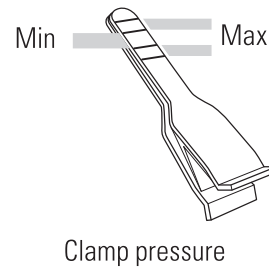
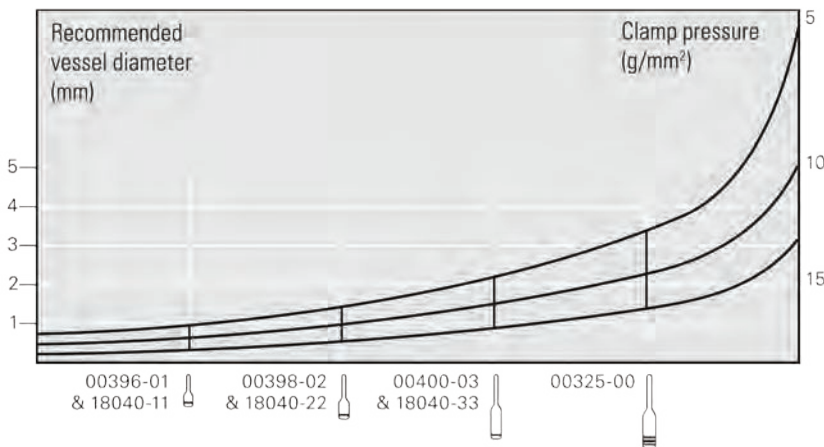


Clamp Size and Clamp Pressure

Clamp pressure is determined by the closing force of the clamp (in grams), divided by the area of the vessel wall that is compressed between the jaws (in square millimeters). Thus, the smaller the vessel, the higher the pressure exerted.

Despite the wide range of closing forces, the pressure exerted by each clamp, big or small, remains consistent throughout the series. Each size of clamp exerts a pressure of 5 g/mm² when used on the largest vessel in its range, and 15 g/mm² when used on the smallest vessel. Even at the higher range, S&T's micro clamps have the gentlest working pressure of any small vessel clamp available.

Clamp (ea)	L x W (mm)	Vessel Diameter Range (mm)
00396-01 & 18040-11	3.5 x 1.0	0.4 - 1.0
00398-02 & 18040-22	5.5 x 1.5	0.6 - 1.5
00400-03 & 18040-33	7.5 x 1.75	1.0 - 2.25
00325-00	10 x 2.15	2.0 - 5.0



VASCULAR INSTRUMENTS

Micro Clamps



S&T B-1

No. 00396-01



S&T B-2

No. 00398-02



S&T B-3

No. 00400-03



S&T HD-S

No. 00325-00

Double Micro Clamps

For vascular approximation at anastomosis. These clamps are mounted on a 10 mm sliding bar and can easily be moved by applying gentle force. The distance between the jaws of the clamps is adjustable from 3 to 16 mm.



No. 18040-11



No. 18040-22

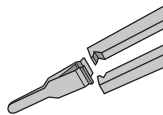


No. 18040-33

Micro Clamp Applying Forceps

For use with S&T vascular clamps.

S&T®



14 cm
Lock: Yes

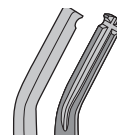
No. 00071-14

Lock: No

No. 00072-14

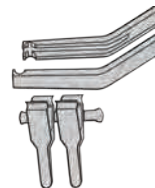
Micro Clamp Applying Forceps

Compatible with S&T Clamps and Double Micro Clamps. For clamp sizes B-1, B-2, B-3, and HD-S, as well as Item Nos. 18040-11, 18040-22, and 18040-33.

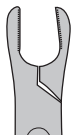


14.5 cm
Lock: No

No. 18040-14



Micro Clip Applicator with Lock



14 cm

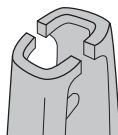
For use with FST 18055 and 18555 series micro serrefines.

