

Arthroscopy is common in human orthopaedics, and growing in fast in the veterinary field.

We stock a range of products, and we can help you access more. We work with Arthrex - who are very active in human joint arthroscopy - to provide high quality equipment. Training is also available. Whatever help you need with a set-up, please contact us.

From time to time we can also get good deals on ex demo systems.

Dr Fritz is a long-standing supplier of veterinary arthroscopy equipment, in a good range of sizes chosen with veterinary patients in mind. As always, if you have any questions please contact us here at Vi.

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 debrided 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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7. Ralphs, S. C. and Whitney, W. O. (2002) Arthroscopic evaluation of menisci in dogs with cranial cruciate ligament injuries: 100 cases (1999- 2000). *Journal of American Veterinary Medical Association* 11, 1601-1604
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13. Van Ryssen, B. and Van Bree, H. (1993) Elbow Arthroscopy in clinically normal dogs. *American Journal of Vet Research* 54, 191- 198
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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
AR-3210-000I	SYNERGY HD3 Camera Head
AR-3200-000IT	SYNERGY HD3 Console with Tablet and Turret
AR-5995SAT	Arm for Tablet
UP-DR80MD	Colour Printer Digital Medical Sony
61529	Lancom L-320agn Wireless Access Point Router
AR-5995SAS-FP30	Articulating Arm 300 + 350mm
AR-3250-2606	Arthrex SYNERGY Standard Display 26"

A number of ex-demonstration Synergy systems consisting of the items as listed in the new section. These will have been used in a handful of training courses, and represent extremely good value at £17,753.00 + VAT. Contact Vi for availability.

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

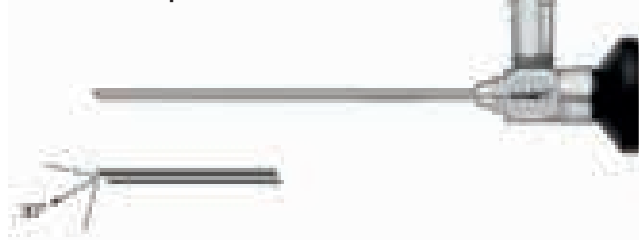
All arthroscopes are now available in autoclavable versions. Autoclaving, especially of fine arthroscopes, will significantly reduce the working life of the instrument. Autoclavable arthroscopes may be soaked and we recommend this method of sterilisation to preserve your arthroscope. If your arthroscope 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.

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
- AR-3350-2770 2.7mm Arthroscope x 18cm 70 Degree
- AR-3370-2701 Sheath for 2.7mm Arthroscope - Single valve
- AR-3370-2702 Sheath for 2.7mm Arthroscope - Double valve
- AR-3375-2702 2.7mm Obturator Semi Sharp
- AR-3350-2430 2.4mm Arthroscope x 10.0cm, 30 Degree
- AR-3370-2401 2.4mm Sheath 3.2mm Dia x 8.5cm Working Length. 1 Stopcock
- AR-3370-2402 2.4mm Sheath 3.5mm Dia x 6.5cm Working Length. 2 Stopcock
- AR-3375-2401 2.4mm Obturator Blunt
- AR-3350-1930 1.9mm Arthroscope, 30 Degree
- AR-3370-1901 1.9mm Sheath
- AR-3375-1901 1.9mm Obturator Blunt
- AR-3375-1902 1.9mm Obturator Sharp
- BXS2506050 Arthroscope Sterilisation/ Storage Box 250 x 60 x 50mm

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
- 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)
- 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)



EGRESS CANNULA

- I-18-518** Egress Cannula, with Sharp Trochar Stopcock, ID:3mm, WL:7mm



Thanks to Noel Fitzpatrick for the photograph

For further information about the Arthroscopic Stifle Lever see page 228.

