£195.00
001201	Reduction Forceps 135mm	£71.50
001283SMALL	Plate Bending Pliers Roller Type	£215.00

For 2.4 and 2.7 Locking Screws see pages 253. .

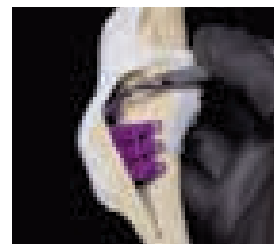
2015 EXHIBITIONS



Each year Veterinary Instrumentation attends many exhibitions both in the UK and Overseas. During 2015 we will be attending the following exhibitions:

BVOA/BSAVA	April
WSAVA	May
ECVS	July
BEVA	September
BVOA	October
SEVC	October
LVS	November
NAVC	January 2016
VOS	March 2016

Surgical Demonstrations



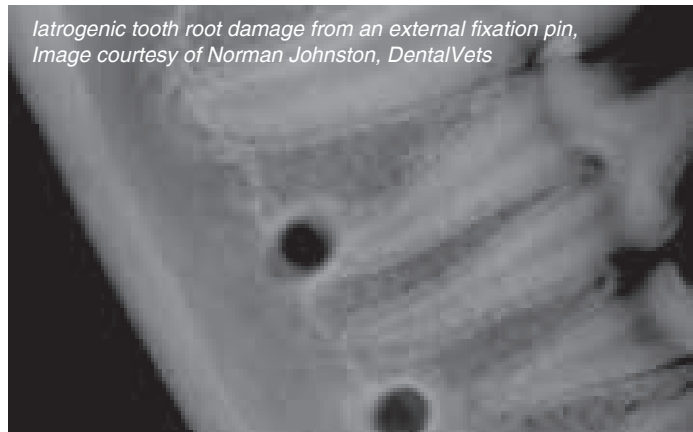
For 2015, Veterinary Instrumentation will be organising a number of surgical demonstrations on the booth, both to launch new products and initiatives but also to allow surgeons to get hands on with new surgical techniques. Please see www.vetinst.com for a demonstration timetable at each exhibition.

Special Requests

We are also very pleased to bring specific equipment to an exhibition if you would like to examine it more closely, just let our Vet Tech Team know in advance. and we will organise it.

Interdental Wiring and the use of Dental Acrylic

Maxillary and mandibular fractures can be repaired to great effect using various techniques including plating, external fixation and direct inter-fragmentary wiring. However, with limited 'safe corridors' these techniques all have the potential to cause iatrogenic damage to the tooth roots, nerves and blood vessels if the surgeon is not familiar with the local anatomy.



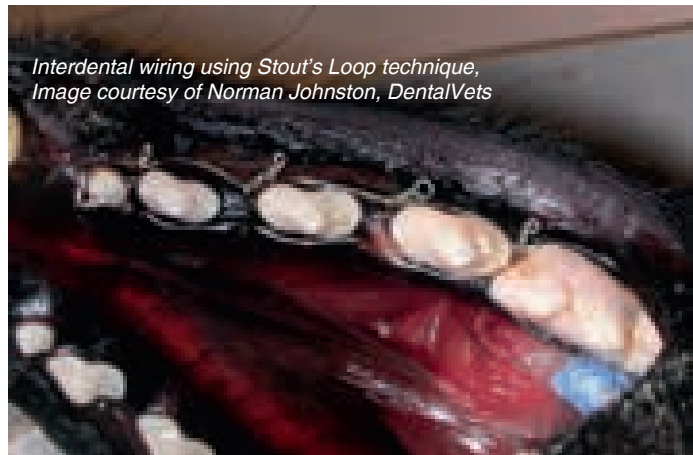
Iatrogenic tooth root damage from an external fixation pin, Image courtesy of Norman Johnston, DentalVets

Where fractures of the jaw bones are fully reconstructable, interdental wiring and splinting perhaps offers a safer and more versatile solution. It can be particularly useful where there are very few safe corridors within the bone itself, such as when the tooth roots are tightly packed together. Using interdental wiring techniques, a repair can often be achieved from an oral approach with very little or no dissection.

Intra-oral acrylic splinting is a very useful, but much underused technique. Initial reduction is normally achieved first by intra-oral wiring and then the repair is reinforced using a cold cure, temporary crown style, dental acrylic. Note that traditional methylmethacrylate acrylics are too exothermic to be used in the mouth.

There are a number of different techniques for interdental wiring; these include the Ivy Loop, Essig, Risdon, Stout's Multiple Loop and Modified Stout's Multiple Loop patterns. It is useful to know more than one different pattern as some are easier to use and indeed more effective in some parts of the mouth and for differing anatomies than others.

The initial security of interdental wires depends largely on the wire's ability to contour to the shape of the teeth, although in some cases it may be necessary to place the wire through small bone tunnels between the teeth to improve security further. 0.8mm/20g wire may be useful in large dogs, but relatively fine wires (typically 0.5mm/24g to 0.65mm/22g) are more easily worked and are suitable for most patients. These fine wires contour to the shape of the teeth better and with less force, so as well as providing greater security loss of reduction and having the wire flip out of position are both less likely to occur as the wire is tightened.



Interdental wiring using Stout's Loop technique, Image courtesy of Norman Johnston, DentalVets

Wiring techniques do take patience to perfect and where possible, practice is strongly advised before use with a clinical patient.

Dental acrylic deposited over the top of the wired repair will help to keep the wire in place and add to the mechanical strength and stiffness of the repair.

For proper adherence of dental acrylic, acid-etching of the teeth is required. Dental acrylic is surprisingly user-friendly to apply. It has a consistency that allows it to flow under gravity in a controlled manner over the teeth filling the gaps and leaving a nice smooth surface finish. It can be used to cover any sharp and exposed wire twists and can be used as a refinement in this way for wiring of the mandibular symphysis.



Acrylic splint applied over interdental wiring, Image courtesy of Norman Johnston, DentalVets

There are two main types of dental acrylic, cold-cure and light cure. Both are available in dual barrelled cartridges which are loaded into a re-usable applicator gun. As the trigger of the gun is depressed, the two components are mixed in disposable nozzles. These guns allow for very accurate deposition of the acrylic, reducing mess considerably. The volume of acrylic in each cartridge is normally sufficient for multiple uses.

It is critical to ensure that the mouth can close without teeth in the opposite jaw making contact with the splint. This is uncomfortable and destabilises the splint. For mandibular fractures no splinting material should be placed on the buccal aspect of the teeth caudal to the lower carnassials. For both mandibular and maxillary splints relief should be provided to the occlusion of the canine and incisor teeth.

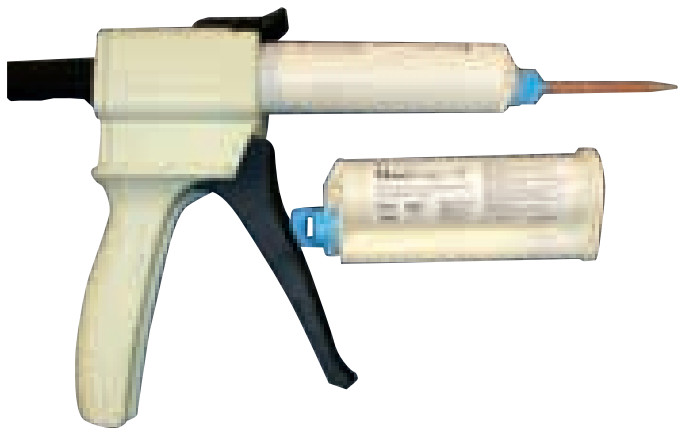
'Cold-cure' temporary crown acrylic sets without an exothermic polymerisation reaction and is not odorous. The material flows very well and sets in around one minute. It can be contoured with a gloved finger as it sets.

Light-cure acrylics set with the use of a UV light cure 'gun', which provides a little more control over the speed of polymerisation and takes around 30 seconds under the light to set. The main disadvantages of this type are the cost of the light cure unit and the need to build up the splint in 2mm increments of depth. This can be time consuming in a large splint. UV glasses should be worn for protection when using light-cure guns.

Rough edges and surfaces in contact with soft tissues must be removed with a high speed fine diamond or white stone bur and the surface coated with dentine bonding material to render it smooth. Enhanced oral hygiene using chlorhexidine rinse or gel should be used twice daily. Frequent monitoring of the mouth while the splint is in place is advised as lingual or mucosal contact ulcers can form over edges.

Dental acrylic is radio-lucent allowing assessment of fracture healing before removal. Removal is achieved through a combination of burring and simply cracking the acrylic away using calculus forceps.

The wire is removed by untwisting or snipping with small implant cutters. Once one section is loose, the rest normally comes away pretty easily.



DENTAL ACRYLIC STARTER KIT

ETCHGEL	Etching Compound - Etchgel Phosphoric 40% Syringe 5g plus 3 Tips	£10.50
MT2	MaxiTemp HP 'Cold Cure' Acrylic 2 x 50ml Cartridges	£69.50
MTMT50	MaxiTemp Mixing Tips - Single Use x 50	£19.50
MTPACK	MaxiTemp HP Pack 1 x 50ml Cartridge plus 6 Mixing Tips	£49.50
MTG	MaxiTemp HP Re-useable Applicator Gun	£37.50
MTSET	Dental Acrylic Starter Kit (contains 2 x Etchgel, 1 x MT2, 1 x MTMT50, 1 x MTG)	£145.00

ORTHOPAEDIC WIRE (IN 10M ROLLS)

OW0410	Orthopaedic Wire 0.4 (Diameter)	26g	£12.00
OW0510	Orthopaedic Wire 0.45	25g	£14.00
OW0610	Orthopaedic Wire 0.56	23g	£16.00
OW0710	Orthopaedic Wire 0.71	21g	£18.00
OW0810	Orthopaedic Wire 0.8	20g	£21.00
001260	Wire Twister/ Shear Cutters		£82.50

Step by Step Guide to Interdental Wiring



Maxillary and mandibular fractures can be repaired to great effect using various techniques including Interdental Wiring and Dental Acrylic.

For a Step by Step Guide on Interdental Wiring, please contact our Vet Tech Team on 0845 130 9596 or email info@vetinst.com



IOHC

Incomplete ossification of the humeral condyles (IOHC) is a problem most commonly seen in English Springer Spaniels and occasionally in other breeds. The condition is characterised by a failure for the condyles to fuse together and may contribute to forelimb lameness and condylar fracture.

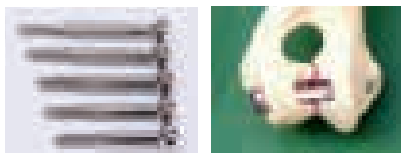
4.5 Shaft Screws and IOHC

Until such time as we are able to reliably stimulate the humeral condyles to fuse together, it seems that the only practical means of managing the problem is to place a large trans-condylar stabilising screw.

In that the incidence of fatigue failure is high, it seems sensible to use the strongest screw possible. We have manufactured a range of 4.5mm shaft

screws from 32mm to 44mm specifically for this procedure.

Andy Moores advises that the 4.5mm Shaft Screw has an AMI (bending resistance) 5 times greater than a standard 4.5m cortical screw.

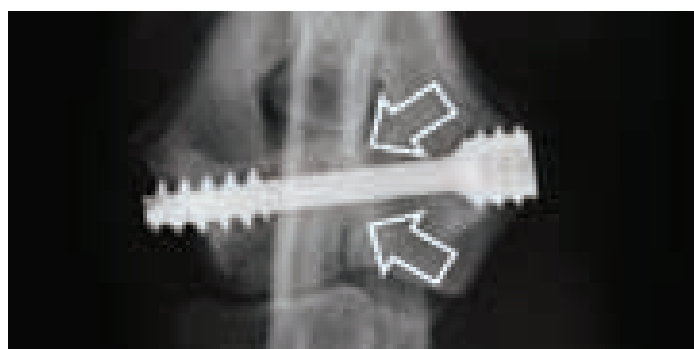


4.5 SHAFT SCREWS

SHSC4532	Shaft Screw	32mm		£19.25
SHSC4534	Shaft Screw	34mm		£19.25
SHSC4536	Shaft Screw	36mm		£19.25
SHSC4538	Shaft Screw	38mm		£19.25
SHSC4540	Shaft Screw	40mm		£19.25
SHSC4542	Shaft Screw	42mm		£19.25
SHSC4544	Shaft Screw	44mm		£19.25
SHSC4534TI	Shaft Screw	34mm	Titanium	£27.50
SHSC4536TI	Shaft Screw	36mm	Titanium	£27.50

IOHC Screw from Veterinary Tissue Bank

These titanium self-compressing screws have been developed by Veterinary Tissue Bank (VTB) for use alongside DBM Putty for the compression and fusion of IOHC fissures in Springer Spaniels. They can also be used for the repair of inter-condylar fractures in similar sized dogs.



8 week follow-up of a Springer Spaniel with IOHC showing bony union in the proximal part of the IOHC fissure either side of the implant (image courtesy of Mark Straw)

The screws are self-tapping, though tapping with a 4.5mm tap may be necessary in particularly sclerotic bone. The mid-section of the screw is of smaller diameter than the hole created by the step-drill creating a void which accommodates the DBM Putty such that vascular invasion and osteoinduction are encouraged.



IOHC screw and custom step drill for insertion

Surgical Technique Summary

- A combined medial and lateral approach is made to the condyles
- A 2.0mm transcondylar pilot hole is drilled medio-laterally
- The VTB custom step drill is used from the medial side to create a seating for the VTB IOHC screw
- The VTB screw is inserted using a 3.5mm hex screw-driver from the medial aspect
- Before the screw-head engages, DBM Putty is injected through a 16G needle into the screw hole beneath the screw-head from the medial aspect
- The screw is driven until it becomes tight

A comprehensive user guide is available upon request and will be issued with any purchases.

As part of a multi-centre prospective study, details of all patients undergoing surgery using this new and novel technique should be recorded and submitted to either John Innes (john.innes@cvsvets.com) or Ben Walton (ben.walton@chestergate.org.uk).

SURGICAL TECHNIQUE SUMMARY

VTBIOHC32	VTB IOHC Screw 32mm long, titanium	£155.00
VTBIOHCDRILL	VTB IOHC Step drill	£255.00
DBMPUTC1101	VTB DBM Putty	£115.00
H090102	2.0mm pilot drill, round shank, 100mm long	£21.00
S090102S	2.0mm pilot drill, AO quick release, 100mm long	£26.75
TS00045	4.5mm cortical tap, AO quick release	£65.00
SDH3500	3.5mm hex screwdriver	£89.50

Drill Stops

Placement of the screw is however a challenge in that the gliding hole has to cross the fissure to penetrate into the far condyle. This may be achieved by imaging or by careful pre-measurement and the use of drill stops.

DRILL STOPS

DRILLSTOP	Drill Stop Set in Stainless Case	£105.00
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Premium Countersinks

Maximising contact area between screw head and bone minimises the risk of inadvertent condylar fracture, improves screw stability, reduces the risk of screw head subsidence and reduces the risk of screw loosening. Most countersinks create a conical recess allowing screws to be recessed. These conical countersinks do not perfectly cradle the hemi-spherical heads of standard screws. Our range of premium countersinks are size-matched to our screws. AO quick release fitment. For the full range see page 245.

PREMIUM COUNTERSINK

COUPREM4565	Premium Countersink 4.5/ 6.5mm	£85.00
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Cortical Nuts

When threads strip or where bone density is poor, a stainless steel or UHMWPE cortical nut can be used to provide thread anchorage and salvage the situation. Stainless steel nuts are stronger, but UHMWPE is self-locking. For the full range see page 268.

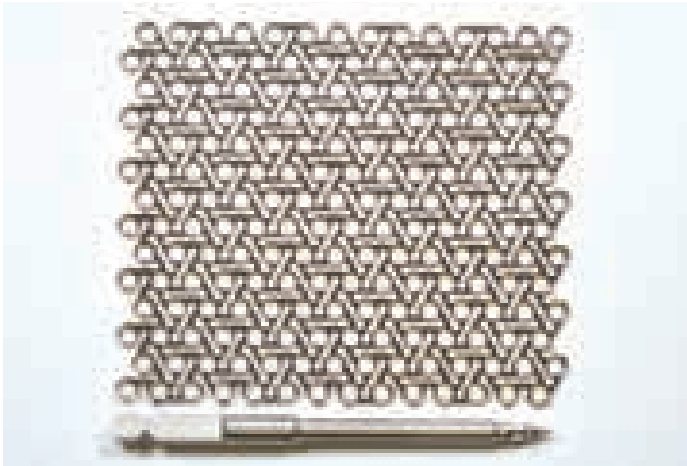
CORTICAL NUTS

N45	4.5mm Cortical Nut Stainless Steel - Sterile	£16.50
CN45	4.5mm Cortical Nut - Sterile	£10.50

Insert Sleeves

Used for centering a pilot hole after drilling a guide hole when placing a lag screw. See page 244 for full range.

Titanium Mesh System



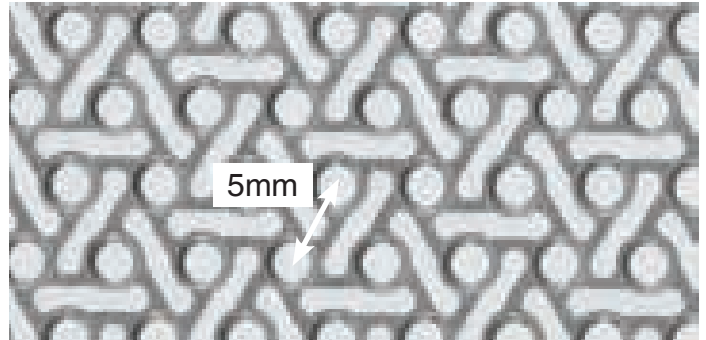
For the first time, we are making Titanium Mesh available directly to vets. Based on a human product, our Titanium Mesh is cuttable and is mouldable in three-dimensions, making it very adaptable and ideal for cranial fractures and in the management of fractures of other flat bones that are not load bearing. The mesh has also been used to augment bone cement in joint replacement surgery.



Moulded ready for acetabulum augmentation during total hip replacement surgery.

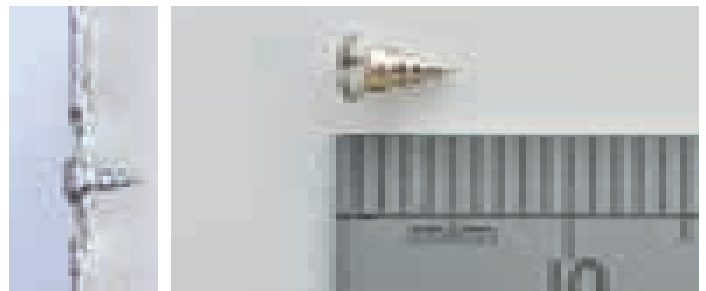
Images courtesy of Guenter Schwarz.

The triangular pattern allows 5mm between screw-hole centres. The mesh is 0.6mm thick and becomes more rigid as it is bent into a three-dimensional form.

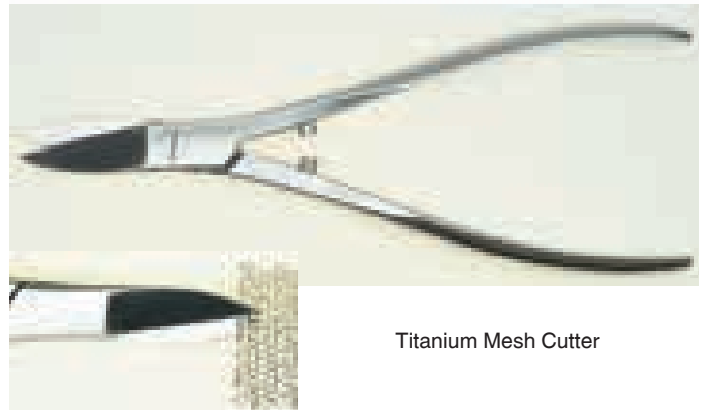


Close-up of mesh, showing pattern – including hole spacing measurement.

The Screws are tapered, making them self-drilling and self-tapping, however, a drill of 1mm diameter or less may be used to start the screws and may help reduce the chances of cracks forming if used close to the fracture lines. The Screws are made of titanium to avoid any problems arising from mixed metallurgy and feature a low profile cruciate head designed for use with the Cruciate Screwdriver with AO Quick Release fitting shown. A 5mm or 7mm length appears to be the most useful for our species, but more sizes are likely to become available depending on demand.



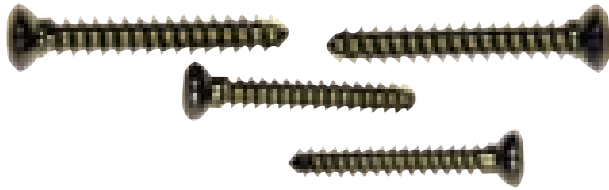
Screwdriver Insert



Titanium Mesh Cutter

TITANIUM MESH SYSTEM		
TIMESH405006	Titanium Mesh 40mm x 50mm 0.6mm Thick	£210.00
TIMESH506006	Titanium Mesh 50mm x 60mm 0.6mm Thick	£230.00
TIMESH607006	Titanium Mesh 60mm x 70mm 0.6mm Thick	£250.00
TIMESH SCREW2005	Titanium Mesh Screws Tapered 2.0mm x 5.0mm Length Cruciate Head	£9.95
TIMESH SCREW2007	Titanium Mesh Screws Tapered 2.0mm x 7.0mm Length Cruciate Head	£9.95
TIMESHSDI	Screwdriver Insert for 2mm Cruciate Titanium Mesh Screws. AO Quick Release	£90.00
TIMESHCUT	Titanium Mesh Cutters	£155.00
TIMESHPLI	Titanium Mesh Contouring Pliers	£175.00

Titanium Screws



Titanium Screws and Plates are very commonly used in man particularly for facio maxillary repairs. The most important benefit in this application is that Titanium does not interfere with MRI scans. Compared to stainless steel Titanium is lighter and much more osteo compatible.

The major application in veterinary orthopaedics is in conjunction with the TTA cruciate procedure. Please note 2.4mm Screws have a Cruciate Head.

TITANIUM SCREWS 2.4MM CRUCIATE HEAD 1.8MM PILOT

TICS2410	Titanium 2.4 Self Tapping Cortical Screw 10mm	£7.00
TICS2412	Titanium 2.4 Self Tapping Cortical Screw 12mm	£7.00
TICS2414	Titanium 2.4 Self Tapping Cortical Screw 14mm	£7.00
TICS2416	Titanium 2.4 Self Tapping Cortical Screw 16mm	£7.00
TICS2418	Titanium 2.4 Self Tapping Cortical Screw 18mm	£7.00
TICS2420	Titanium 2.4 Self Tapping Cortical Screw 20mm	£7.00
TICS2422	Titanium 2.4 Self Tapping Cortical Screw 22mm	£7.00
TICS2424	Titanium 2.4 Self Tapping Cortical Screw 24mm	£7.00
TICS2426	Titanium 2.4 Self Tapping Cortical Screw 26mm	£7.00
TICS2428	Titanium 2.4 Self Tapping Cortical Screw 28mm	£7.00
TICS2430	Titanium 2.4 Self Tapping Cortical Screw 30mm	£7.00
TICS2432	Titanium 2.4 Self Tapping Cortical Screw 32mm	£7.00
TICS2434	Titanium 2.4 Self Tapping Cortical Screw 34mm	£7.00
TICS2436	Titanium 2.4 Self Tapping Cortical Screw 36mm	£7.00
TICS2438	Titanium 2.4 Self Tapping Cortical Screw 38mm	£7.00
TICS2440	Titanium 2.4 Self Tapping Cortical Screw 40mm	£7.00

TTA Rapid 2.4mm Titanium Screws (2.0 Hex)

TTA RAPID SCREWS 2.4MM TITANIUM HEX HEAD, 1.8MM PILOT

TTARSC2406	TTA Rapid 2.4mm Screw Titanium 6mm	£7.00
TTARSC2408	TTA Rapid 2.4mm Screw Titanium 8mm	£7.00
TTARSC2410	TTA Rapid 2.4mm Screw Titanium 10mm	£7.00
TTARSC2412	TTA Rapid 2.4mm Screw Titanium 12mm	£7.00
TTARSC2414	TTA Rapid 2.4mm Screw Titanium 14mm	£7.00
TTARSC2416	TTA Rapid 2.4mm Screw Titanium 16mm	£7.00
TTARSC2418	TTA Rapid 2.4mm Screw Titanium 18mm	£7.00
TTARSC2420	TTA Rapid 2.4mm Screw Titanium 20mm	£7.00
TTARSC2422	TTA Rapid 2.4mm Screw Titanium 22mm	£7.00
TTARSC2424	TTA Rapid 2.4mm Screw Titanium 24mm	£7.00
TTARSC2426	TTA Rapid 2.4mm Screw Titanium 26mm	£7.00
TTARSC2428	TTA Rapid 2.4mm Screw Titanium 28mm	£7.00
TTARSC2430	TTA Rapid 2.4mm Screw Titanium 30mm	£7.00
TTARSC2432	TTA Rapid 2.4mm Screw Titanium 32mm	£7.00
TTARSC2434	TTA Rapid 2.4mm Screw Titanium 34mm	£7.00
TTARSC2436	TTA Rapid 2.4mm Screw Titanium 36mm	£7.00
TTARSC2438	TTA Rapid 2.4mm Screw Titanium 38mm	£7.00
TTARSC2440	TTA Rapid 2.4mm Screw Titanium 40mm	£7.00

TITANIUM SCREWS 2.7MM HEX HEAD 2.0MM PILOT

TICS2706	Titanium 2.7 Self Tapping Cortical Screw 6mm	£7.00
TICS2708	Titanium 2.7 Self Tapping Cortical Screw 8mm	£7.00
TICS2710	Titanium 2.7 Self Tapping Cortical Screw 10mm	£7.00
TICS2712	Titanium 2.7 Self Tapping Cortical Screw 12mm	£7.00
TICS2714	Titanium 2.7 Self Tapping Cortical Screw 14mm	£7.00
TICS2716	Titanium 2.7 Self Tapping Cortical Screw 16mm	£7.00
TICS2718	Titanium 2.7 Self Tapping Cortical Screw 18mm	£7.00
TICS2720	Titanium 2.7 Self Tapping Cortical Screw 20mm	£7.00
TICS2722	Titanium 2.7 Self Tapping Cortical Screw 22mm	£7.00
TICS2724	Titanium 2.7 Self Tapping Cortical Screw 24mm	£7.00
TICS2726	Titanium 2.7 Self Tapping Cortical Screw 26mm	£7.00
TICS2728	Titanium 2.7 Self Tapping Cortical Screw 28mm	£7.00
TICS2730	Titanium 2.7 Self Tapping Cortical Screw 30mm	£7.00
TICS2732	Titanium 2.7 Self Tapping Cortical Screw 32mm	£7.00

TITANIUM SCREWS 3.5MM HEX HEAD 2.5MM PILOT

TICS3516	Titanium 3.5 Self Tapping Cortical Screw 16mm	£7.00
TICS3518	Titanium 3.5 Self Tapping Cortical Screw 18mm	£7.00
TICS3520	Titanium 3.5 Self Tapping Cortical Screw 20mm	£7.00
TICS3522	Titanium 3.5 Self Tapping Cortical Screw 22mm	£7.00
TICS3524	Titanium 3.5 Self Tapping Cortical Screw 24mm	£7.00
TICS3526	Titanium 3.5 Self Tapping Cortical Screw 26mm	£7.00
TICS3528	Titanium 3.5 Self Tapping Cortical Screw 28mm	£7.00
TICS3530	Titanium 3.5 Self Tapping Cortical Screw 30mm	£7.00
TICS3532	Titanium 3.5 Self Tapping Cortical Screw 32mm	£7.00
TICS3534	Titanium 3.5 Self Tapping Cortical Screw 34mm	£7.00
TICS3536	Titanium 3.5 Self Tapping Cortical Screw 36mm	£7.00

SCREWBOX FOR TITANIUM TTA SCREWS

SHTTA242735	TTA Screwbox for 2.4, 2.7 & 3.5 Ti Screws	£140.00
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TITANIUM SCREWS 1.5MM HEX HEAD

TICS1506	Titanium 1.5 Self Tapping Cortical Screw 6mm	£10.00
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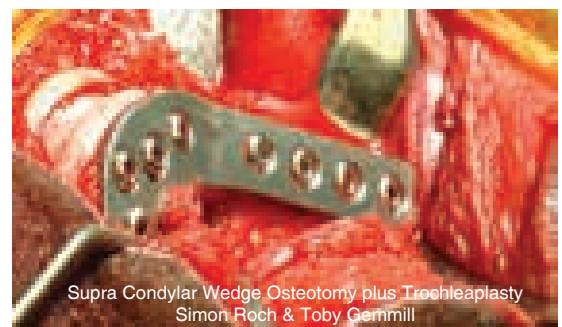
TITANIUM SCREWS 4.5MM HEX HEAD

TICS4534	Titanium 4.5 Self Tapping Cortical Screw 34mm	£14.00
TICS4536	Titanium 4.5 Self Tapping Cortical Screw 36mm	£14.50
TICS4538	Titanium 4.5 Self Tapping Cortical Screw 38mm	£15.00
TICS4540	Titanium 4.5 Self Tapping Cortical Screw 40mm	£15.50

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Video downloads
Step by Step guides - FAQs



Supra Condylar Wedge Osteotomy plus Trochleaplasty
Simon Roch & Toby Gemmill

Designed by Vets for Vets

Washers

Use to spread load or retain wire or sutures. Use with Cortical or Self Tapping Screws. Spikey washers are used to reattach ligaments or secure grafts to the femur in the OTT technique of CrCL repair.



WASHERS		
PW15	Plain Washer 1.5mm Screws Stainless	£6.25
PW20	Plain Washer 2.0mm/1.5mm Screws Stainless	£6.25
PW20B	Plain Washer 2.0mm Screws Broad 6mm Diameter	£6.50
PW24	Plain Washer 2.4mm Screws Stainless	£6.25
PW24TI	Plain Washer 2.4mm Screws Titanium	£10.50
PW273540	Plain Washer 2.7/ 3.5/4.0mm Screws Stainless 7.0mm Dia	£6.25
PW273540B	Plain Washer 2.7/ 3.5/4.0mm Screws Stainless 8.5mm Dia	£6.25
PW45	Plain Washer 4.5mm Screws Stainless	£6.25
SW15	Spikey Washer 1.5mm Screws Stainless	£10.25
SW20	Spikey Washer 2.0mm Screws Stainless	£10.25
SW27	Spikey Washer 2.7mm Screws Stainless	£10.25
SW3540	Spikey Washer 3.5/4.0mm Screws Stainless	£10.25
SW45	Spikey Washer 4.5mm Screws Stainless	£10.25

Titanium Buttons



Titanium is very biocompatible and our range of Titanium Buttons has been loosely modelled on the familiar six sizes of UHMWPE Ormrod button we have been supplying for some time.

Despite being slightly lower profile, these resist higher peak loading than their UHMWPE equivalents.

Their overall diameters have been maintained to try and limit osteolysis and the subsequent subsidence that is occasionally seen with lower footprint buttons.

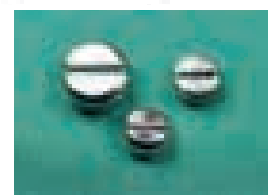
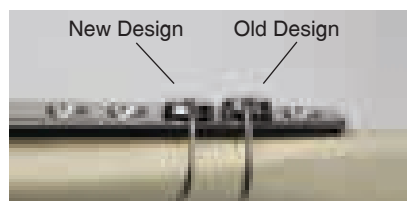
Their edges have been made as smooth as possible to reduce suture wear.

The titanium buttons will find use for ligament replacement/ joint embrocation procedures, especially around the hip and stifle.

TITANIUM BUTTONS		
TIBUT6H	Titanium Button 6mm 2 Holes	£18.50
TIBUT6S	Titanium Button 6mm 2 Slots	£18.50
TIBUT9H	Titanium Button 9mm 2 Holes	£18.50
TIBUT9S	Titanium Button 9mm 2 Slots	£18.50
TIBUT11H	Titanium Button 11mm 2 Holes	£18.50
TIBUT11S	Titanium Button 11mm 2 Slots	£18.50

Cerclage Buttons

The Cerclage Button occupies a screw hole. The slot retains cerclage wire where screw placement is not possible. Reduces plate weakness due to empty screw holes.



CERCLAGE BUTTON		
CB15	Cerclage Button for use with 1.5mm DCP	£23.50
CB20	Cerclage Button for use with 2.0mm DCP	£23.50
CB24	Cerclage Button for use with 2.4mm DCP	£23.50
CB27	Cerclage Button for use with 2.7mm DCP	£23.50
CB35	Cerclage Button for use with 3.5mm DCP.	£23.50

Epiphyseal Staples

Use to correct angular deformities caused by uneven growth of distal growth plates. Staples will only work if there is growth potential in the plate to be stapled.

EPIPHYSEAL STAPLES				
	Width	Leg Length	Wire Diameter	
090171	12mm Wide	10mm Wide	1.6mm Diameter	£13.95
090172	15mm Wide	12mm Wide	2.0mm Diameter	£13.95
090173	20mm Wide	15mm Wide	2.4mm Diameter	£13.95
090174	30mm Wide	25mm Wide	3.0mm Diameter	£13.95

Cortical Nuts

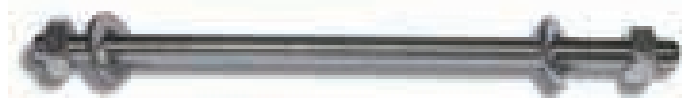
Occasionally tapped threads strip and a larger screw is appropriate. Lag screws are particularly vulnerable as only one cortex is available.

A Cortical Nut manufactured from implant grade nylon gives the screw purchase allowing normal tightening. The thread form is designed to grip the screw to minimise 'backing out'. Available in 2.0mm, 2.4mm, 2.7mm, 3.5mm and 4.5mm cortical thread forms. Supplied as a single sterile pack. The Cortical Nuts are also available in Stainless Steel.



CORTICAL NUTS		
CN20	2.0mm Cortical Nut (sterile)	£9.00
CN24	2.4mm Cortical Nut (sterile)	£9.00
CN27	2.7mm Cortical Nut (sterile)	£9.00
CN35	3.5mm Cortical Nut (sterile)	£9.50
CN45	4.5mm Cortical Nut (sterile)	£10.50
N20	2.0mm Cortical Nut Stainless Steel (sterile)	£16.50
N24	2.4mm Cortical Nut Stainless Steel (sterile)	£16.50
N27	2.7mm Cortical Nut Stainless Steel (sterile)	£16.50
N35	3.5mm Cortical Nut Stainless Steel (sterile)	£16.50
N45	4.5mm Cortical Nut Stainless Steel (sterile)	£16.50

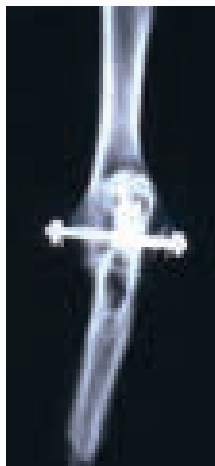
Webb Bolt



Use where lag screw strips out. Supplied as a Threaded Rod, two Nuts and two Washers. Pre-measure and cut to length or crop after procedure. Saw cut or bolt cutting will prevent loosening of the nut on the cut side. Run a fine nylon suture through the nut prior to attachment to create a locking effect.

4mm Webb Bolt requires a 7mm Spanner (001566) 5mm Webb Bolt requires a 8mm Spanner (001565)

5mm Webb Bolt use 5.5mm Drill H090109S
 4mm Webb Bolt use 4.0mm Drill H090107S
 3mm Webb Bolt use 3.2mm Drill H090105S
 2mm Webb Bolt use 2.0mm Drill H090102.



WEBB BOLTS			
092003	Webb Bolt 5mm/8cm	Drill 5.5mm	£34.50
092000	Webb Bolt 4mm/8cm	Drill 4.0mm	£34.50
092001	Webb Bolt 3mm/8cm	Drill 3.2mm	£34.50
092002	Webb Bolt 2mm/5cm	Drill 2.0mm	£34.50

Screw and Drill Gauge



SCREW AND DRILL GAUGE		
001496	Screw and Drill Gauge	£22.50

Orthopaedic Ruler



Used to measure Pin, Wire, Drill and Screw diameter. Imperial

ORTHOPAEDIC RULER			
001498	Orthopaedic Ruler Imperial	150mm	£29.50

VI Metric Ruler

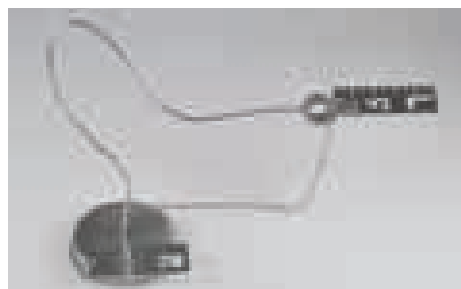


Following requests, our Metric Ruler has been over-hauled to provide a greater range of hole sizes, making it the most comprehensive Metric Ruler we have seen on the market.

Hole sizes - 0.9, 1.0, 1.1, 1.25, 1.4, 1.5, 1.6, 1.8, 2.0, 2.5, 2.7, 3.0, 3.2, 3.5, 4.0, 4.5, 5.0, 5.5 and 6.5mm.

VI METRIC RULER			
001504	Metric Ruler - VI	150mm	£39.50

Xray Marker with Scale



Using digital media regardless of whether the xray was taken on an analogue or digital xray machine it is very important to incorporate a reliable scale. When viewed on different screens an xray may appear to be a different size. This is particularly important when the original is not available for comparison. When sending digital radiographs to colleagues for opinion a scale is especially important. VI's Left and Right Markers are 50mm long and include a scale marked at 5mm intervals. For use when measuring particular structures or lesions the marker should be positioned at the same level as the structure under examination. A purpose designed stand is available which incorporates a clip to hold the appropriate marker.

XRAY MARKERS WITH SCALE			
XRAYMARK1	Xray Marker with Scale. Left and Right		£6.75
XRAYHOLD1	Xray Marker Stand		£38.50

Radiographic Reference Ball

Taking radiographs where the area of interest is not close to the plate creates some challenges in scaling. This is true of both digital and analogue systems. When using the radiograph for templating implants e.g. total hip replacement it is very important to make accurate measurements.

The Reference Ball is 25mm in diameter and is attached to a stable base by a flexible neck which allows the Ball to be placed at the same level above the plate as the area of interest. Using a spherical object as a reference eliminates errors created by ruler type reference which might not be quite parallel with the plate.

Also available in a 10mm version for smaller patients.



RADIOGRAPHIC REFERENCE BALL		
XRAY25MM	Radiographic Reference Ball 25mm Diameter	£74.50
XRAY10MM	Radiographic Reference Ball 10mm Diameter	£74.50

Chandler's Gonadal Shield



Exposure of the patient's gonads to radiation is undesirable particularly where repeated imaging is likely. The Gonadal Shield uses a similar 'goose neck' arrangement on a solid base as is used in the reference ball. There are three different sized shields to cover the typical patient range.

50 x 25 x 1.8mm

75 x 40 x 1.8mm

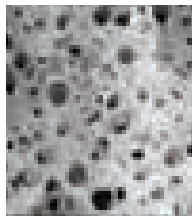
100 x 50 x 1.8mm

Developed by Russell Chandler.



CHANDLER'S GONADAL SHIELD		
GSHSET	Chandler's Gonadal Shield (Set incl 3 Shields)	£185.00
GSHSMALL	Chandler's Gonadal Shield 50 x 25 x 1.8mm	£60.00
GSHMED	Chandler's Gonadal Shield 75 x 40 x 1.8mm	£60.00
GSHLARGE	Chandler's Gonadal Shield 100 x 50 x 1.8mm	£60.00

ReproBone Granules



ReproBone is also available in a granule formulation which may be used alone or as an extender of natural cancellous bone graft. The mixture of hydroxyapatite and tricalcium phosphate is formulated as an osteoconductive scaffold which is fully resorbed by the body. The lattice work mimics that of cancellous bone (see photo). Available as granules or blocks of various sizes.

CERAMYSIS REPRO BONE		
RBG5	5cc Granules 1.0 to 4.0mm	£97.50
RBG10	10cc Granules 1.0 to 4.0mm	£165.00
RB10D10	Rod 10mm Diameter 10mm Long	£125.00
OTHER SIZES AVAILABLE...PLEASE CALL 0845 130 9596		

Veterinary Tissue Bank



Veterinary Tissue Bank is Europe's first tissue bank dedicated to helping companion animals.

Products are available in various presentations, and have many applications from use during procedures such as TTA and joint arthrodesis to dealing with the difficult non-union case.

Available in either Canine or Feline Powder, or now as DBM Putty (Canine only) see Chapter 1 56 and 57.

Synergy



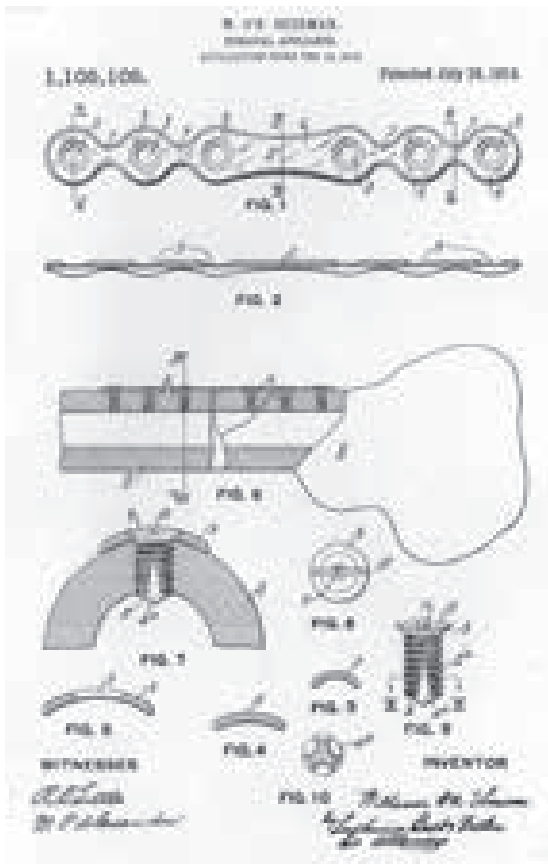
Synergy is a pure biosynthetic bone graft. Composition is a biphasic combination of 85% Beta-Tricalcium Phosphate (Beta-TCP) and 15% Hydroxyapatite. Structure is very similar to cancellous bone, an interconnected porous structure allowing cell migration. Beta-TCP simultaneously resorbs as new bone is formed, while the hydroxyapatite which resorbs slowly provides an osteoconductive scaffold.

Uses include void filling, osteotomy sites, arthrodesis and extending auto and allografts. Radio-opaque.

SYNERGY		
SYNMINI	Synergy Mini Pack 8 x 0.5cc	£95.00
SYNORTHO	Synergy Peel Pack Vials 5 x 1cc	£135.00
SYNPRO	Synergy Pro Vials 3 x 5cc	£205.00

Sherman Plates and Screws

Historical Perspective



Sherman Screws and Plates, long regarded as the poor relation of the AO type, are worthy of re-examination, not least for their role in the development of internal fixation as we know it today.

William O'Neill Sherman (1880-1970) was an eminent orthopaedic surgeon based in Pittsburg. One of his roles was surgeon to the Carnegie Steel Company which no doubt gave him access to engineering and metallurgical resources necessary for his work on implants.

His patent for a 'surgical appliance' US Patent 1,105,105 is dated July 1914, before the invention of stainless steel. He specified the use of Vanadium, a steel alloy containing between 0.25 and 1 % vanadium, recognising the increase in strength and the increase in corrosion resistance conferred by the Vanadium. The added strength allowed him to de-bulk his implants.

The screw specified had essentially a machine thread with self tapping flutes. It is interesting to note that pre-tapped screws had been tried but were dropped as the tapping took too long. Exactly the same has happened with current AO screws after decades of decrying the concept of self tapping! The head was slotted but Sherman recognised the issue of screwdriver slippage and specified a dimple in the slot and a matching projecting portion on the screwdriver. Difficult to manufacture, this feature does not survive in current versions of Sherman Screws.

The Plate design is concavo-convex in nature for extra strength. The curvature was such that only the margins of the plate bore onto the bone. Limited contact by any other name. The sinuous outline of the plate "avoids a construction having sharp corners or points of intersection, which would form the beginning of a break in the plate". Minimal stress risers!

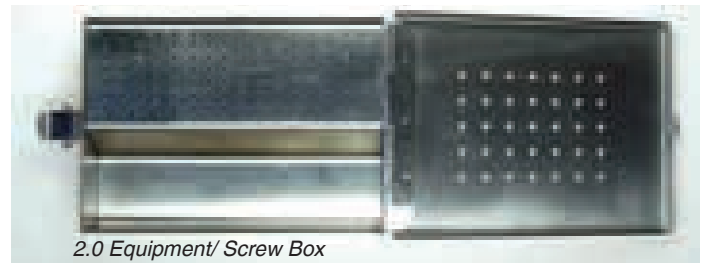
Perhaps osteosynthesis has moved on with the development of metals, compression and locking technologies but Sherman's role should not be forgotten. Oh... he was also an advocate of early mobilisation, very much against the practice of the time. Maybe we have not come so far?

Instruments

Sherman Self-Tapping Equipment

Sherman Equipment and Screw Boxes

Sherman Equipment & Screw Box



The Sherman Equipment Box includes space for the essential equipment and a screw rack.

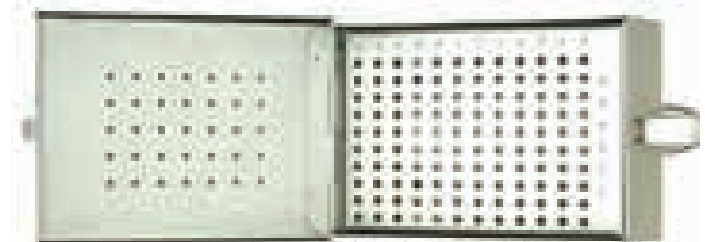
2.7/3.5 Equipment/ Screw Box



SHERMAN EQUIPMENT/SCREW BOX		
BX20ST	Box for 2.0 Sherman Screws and Equipment	£195.00
BX27ST	Box for 2.7 Sherman Screws and Equipment	£195.00
BX35ST	Box for 3.5 Sherman Screws and Equipment	£195.00
BX2735ST	Box for 2.7/3.5 Sherman Screws and Equipment	£195.00

Screw Box 145mm x 105mm x 55mm deep for Sherman Screws

This Screw Box has a hinged lid with a stainless perforated insert. The maximum screw length is 55mm but the marking of the holes is indicated. This Box is for Sherman Type Screws.



SCREW BOX		
SH2000ST	Box for 2.0 Sherman Screws	£150.00
SH2700ST	Box for 2.7 Sherman Screws Marked 10-44mm	£150.00
SH3500ST	Box for 3.5 Sherman Screws Marked 10-57mm	£150.00
SH2735ST	Box for 2.7 & 3.5 Sherman Screws	£150.00
SH202735ST	Box for 2.0, 2.7 & 3.5 Sherman Screws	£150.00

Screwdrivers & Sleeves for Slotted Screws (Sherman Type)

Flat End Screwdriver



Self Tapping Screws can be somewhat fiddly to start, particularly the smaller ones. Screwdrivers with Screwholding Sleeves hold the Screw in place until the threads are engaged. Once the self tapping process has started the Sleeve is pulled back, releasing the Screw. Available for 2.0, 2.7 and 3.5mm Slotted Screws.

SCREWDRIVER FLAT END		
SDF200	For 2mm Screws + Sleeve 130mm	£97.50
SDF270	For 7/64"/ 2.7mm Screws + Sleeve 200mm	£97.50
SDF350	For 9/64"/ 3.5mm Screws + Sleeve 230mm	£97.50

Cruciate Screwdriver



Designed to fit the 3.5mm Cruciate Head. And offers a more secure drive however it will not fit the 2.7mm Self Tapping Screw. Screw Holding Sleeves do not work with the Cruciate Screwdriver. 230mm length.

SCREWDRIVER CRUCIATE TIP		
SDC350	Screwdriver Cruciate Tip for 3.5mm Screws	£85.00

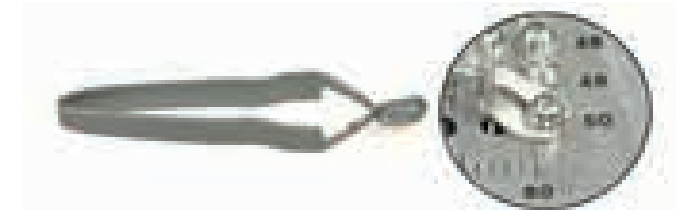
Depth Gauge



Accurate measurement of hole depth is essential in order to select the appropriate screw size. A range of Gauges is available for various screw sizes. Hole depth is read from the instrument. Add extra to allow for over penetration and screw head. Use in Self Tapping or Cortical Systems.

DEPTH GAUGE		
DG2027	For 2.0mm & 2.7mm Screws 135mm	£115.00
DG242735	For 2.4, 2.7mm & 3.5mm Screws 180mm	£115.00
DG2735	For 2.7mm & 3.5mm Screws 175mm	£115.00

Screw Holding Forceps



A useful instrument for selecting screws with minimal handling. Can be used with any style of screw.

SCREW HOLDING FORCEPS		
SF2055	Screw Holding Forceps	£24.50

Sherman Self-Tapping Screws

SHERMAN TYPE SCREW LENGTHS - Measure from top of countersink to tip

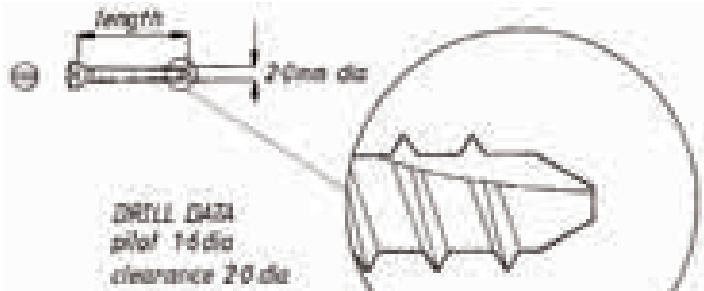
INCHES	3/8	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4	1 3/8	1 1/2
MM	10	13	16	19	22	25	28	31	34	38
1 5/8	1 3/4	1 7/8	2	2 1/4	2 3/8	2 1/2	2 5/8	2 3/4	2 7/8	3
41	44	48	50	57	60	64	66	69	72	75

NB: 2mm Sherman Type Self Tapping Screws are measured in 2mm increments from 6mm.

DRILL SIZES for Self Tapping Sherman Type Screws - Slotted Head

ST - PREFIX	2.0	7/64" - 2.7mm	9/64" - 3.5mm
PILOT DRILL	1.6	2.4	2.7
JACOBS HARD		H090112	H090104
JACOBS SOFT	090111	090103	090104
SYNTHES FIT		S090112S	S090104S
TAP		N/A	
CLEARANCE DRILL	2.0	2.7	3.5
JACOBS HARD	H090102	H090104	H090106S
JACOBS SOFT	090102	090104	090106
SYNTHES FIT	S090102S	S090104S	S090106S
SCREW DRIVER - FLAT	SDF200	SDF270	SDF350

2mm Self Tapping System (Sherman)

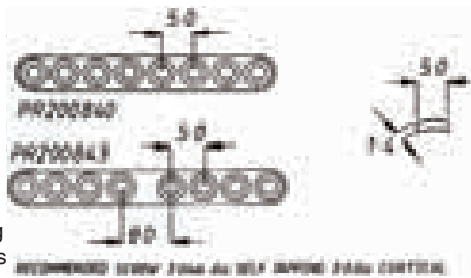


2mm Self Tapping Screws (Sherman)

2MM SELF TAPPING SCREWS - SINGLE SLOT HEAD (USE 1.6MM PILOT)		
ST2006	6mm	£3.60
ST2007	7mm	£3.60
ST2008	8mm	£3.60
ST2009	9mm	£3.60
ST2010	10mm	£3.80
ST2011	11mm	£3.80
ST2012	12mm	£3.80
ST2013	13mm	£3.80
ST2014	14mm	£3.90
ST2015	15mm	£3.90
ST2016	16mm	£3.90
ST2018	18mm	£4.00
ST2020	20mm	£4.00
ST2022	22mm	£4.20
ST2024	24mm	£4.20
ST2026	26mm	£4.40
ST2028	28mm	£4.40
ST2030	30mm	£4.60

2mm Bone Plates (Round holes)

Available in a wide range of sizes, the 2mm Plates used with either 2mm Self Tapping Screws or 2mm AO Cortical Screws, provides the secure repair of the small bones of the dog and cat. See templates for details on page 457.

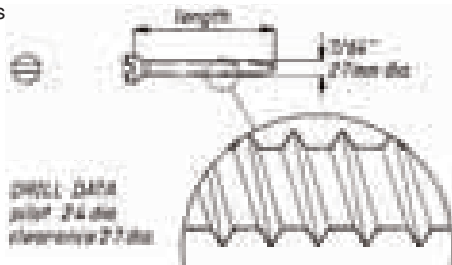


2MM ROUND HOLE PLATE

PR200213	2 (number of holes)	13 (length in mm)	£17.50
PR200420	4	20	£20.00
PR200423	4	23	£20.00
PR200525	5	25	£22.50
PR200528	5	28	£22.50
PR200630	6	30	£26.00
PR200633	6	33	£26.00
PR200735	7	35	£28.00
PR200738	7	38	£28.00
PR200840	8	40	£33.00
PR200843	8	43	£33.00
CP205150	2mm Cuttable Plate 30 Holes x 150mm		£90.00
CM205150	2mm Cuttable Malleable Plate 30 Holes x 150mm		£115.00

2.7mm - 7/64" Self Tapping System (Sherman)

This System of Screws and Plates utilises the familiar 7/64" Self Tapping Screw. The head has a single slot. Until now the available bone plates for this screw were extremely limited, the plates were too weak with too few holes. A wide range of plates are now available, including 'T' Plates and Reconstruction Plates.



2.7MM SELF TAPPING SCREWS - SINGLE SLOT HEAD (USE 2.4MM PILOT)

ST2710	3/8" (length inches)	10mm (length mm)	£3.30
ST2712		12mm	£3.30
ST2713	1/2"	13mm	£3.45
ST2715		15mm	£3.45
ST2716	5/8"	16mm	£3.80
ST2718		18mm	£3.80
ST2719	3/4"	19mm	£3.80
ST2721		21mm	£3.80
ST2722	7/8"	22mm	£3.80
ST2724		24mm	£3.80
ST2725	1"	25mm	£3.80
ST2727		27mm	£3.80
ST2728	1 1/8"	28mm	£3.80
ST2730		30mm	£4.00
ST2731	1 1/4"	31mm	£4.00
ST2733		33mm	£4.00
ST2734	1 3/8"	34mm	£4.00
ST2737		37mm	£4.00
ST2738	1 1/2"	38mm	£4.00
ST2740		40mm	£4.20

2.7MM SELF TAPPING SCREWS - SINGLE SLOT HEAD (USE 2.4MM PILOT) CONTINUED

ST2741	1 5/8"	41mm	£4.20
ST2743		43mm	£4.20
ST2744	1 3/4"	44mm	£4.20
ST2747		47mm	£4.20
ST2748	1 7/8"	48mm	£4.20
ST2749		49mm	£4.20
ST2750	2"	50mm	£4.40
ST2756		56mm	£4.40
ST2757	2 1/4"	57mm	£4.40

2.7mm Round Hole Plate (6mm wide - 2mm thick)

Bone Plates for 2.7mm or 7/64" Screws usually have too few holes in the wrong places. The 2.7mm Round Hole Plate has holes at 6mm intervals in a range of lengths. These Plates are stronger than Sherman Plates. See template for details.



See page 460 for plate profiles.

2.7MM / 7/64" ROUND HOLE PLATE (6MM WIDE)

PR270215	2 (number of holes)	15 (length in mm)	£19.50
PR270424	4	24	£21.00
PR270427	4	27	£21.00
PR270530	5	30	£23.00
PR270533	5	33	£23.00
PR270636	6	36	£25.00
PR270639	6	39	£25.00
PR270742	7	42	£27.00
PR270745	7	45	£27.00
PR270848	8	48	£29.00
PR270851	8	51	£29.00
CP276150	2.7mm / 7/64" Cuttable Plate 25 Holes x 150mm		£90.00
CM276150	2.7mm / 7/64" Cuttable Malleable Plate 25 Holes x 150mm		£115.00

2.7mm Heavy Duty Round Hole Plate

Slightly wider than the Standard 2.7 Round Hole Plate and available in longer sections. This Plate is suitable for applications where extra strength is required, e.g. neutralisation or buttress fixation of long bones.

Plate profiles on page 460.

HEAVY DUTY 2.7MM / 7/64" ROUND HOLE PLATE (8MM WIDE)

HPR270744	7 (number of holes)	44 (length in mm)	£30.00
HPR270750	7	50	£30.00
HPR270850	8	50	£32.00
HPR270856	8	56	£32.00
HPR270956	9	56	£34.00
HPR270962	9	62	£34.00
HPR271062	10	62	£36.00
HPR271068	10	68	£36.00
HPR271168	11	68	£38.00
HPR271174	11	74	£38.00
HPR271274	12	74	£40.00
HPR271280	12	80	£40.00

3.5mm 9/64" Self Tapping Screws (Sherman)

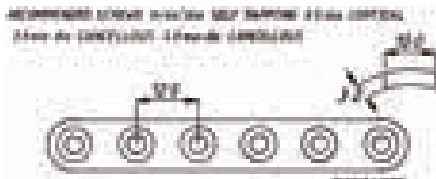
Use Flat Screwdriver SDF350 or Cruciate Screwdriver SDC3500. The head of this Screw is conical. It cannot be used in DCPs to create inter-fragmentary compression.

3.5MM / 9 / 64" SELF TAPPING SCREWS (CROSS SLOT HEAD - USE 2.7MM PILOT)			
ST3510	3/8" (length in inches)	10 (length in mm)	£3.50
ST3512		12	£3.50
ST3513	1/2"	13	£3.50
ST3515		15	£3.90
ST3516	5/8"	16	£3.90
ST3518		18	£3.90
ST3519	3/4"	19	£3.90
ST3521		21	£3.90
ST3522	7/8"	22	£3.90
ST3524		24	£3.90
ST3525	1"	25	£3.90
ST3527		27	£3.90
ST3528	1 1/8"	28	£3.90
ST3530		30	£4.20
ST3531	1 1/4"	31	£4.20
ST3534	1 3/8"	34	£4.20
ST3537		37	£4.20
ST3538	1 1/2"	38	£4.20
ST3540		40	£4.50
ST3541	1 5/8	41	£4.50
ST3543		43	£4.50
ST3544	1 3/4"	44	£4.50
ST3547		47	£4.50
ST3548	1 7/8"	48	£4.50
ST3549		49	£5.00
ST3550	2"	50	£5.00
ST3556		56	£5.00
ST3557	2 1/4"	57	£5.00
ST3563		63	£5.00
ST3564	2 1/2"	64	£5.00

3.5mm Standard Round Hole Plates

A cheaper alternative to 3.5mm Compression Plates. If compression is unnecessary or undesirable use a Round Hole Plate.

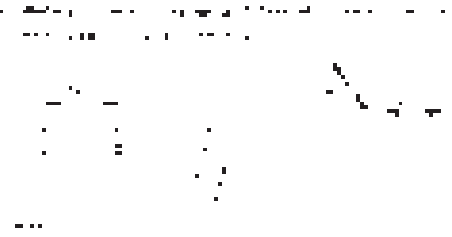
Plate profiles on page 465.



3.5MM / 9/64" ROUND HOLE PLATE			
P3502022	2 (number of holes)	22 (length in mm)	£19.50
P3504046	4	46	£21.00
P3504052	4	52	£21.00
P3505058	5	58	£23.00
P3505064	5	64	£23.00
P3506070	6	70	£25.00
P3506076	6	76	£25.00
P3507082	7	82	£27.00
P3507088	7	88	£27.00
P3508094	8	94	£29.00
P3508100	8	100	£29.00
P3509106	9	106	£31.00
P3509118	9	118	£31.00
P3510118	10	118	£33.00
P3510130	10	130	£33.00

3.5mm Heavy Duty Plate Round Holes (12mm wide 4mm thick)

The Heavy Duty Plate is stronger than either 3.5mm Compression Plate or our 3.5mm Standard Round Hole Plate. Use of this Plate makes 3.5mm Cortical or 9/64" Sherman Screws appropriate in even the largest canine breed. The plate profile is the same as a 3.5mm Broad DCP. Plate profiles on page 465.

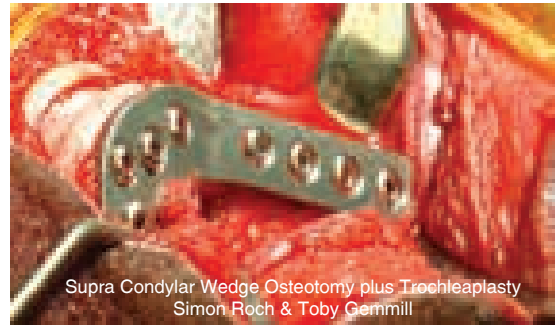


HEAVY DUTY 3.5MM / 9/64" ROUND HOLE PLATE			
H3508104	8 (number of holes)	104 (length in mm)	£30.00
H3509117	9	117	£32.00
H3510130	10	130	£34.00
H3511143	11	143	£36.00
H3512156	12	156	£38.00
H3513169	13	169	£40.00
H3514180	14	180	£42.00
H3515195	15	195	£45.00

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Supra Condylar Wedge Osteotomy plus Trochleaplasty
Simon Roch & Toby Gemmill

Designed by Vets for Vets

Interlocking Nail System

Interlocking Nails are a refinement of the original Kuntscher Nail. An Interlocking Nail is basically an Intra-medullary Pin secured in position by proximal and distal transfixing screws which engage the bone to the nail to provide axial, bending and torsional stability.



In comminuted long bone fractures, the Interlocking Nail System is useful due to the mechanical advantage of medullary implantation (i.e. mechanical axis) and prevention of collapse of the fracture by the interlocking effect. Ancillary cerclage wires reduce periosteal stripping and minimise disturbance to blood supply compared to plating.

Veterinary Instrumentation stocks the 4 hole no.11 Nails (11mm spacing) in 8.0, 6.0, 4.7 and 4.0mm Nail diameters.

We also maintain stocks of additional Drill Bits and Taps - please phone for information.

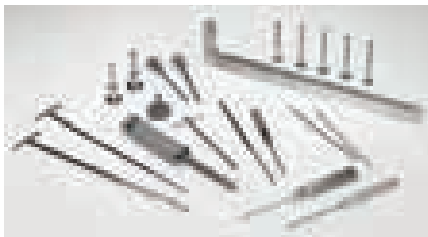
Model 11 - 6mm/8mm with Interlocking Nails for 2.7mm and 3.5mm Screws



INTERLOCKING NAILS - MODEL 11 - 6MM/8MM

IN1168SETBAS	Model 11 - 6mm/8mm with Interlocking Nails - Full Set See above for details	£4,375.00
IN1122TAPHAND	Tap Handle	£195.00
IN112227TAP	2.7mm Extra Long Tap	£85.00

Model 11 - 4.0/4.7mm with Interlocking Nails for 2.0mm Screws

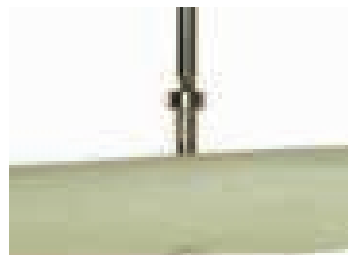


INTERLOCKING NAILS - MODEL 11 - 4.0 / 4.7MM

IN1147SETBAS	Model 11-4.7/ 4.0mm with Interlocking Nails Full Set	£3,750.00
IN1122TAPHAND	Tap Handle	£195.00
IN114720TAP	2.0mm Extra Long Tap	£85.00

Interlocking Nail Bolts

Uni-cortical and self tapping. Use of these bolts shortens operative time considerably. Bolts come as a standard length and are cut to size (recommended IN Bolt Cutter, 001229). Pilot Drill is same as the bolt diameter.



INTERLOCKING NAIL BOLTS

INB2020	2.0mm Interlocking Nail Bolt 20mm Long - cut to length	£16.00
INB2736	2.7mm Interlocking Nail Bolt 36mm Long - cut to length	£16.00
INB3540	3.5mm Interlocking Nail Bolt 40mm Long - cut to length	£16.00

Interlocking Nails

4.0MM 4 HOLE NAILS. MODEL 11. 2.0MM SCREWS.		
IN1140068020220	68mm Length	£74.50
IN1140079020220	79mm Length	£74.50
IN1140091020220	91mm Length	£74.50
IN1140101020220	101mm Length	£74.50
IN1140112020220	112mm Length	£74.50
4.7MM 4 HOLE NAILS. MODEL 11. 2.0MM SCREWS.		
IN1147068020220	68mm Length	£74.50
IN1147079020220	79mm Length	£74.50
IN1147091020220	91mm Length	£74.50
IN1147101020220	101mm Length	£74.50
IN1147112020220	112mm Length	£74.50
6.0MM 4 HOLE NAILS. MODEL 11. 2.7MM SCREWS		
IN1106140020227	140mm Length	£74.50
IN1106160020227	160mm Length	£74.50
IN1106185020227	185mm Length	£74.50
IN1106205020227	205mm Length	£74.50
IN1106230020227	230mm Length	£74.50
8.0MM 4 HOLE NAILS. MODEL 11. 3.5MM SCREWS		
IN1108140020235	140mm Length	£74.50
IN1108160020235	160mm Length	£74.50
IN1108185020235	185mm Length	£74.50
IN1108205020235	205mm Length	£74.50
IN1108230020235	230mm Length	£74.50

Some three hole nails are available - please ring for details.

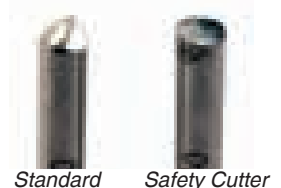
Interlocking Nail Drill Bits

INTERLOCKING NAIL DRILL BITS		
IN114715SSDB	Interlocking Nail Drill Bit 1.5mm Stainless	£45.00
IN112220SSDB	Interlocking Nail Drill Bit 2.0mm Stainless	£45.00
IN112225SSDB	Interlocking Nail Drill Bit 2.5mm Stainless	£45.00
IN112227SSDB	Interlocking Nail Drill Bit 2.7mm Stainless	£45.00
IN112235SSDB	Interlocking Nail Drill Bit 3.5mm Stainless	£45.00

Interlocking Nail Bolt Cutter 4mm

Most types of bolt cutter deform the pin as they cut. In addition the cut end can fly off in a dangerous manner.

Veterinary Instrumentation's Safety Cutter cuts cleanly, without deformation and prevents fly off. Also very useful for ESF Pins to 4mm.



INTERLOCKING NAIL BOLT CUTTER 4MM

001229	Safety Cutter to 4mm	£315.00
001229/A	Interlocking Nail Bolt Measuring Rule (for use with Safety Cutter)	£24.50

Rush Pins

We stock Rush Pins in 2.4mm (3/32") and 3.2(1/8") diameters. Lengths vary from 25mm (1") to 100mm (4").

RUSH PINS		
090140 TO 152	Rush Pins 2.4mm (3/32")	£18.50
090201 TO 212	Rush Pins 3.2mm (1/8")	£18.50

HELICA CEMENTLESS HIP SYSTEM

Modular, Cementless, Screw-in Total Hip Replacement.

Now available with improved three part stem. (TPS)



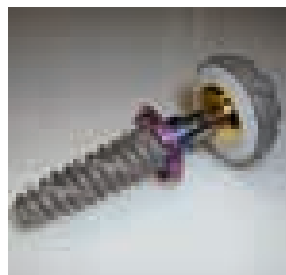
The Helica System of Total Hip Replacement is unique in a number of respects.

Most cementless systems rely on a 'press fit' for at least one implant component. Creation of the site for the component is critical and technically demanding or the component will not lock into position. In addition, press fit components are vulnerable until osseous integration develops over several weeks (if it happens at all). In man this is less of an issue in that the patient can strictly control the stress placed on the new hip. We have much less control over our canine patients during this critical phase.



Both Helica components screw into position giving post operative security during the phase of osseous integration. The cup is not only fixed very rigidly but can even be re-positioned intra-operatively, should it be required, without losing any security. The Helica cup may be used with all other leading brands of stems to create a hybrid system with maximum cup security.

The stem is a short prosthesis located entirely in the proximal femur. Only the articular surface is removed during implantation retaining the maximum bone stock. The new Three Part Stem (TPS) ensures more accurate positioning of the stem in addition to an increased surface area for load dispersement. A choice of flanges is available to suit individual femoral neck size.



The surface of both acetabular shell and femoral stem are treated to maximise osteointegration of implants.



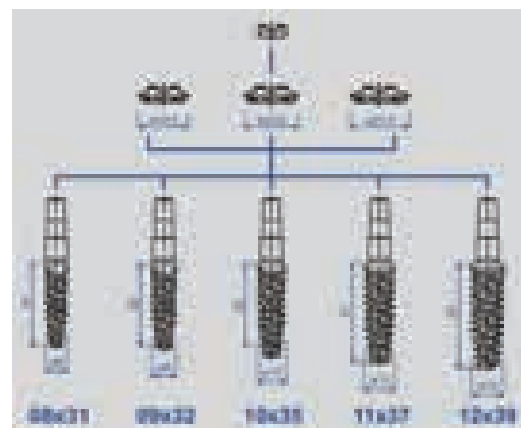
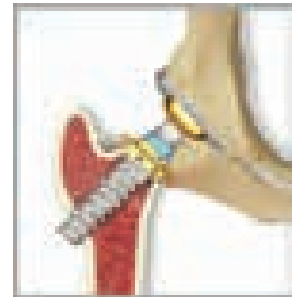
The outer surface of the acetabular cup is threaded for rapid screw-in insertion. Repositioning of cups intraoperatively is straight forward. Revision cups for other systems are available.

Both femoral and acetabular components screw into position allowing immediate loading. The surface finish of the titanium components encourages rapid osteointegration. Flexibility is achieved by:

- 5 Stem sizes
- 6 Neck lengths
- 3 Flanges for the femoral neck
- 6 Acetabular Cup sizes

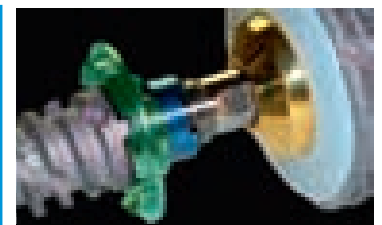
Once the implantation sites have been prepared the implants self tap into position.

Only the articular surface of the femoral head is removed, retaining the maximum amount of bone stock to support the femoral prosthesis, which screws into place. Although perhaps counter intuitive the small stem in the proximal femur loads at least as well as long stemmed prostheses.



Advantages

- Short surgery time
- Minimally invasive
- Cementless technique
- Screw-in implants
- Immediately loadable
- Cost effective



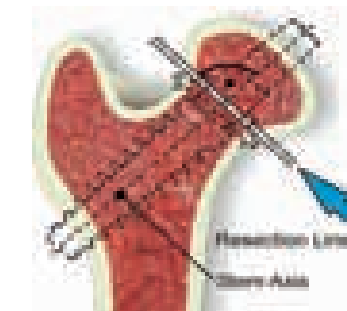
HELICA Surgical Technique

Pre-operative assessment and planning gives the predicted size of cup, stem and head/ neck.

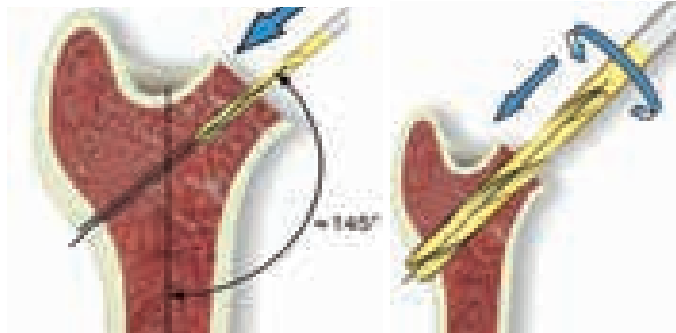
The acetabulum is prepared by reaming with progressively larger and larger reamers finishing with the predicted size.



Using the insertion T grip and alignment aid the threaded shell for the acetabulum is positioned ready for insertion. The threads on the shell are self tapping and are firmly screwed into position. After assessment the shell may be re-positioned if necessary.



The resection of the femoral head is made just distal to the bone-cartilage interface. The resection is made perpendicular to the femoral stem implant axis. The face of the osteotomy will be milled at a later stage to ensure that the bed for the femoral component flange is aligned correctly. The osteotomy is facilitated by use of the Helica Hohman to lift the femoral head.



The femoral component must be inserted along the axis of the femoral neck. It is important to spend time establishing the correct axis.

A CCD angle of 145 to 147 degrees is desirable.

Much thought and care should be taken when placing the initial 2.0 or 2.5mm drill hole which should exit the lateral cortex. Drills of increasing size are used to open up the femoral neck. Each drill should exit the lateral cortex. The final drill for the femoral neck will be the pilot drill for the predicted femoral component.



The axis is determined in part by eye but aided by a goniometer. The axis is established initially by a small drill which is progressively opened using larger and larger drills.

The extension pin is added to the chosen stem to ensure correct alignment of the stem in the femoral neck. The stem is slowly screwed into position until the tip exits the lateral cortex. The fine thread at the neck of the stem should sit below the resection line. The milling tool will remove excess bone to leave the resection line at right angles to the stem.



The milling tool prepares the bone surface for the flange which sits on and spreads the load onto the femoral neck. The new stem design ensures that the flange will always sit squarely on the milled area. The flange is fitted and locked in position by a locking ring.



The cup inlay is a click fit into the acetabular shell. Insertion is accomplished using an insertion tool. The rim of the inlay should sit flush with the shell margin.

After trialling, the appropriate femoral head is locked onto the femoral neck. The interface is a very secure Morse taper. Hybrid heads are available to fit other hip systems to allow the use of the Helica cup when revising other system cup failures.



The selected head is fitted.

Correct positioning of the implants is confirmed by radiography.

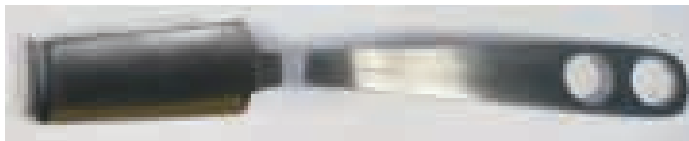
This surgical guide is included to give an over view of the technique. Surgeons contemplating use of the Helica system must attend a recognised training course. A fuller illustrated guide is included.

HELICA Hybrids

The stability of the Helica Cup is such that it may be used in conjunction with press fit cups from other systems either as a revision or as a primary procedure.

Helica Heads are available in various lengths which interface with Stems for the Kyon and BFX Systems. These Heads fit standard Helica cups. The tray of Acetabular Instruments may be purchased separately after attending an approved training course.

Ancillary Helica Instrumentation



Three instruments, not included in the standard sets, make osteotomy and alignment of the femoral stem significantly easier and are recommended. The Meyerding is a very powerful hand held retractor.

The Helica Hohman has a dished profile and fine teeth along its leading edge to lift the femoral head and neck up from the incision for osteotomy. The goniometer helps the surgeon to establish the correct axis for the femoral stem at an angle of 145 to 147 degrees.

HELICA ANCILLARY INSTRUMENTS		
001038	Helica Hohman Large	£69.50
001037	Helica Hohman Medium	£69.50
001036	Helica Hohman Small	£69.50
0010300SET	Helica Hohman Set (Set of 3 as above)	£160.00
HE-GONIO	Helica Goniometer	£66.50
150019	Meyerding Retractor	£62.50

Helica Total Hip Instrumentation



HELICA TOTAL HIP INSTRUMENTATION		
HE-KIT	Helica Instrument Kit	£5,750.00

Helica Total Hip Implants

ACETABULAR CUPS		
HE-HC1-T22	Helica 22mm Acetabular Cup	£465.00
HE-HC1-T24	Helica 24mm Acetabular Cup	£465.00
HE-HC1-T26	Helica 26mm Acetabular Cup	£465.00
HE-HC1-T28	Helica 28mm Acetabular Cup	£465.00
HE-HC1-T30	Helica 30mm Acetabular Cup	£465.00
HE-HC1-T32	Helica 32mm Acetabular Cup	£465.00
TPS STEMS		
HE-HS3-T0831	TPS Helica Stem 8mm x 31mm (2012 Version)	£345.00
HE-HS3-T0932	TPS Helica Stem 9mm x 32mm (2012 Version)	£345.00
HE-HS3-T1035	TPS Helica Stem 10mm x 35mm(2012 Version)	£345.00
HE-HS3-T1137	TPS Helica Stem 11mm x 37mm(2012 Version)	£345.00
HE-HS3-T1239	TPS Helica Stem 12mm x 39mm(2012 Version)	£345.00
TPS FLANGE		
HE-HF3-T18.5	TPS Helica Flange 18.5mm (inc 1 Locking Nut)	£60.00
HE-HF3-T20	TPS Helica Flange 20.0mm (inc 1 Locking Nut)	£60.00
HE-HF3-T22	TPS Helica Flange 21.5mm (inc 1 Locking Nut)	£60.00
TPS LOCKING NUT		
HE-HN3-T08	TPS Helica Locking Nut (for replacement)	£18.00
FEMORAL HEADS		
HE-FH1-15S	Helica 15mm Femoral Head - Short	£135.00
HE-FH1-15M	Helica 15mm Femoral Head - Medium	£135.00
HE-FH1-18S	Helica 18mm Femoral Head - Short	£135.00
HE-FH1-18M	Helica 18mm Femoral Head - Medium	£135.00
HE-FH1-18L	Helica 18mm Femoral Head - Long	£135.00
HE-FH1-18XL	Helica 18mm Femoral Head - Extra Long	£195.00
HE-FH1-18XXL	Helica 18mm Femoral Head - XX Long	£195.00
INLAYS		
HE-AL1-P22	Helica 22mm Inlay	£95.00
HE-AL1-P24	Helica 24mm Inlay	£95.00
HE-AL1-P26	Helica 26mm Inlay	£95.00
HE-AL1-P28	Helica 28mm Inlay	£95.00
HE-AL1-P30	Helica 30mm Inlay	£95.00
HE-AL1-P32	Helica 32mm Inlay	£95.00
HYBRID REVISION IMPLANTS		
HE-FHB-18-0	Helica Hybrid 18mm Femoral Head Biometric Shank + 0	£175.00
HE-FHB-18-3	Helica Hybrid 18mm Femoral Head Biometric Shank + 3	£175.00
HE-FHB-18-6	Helica Hybrid 18mm Femoral Head Biometric Shank + 6	£175.00
HE-FHK-18XS	Helica Hybrid 18mm Femoral Head Kyon Extra Short	£175.00
HE-FHK-18S	Helica Hybrid 18mm Femoral Head Kyon Short	£175.00
HE-FHK-18M	Helica Hybrid 18mm Femoral Head Kyon Medium	£175.00
HE-FHK-18L	Helica Hybrid 18mm Femoral Head Kyon Long	£175.00
HE-FHK-18XL	Helica Hybrid 18mm Femoral Head Kyon Extra Long	£175.00

Helica Total Hip Stem Implants (Original Version)

These Stems are the original design to be used in conjunction with the original instrumentation.

STEMS		
HE-HS1-T0826	Helica Stem 8mm x 26mm	£360.00
HE-HS1-T0928	Helica Stem 9mm x 28mm	£360.00
HE-HS1-T1028	Helica Stem 10mm x 28mm	£360.00
HE-HS1-T1132	Helica Stem 11mm x 32mm	£360.00
HE-HS1-T1232	Helica Stem 12mm x 32mm	£360.00

Innoplant Total Hip Replacement

The manufacturer of the well established Helica system has a long history of producing implants and instruments for the human field. Recognising that no one system will suit every case, Innoplant has developed a family of Total Hip Replacement systems which allow the surgeon to deal appropriately with each case. The systems are compatible with each other enabling a 'mix and match' protocol, selecting each component on the merits of the case. It is possible for example to use a screw-in cementless cup together with a cemented long stem. The various options facilitate a straight forward revision should it be required.

Using an Innoplant screw-in cup and revision stem plus ball, a failed Kyon or Biomedtrix cup may be revised.



CementA Cemented System

Produced by Innoplant, the manufacturers of the Helica system, the CementA system both compliments and offers an alternative to Helica and other hip replacement systems. The heads and cups of CementA are interchangeable with all other Innoplant systems.

One of the features of Helica is that it is possible to easily revise the Helica using a long stemmed system. The CementA system is ideal due to the compatibility of components with Helica.

CementA is an ideal stand alone cemented system requiring a minimum of dedicated instrumentation.



Composition

Cobalt Chrome Molybdenum alloy (CoCrMo, ISO 5832-4, ASTM F75).

Available in 5 sizes

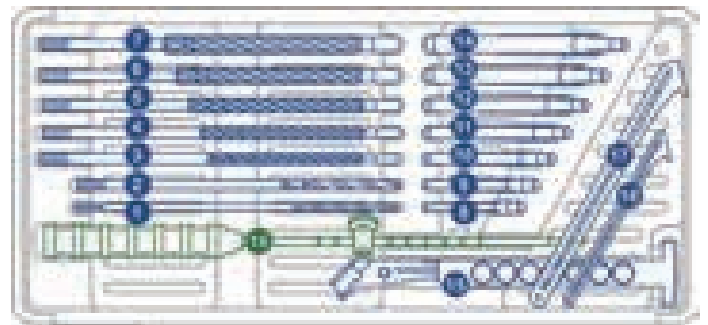
Sizes not shown to scale



CementA Stem Instrumentation



The instrumentation required for the stem is un-complicated. The set includes reamers and trial stems for all sizes. The reamer system is modular in design, all reamer shafts fitting the same ergonomic handle.



Cement Restrictor



The cement restrictor is placed in the reamed medullary canal distal to the anticipated position of the stem tip. The restrictor prevents extrusion of the cement distally which maintains the cement mantle and minimises displacement of the distal contents of the femur.

Composition

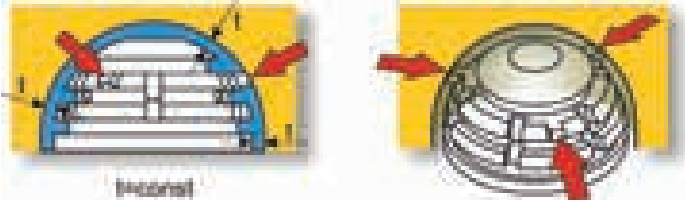
UHMWPE ISO 5834-1

ASTM F648

CemtA Cup

The CemtA cup may be used with either the cemented CemtA stems or the familiar Helica stems. Self-centering pegs ensure that the cup is centered in the reamed acetabulum. This ensures an even mantle of cement.

The CemtA cup is available in six sizes to match all stem options.

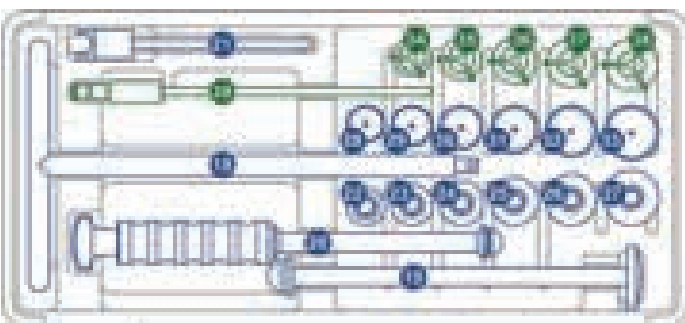
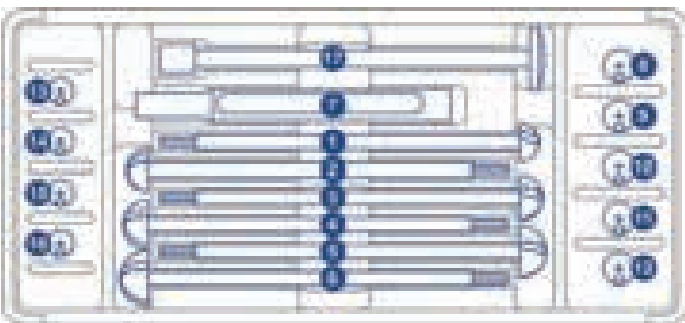


Composition: UHMWPE ISO 5834-1, ASTM F648
Radioluscent ring Stainless 316L ISO 5832-9

CemtA Cup Instrumentation



The full Cup Set comprises two trays including all the instrumentation and trial implants both both the screw cup (familiar from the Helica system) and the new CemtA cemented cup. If required the cup set may be configured for the CemtA cup only.



Clinical case showing both CemtA stem and CemtA cup in situ.
12 month Beagle
CemtA stem 4 plus 21mm cup
Case thanks Gereon Viefhues

CEMTA STEMS			
HE-CS1-C-04	CemtA Stem	#4	£355.00
HE-CS1-C-05	CemtA Stem	#5	£355.00
HE-CS1-C-06	CemtA Stem	#6	£355.00
HE-CS1-C-07	CemtA Stem	#7	£355.00
HE-CS1-C-08	CemtA Stem	#8	£355.00

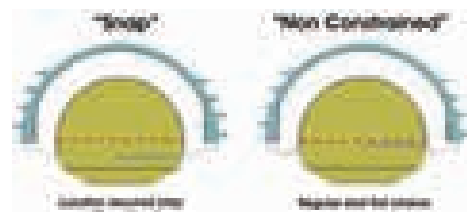
CEMTA CUPS		
HE-CC1-P-21	CemtA Cup 21mm	£225.00
HE-CC1-P-23	CemtA Cup 23mm	£225.00
HE-CC1-P-25	CemtA Cup 25mm	£225.00
HE-CC1-P-27	CemtA Cup 27mm	£225.00
HE-CC1-P-29	CemtA Cup 29mm	£225.00

15MM FEMORAL HEADS FIT CEMTA AND HELICA STEMS		
HE-FH1-S-15-S	15mm Femoral Head Small	£125.00
HE-FH1-S-15-M	15mm Femoral Head Medium	£125.00
HE-FH1-S-15-L	15mm Femoral Head Large	£125.00
HE-FH1-S-15-XL	15mm Femoral Head Extra Large	£125.00
HE-FH1-S15-XXL	15mm Femoral Head Extra Extra Large	£125.00

CEMTA INSTRUMENTATION		
HE-300-KS-14	Full Instrumentation for Screw Cup/CemtA Cup Set 1 & Set 2	£4,750.00
HE-300-KS-12	Full Instrumentation for CemtA stems	£3,750.00

CEMENT RESTRICTOR		
HE-CR1-P-01	Cement Restrictor Size 1	£45.00
HE-CR1-P-02	Cement Restrictor Size 2	£45.00

Inlay options for Screw Cup



The standard inlay for the screw cup for use with both Helica and CemtA stems is non-constrained. Certain cases which for reasons of conformation or soft tissue benefit from a 'Snap Inlay' which is retentive.

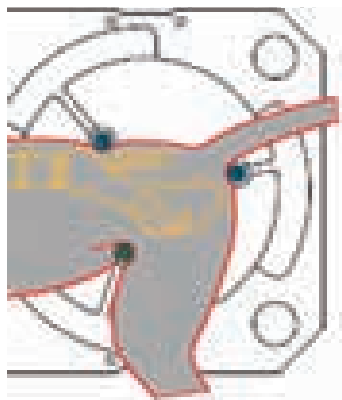
Hip Fixation and Navigation Device



During Total Hip Replacement procedure, correct placement of the acetabular cup is essential. Navigation Devices have been around for some time, often home-made.

This Navigation Device gently positions the patient in the correct position, and includes an orientation guide to ensure the correct inclination and retroversion angles are maintained.

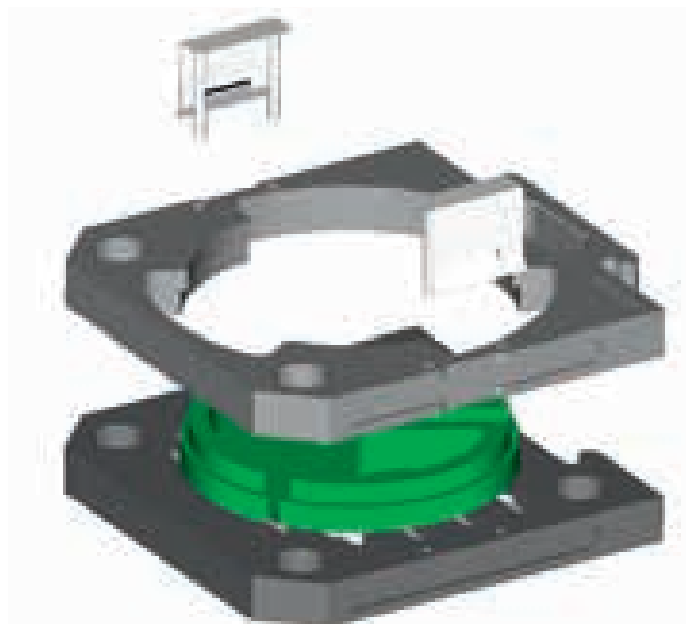
The blue handle allows easy rotation of the table to aid comfortable positioning, reducing the risk of stress on the spine.



Construction is of titanium and high-strength aluminium, for easy cleaning and maintenance.

When not in use, the table can be disassembled for storage.

The two halves of the table feature slots for all components, clipping together to for secure storage between uses.

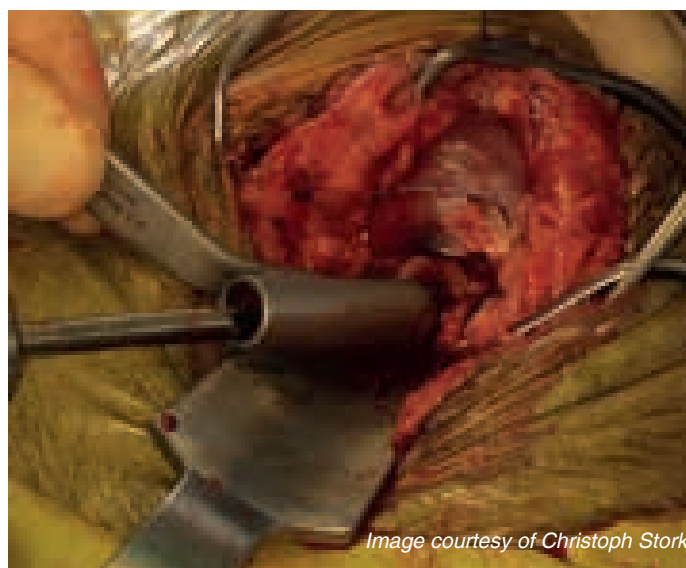


HIP FIXATION AND NAVIGATION DEVICE

HE-HFN-KS-01 Hip Fixation and Navigation Device

£2,125.00

Helica Drill Guide



This Drill Guide was modified by Christoph Stork, DipECVS, as an aid to drilling of the femoral neck during the Helica total hip joint replacement. In essence, this is an over-sized soft-tissue protector with a very large bore of 9mm accepting the largest of the drill-bits used in this procedure.

HELICA DRILL GUIDE

HELICADG Helica Drill Guide 9mm Diameter Bore

£85.00

Veterinary Instrumentation Modular Hip System (Cemented)



Photography: Hamish Denny

The modular format gives four different femur combinations. Two stem sizes are available. The taper neck is the same on both. Two ball options are available, the ball diameter is 15mm in both cases. The “short neck” ball when fitted to the standard taper neck gives a short necked prosthesis and the “long neck” ball gives a long necked prosthesis. When combined with the two acetabular cups a total of 8 combinations are possible. The most common combination is a small stem and long neck ball together with a small acetabular cup.

The surgeon most familiar with the system is Hamish Denny FRCVS, who helped develop the system and has performed over 200 procedures. He also produced the instructional DVD which is available on free loan. This is not a ‘high tech’ system which requires a mass of dedicated instrumentation and jigs. It is a simple, well proven system which assumes that the surgeon has the knowledge and expertise to complete the procedure.

Combination	Stem size	Neck	Acetabular cup
1	Small Stem	Short	Small
2	Small Stem	Long	Small
3	Small Stem	Short	Medium
4	Small Stem	Long	Medium
5	Large Stem	Short	Small
6	Large Stem	Long	Small
7	Large Stem	Short	Medium
8	Large Stem	Long	Medium

Femoral Prosthesis



Two stems are available which are identical distally. Supplied sterile.

FEMORAL PROSTHESIS		
150200	Large Stem (Sterile)	£250.00
150201	Small Stem (Sterile)	£250.00
150300	Long Ball (Sterile)	£135.00
150301	Short Ball (Sterile)	£135.00
HDTHPDVD	Hamish Denny Total Hip DVD	£45.00

Acetabular Cups

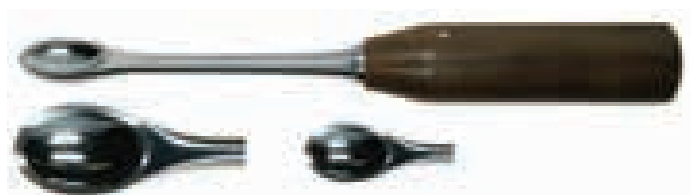


Two sizes are available. The internal diameter is the same, as all the heads of the femoral components are 15mm in diameter. The only difference between the cups is the wall thickness and therefore the outside diameter.

All cups are marked with stainless rings to establish cup position on radiographs. Cups have very deep grooves on the external diameter to provide good cement keying. Supplied sterile.

ACETABULAR CUPS		
150402	Medium Acetabular Cup (Sterile)	£145.00
150401	Small Acetabular Cup (Sterile)	£145.00

Hatt Spoon



An alternative to the disarticulator in large dogs. The edge of the spoon is sharp. As used by Marvin Olmstead. The VI version has a narrower shaft and a fibre handle for ease of use.

HATT SPOON		
001092	Hatt Spoon 17mm x 30mm Scoop 230mm Long	£65.00
001093	Hatt Spoon 12mm x 18mm Scoop 230mm Long	£65.00
001094	Hatt Spoon 7mm x 12mm Scoop 230mm Long	£65.00
00109SET	Hatt Spoon Set of 3 (as above)	£125.00

Femoral Rasp



The aim of the Femoral Rasp is to produce a hole the same shape as the stem of the femoral prosthesis plus a margin for the bone cement. The Femoral Rasp can create seating for both stems in that both stems have a similar profile distally and differ only in the proximal area. To create a seating for the large stem simply make a deeper hole.

FEMORAL RASP

150005	Femoral Rasp	£495.00
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Femoral Reamer

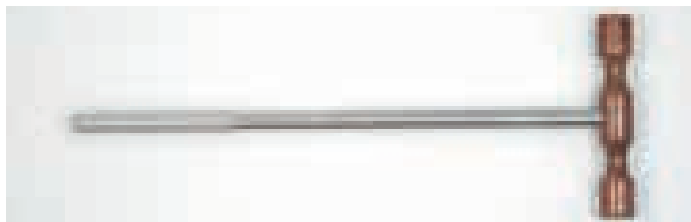


Use in conjunction with the femoral rasp to open up the proximal femur. 'T' handle format with an overall length of 270mm. Use 6mm for the distal portion and 8mm proximally.

FEMORAL REAMER

150003	Femoral Reamer 6mm 270mm Long	£265.00
150004	Femoral Reamer 8mm 270mm Long	£265.00

Cylindrical Rasp



Use to widen opening in femur. Available in 6mm and 8mm diameter.

CYLINDRICAL RASP

150008	Cylindrical Rasp 6mm Diameter	£265.00
150009	Cylindrical Rasp 8mm Diameter	£265.00

Acetabular Reamers



Photography: Hamish Denny



Each Reamer is designed to produce a prepared bed for each cup. The Reamer shaft is 1/4" (6.3mm) to fit air or electric rechargeable drills. The multi-bladed style has a much longer life than the cheese grater type. Good soft tissue retraction is essential. The Reamer head can be re-sharpened on an exchange basis.

ACETABULAR REAMERS

150012	Small Acetabular Reamer	£265.00
150010	Medium Acetabular Reamer	£265.00

Acetabular Skid



A double-ended instrument useful in the dislocation of the femoral head prior to excision. Also useful in "helping" the head of the femoral prosthesis into the acetabular cup.

ACETABULAR SKID

6200/05	Acetabular Skid	£95.00
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Femoral Prosthesis Pusher

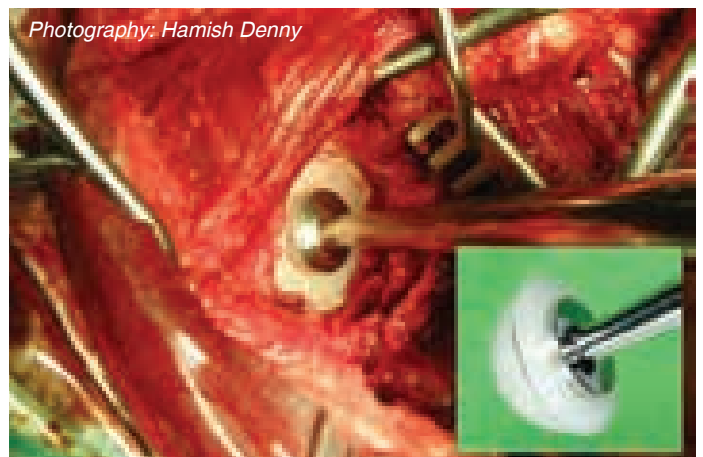


This instrument fits both small and large femoral prostheses and allows the surgeon to position the stem and apply pressure as the cement sets.

FEMORAL PROSTHESIS PUSHER

161602B	Femoral Prosthesis Pusher	£205.00
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Acetabular Cup Positioner



Photography: Hamish Denny



This instrument holds the acetabular cup in position as the cement sets.

ACETABULAR CUP POSITIONER

161602A	Acetabular Cup Positioner	£205.00
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Meyerding Retractor



A heavy duty retractor for use around the hip. Much favoured by Marvin Olmstead.

MEYERDING RETRACTOR

150019	Meyerding Retractor 16mm	£62.50
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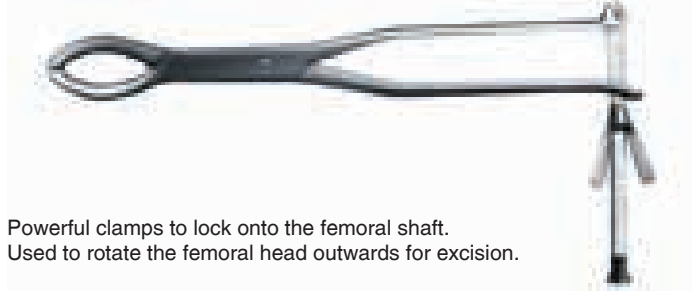
Hohman Retractor 20mm Wide with Short Kinked Tip

This Hohman is designed for femoral neck retraction for THR. Please see page 82 for further information.



HOHMAN RETRACTOR 20MM WIDE WITH SHORT KINKED TIP		
001039	Hohman 20mm Wide with Short Kinked Tip	£69.50

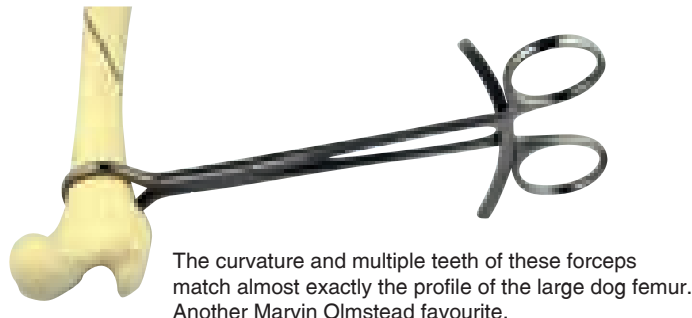
Heygroves Femur Grasping Forceps



Powerful clamps to lock onto the femoral shaft. Used to rotate the femoral head outwards for excision.

HEYGROVES FEMUR GRASPING FORCEPS		
150017	Heygroves Femur Grasping Forceps 10" Long	£155.00

Lewin Femur Grasping Forceps



The curvature and multiple teeth of these forceps match almost exactly the profile of the large dog femur. Another Marvin Olmstead favourite.

LEWIN FEMUR GRASPING FORCEPS		
150018	Lewin Femur Grasping Forceps	£99.50

Total Hip Replacement Kit

The Total Hip Replacement Kit is a cost effective solution saving over 10% when compared to the component costs. The set also includes one of each implant.

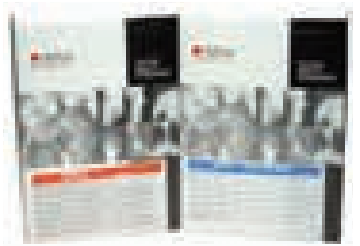
Our Total Hip Replacement Kit includes the following:	
INSTRUMENTS	IMPLANTS
Cylindrical Rasp 6mm	Stem Small
Cylindrical Rasp 8mm	Stem Large
Femoral Rasp	Short Neck Ball
Femoral Reamer 8mm	Long Neck Ball
Femoral Reamer 6mm	Cup Small
Acetabular Reamer Small	Cup Medium
Acetabular Reamer Medium	Training DVD
Stem Positioner	Stainless Case
Cup Positioner	
Lewin Bone Holding Forceps	Please note that the kit does not include bone cement.
Meyering Retractors x 2	
Trial Stem Small	
Trial Stem Large	
Trial Cup Small	
Trial Cup Medium	

TOTAL HIP REPLACEMENT KIT		
150001	Total Hip Replacement Kit	£3,650.00

Bone Cement

DePuy CMW Bone Cement

Designed for total hip replacement. CMW is the industry standard. Various options are available. Also useful in stabilisation of vertebral fractures/luxations.



CMW1 is a medium/high viscosity cement for digital application

CMW2 is a rapid set cement suitable for the acetabular cup via digital application.

CMW3 is a more fluid cement which is more appropriate for the femoral component. It is usually applied via a 50ml syringe.

CMW cement comes impregnated with Gentamycin which minimises post operative infection, the worst complication of the procedure.

CMW BONE CEMENT		
160506	CMW1 no Gentamycin 40g	£90.00
160500	CMW1 with Gentamycin 20g	£110.00
160501	CMW2 with Gentamycin 20g	£110.00
160503	CMW3 with Gentamycin 20g	£110.00
160504	CMW3 with Gentamycin 40g	£130.00

Veterinary Instrumentation Bone Cement



VETERINARY INSTRUMENTATION BONE CEMENT VACUUM MIX		
BC1	High Viscosity 40g	£55.00
BC1G	High Viscosity 40g with Gentamycin	£65.00
BC3G	Low Viscosity (syringe) 60g with Gentamycin	£65.00
CVAC	Mixing System (unit)	£65.00
CGUN	Application Gun	£595.00
BOWLSET	Set of 3 Mixing Bowls and Spatula	£14.50
SPATDISP	Disposable Spatula - Non-sterile (100 units)	£6.25
SYRINGE	50ml Catheter Mount Syringe Sterile	£4.95
SPATULA	Autoclavable Plastic Mixing Spatula	£6.75

Antibiotic Impregnated Polymethacrylate Beads (AIPMMA)

Management of chronic local infections may benefit from the insertion of antibiotic impregnated polymethacrylate(AIPMMA) beads. The Beads are manufactured from sterile bone cement with the addition of appropriate antibiotic.

Indications include osteomyelitis and abscessation in the rabbit.

Veterinary Instrumentation offers two Kits for the preparation of AIPMMA Beads. Both Kits contain sufficient material for approximately 100 sterile Beads. Store unused beads in sterile containers for maximum shelf life.

Full instructions are included.

ANTIBIOTIC IMPREGNATED POLYMETHACRYLATE BEADS (AIPMMA)		
BC1GKIT	AIPMMA Bead Kit with Gentamycin	£80.00
BC1KIT	AIPMMA Bead Kit No Antibiotic	£75.00

Arthrex Cue System



Medial compartment disease in dogs is a painful degenerative condition which is difficult to treat. Total Elbow Replacement is not as straightforward as Total Hip.

The advent of the Arthrex CUE System brings an alternative, less invasive, treatment option.

The System consists of humeral and ulnar components in 2 sizes, plus a small range of specialised instruments for implantation.

A Step by Step Guide and Brochure are available online or can be requested by calling 0845 130 9596.

Surgeons who wish to use the CUE System must first attend a CUE Training Course. These will be advertised on our website, and surgeons interested in attending should e-mail info@vetinst.com to register their interest.

CUE Surgical Technique

A summary of the surgical procedure supplied by Arthrex follows. A full version of this can be supplied free of charge from Veterinary Instrumentation. Either call 0845 130 9596 or visit our website www.vetinst.com.



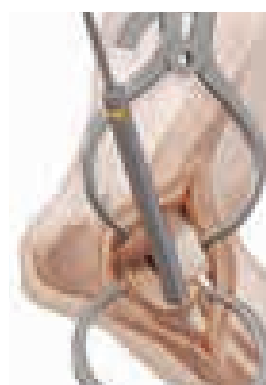
Approach is medial either with tenotomy or with epicondylar osteotomy is selected. See full guide for more information.



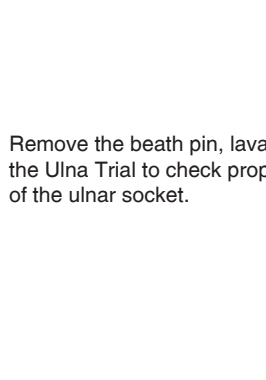
Gelpis retract periarticular tissues. Assistant maintains valgus and internal rotation allowing CUE instrument to be placed perpendicular to the articular surfaces of the humeral condyle (MHC) and medial coronoid process (MCP).



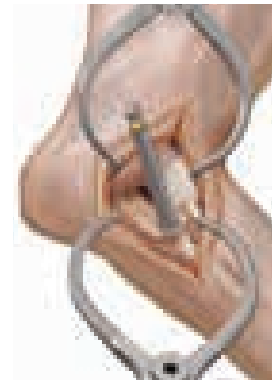
Ulna Implant



Centre the appropriate size Ulna Drill Guide on the MCP, flush to the articular surface, and place a beath pin through the Ulna Drill Guide to exit the caudal ridge of the ulna. When the beath pin is properly placed, use the Ulna Drill (reamer) to create the ulnar socket.

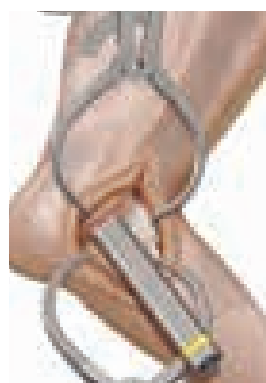


Remove the beath pin, lavage and use the Ulna Trial to check proper reaming of the ulnar socket.



Proceed to place Humerus Implant before final placement of Ulna Implant

Humerus Implant

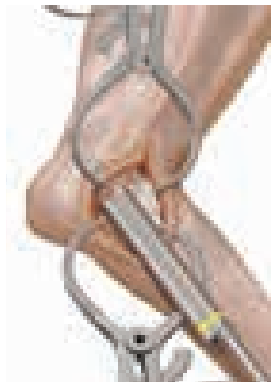
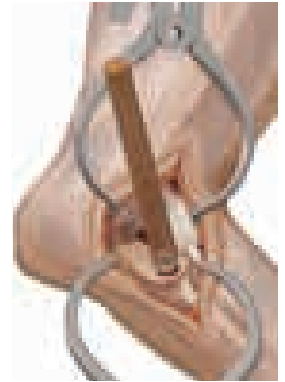


Place the appropriate sized Humerus Drill Guide on the humeral articular surface so that it most fully covers the humeral lesion, making sure it is flush with the articular surface and sagittally aligned. When the drill guide is optimally positioned, drill the beath pins through the guide and at least 15mm into the MHC, keeping the drill guide firm and flush with the articular surface.

