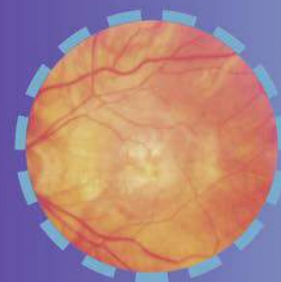


PMS



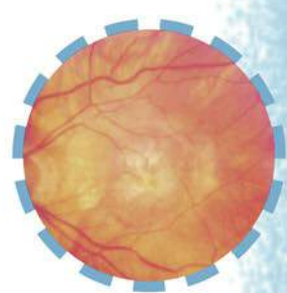
VALT REO RETINA



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Cooper Medical Limited
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Auckland 2022



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WELCOME
to the PMS World
of Vitreo Retinal
Products.

PMS offers one of the widest ranges of stainless steel and special alloy products for a unique engineering miracle: THE HUMAN EYE.

PMS *EZ*Grip®, *EZ*Change® and *EZ*Cut® vitreoretinal forceps and scissors offer the specialist the perfect instruments for grasping, manipulating and cutting intraocular tissue.

PMS VR instruments are welded to attain the extra durability, longevity and reliable performance that makes PMS known around the world as quality leader in ophthalmic surgical instrumentation and related products and equipment.

To protect these instruments we are able to offer an intelligent solution. The PMS sterilising tray system is designed to hold delicate instruments securely and allow them to be thoroughly cleaned by automated washer/disinfector machines.

We invite you to learn about all the outstanding products we have to offer.



20GA/0.9 MM EZCut® STANDARD SCISSORS

PMO



scissors have sharp tipped blades, unless otherwise indicated

Straight Scissors

E25-600S blunt tips

E25-602S sharp tips

sharp blades allow cutting of peripheral membranes; blunt blades are ideal for cutting near the retinal surfaces

lightweight titanium handle reduces hand fatigue while providing lasting durability

Curved Scissors

E25-603S

curved to a 4 mm radius blades enable safe cutting along the contour of the retina surface

Horizontal Scissors

E25-604S

allow easy cutting and dissection parallel to the retina and delaminating membranes adherent to the surface

Vertical Scissors

E25-605S 45°, 1.6 mm long

E25-608S 80°, 1.9 mm long

for cutting vertical to the retina surface and resection of delicate membranes

Kroll (Vertical)

Scissors with Membrane Pick angled 45° hooked blade

E25-605SK

hooked blade for lifting and manipulation of membranes during cutting process

20GA/0.9 MM SCISSORS SPECIFICATIONS

Straight scissors blade length 2.9-3.0 mm

Curved scissors blade length 2.9-3.0 mm

Angled scissors blade length 1.5-1.6 mm

Vertical scissors blade length 1.6-1.9 mm

VITREORETINAL INSTRUMENTS



20GA/0.9 MM EZGrip® STANDARD FORCEPS

VITREORETINAL INSTRUMENTS

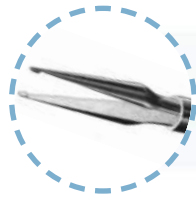
“squeeze handle“ design offers synchronous, safe and smooth tip closure (important when working close to the retina)



Crocodile Forceps
serrated 4 mm jaws

***E30-672S**

ideal for general purpose membrane peeling and manipulating thicker and more fibrotic membranes



End Gripping Forceps
small tip 4 mm jaws

***E30-674S**

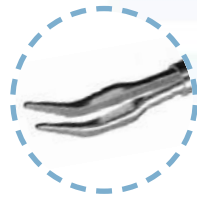
for grasping and manipulating fine membranes, ideal for (PVR) and difficult macular pucker cases



Hockeystick Forceps
grooved 2mm/45° jaws

***E30-679S**

for gripping and peeling membranes along the retina surface with good visualization



Pic Forceps
smooth 2mm/45° jaws

E30-681S

for grasping and elevating membranes



Side Gripping Forceps
smooth 2mm/45° jaws,
flat 0.7 mm wide tips

E30-683S

for gripping and pulling peripheral membranes

GA/MM CONVERSION DATA & MODELS

- 19GA/1.1 mm, ID 0.70 mm, illuminated
- 20GA/0.9 mm, ID 0.60 mm, standard
- 23GA/0.6 mm, ID 0.33 mm, micro
- 25GA/0.5 mm, ID 0.25 mm, miniature

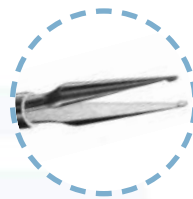
*also available with titanium tips



*excellent for
"maculorhexis"
and ILM peeling*

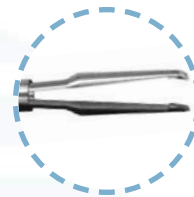
rounded grip area
enables easy 360°
rotation and freedom
for manipulation and
optimal surgical control

End Gripping Forceps
fine tip 3.5 mm jaws
*E30-673S



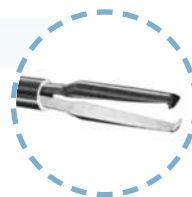
for grasping of thin membranes in the macular
region, particularly in cases with detached retina

End Gripping Forceps
pointed tipped 4.0 mm jaws
*E30-676S straight shaft



effective at lifting, stripping
and peeling fine membranes

End Gripping Forceps
nail-like tipped 3.5 mm jaws
*E30-687S Eckhardt style 90°



for precise grasping of thin
membranes near the macula

End Gripping Forceps
delicate 3.5 mm jaws
with 0.7 mm pick at tip
*E30-678S



NOTE:
The medical informational contained in this catalogue
is for informational purposes only. It is not intended
as instructional material for the use of the
instruments, procedures or techniques.

*also available for 23GA/0.6 mm trocar cannula system, see page 198



Tip Protector for instruments with stationary tips
E15-022



Horizontal Subretinal Scissors sharp 3.5mm/45° blades
E25-604SR

for cutting and dissecting in the subretinal space



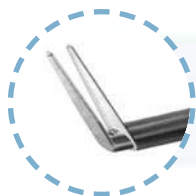
Horizontal Subretinal Forceps narrow 3.0mm/45° jaws
E30-681SR

angled 45° long thin jaws are ideal for grasping...



Horizontal Subretinal Forceps picked 3.5mm/45° jaws
E30-682SR

subretinal membranes through a small retinotomy



Vertical Subretinal Forceps thin 3.5mm/45° jaws
E30-683SR

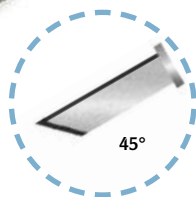


Diamond Subretinal Knife titanium bajonet handle with J-lock mechanism, 0.17 thick x 6 mm blade with double cutting edges

E10-301SR 20°/0.5mm wide

E10-302SR 45°/0.9mm wide

excellent for cutting of subretinal membranes





for PMS Vitreoretinal Instruments
with stationary or removable tips

Tip Protector
for stationary instrument tips

E15-022

for protecting instrument tips during
sterilisation, storage and transportation

Protective Cap
for removable instrument tips

E15-023

Vitreo Flushing Tubes
for stationary instrument tips

E20-424 metal adaptor

E20-424T titanium adaptor

for cleaning/flushing instrument tips
after each use to avoid encrustations

Vitreo Cleaning Adaptor
for removable instrument tips

E20-426T

Cleaning Syringes
for Cleaning Tube and Adaptor
available in 20, 30 and 50 ml,
disposable, sterile (sold singly)

on request

1:2

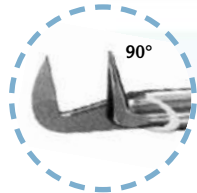
All PMS reusable instruments
are supplied with detailed instructions
for cleaning and sterilisation. General cleaning and
sterilisation advice can also be found on page 10 and 71.



20GA/0.9 MM EZChange® STANDARD SCISSORS TIPS

scissors have sharp tipped blades, unless otherwise indicated

removable instrument tips (360° rotatable)



Horizontal Scissors Tips
straight 3.4 mm blades

- E25-600R blunt tips
- E25-602R sharp tips

titanium "squeeze handle"
with thread for removable
instrument tips, 10.0 cm
E10-010T

Horizontal Scissors Tip
curved 2.7 mm blades
E25-603R

curved by 12 mm radius blades enable easy cutting along the curvature of the eye ball

Horizontal Scissors Tips
angled 1.7 mm blades
E25-604R2 25°
E25-604R4 45°

gentle angle of blade allows cutting and dissection parallel to the retinal surface

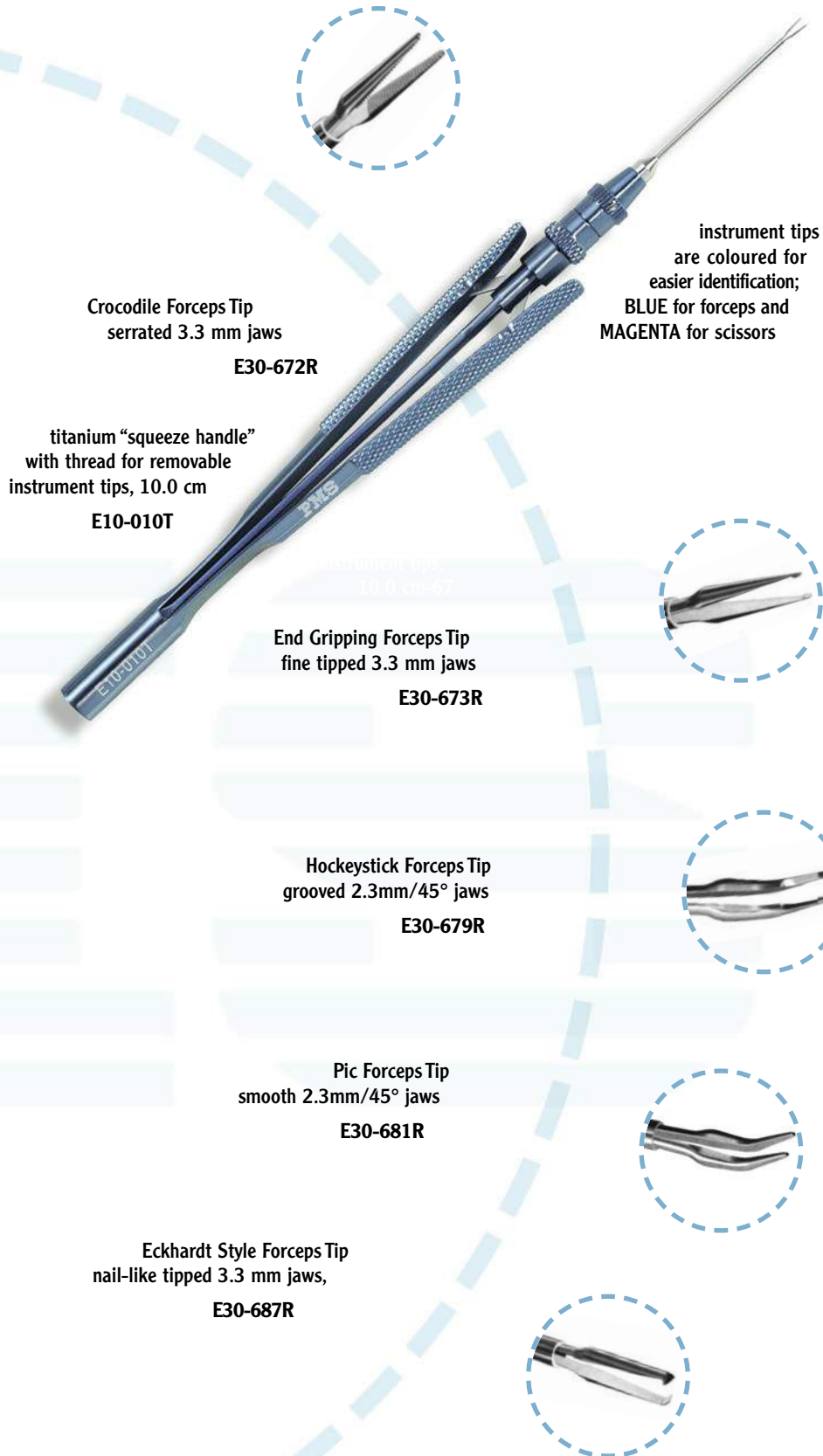
Vertical Scissors Tips
angled 1.5 mm blades
E25-605R 45°
E25-607R 70°
E25-609R 90°

vertical scissors allow powerful, controlled cutting action; distal blade remains stationary during use

Kroll (Vertical)
Scissors Tip with Membrane Pick
hooked 1.1mm/45° blade
E25-605RK

tips and handle sold singly

20GA/0.9 MM EZChange® STANDARD FORCEPS TIPS



Crocodile Forceps Tip
serrated 3.3 mm jaws
E30-672R

titanium "squeeze handle"
with thread for removable
instrument tips, 10.0 cm
E10-010T

End Gripping Forceps Tip
fine tipped 3.3 mm jaws
E30-673R

Hockeystick Forceps Tip
grooved 2.3mm/45° jaws
E30-679R

Pic Forceps Tip
smooth 2.3mm/45° jaws
E30-681R

Eckhardt Style Forceps Tip
nail-like tipped 3.3 mm jaws,
E30-687R

instrument tips
are coloured for
easier identification;
BLUE for forceps and
MAGENTA for scissors

VITREORETINAL INSTRUMENTS

tips and handle sold singly



23GA/0.65 MM EZChange® MICRO INSTRUMENT TIPS



23GA/0.65 mm diameter EZChange® instrument tips are excellent for pediatric and other microsurgical procedures



Horizontal Scissors Tips
delicate 1.6 mm blades
*E25-602R23 straight
E25-603R23 curved

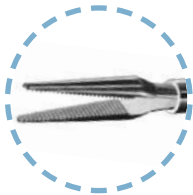


titanium "squeeze handle" with thread for removable instrument tips, 10.0 cm
E10-010T



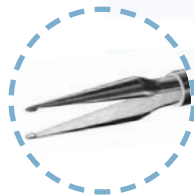
Vertical Scissors Tips
blunt 0.8 mm blades
E25-605R23 45°
E25-607R23 70°

for 20GA/0.9 mm Trocar Cannula System



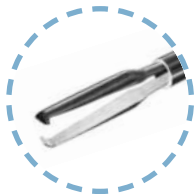
Crocodile Forceps Tip
serrated 1.7 mm jaws
*E30-672R23

excellent for peeling and manipulating membranes



End Gripping Forceps Tip
fine tipped 1.7 mm jaws
*E30-673R23

end gripping tips are ideal for maculorhexis...