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
SI40-2438F	Target Instrument designed Dr.Lehmann for canine arthroscopy; comp.with SI10-1932
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 I 1cm 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

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



AR-17-13 Elevator, heavy, 2.7mm, with metal handle



AR-17-03S Bayonet Knife 2.7mm, with silicon handle



AR-17-05S Banana Knife 2.7mm, with silicon handle



AR-17-06S Curette 2.7mm, curved, with silicon handle



AR-17-07S Ring Curette 2.7mm, small, with silicon handle



AR-17-11S Meniscus Knife, Smillie, 2.7mm, with silicon handle

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

Use to pick area to encourage regeneration.



AR-17-19S Hook Knife 2.7mm, with silicon handle

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

Milling Drill designed by VAN RYSSSEN & VAN BREE



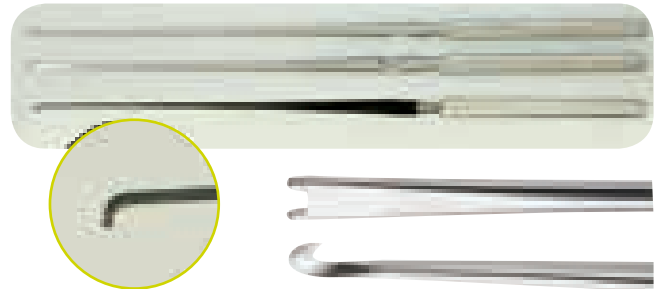
This hand driven bur allows curretage of both cartilage and bone through the smallest working cannula. Much cheaper and easier than shaver systems.

MILLING DRILL

- I-17-822** Milling Drill for arthroscopy complete
OD: 2.2mm, WL: 12cm
- I-17-821** Replacement Bur and Shaft

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
- AR-17-11X** Push Knife
- AR-17-10** Hook Probe 2.2mm, with Stainless Handle Black Shaft
- AR-17-SET** Arthroscopy Hand Instrument Set

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)
- AR-17-29** Gordon Coronoid Osteotome (2mm)

Suture Passing Wire



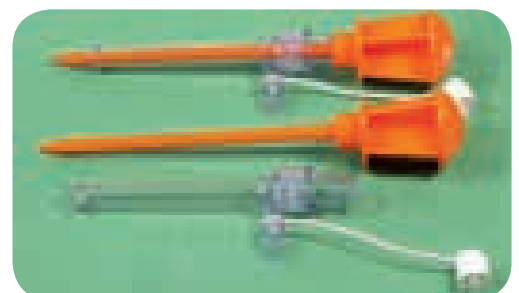
Passing soft suture material through bone tunnels of soft tissues without causing additional trauma can be a challenge to the surgeon. The Arthrex Suture Passing Wire consists of a Nitinol loop attached to a flexible yet stiff wire. The wire may be pushed through bone tunnels of soft tissues and as the 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

Crystal Cannula

Clear cannula has a lip at the tip to minimise 'fall out'.



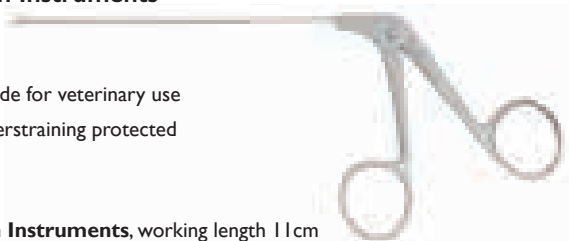
CRYSTAL CANNULA

- AR-6560** Crystal Cannula 5.75mm x 700mm (5 Pack)

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



- made for veterinary use
- overstraining protected

2.0mm Instruments, working length 11cm



AS-17-531 Mini Rongeur and Biopsy Forceps OD: 2.0mm



AS-17-551 Mini Punch for arthroscopy, OD: 2.0mm



AS-17-521 Mini Scissor for arthroscopy OD: 2.0mm

2.2/ 2.7mm Instruments



AT-19-231 Mini Rongeur - High performance 2.2mm / 2.7mm 11cm

2.7mm Instruments

2.7mm Instruments, working length 12cm



AS-17-662 Alligator Grasping Forceps with Ratchet OD: 2.7mm with overstraining protection



AS-17-632 Universal Rongeur and Grasping Forceps Fenestrated OD: 2.7mm with overstraining protection