Cut the beath pins as flush as possible to the guide. Remove the Humerus Drill guide and insert the Drill Stop over the beath pins.



After placing Humerus Implant, place the Ulna Implant in the Ulna Implant Holder. Make sure ridges and radiographic marker are facing out and implant it into the ulnar socket. Fully seat with the Ulna Tamp if necessary.



Place the Humeral Drill (reamer) in the Humerus Drill Stop and over the beath pins. Keeping the Humerus Drill pressed firm and flush against the articular surface, use the reamer to fully ream the first humeral socket, then flip the reamer and guide to fully ream the second humeral socket.



Arthrex Cue System Implants

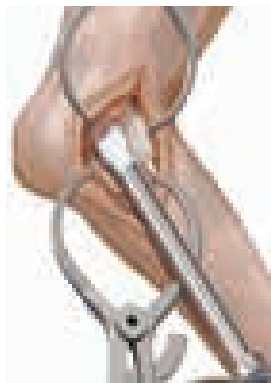
ARTHREX CUE SYSTEM IMPLANTS		
VAR-7005-L	Canine Uni-compartmental Elbow Ulnar Large	£165.00
VAR-7005-M	Canine Uni-compartmental Elbow Ulnar Medium	£165.00
VAR-7000-L	Canine Uni-compartmental Elbow Humeral Large	£590.00
VAR-7000-M	Canine Uni-compartmental Elbow Humeral Medium	£590.00

Place the Humerus Implant in the Humerus implant Holder so the bony ingrowth surface is facing out and implant into the humeral sockets.



Arthrex Cue System Equipment

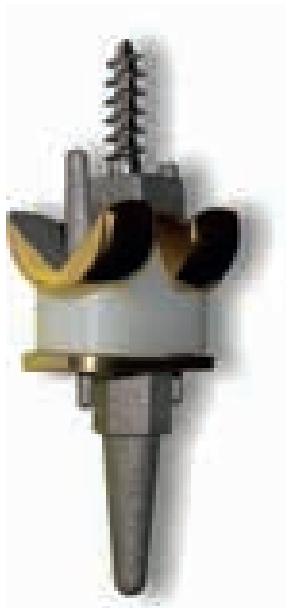
ARTHREX CUE SYSTEM EQUIPMENT		
CUESET1	Vet CUE Set with Instrument Case	£4,495.00
CUESET2	Vet CUE Set without Instrument Case	£3,795.00
VAR-7001-L	Template Humerus CUE Large	£195.00
VAR-7001-M	Template Humerus CUE Medium	£185.00
VAR-7002-L	Trial Humerus CUE Large	£275.00
VAR-7002-M	Trial Humerus CUE Medium	£275.00
VAR-7003-L	Implant Inserter Hum CUE Large	£105.00
VAR-7003-M	Implant Inserter Hum CUE Medium	£105.00
VAR-7004	Tamp Humerus CUE	£195.00
VAR-7006-L	Trial Ulna CUE Large	£105.00
VAR-7006-M	Trial Ulna CUE Medium	£105.00
VAR-7007-L	Implant Inserter Ulna CUE Large	£50.00
VAR-7007-M	Implant Inserter Ulna CUE Medium	£50.00
VAR-7011-L	Drill Humerus CUE Large	£435.00
VAR-7011-M	Drill Humerus CUE Medium	£435.00
VAR-7012-L	Drill Stop Humerus CUE Large	£245.00
VAR-7012-M	Drill Stop Humerus CUE Medium	£245.00
VAR-7014-L	Drill Ulna CUE Large	£375.00
VAR-7014-M	Drill Ulna CUE Medium	£375.00
VAR-7015-L	Guide Ulna CUE Large	£105.00
VAR-7015-M	Guide Ulna CUE Medium	£105.00
VAR-7016	Tamp Ulna CUE	£185.00
VAR-7020C	Vet CUE Instrument Case	£700.00
AR-1250L-1	Drill Tip Guide Pins 2.4mm - Pack of 6 (Beath Pin)	£85.00
BRCUE	Arthrex CUE Literature	£FOC



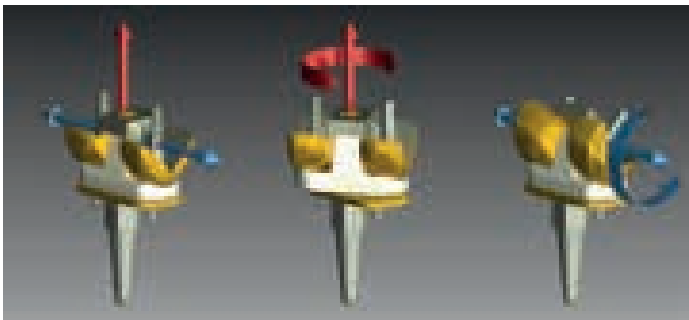
Use the Humerus tamp to fully seat the Humerus Implant.

Now complete insertion of the Ulna Implant

GenuSys Total Stifle Replacement



GenuSys is an unconstrained, uncemented stifle replacement system developed by the late Volker Hach. The system features 3 articulating components providing maximum range of movement with the minimum of constraining forces helping to reduce wear and prolong implant longevity. The system shows high stability against luxation.



The main femoral and tibial components are cobalt chrome with a porous titanium coating for bone ongrowth and titanium nitride bearing surfaces for low friction and high wear resistance. The components are available in four sizes with each UHMWPE tibial inlay available in two thicknesses aiding adjustment of ligament tensions intraoperatively.



As we have come to expect from Innoplant, the instrumentation is very well thought out with a set of easy to use gauges to guide the osteotomies.

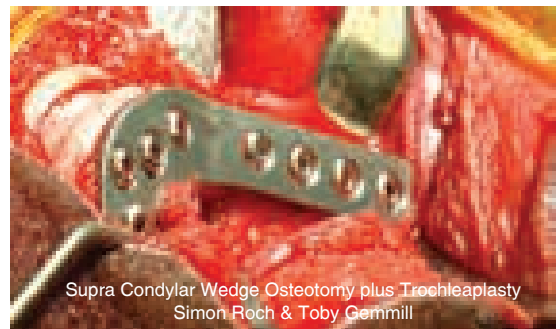


The learning curve is reportedly short. The next course in English will be held in Ahlen, Germany in August, 2015. For more information or to reserve a place, please e-mail info@vetinst.com

www.vetinst.com

Online store for all VI products:
Browse or Quick order

Your online training resource:
Video downloads
Step by Step guides - FAQs



Supra Condylar Wedge Osteotomy plus Trochleaplasty
Simon Roch & Toby Gemmill

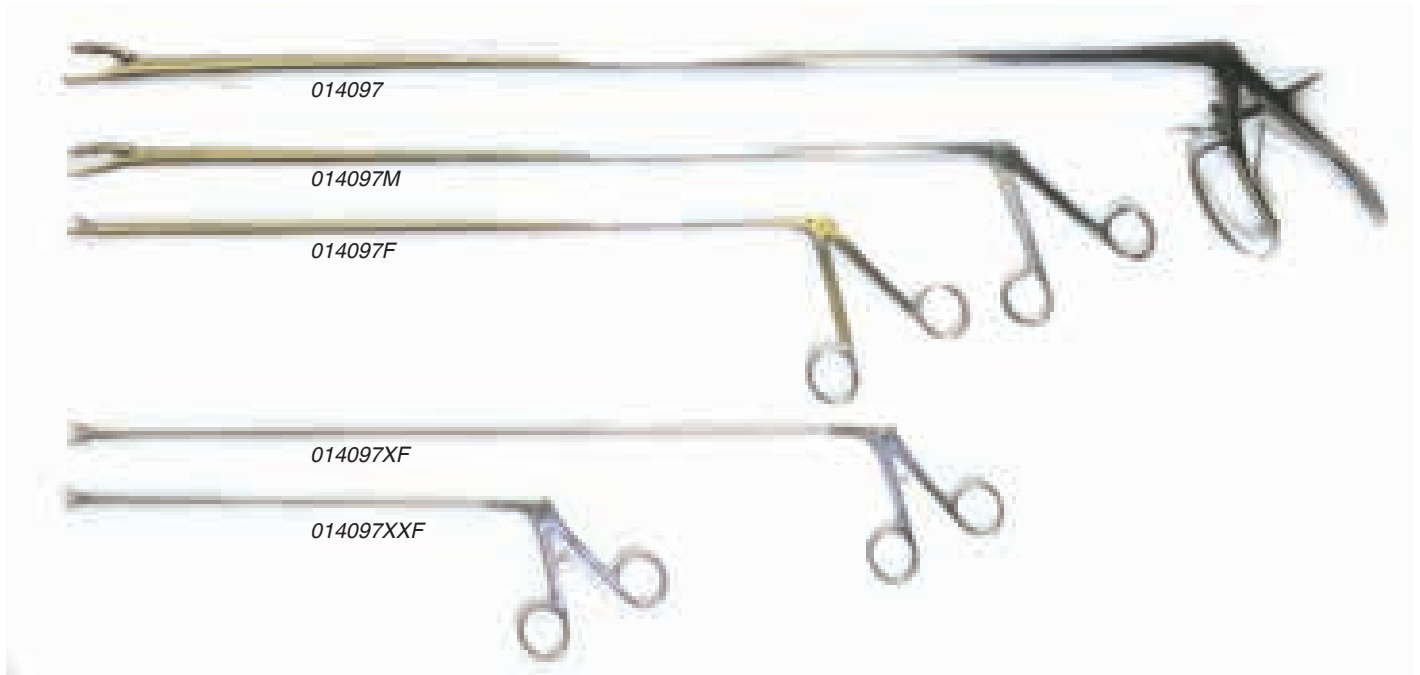
Designed by Vets for Vets

Thoracic Surgery



Foreign Body Retrieval Forceps

“One day you will need one of these”



Our family of Foreign Body Retrieval Forceps has grown! We now offer a range of forceps to cover every eventuality from a bone in the oesophagus of a large dog to a grass seed in a cat trachea.

The Forceps may be guided by rigid or flexible endoscopes or fluoroscopy. In exceptional cases retrieval may be achieved by ‘feel’. It is helpful to inflate the oesophagus prior to withdrawal of spiky objects. Video of Alasdair Hotson-Moore of Bath Veterinary Referrals locating and retrieving a bone body may be viewed at www.vetinst.com/videos

The teeth face backwards for maximum grip. When closed the jaws are atraumatic for minimal damage to the oesophagus or trachea.

The “One day you will need these” reflects our experience of desperate phone calls which end in us sending a pair of foreign body forceps by same day courier at great expense.

- Backward facing teeth for maximum grip
- Jaws are externally atraumatic
- Shaft diameter as small as possible
- Large Forceps jaws are angled when closed so that when open they sit mid oesophagus.

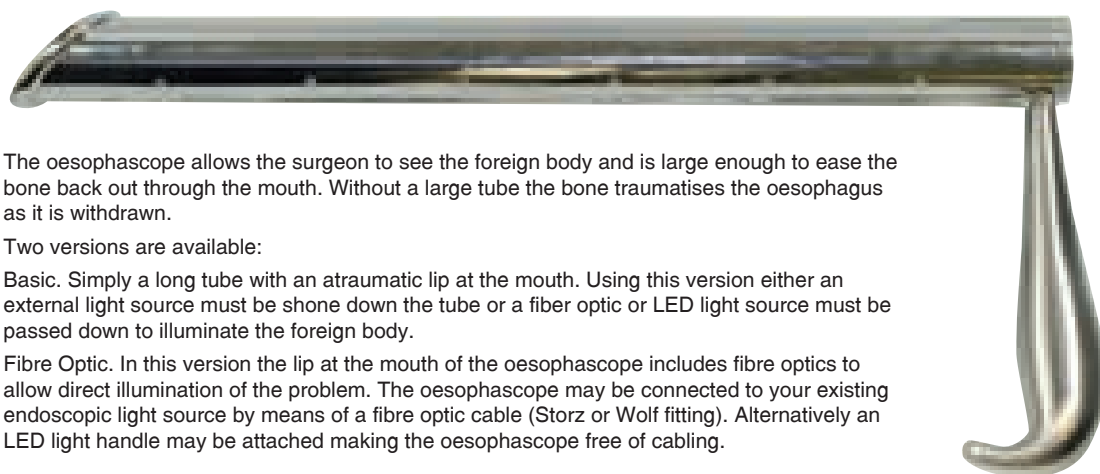


Photo & case Alasdair Hotson Moore

FOREIGN BODY RETRIEVAL FORCEPS			
		Shaft Length	
014097	Foreign Body Retrieval Forceps	640mm	£195.00
014097M	Foreign Body Retrieval Forceps	500mm	£190.00
014097F	Foreign Body Retrieval Forceps	400mm	£185.00
014097XF	Foreign Body Retrieval Forceps	400mm	£185.00
014097XXF	Foreign Body Retrieval Forceps	220mm	£185.00

	Dia at Jaws (mm)	Length at Jaws (mm)	Shaft Dia (mm)	Shaft Length (mm)
014097	13.0 x 9.0	34	7.5 x 6.0	640
014097M	11.5 x 6.0	31	6.5 x 5.0	500
014097F	5.6 x 4.2	15.5	4.0 x 3.0	400
014097XF	4.5	11.5	3.5	400
014097XXF	3.3	8.0	2.5	220

Foreign Body Oesophascope



The oesophascope allows the surgeon to see the foreign body and is large enough to ease the bone back out through the mouth. Without a large tube the bone traumatises the oesophagus as it is withdrawn.

Two versions are available:

Basic. Simply a long tube with an atraumatic lip at the mouth. Using this version either an external light source must be shone down the tube or a fiber optic or LED light source must be passed down to illuminate the foreign body.

Fibre Optic. In this version the lip at the mouth of the oesophascope includes fibre optics to allow direct illumination of the problem. The oesophascope may be connected to your existing endoscopic light source by means of a fibre optic cable (Storz or Wolf fitting). Alternatively an LED light handle may be attached making the oesophascope free of cabling.

Each version of the Oesophascope is available as a boxed set of three instruments plus a Cleaning Brush.

1. 29mm x 450mm Long
2. 29mm x 300mm Long
3. 20mm x 300mm Long

The LED Light Handle is supplied with a Storz fitting and may also be used to illuminate arthroscopes, laparoscopes and rhinoscopes. Adaptors are available for other light fittings.

OESOPHASCOPE

OESSETB	Oesophascope Set Basic No Fibre Optic	£445.00
OESSETFO	Oesophascope Set Basic Fibre Optic Version	£1,075.00
OESLH	LED Light Source Handle	£825.00



FO Oesophascope
with LED Handle



FO Oesophascope
with FO cable Handle

Flexible LED Camera



The flexible probe is taped along the length of the selected foreign body forceps leaving the LED lights and the camera lens just behind the jaws. The forceps are then directed using the image in the monitor.

Once the diagnosis of oesophageal foreign body has been made it is a challenge to see and grasp the bone prior to withdrawal or pushing into the stomach. The lining of the oesophagus is usually traumatised and friable. Repeated 'blind' attempts are likely to end in tragedy even if the foreign body is retrieved.

The Flexible Camera with incorporated LED light source enables the surgeon to direct the foreign body forceps into position and grab the bone ready for retrieval. The image is viewed on a bright 50mm x 35mm monitor. Alternatively the video output may be fed into a standard monitor or computer for viewing or image capture.

To further minimise trauma to the oesophagus the Flexible LED Camera should be used in conjunction with the Oesophascope.

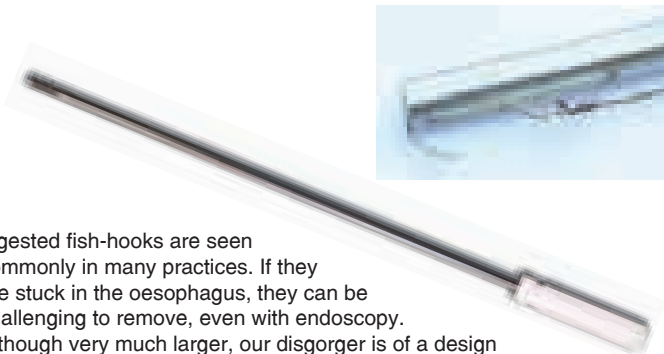


The camera allows you to see exactly what you are doing so that you can lock onto the bone rather than damage the oesophageal wall.

FLEXIBLE LED CAMERA

LEDFC	Flexible LED Camera	£345.00
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Disgorger - Canine



Ingested fish-hooks are seen commonly in many practices. If they are stuck in the oesophagus, they can be challenging to remove, even with endoscopy. Although very much larger, our disgorger is of a design that will be familiar to many fishermen. The device allows for the hook point to be pushed back out of the wall of the oesophagus the way it came and then either retrieved via the mouth, or if it is a multi-pointed hook, to be gently pushed into the stomach for removal via a gastrotomy.

DISGORGER - CANINE		
014010	Disgorger Canine 10mm Total Length 800mm	£97.50

**Thoracic Surgery Kit
- as used by the Cambridge Vet School**



Working inside the chest of medium and large dogs will require extended instrumentation. The instruments listed below represent a reasonable kit. When purchased as a kit there is a saving of over 10%. In addition a pair of rib retractors will be required. Other useful instruments include extra long Metzenbaum scissors and right angled forceps (Lahey cholecystectomy clamp and small right angled forceps).

Various specialist items are listed.

THORACIC SURGERY KIT - AS USED BY THE CAMBRIDGE VET SCHOOL		
106205	45 Degree Curved Forceps 220mm	£44.50
105415	90 Degree Curved Forceps 245mm	£44.50
754060	Metz Scissors Str 235mm T.C.	£81.50
754120	Metz Scissors Curved 235mm T.C.	£81.50
342020	DeBakey Thumb Forceps 205mm	£54.50
347665	Rat Tooth Thumb Forceps 205mm	£32.50
602010	DeBakey Needleholders T.C. 200mm	£99.50
347655	Dressing Forceps 205mm	£28.50
2685/03	Satinsky Clamps 160mm long 20mm jaw	£64.50
2685/05	Satinsky Clamps 200mm long 30mm jaw	£64.50
CAMTHORKIT	All the above in a stainless steel case	£475.00

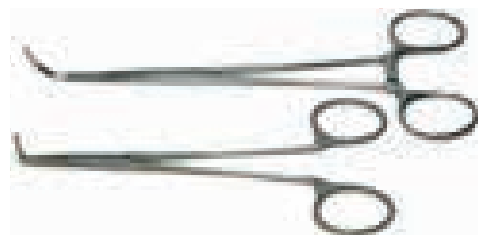
Spencer Wells

The standard veterinary artery forceps. If the text states "artery forceps or haemostat" this is probably the one.

SPENCER WELLS		
106600	Spencer Wells Artery Forceps Str 5" 12.5cm	£24.00
106605	Spencer Wells Artery Forceps Str 6" 15cm	£26.50
106610	Spencer Wells Artery Forceps Str 7" 18cm	£29.50
106615	Spencer Wells Artery Forceps Str 8" 20cm	£38.50
106620	Spencer Wells Artery Forceps Str 9" 23cm	£51.00
106621	Spencer Wells Artery Forceps Str 12" 30cm	£64.50

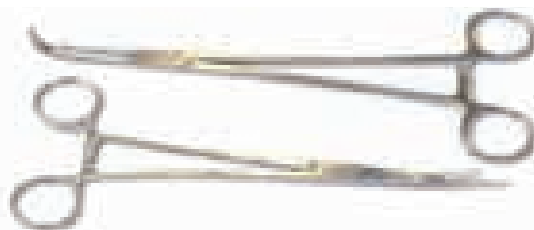
Right Angled Clamps

Typically used to dissect around a patent ductus arteriosus and then pull through appropriate ligative material.



RIGHT ANGLED CLAMPS		
014051	Right Angled Lahey Cholecystectomy Clamps 195mm Long	£55.50
014052	Small Right Angle Clamps 160mm Long	£43.50
014052S	Small Right Angle Clamps without Ratchet 160mm Long	£43.50

Curved Forceps - Long



CURVED FORCEPS - LONG		
106205	45 Degree Curved Forceps 220mm Long	£44.50
105415	90 Degree Curved Forceps 245mm Long	£44.50

Rib Retractor Finnochetto

Finnochetto is the standard rib retractor available in large and small.



RIB RETRACTOR		
704000	Rib Retractor Finnochetto - Small (95mm spread)	£140.00
704005	Rib Retractor Finnochetto - Large (130mm spread)	£145.00

Rib Shears

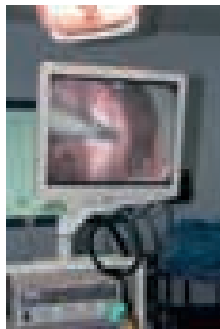
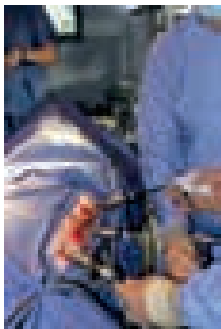


RIB SHEARS		
014056	Rib Shears 220mm Long	£135.00



Ethicon Energy

We are pleased to supply the Ethicon Energy range of Harmonic and ENSEAL consumable handpieces. Both are powered by the GEN11 console. This is available from Ethicon on a special deal. See below for details and how to apply. Non autoclavable handpieces are available singly or in multipacks.



*Energy in Action.
Photos courtesy of
Professor Rob
White, BSc (Hons)
BVetMed CertVA
DSAS (Soft Tissue)
DipECVS MRCVS,
Willows Veterinary
Centre & Referral
Service*

Harmonic® Technology

This is unique in the way it operates. Mechanical energy - a blade vibrating at 55,000 times a second - simultaneously cuts and coagulates tissue. Ultrasonic vibration reduces tissue to a sticky coagulum, sealing vessel walls together.

Harmonic Devices

HARMONIC ACE

Shears - can be used for coagulation and transection of vessels up to 5mm and handle multiple surgical jobs with precision including dissection, sealing and transection. They have a balanced, ergonomic grip, two hand controlled power settings and an integral audible/tactile mechanism for controlling full closure. Minimal lateral thermal spread allows dissection near vital structures. Shaft diameter 5mm.



HARMONIC FOCUS Curved Shears

Available in 2 lengths, these are used for open surgery. Able to cut/coagulate vessels up to 5mm diameter, with more of the feel of a conventional surgical instrument. Two finger activated power levels with a 16mm active-blade length. Ergonomic, symmetrical finger rings maximise comfort and versatility.



HARMONIC WAVE Open Shears

Scissor handle housing assembly with 2 hand controlled power settings. The handle housing has an audible/tactile mechanism for indicating full closure. Able to cut/coagulate vessels up to 5mm. Can function through an incision without a trocar.



HARMONIC SYNERGY Blades

Available as a curved or hook blades, each consists of a titanium blade with a non-removable sheath. Use these instruments for soft tissue incisions when you want to control bleeding or minimise lateral thermal damage. Procedures include general surgery and exposure to orthopaedic structures.



ETHICON HARMONIC HANDPIECES

JJACE14S/SINGLE	Harmonic Ace Curved Shear Scissor Grip	£560.00
JJACE23E/SINGLE	Harmonic Ace 23cm Ergonomic Handle	£615.00
JJACE36E/SINGLE	Harmonic Ace 36cm Ergonomic Handle	£670.00
JJACE45E/SINGLE	Harmonic Ace 45cm Ergonomic Handle	£720.00
JJFCS17/SINGLE	HS Focus 17cm Curved Shear	£630.00
JJHAR9F/SINGLE	HS Focus 9cm Curved Shear	£580.00
JJWAVE18S/SINGLE	HS WAVE 18cm Open Shears	£345.00
JJSNGCB/SINGLE	HS SYNERGY Curved Blade	£335.00
JJSNGHK/SINGLE	HS SYNERGY Hook Blade	£335.00

ENSEAL Advanced Bipolar Devices

ENSEAL G2 Tissue Sealers

The ENSEAL range are advanced bipolar tissue sealers, sealing vessels up to 7mm. These units are gentle on tissues due to the offset electrode configuration which is designed to minimise thermal spread. There is less sticking over multiple activations,



and even pressure along the whole jaw when in use. The jaw design seals, cuts, grasps and dissects. The shaft is 5mm diameter, and is fully rotatable. The ergonomic handle is designed for one handed operation. Available in various lengths with curved or straight jaws.

ENSEAL G2 Superjaw

Designed for open procedures, this handpiece has a 12mm diameter 22cm long shaft and a larger 40mm jaw. Single handed action with 360 degree rotation. Separate energy activation button integrates I-Blade release. Seals vessels up to 7mm.

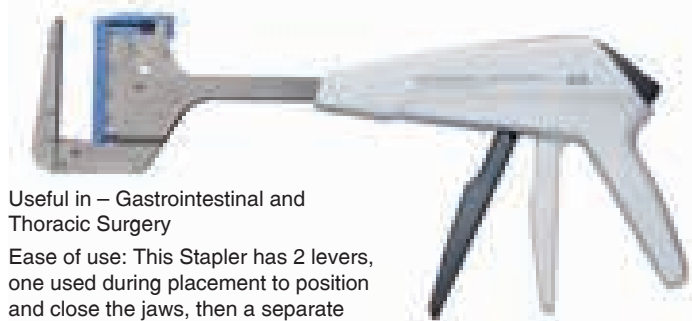


ETHICON ENSEAL HANDPIECES

JJNSLG2C14/SINGLE	Enseal G2 Tissue Curved Jaw 14cm	£445.00
JJNSLG2C25/SINGLE	Enseal G2 Tissue Curved Jaw 25cm	£475.00
JJNSLG2C35/SINGLE	Enseal G2 Tissue Curved Jaw 35cm	£505.00
JJNSLG2C45/SINGLE	Enseal G2 Tissue Curved Jaw 45cm	£535.00
JJNSLG2S14/SINGLE	Enseal G2 Tissue Straight Jaw 14cm	£445.00
JJNSLG2S25/SINGLE	Enseal G2 Tissue Straight Jaw 25cm	£475.00
JJNSLG2S35/SINGLE	Enseal G2 Tissue Straight Jaw 35cm	£505.00
JJNSLG2S45/SINGLE	Enseal G2 Tissue Straight Jaw 45cm	£535.00
JJNEALX22L/SINGLE	Enseal G2 Superjaw	£485.00

Ethicon Stapler Systems

PROXIMATE® TX Reloadable Linear Stapler



Useful in – Gastrointestinal and Thoracic Surgery

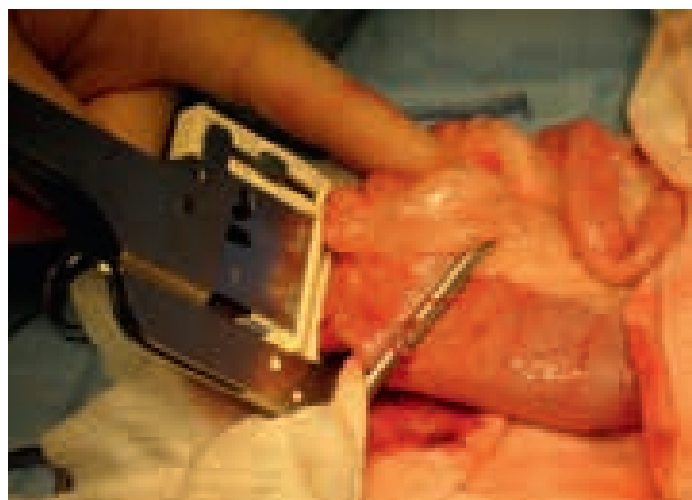
Ease of use: This Stapler has 2 levers, one used during placement to position and close the jaws, then a separate lever for firing. A well-sited button can be used to release the jaws if repositioning of the Stapler is required. The Stapler can be operated completely single-handedly. Thin anvil, wide jaw opening and medium closing position of the parallel jaws of the PROXIMATE®TX Staplers are designed to facilitate positioning of the tissues in the jaws. The long thin axis of the PROXIMATE® TX 30mm Staplers aid access to more difficult surgical sites.

Sizing: Suitable for stapling tissue 1-2mm thick. Available in 30 & 60mm width, and 3 staple heights.

White – vascular, 1mm closed height, Blue – standard, 1.5mm closed height, Green – thick tissue, 2mm closed height. Vascular loads are dedicated to the 30mm Vascular stapler, otherwise blue and green loads are interchangeable in the same width.

PROXIMATE® TX Staplers may be reloaded up to 7 times during the same procedure allowing up to 8 stapling operations.

Supplied sterile including 1 load.



TX Stapler.

Photo courtesy of Professor Rob White, BSc (Hons) BVetMed CertVA DSAS (Soft Tissue) DipECVS MRCVS, Willows Veterinary Centre & Referral Service

Proximate TX Staplers – includes one cartridge

PROXIMATE TX STAPLERS - INCLUDES ONE CARTRIDGE		
JJTX30B/S	PROXIMATE TX Linear Stapler 30mm BLUE	£170.00
JJTX30G/S	PROXIMATE TX Linear Stapler 30mm GREEN	£170.00
JJTX30V/S	PROXIMATE TX Linear Stapler 30mm VASCULAR	£170.00
JJTX60B/S	PROXIMATE TX Linear Stapler 60mm BLUE	£185.00
JJTX60G/S	PROXIMATE TX Linear Stapler 60mm GREEN	£185.00

Proximate TX Reloads

PROXIMATE TX RELOADS		
JJXR30V/3	PROXIMATE TX Reloads 30mm Pack of 3 WHITE	£270.00
JJXR30B/3	PROXIMATE TX Reloads 30mm Pack of 3 BLUE	£270.00
JJXR30G/3	PROXIMATE TX Reloads 30mm Pack of 3 GREEN	£270.00
JJXR60B/3	PROXIMATE TX Reloads 60mm Pack of 3 BLUE	£285.00
JJXR60G/3	PROXIMATE TX Reloads 60mm Pack of 3 GREEN	£285.00

Ethicon Endo-surgery Linear Cutter



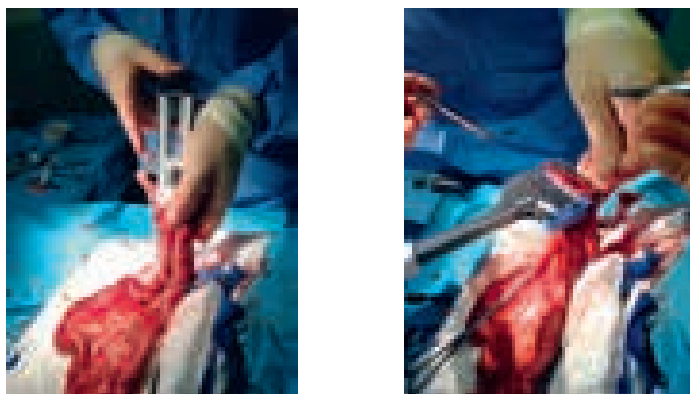
Staples and cuts in one firing. Innovative, 3D, 6 row staple pattern.

Selectable staple height using the same reload – select blue, gold or green so no extra re-loads to stock. Spring-loaded intermediate locking mechanism gives easier one-handed tissue manipulation. 2 sided firing, left or right, and non-slip grip gives improved control of the device.

Note This Stapler does NOT come with load - remember to order your chosen pack size

ETHICON ENDO-SURGERY LINEAR CUTTER & RELOADS		
JJNTLC55/S	Selectable Linear Cutter 55mm	£110.00
JJNTLC75/S	Selectable Linear Cutter 75mm	£120.00
JJSR55/3	Reload Linear Cutter 55mm Pack of 3	£380.00
JJSR75/3	Reload Linear Cutter 75mm Pack of 3	£425.00

Side by side anastomosis using the Linear Cutter and a TX stapler



Photos courtesy of Paul Aldridge BVSc Cert(SAS) MRCVS, Petmedics

The JJNTLC Linear Cutter is used to join and open the anastomosis. The JJTX stapler is user to close and seal at right angles to the anastomosis.

Ethicon Gen11 Generator Offer

Ethicon will supply a bundle of the Gen11 Console, foot pedal and HP054 Gen11 Handpiece at a special offer price.

Please call 0845 130 9596 or e-mail info@vetinst.com for more information

Ethicon Echelon and Echelon Flex Staplers

Echelon Stapler



Echelon Endopath staplers deliver staples while simultaneously dividing tissue between rows. Cartridge lengths are 45 and 60mm, with handpiece shaft lengths of long or compact.

Staplers deliver six staggered rows of staples with a single cut line in-between. A safety lock-out prevents a used cartridge being re-fired.

Operation is one-handed. Pre-compression helps give a smooth stapling surface, to give a smooth haemostatic stapling line. Knife returns automatically after firing.

Note This Stapler does NOT come with a load – remember to order your chosen pack size

Echelon Flex



Echelon Flex handpieces offer all the features of the standard Echelon with the added advantage of articulation. The articulation is part of the handpiece shaft, so standard Echelon cartridges can be used.

The natural articulation enables the staple line to be placed where required, while respecting the tissue and giving easier surgeon access.

Note This Stapler does NOT come with a load – remember to order your chosen pack size.

ECHELON STAPLERS & RELOADS

JJEC45/SINGLE	Echelon 45mm Endopath Stapler	£355.00
JJEC45A/SINGLE	Echelon Flex 45mm Articulating Stapler	£420.00
JJEC60A/SINGLE	Echelon Flex 60mm Articulating Stapler	£465.00
JJECR45B/3	Echelon Reload 45 Pack of 3 BLUE	£550.00
JJECR45G/3	Echelon Reload 45 Pack of 3 GREEN	£550.00
JJECR45W/3	Echelon Reload 45 Pack of 3 WHITE	£550.00
JJECR60B/3	Echelon Reload 60 Pack of 3 BLUE	£595.00
JJECR60G/3	Echelon Reload 60 Pack of 3 GREEN	£595.00
JJECR60W/3	Echelon Reload 60 Pack of 3 WHITE	£595.00

Colour coding for Staplers – what does it mean?

Colour	Tissue Thickness	Closed Staple Size
White	Vascular/ Thin Tissue	1.0mm
Blue	Standard Tissue	1.5mm
Green	Thick Tissue	2.0mm

Ligaclip System

Ligamax 5 Endoscopic Clip Applier



This clip applier is designed to deliver a Medium/Large ligaclip through a 5mm port. The unit contains 15 clips and is not re-loadable.

LIGAMAX 5 delivers the security you expect with superior clip retention and a proprietary clip design.

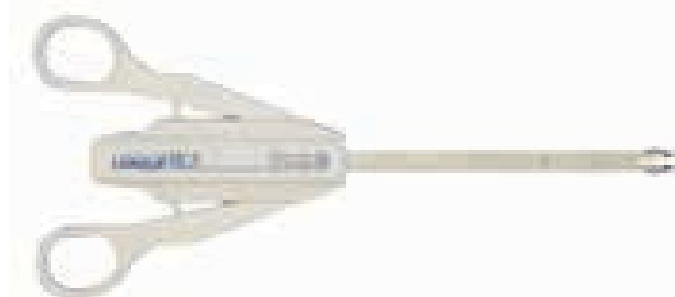
An orange indicator shows when the 13th clip has been fired. A safety lock-out prevents an empty jaw from being closed. Direct drive clip feeding mechanism allows the surgeon to control when the clip is fed into the jaws. Long, thin, angled jaws allow the surgeon better visibility. Visual, audible & tactile indicators of clip feeding and forming.

Shaft length 33cm. Clip width 3.6mm. Closed clip length 8.8mm.

LIGAMAX 5 ENDOSCOPIC CLIP APPLIER

JJEL5ML/1	LIGAMAX 5 Endo Clip Applier	£215.00
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Ligaclip MCA Multiple Clip Applier



The Ligaclip Multiple Clip Applier is designed to offer a fast, efficient means of ligation. To use, position the jaws with the clip around the vessel or other tubular structure and fully squeeze the handles of the applier. When the handles are fully released, a new clip automatically advances into the jaws of the instrument. Last clip lockout prevents closure of empty jaws. Distal tip closure helps visualise placement of the clip on the vessel.

Single use instrument contains 20 or 30 clips depending on clip size.

LIGACLIP MCA

JJMCM20/SINGLE	LIGACLIP MCA Medium Clip Applier 20 Clips	£100.00
JJMCM30/SINGLE	LIGACLIP MCA Medium Clip Applier Long 30 Clips	£115.00
JJMCS20/SINGLE	LIGACLIP MCA Small Clip Applier 20 Clips	£100.00

All consumable Ethicon items are available in multipacks.

Please ask for pricing.

Packs shown are the smallest available.

Unless clearly marked Ethicon items are not autoclavable

Ligaclip Multi Patient Clip Appliers



Fully autoclavable colour coded Clip Applier, dedicated to the relevant clip size. Quick and easy to use. The jaws have a groove to hold the clip – once loaded the clip is held securely until it is placed and compressed. Clip closure is maintained by the inherent rigidity of the metal. Designed for tubular ligation, feedback from users has been that it is extremely useful for enucleation (thanks Martin Gabbut!) and to have on hand for unexpected bleeders during orthopaedics as well as major soft tissue surgery.

LIGACLIP MULTI PATIENT CLIP APPLIERS		
JJLX105	LIGACLIP Applier Small Clips 14.5cm BLUE	£285.00
JJLX107	LIGACLIP Applier Small Clips 18.5cm BLUE	£310.00
JJLX205	LIGACLIP Applier Medium Clips 14.5cm WHITE	£285.00
JJLX207	LIGACLIP Applier Medium Clips 18.5cm WHITE	£310.00
JJLX210	LIGACLIP Applier Medium Clips 27.5cm WHITE	£335.00
JJLX220	LIGACLIP Applier Medium Clips 27.5cm Angled Jaw WHITE	£380.00
JJLC307	LIGACLIP Applier Medium/ Large Clips GREEN	£310.00
JJLC310	LIGACLIP Applier Medium/ Large Clips Long GREEN	£335.00
JJLC320	LIGACLIP Applier Medium/ Large Clips Long Angled Jaw GREEN	£360.00
JJLC407	LIGACLIP Applier Large Clips GOLD	£310.00
JJLC410	LIGACLIP Applier Large Clips Long GOLD	£335.00
JJLC420	LIGACLIP Applier Large Clips Long Angled Jaw GOLD	£360.00

Ligaclip Extra Ligating Clips

All Ligaclips are in sterile packs of 6 in an outer box. Quantity per line below indicates the number of 6 packs per box.

LIGACLIP EXTRA LIGATING CLIPS		
JJLT100	LIGACLIP Titanium Small 36 Packs of 6 BLUE	£215.00
JJLT200	LIGACLIP Titanium Medium 36 Packs of 6 WHITE	£245.00
JJLT300	LIGACLIP Titanium Medium/ Large 18 Packs of 6 GREEN	£180.00
JJLT400	LIGACLIP Titanium Large 18 Packs of 6 GOLD	£205.00



VISCeal™



VISCeal™

Absorbable Surgical Sealant and Barrier

This exciting new product has been trialed in soft-tissue referral centres over the last 12 months and we have been receiving good feedback.

Based on tried and tested technology used in human surgery for many years, VISCeal™ is a surgical sealing film used as a barrier to reinforce repairs and prevent air leakage in the thoracic cavity and for low pressure fluid leakage from abdominal viscera. VISCeal™ is of particular use in sealing biopsy sites.



One side covalently bonds to proteins on the organ surface providing a very secure bond. The other side is non-stick, reducing the potential for adhesions. The film is fully absorbable.

Lettering on the film identifies correct orientation – if the lettering on the film appears the correct way up when the film is applied, it has been applied correctly.

VISCeal™ is supplied as a sterile, double wrapped patch.



The use of VISCeal™ on an oozing gall bladder. Case and Image: Elisa Best, Rowe Vet Group.

VISCeal™		
VSC5050	VISCeal™ Film Patch 50mm x 50mm	£42.50

Ovariohysterectomy

Because ovariohysterectomy is the procedure most commonly performed in practice there is an expectation that all qualified veterinary surgeons have high level of competency in the technique. Ovariohysterectomy is not a simple technique and things can go badly wrong despite surgeons following what appears to be a straightforward step by step approach. Many young surgeons have been badly traumatised by the learning curve involved in becoming adept at this fundamental procedure. 'Cannot even spay a bitch' is a heavy burden. Calling in the senior partner to deal with a bleeder does not add to one's self confidence.

This was confirmed by a paper by Tivers et al (JSAP 46, 430-435) which reported that 50% of graduates no longer used the technique in which they were trained. The standard 3 clamp technique for tying off the ovarian pedicle is very effective when performed correctly. However it is often the case that the clamps are applied with the ovary under significant tension so that the clamps are placed very close together. Once the central clamp is removed in these circumstances, because of the tension and the limited space, the crushed pedicle cannot be pulled into a tight circle by the ligature. Instead the pedicle is often tied off as an oval. In that the circumference of an oval is greater than that of a circle with similar area, as soon as the outer clamps are released the pedicle reverts to a circle and the once tight ligature becomes loose and the artery bleeds.

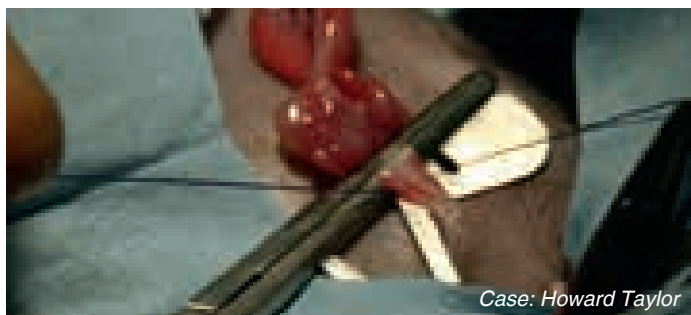
This can be managed by reducing the tension on the pedicle by breaking down the round ligament, exteriorising the ovary and applying the clamps slightly further

apart. These subtleties are best learnt by practical training. Supervising surgeons have developed the 'knack' but may not be aware of the issues.

Included in this section are two aids which assist in the exposure and ligation of the ovarian pedicle. The new Howard 'B' clamp and the well established Hauptman retractor. Videos of both instruments may be viewed or downloaded from www.vetinst.com/ovariohysterectomy.

Howard 'B' Ovariohysterectomy Clamp

Feline spay showing ovary exteriorised and ovarian pedicle 'collected' ready for ligation.



Case: Howard Taylor

Designed and developed in practice by Howard Taylor who recognised that ovariohysterectomy was far from straightforward, particularly but not exclusively for recent graduates.

The Clamp has a number of features which assist the surgeon in the exposure and ligation of the ovarian pedicle.

- The ligature material is preloaded onto the forceps which takes it through the broad ligament.
- Longitudinal grooves in the jaw minimise slippage
- As the forceps are rotated the 'B' shaped extension 'collects' and brings together the structures of the pedicle ready for tying.
- The forceps sit outside the incision to exteriorise the pedicle

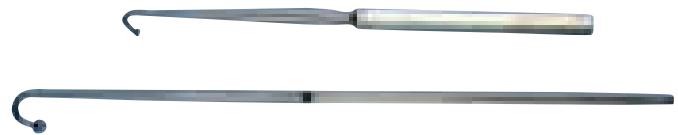
The ligature is tied without precrushing but is retained by a small haemostat to check for bleeding prior to closure. Visit www.vetinst.com to view a surgical video.

HOWARD 'B' OVARIOHYSTERECTOMY CLAMP

546470 Howard 'B' Ovariohysterectomy Clamp 160mm Long £69.50

Ovariohysterectomy

Spay Hooks

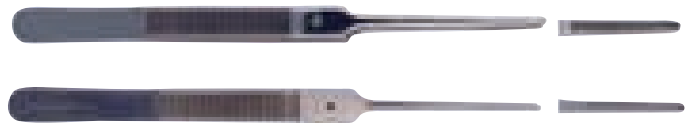


Use to atraumatically lift uterine horns.

SPAY HOOKS

014320	Spay Hook Small 130mm Long	£32.50
014325	Spay Hook Large 170mm Long	£32.50

Spay Forceps



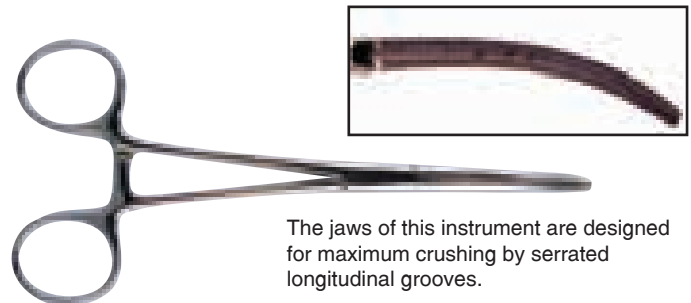
'Sturdy' type. Atraumatic spay forceps-tips have fine toothed DeBakey type form.

SPAY FORCEPS

014211	Spay Forceps 5" 125mm Long	£25.50
014218	Spay Forceps (DeBakey Type) 5" 125mm Long	£34.50

Spay Clamps

Angiotribes

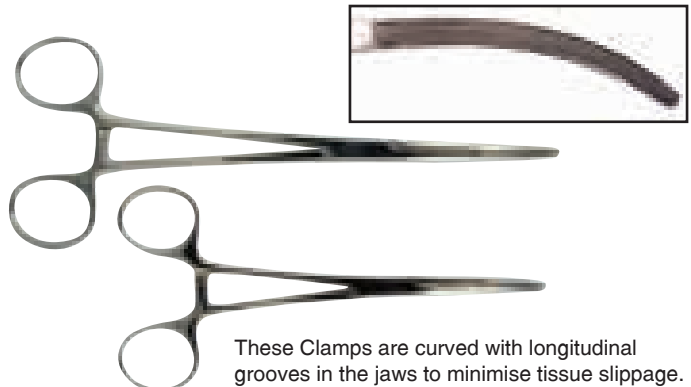


The jaws of this instrument are designed for maximum crushing by serrated longitudinal grooves.

ANGIOTRIBES

014304	Angiotribes Straight 6.5" 160mm	£63.50
014305	Angiotribes Curved 6.5" 160mm	£63.50
014301	Angiotribes Straight 8" 200mm	£63.50
014302	Angiotribes Curved 8" 200mm	£63.50

Hysterectomy Clamps (Carmault)



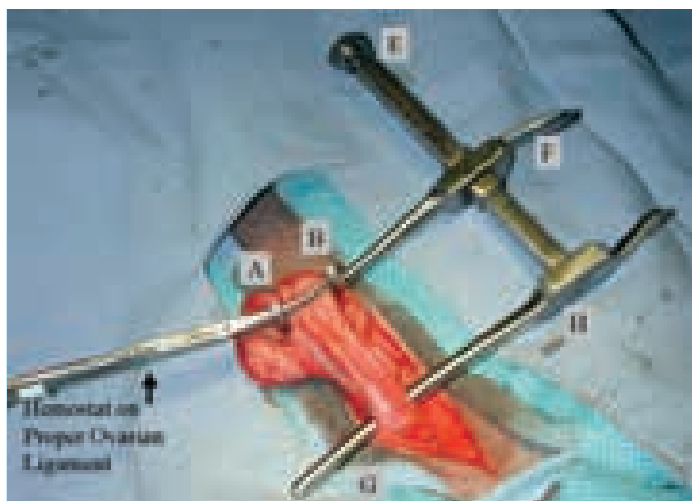
These Clamps are curved with longitudinal grooves in the jaws to minimise tissue slippage. More reasonably priced than Angiotribes.

HYSTERECTOMY CLAMPS

014307	Hysterectomy Clamp (Carmault) 200mm Long	£39.50
014309	Hysterectomy Clamp (Carmault) 160mm Long	£39.50

Spay Retractors

Hauptman Retractors



This Retractor designed by Joe Hauptman at Michigan maintains distal retraction of the ovary during ligation of the ovarian pedicle. This is the crucial part of the procedure which can be a challenge for even experienced surgeons. This Retractor simplifies the task considerably.

For a free CD on the technique phone or e-mail info@vetinst.com

HAUPTMAN RETRACTOR		
014400	Small Hauptman Retractor 10mm Blade	£135.00
014410	Medium Hauptman Retractor 15mm Blade	£135.00
014420	Large Hauptman Retractor 20mm Blade	£135.00

Spay Kits



It is convenient and cheaper to purchase your spay packs as kits.

We appreciate that instrument selection is a matter of personal choice so if you wish to adjust the contents to suit your practice that is fine. We will customise the Kits to your requirements. Provided the number of instruments stay the same there will be no additional charge assuming that the changes are 'like for like'.

Feline Spay Kit

- Stainless Autoclave Case
- Metz Scissor Str 14.5cm
- Sturdy type Spay Forceps
- Adson Rat Tooth Forceps
- Halstead Mosquito Forceps x 2
- Fenestrated Drape
- Cross Action Towel Clips x 2
- Olsen Hegars 15.5cm
- Spencer Wells cof x 2
- Scalpel Handle No. 3

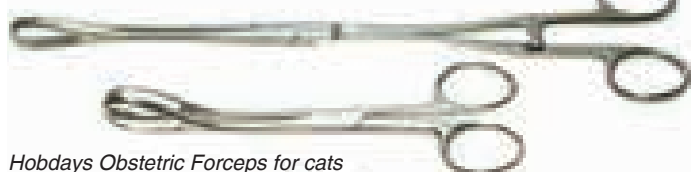
Canine Spay Kit

- Stainless Autoclave Case
- Curved Hysterectomy Clamps x 2
- Mayo Scissors 14cm Straight
- Rat Toothed Treves 14cm
- Spencer Wells 14cm Curved x 4
- Allis Tissue Forceps x 2
- Fenestrated Drape
- Olsen Hegars 16.5cm
- Cross Action Towel Clips x 4
- Scalpel Handle No. 3

SPAY KITS		
SPAYFEL	Cased Feline Spay Kit	£275.00
SPAYCAN	Cased Canine Spay Kit	£395.00

Miscellaneous Obstetrical Items

Miss Freakes Whelping Forceps



Hobdays Obstetric Forceps for cats

Killian Bitch Speculum



Vectis Double Ended

MISCELLANEOUS OBSTETRICAL ITEMS		
014310	Miss Freakes Whelping Forceps 260mm Long	£66.50
546465	Hobdays Obstetric Forceps for Cats 150mm Long	£66.50
546466	Hobdays Obstetric Forceps for Dogs 210mm Long	£66.50
546468	Obstetric Vectis Double-ended 240mm Long	£51.50
546455	Killian Bitch Speculum Blade Length 650mm Long (2½")	£66.50

Gastro-intestinal Surgery in General Practice

Alasdair Hotston Moore MA VetMB CertSAC CertVR CertSAS CertMED MRCVS - Bath Veterinary Referrals

Veterinary surgeons will often find themselves undertaking gastrointestinal surgery in the clinic, often as a non-elective procedure. With the exception of neutering, it is probably the commonest indication for abdominal surgery. However, since GI surgery is often part of an unplanned "ex-lap", the surgeon must be prepared to manage whatever surgical situation arises. There are several areas in which preparation can be made to achieve the best outcome in such animals:

- preoperative nursing care
- provision of appropriate instrumentation
- provision of appropriate consumables
- knowledge of relevant surgical techniques
- post operative patient care

General nursing care before surgery is key to a good post operative recovery but will not be covered in depth here. However, the role of nursing staff is key to so many aspects of surgery. One small area worthy of specific mention is the role of the nurse in patient preparation for theatre. For the exploratory laparotomy, the patient must be clipped and prepped to allow a complete examination of the abdomen: the surgical field must be large enough to allow extension of the incision up to the xiphisternum (and occasionally cranial to this for hepatic, and gastric surgery) and down to the pubic symphysis. In the male dog, it is useful in addition to place a urethral catheter which is connected to a collection system and to secure the prepuce to one side to reduce the possibility of contamination of the surgical site.

Selection of surgical consumables will play a significant part in improving the efficiency of surgery and reducing patient morbidity (by reducing contamination of the surgical field, for example). In the author's clinic, commercially sterilised disposable drapes and gowns have entirely replaced linen alternatives. The apparent additional cost is balanced by the reduced costs of laundry, packaging and sterilising. Surgical swabs are a similar area worthy of consideration: pre sterilised surgical swabs are reliably sterile, packaged in standard counts and have radio-opaque markers: swab retention is less likely with these precautions and more readily resolved. In human surgery, using swabs that are not radio marked for surgery would be considered unacceptable. Laparotomy swabs (20cm square, radio marked and with tails) are highly recommended for similar reasons, and they are essential for packing and isolating organs during surgery. Modern suture materials should be used in preference to chromic catgut, for example, and high quality packaged suture with swaged on needles have real advantages. Swaged on needles from high end suppliers cause minimal tissue trauma and since they pass through tissues smoothly, the trauma of tissue handling is reduced. In certain situations, surgical staplers (endomechanical devices) offer real advantages to hand suturing. In dogs requiring gastric resection (most commonly associated with gastric dilation-volvulus), the linear cutter reduces surgical time and abdominal contamination, compared to conventional resection and oversewing. For the more commonly performed intestinal resection and anastomosis, a combination of the linear stapler and linear cutter is a time efficient way of performing resection and functional end-to-end anastomosis which is as secure as hand suturing and causes less tissue trauma.

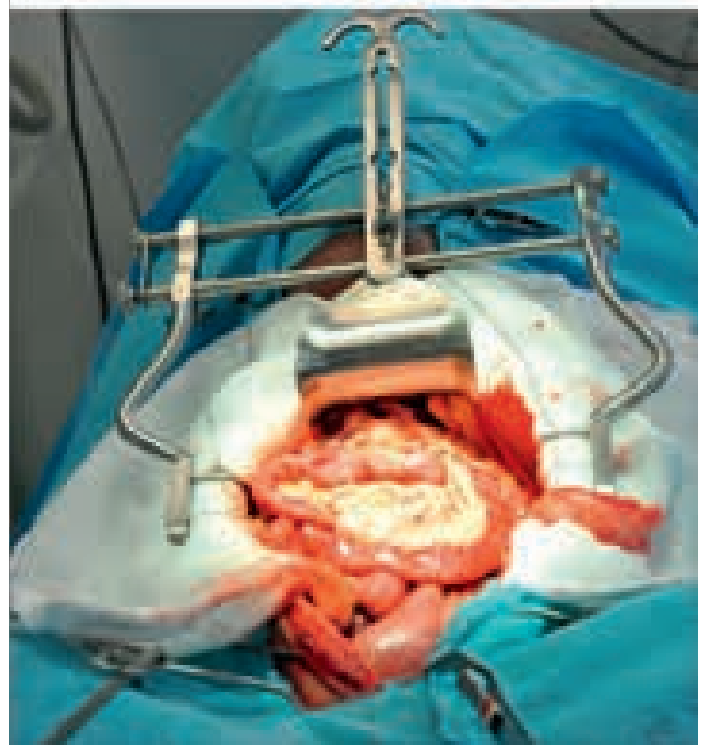
The surgeon should use appropriate surgical instrumentation. The intestine in particular is relatively fragile, especially in the presence of inflammation or obstruction.



Intestinal forceps intended for the purpose should be the only instruments used to occlude the lumen (except of intestine being resected). Doyen's forceps are atraumatic and are ideal. In general they are preferred to an assistant holding the intestine because the risk of slippage and contamination is minimised. During suturing, the intestine should be handled only as much as necessary since it is readily damaged by the surgeon. Standard rat tooth forceps should never be used for this purpose: dressing forceps are also unsuitable because the plain tips must be used with excessive force to hold the tissue. DeBaakey forceps or fine toothed Adson forceps are suitable.



For gastric and hepatic surgery in particular, abdominal retractors are necessary to maintain exposure. Depending on the size of the patient, AHM or standard Balfour retractors, Gosset or a ring retractor may be selected.



The surgeon must have the relevant expertise in both diagnosis and surgical techniques. As far as possible, the diagnosis should be made before surgery, but this is not always possible. During laparotomy the surgeon should be able to recognise the common conditions (GDV, intestinal foreign body, linear FB, intussusception, perforation, peritonitis etc.) and have the skills required to deal with them.



If surgical staplers are to be used, the surgeon must have received prior specific training to avoid mistakes with these novel devices. More commonly, hand suturing will be used. Key principles of modern GI surgery include use of monofilament absorbable suture, single layer closure of most viscera and use of a simple continuous suture pattern. Inexperienced surgeons should also select the simplest techniques whenever possible: the outcome is likely to be better than poor application of a more involved procedure. As an example, pyloric resection is technically demanding but rarely indicated. The majority of cases of pyloric obstruction can be managed with pyloromyotomy or Y-U pyloroplasty, rather than a Bilroth procedure. For intestinal resection and anastomosis, an end-to-end technique is used (unless surgical staplers are available) rather than an end-to-side or other alternative. If peritonitis is present, or gross contamination occurs during surgery, the surgeon should have surgical suction available and understand the principles of management of peritonitis: the value of lavage, correction of the underlying problem, application of peritoneal drainage (notably consideration of placement of a suction drain) and provision of assisted feeding.

Recovery of the patient will be improved if the considerations mentioned above have been applied, and logical post operative care is chosen. This is likely to include appropriate antibiotic and fluid therapy, assisted early nutrition and pain management.

Gastro-intestinal surgery is commonly performed but has a significant risk of complications, such as leakage and peritonitis. Attention to the principles of surgery will have a significant impact on reducing these risks. It is an irony of GI surgery that it is often performed as part of “a simple ex lap” by whichever clinician is available, but requires significant skills and experience to achieve the optimum outcome, together with the benefit of some dedicated instrumentation.

See pages 290-292 for further information regarding stapling systems.

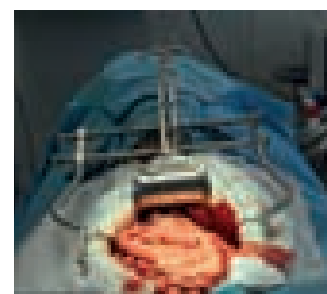
Large Abdominal Retractors

AHM Balfour Retractor



The original Balfour has for many years served as the standard large abdominal retractor for canine surgery. However the standard midline canine approach is very different from the standard human approach. Alasdair Hotston Moore has re-visited the original design and has made some significant changes which improve the instrument both in use and sterilisation.

Exploratory surgery of the cranial abdomen in larger dogs presents difficulties of access for all surgeons, but especially when a scrubbed assistant is unavailable. The traditional Balfour Retractor is an ideal instrument for this application in theory, but its practical application is limited by the fact that it is simply too large to fit in the typical benchtop autoclave found in general practice.

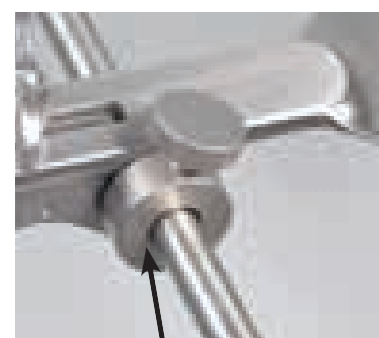


This modified version allows both arms to be removed from the cross piece, making it small enough to fit easily into a small autoclave. The arm of the “spoon” has also been slightly shortened to achieve this aim. This Retractor is ideal for creating exposure for gastric surgery (especially gastropexy) as well as surgery of the liver and ruptured diaphragm repair.

Balfour Locking Ring

The central blade in the Balfour slides freely on the back bar and automatically self centers. If the lesion or organ of interest is off centre this is undesirable.

The Balfour Locking Ring fits onto the back bar and may be locked in any position, holding the blade off centre. The Balfour Locking Ring fits all VI Balfours.

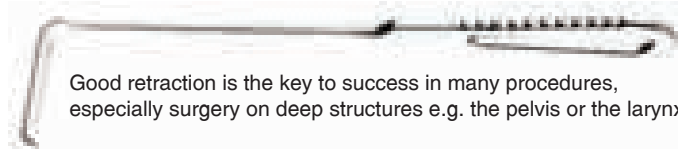


Balfour Locking Ring

LARGE ABDOMINAL RETRACTOR		
25-2375AHM	AHM Balfour Retractor 180mm Spread	£205.00
25-2375	Standard Balfour Retractor 180mm Spread	£175.00
25-2375R	Balfour Locking Ring	£18.50
25-2377	Medium Balfour 115mm Spread	£160.00
25-2376	Baby Balfour Retractor 90mm Spread	£155.00
703260	Collins Retractor 110mm pread	£150.00
684755	Morris Retractor 50mm	£65.00

Retractors

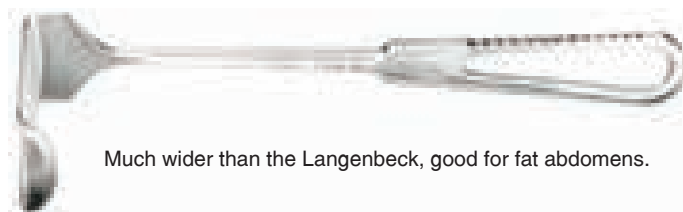
Langenbeck



Good retraction is the key to success in many procedures, especially surgery on deep structures e.g. the pelvis or the larynx.

LANGENBECK		
684375	Langenbeck Retractor 6mm Blade 215mm	£47.50
684395	Langenbeck Long Reach 6mm x 35mm Blade 215mm	£52.50
684380	Langenbeck Retractor 13mm Blade 215mm	£50.00
684390	Langenbeck Retractor 20mm Blade 215mm	£52.50
684385	Langenbeck Retractor 25mm Blade 215mm	£52.50

Morris Retractor



Much wider than the Langenbeck, good for fat abdomens.

MORRIS		
684750	Morris Retractor 38mm 1.5" 215mm	£65.00
684755	Morris Retractor 50mm 2" 260mm	£65.00
684760	Morris Retractor 65mm 2.5" 220mm	£65.00

Senn (Cats Paw) Retractor



SENN (CATS PAW)		
833305	Senn Retractor (Cats Paw) 160mm	£26.50

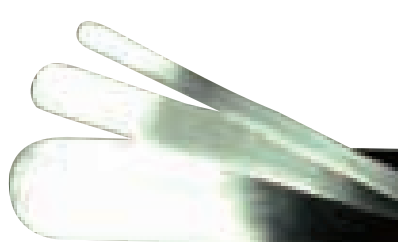
Fat Pad Retractor



Visualisation of the medial meniscus is maximised by retraction of the fat pad. Previously this has been achieved by use of a Senn (Cats Paw) retractor. The Fat Pad Retractor has the same clawed foot but has a much more practical means of holding the instrument.

FAT PAD RETRACTOR		
001114	Fat Pad Retractor 180mm	£26.50

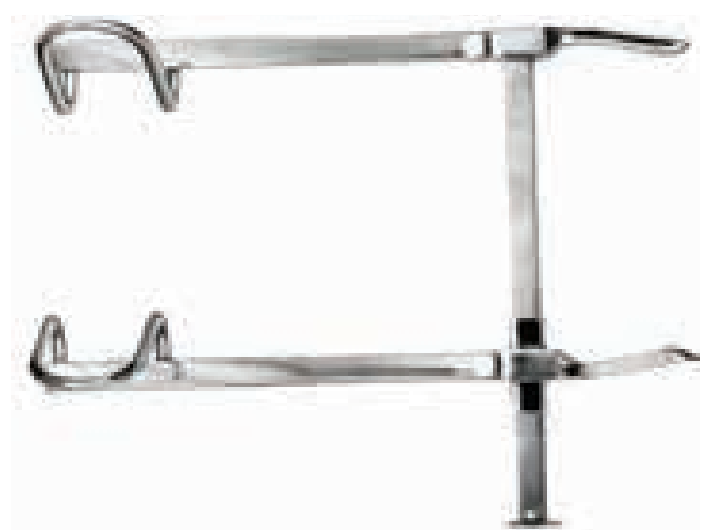
Malleable (Walton) Retractors



These flat plates of soft stainless steel are bent intra-operatively to retain abdominal structures.

MALLEABLE (WALTON) RETRACTORS		
687613	Malleable Retractor 13mm 175mm	£22.50
687825	Malleable Retractor 25mm 250mm	£27.50
687651	Malleable Retractor 50mm 330mm	£32.50

Gosset Retractor



Good as a rib retractor, laparotomy retractor and for retraction of ventral cervical structures during cervical fenestration.

GOSSET		
701550	Gosset Retractor Large 130mm Spread	£225.00
710600	Gosset Retractor Small 100mm Spread	£225.00

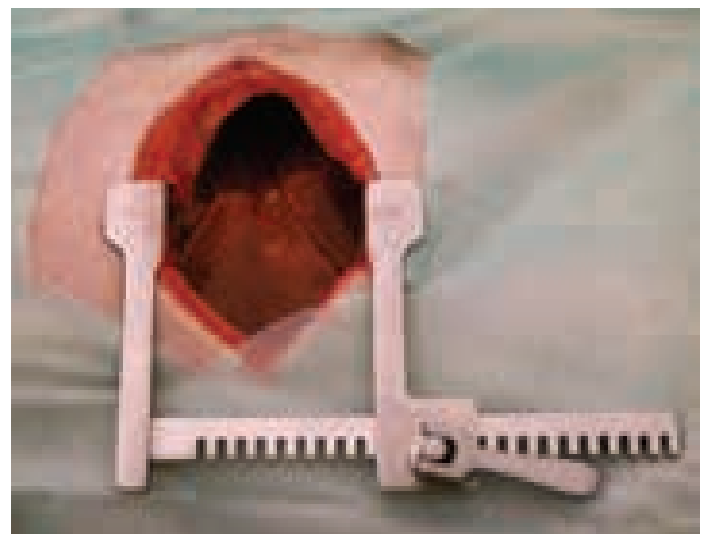
Collins



The two blades swivel as retraction takes place. They self-centre in the incision.

COLLINS		
703260	Collins Retractor 110mm Spread	£150.00

Rib Retractor



Finnochetto is the standard rib retractor available in large and small.

RIB RETRACTOR		
704000	Rib Retractor Finnochetto Small 95mm Spread	£140.00
704005	Rib Retractor Finnochetto Large 130mm Spread	£145.00

Finsen Self Retaining Retractor



Spring Loaded Retractor for small incisions. The blade width is 14mm. Very reasonably priced.

FINSEN SELF RETRACTOR		
252374	Finsen Retractor 75mm	£49.50

Travers



Expensive but very useful for retraction of skin and superficial soft tissue.

TRAVERS		
703051	Travers Retractor 70mm Spread 16.5cm 6.5"	£210.00
703050	Travers Retractor 90mm Spread 20cm 8"	£225.00
703053	Travers Retractor Mini 43mm Spread 95mm	£120.00

Weislander



Arms are flat compared with the Wests.

WEISLANDER		
702150	Weislander S/R Retractor Sharp 60mm Gape 14cm 5.5"	£180.00
702152	Weislander S/R Retractor Blunt 60mm Gape 14cm 5.5"	£180.00

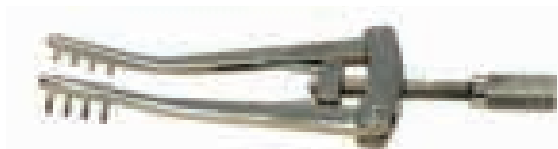
West



Widely used but sharp points tend to snag tissues. Curved arms sit quite nicely on small veterinary patients.

WEST		
703250	West Retractor 50mm Spread 140mm 5.5"	£170.00
703253	Mini West Retractor 40mm Spread 95mm	£120.00

Aln Skin Retractor



ALN SKIN RETRACTOR		
252370	Aln Skin Retractor 7.5cm 3"	£42.50

Gelpi Self Retaining Retractor



The Gelpi is an extremely versatile self retaining retractor useful in almost any orthopaedic procedure. Veterinary Instrumentation Gelpis are different from standard Gelpis in two respects:

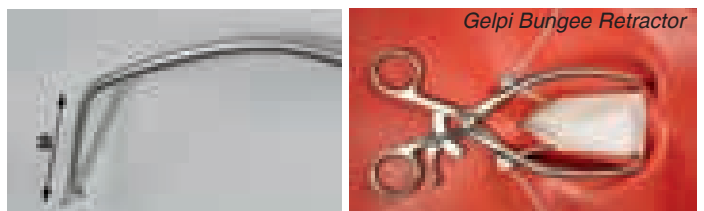
1. Short blunt tips give focal retraction for precise exposure of the fracture or lesion.
2. The teeth on the ratchet are smaller than usual giving finer control over the spread of the tips.

Gelpis are virtually an extra pair of hands and are invaluable in circumstances where the surgeon is working alone. This is the norm in general practice. The curved shape sits nicely on our patients. Useful in the following procedures and many more:

- Total Head and Neck Excision
- CrCL repairs
- Meniscal examination
- All arthrotomy procedures
- Fracture repairs
- Wobblers
- Laminectomies
- Rib retractors in small patients

Two pairs of Gelpis placed at right angles to one another may be used to create a window into a joint or fracture site.

Gelpis are available in a number of lengths. Measurement 'a' gives the depth of the tips.

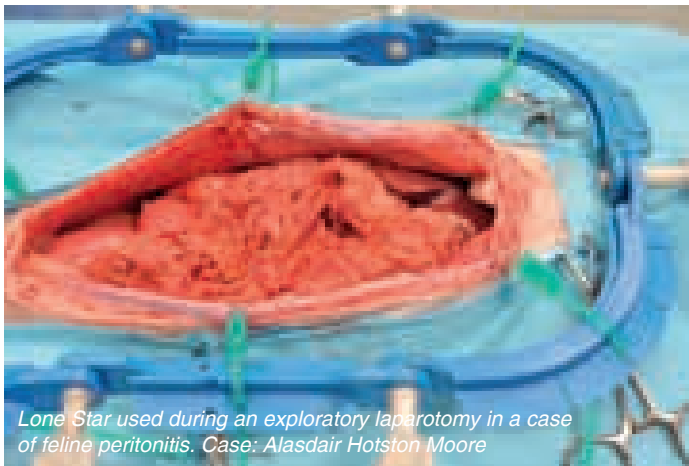


GELPI SELF RETAINING RETRACTOR		
001330	Gelpi Self Retaining Retractor 180mm 120mm Spread (a=20mm)	£170.00
001330SL	Gelpi Self Retaining Retractor with Spinlock for Extra Strength 190mm (a=20mm)	£170.00
001330S	Gelpi Self Retaining Retractor 180mm Sharp Tips (a=20mm)	£170.00
001331	Gelpi Long Reach 200mm (a=40mm)	£170.00
001331L	Gelpi Very Long Reach 200mm (a=60mm)	£170.00
001332	Gelpi Small 50mm Spread 135mm (a=15mm)	£170.00
0013301	Gelpi Mini Flat 45mm Spread 90mm (a=15mm)	£110.00
0013302	Gelpi Mini Curved 45mm Spread 90mm (a=15mm)	£115.00
001333	Odd Leg Gelpi Pair 205mm (a=25/40mm)	£345.00
001334	Odd Leg Gelpi Short Pair 130mm (a20/30)	£345.00
001330BUNGEE	Gelpi Bungee Retractor	£185.00

Lone Star Ring Retractor

The Lone Star Retractor is widely used by soft tissue surgeons including Alasdair Hotston Moore and Rob White. The outer slotted ring is hinged to allow conformation to the body shape and to direct the angle of traction of the bungee-type elastic stays. The outer ring segments are manufactured from Noryl resin is supplied sterile and many surgeons re-autoclave. The silicone bungees will tolerate some autoclaving. The elastic stays are manufactured from flexible silicone with the stainless steel hook moulded into an ergonomic finger grip. The silicone shaft is grasped by the slots in the outer ring in an infinite number of positions. The stays may be used to retract different layers of soft tissue with differing tensions and angle of pull. The whole system sits neatly on top of the patient without obscuring the operative field.

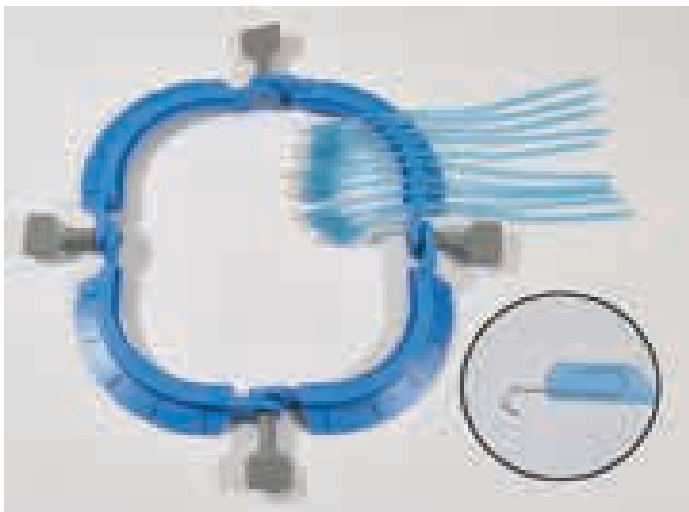
The standard segments creates a square 14cm x 14cm. An extended version creates a rectangle 25cm x 14cm which can be reduced to a square 14cm x 14cm.



Lone Star used during an exploratory laparotomy in a case of feline peritonitis. Case: Alasdair Hotston Moore



Case: Alasdair Hotston Moore Prepubic tendon rupture repair



LONE STAR RETRACTOR

702SET	Lone Star Basic Ring Set includes Ring (14 x 14cm) and 50 Stays	£575.00
702000	Lone Star Basic Ring	£85.00
705SET	Lone Star Rectangle Set includes Ring (25 x 14cm) and 50 Stays	£585.00
705000	Lone Star Rectangle	£95.00
702001	Lone Star Elastic Stays 50 x Sterile (Single)	£505.00
702002	Lone Star Elastic Stays 10 x Sterile (Single)	£125.00

Ring Retractor

Some abdominal approaches require a more complex retraction system than a simple Balfour or Gossett. The V.I. Ring Retractor allows the surgeon to place hooked retractor strips around the periphery of a surgical incision which may then be tensioned individually and retained around the edge of the ring.



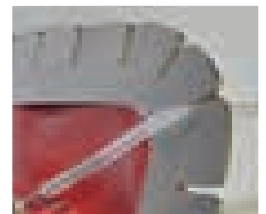
The Ring is laser cut from stainless steel which is thin enough to mould to the profile of the patient. Slots are cut every 15mm around the periphery of the ring into which lock one or more retractor strips.



Case: Alasdair Hotston Moore Parotid Salivary Gland Resection

The Strips are manufactured from silicon with a stainless hook. The strips are autoclavable but will require periodic replacement.

All the Rings fit into a standard 'Little Sister' type autoclave.



In 2012 an Extra Large Ring (220 x 250mm) which can be folded was added to the range. Once folded the ring will again fit into a standard 'Little Sister' Autoclave.

Please Note: VI Sterile Hooks are compatible with other retractor systems.

RING RETRACTOR

701700	Basic Set including 3 Standard Rings 200 x 130mm, 160 x 85mm & 110 x 40mm Internal and 10 Sterile Hooks	£185.00
701701	Large Ring 200 x 130mm Internal	£70.00
701702	Medium Ring 160 x 85mm Internal	£67.50
701703	Small Ring 110 x 40mm Internal	£65.00
701704	X Large Ring 220 x 250mm Internal	£90.00
701HOOK	Set of 10 of Sterile Hooks	£29.50

Bungee Gelpi Self Retaining Retractors

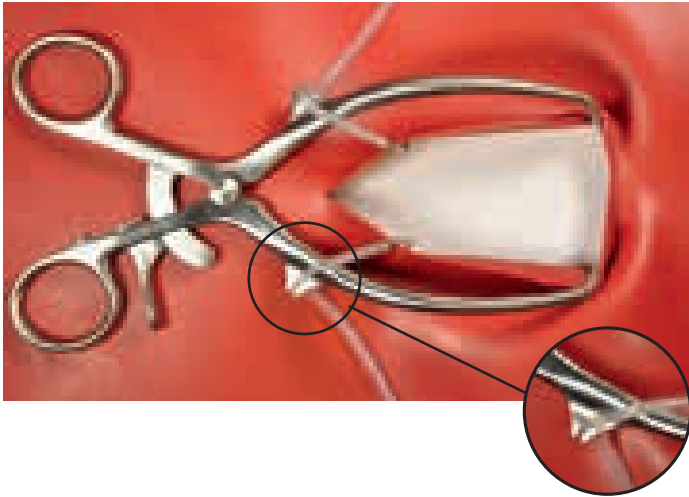
The Bungee Gelpis have been developed in house over the course of the last couple of years by David Strong.

Based on our current standard Gelpis (001330), they are designed to be as user friendly as regular gelpis in normal use, but with the 'party trick' of bungee slots.

These bungee slots are similar to those found on the VI Ring Retractor and the Lone Star Ring retractor and will accept the full range of Lone Star and VI Elastic Stays, allowing the standard 2 points retraction of standard Gelpis to be transformed into four or six (if the slots are double loaded).

This has several advantages:

- Better retraction with fewer retractors cluttering a wound
- Greater stability of Gelpi's within a wound with four or six point retraction preventing the tips from sliding towards each other, which can be very frustrating. Easier for surgeries which are often performed in a more vertical position, such as perineal hernia repair.
- More useful shape to retracted hole – more rectangular than round, square or diamond, but is very adaptable to suit the situation.
- Multi-layer retraction such as creating deep retraction with tips and improved skin retraction with the elastic stays.

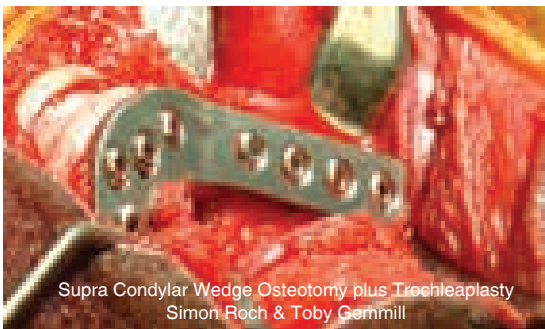


BUNGEE GELPI SELF RETAINING RETRACTOR		
001330BUNGEE	Gelpi Bungee Retractor	£185.00
701HOOK	Sterile Ring Retractor Hooks Set of 10	£29.50

www.vetinst.com

Online store for all VI products:
Browse or Quick order

Your online training resource:
Video downloads
Step by Step guides - FAQs

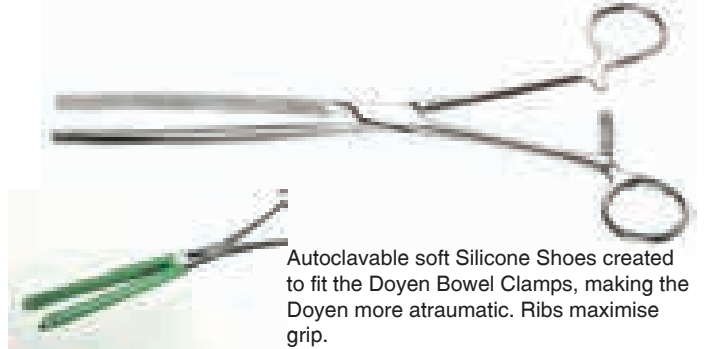


Supra Condylar Wedge Osteotomy plus Trochleoplasty
Simon Roch & Toby Gemmill

Designed by Vets for Vets

Bowel Clamps

Doyen Bowel Clamp & Silicone Shoes

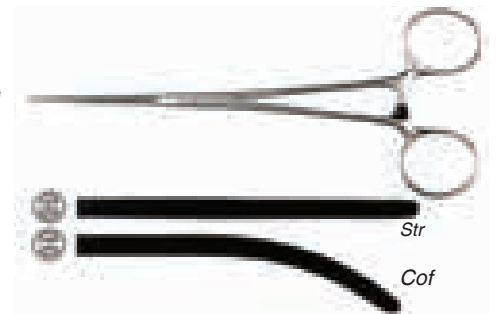


Autoclavable soft Silicone Shoes created to fit the Doyen Bowel Clamps, making the Doyen more atraumatic. Ribs maximise grip.

DOYEN BOWEL CLAMP & SILICONE SHOES		
201950	Bowel Clamps Doyen Str 9.5" 24cm	£75.00
201955	Bowel Clamps Doyen Cof 9.5" 24cm	£80.00
EXTR201950/3	Silicone Shoe for Doyen Bowel Clamps 3 Pairs	£10.00
EXTR201950/10	Silicone shoe for Doyen Bowel Clamps 10 pairs	£20.00
EXTR201950/20	Silicone shoe for Doyen Bowel Clamps 20 pairs	£38.00

Atraumatic Small Bowel Clamp

Jaw design gently holds and seals the bowel with a minimum of pressure and trauma. The fine ratchet facilitates gentle yet secure application.



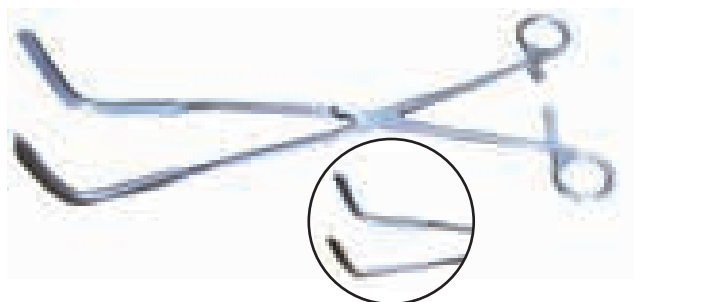
ATRAUMATIC SMALL BOWEL CLAMP		
222165	Bowel Clamps Small Animal Atraumatic Str 170mm Long	£82.50
222170	Bowel Clamps Small Animal Atraumatic Cof 170mm Long	£87.50

Resano Bowel Clamp



RESANO BOWEL CLAMP		
201956	Resano Bowel Clamp 250mm Long	£92.50

Lloyd Davis Bowel Clamp



Similar to the Resano in style but with a greater angle on the tips.

LLOYD DAVIS BOWEL CLAMP		
201952	Lloyd Davis Bowel Clamp 250mm Long	£92.50

Drains & Drainage

Vacuum Drains Concertina Type

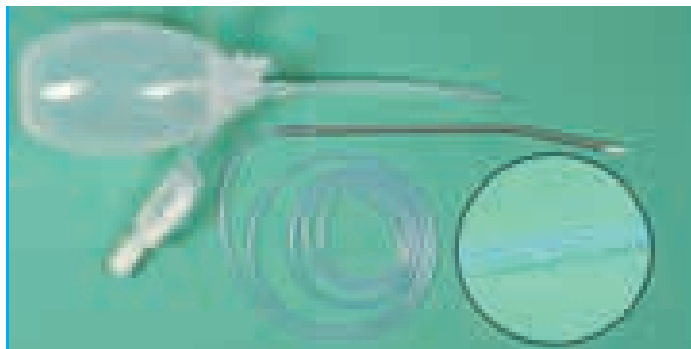
Appropriate drainage will make the difference between success and failure, particularly with thoracic surgery. The whole system can be strapped to the patient. Concertina type action creates suction. Each kit includes the drain.



VACUUM DRAINS CONCERTINA TYPE

014062	Vacuum Drainage Kit 50ml 2.5mm Diameter Tube Complete Disposable	£8.95
014063	Vacuum Drainage Kit 20ml 2.0mm Diameter Tube Complete Disposable	£9.95

Vacuum Drains – Jackson Pratt Type



VACUUM DRAINS – JACKSON PRATT TYPE

014058	Vacuum Drainage Kit 100ml 3.2mm Diameter Tube Complete Sterile Semi-disposable	£35.50
014059	Vacuum Drainage Kit 200ml 4.8mm Diameter Tube Complete Sterile Semi-disposable	£35.50

Pre-Evacuated Bottle Drains

The 400ml Bottle is supplied pre-evacuated complete with perforated drain and introducing needle. The Bottle creates a much higher vacuum more appropriate for chest drains.



PRE EVACUATED BOTTLE DRAINS

014080	Bottle Drain 400ml with 10FG Drain	£9.95
014082	Bottle Drain 400ml with 12FG Drain	£9.95
014084	Bottle Drain 400ml with 14FG Drain	£9.95
014086	Bottle Drain 400ml with 16FG Drain	£9.95
014064	200ml Evacuated Bottle - no Drain	£6.95
014065	400ml Evacuated Bottle - no Drain	£7.95

Thora-Cath Chest Tubes

A soft silicon chest tube for pneumothorax or haemothorax. 140mm length, graduated at 10mm lengths with radiopaque strip for easy placement. Universal hub connects to standard barbed connector with female luer lock. Also recommended to be used with 3 Way Stopcock. 3 diameters available.



THORA-CATH CHEST TUBES

025612	Thora-Cath Chest Tubes 3.2mm Inner Diameter	£42.50
025613	Thora-Cath Chest Tubes 4mm Inner Diameter	£45.00
025614	Thora-Cath Chest Tubes 4.67mm Inner Diameter	£47.50
025618	Standard Barbed Connector with Female Luer Lock	£4.95
025619	3 Way Stopcock	£2.45

Drain Clamps



Gate Clamp



Tube Clamp

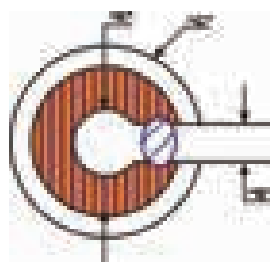
For rapid, complete occlusion use artery forcep style. Where incremental adjustments are required use the Gate Type.

DRAIN CLAMPS

101776	Tube Clamp 190mm 7.5" 190mm Long	£29.50
014066	Gate Clamp	£4.95

Ameroid Constrictors

Ameroid Constrictors

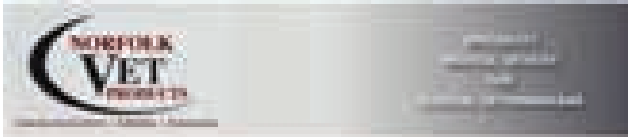


Used exclusively in the surgical treatment of hepatic shunts, the ameroid constrictor gradually occludes the blood vessel in question allowing the circulation to make adjustments. The clay layer expands as it absorbs water constricting the blood vessel within. Supplied sterile. Insertion of metal locking key prevents constrictor from slipping from blood vessel.

Selection of Ameroid Constrictor. Once the portosystemic shunt has been identified and exposed it is suggested that a constrictor should be selected which initially encloses the vessel but does not constrict it (Tobias 2009).

AMEROID CONSTRICTORS

AC35	Ameroid Constrictor 3.5mm Sterile	£82.50
AC50	Ameroid Constrictor 5.0mm Sterile	£82.50
AC60	Ameroid Constrictor 6.0mm Sterile	£87.50
AC70	Ameroid Constrictor 7.0mm Sterile	£87.50



Veterinary Instrumentation is pleased to announce that we are now distributors for Norfolk products alongside DocXS sphincters and occluders. Stock is held in the UK to minimise delays and aid your stock control. As usual these should be available for next day delivery if required.

The Norfolk and DocXS products are based around the CompanionPort device. This is a titanium port with a silicone septum which is implanted during a surgical procedure beneath the skin at a suitable site, depending on accessory connection required. The port is then accessed percutaneous using a special non-coring Huber point needle to either withdraw, sample or administer/ flush as required with minimal disturbance and distress to the patient.



CompanionPort for Vascular Access

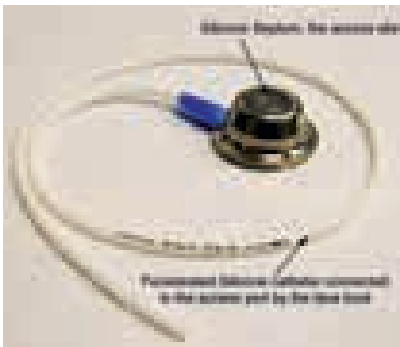


CompanionPort for Vascular Access has many indications for use, including regular repeat blood sampling, administration of chemotherapeutic agents, long term antibiotic therapy, sedation for radiation therapy etc.

The port is placed in a pocket created level with and immediately lateral to the transverse process of the 3rd or 4th cervical vertebrae. The catheter is placed via an incision into the jugular, using the peel-away introducer provided in the kit. The free end of the catheter is tunneled back to the port and secured. The catheter is flushed with saline, and locked with heparin.

A surgical guide and further information on port access is available online at www.vetinst.com and www.norfolkvetproducts.com

Pleural Port

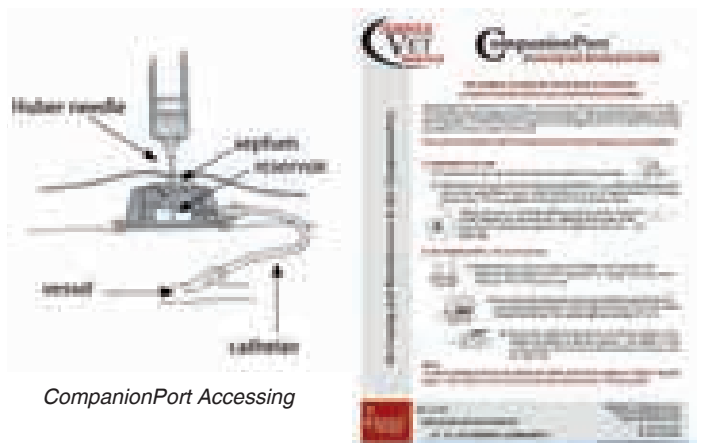


A very useful member of the Norfolk family, this version of the Port kit consists of a silicone fenestrated catheter for insertion into the thoracic cavity, with a CompanionPort and 3 sizes of Huber needle. All sizes of Huber needle are available to purchase in boxes of 12, for repeat port access.

Indications for use are repeated aspiration of the thoracic cavity, or intra-cavity chemotherapy.

A surgical procedure under anaesthesia is required to place the catheter initially, but subsequent drainage of the chest can be carried out with no sedation and without struggling with the animal, while they are seated or lying comfortably. This substantially reduces the stress on an animal which usually already has compromised respiration.

A surgical guide and further information is available online at www.vetinst.com and www.norfolkvetproducts.com



CompanionPort Accessing

PLEURAL PORT

NOR-PP-102K	Pleural Port - Dogs	£155.00
NOR-PP-202K	Pleural Port - Cats	£155.00

Huber Needles

These special non-coring needles are required to access the silicone septum of the CompanionPort without the damage associated with traditional needles. They are also known as deflected-point needles. When withdrawn after use, the septum re-seals itself. 3 diameters, in boxes of 12.



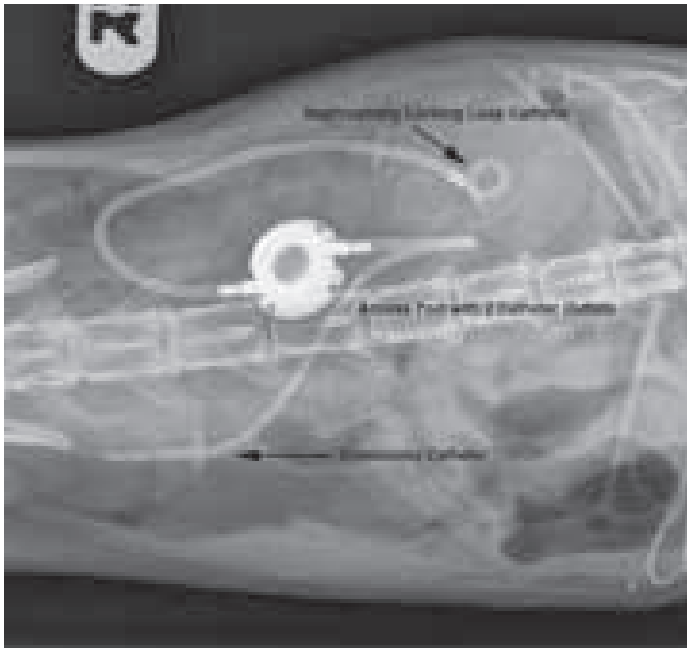
HUBER NEEDLES

NOR-NV-PG22-75	Huber Needle 22g 3/4" Black Box of 12	£22.50
NOR-NV-PG22-100	Huber Needle 22g 1" Black Box of 12	£22.50
NOR-NV-PG20-75	Huber Needle 20g 3/4" Yellow Box of 12	£22.50
NOR-NV-PG20-100	Huber Needle 20g 1" Yellow Box of 12	£22.50
NOR-NV-PG19-75	Huber Needle 19g 3/4" Brown Box of 12	£22.50
NOR-NV-PG19-100	Huber Needle 19g 1" Brown Box of 12	£22.50

COMPANIONPORT FOR VASCULAR ACCESS

NOR-CP-100K	CompanionPort Vascular Access Le Petite - Small Cats	£120.00
NOR-CP202K	CompanionPort Vascular Access Le Port - Cats & Small Dogs	£125.00
NOR-CP305K	CompanionPort Vascular Access Le Grande - Larger Dogs	£130.00

The SUB™ - A Subcutaneous Ureteral ByPass System



The SUB™ is a unique system designed for use in dogs and cats. Components of the device are a locking loop pigtail catheter that is placed in the renal pelvis, a fenestrated and cuffed bladder catheter, and a titanium Shunting Port which is positioned subcutaneously. This allows sampling and flushing to be carried out percutaneously.

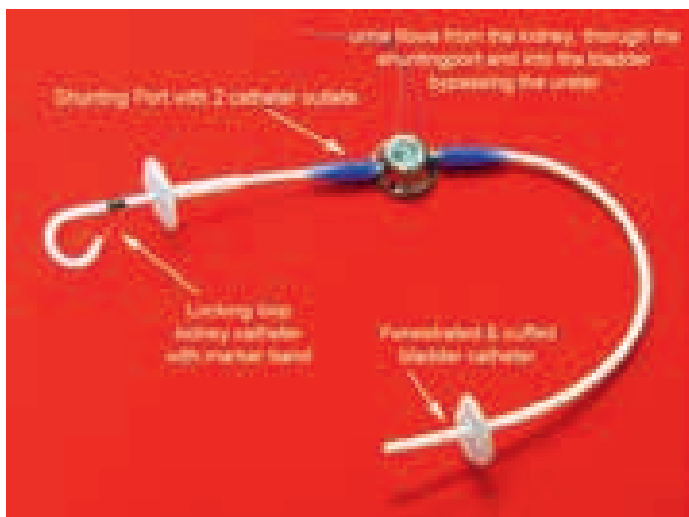
The kidney catheter has an 8mm locking pigtail and tapered tip, to allow easier placement. A metal stiffening cannula and trochar styllet is included. The radiopaque medical grade polyurethane catheter has a marker band at the loop heel for visualisation using fluoroscopy during placement. A version for larger dogs is available with a longer locking loop catheter. This is 38cm compared to the 18cm in the standard kits.

The bladder catheter is made of radiopaque silicone, again visible under fluoroscopy. A new addition is a radio-opaque marker on the bladder catheter to allow surgeons to confirm all the fenestrations are in the bladder.

Indications for use include ureteral strictures and ureteral stent reaction or intolerance. It is contraindicated where coagulopathy or mild hydronephrosis are present.

Additional accessories are available to allow 2 kidney catheters to be connected to 1 bladder catheter.

A surgical guide and further information is available online at www.vetinst.com and www.norfolkvetproducts.com



THE SUB™

NOR-SUB1001K	Sub Device - Cats & Small Dogs	£285.00
NOR-SUB2001K	Sub Device - Larger Dogs	£285.00
NOR-BC-7	Bladder Catheter 7FR	£55.00
NOR-LL6.5	Kidney (Pigtail) Catheter 6.5FR	£55.00
NOR-SUBPORT	3 Way Sub Port only	£175.00
NOR-SUB-PP-3001K	3 Way PantsPort Sub Kit with Catheter	£365.00
NOR-GW-035	J Tipped 0.035" Guide Wire	£22.00
1050052	Histoacryl Tissue Glue (Pack of 5)	£135.00

Huber Needles



These special non-coring needles are required to access the silicone septum of the CompanionPort without the damage associated with traditional needles. They are also known as deflected-point needles. When withdrawn after use, the septum re-seals itself. 3 diameters, in boxes of 12.

HUBER NEEDLES

NOR-NV-PG22-75	Huber Needle 22g 3/4" Black Box of 12	£22.50
NOR-NV-PG22-100	Huber Needle 22g 1" Black Box of 12	£22.50
NOR-NV-PG20-75	Huber Needle 20g 3/4" Yellow Box of 12	£22.50
NOR-NV-PG20-100	Huber Needle 20g 1" Yellow Box of 12	£22.50
NOR-NV-PG19-75	Huber Needle 19g 3/4" Brown Box of 12	£22.50
NOR-NV-PG19-100	Huber Needle 19g 1" Brown Box of 12	£22.50

DOCXS Artificial Urethral Sphincter (AUS) Port System



Artificial Urethral Sphincter (AUS) for use in dogs affected by refractory urinary incontinence where traditional medical treatment fails.

100% medical implant grade silicone rubber cuff & actuator tubing. Biocompatible Titanium Companion Port is secured subcutaneously usually at inner thigh for easy access.

Device can be adjusted by adding/ removing sterile saline percutaneously via the silicone septum of the port using aseptic technique and a non-coring Huber point needle. Two widths and a range of lengths are available. Assess the approximate size required pre operatively using ultrasound. Full Kit available includes access Port, one AUS, two Huber Point needles, and one Huber Point Needle Right Angle Infusion Set 22g. Medium Access Port supplied as standard.

Individual components and more sizes on request.

For surgical guide and more information please contact info@vetinst.com, go to www.vetinst.com or call 0845 130 9596



DOCXS AUS PORT SYSTEM KITS		
DXAUS-KIT-6X11	AUS Port System Kit 6 x 11mm Cuff	£275.00
DXAUS-KIT-10X11	AUS Port System Kit 10 x 11mm Cuff	£275.00
DXAUS-KIT-8X14	AUS Port System Kit 8 x 14mm Cuff	£275.00
DXAUS-KIT-10X14	AUS Port System Kit 10 x 14mm Cuff	£275.00
DXAUS-KIT-12X14	AUS Port System Kit 12 x 14mm Cuff	£275.00
DXAUS-KIT-14X14	AUS Port System Kit 14 x 14mm Cuff	£275.00
DXVO-CATH45	AUS & HSO Backfill/ Flush Catheter	£25.00

AUS Port System Kits

All cuff sizes can be supplied as kits. Full list of components available on page 306.

DOCXS Hepatic Shunt Occluder (HSO) System

An alternative to cellophane or Ameroid Constrictors, this Device uses incremental hydraulic occlusion via a percutaneous port to progressively control closure of the shunt vessel. The speed of vessel occlusion is under the control of the surgeon and is reversible if necessary without further surgery. The silicone cuff is closed using a suture through 2 eyelets, the actuator tubing fed out to a subcutaneously implanted CompanionPort then gradually closed by injecting saline into the port percutaneously. Cuff width is 7mm. Range of lengths available.



Full kit available includes access port, one HSO, two Huber Point needles, and one Huber Point Needle right angle infusion set 22g. Medium access port supplied as standard

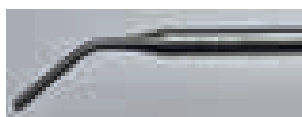
For more information please contact info@vetinst.com, go to www.vetinst.com or call 0845 130 9596

DOCXS HEPATIC SHUNT OCCLUDER SYSTEM		
DXHS-KIT-HS-4	Hepatic Shunt Kit 4mm	£195.00
DXHS-KIT-HS-6	Hepatic Shunt Kit 6mm	£195.00
DXHS-KIT-HS-8	Hepatic Shunt Kit 8mm	£195.00
DXHS-KIT-HS-10	Hepatic Shunt Kit 10mm	£225.00
DXHS-KIT-HS-12	Hepatic Shunt Kit 12mm	£225.00
DXHS-KIT-HS-14	Hepatic Shunt Kit 14mm	£225.00
DXHS-KIT-HS-16	Hepatic Shunt Kit 16mm	£225.00
DXVO-CATH45	AUS & HSO Backfill/ Flush Catheter	£25.00

Vascular Probe Set



A Set of 15 Vascular Probes in a fully Autoclavable Stainless Steel Case. The 25mm long angled working tips are of specified diameter permitting accurate documentation of blood-vessel diameter and marriage of blood-vessel diameters when performing vascular anastomoses. With an overall length of 225mm, these are especially useful in abdominal surgery, in particular for documenting hepatic shunts.



The Set includes Probe diameters of 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 3.75, 4.00, 4.50, 5.00 and 6.00mm. Diameters are clearly etched on the handles.

VASCULAR PROBE SET		
0014SET	Vascular Probe Set	£275.00

The SkinButton™



This minimally invasive device provides a needleless route for chronic access to the subcutaneous tissue for fluid therapy.

The medical grade silicone disc is implanted during a short procedure which may be carried out under local anaesthetic.

Once in position the SkinButton is inconspicuous and provides easy access to the subcutaneous tissue.

A blunt needle is inserted into the blue tinted accessing site and the fluid is delivered. On removal of the needle, the accessing septim self seals to provide a closed system.

The SkinButton Implantation Kit includes:

- SkinButton - Round Silicone Disc with a self sealing centre
- 6mm Dermal Punch
- 18g Blunt Accessing Needle
- Kit of 5 18g Blunt Accessing Needles
- Surgical and Accessing suggestions.

The SkinButton is available in one size and suitable for use in all sizes of dogs and cats.

SKINBUTTON™		
NOR-SB1001K	SkinButton Implantation Kit - Single	£55.00
NOR-SBN-18	SkinButton Needle Kit - 30 x 18g Blunt Accessing Needle with Alcohol Swabs	£35.00

Norfolk & DocXS Kits and Components

DOCKS KITS		
DXHS-KIT-HS-4	Hepatic Shunt Kit 4mm	£195.00
DXHS-KIT-HS-6	Hepatic Shunt Kit 6mm	£195.00
DXHS-KIT-HS-8	Hepatic Shunt Kit 8mm	£195.00
DXHS-KIT-HS-10	Hepatic Shunt Kit 10mm	£225.00
DXHS-KIT-HS-12	Hepatic Shunt Kit 12mm	£225.00
DXHS-KIT-HS-14	Hepatic Shunt Kit 14mm	£225.00
DXHS-KIT-HS-16	Hepatic Shunt Kit 16mm	£225.00
DXAUS-KIT-6X11	AUS Port System Kit 6 x 11mm Cuff	£275.00
DXAUS-KIT-10X11	AUS Port System Kit 10 x 11mm Cuff	£275.00
DXAUS-KIT-8X14	AUS Port System Kit 8 x 14mm Cuff	£275.00
DXAUS-KIT-10X14	AUS Port System Kit 10 x 14mm Cuff	£275.00
DXAUS-KIT-12X14	AUS Port System Kit 12 x 14mm Cuff	£275.00
DXAUS-KIT-14X14	AUS Port System Kit 14 x 14mm Cuff	£275.00
DXAUS-KIT-CP2	CompanionPort Large Sterile & Huber Needles	£155.00
DXAUS-KIT-CP4	CompanionPort Medium Sterile & Huber Needles	£155.00
DXAUS-KIT-CP6	CompanionPort Small Sterile & Huber Needles	£155.00

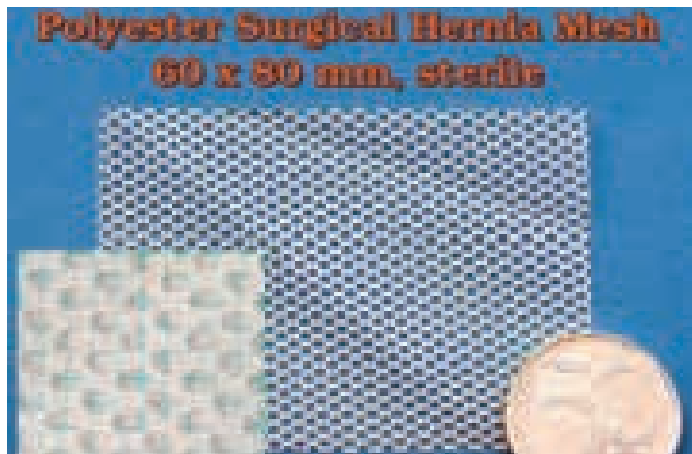
DOCKS COMPONENTS		
DXAUS-4X11	AUS Port Sphincter 4 x 11mm Sterile	£165.00
DXAUS-6X11	AUS Port Sphincter 6 x 11mm Sterile	£165.00
DXAUS-6X14	AUS Port Sphincter 6 x 14mm Sterile	£165.00
DXAUS-8X11	AUS Port Sphincter 8 x 11mm Sterile	£165.00
DXAUS-8X14	AUS Port Sphincter 8 x 14mm Sterile	£165.00
DXAUS-10X11	AUS Port Sphincter 10 x 11mm Sterile	£165.00
DXAUS-10X14	AUS Port Sphincter 10 x 14mm Sterile	£165.00
DXAUS-12X11	AUS Port Sphincter 12 x 11mm Sterile	£165.00
DXAUS-12X14	AUS Port Sphincter 12 x 14mm Sterile	£165.00
DXAUS-14X11	AUS Port Sphincter 14 x 11mm Sterile	£165.00
DXAUS-14X14	AUS Port Sphincter 14 x 14mm Sterile	£165.00
DXAUS-16X11	AUS Port Sphincter 16 x 11mm Sterile	£165.00
DXAUS-16X14	AUS Port Sphincter 16 x 14mm Sterile	£165.00
DXHS-4	Hepatic Shunt Occluder 4mm Sterile	£125.00
DXHS-6	Hepatic Shunt Occluder 6mm Sterile	£125.00
DXHS-8	Hepatic Shunt Occluder 8mm Sterile	£125.00
DXHS-10	Hepatic Shunt Occluder 10mm Sterile	£125.00
DXHS-12	Hepatic Shunt Occluder 12mm Sterile	£125.00
DXHS-14	Hepatic Shunt Occluder 14mm Sterile	£125.00
DXHS-16	Hepatic Shunt Occluder 16mm Sterile	£125.00
DXVO-CATH45	AUS & HSO Backfill/ Flush Catheter	£25.00

NORFOLK PRODUCTS		
NOR-CP-100K	CompanionPort Vascular Access Le Petite Small Cats	£120.00
NOR-CP-202K	CompanionPort Vascular Access Le Port Cats & Small Dogs	£125.00
NOR-CP-305K	CompanionPort Vascular Access Le Grande Larger Dogs	£130.00
NOR-PP-102K	Pleural Port - Dogs	£155.00
NOR-PP-202K	Pleural Port - Cats	£155.00
NOR-SUB1001K	Sub Device - Cats & Small Dogs	£285.00
NOR-SUB2001K	Sub Device - Larger Dogs	£285.00
NOR-BC-7	Bladder Catheter 7FR	£55.00
NOR-LL6.5	Kidney (Pigtail) Catheter 6.5FR	£55.00
NOR-SUBPORT	3 Way Sub Port only	£175.00
NOR-SUB-PP-3001K	3 Way PantsPort Sub Kit with Catheter	£365.00
NOR-GW-035	J Tipped 0.035" Guide Wire	£22.00
1050052	Histoacryl Tissue Glue (Pack of 5)	£135.00

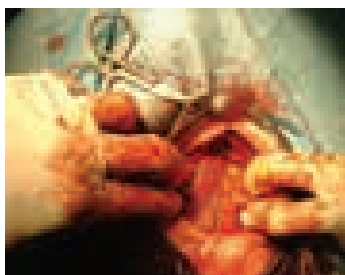
HUBER NEEDLES		
DXHUBERRIGHT	Huber Right Angle Infusion Set Single Sterile	£7.50
NOR-NV-PG22-75	Huber Needle 22g 3/4" Black Box of 12	£22.50
NOR-NV-PG22-100	Huber Needle 22g 1" Black Box of 12	£22.50
NOR-NV-PG20-75	Huber Needle 20g 3/4" Yellow Box of 12	£22.50
NOR-NV-PG20-100	Huber Needle 20g 1" Yellow Box of 12	£22.50
NOR-NV-PG19-75	Huber Needle 19g 3/4" Brown Box of 12	£22.50
NOR-NV-PG19-100	Huber Needle 19g 1" Brown Box of 12	£22.50

Miscellaneous Soft Tissue Products

Polyester Mesh



Use polyester mesh to repair soft tissue defects where alternative autografts are not available. For example perineal hernia (illustrated), umbilical hernia. Mesh loop diameter 1mm. Sheet size 60mm x 80mm or 60mm x 120mm Supplied single pack sterile.



