

NEEDLE HOLDERS

Castroviejo

Micro pattern, with slightly blunted tips.



Never use a micro needle holder with needles that are too thick, as this can easily damage the fine jaws. Use only micro needles of less than 0.2 mm diameter (see page 154).



Straight

9 cm  
Tip width: 0.6 mm  
Lock: Yes

No. 12060-01



Curved

9 cm  
Tip width: 0.6 mm  
Lock: Yes

No. 12061-01

Tip width: 0.6 mm  
Lock: No

No. 12060-02

Tip width: 0.6 mm  
Lock: No

No. 12061-02

Round-Handled Micro/Macro Needle Holder

These Round-Handled Needle Holders have a dual-purpose and can be used for microscopic and macroscopic applications. The fine tapered tips can be used to handle small needles up to 0.2 mm in diameter. While the remaining portion of the tip ensures a secure hold for larger needles. The balanced design improves control and stability, while the ergonomic handle enhances grip and reduces hand strain.



Curved

13.5 cm

Lock: Yes

No. 12875-13

### Round Handled Needle Holder

Round handles allow easy fingertip adjustments.



**Straight**

12.5 cm  
Lock: Yes

**No. 12075-12**



**Curved**

12.5 cm  
Lock: No

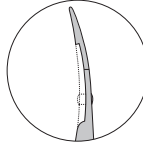
**No. 12074-12**

Lock: No

**No. 12076-12**

### Round Handled Needle Holder with Suture Cutter

Round handles allow easy fingertip adjustments.



Actual size



**Curved**

14 cm  
Cutting edge: 3.5 mm  
Lock: No

**No. 12075-14**



Never use a micro needle holder with needles that are too thick, as this can easily damage the fine jaws. Use only micro needles of less than 0.2 mm diameter (see page 154).

### Kalt

The Kalt needle holder is characterized by its extraordinary design and good handling. The closure system closes softly and securely and can be easily opened again with your thumb.



**Straight**

Serrated: Yes  
13.5 cm  
Lock: Yes

**No. 12080-14**



**Curved**

Serrated: Yes  
13.5 cm  
Lock: Yes

**No. 12081-14**

## Castroviejo with Tungsten Carbide Jaws



**Straight**

14 cm  
Tungsten Carbide jaws  
Lock: Yes

**No. 12565-14**

## Mathieu

Extra slim and narrow profile, with squeeze-lock.  
Facilitates excellent wrist motion for suturing.



12510-14



14 cm

Extra narrow profile  
Lock: Yes

**No. 12010-14**

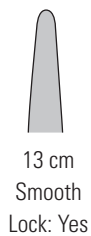
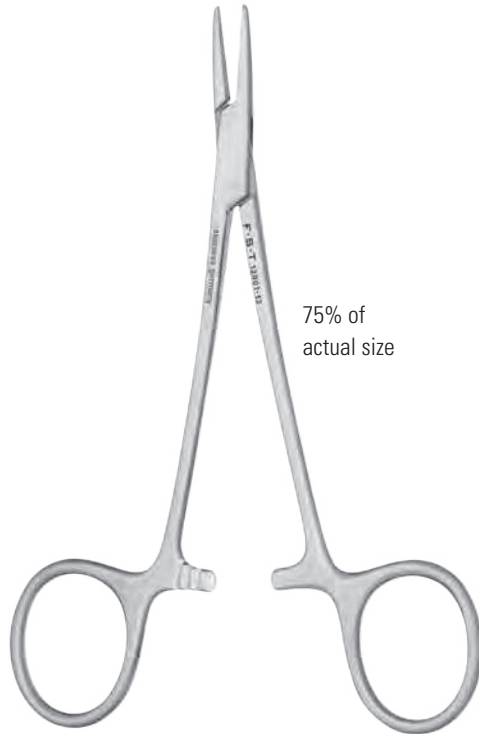


