



# 真善美儀器有限公司

PROSERV INSTRUMENTS CO., LTD.

真善美儀器進口各項動物實驗用器械，並提供最完善的服務，滿足專業研究人員的需求，而您的惠予訂購將是我們莫大的榮幸。

## 迅速而便利的訂購方式



請將您所需要的產品以電話、傳真或E-MAIL告知、我們將在7~15天內郵寄或親送至您的指定地點。

(部分特殊項目不在此限)

## The Early Bird Catches The Worm



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## Letter from the Chairman of the Board

Dear customers,

After many years at the head of FST, it's time for me to start my well-earned retirement. Beforehand, I would like to personally thank you for your loyalty over the past 40 years. From the day Fine Science Tools was founded, we have always worked hard to provide our customers with the highest quality instruments and outstanding customer service, which you deserve. Thanks to our loyal, supportive customers we are still the leading global supplier for universities, research organizations and scientific institutions for surgical and microsurgical instruments made in Europe. As a result of this sustained success and continuous growth, our US office moved into a larger facility, making it possible to provide even better customer service and support.

This expansion is cohesive with our motto for this year: "VISION 2020". In relation to this motto, there has also been a change in management. Leading into my retirement, I am very happy that I have arranged for my nephew, Markus, to become the new owner and director of FST. He will work together with my son Rob, who is currently the President and owner of FST for many years now.

Markus has many years' of experience as a manager for various large companies. Before joining FST, he was a manager responsible for several marketing and sales agencies. With his expertise, he will actively support Rob, Michael and Christina in the management of FST, making sure that our name continues to be synonymous with outstanding quality and service. He will effectively apply his knowledge and experience to help the company break into new and growing markets around the world.

Now, I would like to take this opportunity to thank you once again, on behalf of myself and the Fine Science Tools team, for your continued support and loyalty. We look forward to working with you and supporting you with your projects and undertakings in the future.

Sincerely,



Hans Gawenda,  
Chairman of the Board



Hans Gawenda  
Chairman of the Board



Markus Gawenda  
Managing Partner



Rob Gawenda  
President



Michael Dosch  
Chief Executive Officer



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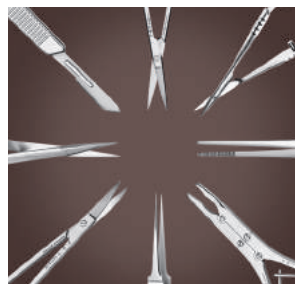
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## Scissors, Bone Instruments & Scalpels

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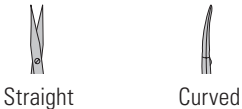


These Vannas-style spring scissors have the smallest blades ever produced. They are ideal where space is restricted and where absolute precision is demanded.



200%

Cutting edge: 2 mm  
Tip diameter: 0.05 mm  
8 cm



Straight      Curved  
No. 15000-03      No. 15000-04

The short taper is ideal for small, precise cuts.



250%

Cutting edge: 2.5 mm  
Tip diameter: 0.05 mm  
8 cm



Straight      Curved      Angled to side  
No. 15000-08      No. 15001-08      No. 15002-08

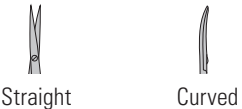
MOST  
POPULAR

The long taper is ideal for cutting vessel walls or when a longer cutting edge is needed.



300%

Cutting edge: 3 mm  
Tip diameter: 0.05 mm  
8 cm



Straight      Curved  
No. 15000-00      No. 15000-10

MOST  
POPULAR



### Vannas



Cutting edge: 4 mm  
Tip diameter: 0.15 mm  
10.5 cm



Straight

No. 15018-10



Curved

No. 15019-10

### Vannas-Tübingen



Cutting edge: 5 mm  
Tip diameter: 0.075 mm



Straight  
8.5 cm

No. 15003-08



Curved  
8.5 cm

No. 15004-08



Angled to side  
8.5 cm

No. 15008-08

**MOST  
POPULAR**

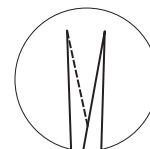


Angled up  
9.5 cm

No. 15005-08

### Vannas Scissors with Microserrations

Microserrated to minimize slippage.