End Gripping Forceps Tip
nail-like tipped 1.7 mm jaws (Eckhardt Style)
*E30-687R23

and to peel ILM

tips and handle sold singly

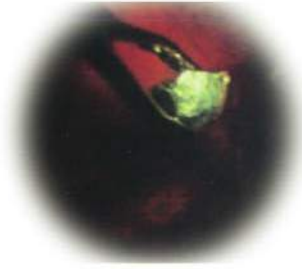
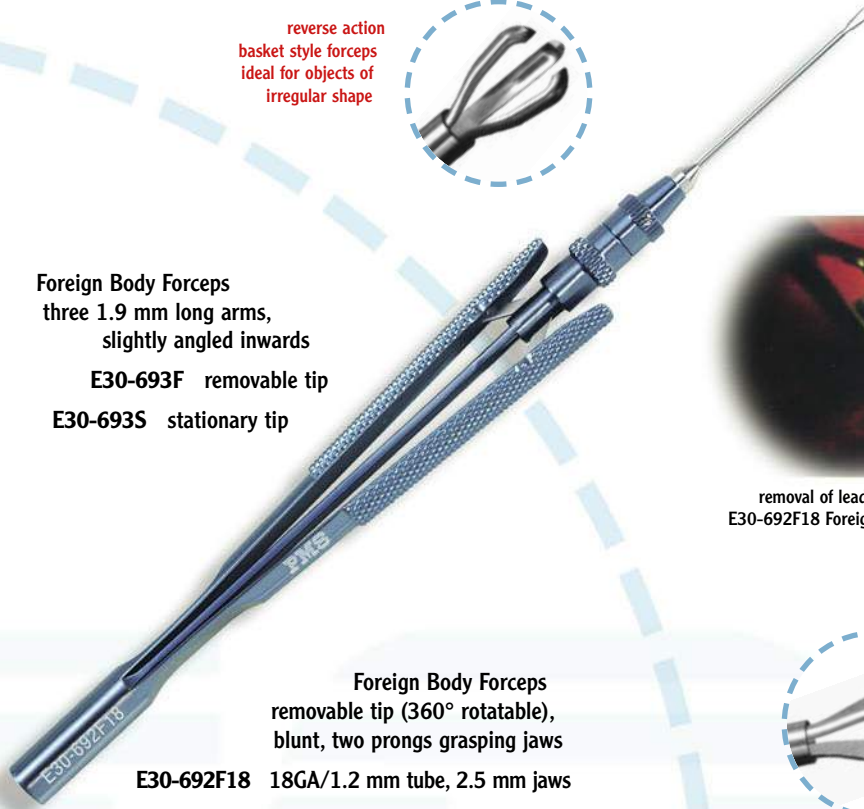
* fits through 23GA/0.65 mm trocar cannula system



reverse action
basket style forceps
ideal for objects of
irregular shape



Foreign Body Forceps
three 1.9 mm long arms,
slightly angled inwards
E30-693F removable tip
E30-693S stationary tip



removal of lead shot using
E30-692F18 Foreign Body Forceps

Foreign Body Forceps
removable tip (360° rotatable),
blunt, two prongs grasping jaws

- E30-692F18 18GA/1.2 mm tube, 2.5 mm jaws
- E30-692F20 20GA/0.9 mm tube, 1.9 mm jaws



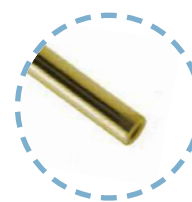
essential instruments for managing IOFB, two sizes 18 & 20GA are
ideal to remove most foreign bodies of any shape, size and material

Intraocular Foreign Body Magnet

for atraumatic removal
of non-encapsulated
metallic invaders



Tagawa
Precision Magnetic Probe
gold plated, 13.3 cm
I.O-1000



sleek 19GA/1.1 mm probe can be
utilized with a limbal, open sky
and/or pars plana approach

IOFB MAGNET SPECIFICATIONS

Probe: 19GA/1.1 mm x 33 mm
Handle: ø 10 mm x 100 mm long
Power: 1.000 gauss (at tip only)
Life expectancy: Indefinite
Sterilisation: Autoclave and ETO

VITREORETINAL INSTRUMENTS



for PMS Vitreoretinal Instruments
with EZGrip® stationary tips



All PMS vitreoretinal forceps and scissors have a very thin shaft with a delicate working mechanism. Intraocular fluids may enter this mechanism during surgery. If these fluids are not promptly and properly cleaned out, it will lead to the possibility of instrument malfunction, because salt, cellular debris, protein and viscoelastic can accumulate the inside of the mechanism.

Additionally protein may coagulate inside the instrument if not flushed out before sterilisation and thus can completely stop the mechanism from functioning.

- Clean the instrument immediately after use with distilled/sterile water to remove blood, tissue or other contaminants.

- Remove any debris from the instrument tip very carefully. A fine soft bristled brush may be used for this.

- Clean the exterior of the instrument carefully with a moistened surgical sponge #37-900 (page 70).

- Place syringe with vitreo flushing tube E20-424 (1) over instrument tip and push over front of handle (2).



- Gently press the syringe plunger and flush instrument two or three times with purified distilled water.

- Replace the empty purified water syringe with a syringe filled with Isopropyl Alcohol, and flush the instrument to remove any remnants of water.

- Remove the empty Isopropyl Alcohol syringe then attach an empty syringe to the cleaning flush tube. To remove the alcohol blow through the instrument with one or two syringes with air.

INSPECTION

- Before sterilisation instruments should be inspected for cleanliness and suitability regarding:

- Any physical damage to the device, bent blades, chipped tips, misalignment, scratches.
- Smooth action, blades and arms should move smoothly and not jerk.
- Instrument surface should be clean, without any staining and pitting.
- All blades should be sharp and cut along the full length. Cutting performance can be tested against tissue paper and/or rubber dam.
- Any damaged instruments should be disposed of or repaired following the hospital approved procedures.

- Cover instrument tip with Protective Sheath E15-022 and place separately on a wash/sterilising tray (see section), then clean in a Washer/Disinfector or Ultra Sonic Cleaner.

- The mechanism and the handpiece should be oiled occasionally with a hospital approved medical grade instrument lubricant

- Sterilise the instruments in suitable trays using flash autoclave, (steam) autoclave, high vacuum steriliser. Autoclaving 135°C/276°F is the preferred method of sterilisation.

REPAIR

- PMS can also offer a high quality repair service for all types and makes of vitreoretinal instruments. Estimates are free and prices extremely competitive.



for PMS Vitreoretinal Instruments with EZChange® removable tips

- Unscrew the tip from hand piece and attach cleaning adapter E20-426T.
- Ultrasonically clean both parts, if possible.
- Attach syringe filled with distilled or sterile water to adapter and flush the tip two/three times.
- Flush the tip with alcohol. This will remove any remnants of water and facilitate drying.
- Dry the tip by forcing one or two syringes full of air through tip to remove any remaining alcohol.
- Force special heat-resistant instrument milk through the tip, following instruction in article number three above.
- Dry with air following instruction in article number five above.
- Immerse handle in distilled or sterile water for two minutes, and then clean and dry with surgical sponge.
- Lubricate joints in handpiece with hospital approved and medical grade agent.
- Store and sterilise the instrument in a protective tray #E45-112. Instruments should not touch each other, to avoid contact corrosion.

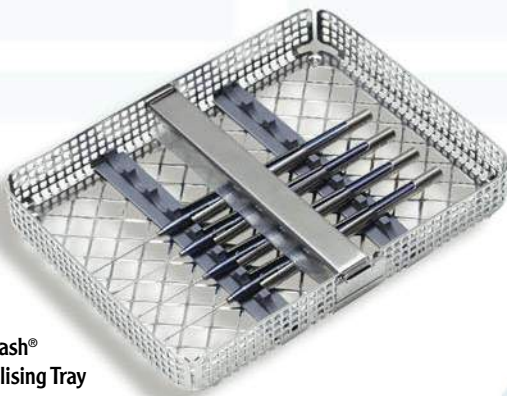


Vitreo Cleaning Adapter
titanium case with LL cone
E20-426T

for flush-through cleaning of removable instrument tips immediately after each surgery

RECOMMENDED HANDLING

- The scissors and forceps are microsurgical instruments and must be handled with care at all times.
- NEVER DROP YOUR PMS VITREOUS AND RETINAL INSTRUMENTS.
- When cleaning care should be taken to prevent chemicals or human debris contaminating the user.
- Only handle devices using personal protective equipment, e.g. gloves, etc.
- All cleaning to be carried out in a suitably controlled environment.
- Hospital approved procedure for handling, cleaning and sterilising must be strictly followed.



EZWash®
Sterilising Tray
E45-112
(supplied without instruments)

PMS EZWash® Sterilising Trays are designed to hold micro surgical instruments securely and allow them to be thoroughly cleaned by automated washer disinfector machines which are now popular in many hospitals.



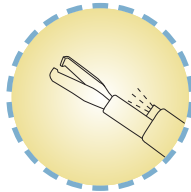
19GA/1.1 MM ILLUMINATED INSTRUMENTS

Crocodile Forceps
fine serrated jaws
*E30-672SI



Horizontal Scissors
delicate curved blades
*E25-603SI

End Gripping Forceps
nail-like grip tips
*E30-687SI



* supplied without Monofilament

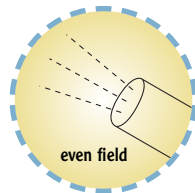
VITREORETINAL INSTRUMENTS

Monofilament
25GA/0.5 mm "fine" fiber,
disposable, sterile (box of 5)
*PD 100.06

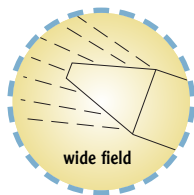
the monofilament is designed for use with
"illuminated" instruments with an inner
diameter of at least 23GA/0.6 mm



Endo-Illuminators
20GA/0.9 mm Fiber Optic Probe,
disposable, sterile (box of 5)
*PD 100.00 even field illumination
*PD 100.14 wide field illumination



1:2



fits Ocutome, Alcon
and B&L system

* Manufacturer:
Peregrine Surgical Ltd.
Doylestown, PA
USA

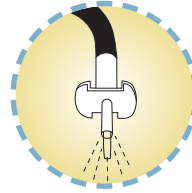


“Chandelier illumination ... gives excellent illumination and visualization, and it allows one to perform a proper bimanual vitrectomy ...”

— Amar Agarwal, MS, FRCS, FRCOphth, and colleagues

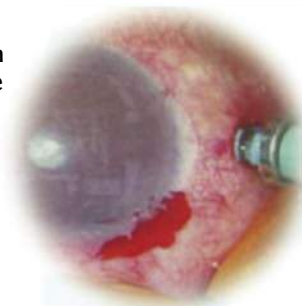
Wide Angle Chandelier Cannula with adaptor for Ocutome system, self-retaining 20GA/0.9 mm cannula, disposable, sterile (box of 5)

*5037



Chandelier illumination is a technique using a 20GA/0.9 mm or smaller illumination fibre that is inserted into the vitreous cavity transconjunctivally through the pars plana. It increases the surgeons visibility making anterior and posterior segment surgery safer and easier to perform.

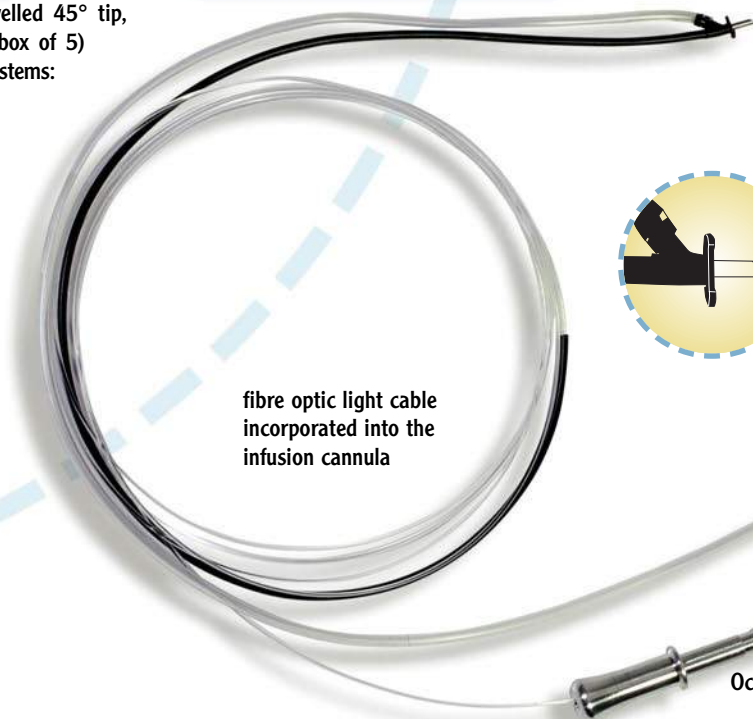
Chandelier Cannula is placed in the pars plana area without the need of sutures for fixation.