POLYESTER MESH		
PM6080	Polyester Mesh 60mm x 80mm Single	£40.00
PM60120	Polyester Mesh 60mm x 120mm Single	£50.00

Soft Edge Surgical Spoon - Faecal/Bladder



Removing calculi from the bladder or impacted faeces from the rectum requires great care to avoid damage. 'Domestic' spoons are typically too sharp and too short for the purpose.

Our Soft Edge Spoons have been designed and manufactured with veterinary procedures in mind.

Available in three sizes:

- XSmall 10 x 14 x 230mm Suitable for faeces and very small bladders (feline/ small canine)
- Small 20 x 25 x 250mm Suitable for faeces and small bladders
- Large 67 x 34 x 270mm Suitable for the bladder

SOFT EDGED SPOON		
014703	Soft Edged Spoon - XSmall	£26.00
014700	Soft Edged Spoon - Small	£26.00
014701	Soft Edged Spoon - Large	£26.00
014702	Soft Edged Spoon - Set of 3	£60.00

Angled Allis Tissue Forceps



A favourite of Rob White this angled Allis has 4 into 5 teeth at the tip and is angled mid shaft. The kink in the shaft of the Allis allows use in the upper airway and pharynx without obstructing other instrumentation. Note at 200mm the length is longer than the standard Allis.

ANGLED ALLIS TISSUE FORCEPS 4/5 TEETH		
801161	Angled Allis Tissue Forceps 4/5 Teeth 200mm Long	£49.50

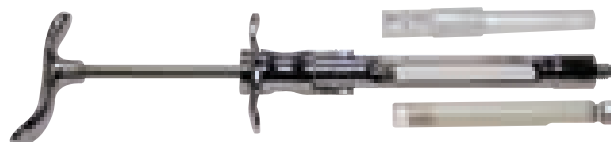
PVC Stomach Tube



This Stomach Tube is primarily used in foals but should be in every practice's emergency kit, for the rare but drastic true emergency gastric dilatation +/- volvulus in large deep-chested dogs. Another example of 'every practice should have one!' 1/4" i.d. 3/8" o.d x 7' Long.

PVC STOMACH TUBE		
EQSTF	PVC Stomach Tube	£23.50

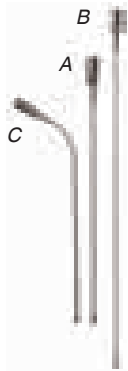
Anal Sac Kit



Removal of diseased anal sacs can be quite difficult as it can be hard to distinguish the sac from the surrounding tissues. Filling the sac with a light coloured wax makes the dissection much easier. The gel pack is warmed to liquefy the contents which are then injected into the anal gland via the duct using the blunt ended needle provided.

ANAL SAC KIT		
273570	Anal Sac Kit	£125.00
273580	Anal Sac Gel (8)	£47.50
273590	Anal Sac Needles (8)	£36.50

Midmark Acteon Urolithiasis Probes



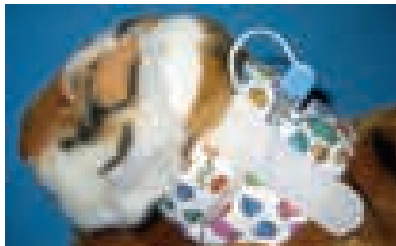
Use ultrasonics to quickly and efficiently break up stones located in the urethra. Urolithiasis probes are compatible with the Satelec ultrasonic scalers used in the Vetpro dental delivery system and are connected to the scaler handpiece in the same way as scaling tips.

MIDMARK ACTEON UROLITHIASIS PROBES

MID016120305	Dog Probe Short - L 102mm (A)	£87.50
MID016120307	Dog Probe Long - L 156mm (B)	£87.50
MID016120306	Cat Probe (C)	£87.50
MID002123800	Kit 3 Veterinary Urolithiasis Probe set - one of each above	£235.00

Kitt 'E' Tube Kollar

The placement of oesophagostomy 'E' feeding tubes is a growing modality in small animal medicine. Many 'E' Tubes have been successfully in place for years on some patients. The challenge of the 'E' Tube is its care and maintenance.

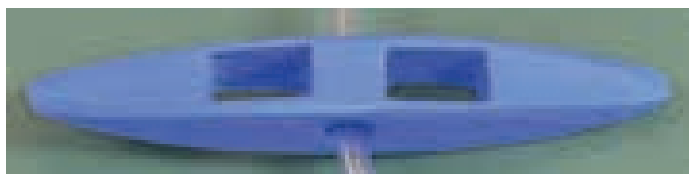


The Kitt 'E' Kollar was designed as a sensible solution to the everyday patient management of the 'E' Tube. The adjustable collar fits securely around the animal's neck. It has a small hole for the 'E' Tube to pass through. A velcro strap secures or holds the 'E' Tube flat when not in use. Circular cotton pads with a center hole are provided to be placed between the collar and the skin. They protect the wound and absorb drainage eliminating the need for owners to learn bandage techniques or repeated clinic visits for rebandaging. These small animal feeding tubes are useful in longer term nutritional support. Includes 6 protector pads and laminated instruction card.

KITT "E" TUBE KOLLAR

KTK-PF	Petite Feline Kitt 'E' Tube Kollar	£21.50
KTK-F	Standard Feline Kitt 'E' Tube Kollar	£21.50

Stomach Tube Speculum - Feline/ Canine



Speculum is useful for passing stomach tube in the conscious patient. The speculum is held in check by the canine teeth going through the two holes. Made of hardened Nylon. Can be cold sterilised for re-use. Available in 3 sizes or as a discounted set.

Feline/ Small Dog	6mm opening will accept tubes up to 18Fr
Medium Dog	9mm opening will accept tubes up to 27Fr
Large Dog	9mm opening will accept tubes up to 28Fr

STOMACH TUBE SPECULUM

014045	Stomach Tube Speculum Cat/ Small Dog	£11.75
014046	Stomach Tube Speculum Medium Dog	£11.75
014047	Stomach Tube Speculum Large Dog	£11.75
014SET	Stomach Tube Speculum Set of 3	£30.00

Small Animal Nasogastric Feeding Tube

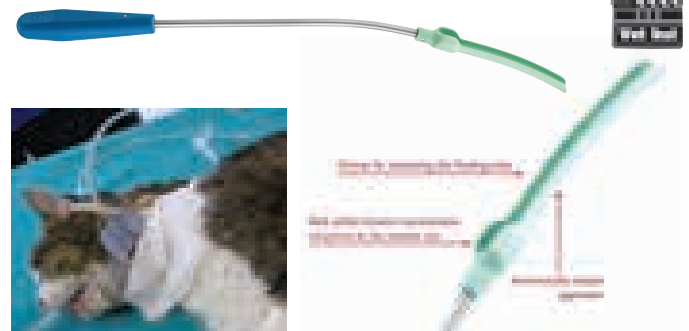


These Small Animal Feeding Tubes are useful in longer term nasogastric nutritional support. Transparent plastic, rounded closed tip with two opposing lateral eyes. Luer syringe connector with attached plug. Supplied sterile in Packs of 5.

SMALL ANIMAL NASOGASTRIC FEEDING TUBE

014041	Cats and Small Dogs	Pack of 5	5Fr x 37cm	£14.50
014042	Small/ Medium Dogs	Pack of 5	8Fr x 37cm	£14.50
014043	Medium/ Large Dogs	Pack of 5	5Fr x 99cm	£14.50
014044	Large Dogs	Pack of 5	8Fr x 105cm	£14.50

Oesophagostomy Tube System



Placement of an oesophagostomy tube is a regular requirement in veterinary practice. Good indications include head trauma, anorexia through illness, or nutrition of trauma patients. Designed and developed by Dr Von Werthern the kit simplifies the placement of an oesophagostomy tube. The probe locates the correct position for the incision. Cutting onto the probe simplifies the oesophagostomy. The channel in the probe directs the oesophagostomy tube down the oesophagus. The tube is marked to indicate depth and has a radio opaque line along its length to enable the surgeon to check positioning. The tube is 50cm long and 4.8mm / CH.15 in diameter and supplied in individual sterile packs. The cap is a two part device allowing administration of food via a catheter mount syringe and other medications via a standard luer syringe.

Supplied with full instructions and a procedural video. The Kit comprises the Introducer and 10 Oesophagostomy Tubes. The video may be viewed at www.vetinst.com/videos. The procedural instruction sheet may be downloaded as a pdf from www.vetinst.com/docs

OESOPHAGOSTOMY TUBE SYSTEM

VC810	Oesophagostomy Kit (including 10 Tubes)	£265.00
VC800	Tube Applicator Only	£170.00
2112409	Oesophagostomy Tubes (Pack of 10)	£150.00
CDOES	CD Showing Procedure	£FOC
BROES	Detailed Brochure of the Procedure	£FOC

CryOmega



This new Cryosurgical Device offers low cost, effective cryosurgery.

Simply activate the cartridge and the Device is ready for use. Re-use the Device until the cartridge is empty and then dispose. No need for additional accessories, changing of filters or replacement cartridges.

This simple Cryosurgery Device delivers a direct spray of liquid nitrogen at - 98 degrees centigrade to the treatment site. With a lower operating temperature compared with canister based systems.

CRYOMEGA

CRYOME	CryOmega	£135.00
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V.A.C.® Therapy



V.A.C.® therapy (also known as Negative Pressure Wound Therapy) has useful indications in the treatment of large open contaminated wounds, de-gloving injuries, surgical dehiscence, and chronic non-healing wounds among others. Use of V.A.C.® has also been shown to help speed the healing of wound grafts.

Used in conjunction with V.A.C.® GranuFoam dressings negative pressure applies mechanical forces to the wound to create an environment which promotes wound healing. Microstrain acting at the cellular level promotes granulation tissue by facilitating cell migration & proliferation, and promotes perfusion, while macrostrain provides good wound bed contact, helps draw the wound together and removes exudate. It also aids reduction of oedema.

The lightweight, portable Simplicity V.A.C.® unit from KCI is designed for veterinary use, and is available exclusively via Veterinary Instrumentation.

The canister for exudate contains absorbent gel, and is supplied with tubing, clamp and connector.

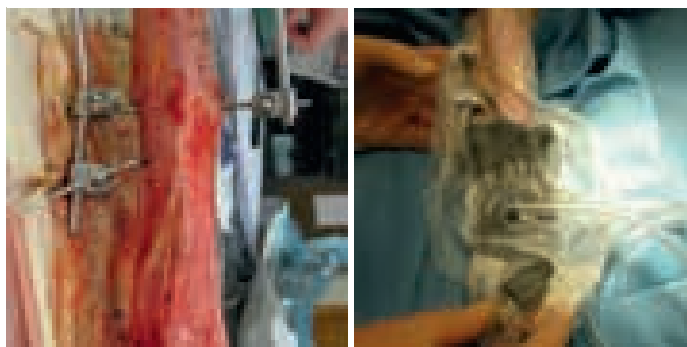


GranuFoam dressings are designed to treat a wide variety of wounds, and are available in standard and silver impregnated versions. Both versions of the sterile dressings are open-cell reticulated polyurethane foam with pore size 400-600µm.

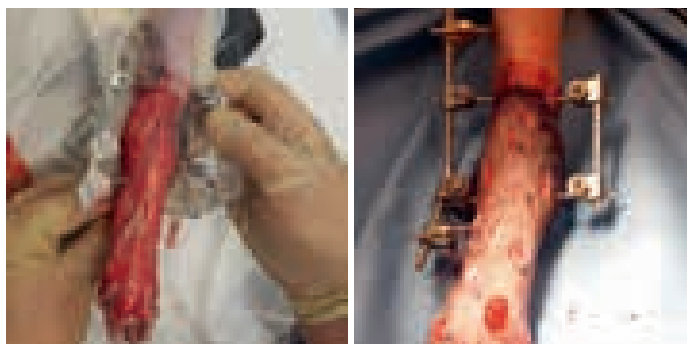
This is cut to fit within the wound, and should not overlap onto normal skin. To complete the dressing an adhesive V.A.C.® drape is placed over the dressing, adhering to the surrounding skin which has been clipped and dried to improve adhesion.

The T.R.A.C. Pad is attached to the dressing as per the instructions, and the unit is connected to initiate vacuum therapy. Dressings are changed at 48-72 hours depending on condition being treated and progress. Dressing left without vacuum for more than 2 hours must be changed. For more information on dressing management see the V.A.C. Therapy for Veterinary Use User Manual or the Quick Start Manual, both available to download at <http://kcianimalhealth.com/support/> or call us for a printed copy.

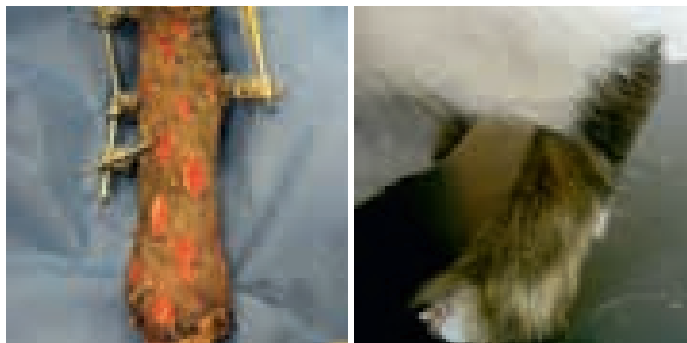
V.A.C.® Therapy in action



Candidate for VAC therapy showing poor granulation tissue despite all previous management, and with dressing in place



After 72 hours therapy, note better colour. Skin graft applied.



Skin graft after 7 days therapy – 100% take. And the end result!

Images courtesy of Elisa Best, Rowe Vet Group

V.A.C.® THERAPY		
KCIPN320255A	V.A.C.® Simplicity Therapy Starter Kit	£2,995.00
KCIM8275051/5	V.A.C.® GranuFoam Small Dressing Kit Pack of 5	£185.00
KCIM8275052/1	V.A.C.® GranuFoam Medium Dressing Single	£55.00
KCIM8275052/5	V.A.C.® GranuFoam Medium Dressing Kit Pack of 5	£205.00
KCIM8275096/1	V.A.C.® GranuFoam Silver Medium Single	£65.00
KCIM8275096/5	V.A.C.® GranuFoam Silver Medium Dressing Kit Pack of 5	£275.00
KCIM8275098/5	V.A.C.® GranuFoam Silver Small Dressing Kit Pack of 5	£250.00
KCIM8275058/1	ActiV.A.C.® 300ml Canister with Gel Single	£55.00
KCIM8275058/5	ActiV.A.C.® 300ml Canister with Gel Pack of 5	£205.00
KCIM6275033/10	V.A.C.® Whitefoam Small Dressing 10 x 7.5cm Pack of 10	£185.00
KCIM8275081/5	SensaTrac Thin V.A.C.® GranuFoam Dressing Pack of 5	£225.00
KCIM6275026/10	V.A.C.® Gel Strips Pack of 10	£55.00
KCIM6275009/1	V.A.C.® Drape Single	£22.50
KCIM6275009/10	V.A.C.® Drape Pack of 10	£135.00
KCIM6275066/10	T.R.A.C. Y Connector Pack of 10	£47.50
KCIM8275057/1	SensaTrac Pad Single	£19.50
KCIM8275057/10	SensaTrac Pad Pack of 10	£165.00
LOANVAC	V.A.C.® Loan Unit (per week)	£100.00

LOAN KCI V.A.C.® Simplicity Unit

A KCI V.A.C.® Simplicity Unit is available for loan.

Please contact a member of our Vet Tech Team for availability and pricing on 0845 130 9596.

Upper Airway Surgery in the Dog and Cat

Alasdair Hotston Moore MA VetMB CertSAC CertVR CertSAS CertMED MRCVS - Bath Veterinary Referrals

Surgery of the upper airway is both a rewarding and challenging part of the portfolio of the soft tissue surgeon. These surgeries have the potential to transform the lifestyle of the patient, but can also cause life threatening complications. For them to be performed with a good chance of success, four factors should be available within the clinic: an experienced and trained surgeon, a well equipped operating theatre, post operative nursing care and the correct instrumentation. Absence of any of these will jeopardise the outcome of the surgery. Particular theatre requirements are excellent illumination (with ceiling lights and a surgical headlamp), positioning aids and surgical suction (a Frazier tip has wide application in ENT and oral surgery).

Reflecting on the surgeries most often performed, the two commonest conditions managed in the dog are laryngeal paralysis and brachycephalic obstructive airway syndrome (BOAS). Laryngeal paralysis remains an underdiagnosed disease in the opinion of many specialist surgeons. Some practitioners make the diagnosis frequently and make frequent referrals, whilst others rarely recognise the disease at all: this suggests that some clinicians are more aware of the typical clinical presentation than others. Numerous surgical procedures have been described to address the obstruction of laryngeal paralysis, but a unilateral laryngoplasty is considered the most appropriate. In the hands of experienced surgeons, a successful outcome is expected in 90% of dogs (the outcome in cats, which are affected much less commonly, is somewhat poorer).

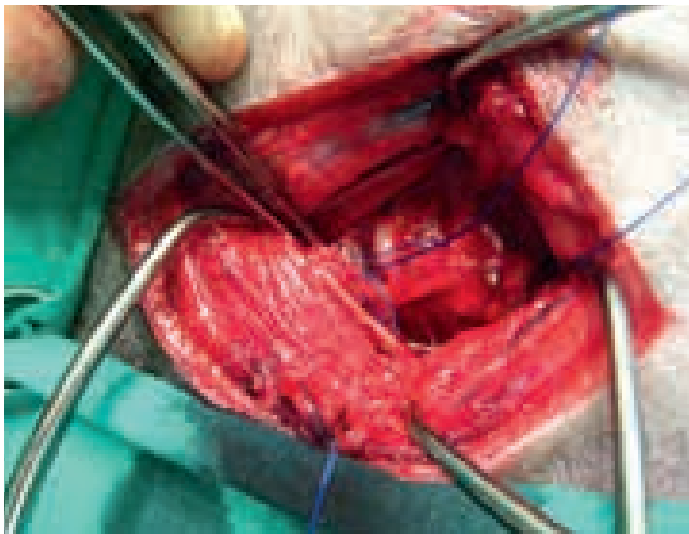


Fig 1: Careful placement of Gelpi retractors provides excellent exposure during laryngoplasty. Two sutures have been placed here (arytenocricoid and arytenothyroid) and the medial aspect of the arytenoid cartilage is exposed to show how the suture holes are spread over the articular cartilage, to reduce the risk of fragmentation.

Key equipment requirements for this surgery are self retaining retractors (Gelpi pattern), reliable ratcheted needle holders (high quality Mayo pattern) and of course a laryngoscope. For post op care, a suitable tracheotomy tube must be to hand. In the typical larger dog, disposable tracheotomy tubes are suitable.

Surgical procedures for the components of BOAS include rhinoplasty for stenotic nares, soft palate resection, removal of everted ventricles and permanent tracheostomy for intractable laryngeal collapse. Rhinoplasty is straightforward and requires no special care, although the exact technique that should be used is somewhat controversial. Soft plate resection is reasonably straightforward. Although a technique to both thin and shorten the palate has been described recently, a simpler shortening technique has been widely used for many years and produces excellent outcomes in the majority of patients. Again, several variations on this technique have been described, but the use of the Lane palate forceps is highly recommended.

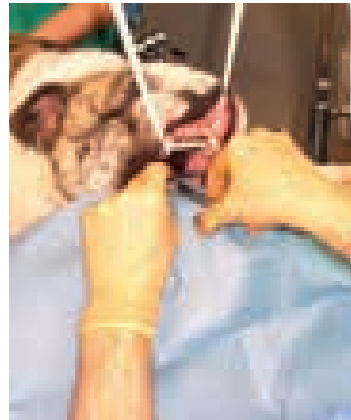


Fig 2: Bulldog during palatoplasty. Attention to patient positioning makes the surgery more straightforward. Provision of an aseptic field is not generally practical for this type of surgery. The surgeon is using the Lane palate forceps (although obtaining photographs of the way in which these are placed is almost impossible: line drawings are found in UK Vet Companion Animal volume 14 issue 8).

Application of these, followed by resection and oversewing makes assessment of the extent of resection more reliable than simple resection, reduces intra-operative haemorrhage and stabilises the palate during suturing. For dogs with laryngeal collapse, partial laryngectomy was suggested historically but this technique is no longer widely used because of poor outcomes. Permanent tracheostomy however can be extremely useful, for dogs with severe respiratory disablement. Whenever BOAS surgery is performed, the clinic should be prepared for tracheotomy tube placement. Unfortunately, the widely available plastic tracheotomy tubes are unsuitable for small breed dogs (e.g. Pugs) and cats, since the relative size of the lumen is too narrow and prone to obstruction. The Veterinary Instrumentation metal tubes are ideal for these patients.



Fig 3: Tube tracheotomy in a cat following surgery for laryngeal paralysis. A metal tube offers a much wider lumen relative to its size than a disposable plastic tube and has an inner sleeve that can be removed and cleaned.

Surgical diseases in the cat are rather less common and more diverse. Laryngeal diseases of various types are reported (e.g. neoplasia, inflammatory disease, paralysis). Cup biopsy forceps are useful to collect biopsies per os in cases of uncertainty. However these cases are managed, again the clinic should have suitable tracheotomy tubes available as a precaution, since laryngeal obstruction can occur even after biopsy. Nasopharyngeal obstruction is a more common presentation however, due to nasopharyngeal foreign bodies, nasopharyngeal polyps or (rarely) nasopharyngeal stenosis. Most foreign bodies (typically blades of grass) can be retrieved with forceps: the small right angled forceps designed for thoracic surgery are particularly helpful for exploration of the nasopharynx. The same forceps are also ideal for traction of nasopharyngeal polyps and stretching open of the strictures seen in feline nasopharyngeal stenosis.

Airway surgery is an interesting clinical challenge. The potential for post operative complications, such as worsening respiratory obstruction, should prompt the surgeon to plan carefully, ensuring the necessary equipment and aftercare is provided for the best outcomes.

Airway Surgery

Soft Palate Clamp



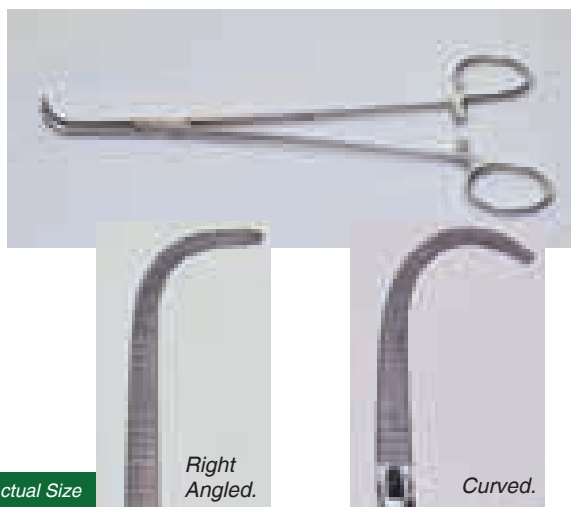
An overlong palate is a common cause of dyspnoea in the brachiocephalic dog. Shortening the soft palate in an atraumatic manner provides almost immediate relief.

The Soft Palate Clamp was designed by Geoff Lane FRCVS.

The jaws have a special atraumatic grip to hold the very slippery soft palate.

SOFT PALATE CLAMP		
014040	Soft Palate Clamps Large 26 x 12mm 170mm Long	£120.00
014050	Soft Palate Clamps Small 18 x 7mm 170mm Long	£120.00

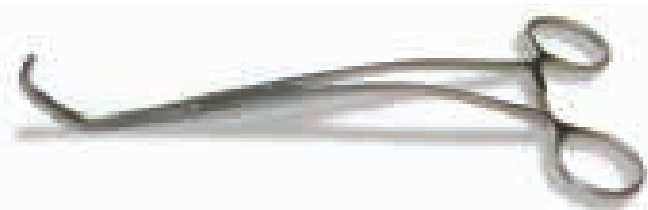
Tonsillectomy Clamp



The standard Negus clamp may be used in pairs for soft palate resection. A right angled version designed by Stephen Baines at the Willows is also available.

TONSILLECTOMY CLAMP		
014038	Tonsillectomy Clamp Right Angle 190mm Long	£59.50
014039	Tonsillectomy Clamp Curved 190mm Long	£59.50

Satinsky Clamp



Useful for intra-thoracic surgery, trimming soft palates and even ears. Atraumatic design maximises haemostasis and minimises trauma.

SATINSKY CLAMP		
2685/03	Satinsky Clamps 20mm Jaw 160mm Long	£64.50
2685/05	Satinsky Clamps 30mm Jaw 200mm Long	£64.50

Tracheostomy Tube



Where temporary or permanent upper airway obstruction occurs placement of a tracheostomy tube is a life saving procedure. Our Tubes are silver plated with a removable lining for easier cleaning.

Metal tubes have a much thinner wall than plastic tubes. This becomes particularly critical in smaller patients.

TRACHEOSTOMY TUBE		
014070	Tracheostomy Set (Silver Plate) (6,8,11)	£315.00
014071	Tracheostomy Tubes 6mm (Silver Plate)	£120.00
014072	Tracheostomy Tubes 8mm (Silver Plate)	£125.00
014073	Tracheostomy Tubes 11mm (Silver Plate)	£130.00
014074	Tracheostomy Tubes 13mm (Silver Plate)	£135.00

Tracheostomy Tube Disposable



Although wall thickness does restrict air flow in the smallest size, the Disposable Tracheostomy Tube can be a life saver.

TRACHEOSTOMY TUBE DISPOSABLE			
014076	2.5mm Internal Diameter	4.0mm External Diameter	£36.50
014077	4.0mm Internal Diameter	6.0mm External Diameter	£36.50
014078	5.5mm Internal Diameter	8.0mm External Diameter	£36.50
014079	7.0mm Internal Diameter	10.0mm External Diameter	£36.50
TRACHDISPSET	Set of 4 Tracheostomy Tubes Disposable		£120.00

Buster Starlight Diagnostic Set



A simple torch based set for easy intubation.

BUSTER STARLIGHT DIAGNOSTIC SET		
270500	Buster Starlight Diagnostic Torch 155mm	£54.50

Soft Tissue Biopsy Forceps



014088



8mm x 3.5mm bite

Actual Size

Designed to take samples of soft tissue masses from the ear or via the mouth.

Fits down all usual aural speculae.

Two sizes for most patients.

SOFT TISSUE BIOPSY FORCEPS

014087	Cup Biopsy Forceps 2mm Diameter Shaft 75 x 3.6mm	£135.00
014087A	Cup Biopsy Forceps 2mm Diameter Shaft 100 x 3.6mm	£140.00
014088	Cup Biopsy Forceps 3.5 x 8mm Shaft 105 x 5.6mm	£145.00

Mini Gelpis



Ideal for retraction in and around small joints or in very small patients. The curved version allows slightly deeper retraction.

MINI GELPIS

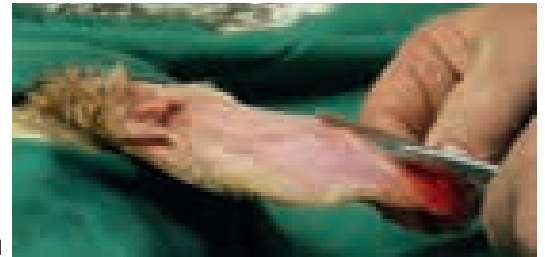
0013301	Gelpi Mini Flat 45mm Spread 90mm Long	£110.00
0013302	Gelpi Mini Curved 45mm Spread 90mm Long	£115.00

Hart Pinna Haematoma System



Surgical management of aural haematomas is a common procedure in veterinary practice. Once drained the haematoma must be prevented from filling up again. In addition the layers of skin and cartilage must be supported during the healing phase to prevent the development of a cosmetically unacceptable crumpled ear flap.

Historically the layers are stitched, sometimes alone but also using buttons or xray film to spread the pressure evenly to restore the ear to as normal a state as possible.



Nick Hart, a veterinary practitioner, has spent a number of years developing a dedicated system which makes the procedure

straight forward. The System comprises a pair of Clamp Forceps which apply a Fenestrated Plastic Implant under controlled pressure which is then stitched into place.

Once the haematoma has been removed from the ear the pinna pads are inserted into the Forceps which are then applied to either side of the pinna. The amount of pressure is controlled using a thumb screw on the forceps. Too much pressure will cause necrosis, too little will allow re-filling. The suture needle and material of choice is passed through the holes in the pad and tied off in the usual way. The holes are unevenly sized to ease the passage of the needle which enters through the smaller hole and exits the larger hole on the 'blind side'. The pads need to be loaded into the forceps accordingly. The Forceps are then removed leaving the pair of pads stitched in place.

The process is repeated as necessary.



ART AURAL HAEMATOMA SYSTEM

014600	Hart Haematoma System (Forceps plus 24 Implants)	£155.00
014601	Spare Implants Pack of 12 Sterile	£9.00
014602	Spare Implants Pack of 24 Sterile	£12.00

Canine Ear Loop

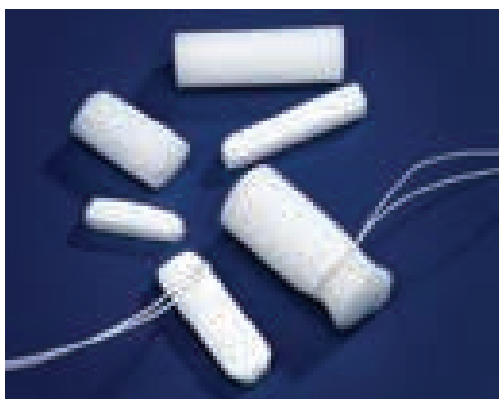


Removal of hard wax and other debris from the canine horizontal canal without causing trauma is a common problem in veterinary surgery. It is now accepted that the use of Ear Loops is more effective than cotton tipped products. Most human ear loops are too large and too short for use with the much longer veterinary speculae. Veterinary Instrumentation's Canine Ear Loop is slimmer and longer to facilitate debris removal without obscuring the visual field. The Flexible Ear Loop is very fine and flexible for added safety. It is not cheap but should last a lifetime.

Also illustrated is the Canine Ear Model, a valuable aid when explaining aural problems and procedures.

CANINE EAR LOOP		
012526	VI Canine Ear Loop 170mm Long	£33.50
012528	Flexible Ear Loop Cat/ Small Dog Size 160mm Long	£37.50
012529	Flexible Ear Loop Medium/ Large Dog Size 160mm Long	£37.50
AMJ772	Canine Ear Model X-section	£99.50

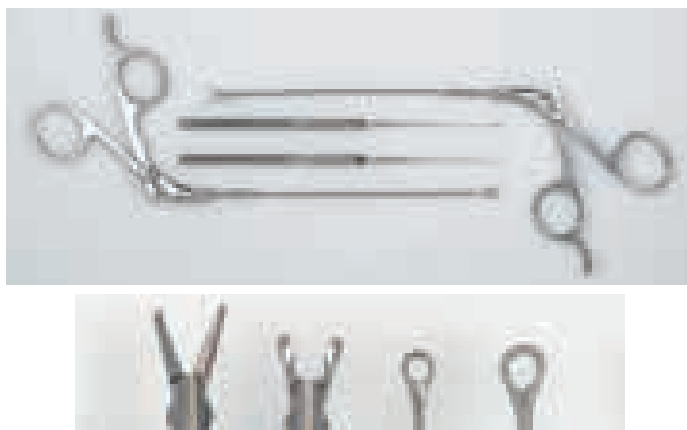
AbsorbENT™ Ear Wick



Ear wicks have been around for a long time in human medicine. AbsorbENT™ Ear Wick is designed as an aid in the treatment of Otitis Eterna. When liquid medication (antibiotic or corticosteroid) is applied to the sterile, compressed sponge, it gently and evenly expands to fill the ear canal, dispersing the medication and applying gentle pressure to the tissue. Available in 2 lengths, in Packs of 10.

EAR WICK		
EW915	Ear Wick 9mm Diameter x 15mm Length	£38.50
EW924	Ear Wick 9mm Diameter x 24mm Length	£45.00

Malleable Instrument Set



Fully flexible instruments are difficult to control. Malleable instruments allow the tips to be positioned exactly where the surgeon needs them. The forceps are available as graspers or as biopsy forceps. The Malleable Loops are available in two loop diameters 2mm and 4mm. The Instruments may be purchased as a Set in a Stainless Steel Autoclave Case. The Case comes free when purchased as a Set.

MALLEABLE INSTRUMENT SET		
014098	Malleable Grasping Forceps 145mm Shaft	£155.00
014099	Malleable Biopsy Forceps 2mm Cup 145mm Shaft	£155.00
012528	Malleable Ear Loop Curette 2.0mm Diameter	£37.50
012529	Malleable Ear Loop Curette 4.0mm Diameter	£37.50
014125	Malleable Instrument Set in Stainless Steel Case	£375.00

Fine Flexible Grasping Forceps

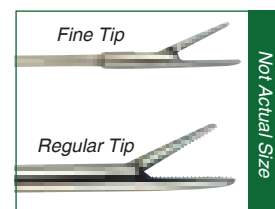


The Fine Flexible Grasping Forceps have a maximum diameter of 1.7mm and are therefore ideal for small working channels and speculae.

FINE FLEXIBLE GRASPING FORCEPS		
014067	Fine Flexible Grasping Forceps 160mm Shaft	£195.00

Crocodile Forceps

Examination of the external ear is an essential part of any investigation of otitis. For Otoscopes and Optics see chapter 20 Diagnostics. Removal of foreign bodies, particularly grass seeds, is achieved using long crocodile forceps. Available in traditional designs or as a fine tubular shaft design.



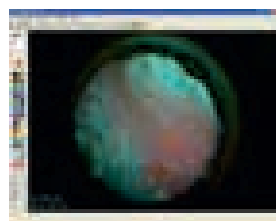
CROCODILE FORCEPS		
014091	Extra Fine Croc Forceps Tubular 3" Shaft	£80.00
014092	Extra Fine Croc Forceps Tubular 5" Shaft	£82.50
014093	Extra Fine Croc Forceps Tubular 7" Shaft	£85.00
014089	Extra Fine Croc Forceps Tubular 9" Shaft	£87.50
014094	Aural Crocodile Forceps Standard Jaw 3" Shaft	£60.00
014095	Aural Crocodile Forceps Standard Jaw 5" Shaft	£65.00
014096	Aural Crocodile Forceps Standard Jaw 7" Shaft	£70.00

FireFly Wireless Otoscope



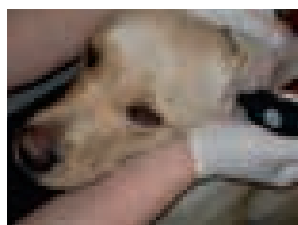
FireFly is the industry's first Wireless High Precision Digital Video Otoscope with image and video capture capabilities. It provides unprecedented accuracy in observing the ear canal. This is a powerful tool which can be used to aid and record both medical and surgical examinations as well as improving client compliance as they will be able to see the problem for

themselves. Unlike older electronic otoscopes, FireFly delivers these breakthrough capabilities - and much more - at a highly economical cost.

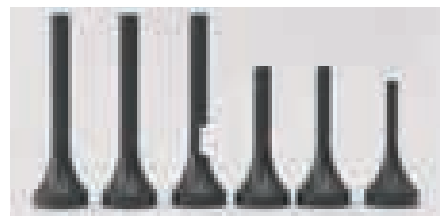


- Performs accurate and clear otoscopy observations.
- Wirelessly captures snapshots & videos.
- Integrates easily with computer Veterinary Database Systems.
- Magnifies objects up to 50x (optical) and up to 150x (digital).

FireFly is controlled directly with the FireFly Pro Professional Image Processing Software which is bundled with the product. This state-of-the art software enables users to capture, store, recall, view, manipulate and measure images and videos in real time. Its intuitive interface empowers users to get right to work anytime and anywhere.

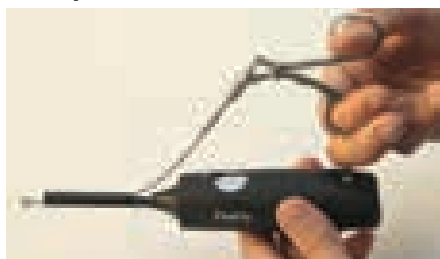


FireFly Extended Speculae Set



The FireFly Extended Speculae Set consists of 6 x Aluminium Speculums in a presentation case. One Speculum contains a working channel for use with the FireFly Malleable Instruments.

FireFly Instrument Set



The FireFly Instrument Set contains Malleable Grasping Forceps and Malleable Biopsy Forceps which have longer shafts for use with the extended length FireFly Speculae. The Instrument Set is presented in a Stainless Steel Case with Liner.



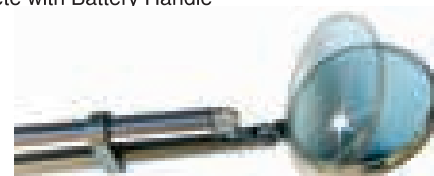
FIREFLY WIRELESS OTOSCOPE		
014300	FireFly Wireless Oscope	£375.00
014306	FireFly Extended Speculae Set	£65.00
014124	FireFly Instrument Set (2 Instruments)	£335.00
FIREFLYBOTH	FireFly Complete Set (3 Products listed above)	£675.00

Retro Rhinoscopy Set



Examination of the retro pharynx usually requires good endoscopic equipment. However this deflecting mirror system will allow the average practice to examine the retro pharynx without a full set-up. This allows visual control over foreign body retrieval and biopsy collection. The Mirror angle is adjustable. Supplied as a complete unit with battery handle light source taking 3 x AAA batteries

- Kit contains:
- E-24 Light Carrier complete with Battery Handle
 - E-24-21 Choanae Mirror
 - E-22-2 Choanae Hook
 - E-22-71 Antifog Fluid
 - K-3325-61 Storage Box



RETRO RHINOSCOPY SET	
E-24-2166-SE	Retro Rhinoscopy Set £495.00

TECA Total Ear Canal Ablation

TECA Retractor - Pieter Nelissen



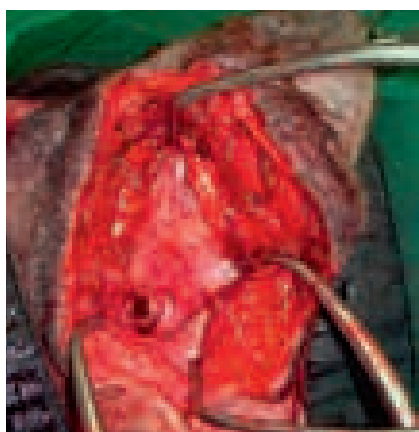
Image courtesy of Pieter Nelissen, Dick White Referrals

Achieving adequate exposure is essential to the proper performance of lateral bulla osteotomy and debridement. Maintaining a dissection as close to the aural cartilages as possible helps avoid iatrogenic damage to the surrounding structures. In most cases, especially in broad headed breeds such as Shar Peis and Staffordshire Bull Terriers, this will mean working down a narrow and surprisingly deep corridor.

Following the suggestion from Pieter Nelissen of Dick White Referrals, we have developed a purpose made TECA Retractor based on our small gelpis. The 40mm long legs are at 80° to the handles to reach deep into the hole created. The cross-over tips are only 3mm across when closed enabling insertion with no edges protruding to snag tissues.

TECA RETRACTOR	
001338	TECA Retractor 105mm Long 40mm Cross-over Legs £175.00

Modular TECA Kerrison with 3 Inserts, Self Cleaning



Successful Total Ear Canal Ablation (TECA) depends on the complete removal of the ear canal including those parts of skin closely attached to the auditory meatus. Curettage is rarely completely successful. Most surgeons elect to remove the rim of the meatus together with any skin using rongeurs. Standard rongeurs with beak type jaws struggle to cut the very hard sclerotic bone of the area unless they are so big as to obscure the site of interest.

Kerrison Type Punch Forceps are both small and powerful. The jaw design of V.I.'s TECA Kerrisons are designed for ear surgery. The tip of the insert is placed into the meatus and pushed against the rim. Closing the handles punches out a small segment of bone/ skin which is retained within the instrument. The insert is designed to rotate 360 degrees within the handle while remaining fully functional allowing the surgeon to remove the whole meatus rim without changing position or grip. The debris gradually moves up the self cleaning canal and may be removed when visible. The tips do not require cleaning after each bite as is the case with standard Kerrisons.

MODULAR TECA KERRISON WITH THREE INSERTS 1.5, 2.5 & 3.5MM		
014800	Modular TECA Kerrison with 3 Inserts	£415.00
014801	Spare 1.5mm Inserts	£85.00
014802	Spare 2.5mm Inserts	£85.00
014803	Spare 3.5mm Inserts	£85.00

Mini-Friedman



Useful in bulla osteotomy.

MINI-FRIEDMAN		
142501	Mini-Friedman Rongeur Curved 3mm Bite	£77.50

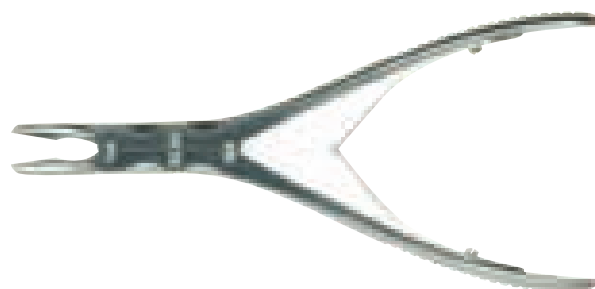
Bulla Osteotomy & Total Ear Canal Ablation



Bulla osteotomy is greatly facilitated by specialised instruments. A rongeur is more effective than a curette. In addition a Penrose Drain may be necessary. Consider 3mm Smith Kerrison Spine Punch Forceps or modular TECA Kerrison. Access the bulla using I/M pin or trephine.

BULLA OSTEOTOMY & TOTAL EAR CANAL ABLATOION		
684375	Langenbeck Retractor 6mm Blade 220mm	£47.50
684380	Langenbeck Retractor 13mm Blade 220mm	£50.00
684385	Langenbeck Retractor 25mm Blade 220mm	£52.50
684390	Langenbeck Retractor 20mm Blade 220mm	£52.50
684395	Langenbeck Retractor 6mm Blade (Extra Long) 220mm	£52.50
001330	Gelpi Self Retaining Retractor 180mm (120mm spread)	£170.00
605355	Olsen Hegars T.C. Jaws 6½"	£90.00
342005	DeBaKey Atraumatic Forceps 6½"	£46.00
6730/10	Lempert Rongeurs 190mm Long	£99.50
782205	Volkman Single Ended Scoop 3mm 170mm Long	£44.50
782200	Volkman Single Ended Scoop 4mm 170mm Long	£44.50
782210	Volkman Single Ended Scoop 5mm 170mm Long	£44.50

Bulla Osteotomy Rongeurs



The sclerotic bone around the auditory meatus of the diseased ear is some of the hardest found in the body. Total ear canal ablation (TECA) requires that the rim of the meatus is nibbled away to ensure that all skin is removed. The Bulla Rongeurs have a small bite (3mm) but are relatively heavy in construction. The compound action allows the appropriate force to be applied without undue effort on the part of the surgeon.



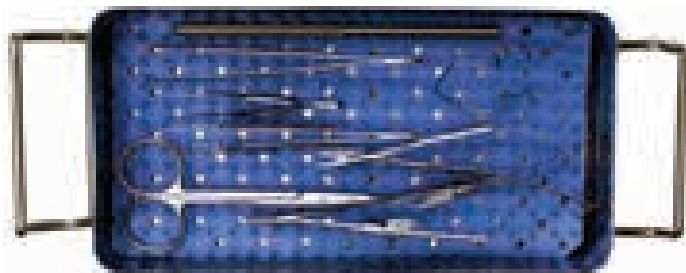
BULLA OSTEOTOMY RONGEURS		
142280	Bulla Osteotomy Rongeurs 8" 200mm Long	£225.00

Penrose Drains

Latex rubber. Use to maintain drainage from infected wounds. Also useful to retract soft tissues such as blood vessels and nerves.

PENROSE DRAINS		
090168	Penrose Drain 1/4" 40cm 16" Long Sterile	£4.45
090165	Penrose Drain 1/2" 40cm 16" Long Sterile	£4.45

Ophthalmic Kit



The Kit contains 10 instruments. All are contained in a Stainless Steel Case with a Protective Silicone Lining which minimises damage to the delicate instruments. As recommended by David Williams MA VetMB PhD CertVOphthal

Suitable for the following procedures:-

- Hotz-Celsus Entropion Surgery
- Stades Procedure for Entropion with Trichiasis
- Lid Wedge Resection
- Khunt-Szymanowski Entropion Surgery
- Wyman Lateral Canthoplasty for Diamond Eye
- Lateral Canthoplasty
- Parotid Duct Transposition
- Conjunctival Flaps, Pedicle, Fornix Based
- Nictitating Membrane Flap
- Replacement of Prolapsed Nictitans Gland
- Correction of Scrolled Nictitans Cartilage
- Superficial Lamellar Keratectomy
- Primary Reconstruction of Corneal Penetrating Wound
- Corneoscleral Transposition Flap

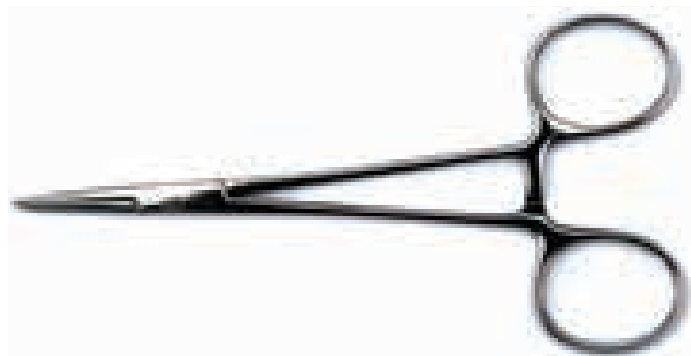
Choosing ophthalmic instruments is very difficult, every surgeon seems to have their own preference. Follow the advice of a surgeon you respect.

We will always exchange items if you make the wrong choice. There are hundreds of different styles to choose from. If you do not see what you want we can get it for you. Phone or fax with item name or description.

Basic Ophthalmic Surgery Kit incl 10 Instruments in Case.

As recommended by David Williams MA VetMB PhD CertVOphthal with Stainless Box 200mm x 100mm with Integrated Bacterial Filter, a Silicone Fingered Insert to prevent instrument damage and Balloon Cloth Drape 18" x 18".

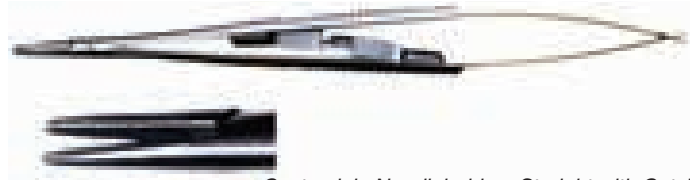
OPHTHALMIC KIT		
014130	Basic Ophthalmic Surgery Kit (10 Instruments) When purchased separately cost £590 plus	£475.00



Halstead Mosquito Forceps x 2 - (1 x Curved and 1 x Straight)



Beaver Type Handle (Swann Morton 'Fine' Series) - see page 371 for Blades.



Castroviejo Needleholders Straight with Catch



Steven's Tenotomy Scissors



Colibri Tissue Forceps



Graefe Fixation Forceps 3.5mm



Roberts Tying Forceps



Castroviejo Corneal Scissors straight



Barraquer Wire Eyelid Speculum

Eyelid - Speculae

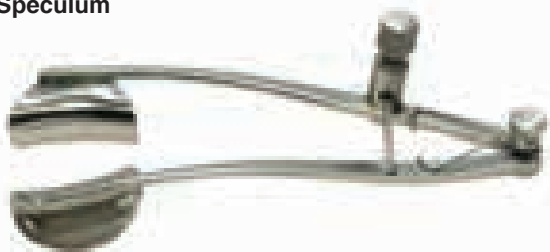
Desmarres Eyelid Retractor



DESMARRES EYELID RETRACTOR

014215-S	Small 12mm Wide 140mm	£66.50
014215-M	Medium 14mm Wide 140mm	£66.50
014215-L	Large 16mm Wide 140mm	£66.50

Lister Speculum



This Speculum is adjustable and has a locking facility. The shape is contoured for minimum interference with sutures and instruments.

LISTER SPECULUM

014115	Lister Speculum 40mm Gape 80mm Length	£105.00
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Barraquer Speculum

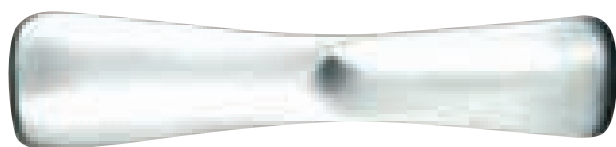


This simple Spring Loaded Speculum is ideal for most procedures which do not require a locking speculum. No protuberances to catch sutures.

BARRAQUER SPECULUM

014110	Barraquer Speculum Large 30mm Gape 10mm 'Blade'	£24.50
014112	Barraquer Speculum Small 25mm Gape 5mm 'Blade'	£24.50

Jaeger Eyelid Speculum



Useful during wedge resections of eyelids
Speculum stretches and retains the eyelid prior to cutting
The blade cuts down onto the metal of the speculum which protects the eye.

JAEGER EYELID SPECULUM

014120	Jaeger Eyelid Speculum (Stainless) 100mm	£41.50
014121	Jaeger Eyelid Speculum Insulated 110mm	£41.50

DIXEY INSTRUMENTS

Established in 1775 Dixey is one of the oldest companies in the world specialising in the manufacture and servicing of ophthalmic instruments.

Veterinary Instrumentation is pleased to have been appointed Dixey's UK Veterinary Distributor. Our ophthalmic section includes a small selection of instruments selected with the practitioner in mind. Those surgeons with a particular interest in ophthalmology should request a copy of the Dixey catalogue which illustrates thousands of instruments dedicated to surgery of the eye. All are manufactured in Europe and conform to international standards.

Dixey's craftsmen have accumulated generations of expertise and can repair your worn or damaged instruments.

DIXEY
INSTRUMENTS

Corneal Forceps

St. Martin's Corneal Forceps



The best value Corneal Forcep. Also useful as a fine rat tooth in other delicate procedures.

ST. MARTIN'S CORNEAL FORCEPS

014160	St Martin's Corneal Forceps 90mm Long	£54.50
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Castroviejo's Corneal Forceps



CASTROVIEJO'S CORNEAL FORCEPS

014190	Castroviejo's Corneal Forceps 105mm Long	£99.50
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Colibri (Barraquers) Forceps



This is the most well known of Corneal Toothed Forcep. There are many variations. This is the most typical.

COLIBRI (BARRAQUERS) FORCEPS

014191	Colibri (Barraquers) Forceps 75mm Long	£99.50
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Iris Forceps

Graefe Iris Forceps



GRAEFE IRIS FORCEPS

014195	Graefe Iris Forcep Serrated 105mm Long	£54.50
014196	Graefe Iris Forceps Straight 1/2 teeth 105mm Long	£54.50

Fixation Forceps

Barraquers Fixation Forceps



BARRAQUERS FIXATION FORCEPS

014201 Barraquers Fixation Forceps 105mm Long **£99.50**

Graefe Fixation Forceps



GRAEFE FIXATION FORCEPS

014162 Graefe Fixation Forceps 3.5mm Jaws 105mm Long **£99.50**

Capsule Forceps

Arruga Capsule Forceps



ARRUGA CAPSULE FORCEPS

014150 Arruga Capsule Forceps 100mm Long **£99.50**

Castroviejo's Cross Action Forceps



CASTROVIEJO'S CROSS ACTION

014155 Castroviejo's Cross Action Capsule Forceps 105mm Long **£165.00**

Cilia Forceps

Bennet's Cilia Forceps



Favoured by some surgeons the circular tips give good focal grip of individual cilia.

BENNET'S CILIA FORCEPS

342460 Bennets Cilia Forceps 80mm Long **£66.50**

Epilation Forceps



EPILATION FORCEPS

342450 Epilation Forceps 90mm Long **£33.50**

Needleholders

Castroviejo Needleholders



The Standard Ophthalmic Needleholder. The squeeze through action is awkward at first. All our Castroviejo's have Tungsten Carbide Jaws.

CASTROVIEJO NEEDLEHOLDER

014175 Castroviejo Needleholders with Catch T.C. 150mm Long **£125.00**

014177 Castroviejo Needleholders without Catch T.C. 150mm Long **£125.00**

014178 Castroviejo Needleholders with Catch T.C. 180mm Long **£125.00**

Castroviejo Needleholders/ Scissor



This instrument functions as a standard Castroviejo Needleholder but the jaws incorporate a suture cutting function in the style of Olsen Hegars or Gillies. Jaws are Tungsten Carbide for maximum grip. Available as TC and Supercut TC.

CASTROVIEJO NEEDLEHOLDERS/SCISSOR

014181 Castroviejo NH/ Scissor T.C. Straight 150mm Long **£130.00**

014182 Castroviejo NH/ Scissor T.C. Curved 150mm Long **£130.00**

014183 Castroviejo NH/ Scissor T.C. Straight S/ Cut 150mm Long **£135.00**

014184 Castroviejo NH/ Scissor T.C. Curved S/ Cut 150mm Long **£135.00**

Foster Gillies & Miniature Foster Gillies



This Needleholder is a scaled-down version of Gillies and may, therefore, suit those familiar with this commonly used Scissors/ Needleholder.

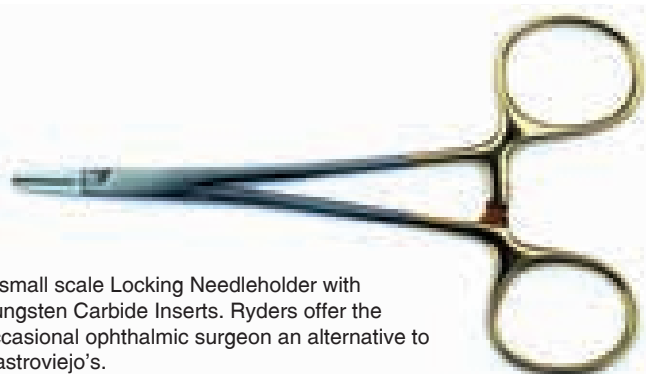
FOSTER GILLIES & MINIATURE FOSTER GILLIES

602700 Fosters T.C. (Mini Gillies) 5.0" 125mm RH **£130.00**

602705 Fosters T.C. (Mini Gillies) 5.0" 125mm LH **£135.00**

602710 Miniature Fosters T.C. (Mini Gillies) 4.0" 100mm **£115.00**

Ryder (Micro) Needleholder



A small scale Locking Needleholder with Tungsten Carbide Inserts. Ryders offer the occasional ophthalmic surgeon an alternative to Castroviejo's.

RYDER (MICRO) NEEDLEHOLDER		
606340	Ryder (Micro) Needleholder T.C. Jaws 5" 125mm	£100.00

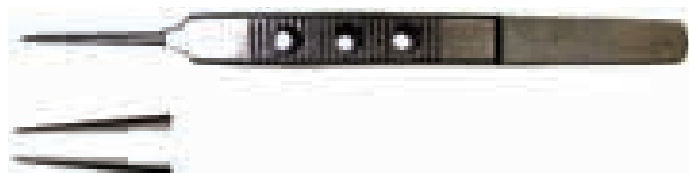
Derf Needleholder



The Derf Needleholder is a small T.C. Needleholder with slightly heavier jaws than the Ryder. More resistant to surgeon abuse!

DERF NEEDLEHOLDER		
607010	Derf Needleholder T.C. Jaws 120mm Long	£90.00

Robert's Tying Forceps



Used in conjunction with the Needleholders to tie knots in fine materials.

ROBERT'S TYING FORCEPS		
014132	Robert's Tying Forceps 100mm Long	£56.50

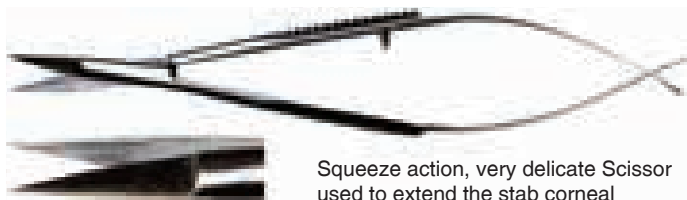
Scissors

Pooley's Conjunctival Scissors



POOLEY'S CONJUNCTIVAL SCISSORS		
746350	Pooley's Conjunctival Scissors 85mm Long	£44.50

Castroviejo Corneal Scissors



Squeeze action, very delicate Scissor used to extend the stab corneal incision. Easily damaged.

CASTROVIEJO'S CORNEAL SCISSORS		
014210	Castroviejo Corneal Scissors Cof 115mm Long	£125.00
014210S	Castroviejo Corneal Scissors Str 115mm Long	£125.00

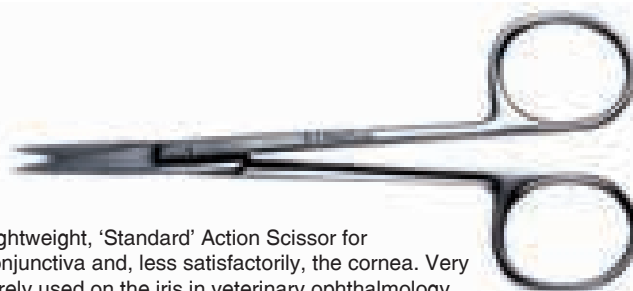
Strabismus Scissors



Stronger than corneal and conjunctival scissors, Strabismus Scissors are suitable for cutting muscles and skin.

STRABISMUS SCISSORS		
746900	Strabismus Scissors Str 90mm Long	£24.00
747010	Strabismus Scissors Cof 90mm Long	£24.00
746910	Strabismus Scissors Str 110mm Long	£26.00
747020	Strabismus Scissors Cof 110mm Long	£26.00

Iris Scissors



Lightweight, 'Standard' Action Scissor for conjunctiva and, less satisfactorily, the cornea. Very rarely used on the iris in veterinary ophthalmology.

IRIS SCISSORS		
744100	Iris Scissors Str 90mm Long	£20.50
744120	Iris Scissors Cof 90mm Long	£23.00
744110	Iris Scissors Str 110mm Long	£20.50
744130	Iris Scissors Cof 110mm Long	£23.00
744131	Iris Scissors T.C. Str 120mm Long	£38.50

Steven's Tenotomy Scissors



STEVEN'S TENOTOMY SCISSORS		
014108	Steven's Tenotomy Scissors Straight 110mm Long	£30.50
014108CV	Steven's Tenotomy Scissors Curved 110mm Long	£41.50

Castroviejo Suture Removal Scissors

Designed for the removal of very fine sutures the Castroviejo action matches that of the Castroviejo Needleholders.

CASTROVIEJO SUTURE REMOVAL SCISSORS

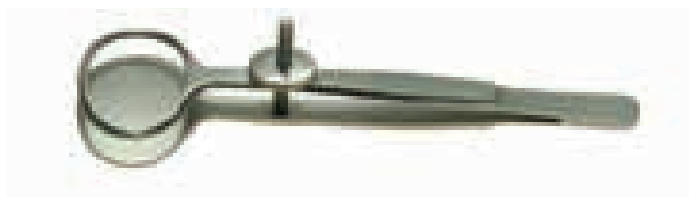
014185 Castroviejo Suture Removal Scissors 120mm Long **£46.50**

Eye Enucleation Scissors

Standard curved surgical scissors do not match the radius of the eye of dogs and cats. The Eye Enucleation Scissor closely matches required radius and slides easily behind the eyeball to cut the optic nerve and internal ophthalmic artery and vein, without the requirement to apply dangerous traction to the globe. Use in conjunction with Eye Enucleation Forceps, shown on next page.

EYE ENUCLEATION SCISSORS

014225 Eye Enucleation Scissors 145mm Long **£79.50**

Miscellaneous**Chalazion Forceps (Desmarres)****CHALAZION FORCEPS (DESMARRES)**

014216 Chalazion Forceps (Desmarres) 3.5" **£71.50**

Halstead Mosquito Forceps**HALSTEAD MOSQUITO FORCEPS**

103225 Halstead Mosquito Artery Forceps Cof 5" **£26.50**

103175 Halstead Mosquito Artery Forceps Str 5" **£26.50**

Snellen's Vectis

Use to apply pressure to globe to extrude lens rather than 'fishing' for it within the eye.

SNELLEN'S VECTIS

014101 Snellen's Vectis 135mm **£54.50**

Kimura Spatula

Use to apply pressure to globe to extrude lens rather than 'fishing' for it within the eye.

KIMURA SPATULA

014103 Kimura Platinum Spatula 145mm **£54.50**

Swann Morton Fine Surgical Blades

Beaver Type Blades fit their own Fine Blade Handle. They offer a range of blade sizes appropriate to eye surgery.

SWANN MORTON FINE SURGICAL BLADES

05901	25 Blades individually packed SM61	£27.50
05902	25 Blades individually packed SM62	£27.50
05903	25 Blades individually packed SM63	£27.50
05904	25 Blades individually packed SM64	£27.50
05905	25 Blades individually packed SM65	£27.50
05906	25 Blades individually packed SM65a	£27.50
05907	25 Blades individually packed SM67	£27.50
05908	25 Blades individually packed SM68	£27.50
05909	25 Blades individually packed SM69	£67.50
06051	Fine Stainless Handle Beaver Type 130mm	£19.95
06052	Fine Stainless Handle Beaver Type 100mm	£19.95
06053	Fine Stainless Handle Beaver Type 80mm	£19.95
06054	VI Beaver Blade Handle 130mm	£14.95

Distichiasis Clamp



DISTICHIASIS CLAMP		
014113	Distichiasis Clamp 170mm	£135.00

Punctum Dilator



PUNCTUM DILATOR		
014116	Nettleship Dilator (Single Ended) 100mm	£37.50
014117	Castrovejo Double Ended Punctum Dilator 130mm	£41.50

Harrison Butler Lachrymal Cannula



HARRISON BUTLER LACHRYMAL CANNULA		
014221	Harrison Butler Lachrymal Cannula Curved 40mm	£31.50

Lachrymal Cannula Straight



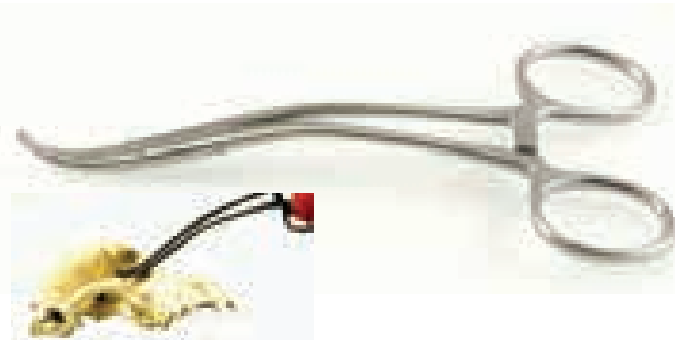
LACHRYMAL CANNULA STRAIGHT		
014222	Langs Cannula	£31.50
014224	Lachrymal Cannula Straight Stainless Steel	£31.50

Rabbit Nasolachrymal Duct Cannulae



RABBIT NASOLACHRYMAL DUCT CANNULAE		
012523	Nasolachrymal Duct Cannula 19 Gauge	£31.50
012524	Nasolachrymal Duct Cannula 21 Gauge	£31.50
012525	Nasolachrymal Duct Cannula Set 21 & 19G	£49.50

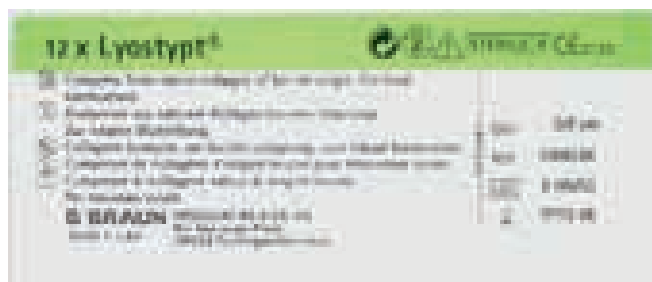
Eye Enucleation Forceps



It is very important to clamp and crush the optic nerve and internal ophthalmic artery and vein. The curvature on standard artery forceps is not correct and if used the handles stand up in the way. The Enucleation Forceps are designed to slide around the rear of the globe and capture the blood vessels. The jaws are then levered against the edge of the orbit to elevate the globe for ease of tying. The handles curve out of the way. Use with eye enucleation scissors page 320. The large size is for cattle.

EYE ENUCLEATION FORCEPS		
014219	Eye Enucleation Forceps 135mm	£66.50
014219L	Eye Enucleation Forceps Large 155mm	£72.50

Lyostypt®



Lyostypt® is a wet-stable collagen haemostat. Collagen leads to thrombocyte adhesion and to activation of coagulation factor XII. Replacement for Gelfoam. Size 30 x 50mm. 12 units per pack.

- Achieves haemostatis very swiftly.
- Is completely absorbable.
- Can be removed easily.
- Can be applied endoscopically.
- Can be combined with fibrin glue and antibiotics.

LYOSTYPT®		
1069128	Lyostypt® (12 units)	£130.00

LED Head Torch with Hands Free On/ Off



Powerful LED Head Torch delivering 100lumens from one set of batteries (AAA supplied) Bright single LED so useful for indirect ophthalmoscopy. (Multiple LEDs give multiple images)The Light has a 4 x zoom focus plus the useful option of an infra red sensor switch which switches the light on or off by simply passing your hand in front of the light. Useful when scrubbed up but need to talk to staff or clients without blinding them.

LED HEAD TORCH WITH HANDS FREE ON/OFF		
014230	LED Head Torch with Hands Free On/ Off	£49.50

Pen Torch

Sealed disposable torch which lasts for weeks provided you do not leave it switched on! Pocket clip.

PEN TORCH

014213	Pen Torch 115mm	£5.45
014214	Pen Torch (Pack of 6)	£22.50

Magnifying Pen Torch (10 x Magnification)

Good for seeing and treating distichiasis and other periorbital lesions. Takes 2 AA batteries which are not included.

**MAGNIFYING PEN TORCH (10 X MAGNIFICATION)**

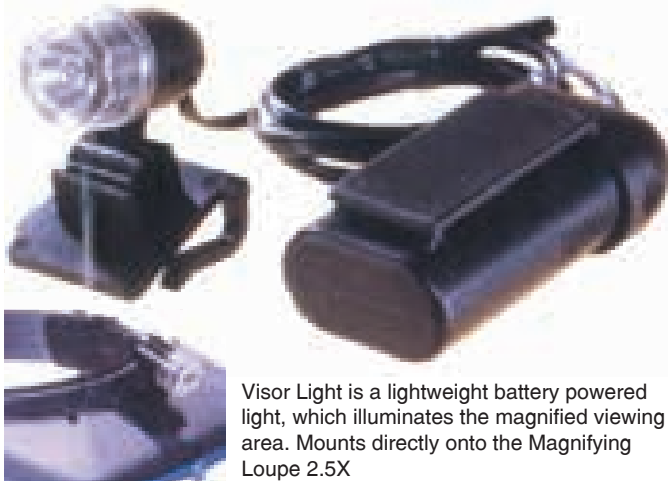
014209	Magnifying Pen Torch 150mm	£58.50
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Magnifying Loupe 2.5X

A simple Loupe at a reasonable price. The lack of a complex lens system means that as the magnification gets higher, the focal distance becomes shorter. This can take a little adjustment as a surgeon. This 2.5X Loupe is as great a magnification as you can get without becoming too close to the patient.

**MAGNIFYING LOUPE 2.5X**

014200	Magnifying Loupe 2.5X	£69.50
014200SET	Magnifying Loupe 2.5X + Visor Light (014200L)	£105.00

Visor Light

Visor Light is a lightweight battery powered light, which illuminates the magnified viewing area. Mounts directly onto the Magnifying Loupe 2.5X

VISOR LIGHT

014200L	Visor Light Clip On	£49.50
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Ophthalmic Diagnostic**Schiotz Tonometer with Weights**

Used to measure intra-ocular pressure. Surprisingly well tolerated by patients. Contains full instructions for use.

SCHIOTZ TONOMETER WITH WEIGHTS

581500	Schiotz Tonometer Inclined Scale in Case	£197.50
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Indirect Viewing Lens

Aspheric 20 Diopter Hand Held Lens. Cost effective method for examining the fundus. Supplied with storage bag.

INDIRECT VIEWING LENS

C0017992	Indirect Viewing Lens	£84.50
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Opticlar Loupes

A Guide to Choosing the Right Loupes

As a Guideline the following will help you choose your ideal loupe. There are 5 main parameters to consider when selecting loupes, all of which will affect your final choice.

1. Mount

Headband or Frame?

Consider whether you already wear spectacles, the magnification of your loupes (the higher magnification the heavier the optics), and type of headband and duration of use.

2. Working Distance

Generally this depends on whether the user is sitting or standing.

Height:

- Less than 5ft 4in - Working distance 340mm
- 5ft 4in to 5ft 9in - Working distance 420mm
- 5ft 9in to 6ft 2 in - Working distance 460mm
- Above 6ft 2in - Working distance 500mm

This guideline is for those practitioners standing, if sitting the next lowest working distance should be most suitable.

3. Magnification

The general rule is the least magnification the better. For most applications a 2.5x loupe is ideal.

4. Field of View

This is the area that is in focus, generally the wider the better as this reduces the amount of sideways head movement.

5. Lighting

Adding a coaxial LED light will significantly enhance the usability of your loupes.

A light may be purchased at time of order or, as they are modular, at a later date.



Opticlar VisionMag Pro-Line I.O. Loupes



With a twin lens system the Pro-Line range of loupes provide excellent edge to edge clarity with no aberration

The individually adjustable optics ensure accurate interpupillary setting Coated optics minimise reflections and maximise light transmission to provide crisp bright images

The unique height adjuster provides perfect pupillary alignment

The extreme angles of declination available ensures that these loupes are ideal for dentistry as well as all other forms of examination or surgery

With water resistant housings the Pro Line range can be kept hygienic

OPTICLAR VISIONMAG PRO-LINE I.O. LOUPES 2.5X MAGNIFICATION		
AW402.025.340	Opticlar Pro-Line VisionMag Loupes 2.5x with 340mm Working Distance with Case	£505.00
AW402.025.420	Opticlar Pro-Line VisionMag Loupes 2.5x 420mm Working Distance with Case	£505.00
AW402.025.460	Opticlar Pro-Line VisionMag Loupes 2.5x with 460mm Working Distance with Case	£505.00
AW402.025.500	Opticlar Pro-Line VisionMag Loupes 2.5x with 500mm Working Distance with Case	£505.00
OPTICLAR VISIONMAG PRO-LINE I.O. LOUPES 3.0X MAGNIFICATION		
AW402.030.340	Opticlar Pro-Line VisionMag Loupes 3.0x with 340mm Working Distance with Case	£505.00
AW402.030.420	Opticlar Pro-Line VisionMag Loupes 3.0x with 420mm Working Distance with Case	£505.00
AW402.030.460	Opticlar Pro-Line VisionMag Loupes 3.0x with 460mm Working Distance with Case	£505.00
AW402.030.500	Opticlar Pro-Line VisionMag Loupes 3.0x with 500mm Working Distance with Case	£505.00

Opticlar Loupe Light I.O.



Image shows light attached to Loupes, price shown is for the LED light and charger only

Fitted with a high quality LED the Opticlar I.O loupe light provides brilliant homogenous illumination free from chromatic aberration The compact lithium ion battery pack can provide upto 12 hours continuous use and full recharges in less than 2 hours With compact dimensions the battery pack can sit unobtrusively in the pocket or clipped to waist band or belt. The connection cable has a coiled section that provides an early warning if the cable is snagged on furniture or other objects A separate on/off switch prevents premature wear on the rotary rheostat and enables the unit to be turned on/off at the previous chosen setting.

OPTICLAR VISIONMAG PRO-LINE I.O. LOUPES 3.0X MAGNIFICATION		
AW500.000.054	Opticlar Loupe Light for Opticlar Pro-line I.O. Loupes	£405.00

OPTICLAR LOUPES TRY BEFORE YOU BUY!



If you would like to try a pair of Opticlar Loupes before purchasing, please contact our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

Note: This offer applies to VisionMag Pro-Line 2.5x Loupes 460mm only.

Trial pair will be invoiced on despatch and credited upon return. Usual T & C's apply

OPTICLAR LOUPES

Please note that higher magnification Loupes are available upon special request.

Please call our Vet Tech Team on 0845 130 9596 for further details.

Opticlar Headlights

Opticlar VisionMax Headlights

Opticlar Personal LED Headlights provide:

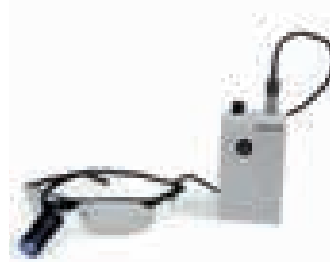
- Quality of illumination
- Exceptional brightness, approx. 60,000 lux
- Exceptional colour temperature, circa 5500k – 6000k
- Homogenous light providing edge to edge consistent illumination
- Optimal spot size dependent upon working distance
- Lithium batteries provide up to 12 hours continual use
- Rapid recharge time - 2 hours
- Small and unobtrusive for long term comfort
- Multi voltage capability
- Light weight to minimise neck and shoulder stress
- Choice of mountings, spectacle or professional headband
- Use of high grade materials and modern technology for exceptional reliability
- Simple, logical controls for easy intuitive use
- Easy adjustment of illumination intensity by either digital 3 position switch or continuously variable rheostat.
- Opticlar spectacle mounted LED examination light. Homogenous fixed focus 3w LED. Continuous variable illumination. Waist band mounted lithium ion battery pack and recharger.
- Headlight with professional headband. Focussing 5w LED light. Continuous variable illumination. Waist band mounted lithium ion battery pack and recharger.

The Opticlar 3w LED light is the ideal personal headlight for use during examinations, surgery and for domiciliary or field use. With a useful 12 hour battery life, fast recharge of approximately 2 hours and the ability to be used whilst charging. The high power 3w LED provides a crisp homogenous light and is unobtrusive in all of its variations. Supplied in a sturdy protective case.

The Opticlar 3w LED light is available in the following configurations.



Opticlar VisionMax 3 Spectacle Headlight with Dedicated Spectacle Fitting - Fixed Focus



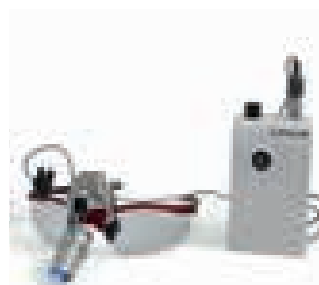
With brilliant 3w LED the VM3S provides powerful homogenous illumination and ideal for most disciplines and especially suitable for domiciliary and paramedic applications. The unit is supplied with storage case, lanyard and clip in prescription lens.

Operating time up to 12 hours.
Recharge time approx. 2 hours.
Fixed focus.

OPTICLAR VISIONMAX SPECTACLE HEADLIGHT - DEDICATED SPECTACLE FITTING

AW500.020.000 Opticlar VisionMax 3 Spectacle Headlight with Dedicated Spectacle Fitting **£550.00**

Opticlar VisionMax 3 Spectacle Headlight with Universal Fitting Fixed Focus - for use with visors or users own glasses



With a brilliant 3w LED the VM3UF provides powerful homogenous illumination and is ideal for most disciplines and especially suitable for domiciliary and paramedic applications and can be fitted to individual users own spectacles or visors.

Clip mounted.
The unit is supplied with storage case, lanyard and clip in prescription lens. Operating time up to 12 hours.
Recharge time approx. 2 hours.
Fixed focus.

OPTICLAR VISIONMAX SPECTACLE HEADLIGHT UNIVERSAL FITTING

AW500.020.002 Opticlar VisionMax 3 Spectacle Headlight with Universal Fitting - Clip Mounted **£505.00**

Opticlar VisionMax 3 Headlight on Sports Headband - Fixed Focus



With a brilliant 3w LED the VM3SH provides powerful homogenous illumination and is ideal for most disciplines and especially suitable for domiciliary and paramedic applications. The unit is supplied with storage case.

Operating time up to 12 hours.
Recharge time approx. 2 hours.
Fixed focus.

OPTICLAR VISIONMAX 3 HEADLIGHT ON SPORTS HEADBAND

AW500.010.020 Opticlar VisionMax 3 Headlight on Sports Headband **£550.00**

Opticlar VisionMax 3 Headlight on Professional Headband Fixed Focus



With a brilliant 3w LED the VM3PH provides powerful homogenous illumination and is ideal for most disciplines and especially suitable for longer examinations and procedures. The unit is supplied with storage case.

Operating time up to 12 hours.
Recharge time approx. 2 hours.
Fixed focus.

OPTICLAR VISIONMAX 3 HEADLIGHT ON PROFESSIONAL HEADBAND

AW500.010.010 Opticlar VisionMax 3 Headlight on Professional Headband **£605.00**

Opticlar VisionMax 5 Headlight with Professional Headband - Focusable



As the flagship LED headlight within the Opticlar range the VM5 headlight provides intense illumination that provides edge to edge clarity with the added benefit of being focusable and is therefore ideal for E.N.T. and other disciplines that may require illumination of deep cavities.

The professional headband is comfortable for extended periods and the LED remains cool throughout the procedure and does not heat sink to the surrounding area.

With a lithium belt pack that is compact and lightweight the VM5 is ideal for longer examinations and procedures.

When not in use the VM5 can be stored in a strong yet lightweight storage box complete with transformer and rechargeable lithium ion battery pack.

The battery pack can provide up to 12 hours continuous use and can be recharged in less than 2 hours.

It also has a 'run flat' feature that ensures the headlight can be used whilst being charged.

With quality materials and assembly the VM5 has a 5 year warranty for peace of mind.

With over 60,000 lux and colour temperature of 6250K the VM5 is an ideal all purpose headlight and can be retro fitted with Opticlar Pro-Line 402 series loupes for added versatility.

OPTICLAR VISIONMAX 5 HEADLIGHT ON PROFESSIONAL HEADBAND	
AW500.020.010	Opticlar VisionMax Headlight on Professional Headband and Storage Case £705.00

With optional Loupes

OPTICLAR VISIONMAG PRO-LINE I.O. LOUPES 3.OX MAGNIFICATION	
AW500.020.010 340	Opticlar VisionMax 5 Headlight with 340mm Working Distance 2.5x Loupes £850.00
AW500.020.010 420	Opticlar VisionMax 5 Headlight with 420mm Working Distance 2.5x Loupes £850.00
AW500.020.010 460	Opticlar VisionMax 5 Headlight with 460mm Working Distance 2.5x Loupes £850.00

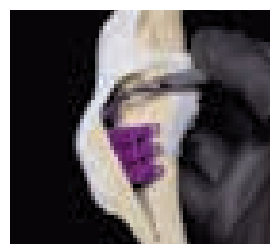
2015 EXHIBITIONS



Each year Veterinary Instrumentation attends many exhibitions both in the UK and Overseas. During 2015 we will be attending the following exhibitions:

BVOA/BSAVA	April
WSAVA	May
ECVS	July
BEVA	September
BVOA	October
SEVC	October
LVS	November
NAVC	January 2016
VOS	March 2016

Surgical Demonstrations



For 2015, Veterinary Instrumentation will be organising a number of surgical demonstrations on the booth, both to launch new products and initiatives but also to allow surgeons to get hands on with new surgical techniques. Please see www.vetinst.com for a demonstration timetable at each exhibition.

Special Requests

We are also very pleased to bring specific equipment to an exhibition if you would like to examine it more closely, just let our Vet Tech Team know in advance. and we will organise it.

Air Driven Dental Units

Veterinary Instrumentation and Henry Schein Veterinary Equipment are very pleased to have been appointed exclusive UK Distributor for Midmark. The Midmark family also includes the Matrix range of Anaesthesia Machines and Cardell Monitors. With over 90 years of healthcare manufacturing and clinical use experience, Midmark are recognised as leaders in veterinary dentistry, anaesthesia and monitoring.

VETERINARY DENTISTRY

Veterinary dentistry, in many practices, remains an unglamorous cousin to 'real' veterinary surgery. In fact good dental health contributes hugely to any pet's well being. Veterinary dentistry should also be making a significant contribution to the financial well being of any practice. Dentistry is one of the few areas where there is potential for expansion. A brief examination of the mouth of most pets will reveal teeth which need attention. Owners are very familiar with the concept of routine check ups and dental work.

Dental equipment is not hugely expensive when compared to much other capital equipment and unlike many other practice investments dental equipment quickly pays for itself.

All veterinary practices providing dental services should have access to an ultrasonic scaler plus a unit with slow speed and high speed handpieces for polishing and tooth sectioning during extraction. Ideally a dental x-ray unit could be added to this, as around 70% of a tooth is below the bone crest, therefore invisible without good radiographs.

Within this section of the catalogue you will find a range of dental equipment from a simple piezo ultrasonic scaler to the new fully featured Midmark machine.

Some dental units are supplied with integrated suction driven by the venturi effect using compressed air. In our experience this type of suction is very hungry on air necessitating a large, expensive compressor. In addition the nature of the suction tubes of venturi type are difficult to clean and sterilise. Stand alone suction units are inexpensive and much more efficient plus they can be used elsewhere in the clinic. See Chapter 21 page 420.

Air Driven Dental Units

To obtain the truly high speeds required for drilling and burring an air driven dental unit is necessary. Veterinary Instrumentation can supply two levels of air driven dental machines. The Midmark VetPro® 1000 is state of the art with exclusive oil-free technology, whilst the Veterinary Instrumentation Mini Cart is a straightforward unit containing all the essentials of an air driven dental machine. Both are offered as a complete set up for cutting and polishing but can be modified by the addition of further handpieces and accessories.

SERVICING AND SUPPORT

Veterinary Instrumentation offers national coverage for servicing and repairs through its network of authorised dental engineers. To arrange for an engineer to visit please and call (0845) 130 9596

If possible please describe the nature of the fault, the brand/ type of machine and the date of purchase.

HENRY SCHEIN®
VETERINARY EQUIPMENT



Henry Schein Veterinary Equipment would be delighted to demonstrate this equipment at your practice.

To book a demo please call our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

VetPro® 1000



VetPro® 1000

Introducing the VetPro® 1000 Mobile Dental Delivery System from Midmark. Our exclusive, oil-free technology means there is no oil to contaminate your handpieces, providing a clean, dry, aseptic work environment for you, your staff and your patients. And best of all... no more oil changes. That's better for your staff and better for the environment.

Integrated oil free compressor means no worries because it eliminates potential oil exposure to patients and messy changes! You will also be investing less often in handpiece replacement with no degradation from oil contamination.

Handpieces automatically activate when removed from holders allowing you to focus on the client. You can switch from handpiece to handpiece without touching a button – the unit will automatically adjust as the handpiece is lifted from its cradle.

High and Low Speed Handpieces included.
Integrated Piezo Scaler included, featuring LED light Newtron Handpiece to radically improve visibility during use.

Standard Midwest 4-Hole connection type.

Quiet – Compressor has a sound level of 40dB.

Fibre Optics to High Speed Handpiece to enable proper lighting of oral cavity

Quickly toggle between the dual 1-litre water bottles with a flick of a switch without de-pressurizing the system.

External quick connects for water and air make setup easy.

Medical grade castors and 3m hospital grade power cord allow you to position the cart where you need it.

Durable construction. Its durable construction withstands the rigors often found in clinical settings. The VetPro® 1000 has a completely enclosed system to protect internal mechanics from contaminants and animal hair, made from a sturdy ABS plastic to withstand the strains caused by frequent usage.

Dimensions 47cmD x 59cmW x 93cmH

Supplied with:

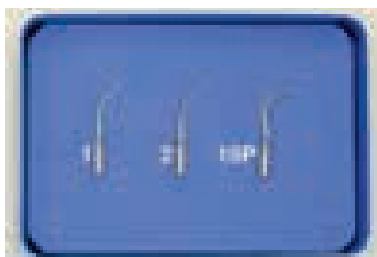
- High Speed Fibre Optic Handpiece
- Low Speed Handpiece
- Pack of Disposable Prophyl Angles
- Starter High Speed Bur Set
- Integrated Scaler includes selection of Tips

VETPRO® 1000

MID8000-006	VetPro® 1000 with Fibre Optics & LED Scaler	£5,850.00
MID9A477001	Antimicrobial Fabric Cover (optional)	£110.00

Acteon Satelec Scaling Tips

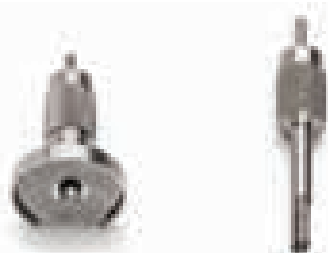
These corrosion resistant scaling tips are made exclusively by Satelec using patented procedures. Each tip is individually tested and 'tuned' enabling more powerful cavitation, better spray control and perfectly-controlled vibration energy at the end of the instrument.



ACTEON SATELEC SCALING TIPS

MID016-120300	Universal Tip No. 1	£82.50
MID016-120303	Voluminous Calculus Tip No2	£82.50
MID016-120304	Shallow Pockets Tip No.10P	£82.50
MID016-120301	Subgingival Tip No. 10Z	£97.50
MID016-120302	Periodontics Micro Universal Curette Tip No.3 H3	£97.50

Rodent Dental Items



Rodent Dental items are now available to fit the VetPro® 1000 machine. To run the Rodent Dental Bur and Guard Kit you will need the Low Speed Handpiece plus the 1:1 Straight nose Cone listed below.

RODENT DENTAL ITEMS

MID002-1277-01	Kit - Low Speed Handpiece without Swivel 0-20,000rpm	£245.00
MID016-1605-00	Straight Nose Cone Attachment 1:1	£125.00
MID016-1605-01	Straight Nose Cone Attachment 4:1 Reduction	£165.00
MID002-1664-00	Rodent Dental Bur & Guard Kit	£125.00

Handpieces



A quiet High Speed Handpiece, weighted and balanced for improved feel. 350,000 RPM at 32 PSI. Autoclavable. Supplied with a 6 month warranty.

HIGH SPEED HANDPIECES

MID002-1155	High Speed Miniature Head	£245.00
MID002-1157	High Speed Fibre Optic	£400.00



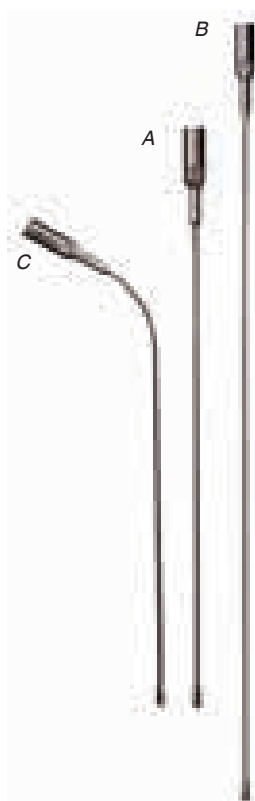
A highly versatile Low Speed Handpiece. Accepts disposable or metal Prophyl Angles and straight Handpiece Burs. Range 0-5000 RPM at 40-45 PSI. Non-reversible. Supplied with a two year warranty.

LOW SPEED HANDPIECES

MID002-1156	Little Pro Hygiene	£465.00
MID002-1159	Autoclavable Prophyl Angle	£29.50
P464	Prophyl Cups (x144) Snap On	£50.00

Other Handpieces and accessories are shown on page 331-332.

Midmark Acteon Urolithiasis Probes



Use ultrasonics to quickly and efficiently break up stones located in the urethra. Urolithiasis probes are compatible with the Satelec ultrasonic scalers used in the Vetpro dental delivery system and are connected to the scaler handpiece in the same way as scaling tips.

MIDMARK ACTEON UROLITHIASIS PROBES

MID016120305	Dog Probe Short - L 102mm (A)	£87.50
MID016120307	Dog Probe Long - L 156mm (B)	£87.50
MID016120306	Cat Probe (C)	£87.50
MID002123800	Kit 3 Veterinary Urolithiasis Probe set - one of each above	£235.00

Digital Dental X-ray

Midmark VetPro® Digital Dental X-ray



Radiography is critical for the accurate evaluation of periodontal disease, as 60% of the disease is hidden below the gum line. VetPro® systems from Midmark are significantly more accurate than film-based systems, as well as being faster and easier to use. State-of-the-art software allows you to view images immediately, with no chemicals, no wasted developing time.

High-tolerance, friction-less joints provide amazingly smooth arm movement and heavy duty dual braking system keeps it in place for precise and stable positioning. A unique tube head handle lets you effortlessly put the X-ray source where you want it, with just one hand.

VetPro® Digital Dental X-ray Systems from Midmark are the best solution for your dental X-ray needs:

- The most intuitive, easy to use, veterinary specific software and control panel on the market (select a tooth and take a shot)
- DC technology allows you to adjust kVp (60, 65 and 70) and mA (4, 5, 6 and 7) perfect for today's digital environment
- Most flexible system available -- customize settings to meet your needs
- 0.4 mm focal spot produces visibly higher resolution images



VetPro® Specifications

Line voltage: 120-230 VAC +/- 10% 50-60 Hz
 Line load: maximum current amps
 Exposure time: 20 ms to 2 seconds
 Tube potential: 60, 65 or 70 kVp
 Tube current: 4, 5, 6 or 7 mA Cone length: 20 cm (8 inches)
 Minimum inherent filtration: 2 mm Al equivalent at 70 kVp
 Focal spot: 0.4 mm (IEC 336) Duty factor: 1:15
 Remote exposure hand switch included Warranty: 2 years, limited
 Mobile – (Wall mount also available)
 Base: 26.9" w x 36" l (68.3 cm x 91.4 cm)
 Height: 79.9" (195.3 cm)
 Arm reach: 56" (142.2 cm)



VetPro® DR Sensor for Advanced Digital Dental Imaging



VetPro® DR delivers superior soft-tissue visualization as well as exceptional crown and root definition, all with low noise so you get the quality digital images you need to provide your patients with the best dental care. Plus, the durable design of the new VetPro® DR sensor takes the worry out of digital image capture.

Cable is Kevlar® reinforced for exceptional durability Hermetically sealed, waterproof design means no problems during routine cleaning



Advanced CMOS technology delivers outstanding image quality

High speed USB connection captures images 37% faster

Rounded corners means easier positioning in tight spaces for better capture of roots



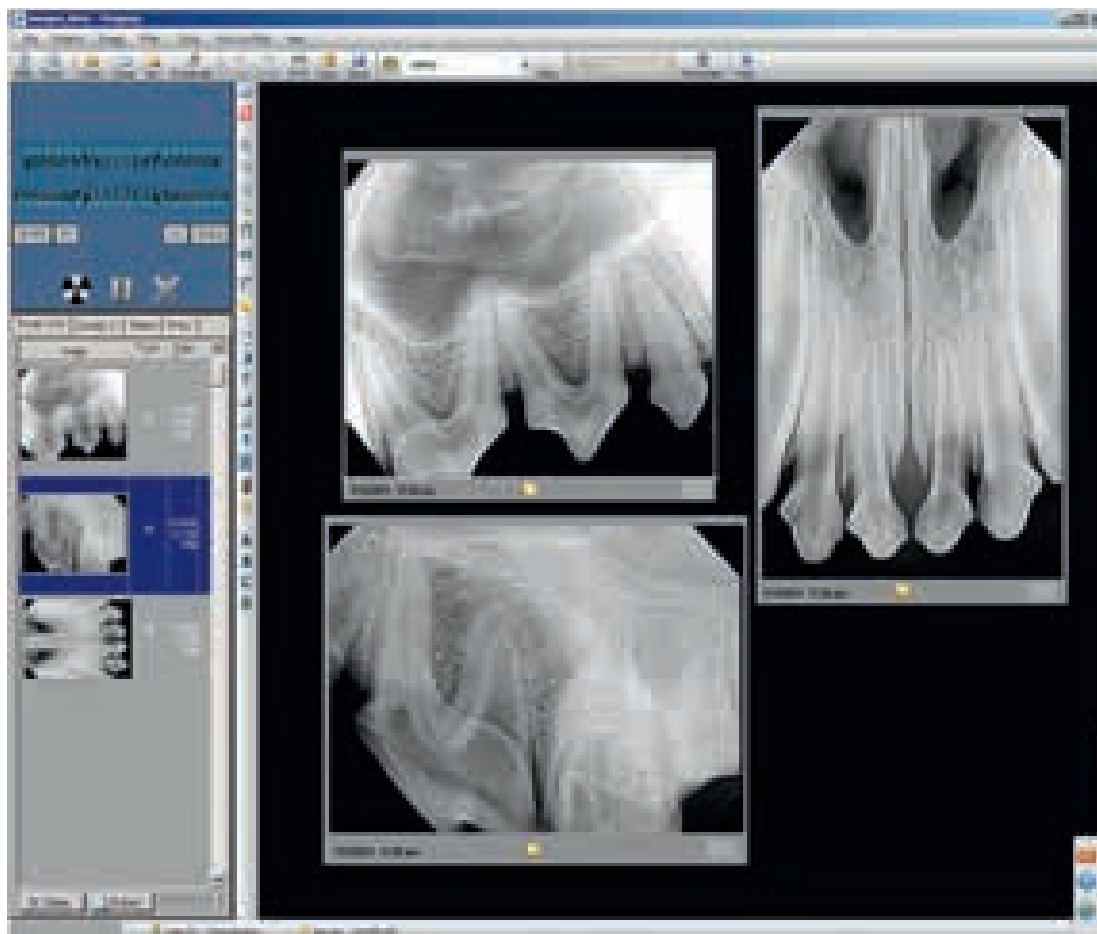
The VetPro® Xray system has built-in cabling for the DR Sensor. Sensor plugs in at the articulation above the tube head. Stowage for the sensor is provided on the arm above.



VetPro® DR Sensors Specifications

Dimensions: Size 1 (film size equivalent) 37 mm x 24 mm x 6 mm
 Size 2 (film size equivalent) 43 mm x 30 mm x 6 mm
 Active Area: Size 1 (film size equivalent) 30 mm x 20 mm
 Size 2 (film size equivalent) 36 mm x 26 mm
 Number of Pixels: Size 1 (film size equivalent) 1580 lines x 1050 pixels
 Size 2 (film size equivalent) 1896 lines x 1368 pixels
 Pixel Size: 19 µm x 19 µm
 Theoretical Resolution: 26 lp/mm
 Levels of Grey: 4096
 Connection Type: High speed USB 2.0
 Sensor Cable Length: 3 meters

Imaging Software



Use your VetPro® DR System with our easy-to-use imaging software. Look and formatting is familiar and easy to learn.

Acquire, enhance and store images with ease.

Our software features canine and feline tooth templates organized using the Triadan System, is DICOM compliant, and able to work with leading practice management systems and PACS servers.

An on-line recorded webinar demonstrating the software can be found on the web page below. Follow the link for Progeny Imaging Software Webinar. <http://www.midmarkanimalhealth.com/tools/training/midmark-online-training>



MIDMARK VETPRO® DIGITAL DENTAL X-RAY		
MIDDCVM-G0A/S2	Midmark VetPro® Complete Mobile Dental X-ray Unit No.2 Sensor	£11,995.00
MIDDCV5-G2A/S2	Midmark VetPro® Complete Wall Mount 56" Arm No. 2 Sensor	£11,650.00
MIDDCV6-G2A/S2	Midmark VetPro® Complete Wall Mount 66" Arm No. 2 Sensor	£11,650.00
MIDDCV7-G2A/S2	Midmark VetPro® Complete Wall Mount 76" Arm No. 2 Sensor	£11,650.00
MIDDCV8-G2A/S2	Midmark VetPro® Complete Wall Mount 82" Arm No. 2 Sensor	£11,650.00
MIDXSVS-01	VetPro® DR No. 1 Sensor 3 Metre Cable	£6,295.00
MIDXSVS-02	VetPro® DR No. 2 Sensor 3 Metre Cable	£7,150.00
MID500-433	Sanitary Sheath Size 2 Pack of 500	£145.00
MID500-433/100	Sanitary Sheath Size 2 Pack of 100	£40.00
MID500-432	Sanitary Sheath Size 1 Pack of 500	£145.00

Shipping and Installation is included in the price of the unit.

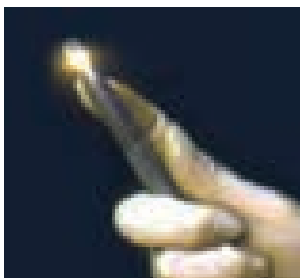
VI Mini Cart

VI Mini Cart



Supplied as a complete package the Veterinary Instrumentation Mini Cart includes all the essential elements for a veterinary air unit. Made in the UK to our specification and incorporating a Bambi medical standard compressor.

The Mini Cart is supplied with the following Handpieces: Fibre Optic Push Button Highspeed, Low Speed Motor, Polishing Attachment and Pack of Prophy Cups. Both Handpieces are controlled via the foot control. Many other handpiece options are available to fit the standard outlets.



The inside of the dog or cat's mouth is relatively dark. It is difficult to set up ancillary lighting to get light to where you need it (c.f. human dentistry). Fibre optics deliver brilliant light exactly where you need it. The MiniCart includes Fibre Optic Light to the High Speed Handpiece.

The tray style top is large (400mm x 300mm, 16" x 12") and manufactured from 316 stainless steel for easy cleaning. There is plenty of room for instruments, scalers and other dental materials. The tray has a lip to prevent items rolling off onto the floor.

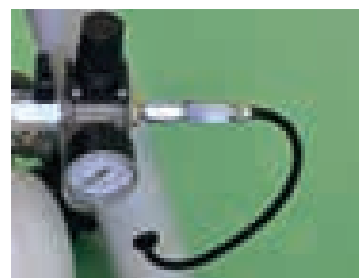


Magnetic Bur Zone

The tray has a nice lip to retain elevators and burs etc but the front left hand corner is magnetised to attract and keep all your burs and scaler tips in one place.

Pressurised Water Outlet for Scalers

For your convenience to the rear of the unit there is a water outlet which is connected up to the pressurised water cooling system of the Mini Cart. Simply plug in your scaler. No more pump up bottles!!



Discrete Air Connection

All the airpipe work is hidden away within the cart frame for a cleaner look and a minimum of tangles and trip hazards. Either compressor or cart may be disconnected from each other in an instant should an off site service be required.

Bambi Medical Compressor

The Mini Cart is supplied with a UK made Bambi compressor renowned for its build quality and reliability. The unit is backed by a national team of specialist engineers.



VI MINI DENTAL CART

HEAD UNIT, FLOOR STAND AND QUIET BAMBI COMPRESSOR

Handpiece Holders and Air Lines for:
 High Speed 1 (HS1) with Water Flow Control
 Low Speed (LS)
 3 Way Air/ Water Syringe
 Switched Handpiece Activators
 Water Supply, Filter, Regulator, On/ Off Switch
 Tray Style Top
 Socket Power Board
 Pressurized Water Outlet for Ultrasonic Tooth Scalers
 Dimensions
 470mm wide x 550mm deep
 Height adjustable from 630mm to 860mm

HANDPIECES

Fibre Optic High Speed Handpiece Push Button
 Low Speed 30,000 rpm Motor for Polishing
 Polishing Attachment for Low Speed Motor (L688 + L670)
 Burs-5 x FG4 + 5 x FG701
 Pack of Screw-on Propy cups
 B.A. Ultimate Oil for oiling Handpieces

VIMINIFO	VI Mini Dental Cart Complete with Fibre Optics*	£3,350.00
VIMINIFOLUS	VI Mini Dental Cart Complete with Fibre Optics and Ultrasonic Scaler*	£3,650.00

Carriage is extra for all items marked*

12 Month Warranty

The Mini Cart is plumbed for ultrasonic scalers. Any Ultrasonic Scaler can be simply plugged into the unit to obtain water under pressure. The large stainless steel tray style top of the Mini Cart has plenty of room for scalers and instruments. The tray is easy to wipe clean and can be removed if necessary for more thorough cleaning. The 'Plus' versions of the Mini Cart includes our USD Scaler at a small premium. Any other scaler may be included with the MiniCart and will attract a discount.

VI Mini Cart Options

Consider also the Rabbit option (page 333) and the Diamond Saw option (page 333).

Any Scaler will work with the Mini Cart without the requirement for a Pump Up Water Bottle.



Micromotor NM3000

This powerful, reliable motor performs all the functions of a low speed handpiece without the requirement for compressed air.

- Speed variable between 2,000 and 30,000 rpm
- Variable footswitch for speed control within preselected range.

The micromotor has the same fitting as the low speed motor and can be used to drive a variety of handpiece combinations.



Polishing Kit

Polishing Kit Including NM3000 Micromotor Polishing Kit includes NM3000 Micromotor, 1:1 Straight Nose Cone. 25 Oscillating disposable propy heads and propy paste. This kit will also drive rabbit burs.



IM3L7465S OSCILLATING PROPHY ANGLE SEMI-DISPOSABLE

Oscillating Propy Angle fits on Straight Nose Cone (shown). Generates less heat than standard types with much less hair wrap.



BA170 1:1 Straight Nose Cone for use with rabbit bur option, use burs with prefix HP, and for use with oscillating propy heads, max 6000rpm. This speed is controlled by settings on the micromotor.

MICROMOTOR		
1007	Micromotor NM3000 (Motor and Foot Control)	£695.00
1007A	Micromotor Polishing Kit	£895.00

Additional Options



BA101 1:1 Latch Head Contra Head Attachment for use with latch head RA burs and latch head propy cups for post-scaling polishing.

1:1 ATTACHMENT AND CONTRA ANGLE (LATCH) HEAD		
BA101	1:1 Attachment Contra Angle (Latch Head)	£135.00

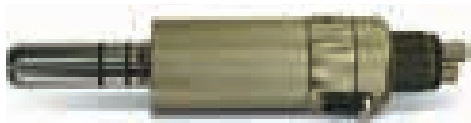




Henry Schein Veterinary Equipment would be delighted to demonstrate this equipment at your practice.

To book a demo please call our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

Low Speed Motor



Running with low speed (up to 22,000rpm) and high torque, this air motor is used to drive several dental accessories e.g. straight nose cone, prophy heads and the latch head. The motor has a speed limiter feature, while forward and reverse are controlled by a collar at the base of the motor. The accessories listed also fit the Portable Micromotor (see page 331)

LOW SPEED MOTOR		
BA603	Low Speed Motor	£295.00
Y160020	Speed Motor Kit inc Motor, 1:1 SNC & Contra Angle Latch Head/1:1 Attachment Complete	£475.00

Handpieces

High Speed Handpiece



Image may not show the exact handpiece supplied but does show the style.

Running with high speed and low torque this handpiece is designed to remove tooth or bone as part of extraction or repair technique. Only Friction Grip (FG) burs fit the high speed. Fine water jets cool the bur. The fibre optic version illuminates the operative area with a brilliant cold light.

BA handpieces have a 1 year warranty, Midmark 6 months. All high speed handpieces we supply have a Midwest fitting. NB no warranty covers burs stuck in the handpiece. To avoid this, the bur must be removed from the head between every case, and ideally should be replaced with a new one. Blunt burs not only damage teeth, they also cause expensive damage to high speed turbines which will not be covered under warranty.

HIGH SPEED HANDPIECE		
P560001	High Speed Push Button	£295.00
MID002-1155	High Speed Miniature Head Push Button Midmark	£245.00
MID002-1157	High Speed Fibre Optics Push Button Midmark	£400.00
100006	Teflon Drops	£18.95

1:1 Attachment and Contra Angle (Latch) Head



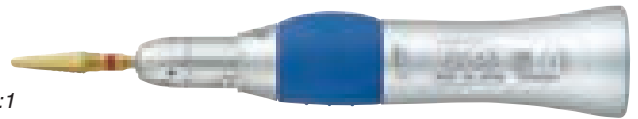
Image may not show the exact handpiece supplied but does show the style.

The 1:1 attachment pushes directly onto the low speed motor and transmits actual motor speed to the head fitting (it has a blue band). The head may be used as a prophy polisher with use of P465 latch prophy cups or as a contra angle drill with the use of RA burs.

The contra angle head offers a higher torque than the high speed. The speed is limited to 25,000rpm. A range of contra burs is available as bur kit D752. Use RA prefix when ordering packs of burs. See page 335.

1:1 ATTACHMENT AND CONTRA ANGLE (LATCH) HEAD		
BA101	1:1 Attachment and Contra Angle (Latch) Head	£135.00

Straight Nose Cone



4:1



1:1

Image may not show the exact handpiece supplied but does show the style.

This accessory pushes directly onto the low speed motor and drives a range of handpiece (HP+ HL) burs and the diamond disc. This combination is used to cut rabbit teeth and drill holes in bone. In addition HP burs may be used in the straight nose in spinal procedures. 6,000rpm is the recommended maximum speed for prophy cups.

If using an air driven unit we advise the 4:1 reduction straight nose cone. If using an electric micromotor the 1:1 may be used but turn the maximum speed down to 6,000rpm.

STRAIGHT NOSE CONE		
BA170	Straight Nose Cone 1:1 (used in rabbit bur option)	£195.00
H262001	Straight Nose Cone 4:1 Reduction for Oscillating Prophy	£245.00

4:1 Reduction Attachment, Rotating Prophy Heads and Cups



4:1 Handpiece Body



Screw On



Snap On

The 4:1 attachment gears down the low speed motor by 4 times. This should be set to 6000rpm. It has a very high torque which is best for polishing teeth. It usually has a green band and is used to drive prophy heads. Prophy cups are used in conjunction with prophy paste to polish teeth following scaling. Soft prophy cups are best as they create less heat and flare better under the gumline with less pressure. Failure to polish will result in a rapid build up of new plaque.

Screw In Prophy Head

Far fewer problems with hair.

Snap On Prophy Head

Widely used but has some problems in veterinary dentistry. Muzzle hair becomes caught behind the 'button' and when combined with prophy paste quickly degrades the head.

4:1 REDUCTION ATTACHMENT ROTATING PROPHY HEADS & CUPS		
C634001	4:1 Handpiece Body	£165.00
BA002	Prophy Head Screw On (ISO)	£50.00
P262	Prophy Cups Screw On x 144	£65.00
C188001	Prophy Head Snap On (ISO)	£50.00
P464	Prophy Cups Snap On x 144	£50.00
P465	Contra Angle (Latch) Head Prophy Cup x 36	£26.50

Oscillating Prophy Head



(Shown on straight nose cone - not included)

Developed for human dentistry to combat the risk of HIV the disposable prophy head is surprisingly cheap and minimises the risk of FeLV and FIV transmission. The oscillating action means there is no heat build-up on the tooth surface and 'snagging' on muzzle hair is minimal. Soft prophy cups as supplied on these heads should be used as they produce less heat and flare better under the gumline with less pressure. The oscillating prophy head fits the straight nose cone. To achieve the correct running speed use the 4:1 reduction with air equipment or the 1:1 with micromotors. Adjust the running speed to 6000rpm on either system.

OSCILLATING PROPHY HEAD SEMI DISPOSABLE		
IM3L7465S	Oscillating Disp Prophy Angle (for 4:1 Reduction) x 25	£33.50
IM3L7465L	Oscillating Disp Prophy Angle (for 4:1 Reduction) x 100	£115.00

Prophy Paste

Prophy Paste is an abrasive polishing compound used in conjunction with prophy cups and brushes to create a highly polished enamel surface which is resistant to tartar buildup. We strongly recommend the use of fine grade prophy paste for general polishing after scaling, as this will produce the smoothest surface and reduce abrasion on the enamel. Medium and coarse are used for heavy staining in human dentistry, and always followed with a final, fine polish to give a good finish.