AS-17-641 Biopsy and Spoon OD: 2.7mm with overstraining protection



AS-17-672 Arthroscopic Punch OD: 2.7mm with overstraining protection



AS-17-621 Arthroscopic Hook Scissors, OD: 2.7mm

3.4mm Instruments



AS-17-762 Universal Rongeur and Grasping Forceps, Fenestrated without Ratchet, OD: 3.4mm working length 12cm with overstraining protection

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 228) 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
AR-11420	Slender Punch Angled Left
AR-11430	Slender Punch Angled Right
VAR-11700NR	Slender Pointed Graspers Straight
AR-30000	Small Probe

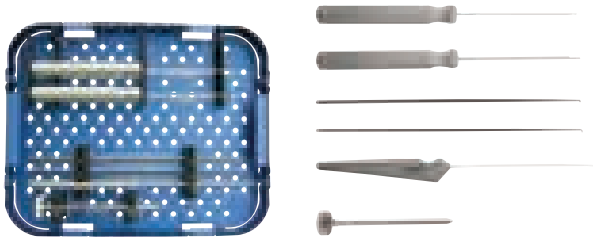
Canine Arthroscopy Set (VAR-3000S)



Working with leading canine arthroscopic surgeons the Arthrex set comprises a comprehensive range of instruments as three modules within a custom autoclave case.

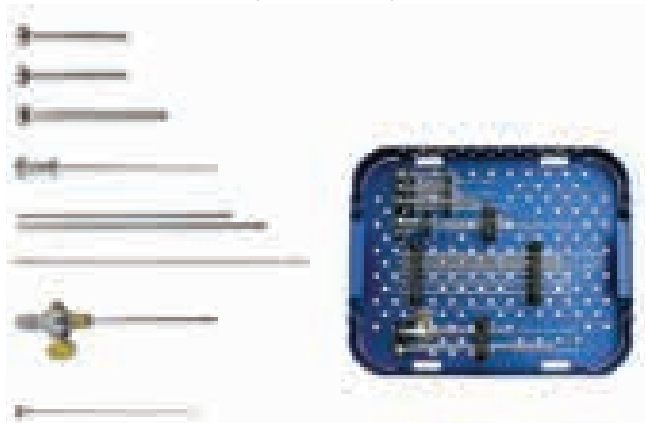
All the instruments are available separately but when bought as the boxed set there is a saving of 10%.

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

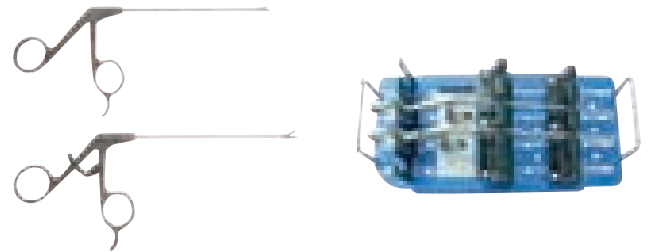
Canine Cannula Set (VAR-3002S)



- 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 forceps 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
- VAR-11100** Punch Slender Tip
- VAR-11600SR** Grasper-Alligator Ø 2.75mm with Hook Tip
- VAR-3002S** Canine Cannula Set
- VAR-3006** Outflow Cannula with Stopcock
- VAR-3007** Outflow Cannula Obturator
- VAR-3009** Banana Knife
- BRCANARTH** Canine Arthroscopy Literature

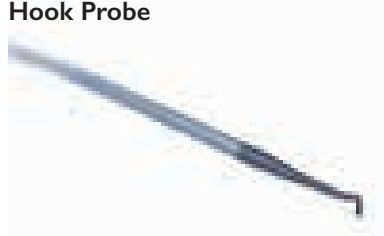
BLACK DIAMOND SERIES



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

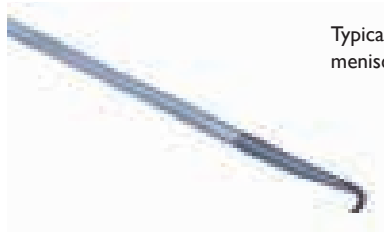


Use to gently manipulate intra-articular structures.