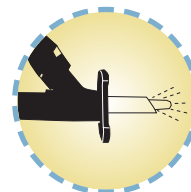
Removal of dislocated IOL with chandelier illumination and vitreoretinal forceps.

Illuminated Infusion Cannulae 18GA/1.2 mm bevelled 45° tip, disposable, sterile (box of 5) fits the following systems:

- *5038 Ocutome
- *5096 Alcon
- *5128 B&L



fibre optic light cable incorporated into the infusion cannula



Ocutome adaptor

* Manufacturer: MicroVision, Inc. Seabrook, NH USA



Removable Instrument Tips

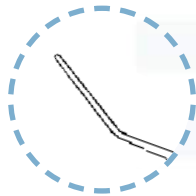
Hold the tip gently but firmly and screw the handle onto the tip!
Make sure that the handle is turned only, NOT THE TIP!

tips and handle sold singly

Aluminium Handle
for removable tips
E15-100AB

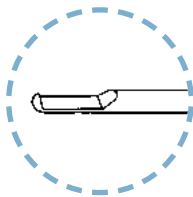


other colours
see pages
94 & 130



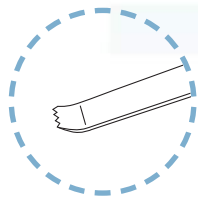
Membrane Spatula/Knife Tip
angled sharp 5 mm blade
E15-347R

for dissection and excision of
membranes from the surface



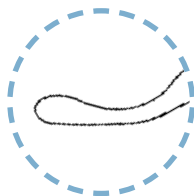
Membrane Peeler Tip
blunt recessed shaft
*E15-350R

for lifting and locating the edge of
epiretinal membranes in PVR cases



Membrane Rake Tip
angled 1 mm blade
E15-355R

to clear fine membranes
from the retinal surface



Membrane Knob Tip
curved round end
E15-365R

for manipulation of
detached retina

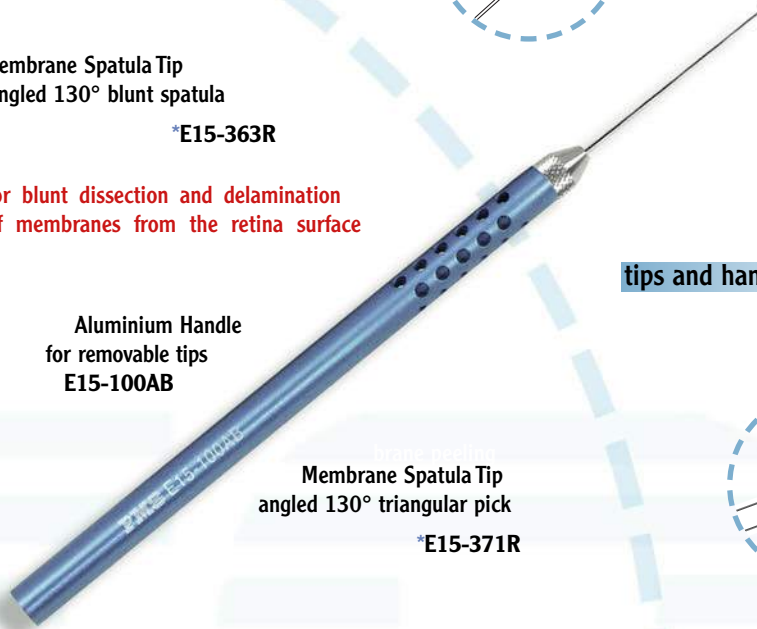
also available with stationary tips in all titanium (*) and/or stainless steel

Membrane Spatula Tip
angled 130° blunt spatula

*E15-363R

for blunt dissection and delamination
of membranes from the retina surface

Aluminium Handle
for removable tips
E15-100AB



tips and handle sold singly

Membrane Spatula Tip
angled 130° triangular pick

*E15-371R

ideal for blunt dissection and
epiretinal membrane peeling

Membrane Pick Tip
angled 130° blunt spatula

*E15-373R



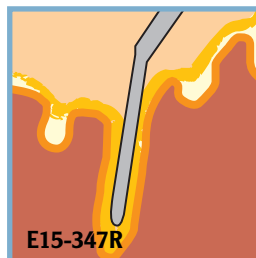
PMS EZChange® picks, rakes, and spatulas
can meet all your needs for easy, controlled
membrane manipulation and peeling
around the retina surface.



E15-350R



E15-363R



E15-347R



E15-355R

...locating, lifting, stripping...

...dissection, delamination...

...dissection and excision...

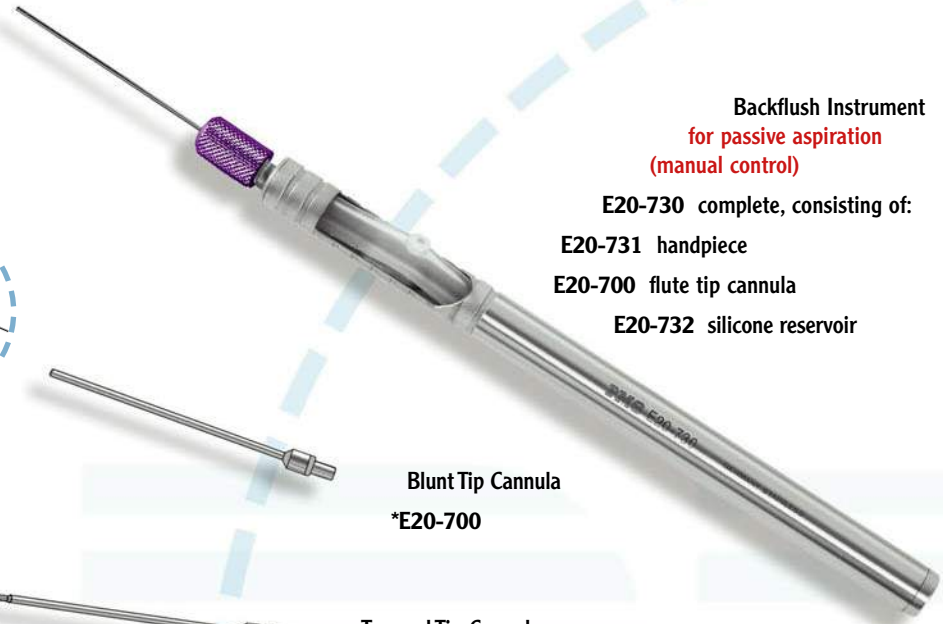
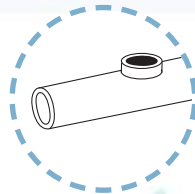
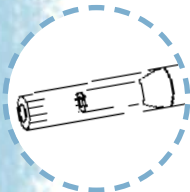
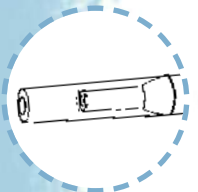
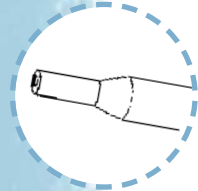
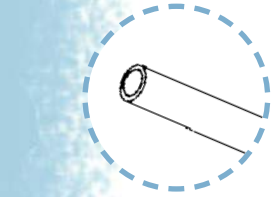
...cleaning and peeling.



20GA/0.9 MM REUSABLE BACKFLUSH INSTRUMENTS

PMS Backflush Instruments are useful for passive or active aspiration of intraocular fluids and reflux of incarcerated tissue, atraumatic "brushing" of the retinal surface and repositioning of retinal folds or breaks.

VITREORETINAL INSTRUMENTS



Backflush Instrument
for passive aspiration
(manual control)

E20-730 complete, consisting of:

E20-731 handpiece

E20-700 flute tip cannula

E20-732 silicone reservoir

Blunt Tip Cannula
*E20-700

Tapered Tip Cannula
*E20-704

Soft Tip Cannula
*E20-710

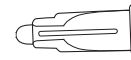
Brush Tip Cannula
*E20-720

Silicone Backflush Reservoirs
with "cut-off" aspiration control port

**E20-732 for passive aspiration (sealed end)

**E20-742 for active aspiration (open end)

* also available with Luer-Lock cone



add "L" to cat. no., e.g. E20-710L

Backflush Instrument
for active aspiration (syringe or machine)

E20-740 complete, consisting of:

E20-741 handpiece

E20-700 flute tip cannula

E20-742 silicone reservoir

E20-743 silicone tubing kit



** also available sterile, 10 per box

BACKFLUSH HANDLES AND 20GA/0.9 MM DISPOSABLE CANNULAE

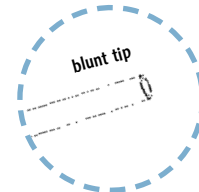
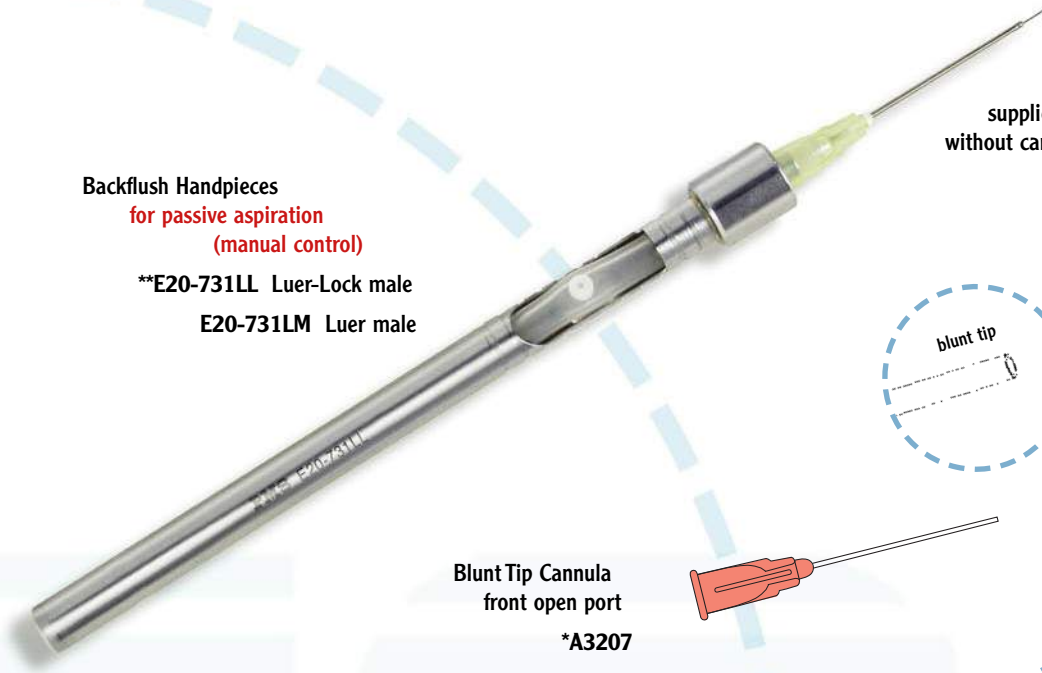


PMS Backflush Handles accept Luer-Lock and Standard Luer Fitting Cannulae. Simple design provides ease of use and setup.

Backflush Handpieces
for passive aspiration
(manual control)

**E20-731LL Luer-Lock male
E20-731LM Luer male

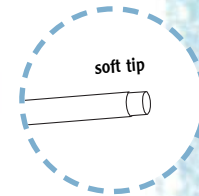
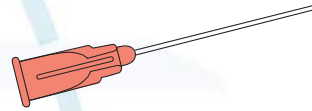
supplied
without cannula



Blunt Tip Cannula
front open port

*A3207

also known as Charles Flute Needle

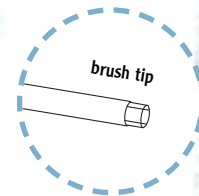


Soft Tip Cannula
2 mm extendible sleeve

*A3198

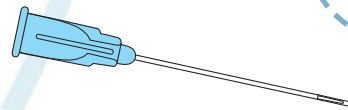


* disposable cannulae, sterile, 10 per box



Brush Tip Cannula
1 mm extendible sleeve

*A3206



Backflush Handpieces
for active aspiration (syringe or machine)
supplied with E20-743 silicone tubing kit

**E20-741LL male Luer-Lock and hose end
E20-741LM male/male Luer cone

supplied
without cannula



** also available sterile, 5 per box

VITREORETINAL INSTRUMENTS



The PMS range of backflush instruments are produced of high quality materials including stainless steel, silicone rubber and teflon. These instruments will provide long service if properly cleaned after each surgical procedure.