14 cm

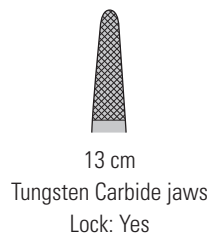
Tungsten Carbide jaws  
Lock: Yes

**No. 12510-14**

### Halsey

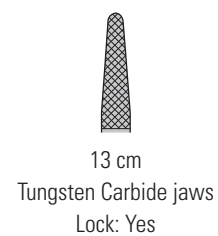


No. 12001-13



No. 12501-13

### Halsey with Tungsten Carbide Jaws



No. 12500-12

WOUND CLOSURE

## NEEDLE HOLDERS

### Olsen-Hegar with Suture Cutter

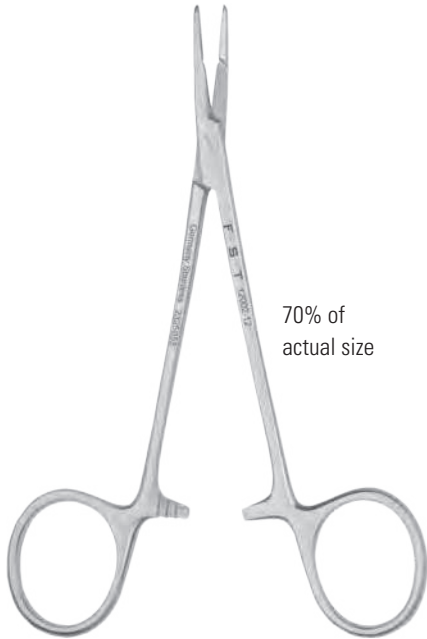


**MOST  
POPULAR**



**LEFT-HANDED**

12102-12



70% of  
actual size



12 cm

Cutting edge: 10 mm  
Lock: Yes

**No. 12002-12**

**No. 12102-12**



14 cm

Cutting edge: 15 mm  
Lock: Yes

**No. 12002-14**

### Olsen-Hegar with Suture Cutter and Tungsten Carbide Jaws



**LEFT-HANDED**

12512-12



**TUNGSTEN  
CARBIDE**

12502-12

12512-12



70% of  
actual size



12 cm

Tungsten Carbide jaws  
Cutting edge: 10 mm  
Lock: Yes

**No. 12502-12**

**No. 12512-12**

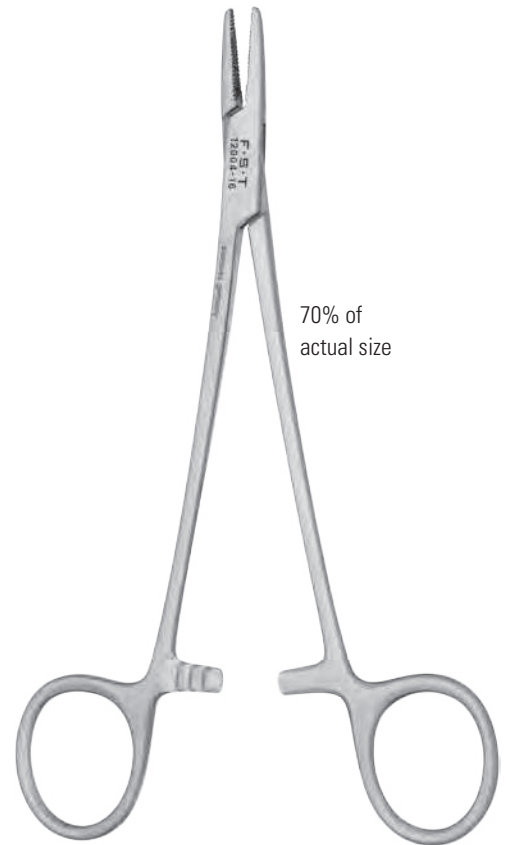


14 cm

Tungsten Carbide jaws  
Cutting edge: 15 mm  
Lock: Yes

**No. 12502-14**

### Mayo-Hegar



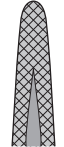
70% of  
actual size



16 cm

Lock: Yes

**No. 12004-16**



18 cm

Lock: Yes

**No. 12004-18**

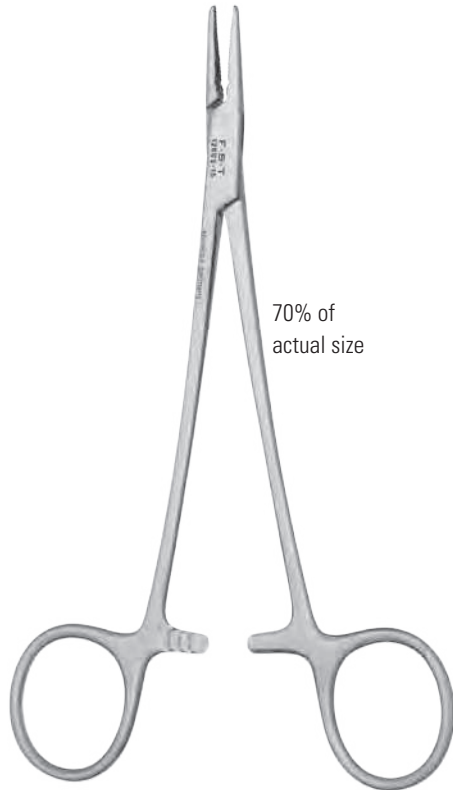
Crile-Wood



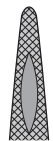
12504-15



12503-15  
12504-15



70% of  
actual size



15 cm

Lock: Yes

No. 12003-15



15 cm

Tungsten Carbide jaws

Lock: Yes

No. 12503-15



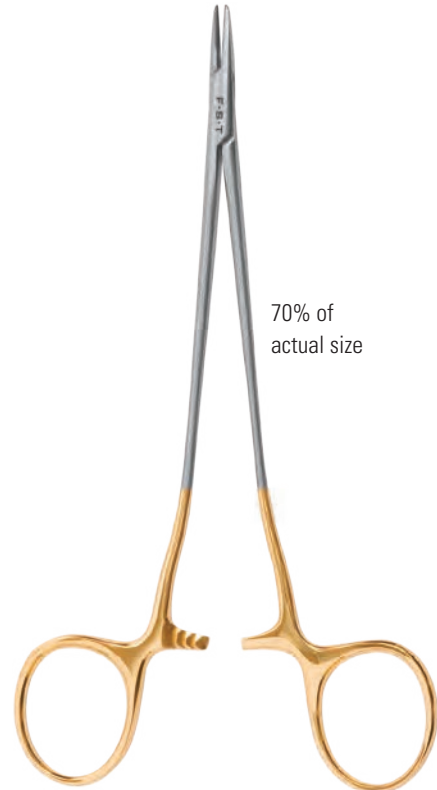
15 cm

Lefthanded & Tungsten  
Carbide jaws

Lock: Yes

No. 12504-15

Slim Elongated Needle Holder with  
Tungsten Carbide Jaws



70% of  
actual size



15 cm

Tungsten Carbide jaws

Lock: Yes

No. 12005-15

WOUND CLOSURE

Microsurgical Needles with Suture Thread Attached