HOOK PROBE

LEI165011010 Hook Probe 1.0mm Tip
LEI165011015 Hook Probe 1.5mm Tip

Hook Knife



Typically used for release of the meniscus of meniscal lesions.

HOOK KNIFE

LEI165013022 Hook Knife 2.2mm

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

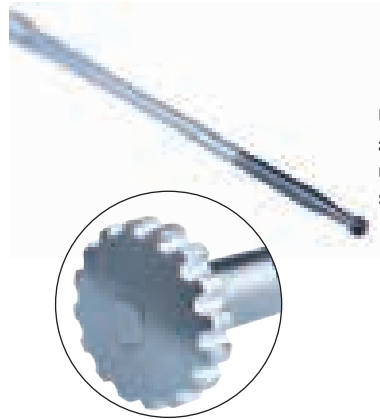
Spoon Curette



SPOON CURETTE

LEI165012015 Spoon Curette 1.5mm
LEI165012030 Spoon Curette 2.7mm

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

Banana Knife



BANANA KNIFE

LEI165013000 Banana Knife 2.5mm x 12mm

Elevator



ELEVATOR

LEI165014000 Elevator (Penfield Style) 2.5mm

Curette with Hole



This curette has a lower profile than the standard.

CURETTE WITH HOLE

LEI165012028 Curette with Hole 2.7mm

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 of soft tissue approximately the diameter of the shaft. The forceps have a switchable locking ratchet.



BIOPSY FORCEPS - PRO SERIES HANDLE

- LE1165102010** Biopsy Cup Forceps, 2.0 mm, Rotatable, PRO
- LE1165102710** Biopsy Cup Forceps, 2.7 mm, Rotatable, PRO
- LE1165103510** Biopsy Cup Forceps, 3.5 mm, Rotatable, PRO

BIOPSY FORCEPS - STANDARD HANDLE

- LE1165102040** Biopsy Cup Forceps, 2.0 mm, Rotatable, Standard
- LE1165102740** Biopsy Cup Forceps, 2.7 mm, Rotatable, Standard
- LE1165103540** Biopsy Cup Forceps, 3.5 mm, Rotatable, Standard

Grasping Forceps

The Grasping Forceps securely grip fragments of bone, cartilage and soft tissue. The Forceps have a switchable locking ratchet.



GRASPING FORCEPS - PRO SERIES HANDLE

- LE1165102020** Grasping Forceps, 2.0 mm, with Ratchet, Rotatable, PRO
- LE1165102720** Grasping Forceps, 2.7 mm, with Ratchet, Rotatable, PRO
- LE1165103520** Grasping Forceps, 3.5 mm, with Ratchet, Rotatable, PRO

GRASPING FORCEPS - STANDARD HANDLE

- LE1165102045** Grasping Forceps, 2.0 mm, Rotatable, Standard
- LE1165102745** Grasping Forceps, 2.7 mm, Rotatable, Standard
- LE1165103545** Grasping Forceps, 3.5 mm, Rotatable, Standard



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
LEI165102730 Grasping Forceps, 2.7 mm, 1x2 teeth, Rotatable, PRO
LEI165103530 Grasping Forceps, 3.5 mm, 1x2 teeth, Rotatable, PRO

GRASPING FORCEPS - ROTATABLE STANDARD

- LEI165102050** Grasping Forceps, 2.0 mm, 1x2 teeth, Rotatable, Standard
LEI165102750 Grasping Forceps, 2.7 mm, 1x2 teeth, Rotatable, Standard
LEI165103550 Grasping Forceps, 3.5 mm, 1x2 teeth, Rotatable, Standard

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
LEI165102715 Hook Punch Forceps, 2.7mm, Rotatable, PRO
LEI165103515 Hook Punch Forceps, 3.5mm, Rotatable, PRO

HOOK PUNCH - STANDARD HANDLE

- LEI165102055** Hook Punch Forceps, 2.0mm, Rotatable, Standard
LEI165102755 Hook Punch Forceps, 2.7mm, Rotatable, Standard
LEI165103555 Hook Punch Forceps, 3.5mm, Rotatable, Standard