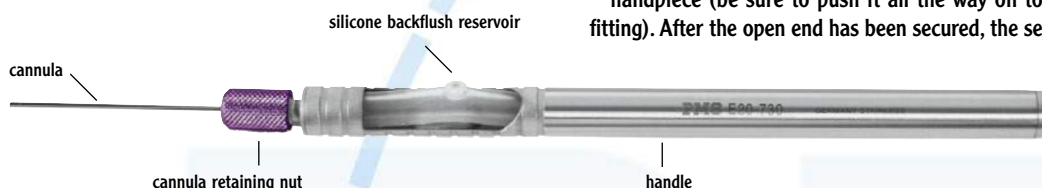
PMS backflush instruments consist of four basic parts:

- stainless steel handle
- stainless steel tip cannula
- stainless steel retaining nut
- silicone rubber backflush reservoir with white teflon aspiration control port

REASSEMBLY

After all of the parts have dried completely the instrument can be reassembled as follows:

- 1) Install the silicone backflush reservoir by inserting the open end of the reservoir into its fitting at the distal end of the opening within the handpiece (be sure to push it all the way on to the fitting). After the open end has been secured, the sealed



DISASSEMBLY

After use the instrument should be disassembled and cleaned before being sterilised. The following is a brief description of the disassembly procedure to be followed prior to cleaning.

- 1) Unscrew and remove the cannula retaining nut and remove the cannula.
- 2) Remove the silicone backflush reservoir from the handpiece by pulling up the center of the tubing.

end of the reservoir is inserted into the proximal end of the opening within the handpiece (it is necessary to “crimp” the tubing while inserting the proximal end). After the backflush reservoir is in its proper position, there should be no crimps in the reservoir tubing.

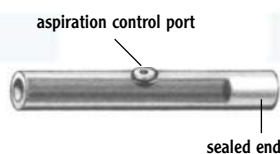
- 2) Insert the cannula in the distal tip of the handpiece and secure with the cannula retaining nut.

BACKFLUSH RESERVOIRS

If the backflush reservoir shows any signs of wear or damage or if it contains tissue remnants, blood, etc., which cannot be removed, it must be replaced.

MANUAL CLEANING

1) Wash the handpiece and backflush reservoir thoroughly, rinse well and allow to dry before re-assembling. The silicone backflush reservoir should be inspected under magnification to be sure that it does not show any signs of wear or damage. Confirm that the teflon “washer” is in the aspiration control port and that the proximal end of the reservoir tubing is sealed.



2) If a silicone “brush” or “soft tip” cannula is used, it should be inspected under magnification for wear or damage and replaced as necessary. If the inspection reveals an intact silicone tip carefully wash the cannula and brush/soft tip. Then reinspect the brush/soft tip to be sure that it has not been damaged while cleaning. The cannula should be thoroughly flushed and rinsed during the cleaning procedure.



SILICONE OIL

is extremely difficult to completely remove from silicone tubing. Therefore if silicone oil is used in a surgical procedure, the silicone parts of the backflush instrument must be replaced after the procedure.

3) After all of the parts have been rinsed thoroughly with distilled water, allow them to dry completely before being reassembled.



Sterilisation Containers

OPTIONAL CARE & CLEANING

Only hospital approved detergents and cleaners are acceptable for use in the cleaning process. If a detergent or cleaner is used, steps 1 through 3 of the Manual Cleaning Procedure should be followed immediately afterwards.

AUTOMATED CLEANING

Automated wash/disinfector machines and ultrasonic cleaner are an acceptable method to use in the instrument cleaning process, but should not be used as the sole cleaning method. However, the instrument should, at the very least, be cleaned with purified water prior to being placed into the mentioned systems. Follow the automated cleaning with steps 1 to 3 for the Manual Cleaning Procedure.

STORAGE

We highly recommend the utilisation of PMS EZWash® sterilisation trays and PMS EZLoad® sterilisation containers to sterilise, store and protect all of your delicate PMS vitreoretinal instruments. For more details refer to relevant section.

STERILISATION

The PMS backflush instruments (stainless steel handles and stainless steel cannulae) can be gas, flash or steam sterilised (in autoclave). The temperature should not exceed 273°F/134°C.

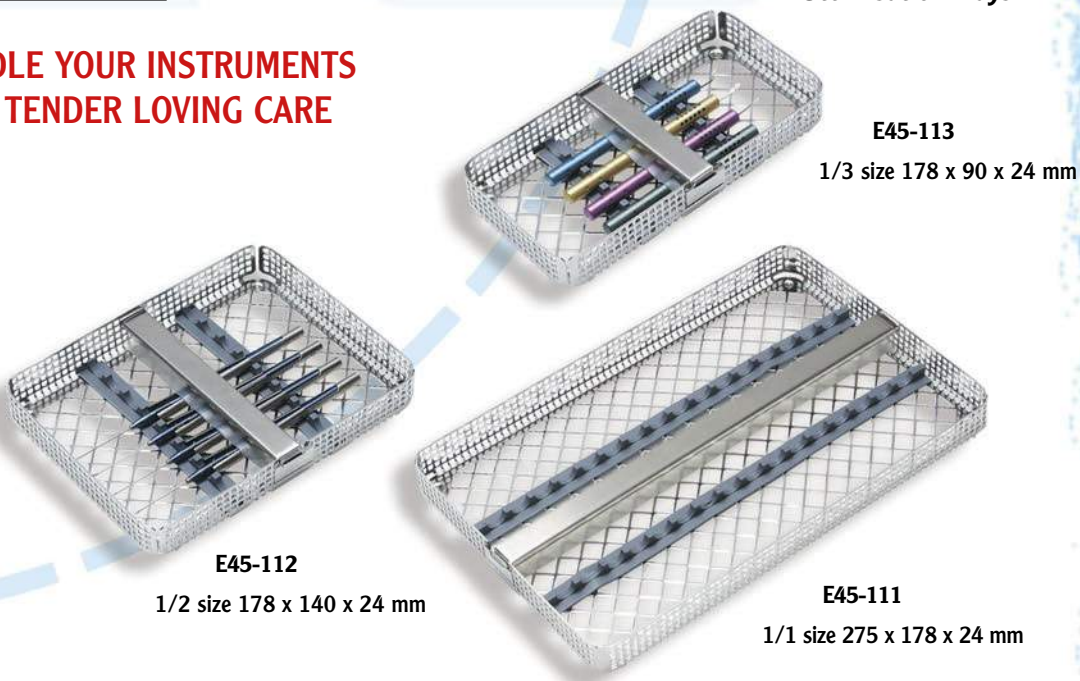
AND ALWAYS REMEMBER:

HANDLE YOUR INSTRUMENTS WITH TENDER LOVING CARE



E45-221B
310 x 190 x 40 mm
for storage of 1 x 1/1, 2 x 1/2
or 3 x 1/3 size Sterilisation Trays

Sterilisation Trays



E45-113
1/3 size 178 x 90 x 24 mm

E45-112
1/2 size 178 x 140 x 24 mm

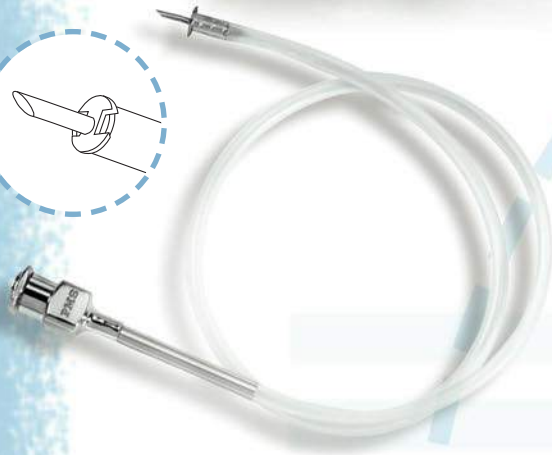
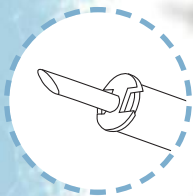
E45-111
1/1 size 275 x 178 x 24 mm



20GA/0.9 MM INFUSION CANNULAE

VITREORETINAL INSTRUMENTS

*for Gas, Liquids
and Silicone Oil*



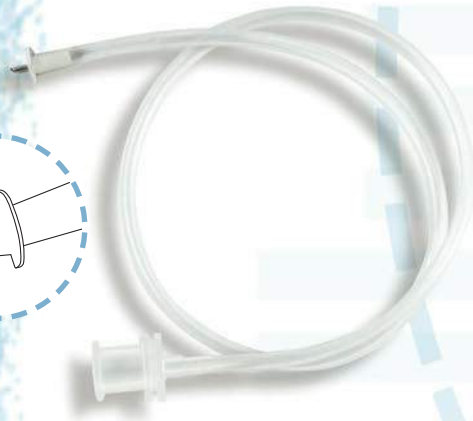
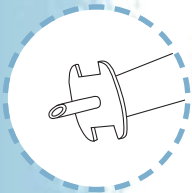
PMS
Standard Infusion Cannulae
attached to silicone tubing with LL cone,
reusable, non-sterile (sold singly)

E20-752 2.5 mm tip
E20-754 4.0 mm tip
E20-756 6.0 mm tip



sterilise before use

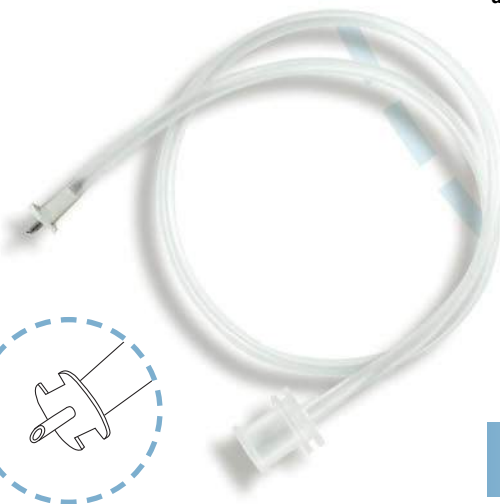
Reusable cannulae are constructed of stainless steel material; 380 mm extra long infusion tubing enables individual location of the silicone oil syringe.



Standard Infusion Cannulae
attached to silastic tubing with LL cone,
disposable, sterile (box of 10)

***175-25** 2.5 mm tip
***175-40** 4.0 mm tip
***175-60** 6.0 mm tip

for injection of viscous fluids during posterior segment procedures



High Viscosity Infusion Cannulae
attached to silicone tubing with LL cone,
disposable, sterile (box of 10)

***175-14** 4.0 mm tip
***175-16** 6.0 mm tip

designed for easy injection of high viscosity substance such as silicone oil

further VFI instruments for manual delivery of heavy liquids are shown on pages 212 - 213

* Manufacturer:
EAGLE LABS
Rancho Cucamonga,
California, USA



Directions for use
 Note: This item is sold as **NON-STERILE**

- 1) Sterilize (gas or steam autoclave) scleral plugs.
- 2) Filtration, open pouch onto sterile field.
- 3) With cross action forceps, grasp plug head and lift from retaining block.
- 4) With forceps attached to head, place tip of plug into sclerotomy.
- 5) With scleral plug properly positioned in sclerotomy, remove forceps.

REMOVAL
 1) Grasp scleral plug head with forceps and gently remove from sclerotomy.



Reusable Scleral Plugs
 non-sterile (4 per tablet)

*R19-1000 19GA/1.1 mm, gold

*R20-1000 20GA/0.9 mm, silver



sterilise before use

Disposable Scleral Plugs
 (2 x 20GA/0.9 mm &
 2 x 19GA/1.1 mm)
 sterile (4 per tablet)

*RDP-1000



Scleral Plug Forceps
 angled 9 mm grooved jaws
 with side gripping tips,
 10.5 cm

E30-777T

for standard 20GA/0.9 mm scleral plugs

cross-action handle, ideal for picking up the plug
 from the holder and easy insertion and removal



Scleral Plug Forceps
 angled 9 mm notched
 jaws with side and
 end gripping tips,
 10.5 cm

E30-778T

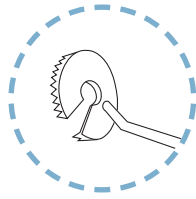
for micro 23GA/0.65 mm
 scleral plugs and trocar
 cannulae



* **Manufacturer:**
 Howard Instruments, Inc.
 Tuscaloosa, AL
 USA



*affordable,
economical...*



Trocar Fixation Plate
multiple atraumatic teeth,
central 2.75 mm opening
and side port, 11.0 cm

E15-727 stainless steel

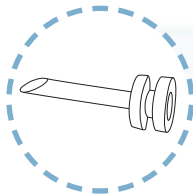
E15-727T titanium

*ideal for conjunctiva fixation
around the general area of
the pars plana incision site*



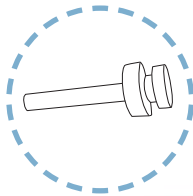
Cannula Inserter
titanium, blunt tip, 10.0 cm

E20-723T



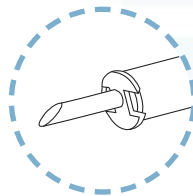
Trocar Cannulae
non-sterile (4 per tablet)

E20-723C



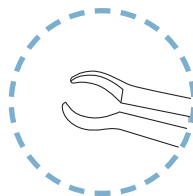
Cannula Plugs
non-sterile (4 per tablet)