The combination of proprietary needle design technology and state-of-the-art manufacturing techniques has enabled FST to provide a microsurgical needle that is unmatched in the industry. FST microsurgical needles provide frictionless tissue penetration. They are inspected under the microscope at critical stages during the manufacturing process, and a multi-point final inspection of each suture and needle combination ensures a high quality product.

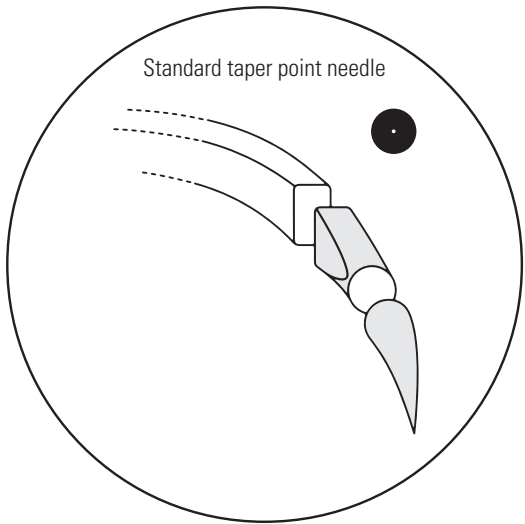
The suture-to-needle attachment is tested to higher standards than the USP specifications.

Features:

- Needle and thread combination comprising of nonabsorbable black nylon polyamide monofilament thread and stainless steel 3/8 circle needle. Nylon is suitable for closing ophthalmic, neurological and microvascular wounds.
- 3/8 circle precision taper point. Stainless steel needle honed under microscope by hand. Superfine round tip with flattened body to improve stability in needle holder. Easy penetration. Precise stitch placement.
- Grinding geometry and suture needle attachment are directed toward frictionless tissue penetration.
- Each needle suture combination is individually packed and sealed in a peel-open blister pack.

Sterile

Pkg. of 12 disposable units



400% of actual size

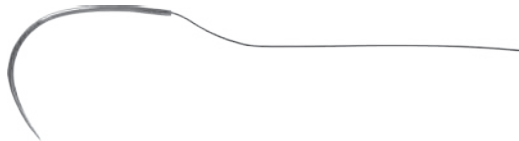
No. 12052-11



No. 12052-10



No. 12052-09



No. 12052-08



Suture size	Suture length (cm)	Needle Ø (micron)	Needle Ø (mm)	Needle chord length (mm)	Circle	Item
8/0	15	140	0.14	29	3/8	No. 12052-08
9/0	15	100	0.1	24	3/8	No. 12052-09
10/0	10	70	0.07	18	3/8	No. 12052-10
11/0	10	50	0.05	16	3/8	No. 12052-11