Lock: Yes

No. 18056-14

Forceps Style Clip Applicator

This applicator features special U-shaped side supports for improved seating of the clips.



14 cm

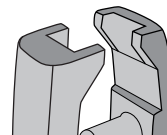
For use with FST 18055 and 18555 series micro serrefines.

Lock: No

No. 18057-14

Biemer Clip Applicator (Forceps Style)

Application forceps for Biemer clamps made of surgical stainless steel.



14 cm

For use with FST 18058 (Biemer Clip) series

Lock: No

No. 18059-14

VASCULAR INSTRUMENTS

Stainless Steel Micro Serrefines

Used to obtain a clear surgical field for extended arterial cross-clamping.



Micro Serrefines should never be compressed with fingers; use only the appropriate applicator No. 18056-14 or No. 18057-14.

Delicate atraumatic serration



Jaw dimensions (mm)	Total length (mm)	Jaw pressure (g)	Item
10 x 2	19	60	No. 18055-01
8 x 2	16	85	No. 18055-02
6 x 1	15	100	No. 18055-03
4 x 0.75	13	125	No. 18055-04

Jaw dimensions (mm)	Total length (mm)	Jaw pressure (g)	Item
6 x 1	17	85	No. 18055-05
4 x 0.75	16	85	No. 18055-06

Titanium Micro Serrefines

Lightweight with strong clamping pressure.

Delicate atraumatic serration



Jaw dimensions (mm)	Total length (mm)	Jaw pressure (g)	Item
10 x 2	19	60	No. 18555-01
8 x 2	16	85	No. 18555-02
6 x 1	15	100	No. 18555-03
4 x 0.75	13	125	No. 18555-04

Biemer Clip

Serrated: Yes
Straight

Closing pressure:
0.29 - 0.39 N / 30 - 40 g



Biemer clips should never be compressed with fingers; use only the appropriate applicator No. 18059-14.

15 mm Clamping Length: 6 mm 18 mm Clamping Length: 9 mm



No. 18058-15



No. 18058-18

Bulldog Artery Spring Clamp

Can be used with a minimum of distortion for MRI investigations.



30 mm
Serrated: Yes
Light pressure

Straight



No. 18144-30

Moria

Moria Vessel Clamp

Straight

33 mm
Serrated: Yes
Light pressure
Jaw dimensions: 13 x 1.6 mm

Moria 201/A



No. 18320-11

Moria Bulldog Type Clamps

53 mm
Serrated: No
Strong pressure
Jaw dimensions: 16 x 2.5 mm

Straight

Moria MC43



No. 18374-43

Curved

Moria MC44



No. 18374-44

Dietrich Bulldog Clamps

Serrated: Yes
Closing pressure: 50 g

Straight
52.5 mm



No. 18038-45

Angled
50 mm



No. 18039-45

Bulldog Type Serrefines

Serrated: Yes



Straight
28 mm

Medium pressure



No. 18050-28

Curved
28 mm

Medium pressure



No. 18051-28



Straight
35 mm

Strong pressure

No. 18050-35



Curved
35 mm

Strong pressure

No. 18051-35

Straight
50 mm

Strong pressure

No. 18050-50

Curved
50 mm

Strong pressure

No. 18051-50

Schwartz Micro Serrefines

Serrated: No
Strong pressure
26 mm



Straight



No. 18052-01

Light bend



No. 18052-02

Sharp bend



No. 18052-03

Mini Serrefines

28 mm
Medium pressure
Serrated: Yes
Jaw dimensions: 6 x 2 mm

Straight



No. 18054-28

Curved



No. 18053-28

Horizon™ Metal Ligation System

The Horizon™ System provides surgeons with a strong, secure clip coupled with an efficient, convenient easy-load cartridge system. The preformed chevron shape of the Horizon™ Clip engulfs tissue with precise tip-to-tip closure. Heart-shaped wire is designed to give each clip a firm grip on vessels, while the triangulated cross-section of the clip leg maximizes surface-to-surface contact between clip and jaw, practically eliminating clip fallout.