Individual paste cups are recommended to maintain hygiene.



PROPHY PASTE		
P466	Prophy Paste Regular 300g	£9.50
P466R/200	Prophy Paste Medium 200 (2g) Individual Pots	£59.50
P4660DP	Prophy Paste Coarse 200 (2g) Individual Pots	£59.50
HS5556660	Prophy Paste Fine 200 (2g) Individual Pots	£59.50

Cleaning and Lubricating Spray

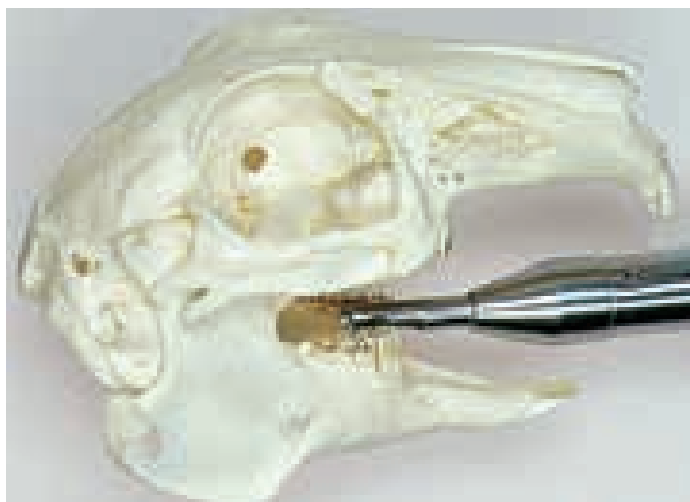


Convenient sprays for cleaning and lubricating handpieces. Applicator nozzle required for use with Pana Spray.

CLEANING AND LUBRICATING SPRAY		
Y900-630	Pana Spray Cleaning and Lubricating Handpiece Spray	£28.50
Z019090	Applicator nozzle for Low Speed Motor Attachments	£11.75
Z020201	Applicator nozzle for High Speed Handpiece	£11.75
BAOIL	B.A. Ultimate Oil for Cleaning and Lubricating Handpieces	£22.00

Options

Rabbit Option



Rasping is a very inefficient method of levelling rabbit and rodent molars. The best method is the use of side cutting burs. Our Rabbit Bur Kit includes two of each of the most useful handpiece burs which fit the 1:1 Straight Nose Cone. They are housed in a custom made stainless block which also has holes for your favourite friction grip burs for the high speed. To minimise damage to the cheek and tongue, a Soft Tissue Protector is highly recommended. The Soft Tissue Protector and Burs were developed by David Crossley. See our rodent dentistry section page 348 for further details.



HANDPIECE OPTIONS - RABBIT		
001792	Rabbit Bur Kit (6 Burs in Block)	£52.50
BA170	1:1 Straight Nose Cone	£195.00
001793	Soft Tissue Protector	£64.50
001794	Rabbit Bur Option (includes all of above)	£275.00
D797	Bud Shaped Acrylic Bur HP fitting	£7.25
HL563D	Very Long Side Cut Diamond Bur (smoother cut and less heat than carbide)	£7.25

Diamond Disc Option



Diamond coated discs make short work of sectioning teeth and shortening rodent incisors. To minimise risk to surgeon and patient always use a disc safety shield. Fits onto 1:1 Straight Nose Cone. If you do not have an air driven high speed unit this may be your only tooth cutting option. Diamond discs are very dangerous to soft tissue – shielded or not.

HANDPIECE OPTIONS - DIAMOND DISC		
001789	Diamond (Double Sided) Disc	£32.50
001791	Diamond Disc Safety Shield	£59.50
001790	Diamond Disc Option (includes both of the above)	£85.00
BA170	1:1 Straight Nose Cone	£195.00

Burs

Bur Kits

Each Bur Kit contains a range of useful Burs for each application.

Each comes with a simple to follow guide for bur usage.



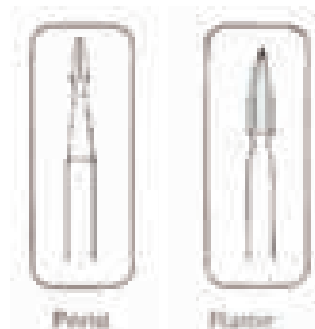
BUR KITS

D751	Dog High Speed Bur Kit (FG)	£72.50
D753	Cat High Speed Bur Kit (FG)	£72.50
D754	Low Speed (HP) Bur Kit (for SNC)	£72.50

Roto-Pro Burs

When used in a High Speed Handpiece these burs produce vibrations at 20,000cycles per second.

Very aggressive action – use with extreme caution. Dog and cat enamel is thin and easily damaged.



ROTO-PRO BURS

R350	Flame (Pack of 6)	£27.50
R351	Perio (Pack of 6)	£27.50

Small Animal Speciality Burs in Block



All the Burs you need for routine veterinary dentistry in one autoclavable block. The Set includes 12 slow speed (HP Shank) Burs and 12 high speed (Friction Grip FG) Burs.

Includes:

	Code	Number	Application
Side cutting	FG698	2	Section teeth Rabbits in HP
	FG701	2	
	FG702	2	
	HP702	2	
	HP703	2	
	HP560	2	
Round/ Pear	FG1/4	2	Creating tooth access to pulp chambre or caries removal
	FG4	2	
	HP4	2	Fine bone removal
	HP8	2	
	FG330	2	Widen periodontal ligamen space in extraction.
	HP332	2	

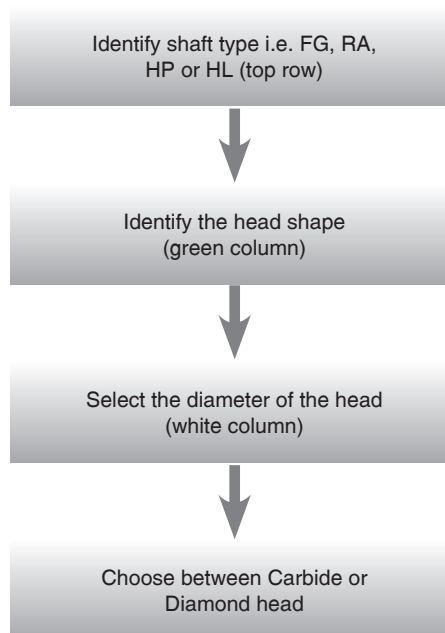
SMALL ANIMAL SPECIALITY BURS IN BLOCK

BURKIT24	Block Including Burs (24)	£125.00
BURBLCK24	Block Alone	£32.50

See overleaf for full Bur Chart

Dental Burs

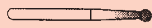
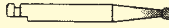







To aid correct bur selection, see chart opposite and use the following steps




BUR PREFIX	PACK SIZE	CARBIDE	DIAMOND
5FG	Five	£15.75	£19.25
5RA	Five	£15.75	£19.25
HP	Single	£4.75	£5.75
5HP	Five	£15.75	£19.25
HL	Single	£6.25	£7.25
5HL	Five	£22.75	£27.75

Please ask a member of our Vet Tech Team if the bur you are looking for is not shown.

Dental Burs

Head Shape	Diameter (approx)	FG 		RA 		HP 			
		Carbide 5 Pack	Diamond 5 Pack	Carbide 5 Pack	Diamond 5 Pack	Carbide Singles	Carbide 5 Pack	Diamond Singles	Diamond 5 Pack
Small Round 	0.5	5FG 1/4	5FG 1/4D						
Medium Round	1.4	5FG4	5FG4D	5RA4	5RA4D	HP4	5HP4	HP4D	5HP4D
Large Round	1.8	5FG6	5FG6D	5RA6	5RA6D	HP6	5HP6	HP6D	5HP6D
Extra Large Round	2.1	5FG8	5FG8D	5RA8	5RA8D	HP8*	5HP8	HP8D	5HP8D
Extra Small Taper Fissure 	0.8	5FG698		5RA698		HP698	5HP698		
Small Taper Fissure	1.2	5FG701		5RA170L	5RA170LD	HP701	5HP701		
Medium Taper Fissure	1.6	5FG702	5FG702D			HP702	5HP702		
Medium Taper Long Head	1.6	5FG702L	5FG702LD	5RA702L	5RA702LD	HP702L	5HP702L		
Large Taper Fissure	2.1					HP703	5HP703	HP703D	
Extra Large Taper Fissure	2.3					HP704*	5HP704	HP704D	5HP704D
Extra Small Flat Fissure 	0.9	5FG556		5RA556		HP556	5HP556		
Small Flat Fissure	1	5FG557		5RA557L	5RA557LD	HP557L	5HP557L	HP557D	5HP557LD
Medium Flat Fissure	1.6	5FG560		5RA560		HP560	5HP560		
Large Flat Fissure	2.3					HP563	5HP563	HP563D	5HP563D
Small Inverted Cone 	0.6	5FG331/2							
Medium Inverted Cone	1	5FG35	5FG35D						
Large Inverted Cone	1.4	5FG37		5RA37	5RA37D				
Extra Large Inverted Cone	1.8					HP39	5HP39	HP39D	5HP39D
Extra Small Pear 	0.6	5FG329							
Small Pear	0.8	5FG330		5RA330					
Medium Pear	1	5FG331							
Large Pear	1.2	5FG332				HP332	5HP332		
Medium Domed Fissure 	1	5FG1557							
Large Domed Fissure	1.2	5FG1558	5FG1558D						

Additional Burs Extra Long	Diameter (approx)	HL 			
		Carbide Singles	Carbide 5 Pack	Diamond Singles	Diamond 5 Pack
Extra Large Taper Fissure	2.3	HL704	5HL704	HL704D	5HL704D
Large Flat Fissure	2.3	HL563*	5HL563	HL563D	5HL563D

Please note all bur sizes are approximate and subject to availability

* in Rabbit Bur Kit

Introduction

It is possible to scale and polish using only hand instruments. It is, however, extremely time consuming. Teeth must be polished after scaling or plaque and tartar will quickly reform.

Ultrasonic Scalers

Ultrasonic scalers work by delivering high frequency vibrations to a metal tip. The vibration may be generated by a variety of mechanisms:

- Sonic. Slow and inefficient, often reaching less than 10,000Hz
- Magneto restrictive (cavitron type). The tip is vibrated by multiple layered metal strips and a magnetic field. Typically their type generates a lot of heat which requires a lot of cooling water. 35-38000Hz.
- Piezo. The movement at the tip is generated by applying a current across a crystal. Typically uses less water.
- Ferrite Rod. The tip movement is generated by an electrical field around a ferrite rod. This system is capable of producing higher frequencies up to 42,000Hz.

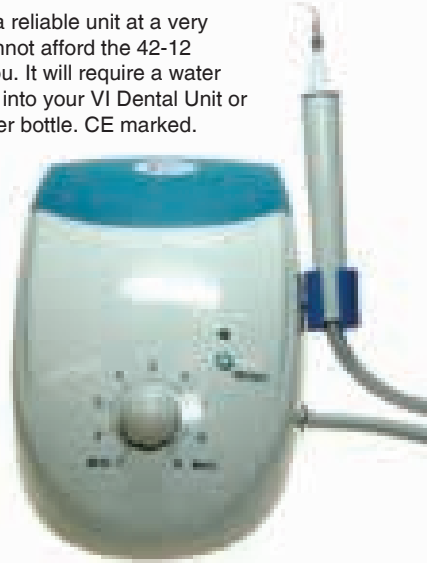
Veterinary Instrumentation stock Piezo and Ferrite Rod Types (iM3 42-12). We think these are most appropriate for veterinary use.

Please note that all Ultrasonic Scalers should be used with care as inappropriate use will result in damage to enamel. All scaler inserts should be autoclaved after every patient, to avoid efficiently passing periodontal pathogens and retroviruses on to new patients.

Piezo Scalers

Supplied with 5 tips this is a reliable unit at a very reasonable price. If you cannot afford the 42-12 this is the best scaler for you. It will require a water source. Either plug straight into your VI Dental Unit or purchase our pump up water bottle. CE marked.

UDS-J



Supplied with G1 x 3, G2, & P1 Tips

PIEZO SCALER		
1008	Piezo Scaler UDS-J	£195.00
1010	Pump up Water Bottle (not necessary with VI Air Driven Units)	£39.50
T0580	Piezo Scaler Tip	£65.00

Spare handpiece for 1022 and 1020



Piezo Scaler Tips



G1 General purpose scaler for calculus removal



G2 Slightly stronger for heavy calculus



G4 A lighter version of G1



P1 Use for subgingival tartar.

Piezo Scaler with Detachable, Autoclavable Handpiece

UDS-P



Supplied with G1 x 2, G2, G4 & P1 Tips

The UDS-P Scaler has a Detachable Autoclavable Handpiece. This means that Handpieces can be switched between patients or at least regularly sterilised. Alternatively different Piezo Tips can be fitted to different Handpieces.

This Scaler also features automatic frequency tracking with an LED output display.

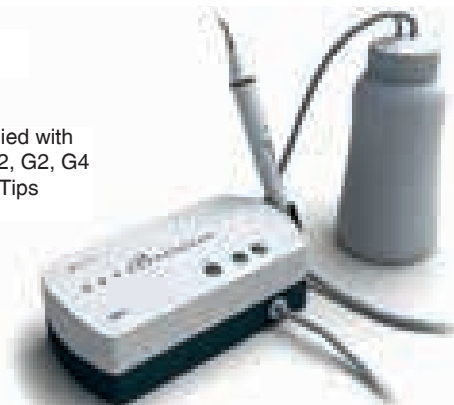
PIEZO SCALER WITH DETACHABLE, AUTOCLAVABLE HANDPIECE & IRRIGATION

1022	Piezo Scaler with Autoclavable Handpiece UDS-P	£245.00
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Piezo Scaler with Detachable, Autoclavable Handpiece with Inbuilt Water Supply.

UDS-L

Supplied with G1 x 2, G2, G4 & P1 Tips



This top of the range Piezo Unit has a Handpiece which is detachable for cleaning and autoclaving. Separate Handpieces may be set up with different Tips. The controls are simple with an LED power readout. Supplied with 5 different replaceable, Scaling Tips. This Unit is supplied with its own integrated pressurised water supply system. Alternatively the USD-L may be plumbed into your dental unit. Automatic frequency tracking.

PIEZO SCALER WITH DETACHABLE, AUTOCLAVABLE HANDPIECE & IRRIGATION

1020	Piezo Scaler with Autoclavable Handpiece UDS-L	£295.00
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Piezo Scaler Accessories

PIEZO SCALER ACCESSORIES

1021	Spare Autoclavable Handpiece	£135.00
102G1	G1 Scaler Tip	£38.50
102G2	G2 Scaler Tip	£38.50
102G4	G4 Scaler Tip	£38.50
102P1	P1 Scaler Tip	£38.50

Automatic Water Supply for Dental Scalers



Shown attached to Ultrasonic Scaler (not supplied)

This handy water supply with pump is suitable for scalers which connect to either a dental machine or a pump-up water bottle. The small pump is unobtrusive, about the size of a pack of playing cards, and the bottle will stand on the benchtop next to the scaler unit. This will get rid of the need for pumping up plastic bottles, which invariably are dust and dirt traps. If your scaler is currently attached to your dental machine, the addition of this unit would make the 2 independent of each other allowing more flexibility of use.

AUTOMATIC WATER SUPPLY FOR DENTAL SCALERS		
1023	Automatic Water Supply for Dental Scalers	£45.00

CLS

- Freshens mouth
- Disinfects mouth & machine
- Improves bur cutting
- Minimises cross contamination with FeLV & FIV

Used in the water system of Dental Units CLS freshens and sterilises the mouth. When used as coolant for High Speed Handpieces cutting efficiency is improved. It prevents transfer of FeLV and it can also be flushed through the air turbines to sterilise and lubricate them using the iM3 CLS flushing system.

The unique composition of CLS allows use of Chlorhexidine in all dental equipment. Standard Chlorhexidine crystallises out from solution and will damage your equipment. Do not use regular Chlorhexidine in Dental Units as it will crystallise out in the Handpieces rendering them inoperative.

Purchase of the larger pack sizes gives significant savings.



CLS CONCENTRATE		
CLS1	CLS Solution 250ml	£13.95
CLS6	CLS Solution 250ml Pack of 6	£75.00
CLS12	CLS Solution 250ml Pack of 12	£135.00

Dental Formula



Dental Formula can be beneficial to use during the use of High Speed Hand pieces. It reduces bur cutting time, cleans the tubes of the unit and mouth of the patient. Also disguises bad odours.



DENTAL FORMULA		
282474	Dental Formula Solution 250ml	£11.00

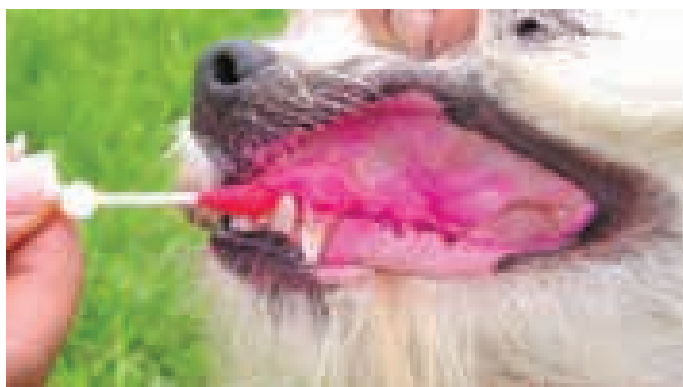
Plaqsearch



Disclosing solution for use with cotton buds. Plaqsearch is supplied in a cost-effective useful 30ml bottle, which avoids the problem of drying out before use sometimes found with individual swab presentations. Old plaque shows blue, new plaque shows red.

PLAQSEARCH		
HS1115182	Plaqsearch 30ml	£6.95

Plaque Disclosing Solution



Many owners are very aware of the need for scaling and polishing on a regular basis. However, should any convincing be necessary the 'iC Plaque Disclosure' is ideal for the purpose. Simply swab around the mouth with the convenient dispenser and the plaque shows up as a vivid pink.

PLAQUE DISCLOSING SOLUTION		
ICIM3	iCplaque (Box of 72)	£49.50

Dental Instrument Sharpening Guide

How to keep your dental instruments (and vets) happy in a couple of minutes a day!

Go on, admit it, when was the last time you sharpened your dental hand instruments? This includes luxators & elevators, as well as curettes. Sharp instruments obviously work better, cutting down on hand fatigue and doing their job more effectively, but it is often the case that you do not realise how blunt the old ones are until you get a new one!

The best way to maintain a sharp edge on your instruments is to sharpen regularly – ideally at the end of an operating session, a minute or two with a sharpening implement will tidy them up. If yours are very blunt, they are better professionally sharpened to get them back up to 'scratch', then maintain the edge.

There is a range of sharpening tools available. You will need both curved and flat surfaces for dental instruments, so look for something with a combination of shapes, for example our white slipstone (code 012150) or have 2 tools e.g. our Diamond Cone (code 012148) which can accommodate curves with different radii, and the Diamond Card (code 012144). It is also possible to use a fine Arkansas stone or oilstone but this gets messy as the lubricant is oil as opposed to water on the slipstone & diamond tools.

Sharpening Accessories

SHARPENING ACCESSORIES		
012150	Slipstone for Curettes and Elevators	£29.95
012144	Fine Diamond Sharpening Card	£24.95
012148	Diamond Cone	£44.50
HUF-PTS	Plastic Test Sticks Pack of 6	£17.95
012146	Luxator Cylindrical Sharpening Stone	£29.50

Preparation

- Before sharpening look at the angle of the cutting tip you are about to sharpen. The aim of sharpening is to maintain the same degree of bevel as was on the instrument originally, not to change the shape.
- Lubricate your chosen sharpener. Repeat as necessary during sharpening. This reduces heat produced during sharpening, and keeps dust and metal filings down.
- Use appropriate personal protective equipment – safety goggles are best. Sharpening produces fine metal filings which are usually trapped in the lubricating solution but you really do not want to risk getting them in your eyes! Occasionally weak instruments may fracture & produce flying fragments.

How to test sharpness?

Visual method – Look down directly on the sharp edge of the instrument, ideally with magnification. If light reflects on the cutting edge, it is blunt. A sharp edge will appear as a black line.

Using a test stick - To test sharpness with a plastic test stick, apply the cutting edge to the stick at the angle it is used normally, and evaluate the "bite" as the edge takes hold. If there is not a "bite," i.e. the instruments slides on the stick, the instrument needs sharpening.



Dental Curettes

An excellent guide to curette sharpening can be found on the Hu-Freidy website. Download a copy of the Instrument Reference Guide from www.hu-friedy.com/education/instrument_reference_guide

Sharpening Swedish Luxators

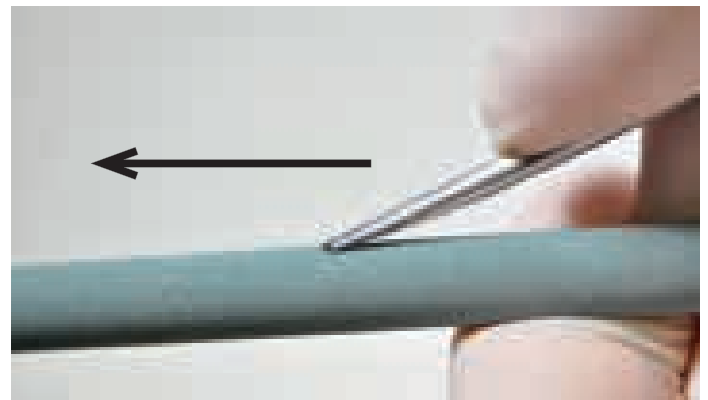
These luxators have very fine blades which are easily damaged if used incorrectly.



Use the stone provided with the luxators. Lubricate with water

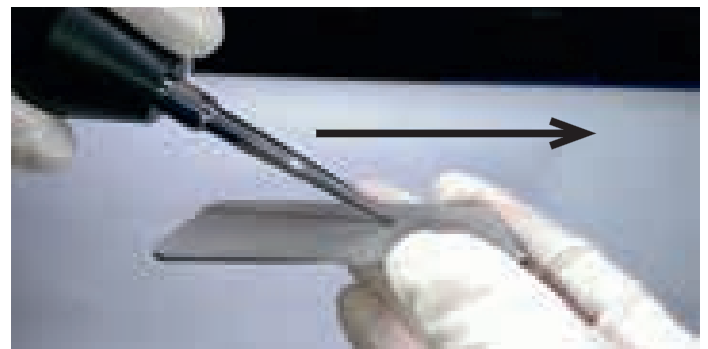
Hold the stone firmly, hold the curved surface of the luxator onto the stone at about a 40 degree angle – match the existing angle on the instrument. Stroke firmly away, lifting the luxator at the end on

the stroke and returning to the start point.

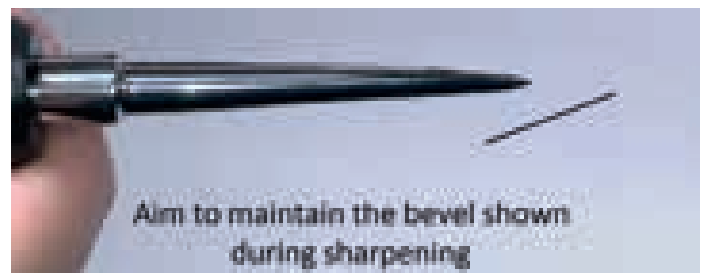


Sharpening Elevators

Elevators are sharpened on a flat surface, on the BACK of the tip. The aim is to maintain the correct bevel on the tip.



Place the lubricated sharpening surface on a worktop and hold in place. Position the elevator at about 40 degrees (check the existing bevel and match this) and stroke away, lifting and returning to the start point after each stroke.

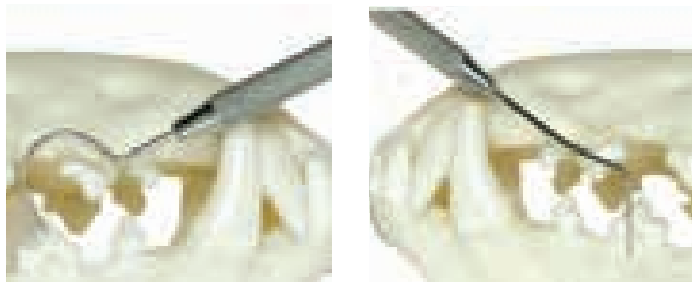


Aim to maintain the bevel shown during sharpening

Finally – clean all sharpening surfaces before lubricant dries to avoid clogging of the surface with fine debris.

Periodontal Instruments

Explorer/ Measuring Probe



A detailed examination of the patient's mouth is the starting point of any dental care programme. This double-ended instrument is all you need.

The Shepherd's Crook Explorer is used to test tooth stability and the condition of the gum margins. Tartar and gum disease cause detachment of the gingiva exposing the tooth root.

The depth of these sulci are measured using the measuring probe. Details are recorded for subsequent treatment and comparisons.

EXPLORER/ MEASURING PROBE		
012100	Shepherd's Crook Explorer/ Measuring Probe 170mm	£26.50

Subgingival Curette

This Scaler is used to remove subgingival tartar and to plane tooth roots. Unless the root is clean the gum will not re-attach. The back surface of the Scaler is blunt to minimise damage to the sensitive gingiva. The Instrument is double-ended and has a balanced grip for extra comfort in use.



SUBGINGIVAL CURETTE		
012130	Subgingival Curette 170mm	£26.50

Jaquette Supragingival Scaler

This Scaler is used to remove tartar from above the gum margin. The tip and back of the Instrument is sharp to scrape between teeth. Do not use below the gum margin. Double-ended with a balanced grip handle for ease of use and comfort.

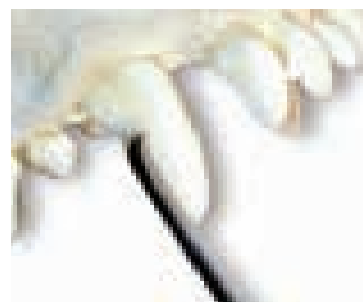


JAQUETTE SUPRAGINGIVAL SCALER		
012120	Jaquette Supragingival Scaler 170mm	£26.50

Hoe Scaler

Useful for removal of large areas of tartar and plaque from flat tooth surfaces.

Double-ended Scaler.



HOE SCALER		
012110	Hoe Scaler 165mm	£26.50

Double-ended Scraper

The tips of this Instrument are of familiar design mounted in a comfortable handle. One end is a fine hook to remove tartar from between teeth, the other is a shallow scoop to break tartar from flatter surfaces. A simple general purpose Instrument for tartar removal.



DOUBLE-ENDED SCRAPER		
012020	Double-Ended Scraper 175mm	£26.50

Periodontal Hand Instrument Set Boxed

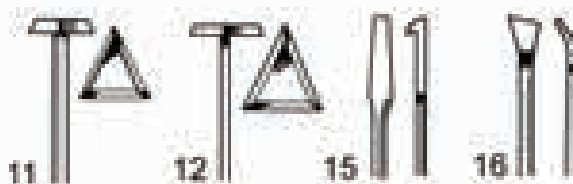


Seven Periodontal Instruments in a Stainless Autoclave Case.

Instruments include: Mirror, Shepherd Hook Explorer/ Measuring Probe, Straight Curette Scaler, Angled Curette Scaler, Angled Jaquette Scaler plus two Fine Probes. Comfortable Silicone Handles.

PERIODONTAL HAND INSTRUMENT SET		
012210	Periodontal Instrument Set in Autoclave Case	£145.00

Tartar Scrapers - Various



Traditional scrapers offering tip design as illustrated.

TARTAR SCRAPERS		
012021	Single Ended Scraper 11 150mm	£29.95
012022	Single Ended Scraper 12 150mm	£29.95
012023	Single Ended Scraper 15 160mm	£29.95
012024	Single Ended Scraper 16 160mm	£29.95

Hu-Friedy Instruments

How the best perform

Hu-Friedy

Hu-Friedy Periodontal Kit

Set of 5 basic instruments for periodontal work, as recommended by Norman Johnson.

Explorer/ Explorer Probe XP23/UNC15



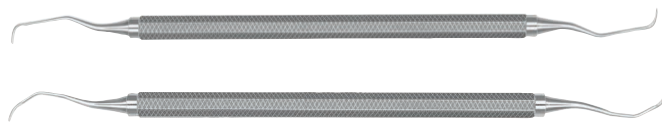
A double-ended instrument with an explorer on one end and a probe on the other. Excellent for dental examinations and charting.

Sickle Scaler SH6/7



Designed for the removal of supragingival calculus. Super-thin, contra-angle design. Shank angulation provides accessibility to most surfaces.

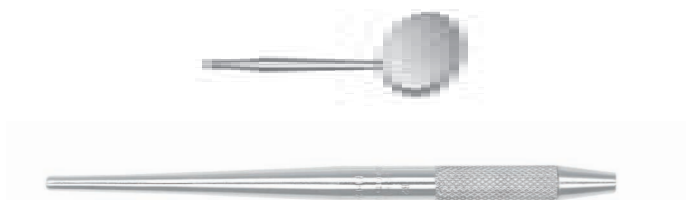
Standard Gracey Curettes SG11/12 & SG13/14



Area-specific to allow for deep scaling, root planing and periodontal debridement.

- Offset blade provides a perfect working angulation for the tooth surface.
- Offset blade angulation means only the lower cutting edge of each blade is used.

Single Sided Cone Socket Mirror and Handle MH4 & MIR4



CONE SOCKET MOUTH MIRROR features: Rhodium coating to resist scratching, front surface for sharp, distortion free images and smoothly finished for patient comfort. 22mm Diameter.

All supplied in an Autoclavable Cassette.

HU-FRIEDY PERIODONTAL KIT

HUF-PERIOKIT	Hu-Friedy Periodontal Kit Basic	£230.00
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2A Pigtail Explorer EXD2A6



Thin Williams Double-ended Screening Probe PCPQOW11.5



Mini Gracey Curettes SAS11/12, SAS 13/14



Terminal shank elongated by 3mm for access into deep periodontal pockets and root surfaces of 5mm or more. Reduced blade, half the length of the standard Gracey, for better adaptation in narrow pockets. Blade is 10% thinner than standard Gracey to ease gingival insertion and reduce tissue distention. Useful in cats.

Kirkland Double-ended Perio Knife K15/166



Used to check the sharpness of curettes. The sharp curette will bite when used on the test stick at the angle used on the tooth. If it slips, it is not sharp.

HU-FRIEDY DENTAL INSTRUMENTS

Instrument Code	Description	Price
HUF-PERIOKIT	Hu-Friedy Periodontal Kit Basic	£230.00
HUF-XP23/UNC15	Explorer/ Measuring Probe	£28.50
HUF-PCPQOW- 11.5	Thin Williams Double-ended Screening Probe	£38.50
HUF-EXD2A6	Pigtail Explorer 2A	£18.50
HUF-MH24	Cone Socket Mirror Handle	£15.50
HUF-MIRA4/3	Mirror Single Sided 22mm to fit MH24 Pack of 3	£16.50
HUF-MIRA4/12	Mirror Single Sided 22mm to fit MH24 Pack of 12	£48.50
HUF-SH6/7	Sickle Scaler	£31.50
HUF-SG11/12	Gracey Curette Standard No 11/12	£31.50
HUF-SG13/14	Gracey Curette Standard No 13/14	£31.50
HUF-SAS11/12	Gracey Curette Mini Five No 11/12	£31.50
HUF-SAS13/14	Gracey Curette Mini Five No 13/14	£31.50
HUF-KK15/166	Kirkland Perio Knife Double-ended	£59.50
HUF-PTS	Plastic Test Stick Pack of 6	£17.95

Dental Elevators

Elevator or Luxator?

Luxator- thin, sharp blade designed to be pushed into the periodontal ligament space down the long axis of the root. It cuts the periodontal ligament fibres and expands the alveolar plate as it is pushed apically. Should not be twisted or lifted (torqued) during use. Must be kept sharp and sterilised after every use.

Elevator – a stocky strong blade used to extract loose teeth using adjacent sound teeth. Not usually meant to go below the gumline. More useful in humans where crown/root ratio is closer to 50:50 and roots are stronger. In animals root ration is closer to 30:70 and roots taper toward the apex. They will fracture if the periodontal ligament fibres are not loosened or cut before forceps are applied or if the instrument is torqued.

Winged Elevators



Veterinary Elevators designed by Dr Robert Wiggs. They have short winged blades with lateral edges which curve upwards further than traditional elevators, improving conformation to the root structure as well as instrument control. The narrow neck enhances visibility of the root and the shorter shaft improves handling and control, especially if the operator's hands are not large. The design incorporates the best parts of an elevator and a luxator. Aluminium knurled handles are very comfortable in use. Flattened surface prevents rolling off the table. Available as a boxed set.



WINGED ELEVATORS		
012389	Winged Elevator 1.0mm (Purple) 145mm	£49.50
012390	Winged Elevator 2.0mm (Gold) 145mm	£49.50
012391	Winged Elevator 3.0mm (Blue) 145mm	£49.50
012392	Winged Elevator 4.0mm (Black) 145mm	£49.50
012393	Winged Elevators Set of 4 (includes free Stainless Steel Case)	£185.00
012395	Autoclavable Stainless Steel Case for Winged Elevators	£49.50

Winged Elevators with Short Handles



Our Short Handled Winged Elevators are designed to fit in the hand, particularly small hands. A palmed instrument is more under control as well as being more comfortable. The stainless case is silicone lined to minimise damage to the elevators yet convenient for autoclaving.

WINGED ELEVATORS SHORT		
012401	Rainbow 1.0mm 125mm	£49.50
012402	Gold 2.0mm 125mm	£49.50
012403	Slate 3.0mm 125mm	£49.50
012404	Black 4.0mm 125mm	£49.50
012405	Set of 4 in Stainless Steel Case	£185.00

Comfort Handle Elevators



Designed and developed by David Strong MRCVS. The Comfort Pattern Elevators takes a radical new look at elevator handles. A range of new designs was tested by both nurses and veterinary surgeons to find the most comfortable design. The most popular pattern fits into the palm of the hand allowing the fore finger to be positioned along the shaft for added control.

Supplied in fully autoclavable coloured coded 'Teflon' in 1, 2, 3, 4, 5 & 6mm widths. Available singly or as a Set of 4 (1 - 4mm) or Set of 6 (1 - 6mm). When purchased as a Set the Stainless Steel Autoclave Case comes free.

COMFORT HANDLE ELEVATORS		
012601	Comfort Elevator 1.0mm (White)	£49.50
012602	Comfort Elevator 2.0mm (Green)	£49.50
012603	Comfort Elevator 3.0mm (Blue)	£49.50
012604	Comfort Elevator 4.0mm (Black)	£49.50
012600	Comfort Elevators Set of 4 (includes free Stainless Steel Case)	£175.00
012605	Comfort Elevator 5.0mm (Grey)	£49.50
012606	Comfort Elevator 6.0mm (Yellow)	£49.50
012608	Comfort Elevator Set of 6 (includes free Stainless Steel Case)	£235.00

Comfort Handle Winged Elevators



COMFORT HANDLE WINGED ELEVATORS		
012611	Comfort Winged Elevator 1.0mm (White)	£49.50
012612	Comfort Winged Elevator 2.0mm (Green)	£49.50
012613	Comfort Winged Elevator 3.0mm (Blue)	£49.50
012614	Comfort Winged Elevator 4.0mm (Black)	£49.50
012610	Comfort Winged Elevators Set of 4 (includes free Stainless Steel Case)	£175.00
012615	Comfort Winged Elevator 5.0mm (Grey)	£49.50
012616	Comfort Winged Elevator 6.0mm (Yellow)	£49.50
012618	Comfort Elevator Set of 6 (includes free Stainless Steel Case)	£235.00

Wedge Elevator

Designed to remove the Upper Premolar IV (the carnassial) without the need to split the tooth. The periodontal ligament fibres are cut in the usual way using suitable luxators. The tip of the wedge is drilled through between rostral and posterior root. The blade of the instrument is then worked under the tooth. As the width of the blade increases the tooth is forced from the alveolus. At a point of resistance, stop and hold for 10 seconds before proceeding. Using excessive force risks root fracture.



WEDGE ELEVATOR

012010 Wedge Elevator 170mm **£37.50**

Carnivore Elevator

Removal of the teeth of dogs and cats requires rupture of the periodontal ligament. In relatively healthy roots rupture is very difficult, requiring great force. Rupture (and therefore extraction) is best achieved by forcing an elevator or luxator into the periodontal space. In the dog and cat the space is very narrow, quite different to the human situation. Our Carnivore Elevators are thin and very sharp.



CARNIVORE ELEVATOR

012001	Carnivore Elevator No. 1 (2.5mm) 145mm	£37.50
012002	Carnivore Elevator No. 2 (3.5mm) 150mm	£37.50
012003	Carnivore Elevator No. 3 (4.0mm) 150mm	£37.50
012001/4S	Set of Carnivore Elevators Nos. 1, 2, 3 (2.5, 3.5 and 4.0mm) and the Wedge Elevator	£110.00

Small Feline Elevator



The 2mm angled tip on a fine handle allows access to lingual surfaces. Also useful in the extraction of rabbit incisors.



SMALL FELINE ELEVATOR

012018 Small Feline Elevator 165mm **£37.50**

Superfine Elevator Straight



2mm with a comfortable handle.

SUPERFINE ELEVATOR STRAIGHT

012004 Superfine Elevator 2mm Straight 150mm **£37.50**

Double Ended Elevator



The curved tips are designed to follow the concave and convex curvatures of the roots, helping to prevent breaking the roots.

DOUBLE ENDED ELEVATOR

012036	Double Ended Elevator 2mm 185mm	£33.50
012038	Double Ended Elevator 4mm 190mm	£33.50

Apical Elevator



Used to remove tooth root fragments.

APICAL ELEVATOR

012006 Heidbrink Apical Elevator 145mm **£37.50**

Couplands Elevators



This is the standard human elevator. Generally considered too thick for veterinary use.

COUPLANDS ELEVATORS

012015	Couplands Chisel No. 1 (3.0mm) 150mm	£37.50
012016	Couplands Chisel No. 2 (4.0mm) 150mm	£37.50
012017	Couplands Chisel No. 3 (5.0mm) 150mm	£37.50

Luxators

Luxators, which are in essence very slim elevators, are favoured by many veterinary dentists for the rupture of the periodontal ligament. They are, in fact, designed for the human tooth but are very good for veterinary use. A Veterinary Set is now available containing the most useful luxators for feline and canine teeth: 1mm straight, 2mm straight, 3mm curved, 3mm straight, 3mm contra angle plus a sharpening tool. Swedish made, these Luxators are very thin and very sharp.



LUXATORS

012177	Luxator 1mm Straight 160mm	£68.50
012190	Luxator 2mm Straight 160mm	£68.50
012191	Luxator 3mm Straight 160mm	£68.50
012192	Luxator 3mm Curved 160mm	£68.50
012194	Luxator 5mm Straight 160mm	£68.50
012195	Luxator 5mm Curved 160mm	£68.50
012192/CA	Luxator 3mm Contra Angle 160mm	£68.50
012196VET	Veterinary Luxator Set (Set of five c/w Stone)	£295.00
012146	Luxator Sharpening Stone	£29.50

Forte Luxators

Forte Luxators have been specifically designed to withstand the considerable force sometimes needed for controlled and safe tooth elevation. The extra strong cornered lip has been developed to aid grip. The best all round veterinary luxator. Available in 3 sizes.



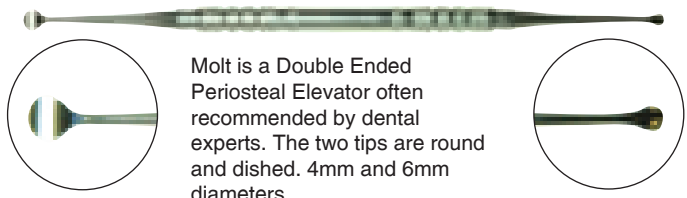
FORTE LUXATORS		
012174	Forte Luxator 2.5mm Black/ Green 160mm	£68.50
012175	Forte Luxator 3.2mm Black/ Grey 160mm	£68.50
012176	Forte Luxator 4mm Black/ Brown 160mm	£68.50
012172	Forte Luxator Set of 3	£175.00

Luxator Autoclave Case



LUXATOR CASE		
FIXUS1	Luxator Case	£11.50

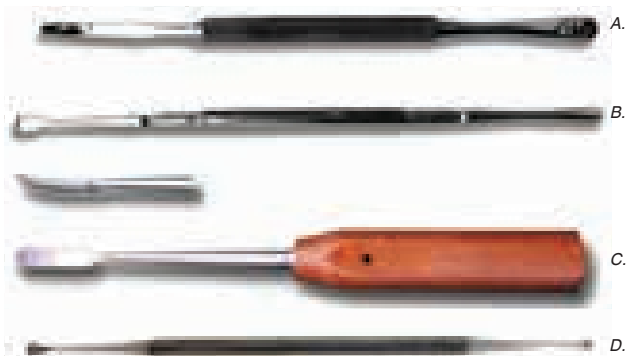
Molt Periosteal Elevator 2/4 (4mm/6mm)



Molt is a Double Ended Periosteal Elevator often recommended by dental experts. The two tips are round and dishd. 4mm and 6mm diameters.

MOLT PERIOSTEAL ELEVATOR 2/4 (4MM/6MM)		
001275	Molt Periosteal Elevator 200mm	£45.00

Periosteal Elevator



Used for raising full thickness mucogingival flaps before surgical extraction of teeth – bone removal and sectioning.

PERIOSTEAL ELEVATOR		
001270	Periosteal Elevator A (195mm - 4mm/ 7mm End)	£51.50
7350/05	Freer Periosteal Elevator 5mm B (180mm)	£49.50
001271	Curved 6mm Fibre Handle AO Type C (180mm)	£57.50
001272	Very Fine 2mm/ 3mm Periosteal Elevator D (180mm)	£49.50

Surgical Extraction Kit



Small range of basic surgical extraction instruments, as recommended by Norman Johnson. These are all Hu-Friedy instruments.

Round European Style Scalpel Handle 10-130-05E



Round European Style Scalpel Handle. Takes Swann Morton No 3 fit Blades.

Double-ended Molt Surgical Curette CM2/4



Used for curettage, cyst removal and debridement of tooth socket.

Adson 1/2 Teeth Forceps TP5042



Miller-Colburn Cross Cut Bone File BF1X



Used for final smoothing of bone. Cross cut files cut on both direction strokes.

Olsen-Hegar Needleholder T.C. NH5068



Olsen-Hegar Needleholder T.C. 17cm

Simion Castroviejo Needleholder NH2024SIM



Simion Castroviejo Needleholder. Tungsten Carbide with catch.

Supercut Iris Scissors



Supercut Iris Scissors 15cm.

HU-FRIEDY SURGICAL EXTRACTION INSTRUMENTS		
HUF-10-130-05E	European Round Scalpel Handle	£59.50
HUF-CM2/4	Molt Surgical Curette Double-ended	£62.50
HUF-TP-5042	Adsons Forceps 1/2 Teeth	£130.00
HUF-BF1X	Miller-Colburn Bone File Double-ended	£77.50
HUF-NH5068	Olsen Hegar Needleholders T.C. 17cm	£150.00
HUF-NH2024SIM	Simion Castroviejo Needleholders T.C.	£325.00
HUF-S17SC	Iris Scissors Supercut 11.5cm	£67.50

Tartar Forceps



Our Spring Loaded Tartar Forceps are designed to sit comfortably in the hand to enable the veterinary dentist to remove quickly bulky deposits from teeth.

TARTAR FORCEPS		
012050	Tartar Forceps Spring Loaded 180mm	£64.50
012051	Tartar Forceps Cat Size Extraction Forceps/ Small 150mm	£64.50
01205SET1	Tartar Forceps Set of 2 (as above)	£105.00

Tartar Forceps

These Tartar Forceps are designed specifically for the removal of bulky tartar prior to scaling and polishing. One jaw is cup shaped to locate onto the tooth tip and act as a fulcrum for the other jaw. The other jaw is a sharp hook to engage the tartar at the gum margin. The jaws are designed to remove tartar from both flat surfaces and between teeth.



TARTAR FORCEPS		
012052	Tartar Forceps Cupix Point Style 180mm	£67.50
012053	Tartar Forceps Cat Size 150mm	£67.50
01205SET2	Tartar Forceps (as above) Set of 2	£115.00

Hawksbill Forceps



The multi-rooted teeth of the dog and cat should be loose before extraction by forceps. The loosening may be due to dental disease or careful elevation. As well as firmly gripping the tooth to be extracted appropriate dental forceps should support the tooth structure. None of the several hundred human forceps available suit the teeth of our patients. The Hawksbill Forceps are designed specifically for the extraction of multi-rooted teeth in the dog and cat.

HAWKSBILL FORCEPS		
012030	Large Hawksbill Forceps 170mm	£67.50
012040	Small Hawksbill Forceps 110mm	£67.50
01204SET	Hawksbill Forceps Set of 2 (as above)	£115.00

Small Incisor Forceps



The tips of these Forceps are ideal for the removal of single rooted, usually incisor teeth. Cross-hatched thumb area for extra control. Tips meet.

SMALL INCISOR FORCEPS		
012070	Small Incisor Forceps 150mm	£67.50

Narrow Tipped Extraction Tooth Forceps



As recommended by many dental lecturers, a narrow tipped extraction forcep which meets at the tip to facilitate holding the tooth. Forceps are only used once the tooth has been loosened correctly – trying to force extract without this will usually result in root breakage. Very useful for cats.

NARROW TIPPED EXTRACTION TOOTH FORCEPS		
012072	Narrow Tipped Extraction Tooth Forceps	£67.50

Root Fragment Set



Removal of fragmented roots can be a challenge particularly if the roots themselves are healthy. A combination of elevation and forcep work is usually required. The Set of 3 Forceps with differing jaw angles covers all situations. The handles are anatomical and ergonomic.

ROOT FRAGMENT SET		
012075	Root Fragment Forceps Set of 3	£115.00

Veterinary Instrumentation Extraction Forceps



Available either individually or as a set of 3. VI Extraction Forceps are well suited to extraction of medium to large teeth. The jaws have fine serrations for increased grip.

As with all extractions it is important that the tooth involved is suitably elevated prior to the use of forceps. The teeth of our patients are much more tightly bound to the jaw than are human teeth.

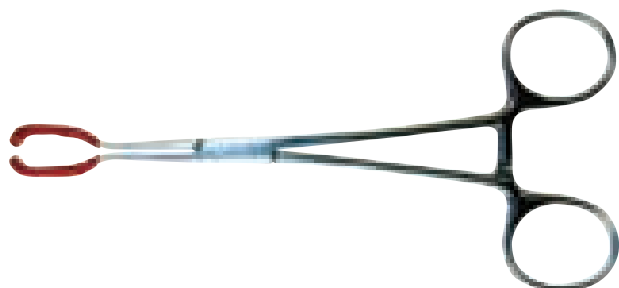
EXTRACTION FORCEPS VETERINARY INSTRUMENTATION PATTERN		
012091	VI Extraction Forceps Straight	£59.50
012092	VI Extraction Forceps Curved	£59.50
012093	VI Extraction Forceps Angled	£59.50
012090	VI Extraction Forceps Set of 3	£145.00

Dental Mirror



DENTAL MIRROR		
957900C	Dental Mirror 165mm	£7.95

Lip Retractor



The Lip Retractor solves the problem of retracting the lip for clear access to the teeth. It has a new modified shape to prevent pinching the lip and the tips of the instrument are plastic coated to minimise trauma. It can be adjusted by lightly bending. 6.5" long and autoclavable.

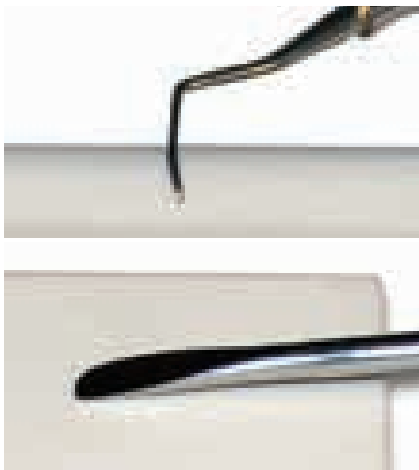


LIP RETRACTOR		
010147	Lip Retractor 160mm	£23.50

Sharpening Accessories

To work effectively both Scalers and Elevators need to be sharp. Regular sharpening will keep your instruments working correctly.

IM3 White Stone Slip



The Stone has both flat and rounded surfaces to sharpen Elevators and Curettes. Use baby oil as a lubricant.

IM3 WHITE SLIP STONE		
012150	IM3 White Slip Stone for Curettes and Elevators	£29.95
012146	Luxator Cylindrical Sharpening Stone	£29.50

Diamond Card - Fine



This credit card sized, diamond covered plate is ideal for sharpening dental elevators and luxators. To work efficiently these instruments must be sharp. The Diamond Card is virtually indestructible. An additional advantage is that the lubricant used is water rather than the oil used with sharpening stones.

DIAMOND CARD - FINE		
012144	Flat Diamond Sharpening Card (Fine)	£24.95

Diamond Cone



Subgingival Curettes must be kept sharp to work efficiently. They should be checked and sharpened at least weekly. The Diamond Cone is indestructible compared with Stones which break very easily and uses water rather than oil as a lubricant.

DIAMOND CONE		
012148	Diamond Cone 205mm	£44.50

Plastic Test Stick PTS

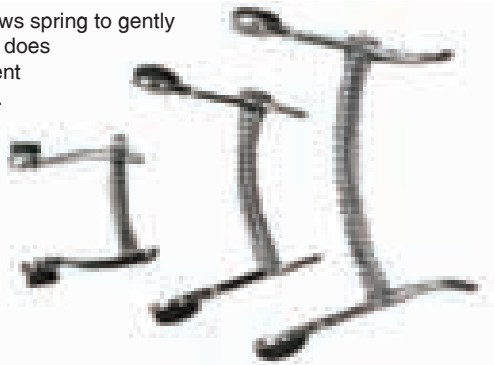


Used to check the sharpness of curettes. The sharp curette will bite when used on the test stick at the angle used on the tooth. If it slips, it is not sharp.

PLASTIC TEST STICKS		
HUF-PTS	Plastic Test Sticks Pack of 6	£17.95

Grays Mouth Gag

Simple action allows spring to gently open the jaws but does not allow the patient to close its mouth.

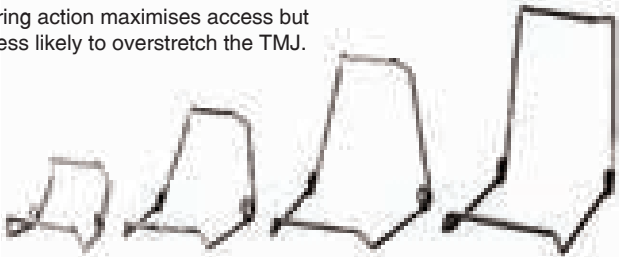


GRAYS MOUTH GAG

012158	Hamilton Kirk Cat Gag Maximum Gape 40mm	£48.50
012160	Grays Mouth Gag Small Maximum Gape 65mm	£48.50
012170	Grays Mouth Gag Medium Maximum Gape 100mm	£48.50
012180	Grays Mouth Gag Large Maximum Gape 140mm	£48.50
012159	Grays Mouth Gag Set of 3	£125.00

Smith Baxter Mouth Gag

Spring action maximises access but is less likely to overstretch the TMJ.



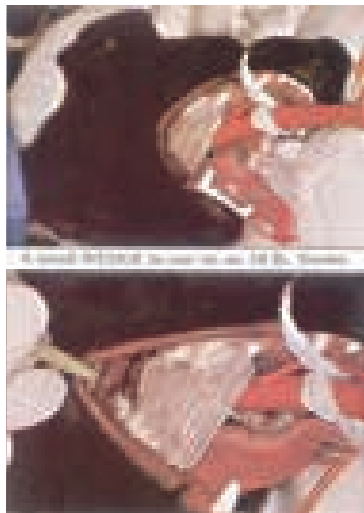
SMITH BAXTER MOUTH GAGS

012795	Smith Baxter Mouth Gags Spring Bar Type Set of 5	£70.00
012795ES	Smith Baxter Mouth Gag Extra Small Max Gape 5.5cm	£14.50
012795S	Smith Baxter Mouth Gag Small Max Gape 6.5cm	£16.50
012795M	Smith Baxter Mouth Gag Medium Max Gape 10cm	£18.50
012795L	Smith Baxter Mouth Gag Large Max Gape 14cm	£20.50
012795EL	Smith Baxter Mouth Gag Extra Large Max Gape 15.5cm	£22.50

Spring Loaded Mouth Gags

Use with care to avoid TMJ damage. Remove every 5 minutes and open/shut the jaw a few times before replacing

Mouth Wedge



The Mouth Wedge provides a simple effective means of holding the mouth open for routine dental procedures.

MOUTH WEDGE

012790	Mouth Wedge Small	£17.50
012791	Mouth Wedge Large	£17.50
01279SET	Mouth Wedge Set of 2	£32.00

Synergy

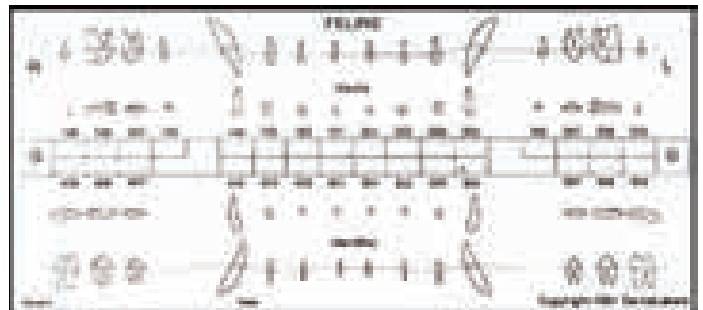


Advanced biosynthetic bone graft consisting of beta tricalcium phosphate and hydroxyapatite. Dental indications include void filling/ extraction sites, periodontal pockets & other bone loss, fracture repair and other bone defects such as cysts. See also Chapter 7 for more info & pack sizes

SYNERGY

SYNMINI	Synergy Mini Pack 8 x 0.5cc	£95.00
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Dental Chart Stick-on Labels



An essential part of any dental programme is accurate recording. These Stick-on Labels make dental recording a simple process.

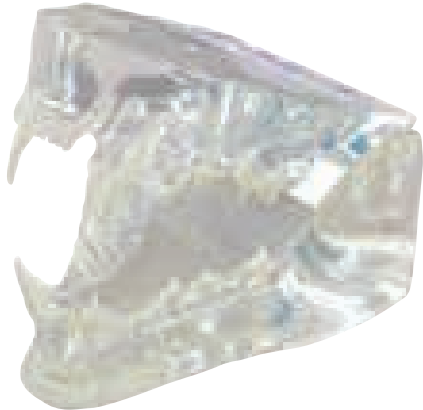
DENTAL CHART STICK-ON LABELS

012200	Dental Chart Labels - Dog (50)	£9.95
012201	Dental Chart Labels - Cat (50)	£9.95
012203	Dental Chart Labels Starter Set - Dog & Cat	£9.95

Dental Models Clear Feline/ Canine

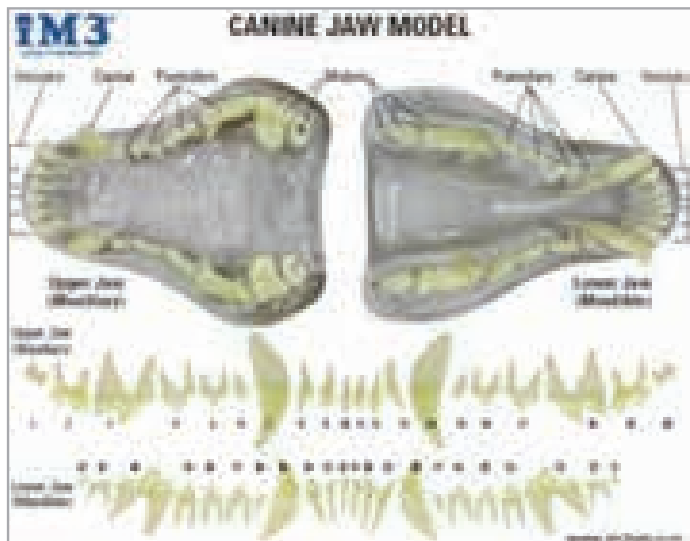


Canine Model



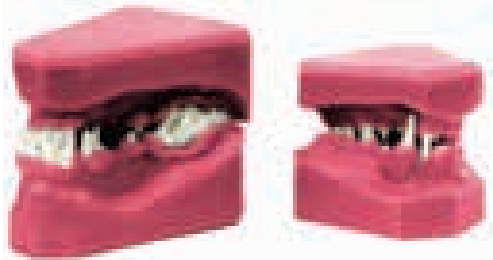
Feline Model

These new Clear Dental Models take the guesswork out of veterinary dentistry! By allowing you to observe the tooth and root patterns of a typical canine and feline jaw, these hinged models let you demonstrate to your clients why a procedure is necessary and what will be involved. Also included with the jaw is an education card. This valuable card helps you easily identify which approach to take and the instruments needed to precisely section and excise teeth by comparing the patient to the model and card, saving you valuable time under anaesthetic. The Models show the roots of all teeth (incisors, canine, premolars, molars) and can be opened for better observation.



DENTAL MODELS CLEAR FELINE/ CANINE		
D1050	Canine Clear Dental Model	£92.50
D1055	Feline Clear Dental Model	£92.50
D1060	Set of Feline and Canine Models	£175.00

Dental Models



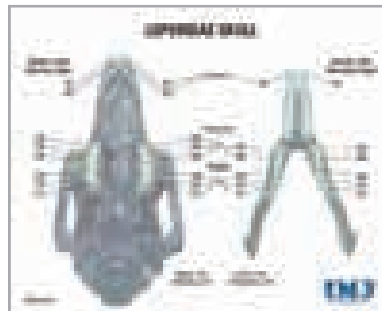
Demonstrates many typical dental problems to clients with greater ease than in an un-cooperative patient. Once the client understands the problem they will be much more likely to accept the necessity of any particular procedure.

DENTAL MODELS		
AMJ770C	Dental Model Cat	£155.00
AMJ771C	Dental Model Cat with Pathology	£205.00
AMJ770S	Set of Canine & Feline Model Teeth	£295.00
AMJ771S	Set of Canine & Feline Model Teeth with Pathology	£375.00

Dental Models Clear Rabbit (Leporidae)



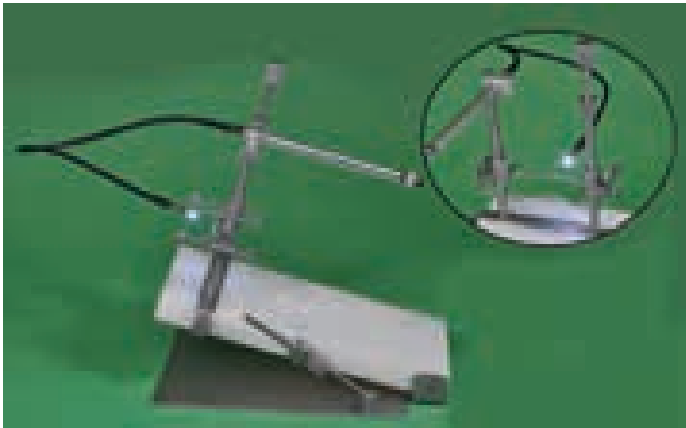
Rabbit Model



This Dental Model is in the same style as the popular Feline and Canine Models. The clear hinged model allows you to observe the tooth and root patterns of a typical Leporida. 2 education cards are also included, one which indicates the location of the Nasolacrimal duct, whilst the second helps you identify which approach to take and the instruments required. A very useful aid for this increasingly popular pet.

DENTAL MODELS CLEAR RABBIT		
D1057	Rabbit Clear Dental Model	£97.50
D1062	Set of Feline, Canine and Rabbit Models	£260.00

Anatomy and Function of a Table Top Gag



Access to the cheek teeth of rabbits is a problem recognised by all involved in their dental care. A combination of the diets fed to pet rabbits and the head shapes selected for, both contribute to malocclusion issues, requiring treatment which necessitates access via the (small!) rabbit mouth.

The table top gag is designed to hold the rabbit at the optimum angle for easy access. The traditional gag tends to drag and tilt the head sideways. The addition of the light makes a huge difference to visibility, without the need for more hands in the way.

The platform of the gag itself is now made of Teflon. This has very different thermal properties from the original metal base. It is a far better insulator and helps retain the patient's body heat during anaesthesia.

How to assemble the Table Top Gag



Remove all packaging. Identify all the components as shown above. The clamp, spanner and light are included if you have selected that option.

On the Teflon platform, loosen the 2 screws **Y** (picture at top of page) at either end of the channel at the front end of the platform. Insert the flat bar at the base of the gag assembly into the channel. The correct way around is with the adjustment screws **D** to the short front end of the platform. The loops should point back along the platform towards the hinge. Easy and common to put this in the wrong way around!

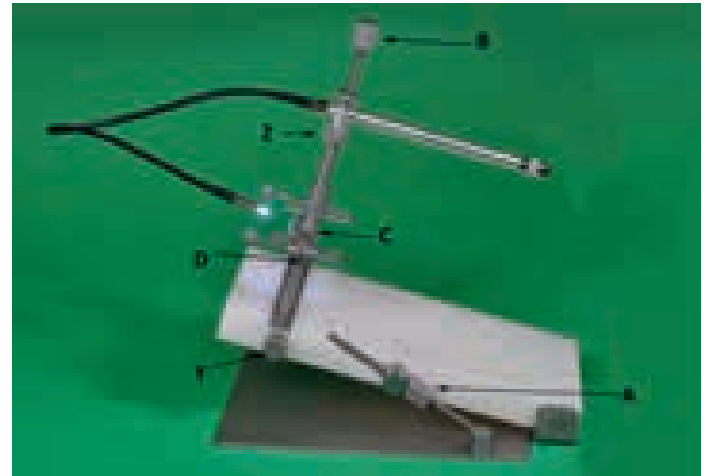
Attaching the Light



Identify screw **Z** at the top of the shorter post. The longer of the 2 clamp screws inserts into the top of this screw. Loosely fasten both clamp screws. Slide the pencil handle of the light into the clamp. The handle should sit parallel to the base, with the light outlet forwards as illustrated. Tighten both screws to hold the handle in position. The flexible neck of the light can then be adjusted as required.



Adjusting the Gag for use.



Identify on your gag:

- A - Platform Angle Adjuster
- B - Bottom bar adjuster
- C - Top bar height adjuster (left & right)
- D - Top bar in-out adjuster (left & right)



Rabbit in position, with additional cheek dilator in place

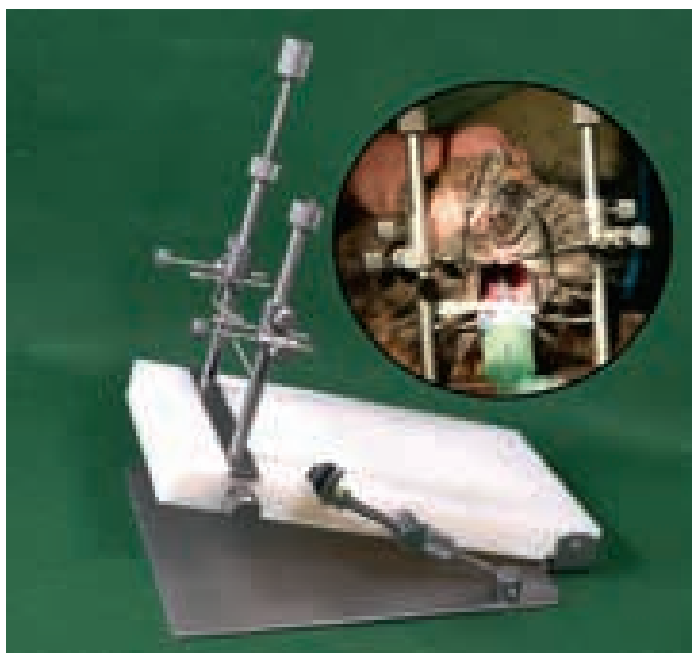
Care of the Table Top Gag

Routine cleaning of the Table Top Gag with environmental detergents and disinfectants is adequate. For best results use cleaners designed for stainless steel on the metal components, and avoid iodine based compounds on the Teflon base as this may result in staining. This is purely cosmetic and will not affect the gag's performance.

All moving parts should be lubricated regularly with either surgical instrument lubricant or Teflon drops, to keep them moving freely.

The complete gag is autoclavable. If available, use the 121° setting although 135° can be used. Take the top assembly off the platform before autoclaving. Pack the platform flat, as far as possible from the heater element, and do not stack other items on top. The platform should be left flat to cool after autoclaving, to avoid any distortion.

Table Top Rabbit Gag



This version of our well known gag now has a white Teflon platform which makes the gag warmer for the anaesthetised small patient and rather cheaper than the original. It is easy to clean and may be autoclaved.

TABLE TOP RABBIT GAG		
012207	Table Top Rabbit Gag	£255.00
012209	Table Top Rabbit Gag and LED Light	£315.00
DENRODKIT	Table Top Rabbit Gag, LED Light and Full Hand Kit (Rod2 - see page 328)	£545.00

LED Light For Table Top Gag

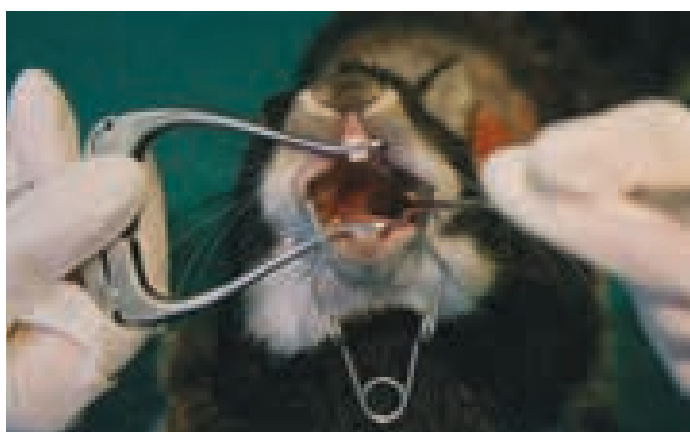


Illumination of the inside of the rabbit mouth is difficult without the hands of the surgeon getting in the way. The Rabbit Gag LED Light simply clips into the retaining mount which screws onto the threaded height adjustment control. The flexible neck of the Light can be adjusted for best effect. The powerful white LED lasts for approximately 100 hours on a set of AAA batteries. Also useful as a focal examination light elsewhere in the clinic.

Fits all table top gags.

LED LIGHT FOR TABLE TOP GAG		
012208	LED Light with Flexible Neck (inc clip)	£85.00

Rodent Mouth Gag



Without this gag examination and treatment of rabbit molars is virtually impossible.

RODENT MOUTH GAG		
012185	Rodent Mouth Gag	£59.50

Lightweight Rodent Mouth Gag

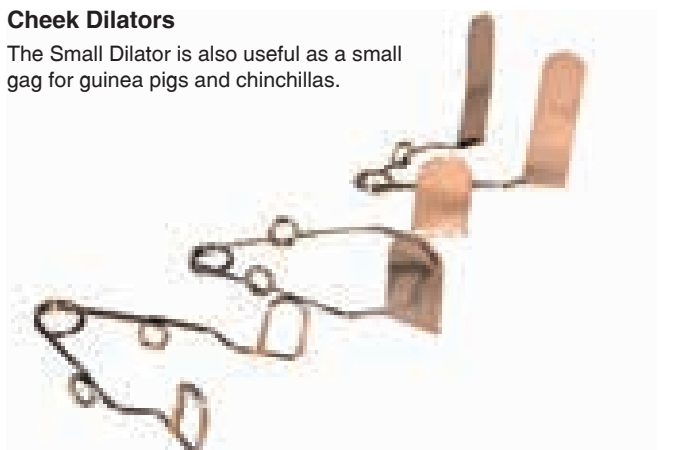
Less bulky and less powerful than the standard Rodent Gag. Cheaper too.



LIGHTWEIGHT RODENT MOUTH GAG		
012185LW	Rodent Mouth Gag Lightweight	£49.50
012185LWS	Rodent Mouth Gag Lightweight and Small	NEW £49.50

Cheek Dilators

The Small Dilator is also useful as a small gag for guinea pigs and chinchillas.



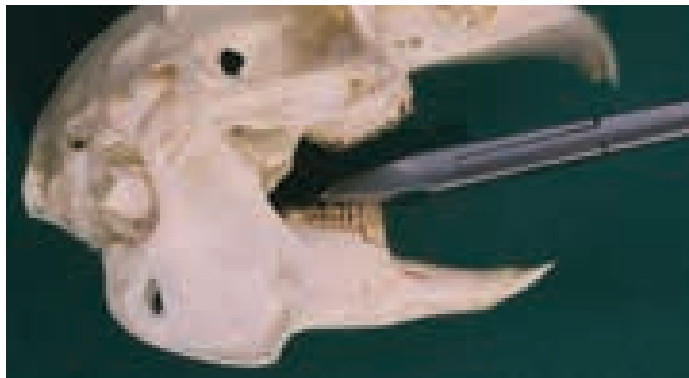
CHEEK DILATORS		
012188	Rodent Cheek Dilator Small Max Gape 40mm Blade Length 15mm, Blade Width 10mm	£14.50
012189	Rodent Cheek Dilator Large Max Gape 60mm Blade Length 22mm, Blade Width 15mm	£14.50
012189A	Rodent Cheek Dilator Long Reach - Blade Length 36mm, Blade Width 11mm Use with long burs Max Gape 35mm	£14.50

Rodent Spatula

Use to deflect tongue and cheek to examine and treat molars.

RODENT SPATULA		
012184	Rodent Spatula	£21.00

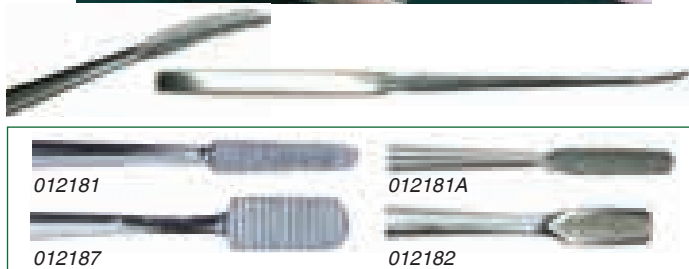
Rodent Molar Cutter



Use to debulk or for trimming spurs and hooks.

RODENT MOLAR CUTTER		
012186	Rodent Molar Cutter 180mm	£39.50
012186/S	Rodent Molar Cutter 140mm	£39.50
01218CUTSET	Rodent Molar Cutter Set of 2 (as above)	£59.50

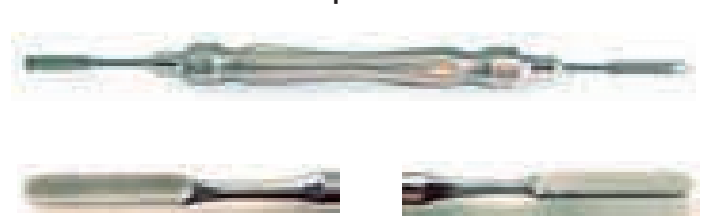
Rodent Molar Rasp



The Diamond Coated Rasps are designed to smooth off sharp edges without disturbing the delicate tooth roots. The Small Diamond Rasp is contoured in two directions to enable it to sit nicely on top of the molars. Unsuitable for debulking but good for tidying.

RODENT MOLAR RASP		
012187	Rodent Tooth Rasp Large 165mm	£29.50
012181	Rodent Tooth Rasp Small 180mm	£29.50
012181A	Rodent Molar Rasp Fine - Diamond Small 180mm	£44.50
012182	Rodent Molar Rasp Fine - Diamond Large 165mm	£47.50
01218SET	Rodent Molar Rasp Set of 4 (as above)	£125.00

Double Ended Diamond Rasp



One end is concave to sit on and around the molars. The other end is flat. Each blade is 25mm long

DOUBLE ENDED DIAMOND RASP		
012173	Double Ended Diamond Rasp 205mm	£62.50

Diamond Disc



For trimming incisors. Shown with Straight Nose Cone and Diamond Disc Safety Shield (not included).

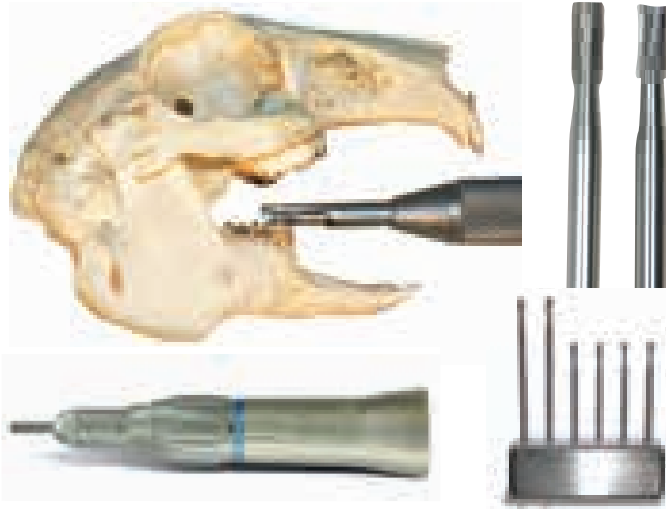
DIAMOND DISC		
001789	Diamond Disc (20mm)	£32.50
001791	Diamond Disc Safety Shield	£59.50
001790	Diamond Disc and Safety Shield	£85.00

Dental Model Clear

See Rabbit Model (Clear) on page 347.



Rabbit Bur Kit



Three burs have been selected by David Crossley as being suitable for the reduction of rabbit and chinchilla molar teeth. Our Rabbit Bur Kit includes two of each bur in a Stainless Steel Autoclavable Block. All are HP fitting to fit into the 1:1 Straight Nose Cone (not included). When using the Long Bur (HL563) use the Soft Tissue Protector to shield tongue and cheek. The diamond version of the very long cross cut bur cuts with less trauma and less heat than the carbide equivalent.

RABBIT BUR KIT		
001792	Rabbit Bur Kit in Block (6 Burs)	£52.50
HP8	Round Carbide Bur 2.3mm	£4.75
HP704	Taper Side Cut Bur 2.3mm	£4.75
HL563	Extra Long Cross Cut Bur	£6.25
HL563D	Extra Long Cross Cut Bur Diamond	£7.25
001793	Soft Tissue Protector for above fits Straight Nose Cone	£64.50
BA170	1:1 Straight Nose Cone	£195.00

VetPro® 1000 RODENT DENTAL ATTACHMENTS



Rodent Dental items are now available to fit the VetPro® 1000 Dental Machine.

To run the Rodent Dental Bur and Guard Kit you will need the Low Speed Handpiece plus the 1:1 Straight nose Cone listed below.

VETPRO® 1000 RODENT DENTAL ATTACHMENTS		
MID002-1277-01	Kit - Low Speed Handpiece without Swivel 0-20,000rpm	£245.00
MID016-1605-00	Straight Nose Cone Attachment 1:1	£125.00
MID016-1605-01	Straight Nose Cone Attachment 4:1 Reduction	£165.00
MID002-1664-00	Rodent Dental Bur & Guard Kit	£125.00

Crossley Incisor Luxator



Designed by David Crossley to extract the very large rabbit incisors. Removal avoids the requirement for repeated cutting of overgrown mal-occluded incisors. Shape of Luxator matches tooth shape. A smaller version is available for guinea pigs and rats.



CROSSLEY INCISOR LUXATOR		
012197CR	Crossley Incisor Luxator 195mm	£32.50
012197R	Small Crossley for Guinea Pigs and Rats 190mm	£32.50
012197SET	Crossley Incisor Luxator Set of 2 (as above)	£52.00

Crossley Molar Luxator

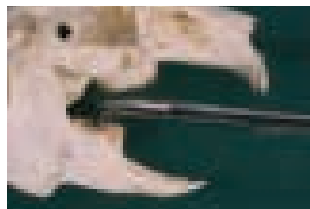
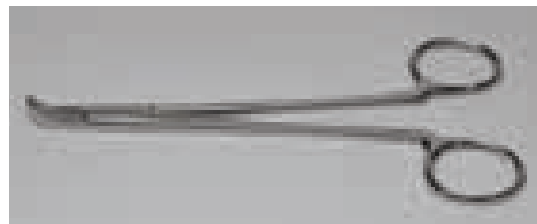


Designed to facilitate extraction of molars with a minimum of damage to the alveolus and surrounding soft tissue. One cutting blade is for insertion down buccal or lingual surface. The other end of the instrument is set at right angles to penetrate between molars.



CROSSLEY MOLAR LUXATOR		
012197M	Crossley Molar Luxator 160mm	£32.50

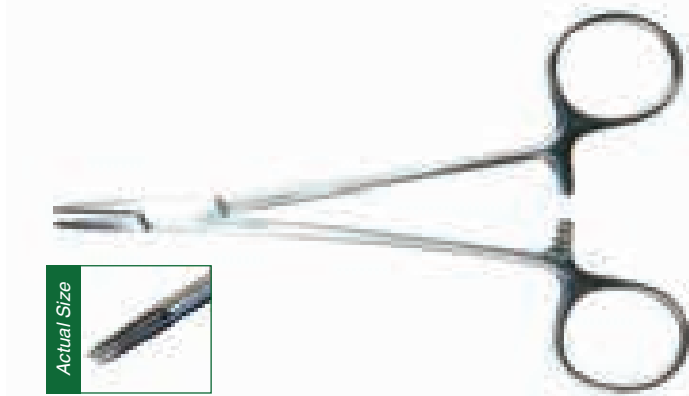
Molar Extraction Forceps



There is very little space inside a rabbit mouth. These forceps are very slim and angled to fit in the mouth without totally obscuring the teeth.

MOLAR EXTRACTION FORCEPS		
012199	Rabbit/ Guinea Pig Molar Forceps 160mm	£42.50

Root Tip Extraction Forceps



Most chronic abscesses around the head of a rabbit are related to infected tooth roots. Removal of the offending root is a prerequisite for successful treatment. Designed by Frances Harcourt-Brown these modified needleholders are used to locate and lock onto the root tip via the abscess.

ROOT TIP EXTRACTION FORCEPS

012206 Root Tip Extraction Forceps 160mm **£42.50**

Antibiotic Impregnated Polymethacrylate Beads (AIPMMA)



Management of chronic local infections may benefit from the insertion of Antibiotic Impregnated Polymethacrylate (AIPMMA) Beads. The Beads are manufactured from sterile bone cement with the addition of appropriate antibiotic.

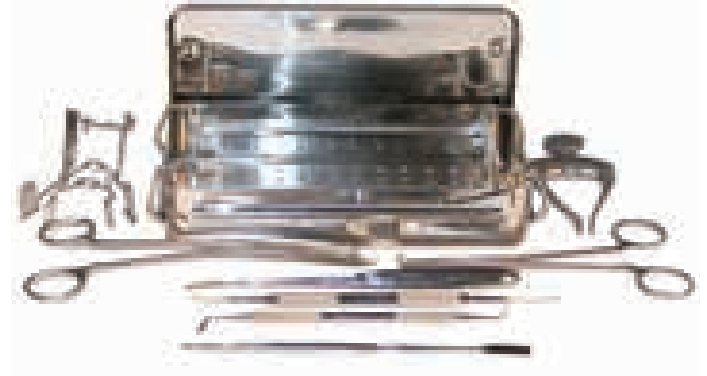
Indications include osteomyelitis and abscessation in the rabbit.

Veterinary Instrumentation offers two Kits for the preparation of AIPMMA Beads. One Kit uses cement with no antibiotic; choice of antibiotic will depend upon bacteriology and sensitivity. The other Kit uses cement containing gentamycin which is the preferred choice of antibiotic for many infections but is toxic when administered parenterally. Both Kits contain sufficient material for approximately 100 Beads. Full instructions are included.

ANTIBIOTIC IMPREGNATED POLYMETHACRYLATE BEADS (AIPMMA)

BC1KIT	AIPMMA Bead Kit no Antibiotic	£75.00
BC1GKIT	AIPMMA Bead Kit with Gentamycin	£80.00

Rabbit Dental Kits



If you are setting up or have no rabbit/ rodent equipment you may wish to purchase a Set, which offers considerable savings and is supplied in an Stainless Steel Autoclaveable Case.

Basic Kit (ROD1) contains:

- Rodent Gag
- Long Reach Cheek Dilator
- Incisor Luxator
- Molar Cutter
- Fine Rasp

Full Hand Kit (ROD2) contains:

- Rodent Gag
- Small Cheek Dilator
- Large Cheek Dilator
- Long Reach Dilator
- Incisor Luxator
- Molar Luxator
- Molar Extraction Forceps
- Diamond Rasp
- Rodent Spatula
- Molar Cutter

Hand & Motor Kit (ROD3) contains:

- As Full Hand Kit PLUS:
- Rabbit Bur Kit
- Soft Tissue Protector
- Diamond Disc
- Diamond Disc Protector

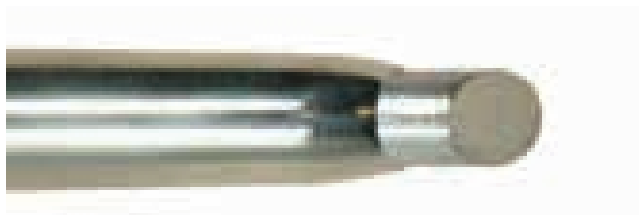
This Kit also requires a Straight Nose Cone, plus a Micromotor, Air or Electric Drive.

RABBIT DENTAL KITS

ROD1	Basic Kit	£195.00
ROD2	Full Hand Kit	£275.00
ROD3	Hand & Motor Kit	£395.00

Biopsy Needles - Bone

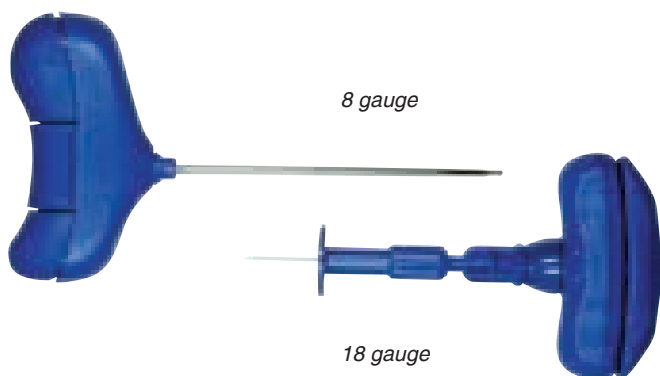
Bone Marrow Biopsy - Jamshidi Type



In the Jamshidi Type Needle the integral stylet locks into the lumen of the needle preventing obstruction by debris. When the needle tip is in the desired location the stylet is removed and the sample aspirated.

The 11 gauge needle with the stylet removed may be used to take a 1.5mm approx. core of bone from tumours for typing (see also Bone Trephines).

See www.vetinst.com for further information.



This item may be re-used providing it is re-sterilised by either ETO or cold sterilisation. These are the original Baxter Jamshidi Needles.

BONE MARROW BIOPSY JAMSHIDI (DISP) BAXTER		
012504	Bone Marrow Biopsy Jamshidi 18g (Disp) Baxter Illinois	£52.50
DIN1515X	Bone Marrow Biopsy Jamshidi 15g (Disp) Baxter Illinois	£52.50
DJ4011	Bone Marrow Biopsy Jamshidi 11g (Disp) Baxter Illinois	£52.50
DJ4008	Bone Marrow Biopsy Jamshidi 8g (Disp) Baxter Illinois	£52.50

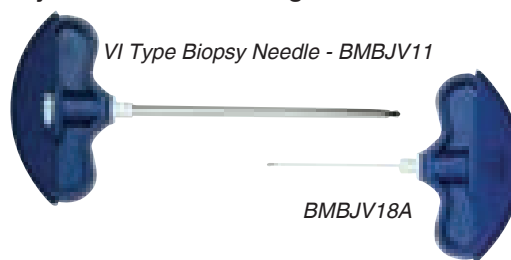
Biopsy Needles

A Biopsy Instruction Sheet is available detailing how to use Biopsy Needles, please call 0845 130 9596 to request a FREE copy, or email info@vetinst.com.

WHICH BIOPSY NEEDLE?

BONE MARROW	<5kg	18g
	5 - 15kg	15g/16g
	15 - 30kg	13g
	30 - 50kg	11g
	>50kg	8g
CORTICAL BONE	<5kg	11g
	5 - 15kg	8g
	>15kg trephine	
SOFT TISSUE (TRUCUT)	All	14g

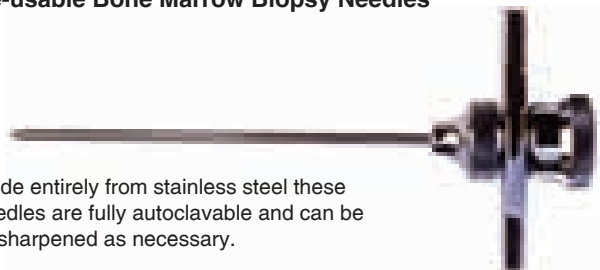
Veterinary Instrumentation Range



Designed as a cost effective version of the Baxter Needles (below left), takes both marrow and core samples. Drive into a suitable site (wing of ilium, tuber ischium, proximal femur), pull back a little, withdraw stylet and aspirate. If there is no aspirate, replace stylet, push in further and repeat. Manufactured to our specification, these needles represent excellent value.

VETERINARY INSTRUMENTATION RANGE		
BMBJV18A	VI Jamshidi Type Disposable 18g	£32.50
BMBJV16	VI Jamshidi Type Disposable 16g	£32.50
BMBJV13	VI Jamshidi Type Disposable 13g	£35.00
BMBJV11	VI Jamshidi Type Disposable 11g	£37.50
BMBJV8	VI Jamshidi Type Disposable 8g	£39.50
012520	15g Jamshidi Type (Rocket)	£28.50

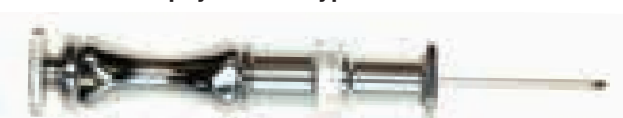
Re-usable Bone Marrow Biopsy Needles



Made entirely from stainless steel these needles are fully autoclavable and can be re-sharpened as necessary.

RE-USABLE BONE MARROW BIOPSY NEEDLES		
012506	Bone Marrow Biopsy Jamshidi 18g	£335.00
012505	Bone Marrow Biopsy Jamshidi 13g	£335.00
012518	Bone Marrow Biopsy Jamshidi 8g x100mm	£435.00

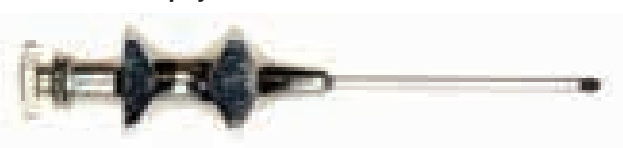
Bone Marrow Biopsy - Klima Type



The Klima is stainless and re-usable representing good value. The stylet is retained in position by hand. Practically, the use of the needle is not as easy as the Jamshidi Type.

BONE MARROW BIOPSY - KLIMA TYPE		
012508	Bone Marrow Biopsy Klima 18g x 25mm	£65.00
012507	Bone Marrow Biopsy Klima 16g x 25mm	£65.00
012503	Bone Marrow Biopsy Klima 16g x 37mm	£65.00
012498	Bone Marrow Biopsy Klima 22g x 25mm	£65.00

Bone Marrow Biopsy - Rosenthal

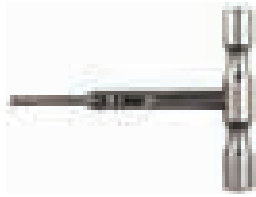


Similar to Klima. Stylet does not lock into position.

BONE MARROW BIOPSY-ROSENTHAL		
012509	Bone Marrow Biopsy Rosenthal 16g x 35mm	£72.50

Cortical Bone Trephine

Stainless Steel and re-usable. Used to take a core of bone for tumour typing. Retractable stylet locates Trephine until teeth begin to cut and then is retracted. Stylet is finally used to push out core. Core size 3, 4 and 6mm. Preserve in formal saline for the lab. Take multiple samples if possible.



CORTICAL BONE TREPHINE

001425	Bone Biopsy Trephine 8mm o/d 6mm core	£92.50
001426	Bone Biopsy Trephine 6mm o/d 4mm core	£92.50
001427	Bone Biopsy Trephine 5mm o/d 3mm core	£92.50

Biopsy Needles - Soft Tissue

Tru-Cut Style



Used to sample liver, kidney and other soft tissues with minimal trauma. Takes just a small sliver of tissue. Disposable but will withstand boiling. Needle is "locked" and when released spring loaded cutting needle takes the biopsy. 14g has two stop system and can take either 10mm or 20mm samples.

TRU-CUT STYLE SOFT TISSUE BIOPSY

STB18	VI Trucut Type Supercore Biopsy Needle 14g x 90mm	£39.50
STB18B	VI Trucut Type Supercore Biopsy Needle 18g x 90mm	£39.50
012521	Trucut Soft Tissue Biopsy Needle Fully Manual 14g x 115mm	£29.50

Temno Evolution Biopsy Needle



The Standard Soft Tissue Biopsy Needle used by the NHS. 2 different sample sizes can be selected when pulling the plunger. One click equals a 10mm notch exposure, two clicks 20mm. Expensive but best in class.

TEMNO EVOLUTION BIOPSY NEEDLE

TEM1420/1	Temno Evolution Biopsy Needle 14g x 20cm Single	£57.50
TEM1420/5	Temno Evolution Biopsy Needle 14g x 20cm 5 Pack	£275.00

Disposable Skin Biopsy Punch

Disposable Skin Biopsy Punch with razor sharp Stainless Steel Blade. Light weight, ribbed plastic handle for control and comfort. 4, 6 and 8mm diameters available. Supplied sterile.



DISPOSABLE SKIN BIOPSY PUNCH

SBP4	Skin Biopsy Punch 4mm Diameter Head	£3.75
SBP6	Skin Biopsy Punch 6mm Diameter Head	£3.75
SBP8	Skin Biopsy Punch 8mm Diameter Head	£3.75
SBPSET	Skin Biopsy Punch Set of 3 (4, 6, 8mm)	£7.50

Interosseus Infusion Needle 18g

Where vascular access is difficult, fluids and most drugs can be administered via this Interosseus Infusion Needle. This process is particularly useful in neonates and birds where blood vessels are very small. The most common site is the proximal femur via the trochanteric fossa. An IV catheter should be placed as soon as practical. Also used as a Small Bone Marrow Aspiration Needle in the Jamshidi Style.



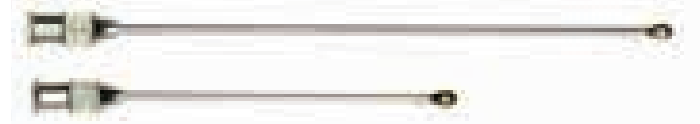
INTEROSSEUS INFUSION NEEDLE

BMBJV18	Interosseus Infusion Needle 18g	£23.50
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Flushing Needles

Flushing Needles have a bead or olive soldered onto the tip to minimise trauma to friable soft tissues.

Ear Flushing Needles



Often referred to as Spreulls Needles these Blunt Beaded Needles are available in 60mm and 100mm lengths with a luer hub.

EAR FLUSHING NEEDLES

012510	Spreulls Needle Short 60mm	£26.50
012511	Spreulls Needle Long 100mm	£28.50

Flushing Needle 21 Gauge



Suitable for tear ducts of large and medium sized dogs. Also suitable for anal gland ducts of small dogs. Ideal for flushing the urethra in the male cat prior to placement of catheter. Start with the 30mm needle and move to the 50mm and 75mm versions as urethra clears.

FLUSHING NEEDLE 21 GAUGE

012512	Flushing Needle 21g Bead Tip 30mm	£21.50
012512L	Flushing Needle 21g Bead Tip 50mm	£21.50
012512XL	Flushing Needle 21g Bead Tip 75mm	£21.50

Rabbit Nasolachrymal Duct Cannulae



Treatment of chronic eye infections in the rabbit can be very unrewarding with topical ophthalmic preparations alone. It is now accepted that flushing the large nasolachrymal duct punctum to remove accumulations of pus is an essential adjunct to the topical therapy.

This procedure is usually well tolerated by the rabbit under sedation and local anaesthetic eye drops. The angle and lengths of standard ophthalmic cannula are incorrect for this procedure.

Veterinary Instrumentation's Rabbit Nasolachrymal Duct Cannula is designed especially for this procedure and is available in two sizes, 19 gauge and 21 gauge.

RABBIT NASOLACHRYMAL DUCT CANNULAE

012523	Rabbit Nasolachrymal Needle 19g	£31.50
012524	Rabbit Nasolachrymal Needle 21g	£31.50
012525	Rabbit Nasolachrymal Needles Set of 2 (19g & 21g)	£49.50

Bladder Catheters



Stainless Steel Bladder Catheter for Queens and Bitches. Blunt tip with two lateral eyes. Luer lock hubs.

BLADDER CATHETERS		
307126	Bladder Catheter Straight (Queen) 170mm	£26.00
307120	Bladder Catheter Curved (Bitch) 180mm	£27.00
307122	Bladder Catheter Curved (Bitch) 250mm	£28.00
307124	Bladder Catheter Curved (Bitch) 300mm	£29.00

Oral Dosing Needles



Suitable for oral dosing and feeding of birds and reptiles. Available in a range of gauges from 12 to 23. Care should be taken to ensure the needles cannot be swallowed.

ORAL DOSING NEEDLES		
012513	12g Oral Dosing Needle 200mm Curved	£27.50
012514	14g Oral Dosing Needle 125mm Curved	£25.00
012515	16g Oral Dosing Needle 75mm Straight	£21.00
012515C	16g Oral Dosing Needle 75mm Curved	£22.00
012515STR	16g Oral Dosing Needle 100mm Straight	£21.00
012516	18g Oral Dosing Needle 50mm Straight	£20.00
012516C	18g Oral Dosing Needle 50mm Curved	£20.00
012517	20g Oral Dosing Needle 38mm Straight	£19.00
012517C	20g Oral Dosing Needle 38mm Curved	£19.00
012517CS	20g Oral Dosing Needle 25mm Curved	£19.00
012517S	20g Oral Dosing Needle 25mm Straight	£19.00
012527	22g Oral Dosing Needle 38mm Straight	£19.00
012527C	22g Oral Dosing Needle 38mm Curved	£19.00
012522	23g Oral Dosing Needle 25mm Straight	£19.00
012532	Raptor Crop Tube 7mm Diameter 18cm Long	NEW £29.50

Spinal Needles



We now strongly recommend the use of disposable needles for spinal procedures. The translucent hub allows good visualisation of the CSF.

SPINAL NEEDLES		
405255	22g x 3" Spinal Needles Disposable Box of 25	£67.50
405254	22g x 1.5" Spinal Needles Disposable Box of 25	£67.50
405253	20g x 3.5" Spinal Needles Disposable Box of 25	£67.50
405252	20g x 3" Spinal Needles Disposable Box of 25	£67.50
405251	20g x 1.5" Spinal Needles Disposable Box of 25	£67.50
405173	19g x 3" Spinal Needles Disposable Box of 25	£67.50
405248	18g x 3.5" Spinal Needles Disposable Box of 25	£67.50
405247	18g x 3" Spinal Needles Disposable Box of 25	£115.00
012501	Spinal Needle 21g Short Bevel 40mm Reusable	£13.50
012502	Spinal Needle 21g Short Bevel 25mm Reusable	£13.50
012500	Spinal Needle 19g Short Bevel 38mm Reusable	£13.50

Needle Boxes (Autoclavable)



NEEDLE BOXES (AUTOCLAVABLE)		
091149	Needle Box - Polypropylene 50mm x 40mm x 8mm	£4.25
091149L	Needle Box - Polypropylene 95mm x 70mm x 17mm	£4.25

Skin Staplers

Aesculap Manipler Disposable Skin Stapler



- Lightweight Design
- High Quality Construction
- Consistent reliable performance
- Slim Grip Design
- Unique Angled Head
- Allows the surgeon to see the incision as well as closing it
- Flexible Placement Angle
- Allows choice of staple depth
- Economical
- 36 Staples

MANIPLER SKIN STAPLER		
783100	Manipler Skin Stapler	£11.95
783101	Manipler Skin Stapler 12 units for the price of 10	£119.50

Surgi-close Autoclavable Skin Staplers

The Surgi-close Skin Stapler has now been discontinued, however replacement Staple Cartridges are still available.

SURGI-CLOSE SKIN STAPLERS		
012543	Staple Cartridge with 20 Sterile Staples (24 pack)	£155.00
012542	Staple Cartridge with 20 Sterile Staples (36 pack)	£185.00

Staple Remover



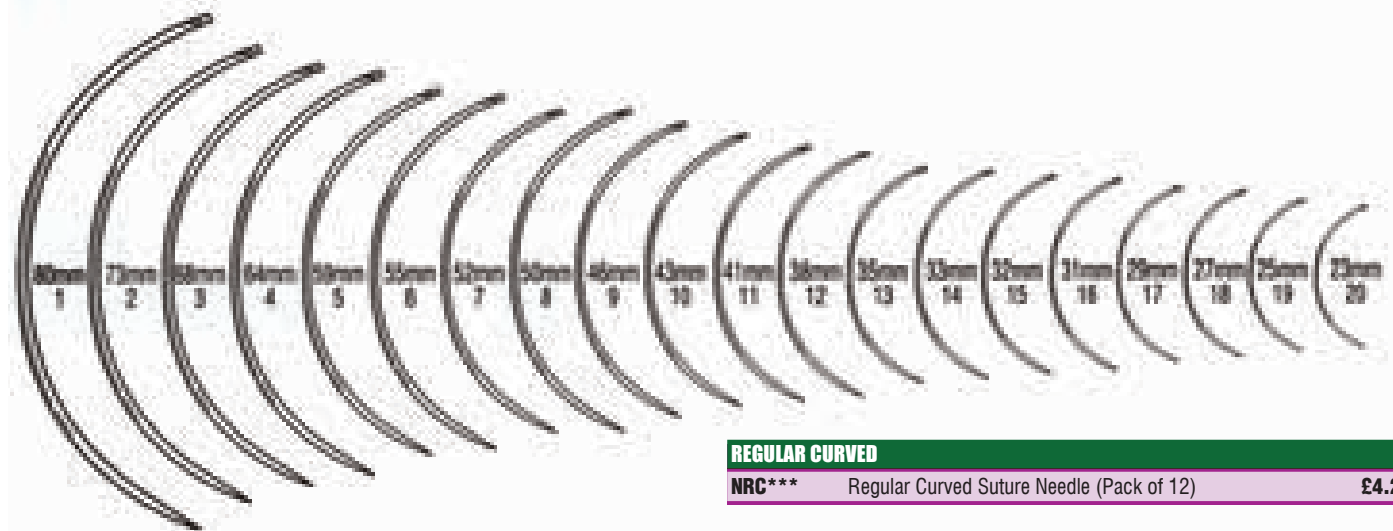
Universal Staple Remover

STAPLE REMOVER		
012544	Staple Remover	£8.50

Suture Needles

The Needles are manufactured from high grade Stainless Steel and undergo a rigorous quality control procedure to ensure a high standard of sharpness, rigidity, durability and presentation. The Needles are hand honed for added sharpness to ensure a smooth, less traumatic passage through the tissue. All Needles supplied non-sterile in packs of 12.

Regular Curved

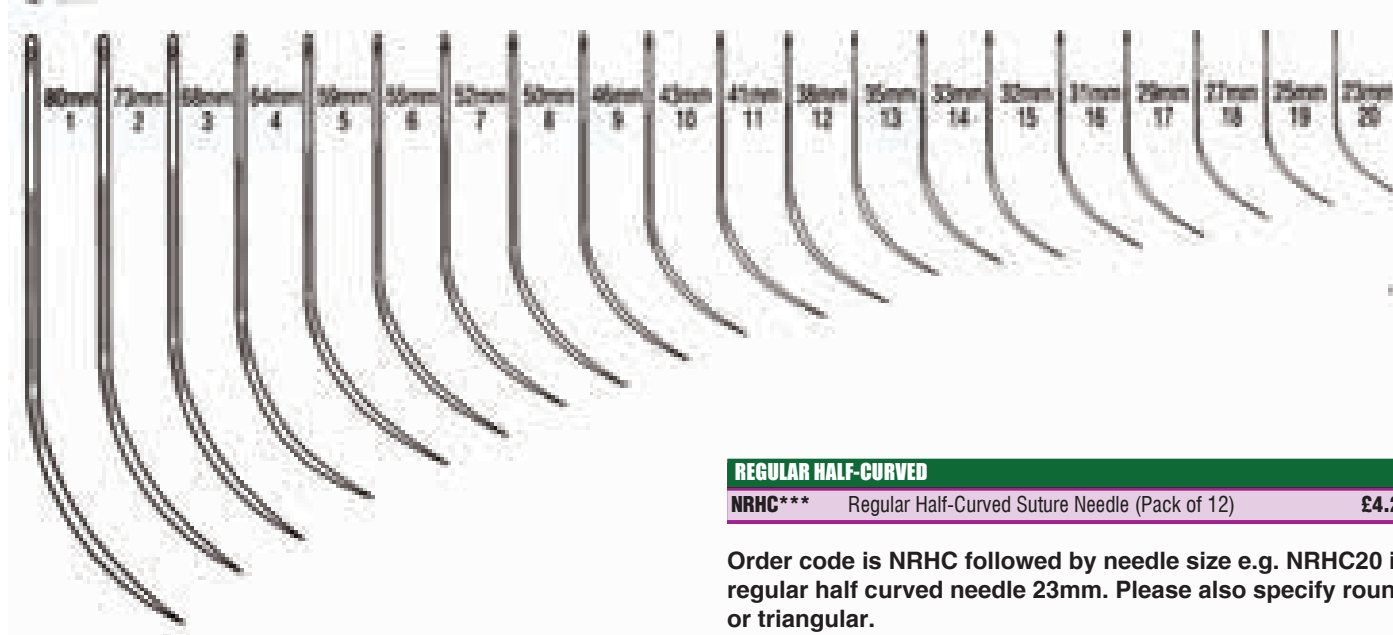


REGULAR CURVED

NRC*** Regular Curved Suture Needle (Pack of 12) **£4.25**

Order code NRC followed by needle size e.g. NRC1 is regular curved needle 80mm. Please also specify round or triangular.

Regular Half-Curved

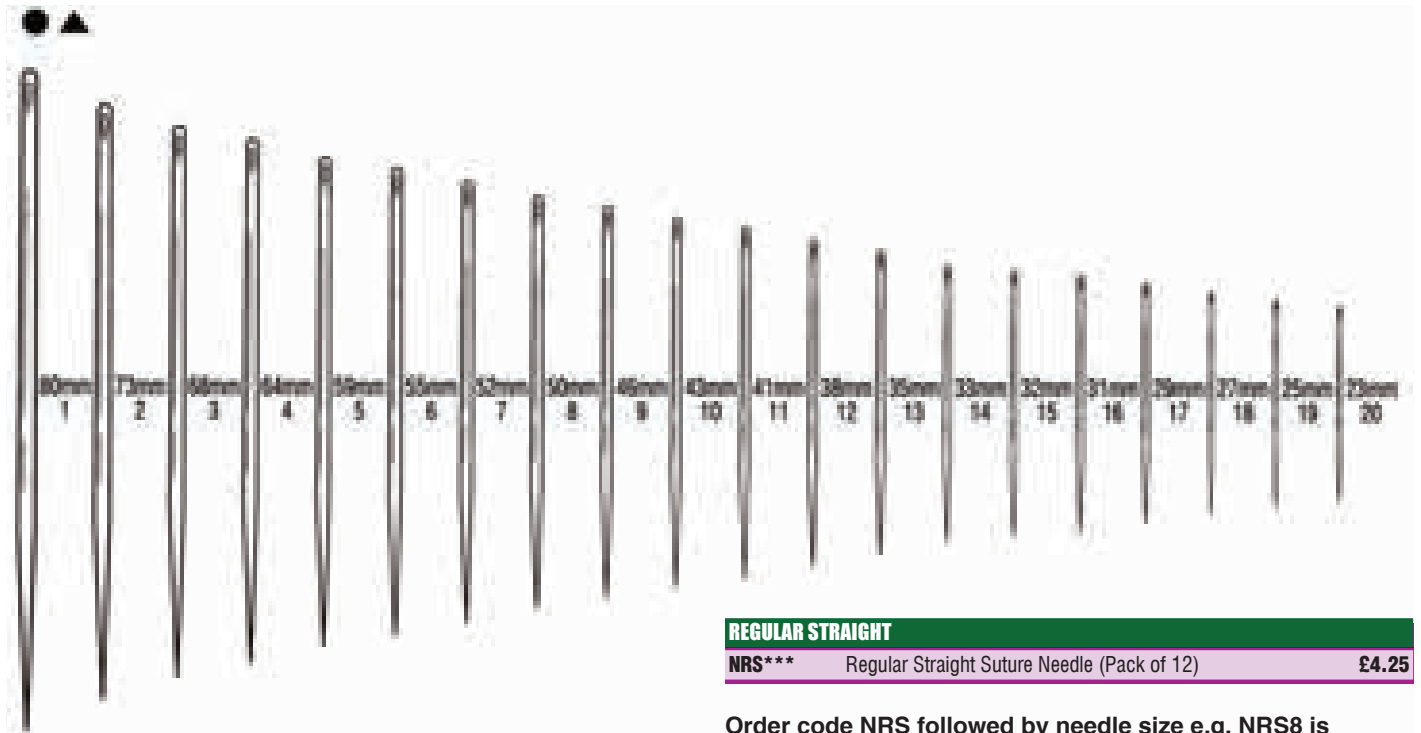


REGULAR HALF-CURVED

NRHC*** Regular Half-Curved Suture Needle (Pack of 12) **£4.25**

Order code is NRHC followed by needle size e.g. NRHC20 is regular half curved needle 23mm. Please also specify round or triangular.

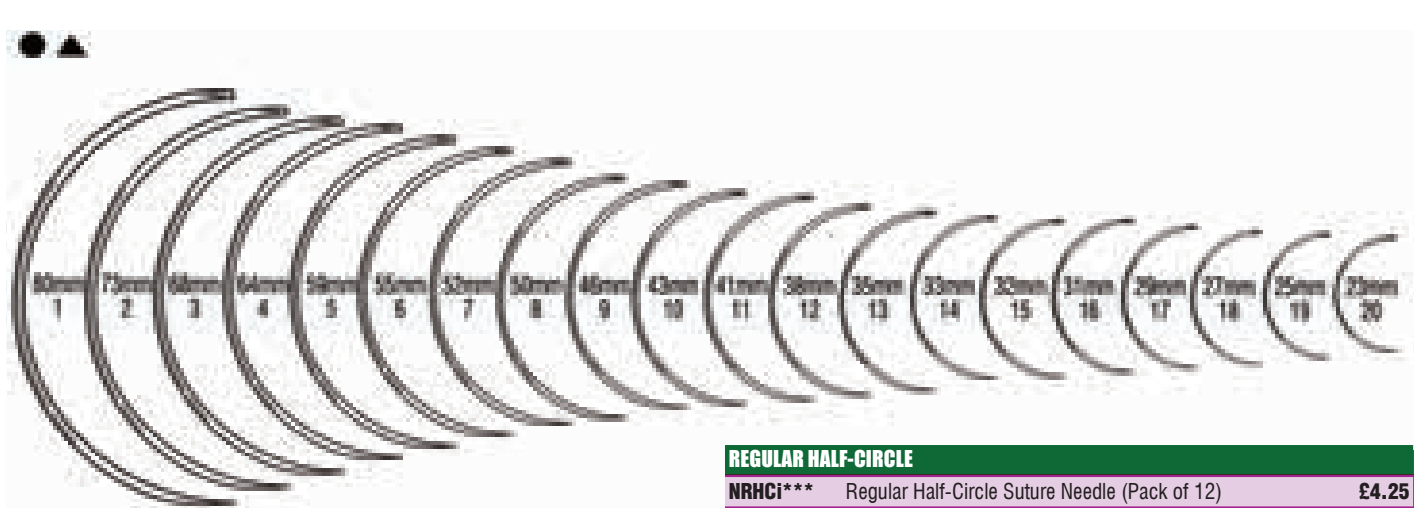
Regular Straight



REGULAR STRAIGHT		
NRS***	Regular Straight Suture Needle (Pack of 12)	£4.25

Order code NRS followed by needle size e.g. NRS8 is regular straight needle 50mm. Please also specify round or triangular.