E20-723P



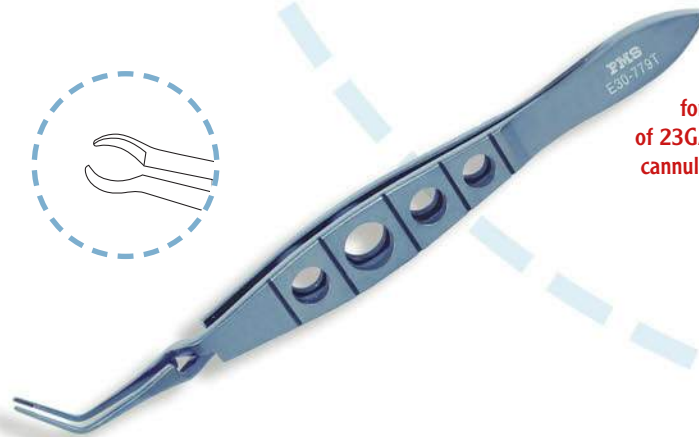
Universal Infusion Cannula
4 mm bevelled tube attached to
silicone tubing with LL cone,
non-sterile (sold singly)

E20-723U



Cannula Loading Forceps
titanium, angled 9 mm shanks
with biconvex curved jaws,
10.5 cm
E30-779T

*cross-action design
for insertion and removal
of 23GA/0.65 mm trocar
cannulae*



sterilise before use



... efficient,
two step technique



**23GA/0.65 mm
Trocar System**

- complete, consisting of:
- 1 x Trocar fixation plate
 - 1 x Cannula inserter
 - 3 x Trocar cannulae
 - 3 x Cannula plugs
 - 1 x Universal infusion cannula
 - 1 x Cannula loading forceps
 - 1 x Sterilising case with ...
- E20-723R ...removable lid
E20-723S ...sliding lid

23GA/0.65 mm Disposable
ONE STEP & TWO STEP
Trocar Cannula Systems
are shown on pages 200-201

PMS
Reusable Trocar Cannula Kit
non-sterile (4 per retaining block)
E20-720K 20GA/0.9 mm
E20-723K 23GA/0.65 mm



Replacement Cannula Kit
23GA/0.6 mm, consisting of 2 each:
instrument cannulae and cannula plugs
*5189 reusable, sterile (1 kit per tray)
*5190 disposable, sterile (5 trays per box)

5189

Disposable Closure Valve Set
for 23GA/0.65 mm cannulae,
consisting of 4 valves per tray,
sterile (5 sets per box)
*5209



EAGLE
Stiletto MVR Knives
23GA/0.65 x 30 mm shaft,
0.75 mm wide lancet blade,
disposable, sterile (box of 6)
EG-5563 straight
EG-5663 angled

For sclerotomy incisions with smooth, easy
penetration through the limbus or pars plana.
Tip provides a fluid-tight seal and is tapered for
easy withdrawal.



* Manufacturer:
MicroVision, Inc.
Seabrook, NH
USA



*smaller is better,
less traumatic,
less pain*



Micro Scissors
sharp tipped blades

*E25-602S23 straight

*E25-603S23 curved

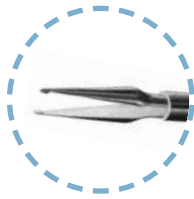
*E25-605S23 vertical 45°



Crocodile Forceps
serrated micro jaws

*E30-672S23

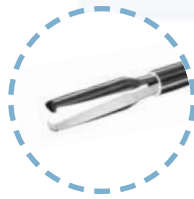
ideal for macular applications...



End Gripping Forceps
micro tips platform

*E30-673S23

fine membrane grasping...



Eckhardt Style Forceps
end gripping nail-like tips

*E30-687S23

and peeling of ILM



Tano Style Forceps
asymmetrical jaws

*E30-689S23

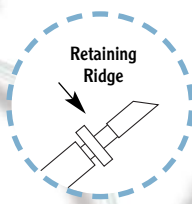
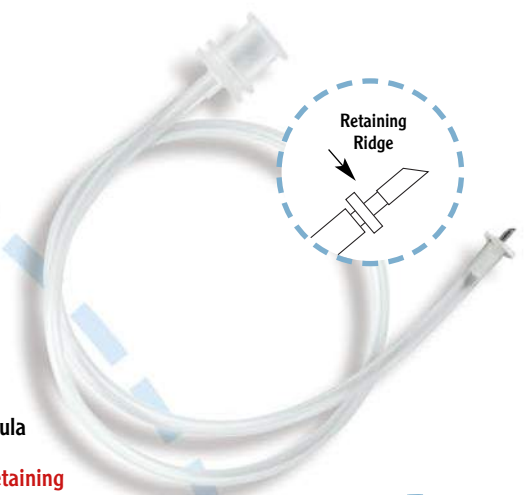
* fits through 23GA/0.65 mm Trocar System



Self-Retaining Infusion Cannulae
23GA/0.65 mm x 4.0 mm tip,
disposable, sterile (box of 5)

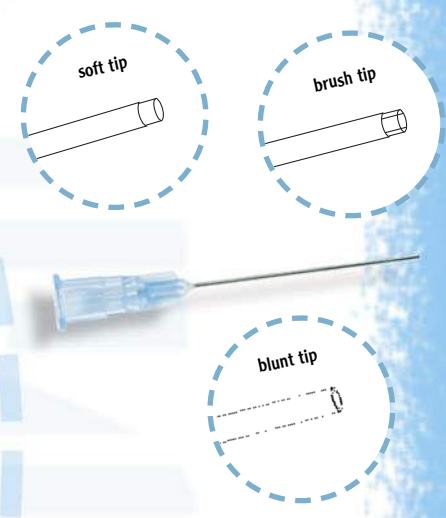
- *5144 infusion cannula
- *5165 silicone oil cannula

designed for sutureless fixation; retaining
ridge holds cannula securely in place



Disposable Backflush Cannulae
23GA/0.65 x 30 mm tube,
sterile (box of 10)

- A3209 blunt tip, Charles Flute Cannula
- A3195 soft tip, 2.0 mm silicone sleeve
- A3208 brush tip, 0.6 mm silicone sleeve

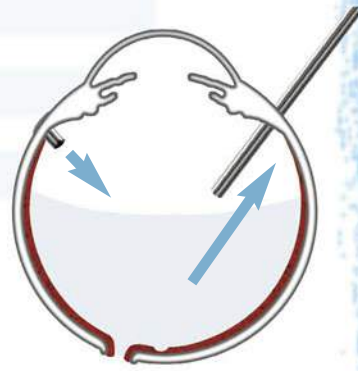


Backflush Handpiece
for passive aspiration (manual control)
with XL silicone reservoir,
male Luer-Lock connector
E20-731XL

extra large reservoir
for increased capacity,
allows reflux of greater
volumes of fluid



Replacement Reservoir
E20-732XL



Fluid-air exchange with simultaneous
aspiration of intravitreal fluid
through blunt tip extrusion cannula.



Charles Flute Cannula

A3209

* Manufacturer:
MicroVision, Inc.
Seabrook, NH
USA



23GA/25GA DISPOSABLE TROCAR CANNULA SYSTEMS

VITREORETINAL INSTRUMENTS



23GA/0.65 mm TWO STEP Cannula System

complete, each package includes:
3 x cannula inserter with preloaded
cannula with self-sealing valve,
1 x trocar knife and 1 infusion line
disposable (pack of 6)

5700



sterilise before use

The unique cannula inserter works together with an ergonomically designed knife to accomplish oblique cannula insertion directly into the eye via pars plana.



DIRECTION FOR USE

Self-sealing cannulae are pre-mounted on the trocar insertion tools. Slide the trocar needle forward until it locks into the handle. Introduce the cannula with the trocar needle. Forceps may be used to hold the cannula in place while removing the trocar needle. The cannula is self-sealing and will minimise fluid loss when not in use.



Attach the Luer connector of the infusion line to a source of infusion fluid. Prime the infusion line. Insert the metal connector in to the rubber cap on one of the cannulae. Immobilise the infusion line and verify that it is securely attached to the cannula before use.

25GA/0.5 mm ONE STEP Trocar Cannula System

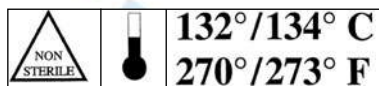
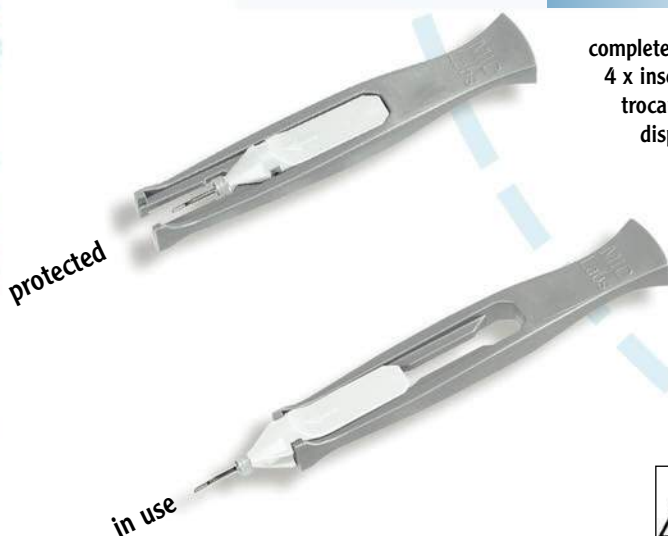
complete, each package includes:
4 x inserter handles with preloaded
trocar cannula and one infusion line
disposable (pack of 6)

5605



sterilise before use

Insert handle consists of sharp wire trocar mounted to plastic handle. The inserter comes with a 25GA/0.5 mm cannula preloaded and is delivered in a safe, retracted position.



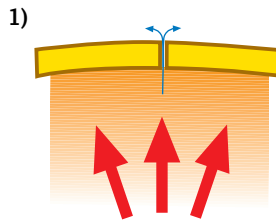
Not for sale in Europe

Manufacturer:
MID Labs
Medical Instrument Development
Laboratories, Inc.
San Leandro, CA, U.S.A 94577

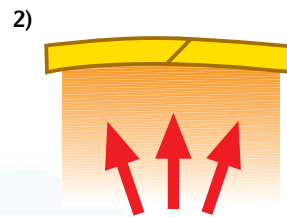
ECE0308F

*for better incision closure
and cannulae stability*

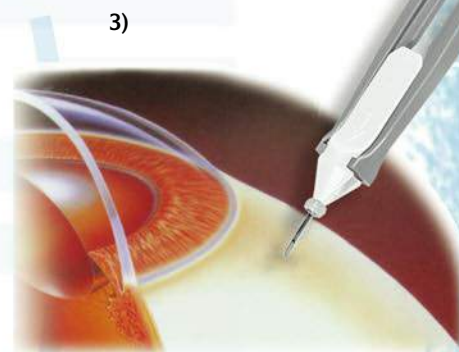
1)
The conventional method of inserting a trocar cannula vertical to the scleral surface promotes incisions that are small (0.5 to 0.6 mm), however with poor sealing ability.



2)
The oblique insertion technique with “valve” effects seals better than the traditional vertical technique. Valve-like incisions are very similar to self-sealing corneoscleral incisions performed in cataract surgery.



3)
Oblique insertion of trocar cannula can be performed with a straight or angled 23GA/25GA trocar inserter. Both types are designed to accomplish oblique cannula insertion directly into the eye. Straight cannula inserters are introduced at an approximate 45° angle to the scleral surface with a movement tangential to the limbus.



**23GA/0.65 mm
ONE STEP (without self-sealing valve)
Trocar Cannula Set**

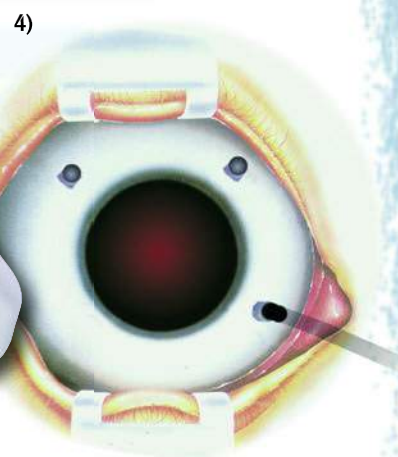
complete, each package includes:
2 x trocars with instrument cannula, 1 x inserter (dark blue) with cannula for fluid/gas, 1 x infusion line, 2 x scleral plugs,
1 x scleral plug forceps, 1 fixation blade,
disposable, sterile (box of 20)

03VI11



Simple System available upon request:

23GA ParsMate Trocar Kit
complete, kit includes: 4 x trocars with insert cannula,
1 x infusion cannula, 1 x scleral tablet with 4 plugs
pressure plate may be added upon request

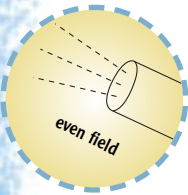
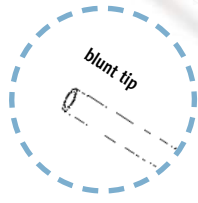
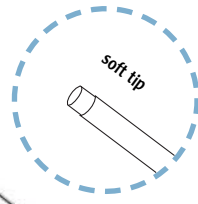
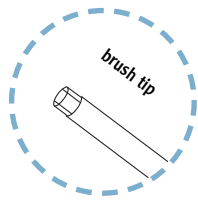


4)
Using an oblique incision instead of a vertical incision helps maintain cannula stability in the eye. Oblique positioning of the trocar cannulae does not affect the maneuverability of the instruments.