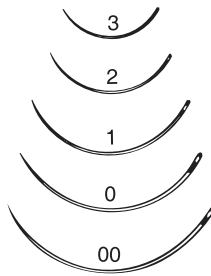
## Suture Needles

- Polished stainless steel
- 3/8 curved
- Round with standard eye
- Suitable for sutures up to 0.32 mm diameter

Ø: 0.35 mm

**Sterile: No**

Pkg. of 12 needles



Size	Needle Chord Length (mm)	Item
3	12 mm	No. 12050-03
2	16 mm	No. 12050-02
1	20 mm	No. 12050-01
0	23 mm	No. 12050-10
00	26 mm	No. 12050-20

## Silk Suture

Silk suture has a smooth flow through tissue while maintaining knot security.

Braided Silk

**Sterile: No**

Can be ETO sterilized



Size	Suture Ø (mm)	Spool length (m)	Item
7/0	0.05	91	No. 18020-70
6/0	0.08	23	No. 18020-60
5/0	0.12	23	No. 18020-50
4/0	0.17	23	No. 18020-40
3/0	0.22	23	No. 18020-30
2/0	0.32	23	No. 18020-20
0	0.37	23	No. 18020-00
1	0.45	23	No. 18020-01
2	0.55	23	No. 18020-02
3	0.65	23	No. 18020-03

For Suture Tying Forceps, see pages 100 - 102.

## Nylon Monofilament Suture

Nylon is known for its uniform diameter flexibility and outstanding consistent knot security.

Nylon monofilament

**Sterile: No**

Can be ETO sterilized



Size	Suture Ø (mm)	Spool length (m)	Item
8/0	0.04	91	No. 18030-80
7/0	0.05	91	No. 18030-70
6/0	0.07	91	No. 18030-60
5/0	0.1	91	No. 18030-50
4/0	0.15	91	No. 18030-40
3/0	0.2	91	No. 18030-30

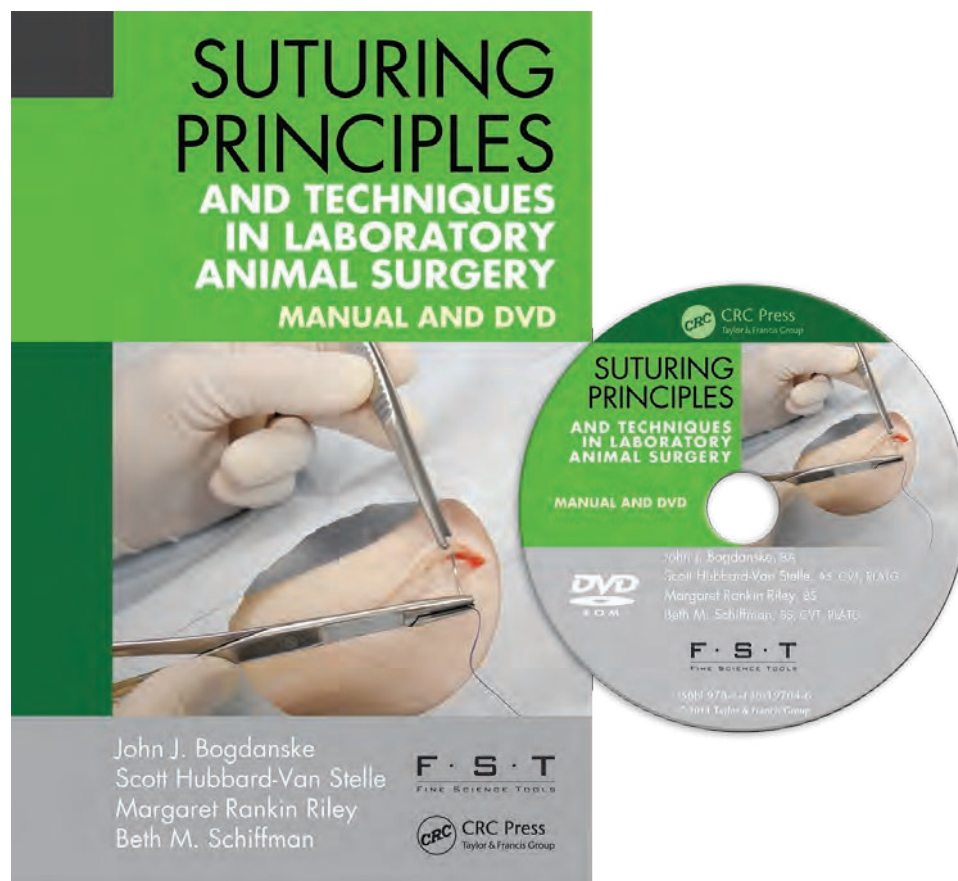


### Suturing Principles and Techniques in Laboratory Animal Surgery

This manual introduces the reader into the basic principles, materials and surgical instruments required for suturing and wound closure used on laboratory animals. It provides descriptions and pictures portraying proper tissue handling and aseptic technique, correct hand placement and use of surgical instruments, proper needle placement on needle holders, and provides an in-depth explanation of various suture patterns and associated principles for proper knot tying during wound closure.