Tip diameter: 0.1 mm



Straight

Cutting edge: 4 mm  
8.5 cm  
No. 15070-08



Curved

Cutting edge: 4 mm  
8.5 cm  
No. 15071-08

Cutting edge: 5 mm  
9 cm  
No. 15007-08

## Miniature Vannas

Hand finished using 40x magnification, these tips are especially useful when incising vessel walls for catheter insertion.



Cutting edge: 5 mm  
Tip diameter: 0.1 mm  
8 cm



Straight

Moria 9600  
No. 15396-00



Curved

Moria 9601  
No. 15396-01

## Titanium Vannas



•TITANIUM•

For more information  
see page 183.

Cutting edge: 5 mm  
Tip diameter: 0.3 mm  
9.5 cm



Straight

No. 15610-08



Curved

No. 15615-08



Angled up

No. 15617-08

## Cohan-Vannas

Long cutting blades for  
a more controlled cut.



Cutting edge: 6 mm  
Tip diameter: 0.1 mm  
5.7 cm



Straight

Sharp/Sharp  
No. 15000-02



Curved

Sharp/Sharp  
No. 15000-01

Blunt/Blunt  
No. 15000-12

Blunt/Blunt  
No. 15000-11

## ToughCut® Spring Scissors



**TOUGH  
CUT**

For more information  
see page 183.

Cutting edge: 6 mm  
Tip diameter: 0.3 mm  
12.5 cm



Straight

No. 15124-12

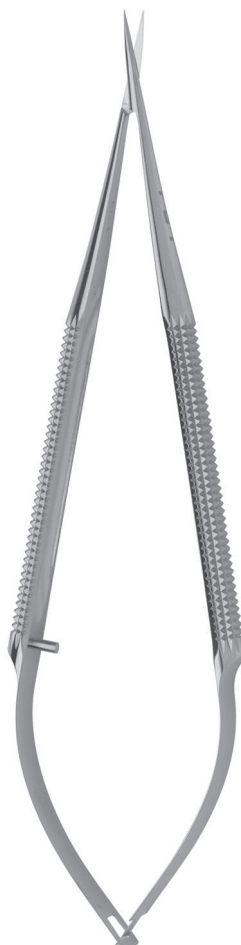


Curved

No. 15123-12

## Round Handled Vannas

Round handles allow easy fingertip adjustments.



Cutting edge: 6 mm  
Tip diameter: 0.075 mm  
12.5 cm



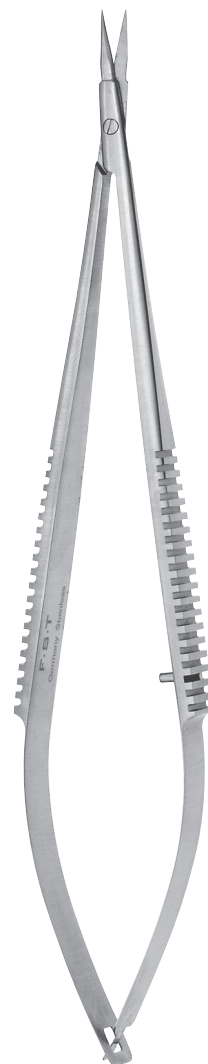
Straight

No. 15400-12



Curved

No. 15401-12

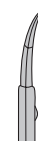


Cutting edge: 6 mm  
Tip diameter: 0.15 mm  
14 cm



Straight

No. 15020-15

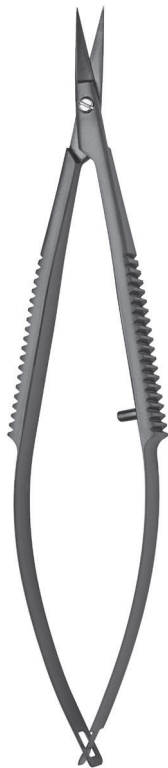


Curved

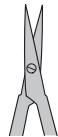
No. 15021-15



Ceramic Coated Spring Scissors



Cutting edge: 7 mm  
Tip diameter: 0.1 mm  
10 cm



Straight

No. 15750-11



Curved

No. 15751-11

Vannas-Wolff



Cutting edge: 7 mm  
Tip diameter: 0.15 mm  
10 cm



Straight

Moria MC52  
No. 15370-52



Curved

Moria MC50  
No. 15370-50

Ultra long cutting edge  
without sacrificing tip width.