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
LEI165102725 Hook scissors, 2.7mm, Rotatable, PRO
LEI165103525 Hook scissors, 3.5mm, Rotatable, PRO

HOOK SCISSORS - STANDARD HANDLE

- LEI165102065** Hook scissors, 2.0mm, Rotatable, Standard
LEI165102765 Hook scissors, 2.7mm, Rotatable, Standard
LEI165103565 Hook scissors, 3.5mm, Rotatable, Standard

Biopsy and Grasping Forcep

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
LEI165102735 Biopsy and Grasping Forceps, 2.7 mm, Rotatable, PRO
LEI165103535 Biopsy and Grasping Forceps, 3.5 mm, Rotatable, PRO

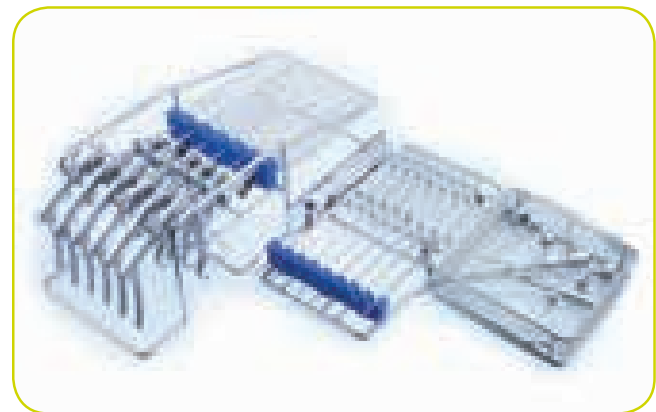
BIOPSY AND GRASPING FORCEPS - STANDARD

- LEI165102060** Biopsy and Grasping Forceps, 2.0 mm, Rotatable, Standard
LEI165102760 Biopsy and Grasping Forceps, 2.7 mm, Rotatable, Standard
LEI165103560 Biopsy and Grasping Forceps, 3.5 mm, Rotatable, Standard

Premium Sterilisation Cases for VAN RYSSEN 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 RYSSEN Signature Series

Premium Sterilisation boxes with internal tray for holding either PRO or standard handles.

PREMIUM STERILISATION BOXES FOR VAN RYSSEN SIGNATURE SERIES

- LEI165500020** Premium Sterilisation Boxes for VAN RYSSEN Signature series – standard handles
LEI165500000 Premium Sterilisation Boxes for VAN RYSSEN Signature series – PRO handles

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

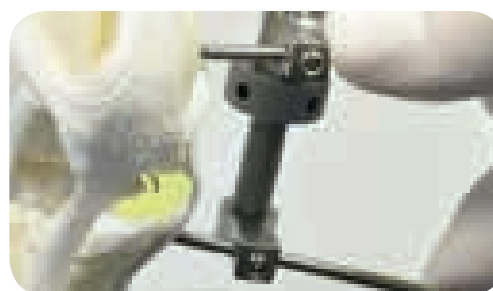
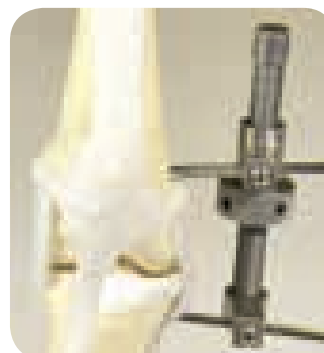
See VCOT 2004; 17:1-56 for review

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
- S140-1938F** Aiming Device by Dr Lehman for the canine shoulder for 1.9 Scope T110-1930 and Changing Puncture Rod I-17-028
- I-17-028** Changing & Puncture Rod
- DVDLEHMAN** DVD on use of Aiming Device.

Extra Articular Joint Distraction

External Stifle Distractor



Developed original for arthroscopic use but also useful in open surgery on very tight osteoarthritic stifles. Improves visibility in the joint by reducing clutter. Pins (2.5mm) placed above and below the stifle in line with the medial collateral ligament. Turn the thumbscrew to distract the joint and expose the medial meniscus. The pins may be twisted relative to one another to bring the tibial plateau forwards.