The included DVD provides descriptive narrative and step-by-step video demonstrations for each of the suturing techniques.

For your convenience all instruments which are used for the demonstrations are listed with their FST item numbers.



No. 23005-10

Michel Suture Clips

- Anti-magnetic
- Acid-resistant stainless steel
- Pkg. of 1,000 clips

Size (mm)	Item
7.5 x 1.75	No. 12040-01
11 x 2	No. 12040-02
12 x 2.5	No. 12040-03



Applying Forceps



12.5 cm  
For clip sizes 12040-02 and 12040-03

No. 12018-12

Applying and Removing Instruments



Angled  
13 cm  
For clip size 12040-01

No. 12029-12

Curved  
13 cm  
For clip sizes 12040-02 and 12040-03

No. 12028-12

WOUND CLOSURE

### Reloadable Skin Stapler with Rotating Head

The 360° swivel nose and unique design offers maximum visibility at the delivery point. The stainless steel staples are non-sterile and feature a patented staple design which make for quick and easy removal. The disposable staple cartridge includes a printed staple counter.

**The handle is reusable and autoclavable. Staples are non-sterile. Components sold separately or as a kit.**

Disposable staple cartridge contains 35 316L stainless steel staples with printed staple counter

Reusable autoclavable handle

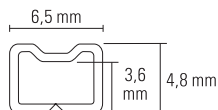
360° rotation

Trigger with full-stroke ratchet facilitates accurate staple placement

75% of actual size

Lightweight, ergonomic pistol grip handle

Staple Dimensions:



Staple, actual size:



#### Surgical staple kit

- 1 Handle
- 1 Remover
- 12 Disposable staple cartridges

**No. 12030-20**

Single disposable cartridge  
35 staples per cartridge

**No. 12030-22**

12 disposable cartridges  
35 staples per cartridge

**No. 12030-23**

Handle

**No. 12030-01**

### Surgical Staple Remover

Compatible with Reloadable Skin Stapler with Rotating Head and Manipler® Skin Stapler.



10 cm

**No. 12030-04**

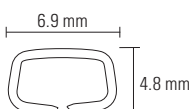
### Manipler® Skin Stapler

Quality, slim, lightweight design with consistent actuation and staple count indicator.

**Disposable, sterile and not autoclavable.**



Staple Dimensions:



Staple, actual size:

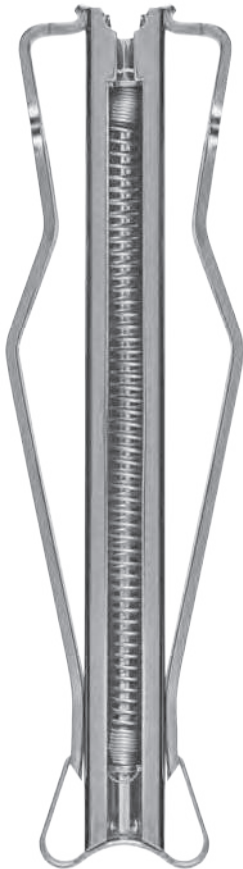


15 cm  
35 staples per cartridge

**No. 12035-00**

AutoClip® System

The AutoClip® System is a safe, secure method of wound closure. Faster and easier than suture, this system is perfect when staples may be too thin to provide adequate closure. **Non-sterile. Components sold separately or as a kit.** We recommend using wet steam sterilization at 120-125 °C for at least 30 minutes in an autoclave to sterilize the device.



Applier



Clips



Remover

WOUND CLOSURE

AutoClip® Kit

- 1 Applier
- 9 mm clips (100)
- 1 Remover
- Storage case

AutoClip® applier

11.5 cm

AutoClip® clips

9 mm  
Pkg. of 100 clips

AutoClip® clips

9 mm  
Pkg. of 1,000 clips

AutoClip® remover

12.5 cm

No. 12020-00

No. 12020-09

No. 12022-09

No. 12022-19

No. 12023-00