Cutting edge: 8 mm  
Tip diameter: 0.1 mm  
8.5 cm



Straight

No. 15009-08

Same as No. 15006-09 but with a ball tip to prevent piercing of underlying tissue.



Cutting edge: 10 mm  
Tip diameter: 0.125 mm  
10 cm



Angled

No. 15006-09



Cutting edge: 8 mm  
Tip diameter: 1.3 mm Ball  
9 cm



Angled

No. 15033-09



Cutting edge: 8 mm  
Tip diameter: 0.15 mm  
10 cm



Straight  
Sharp/Sharp

No. 15024-10



Straight  
Blunt/Blunt

No. 15025-10



Curved  
Sharp/Sharp

No. 15023-10

Dowell

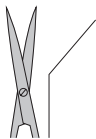


Cutting edge: 10 mm  
Tip diameter: 0.1 mm  
11.5 cm



Straight

No. 15040-11



Angled up

No. 15042-11

Noyes



Cutting edge: 14 mm  
Tip diameter: 0.2 mm  
12 cm



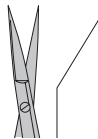
Straight

No. 15012-12



Curved

No. 15011-12



Angled up

No. 15013-12

Tungsten Carbide Noyes

Tungsten carbide cutting edges provide long lasting sharpness.



**TUNGSTEN  
CARBIDE**

For more information  
see page 183.

Tungsten Carbide Cutting Edges

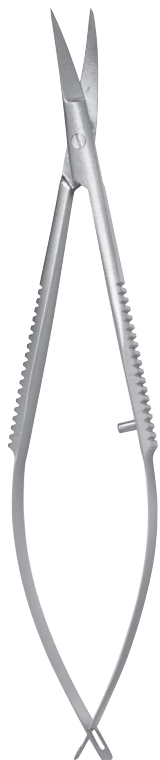
Cutting edge: 14 mm  
Tip diameter: 0.275 mm  
12 cm



Straight

No. 15514-12

### Castroviejo



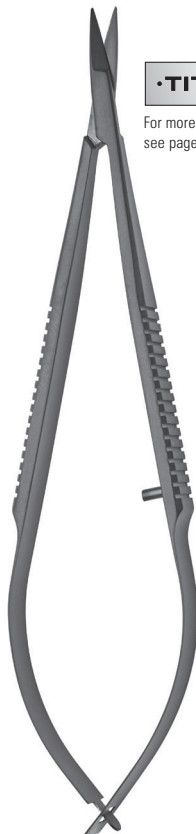
Cutting edge: 10 mm  
Tip diameter: 0.2 mm  
10 cm



Sharply curved

No. 15017-10

### Ceramic Coated Titanium Castroviejo



•TITANIUM•

For more information  
see page 183.

Cutting edge: 5 mm  
Tip diameter: 0.2 mm  
11 cm



Straight

No. 15650-11



Curved

No. 15651-11

### Westcott



Cutting edge: 15 mm  
Tip diameter: 0.25 mm  
11 cm



Slightly curved

No. 15015-11

Fine Angled Spring Scissors

These spring scissors aid in cutting tissues from various angles.



Angled  
Cutting edge: 2 mm  
Tip diameter: 0.1 mm  
9.5 cm

No. 15010-09



Angled  
Cutting edge: 4 mm  
Tip diameter: 0.125 mm  
10 cm

No. 15010-10

Trident II

A re-release of a popular spring scissors now with a new innovative design for a better feel.



Cutting edge: 8 mm  
Tip diameter: 0.2 mm  
8 cm



Straight

No. 15110-08



Angled

No. 15111-08



## Pascheff-Wolff

Very delicate blades.