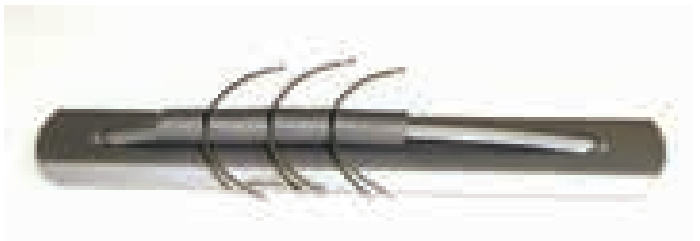
Regular Half-Circle



REGULAR HALF-CIRCLE		
NRHCi***	Regular Half-Circle Suture Needle (Pack of 12)	£4.25

Order code NRHCi followed by needle size e.g. NRHCi10 is regular half circle needle 43mm. Please also specify round or triangular.

Suture Needle Holder Spring Loaded



SUTURE NEEDLE HOLDER AUTOCLAVABLE		
NH105R	Suture Needle Holder	£24.50

Introduction

Veterinary Instrumentation's no quibble lifetime guarantee means that you can purchase instruments in the full confidence that they will not let you down.

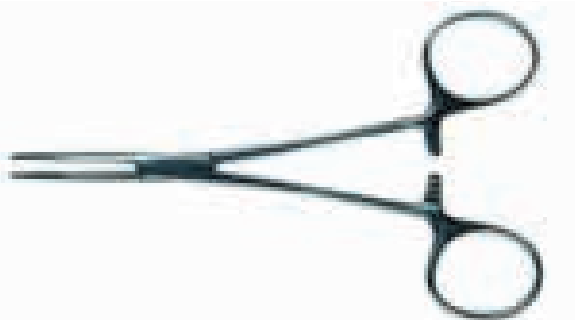
The instruments will be replaced free of charge in the event of breaking due to faulty workmanship. Wear, e.g. in needleholders, is not covered. Veterinary Instrumentation's range of general surgical instruments is selected as being the most appropriate for routine surgical procedures. If you do not see what you want we can source it for you. Please phone, fax or email the usual contacts.

Terminology

Str = Straight Cof = Curved Aof = Angled

Artery Forceps

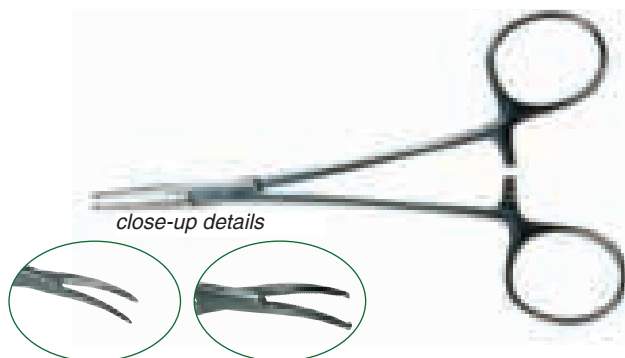
Crile



Jaw is somewhat lighter than the more popular Spencer Wells Artery Forceps.

CRILE		
101750	Crile Artery Forceps Str 14cm 5.5"	£25.00
101755	Crile Artery Forceps Atraumatic Jaws Str 14cm 5.5"	£33.00
101765	Crile Artery Forceps Str 16cm 6.5"	£27.00
101770	Crile Artery Forceps 1/2 Teeth Str 16cm 6.5"	£27.00
101775	Crile Artery Forceps Str 18cm 7"	£38.00
101780	Crile Artery Forceps Cof 14cm 5.5"	£27.00
101785	Crile Artery Forceps Atraumatic Jaws Cof 14cm 5.5"	£33.50
101795	Crile Artery Forceps Cof 16cm 6.5"	£33.50
101800	Crile Artery Forceps Cof 18cm 7"	£42.00

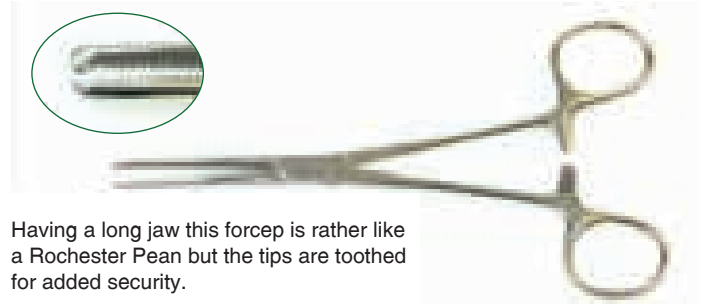
Halstead Mosquito



Very light but adequate for routine haemostasis in all but the largest blood vessels.

HALSTEAD MOSQUITO		
103165	Halstead Mosquito Artery Forceps Str 10cm 4"	£23.50
103170	Halstead Mosquito Artery Forceps Cof 10 cm 4"	£23.50
103175	Halstead Mosquito Artery Forceps Str 12.5cm 5"	£26.50
103225	Halstead Mosquito Artery Forceps Cof 12.5cm 5"	£26.50
103180	Halstead Mosquito Artery Forceps 1/2 Teeth Str 12.5cm 5"	£26.50
103185	Halstead Mosquito Artery Forceps 1/2 Teeth Cof 12.5cm 5"	£26.50

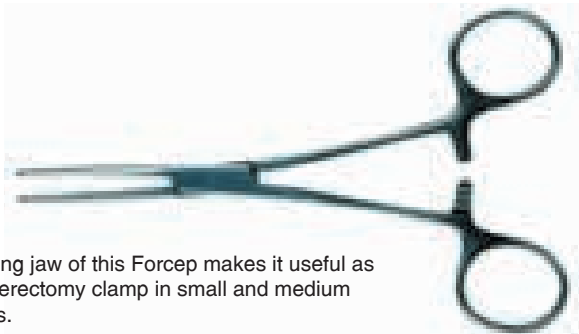
Kocher



Having a long jaw this forcep is rather like a Rochester Pean but the tips are toothed for added security.

KOCHER		
105521	Kocher Artery Forceps Str 15cm 6"	£33.50
105522	Kocher Artery Forceps Cof 15cm 6"	£35.50

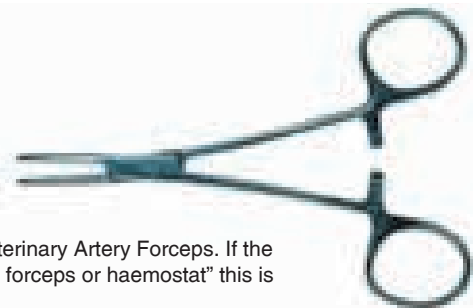
Rochester Pean



The long jaw of this Forcep makes it useful as a hysterectomy clamp in small and medium breeds.

ROCHESTER PEAN		
106225	Rochester Pean Artery Forceps Str 14cm 5.5"	£26.00
106230	Rochester Pean Artery Forceps Str 16cm 6.5"	£27.00
106235	Rochester Pean Artery Forceps Str 18cm 7"	£31.50
106236	Rochester Pean Artery Forceps Str 22cm 8.5"	£38.00
106270	Rochester Pean Artery Forceps Cof 14cm 5.5"	£27.00
106275	Rochester Pean Artery Forceps Cof 16cm 6.5"	£32.00
106280	Rochester Pean Artery Forceps Cof 18cm 7"	£33.50
106285	Rochester Pean Artery Forceps Cof 20cm 8"	£38.50
106290	Rochester Pean Artery Forceps Cof 22.5cm 9"	£40.50

Spencer Wells



The Standard Veterinary Artery Forceps. If the text states "artery forceps or haemostat" this is probably the one.

SPENCER WELLS		
106600	Spencer Wells Artery Forceps Str 12.5cm 5"	£24.00
106605	Spencer Wells Artery Forceps Str 15cm 6"	£26.50
106610	Spencer Wells Artery Forceps Str 18cm 7"	£29.50
106615	Spencer Wells Artery Forceps Str 20cm 8"	£38.50
106620	Spencer Wells Artery Forceps Str 23cm 9"	£51.00
106621	Spencer Wells Artery Forceps Str 30cm 12"	£64.50
106625	Spencer Wells Artery Forceps Cof 12.5cm 5"	£26.00
106630	Spencer Wells Artery Forceps Cof 15cm 6"	£29.00
106635	Spencer Wells Artery Forceps Cof 18cm 7"	£32.50
106640	Spencer Wells Artery Forceps Cof 20cm 8"	£41.00
106645	Spencer Wells Artery Forceps Cof 23cm 9"	£53.00

Negus Forceps



NEGUS FORCEPS		
7018/05	Negus Artery Forceps Small Cof 18cm 7"	£46.50

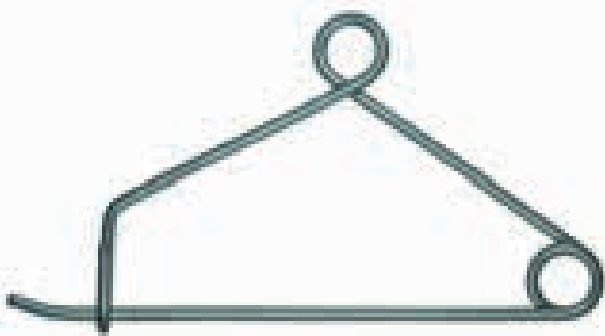
Diffenbach (Bulldog) Clamps



Small Cross Action Vascular Clamps. Most commonly used in soft tissue surgery.

DIFFENBACH (BULLDOG) CLAMPS		
107708	Diffenbach Clamp Str 5cm	£19.75
107710	Diffenbach Clamp Cof 5cm	£19.75

Mayo Safety Pin



Use to organise artery forceps and other similar instruments.

MAYO SAFETY PIN		
106699	Mayo Safety Pin	£15.75

Sponge Forceps

Ramplays Sponge Forceps

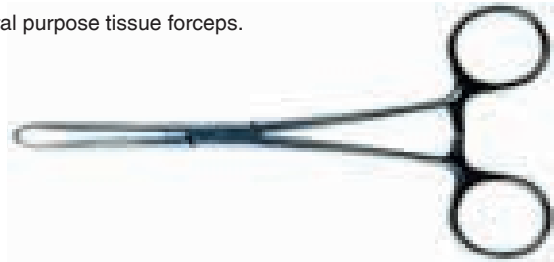


RAMPLEYS		
786505	Ramplays Sponge Forceps 250mm	£39.50

Tissue Forceps

Allis

General purpose tissue forceps.



ALLIS		
801150	Allis 2/3 Teeth 15cm 6"	£35.50
801155	Allis 3/4 Teeth 15cm 6"	£35.50
801156	Allis 3/4 Teeth 18cm 7"	£35.50
801160	Allis 4/5 Teeth 15cm 6"	£35.50
801165	Allis 5/6 Teeth 15cm 6"	£35.50
801170	Allis 6/7 Teeth 15cm 6"	£35.50
801175	Baby Allis 4/5 Teeth 13cm 5"	£34.50

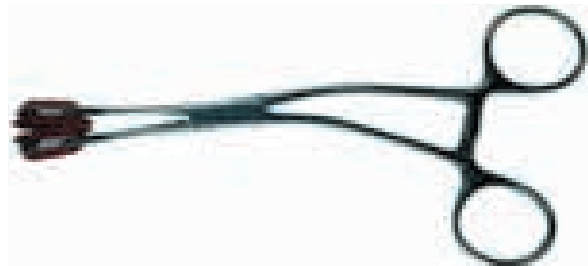
Babcock



An alternative to Allis's. Less traumatic but less grip.

BABCOCK		
801350	Babcock 16.5cm 6.5"	£37.00
801354	Babcock 18cm 7"	£39.50
801355	Babcock 20cm 8"	£49.50
801360	Babcock 23cm 9"	£58.50

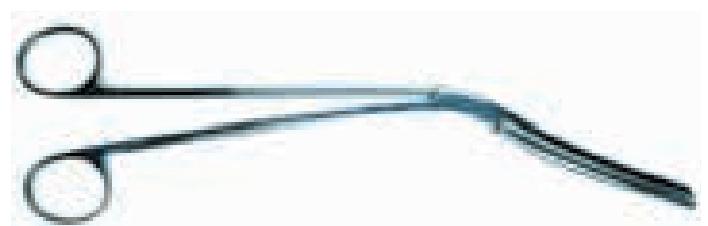
Youngs Tongue Forceps



YOUNGS TONGUE FORCEPS		
7853/05	Youngs Tongue Forceps 170mm	£49.50

Steriliser Forceps

Cheatle

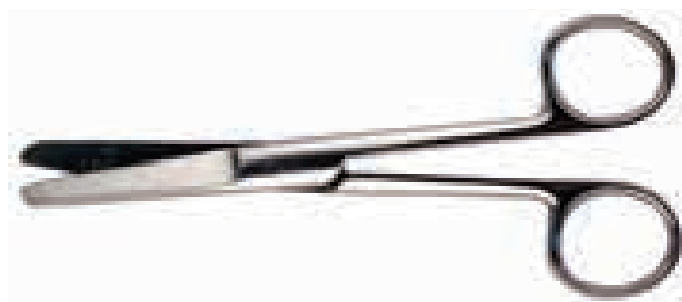


For manipulation of instruments during setting up.

CHEATLE		
787655	Cheatle Steriliser Forceps B/J 26.5cm 10.5"	£48.50

Scissors

Dressing - Blunt/ Blunt



DRESSING - BLUNT/BLUNT		
742610	Dressing Scissors Blunt Str 12.5cm 5"	£18.00
742620	Dressing Scissors Blunt Str 14cm 5.5"	£21.50
742630	Dressing Scissors Blunt Str 15cm 6"	£23.50
742640	Dressing Scissors Blunt Str 18cm 7"	£28.50
742650	Dressing Scissors Blunt Str 20cm 8"	£42.00
742900	Dressing Scissors Blunt Cof 12.5cm 5"	£21.50
742622	Dressing Scissors Serr. B/B Cof 14cm 5"	£21.50
742910	Dressing Scissors Blunt Cof 14cm 5.5"	£25.50
742910L	Dressing Scissors Blunt Cof 14cm 5.5" Left Handed	£26.50
742920	Dressing Scissors Blunt Cof 15cm 6"	£29.50
742930	Dressing Scissors Blunt Cof 18cm 7"	£40.50
742940	Dressing Scissors Blunt Cof 20cm 8"	£48.50

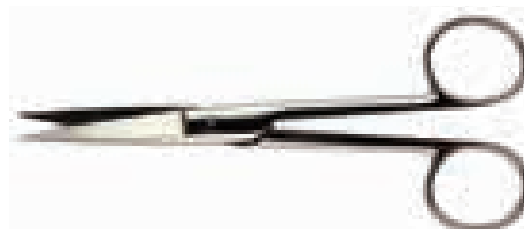
Dressing - Blunt/ Blunt Coloured Handles



These standard Dressing Scissors are now available with different coloured handles to enable easy identification. Never lose your pair again.

DRESSING - BLUNT/ BLUNT COLOURED HANDLES		
742622G	Dressing Scissors Serr B/B Cof Gold Handles 5"	£23.50
742622B	Dressing Scissors Serr B/B Cof Blue Handles 5"	£23.50
742622RB	Dressing Scissors Serr B/B Cof Rainbow Handles 5"	£23.50
742622P	Dressing Scissors Serr B/B Cof Purple Handles 5"	£23.50

Dressing - Sharp/ Sharp



DRESSING - SHARP/ SHARP		
742600	Dressing Scissors Sharp Str 10cm 4"	£19.00
742700	Dressing Scissors Sharp Str 11cm 4.5"	£20.00
742710	Dressing Scissors Sharp Str 12.5cm 5"	£22.00
742720	Dressing Scissors Sharp Str 14cm 5.5"	£23.00
742730	Dressing Scissors Sharp Str 15cm 6"	£25.00
742740	Dressing Scissors Sharp Str 18cm 7"	£32.50
742750	Dressing Scissors Sharp Str 20cm 8"	£46.00
743010	Dressing Scissors Sharp Cof 12.5cm 5"	£22.00

Dressing - Blunt/ Sharp



DRESSING - BLUNT/ SHARP		
742810	Dressing Scissors Blunt/ Str Sharp 5"	£22.50
742820	Dressing Scissors Blunt/ Str Sharp 6"	£23.50
743100	Dressing Scissors Blunt/ Cof Sharp 5"	£23.50
743120	Dressing Scissors Blunt/ Cof Sharp 6"	£24.50

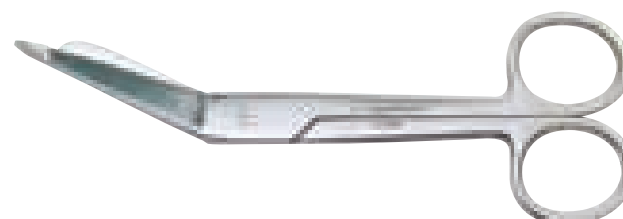
General Purpose Dressing Scissors



The comfortable handles and serrated blades make these a useful all round dressing scissor cheap enough for each consulting room.

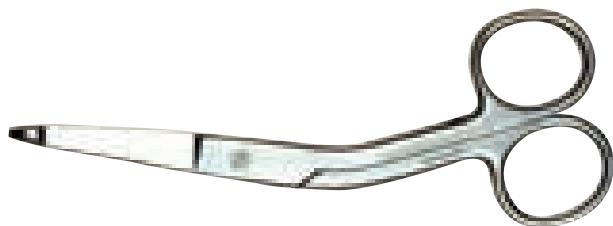
GENERAL PURPOSE DRESSING SCISSORS		
744840	General Purpose Dressing Scissors 190mm	£10.25

Lister Bandage



LISTER BANDAGE		
744800	Lister Bandage Scissor 14cm 5.5"	£23.00
744810	Lister Bandage Scissor 18cm 7"	£25.50

Veterinary Bandage Scissors

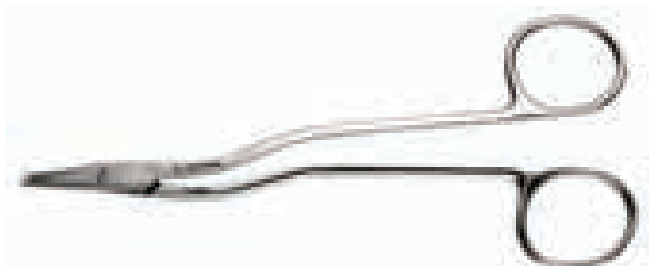


The limbs of small animal veterinary patients are typically much smaller than their human counterparts. Most bandage scissors are designed for the human limb. Veterinary Bandage Scissors should be lower in profile to get between bandage and skin and, for ease of use, need to be slightly straighter than standard human bandage scissors.

Our Veterinary Bandage Scissors meet these requirements and make dressing removal much easier.

VETERINARY BANDAGE SCISSORS		
744820	Veterinary Bandage Scissors 14cm 5.5"	£24.00
744830	Veterinary Bandage Scissors 19cm 7.5"	£27.00

Heath Stitch



General purpose Stitch Cutter.

HEATH STITCH		
743800	Heath Stitch Scissors 15cm 6"	£49.50

Littauer Stitch



Very nice for removal of small awkward sutures.

LITTAUER STITCH		
745095	Littauer Stitch Scissors 8cm 3.5"	£25.50
745100	Littauer Stitch Scissors 11cm 4.5"	£26.50
745110	Littauer Stitch Scissors 12.5cm 5"	£27.50

Castroviejo Suture Removal Scissors



Designed for the removal of very fine sutures. The Castroviejo action matches that of the Castroviejo Needleholders.

CASTROVIEJO SUTURE REMOVAL SCISSORS		
014185	Castroviejo Suture Removal Scissors 120mm	£46.50

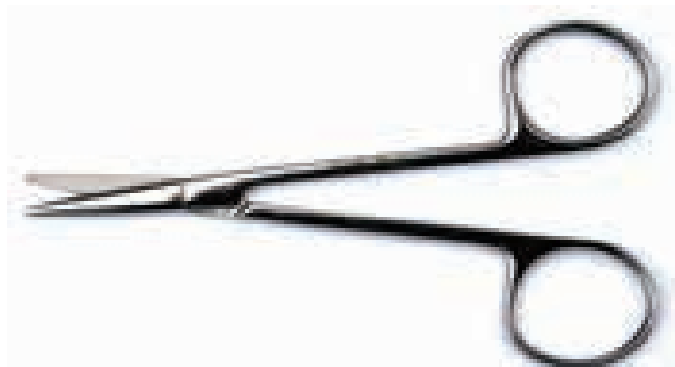
Iris Scissors



A useful general purpose Ophthalmic Scissor. Lightweight, standard action scissor for conjunctiva and, less satisfactorily, the cornea. Very rarely used on the iris in veterinary ophthalmology.

IRIS		
744100	Iris Scissors Str 9cm	£20.50
744120	Iris Scissors Cof 9cm	£23.00
744110	Iris Scissors Str 11cm	£20.50
744130	Iris Scissors Cof 11cm	£23.00
744131	Iris Scissors Tungsten Carbide Str 11cm	£38.50

Strabismus Scissors



Stronger than corneal and conjunctival scissors, strabismus scissors are suitable for cutting muscles and skin.

STRABISMUS SCISSORS		
746900	Strabismus Scissors Str 9cm	£24.00
747010	Strabismus Scissors Cof 9cm	£24.00
746910	Strabismus Scissors Str 11cm	£26.00
747020	Strabismus Scissors Cof 11cm	£26.00

Eye Enucleation Scissors



Standard Curved Surgical Scissors do not match the radius of the eye of dogs and cats. The Eye Enucleation Scissor closely matches required radius and slides easily behind the eyeball to cut the optic nerve and internal ophthalmic artery and vein, without the requirement to apply dangerous traction to the globe. Use in conjunction with Eye Enucleation Clamps, see page 297.

EYE ENUCLEATION SCISSORS		
014225	Eye Enucleation Scissors 140mm	£79.50

Surgical Scissors

Surgical Scissors are typically either one of two designs. The Mayo is the general purpose Surgical Scissor in which the blade occupies approximately one third of the length of the scissor. The 14cm straight Mayo is the standard veterinary Surgical Scissor. The Metzenbaum is a finer lighter Scissor in which the blade occupies approximately one quarter of the scissor length. Using a 14.5cm Metzenbaum rather than a 14cm Mayo will give you a finer scissor but a similar working distance.

Each style of Scissor is available in four different qualities which vary according to blade construction and cutting characteristics. They can be identified by handle colour.

- Standard Stainless
- Supercut Black
- Tungsten Carbide Gold
- Supercut T.C. Black & Gold

Surgical Scissor - Standard



MAYO-STANDARD		
745300	Mayo Chamf Blades Str 14cm 5.5"	£24.50
745300L	Mayo Chamf Blades Str Left Handed 14cm 5.5"	£26.00
745310	Mayo Chamf Blades Str 16.5cm 6.5"	£27.50
745320	Mayo Chamf Blades Str 19cm 7.5"	£33.50
745330	Mayo Chamf Blades Str 21.5cm 8.5"	£45.50
745400	Mayo Chamf Blades Cof 14cm 5.5"	£27.50
745410	Mayo Chamf Blades Cof 16.5cm 6.5"	£34.50
745420	Mayo Chamf Blades Cof 19cm 7.5"	£44.50
745430	Mayo Chamf Blades Cof 21.5cm 8.5"	£56.00

METZENBAUM-STANDARD		
746100	Metzenbaum 'Lahey' Scissor Str 14.5cm 5.75"	£32.50
746101	Metzenbaum Scissor Str 15cm 6"	£32.50
746110	Metzenbaum Scissor Str 18cm 7"	£34.50
746110L	Metzenbaum Scissor Str Left Handed 18cm 7"	£37.00
746115	Metzenbaum Scissor Str 20.5cm 8"	£43.50
746130	Metzenbaum Scissor Str 23cm 9"	£52.00
746200	Metzenbaum 'Lahey' Scissor Cof 14.5cm 5.75"	£39.50
746210	Metzenbaum 'McIndoe' Scissor Cof 18cm 7"	£44.50
746215	Metzenbaum Scissor Cof 20.5cm 8"	£50.50
746230	Metzenbaum Scissor Cof 23cm 9"	£64.00

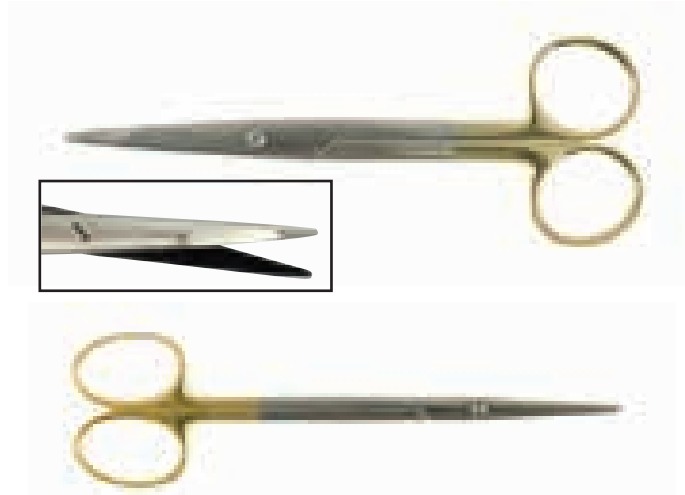
Surgical Scissor - Supercut



One blade is sharpened to a tapered edge which greatly enhances the ability of the scissor to slice through tissues. The standard scissor has much more of a crushing action. Identified by having black handles.

SURGICAL SCISSORS - SUPERCUT		
760000	Mayo Supercut Str 14cm 5.5"	£39.50
760002	Mayo Supercut Cof 14cm 5.5"	£39.50
760008	Metzenbaum Supercut Str 14.5cm 5.75"	£44.50
760009	Metzenbaum Supercut Cof 14.5cm 5.75"	£44.50
760010	Metzenbaum Supercut Str 18cm 7"	£52.50
760012	Metzenbaum Supercut Cof 18cm 7"	£52.50

Surgical Scissors - Tungsten Carbide



Stay sharper, longer. Gold handles to distinguish from general surgical items. The cutting edge is constructed of Tungsten Carbide, a very hard material.

SURGICAL SCISSORS - TUNGSTEN CARBIDE		
752250	Mayo Clinical Hard Edge Str 15cm 6"	£71.50
752260	Mayo Clinical Hard Edge Str 18cm 7"	£71.50
752280	Mayo Clinical Hard Edge Cof 15cm 6"	£73.50
752290	Mayo Clinical Hard Edge Cof 18cm 7"	£73.50
754020	Metzenbaum Hard Edge Str 14.5cm 5.75"	£81.50
754030	Metzenbaum Hard Edge Str 18cm 7"	£81.50
754060	Metzenbaum Hard Edge Str 23cm 9"	£81.50
754080	Metzenbaum Hard Edge Cof 14.5cm 5.75"	£81.50
754090	Metzenbaum Hard Edge Cof 18cm 7"	£81.50
754120	Metzenbaum Hard Edge Cof 23cm 9"	£81.50
754095	Metzenbaum Hard Edge Cof 35cm 14"	£81.50

Surgical Scissor - Supercut T.C.



The Supercut T.C. is our best scissor having the special cutting characteristic of the Supercut Style but with the long lasting Tungsten Blades. Identified by one black and one gold handle

SURGICAL SCISSORS - SUPERCUT TC		
760000TC	Mayo Supercut T.C. Str 14cm 5.5"	£89.50
760002TC	Mayo Supercut T.C. Cof 14cm 5.5"	£89.50
760008TC	Metzenbaum Supercut T.C. Str 14.5cm 5.75"	£89.50
760009TC	Metzenbaum Supercut T.C. Cof 14.5cm 5.75"	£89.50
760010TC	Metzenbaum Supercut T.C. Str 18cm 7"	£96.50
760012TC	Metzenbaum Supercut T.C. Cof 18cm 7"	£96.50

Cosmetic Surgeon Scissors



Favoured by human cosmetic surgeons, these scissors have very fine razor sharp blades with hard inserts for long life. They have a beautiful action and have a place in a veterinary surgery where precise cutting is required. T.C. Blades.

COSMETIC SURGEON SCISSORS WITH 'OPEN' SHANKS		
755100	Cosmetic Surgeon Scissors T.C. Str 15cm 6"	£89.50
755110	Cosmetic Surgeon Scissors T.C. Cof 15cm 6"	£89.50

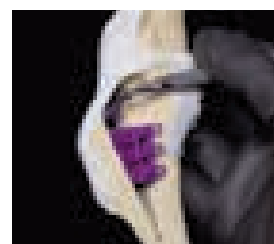
2015 EXHIBITIONS



Each year Veterinary Instrumentation attends many exhibitions both in the UK and Overseas. During 2015 we will be attending the following exhibitions:

BVOA/BSAVA	April
WSAVA	May
ECVS	July
BEVA	September
BVOA	October
SEVC	October
LVS	November
NAVC	January 2016
VOS	March 2016

Surgical Demonstrations



For 2015, Veterinary Instrumentation will be organising a number of surgical demonstrations on the booth, both to launch new products and initiatives but also to allow surgeons to get hands on with new surgical techniques. Please see www.vetinst.com for a demonstration timetable at each exhibition.

Special Requests

We are also very pleased to bring specific equipment to an exhibition if you would like to examine it more closely, just let our Vet Tech Team know in advance. and we will organise it.

Needleholders

Tungsten Carbide



Most Veterinary Instrumentation Needleholders are available with Tungsten Carbide Inserts (T.C. Jaws). They grip better and wear better. They are especially useful for holding smaller needles.

Their handles are gold plated for identification and to make them easier to spot on a tray of artery forceps.

Castroviejo



The classic Ophthalmic Needleholders with a Catch. Occasional ophthalmic surgeons should consider Miniature Fosters or Ryders. The squeeze action of the Castroviejos can be awkward at first.

CASTROVIEJO

014175	Castroviejo Needleholders with Catch T.C. 150mm	£125.00
014177	Castroviejo Needleholders without catch T.C. 150mm	£125.00
014179	Castroviejo Needleholders with Catch T.C. 165mm	£125.00
014178	Castroviejo Needleholders with Catch T.C. 180mm	£125.00

Castroviejo Needleholders/ Scissor



This Instrument functions as a standard Castroviejo needleholder but the jaws incorporate a suture cutting function in the style of Olsen Hegars or Gillies. Jaws are Tungsten Carbide for maximum grip.

CASTROVIEJO NEEDLEHOLDERS/ SCISSOR

014181	Castroviejo Needleholders/ Scissor Str T.C. 150mm	£130.00
014182	Castroviejo Needleholders/ Scissor Cof T.C. 150mm Cof	£130.00
014183	Castroviejo Needleholders/ Scissor Str 'S'Cut T.C. 150mm	£135.00
014184	Castroviejo Needleholders/ Scissor Cof 'S'Cut T.C. 150mm	£135.00

Miniature Foster Gillies



Actual size



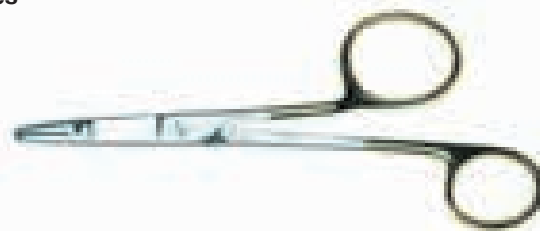
MINIATURE FOSTER GILLIES

602710	Miniature Foster Gillies T.C. 100mm 4"	£115.00
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Foster Gillies



Actual size



Smaller than the standard Gillies this instrument is ideal for finer surgery or smaller hands.

FOSTER GILLIES

582650	Foster Gillies Needleholders RH 12.5cm 5"	£90.00
582660	Foster Gillies Needleholders LH 12.5cm 5"	£95.00
602700	Foster Gillies Needleholders T.C. Jaws RH 12.5cm 5"	£130.00
602705	Foster Gillies Needleholders T.C. Jaws LH 12.5cm 5"	£135.00

Gillies



Actual size

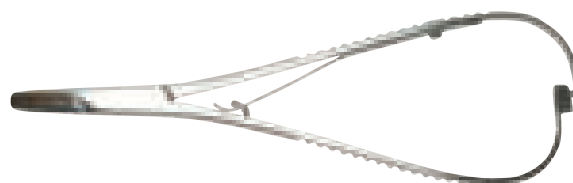


Combined Scissor/ Needleholder.

GILLIES

582950	Gillies Needleholders RH 16cm 6.25"	£52.50
582951	Gillies Needleholders LH 16cm 6.25"	£55.50
602950	Gillies Needleholders T.C. Jaws RH 16cm 6.25"	£110.00
602951	Gillies Needleholders T.C. Jaws LH 16cm 6.25"	£130.00

McPhails

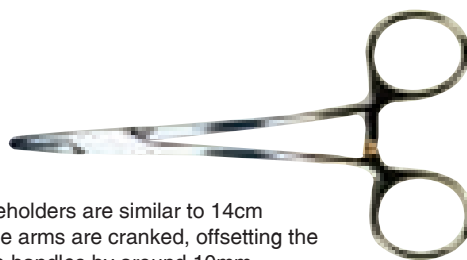


The McPhails Needleholder has one soft copper jaws for extra needle grip, the other is stainless steel. The catch engages with a moderate squeeze on the handles. Further pressure releases the catch and the needle.

MCPHAILS

584650	McPhails Needleholders 15cm 6"	£80.00
584660	McPhails Needleholders 18cm 7"	£85.00
584670	McPhails Needleholders 20cm 8"	£90.00

Kilner Needleholders

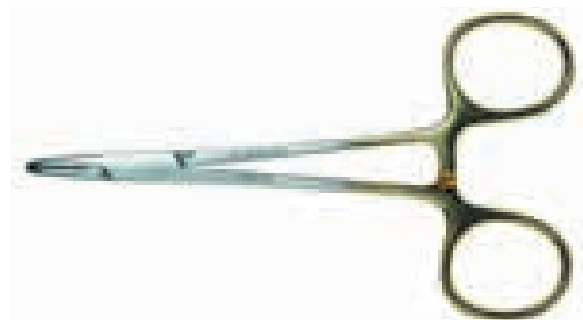


Kilner Needleholders are similar to 14cm Mayos but the arms are cranked, offsetting the jaws from the handles by around 10mm.

KILNER NEEDLEHOLDERS

608000	Kilner Needleholders 14cm 5.5"	£74.50
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Mayo and Mayo Hegar (T.C.)



The veterinary general purpose Needleholder, available in a large range of sizes with or without Tungsten Carbide Jaws.

MAYO AND MAYO HEGAR (T.C.)		
584750	Mayo Needleholders 12.5cm 5"	£35.00
584760	Mayo Needleholders 14cm 5.5"	£36.50
584780	Mayo Needleholders 16.5cm 6.5"	£37.50
584765	Mayo Needleholders 18cm 7.0"	£40.50
584810	Mayo Needleholders 18.5cm 7.5"	£43.50
584820	Mayo Needleholders 20cm 8"	£46.50
604700	Mayo Hegar T.C. Jaws 12.5cm 5"	£60.50
604705	Mayo Hegar T.C. Jaws 14cm 5.5"	£64.50
604712	Mayo Hegar T.C. Jaws 15cm 6"	£69.50
604715	Mayo Hegar T.C. Jaws 16.5cm 6.5"	£72.00
604715L	Mayo Hegar T.C. Jaws - Left Handed 16.5cm 6.5"	£79.50
604720	Mayo Hegar T.C. Jaws 18.5cm 7"	£79.50
604730	Mayo Hegar T.C. Jaws 7.5"	£84.50
604735	Mayo Hegar T.C. Jaws 8"	£89.50
604740	Mayo Hegar T.C. Jaws 23cm 9"	£99.50

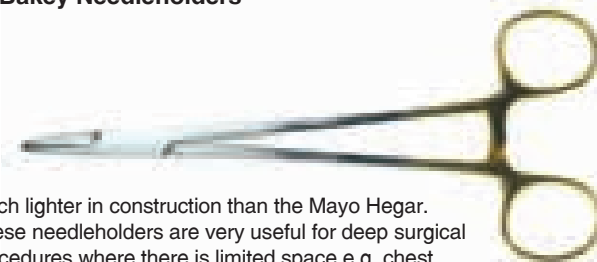
Olsen Hegar Scissor/ Needleholder



Olsen Hegar's combine the best features of Gillies and needleholders. They cut stitches but also lock. Highly recommended. Combined Scissor/ Needleholder. Looser 'feel' will feel more like a scissor than a needleholder in use.

OLSEN HEGAR SCISSOR/ NEEDLEHOLDER		
585400	Olsen Hegar Needleholders 14cm 5.5"	£64.50
585410	Olsen Hegar Needleholders 16.5cm 6.5"	£69.50
585420	Olsen Hegar Needleholders 7.5"	£74.50
605340	Olsen Hegar Needleholders T.C. Jaws 11.5cm 4.5"	£82.00
605350	Olsen Hegar Needleholders T.C. Jaws 14cm 5.5"	£89.50
605350S	Olsen Hegar Needleholders 'S' Cut T.C. Jaws 14.5cm 5.5"	£99.50
605355	Olsen Hegar Needleholders T.C. Jaws 16.5cm 6.5"	£90.00
605355L	Olsen Hegar Needleholders T.C. Jaws L H 16.5cm 6.5"	£94.50
605380	Olsen Hegar Needleholders 'S' Cut T.C. Jaws 17cm	£99.50
605385	Olsen Hegar Needleholders 'S' Cut T.C. Jaws 18cm	£112.50
605390	Olsen Hegar Needleholders 'S' Cut T.C. Jaws 19cm	£117.50
605360	Olsen Hegar Needleholders T.C. Jaws 19cm 7.5"	£94.50
605361	Olsen Hegar Needleholders Razor Cut 14.5cm 5.5"	£92.00
605362	Olsen Hegar Needleholders Razor Cut 17cm 6.5"	£94.50

DeBakey Needleholders



Much lighter in construction than the Mayo Hegar. These needleholders are very useful for deep surgical procedures where there is limited space e.g. chest surgery.

DEBAKEY		
602005	DeBakey Needleholders T.C. Jaws 7"	£91.50
602010	DeBakey Needleholders T.C. Jaws 20cm 8"	£99.50
602015	DeBakey Needleholders T.C. Jaws 23cm 9"	£101.50
602020	DeBakey Needleholders T.C. Jaws 10"	£122.00
602025	DeBakey Needleholders T.C. Jaws 12"	£142.00

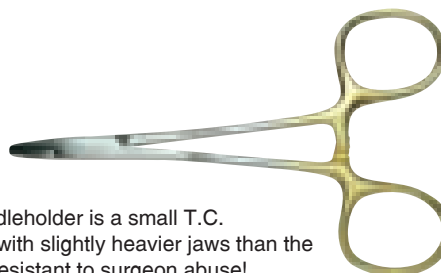
Ryder Needleholders

Ideal for small needles. The smaller sizes are an alternative for ophthalmic needleholders.



RYDER		
606340	Ryder (Micro) T.C. Jaws 12.5cm 5"	£100.00
606305	Ryder (Micro) 15cm 6"	£95.00
606345	Ryder (Micro) T.C. Jaws 15cm 6"	£102.50
606350	Ryder (Micro) T.C. Jaws 18cm 7"	£105.00

Derf Needle Holder



The Derf Needleholder is a small T.C. needleholder with slightly heavier jaws than the Ryder. More resistant to surgeon abuse!

DERF NEEDLE HOLDER		
607010	Derf Needleholder T.C. Jaws 12cm	£90.00

Galibans Suture Forceps



Use when placing sutures under tension. A good example is the placement of a lateral stabilising suture in the management of anterior cruciate ligament failure or abdominal sutures in an overweight dog. Galibans used by an assistant are used to atraumatically secure the first throw. The Galibans are removed as the second throw is tightened.

GALIBANS SUTURE HOLDING FORCEPS		
58900	Galibans Suture Holding Forceps	£49.50

Left Handed Instruments



Veterinary Instrumentation offers a wide selection of Left Handed Instruments, a selection of which is shown below. If the instrument you are looking for is not shown, please contact us and we will get it for you.

LEFT HANDED SCISSORS

745300L	Mayo Scissor Blunt/Blunt Straight LH 14cm 5.5"	£26.00
745400L	Mayo Scissor Blunt/Blunt Curved LH 14cm 5.5"	£29.00
745310L	Mayo Scissor Blunt/Blunt Straight LH 16.5cm 6.5"	£29.00
745410L	Mayo Scissor Blunt/Blunt Curved LH 16.5cm 6.5"	£34.00
746100L	Metzenbaum Scissor Blunt/Blunt Straight LH 14.5cm 5.75"	£32.50
746200L	Metzenbaum Scissor Blunt/Blunt Curved LH 14.5cm 5.75"	£39.00
746110L	Metzenbaum Scissor Blunt/Blunt Straight LH 18cm 7"	£37.00
746115L	Metzenbaum Scissor Blunt/Blunt Straight LH 20cm 8"	£43.00
744800L	Lister Bandage Scissor LH 14cm 5.5"	£26.00
744810L	Lister Bandage Scissor LH 18cm 7"	£28.50
744110L	Iris Scissor Round Straight LH 11cm 4.25"	£21.00
744130L	Iris Scissor Round Curved LH 11cm 4.25"	£24.00

LEFT HANDED FORCEPS

103175L	Halsted Mosquito Artery Forcep Straight LH 12.5cm 5"	£26.50
103225L	Halsted Mosquito Artery Forcep Curved LH 12.5cm 5"	£26.50
101750L	Crile Artery Forcep Straight LH 14cm 5.5"	£27.00
101780L	Crile Artery Forcep Curved LH 14cm 5.5"	£29.00
106230L	Rochester Pean Artery Forcep Straight LH 16cm 6.5"	£29.00
106275L	Rochester Pean Artery Forcep Curved LH 16cm 6.5"	£34.00
841350L	Backhaus Towel Forcep LH 9cm 3.5"	£24.00

LEFT HANDED NEEDLEHOLDERS

604715L	Mayo Hegar Needleholder LH 16.5cm	£79.50
604720L	Mayo Hegar Needleholder LH 18.5cm 7"	£84.50
585400L	Olsen Hegar Needleholder LH 14cm 5.5"	£69.50
605355L	Olsen Hegar Needleholder LH 16.5cm 6.5"	£94.50
605355L	Olsen Hegar Needleholder LH 16.5cm 6.5"	£94.50
582660	Foster Gillies Needleholder LH 12.5cm 5"	£95.00
602705	Foster Gillies Needleholder LH T.C. Jaws 12.5cm 5"	£135.00
582951	Gillies Needleholder LH 16cm 6.25"	£55.50
602951	Gillies Needleholder LH T.C. Jaws 16cm 6.25"	£130.00

Left Handed Instrument Starter Kit

Kit contains a selection of Left Handed Instruments plus Standard Instruments.

Kit contains:

1 x Mayo Scissors Str 5.5", 1 x Metzenbaum Scissors Str 5.75", 1 x Metzenbaum Scissors Cof 5.75", 2 x Halstead Forceps Str 5", 2 x Halstead Forceps Cof 5", 4 x Crile Forceps Cof 5.5", 4 x Backhaus Towel Clips & 1 x Olsen Hegar Needleholders. Plus 1 x standard Debakey Forceps 6", 1 x Adsons Forceps & 1 x Scapel Handle No.3 in a Stainless Steel Case.

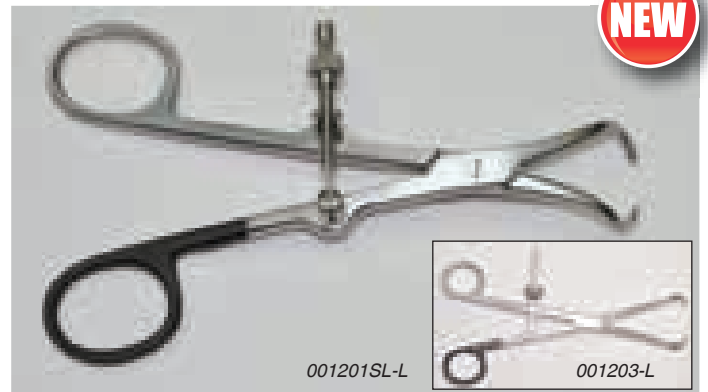
Kit discounted by over 10%+.



LEFT HANDED INSTRUMENT STARTER KIT

LHKIT	Left Handed Instrument Starter Kit	£425.00
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Left Handed Orthopaedic Instruments



For many years, left handed orthopaedic surgeons have been underserved by lack of left handed bone holding and reduction forceps.

Veterinary Instrumentation is proud to announce that we are now able to supply a limited range of true left handed bone holding forceps and reduction forceps with plans to expand the range over the coming years. Differences typically include substitution of a left hand thread with a right hand thread (this may sound odd, but it works!) and swapping the side of any adjustment nut from right to left. For ratcheted instruments, the ratchet design will be adjusted to better suit left hand use.

Left handed instruments are quality inspected by left handed members of VI technical staff. One black handle indicates the instrument is for left handed use.

LEFT HANDED ORTHOPAEDIC INSTRUMENTS

001200-L	Fragment Forceps 160mm Long - Left Handed	£81.50
001201-L	Small Fragment Forceps 135mm Long - Left Handed	£81.50
001201SL-L	Small Fragment Forceps with Spinlock - Left Handed	£102.50
001202-L	Very Large Fragment Forceps 205mm Long - Left Handed	£102.50
001203-L	Very Large Fragment Forceps with Spinlock - Left Handed	£145.00
001208M-L	Miniature Fragment Forceps 135mm Long - Left Handed	£86.50
001208-L	Very Small Fragment Forceps 100mm Long - Left Handed	£79.50

Dissecting Forceps

Serrated-Block End



A cheap, general purpose Dressing Forcep.

SERRATED-BLOCK END		
341070	Block End Serrated Dissecting Forceps 5" 12.5cm	£12.50
341075	Block End Serrated Dissecting Forceps 6" 15cm	£16.50
341080	Block End Serrated Dissecting Forceps 7" 18cm	£19.50
347655	Dressing Forceps 205mm	£28.50

Treves Rat Tooth Forceps



A cheap general purpose Rat Tooth Dissecting Forceps.

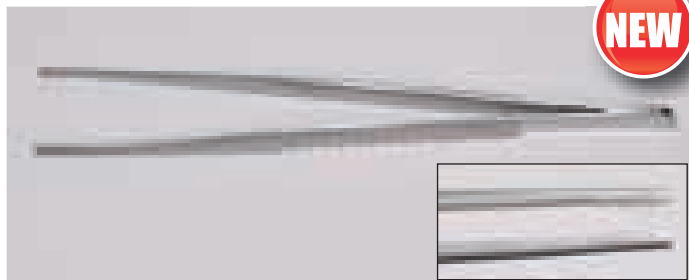
TREVES, RAT TOOTH FORCEPS		
346850	Treves Dissecting Forceps Teeth 12.5cm 5"	£19.50
346855	Treves Dissecting Forceps 1/2 Teeth 15cm 6"	£21.50
346860	Treves Dissecting Forceps Teeth 18cm 7"	£25.50
347665	Fine Rat Tooth Thumb Forceps 205mm	£32.50

Dissecting Forceps 1/2 Teeth



DISSECTING FORCEPS 1/2 TEETH		
341145	Dissecting Forceps 1/2 Teeth 15cm 6"	£24.00
341160	Dissecting Forceps 1/2 Teeth 18cm 7"	£25.00
341170	Lanes Dissecting Forceps 1/2 Teeth 6" 15cm	£26.00
349520	Lanes Dissecting Forceps 2/3 Teeth 7" 18cm	£27.00

Connective Tissue Forceps

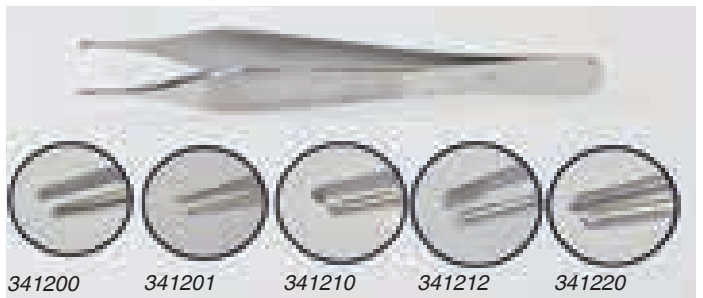


NEW

DeBakey styled handles with Adson Brown Tips 153mm, 6".

CONNECTIVE TISSUE FORCEPS		
343100	Connective Tissue Forceps 153mm 6"	£38.50

Adson



Ideal for fine surgical procedures. Available in a range of jaw designs.

ADSON		
341200	Adson Serrated Dissecting Forceps 12.5cm 5"	£25.00
341201	Adson Serrated Extra Fine 12.5cm 5"	£32.00
341210	Adson Dissecting Forceps 1/2 Teeth 12.5cm 5"	£34.00
341212	Adson Brown Dissecting Forceps 12.5cm 5"	£37.00
341214	Adson Brown Serrated/ Crocodile 15cm 6"	£45.00
341215	Adson Brown 1/2 Teeth 15cm 6"	£45.00
341220	Adson DeBakey Dissecting Forceps 125mm 5"	£45.00

DeBakey - Atraumatic



teeth profile (end view)

The Forceps in this range grip as firmly as rat teeth but cause minimal damage to delicate tissues. Particularly useful in surgery of the ear, bowel or urogenital system.

DEBAKEY - ATRAUMATIC		
342005	DeBakey Dissecting Forceps 6"	£46.00
342010	DeBakey Dissecting Forceps 18cm 7"	£46.00
342015	DeBakey Dissecting Forceps 8"	£46.00
342020	DeBakey Dissecting Forceps 20.5cm 8.2"	£54.50
342030	DeBakey Dissecting Forceps Angled 15cm 6"	£54.50

Epilation Forceps



EPILATION		
342450	Epilation Dissecting Forceps Square Jaws Plain 9cm 3.5"	£33.50

St. Martin Dissecting Forceps

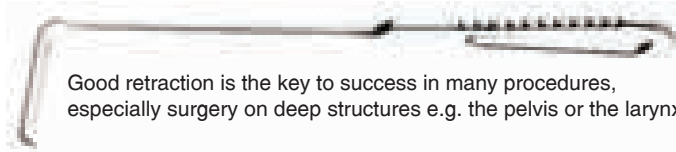


A Very Fine Rat Tooth for delicate procedures including corneal surgery.

ST. MARTIN DISSECTING FORCEPS		
014160	St. Martin Dissecting Forceps Teeth 90mm 3.25"	£54.50

Retractors

Langenbeck

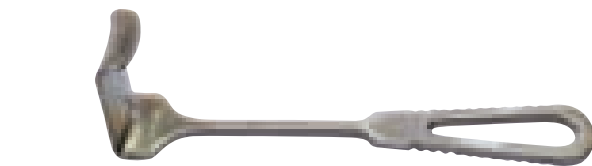


Good retraction is the key to success in many procedures, especially surgery on deep structures e.g. the pelvis or the larynx.

LANGENBECK

684375	Langenbeck Retractor 6mm Blade 215mm	£47.50
684395	Langenbeck Long Reach 6mm x 35mm Blade 215mm	£52.50
684380	Langenbeck Retractor 13mm Blade 215mm	£50.00
684390	Langenbeck Retractor 20mm Blade 215mm	£52.50
684385	Langenbeck Retractor 25mm Blade 215mm	£52.50

Morris Retractor



Much wider than the Langenbeck, good for fat abdomens.

MORRIS

684750	Morris Retractor 38mm 1.5" 215mm	£65.00
684755	Morris Retractor 50mm 2" 260mm	£65.00
684760	Morris Retractor 65mm 2.5" 220mm	£65.00

Senn (Cats Paw) Retractor



SENN (CATS PAW)

833305	Senn Retractor (Cats Paw) 160mm	£26.50
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Fat Pad Retractor

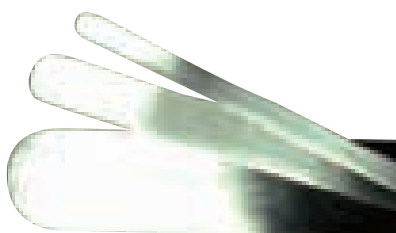


Visualisation of the medial meniscus is maximised by retraction of the fat pad. Previously this has been achieved by use of a Senn (Cats Paw) retractor. The Fat Pad Retractor has the same clawed foot but has a much more practical means of holding the instrument.

FAT PAD RETRACTOR

001114	Fat Pad Retractor 180mm	£26.50
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Malleable (Walton) Retractors



These flat plates of soft stainless steel are bent intra-operatively to retain abdominal structures.

MALLEABLE (WALTON) RETRACTORS

687613	Malleable Retractor 13mm 175mm	£22.50
687825	Malleable Retractor 25mm 250mm	£27.50
687651	Malleable Retractor 50mm 330mm	£32.50

Collins

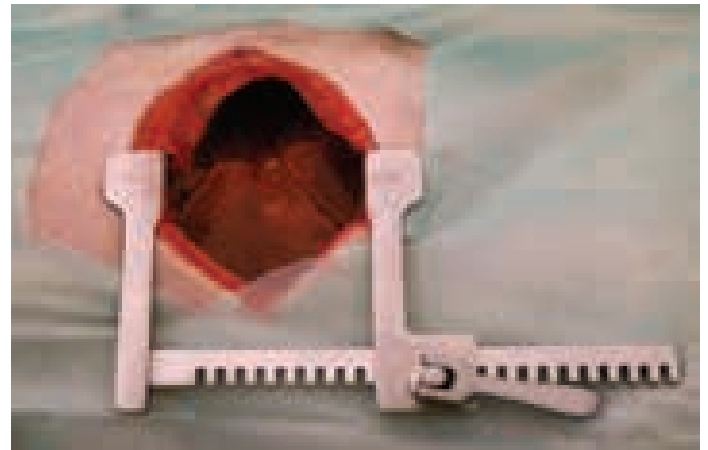


The two blades swivel as retraction takes place. They self-centre in the incision.

COLLINS

703260	Collins Retractor 110mm Spread	£150.00
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Rib Retractor

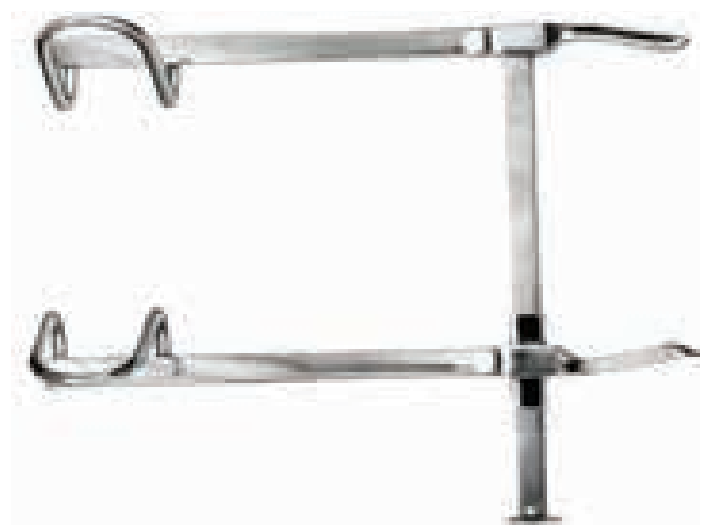


Finochetto is the standard rib retractor available in large and small.

RIB RETRACTOR

704000	Rib Retractor Finochetto Small 95mm Spread	£140.00
704005	Rib Retractor Finochetto Large 130mm Spread	£145.00

Gosset Retractor



Good as a rib retractor, laparotomy retractor and for retraction of ventral cervical structures during cervical fenestration.

GOSSET

701550	Gosset Retractor Large 130mm Spread	£225.00
710600	Gosset Retractor Small 100mm Spread	£225.00

Finsen Self Retaining Retractor



Spring Loaded Retractor for small incisions. The blade width is 14mm. Very reasonably priced.

FINSEN SELF RETRACTOR		
252374	Finsen Retractor 75mm	£49.50

Travers



Expensive but very useful for retraction of skin and superficial soft tissue.

TRAVERS		
703051	Travers Retractor 70mm Spread 16.5cm 6.5"	£210.00
703050	Travers Retractor 90mm Spread 20cm 8"	£225.00
703053	Travers Retractor Mini 43mm Spread 95mm	£120.00

Weislander



Arms are flat compared with the Wests.

WEISLANDER		
702150	Weislander S/R Retractor Sharp 60mm Gape 14cm 5.5"	£180.00
702152	Weislander S/R Retractor Blunt 60mm Gape 14cm 5.5"	£180.00

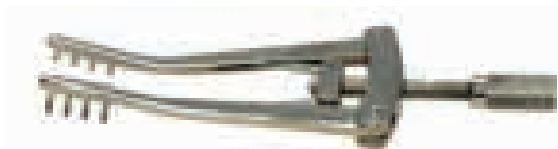
West



Widely used but sharp points tend to snag tissues. Curved arms sit quite nicely on small veterinary patients.

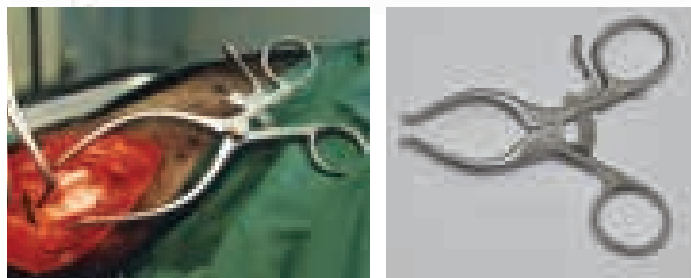
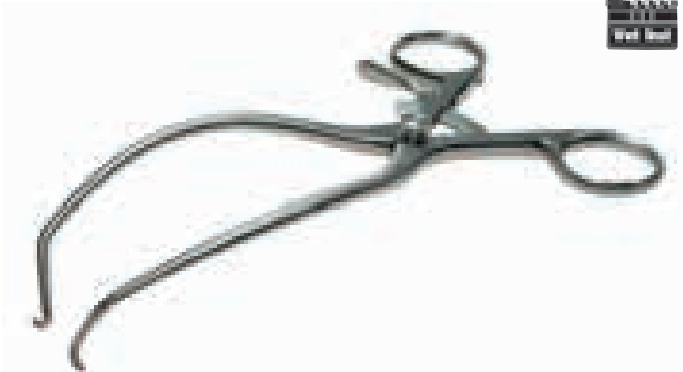
WEST		
703250	West Retractor 50mm Spread 140mm 5.5"	£170.00
703253	Mini West Retractor 40mm Spread 95mm	£120.00

Aln Skin Retractor



ALN SKIN RETRACTOR		
252370	Aln Skin Retractor 7.5cm 3"	£42.50

Gelpi Self Retaining Retractor



The Gelpi is an extremely versatile self retaining retractor useful in almost any orthopaedic procedure. Veterinary Instrumentation Gelpis are different from standard Gelpis in two respects:

1. Short blunt tips give focal retraction for precise exposure of the fracture or lesion.
2. The teeth on the ratchet are smaller than usual giving finer control over the spread of the tips.

Gelpis are virtually an extra pair of hands and are invaluable in circumstances where the surgeon is working alone. This is the norm in general practice. The curved shape sits nicely on our patients. Useful in the following procedures and many more:

- Total Head and Neck Excision
- Meniscal examination
- Fracture repairs
- Laminectomies
- CrCL repairs
- All arthrotomy procedures
- Wobblers
- Rib retractors in small patients

Two pairs of Gelpis placed at right angles to one another may be used to create a window into a joint or fracture site.

Gelpis are available in a number of lengths. Measurement 'a' gives the depth of the tips.



GELPI SELF RETAINING RETRACTOR		
001330	Gelpi Self Retaining Retractor 180mm 120mm Spread (a=20mm)	£170.00
001330SL	Gelpi Self Retaining Retractor with Spinlock for Extra Strength 190mm (a=20mm)	£170.00
001330S	Gelpi Self Retaining Retractor 180mm Sharp Tips (a=20mm)	£170.00
001331	Gelpi Long Reach 200mm (a=40mm)	£170.00
001331L	Gelpi Very Long Reach 200mm (a=60mm)	£170.00
001332	Gelpi Small 50mm Spread 135mm (a=15mm)	£170.00
0013301	Gelpi Mini Flat 45mm Spread 90mm (a=15mm)	£110.00
0013302	Gelpi Mini Curved 45mm Spread 90mm (a=15mm)	£115.00
001333	Odd Leg Gelpi Pair 205mm (a=25/40mm)	£345.00
001334	Odd Leg Gelpi Short Pair) 130mm (a20/30)	£345.00
001330BUNGEE	Gelpi Bungee Retractor	£185.00

Miscellaneous

Probes and Cutting Guides



Use the blunt probe to track fistulae. The butterfly cutting guide has a groove along its length to allow a scalpel to be run down without fear of damaging deeper tissues, the vulnerable tissues being protected by the guide.

PROBES

901010	Blunt Dissection Probe 140mm	£12.50
901015	Winged Director 130mm	£12.50

Bitch Speculum

Killian Bitch Speculum



Essentially a human nasal speculum this 6.5cm bladed instrument is the standard bitch speculum. Adding a focal light source improves visualisation enormously.

KILLIAN BITCH SPECULUM

546455	Killian Bitch Speculum Blade Length 6.5cm 2.5"	£66.50
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Towel Clips

Backhaus



General purpose Towel Clip.
Available in a range of sizes.

BACKHAUS

841350	Backhaus 9cm 3.5"	£22.50
841355	Backhaus 10cm 4"	£24.50
841360	Backhaus 12.5cm 5"	£29.50



Shardel Cross Action



Jones Cross Action



Atraumatic Towel Clip

CROSS ACTION

846550	Shardel Cross Action 9cm 3.5"	£14.50
171566	Jones Cross Action 9cm 3.5"	£12.50
841352	Atraumatic Towel Clamp 4.5"	£26.00

Ball and Socket Towel Clamp



Traditional pointed Towel Clips work by puncturing the drape material. Ball and Socket Towel Clamps do not puncture drapes, so are less likely to create tears, especially with paper drapes. Ideal for drape to drape anchorage. Very useful in 'wet' surgeries such as arthroscopy.

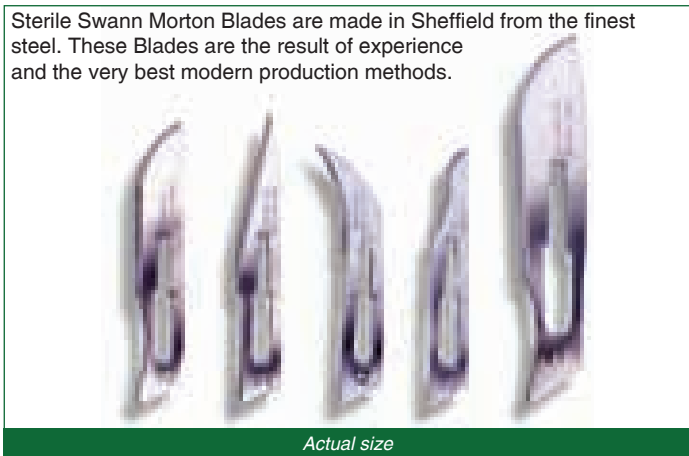
BALL AND SOCKET TOWEL CLAMP

843005	Ball and Socket Towel Clamp 5"	£27.50
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Swann Morton Blades & Handles

Swann Morton Scalpel Blades

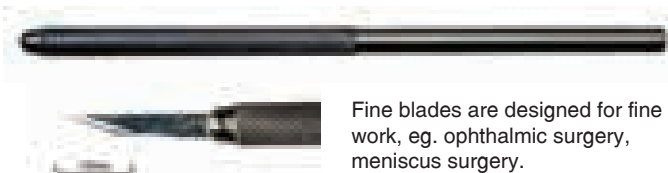
Sterile Swann Morton Blades are made in Sheffield from the finest steel. These Blades are the result of experience and the very best modern production methods.



Actual size

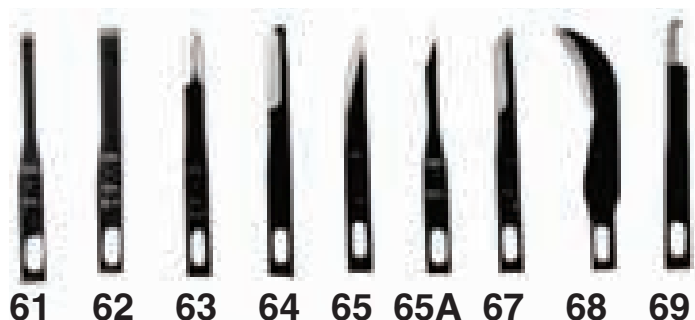
SWANN MORTON BLADES - CARBON STEEL		
0201	100 Blades individually packed Size 10	£13.50
0203	100 Blades individually packed Size 11	£13.50
0204	100 Blades individually packed Size 12	£13.50
0205	100 Blades individually packed Size 15	£13.50
0207	100 Blades individually packed Size 21	£13.50
0208	100 Blades individually packed Size 22	£13.50
0210	100 Blades individually packed Size 23	£13.50
0211	100 Blades individually packed Size 24	£13.50
SWANN MORTON SCALPEL BLADE REMOVER		
240109	Scalpel Blade Remover Forceps	£18.00
5525	Scalpel Blade Remover Disposable (Box 10)	£13.00

Swann Morton Fine Blades (Beaver Type)



Fine blades are designed for fine work, eg. ophthalmic surgery, meniscus surgery.

SWANN MORTON FINE BLADES - BEAVER TYPE		
05901	25 Blades individually packed SM61	£27.50
05902	25 Blades individually packed SM62	£27.50
05903	25 Blades individually packed SM63	£27.50
05904	25 Blades individually packed SM64	£27.50
05905	25 Blades individually packed SM65	£27.50
05906	25 Blades individually packed SM65a	£27.50
05907	25 Blades individually packed SM67	£27.50
05908	25 Blades individually packed SM68	£27.50
05909	25 Blades individually packed SM69	£67.50
02551	PM40 standard Blade (box 10)	£9.25



Swann Morton Fine Blades

Handles

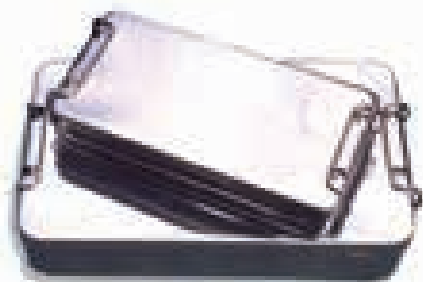
Veterinary Instrumentation's No.3 Scalpel Handle is a standard handle but has a centimetre/ millimetre scale along its length. In addition the back and edge are sharp enough to act as a periosteal elevator for stripping periosteum and muscle from bone.



SWANN MORTON HANDLES		
0803VI	No 3 Handle with Scale and Periost Elevator Back (VI)	£4.50
0803	No 3 Handle with Scale	£5.50
0923	No B3 Handle	£14.95
0804	No 4 Handle	£5.50
0814	No 4 Long Handle	£7.25
0807	No 7 Handle	£5.50
0909	No 9 Handle	£5.50
02652	PM40 Standard Handle	£5.50
0805	No 5(b) Scalpel Handle	£12.25
SWANN MORTON FINE STAINLESS HANDLE - BEAVER TYPE		
06051	Fine Stainless Handle Beaver Type 130mm	£19.95
06052	Fine Stainless Handle Beaver Type 100mm	£19.95
06053	Fine Stainless Handle Beaver Type 80mm	£19.95
06054	VI Beaver Blade Handle 130mm	£14.95

Scalpel handles and blades			
CODE	Scalpel Size	Lenght of Handle	Blade Size
0803VI	No 3 Handle with Periost Elevator Back	12.3cm	10,11,12,15
0803	No 3 Handle with Scale	12cm	10,11,12,15
0923	No B3 Handle	12.8cm	10,11,12,15
0804	No 4 Handle	13cm	21,22,23,24
0814	No 4 Long Handle	21cm	21,22,23,24
0807	No 7 Handle	16cm	10,11,12,15
0909	No 9 Handle	11.6cm	10,11,12,15
0805	No 5(B) Scalpel Handle	13cm	10,11,12,15

Instrument Boxes



Stainless Steel in construction with a bacterial filter in the base. The Filter allows steam to enter and water vapour to leave but excludes bacteria.

Available in a range of sizes to suit most instrument sets and autoclaves. Some sizes are available without Filter. Replace Filters annually.

INSTRUMENT BOXES

BX201040	Box 200mm x 100mm x 40mm	£54.50
BX201040NF	Box 200mm x 100mm x 40mm No Filter	£49.50
BX221250	Box 220mm x 120mm x 50mm	£62.50
BX221250NF	Box 220mm x 120mm x 50mm No Filter	£59.50
BX221550	Box 220mm x 150mm x 50mm	£79.50
BX281450	Box 280mm x 140mm x 50mm	£79.50
BX281410NF	Box 280mm x 140mm x 100mm No Filter	£79.50
BX341650	Box 340mm x 165mm x 50mm	£89.50
BX341670	Box 340mm x 165mm x 70mm	£92.50
BX402070	Box 400mm x 200mm x 70mm	£105.00
FILBX	Filter (State Size Of Box)	£7.50

Premium Instrument Boxes

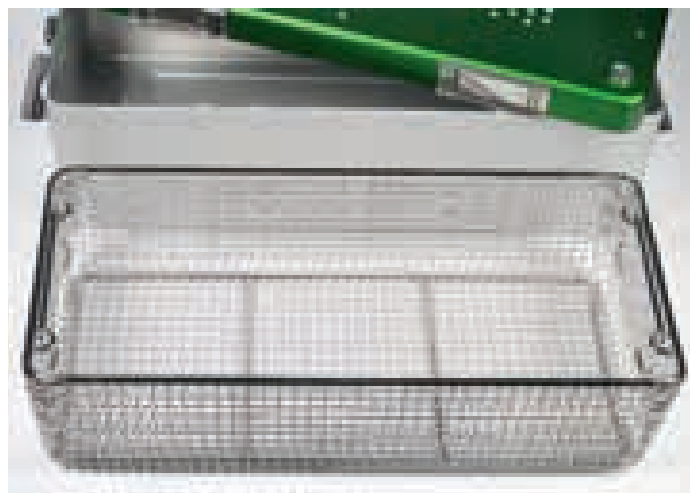


Veterinary Instrumentation's range of Premium Instrument Boxes are made from lightweight anodised aluminium. Both lid and base are perforated, but protected by replaceable paper filters in the lid and reusable filters in the base which allow steam penetration but not micro-organisms. The clip on lid incorporates a silicone seal which is impervious to micro-organisms. Paper labels to identify kits and safety padlocks add to peace of mind. A fingered silicone mat will prevent instruments damaging each other.

PREMIUM INSTRUMENT BOXES

BX301410P	Box External 300mm x 140mm x 95mm Box Internal 275mm x 128mm x 80mm	£155.00
BX301470P	Box External 300mm x 140mm x 62mm Box Internal 275mm x 128mm x 52mm	£145.00
BX301440P	Box External 300mm x 140mm x 40mm Box Internal 275mm x 128mm x 25mm	£140.00
BXPFILTER	Replacement Paper Filters w Indicators (x 100)	£14.50
BXREUSE	Reusable Filters (1,000 Cycles)	£29.50
BXPFOUND	Paper Labels with Indicators (x 100)	£14.50
PSS100	Disposabel Security Padlocks (x 100)	£17.95
PSL100	Security Padlocks with Sterilisation Indicator (x 100)	£25.00
PBXS270125	Fingered Silicone Mat, Green, 270 x 125mm	£32.00

Premium Box Baskets without Lid & Accessories



Premium Box Baskets without Lids fit neatly inside the Premium Box. This means that the instruments to be sterilised may be placed inside the basket inside the box which is sealed with paper filters. The Box with sterile contents is stored. When required the assistant opens the Box and the surgeon lifts out the Basket of sterile instruments.

PREMIUM BOX BASKETS WITHOUT LIDS & ACCESSORIES

PBBX26011570	260 x 115 x 70mm for BX301410P	£59.50
PBBX26011550	260 x 115 x 50mm for BX301410P	£57.50
PBBX26011540	260 x 115 x 40mm for BX301470P + BX301410P	£55.00
PSS100	Plastic Security Seal -Blue (x 100)	£17.95

Premium Box Baskets with Lid & Accessories

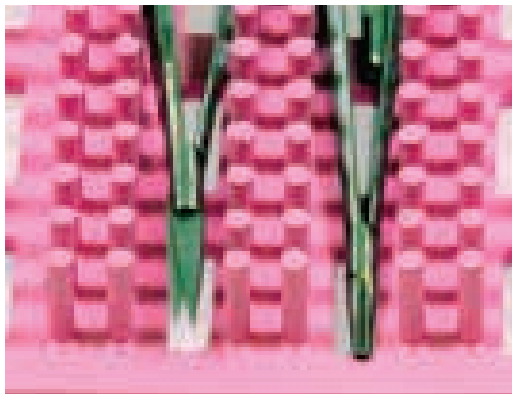


Premium Box Baskets with Lids fit neatly inside the Premium Box. This means that the instruments to be sterilised may be placed inside the basket inside the box which is sealed with paper filters. The Box with sterile contents is stored. When required the assistant opens the Box and the surgeon lifts out the Basket of sterile instruments.

PREMIUM BOX BASKETS WITH LIDS & ACCESSORIES

PBBXCAGE70	260 x 115 x 70mm with Lid for BX301410P	£79.50
PBBXCAGE40	260 x 115 x 40mm with Lid for BX301470P + BX301410P	£79.50
PBBX13011550	130 x 115 x 50 (Two fit side by side in BX301410P & BX301470P)	£55.00
PSS100	Plastic Security Seal -Blue (x 100)	£17.95

Fingered Silicone Insert



Insert shown in use with Castroviejo Scissors (not included).

Autoclavable Silicone Insert fits the base of the Stainless Box to prevent instruments contacting and damaging each other. There is an insert to fit each of our Standard Boxes.

FINGERED SILICONE INSERT		
BXSIL201040	Silicone Insert for Box 200 x 100mm	£26.00
BXSIL2540	Silicone Insert for Box 250x150mm	£32.00
BXSIL2212	Silicone Insert for Box 220 x 120mm	£32.00
BXSIL2215	Silicone Insert for Box 220 x 150mm	£32.00
BXSIL2814	Silicone Insert for Box 280 x 140mm	£32.00
BXSIL3416	Silicone Insert for Box 340 x 160mm	£37.50
BXSIL4020	Silicone Insert for Box 400 x 200mm	£37.50
	Other sizes available	POA

Instrument Box Padlock Security Tags with Indicator



Anti-tamper Security Padlock with Steam Sterilisation Indicator Spot. Spot colour changes from pale blue to brown. Single use only. Padlock has to be broken to be removed. Supplied in packs of 20 and 100.

INSTRUMENT BOX PADLOCK SECURITY TAGS WITH INDICATOR		
PSL20	Instrument Box Padlock Security Tag with Indicator (20)	£6.95
PSL100	Instrument Box Padlock Security Tag with Indicator (100)	£25.00

Holloware



HOLLOWARE		
KID6	6" Kidney Dish	£11.50
KID8	8" Kidney Dish	£12.50
KID10	10" Kidney Dish	£15.50
KID12	12" Kidney Dish	£18.00
LOTBWL4	4" Lotion Bowl	£12.50
LOTBWL6	6" Lotion Bowl	£16.50
LOTBWL8	8" Lotion Bowl	£23.00
LOTBWL10	10" Lotion Bowl	£28.50

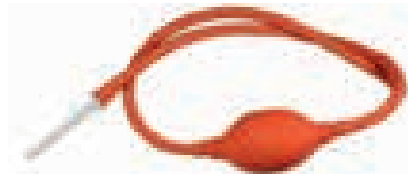
Sterile Surgical Skin Marker



Supplied in a sterile peel pouch the surgical marker allows the surgeon to demarcate selected sites prior to or during surgery. The Marker is scrub resistant, non toxic and highly visible. Especially useful around the eyes and ears where accurate reconstruction is vital. Also useful for large skin reconstruction procedures.

STERILE SURGICAL SKIN MARKER		
001487	Surgical Skin Marker Single	£3.25
001488	Surgical Skin Marker Single (Pack of 6)	£14.50

Higginsons Emema Pump



The original Higginsons Enema Pump.

HIGGINSONS ENEMA PUMP		
G1894	Higginsons Enema Pump	£45.00

Irrigation Bulbs



During extended procedures, particularly those performed under powerful lighting, it is very important to prevent tissues becoming dessicated and devitalised. It is advisable to delegate irrigation to someone other than the primary surgeon who is likely to be focussed on other things. A small lotion bowl of saline plus an Irrigation Bulb is an effective way to keep tissues moist. Available in two sizes. Fully autoclavable.

IRRIGATION BULBS		
IRB60	Irrigation Bulb 60mm Diameter	£18.95
IRB45	Irrigation Bulb 45mm Diameter	£18.95
IRBSET	Irrigation Bulb Set of 2 (one of each)	£32.00

Instrument Care

The majority of surgical instruments are made of Stainless Steel. There are many different types of stainless steel alloys (60+), with varying amounts of Nickel & Chromium to increase resistance to corrosion. All types of stainless steel will corrode under certain conditions – ‘stainless’ is a little misleading. The proportions of the various constituents affect the characteristics of the final steel, along with the degree of hardening applied.

Surgical instruments must be hard enough to take and keep a cutting edge (e.g. scissors) or have a certain spring (e.g. artery forceps). The steel possessing these qualities contains less chromium and more carbon than orthopaedic implants, which are made of steel with the primary characteristic of resistance to corrosion, making it too soft for instruments. The penalty is that this type of higher carbon stainless steel (called Martensitic) is much more likely to corrode and stain.

The parts of the steel likely to rust are protected by a thin layer of chromium oxide which is produced by the chromium part of the steel. Actions which encourage the production of chromium oxide minimise corrosion. Actions which either physically or chemically destroy this layer of chromium oxide encourage rusting or staining. Maximising the chromium oxide layer is the basis of sound instrument care. This layer thickens with age and increases the resistance of your instruments to corrosion – in new instruments it is relatively thin. This is why you may have marking problems with new instruments but your old ones are fine – new instruments will be more intolerant of inappropriate detergents, inadequate lubrication and the corrosive environment of the autoclave etc.

Manual Cleaning Protocol – Stainless Instruments

1. Open all joints and rinse gross loose debris from instruments in warm water (NOT hot – this will coagulate proteins & make the instruments much harder to clean) immediately after use. They will be much harder to clean if left to dry!
2. Completely submerge instruments in an enzyme based neutral pH detergent – soak for time specified in detergent instruction.
3. Gently scrub instruments with a soft bristled brush to remove all remaining visible soil, keeping the instrument under the surface of the detergent to reduce spray. Use a pipe-cleaner brush on instruments with a lumen. Pay special attention to joints & ratchets.
4. Remove from the enzyme solution and rinse thoroughly in tap water for at least 3 minutes.
5. Ideally place the instruments in an ultrasonic cleaning bath for 10-15 minutes or as per cleaner instruction manual.
6. Remove from bath at completion of cycle, (or after step 4 if no ultrasonic available) then rinse instruments thoroughly with purified (distilled) water.
7. Dry with a clean non-shedding wipe – leaving them to air-dry will result in water spotting.
8. Lubricate with either spray surgical instrument oil or place in instrument milk bath – follow directions for product used.

To keep your instruments in peak condition, there are some basic rules which should be followed.

1. Handle your instruments with care – dropping, scratching etc. will all damage the surface of instruments and reduce their resistance to corrosion.
2. Store with care. If instruments are stored damp they will corrode. Delicate instruments should be packed with protective tips & silicone storage box inserts to stop them rattling around. Always make sure heavy instruments are not stored on top of lighter equipment.
3. Use them to do what they were designed for! Artery Forceps are not Needleholders or Wire Twisters. Bone Cutters are not designed to cut Wire, and Implant Cutters have a size rating for a reason! Inappropriate use will damage instruments and invalidate warranties.
4. Avoid mixing different metals when processing instruments – keep chrome plated, industrial finish & aluminium items separate from stainless, particularly in ultrasonic cleaners.

Cleaned lubricated instruments are ready for packaging. Always carry out a visual check at this stage – are the cutting edges of scissors free of damage, do the jaws of artery forceps & needle-holders meet correctly with no signs of twisting for example. Check that all thumbscrews are tight, as in Gelpi & Stifle Distractor joints



Joint showing wear due to inadequate lubrication

Also look for fine cracks in instruments, for example across the box joints in Artery Forceps.



Needleholder with damaged jaws



Box joint showing cracking & biological debris

Damaged items should be sent for repair or disposed of. It is good practice to sterilize items being sent for repair. Many repairers require a certificate of decontamination to be sent with instruments, and instruments should never be sent out in a soiled condition.

There are many materials for packing instruments for autoclaving. Paper peel-packs are commonly used, along with nylon autoclave film. We do not recommend the use of laundered fabrics as instrument wraps, as residual detergents and bleaches can cause pH & chlorine related damage to your instruments. Disposable autoclavable instrument wrapping fabrics similar to disposable drapes are available.

Sterilisation

The autoclave is a very hostile environment for your instruments. The combination of heat & moisture promotes corrosion and staining, particularly if there are residual detergents etc. in wrapping materials. This is also true where tap water instead of distilled or demineralised water is used in the autoclave. Mineral deposits on instruments are unsightly as well as interfering with normal joint function etc. They are difficult to remove, so prevention is better than cure.

Rust in the steam pipes of your autoclave will transfer to your instruments, so autoclave maintenance is important. Regular servicing ensures the autoclave is working correctly. Vacuum autoclaves help remove residual steam from packs, and it is important that directions are followed and cycles are completed. Regularly check the door seal is undamaged, and replace if necessary. If applicable to your machine, drain & refill the water tank regularly with distilled water. You may well be surprised what comes out!

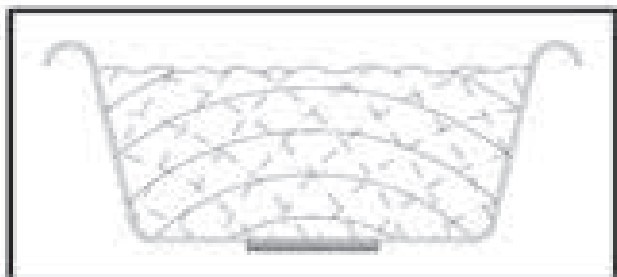
If your packs are coming out of the autoclave wet through then there is a cycle problem & you need to speak to your autoclave engineer for advice. Wet storage will result in corrosion and damage to your instruments.

So – store your instruments clean, dry, lubricated & protected and they will give you many years of service. A good, easy to follow instrument care protocol will extend instrument life, save money and result in happy surgeons!

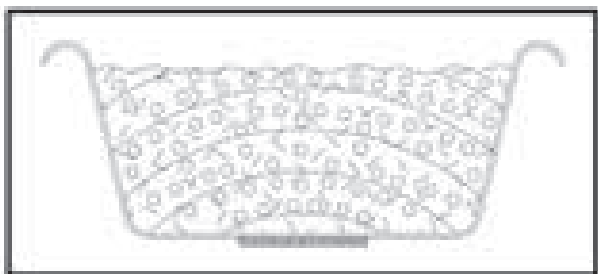
Instrument Cleaning

What is Ultrasonic Cleaning?

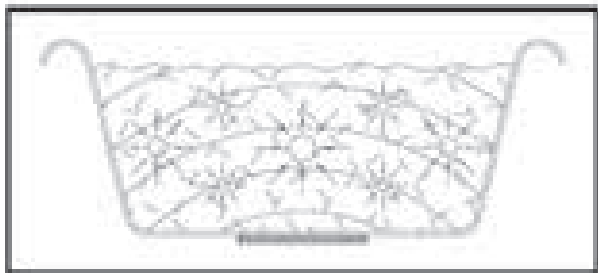
Ultrasonic cleaning is created by sound waves that are transmitted at frequencies beyond the range of human hearing. A generator located within your system develops the high frequency power which causes a transducer to radiate and produce the sound waves.



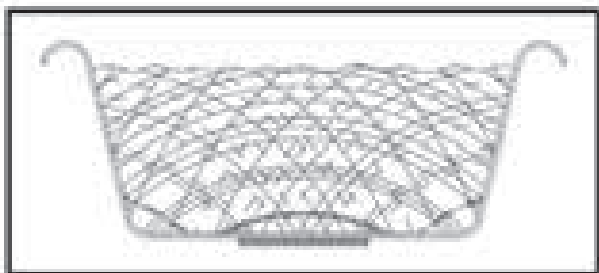
The solution in the tank and create a unique vibrational pattern causing alternating high and low pressures in the liquid.



During the low pressure stage, millions of tiny bubbles form. This process is called CAVITATION, meaning the formation of cavities.



During the high pressure stage, the bubbles collapse or implode, releasing enormous amounts of energy. Working in all directions, the bubbles attack every surface and invade all recesses and crevices, pulling debris off the object being cleaned.



Maxisweep machines utilize Sweep technology that enhances the ultrasonic activity by automatically changing frequencies, thus creating a cleaning grid which literally sweeps through the tank. A more uniform cleaning pattern and significantly shorter cleaning times result when 'hot spots' present in traditional ultrasonics are eliminated.

Henry Schein Sweep 2000 Ultrasonic Instrument Cleaner



New version for 2015!

This updated Ultrasonic Instrument Cleaner features Sweep technology. Which automatically switches frequencies creating a 'grid' effect, sweeping the tank and eliminating the 'hot spots' and weak areas which can occur in traditional ultrasonics. This results in a more thorough cleaning outcome.

The unit has a hinged, locking lid and is designed to reduce noise levels from the cleaner when in use – noise is a common issue with ultrasonics in practice!

Controls are sited on an easy clean front panel. Timer is in increments - 6, 12, 20, 30 and 60 minute presets changed by a simple touch. Heat is also available – on and off on a separate touch-button, with indicator light.

Items to be cleaned should not be allowed to rest on the bottom of the cleaner. A basket is included. The accessory pack (see below) includes an extra basket and some very useful additional components.

Tank capacity is 4 litre.

External Dimensions: Width 266.7mm x Height 266.7mm x Length 374.65mm - weight 6.8kg.

Internal Dimensions: Width 139.7mm x Height 88.9mm x Length 285.75mm

Warranty is 2.5 years against manufacturing defects. Please note- running the unit dry with the heater on will result in failure – this is not a warranty issue!

Accessory Kit

This consists of 1 x full basket, 1 x bur box, 1 x bur tray, 1 x full positioning cover, 1 x half positioning cover and 2 x 600ml beakers.

The bur accessories are useful for small components including burs & drill bits, avoiding 'losing' small items in the bottom of the tank. The beakers are used with the positioning covers which support them in the carrier solution, and are used when smaller quantities of specialist cleaning solutions are needed which may damage the cleaner unit.

HENRY SCHEIN SWEEP 2000 ULTRASONIC INSTRUMENT CLEANER		
HS9006376	HS Sweep 2000 Ultrasonic Cleaning Machine with Basket	£595.00
HS1113452	HS Sweep 2000 Spare Basket	£79.50
HSSWEEPKIT	HS Sweep 2000 Accessory Kit	£195.00

Repair Service

Veterinary Instrumentation has a network of specialists who can repair any surgical instrument. Send the damaged item to us and we will advise if it is worth repairing. For some power tools, it may be necessary to send them back to the original manufacturer for assessment, which may be overseas. All carriage fees will be charged at cost.

Routine sharpening and setting of scissors is performed quickly and professionally by Len Richardson, an instrument maker with over 55 years of experience.



Instrument Cleaning Brushes and Pipecleaners



Stainless Steel Instruments are protected from corrosion by a very thin layer of chromium oxide. This should not be damaged by regular wire brushes. Brushes available with Nylon and Stainless Bristles. Orthopaedic Cleaning Brush is Double Ended with superfine soft Stainless Steel Bristles. General instrumentation is the same with Nylon Bristles. One end has 3 rows of Bristles, the other has a single row for delicate work. Pipe Cleaners are 1/8" diameter and 12" long. Absorbant for cleaning and drying. Supplied in packs of 100.

INSTRUMENT CLEANING BRUSH

CB1	Cleaning Brush Nylon for Gross Contamination	£13.50
CB2	Cleaning Brush Stainless for Large Burs & Reamers	£13.50
CB3	Cleaning Brush Nylon for General Instrumentation	£16.50
CB4	Cleaning Brush Stainless Steel for Orthopaedic	£16.50
CBPIPE	Pipe cleaners 1/8" 12" Long (Pack of 100)	£49.50

Instrument Cleaning Agents

Rapidex Cleaner - (Now supplied in bulk or water soluble sachets)



An effective degreaser and general instrument cleaner. Some users dislike the loose powder format. The new soluble sachets are simply dropped into the ultrasonic bath. No dry powder is released.

- Ideal for Ultrasonic Cleaners.
- Also effective as a pre-soak for long standing or difficult residues
- Tested by the Royal Institute of Public Health

RAPIDEX CLEANER

RAPIDEX	Rapidex Soluble Sachets (Box of 50)	£39.50
RAPIDEXBULK	Rapidex Bulk Powder 2.25kg	£59.50

Rapizyme



- Three new enzymes.
- Easy to use measured bottle.
- 2ml per litre dilution.
- Removes all organic material.
- Ideal for endoscopes.
- Low foam for ultrasonics.
- Completely rinsable.
- Biodegradable.
- Tested by The Royal Institute of Public Health.

RAPIZYME

RAPIZYME	Rapizyme 1 Litre	£49.50
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Micro 90 Concentrate



Liquid general purpose Instrument Cleaner (dilute 1:100) for Ultrasonics.

MICRO 90 CONCENTRATE		
100300	Micro 90 1 Litre Dilute 1:100	£16.25

Perasafe

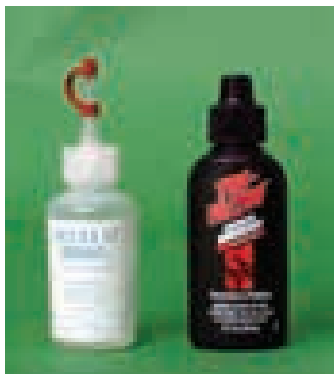


Perasafe is a rapid, instrument compatible, user and environmentally friendly chemical sterilant. Supplied as a safe, space-saving powder Perasafe is activated by simply dissolving in luke-warm tap water. Providing rapid sterilisation and re-use of endoscopy instruments, Perasafe gives confidence to users and patients alike. A unique aldehyde-free formulation gives efficacy without harm to instruments, health risks to nursing staff and avoids the need for special fume extraction or waste disposal systems.

Perasafe is a pale blue/ white powder which, when in solution, sterilises within 10 minutes. Suitable for all surgical instruments and fibrescopes. Formulated not to damage surgical instruments. Prepared solution lasts 24 hours. 81g pack makes 5 litres. May be subdivided to make less.

PERASAFE		
100100	Perasafe Cold Sterilant 24 x 81g (5 litre size)	£205.00
100101	Perasafe Cold Sterilant 6 x 81g (5 litre size)	£72.50

Instrument Oil - (Autoclavable)



Regular lubrication will keep your instruments working longer. Failure to lubricate will result in stiff joints and ultimately breakages. Low boiling point oils are quickly lost during the autoclaving process.

Oils containing Teflon offer significant extra lubrication. Can be autoclaved.

INSTRUMENT OIL - AUTOCLAVABLE		
100003	Instrument Lubricating Oil	£15.00
100006	Teflon Drops	£18.95

Instrument Lubrication

BA Ultimate Oil Spray



BA ULTIMATE OIL SPRAY		
BA01L	BA Ultimate Oil Spray	£22.00

Surgical Instrument Lubricant



After washing and drying, a regular spray of Instrument Lubricant will prolong working life and improve the function of your jointed instruments.

SURGICAL INSTRUMENT LUBRICANT		
100009	Instrument Lubricating Spray	£13.95

Instrument Lube



Diluted with water Instrument Lube becomes an oil emulsion. Instruments are allowed to soak to allow penetration of lube to all working parts. The excess is drained off prior to autoclaving. The water evaporates during autoclaving, leaving a film of oil in the joints. Concentrated solution.

Recommended dilution rate 1 part EZEE-Lube to 50 parts water for use with manual application or static bath. When applied into a disinfection cycle the recommended dilution rate is 1 part EZEE-Lube to 100 parts water, as the dispersion

of the product in hot water is much more efficient.

Clear solution becomes white when diluted.

Remove excess EZEE-Lube with suitable cloth or towel before placing instrument into autoclave.

INSTRUMENT LUBE		
100008	EZEE Lube Instrument Lube 4 Litre (makes 200 litres)	£89.50

Instrument Marking

Colour Coded Identity Rings



Strong tear-resistant Silicone Instrument Coding Rings.

COLOUR CODED IDENTITY RINGS

100012	Coloured Silicone Instrument I.D. Rings x 120	£15.95
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Instrument Marking Tape



Allows rogue instruments to be returned to their kits. Also useful when going on practical courses. Available as a Kit or in individual rolls.

INSTRUMENT MARKING TAPE

100001	Instrument Marking Tape (Box 8 colours) (120cm)	£22.00
100001Y	Instrument Marking Tape Single Yellow (300cm)	£9.95
100001R	Instrument Marking Tape Single Red (300cm)	£9.95
100001BR	Instrument Marking Tape Single Brown (300cm)	£9.95
100001OR	Instrument Marking Tape Single Orange (300cm)	£9.95
100001BLU	Instrument Marking Tape Single Blue (300cm)	£9.95
100001G	Instrument Marking Tape Single Green (300cm)	£9.95
100001W	Instrument Marking Tape Single White (300cm)	£9.95
100001BLK	Instrument Marking Tape Single Black (300cm)	£9.95

Protective Autoclavable Tips



For Steinman, ESF pins and delicate or sharp instruments. Protect both tips and staff.

PROTECTIVE AUTOCLAVABLE TIPS

100011-W	Protective Tip White up to 1.6 - 2.0mm Diameter Pack 20	£9.95
100011-BL	Protective Tip Blue 2.5 - 3mm Diameter Pack 20	£9.95
100011-G	Protective Tip Green up to 3.2 - 4.0mm Diameter Pack 20	£9.95
100011-R	Protective Tip Red up to 4.8mm Diameter Pack 20	£9.95
100011-Y	Protective Tip Yellow up to 6.0 - 6.5mm Diameter Pack 20	£9.95
100011-O	Protective Tip Flat Orange up to 10mm Wide Pack 20	£9.95
100011-BR	Protective Tip Flat Brown up to 16mm Diameter Pack 20	£9.95
100011-BLK	Protective Tip Flat Black up to 25mm Diameter Pack 20	£9.95
100020	Protective Tips Silicone Multi Pack One pack of each colour 160 (8 x 20)	£69.50

Tube Brushes



Fine brushes are very useful for cleaning the lumen of drill guides and tissue protectors down to 2mm, particularly where ultrasonic cleaning is not available. Use to remove gross contamination and ensure patency before ultrasonic cleaning.

TUBE BRUSHES

END02	Tube Brush 12 Inch Long 2mm	£14.95
END03	Tube Brush 12 Inch Long 3mm	£14.95
END04	Tube Brush 12 Inch Long 4mm	£14.95
END05	Tube Brush 12 Inch Long 5mm	£14.95

Sharpening Accessories

IM3 White Stone Slip

To work effectively both scalers and elevators need to be sharp. Regular sharpening will keep your instruments working correctly.



The Slip Stone has both flat and rounded surfaces to sharpen elevators and curettes. Use baby oil as lubricant.



IM3 WHITE SLIP STONE		
012150	IM3 White Slip Stone for Curettes and Elevators	£29.95
012146	Luxator Cylindrical Sharpening Stone	£29.50

Diamond Card - Fine



This credit card sized, Diamond Covered Plate is ideal for sharpening Dental Elevators and Luxators. To work efficiently these instruments must be sharp. The diamond is virtually indestructable. An additional advantage is that the lubricant used is water rather than the oil used with sharpening stones.

DIAMOND CARD - FINE		
012144	Flat Diamond Sharpening Card (Fine)	£24.95

Diamond Cone



Subgingival Curettes must be kept sharp to work efficiently. They should be checked and sharpened at least weekly. The Diamond Cone is indestructable compared with stones which break very easily and uses water rather than oil as a lubricant.

DIAMOND CONE		
012148	Diamond Cone 205mm	£44.50

Plastic Test Stick PTS



Used to check the sharpness of curettes. The sharp curette will bite when used on the test stick at the angle used on the tooth. If it slips, it is not sharp.

PLASTIC TEST STICKS		
HUF-PTS	Plastic Test Sticks Pack of 6	£17.95

Autoclaving

Instrument Box Padlock Security Tags - No Indicator



Anti-tamper security padlock. Useful for marking instrument boxes. Single use only. Padlock has to be broken to be removed. Good value Supplied in packs of 100

INSTRUMENT BOX PADLOCK SECURITY TAGS - NO INDICATOR		
PSS100	Disposable Security Padlocks No Indicator (x 100)	£17.95

Instrument Box Padlock Security Tags with Indicator



Anti-tamper Security Padlock with steam sterilisation indicator spot. Spot colour changes from pale blue to brown. Single use only. Padlock has to be broken to be removed. Supplied in packs of 20 and 100

INSTRUMENT BOX PADLOCK SECURITY TAGS WITH INDICATOR		
PSL20	Instrument Box Padlock Security Tag with Indicator (20)	£6.95
PSL100	Instrument Box Padlock Security Tag with Indicator (100)	£25.00

Instrument Padlock Security Tags - Repair



Useful for marking instruments which should be sent for repair. Single use only. Padlock has to be broken to be removed. Supplied in packs of 10

INSTRUMENT PADLOCK SECURITY TAGS - REPAIR		
PSTR10	Instrument Padlock Security Tag - Repair (10)	£4.95

Autoclaves



VetAssure Class B & Class S Autoclaves

The VetAssure Range of Autoclaves

The VetAssure Range of Autoclaves comply with all the relevant European Directives and Standards, including BS EN13060.

Designed and manufactured in Italy, the VetAssure is built to the highest standard delivering quality, efficiency, speed, simplicity and reliability. Midmark are market leaders in the US for benchtop steam sterilisation and have a major market presence in Germany, UK Dental and Italy, proving to be the professional's choice across Europe.

Above all else we realise that what the busy veterinary surgery requires is reliability and peace of mind. The autoclave needs to perform day in day out. This is exactly what VetAssure offers. Our uptime figures are in excess of 99.5%, providing the exceptional reliability of Midmark autoclaves.

One of the unique features of the VetAssure range is that all models incorporate a steam generator, injecting steam directly into the chamber. This enables the Autoclave to operate with some of the fastest cycle times on the market whilst remaining highly energy efficient.

Both the VetAssure B and S class autoclaves meet the highest standards required for vacuum sterilisation and are suitable for all wrapped, non-wrapped, solid, hollow and porous loads, meeting the BS EN13060 standard for steam penetration and resulting in dry packs and instruments.

Both B and S class autoclaves have the following features:

- Fast sterilisation times
- Steam generator to reduce water and energy consumption by up to 50%
- Internal thermal printer as standard with last 10 cycle reprint facility
- Optional internal USB data-logger facility
- Graphic display for easy operation and control
- Practical water loading from self-priming pump
- Direct connections for automatic water fill and drainage
- Separate water loading and drainage tanks for improved hygiene
- Motor operated door closure with triple safety protection
- Suitable for all load and instrument types
- Available in 18 or 23 Litre capacity
- Up to 52cm chamber length (B&S 23L) – one of longest on market - for those larger kits
- Reversible tray holders and 5 trays as standard
- Competitively priced
- Superior build using quality materials ensure reliability and longevity of machine.

Midmark Customer Service includes:

After-sales Service and Maintenance.

Free Delivery (UK Mainland), Installation, Commissioning and Staff Training on purchase.

Service is recommended every 1500 cycles or at least once per year.

Manufacturer Trained Engineers.

BCAS Accredited.

Two Year Warranty (5 Year Warranty on Chamber).

Free Technical Support by phone.

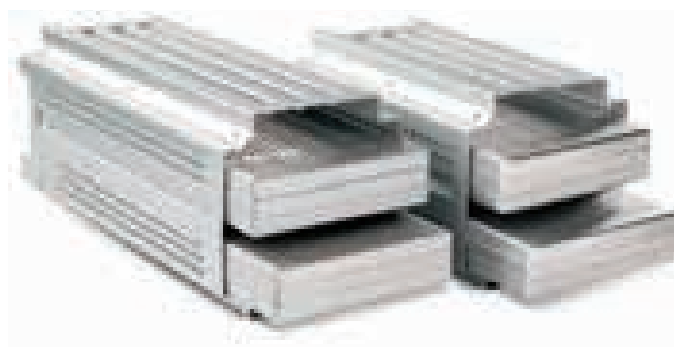


The VetAssure Series of autoclaves has all the features listed opposite and meets all the regulations which cover vacuum veterinary autoclaves. Both 'Bowie and Dick' and 'Vacuum Test' parameters as specified by the NHS are met. The double-stage vacuum pump evacuates the chamber both prior to the cycle and after the sterilisation process.



The graphic display indicates current temperature and pressure plus details of cycle phases.

Details of operator errors also displayed.



Tray holders carry 5 trays as standard. 5 trays included.

Tray holder is reversible and removeable for larger packs.

Wrapped packs up to 4.5kg may be sterilised (B23 & S23).

Chamber length up to 530mm (23L).



An on board printer is standard to provide a permanent record of the complete cycle.
Reprint option on previous 10 cycles available.



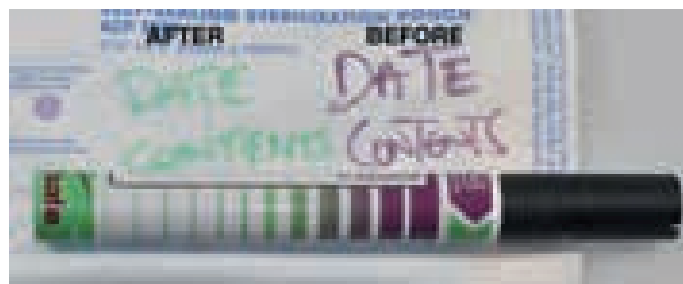
VETASSURE MIDMARK AUTOCLAVES		
VS1800000	VetAssure 'S' Autoclave 18 Litre	£2,900.00
VS2300000	VetAssure 'S' Autoclave 23 Litre	£3,100.00
VB1800000	VetAssure 'B' Autoclave 18 Litre	£3,400.00
VB2300000	VetAssure 'B' Autoclave 23 Litre	£3,750.00
KROTB	Thermal Printer Paper (Pack of 10 Rolls)	£24.00

The VetAssure Autoclave Range are also available with an Internal Data Logger - optional extra. Please contact the Vet Tech Team on 0845 130 9596 or email info@vetinst.com for further details.

Customer service includes:

- After-sales Service and Maintenance.
- Free Delivery (UK Mainland), Installation, Commissioning and Staff Training on purchase.
- Service is recommended every 1500 cycles or at least once per year.
- Manufacturer Trained Engineers.
- BCAS Accredited.
- Two Year Warranty (5 Year Warranty on Chamber).
- Free Technical Support by phone.

Process Indicator Pen (PIP)

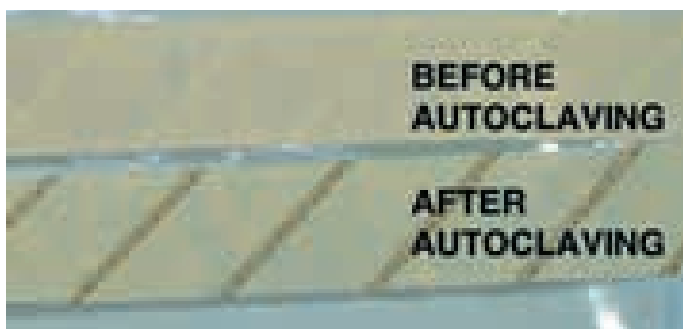


A really handy Process Indicator Pen (PIP) - you will wonder how you did without it.

Conforms to EN ISO 11140-1. Writes on all standard sterilization wrapping materials. Changes colour from purple to green. Clear Stop/Go colour change. Non toxic and lead free.

AUTOCLAVE PEN		
AUTOPEN	Autoclave Pen	£34.50

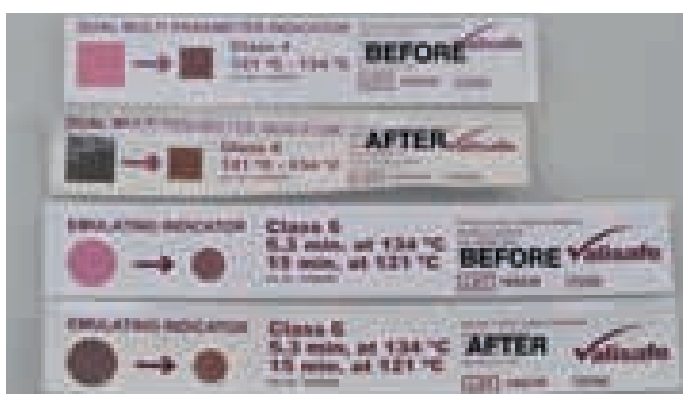
Autoclave tape



Use to seal bags and boxes. Integral marking changes colour when passed through a full cycle. Note that a change in colour of the tape does not necessarily guarantee that the contents of the bag or pack are sterile. Conforms to ISO 11140-1 Class 1 19mm x 50m roll

AUTOCLAVE TAPE		
AUTOT12	Autoclave Tape 19mm x 50m roll (12 Pack)	£27.95
AUTOT48	Autoclave Tape 19mm x 50m roll (48 Pack)	£84.50

Steam Sterilization Indicators



Available in Class 4 Dual Steam Multi Parameter and Class 6 Steam Emulating indicators
Class 4 monitors all 121°C to 134°C steam sterilization cycles
Class 6 monitors critical parameters - Time, Temperature and Steam 5.3 min at 134°C and 15 mins at 121°C
Clear colour change.

STEAM STERILIZATION INDICATORS		
AUTOINDMP	Class 4 Dual Steam Multi Parameter Indicators (500 Pack)	£49.50
AUTOINDE	Class 6 Steam Emulating Indicators (250 Pack)	£49.50

Re-Usable Cotton Theatre Wear

Scrubs

Increasingly veterinary operating room procedures are coming into line with their human counterparts. Everyday clothing should not enter the clean areas.

Plain Scrubs



Jade

Adriatic

Plain two pocket scrub tunics 'V' neck. 65/35 polycotton.

PLAIN SCRUB TUNICS

TW0013J	XSmall	Jade	£12.95
TW0013A	XSmall	Adriatic	£12.95
TW0003J	Small	Jade	£12.95
TW0003A	Small	Adriatic	£12.95
TW0005J	Medium	Jade	£12.95
TW0005A	Medium	Adriatic	£12.95
TW0007J	Large	Jade	£12.95
TW0007A	Large	Adriatic	£12.95
TW0009J	XLarge	Jade	£12.95
TW0009A	XLarge	Adriatic	£12.95

Plain Scrub Trousers with drawstring waist. 65/35 polycotton.