VITREORETINAL INSTRUMENTS

it's your choice



Silicone Tip Cannulae
25GA/0.5 x 30 mm tube,
disposable, sterile (box of 10)

A3210 brush tip

A3211 blunt tip

A3196 soft tip

silicone tips ensure safe entry through a macular tear or hole for aspiration of subretinal fluids



Fiber Optic Endo-Illuminators

available in 23GA and 25GA
disposable, sterile (box of 5)

single purpose illuminator providing an even field and/or wide field illumination



Endo Laser Probes

available in 20GA, 23GA and 25GA,
straight and angled tips, sterile (box of 5)

for Alcon, Coherent, Zeiss,
HGM and Nidek systems



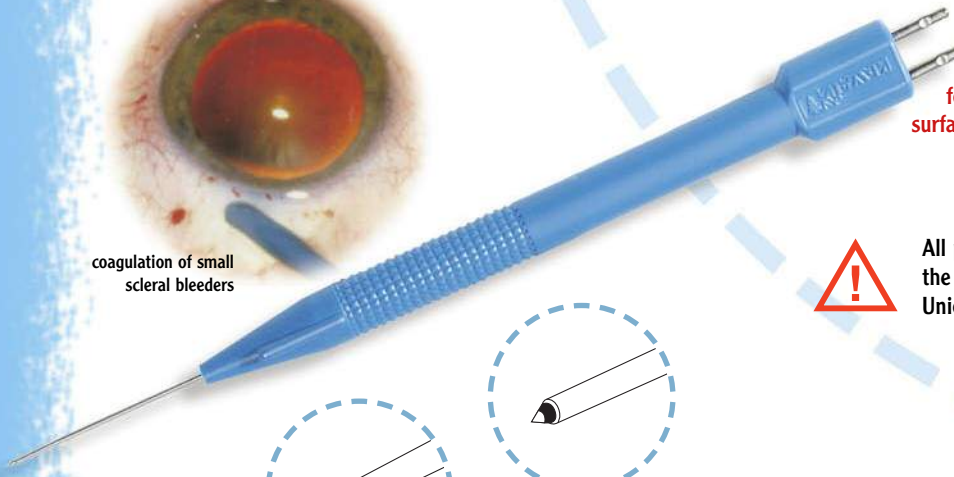
Bipolar Cautery Pencils

23GA/0.65 mm shaft,
smooth and pointed tips,
reusable and disposable

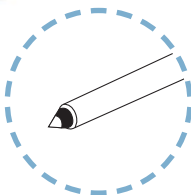
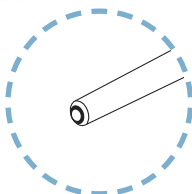
for gentle coagulation of scleral surface and intraocular hemostasis



coagulation of small scleral bleeders



All products shown are "Made in the USA" and carry the European Union CE Mark registration.

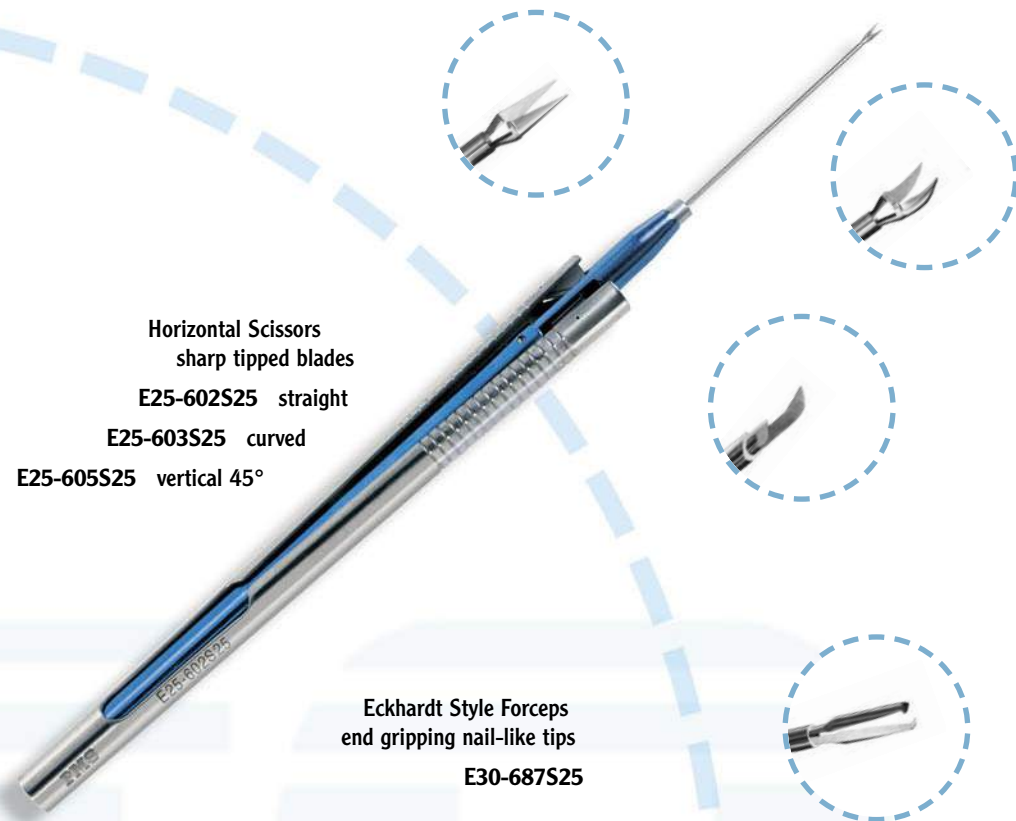


25GA/0.5 MM MINIATURE INSTRUMENTS



VITREORETINAL INSTRUMENTS

Horizontal Scissors
sharp tipped blades
E25-602S25 straight
E25-603S25 curved
E25-605S25 vertical 45°



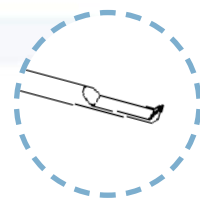
Eckhardt Style Forceps
end gripping nail-like tips
E30-687S25



Berrod Style Forceps
end gripping tips platform
E30-673S25



Membrane Spatulae
removable 130° triangular tip
E15-371S23 23GA/0.65 mm
E15-371S25 25GA/0.5 mm



Aluminium Handle
for removable tips
E15-100AB

Membrane Picks
removable 130° spatulated tip
E15-373P23 23GA/0.65 mm
E15-373P25 25GA/0.5 mm



tips and handle also sold singly



Simple to use!



V.I.I.K.
Vitreous Injection Kit
 consisting of the following:
 Barraquer Adult Eye Speculum,
 Scleral Marker (4.0/3.5 mm),
 Hypodermic Needle 32GA/0.2 mm,
 disposable, sterile (box of 10)

*PD900.10

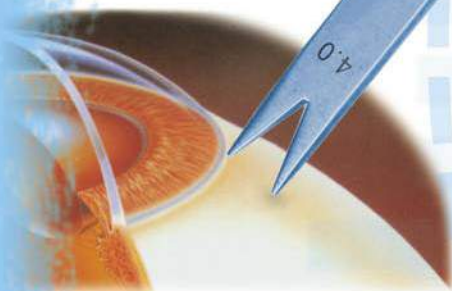
for office based intravitreal injections and examinations.



Universal Sclerotomy Caliper
 titanium, blunt tips, 4.0 cm

E40-571T

for marking 3.0, 3.5 and 4.0 sclerotomy sites



marking sclerotomy site for pars plana vitrectomy

Braunstein
Fixed Sclerotomy Caliper
 titanium, blunt tips, 7.0 cm

E40-573T 3.5-3.0 mm for aphakic eyes

E40-574T 4.0-3.5 mm for phakic eyes

- marks the distance from the limbus to sclera
- marks intravitreal injections entry PPV
- to make the mark for MVR blade incisions

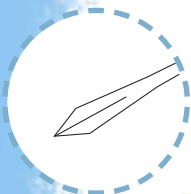


EAGLE
Stiletto MVR Knives
 23GA/0.65 mm shaft,
 0.75 mm wide lancet blade,
 disposable, sterile (box of 6)

EG-5563 straight

EG-5663 angled

For sclerotomy incisions with smooth, easy penetration through the limbus or pars plana. Tip provides a fluid-tight seal and is tapered for easy withdrawal.



* Not for sale in Europe

* Manufacturer:
 Peregrine Surgical Ltd.
 New Britain, PA
 USA

*IrisMate®
Flexible Translimbal
Iris Retractors*

*IRIS-1000 reusable (6 pcs) in autoclavable case
**IRIS-2000 disposable (5 pcs) in plastic tray

- Ideal for temporary iris dilation.
- Safely used in Aphakic, Pseudophakic and Phakic eyes.
- Works through 0.3 mm - 0.5 mm self sealing incision.
- Specially designed silicone cinch provides superior grip.
- Nylon hook retracts iris with minimal damage to the tissue.
- Cinch is colour coded for easier viewing under microscope.



flexible nylon hooks
can be easily inserted
and removed through
four evenly spaced
translimbal incisions

all **MEDICAL GRADE** materials

Video available

* Manufacturer:
Howard Instruments, Inc.
Tuscaloosa, AL
USA

** Manufacturer:
Biotech Vision Care Ltd.
Khatraj, Gandhinagar
India

Retinal Nails & Forceps
for temporary fixation of the retina in case of immobile retina

Reusable Retinal Nail
20GA/0.9 mm trocar tip
of 2.85 mm working length,
non-sterile (4 per tablet)
E20-720NS



sterilise before use

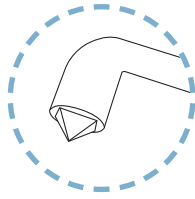
Retinal Nail Holding Forceps
removable tip (360° rotatable),
20GA/0.9 x 30 mm straight shaft,
cup-shaped 1.0 mm jaws, 15.2 cm
E30-690N complete
E30-690R tip only
E10-010T handle only



VITREORETINAL INSTRUMENTS



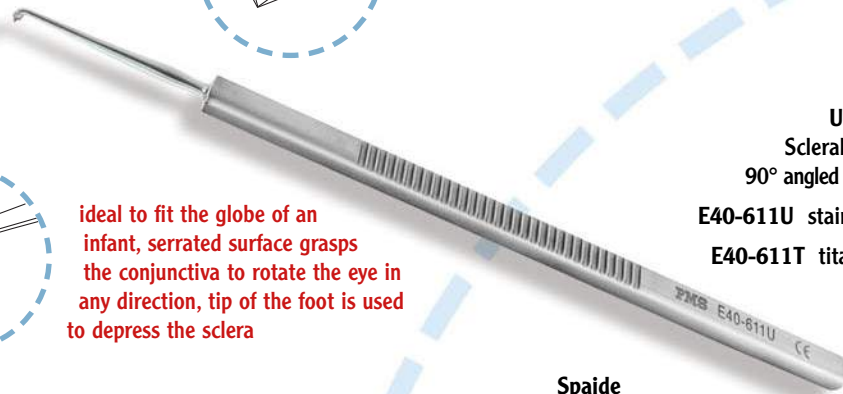
MISCELLANEOUS - SCLERAL DEPRESSORS AND MARKERS



pick has sufficient sharpness to rotate the globe during examination

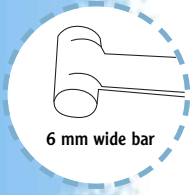


ideal to fit the globe of an infant, serrated surface grasps the conjunctiva to rotate the eye in any direction, tip of the foot is used to depress the sclera



Urrets-Zavalía
Scleral Depressor-Fixation Pick
90° angled tip with pick, 12.0 cm
E40-611U stainless steel
E40-611T titanium, curved shaft

Spaide
Pediatric Scleral Depressor
curved, serrated tip, 12.5 cm
E40-611S



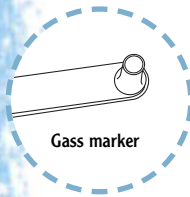
teardrop shaped tip for making a sharp protrusion at the side of mid-peripheral lesion or retinal tear.