Cutting edge: 3 mm  
Tip diameter: 0.15 mm  
10.5 cm



Angled

Moria MC19/B  
No. 15371-92



Cutting edge: 5 mm  
Tip diameter: 0.2 mm  
18.5 cm



Straight

No. 15028-18



Curved

No. 15027-18

Vitreotomy Scissors

The finest blades on spring scissors. Designed for ophthalmic surgery (vitrectomy). The spring handles are made of ribbed plastic to ensure a solid grip. **Autoclavable.**



Cutting edge: 2.5 mm  
Tip diameter: 0.175 mm  
14.5 cm



200% of  
actual size

Straight  
Microserrations to  
minimize slippage.

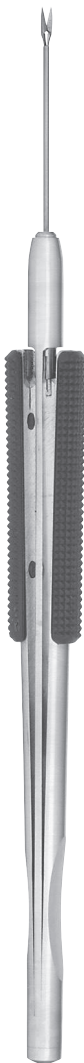
No. 15030-14



200% of  
actual size

Angled to side

No. 15031-14



14 cm



200% of  
actual size

Straight  
Cutting edge: 2.2 mm  
Tip diameter: 0.15 mm

No. 15036-14



200% of  
actual size

Angled 90°  
Cutting edge: 1 mm  
Tip diameter: 0.1 mm

No. 15037-14

### Ultra Fine Clipper Scissors II

For microscopic dissections of soft and mucous tissue. The minute fineness of the blades allows clear visualization of the tissue being dissected.



#### Uses:

- Removing sheath of ganglia to access neurons in aplysia.
- Cutting single nerve axons in aplysia, mollusk and snail.
- Stripping fascia off arteries and muscles.
- Ultra fine brain tissue dissection.
- Cutting of minute fiber optic strands.

Blade shape: Triangular  
 Blade thickness: 0.1 mm  
 Tip thickness: 0.05-0.08 mm  
 Cutting edge: 1.5-2 mm  
 10 cm

No. 15300-00

### Biemer Scissors

These scissors are designed to securely cut vessels without slipping.



Cutting edge: 4 mm  
 8.5 cm

No. 15032-08

Cutting edge: 2 mm  
 13 cm

No. 15032-13

**Extra Fine Bonn**

Our finest iris scissors, best suited for microdissection under high magnification.



Straight  
8.5 cm



Curved  
8.5 cm

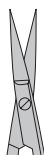
Sharp/Sharp  
No. 14084-08

Sharp/Sharp  
No. 14085-08

**MOST  
POPULAR**



Sharp/Blunt  
No. 14083-08

**Bonn**

Straight  
Sharp/Sharp  
9 cm



Curved  
Sharp/Sharp  
9 cm

No. 14184-09

No. 14185-09

**ToughCut® Bonn-Strabismus**

A fusion of two light and delicate iris scissors with ToughCut cutting edges.



For more information  
see page 183.

ToughCut



Straight  
Blunt/Blunt  
9 cm



Curved  
Blunt/Blunt  
9 cm

No. 14084-09

No. 14085-09

**Hardened Fine Iris Scissors**

These scissors have undergone an extra vacuum hardening process that extends the life of their cutting edges. They have an anti-reflective finish to reduce glare.



Straight  
Sharp/Sharp

9 cm  
No. 14090-09

11 cm  
No. 14090-11



Curved  
Sharp/Sharp

9 cm  
No. 14091-09

11 cm  
No. 14091-11

**MOST  
POPULAR**

**Fine Iris Scissors**

Made from Martensitic stainless steel, combined with Molybdenum and Vanadium.



Straight  
Sharp/Sharp  
10.5 cm

No. 14094-11



Curved  
Sharp/Sharp  
10.5 cm

No. 14095-11

Delicate pattern.