Version with 3.2mm pins is suitable for use with TPLO jig pins – the proximal pin can then be re-used.

EXTRA ARTICULAR STIFLE DISTRACTOR

- AR-17-01** Extra Articular Stifle Distractor 2.5mm Pins 80mm
- AR-17-01/TPLO** Extra Articular Stifle Distractor 3.2mm Pins 80mm

Arthroscopic Stifle Lever VSTL

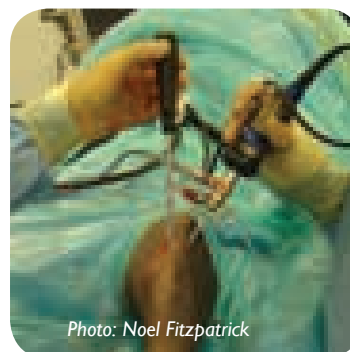


Photo: Noel Fitzpatrick

The arthroscopic stifle lever is finer and longer than the standard version, making it more suitable for arthroscopic surgery. The good sized white Teflon handle has a useful notch which aligns with the tip orientation of the lever. Not just for arthroscopy – useful in open arthrotomies as well. Developed for stifle surgery by Ian Holsworth.

ARTHROSCOPIC STIFLE LEVER VSTL

- AR-17-02** Arthroscopic Stifle Lever VSTL 280mm

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.



FIBRE LIGHT CABLE

- KW-48-231** Fibre Light Cable 4.8mm 2.3m both sides compatible to Wolf Autoclavable
- KS-48-231** Fibre Light Cable 4.8mm 2.3m unit side compatible to Storz endoscope side compatible to Wolf Autoclavable
- KS-48-300** Fibre Light Cable 4.8mm 3.0m Storz/ Storz

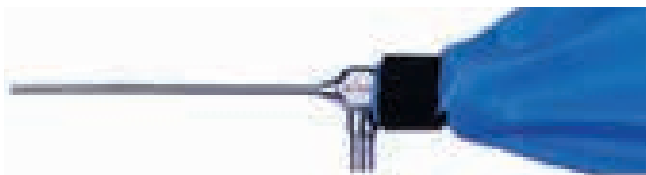
Cameras & Monitors

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.

Camera Covers



CAMERA COVERS

- DE-10-25** Camera Covers Disposable Polyethylene 13 x 235cm Sterile Pack of 30
- CAMPT** Camera Cover with Perforated Tip 250cm x 12.5cm Sterile Pack of 60
- CAMET** Camera cover with Elasticised Tip 250cm x 12.5cm Sterile Pack of 60
- DE-10-25-SINGLE** Single Camera Cover Disp 13 x 235cm Sterile
- DE-10-01** Camera Cover Reusable Waterproof Washable Autoclavable 12 x 200cm Single

Monitor



Flat Screen Professional Monitor



Pre-owned Cathode Ray Tube Type Monitor

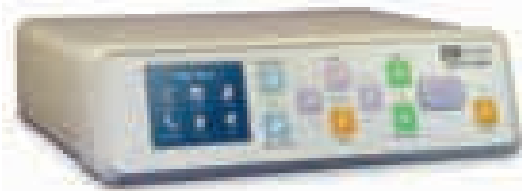
Image Capture

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.

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
- 46-USB-15-1** Footswitch for USB Capture System

Arthrex Continuous Wave III Arthroscopy Pump Free Loan Offer



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 £4,068.50) 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.

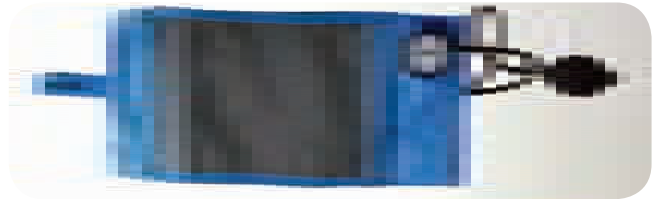


ARTHROSCOPY INFUSION PUMP AND TUBING

- AR-6475** Arthroscopy Pump
- AR-6415** Combination Machine and Patient Tube (10)
- AR-6420** Machine Tube Set (10)
- AR-6425** Patient Only Tube Set (20)