6 mm wide bar



Shinja Hara
Scleral Depressor
6 mm wide bar and 7 mm angled hook with 2 mm teardrop shaped tip, 13.5 cm
E40-612S

Video available



Gass marker

trephine-like 1.5 mm tip produces a ring shaped mark on the sclera when pressure is applied



O'Connor-Schockett
Scleral Depressor-Marker
6 mm wide bar and 1.5 mm Gass Marker, 13.5 cm
E40-612C



Teardrop tip

rounded end designed for depressing sclera and curved marking end for reaching behind the globe



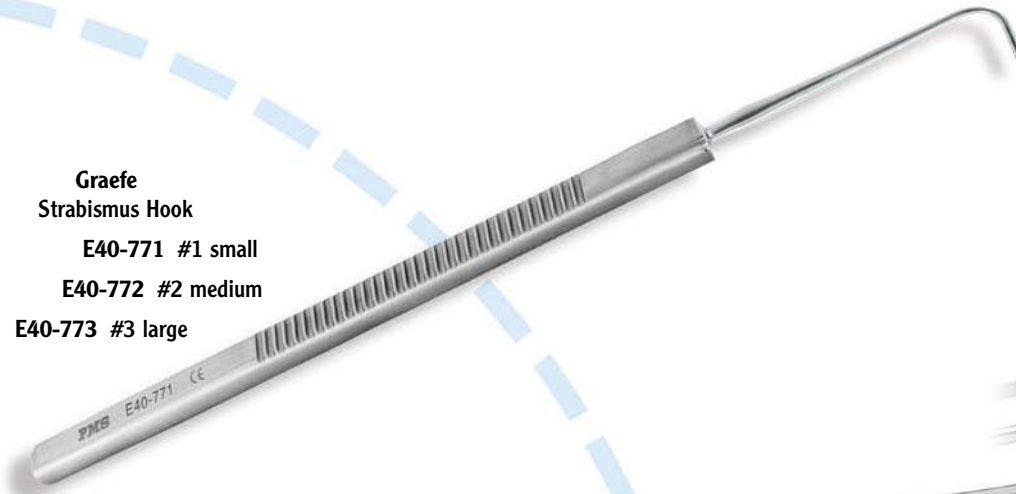
Schockett
Scleral Depressor
6 mm wide bar and 2.5 mm teardrop shaped tip, 13.5 cm
E40-613 stainless steel
E40-613T titanium

**Graefe
Strabismus Hook**

E40-771 #1 small

E40-772 #2 medium

E40-773 #3 large



**Jameson
Muscle Forceps**

slide lock, adult size,
6 teeth, 10.0 cm

E30-700 right

E30-701 left



Gass

Retinal Detachment Hook
flat tip with 1.5 mm oval hole, 14.0 cm

E40-777



Schepens

Orbital Retractor
curved smooth blade with
4.0 mm wide notch, 15.0 cm

E40-813



Bonn Model

Orbital Retractor
angled smooth blade with
convex-concave surfaces,
15.0 cm

E40-815





*Instrument sets
are presented as
guidelines only*

VITREORETINAL INSTRUMENTS



E25-333



E35-231



E40-613



E40-779T



E25-581

E42-140 RETINAL DETACHMENT SET
complete, consisting of the following:

- E30-902** Mosquito Forceps (2x), page 16
- E30-934** Dieffenbach Serrefine (4x), page 16
- E40-078** Castroviejo Eye Speculum, page 17
- E40-554** Castroviejo Eye Caliper, page 19
- E20-001** Bishop-Harmon Irrigator, page 20
- E20-031** Rycroft Infusion Cannula, page 20
- E25-333** Westcott Tenotomy Scissors, page 59
- E25-565** Stevens Tenotomy Scissors, page 59
- E30-063** Barraquer Colibri Forceps, page 61
- E30-423** Harms Tying Forceps, page 24
- E30-430** Bonn Suturing Forceps, page 24
- E35-132** Castroviejo Needle Holder, page 25
- E35-231** Barraquer Needle Holder, page 25
- E40-111** Desmarres Lid Retractor, page 17
- E40-771** Graefe Strabismus Hook, page 207
- E40-613** Schockett Scleral Depressor, page 206

MISCELLANEOUS TO RETINAL

- E40-611U** Scleral Marker & Fixation Pick, page 206
- E40-777** Gass Retinal Detachment Hook, page 207
- E40-779T** Eye Thermocauter, titanium, page 208
- E40-813** Schepens Orbital Retractor, page 207
- E30-835** Sleeve Spreading Forceps, page 219

Nurse Scissors, 13.0 cm
straight 35 mm blades

- E25-580** sharp/sharp
- E25-582** sharp/blunt
- E25-584** blunt/blunt
- curved 35 mm blades,
- E25-581** sharp/sharp
- E25-583** sharp/blunt
- E25-585** blunt/blunt



Directions for use

Note: This item is sold as *NON-STERILE*

PLACEMENT:

- 1) Clean and Sterilize (gas or steam autoclave) scleral plugs.
- 2) After sterilization, open pouch onto sterile field.
- 3) With cross action forceps, grasp plug head and lift from retaining block.
- 4) With forceps attached to head, place tip of plug into sclerotomy.
- 5.) With scleral plug properly positioned in sclerotomy, remove forceps.

REMOVAL

- 1) Grasp scleral plug head with forceps and gently remove from sclerotomy.



R19-1000

E42-141 VITRECTOMY SURGICAL SET
complete, consisting of the following:

EG-5560 Stiletto MVR Knife 20GA, page 58

R19-1000 Scleral Plug Set 19GA, page 195

E30-777T Scleral Plug Forceps, page 195

175-40 Infusion Cannula 4 mm, page 194

E20-730 Backflush Instrument, page 190

E20-741LL Backflush Handpiece, page 191

E20-704 Tapered Tip Cannula, page 190

E25-602S Vitrectomy Scissors, page 175

E30-672S Vitrectomy Forceps, page 176



E25-602S

FOR MEMBRANE MANIPULATION ADD

E15-350R Membrane Peeler, page 188

E15-355R Membrane Rake, page 188

E15-371R Membrane Pick, page 189

E30-679S Vitreous Forceps, page 176



E15-355R

FOR 23GA/0.65 MM OBLIQUE INSERTION

E20-723R Reusable Trocar System, page 197

5700 Disposable Cannula System, page 200



5700

MISCELLANEOUS TO VITRECTOMY

Fiber Optic Light Probes, page 186

Bipolar Cautery Pencils, page 202



Fiber Optic Endo-Illuminator



*naturally pure,
highly purified*

VITREORETINAL INSTRUMENTS



AlfaSIL TRS
Purified Silicone Oil
preloaded 15 ml syringe,
sterile (box of 5)

REF 24-TRS standard connector

REF 24TRSA for Alcon + Dorc

REF 24TRSB for Bausch & Lomb

REF 20L32 for Fritz Ruck

for automatic pressure injection



tubing with VFI standard connector
REF 24-TRS

GENERAL DESCRIPTION

AlfaSIL Silicone Oil is an oil liquid, of high viscosity, used to replace the vitreous humour during vitrectomy surgeries with long time of permanence in the eye, usually more than 30 days.

CHEMICAL COMPOSITION

Formula: $[-Si(CH_3)_2O-]_n$
Viscosity: 1000 cSt at 25°C
Refractive index 1.405 at 24°C
Density: 0.965 g/cm³ at 24°C

INDICATIONS FOR USE refer to page 207

PACKAGING AND STERILISATION

AlfaSIL Silicone Oil is available in preloaded 15 ml syringe or in 10 ml vial. AlfaSIL is dry heat sterilised and filled in its sterile container. The final container (syringe or vial) is sterilised by radiation.



The use of purified silicone oil as an internal tamponade is not recommended for patients with intraocular silicone lenses.

AlfaSIL
Purified Silicone Oil
sterile (vial of 10 ml)
REF 24



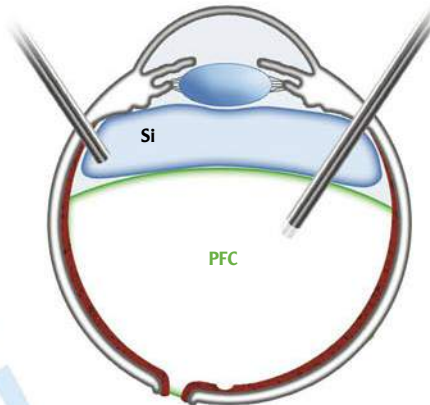


*exceptional stable,
and transparent*

INDICATIONS FOR USE

Silicone Oil SO-1000/SO-5000 is used for intraocular tamponade in severe cases of retinal detachment, e.g.

- proliferative vitreo-retinopathy (PVR)
- giant tears
- ocular trauma
- secondary RD with viral retinitis
- as well as other retinal detachment, which can not be treated with other forms of therapy.



SO-1000 exchange procedure with passive aspiration through Brush Tip Cannula

Purified Silicone Oil is available in the following:			
in 10 ml sterile vial		in 10 ml sterile syringe	
SO-1000	1000 cSt	SO-1000-S	1000 cSt
SO-1300	1300 cSt	SO-1300-S	1300 cSt
SO-2000	2000 cSt	SO-2000-S	2000 cSt
SO-5000	5000 cSt	SO-5000-S	5000 cSt



CHEMICAL COMPOSITION
see AlfaSIL REF 24

The choice of viscosity offers an optimum balance between easy injection and a stable temporary tamponade.

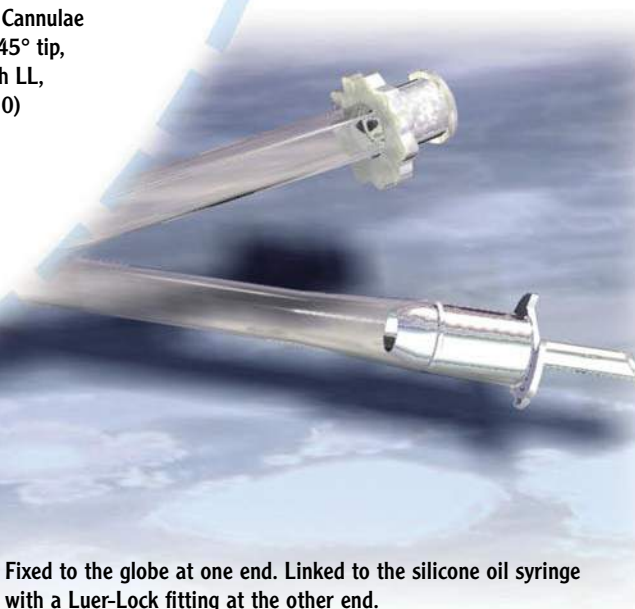
CE 0120 APPROVED FOR SALE IN ALL EUROPEAN UNION COUNTRIES

High Viscosity Infusion Cannulae
20GA/0.9 mm bevelled 45° tip,
attached to silicone tubing with LL,
disposable, sterile (box of 10)

MIS-1040 4.0 mm tip

MIS-1060 6.0 mm tip

*designed for easy injection of
high viscosity substance
such as silicone oil*



Fixed to the globe at one end. Linked to the silicone oil syringe with a Luer-Lock fitting at the other end.

Manufacturer:
Howard Instruments, Inc.
Tuscaloosa, AL
USA

VITREORETINAL INSTRUMENTS



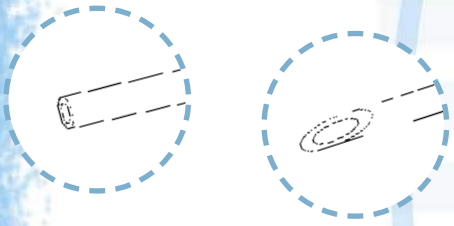
STERILE EO
STERILISED BY ETO



Peyman
Silicone Oil Cannulae
8 mm tube, bevelled tip
disposable, sterile (box of 10)
167-16 16GA/1.6 mm
167-19 19GA/1.1 mm

Wagner
Silicone Oil Cannulae
16GA/1.6 x 8 mm tube, bevelled tip,
attached to 6" (15.0 cm) high pressure extension tube,
disposable, sterile (box of 3)
167-16T

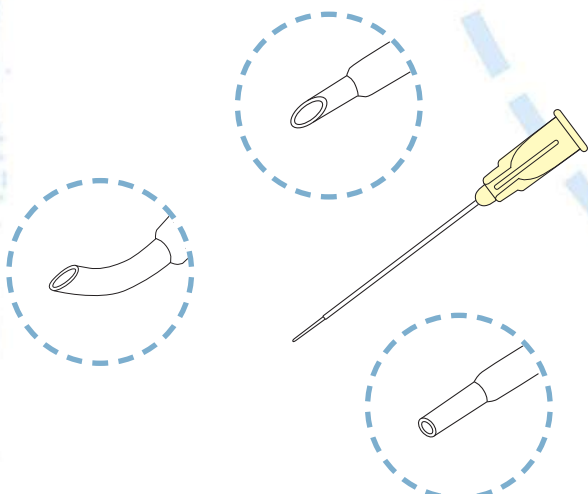
for injection or aspiration of high viscosity fluids in the repair of retinal detachments



Silicone Oil Cannula (Manual Delivery System)
8 mm cannula with 6" (15.0 cm) high pressure extension tube
preattached to a 10 ml ring control syringe, sterile (box of 3)
167-20TS 20GA/0.9 mm
167-19TS 19GA/1.1 mm
167-16TS 16GA/1.6 blunt tip



Subretinal/Vitreoretinal Injection Cannulae
20GA/0.9x25 mm tube, 32GA/0.25mm tip
173-32 straight 3 mm bevelled tip
175-32 curved 8 mm rounded tip



Subretinal/Vitreoretinal Aspiration Cannulae
20GA/0.9x25 mm tube, 32GA/0.25mm tip
173-34 curved 8 mm bevelled tip
175-28 straight 4 mm rounded tip

pictures shown are smaller/larger than actual sizes indicated



sterilise before use

Silicone Oil Cannulae
8 mm tube, bevelled tip
E20-716 16GA/1.6 mm
E20-719 19GA/1.1 mm

for injection or aspiration of high viscosity fluids in the repair of retinal detachments

Standard Infusion Cannulae
non-sterile (sold singly)
E20-752 2.5 mm tip
E20-754 4.0 mm tip
E20-756 6.0 mm tip

Silicone Oil Syringe
10 ml glass syringe with
screw activated plunger,
12.0 cm
E20-820

Viscous Fluid Pressure Injector
10 ml glass syringe with finger support
and pressure activated plunger,
12.5 cm
E20-821

High-Flow Fluid Filter .20 Micron
male/female Luer-Lock fittings,
disposable sterile
(50 per box)

201-20

**used between syringe and cannula to
filter out particulates and contaminants**

pictures shown are smaller/larger than actual sizes indicated



*colourless,
optical clear,*

VITREORETINAL INSTRUMENTS



VITRION
Perfluorocarbon Liquid
sterile (vial of 5 ml)
*REF 100VTO

GENERAL DESCRIPTION

Vitron is made by 98% of Octadecafluoro-decanydnaphthalene. It is treated to reduce as far as possible its residual toxicity. Existing impurities are 100% fluorinated and are fluorinated open chains of the same kind.