Straight  
Sharp/Sharp

9 cm  
No. 14060-09

10.5 cm  
No. 14060-10

11.5 cm  
No. 14060-11

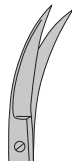


Curved  
Sharp/Sharp

9 cm  
No. 14061-09

10.5 cm  
No. 14061-10

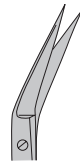
11.5 cm  
No. 14061-11



Curved to side  
Sharp/Sharp

9 cm  
No. 14062-09

10.5 cm  
No. 14062-10



Angled to side  
Sharp/Sharp

9 cm  
No. 14063-09

11.5 cm  
No. 14063-11



Straight  
Sharp/Sharp

**LEFT  
HANDED**   
10.5 cm

No. 14160-10



Curved  
Sharp/Sharp

**LEFT  
HANDED**   
10.5 cm

No. 14161-10

Extra narrow, delicate pattern. Very slim blades with gentle cutting action.



Moria



Straight  
Sharp/Sharp  
10.5 cm

Moria 4877  
No. 14370-22



Shallow curve  
Sharp/Sharp  
10.5 cm

Moria 4878  
No. 14370-23



Side-view showing  
extra narrow pattern

Straight  
Sharp/Sharp  
10.5 cm

No. 14088-10



Wagner



Straight  
Sharp/Sharp  
Large finger loops  
10 cm

No. 14040-10



Curved  
Sharp/Sharp  
Large finger loops  
10 cm

No. 14041-10



Straight  
Sharp/Sharp  
Non-serrated  
12 cm

No. 14068-12



Curved  
Sharp/Sharp  
Non-serrated  
12 cm

No. 14069-12



Straight  
Sharp/Sharp  
Serrated  
12 cm

No. 14070-12



Curved  
Sharp/Sharp  
Serrated  
12 cm

No. 14071-12

**ToughCut®**

For more information  
see page 183.

ToughCut



Straight  
Sharp/Sharp

9 cm  
No. 14058-09



Curved  
Sharp/Sharp

9 cm  
No. 14059-09

11.5 cm  
No. 14058-11

11.5 cm  
No. 14059-11

**MOST  
POPULAR**

**Tungsten Carbide**

For more information  
see page 183.

Tungsten Carbide Cutting Edges



Straight  
Sharp/Sharp

9 cm  
No. 14568-09



Curved  
Sharp/Sharp

9 cm  
No. 14569-09

11.5 cm  
No. 14568-12

11.5 cm  
No. 14569-12

**ToughCut® and Tungsten Carbide**

For more information  
see page 183.



For more information  
see page 183.



ToughCut and Tungsten Carbide Cutting Edges



Straight  
Sharp/Sharp

9 cm  
No. 14558-09

11.5 cm  
No. 14558-11



Curved  
Sharp/Sharp

9 cm  
No. 14559-09

11.5 cm  
No. 14559-11

**CeramaCut®**

These ceramic-coated scissors are the cleanest cutting, longest lasting scissors ever produced. Utilizing the unique properties of a ceramic coating, they will last six times longer than tungsten carbide instruments and cut even better than ToughCut® scissors. The black, corrosion-resistant coating has a non-glare finish.



For more information  
see page 183.



CeramaCut



Straight  
Sharp/Sharp

9 cm  
No. 14958-09

11.5 cm  
No. 14958-11



Curved  
Sharp/Sharp

9 cm  
No. 14959-09

11.5 cm  
No. 14959-11



Straight  
Sharp/Blunt  
10 cm

No. 14028-10



Curved  
Sharp/Blunt  
10 cm

No. 14029-10

## Lexer-Baby



Straight  
Blunt/Blunt  
10 cm

No. 14078-10



Curved  
Blunt/Blunt  
10 cm

No. 14079-10

## Strabismus



Straight  
Blunt/Blunt

9 cm  
No. 14074-09

11.5 cm  
No. 14074-11



Curved  
Blunt/Blunt

9 cm  
No. 14075-09

11.5 cm  
No. 14075-11

## Tungsten Carbide Strabismus



**TUNGSTEN  
CARBIDE**

For more information  
see page 183.