Ligation Clips

1.98 x 2.87 mm
 Pkg. of 6 Clips
 Sterile: No

No. 18070-10



Ligation Applicator

Curved
 20 cm

No. 18070-00

Clip Remover

Straight
 16.5 cm

No. 18073-00

Vascular Occluders

Applications

- Fast, dependable zero-flow baseline determination in blood flow studies.
- Partial to full occlusion of vessels for circulation research studies.
- Prolonged implantations, such as chronic blood flow studies.
- Constriction of soft organs in acute or chronic applications.

Operation instruction

1. Apply the occluder cuff around the exposed blood vessel. Secure it in place with suture material through the eyelets.
2. Occlude the vessel to the desired degree by inflating the diaphragm with air or liquid injected into the actuating tube using a syringe and blunt needle. Clamp the tubing to maintain occlusion of the vessel over time.
3. To deflate, simply withdraw the air or liquid.



The actuating tube length is 90 cm and measures 0.76 mm ID x 1.6 mm OD. Detailed instructions are included.

- A: Lumen diameter
- B: Cuff width
- C: Cuff thickness

VO-1.5 N

A: 1.5 mm - B: < 3.5 mm - C: 1.5 mm

No. 18080-01

VO-2

A: 2 mm - B: 5 mm - C: 1.5 mm

No. 18080-02

VO-3

A: 3 mm - B: 5 mm - C: 1.5 mm

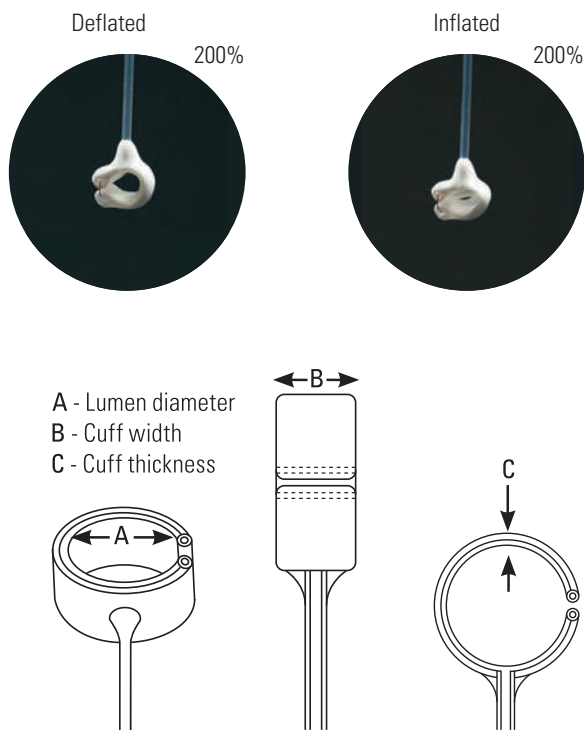
No. 18080-03

Benefits

- Occlusion is accomplished without traction on vessels or surrounding tissues.
- The actuating tube may be exteriorized from the occlusion site for remote actuation.
- Performance during implantations is reliable and consistent.
- Easily maintained: can be autoclaved or cold sterilized.
- Made from soft, flexible 100% silicone rubber.
- Fully operational with instant response using air, liquids, or inert gases.

Selection

The lumen diameter when deflated is usually the determining factor in the selection of the proper device. Select the occluder size that provides a slightly loose fit around the subject vessel. The cuff width and thickness will vary, depending on models and sizes.



VASCULAR INSTRUMENTS

LIGATION

V-Hook

Aids in feeding fine suture around blood vessels, works very similar to ligation aids.



300%

VASCULAR INSTRUMENTS



11 cm

Tip Dimensions: 0.4 x 0.2 mm

No. 18052-12

Ligation Aids

A handy instrument for leading a fine suture under and around a blood vessel for tying-off purposes. Also useful for ligating peripheral nerves. Grooves toward hole help threading.