CHEMICAL COMPOSITION

Formula: $C_{10}F_{18}$
Molecular weight: 462.08
Refractive index: 1.314 at 24°C
Density: 1.941 g/cm³ at 25°C
Boiling point: 141°-143°C

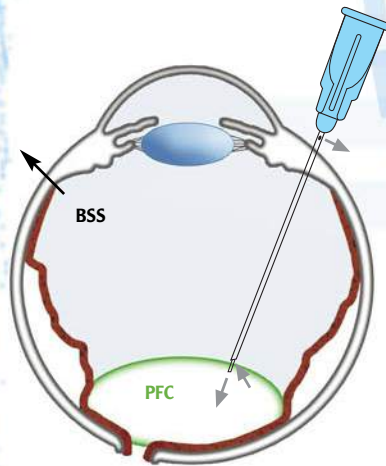
DESTINATION OF USE

Perfluorocarbon liquid is a high tensy liquid for vitreous chamber washing during ocular surgery with a maximum time of permanence in the eye of one hour.

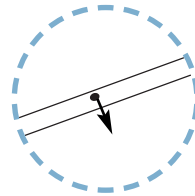
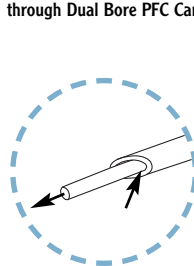
INDICATIONS FOR USE refer to page 209

PACKAGING AND STERILISATION

Vitron is packaged in 5 ml bottle of pharmaceutical glass with cap and seal. The bottle is outside and inside sterile, packaged in a sealed sterile bag.



retinal attachment with Perfluorocarbon through Dual Bore PFC Cannula



cut-off aspirating port allows to control constant intraocular pressure during injection

Dual Bore PFC Coaxial I/A Cannula

19GA outer tube with 0.4 mm aspiration port,
25GA inner tube with open end irrigating port,

E20-325 reusable (sold singly)

149-19 disposable (box of 10)

with aspiration channel for passive aspiration of intraocular fluid during injection of PFC

*  **Manufacturer:**
Alfa Instruments,
Casoria (NA),
Italy



*100% fluorinated
and purified*

INDICATIONS FOR USE

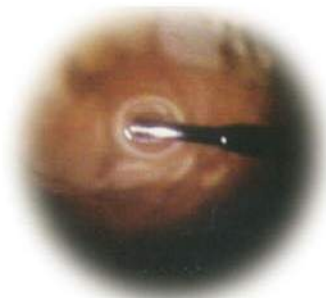
DecalineMate® Perfluorocarbon serves perfectly as an aid in temporary flattening of the retina and in the surgical treatment of:

- retinal detachment
- giant tears
- ocular trauma
- laser coagulation and cryotherapy
- lifting of subluxated lenses
- retinal bleeding
- short term tamponade

CHEMICAL COMPOSITION

Formula: C₁₀F₁₈
 Molecular weight: 462
 Refractive index: 1.310 at 20°C
 Density: 1.93 g/cm³
 Boiling point: 142°C
 Surface tension: 19.0 at 25°C
 Interface tension: 57.8 at 20°C

* **Manufacturer:**
 Howard Instruments, Inc.
 Tuscaloosa, AL
 USA



PFC-air exchange using blunt tip extrusion cannula



DecalineMate®
 Perfluorocarbon
 100% fluorinated,
 sterile (vial of 7 ml)
 *PFD-2000

CE 0120 APPROVED FOR SALE IN ALL EUROPEAN UNION COUNTRIES

Dual Bore PFC I/A Cannulae
 disposable, sterile (box of 5)

**5191 20GA/0.9 mm

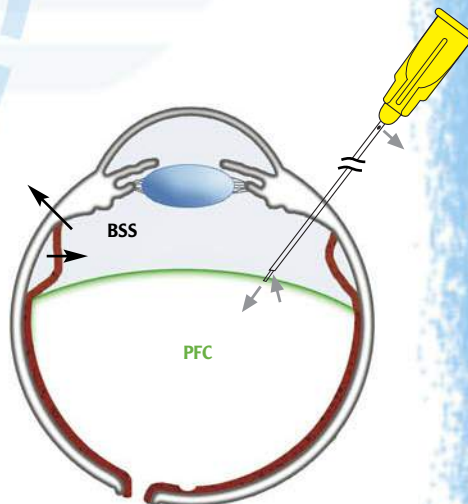
**5203 23GA/0.65 mm

*for simultaneous infusion of heavy liquids
and aspiration of intraocular fluids*

Dual Bore Subretinal BSS Injection Needle
 20GA/0.9 tube with 41GA/0.1 mm tip
 disposable, sterile (box of 1)

**5194

*to control subretinal
injection of BSS*



retinal attachment with Perfluorocarbon through Dual Bore PFC Cannula

VITREORETINAL INSTRUMENTS

** **Manufacturer:**
 MicroVision, Inc.
 Seabrook, NH
 USA



Howard GasMate® Tamponades come in a kit as described below, containing a sterile 50 ml bottle gas, (your choice) and may be purchased in the following:

- 99.9% PURE
- GMC3F8-PURE C3F8 Perfluoropropane
- GMC2F6-PURE C2F6 Hexafluoroethane
- GMSF6-PURE SF6 Sulfur Hexafluoride

PRE-MIXED WITH DRY NITROGEN

- GMC3F8-MIXED C3F8 Perfluoropropane
- GMC2F6-MIXED C2F6 Hexafluoroethane
- GMSF6-MIXED SF6 Sulfur Hexafluoride

contact us for specific mixtures



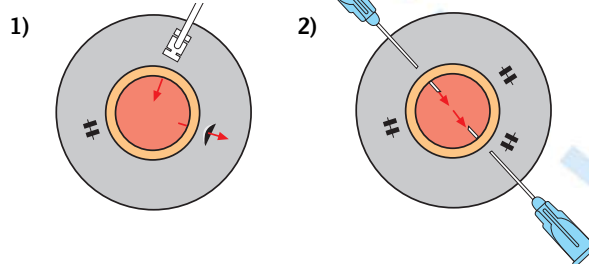
GasMate® Kit

- complete, each kit includes:
- 1 x sterile bottle of C₃F₈, C₂F₆ or SF₆ (your choice)
 - 1 x sterile disposable syringe (60 ml),
 - 1 x sterile high quality filter,
 - 1 x sterile valve

CE 0120 APPROVED FOR SALE IN ALL EUROPEAN UNION COUNTRIES

INJECTION OF GAS MIXTURE

There are two possible techniques for replacing intraocular air by the gas mixture. Following fluid-air exchange, the gas mixture can be injected via the infusion line before the final closure of sclerotomies 1) or with the globe closed, using a 30GA/0.3mm needle cannula.





*optimal for routine
vitrectomy procedures*

Biconcave Lens

***RSL-1000**

clear view of the fundus in an airfilled vitreous



Flat Lens

***RSL-2000**

for 36° field of view of the central posterior pole and vitreous



Magnifying Lens

***RSL-3000**

for thorough viewing central posterior fundus and structures deep in the vitreous cavity, on the vitreous cavity and on the retinal surface



Wide Field Lens

***RSL-4000**

48° field of view when observing central posterior pole and vitreous



30° Prism Lens

***RSL-5000**

viewing of the periphery and vitreous beyond the equator

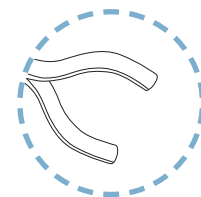


Landers

Vitrectomy Lens Forceps
angled 45° shaft, curved
grooved blades, 11.5 cm

E30-837T

for holding the Landers
Vitrectomy Lenses



*** HOWARD RSL-LENSES**

- Manufactured of optically clear silicone
- High resolution PMMA optics
- Self-retaining silicone flange in place of sew-on ring
- Economical back up for reusable lenses
- Single use, eliminates risk of contamination
- Individually sterile packaged (box of 10)

VITREORETINAL INSTRUMENTS



*Bands
Strips
Tires
Sleeves
Sponges*



FOR DECADES
medical grade silicone materials for
scleral buckling surgery have been the gold
standard in the treatment of retinal detach-
ment throughout the world with great success.

MATERIAL FEATURES:

- Soft and elastic
- Biocompatible and non-toxic
- Non-antigenic
- Tailored to size

INDICATIONS FOR USE

Silicone retinal implants are used for intrascleral and
episcleral buckling in retinal reattachment surgery.



STERILISATION AND PACKAGING

Solid Silicone Implants and Silicone Sponges are gas sterilised with
100% ethylene oxide (ETO) and are guaranteed to be sterile unless
the package has been damaged or opened. Individually sterile packaged
(box of 5).

SCLERAL BUCKLING

Circular Scleral Buckling is useful when the vitreous is hemorrhagic,
in order to prevent late retraction of the base of the vitreous and
secondary retinal detachment. This can be performed at the
beginning of the procedure or after vitrectomy.



Circular scleral buckling.

Sapphire Crescent Knives

angled, facet-free blade (bevel up)

E10-191 1.5 mm

E10-192 2.0 mm

E10-193 2.8 mm

**ideal for scleral dissection in
scleral buckling procedure**

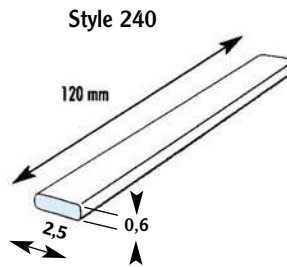




*Solid Silicone
Implants*

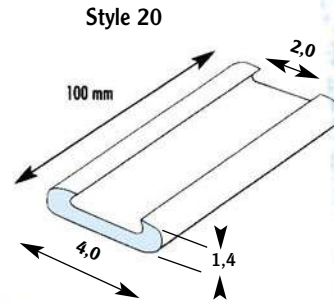
Bands

Circling styles:
40, 41, 42, 240



Strips

Grooved styles:
20, 31, 32, 219, 220, 225



Tires



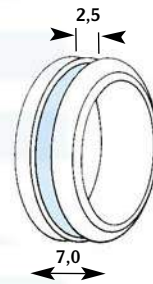
Asymmetrical styles:
275, 276, 278, 280



Concave styles:
277, 279



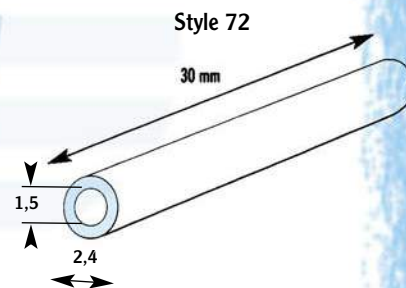
Convex styles:
286, 287, 287WG, 289



Style 277

Sleeves

Round styles:
70, 71, 72, 270



Style 72

Watzke
Sleeve Spreading Forceps
angled, finely serrated jaws,
11.5 cm

E30-835

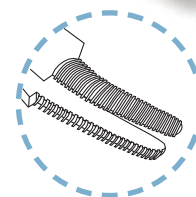
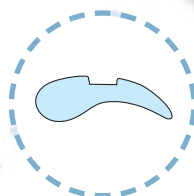
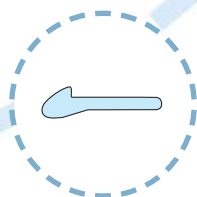
ideal to fix sleeve onto circling bands

Radial Wedges

styles: 135,137

Meridionales

styles: 103,106,112



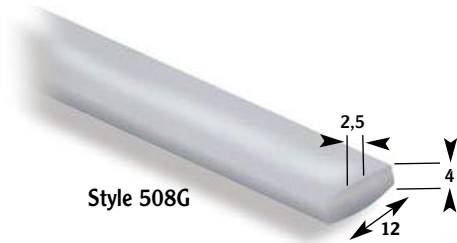
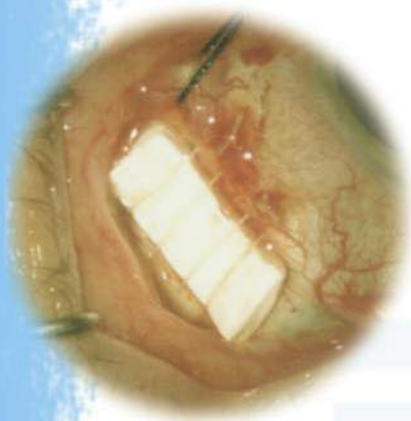
all dimensions are in millimeters, drawings shown are larger than actual sizes indicated

VITREORETINAL INSTRUMENTS



SCLERAL SPONGE IMPLANTS ON REQUEST

VITREORETINAL INSTRUMENTS



Style 508G

Gooved

Styles: 506G, 507G, 508G, 509G, 516G, 519G



Style 510

Part-Thickness

Styles: 510, 511, 515, 517

MATERIAL

Scleral Sponges are made of soft silicone elastomer composed of closed micro cells.

LENGTH

Silicone sponge implants are pre-cut to a length of 80 mm unless otherwise specified.

PACKAGING

Individually sterile packaged (box of 5).



Style 505

Round

Styles: 503, 504, 505



Style 501

Oval/Oblong

Styles: 501, 506, 507, 509

all dimensions are in millimeters, pictures shown are larger than actual sizes indicated