Tungsten Carbide Cutting Edges



Straight  
Blunt/Blunt

9 cm  
No. 14574-09

11 cm  
No. 14574-11



Curved  
Blunt/Blunt

9 cm  
No. 14575-09

11 cm  
No. 14575-11

## Walton



Slightly curved  
Sharp/Sharp

9.5 cm  
No. 14077-09

10.5 cm  
No. 14077-10

## Stevens Tenotomy



Straight  
Sharp/Sharp  
11 cm

No. 14064-11



Straight  
Blunt/Blunt  
11 cm

No. 14066-11



Curved  
Sharp/Sharp  
11 cm

No. 14065-11



Curved  
Blunt/Blunt  
11 cm

No. 14067-11

**LaGrange**

One edge is serrated to minimize slippage of tissue during cutting. Curved handle helps when cutting from an awkward angle.



Side View



Curved  
Sharp/Sharp  
11.5 cm

No. 14173-12

**Shea**

Transplant scissors with light and delicate pattern.



Curved  
Blunt/Blunt  
12 cm

No. 14105-12

**Dissector Scissors**

Slim blades for cutting tissue.



Angled to side  
Sharp/Sharp  
Cutting edge: 8 mm  
10 cm

No. 14081-09

Similar to 14081-09, but with stronger blades for cutting fine bone.



Angled to side  
Sharp/Sharp  
Cutting edge: 12 mm  
10.5 cm

No. 14082-09

**Spencer Ligature**

Used for cutting stitches or suture.



Sharp/Sharp  
9 cm

No. 14076-09



**Bonn Artery**

Iris scissors with one ball tip to prevent piercing of underlying tissue.



Delicate

Sharp/1.5 mm Ball  
9 cm

No. 14086-09



Sharp/1.5 mm Ball  
11.5 cm

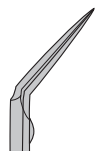
No. 14080-11

**Tissue Separating Scissors**

Blunt/Blunt  
11.5 cm

No. 14072-10

See page 8 for artery-style spring scissors.



Sharply angled up  
Sharp/Sharp  
10.5 cm

No. 14037-10

The finger loops can be  
enlarged to fit almost any size.



Straight  
Large finger loops  
9.5 cm



Sharp/Sharp  
No. 14106-09



Blunt/Blunt  
No. 14108-09



Gently curved  
Blunt/Blunt  
Serrated  
Large finger loops  
10.5 cm

No. 14171-10

## Kaye

These scissors have semi-sharp outer  
edges to better facilitate dissection.

Standard Pattern

Our standard surgical scissors are recognized for these important features:

- Special alloy that gives their cutting edges long life and superior sharpness.
- Excellent feel and handling capability.
- Overall execution that marks them as fine examples of German workmanship.



| Length (cm) | Straight Sharp/Sharp | Straight Sharp/Blunt | Straight Blunt/Blunt |
|-------------|----------------------|----------------------|----------------------|
| 12          | No. 14002-12         | No. 14001-12         | No. 14000-12         |
| 13          | No. 14002-13         | No. 14001-13         | No. 14000-13         |
| 14.5        | No. 14002-14         | No. 14001-14*        | No. 14000-14         |
| 16.5        | No. 14002-16         | No. 14001-16         | No. 14000-16         |
| 18.5        |                      | No. 14001-18         | No. 14000-18         |
| 20          |                      |                      | No. 14000-20         |

\* Left-handed version also available.



No. 14008-14



| Length (cm) | Curved Sharp/Sharp | Curved Sharp/Blunt | Curved Blunt/Blunt |
|-------------|--------------------|--------------------|--------------------|
| 12          | No. 14005-12       | No. 14004-12       | No. 14003-12       |
| 13          | No. 14005-13       | No. 14004-13       | No. 14003-13       |
| 14.5        | No. 14005-14       | No. 14004-14       | No. 14003-14       |
| 16.5        | No. 14005-16       | No. 14004-16       | No. 14003-16       |
| 18.5        |                    | No. 14004-18       | No. 14003-18       |
| 20          |                    |                    | No. 14003-20       |