18063-13



300%



200%



200%



10.5 cm

Hole Ø: 0.4 mm

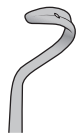
No. 18062-12



13.5 cm

Hole Ø: 1 mm

No. 18062-13



13.5 cm

Hole Ø: 1 mm

No. 18063-13

Vessel Dilators

Highly modified forceps with elongated, parallel tips which are highly polished. Designed for controlled intraluminal vessel dilation.



Angled 10°

11 cm
Tip Ø: 0.1 mm

No. 00126-11

Tip Ø: 0.2 mm

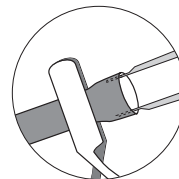
No. 00125-11



Angled 45°

13.5 cm
Tip Ø: 0.2 mm

No. 00276-13



Angled 10°

12 cm
Tip Ø: 0.1 mm

No. 18131-12

Tip Ø: 0.2 mm

No. 18132-12

Micro Cannulation System

This micro cannula is most helpful for quick and easy insertion in arteries and veins. It can be used as an "indwelling" catheter during long term experiments. With care, thorough rinsing and sterilization, it can be reused several times. Detailed instructions are included.

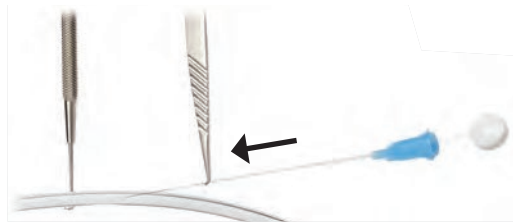


Features

- Biocompatible Teflon® tubing.
- Cannula size 0.33 mm OD – 0.16 mm ID
- A pointed stainless steel stylus (trocar), to aid in vascular penetration and allow a maximum range of cannula manipulation during insertion.
- Contoured tip for easy insertion, fitted with shoulder for "tie-in" to prevent accidental removal.
- Female luer connection for linkage to infusion lines.

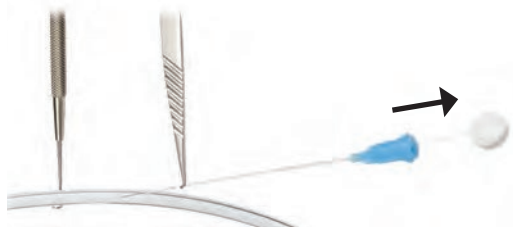
1 Approach

Cannulation Forceps (Item No. 18403-11) and Spinal Cord Hook (Item No. 10162-12) aid in the insertion process.



2 Insertion

Remove trocar and advance cannula.



3 Secure

Use shoulder hub and suture to "tie in" cannula to prevent accidental removal.



Instruments sold separately.

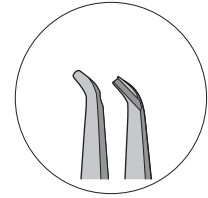
8 cm

Cannula size: 0.33 mm OD - 0.16 mm ID

No. 18000-10

Vessel Cannulation Forceps

These vessel cannulation forceps are useful whenever a fine plastic tube has to be introduced into a small blood vessel of almost equal size. The hollowed jaws hold the tubing securely without deforming it. The tip of the tubing is directed exactly into the vessel opening without damage to the vessel from unwanted movement.



For tubing of 0.35 mm OD
11 cm

No. 00608-11

For tubing of 0.5-1 mm OD
11 cm

No. 00574-11



For tubing of 0.35 mm OD
13 cm

No. 11280-11

For tubing of 0.5 mm OD
11 cm

No. 11281-11

For tubing of 1 mm OD
11 cm

No. 11282-11



For tubing of 0.35 mm OD
11.5 cm

No. 18403-11

For tubing of 0.6 mm OD
11.5 cm

No. 18406-11

For tubing of 0.6 mm OD
13.5 cm

No. 18406-13