PLAIN SCRUB TROUSERS

TW0014J	XSmall	Jade	£11.95
TW0014A	XSmall	Adriatic	£11.95
TW0004J	Small	Jade	£11.95
TW0004A	Small	Adriatic	£11.95
TW0006J	Medium	Jade	£11.95
TW0006A	Medium	Adriatic	£11.95
TW0008J	Large	Jade	£11.95
TW0008A	Large	Adriatic	£11.95
TW0010J	XLarge	Jade	£11.95
TW0010A	XLarge	Adriatic	£11.95

Save 10% if you purchase one tunic and one trouser quote TW000SET when ordering

Grahame Gardener Ltd

Veterinary Instrumentation is pleased to announce that we have linked up with Grahame Gardener Ltd, one of the UK's biggest suppliers of theatre wear, to provide the veterinary professional with a huge choice of scrubs, coats and related wear.

The latest Grahame Gardener Ltd Catalogue has a huge range of different scrubs, coats and related wear.

To view the Grahame Gardener Catalogue please visit our website at www.vetinst.com

A copy of the Catalogue is available to view on-line or download.

Scrub Tunics

Available in XS - XL (please state size when ordering) (larger sizes available - please ask for price).

UNISEX SIZE CHART

	XS	S	M	L	XL
BUST/CHEST (inches)	31 - 33	34 - 37	38 - 40	41 - 44	45 - 47
WAIST (inches)	24 - 26	28 - 30	32 - 34	36 - 38	40 - 42

Royal Blue with Lime Trim Tunic



ROYAL BLUE WITH LIME TRIM TUNIC

TW9051BL	Royal Blue with Lime Trim Tunic One pocket	£32.50
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Malbec Tunic



MALBEC TUNIC

TW8219M	Malbec Tunic Two pockets	£32.50
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Grahame Gardener Ltd

The latest Grahame Gardener Ltd Catalogue has a huge range of different scrubs, coats and related wear.

Please note we will not accept any returns of non-standard wear.

To view the Grahame Gardener Catalogue please visit our website at www.vetinst.com

A copy of the Catalogue is available to view on-line or download.



Clogs



The latest Toffeln brochure has a huge range of footwear. The Brochure is available to view or download at www.vetinst.com

CODE: BRCLOG

Please note we will not accept any returns of clogs, so please be accurate when ordering.

'Clean' areas require dedicated clean footwear. Slip on clogs are ideal. Available in a variety of styles and colours.

Please state size required when ordering.

SURGICAL CLOGS		
0499W	White Clogs	£48.50
0499LB	Light Blue Clogs	£48.50
0800N	Navy Blue Clogs	£48.50
0497BW	White Paws on Black	£48.50
SC052	Clean Clog	£48.50
0497FW	White Paws on Fuschia	£48.50

Surgical Wellies



White.
Please state size when ordering.

SURGICAL WELLIES		
SWL100	Surgical Wellies (state size when ordering)	£31.50

Operating Gowns



1. Standard

2. Waterproof

1. Green Cotton with Long Sleeves and Cuffs, the Standard Operating Gown.
2. Waterproof Material, with Cuffs for minimal strike through. Pale Blue.

OPERATING GOWNS		
TW0001M	Operating Gown Cotton + Cuffs Medium	£19.95
TW0001L	Operating Gown Cotton + Cuffs Large	£19.95
TW0001XL	Operating Gown Cotton + Cuffs Extra Large	£19.95
TW0002	Operating Gown Waterproof with Cuffs Blue Large	£52.50

Client Expectations

In 2009 a survey published in the Journal of Small Animal Practice (JSAP. Vol 50. September 2009) revealed a significant disconnect between client expectations of operating theatre practice and the reality of what happens in first opinion veterinary practice.

	Client Expectation %	Practice Reality %
Wearing of gloves	98.2	37.5
Wearing a gown	92.7	14.3
Wearing a hat	80.9	12.5
Wearing a facemask	80.2	10.7
Wearing theatre shoes	62.2	7.1
Using disposable drapes	42	19.6

The article also revealed that clients would be unhappy if their expectations were not met.

The main driver of theatre practice should be the wellbeing of our patients but how clients expect us to operate is not an insignificant factor. That veterinary practice should, ideally, conform to the standards indicated is not really in doubt. The survey shows that veterinary practice is in many cases not living up to client expectations. By implication if clients expect us to use these materials then they will be willing to pay for them.

This section includes a wide selection re-usable and disposable theatre wear and drapes.

Re-useable Cotton Drapes

Plain Surgical Drapes

Available in green balloon cloth (lightweight with fine weave) in either single or double thickness.

PLAIN SURGICAL DRAPES - BALLOON CLOTH - SINGLE PLY

BDS1818	Plain Drape 18" x 18" (45cm x 45cm)	£5.25
BDS2418	Plain Drape 24" x 18" (60 x 45cm)	£5.50
BDS2424	Plain Drape 24" x 24" (60 x 60cm)	£5.75
BDS3624	Plain Drape 36" x 24" (91 x 60cm)	£6.75
BDS3636	Plain Drape 36" x 36" (91 x 91cm)	£7.75
BDS4836	Plain Drape 48" x 36" (122 x 91cm)	£9.00
BDS4848	Plain Drape 48" x 48" (122 x 122cm)	£9.75
BDS7248	Plain Drape 72" x 48" (182 x 122cm)	£10.75

PLAIN SURGICAL DRAPES - BALLOON CLOTH - DOUBLE PLY

BDS1818DBL	Double Drape 18" x 18" (45cm x 45cm)	£8.75
BDS2418DBL	Double Drape 24" x 18" (60 x 45cm)	£9.00
BDS2424DBL	Double Drape 24" x 24" (60 x 60cm)	£9.75
BDS3624DBL	Double Drape 36" x 24" (91 x 60cm)	£11.25
BDS3636DBL	Double Drape 36" x 36" (91 x 91cm)	£12.50
BDS4836DBL	Double Drape 48" x 36" (122 x 91cm)	£14.00
BDS4848DBL	Double Drape 48" x 48" (122 x 122cm)	£15.50
BDS7248DBL	Double Drape 72" x 48" (182 x 122cm)	£17.50

Fenestrated Surgical Drapes

Available in green balloon cloth (lightweight with fine weave) in either single or double thickness.

FENESTRATED SURGICAL DRAPES - BALLOON CLOTH - SINGLE PLY

BDSF1818	Fenestrated Drape 18" x 18"	2" x 1" Hole	£7.25
BDSF2424	Fenestrated Drape 24" x 24"	4" x 1.5" Hole	£9.75
BDSF3636	Fenestrated Drape 36" x 36"	5" x 2" Hole	£11.75
BDSF4848	Fenestrated Drape 48" x 48"	7" x 3" Hole	£18.50

FENESTRATED SURGICAL DRAPES - BALLOON CLOTH - DOUBLE PLY

BDSF1818DBL	Fenestrated Drape Double 18" x 18"	2" x 1" Hole	£11.75
BDSF2424DBL	Fenestrated Drape Double 24" x 24"	4" x 1.5" Hole	£14.75
BDSF3636DBL	Fenestrated Drape Double 36" x 36"	5" x 2" Hole	£17.25

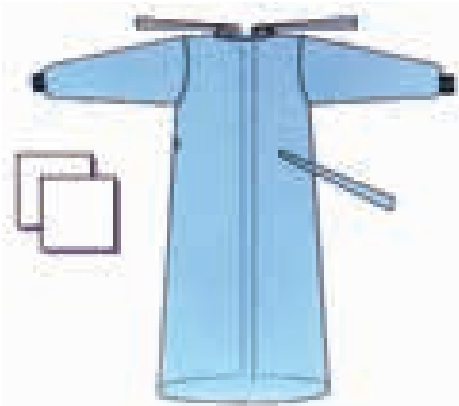
Disposable Gowns, Drapes & Towels

Most veterinary autoclaves sterilise cloth drapes unreliably. Packs containing materials should be autoclaved using a vacuum autoclave. Disposables provide an alternative in that they require no cleaning, laundering, folding, packing and autoclaving.

The cost is no longer prohibitive particularly when bought by the case. Below is a useful section of what is available. If you require a specific pack not shown please call **0845 130 9596**. Samples are available on request.

Or view our website www.vetinst.com

Surgical Gown Disposable - Standard



SURGICAL GOWNS - STANDARD

DG003001	Surgical Gown (Single) Medium Standard plus 2 Hand Towels	£4.95
DG003001/30	Surgical Gown (Box of 30) Medium Standard plus 2 Hand Towels	£105.00
DG003002	Surgical Gown (Single) Large Standard plus 2 Hand Towels	£4.95
DG003002/30	Surgical Gown (Box of 30) Large Standard plus 2 Hand Towels	£117.50
DG003003/30	Surgical Gown (Box of 30) Large Long Standard plus 2 Hand Towels	£117.50

Surgical Gown Disposable - Reinforced



SURGICAL GOWNS - REINFORCED

DG113401	Surgical Gown (Single) Medium Reinforced plus 2 Hand Towels	£5.50
DG113401/30	Surgical Gown (Box of 30) Medium Reinforced plus 2 Hand Towels	£135.00
DG113402	Surgical Gown (Single) Large Reinforced plus 2 Hand Towels	£5.50
DG113402/30	Surgical Gown (Box of 30) Large Reinforced plus 2 Hand Towels	£135.00
DG113403/30	Surgical Gown (Box of 30) XLarge Reinforced plus 2 Hand Towels	£135.00

Masks and Caps



Tie Back Style Cap

Beret Style Cap

MASKS & CAPS		
TW0011	Disposable Caps Tie Back (50)	£24.50
TW001100	Disposable Caps Tie Back (200)	£75.00
TW0012	Disposable Masks (50)	£13.95
TW001111	Disposable Caps Beret Style (60)	£24.50
TW001110	Disposable Caps Beret Style (120)	£42.50

Surgeon's Gloves

Available in both latex or latex free, Veterinary Instrumentation surgeons gloves have been shown to add significantly to aseptic technique. Absolutely essential for any orthopaedic procedure.

SURGICAL GLOVES			
352511	Surgical Gloves Latex (50)	Size 5.5	£49.50
352512	Surgical Gloves Latex (50)	Size 6	£49.50
352513	Surgical Gloves Latex (50)	Size 6.5	£49.50
352514	Surgical Gloves Latex (50)	Size 7	£49.50
352515	Surgical Gloves Latex (50)	Size 7.5	£49.50
352516	Surgical Gloves Latex (50)	Size 8	£49.50
352517	Surgical Gloves Latex (50)	Size 8.5	£49.50
352518	Surgical Gloves Latex (50)	Size 9	£49.50
352511LF	Surgical Gloves Latex Free (10)	Size 5.5	£29.50
352512LF	Surgical Gloves Latex Free (10)	Size 6	£29.50
352513LF	Surgical Gloves Latex Free (10)	Size 6.5	£29.50
352514LF	Surgical Gloves Latex Free (10)	Size 7	£29.50
352515LF	Surgical Gloves Latex Free (10)	Size 7.5	£29.50
352516LF	Surgical Gloves Latex Free (10)	Size 8	£29.50
352517LF	Surgical Gloves Latex Free (10)	Size 8.5	£29.50
352518LF	Surgical Gloves Latex Free (10)	Size 9	£29.50

Non-sterile Drapes suitable for steam sterilisation 134°

Practices which prefer not to launder cloth drapes but do not wish to switch to fully pre-sterile disposables have the option of sterilising their own disposable drapes. The Drapes are available in two materials, one of which is waterproof in 3 ply, one of which is an impervious water repellent plastic film. Strike through is not possible with this drape.

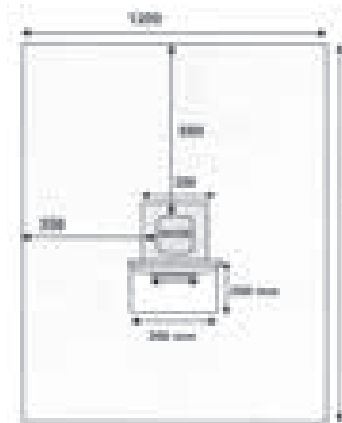
NON-STERILE DRAPES FOR STEAM STERILISATION 134°		
DD928002	3ply Waterproof 75 x 90cm (Box of 250)	£125.00
DDCB03	Water Repellent 60 x 90cm (Box of 200)	£125.00
DDCB33	Water Repellent 70 x 90cm (Box of 200)	£125.00
DDCB13	Water Repellent 90 x 137cm (Box of 100)	£125.00

Set-up and Trolley Covers Sterile

Plastic, waterproof, sterile. A Basic Cover for tables, instrument trays, Mayo tables etc.

SET-UP AND TROLLEY COVERS STERILE		
DD205002	Sterile Plastic Cover 120cm x 160cm (70)	£125.00
DD209001	Sterile Plastic Cover 95cm x 150cm (70)	£195.00

Incise Drape with Fluid Collection Pouch



Arthroscopy is messy. Collection of fluid run off will minimise what falls to the floor. This Opaque Plastic Film Drape has a 100mm x 100mm incise area and a 200mm x 300mm fluid collection pouch. Free sample on request.

INCISE DRAPE WITH FLUID COLLECTION POUCH		
DD198961	Incise Drape with Pouch (Box of 40)	£175.00
FCP2527	Fluid Collection Pouch 25cm x 27cm Sterile (200)	£325.00

Draping and Theatre Wear Full Catalogue

The Drapes and Theatre Wear shown in this section of the catalogue represents a small fraction of the items available. Sterile drapes are available in a variety of materials each having different characteristics and pricing.

Please request our full illustrated catalogue which includes individual items and a large range of drape sets. Samples available.

Provided you are willing to take a full box we can supply anything.

Visit www.vetinst.com to view or download a copy of the catalogue.



Adhesive Antibacterial Impregnated Drapes

CLEAR ADHESIVE SURGICAL DRAPES WITH POVIDINE			
AD1420	14cm x 20cm	20 Pieces/ box	£39.50
AD2030	20cm x 30cm	20 Pieces/ box	£49.50
AD3045	30cm x 45cm	20 Pieces/ box	£74.50
AD4560	45cm x 60cm	10 Pieces/ box	£74.50
ID6650	loban™ Drape 56 x 45cm	(Single)	£34.50

Buster Operation Cover (Disposable) Sterile

BUSTER OPERATION COVER		
141840	Buster Op Cover Sterile Plastic Drape. 120cm x 120cm Box 25	£44.50

Utility Drape (Disposable) Sterile

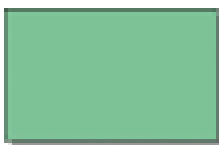


New
Pack sizes

UTILITY DRAPE

DD3939	Utility Drape 98cm x 98cm (Single)	£5.75
DD4458	Utility Drape 112cm x 145cm (Single)	£6.75
DD4472	Utility Drape 112cm x 180cm (Single)	£7.75
DD5777	Utility Drape 145cm x 193cm (Single)	£8.75

Utility Drape (Disposable) Sterile

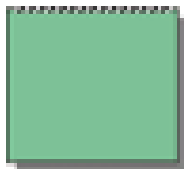


New
Pack sizes

UTILITY DRAPE

DD128805/40	Utility Drape 75 x 75cm (Box of 40)	£51.50
DD128805/160	Utility Drape 75 x 75cm (Box of 160)	£155.00
DD128814/40	Utility Drape 75 x 90cm (Box of 40)	£54.50
DD128814/160	Utility Drape 75 x 90cm (Box of 160)	£160.00
DD128806/20	Utility Drape 90 x 150cm (Box of 20)	£54.50
DD128806/80	Utility Drape 90 x 150cm (Box of 80)	£170.00
DD128807/23	Utility Drape 160 x 75cm (Box of 23)	£115.00
DD128807/46	Utility Drape 160 x 75cm (Box of 46)	£190.00

Adhesive Operating Drape (Disposable) Sterile



Dashed area
shows adhesive

New
Pack sizes

ADHESIVE OPERATING DRAPE

DD128801/40	Adhesive Operating Drape 75 x 75cm (Box of 40)	£74.50
DD128801/160	Adhesive Operating Drape 75 x 75cm (Box of 160)	£265.00
DD128813/65	Adhesive Operating Drape 75 x 90cm (Box of 65)	£150.00
DD128813/160	Adhesive Operating Drape 75 x 90cm (Box of 130)	£250.00

Adhesive Aperture Drape (Disposable) Sterile

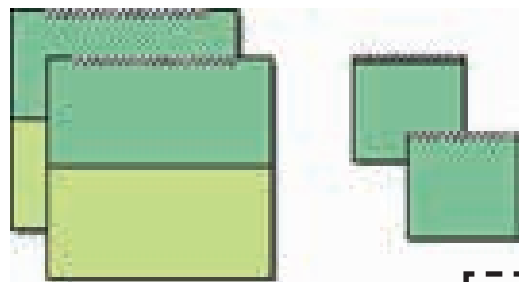


Dashed area
shows adhesive

ADHESIVE APERTURE DRAPE

DD128810/10	Adhesive Aperture Drape 200 x 300cm with 9 x 22cm Aperture(Box of 10)	£97.50
DD128810/20	Adhesive Aperture Drape 200 x 300cm with 9 x 22cm Aperture(Box of 20)	£180.00

Universal Set - Minor (Disposable) Sterile



Universal set of Drapes - Minor. Set comprises:

- 2 x Op Towels (75 x 75cm)
- 2 x Medium Drapes (160 x 175cm)

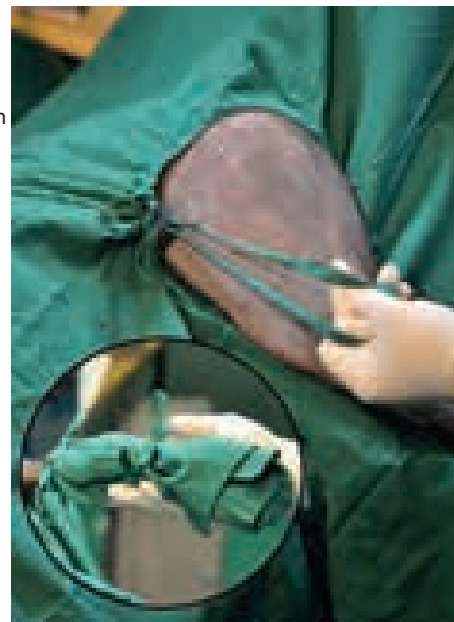
Dashed area
shows adhesive

UNIVERSAL SET - MINOR

DD148803/9	Universal Set - Minor (Box of 9)	£125.00
DD148803/18	Universal Set - Minor (Box of 18)	£230.00

JB Drawstring and Foot Drapes

Jane Trinder BVM&S MRCVS has come to us with a couple of ingenious products. The first of which is a solution for the long standing problem of how to stop drape slippage with whole limb preparations. This can be quite a challenge, especially if you start moving a limb around a lot during surgery. Her solution has been to create a reusable drawstring drape which worn over the leg 'like a poncho' has the drawstring tightened to provide a tight fit and reduce slippage. It provides much better coverage than many multi-drape set-ups and reduces the over-reliance on using loads of towel clips.



Jane has also developed a Reusable Foot Drape. These Drapes are very easy to use, being much better than wrapping a foot in a standard drape. They have the added advantage that they can be partially undone with minimal effort mid-procedure to check limb alignment.

JB DRAWSTRING DRAPES

JBDD24242	JB Drawstring Drape 24" x 24" with 2" Hole (Single)	£32.50
JBDD24244	JB Drawstring Drape 24" x 24" with 4" Hole (Single)	£33.50
JBDD36366	JB Drawstring Drape 36" x 36" with 6" Hole (Single)	£34.50
JBDD48728	JB Drawstring Drape 48" x 72" with 8" Hole (Single)	£38.50
JBDDSET	JB Drawstring Drape Set	£120.00

JB FOOT DRAPES

JBFD6	JB Foot Drape Small 6" Long (Single)	£25.00
JBFD9	JB Foot Drape Medium 9" Long (Single)	£26.00
JBFD12	JB Foot Drape Large 12" Long (Single)	£27.00
JBFD15	JB Foot Drape Extra Large 15" Long (Single)	£28.00
JBFDSET	JB Foot Drape Set	£75.00

Low-Flow Anaesthesia

Lynne Hughes MVB, DipIECVAA, DVA, FCARCSI, MRCVS, University College Dublin



The use of breathing systems containing a method of carbon dioxide absorption (i.e. a soda lime canister) can considerably reduce the cost of inhalation anaesthesia in small animal practice. This is because, when carbon dioxide is removed from the exhaled breath, the remainder of the respiratory gases may be recycled and inhaled repeatedly.

The advantages of absorption of carbon dioxide include decreased fresh gas requirement, decreased expense of volatile agent, decreased environmental pollution and decreased loss of heat and moisture from the patient.

There are some disadvantages to the use of soda lime including that it may become exhausted, leading to hypercarbia. The material can be dusty and caustic and care should be taken with handling. The granules add some resistance to the work of breathing, and under certain circumstances the reaction of carbon dioxide with soda lime may contribute to hyperthermia.

Breathing systems with soda lime are of two main types; circle and to-and-fro. The circle system is superior as carbon dioxide absorption is more efficient and the design is less cumbersome. In particular the circle offers the

following advantages over the to-and-fro:

- The canister is positioned vertically, therefore channelling of gases through areas without absorbent does not occur.
- The canister is separated from the patient by a length of tubing reducing the possibility of caustic soda lime dust reaching the respiratory tract.
- The tubing does not exert appreciable drag on the endotracheal tube.
- The pressure relief valve is situated remotely from the patient, allowing ease of manipulation.
- Dead space is small and does not increase with duration of anaesthesia.
- One-way valves ensure gas moves in one direction only, rather than forwards and backwards.
- The risk from hyperthermia is reduced, as heat generated by the absorption of carbon dioxide may be dissipated by the breathing tubes.

All circle systems depend on functioning soda lime and one-way valves for correct operation. If these criteria are met then the system allows rebreathing of exhaled gases, from which carbon dioxide has been removed by the absorbent. Oxygen flow may be reduced to that required by the body for cellular metabolism. This is called 'low-flow' anaesthesia and is the most cost-effective way to deliver inhalation anaesthesia.

The exact arrangement of a circle system varies, however the main components include

- canister containing soda lime, for absorption of carbon dioxide
- two one-way valves, to ensure uni-directional gas movement.

- inspiratory breathing tube (limb) and expiratory breathing tube. These are normally arranged in parallel, but may also have the inspiratory limb inside the expiratory limb, as in the F-circuit.
- Y-piece which connects to both breathing tubes and to the endotracheal tube. This should be the only source of dead space gas.
- reservoir bag. This should be large enough to hold 2-3 times maximal tidal breath of the patient.
- pop-off, pressure relief or scavenging valve, to prevent build up of pressure in the system and allow effective scavenging of waste gases.
- pressure manometer. This is a useful addition, especially when carrying out IPPV.

Low-flow Anaesthesia

Oxygen required for cellular metabolism in anaesthetised dogs and cats is reported to be from 2-7 mL-1kg-1min-1 and depends on metabolic rate, age, temperature etc. A safe (over-)estimate is 10 mL-1kg-1min-1. This allows a small amount of gas to be vented through the partially open pressure relief valve, but still retains economy and results in minimal atmospheric pollution. This flow may be used during periods when anaesthetic depth is stable and no rapid changes in vapour concentration are anticipated. However, as it takes considerable time to change the anaesthetic concentration within the breathing system, a higher flow, for example 100 mL-1kg-1min-1, may be used from time to time.

During maintenance periods, open/close the pressure relief valve slightly and/or alter the oxygen flow to ensure there is adequate gas in the reservoir bag at all times. If the reservoir bag empties during the course of an anaesthetic, it should be refilled by increasing the gas flow at the flowmeter. Using the oxygen flush mechanism will result in dilution of the volatile anaesthetic agent. This is desirable only at the end of anaesthesia.

When nitrous oxide is used in a circle system, care should be taken to provide adequate inspired oxygen. As oxygen is continuously consumed by the patient, and nitrous oxide is not, the proportion of oxygen in the system will decrease over time. The use of an inspired oxygen analyser is recommended,

5-step guide to using low-flow anaesthesia with a circle system:

1. **Induce general anaesthesia, intubate trachea and attach breathing system to patient**
 - a. turn O₂ flow to 100 mL-1kg-1min-1
 - b. open the pop-off valve fully
 - c. turn isoflurane vaporiser setting to 2-3%
2. **Monitor depth of anaesthesia, and when adequate (approximately 5-10 minutes)**
 - a. decrease O₂ flow to 10 mL-1kg-1min-1
 - b. partially close pop-off valve
 - c. do not alter vaporiser setting at this point but continue to monitor depth of anaesthesia and when appropriate, decrease the vaporiser setting by small increments (0.5-1%). This prevents large swings in anaesthetic depth
3. **If a rapid change in anaesthetic depth is required**
 - a. increase or decrease the vaporiser setting
 - b. open the pop-off valve fully
 - c. turn O₂ flow up to 100 mL-1kg-1min-1
4. **When anaesthesia is stable again, return to low-flow (10 mL-1kg-1min-1)**
5. **At the end of anaesthesia**
 - a. turn off the vaporiser
 - b. open the pop-off valve fully
 - c. increase O₂ flow to 100 mL-1kg-1min-1
 - d. occasionally empty the reservoir bag into scavenging system at 10 mL-1kg-1m

but in the absence of this monitor, a maximum of 50% nitrous oxide should be used, and oxygen flow should be at least 20 mL-1kg-1min-1.

Monitoring of inhaled and exhaled carbon dioxide is beneficial when using a circle system. This will detect inadequate respiration (elevated end-tidal CO₂ levels), but also mal-functioning valves and exhausted soda lime (elevated inspired CO₂ levels).

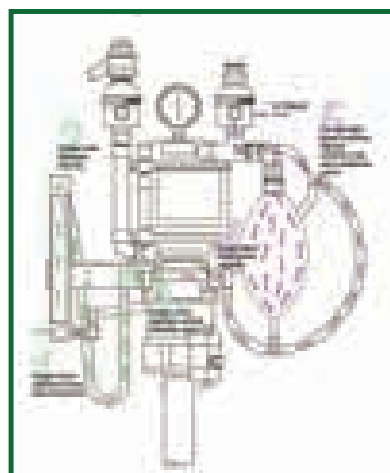
When using the circle in spontaneously breathing patients, most systems are suitable for patients > 10-12 kg body weight. The manufacturer's guidelines should be consulted with regard to smaller patients. If the circle has a pressure manometer, it is an ideal breathing system for provision of intermittent positive pressure ventilation in all sizes of patients, including cats. This may be carried out manually (by squeezing the bag) or by attaching the system to an appropriate mechanical ventilator.

Conclusions:

"Low flow anaesthesia is the most cost-effective way to deliver inhalation anaesthesia"

"If the circle has a pressure monitor it is an ideal breathing system for provision of intermittent positive pressure ventilation in all sizes of patients, including cats"

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Veterinary Instrumentation and Henry Schein Veterinary Equipment are very pleased to have been appointed exclusive UK Distributor for Midmark. The Midmark family also includes the Matrix range of Anaesthesia Machines and Cardell Monitors. With over 90 years of healthcare manufacturing and clinical use experience, Midmark are recognised as leaders in Veterinary Dentistry, Anaesthesia and Monitoring.

Midmark VMS™ Standard



Specifications

Dual View Oxygen Flowmeter - glass tube with a fused scale reading from 0.2 to 4 lpm – quickly switch from standard to magnified view at the touch of a finger.

Easy-to-view Inhalation/ Exhalation Valves allow easy monitoring of respiration for patient safety.

Automatic Air Intake Valve – opens to provide room air to patient if contents of breathing bag are depleted.

Oxygen Flush.

1500cc CO₂ Absorber with “Quick Release” Lever feature for easy absorbent replacement (accepts pre-pack canisters or 1350gm loose absorbent).

Dome-type Inhalation and Exhalation Valves – no tools needed to disassemble.

Scavenging/ Adjustable Pressure Limiting Valve.

-60 to +60 cm H₂O Pressure Gauge.

15mm and 22mm diameter Corrugated Breathing Circuits.

One- and two-litre Breathing Bags.

Chrome Portable Stand with 5-leg Spider Base and Casters.

Accepts VIP 3000 and TEC 3 Vaporisers (Mounting Kit included).

Oxygen Low-flow Flowmeter or Nitrous Oxide Flowmeter add-on capability.

Please note cylinder mounting blocks required if using cylinders. (see overleaf).

Optional shelves available.

MIDMARK VMS		
MID91800070	Midmark VMS Standard*	£2,075.00
MID91800166	Midmark VMS Wall Mount*	£2,075.00

ADDITIONAL OPTIONS		
MID91800709	Low Flow O ₂ Kit	£585.00
MID91800138	Quick Release Conversion Kit	£115.00
MID93305007	Post Mount Assembly (for adding 2nd vaporiser)	£210.00
MID91800167	VMS to VMS Plus Conversion Kit	£560.00
MID93805114	Occlusion Valve	£95.00
MID91805140	Tray Shelf for VMS	£190.00
MID91805141	Ventilator Shelf for VMS	£290.00
MID91805146	Mayo Tray (1)	£55.00

ACCESSORIES

Note: For Vaporisers, view page 390.

For cylinder mount blocks, view page 389.

Carriage is extra for all items marked *

Also available in a wall mount configuration

Midmark VMS™

The VMS Small Animal Anaesthesia Machine is a long-time favorite of veterinary professionals. It is designed for safe, simple, and controllable small animal inhalation anaesthesia. The Dual View Oxygen Flowmeter (0.2-4 LPM) allows you to quickly switch from standard to magnified view. Midmark is the only company to have a negative pressure safety valve that allows room air into the system if the oxygen flow is cut off to the patient.

Midmark VMS™ Plus



A new twist on a time-proven Anaesthesia Machine. The Midmark VMS Plus provides more functionality than ever before with two shelves for convenient placement of monitors and equipment. Its dual vapouriser mounting capacity allows you to easily switch from one agent to another. Exactly the same specification as the Midmark VMS Standard shown on previous page.

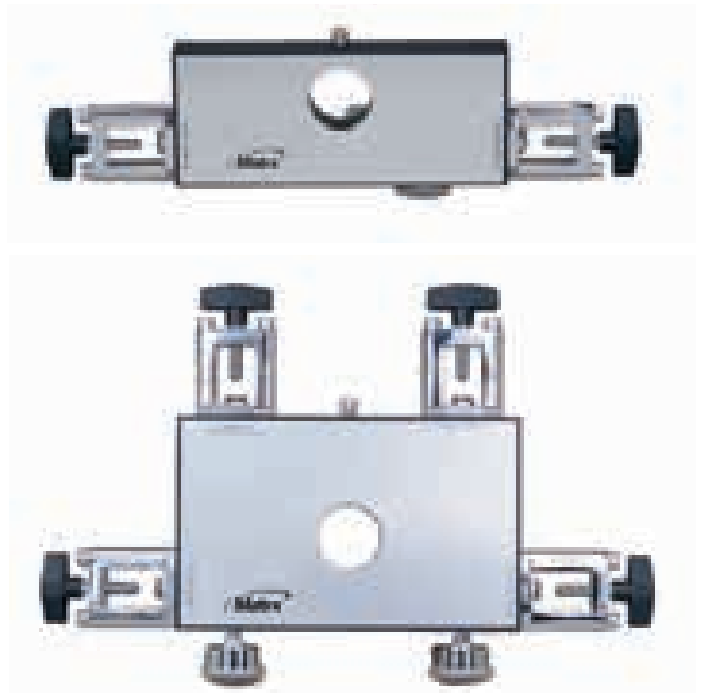
MIDMARK VMS PLUS		
MID91800075	Matrix VMS Plus*	£2,250.00

Carriage is extra for all items marked *

ADDITIONAL OPTIONS		
MID91800709	Low Flow O2 Kit	£585.00
MID93805114	Occlusion Valve	£95.00
MID91800129	IV Holder Kit	£110.00
MID91305187	Mounting Kit for 2nd Vapouriser	£35.00

Anaesthesia Accessories

Cylinder Mounting Blocks



Small E or D Size Cylinder Mounting Blocks with single-stage regulators are available to complete your portable system. Includes High Pressure Hoses and Cylinder Wrench.

CYLINDER MOUNTING BLOCKS		
MID94305384	1 Cylinder O ₂	£375.00
MID94305383	2 Cylinder O ₂	£490.00
MID94305372	1 O ₂ & 1 N ₂ O Cylinder	£905.00
MID94305385	2 O ₂ & 2 N ₂ O Cylinder	£1,285.00

VMS/ VMS Plus Maintenance Kit



All the parts you need for routine anaesthesia machine maintenance. Saves money against purchasing separately.

VMS / VMS PLUS MAINTENANCE KIT		
MID91303015	Maintenance Kit	£95.00





Henry Schein Veterinary Equipment would be delighted to demonstrate this equipment at your practice.
To book a demo please call our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

Oxygen Concentrator

An Oxygen Concentrator is an electronically operated device that provides an uninterrupted supply of oxygen as and when required at the touch of a button.

The Oxygen Concentrator draws in room air, separates the oxygen from other gases in the air and delivers the oxygen at high concentrations to the patient.

Although the Concentrator filters oxygen from the room air, it will not affect the normal amount of oxygen in the room.



Features and benefits

- High Oxygen concentration levels over the whole flow range
- Variable Flow rate up to 5 l/min
- OSD Sensor for continuously monitoring Oxygen levels
- Visual and audible alarms for low Oxygen levels, power failure, pressure drop and service required
- Dimension (H x W x D) 62.2 x 34.2 x 30.4 cm
- Weight 16.3 kg
- Flowrate 0.5 to 5 l / min
- Oxygen Concentration at 0.5 - 5 l / min 93% } 3%
- Electrical Requirements 230 V, 50 Hz

Classification II Type B



Specifications

- Circuit breaker with reset function
- Easy-to-view hour meter
- Data output socket compatible with PC, Notebook or Smart-Track. Remote for diagnostic analysis of the unit
- Intelligent power management system utilises turn-downR technology providing less power consumption below 2 l/min flowrates
- Low noise, quiet operation
- Weighing only 16.3 kg the Compact 525 is the smallest and lightest 5 litre concentrator.

OXYGEN CONCENTRATOR

OXYCON	Oxygen Concentrator*	£795.00
68161HADISSX0.1	O ₂ Concentrator Connector to O ₂ Pendant	£245.00
19221HADISSX0.1	O ₂ Concentrator Connector to O ₂ Schrader	£245.00

Carriage is extra for all items marked *

HENRY SCHEIN
VETERINARY EQUIPMENT



Henry Schein Veterinary Equipment would be delighted to demonstrate this equipment at your practice.

To book a demo please call our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

Fluosorber

The Fluosorber absorbs all organic volatiles including Halothane and Isoflurane. The absorbed volatile is discarded with the exhausted Fluosorber after an increase in weight of 200g.

The Fluosorber is ideal for situations where there is no convenient outside wall.

Fluosorbers are cheaper in bulk (6).



FLUOSORBER

025510	Fluosorber (Single)	£29.50
025515	Fluosorber (Pack of 6)	£155.00

Conventional 'Tec' Vapouriser Systems

Anaesthetic machines using calibrated "TEC" Type Vapourisers deliver into the circuit a gas mixture containing a specified percentage of volatile. In non-rebreathing circuits the patient will breathe this exact mixture. In circuits where some rebreathing occurs, the gas mix will not be the same as dialed on the vapouriser.

Veterinary Instrumentation's vapourisers are serviced and recalibrated prior to sale.



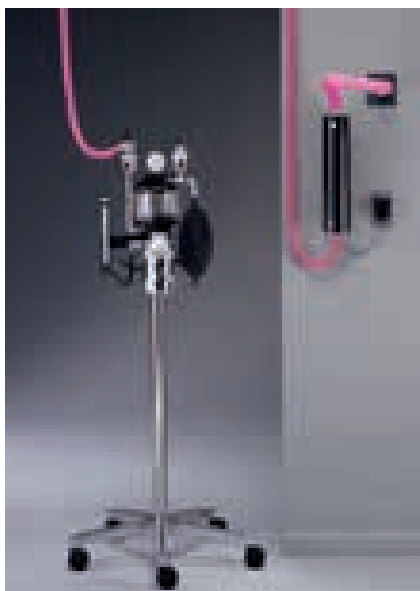
CONVENTIONAL 'TEC' VAPOURISER SYSTEMS

IS03TEC	Mark III Isoflurane Vapouriser Key Fill Selectatec Fitting*	£795.00
SEV0TEC	Mark III Sevoflurane Vapouriser Key Fill Selectatec Fitting*	£795.00
MID91305418	Mark III Isoflurane Vaporiser Key Fill Cage Mount Fitting supplied with Key Fill Adaptor*	£1,175.00
MID40140201	Mark III Sevoflurane Vaporiser Key Fill Cage Mount Fitting supplied with Key Fill Adaptor*	£1,175.00
2012-000	Isoflurane Key Filled Bottle Adaptor	£80.00
2015-000	Sevoflurane Key Filled Bottle Adaptor	£80.00

Carriage is extra for all items marked *

Please phone to check the availability of Mark III Selectatec Fitting Vapourisers.

Midmark Veterinary Anaesthetic Gas Scavenger



The Midmark™ Veterinary Anaesthetic Gas Scavenger offers reliable active scavenging of waste anaesthetic gas. It is designed to meet current ASTM and ANSI standards and is available in a post mount or wall mount configuration.

Each Wall or Post Mount Scavenger Unit will scavenge the waste anaesthetic gas from one anaesthesia machine.

Portable – Post Mount Scavenger comes complete with 20 ft. (6m) of 32mm tubing, 5 ft. (1.5m) of 19mm tubing and post mount hardware.

Wall Mount Scavenger comes complete with 2 ft. (0.6m) of 32mm tubing, 18 ft. (5.5m) of 19mm tubing and wall mount hardware.

- Designed to meet current ASTM and ANSI Standards.
- Available in post mount or wall mount configurations.
- Quiet operation.
- Can be used with a ventilator or oxygenator.
- Easy to install, compact design with few parts.
- Standard 19mm inlet connection.
- Power on/off switch with indicator light.
- Low voltage (12V DC) operation.

MIDMARK VETERINARY ANAESTHETIC GAS SCAVENGER		
MID91515181	Post Mount Veterinary Scavenger *	£675.00
MID91515182	Wall Mount Veterinary Scavenger *	£675.00

Carriage is extra for all items marked *

Matrx Model 3000 Small Animal Anaesthesia Ventilator



An electronically controlled, time-cycled, pressure-limited Ventilator, the Matrx by Midmark Model 3000 replaces the breathing bag, providing smooth, even delivery of anaesthesia. Designed specifically for veterinary practice, the Model 3000 assures a constant volume for each delivered breath, regardless of patient compliance and airway resistance. Easy-to-use controls make operation simple and convenient.

Replaces the breathing bag, freeing technician to assist in other procedures.

Precise control of anaesthetic state allows lower levels of anaesthesia for more responsive patients, more economical operation, with blood CO₂ and pH levels closer to normal.

Interchangeable bellows adapt to animals from 1 kg to 300 kg – no tools required.

Maximum working pressure limit (MWPL) adjustable from 10-60 cm H₂O.

Dual airway pressure alarms signal any breath exceeding preset maximum or minimum.

Optional low supply gas alarm signals supply gas pressure below 35 psi.

Respiratory rates from 6-40 breaths per minute at inspiratory flow rates from 0-100 lpm.

Tidal volumes from 20-3,000 cc.

Built in scavenging point.

Please note to connect the Model 3000 to an oxygen supply a demand wye piece (91806029) and O₂ hose (9180 6032) are required.

MATRX MODEL 3000 SMALL ANIMAL ANAESTHESIA VENTILATOR		
MID91806002	Model 3000 with 0-300ml Bellows Bellows Housing and Adapter (Approx Patient Weight Range Up to 30 kg) *	£3,025.00
MID91806001	Model 3000 with 300-1600ml Bellows and Bellows Housing (Approx Patient Weight Range 14-120 kg) *	£2,925.00
MID91806029	DISS O ₂ White	£85.00
MID91806032	DISS O ₂ Fx4 ft. White	£65.00

Ventilator Accessories

All models of the Matrix Model 3000 Anaesthesia Ventilator include Model 3000 Controller, Bellows Base Assembly, Pressure Sensing Tube and Tee, Driving Gas Tube, Power Cord, Spare Fuse and Operating Manual.

BELLOWS		
MID91806021	0-300ml Attachment (Includes Bellows, Adapter and Housing)	£425.00
MID91806026	0-300ml Bellows	£175.00
MID91806027	0-300ml Bellows Adapter	£110.00
MID91806028	0-300ml Bellows Housing	£220.00
MID91806042	300-1600ml Bellows	£190.00
MID91806044	300-1600ml Bellows Housing	£245.00
MID91806043	1600-3000ml Bellows	£250.00
MID91806045	1600-3000ml Bellows Housing	£330.00

DEMAND WYE		
MID91806029	DISS O ₂ White	£85.00
MID91806030	DISS O ₂ 90° White	£95.00

SUPPLY HOSE		
MID91806032	DISS O ₂ Fx4 4 ft. White	£65.00

STANDS		
MID91806033	5 Leg 42" with Casters and Mounting Plate	£235.00
MID91806034	5 Leg 37" with Casters and Bushing Mount	£235.00

MOUNTING ARMS/ PLATES		
MID91805152	Mounting Arm with Plate and Extension for VMS	£185.00

Reduction Valves for Anaesthetic Gases

Bottled gas at high pressure needs to be reduced to a pressure which can be handled by the anaesthetic machine (4 bar). Our Single Stage Reduction Valves reduce the pressure automatically to the correct pressure for the gas. Available in either Bull Nose Fitting or Pin Index.



REDUCTION VALVES		
OXREDE	Oxygen Reduction Valve Pin Index Fitting (4 bar)	£215.00
OXREDF	Oxygen Reduction Valve Bull Nose Fitting (4 bar)	£215.00
OXREDG	Oxygen Reduction Valve Pin Index Dial Therapy Outlet	£295.00
OXREDH	Oxygen Reduction Valve Bull Nose Regulator Therapy Outlet	£295.00
NITREDF	Nitrous Oxide Reduction Valve Bull Nose Fitting	£215.00
NITREDE	Nitrous Oxide Reduction Valve Pin Index Fitting	£215.00

Carriage is extra for all items marked *

Circuits



Ayres Non-rebreathing System with Scavenger Adapter

Connects in seconds to any Matrix™ Anaesthesia Machine. Designed especially for the small animal patient with less than 7kg (15 lbs) body weight, it provides minimal dead space and less resistance to flow as compared to a full-circle system.



AYRES NON-REBREATHING SYSTEM		
MID94515185	Ayres System Complete	£145.00
MID92305073	FS-2 Outlet Adapter	£42.50
MID61930908	Black Rubber Tubing each (122 cm x 11mm OD x 6mm ID)	£21.00
MID92315080	'T' Tube Adapter	£42.50
MID92316019	Breathing Tube	£42.50
MID92305098	Bag to Tube Adapter	£24.50
MID91800194	1L Bag with Scavenger Adapter	£57.50
MID91305439	Scavenger Adapter	£42.50
MID91815246	Tube Connector x 19mm x 15mm	£22.75
MID92800173	1L Bag with Hole No Scavenger Adapter	£29.50

Breathing Circuits



Designed to maximize patient safety and user convenience. A 360 degree connector rotation eliminates tubing twists or kinks. Unique Z-wave tubing provides superior flexibility.

BREATHING CIRCUITS		
MID91316420	22mm Diameter	£17.50
MID91316419	15mm Diameter with 1 Litre Breathing Bag	£22.50
MID20221100	2" (50.8mm) Diameter 180cm	£85.00

Unilimb Rebreathing Circuit

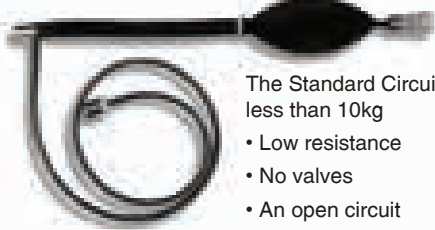


Unique tube-within-a-tube design enhances performance and convenience. Aids in heat and moisture retention, speeding patient recovery time. Unique design reduces clutter of multiple tubes

UNILIMB REBREATHING CIRCUIT		
MID91316417	Unilimb Rebreathing Circuit 100cm	£24.00
MID91316431	Unilimb Rebreathing Circuit 150cm	£24.00
MID91316432	Unilimb Rebreathing Circuit 180cm	£24.00
MID91316435	Pedi Unilimb Rebreathing Circuit 100cm	£24.00

Circuits

Modified Ayres 'T' Piece



The Standard Circuit for patients weighing less than 10kg

- Low resistance
- No valves
- An open circuit

Complete with scavange connector 025534.

MODIFIED AYRES 'T' PIECE		
025105	Modified Ayres 'T' Piece Circuit Complete	£130.00

Modified Ayres 'T' Piece Semi Disposable



As above but lighter in construction.

MODIFIED AYRES 'T' PIECE - SEMI DISPOSABLE		
025105SD	Semi Disposable 'T' Circuit	£29.50

'T' Piece Scavange Connector & Rebreathing Bags



Pollution is a problem with all open circuits. This Connector fits into the tail of the rebreathing bag and connects to standard scavenging systems. Also fits Mini Bain.

'T' PIECE SCAVANGE CONNECTOR		
025534	'T' Piece Scavange Connector	£17.50
025051	0.5 Litre Rebreathing Bag	£16.00
025104	4 Litre Rebreathing Bag	£22.00
025106	2 Litre Rebreathing Bag	£19.00

Bain Circuit



Fresh gas passes down the inner tube. Exhaust gas returns via the outer tube. Good heat and moisture exchange.

Use 2.0 to 2.5 times respiratory minute volume. The adapter is re-usable but the circuits are semi-disposable.

Use in patients 10kg plus.

BAIN CIRCUIT		
025080	Bain Circuit Mount (required initially)	£225.00
025081	Bain Circuits Tube Set only	£22.50

Bain Circuit Semi-Disposable



As above but supplied as a complete circuit which can be reused many times. 1.6 m length.

BAIN CIRCUIT SEMI-DISPOSABLE		
025083	Bain Circuit Semi Disposable Complete	£38.50

LACK Parallel Circuit

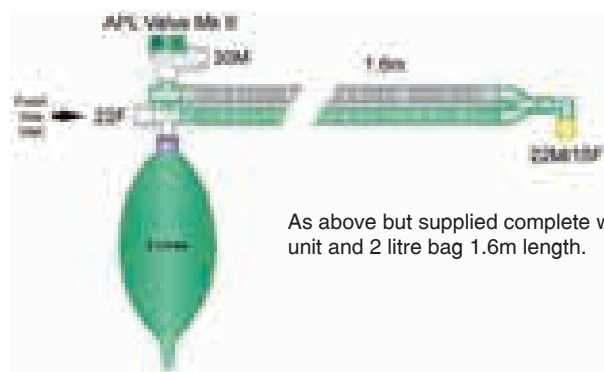


This is a safer system than co-axial circuits. Both tubes are visible and can be checked for leaks, damage and security.

Use in patients 10kg plus.

LACK PARALLEL CIRCUIT		
LACK1	LACK Parallel Circuit Complete	£190.00
LACK4	LACK Replacement Tubes Set	£38.50

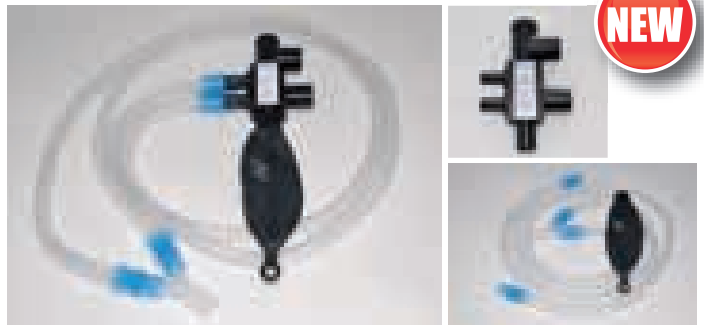
LACK Parallel Circuit Semi-Disposable



As above but supplied complete with head unit and 2 litre bag 1.6m length.

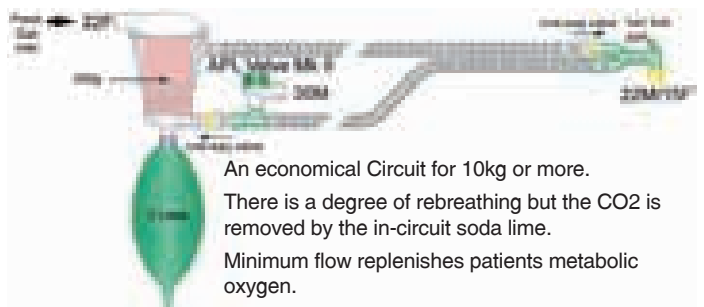
LACK PARALLEL CIRCUIT SEMI DISPOSABLE		
LACKSD	LACK Circuit Semi Disposable	£38.50

Mini LACK Parallel Circuit



MINI LACK PARALLEL CIRCUIT		
LACKMINIC	Mini LACK Parallel Circuit Complete	£185.00
LACKMINIRTS	Mini LACK Replacement Tubes Set	£45.00
LACKMINIRMAN	Mini LACK Replacement Manifold	£150.00

Circle Circuits Semi-Disposable



An economical Circuit for 10kg or more.

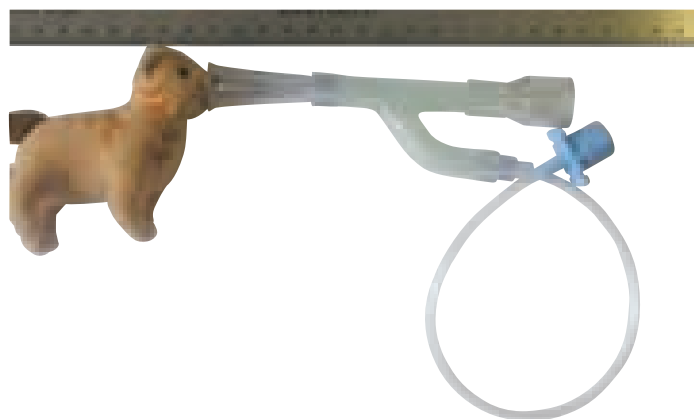
There is a degree of rebreathing but the CO₂ is removed by the in-circuit soda lime.

Minimum flow replenishes patients metabolic oxygen.

Rubber bung allows Soda Lime to be replenished.

CIRCLE CIRCUITS SEMI-DISPOSABLE		
025085	Circle Circuit	£62.50

Small Furry/ Exotic Mask and Non-Rebreathing Circuit



These Very Small Masks were designed specifically for use on small exotics, small furies and birds. The fresh gas supply hooks up to the standard GA machine outlet. The Soft Conforming Mask may be trimmed for maximum fit. The fresh gas feed may be re-positioned within the mask. Exhaust gases are fed into the scavange system. Tape the circuit onto the table.

SMALL FURRY/EXOTIC MASK SYSTEM

025091	Mask 9.0mm Opening 25cm 10" Tubing	£29.50
025092	Mask 12.5mm Opening 25cm 10" Tubing	£29.50
025093	Mask 14.0mm Opening 25cm 10" Tubing	£29.50
025095	Masks Set of 3 (as above)	£80.00

VI Common Gas to Male Luer Connector



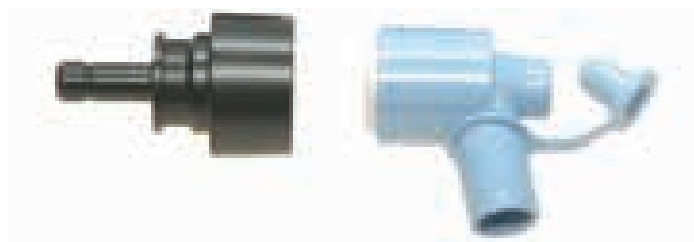
Taping components together for small patient anaesthesia is not ideal. Gas leakage has health and safety connotations, IPPV is difficult to achieve and capnography becomes unreliable. Our common gas to male luer adapter provides an answer. Developed with help from Alan Humphries of Village Vets in Liverpool and Kevin Eatwell

of R(D)SVS, Edinburgh, our common gas to male luer device connects between the 15mm female end of an anaesthetic circuit and any standard male luer lock device – such as a cut-down urinary catheter. An easily accessible female luer lock port on the top of the device allows for connection of a capnography probe. The device has been designed to contribute minimally to respiratory dead space.

VI COMMON GAS TO MALE LUER CONNECTOR

025617	VI Common Gas to Male Luer Connector	£75.00
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Connectors



30mm is the international diameter for scavange systems.

CONNECTORS

025534	30mm Scavange to 500ml Bag Tail (for 'T' Piece or Mini Bain)	£17.50
PORTEX	Portex Swivel with Port	£19.95

Connectors Semi Disposable



CONNECTORS SEMI DISPOSABLE

025536SDF	22mm Male to 30mm Scavange Female	£4.75
025536SDM	22mm Male to 30mm Scavange Male	£4.75
025088	15mm Elbow 15m - 22m/15f + 7.6mm Port	£5.25

Anaesthetic Circuit Consumables

Use Soda Lime to replenish to and fro circle systems. Turns pink to white.

CONSUMABLES

025052	Soda Lime 5Kg *	£35.00
025104	4 Litre Rebreathing Bag Anti-static Rubber	£22.00
025106	2 Litre Rebreathing Bag Anti-static Rubber	£19.00
025051	0.5 Litre Rebreathing Bag Anti-static Rubber	£16.00
TUBING	Oxygen Feed Tubing (per metre)	£4.75
025535	Scavange Tubing 22mm Diameter (per metre)	£3.50
025545	Corrugated Plastic Hose Set with Y Mount	£24.00

Carriage is extra for all items marked *

AAS

ADVANCED ANESTHESIA SPECIALISTS

AAS Smooth Wall Anaesthesia Circuits



The smooth inner wall of these Y Hose Sets makes them easier to clean, and decreases circuit resistance. The inner hose diameter is reduced from the standard 22mm down to 12mm on the small and 16mm on the larger set. This significant reduction in circuit volume improves response to changes in anaesthetic setting. Suggested flow rate is 30ml/kg/min, 60ml/kg for the first 5 minutes.

Please note that the Smooth Wall Circuits contain tubing and rebreathing bags only. Circles and manifolds required separately.

AAS SMOOTH WALL ANAESTHESIA CIRCUITS

AASCIR-0007	Smooth Wall Circuit 12mm Inner Diameter 1.6m + Y Connector 0.5L & 1.0L Bags for Animals 2-20kg	£29.50
AASCIR-0009	Smooth Wall 16mm Inner Diameter 1.6m + Y Connector 0.3L Bags for Animals over 20kg	£29.50

Anaesthesia Pre-Warming™ : a Darvall Solution for hypothermia

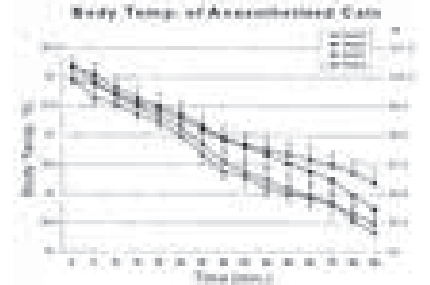
Peri-Anaesthesia Hypothermia

Hypothermia (body temperature below 36°C) occurs in up to 80% of anaesthetized cats and dogs. Causes include small body size relative to body surface area, vasodilation, inhaling cold, dry anaesthetic gases, loss of heat from open body cavities in surgery and lack of shivering during anaesthesia. All of these combine to create the complex and difficult to manage syndrome: peri-anaesthesia hypothermia.

The Pre-Warming Solution

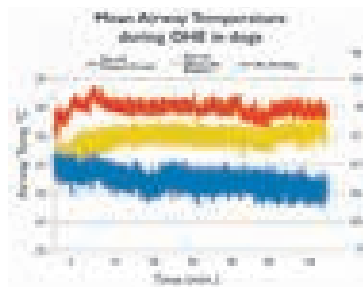
The AAHA Guidelines for Anesthesia include monitoring body temperature and providing thermal support from pre-anaesthetic through to recovery. Providing thermal support before anaesthesia may seem counter-intuitive, but recent research shows that regardless of the premedication drugs used, smaller dogs and cats lose over 1°C before anaesthesia and then rapidly lose twice that fifteen to thirty minutes after induction (Graph 1). Fortunately studies also show that effectively warming patients from the time of premedication to the time of induction (for at least 30 minutes) can prevent that initial drop in body temperature and may slow the early stage rapid heat loss immediately following induction. Heating hypothermic animals during anaesthesia is difficult and time consuming.

Pre-warming small animals is highly beneficial and can easily be done by placing the premedicated patient in a warmed cage. Cage heating devices not specifically designed for sedated or anaesthetized animals such as jugs of warm water or heated wheat bags, can cause burns. The margin of safety for causing significant thermal injury is surprisingly narrow. Forced warm air blanket systems are ideal for use in pre-warming cages because they deliver a large flow of warm air at constant, thermostatically controlled temperatures. However forced warm air systems designed for use in humans are not designed with appropriate blankets or to duct warm air into a cage. Darvall has solved this problem with an innovative Cage Door Adapter* that lets the door open/shut properly with 2 sizes of blankets to fit cages. In addition One Cocoon® heater can warm up to 3 cage blankets simultaneously and blankets can be re-used between animals



Graph 1. Body Temperature of anaesthetised cats using Bair Hugger™ warm air blankets compared to no heating. Trial A (Heat off/off); Trial B (on/off); Trial C (on/on) and Trail D (off/on). Machon R. et al, Vet Surg 28:301-310;1999

Warmed Inspired Anaesthetic Gas



Graph 2. Inspired Gas Temperature with Darvall Heated Circuit, Darvall Forced Warm Air Blanket or no heating. 9 dogs/treatment, 6.2±3.1 (Mean±SD)kg, 20±17 months, surgery time 96±27 min. Lee S. Honours Thesis, University of Sydney, 2013.

There are many ways to reduce patient heat loss during anaesthesia including minimizing surgical prep. time, insulating an animal's feet, warming IV fluids and use of electric, hot water or forced warm air blankets. However none of these methods adequately address the rapid heat loss occurring in the first fifteen to thirty minutes after induction. Darvall's innovative Heated Smooth Wall Anaesthesia Breathing Circuits* target this critical heat loss from inspiring cold, dry air by warming the inspired gases immediately from the time of intubation (Graph 2).

Next Generation Forced Warm Air Blanket System

Forced warm air blanket systems for humans are most effective during recovery, when the patient's vasomotor function, increased cardiac function and shivering have returned. Studies show these systems don't prevent hypothermia in anaesthesia in cats and small dogs (Graph 1).

The Darvall Vet Cocoon® warm air blanket system is designed for cats or dogs either during surgery or in cages before and after anaesthesia. The contact surface is porous, rather than punched with small holes, resulting in low surface air flow. When positioned over or underneath animals, warm air diffuses across the blanket's surface and the patient's hair-coat traps the warmth close to the animal. A recent study in dogs anaesthetised for surgery showed that the Darvall Vet Cocoon® system consistently increased body temperature during surgery but there is a lag period of 30-45 min. before the animal's body temperature starts to rise (Graph 3).



Graph 3. Darvall warm air blankets compared to electric heat mat for prevention of hypothermia in dogs 17.3±11 (Mean±SD)kg. Lau A. et al, Honours Thesis, University of Sydney, 2008

Reference 1. Read M. et al Conductive warming prevents the development of hypothermia in anaesthetised dogs (Abst.). Vet Anaesth Analg 41:A22;2014

© 2014 Anaesthesia Pre-Warming. Colin Dunlop & Ken Crump, Advanced Anaesthesia Specialists www.aasmedical.com

Peri-Anaesthesia Thermal Support Selector™

Chart for selecting effective warming treatment options by type and length of procedure.

Procedure	OHE - Young Animal	Long Orthopaedic Surgery	Dental Procedure
Duration of Anaesthesia	30 to 60 min	90 to 150 min	60 to 180 min
Premedication - Start Pre-Warming (>30 min)	Darvall Cocoon® CAGE Over-blanket*	Darvall Cocoon® CAGE Over-blanket*	Darvall Cocoon® CAGE Over-blanket*
Patient Clip, Catheter Placement, Induction	Circulating warm water or insulated electric blanket	Circulating warm water or insulated electric blanket	Circulating warm water or insulated electric blanket
Intubation - Start Heating Inspired Gas	Darvall Heated Smooth-Wall Circuits*	Darvall Heated Smooth-Wall Circuits*	Darvall Heated Smooth-Wall Circuits*
OR/ Procedure Table	Circulating warm water or insulated electric blanket	Darvall Cocoon SURGERY Under-blanket*	Darvall Cocoon SURGERY Under-blanket*
Recovery - Warming to < 37°C	Darvall Cocoon® CAGE Over-blanket*	Darvall Cocoon® CAGE Over-blanket*	Darvall Cocoon® CAGE Over-blanket*

Darvall Heated Smooth-Wall Circuits



Darvall Heated Smooth Wall Circuit heat controller with Temperature display in °C

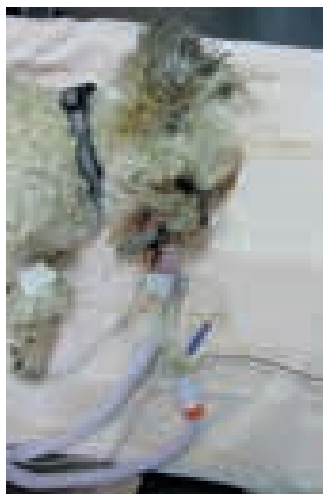
Inspiring cold, dry air can be a cause of heat loss for animals under anaesthesia. The Darvall heated smooth wall breathing circuit solves this longstanding problem in small animal anaesthesia.

Recent research demonstrates that most temperature loss occurs after induction, during the patient's clip and prep for a procedure.

Darvall heated smooth wall breathing circuits provide warm inspired gas to patient from the moment of intubation. Darvall's heated smooth wall tubing (SWT) begins to warm patients from the inside, from their very first breath after induction, reducing loss of body temperature prior to surgery.

Warm animals recover better. Our small diameter, low resistance smooth wall circuits are so efficient they allow you to use a circle system on animals as small as 2kg*. The totally new Darvall heated circuits with thermostatic control warm inspired gas which can minimize heat loss in anaesthesia.

- Warms inspired gas: 38.5°C-40°C
- Efficient: internal warming
- Immediate: from the first breath
- Prevents heat loss*
- Airway temperature sensor
- Animal temperature monitoring
- Heats without Harm



Provide immediate and effective warmth from the start of anaesthesia.

Our totally new Darvall heated, smooth-wall anaesthetic circuits and heated ZDS Qubes have a microprocessor with temperature sensor and warm up to 45°C, resulting in inspired air between 38.5°C and 40°C. Optional Separated animal esophageal/rectal temperature probe provides safe warming with close-loop control.



Available both heated and unheated the smooth inner wall of the Y hose sets makes them easier to clean and decreases circuit resistance. End connectors are moulded on, for additional security. The inner hose diameter is reduced from the standard 22mm down to 12mm on the small and 16mm

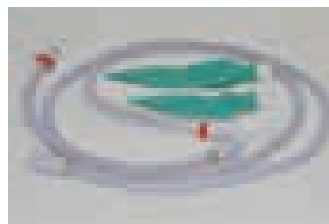
on the larger set. This significant reduction in circuit volume improves responses to changes in anaesthetic setting. Suggested flow rate is 30ml/kg/min, 60ml/kg for the first 5 minutes. Minimum flow rate with Tec vapourisers is 300ml.

*Animals 2-7kg use Darvall low-volume Circle absorber

Darvall Heated Anaesthetic Starter Set



AAS Heated Controller Unit



AAS8347 12mm Heated Circle System



AAS8348 16mm Heated Circle System

Darvall Anaesthesia Starter Sets include the Controller Unit plus 1 of each Heated Circle System - AAS8347 & AAS8348 (tubing and rebreathing bag only).

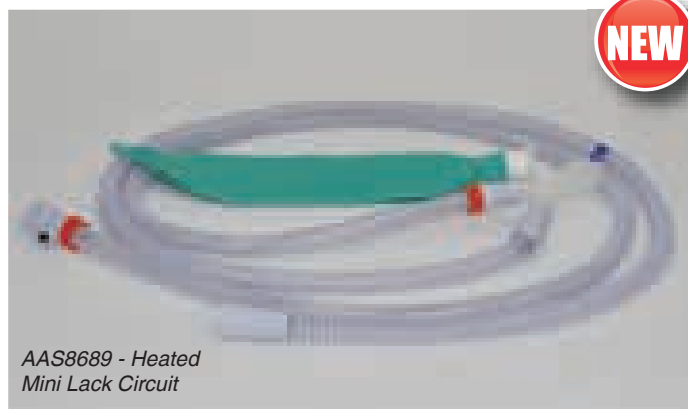
Please note that the Circle System Canister is required for use with the Heated Circle System. Available separately.

AAS DARVALL STARTER SETS

AAS8531	Starter Kit for Heated Anaesthesia Breathing Circuits	£650.00
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Darvall Heated Anaesthetic Accessories

Darvall Heated Mini Lack Anaesthetic Accessories



AAS8689 - Heated Mini Lack Circuit

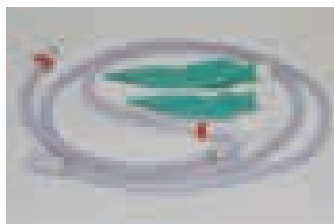


Mini Lack Manifold

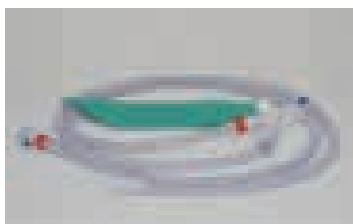
AAS DARVALL HEATED MINI LACK CIRCUIT & ACCESSORIES

AAS8689	Heated Mini Lack Circuit 2-20kg (contains Tubing & Rebreathing Bag only - Manifold required)	£95.00
LACKMINIRMAN	Mini Lack Manifold	£150.00

Darvall Heated Circle System Anaesthetic Accessories



AAS8347 12mm Heated Circle System

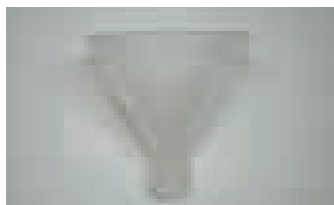


AAS8348 16mm Heated Circle System

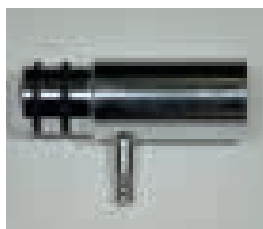
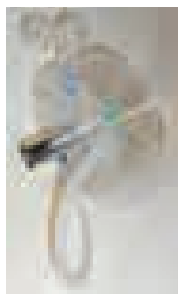


NEW

AAS05265 Circle System Canister



AASCIR-0016 Circle Absorber Canister Funnel Filler



AASCIR-0015 Circle Mounting Adaptor for Circle Canister

AAS DARVALL HEATED CIRCLE SYSTEM & ACCESSORIES	
AAS8347	Heated Circle System 12mm Cats & Small Dogs 2-20kg (contains 12mm Tubing & 0.5l & 1l Rebreathing Bag only - Circle Canister required) £95.00
AAS8348	Heated Circle System 16mm Dogs 20-80kg (contains 16mm Tubing & 0.5l & 1l Rebreathing Bag only - Circle Canister required) £95.00
AAS05265	Circle System Canister (Hamster Wheel - tubing required) £175.00
AASCIR-0016	Circle Absorber Canister Funnel Filler (Hamster Wheel Fill CO ₂) £12.50
AASCIR-0015	Circle Mounting Adaptor for Circle Canister £55.00

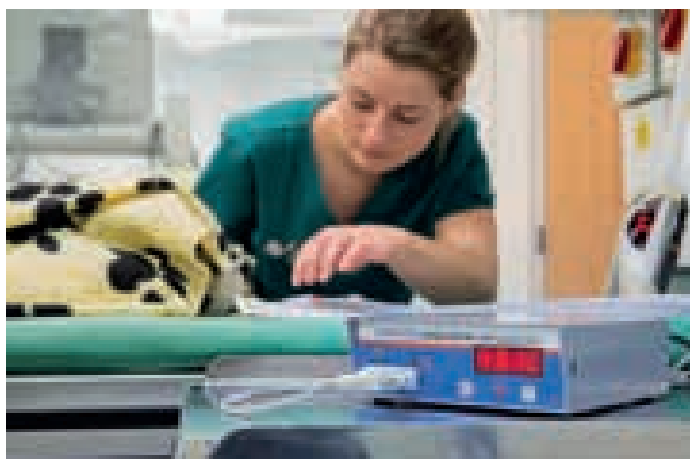
Darvall Unheated Smooth Wall Circuits & Accessories

AAS DARVALL ACCESSORIES & UNHEATED SMOOTH WALL CIRCUITS	
AAS8305	Smooth Wall Mini Lack 2-20kg (contains Tubing & Rebreathing Bag only - Manifold required) £29.50
LACKMINIRMAN	Mini Lack Manifold £150.00
AASCIR-0007	GA Smooth Wall 12mm Inner Diameter 1.6m + Y 0.5L & 1.0L Bags for Animals 2-20kg (contains 12mm Tubing & 0.5l & 1l Rebreathing Bag only - Circle Canister required) £29.50
AASCIR-0009	GA Smooth Wall 16mm Inner Diameter 1.6m + Y 0.3L Bags for Animals over 20kg (contains 16mm Tubing & 0.5l & 1l Rebreathing Bag only - Circle Canister required) £29.50
AAS05265	Circle System Canister (Hamster Wheel - tubing required) £175.00
AASCIR-0016	Circle Absorber Funnel Filler (Hamster Wheel Fill CO ₂) £12.50
AASCIR-0015	Circle Mounting Adaptor for Circle Canister £55.00

'As a specialist referral centre we have procedures that require the patient to be under General Anaesthesia for several hours, and this inherently cause issues with keeping the patient's temperature normothermic.'



'Using The darvall heated circuit has added to our ability to maintain the patients temperature. the heated tubing has made a positive impact on reducing the time it takes to warm them post surgery.'



Images & testimonial courtesy of David White RVN, Senior Veterinary Nurse, Southern Counties Veterinary Specialists

Darvall Heated ZDS Qube

The Darvall Qube is a zero dead space anaesthesia non-rebreathing mask system for exotics, available heated to take all the advantages of inspired gas warming down to the smallest of patients. The exotics mask kit includes small rodent/reptile mask, larger bird/rabbit mask and endotracheal tube connector. Patients can be induced using the sealed masks, reducing the environmental contamination involved in transferring patients from induction chambers. Inspired gas warming is then available throughout the anaesthetic, with the concomitant benefits for the patient.



The AAS Darvall ZDS Starter Kit contains the Heated Controller Unit, 1 x Heated ZDS Qube, 2 x Face Masks, 1 x ET Adaptor, 1 x Fresh Gas Tube & 1 x Exhalation Tube.

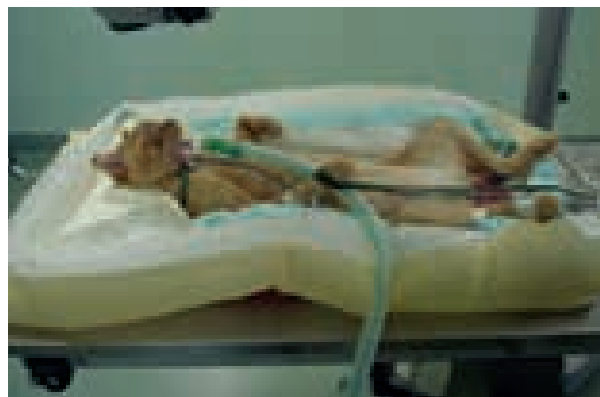
AAS DARVALL ZDS QUBE & MASKS

AAS8556	Starter Kit for Heated ZDS Qube	£895.00
AAS8457	Heated ZDS Qube with Mask Set 8407 Controller Unit required	£445.00
AASCIR-0028	ZDS Mask Set for Rodents 3 Masks & Diaphragms	£135.00
AASCIR-0027	ZDS Mask Set for Exotics 2 Masks, Diaphragms & ET Adaptor	£135.00

Want more information on
Patient Warming?
E-mail info@vetinst.com

AAS Darvall Warm Air System

AAS ADVANCED ANAESTHESIA SPECIALISTS



The benefits of preventing hypothermia both during and after surgery are well documented, both in terms of improved patient care and more efficient use of resources.

Use of warm air blankets to pre-warm patients, heated anaesthetic circuits for all procedures plus blankets under anaesthetised animals during longer procedures, over 60 minutes, followed by post-op cage blanket use will help optimise patient recovery from anaesthesia. Spend a moment reading the informative article at the start of this section for more information.

AAS Darvall Cocoon Warm Air Unit



The Darvall Cocoon Heating Unit is easy and straightforward to use. Running quietly, it produces minimal noise pollution in theatres and recovery areas. Features include auto step-down heating 46°C, 43°C, 40°C with cooling also available at 34°C, all under micro-processor control. A 0.2 micron replaceable filter helps prevent microbial contamination of the warm air. A Mobile Base is included with the Unit. Routine use of the base with the unit will help extend the period between filter replacements, which are typically every 2 years.

The Starter Kit contains the Cocoon Warm Air Unit, Stand, Starter pack of Blankets and Cage Door Adaptor.

AAS DARVALL COCOON WARM AIR UNIT

AASCOCOONSTART	Darvall Cocoon Starter Set	£1,350.00
AAS02038	Darvall Cocoon Warm Air Unit	£1,250.00
AASFILTERCH	Filter Replacement including collect & return courier	£125.00

AAS Darvall Warm Air Blankets

What makes them different from the rest?

The Darvall series of warm air blankets are specifically designed for veterinary use. The unique blanket surface design is porous polyester which provides low uniformly distributed air flow, providing efficient warming, reducing the 'wind chill' factor and minimising hair contamination. Traditional warm air blankets have a punched out surface allowing a higher rate of air flow out of the blanket. OK for humans, as we are on a very different scale, but much less suitable for veterinary patients.

Blankets are available in a range of standard under and over blankets with a special design for dentistry and oral surgery which leaves the head area free of hoses etc. Recovery blankets have dual hose inlets positioned for right or left recumbency patients improving access for connection in a kennel. Standard under and over blankets have two hose inlets, allowing easy positioning of the hose. Tube blankets are also available.

Starter Pack of Darvall Warm Air Blankets

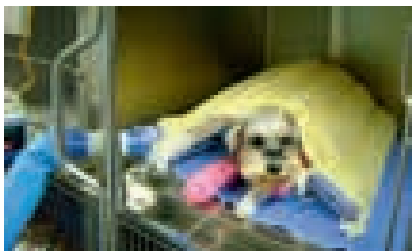
Not sure what you will use? Get a starter pack to try all sizes.



Pack includes 2 each of both sizes of surgery under-blanket, 2 of both sizes of recovery over-blanket, and 2 dentistry blankets. A total of 10 blankets which covers the most commonly used varieties.

Recovery Overblanket

Recovery Overblankets are available in 2 sizes, Cats and Small Dogs (pictured) code AAS05360 and for Medium/Large Dogs code AAS05359



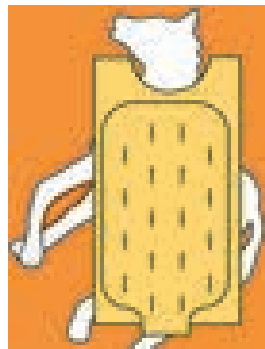
Dual inlets allow maximum flexibility.

Overblanket

2 additional sizes are available with single air inlets.

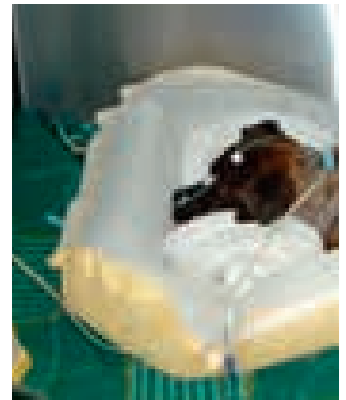
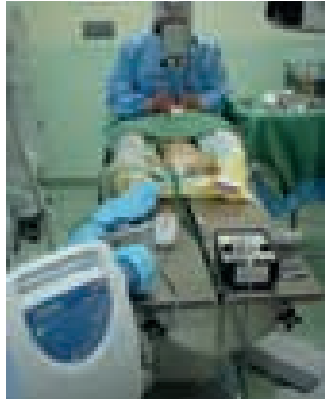


Overblanket for Medium/ Large Dogs, code AAS05310



And for those very large patients, Overblanket for Extra-Large Dogs and Foals code AAS01958

Underblankets



Usually used during procedures, underblankets again have 2 inlets allowing hose positioning flexibility. Can also be used in-cage.

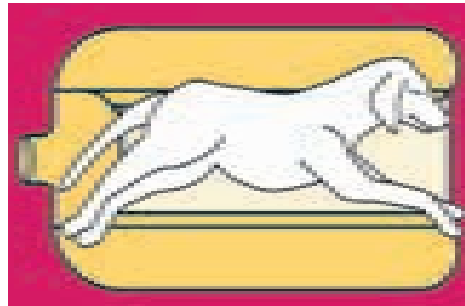
2 sizes AAS02979 for Cats and Small Dogs, AAS02275 for Medium/ Large dogs.



Small blanket showing positioning possibilities!

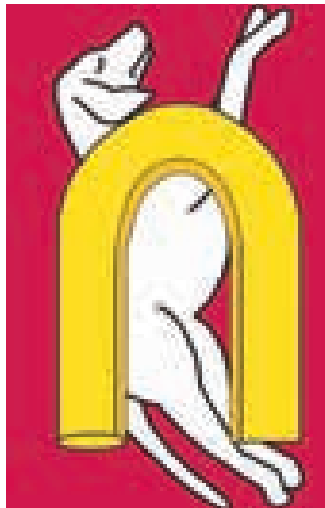
Dentistry Underblanket

This useful blanket has the air inlet at the opposite end to the standard underblanket, allowing easy access to the patient's head without hose complications. Order code AAS07898



Tube Blankets

Available for cats and small dogs (AAS05362) and Medium/Large Dogs (AAS05364) these useful tubes can be positioned closely around the patient as required



AAS Darvall Warm Air System Blankets

AAS DARVALL WARM AIR SYSTEM BLANKETS		
AAS05359	Darvall Warm Air Recovery Blanket for M/L Dogs Pack of 10	£155.00
AAS05359S	Darvall Warm Air Recovery Blanket for M/L Dogs Single	£16.00
AAS05360	Darvall Warm Air Recovery Blanket for Cats & Small Dogs Pack of 10	£155.00
AAS05360S	Darvall Warm Air Recovery Blanket for Cats & Small Dogs Single	£16.00
AAS05310	Darvall Warm Air Over Blanket for M/L Dogs Pack of 10	£155.00
AAS05310S	Darvall Warm Air Over Blanket for M/L Dogs Single	£16.00
AAS01958	Darvall Warm Air Over Blanket for XL Dogs & Foals Pack of 10	£155.00
AAS01958S	Darvall Warm Air Over Blanket for XL Dogs & Foals Single	£16.00
AAS02275	Darvall Warm Air Under Blanket for M/L Dogs Pack of 10	£155.00
AAS02275S	Darvall Warm Air Under Blanket for M/L Dogs Single	£16.00
AAS02979	Darvall Warm Air Under Blanket for Cats & Small Dogs Pack of 10	£155.00
AAS02979S	Darvall Warm Air Under Blanket for Cats & Small Dogs Single	£16.00
AAS07898	Darvall Warm Air Dental Blanket for Cats & Dogs Pack of 10	£155.00
AAS07898S	Darvall Warm Air Dental Blanket for Cats & Dogs Single	£16.00
AAS05362	Warm Air Tube Blanket for Cats & Small Dogs 10 Pack	£140.00
AAS05362S	Warm Air Tube Blanket for Cats & Small Dogs Single	£14.50
AAS05364	Warm Air Tube Blanket for M/L Dogs 10 Pack	£140.00
AAS05364S	Warm Air Tube Blanket for M/L Dogs Single	£14.50
AAS8460	Darvall Warm Air Sample Pack of Assorted Blankets	£155.00

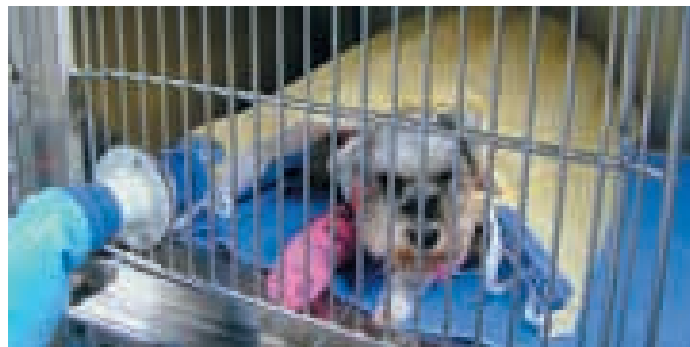
Not sure about whether to make the investment in a Cocoon Warm Air Heater?

A Cocoon is available for a free 2 week trial period, subject to purchase of blankets to use. Call us on 0845 130 9596 or e-mail info@vetinst.com to book your trial now.



You will be impressed!

AAS Darvall Accessories Cage Door Adaptor



Additional accessories are available for the Darvall system include a cage door adaptor allowing the main hose to attach to the adaptor which is firmly fixed to the cage bars.



A second short hose connects the blanket to the cage door, making disconnection of the unit quick and easy without disturbing the patient.

Two Cage Adaptor



A useful Y adaptor allowing 2 blankets in adjoining cages to run from 1 heater unit

AAS DARVALL WARM AIR SYSTEM ACCESSORIES

AAS7882	Darvall Warm Air Heater Cage Door Adaptor	£79.50
AAS07888	Darvall Warm Air Heater Hose Cover	£32.50
AAS8100	Darvall Warm Air Heater Crocodile Clip Hose Holder	£38.50
AAS02347	Darvall Warm Air Heater Hose Complete	£90.00
AAS1959	Darvall Two Cage Y Adaptor (requires 2 x Cage Door Adaptors - not included)	£315.00

Bair Hugger Converter



Connects Bair Hugger® Heater Hose to Darvall Cage Door Adapter.

Attaches to Darvall Cage Door Adapter (AAS7882).

BAIR HUGGER CONVERTER

AAS08430	Bair Hugger Heater Hose Adapter	£49.50
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Washable Warm Air Blanket

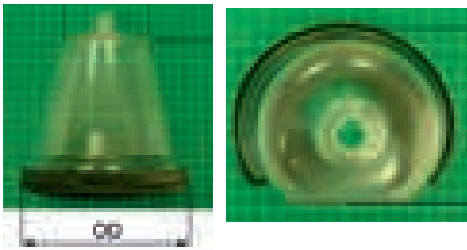


The Blankets are re-usable being made of a silky polyester fabric with an inlay of nylon waterproof material to keep the airflow circulating upwards towards the patient. The Blankets are machine washable (hang to dry, do not

tumble dry). The opening is 5" (12.5cm) with a cord tie making these Blankets suitable for all brands of warm air convection units.

WASHABLE WARM AIR BLANKET		
C9B7550	Washable Warm Air Blanket (75cm x 50cm)	£75.00
C9B9060	Washable Warm Air Blanket (90cm x 60cm)	£80.00
C9B12060	Washable Warm Air Blanket (120cm x 60cm)	£85.00
C9SET	Washable Warm Air Blanket Set of 3 (as above)	£195.00

Eldridge Anaesthesia Mask



New mask designed to minimise roll and slipping. 3 sizes available.

ELDRIDGE ANAESTHESIA MASK			
025553	Feline/ Small Canine	OD 90mm	£45.00
025554	Canine up to 50lbs	OD 125mm	£47.50
025555	X Large Canine	OD 150mm	£50.00

iM3 Masks



iM3 Masks are designed for rapid induction of anaesthesia with a minimum of fuss and minimum pollution. They all have the following features.

- Very low dead space, important when masking down using circle systems
- Removeable rubber diaphragm which minimises gas leaks and permits cleaning.
- Made from virtually indestructible pvc which will not degrade like the latex rubber type.

- Clear plastic allows visualisation of patient's muzzle.
- Buy a full set (5) and get a Free Resuscitation Bag - Small.

Code	Inner Diameter	Outer Diameter	Length
025538CBB	25mm	65mm	60mm
025538CVS	35mm	60mm	60mm
025538C	55mm	85mm	85mm
025539C	80mm	130mm	140mm
025547V	60mm	100mm	170mm

iM3 MASKS		
025538CBB	Mask Bird/ Rodent Clear	£39.50
025538CVS	Mask Rabbit/ Cat Clear	£39.50
025538C	Mask Small Cat Clear	£39.50
025539C	Mask Large Clear	£39.50
025547C	Long Nose Mask Clear	£39.50
025552	Set of 5 Clear Masks (plus FREE resuscitation bag)	£215.00

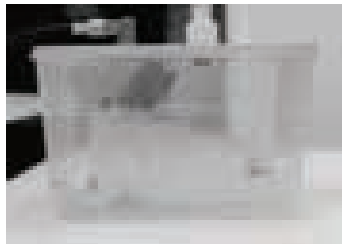
Resuscitation Bag



For emergency artificial respiration. The device is ideal for administering either pure oxygen or room air to oxygen deprived patients. A special valve allows lung inflation on compression of the bag and passive exhalation of CO₂ whilst fresh air refills the bag. Can be used with a standard endotracheal tube or an airtight mask.

RESUSCITATION BAG		
025557	Small Resuscitator Bag (Volume 550ml)	£36.00
025558	Large Resuscitator Bag (Volume 1800ml)	£45.00

Anaesthetic Chamber



Most very small patients may be induced using a chamber. The Kit contains the chromed inlet and outlet fittings.

- Relatively stress free
- Patient remains visible
- Standard 15mm inlet, standard scavange tube outlet
- 300mm x 300mm x 180mm (12" x 12" x 7")
- 3m of scavange tubing included.

ANAESTHETIC CHAMBER		
025540	Anaesthetic Chamber	£125.00
025540C	Chamber Kit to Convert Plastic Containers	£105.00

Feline Inhalant Delivery System



Feline asthma is increasingly recognised in small animal practice. Existing treatments include oral corticosteroids and bronchodilators. These regimes are far from ideal due to side effects or poor owner compliance.

Metered Dose Inhalers (MDI) have been the treatment of choice for human asthmatics for many years. Inhaled medication has been shown to be more effective with fewer side effects. It is now possible to use these agents in cats with our unique aerosol chamber designed for cats. The chamber works with standard human MDIs and works well with the small tidal volume of feline patients. Patients quickly accept the system.

The Kit comes complete with two masks. Chamber is 11cm x 4.5cm, (4.5" x 1.75")

- Reusable and easy to clean
- Designed to be dispensed for client home use.
- Includes two different sized masks
- Directions included with suggested treatment regimes

FELINE INHALANT DELIVERY SYSTEM		
025700	Feline Inhalant Delivery System	£52.50

Intubation Accessories

Endotube Light



This small Penlight has attached a flexible metal rod with a light at the tip. A 5mm tube easily slides over the light tube. Offers both rigidity and light, especially useful in cats and small dogs.

Operates with 'AA' batteries which are included.

ENDOTUBE LIGHT

025600	Endotube Light	£25.75
025601	Spare Endotube Light Bulb	£13.95

Endotracheal Tube Stylet

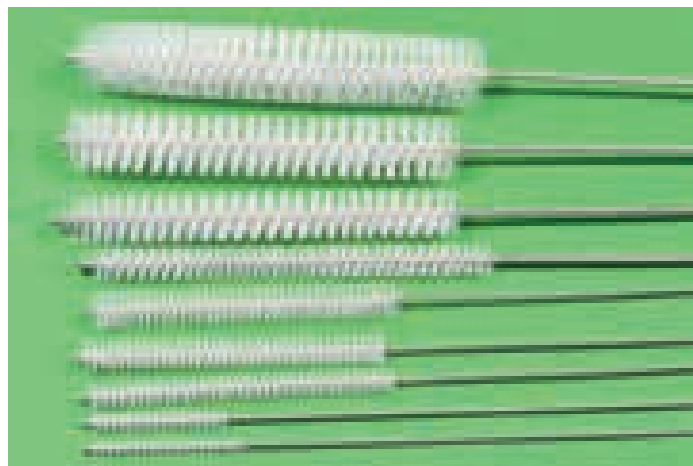


Intubation is much easier using a malleable stylet. These plastic coated stylets may be bent to the desired shape. Each Stylet has an adjustable rubber stopper to ensure that the stylet tip is not exposed at the endo tube tip. The Stylets work especially well with silicone tubes which tend to be soft.

ENDOTRACHEAL TUBE STYLET

025605	Stylet Tube Sizes 2.0-3.5mm	£9.95
025606	Stylet Tube Sizes 4.0-6.5mm	£9.95
025607	Stylet Tube Sizes 7.0-10mm	£9.95

Endotracheal Tube Brushes



Endotracheal tubes require cleaning to prevent cross contamination between patients. Thorough cleaning also ensures that there is no mucous obstructing the tube which could be fatal. Appropriately small endo tube brushes are hard to find.

ENDOTRACHEAL TUBE BRUSHES

END02	Endotracheal Tube Brush 12 inch 2mm	£14.95
END03	Endotracheal Tube Brush 12 inch 3mm	£14.95
END04	Endotracheal Tube Brush 12 inch 4mm	£14.95
END05	Endotracheal Tube Brush 12 inch 5mm	£14.95
END06	Endotracheal Tube Brush 12 inch 6mm	£14.95
END07	Endotracheal Tube Brush 16 inch 7mm	£14.95
END010	Endotracheal Tube Brush 12 inch 10mm	£14.95
END012	Endotracheal Tube Brush 12 inch 12mm	£14.95
END0SET	Endotracheal Tube Brush Set (as above)	£95.00

Safe-Seal Endotracheal Tubes



Safe Seal Tube with Stylet (supplied)

Almost all ET Tubes used today depend upon an inflation cuff to seal the tube in the trachea, not so the Safe-Seal™ ET Tube featuring the Blaine Bafflex System.

This new technology uses a series of 6 silicone baffles with carefully engineered pattern and spacing to seal the trachea without pressure points. The flexible baffles allow an "o-ring effect".

The Safe-Seal ET tube lies in the trachea and the sealing baffles touch the tracheal wall leaning towards the larynx. Thus, when the patient inspires the silicone baffles are sucked against the trachea forming a tight seal.

The special design allows passage of pressure exceeding 20-30 centimeters of water in the patient's lungs. If the pop-off valve is accidentally left closed, the excess pressure is released and no harm will come to the patient.

These soft, flexible baffles are atraumatic to the tracheal surface due to the limited contact of the baffles.

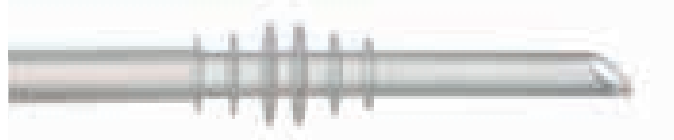
There is minimal contact with the tracheal wall when using the Safe-Seal Tube as opposed to the large area of contact of inflation cuff tubes. This means the tube can be left in the same position for extended periods of time.

Another advantage is the "squeegee" effect when extubating, by scraping the trachea clean of any fluids present.

The Safe-Seal ET Tube with the Blaine Bafflex System eliminates dangers of deflation or over inflation.

The Safe-Seal Tube's baffles keep the tip of the tube centered in the trachea.

Although the Safe-Seal ET Tube has a different 'feel' to regular tubes, new users quickly adjust and rarely switch back.



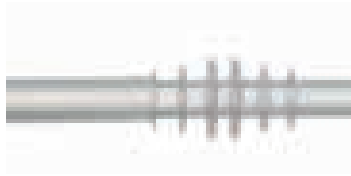
SAFE: Baffles prevent over insufflation - no pressure points

EASY: Faster insertion and removal - less training needed

ECONOMICAL: Only three sizes needed for dogs ranging 5 - 100kgs

The new Safe - Seal Endo Tube utilizes a series of silicone baffles to replace the inflation cuff. It eliminates the risks of over inflation, under inflation and leaky tubes. The soft, flexible baffles seal the trachea without pressure and cleanses the trachea of all fluids upon extubation.

Only 3 sizes of tubes are necessary for dogs weighing 5 to 100kgs. The ET tube's one piece construction of medical grade silicone is autoclavable.

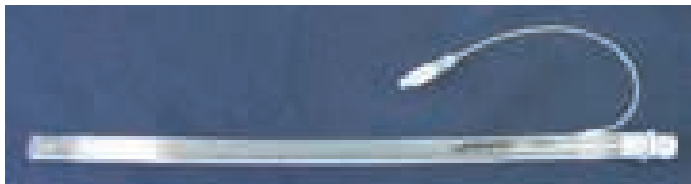


Advantages & benefits

- Solid one piece construction of medical grade silicone.
- No moving parts to fail.
- Can be left in the same position in the trachea for extended periods.
- The tube will rotate in the trachea during surgery without injury.
- Transparent, so blood or fluids can be visualized in the tube.
- Autoclavable

SAFE-SEAL ENDOTRACHEAL TUBES		
ET18L	Safe-Seal ET Large 30 - 100 kg	£44.50
ET14M	Safe-Seal ET Medium 11 - 35 kg	£39.50
ET12S	Safe-Seal ET Small 5 - 15kg	£34.50
ETSET	Safe-Seal ET Set of 3 (S, M, L)	£105.00
02545-553	Cleaning Brush for Safe-Seal ET - Large	£14.95
02545-540	Cleaning Brush for Safe-Seal ET - Medium	£14.95
02545-544-2	Cleaning Brush for Safe-Seal ET - Small	£14.95
02545SET	Cleaning Brush Set for Safe-Seal ET	£41.50

Large Diameter Silicone Endotracheal Tube



Features:

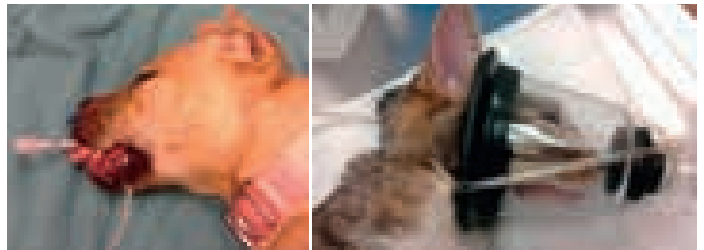
- Connector included.
- Lateral Murphy eye at distal tip allows ventilation in the event of obstruction of the main opening at the tip.
- 10 to 14mm diameter.
- Transparent: blood and mucous visible
- Comfortable c.f. rubber and PVC.
- Durable c.f. rubber and PVC.
- NOT autoclavable (use cold sterilants e.g. perasafe page 353).
- Sensible pricing.

LARGE DIAMETER ENDOTRACHEAL TUBE			
	Inner Diameter (mm)	Length (cm)	
025620	10	36	£25.00
025621	11	40	£26.00
025622	12	44	£27.00
025623	14	48	£28.00
025625	Set of 4 tubes		£95.00

EZ Tie Endotracheal Tube Securing Device



Maintaining an endotracheal tube in the correct position is a critical component of anaesthesia or surgery. Any shift or displacement of an endotube during anaesthesia can be life threatening. A common practice is to use a length of cotton gauze roll to first tie around the tube then around the animal's muzzle. Roll gauze can come untied or be difficult to quickly untie.



The EZ Tie is designed to be quick and easy to hold any endotracheal or anaesthesia mask safely in place. The thin but strong plastic tubing has 2 sliding clasps. These clasps readily move along the tubing but hold steady under tension. The first clasp is used to tighten around the ET tube or mask. The second slides along to tighten around the patient's muzzle. It also works extremely well with challenging brachycephalic breeds such as pugs and felines.

EZ TIE ENDOTRACHEAL TUBE SECURING DEVICE		
025094	EZ Tie Endotracheal Securing Device Pack of 3	£17.75

Laryngoscopes



Intubation of certain breeds of certain species can be very difficult without the appropriate laryngoscope. Deflection of soft tissues and a light source makes life very much easier. In a crisis e.g. a blue brachycephalic, the appropriate laryngoscope will be a life saver. Veterinary Instrumentation recommends Miller Blades. Our Fibre Optic System uses a remote single bulb producing a cold light at the blade tip.

LARYNGOSCOPES		
025118FO	Laryngoscope Set with 0, 1, 2, 3 & 4 Blades Fibre Optic	£235.00
025118FOBULB	Spare Bulb for Fibre Optic Laryngoscopes	£22.50
025127	Wall Bracket for Laryngoscope Sets	£57.50
025120	Laryngoscope for Rabbit Fibre Optic includes Miller No 0 Blade and 00 Blade	£170.00
025125/L	Spare Bulb Non FO laryngoscopes Large	£19.50
025125	Spare Bulb Non FO Laryngoscopes Small	£19.50

Henry Schein Standard Dual-head Stethoscope



HS Stethoscopes with high density zinc alloy chrome-plated chest-pieces for superior sound transmission. Adjustable chrome-plated brass binaural with white ABS eartip for a comfortable fit. Durable one-piece moulded PVC "X" tubing, latex-free. Head: Dual-head, tubing length: 540mm, total length: 760mm, head-diameter: 49mm / 31mm.

Available in Black, Red, Royal Blue and Grey

HENRY SCHEIN STANDARD DUAL-HEAD STETHOSCOPE

HS9008427	HS Standard Dual-head Stethoscope Red	£16.50
HS9008426	HS Standard Dual-head Stethoscope Royal Blue	£16.50
HS9008425	HS Standard Dual-head Stethoscope Grey	£16.50
HS9008424	HS Standard Dual-head Stethoscope Black	£16.50

Henry Schein Paediatric Stethoscope



HS Paediatric Stethoscope with high density zinc alloy chrome-plated chest-pieces for superior sound transmission. Adjustable chrome-plated brass binaural with white ABS eartip for a comfortable fit. Durable one-piece moulded PVC "X" tubing, latex free. Head: Paediatric, tubing length: 540mm, total length: 760mm, head-diameter: 37mm / 29mm. Available in Black.

HENRY SCHEIN PAEDIATRIC STETHOSCOPE

HS9008429	HS Paediatric Stethoscope Black	£16.50
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Henry Schein Maxima Premium Dual-head Stethoscope



Maxima Stethoscopes with solid stainless steel chest-piece for excellent acoustic sensitivity. Stainless steel binaural tube with a reinforced inner-spring construction provides extra durability, while still maintaining portability. Latex-free y-type thick-walled tubing with internal 3-way sound transmission connector provides outstanding sound transmission. The ear tubes are permanently set at anatomically correct angle for better sound transmitting into your ear canals. Soft screw-on soft ear tips that assure maximum comfort and excellent acoustic seal in the ear canal. Name tag, extra diaphragm, pair of large soft screw-on and firm ear tips are also provided. Tube length: 570mm. total length 780mm.

Available in Black, Navy Blue and Burgundy.

HENRY SCHEIN MAXIMA PREMIUM DUAL-HEAD STETHOSCOPE

HS9008416	HS Maxima Premium Dual-head Stethoscope Navy Blue	£38.50
HS9008415	HS Maxima Premium Dual-head Stethoscope Burgundy	£38.50
HS9008414	HS Maxima Premium Dual-head Stethoscope Black	£38.50

Oesophageal Stethoscope



Very simple yet very effective. The anaesthetist can monitor heart and lungs yet still have hands and eyes free for other signs. Supplied complete with headset and three probes. Probe length - 50cm.

OESOPHAGEAL STETHOSCOPE

025101	Oesophageal Stethoscope including 3 Probes	£67.50
025101/24F	24F Probe for Stethoscope (8mm O/D)	£23.50
025101/P18F	18F Probe for Stethoscope (6mm O/D)	£23.50
025101/P12F	12F Probe for Stethoscope (4mm O/D)	£23.50

Non-Invasive Blood Pressure Monitoring in Anaesthetised Patients

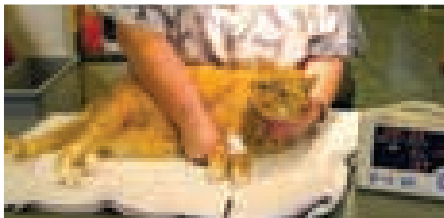
Donald C. Sawyer, DVM, PhD, DACVA, HDABVP

Oscillometric technology for non-invasive monitoring offers a simple and effective means of repeatedly and harmlessly determining arterial blood pressure in both healthy and sick patients.

It should be part of the routine physical examination especially in animals over 5 years with baseline data recorded as part of the medical record. When adverse events occur, comparisons can be made to recorded baseline measurements. Monitoring blood pressure as part of the anaesthesia protocol will improve morbidity and mortality not only for patients at risk, but for healthy animals as well. As veterinary clinicians become more knowledgeable about the benefits of arterial blood pressure measurements, it will be an integral component of improved patient care.

Arterial Blood Pressure

Cardiac output is the product of volume ejected from the heart per beat (stroke volume) and heart rate (per minute). The resultant pulsatile pressure generated in the vascular system causes distention of arterial vessels that has a maximum value, systolic arterial pressure (SAP) and a minimum value, diastolic arterial pressure (DAP). Mean arterial pressure (MAP) is roughly the average pressure during the cardiac cycle that occurs as blood is pushed through vessels.



Tissue perfusion is maintained during arterial pressures of 60 to 150 mm Hg (8.0 – 20.0kPa). When mean pressure falls below 60 mm Hg, blood flow may be too low to adequately perfuse essential organs such as the brain, heart, lungs, liver, and kidneys. Sustained systolic pressures over 170 mmHg (22.6 kPa) can result in severe consequences such as blindness, stroke, haemorrhage, and death.

Methods

Direct monitoring of blood pressure requires cannulation of a peripheral artery. It does not have practical application in most clinical settings for small animal patients but in animals with life-threatening disorders where continuous measurement of arterial blood pressure is essential, invasive monitoring should be considered. Indirect or non-invasive blood pressure (NIBP) measurement using Doppler flow ultrasonography includes the use of a sphygmomanometer combined with a flow detector or sensor placed over an artery. By noting the pressure value on the manometer gauge when the occluding cuff is inflated to stop blood flow and then deflated to resume complete flow, SAP can be determined. MAP would need to be calculated if it is possible to

determine DAP, and pulse rate (PR) counted.

There are a number of problems associated with the Doppler technique that make it inefficient for use in the Operating Theatre. Most important, this system is not automated. Sensor position may change, especially during surgery with the patient draped. The assistant performing Doppler measurements may be required to do other tasks, thus taking them away from the monitoring process. In addition, measurements are not displayed other than on the anaesthetic record, nor does the system provide alarms to alert the clinician of trouble. Noise in the OR and differences in hearing acuity among individuals can cause difficulty in obtaining reliable readings.

Oscillometry

Oscillometry uses microprocessor technology to detect oscillations produced by vascular pulsation in a peripheral artery. A compression cuff is placed around an appropriate location on an extremity and is automatically inflated to occlude the underlying artery. Each time the heart beats, oscillations occur within the artery that are transmitted through the cuff and pressure hose to a transducer located within the monitor. A microprocessor analyzes oscillations and displays values SAP, MAP, DAP and PR. Recent advances in animal specific algorithms in brands such as the Cardell® Monitor have allowed thousands of veterinary practices worldwide to provide reliable use in dogs, cats, puppies, kittens and other animals. Published studies in peer reviewed journals have validated the Cardell against direct arterial pressure in anaesthetized dogs and cats.

Monitoring the Anaesthetised Patient

Assessment of patient status and depth of anaesthesia with NIBP monitoring has become an essential component in clinical practice. A 2006 study concluded that more than 25% of veterinary patients were hypotensive during surgery, mostly because arterial blood pressure was not monitored. Risk of death during surgical anaesthesia in healthy dogs and cats has been estimated to be 0.11 to 0.15%. This risk is much higher in sick, aged, or injured patients. Further, anaesthetic depth and duration of anaesthesia has been shown to be a cause of death up to a year after non-cardiac surgery. Intraoperative systolic hypotension was one of the significant predictors of increased mortality. Although the margin of safety for modern anaesthetic agents has greatly improved, side effects of cardiovascular depression still can occur. Multimodal combinations of drugs are common and may result in hypertension or

hypotension. In addition, with more intricate surgical procedures being performed and

longer life expectancy in companion animals, effective blood pressure monitoring is essential to safe outcomes of anaesthesia.

Thus, major goals for monitoring the anaesthetised patient are to help assess anaesthetic depth and to detect trouble before severe consequences occur. To achieve anaesthesia as safely as possible, the presence of a trained technician is of prime importance. Then, in descending order of usefulness, come NIBP, capnography, pulse oximetry and ECG. Observation of the electrocardiograph



(ECG) is useful in detecting cardiac conduction abnormalities and the pulse oximeter provides continuous values for pulse rate and the percentage of haemoglobin oxygen saturation. But neither provides an early warning for assessing depth of anaesthesia. When the pulse oximeter displays a warning alert for a weak signal of oxygen saturation below 90%, the patient is already in trouble relative to oxygen partial pressure.

Conclusion:

For monitoring anaesthetised patients, assessment of therapeutic responses especially in patients with cardiac disease, or those needing critical or emergency care, avoiding intervals of hypotension is essential to maintain adequate cerebral, coronary, and splanchnic organ blood flow. Whether one uses SAP values of 80 (10.6kPa) or MAP of 60 as low alert thresholds, values from the monitor can be followed not only for early warning but also to establish an upward trend of improved pressures as corrective measures are instituted. Most anaesthetised patients should have indirect SAP values in the range of 85 to 130 mm Hg (11 – 17kPa). If SAP is above 150 mm Hg, arterial hypertension is evident. Assessment must be made to evaluate other signs for light anaesthesia, sympathetic responses from deep pain, or other complications. There is no question that automated monitoring of arterial blood pressure in companion animals is in the best interest of veterinarians, clients, and their pets. It should be a standard of practice not only during anaesthesia but also as a diagnostic and therapeutic tool for better patient care.

Donald C. Sawyer, DVM, PhD, DACVA, HDABVP

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Cardell Monitors

Cardell Model 9401 Blood Pressure Monitor



Provides reliable blood pressure monitoring in a compact and affordable package. The Model 9401 offers systolic, diastolic, mean arterial pressure and heart rate in seconds. It has an automatic mode allowing the user to set measurements from 1-90 minutes. A STAT mode provides continuous readings for five minutes. A manual mode allows the user to take a measurement at any time. There are high and low alarms for all parameters. The Cardell BP technology is known for working reliably in all our patient species. It comes with 13 cuffs in 7 different sizes.

CARDELL MONITORS

CARD9401 Cardell 9401 **£1,775.00**

Cardell Model 9403 Blood Pressure Monitor BP, SpO₂, ECG, Respiration and Temperature.



This multi-parameter monitor offers the Cardell reliable BP technology, all-digital pulse oximetry from Nellcor and ECG. Temperature software is built in. Only the reusable temperature probe must be purchased. A 3-lead ECG set is included (or opt for a 5-lead set). Multiple variable lead trace waveform selection is included along with 5 gain size selections and a trace freeze option. A printer and rolling stand are optional.