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
- AR-08-300** Pressure Infusion Cuff for 3000-5000ml complete with Pressure Gauge and Hand Pump Reusable
- AR-08-110** Pressure Infusion Cuff for 500-1000ml without Pressure Gauge Luer Lock (fem) Reusable
- AR-10-948** Silicon Tube 7x2mm 3m Autoclavable Luer-Lock (m) Needle (f) Sterile Bags/ Bottles
- X-7-20-10** Spare Silicon Tube 1 Metre Size: 7 x 2mm Colour: Natural
- AR-10-9** Spare Needle for Infusion Bottles/ Bags ID: 5.5mm comp. to Silicon Tubes 7 x 2mm
- X-180-26** Silicon Tube ID: 5mm 180cm LLM both ends Autoclavable
- X-5-15-10** Spare Silicon Tube 1m Autoclavable size: 5 x 1.5mm Colour: Nature
- LLM-1250** Spare Luer-Lock Connector (m) comp. to Silicon Tubes 5 x 1.5mm

Pressure Pump Infusor

Pressure Pump Infusor

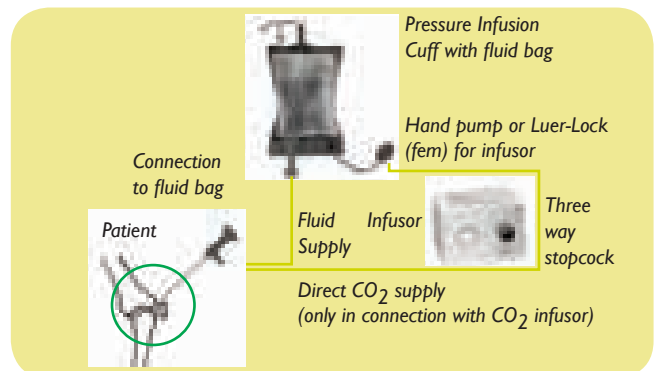


Features:

- 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)



PRESSURE PUMP INFUSOR CO₂ AND ACCESSORIES

- AR-10-901** CO₂ Infusor for large/ small animal arthroscopy DIN Connector Tube to Pressure Reducer (DIN type) Pressure Setting 0-300mm Hg Tube Connection Luer-Lock(f)
- AR-10-903** Reduction Valve for CO₂ Bottles UK Fitting
- AR-10-922** Sterile Filter System for CO₂ Infusor Disposable Box with 50 Pieces

Arthrex – Shaver System Free Loan Offer

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)
- AR-7200SR** Shaver Blade Small Joint Sabre 2.0mm Box of 5
- AR-7300SR** Shaver Blade Small Joint Sabre 3.0mm Box of 5
- AR-7300DS** Shaver Blade Small Joint Dissector 3.0mm Box of 5
- AR-7300BT** Shaver Burr Small Joint Oval Burr 10 Flute 3.0mm Box of 10
- AR-7300RBE** Shaver Burr Small Joint Round Burr 8 Flute 3.0mm Box of 5

Linvatec Shaver Blades

We can still source blades for Linvatec shaver systems, although we rarely now find consoles or handpieces.

LINVATEC SHAVER SYSTEM AND BURS

- SBC9960** 2mm Linvatec Micro Gator Shaver Blade
- SBC9950** 2mm Linvatec Micro Cuda Shaver Blade
- SBC9911** 2.9mm Linvatec Micro Spherical Shaver Blade
- SBC9961** 2.9mm Linvatec Micro Gator Shaver Blade
- SBC9962** 3.5mm Linvatec Micro Gator Shaver Blade
- SBC9264** 3.5mm Linvatec Gator Shaver Blade
- SBC9253** 3.5mm Linvatec Cuda Shaver Blade
- SBC9111** 4.5mm Linvatec Spherical Shaver Blade
- SBH9110** Shaver Blade Linvatec H9110 3.5mm Spherical