CARDELL MONITORS

CARD9403 Cardell 9403 **£2,650.00**

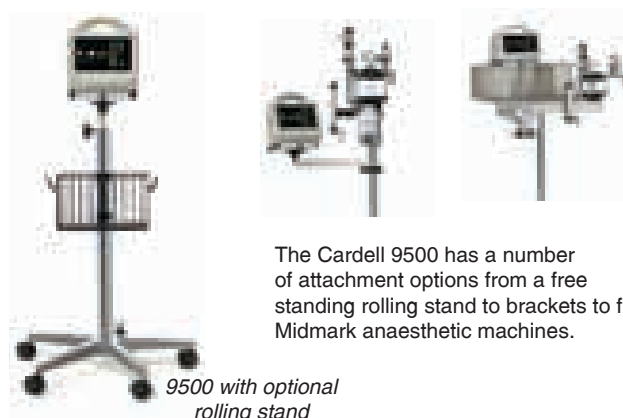
Cardell 9500 HD Multiparameter Monitor BP, SpO₂, ECG, Temp(2), CO₂ & Respiration

£
FINANCE
AVAILABLE



Not just another pretty face, the Cardell 9500 HD features the world-class Cardell blood pressure technology, Nellcor digital pulse oximetry and optional Respiration solid-state mainstream CO₂. You can also measure ECG, respiration and 2 channels of temperature. With a 7" high definition, wide screen display and integrated printer, it's exactly what Cardell fans have been waiting for.

- High definition, full color 7" screen
- World-leading Cardell veterinary blood pressure technology
- Nellcor's all-digital Oximax™ pulse oximetry
- Diagnostic quality ECG (3 or 5 lead) with 3 filtering modes
- 2 YSI temperature channels
- Built-in, 3-channel printer
- 48 hours of graphical trends on each parameter
- 4-channel waveform display
- Quick blood pressure readings of systolic, diastolic and mean
- Automatic, STAT and manual blood pressure modes
- Pulse rate range from 20-300 bpm
- High and low alarms for all parameters
- Alarm triggered print function
- Stores up to 600 sets of tabular data
- Waveform displayed at 12.5, 25 or 50 mm/sec
- Operates on AC or rechargeable battery
- Upgrade option available with Respiration Capnostat® CO₂ Sensor anytime (Sidestream or Mainstream) (order code C-Sat5 for Mainstream)



The Cardell 9500 has a number of attachment options from a free standing rolling stand to brackets to fit Midmark anaesthetic machines.

CARDELL 9500 HD MULTIPARAMETER MONITOR

CARD9500 Cardell 9500 **£3,175.00**
C-SAT5 Capnostat Mainstream CO₂ Probe **£1,575.00**

Cardell Touch



Midmark has designed the precision and consistency you expect from the Cardell® name into a fast, light, and intuitive touch screen vital signs monitor. Above all, an anesthesia monitor should be safe, reliable, and user-friendly. The Cardell® Touch is highly advanced, yet easy to use. With veterinary specific algorithms and exclusive Cardell® Blood Pressure Technology, the Touch is the latest innovation from the most trusted name in veterinary vital signs monitoring.

Feature include:

- 10.5" touch screen makes patient set up faster and easier or use the traditional-style buttons located below the screen
- Redesigned menus and improved controls allow for intuitive navigation
- Smaller, lighter form factor allows for easy transportation without sacrificing visibility
- World Class Cardell® BP, Nellcor™ SpO₂, and upgrade to CO₂ monitoring at any time by adding a Respironics sidestream or mainstream CO₂ module
- Phasein Multigas available
- Enhanced ECG data export capabilities
- USB port for downloading patient data
- Customizable alarm settings for up to three users
- Optional integrated 3-channel graphical printer
- 2-year warranty

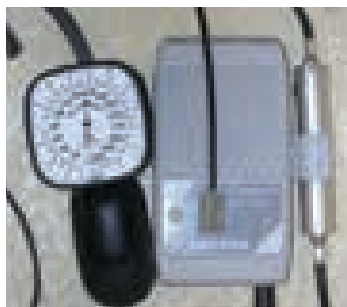
Cardell Accessories



CARDELL TOUCH MULTIPARAMETER MONITOR		
CARD8013001	Cardell Touch with Printer	£3,575.00
CARD8013002	Cardell Touch without Printer	£3,450.00
CARD8013003	Cardell Touch with Invasive BP with Printer	£4,500.00
CARD8013004	Cardell Touch with Invasive BP without Printer	£4,375.00
C-SAT5	Capnostat Mainstream CO ₂ Probe	£1,575.00
CARDLOFLO	Capnostat Sidestream CO ₂ Probe	£1,450.00
CARD0021745	Phasein Mainstream Multigas for Cardell Touch	£4,975.00
CARD0021746	Phasein Sidestream Multigas for Cardell Touch	£4,975.00

CARDELL ACCESSORIES		
CARDPRINT	Cardell Printer for 9400 Series	£585.00
CARDSENSOR	Nello Vetsat SpO ₂ Sensor	£275.00
CARDTEMP	Temperature Probe	£155.00
CARDC20B	Cardell Cuffs 20mm Box 10	£59.50
CARDC20BS	Cardell Cuffs 20mm Single	£9.25
CARDC26B	Cardell Cuffs 25mm Box 10	£59.50
CARDC26BS	Cardell Cuffs 25mm Single	£9.25
CARDC39B	Cardell Cuffs 30mm Box 10	£59.50
CARDC39BS	Cardell Cuffs 30mm Single	£9.25
CARDC412	Cardell Cuffs 40mm Box 10	£59.50
CARDC412S	Cardell Cuffs 40mm Single	£9.25
CARDC515	Cardell Cuffs 50mm Box 10	£59.50
CARDC515S	Cardell Cuffs 50mm Single	£9.25
CARDC600	Cardell Cuffs Box 5 Mixed	£35.00
CARDSV8	Large Animal Reuseable Cuff 80mm	£17.50
CARDSV10	Large Animal Reuseable Cuff 102mm	£20.50

Doppler Ultrasonic Blood Flow Monitor



Non-invasive blood pressure monitoring. Hypertension is often overlooked during diagnosis, treatment and routine physical examinations in small animals. In addition many hypotensive patients, such as those suffering from shock, benefit greatly from Doppler measurement of blood pressure when knowing the pressure can mean effective and timely treatment.

Combining Doppler with an appropriate sized 'cuff' for small animals, provides the veterinarian with the same non-invasive method for testing blood pressure as is available in human medicine. A small probe is placed over a peripheral artery (e.g digital or coccygeal). An ultrasonic crystal in the probe transmits pulse wave sound back to the amplifier. The pressure cuff is inflated until the pulse sound is no longer audible. The cuff is slowly deflated, using the manometer, until pulse sounds are audible once more, at which point the manometer displays a numeric value of the animal's systolic pressure.

Lightweight hand-held unit; high quality, vet spec sphygmomanometer. Comes complete with 2 cuffs (2.5cm and 5.0cm). Runs on 9 volt battery. Complete with headset and carrying case. All consumables are available.

DOPPLER ULTRASONIC BLOOD FLOW MONITOR

025850 Doppler Ultrasonic Blood Flow Monitor Full Kit **£995.00**

Apalert Respiration Monitor



Increasing sophistication of monitors leads nurses to monitor the instruments rather than the patient. Simple respiratory monitoring plus a competent nurse offers the most reliable patient monitoring.

Respiratory arrest almost always precedes cardiac arrest in an anaesthetic emergency. Prompt action at the point of respiration failure will usually save the patient. **The APALERT is:**

- Reliable. It beeps at each breath and the display shows the interval since the last breath.
- Rechargeable approx 70hrs use. You can still use it as it recharges.
- Adjustable by beep volume and sensitivity.
- Alarming. The alarm gets louder if you ignore it. The alarm can be reset by the surgeon using magic eye facility without compromising sterility.

This unit saves lives with a minimum of fuss.

APALERT RESPIRATION MONITOR

025005	Apalert Monitor Complete Kit	£295.00
025007	Apalert Probe	£26.00
025100	Mains Adaptor	£28.50

Breathe-Safe Monitor MKIII



This tiny monitor is a simple apnoea alert monitor. The microprocessor beeps with every breath.

- Highly sensitive.
- Easy to use - just connect between the endotracheal tube and anaesthesia circuit.

- No adjustments. A sophisticated algorithm will recognise and indicate with a beep every breath from a kitten to St Bernard.
- Apnoea Alert. If your patient fails to breathe for 45 seconds a distinctive apnoea alert will sound.
- Auto shut off.
- High density long-life lithium battery will last for years.

BREATHE-SAFE MONITOR MKIII

025010 Breathe-Safe Monitor MKIII **£195.00**

Henry Schein Pulse Oximeter



HENRY SCHEIN®

Pulse Oximeter by Henry Schein

- Robust
- Reliable
- Great Value.

Supplied with Standard 4 x AA Batteries.

Rechargeable Docking Base Kit available. The Kit contains 4 x AA Rechargeable Batteries. Please note if using the Rechargeable Docking Base please only the 4 x AA Rechargeable Batteries supplied to avoid Unit damage and warranty invalidation.

Features:

- LCD display.
- RTC (Real Time Clock) display.
- Backlight control and automatic power-off function for power saving.
- SpO₂ 0-100%
- Pulse rate measurement 30-350bpm.
- Display numeric and waveform of SpO₂ simultaneously.
- Long battery life - up to 48 hours on 4 "AA" or 36 hours on Ni-MH rechargeable batteries.
- Powerful data storage capacity.
- Data can be transferred to PC for storage, review and printing.
- The latest 10 minutes trend graph and table of SpO₂ and Pulse Rate can be reviewed in the screen.
- Audible and visible alarm capability.
- Pitch tone.

Rechargeable Docking Base Kit.



The Kit contains:

- 1 x Rechargeable Docking Base
- 4 x AA Rechargeable Batteries.

Please note that the Pulse Oximeter is not included with the Kit.

Please note if using the Rechargeable Docking Base please only the 4 x AA Rechargeable Batteries supplied to avoid Unit damage and warranty invalidation.

PULSE OXIMETER

HSEH100B	Pulse Oximeter	£235.00
HSVESH7	SpO ₂ Sensor (Replacement)	£28.50
HS0316112409	Rechargeable Docking Base Kit (includes Rechargeable Batteries)	£75.00
HS2121064164	Rechargeable Replacement Batteries x 4 for HS Pulse Oximeter	£19.50

I.V. Fluid Therapy

IVVet - Multi-Function Veterinary Infusion Pump



The IVVet Infusion Pump is designed specifically for vets, featuring Q Core flow control technology with an intuitive touch screen software-controlled pumping mechanism. The unit has less than 1% deviation in linear flow over 24 hours, and an advanced air-bubble detector.

Compact and easy to use, the unit includes a sturdy C-clamp rotatable mount to allow easy mounting on a pole or on cage bars. The infusion pump just clips onto the mount.

The unique giving sets used by the IVVet allow one handed insertion – they click into place and will only fit the correct way around, which is clearly marked by a flow direction arrow. No more fiddly threading of infusion pump tubing! A transparent security retainer clips closed over the connection block.

The unit uses dedicated giving sets which are easily distinguished from standard sets by the white plastic mounting block used to clip into the IVVet Infusion Pump. These are available for regular fluids and also in a specialised version for administering blood, which can be easily identified by the filter visible in the drip chamber.

IVVET MULTI-FUNCTION VETERINARY INFUSION PUMP		
HSAPVET01	IVVet Veterinary Infusion Pump	£915.00
HSAPVET02	IVVet Infusion Set - Standard (Pack of 10)	£17.50
HSAPVET03	IVVet Infusion Set - Blood (Single)	£9.00



Henry Schein Veterinary Equipment would be delighted to demonstrate this equipment at your practice.

To book a demo please call our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

I.V. Accessories

i-Warm Infusion Warmer by Cardell



Features:

- Portable and lightweight
- Convenient hanging belt to hang on I.V. pole
- Current temperature displayed in Fahrenheit or Celsius
- Temperature overheating protection
- Indicators for warming (orange), power (green), and overheating (red)

I-WARM INFUSION WARMER		
CARDWARM	Cardwarm Infusion Warmer	£255.00

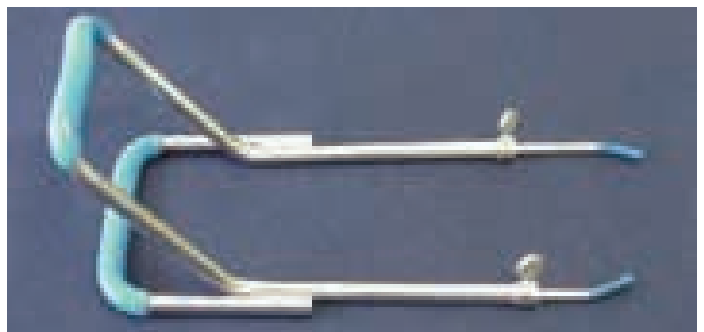
Drip Stand Cage Door Mount



- Clips onto all mesh or bar fronted cages.
- Stainless steel.
- Adjustable for height.
- Occupies no floor space.
- Moves with cage door causing no obstruction when examining patient.

DRIP STAND, CAGE DOOR MOUNT		
028035	Drip Stand (Cage Door Mounting) (Single)	£46.50
028036	Drip Stand (Cage Door Mounting) 3 Pack	£120.00

I.V. Splints



Maintains foreleg in extension for long term I.V. therapy. Different sizes to suit all patients. Stainless steel, will autoclave. Well tolerated, even by cats. Supplied with full instructions.

I.V. SPLINTS		
028037	I.V. Splints Small - Cat Size	£52.50
028038	I.V. Splints Medium - up to 20lb Dog	£52.50
028039	I.V. Splints Large - 20 to 40lb Dog	£57.50
028040	I.V. Splints Ex Large - 40 to 80lb Dog	£62.50
028040S	I.V. Splint Set (as above)	£195.00

Opticlar Diagnostics Products.

Designed with the busy veterinary surgery in mind, Opticlar provides a range of unique benefits.

Tired of buying expensive replacement bulbs?

Fed up with bulbs blowing at awkward moments?

Annoyed that batteries or rechargeable cells fail at the wrong time?

Draw full of spare bulbs but never seem to have the correct one?

Opticlar LED technology saves our practice money!

No more spare bulbs!

With Opticlar's unique 10 year LED warranty buying spare bulbs is a thing of the past. With an average working life of over 10,000 hours, the Opticlar TrueTone LED provides unsurpassed illumination and its advanced Multivoltage ability means heads can be switched between battery handles, rechargeable and wall mounted power units without the fear of blowing or inadequate illumination.

Reduced battery consumption!

Opticlar gives you C cell battery life of over 60 hours continuous use (compared to leading German brand C cell battery life of less than 5 hours!) Failing batteries are the exception and not the norm.

Increased rechargeable cell life.

Opticlar gives you lithium ion cell technology as standard and provides approximately 20 hours continuous burn time per charge as opposed to just 90 minutes from other leading brands.

Opticlar protects your investment with class leading 10 year LED warranty and 5 year product warranty. Opticlar heads are also interchangeable with leading American brands as standard and can be fitted to leading German brands with the use of a simple adaptor.

Tip compatibility.

Opticlar slit otoscope tips are compatible with leading German brand slit otoscope heads and provide a cost effective alternative.

Opticlar Pocket Veterinary Diagnostic Sets

Opticlar Pocket Veterinary Diagnostic Otoloscope & Ophthalmoscope Sets



Please note supplied in a Zip Case - not shown.

The Opticlar Pocket Veterinary Diagnostic Set features the Opticlar ProVet LED Slit Head Otoloscope and the Opticlar Pocket Pro Ophthalmoscope together with 2 x P2 Polymer Handles with integral on off switch. AA battery powered. The Set is supplied with 2 x metal reusable tips or 5 x single patient use plastic tips. Zip Case

Also available with Lithium Ion Rechargeable Handles and Twin Port Charger .

OPTICLAR POCKET VETERINARY DIAGNOSTIC SETS		
AW700.010.010	Opticlar LED Set with 2 x AA Handles Otoloscope & Ophthalmoscope Heads & 2 x Metal Tips	£305.00
AW700.010.010D	Opticlar LED Set with 2 x AA Handles Otoloscope & Ophthalmoscope Heads & 5 x Plastic Tips	£260.00
AW700.014.00	Opticlar LED Set with 2 x Lithium Ion Handles Otoloscope and Ophthalmoscope Heads, Twin Port Charger & 2 x Metal Tips	£440.00

Opticlar Pocket Veterinary Diagnostic Otoloscope Sets



The Opticlar Pocket Veterinary Diagnostic Otoloscope Set features the Opticlar ProVet Slit Head Otoloscope and P2 Polymer Handle with integral on off switch. AA battery powered. The Set is supplied with 2 x metal reusable tips or 5 x single patient use plastic tips. Zip Case.

OPTICLAR POCKET VETERINARY DIAGNOSTIC SETS		
AW700.010.022	Opticlar LED Set with 1 x AA Handle Otoloscope Head & 2 x Metal Tips	£230.00
AW700.010.022D	Opticlar LED Set with 1 x AA Handle Otoloscope Head & 2 x Plastic Tips	£150.00

NEW

Opticlar Pocket Veterinary Diagnostic Ophthalmoscope Set



The Opticlar Pocket Veterinary Diagnostic Ophthalmoscope Set features the Opticlar VisionMed Pocket Pro Ophthalmoscope and P2 Polymer Handle with integral on off switch. AA battery powered. Zip Case.

OPTICLAR POCKET VETERINARY DIAGNOSTIC SETS		
AW700.010.024	Opticlar LED Set with 1 x AA Handle Ophthalmoscope Head	£125.00

Opticlar Standard Veterinary Diagnostic Sets

Opticlar Standard Oscope and Ophthalmoscope Kit



The Standard Opticlar Veterinary Diagnostic Set is supplied with a True Tone Multi Voltage LED Slit Oscope Head with 3 Metal (Heine compatible fitting) Tips and L28 True Tone LED Ophthalmoscope with Polarising Filter and 1 x Battery Handle. Zip Case.

Available with Standard ADAPT C Cell Battery Handle, ADAPT USB Lithium Ion Rechargeable Battery Handle or ADAPT Lithium Ion Rechargeable Desk Handle and Single Port Charger.

OPTICLAR STANDARD OTOSCOPE AND OPHTHALMOSCOPE KIT		
AW700.020.020	Opticlar Oscope & Ophthalmoscope Kit with Standard Battery Handle	£480.00
AW700.020.021	Opticlar Oscope & Ophthalmoscope Kit with USB Handle & Cable	£540.00
AW700.020.022	Opticlar Oscope & Ophthalmoscope Kit with Desk Handle & Single Port Charger	£635.00

Opticlar Standard Oscope Kit



The Standard Opticlar Oscope Veterinary Diagnostic Set is supplied with a True Tone Multi Voltage LED Slit Oscope Head with 3 Metal (Heine compatible fitting) Tips and 1 x Battery Handle. Zip Case.

Available with Standard ADAPT C Cell Battery Handle, ADAPT USB Lithium Ion Rechargeable Battery Handle or ADAPT Lithium Ion Rechargeable Desk Handle and Single Port Charger.

OPTICLAR STANDARD OTOSCOPE KIT		
AW704.020.020	Opticlar Oscope Kit with Standard Battery Handle	£310.00
AW704.020.021	Opticlar Oscope Kit with USB Handle & Cable	£385.00
AW704.020.022	Opticlar Oscope Kit with Desk Handle & Single Port Charger	£470.00

Opticlar Standard Ophthalmoscope Kit



The Standard Opticlar Ophthalmoscope Veterinary Diagnostic Set is supplied with L28 True Tone LED illumination Ophthalmoscope with Polarising Filter and 1 x Battery Handle. Zip Case.

Available with Standard ADAPT C Cell Battery Handle, ADAPT USB Lithium Ion Rechargeable Battery Handle or ADAPT Lithium Ion Rechargeable Desk Handle and Single Port Charger.

OPTICLAR STANDARD OPHTHALMOSCOPE KIT		
AW100.020.050	Opticlar Ophthalmoscope Kit with Standard Battery Handle	£265.00
AW100.020.051	Opticlar Ophthalmoscope Kit with USB Handle	£320.00
AW100.020.052	Opticlar Ophthalmoscope Kit with Desk Handle & Single Port Charger	£405.00

Opticlar Vision Vet LED Diagnostic Set Twin Handle Wall Unit



The Opticlar Vision Vet LED Diagnostic Set Twin Handle Wall Unit is supplied with a True Tone Multi Voltage LED Slit Oscope Head with 3 metal tips with Heine compatible fitting and L28 True Tone LED Ophthalmoscope.

Twin Handle Wall Unit with auto on/ off and 12ft approx cord handles.

OPTICLAR DIAGNOSTIC SET TWIN HANDLE WALL UNIT		
AW700.030.010	Opticlar Vision Vet Standard Twin Handle Wall Unit with 2 x Handles & Heine 3 Metal Tips	£620.00

Opticlar Spares & Accessories

Opticlar Otoscope Heads & Accessories



Compatible with either Opticlar & Welch Allyn power sources or with Heine power sources. Screw thread fitting also available.

Multi Voltage Bulb has a life of > 10,000 hours and is guaranteed for 10 years.

OPTICLAR OTOSCOPE HEADS AND ACCESSORIES

AW700.000.040	Opticlar Veterinary Otoscope Head for Opticlar & Welch Allyn Power Sources & LED Multi Voltage Bulb	£105.00
AW700.000.040H	Opticlar Veterinary Otoscope Head for Heine Power Sources & LED Multi Voltage Bulb	£110.00
AW700.000.040/1	Opticlar Magnifying Swivel Loupe to fit Opticlar or Heine Slit Head Otoscopes.	£12.75
G0021330	Speculum Closed Metal 4mm	£49.50
G0021331	Speculum Closed Metal 6mm	£49.50
G0021332	Speculum Closed Metal 7mm	£49.50
G0021333	Speculum Closed Metal 10mm x 150mm	£49.50
AW700.000.020	Opticlar Spreadable Speculum with 4 Position Click Stops	£105.00

Opticlar Ophthalmoscope Heads



All Opticlar Ophthalmic equipment is manufactured to exacting standards to ensure first class optical performance. True Tone LED illuminations fine tuned to provide the correct blend of brightness and colour temperature. Performance remains constant throughout the life of the LED.

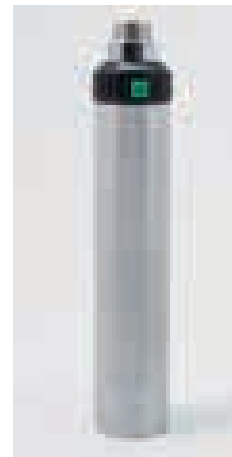
OPTICLAR OPHTHALMOSCOPE HEADS

AW100.000.024	Opticlar Pocket Pro LED Ophthalmoscope Head with Heine Compatible Screw Fitting	£80.00
AW100.000.050	L28 Opticlar LED Ophthalmoscope Head to fit Opticlar & Welch Allyn Handles	£140.00
AW100.000.050H	L28 Opticlar LED Ophthalmoscope Head to fit Heine Handles	£160.00

Opticlar Power Sources

To create a diagnostic set you will need to combine the diagnostic head of your choice together with a power source.

Opticlar Standard Handle



The standard handle takes regular dry cell batteries.

OPTICLAR STANDARD BATTERY HANDLE

AW100.000.123/6	Opticlar Standard Battery Handle	£95.00
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Opticlar Rechargeable Handles

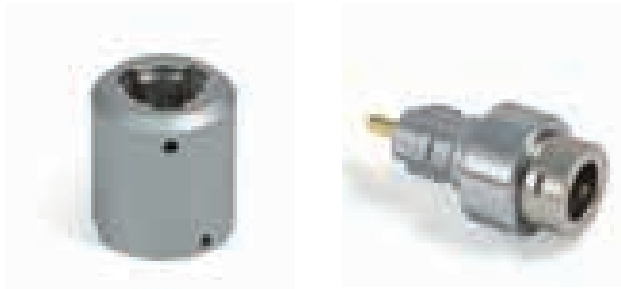


The Rechargeable Handles are available as either a USB Handle (as shown) or Standard Handle for use with Desk Charger. The Desk Charger is available as either Single Port for one Handle or Double Port for two Handles.

OPTICLAR RECHARGEABLE HANDLES

AW100.020.000/3	Opticlar Rechargeable Handle - Lithium Ion Battery	£110.00
AW100.020.000/2	Opticlar USB Handle with Lithium - Ion Battery	£140.00
AW100.000.123/2	Opticlar Single Port Desk Charger - No Handle	£100.00
AW100.000.123/1	Opticlar Double Port Desk Charger - No Handle	£140.00
AWX382	Rechargeable Battery Nimh for Heine	£45.00
AW100.000.123/10	Opticlar Lithium Ion Rechargeable Cell	£50.00

Opticlar Handle Adaptors



OPTICLAR HANDLE ADAPTORS		
AW100.000.998	Handle Adaptor to enable Heine Heads to be used with Opticlar Handles	£16.50
AW100.000.099	Handle Adaptor to enable Opticlar Heads to be used with Heine Handles	£32.50

Halogen & LED Bulbs



All Opticlar Otoscope Heads come with LED Multi-Voltage bulbs as standard, which have a life of circa 10,000 hours.

Heads fitted with Multi-Voltage Bulbs can go from standard C Cell Battery Handle to 3.5v Rechargeable and Wall Units without worrying about blowing or having dim bulbs.

Otoscope Bulbs

HALOGEN & LED OTOSCOPE BULBS PUSH FIT		
AWH077	2.5v Xenon Otoscope Bulb Push Fit for Heine Slit Head Otoscope & Heine Beta 200 Vet Otoscope	£15.00
AWH078	3.5v Xenon Otoscope Bulb Push Fit for Heine Slit Head Otoscope & Heine Beta 200 Vet Otoscope	£15.00
AWH077078	Multi Voltage LED Bulb Push Fit for Heine 2.5v & 3.5v Slit Head Otoscopes & Beta 200 Vet Otoscopes 10 year warranty	£30.00

HALOGEN & LED OTOSCOPE BULBS SCREW FIT		
AWH037	2.5v Xenon Otoscope Bulb Screw Fit for Heine Beta Vet Otoscope	£15.00
AWH049	3.5v Xenon Otoscope Bulb Screw Fit for Heine Beta Vet Otoscope	£15.00
AWH037049	Multi Voltage LED Bulb Screw Fit for Heine 2.5v & 3.5v Beta 100 Vet Otoscopes 10 year warranty	£30.00

Ophthalmoscope Bulbs

OPHTHALMOSCOPE BULBS		
AWH069	2.5v Xenon Bulb for Heine Beta 200 Ophthalmoscope	£15.00
AWH070	3.5v Xenon Bulb for Heine Beta 200 Ophthalmoscope	£15.00

Rechargeable Cell for Heine Handles



Direct replacement for x-002.99.380 and x-002.99.382

RECHARGEABLE CELLS FOR HEINE HANDLES		
AWHRC382	Guardian Generic Rechargeable Cell for Heine NT200/ 300 Recharges	£45.00

Wall Mounted Tip Tidy



Wall Mounted Tip Tidy to hold 6 varieties of tips - metal or plastic. Stainless Steel so it can be cleaned and autoclaved if required.

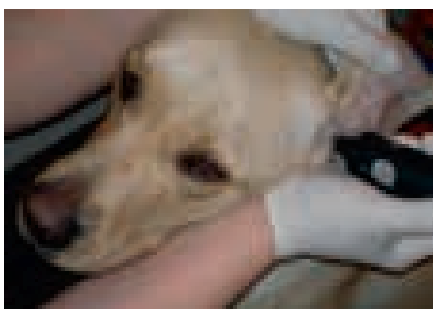
Bottom lip catches any residue from disinfected metal tips. has 2 large ports for holding battery handles.

TIP TIDY		
AW700.000.030	Tip Tidy (supplied empty)	£30.00

FireFly Wireless Otoscope

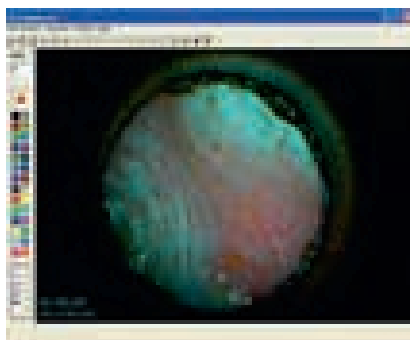


FireFly is the industry's first Wireless High Precision Digital Video Otoscope with image and video capture capabilities. It provides unprecedented accuracy in observing the ear canal. This is a powerful tool which can be used to aid and record both medical and surgical examinations as well as improving client compliance as they will be able to see the problem for themselves. Unlike older electronic otoscopes, FireFly delivers these breakthrough capabilities - and much more - at a highly economical cost.



- Performs accurate and clear otoscopy observations.
- Wirelessly captures snapshots & videos.
- Integrates easily with computer Veterinary Database Systems.
- Magnifies objects up to 50x (optical) and up to 150x (digital).

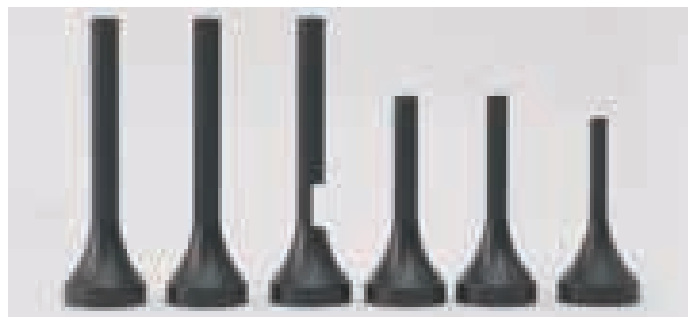
FireFly is controlled directly with the FireFly Pro Professional Image Processing Software which is bundled with the product. This state-of-the-art software enables users to capture, store, recall, view, manipulate and measure images and videos in real time. Its intuitive interface empowers users to get right to work anytime and anywhere.



!!!!Great Value at only £375!!!!

FIREFLY WIRELESS OTOSCOPE		
014300	FireFly Wireless Otoscope	£375.00

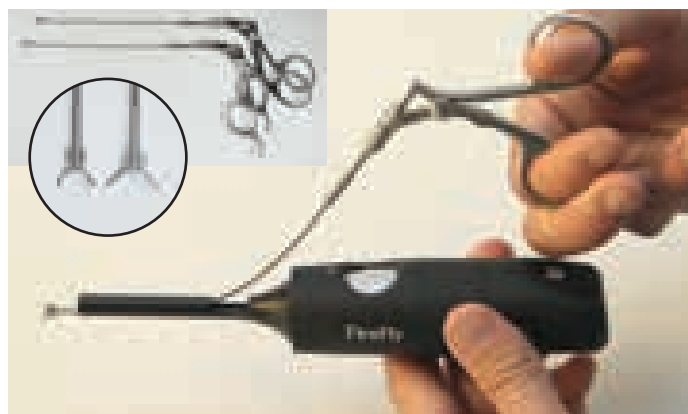
FireFly Extended Length Speculae Set



To better suit our larger patients the makers of FireFly have produced a Set of Extended Length Aluminium Speculae to fit the popular FireFly Wireless Otoscope. These range from 55mm to 85mm in length with diameters in proportion. In addition one is supplied with a working portal, allowing the introduction of flexible instruments into the lumen of the speculum. The Set comes in a neat zipped Storage Case.

FIREFLY EXTENDED LENGTH SPECULAE SET		
014303	FireFly Extended Length Speculae Set in Storage Case	£65.00

FireFly Malleable Instrument Set



A useful addition to the FireFly set-up is this Set of Malleable Grasping Forceps and Biopsy Forceps. The longer shaft length of these instruments works well with the Extended Length Speculum with working portal. This makes retrieval of material from within the ear canal under visual control easier to achieve. The Set of two instruments is supplied in a Stainless Autoclave Case with Protective Silicone Insert.

FIREFLY MALLEABLE INSTRUMENT SET		
014124	FireFly Malleable Instrument Set in Stainless Case	£325.00

FireFly Special Offer



Buy the FireFly Complete with Extended Length Speculae Set and Malleable Instrument Set as a complete set for a substantial saving!

FIREFLY SPECIAL OFFER		
FIREFLYBOTH	FireFly Complete & Extended Length Speculae Set & Malleable Instrument Set	£675.00

PetMap Graphic Blood Pressure Measurement



- Digital display of systolic, diastolic, MAP and heart rate.
- Real-time display of the oscillometric “envelope”.
- Tabular list of measurement session values.
- Graphical trend of session values.
- Real-time calculation and display of the NSV (nominal session value).
- BP Range 30-260mmHg.
- Heart rate 40-240BPM.

PetMap Graphic can display the last 10 readings either as a list or a graphical chart.

Supplied with 7 cuffs from 2 to 5.5cm. Larger cuffs available.

Suitable for all species.



Integrated Graphic Display Shows

PETMAP GRAPHIC		
PGBM	PetMap Graphic Blood Pressure Monitor	£1,775.00
PGCUFF2	Cuff - 2cm	£39.50
PGCUFF2.5	Cuff - 2.5cm	£39.50
PGCUFF3	Cuff - 3cm	£39.50
PGCUFF3.5	Cuff - 3.5cm	£39.50
PGCUFF4	Cuff - 4cm	£39.50
PGCUFF4.5	Cuff - 4.5cm	£39.50
PGCUFF5.5	Cuff - 5.5cm	£39.50
PGCUFF6.5	Cuff - 6.5cm	£49.50
PGCUFF8	Cuff - 8cm	£49.50
PGCUFF10	Cuff - 10cm	£49.50
PGCUFF13	Cuff - 13cm	£49.50

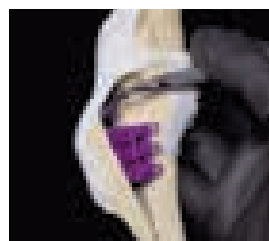
2015 EXHIBITIONS



Each year Veterinary Instrumentation attends many exhibitions both in the UK and Overseas. During 2015 we will be attending the following exhibitions:

BVOA/BSAVA	April
WSAVA	May
ECVS	July
BEVA	September
BVOA	October
SEVC	October
LVS	November
NAVCS	January 2016
VOS	March 2016

Surgical Demonstrations



For 2015, Veterinary Instrumentation will be organising a number of surgical demonstrations on the booth, both to launch new products and initiatives but also to allow surgeons to get hands on with new surgical techniques. Please see www.vetinst.com for a demonstration timetable at each exhibition.

Special Requests

We are also very pleased to bring specific equipment to an exhibition if you would like to examine it more closely, just let our Vet Tech Team know in advance. and we will organise it.

Custom Furniture

Vet Sink



Major Vetsink features include -

- Fully welded internal joints precluding matter ingress and the retention of infectious organisms.
- All round accessibility in standing and seated positions.
- Sloping sink base draining all fluids automatically away from the subject.

- Integral mixer taps and umbilical shower unit.
- Easily cleaned and maintained, thus popular with veterinary nurses.
- Radiused corners.
- Can be combined with the latest air driven dental units and mobile seating.
- Four button hooks are located on the sides for hanging the taps during cleaning.
- 660mm width.

VETSINK		
VETSINK12	Vet Sink 1200mm Tub Table complete*	POA
VETSINK15	Vet Sink 1500mm Tub Table complete*	POA
VETSINK20	Vet Sink 2000mm Tub Table complete*	POA
VETSINKTOP	Solid Top converts above into Exam Table/ Op Table*	POA

Carriage is extra for all items marked *

Scrub Dispenser Stainless Steel Demountable

Scrub Dispenser - Demountable



025134 Dispenser



Dispenser Attachment

- Stainless construction.
- Unit dismountable from wall bracket (included) for cleaning/autoclaving.
- Operates standard scrub bottles.

SCRUB DISPENSER - DEMOUNTABLE		
025134	Scrub Dispenser Stainless Steel	£39.50

Tables

Stainless Steel Furniture can be fabricated to your design in our Sheffield Workshop. **Phone or fax a sketch for a quote.**

Folding Wall Mount Examination Table



Very rigid and will not tip over. Surface area can therefore be smaller than a free standing table. Table flips flat against the wall for cleaning and examination of large dogs. Standard Table is 40" x 20", but all sizes available on request.

FOLDING WALL MOUNT EXAMINATION TABLE

028026	Folding Table 40" x 20" *	POA
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Carriage is extra for all items marked *

Mayo Instrument Table



- Stainless Steel throughout.
- Tray 19" (490mm) X 13" (330mm).
- 4 castors.
- Height adjustable 33" (840mm) to 47" (1200mm).
- Lifetime guarantee.

MAYO INSTRUMENT TABLE

028027	Stainless Mayo Instrument Table 19" x 13"*	POA
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Carriage is extra for all items marked *

Scales

Small Platform Scales



New Stainless steel compact Scales, for lab or small animals

SMALL PLATFORM SCALES		
025131	Small Platform Scale	£39.50

Medium Platform Scales



For patients weighing between 1Kg and 20Kg this Medium Table Scale is ideal. Mains and battery power 520mm x 200mm.

MEDIUM PLATFORM SCALES		
025135	Medium Platform Scale	£160.00

Henry Schein Walk On Scales



Developed in Germany exclusively for Henry Schein Animal Health, with vets in mind.

These Scales are robust, durable and easy to use, with a unique easy to clean groove.

Features:

Clear, bright LCD display made of high quality impact proved plastic.

Mains or battery powered – mains adaptor included

Platform size :900x600mm

Low profile platform at only 40mm high

200kg maximum weight

HENRY SCHEIN WALK ON SCALES		
025136	HS Walk On Scales	£365.00

Microscope

BioBlue Microscope



The BioBlue Microscope has been very popular across Europe with veterinarians, and Veterinary Instrumentation is pleased to supply it in the U.K. This high quality Binocular Microscope offers high quality at the right price.

Technical information:

- High quality DIN WF 10x/ 18 Eyepieces
- Standard Objectives 4x, 10x, S40x and S100x (oil) giving total magnification of 40x, 100x 400x and 1000x
- LED 1 watt adjustable illumination which generates no heat. NB Always start with the light on low and increase to level required. This light is much brighter than conventional bulbs!
- Sensitive Focus Control. Coaxial coarse and fine adjustment knobs on both sides with 0.0020mm graduations.
- Stable ergonomic design
- Supplied with Dust Cover and free Aluminium Storage Case.

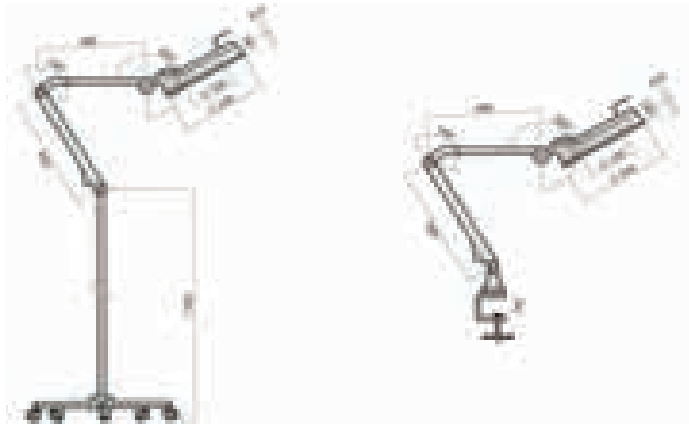
BIOBLUE MICROSCOPE		
BB4260	BioBlue Microscope	£525.00

Lighting

Good lighting is an essential pre-requisite for any examination or procedure. Regardless of the quality and range of your surgical instruments if you cannot adequately see what you are doing, your procedure will be compromised.

We have selected a range of quality lights to meet your examination and procedure requirements.

Magnifier



A superior Magnifying Light for detailed distortion free examination.

- 2.25x magnification (5 dioptre).
- 127mm diameter.
- 3 adjustable joints.
- Fluorescent tube 22w.
- 230-240v 50Hz AC.
- 10,500 lux light intensity.
- Options:
 - C-Clamp 6.8kg
 - Mobile 10.0kg

MAGNIFYING PROCEDURE LIGHT

RLMCLT	Mobile *	£325.00
RLMCL	Mobile with 'C' Clamp *	£275.00

*Carriage is extra for all items marked **

Due to various ceiling configurations - ceiling lights are not supplied with mounts - please contact info@vetinst.com for further details.

HF Series Multipurpose Examination Lights



12929

12930

12454



12455 (Clamp)

12456 (Wall Mount)

This very compact single light source is an ideal procedure light. The head swivels around to whatever position you require.

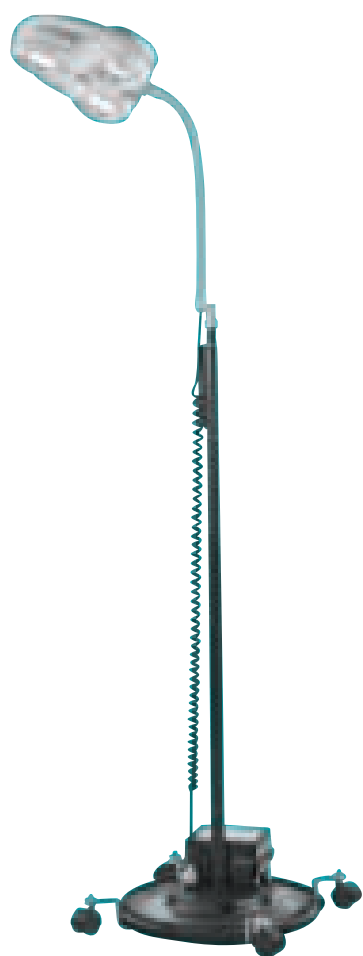
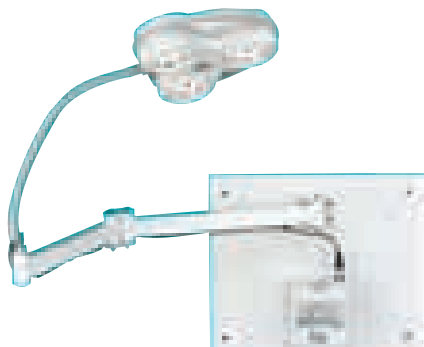
- Vented shade.
- stay cool finger tip controller.
- 50w halogen light source.
- 230-240v 50Hz AC.
- 31,000 lux light intensity.
- Options:
 - Articulated Wall Mount
 - Articulated Ceiling Mount
 - Flexible Goose Neck Mobile
 - Flexible Goose neck 'C' Clamp

HF SERIES PROCEDURE LIGHT

12456	HF Flexible Goose Neck Wall Mount 50w *	£375.00
12929	HF 3-Part Ceiling Mount 50w *	£425.00
12454	HF Flexible Arm Mobile Base 50w *	£565.00
12455	HF Flexible Arm 'C' Clamp 50w *	£385.00
12930	HF Articulated Wall Mount Procedure Light *	£385.00

*Carriage is extra for all items marked **

TriStar



A compact combination of three light sources offers the following features:

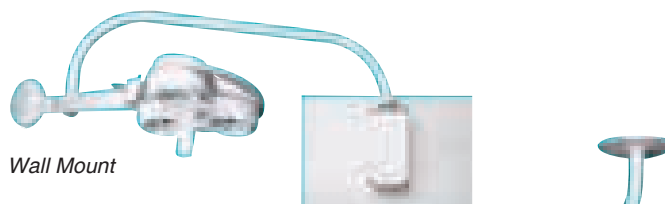
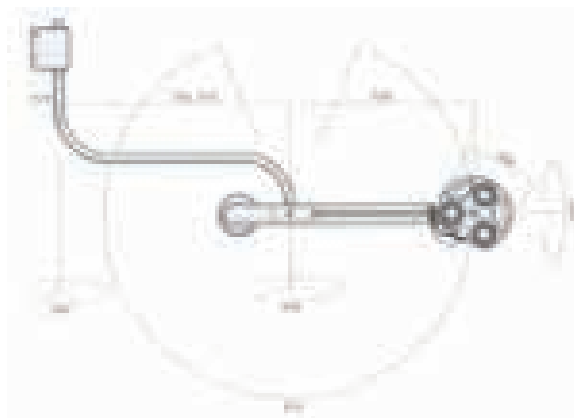
- Light pattern is 125mm at 600mm distance.
- 3 x 20w long life halogen bulbs (2000hr).
- 230-240v 50Hz AC.
- 42,000 lux light intensity.
- Light colour 4,100 Kelvin.
- Wall mount option offers 1400mm reach. 8.2kg.
- Mobile unit raises from 685mm to 2030mm on a non tip base. 11.4kg.

TRISTAR LIGHTING		
TS2015W	Wall Mount TriStar *	£1,085.00
TS2015M	Mobile TriStar *	£1,085.00
18464	Bulb 20w	£18.50

Carriage is extra for all items marked *

Available to UK only.

Celestial Star



Wall Mount



Ceiling Mount



Mobile CS Unit

Compact and counterbalanced, the three light source Celestial light is very easy to move and adjust.

- Drift free balance arm.
- 3 x 35w long life halogen bulbs (4000hr).
- 230-240v 50Hz AC.
- 64,500 lux light intensity.
- Light colour 4,100 Kelvin.
- Options:
 - Ceiling 23.6kg
 - Dual Ceiling 47.2kg
 - Wall 17.3kg
 - Mobile 24.3kg

CELESTIAL STAR LIGHTING		
CS2050C	Ceiling *	£1,650.00
CS2050W	Wall Mount *	£1,650.00
CS2050M	Mobile *	£1,650.00
18544	Autoclaveable handle	£65.00
13078	Bulb	£25.00
18676	Corrective Filter	£30.00

Carriage is extra for all items marked *

Suction Units

Hospivac 350



The Hospivac 350 has a greater maximum vacuum (-0.9Bar) greater flow rate (60 litres/ min) and a greater capacity (2 x 2 litre bottles) than our standard Suction Unit. It is suitable for hospital situations where greater volumes of fluid might expect to be aspirated. The double bottle facility further increases capacity. Size 600 x 460 x 420mm.

A feature found on the Hospivac 350 which although desirable is not found on base level suction units is the foot control. Without this feature the unit is essentially on or off all of the time.

HOSPIVAC 350		
185H350	Hospivac 350 Complete with Foot Control *	£685.00
185H210351	Spare Bottle	£17.50
185H210353	Spare Bottle with Lid	£27.50
185HSP033	Spare Tubes	£15.00
185HSP0121	Spare Filters	£15.00
185HSP0032	Spare Tubes and Filters	£27.50

* Carriage is extra for all items marked.

Askir Suction Machine



This simple Suction Unit is sensibly priced to make it suitable for general practice as well as more specialised centres.

The Suction Tube will fit all Standard Tips.

The Bottle capacity is 1 litre which is adequate for virtually all small animal procedures.

The in-line filtration system minimises biohazards.

Most veterinary dentists now regard suction as being essential.

Suction is controllable and there is a vacuum indicator.

CE marked for peace of mind and quality.

The Suction Machine is ready for the attachment of tubes and tips.

ASKIR SUCTION DEVICE		
185000	ASKIR 30 Suction Device	£195.00
185003	Filter Only	£8.50
185004	Spare Suction Bottle & Lid	£28.50
185005	Spare Lid from Suction Bottle	£21.50

Suction Tips

We stock the four most useful styles of tip. Each Tip comes complete with a length of Autoclavable Silicone Tube to connect to the suction unit.

Yankauer



General purpose suction tip for removal of large volumes e.g. from abdomen.

YANKAUER SUCTION TIP		
1854327	Yankauer Suction Tip	£38.50

Poole



As Yankauer but more holes for greater volume uptake. With perforated outer sheath removed the Poole functions as a small bore straight suction tip.

POOLE SUCTION TIP		
1854330	Poole Suction Tip	£38.50

Adson 4mm



Focal suction tip removes fluid from specific locations e.g.in spinal procedures. Very controllable at the handpiece by single finger over air bypass hole.

ADSON SUCTION TIP		
1852121	Adson Suction Tip 4.0mm	£38.50

Frazier 2.6mm

As the Adson but finer still.



FRAZIER SUCTION TIP		
1854328	Frazier Suction Tip 2.6mm	£38.50

Disposable Suction Tips and Autoclavable Tip Holder



The Autoclavable Suction Tip Holder fits onto Standard Silicone Suction Tubing. There are a wide range of tips which fit the standard 11mm tapered opening. We offer a choice of two, narrow and wide. The autoclaveable nature means any standard suction unit may be used for both dentistry and sterile surgery.



DISPOSABLE SUCTION TIP		
185DISP	Disposable Tips Narrow Mouth (Pack of 3)	£18.00
185DISPW	Disposable Tips Wide Mouth (Pack of 100)	£8.50
185DISPH	Disposable Tip Handpiece (Autoclavable) to fit onto Standard Suction Tubing	£56.50

Suction Tubing

SUCTION TUBING		
185001	Autoclavable Suction Tubing per Metre	£4.75

Suction Tubing Connector



SUCTION TUBING CONNECTOR		
185006	Suction Tubing Connector	£3.75

Cautery Units

Portable Cordless Cautery Kit



This handy Set comprises a Handpiece using two AA batteries (included) and four interchangeable and replaceable Cautery Tips
 1/2"(12mm) Fine general purpose electrode for haemostasis
 1/2"(12mm) Loop electrode for small skin tumours
 4"(130mm) Fine electrode for deep areas
 4"(130mm) Loop electrode
 Tip temperature 2200°F/1200°C

PORTABLE CORDLESS CAUTERY KIT		
02313	Portable Cordless Cautery Kit	£65.00
02313W	Replacement Cautery Tip 1/2" Fine	£14.50
02313X	Replacement Cautery Tip 1/2" Loop	£14.50
02313Y	Replacement Cautery Tip 4" Fine	£14.50
02313Z	Replacement Cautery Tip 4" Loop	£14.50

Thermocautery Unit



This Mains (240v) Thermocautery Device is very robust and reliable with a wide selection of tips. As the trigger is pressed the area to be cauterised is illuminated by an integral light. Suitable for a wide range of minor procedures where thermocautery is appropriate.



THERMOCAUTERY UNIT		
SP33	Thermocautery Unit 240v	£99.50
SP36	Thermocautery Tip A Knife	£33.50
SP34	Thermocautery Tip B Pin	£33.50
SP35	Thermocautery Tip C Loop	£33.50
SP37	Thermocautery Tip D Ball	£33.50
SP43	Spare Bulb	£16.50

Electrosurgery

GIMA BiPolar Electrosurgery Unit 120 watt



HF 122 is a complete innovation in the electrosurgery field. It is a high frequency-electronic scalpel suitable for microcoagulation, small and medium MonoPolar surgery and BiPolar coagulation. The following MonoPolar modes of operation are available via the control panel: pure cutting (CUT), coagulated cutting (COAG), MonoPolar coagulation and microcoagulation (BLEND). Additionally with BiPolar forceps, bipolar coagulation and microcoagulation are available.

Safety Alarm

Open Circuit (OC) Alarm warns the user that connection into the neutral plate has not been made or that the cable is disconnected. The alarm is signalled with an intermittent beep together with a flashing red light on the front panel. In this condition HF emission for cut and coagulation operation is switched off. Meets all EC standards for this type of equipment

Overheat Alarm

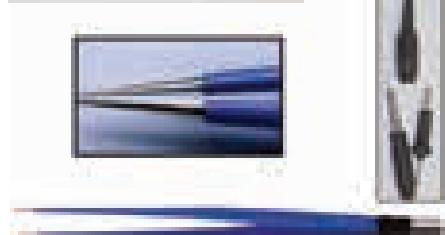
Should the final module in the HF generator overheat, the unit incorporates an internal circuit protection which cuts off operation. In this condition the red OVH warning light illuminates and the user must wait until the generator cools down, about 20 sec, before recommencing. The module will not go into protection mode as long as the instruction for operation as described in the manual are followed.

Kit includes:

- Two button MonoPolar handle (Autoclavable)
- Two button MonoPolar handle (disposable)
- Flat neutral plate
- BiPolar cable and forceps
- Foot control
- 6 Short Mono Polar Electrodes



6 x MonoPolar Tips included in the Kit.
Spare Tips available.



BiPolar Forceps are included in the set.
Other style forceps are available.
EU Forceps have a square fitting into the cable.

GIMA BIPOLAR ELECTROCAUTERY 120 WATT UNIT

HF122	120 watt MonoPolar/ BiPolar Electrosurgery Unit	£995.00
HF125	Spare Autoclavable MonoPolar Handpiece for HF122	£90.00
HF30547	Spare MonoPolar Handle Screw Grip for HF122	£105.00
HF123	Spare Standard Bipolar Forceps for HF122	£110.00
HF124	Spare Bipolar Cable for HF122 (A Type)	£115.00
HF30568	Spare Foot Pedal for HF122	£125.00
HF127	Waterproof Foot Pedal for HF122	£235.00

GIMA BiPolar Electrosurgery Unit 160 watt



This Unit is a higher-powered version of our popular HF 122 Unit.

The additional power availability comes into its own when working with mixed tissue densities such as in orthopaedics, and in more moist situations such as mucous membranes.

Modes of operation are pure cut, coagulated cut, forced coagulation, soft coagulation, and with bipolar forceps bipolar coagulation.

HF160 has the same set of alarms as the 120, including Open Circuit which warns of a disconnected cable or poor patient plate contact and interrupts the HF emission for cut and coagulation.

All the standard accessories shown for the HF120 fit this unit. We can also supply an adaptor which allows standard 2 x 4mm banana plug (Valley Lab type) bipolar cables to be used with HF 160.

Technical specifications:

Ref.	Description	HF 120	HF 160
-	Electrosurgical unit code 08A	08A	08A
-	Electrosurgical unit code LED	08A0000000000000000	08A0000000000000000
± 1%	Maximum permissible power	0	0
-	Level stop	1	1
-	Distal level stop	1	1
± 2%	Maximum output power CUT (W)	120 (120)	160 (160)
± 2%	Maximum output power BLEND (W)	60 (240)	120 (240)
± 2%	Maximum output power COAG FORCED (W)	60 (140)	120 (140)
± 2%	Maximum output power COAG SOFT (W)	60 (140)	60 (140)
± 2%	Maximum output power BIPOLAR (W)	60 (140)	60 (140)
± 1%	Modulation factor CUT	Pos 10%	Pos 10%
± 1%	Modulation factor BLEND	Pos 10%	Pos 10%
± 1%	Modulation factor COAG FORCED	Mod 6%	Mod 6%
± 1%	Modulation factor COAG SOFT	Mod 6%	Mod 6%
± 1%	Modulation factor BIPOLAR	Pos 10%	Pos 10%
± 1%	Cord Factor CUT	17	17
± 1%	Cord Factor BLEND	17	17
± 1%	Cord Factor COAG FORCED	18	18
± 1%	Cord Factor COAG SOFT	17	17
± 1%	Cord Factor BIPOLAR	17	17
± 2%	Working frequency	600 kHz	600 kHz

GIMA BIPOLAR ELECTROCAUTERY 160 WATT UNIT

HF160	160 watt MonoPolar/ BiPolar Electrosurgery Unit	£1,150.00
HF30642	BiPolar Cable Adaptor for Gima Unit HF160 to 2 x 4mm Banana Plus	£125.00

BiPolar Dissecting Forceps



BiPolar Cable Generator Terminations



A GIMA HF122
B Storz
D 4mm Banana Plugs
 Valley Lab
 Eschman
 Arthrex OPES

These are the most common types of termination for the generator or machine end of the cable. We can supply cables to fit all machines. If you do not see the right connector here please check the brand and model number of your electro-surgery unit and call or e-mail us. We will find the right cable for your machine.

Our Bipolar Cables and forceps all have an EU fitting square end.

BIPOLAR ACCESSORIES		
HF190-100	Bipolar Forceps Adson 1mm Tip	£95.00
HF120-100	Bipolar Forceps Straight 1mm Tip 150mm Long	£95.00
HF130-100	Bipolar Forceps Straight 1mm Tip 180mm Long	£95.00
HF122-100	Bipolar Forceps Straight/ Angled 1mm Tip 150mm Long	£95.00
HF132-100	Bipolar Forceps Straight/ Angled 1mm Tip 180mm Long	£95.00
HF124	Spare Bipolar Cable A Type EU Fitting Forcep Connector	£115.00
HFU-30	Spare Bipolar Cable B Type EU Fitting Forcep Connector	£70.00
HFS-30	Spare Bipolar Cable D Type EU Fitting Forcep Connector	£70.00
Other Bipolar Cable Types available. Phone for details		

GIMA MonoPolar Electro-surgery Unit



This HF 106 Electro-surgery Unit is particularly suitable for small procedures. The 50 watt unit offers precision of cut with immediate coagulation. There is a choice of 10 electrodes. The three modes of operation, CUT, COAG and BLEND, can be easily selected through a switch on the front panel. Meets all EC standards for this type of equipment. The package includes HF 106 with all accessories including electrode handle, flat neutral plate, foot switch and a kit of 6 electrodes 5 cm long.



6 x MonoPolar Tips included in the Kit. Spare Tips available.

MONOPOLAR ELECTROSURGERY UNIT		
HF106	50watt MonoPolar Electro-surgery Unit	£645.00
HF107	Spare Autoclavable MonoPolar Handle for HF106	£62.50

MonoPolar Spares and Accessories



MONOPOLAR ACCESSORIES		
HF1	Electrode	£7.45
HF2	Electrode	£7.45
HF3	Electrode	£7.45
HF4	Electrode	£7.45
HF5	Electrode	£7.45
HF6	Electrode	£7.45
HF7	Electrode	£7.45
HF8	Electrode	£7.45
HF9	Electrode	£7.45
HF10	Electrode	£7.45
HF1-10	Electrodes Mixed Set of 10	£60.00
HF30537	Scratch Pad (supplied sterile) Pack of 10	£26.50
HF30563	Spare Cable for Gima Plate	£67.50
HF126	Spare Metal Plate for HF122 & HF106	£94.50

Hyfrecator® 2000 Electrosurgical System




The ConMed Hyfrecator® 2000 is a multi-function electrosurgical generator with both monopolar and bipolar modes, self-diagnostics, and recall of stored power settings.

Simple and safe to use, the Hyfrecator® has dual microprocessor control. One processor controls the output and functionality of the machine, while the second monitors the system and terminates activity if a safety hazard occurs for both patient and operator safety.

The Hyfrecator® has 2 modes of output. Monopolar has 2 settings, Hi and Lo, and a Bipolar option is also available. The construction of the unit only allows one option to be active at any time, mechanically locking out the connectors for the unused options for added safety.

The independent outputs produce two different therapeutic effects, giving better control of the desired clinical outcome. Lo gives fine control in 1/10 watt increments, while Hi gives longer, broader arcs of current.

The monopolar Lo setting has the added advantage of not requiring the use of a patient plate, which speeds up patient setup considerably as there is no need to clip the plate site as usual. The patient only needs to be in good contact with the table. This setting is suitable for light desiccation and fulguration procedures requiring low intensity and increased precision.

Hi setting can be used with or without the patient plate, but for coagulation whichever power level is used a patient plate must be used, as this improves the coagulation effect by providing a better path for the current flow.

Good wide contact with the patient plate (also called the dispersive plate) is essential to avoid burns, as with all electro-surgery units. The contact area should be clipped, and should be a clean, dry, well-vascularised muscle mass. Bony prominences should not be in contact with the plate.

Monopolar handles are available with fingerswitch controls which allow current settings to be changed from the handpiece, or with no switches which are controlled by an optional footswitch.

Unit Specifications

Depth: 102mm

Width: 222mm

Height: 190mm

Weight: 2.7kg

Output power:

Low: 0-20 watts (1/10 watt increments up to 10 watts)

High: 0-35 watts

Bipolar: 0-35 watts

Hyfrecator® 2000 should be wall-hung or mounted on this convenient optional rolling stand.



What do the terms mean?

Monopolar A single electrode in a pencil handpiece passes current through the patient to a plate electrode which returns the current to the unit. If no plate is used, as with the Hyfrecator®, current returns to ground via good contact with the table.

Bipolar Insulated Bipolar forceps are used to grasp tissue and current is applied using a footswitch – current passes between the tips of the forceps through the grasped tissue.

Desiccation 'drying' of tissue by evaporating the cellular fluids, blanching the treated area. Effect increased by time/power and size of electrode.

Fulguration as desiccation but the electrode is held away from the tissue, resulting in sparking to the surface. Allows a broader sweep of tissue to be treated quickly.

Coagulation causes blood and tissue to clot. Monopolar coagulation with a plate causes heavy dehydration at the electrode site. Bipolar coagulation is only between the tips of the forceps so there is much less collateral tissue damage.

Setup Variants and Accessories

Hyfrecator® 2000 is available as a Monopolar setup with Fingerswitch Pencil Handpiece, Monopolar with Footswitch or complete Mono and Bipolar set-up.

Monopolar Pencils

These are autoclavable, re-usable pencils handpieces.

The Fingerswitch Pencil Hand Control has with power adjustment buttons directly on pencil. This the allows the user the option of quickly fine tuning the power output from the field to achieve the desired surgical effect. All pencils are designed with a non-spinning hex collar for multi-positional fail-safe blade locking and a durable, pliable pencil cord to reduce hand fatigue during use and ease connection to the unit.

Also available is a Footswitch Pencil option for those who prefer. Power setting are altered on the base unit, and the pencil is activated by depressing the foot control as required.

Optional Patient Plate is available if required.

Pencil Sheaths

The Sterile Sheath is a convenient and economical way to maintain a sterile field while using the Hyfrecator® electrosurgical reusable pencils. The sheath is designed to fit over both Hyfrecator® and other handheld instruments. The extra sheath length allows the instrument to be placed within the sterile field. A non-sterile sheath is also available.

Employed use of sheaths promotes pencil longevity, speeds changeover from patient to patient, and prevents pencil exposure to contaminants

A non-sterile version is also available to reduce costs where sterility is not required, but protection of the handpiece would be useful.



Electrodes



ConMed Electrolase® disposable electrodes are available in 2 configurations, Sharp for pin-point accuracy and Blunt for general broad-base coagulation. Colour-coding is employed for rapid identification – white for sharp, dark grey for blunt. Disposable Electrolase® electrodes eliminate patient-to-patient cross-contamination and the plastic safety collars simplify handling and help prevent accidental injury.

Available in packs of 50 sterile or 100 unsterile.

Bipolar Accessories

As a multi-function electrosurgical generator, The Hyfrecator® 2000 has a bipolar mode similar to those found in much larger systems.

Bipolar Forceps are designed to grasp, manipulate and coagulate selected tissue. The electric current alternates between the two tips, reducing the length of the current's path and producing a precise, controlled therapeutic effect.



Smooth tipped Adsons pattern Bipolar Forceps are included in the Bipolar option along with the Foot Switch and Bipolar Cable.

CONNED HYFREATOR® 2000		
CON-001	Hyfrecator®2000 Monopolar & Hand Switching Operation	£1,025.00
CON-002	Hyfrecator®2000 Monopolar & Foot Switching Operation	£1,225.00
CON-003	Hyfrecator®2000 Monopolar & Bipolar Operation	£1,395.00
CON-7-900-1	Telescoping Mobile Hyfrecator® Stand	£275.00
CON-7-900-5	Hyfrecator® Hand Switching Pencil	£165.00
CON-7-100-12CS	Electrolase® Sharp Tips - Non-Sterile Box of 100	£70.00
CON-7-100-8CS	Electrolase® Sharp Tips - Sterile Box of 50	£70.00
CON-7-101-12CS	Electrolase® Blunt Tips - Non-Sterile Box of 100	£70.00
CON-7-101-8CS	Electrolase® Blunt Tips - Sterile Box of 50	£70.00
CON-7-796-18CS	Hyfrecator® Pencil Sheath - Non-Sterile Box of 100	£35.00
CON-7-796-19CS	Handpiece Sheath - Sterile Box of 25	£85.00
CON-7-809-11	Hyfrecator® Bipolar Cable	£75.00
CON-7-809-4	Hyfrecator® Adson Smooth Tips	£215.00
CON-7-900-4	Hyfrecator® 2000 Foot Switch	£150.00
CON-7-900-6	Hyfrecator® Foot Switching Pencil	£105.00
CON-7-900-7	Hyfrecator® 2000 Patient Plate	£105.00

Other patterns of Bipolar Forceps, plus re-usable Electrodes, are available for special order. Please call for details.





Henry Schein Veterinary Equipment would be delighted to demonstrate this equipment at your practice.

To book a demo please call our Vet Tech Team on 0845 130 9596 or email info@vetinst.com

Animal Stretcher



Can be used by either two people with one at each end or by a single person utilising the wheels at one end.

The frame is lightweight coated steel. The Stretcher is made from heavy duty re-inforced nylon. Three 2" (50mm) straps are provided for patient security. 24" (600mm) x 48" (1200mm).

ANIMAL STRETCHER

02742	Animal Stretcher	£99.50
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Soft Carry Stretcher



Without rigid poles the Soft Carry Stretcher can go into tight corners e.g. kennelling and cars. Six padded handles for comfort. Made from heavy duty washable nylon. Easily stored when not in use. Max weight for stretchers is 150lb (67.5kg).

SOFT CARRY STRETCHER

02742A	Soft Stretcher 30" (750mm) x 50" (1250mm)	£47.50
02742B	Soft Stretcher 21" (525mm) x 34" (850mm)	£39.50

Positioning Devices

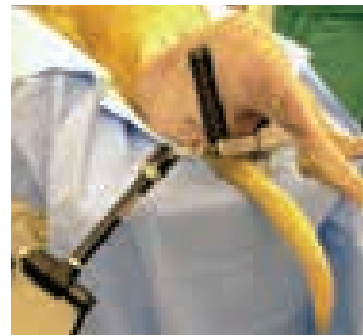
Redmark Cradles



REDMARK CRADLES

026022	Redmark Cradles - Set of 3 (S, M, L)	£225.00
026022L	Redmark Cradle - Large over 32kg	£105.00
026022M	Redmark Cradle - Medium over 13kg - 32kg	£100.00
026022S	Redmark Cradle - Small up to 13kg	£95.00

Multi Arm With Limb Brace Attachment In Use



020065



020062



026000

Safety need not be compromised to obtain accurately positioned radiographs. The Multi Arm can replace the human hand in the positioning and holding of limbs for both radiography, surgery and arthroscopy. Also useful for hands free positioning of bronchoscopes & gastroscopes.

- Use cohesive bandage to attach limb

- Three joints allow positioning at any angle.

- A single knob locks all three joints rigid.

- Clamp fixes device to virtually any operating or X-ray table

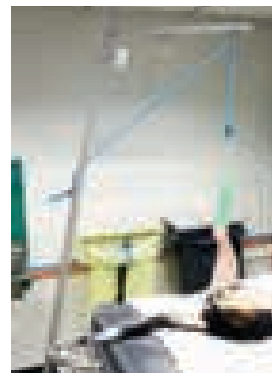
- Double limb support (for hip radiographs) available as an option.

- As described by Kurt Schulz in Veterinary Surgery

MULTI ARM

026000	Multi Arm - 'Improved' Version includes Single Limb Support	£285.00
020062	Double Limb Support	£165.00
020065	Limb Brace Attachment for Multi Arm	£165.00
MULTIARMSET	Multi Arm Set (as above)	£495.00

Table Top Stand for Hanging Limb Preparation



Suspension of a limb can provide significant benefits in both arthroscopy and other orthopaedic procedures. The shoulder joint is distracted and 360 degree access becomes available. Height 1.2m (48") Our limb suspension stand was re-designed to give greater table-top stability. A cleat for tying off limb suspension ropes has been added and the shaft can be dismantled for storage.

TABLETOP STAND FOR HANGING LIMB PREPARATION

R463	Tabletop Stand for Hanging Limb Preparation	£185.00
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Vac Pac Vacuum Positioning Device.



Image courtesy of Pat Ridge

Simply mould the bead filled bag around or under the patient and hook up to any vacuum source, as the air is removed the bag solidifies in the set position. Especially useful for arthroscopy or any surgery requiring secure accurate positioning. The Vac Pac is:

- Re-useable
- Repairable
- Radiolucent
- Warm

VAC PAC

VP23	Vac Pac Size 23	45 x 50cm	£345.00
VP30	Vac Pac Size 30	72 x 90cm	£465.00
VP31	Vac Pac Size 31	98 x 90cm	£465.00
VP32	Vac Pac Size 32	118 x 90cm	£465.00

Surgical Clippers

Andis Super AGR+ Cordless with Corded Back Up



- * Powerful Clipper designed for all day heavy use.
- * Sensa-Charge Charger recharges battery is less than an hour.
- * High speed motor 3800 strokes per minute.
- * Includes No 10 Ceramic Edge Blade.
- * Cord adaptor converts clipper to mains power in emergencies.

ANDIS SUPER AGR+ CORDLESS		
0285604	Andis AGR+ Clipper	£265.00
0285142	AGRC Power Groom Cord Adaptor	£49.50
0285605	Andis AGR+ Spare Battery	£77.50

Oster Clippers A5



The latest version of the industry standard Clipper with a Blade Locking Device to prevent the Blade unclipping in use. (Blade not included). Single speed.

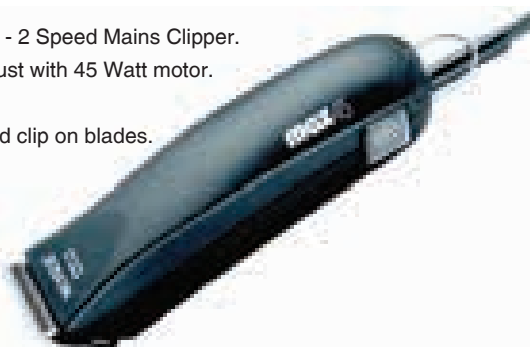
OSTER CLIPPERS A5		
028080	Oster A5 'Golden' Body Only No Blades	£145.00

Oster Blades

OSTER BLADES		
028081	Oster Clipper Blade Size 40	£39.50
028082	Oster Clipper Blade Size 15	£39.50
028083	Oster Clipper Blade Size 50	£39.50
028084	Oster Clipper Blade Size 30	£39.50
028082/10	Oster Clipper Blade Size 10	£39.50

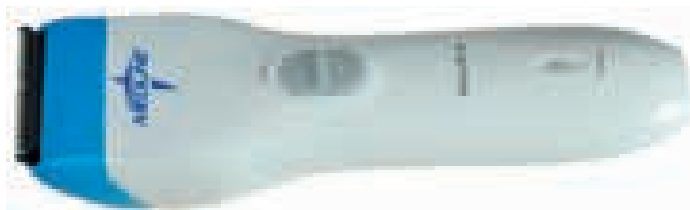
Wahl Clippers

- Moser Max 45 - 2 Speed Mains Clipper.
- Extremely robust with 45 Watt motor.
- Two speed.
- Takes standard clip on blades.



WAHL MOSER MAX 45 CLIPPERS		
KM6245-800	Moser Max 45 including Surgical Blade	£115.00

Medline Wet/ Dry Clipper



This Clipper is designed to work in a wet environment. Other than the blade regular veterinary clippers are rarely cleaned effectively allowing a build up of potential pathogens in the prep or consulting area. The Wet/ Dry Clippers will tolerate washing and disinfecting. They may even be soaked for long enough for chemical sterilisation thereby minimising cross contamination. Sterilisable clippers are now commonplace in human theatres.

In addition they are quiet, giving a close surgical clip for a small areas.

MEDLINE WET/DRY CLIPPER AND BLADES		
DYND70800UK	Medline Wet/ Dry Surgical Clipper & Charger	£44.50
DYND70885E	Medline Wet/ Dry Clipper Blade (Single)	£9.95
DYND70885E/5	Medline Wet/ Dry Clipper Blade (5 Pack)	£47.50

Cardinal Wet n Dry Clipper Blades

CARDINAL WET N DRY CLIPPER BLADES		
4412-4	Cardinal Blades x 4	£48.00

Andis Cordless Pocket Trimmer



Light Duty Trimmer, easily concealed in palm of hand. Handy for i.v. clips or blood tests.

Runs off single AA battery (supplied). Cheap enough to have one in every room.

Compact ergonomic design.

ANDIS CORDLESS POCKET TRIMMER		
9861	Andis Cordless Pocket Trimmer Single	£9.95
9861/5	Andis Cordless Pocket Trimmer 5 Pack	£40.00

Laube 505 Cordless Clipper



A powerful Clipper. Has integrated light for better visualisation.

LAUBE 505 CORDLESS CLIPPER		
028100	Laube 505 Clipper	£395.00

Laube Blades

To function with the powerful Laube range of Clippers, Laube have corrected all the faults of all the other blades. Laube Blades fit all Clippers sold by Veterinary Instrumentation, except Pocket Pro Trimmer and Cardinal Wet n Dry.

Highly recommended and very competitively priced.

LAUBE BLADES		
028111	Laube No. 15 Blade	£36.50
028112	Laube No. 30 Blade	£36.50
028110	Laube No. 40 Blade	£36.50
028113	Laube No. 50 Blade	£36.50

Nail Clippers

Heavy Duty with Plastic Handles



HEAVY DUTY WITH PLASTIC HANDLES

028088 Nail Clipper Heavy Duty Plastic Handle **£12.50**

Compound Action Nail Clippers



COMPOUND ACTION NAIL CLIPPERS

028086 Nail Clipper Compound Action **£76.50**

Nail Clippers Standard



Large



Small

NAIL CLIPPERS STANDARD

028085 Nail Clippers Large 14cm **£37.50**

028085S Nail Clippers Small 12cm **£37.50**

Resco Guillotine Type



A lightweight clipper suitable for cats and small furies.

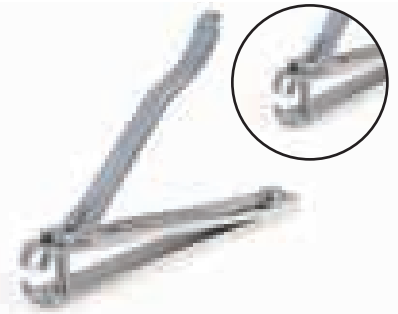
RESCO GUILLOTINE TYPE

028087 Resco Clippers Guillotine **£11.75**

Beak Trimmer

Based on a familiar mechanism, we have reversed the jaws to allow smooth, controlled and stress free trimming of the lateral extent of the beaks of several species commonly encountered in small animals and exotics practice.

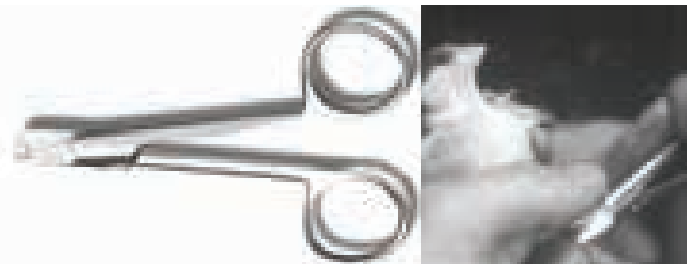
Developed by David Strong



BEAK TRIMMER

028097 Beak Trimmer 65mm **£19.95**

Bird Ring Cutter



Aluminium and plastic rings frequently prevent venous return from the distal limb of small birds. Oedema and necrosis quickly follow unless the ring is removed. Removal of the ring without fracturing the leg is not easy without this special cutting tool.

BIRD RING CUTTER

028090 Bird Ring Cutter **£36.50**

Rabbit Ring Cutters

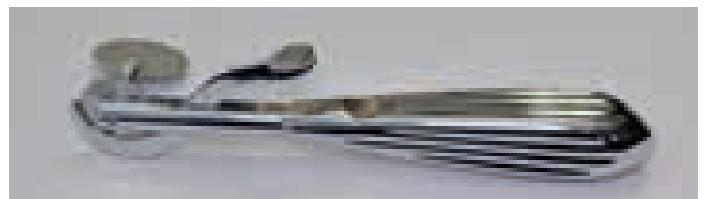
Identification rings placed on show rabbits can occlude the venous return from the distal hind limb with disastrous results. Removal of the ring without causing additional damage and pain to the limb is very difficult without these purpose designed cutters. Once the notched jaws are engaged on the ring, firm pressure may be applied to cut the ring without fear of the ring 'flipping over'. Also functions as a general purpose canine nail cutter.



RABBIT RING CUTTERS

028091 Rabbit Ring Cutters **£31.50**

Parrot Ring Cutters



This Device is used by jewellers to remove rings from people's fingers. The ring is cut by turning a hardened saw blade. Parrot rings are very tough and cannot be removed by nail cutters. This Cutter will also remove rabbit rings but bear in mind that the lower blade has to go between skin and ring.

PARROT RING CUTTERS

028093 Parrot Ring Cutter **£57.50**

028094 Spare Blade for Parrot Ring Cutter **£19.50**

Anatomical Models



When clients better understand their pet's condition they are more likely to accept the treatment you suggest. Models illustrating the common problems are an invaluable aid.

ANATOMICAL MODELS		
D1050	Canine Dental Model Clear	£92.50
D1055	Feline Dental Model Clear	£92.50
D1057	Leporidae Dental Model Clear	£97.50
D1062	Set of Canine, Feline & Leporidae Models	£260.00
AMJ772	Cross-section of Canine Ear	£99.50
AMJ779	Canine Lumbar Vertebrae with Pathology	£115.00
AMJ776	Canine Stifle	£120.00
AMJ775	Canine Hip & Lower Vertebrae	£195.00
AMJ780	Canine Elbow	£115.00
AMJ781	Canine Hock	£115.00

Plastic Training Bones



The limited availability of cadaver training programmes means that basic orthopaedic techniques must be practiced on plastic bones. Our Plastic Bones simulate the real thing as closely as possible in that they have cortices and medullary cavities.

PLASTIC TRAINING BONES		
2121-20	Femur Right with Block	£39.50
2117-20	Tibia Right with Block	£39.50
2117-21	Tibia/ Fibula Right no Block	£62.50
2003-20	Humerus Right with Block	£39.50
2002-20	Radius Right Solid Foam with Canal	£31.50
2002-25	Radius and Ulna Right	£59.50
2002-22	Radius Solid with Canal/ Transverse Fracture	£31.50
2003-21	Humerus Foam Cortex with Oblique Fracture	£46.50
2003-22	Humerus Foam Cortex/ Distal Condylar Fracture	£46.50
2003-23	Humerus Oblique Condylar Fracture	£46.50
2003-24	Humerus Growth Plate	£46.50
2003-25	Humerus High Y Fracture/ Head Fracture	£51.50
2003-26	Humerus Spiral Fracture	£49.50
2117	Tibia Left Foam Cortex	£39.50
2304	Hemi Pelvis Left with Block	£39.50
2307	Hemi Pelvis Right with Block	£39.50
2307-1	Hemi Pelvis no Block	£39.50

Books



A combination of BK02 and BK01 or BK03 will cover nearly all the situations you are likely to face in practice.

BOOKS		
BK01	A Guide to Canine and Feline Orthopaedic Surgery by Hamish Denny & Steve Butterworth	£91.50
BK02	An Atlas of Surgical Approaches the Bones & Joints of the Dog and Cat. 3rd Edition by Donald L. Piermattei	£84.50
BK03	Handbook of Small Animal Orthopaedics and Fracture Repair. 4th Edition by Donald L. Piermattei & Gretchen L. Flo	£87.50
BK05	Small Animal Spinal Disorders - Diagnosis and Surgery by Simon J. Wheeler & Nicholas J H Sharp	£124.00
BK07	Feline Orthopaedics by Scott & McLaughlin	£124.00
BK08	Electrocardiography made easy by Larry Tilley	£52.50
BK09	Feline Orthopaedic Surgery and Musculoskeletal Disease by P M Montavon	£90.00

DVD/ CD Rom

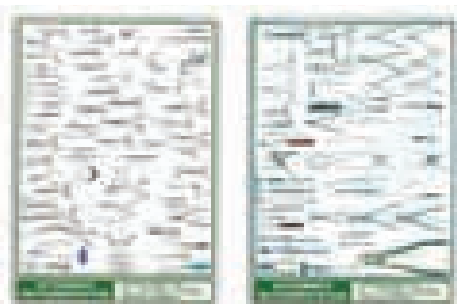
These DVD/ CD Roms show in detail the following procedures:

- Fracture Fixation including surgical approaches, plate, lag screw and tension band fixation.
- Triple Pelvic Osteotomy using a VI Plate.
- Total Hip Replacement.
- Carpal Arthrodesis.
- Surgical management of Canine CrCL Disease.
- Surgical approaches to the Bones and Joints of the Dog.

DVD/CD ROM		
HDFFDVD	DVD Denny Fracture Fixation DVD Version	£45.00
HDTPDVD	Hamish Denny Triple Pelvic Ostotomy DVD Version	£50.00
HDTHPDVD	DVD Hamish Denny Total Hip Replacement DVD Version	£45.00
HDCADVD	DVD Hamish Denny Carpal Arthrodesis DVD Version	£50.00
DVDSAW	Surgical Approaches DVD Dr Wing Tip Wong	£72.50
DVDBP	Basic Guide to Bone Plating DVD Dr Wing Tip Wong	£72.50
DVDALL	Surgical Management of Canine CrCL Disease - covers TTO, TTA, TPLO plus Lateral Suture	FOC

Free Training Aids and Brochures

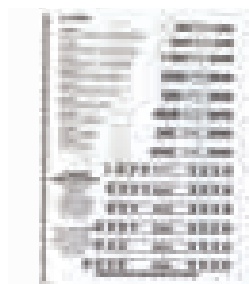
Posters



INSTRUMENT POSTERS

Poster1	Orthopaedic Poster	£FOC
Poster2	General Surgical Instrument Poster	£FOC

Plate/ TTA Acetates

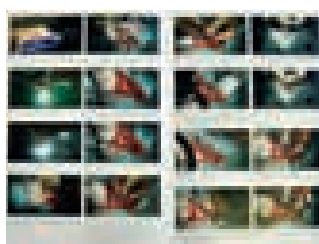
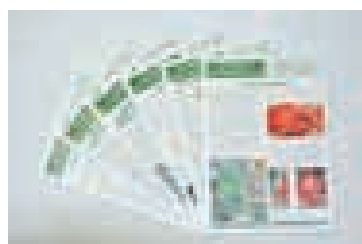


We provide profiles of all our plates on acetate to facilitate correct selection. Simply lay the acetate over the X-Ray. All acetates are to scale – please compensate for X-Ray magnification.

PLATE/ TTA ACETATES

ACETATES	Acetate Overlay of Bone Plates	£FOC
TTAPFO	Traditional TTA/ MMT Advancement Overlay	£FOC
TTATAN	Common Tangent TTA/ MMT Advancement Overlay	£FOC

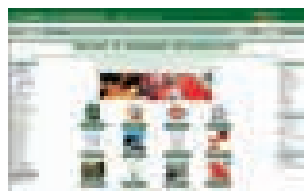
Set by Step Guides



STEP BY STEP GUIDES

BRSTO	Step by Step Guide to TTO	£FOC
BRSTA	Step by Step Guide to TTA	£FOC
BRSTAR	Step by Step Guide to TTA Rapid	£FOC
BRSTPLO	Step by Step Guide to TPLO (Radial Cut)	£FOC
BRLATSUT	Step by Step Guide to Lateral Suture	£FOC
BRPAT	Step by Step Guide to Patellar Luxation	£FOC
BRLIGAIISO	Step by Step Guide to LigaFiba ISO Toggle Sutures	£FOC
BREXFIX	Step by Step Guide to External Fixation	£FOC
BRSTOVCOT	TTO VCOT Paper	£FOC

Websites



www.vetinst.com

Over 3000 pages of useful information, on-line ordering for over 4000 products, free video downloads and training materials. Over 50 clips of instruments in use.

Catalogues & Brochures

ADDITIONAL CATALOGUES AND BROCHURES

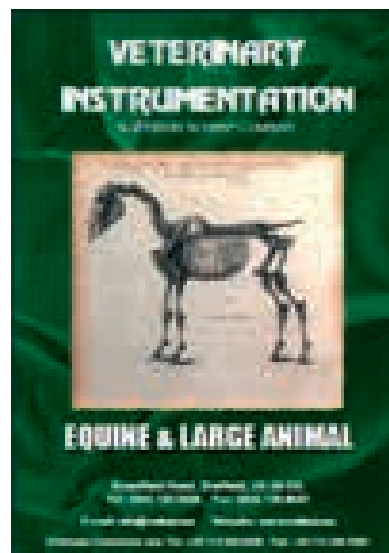
BR SUTURE	Shoulder Repair Technique Brochure	£FOC
BR TIGHT	Tightrope CCL Technical Brochure	£FOC
BRAESPOW	Aesculap Power System Brochure	£FOC
BRAESPOWBURBLA	Aesculap Power System Burs and Blades Brochure	£FOC
BRARTHAND	Arthrex Instruments Technical Brochure	£FOC
BRARTHREX EAGLE	Arthrex Eagle Eye Camera Brochure	£FOC
BRCANARTH	Canine Arthroscopy Set Brochure	£FOC
BRCCLS	Arthrex Canine Cruciate Ligament Repair Brochure	£FOC
BRDESOUTLB	Desoutter Power Tools Large Bone Brochure	£FOC
BRDESOUTSM	Desoutter Power Tools Small Bone Brochure	£FOC
BRFIBER	Fibewire Brochure	£FOC
BRFRVID	Dr Fritz Video Compact System	£FOC
BRLSAS	Step By Step Brochure Arthrex Suture Anchor System	£FOC
BR OATS	Arthrex Oats System Brochure	£FOC
BR OES	Oesophagostomy Procedure Brochure	£FOC
BR OPEPES	OPES Consol Brochure (electro surgical)	£FOC
BRSHAV	Arthrex Shaver System	£FOC
BRHELICA	Helica Brochure	£FOC
BRHELISURGMAN	Helica Surgical Manual	£FOC
BRDIXEY	Dixey Catalogue	£FOC

DVDs & CDROMs

DVDS AND CDROM

DVDALL	DVD Containing: OTT, Lat Suture, TPLO Closing Wedge and Radial Cut, TTA, TTO, Tight Rope and Meniscus Surgery and Full Catalogue	£FOC
DVDARTHREX	Arthrex Multi Brochure DVD	£FOC
DVDLEHMAN	Lehman – Arthroscopy	£FOC
DVDI/N	DVD – Interlocking Nail	£FOC
DVDBAP	Cochran Bisecting Angle Positioner Illustrated CD	£FOC
DVDTPLOCAD	DVD Illustrating Use of Cadmus Plate and Template	£FOC
CDRAS	CD PowerPoint Presentation on Rasenberg Plate (CD ROM)	£FOC
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Equine and Large Animal Catalogue with interesting and surgical specialities.

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Terms & Conditions

VETERINARY INSTRUMENTATION LTD TERMS AND CONDITIONS OF TRADE

1. Definitions

1.1 'Company' means Veterinary Instrumentation Ltd.

1.2 'Customer' means the veterinary practice or any person to whom the Company has agreed to supply goods.

1.3 'Goods' means the products which the Company is to supply to the customer in accordance with these conditions.

1.4 'Writing' includes telex, cable, facsimile transmission, e-mail or similar means of communication.

2. Breakages and Shortages

In the case of obvious shortages or suspected damage to deliveries of goods, the driver's delivery note must be signed accordingly by the person accepting the delivery on behalf of the customer. All claims for broken or missing goods should be reported to the Company no later than three days from the date of delivery. Where independent transport is used failure to sign or indicate on delivery notes any shortage and/or damage will invalidate the Company's claim against the carrier involved and therefore the customer's claim against the Company.

3. Returned Goods Policy

3.1 Under normal circumstances, goods will not be accepted for return for credit other than for the following reasons:

- a) To correct a Company delivery or order error.
- b) In response to a recall instigated by a manufacturer.
- c) Where the products or packages are alleged to have been faulty, damaged or tampered with prior to delivery.
- d) Where the products have been offered on a pre-arranged 'sale or return' basis.
- e) Where the Company agrees, in advance of their return, to accept goods not covered by any of the above criteria.

3.2 Goods Returned to Correct a Company Error:

- a) The goods must be returned within 7 working days of receipt. Goods requiring temperature-controlled storage must be notified to the Company no later than the next working day and must have been stored in accordance with the manufacturer's recommendations whilst on the customer's premises. Goods must be adequately packaged to ensure that no damage is caused during their return to the Company.
- b) All returned goods must be in perfect original condition; not marked in any way; should not show any evidence of being tampered with.
- c) To be considered for return for credit, the goods must be accompanied by a copy of the original invoice or delivery note, or the number of the specific invoice on which the goods were supplied, together with a reason for their return. If this information is missing, there will be a delay in issuing a credit.

3.3 Returns where the products or packages are alleged to have been faulty, damaged or tampered with prior to delivery:

- a) Details of the fault or damage should be notified to the Company as soon as possible in order that the manufacturer can be alerted if appropriate.
- b) Goods must be packed separately and accompanied by a copy of the invoice or delivery note (as in 3.2(c)).

3.4 Where the Company agrees to accept the return of goods not covered by any of the criteria recited in clauses 3.2 - 3.4. Goods will only be accepted by prior agreement with the Company and must be accompanied all the information detailed in 3.2(c) in addition to the name of the person who has authorised the return.

Please note: Goods returned under this category may be subject to a handling charge.

3.5 Goods Returned to Stock

Goods returned by customers for any of the above reasons will only be considered for credit if:

- a) It is known that they have been stored in accordance with the manufacturer's recommendations.
- b) They have been assessed and accepted by a person authorised by the Company so to do. The assessment will take into account the nature of the product, any special storage conditions required and the time elapsed since the goods were supplied.

3.6 Special Orders

These products will not be accepted for return or credit unless supplied as a result of a Company error. In such cases, the product must be returned within 7 working days of receipt.

3.7 Packaging

All returned goods must be securely packaged to prevent damage during the return journey.

3.8 Date Expired Goods Date Expired Goods will only be accepted for credit in accordance with the terms laid down by the manufacturer concerned.

4. Price of Goods

Goods will be invoiced at the prevailing price at the date of despatch to the customer. The price of goods shall be subject to alteration by the Company without prior notice to the customer. The price is exclusive of any Value Added Tax for which the customer shall be additionally liable to pay the Company.

5. Terms of Payment

5.1 The customer shall pay the amount of the invoice on or before the last day of the month following the date of the Company's invoice unless otherwise agreed in writing by the Company. If the customer fails to pay on the due date, the Company reserves the right to:

- a) Suspend any further deliveries to the customer.
- b) Appropriate any payment raised by the customer to such of any other invoices raised by the Company for goods supplied to the customer as the Company may think fit, notwithstanding any purported appropriation by the customer and:
- c) Charge the customer interest (both before and after any judgement) on amounts unpaid at the rate of 2.5% per month until payment is made in full. Notice of interest charges will be served in writing on the customer.

6. Delivery

Any dates/times quoted for delivery of the goods are to be treated as estimates only and the Company shall not be liable for any loss, injury, damage or expense arising from delay in delivery of the goods howsoever caused.

7. Force Majeure

The Company shall not be liable to the customer or be deemed to be in breach of the Contract by reason of any delay in performing, or any failure to perform, any of the Company's obligations in relation to the Goods, if the delay or failure was due to any cause beyond the Company's reasonable control. Without prejudice to the generality of the foregoing, the following shall be regarded as causes beyond the Company's reasonable control:

- a) Act of God, explosion, flood, tempest, fire or accident;
- b) Strikes, lock-outs or other industrial actions or trade disputes (whether

- involving employees of the Company or third parties);
- c) War or threat of war, sabotage, insurrection, civil disturbance or requisition;
- d) Import or export regulations or embargos;
- e) Difficulties in obtaining raw materials, labour, fuel, parts or machinery;
- f) Power failure or breakdown in machinery.

8. Liability

Goods are sold on the understanding that the customer is solely responsible for determining the suitability of the goods for the purposes for which the customer intends to use them. Accordingly the Company's liability for any loss or damage suffered by the customer and arising by defects in the goods, shall be limited to the invoice price of the goods in respect of or in relation to which loss or damages is claimed. The Company will not accept under any circumstances liability for consequential loss, damage or loss of profits arising from the use of the goods, service, information and advice.

9. Title and Risk

Unless otherwise agreed in writing between the parties prior to delivery, the title to the goods shall not be transferred to the customer until the full purchase price has been paid to the Company. The risk of loss or damage to the goods shall pass to the customer on the date that the goods are received and accepted by the customer.

10. Insolvency

10.1 This clause applies if:

- a) The customer makes any voluntary arrangement with its creditors or becomes subject to an administration order or (being an individual or firm) becomes bankrupt or (being a company) goes into liquidation (otherwise than for the purpose of a solvent amalgamation or reconstruction);
- b) An encumbrancer takes possession, or a receiver is appointed, over any of the property or assets of the customer;
- c) The customer ceases, or threatens to cease, to carry on business;
- d) The Company reasonably apprehends that any of the events mentioned above is about to occur in relation to the customer and notifies the customer accordingly.

10.2 If this clause applies then, without prejudice to any other right or remedy available to the Company, the Company shall be entitled to cancel the Contract or suspend any further deliveries under the Contract without liability to the customer. If the Goods have been delivered but not paid for, the price shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary.

11. Indemnity

The customer agrees to indemnify the Company against all loss, damage, costs, legal costs and professional and other expenses of any nature whatsoever incurred or suffered by the Company or by a third party as a result of the use of the Goods, the breach of any legislation relating to the use of the Goods or as a result of any breach of the Contract by the customer.

12. Jurisdiction

These conditions shall be construed in accordance with and governed by English Law. Each of the parties irrevocably submits for all purposes in connection with the Conditions to the exclusive jurisdiction of the Courts of England.

Deliveries

TIMED DELIVERIES

In stock items will be despatched as soon as practicable.

NB: Urgent items may be despatched on the day of ordering, provided we receive the order BEFORE 3.30PM (and the stock is available). Please state clearly that the order is urgent and advise your preferred method of delivery.

Please note that the only certain way to obtain the goods when you want them is to collect them yourself! All delivery systems can fail. All we can do is to despatch according to your instructions. Veterinary Instrumentation staff are happy to help trace wayward deliveries but please do not give them a hard time when the problem is outside their control.

STANDARD DELIVERY

Prices include first class mail postage and packing to UK addresses (unless otherwise stated).

COURIER DELIVERIES

Delivery next day (up to 6pm weekdays) to England & Lowland Scotland – price depends on weight and destination

Cost: from £6.95 + VAT.

TIMED DELIVERIES

Delivery next day (weekdays only) to England & Lowland Scotland – price depends on weight and area

Cost: from £15.50 + VAT.

SATURDAY DELIVERIES AND OTHER AREAS

Cost and availability upon application.

RETURNS POLICY

Any returns should be within 7 days of delivery and should be in perfect original condition. Details of the invoice or delivery note should be included with any return.

Abuse of our sale or return policy may result in a restocking charge. The restocking charge may also be levied for late returns.

Non stock items or specials made to customer specifications may not be returned.

PAYMENT TERMS

Payment is due strictly on or before the last day of the month following the date of the company's invoice. Accounts with more than 60 days debt may be stopped. All payments to be made in sterling (£).

VAT

All prices are shown without VAT.

VAT will be added to the invoice where appropriate.

VETERINARY INSTRUMENTATION IMPLANT TEMPLATES

The following pages show the profiles of our more popular plates. Where possible, these have been presented using their most useful projections and orientations. Despite making every effort to ensuring accuracy, we reserve the right to amend technical specification as part of a process of continued development.

VI stocks a large number of implants that do not appear on these pages, such as pins, wire, screws, new implants developed over the course of the year as well as low volume or custom designs. Please contact the vet-tech team at info@vetist.com should you fail to find the implant necessary for your clinical application and we can provide you with details of additional implants on a case-by-case basis. Provision of patient details as well as radiographs with a visible scale is most useful in enabling us to provide you with the best quality technical support.

New for 2015. Each set of plates shown in the plate profiles is labelled with its corresponding location in the 2015 catalogue. e.g. Additional information about 1.5mm Compression Plates is shown on page 213.

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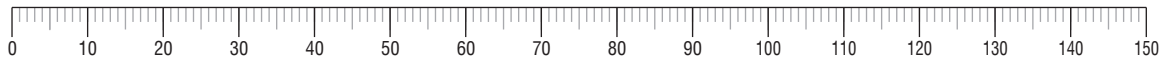
Supracondylar/Supracondylar Osteotomy.....

TPLO/TTO/TPLO.....

TTA.....

TTA Rapid.....

VI Plate Selection Chart.....



1.5mm Compression Plates*NEW***** (Pg 213)

C151674

C151465

C151256

C151152

C151047

C150943

C150838

C150734

C150629

C150525

C150420

2.0mm Mini Plates (Pg 214)

MP20317

MP20423

MP20529

MP20635

MP20741

2.0mm Compression (Pg 214)

CP201892

CP201682

CP201472

CP201262

CP201052

CP20842

CP20737

CP20632

CP20527

CP20422

(Pg 272) **2.0mm Round Hole Plates**

PR200843

PR200840

PR200738

PR200735

PR200633

PR200630

PR200528

PR200525

PR200423

PR200420

PR200213

VETERINARY INSTRUMENTATION

Broadfield Road,
Sheffield S8 0XL U.K.

Tel: 0845 130 9596

Fax: 0845 130 8687

E-mail: info@vetinst.com

Website: www.vetinst.com

(Pg 227) **2.0mm Biological Healing Plates**

BHP2008080

BHP2008075

BHP2008070

BHP2008065

BHP2007060

(Pg 214)

2.0mm ASYM® Plates

ASYM20030437

ASYM20030542

ASYM20030647

ASYM20030752

ASYM20040652

ASYM20030857

ASYM20040757

ASYM20030962

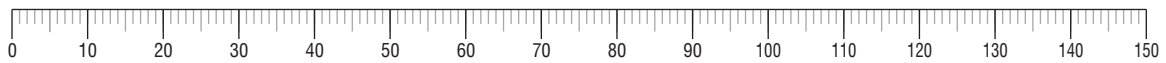
ASYM20040862

ASYM20031067

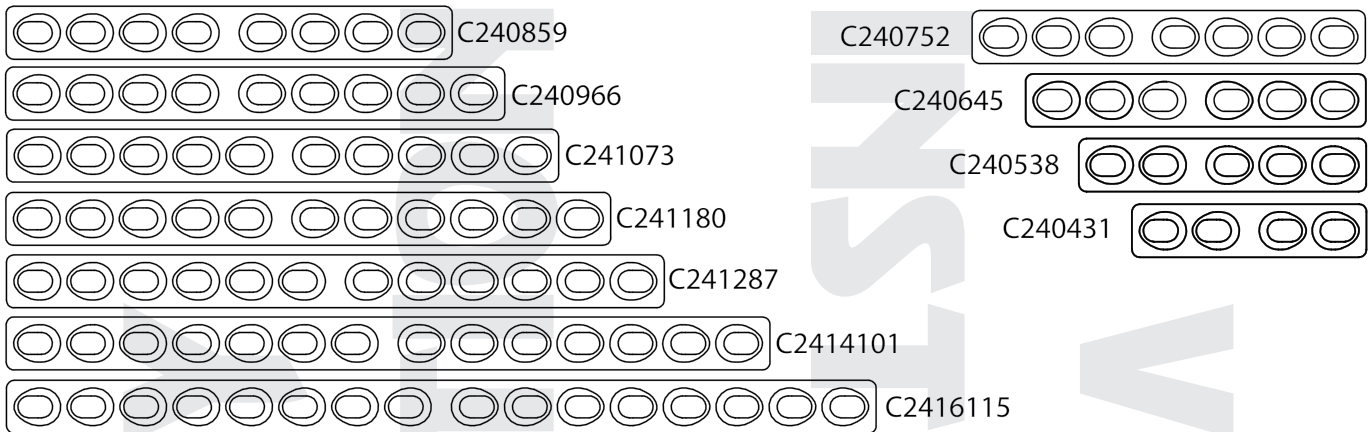
ASYM20040967

ASYM20031172

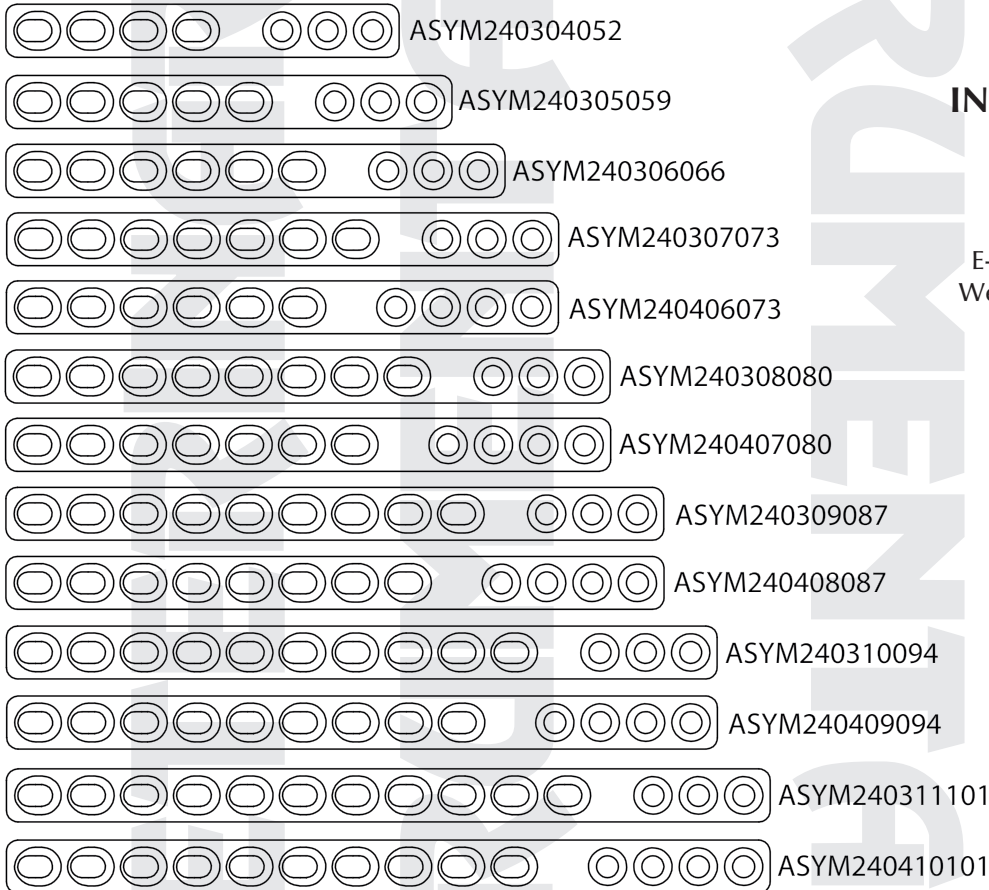
ASYM20041072



2.4mm Compression Plates (Pg 215)



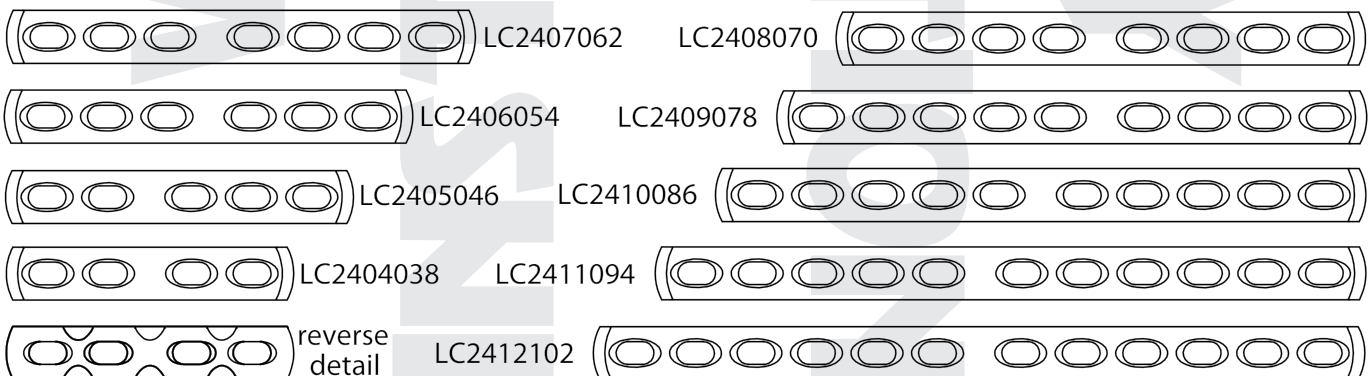
2.4mm ASYM® Plates (Pg 216)

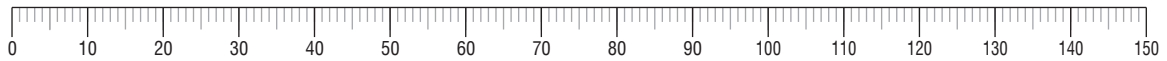


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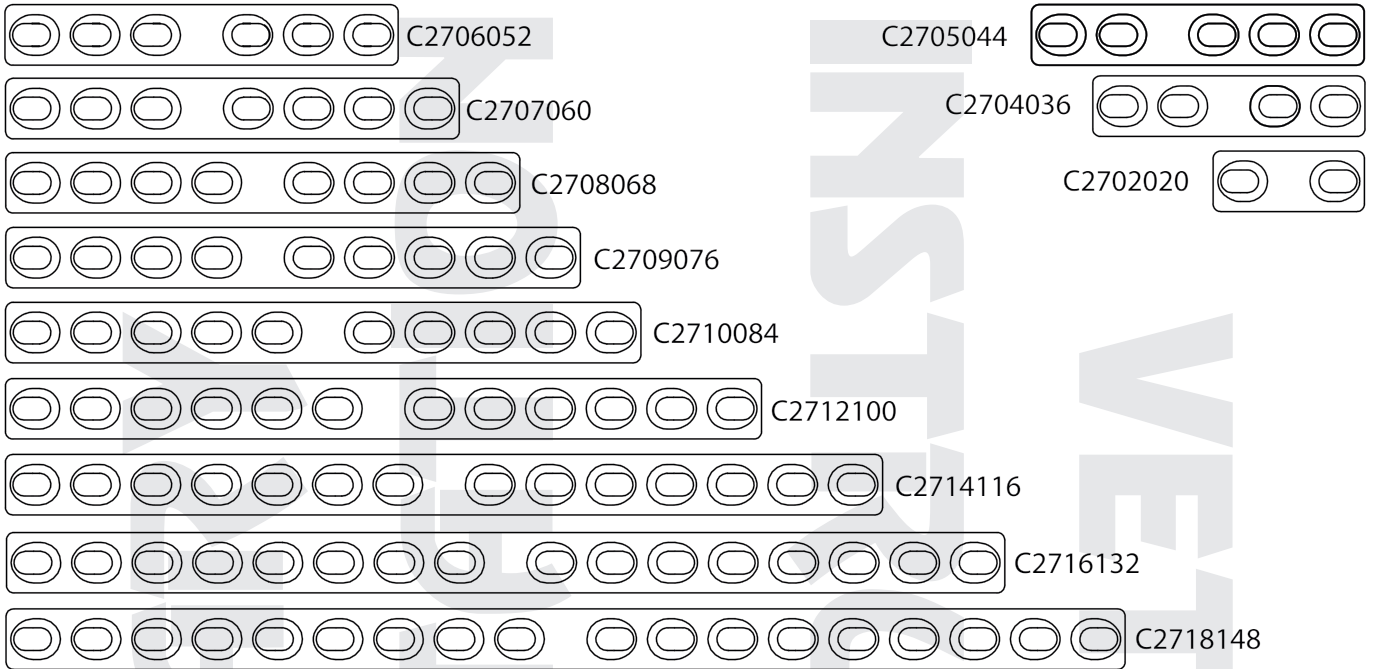
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E-mail: info@vetinst.com
Website: www.vetinst.com

2.4mm Limited Contact Compression Plates (Pg 215)

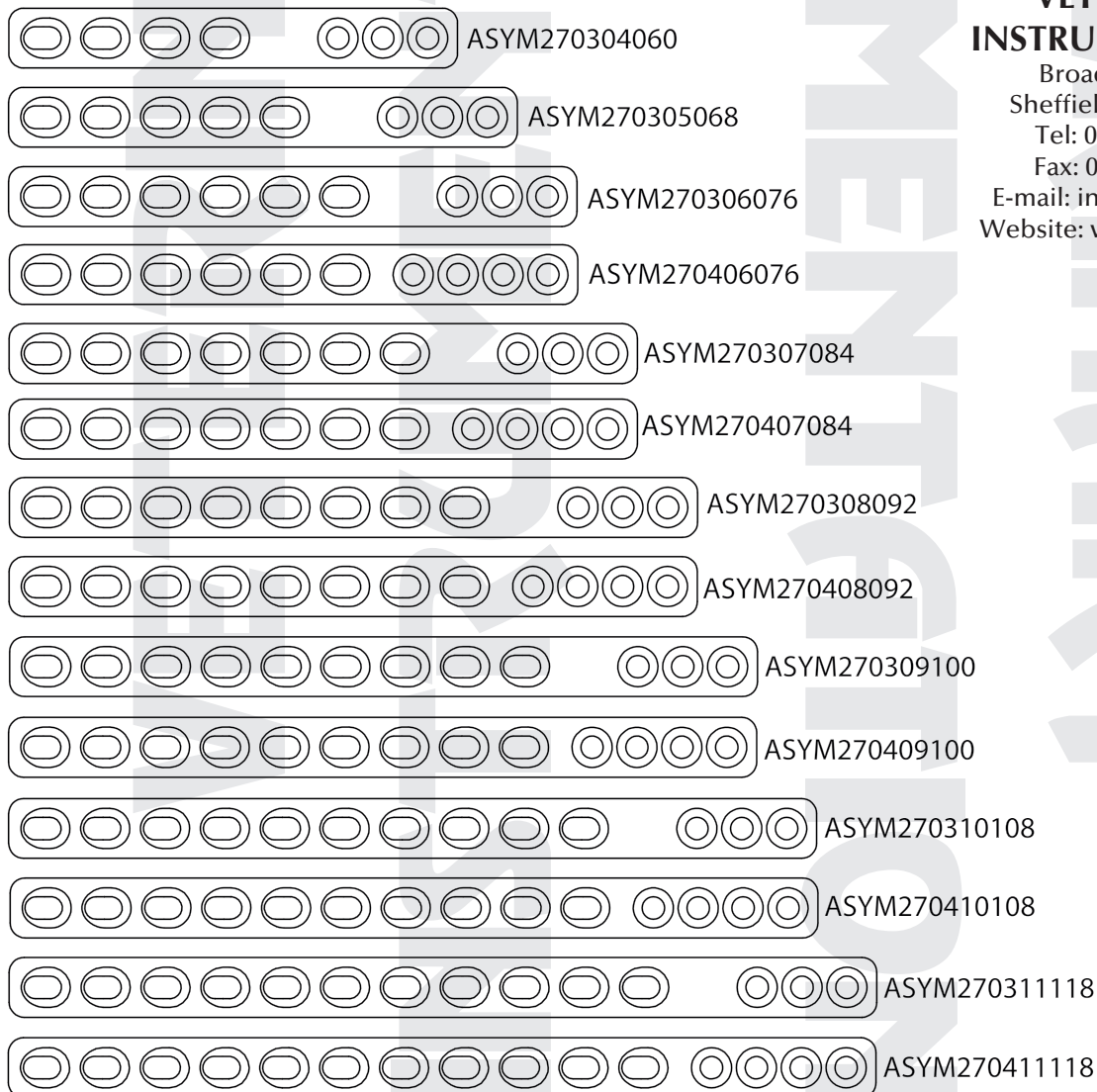




2.7mm Compression Plates (Pg 217)

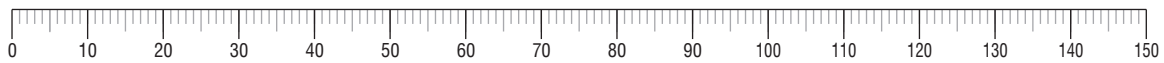


2.7mm ASYM® Plates (Pg 217)



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Sheffield S8 0XL U.K.
Tel: 0845 130 9596
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Website: www.vetinst.com



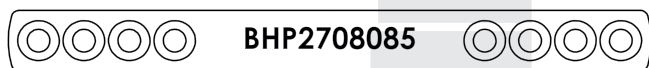
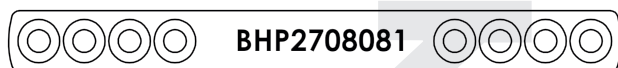
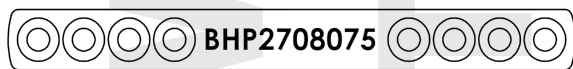
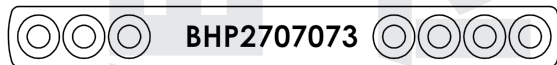
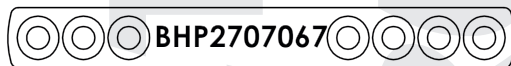
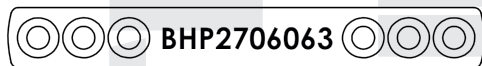
2.7mm Round Hole Plates (Pg 272)



2.7mm Heavy Duty Round Hole Plates (Pg 272)



2.7mm Biological Healing Plates (Pg 227)



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INSTRUMENTATION**

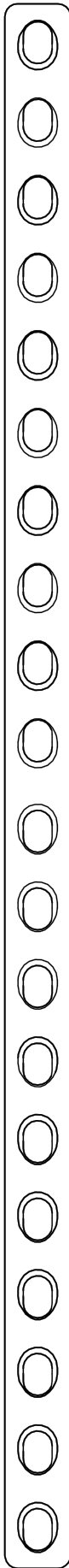
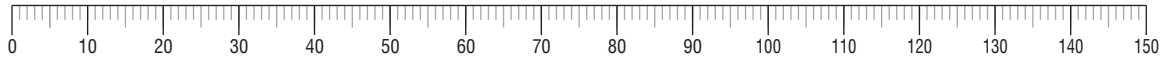
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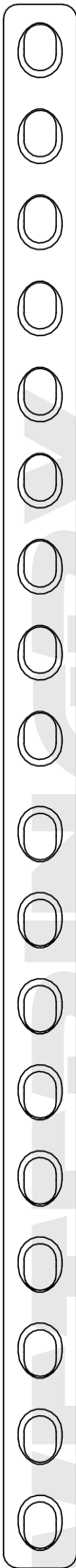
Fax: 0845 130 8687

E-mail: info@vetinst.com

Website: www.vetinst.com



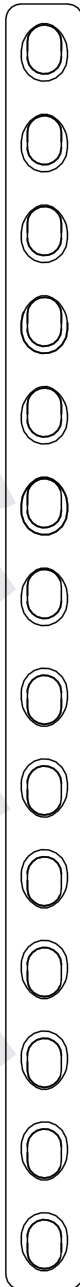
C3520242



C3518218



3.5mm Compression Plates
(Pg 219) C3516194



C3514170



C3512146



C3510122



LC2702026



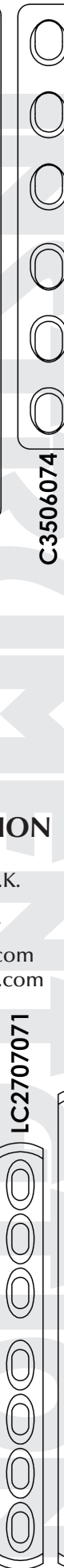
LC2704044



LC2705053



LC2706062



LC2707071



LC2708080



LC2709089



LC2710098



LC2712116



LC2714134



LC2716152

VETERINARY INSTRUMENTATION

Broadfield Road,
Sheffield S8 0XL U.K.
Tel: 0845 130 9596
Fax: 0845 130 8687
E-mail: info@vetinst.com
Website: www.vetinst.com

C3509111

C3508098

C3507086

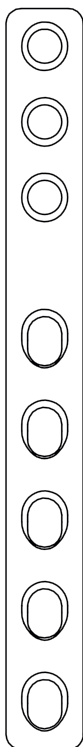
C3506074

C3505062

C3504050

C3503038

C3502026



ASYM350305098



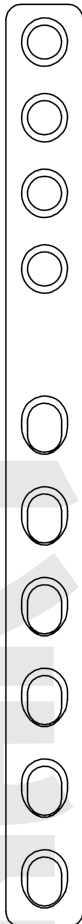
ASYM350304086



ASYM350306110



ASYM350307122

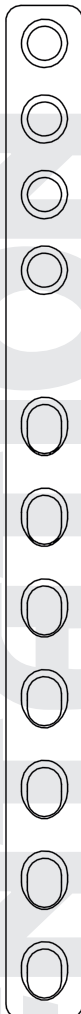


ASYM350406122

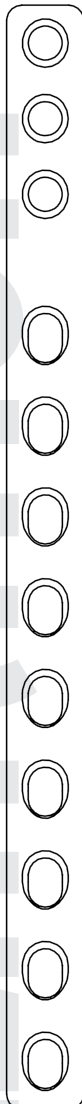
3.5mm ASYM® Plates (Pg 219)



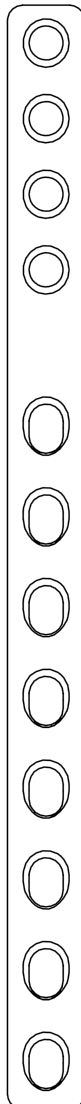
ASYM350308134



ASYM350407134



ASYM350309146



ASYM350408146



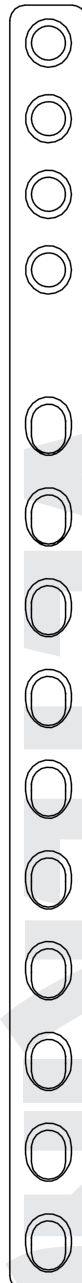
ASYM350310158



ASYM350409158



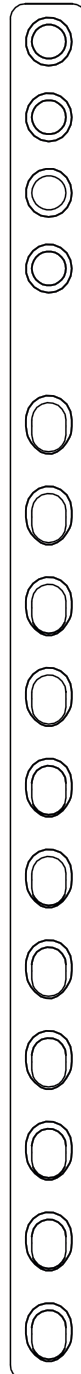
ASYM350311170



ASYM350410170



ASYM350312182



ASYM350411182

VETERINARY INSTRUMENTATION

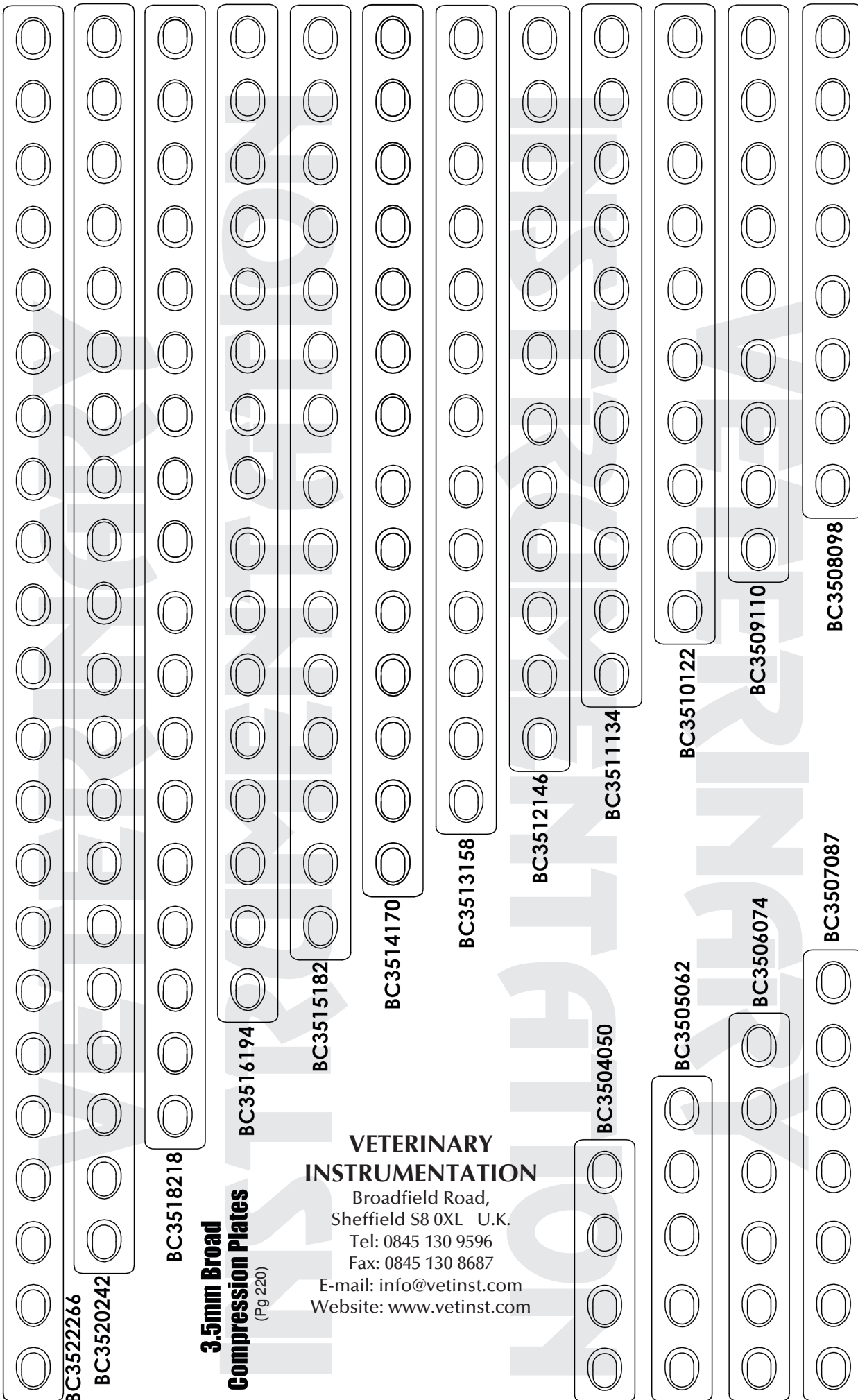
Broadfield Road,
Sheffield S8 0XL U.K.

Tel: 0845 130 9596

Fax: 0845 130 8687

E-mail: info@vetinst.com

Website: www.vetinst.com



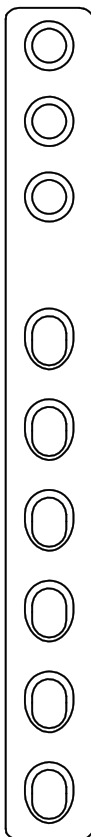
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Website: www.vetinst.com

**3.5mm Broad
Compression Plates**

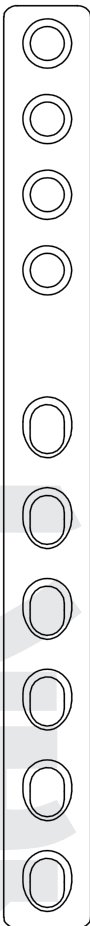
(Pg 220)



ASYMB350306110



ASYMB350307122



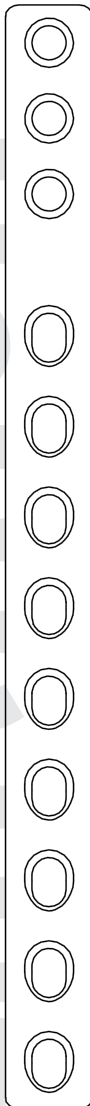
ASYMB350406122



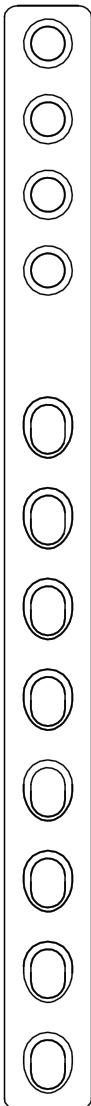
ASYMB350308134



ASYMB350407134



ASYMB350309146



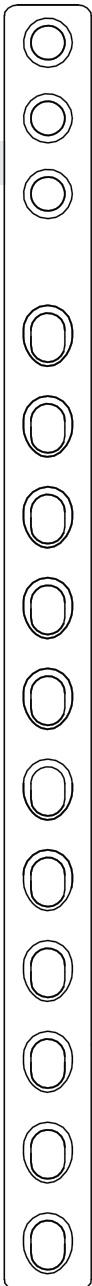
ASYMB350408146



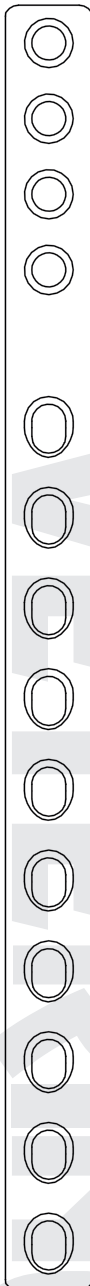
ASYMB350310158



ASYMB350409158



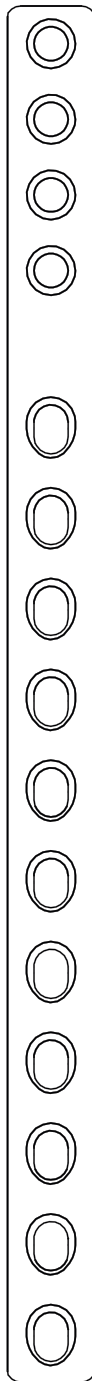
ASYMB350311170



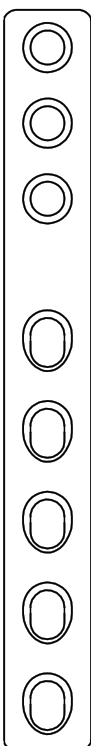
ASYMB350410170



ASYMB350312182



ASYMB350411182



ASYMB350305098



ASYMB350304086

3.5mm Broad ASYM® Plates (Pg 220)

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Fax: 0845 130 8687

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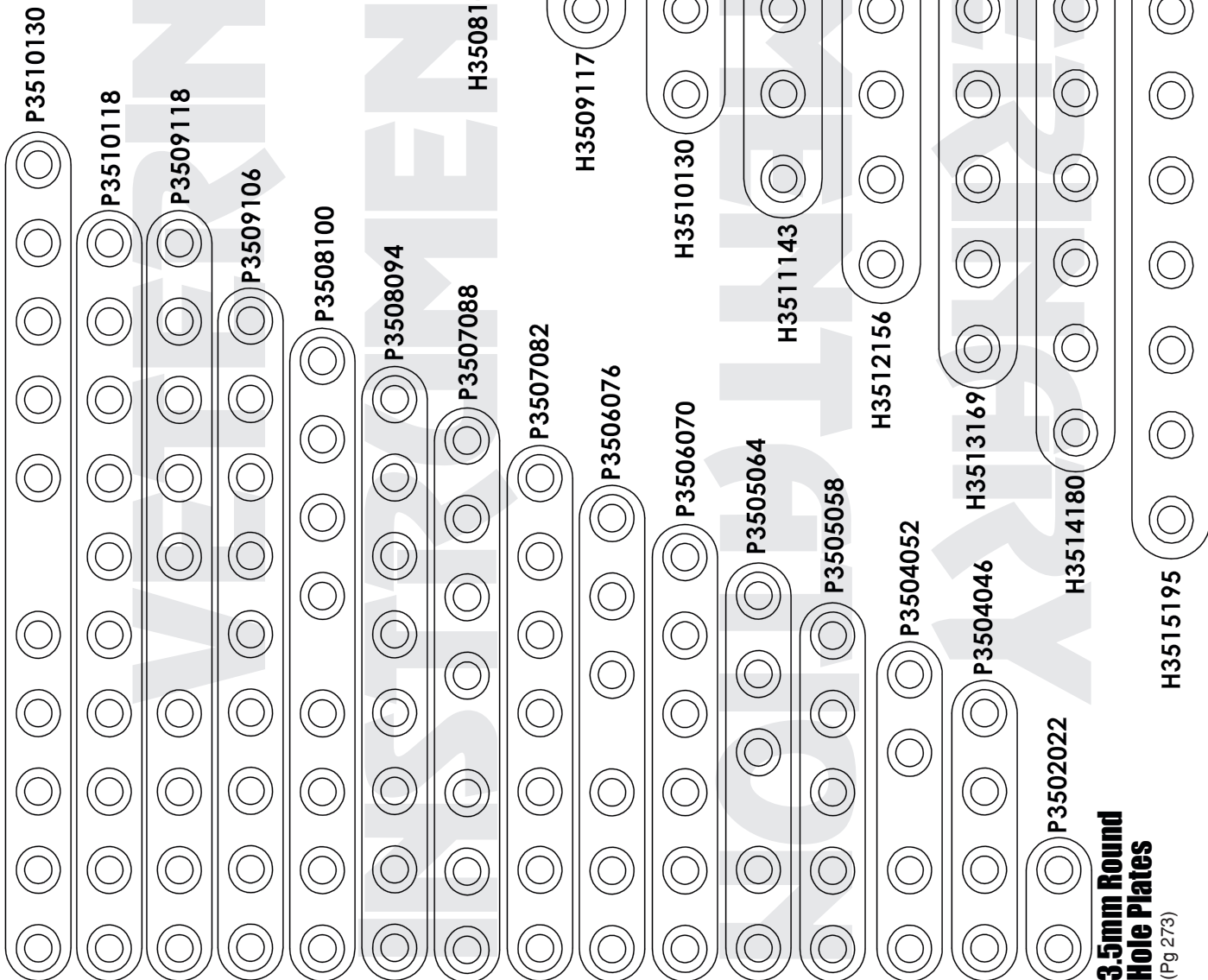
Website: www.vetinst.com



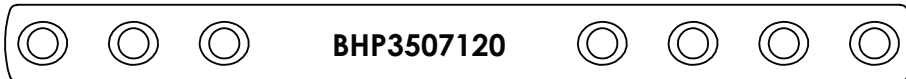
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E-mail: info@vetinst.com
Website: www.vetinst.com

(Pg 273) 3.5mm Heavy Duty Round Hole Plates



3.5mm Round Hole Plates (Pg 273)



BHP3507120

3.5mm Biological Healing Plates

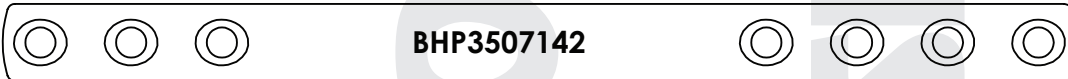
(Pg 227)



BHP3507130



BHP3508130



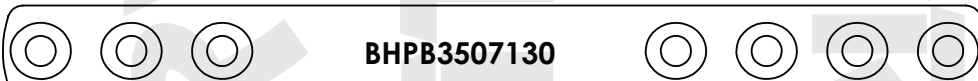
BHP3507142



BHP3508142



BHP3508154



BHPB3507130

3.5mm Broad Biological Healing Plates

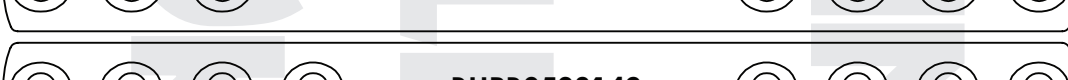
(Pg 227)



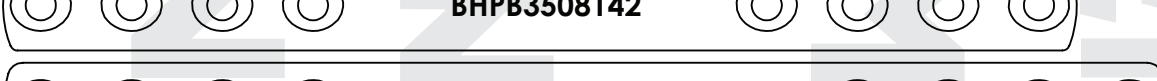
BHPB3508130



BHPB3507142



BHPB3508142



BHPB3508154

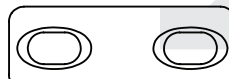


LC3503043

3.5mm LC plates also available in 14 and 16 hole.
3.5mm broad LC plates are available in 4-16 hole with the same hole spacing.



LC3504056



LC3502030



LC3505069



LC3506082



LC3507095



LC3508108



LC3509121



LC3510134



LC3512160

VETERINARY INSTRUMENTATION

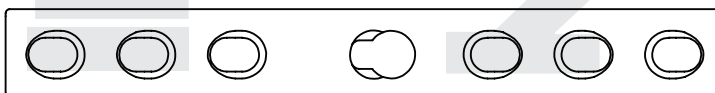
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Sheffield S8 0XL U.K.
Tel: 0845 130 9596 Fax: 0845 130 8687
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Website: www.vetinst.com

3.5mm Limited Contact Compression Plates

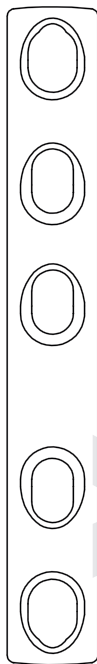
(Pg 219)

3.5mm IF Compression Plate

(Pg 221)



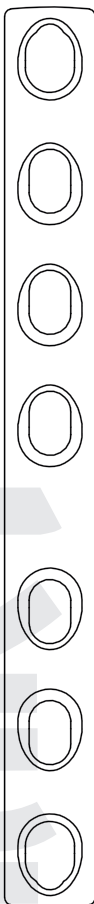
IF3507094



C45587



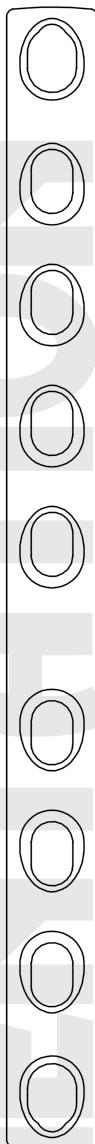
C456103



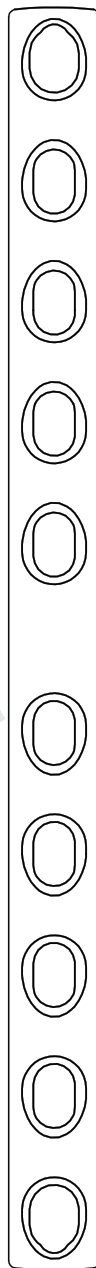
C457119



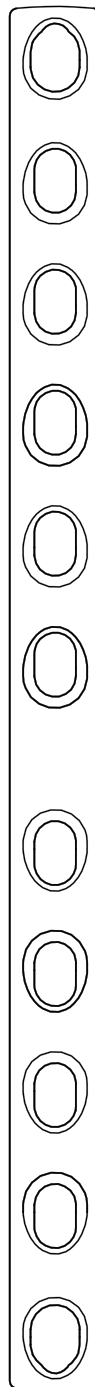
C458135



C459151



C4510167



C4511183



C4512199



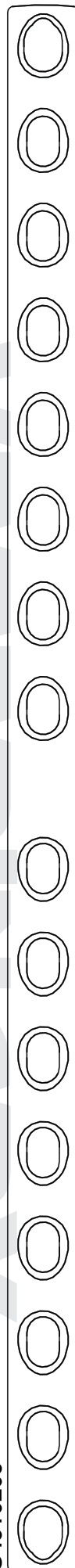
C4513211



C4514230



C4515246



C4516265

**Narrow 4.5mm
Compression Plates** (Pg 221)
Available up to 327mm
long with 20 holes

VETERINARY INSTRUMENTATION

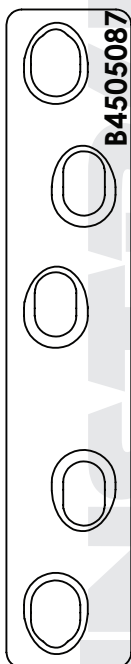
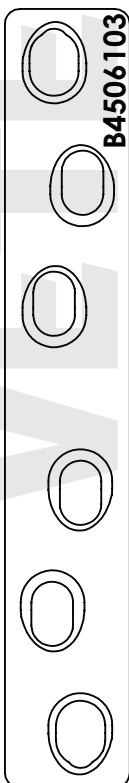
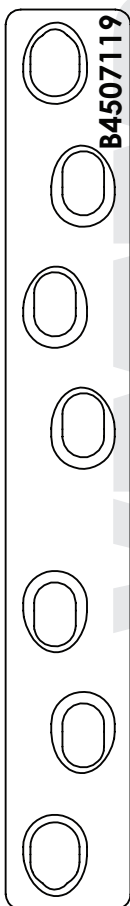
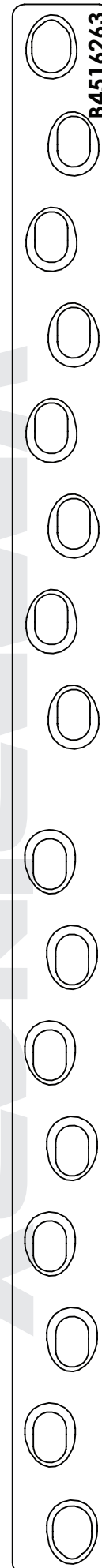
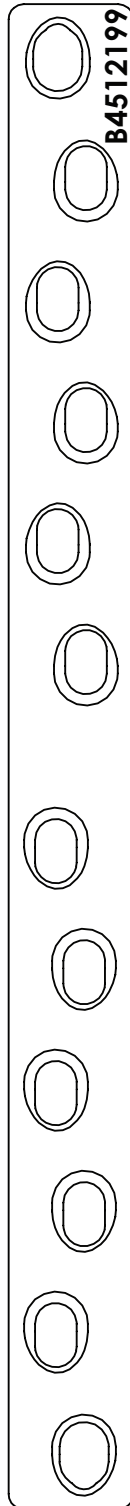
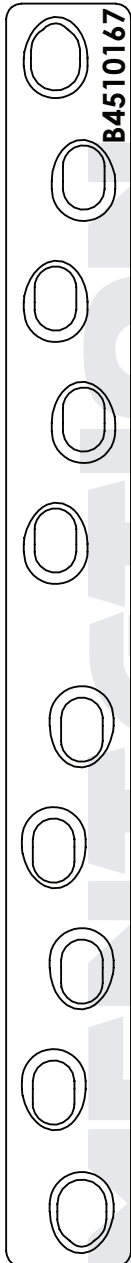
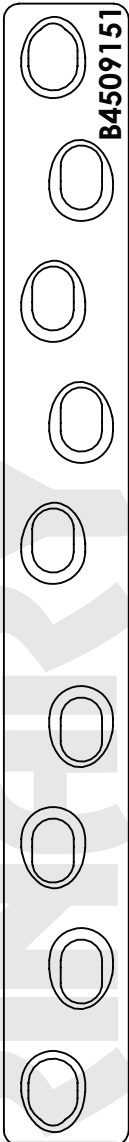
Broadfield Road,
Sheffield S8 0XL U.K.

Tel: 0845 130 9596

Fax: 0845 130 8687

E-mail: info@vetinst.com

Website: www.vetinst.com



**Broad 4.5mm
Compression Plates** (Pg 221)
Available up to 295mm
long with 18 holes

**VETERINARY
INSTRUMENTATION**

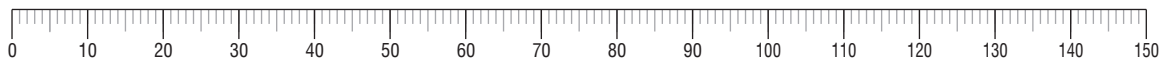
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Tel: 0845 130 9596

Fax: 0845 130 8687

E-mail: info@vetinst.com

Website: www.vetinst.com



4.5mm Biological Healing Plates (Pg 227)



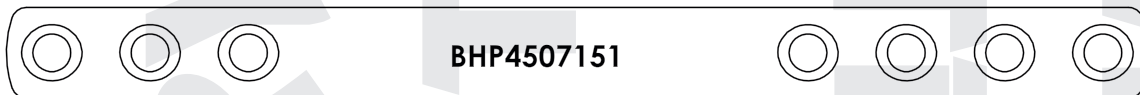
BHP4508176



BHP4507164



BHP4508163



BHP4507151



BHP4508150



BHP4507138

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2.0mm Stacked Hole Locking Plates (Pg 256)



LPSH201485



Reverse Detail



LPSH201379



LPSH200425



LPSH201273



LPSH200531



LPSH201167



LPSH200637



LPSH201061



LPSH200743



LPSH200955



LPSH200849

Cuttable Malleable Locking Plates (Pg 259)



CM20LOCK



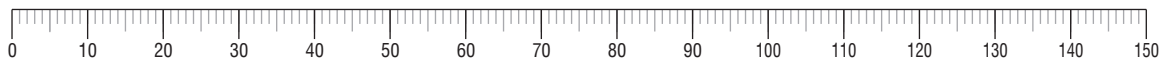
CM24LOCK ***NEW***



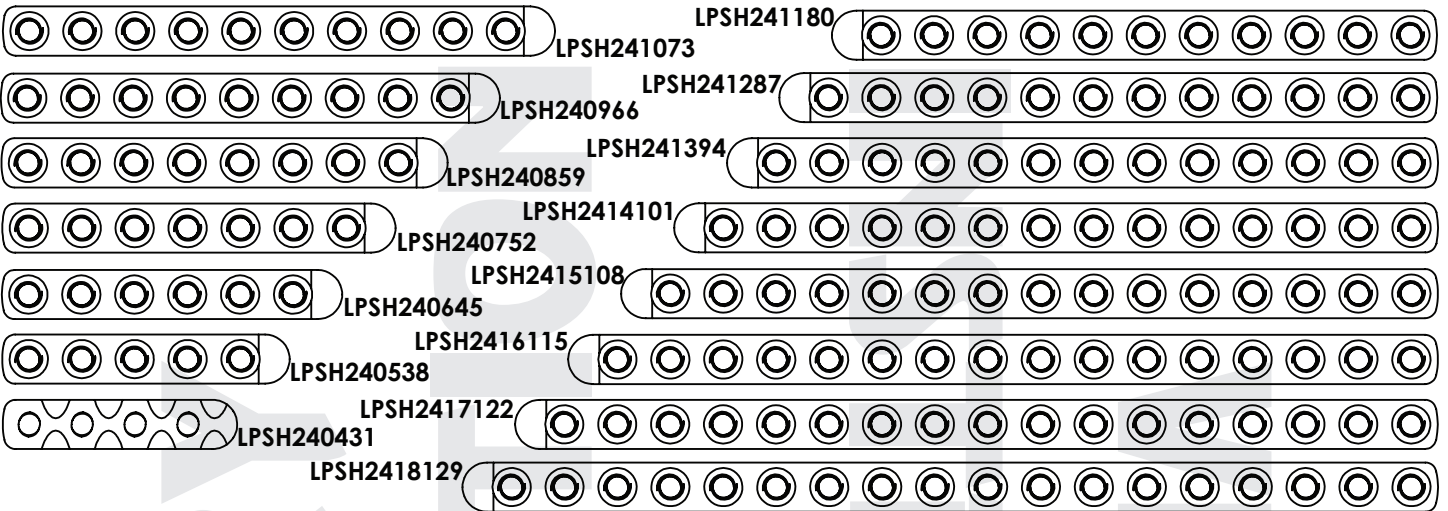
CM27LOCK*NEW*



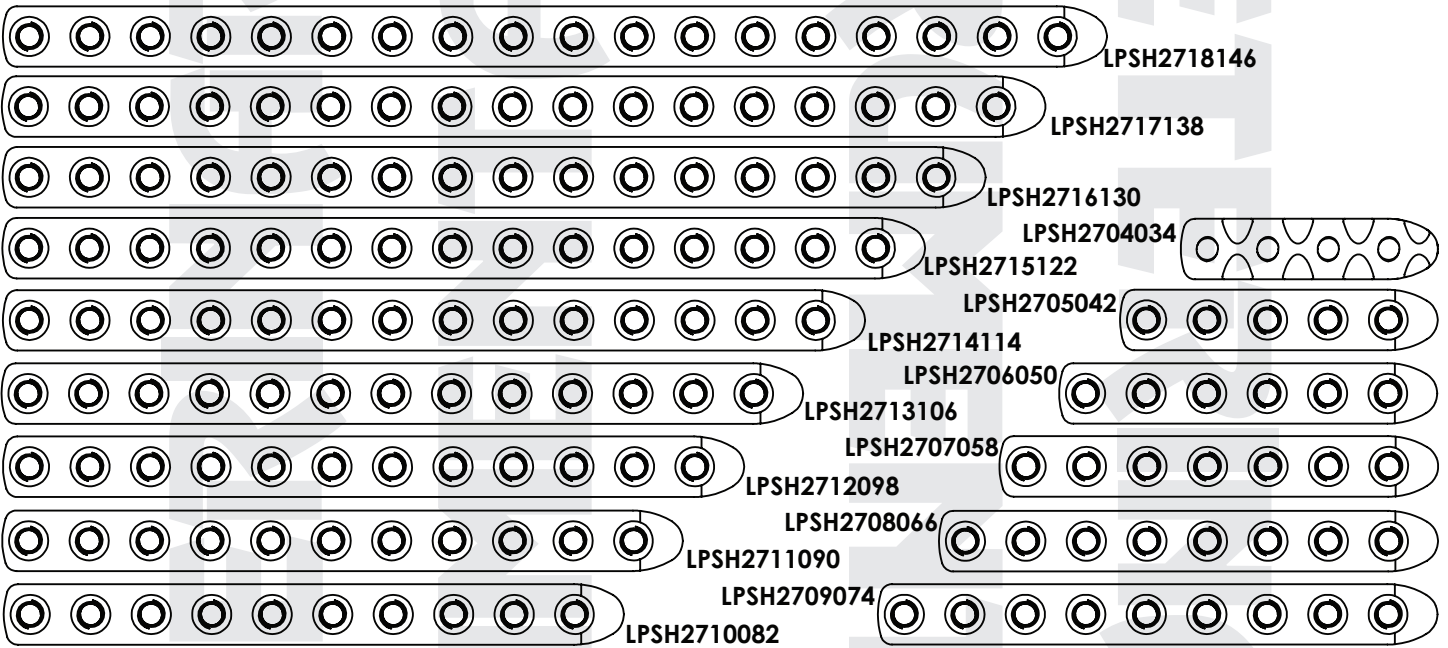
CM35LOCK ***NEW***
15 Holes X 205.5mm Long



2.4mm Stacked Locking Hole Plates (Pg 256)

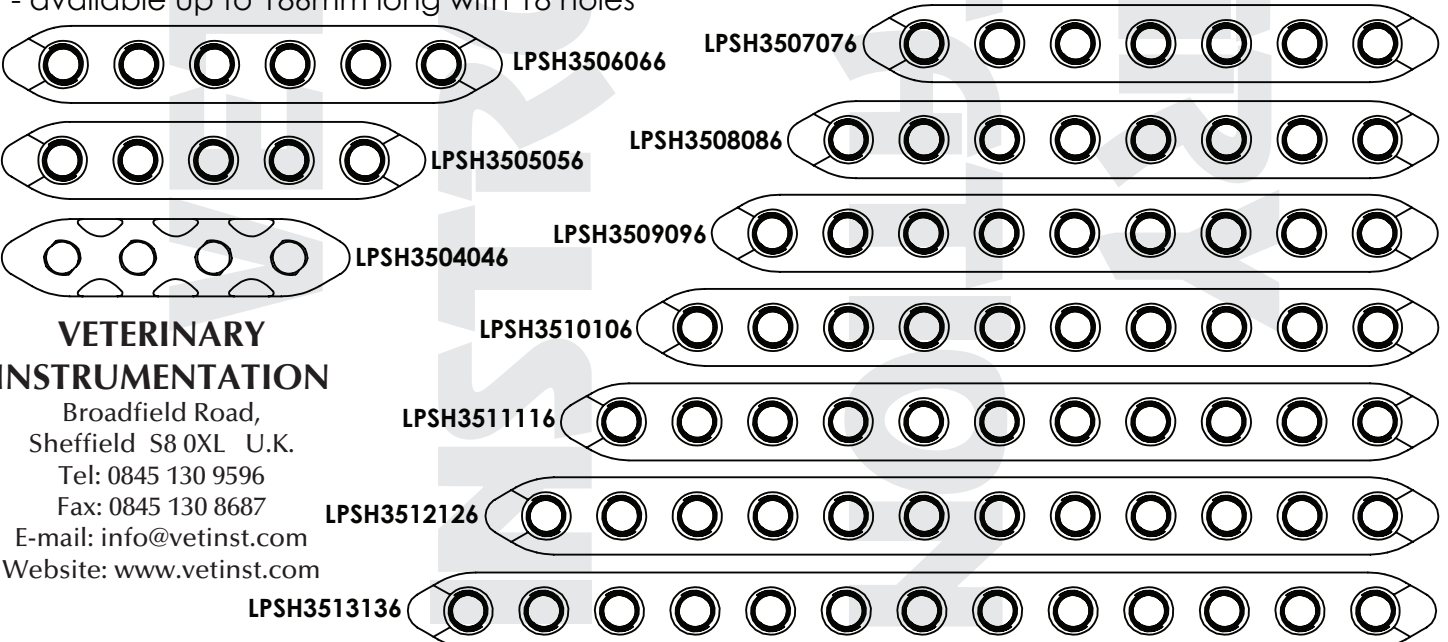


2.7mm Stacked Locking Hole Plates (Pg 257)



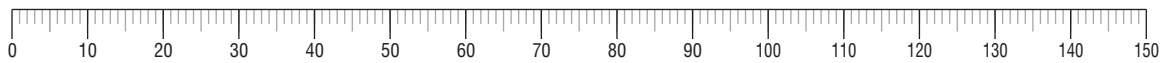
3.5mm Stacked Locking Hole Plates (Pg 257)

- available up to 186mm long with 18 holes



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Cutttable Plate Range (Pg 226)

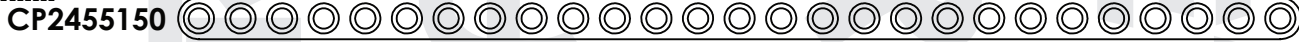
1.5mm



2.0mm



2.4mm



2.7mm



3.5mm



1.5mm



2.0mm



2.4mm



2.7mm



3.5mm



2.0mm



2.4mm



2.7mm



VCP202427 (2.0/2.4/2.7, 1.2mm thick, 300mm long, 50 holes)/VCP202427B, 2.0mm thick, 300mm long, 50 holes

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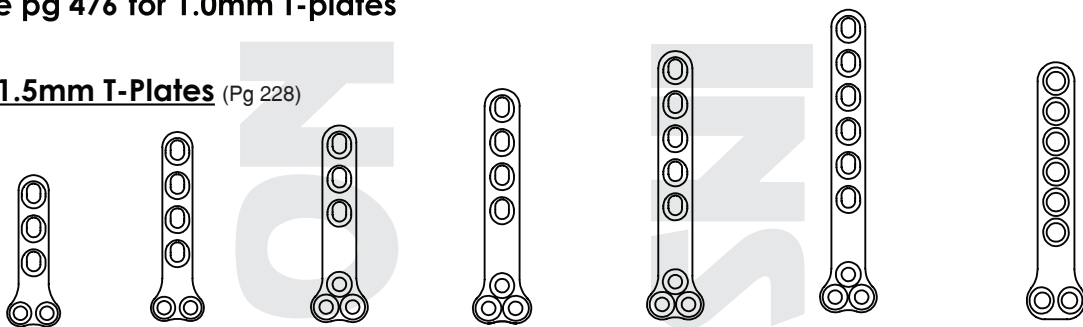
Website: www.vetinst.com

PLEASE NOTE THAT PLATE PROFILES ARE ACTUAL SIZE YOU WILL NEED TO COMPENSATE FOR X-RAY MAGNIFICATION - PROFILES FOR GUIDANCE ONLY PLATES MAY BE AMENDED AT ANY TIME



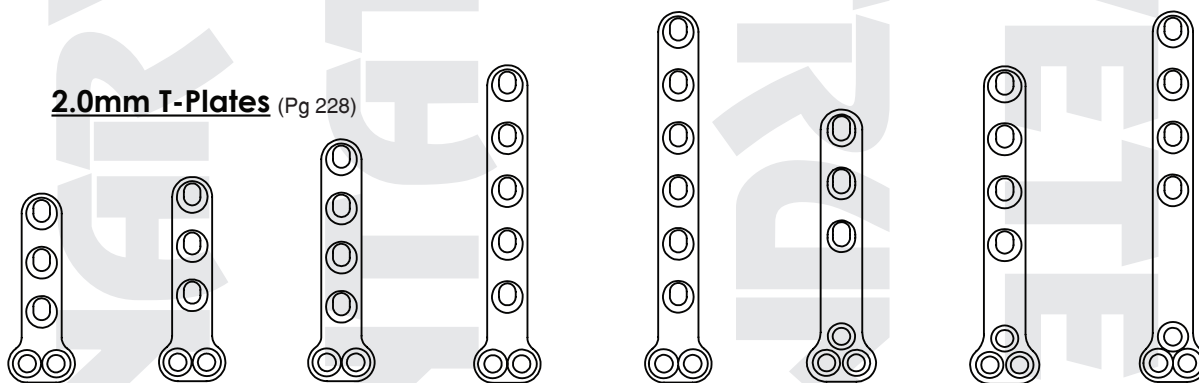
Also see pg 476 for 1.0mm T-plates

1.5mm T-Plates (Pg 228)

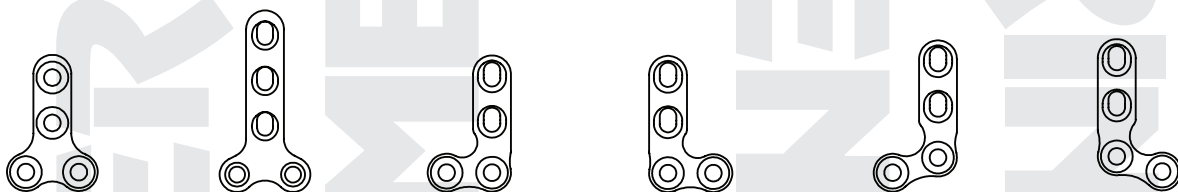


T151520 T151525 T1515626 T1515731 T1515836 T1515940 T152034 (1.5/2.0 hybrid)

2.0mm T-Plates (Pg 228)



T202025 T202027 T202032 T202042 T202050 T2020636 T2020742 T2020750



TC204018 TC205024 TR204018 TL204018 OR204018 OL204018

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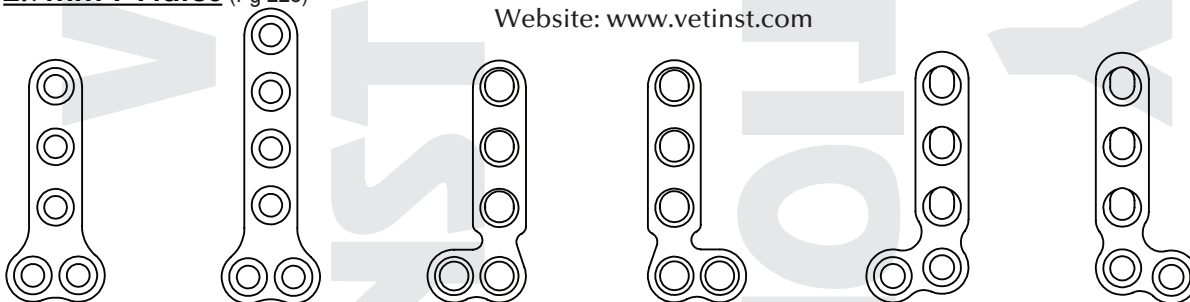
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E-mail: info@vetinst.com

Website: www.vetinst.com

2.7mm T-Plates (Pg 228)

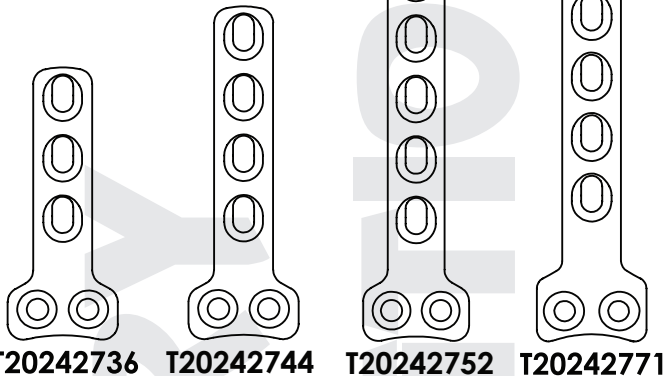


TC270532 TC270639 TR270532 TL270532 OR270532 OL270532



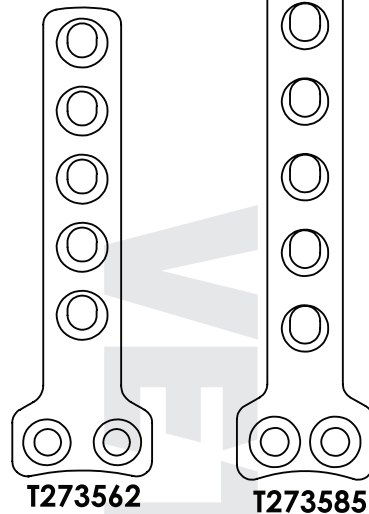
2.0/2.4/2.7mm Hybrid T-Plates

(Pg 229)



T20242736 T20242744 T20242752 T20242771

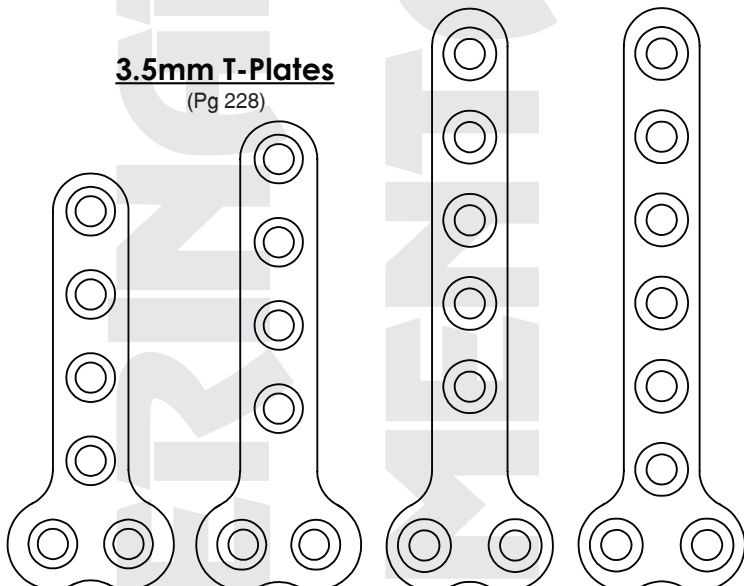
2.7/3.5mm Hybrid T-Plates (Pg 229)



T273562 T273585

3.5mm T-Plates

(Pg 228)



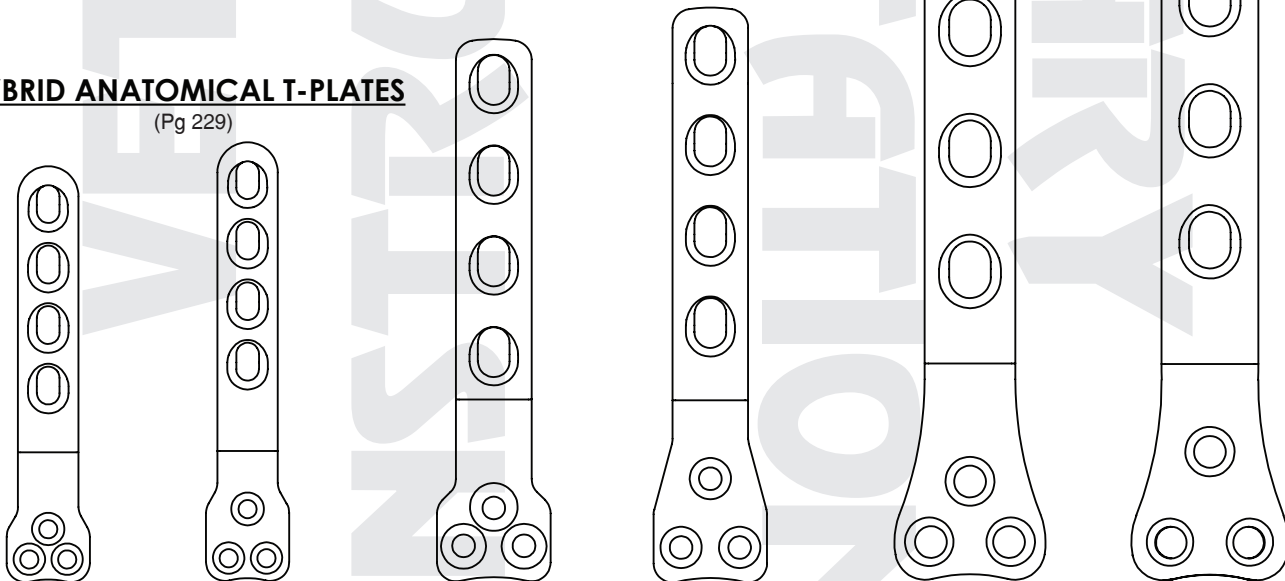
TC350655 TC350662 TC350777 TC350877

VETERINARY INSTRUMENTATION

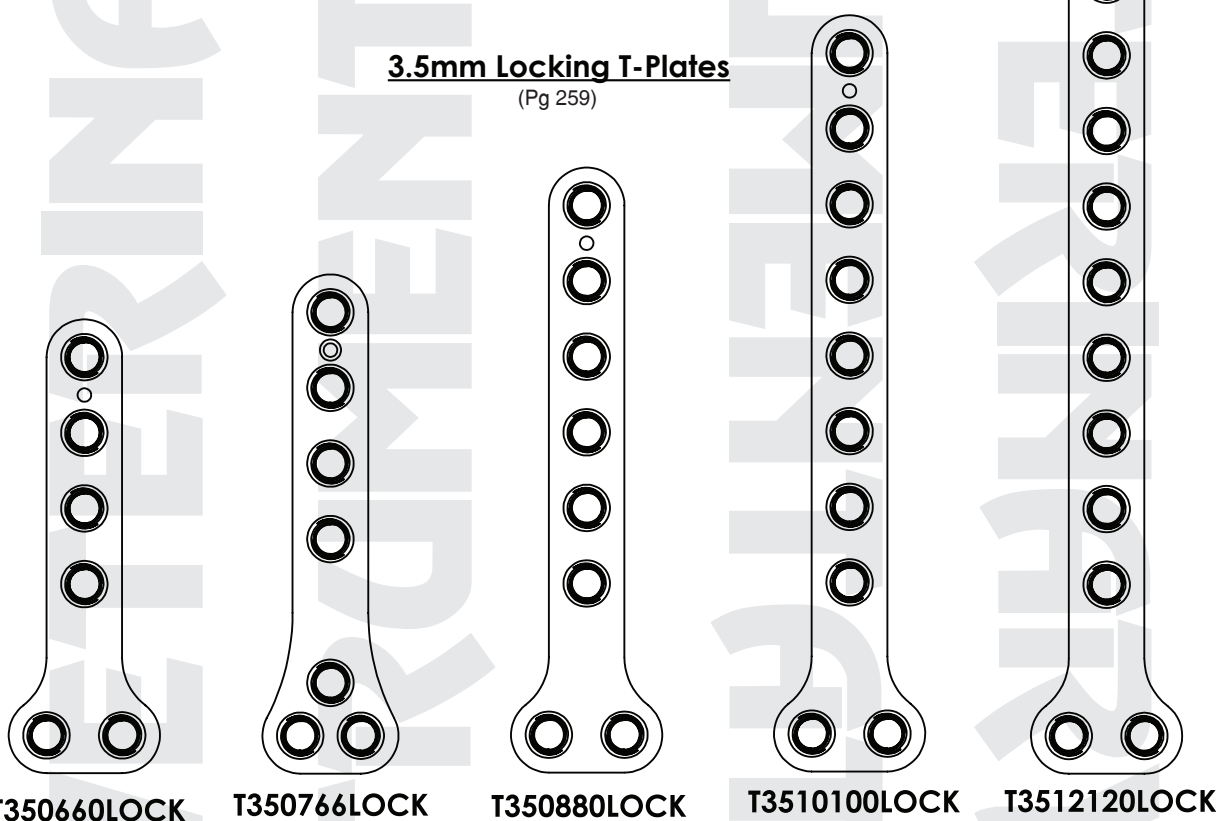
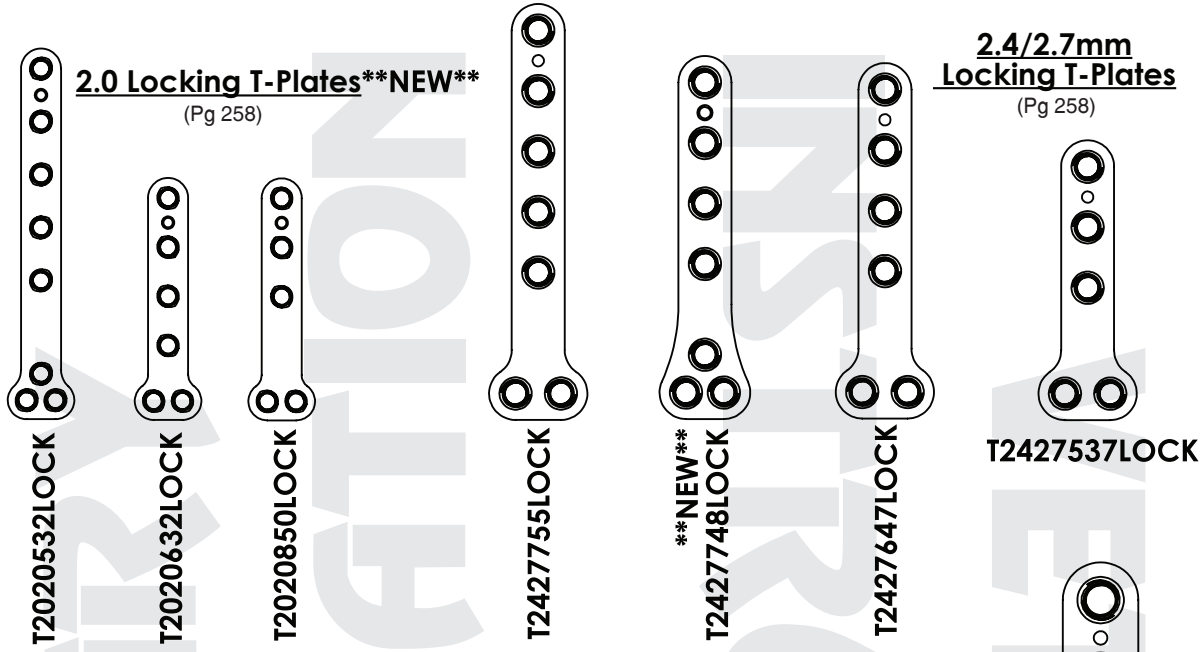
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HYBRID ANATOMICAL T-PLATES

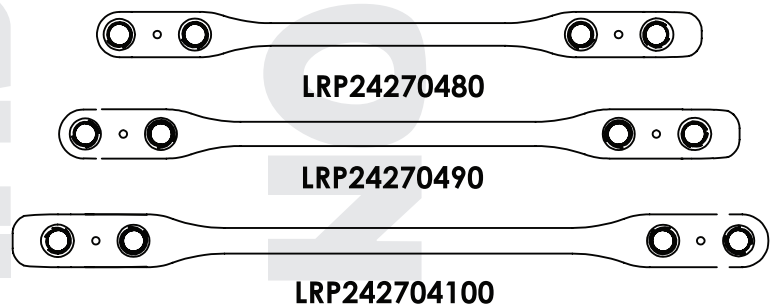
(Pg 229)



T2027755 (2.0/2.7mm) T2027758NEW** (2.0/2.7mm) T273572 (2.7/3.5mm) T273576**NEW** (2.7/3.5mm) T3545795 (3.5/4.5mm) T3545799**NEW** (3.5/4.5mm)**



LokRod™ Plates (Pg 260)

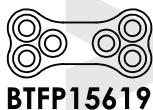


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Butterfly Plates (Pg 231)

1.5mm



2.0mm



2.4mm

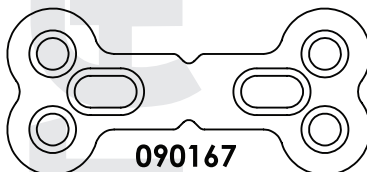


2.7mm



* Marked plates available with Locking Feature

TPO Plates (also see other patterns Ch 1)

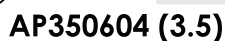
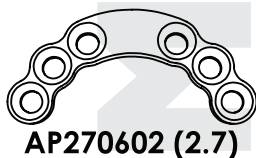
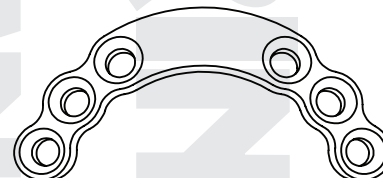
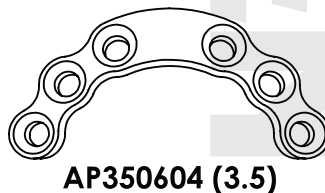
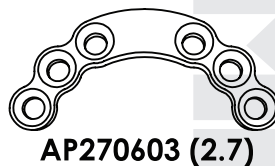
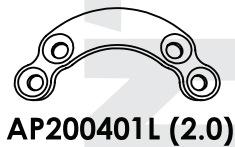


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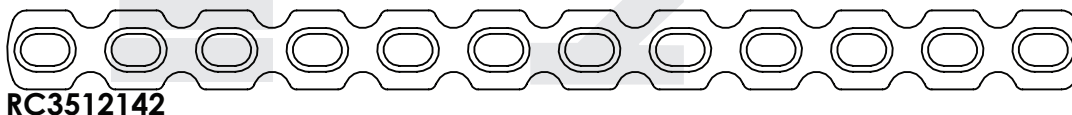
E-mail: info@vetinst.com
Website: www.vetinst.com

Acetabular Plates



Reconstruction Plates (Pg 226)

2.7mm 7,9,11 Hole Plates also available (not shown)



3.5mm



10 and 11 Hole also available (not shown).



1.0mm Series (Pg 212)

C100210

C100314

C100418

C100522

C100626

C100730

C100834

C100938

C101042

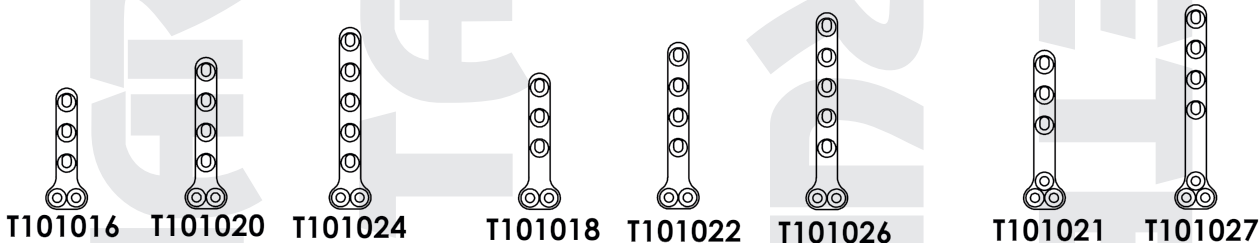
CM10390

CP10390

CP1039027

CP10491

CP1049120



Intertarsal Arthrodesis (Pg 235)

152925 (2.7/3.5)

152921 (2.7/3.5)

152922 (2.7/2.7)

152920 (2.0/2.7)

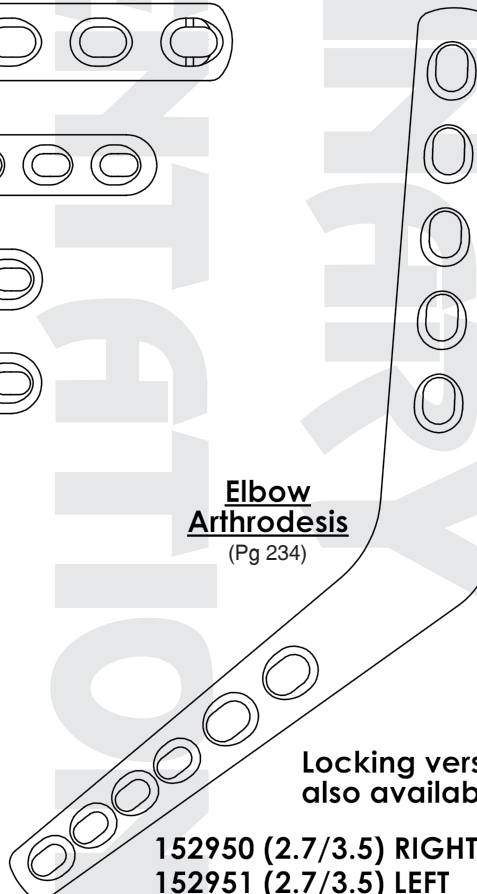
****NEW****

152920SC (2.0/2.7)

152923 (2.0/2.0)

152924 (1.5/2.0)

Elbow Arthrodesis
(Pg 234)



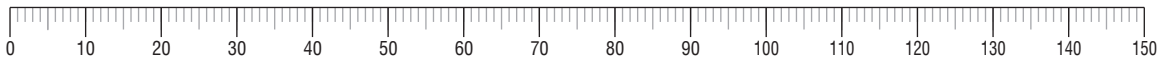
Locking version also available.

152950 (2.7/3.5) RIGHT
152951 (2.7/3.5) LEFT

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**Medial
Pantarsal
Arthrodesis**
(Pg 236)

**152917-T4 (Left)
152918-T4 (Right)
2.0/2.7mm**

****NEW**
152964-T4 (Left)
152965-T4 (Right)
2.0/2.7mm**

**152915-T4 (Left)
152916-T4 (Right)
2.0/2.7mm**

****NEW**
152962-T4 (Left)
152963-T4 (Right)
2.0/2.7/3.5mm**

**152913-T4S (Left)
152914-T4S (Right)
2.7/3.5mm**

**152913-T4 (Left)
152914-T4 (Right)
2.7/3.5mm**

**152960-T4 (Left)
152961-T4 (Right)
2.7/3.5/4.5mm**

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INSTRUMENTATION**

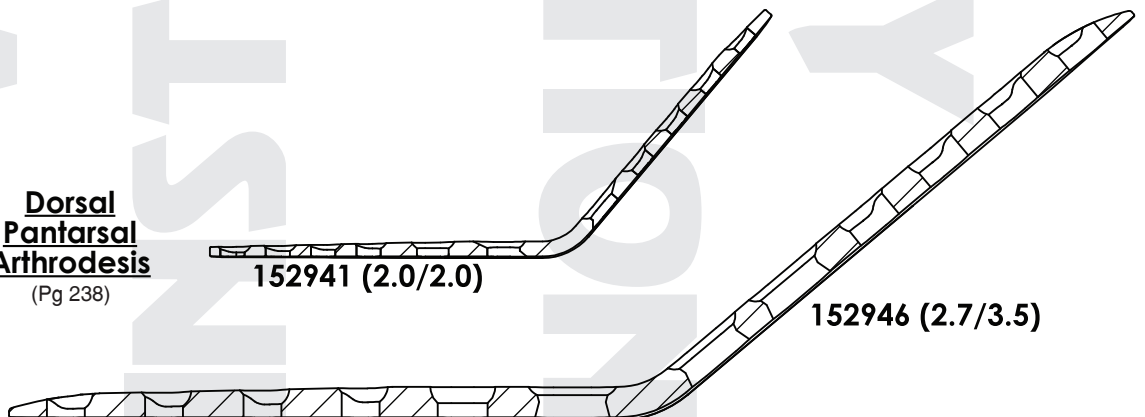
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Fax: 0845 130 8687
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Website: www.vetinst.com

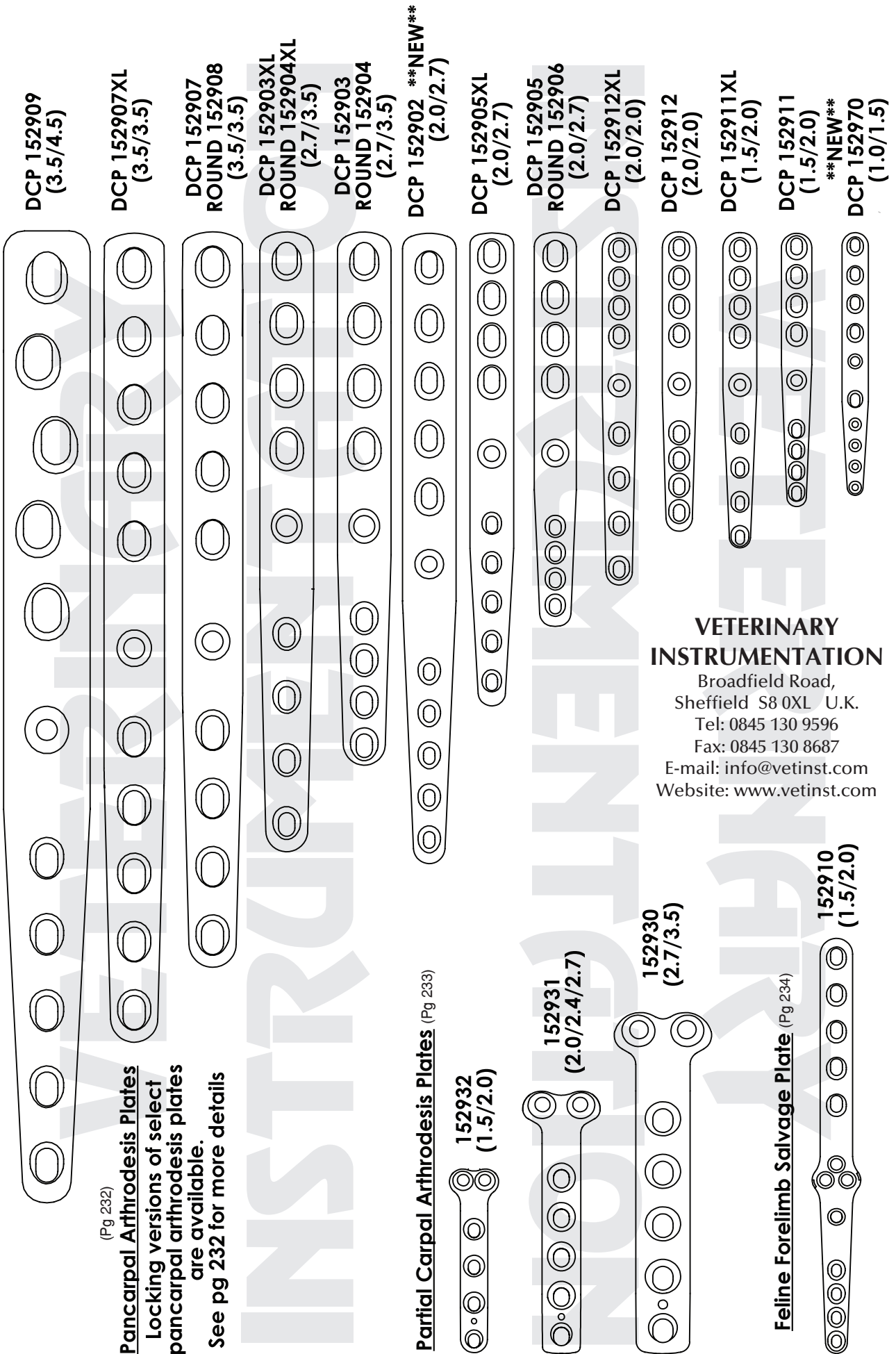
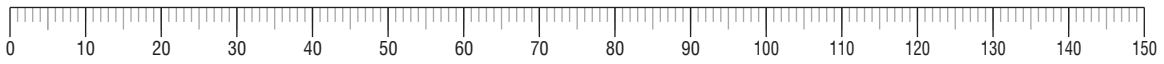
**Medial pantarsal arthrodesis plates
also available without the T4 slot
For these, drop T4 from the code.**

**Dorsal
Pantarsal
Arthrodesis**
(Pg 238)

152941 (2.0/2.0)

152946 (2.7/3.5)





DCP 152909
(3.5/4.5)

DCP 152907XL
(3.5/3.5)

DCP 152907
ROUND 152908
(3.5/3.5)

DCP 152903XL
ROUND 152904XL
(2.7/3.5)

DCP 152903
ROUND 152904
(2.7/3.5)

DCP 152902 ****NEW****
(2.0/2.7)

DCP 152905XL
(2.0/2.7)

DCP 152905
ROUND 152906
(2.0/2.7)

DCP 152912XL
(2.0/2.0)

DCP 152912
(2.0/2.0)

DCP 152911XL
(1.5/2.0)

DCP 152911
(1.5/2.0)

****NEW****

DCP 152970
(1.0/1.5)

(Pg 232)

Pancarpal Arthrodesis Plates
Locking versions of select
pancarpal arthrodesis plates
are available.
See pg 232 for more details

Partial Carpal Arthrodesis Plates (Pg 233)

152932
(1.5/2.0)

152931
(2.0/2.4/2.7)

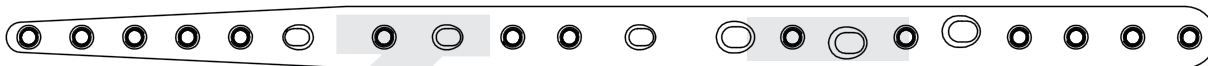
152930
(2.7/3.5)

Feline Forelimb Salvage Plate (Pg 234)

152910
(1.5/2.0)

VETERINARY INSTRUMENTATION

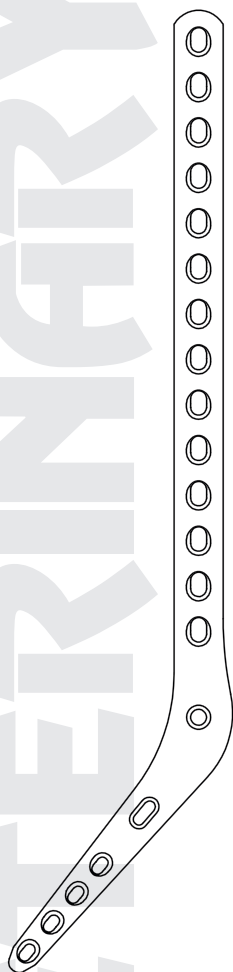
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Fax: 0845 130 8687
E-mail: info@vetinst.com
Website: www.vetinst.com



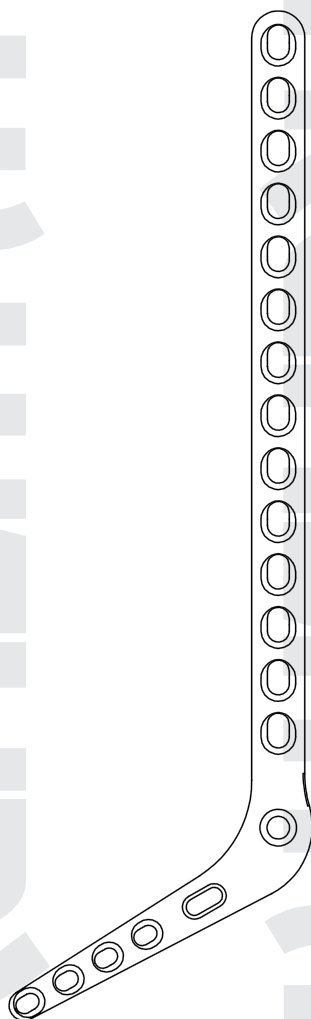
DCP 152980 (3.5 locking/2.7/3.5/4.5) NOTE: Scale 1:2
(Pg 233)



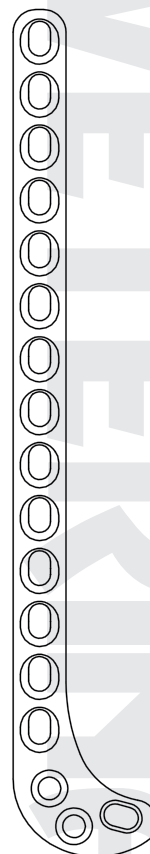
152903XXL (2.7/3.5) NOTE: Scale 1:2
(Pg 233)



**152913-T4XL (Left)
152914-T4XL (right)
2.7/3.5mm
NOTE: Scale:1:2**
(Pg 237)



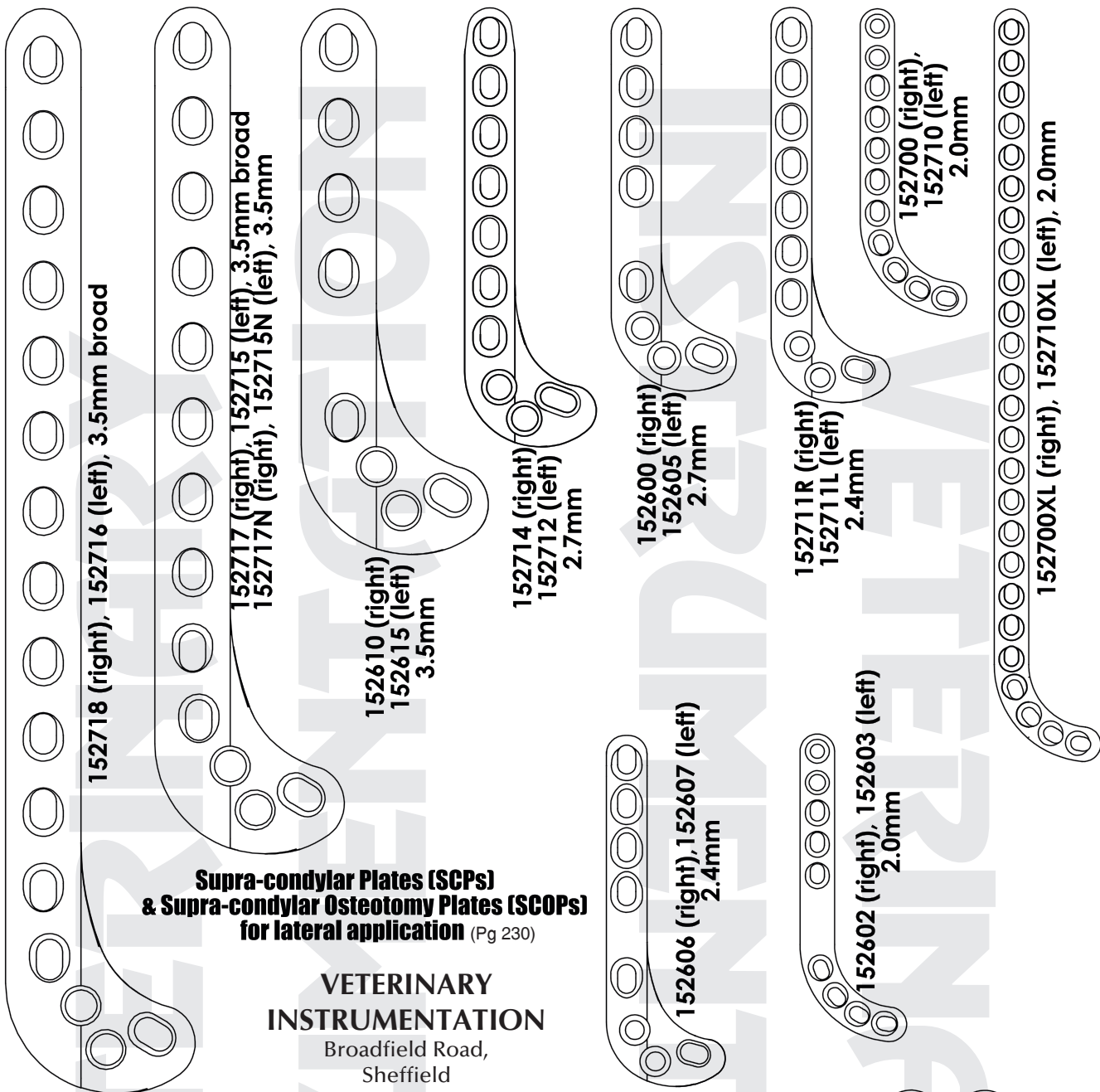
**152917-T4XL (Left)
152918-T4XL (Right)
2.0/2.7mm
NOTE: Scale 1:1**
(Pg 237)



**152711R (Right)
152711L (Left)
2.4mm
NOTE: Scale 1:1**
(Pg 230)

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**Supra-condylar Plates (SCPs)
& Supra-condylar Osteotomy Plates (SCOPs)
for lateral application** (Pg 230)

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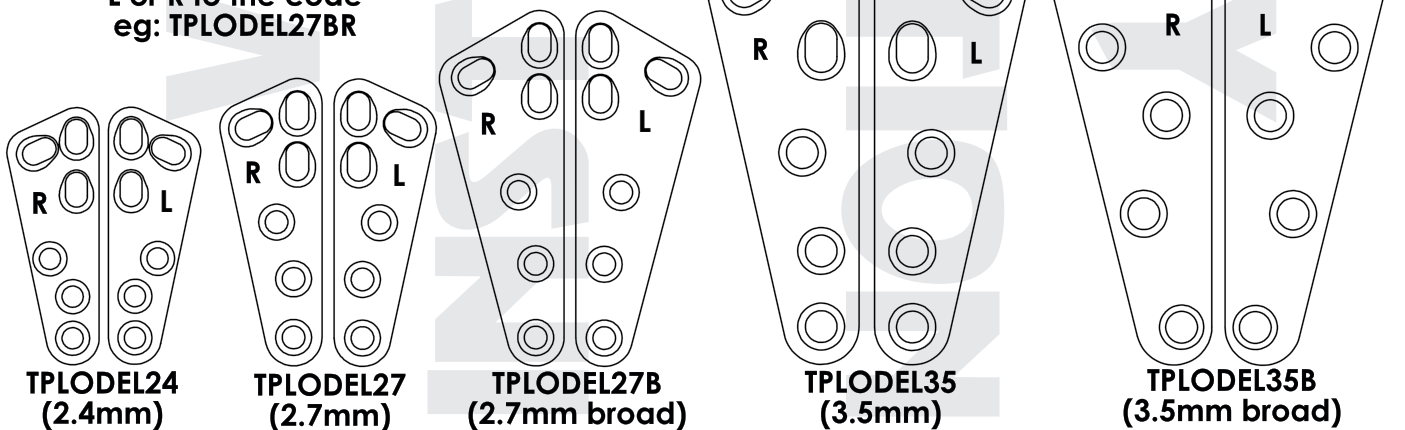
Fax: 0845 130 8687

E-mail: info@vetinst.com

Website: www.vetinst.com

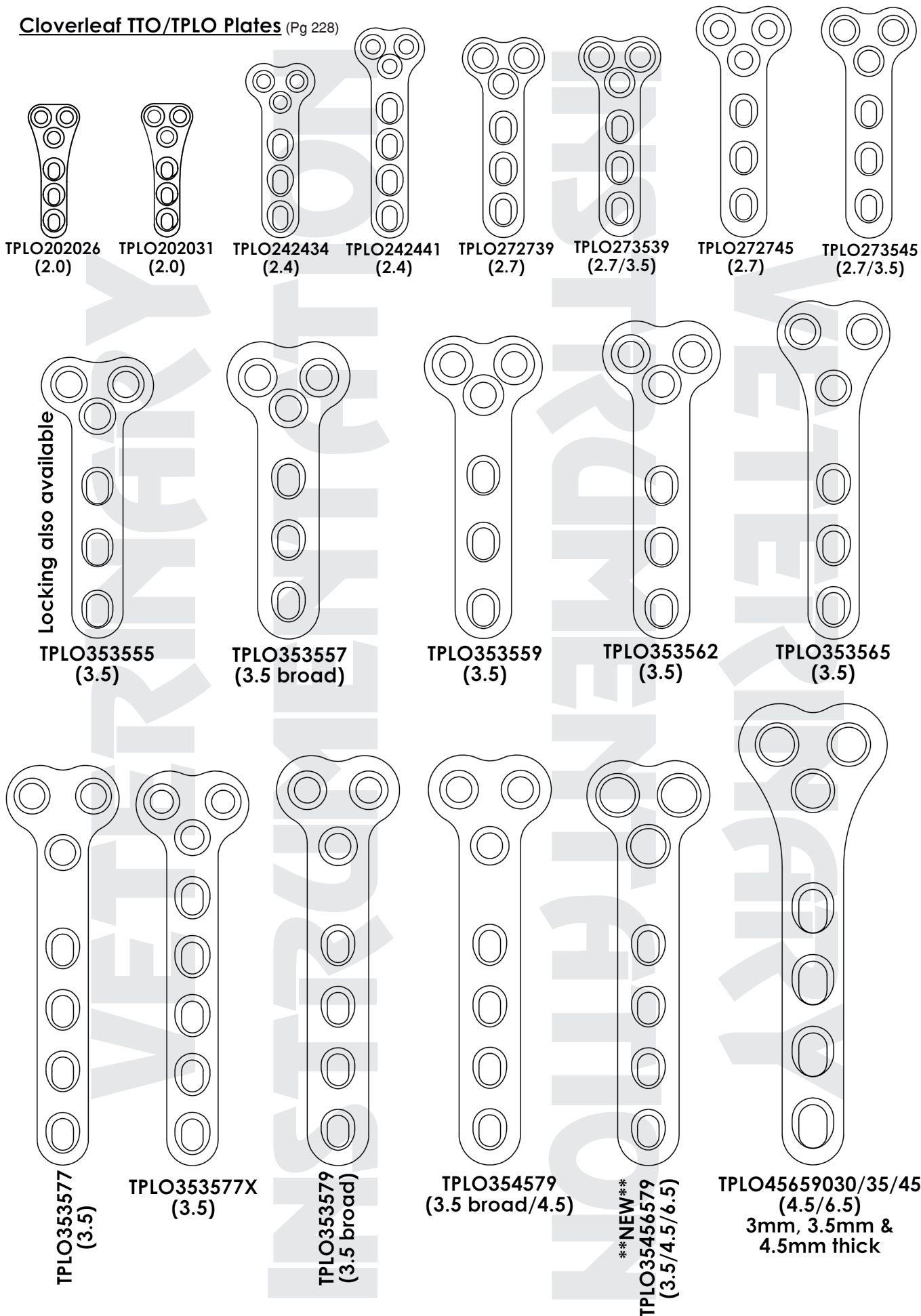
(Pg 66)

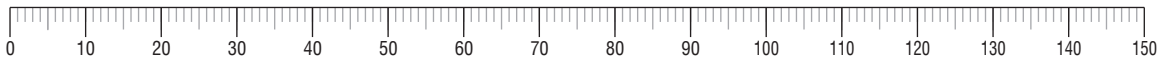
DELTA TPLO PLATES
for L/R, please add
L or R to the code
eg: TPLODEL27BR



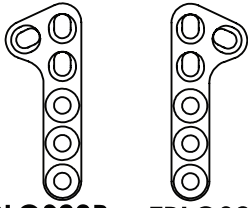


Cloverleaf TTO/TPLO Plates (Pg 228)





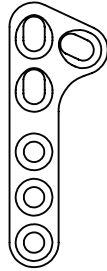
Slocum Style TPLO Plates (Pg 66)



TPLOS20R
(2.0) **TPLOS20L**
(2.0)



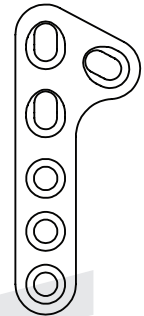
TPLOS24R
(2.4)



TPLOS24L
(2.4)



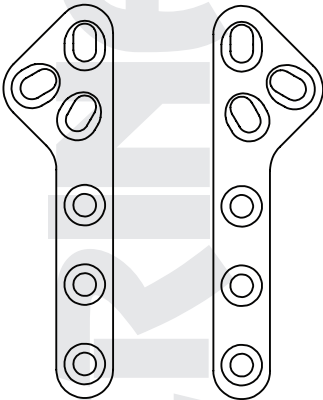
TPLOS27R
(2.7)



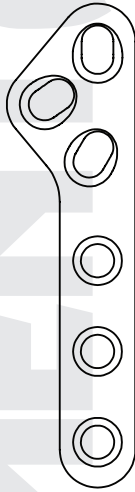
TPLOS27L
(2.7)

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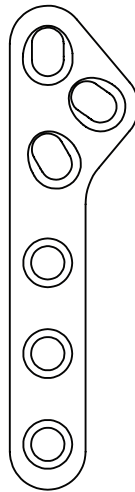
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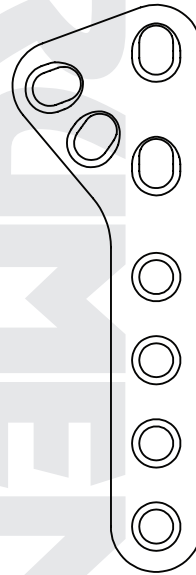
TPLOS27BR
(2.7 broad) **TPLOS27BL**
(2.7 broad)



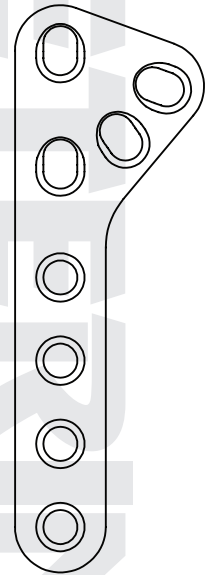
TPLOS35R
(3.5)



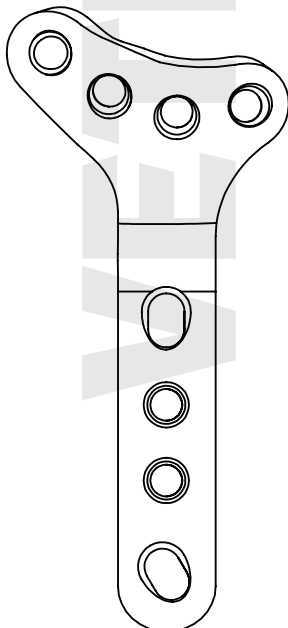
TPLOS35L
(3.5)



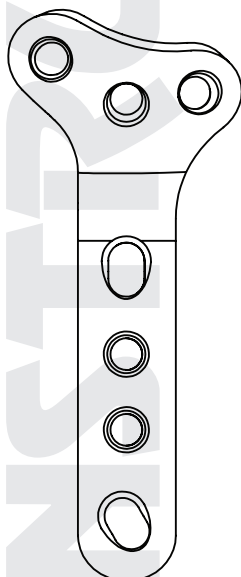
TPLOS35BR
(3.5 broad)



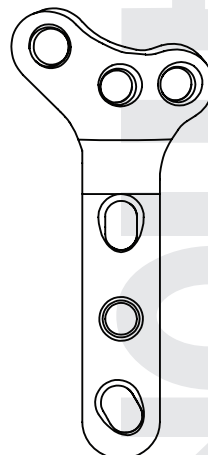
TPLOS35BL
(3.5 broad)



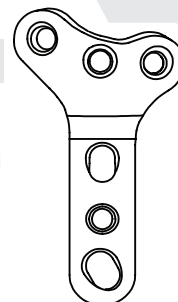
TPLO35BLPCR
(3.5 broad)



TPLO35MLPCR ****NEW****
(3.5)



TPLO35LPCR
(3.5)

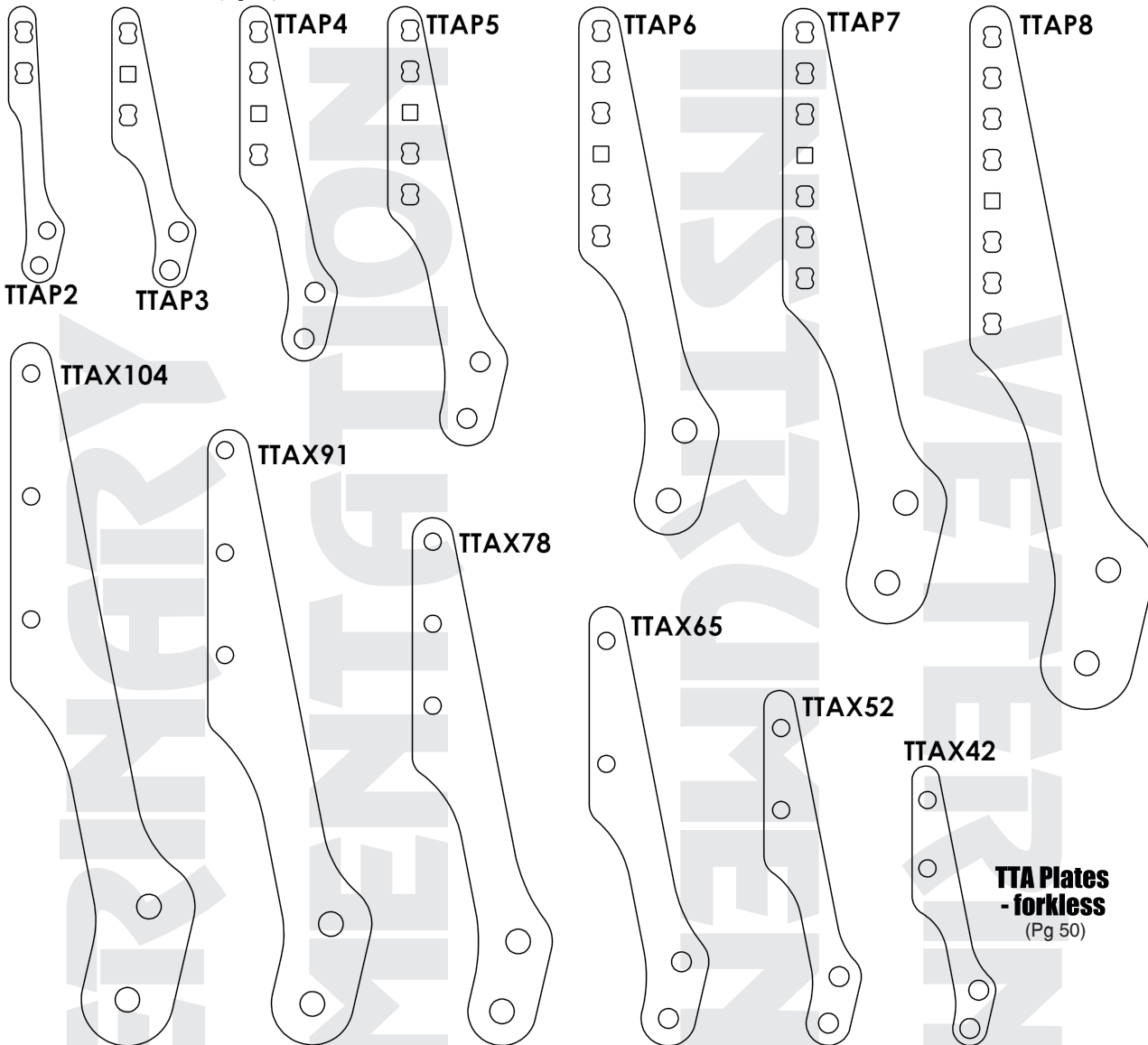


TPLO27LPCR
(2.7)

Locking TPLO Plates (Pg 64)



TTA Plates - forked (Pg 48)

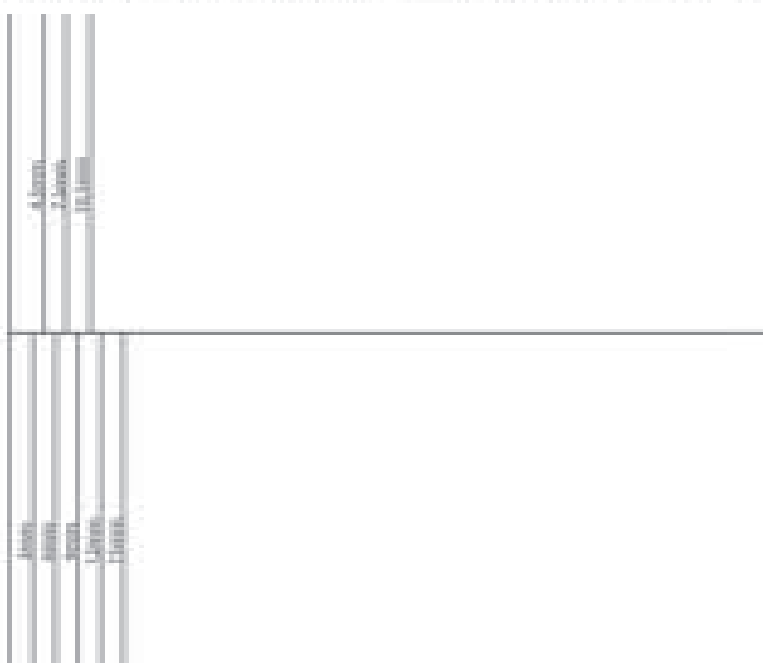
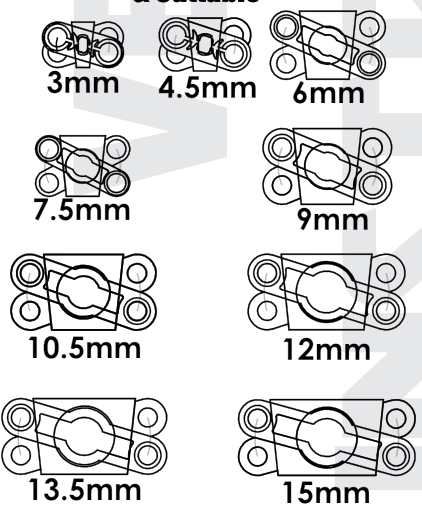


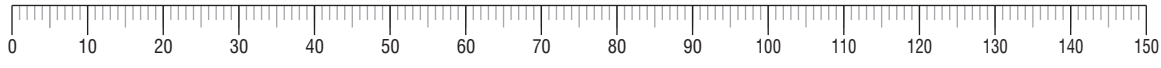
TTA Plates - forkless
(Pg 50)



(Pg 48)

TTA Cages - Standard & Cuttable





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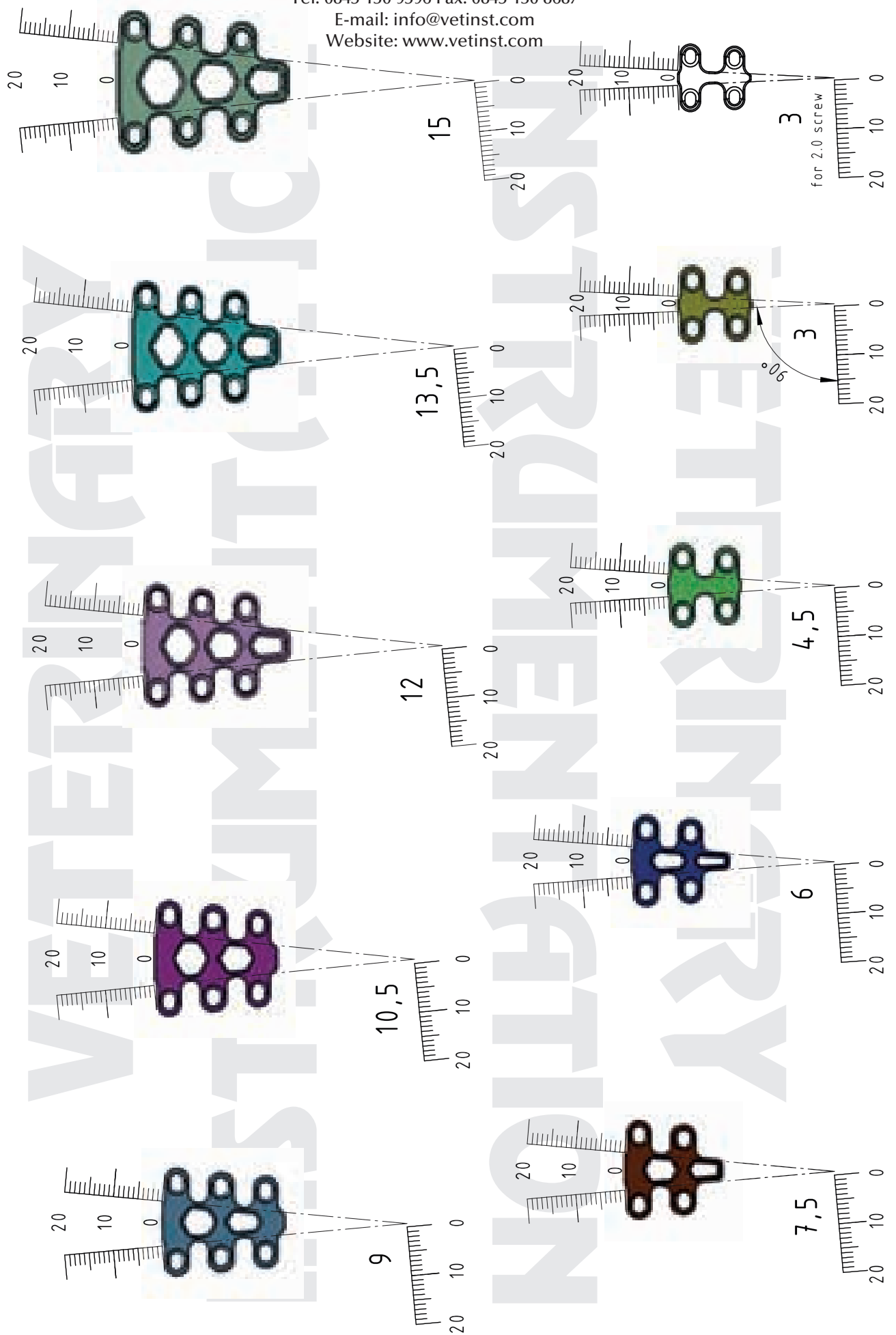
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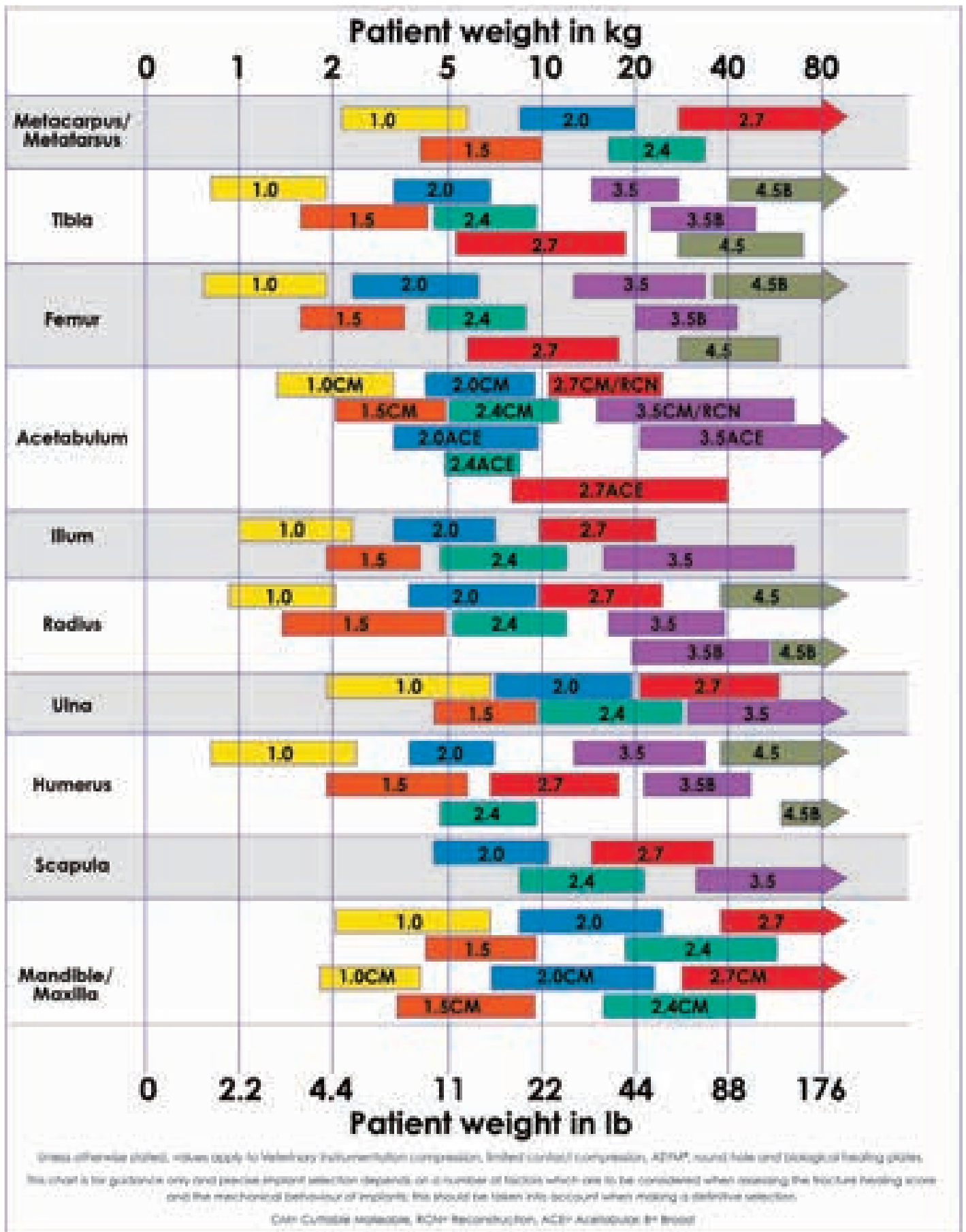
Rev.06-d

Template - TTA Rapid (Pg 55)



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Plate Selection Chart



Notes

A series of horizontal dotted lines for writing notes.

Notes

A series of horizontal dotted lines for writing notes.



Returns Form

Please complete the relevant section below. Invoice or sales order numbers will help us process your return accurately.

REMEMBER we can only accept unwanted items for credit which are in re-saleable condition. Implants should be repacked into the original bags they were supplied in. We reserve the right to return items to you which are not fully suitable for re-sale.

Account Number / Post Code	<input type="text"/>	Practice Name	<input type="text"/>
Contact Name	<input type="text"/>	Date of return	<input type="text"/>

Unwanted items							
Return code 1				Reason for return			
Invoice number	VI Order Number	Product Code	Brief description	Return qty	Not needed	Ordered in error	Not as expected

Incorrect items							
Return Codes				Reason for return (please tick below)			
		3- Order incorrect	4- Order correct, wrong item in bag	5- Item on invoice, missing from pack			
Invoice number	VI Order Number	Product Code	Brief description	Return qty	Code 3	Code 4	Code 5

Faulty Items							
Return code 6				Reason for return			
Invoice number	VI Order Number	Product Code	Brief description	Return qty	Description of fault		

Notes/ Comments



Repair Request Form

Please complete the details below. A good description of the fault will help us deal with your request accurately

REMEMBER all items for repair must be clean and sterilized if possible before return. Please complete the decontamination certificate section below.

Account Number / Post Code Practice Name
Contact Name Phone no Date sent

<i>Office use only</i>	<i>Date rec</i>	<input type="text"/>	<i>Repair No</i>	<input type="text"/>
<i>VI Staff member</i>		<input type="text"/>	<input type="text"/>	<input type="text"/>

Description of item returned for repair. Please include any serial number

Description of fault

Is a quotation require before repair? YES?NO

Decontamination Certificate

The items returned for repair as detailed above have been thoroughly cleaned to remove all biological and other contamination before submission for repair, and have been sterilised by the method indicated below

Autoclave @ 135 degrees	<input type="text"/>	Name <input type="text"/>
Autoclave at 121 degrees extended time	<input type="text"/>	
Ethylene oxide	<input type="text"/>	
		Signature <input type="text"/>

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Plates and Screws Fax Order Form

Postcode and Practice Name.....

Name..... Telephone No..... Order Ref.....

Cortical Screws

	1.5mm Cortical	1.5mm Cortical Self Tap	2.0mm Cortical	2.0mm Cortical Self Tap	2.4mm Cortical Self Tap	2.7mm Cortical	2.7mm Cortical Self Tap
6mm							
8							
10							
12							
14							
16							
18							
20							
22							
24							
26		n/a					
28		n/a					
30		n/a					
32		n/a					
34		n/a					
36	n/a	n/a	n/a				
38	n/a	n/a	n/a				
40	n/a	n/a	n/a				

n/a – not available

	3.5mm Cortical	3.5mm Cortical Self Tap
10mm		
12		
14		
16		
18		
20		
22		
24		
26		
28		
30		
32		
34		
36		
38		
40		
45		
50		
55		
60		

Compression Plates (DCP)

Hole	1.5/2.0	2.4mm	2.7mm	3.5mm
2	n/a	n/a		
3	n/a	n/a	n/a	
4				
5				
6				
7				
8				
9				
10				
12				
14				
16	n/a	n/a		

Additional Items

Please state Product Code, Description and Quantity

Standard terms and conditions apply (see catalogue for details)



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**No
Minimum
Order**



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