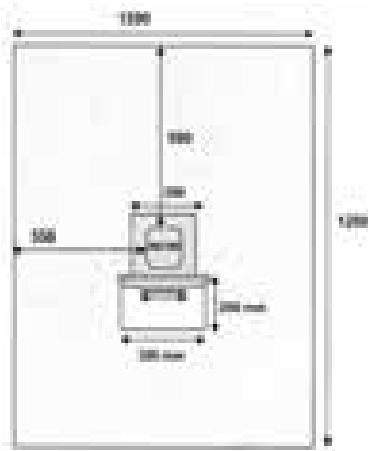
Arthroscopic Procedure Electrosurgical System (OPES)

ARTHROSCOPIC PROCEDURE ELECTROSURGICAL SYSTEM (OPES)

- AR-9610** Monopolar Handpiece Disposable Box of 5
- VAR-1005-01** Ground Pad
- VAR-1005-06** Cable
- Ablation Wands and Electrodes from
- BROPES** Opes Literature

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
- FCP2527** Fluid Collection Pouch 25cm x 27cm 200 Sterile

Clear Adhesive Antibacterial Surgical Drapes with Povidine

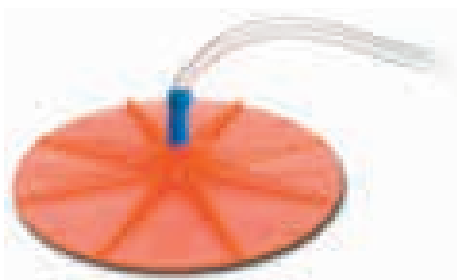
The majority of human surgeries use clear adhesive drapes over the incision site. Benefits include fluid and pathogen resistance, antibacterial, transparent and permeable. 4 sizes available.



CLEAR ADHESIVE SURGICAL DRAPES WITH POVIDINE

- | | | |
|---------------|------------------------|----------------|
| AD1420 | 14cm x 20cm | 20 Pieces/ Box |
| AD2030 | 20cm x 30cm | 20 Pieces/ Box |
| AD3045 | 30cm x 45cm | 20 Pieces/ Box |
| AD4560 | 45cm x 60cm | 10 Pieces/ Box |
| ID6650 | loban™ Drape 56 x 45cm | Single |

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

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

- I00100** Perasafe Cold Sterilant 24 x 81g (5 litres)
- I00101** Perasafe Cold Sterilant 6 x 81g (5 litres)
- DE-10-425** Soak Basin for Chemical Solution Disinfection consisting of Basin (perforated) Tray & Cover for Basin size: 42 x 16 x 9.5cm
- DE-5-17** Cleaning Brush for Small Cannulae with ID: 2.4mm Length 17cm

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

- RAPIZYME I** Bottle 1 Litre

Positioning Aids

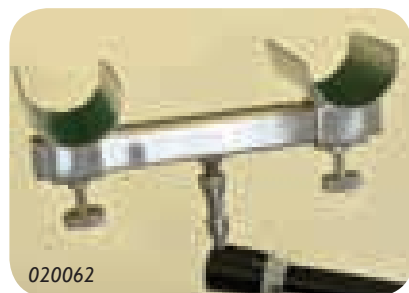
Manipulation of arthroscopes and instrumentation inside a joint via an image on a monitor screen can be very demanding. Careful positioning of the patient and the surgeon is essential.

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.

Multi-arm Positioning Device



026000



020062



020065

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.

MULTI-ARM

- 026000** Multi-arm Positioning Device with Single Foot Attachment
- 020062** Double Limb Support for Multi-arm
- 020065** Stifle Brace Attachment for Multi-arm (designed by Schulz and Ian Holsworth)
- MULTIARMSET** Multi-arm Set includes all of above

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

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
VP30	Vac-Pac Size 30	72 x 90cm
VP31	Vac-Pac Size 31	98 x 90cm
VP32	Vac-Pac Size 32	118 x 90cm

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)
- 026022L** Redmark Cradle - Large over 32kg
- 026022M** Redmark Cradle - Medium 13kg - 32kg
- 026022S** Redmark Cradle - Small up to 13kg