## ToughCut® Standard Pattern



ToughCut

Straight  
Sharp/Blunt

13 cm  
No. 14054-13

17.5 cm  
No. 14130-17

## Tungsten Carbide Standard Pattern



Tungsten Carbide Cutting Edges



Straight  
Sharp/Sharp  
14.5 cm

No. 14502-14



Straight  
Sharp/Blunt  
14.5 cm

No. 14501-14



Curved  
Sharp/Sharp  
14.5 cm

No. 14505-14



Curved  
Sharp/Blunt  
14.5 cm

No. 14504-14

## Standard Pattern with Serrations



Straight  
Sharp/Blunt  
Serrated  
14 cm

No. 14007-14

### Standard Pattern with Large Finger Loops



Straight  
Sharp/Blunt  
Large finger loops  
14.5 cm

No. 14101-14

### Tungsten Carbide Mini-Lister



For more information  
see page 183.

Tungsten Carbide Cutting Edges

Angled to side  
Blunt/Blunt  
Smooth  
9 cm

No. 14531-09

### Lister

Excellent skin cutting scissors. Longer, blunt blade prevents damaging tissue underneath skin without losing the cutting line.



Angled to side  
Blunt/Blunt  
Serrated  
14 cm

No. 14131-14

Metzenbaum Baby



Straight  
Blunt/Blunt

13 cm  
No. 14018-13

14.5 cm  
No. 14018-14

18 cm  
No. 14018-18



Curved  
Blunt/Blunt

13 cm  
No. 14019-13

14.5 cm  
No. 14019-14

18 cm  
No. 14019-18

Tungsten Carbide Metzenbaum Fino



**TUNGSTEN  
CARBIDE**

For more information  
see page 183.

Tungsten Carbide Cutting Edges



Straight  
Blunt/Blunt  
Ultra fine tips

14.5 cm  
No. 14508-15



Straight  
Blunt/Blunt

14.5 cm  
No. 14518-14

18 cm  
No. 14518-18



Curved  
Blunt/Blunt  
Ultra fine tips

14.5 cm  
No. 14509-15



Curved  
Blunt/Blunt

14.5 cm  
No. 14519-14

18 cm  
No. 14519-18

Metzenbaum



Straight  
Sharp/Blunt

14.5 cm  
No. 14024-14



Straight  
Blunt/Blunt

14.5 cm  
No. 14016-14



Curved  
Blunt/Blunt

14.5 cm  
No. 14017-14

18 cm  
No. 14016-18

18 cm  
No. 14017-18

ToughCut® Metzenbaum



For more information  
see page 183.

ToughCut



Straight  
Blunt/Blunt

14.5 cm  
No. 14116-14

18 cm  
No. 14116-18



Curved  
Blunt/Blunt

14.5 cm  
No. 14117-14

18 cm  
No. 14117-18

## Mayo

## ToughCut® Mayo

## Tungsten Carbide Mayo



For more information  
see page 183.



For more information  
see page 183.



### ToughCut

### Tungsten Carbide Cutting Edges



Straight  
Blunt/Blunt

15 cm  
No. 14010-15

17 cm  
No. 14010-17



Curved  
Blunt/Blunt

15 cm  
No. 14011-15

17 cm  
No. 14011-17



Straight  
Blunt/Blunt

15 cm  
No. 14110-15

17 cm  
No. 14110-17



Curved  
Blunt/Blunt

15 cm  
No. 14111-15

17 cm  
No. 14111-17



Straight  
Blunt/Blunt

15 cm  
No. 14510-15

17 cm  
No. 14510-17



Curved  
Blunt/Blunt

15 cm  
No. 14511-15

17 cm  
No. 14511-17



Straight  
Blunt/Blunt  
ToughCut

15 cm  
No. 14512-15

17 cm  
No. 14512-17



Mayo-Stille



Straight  
Blunt/Blunt

15 cm  
No. 14012-15

17 cm  
No. 14012-17



Curved  
Blunt/Blunt

15 cm  
No. 14013-15

17 cm  
No. 14013-17

Mayo-Noble



Straight  
Blunt/Blunt  
16.5 cm

No. 14014-17



Curved  
Blunt/Blunt  
16.5 cm

No. 14015-17

Decapitation Scissors

Stop guard at tips to prevent slippage.

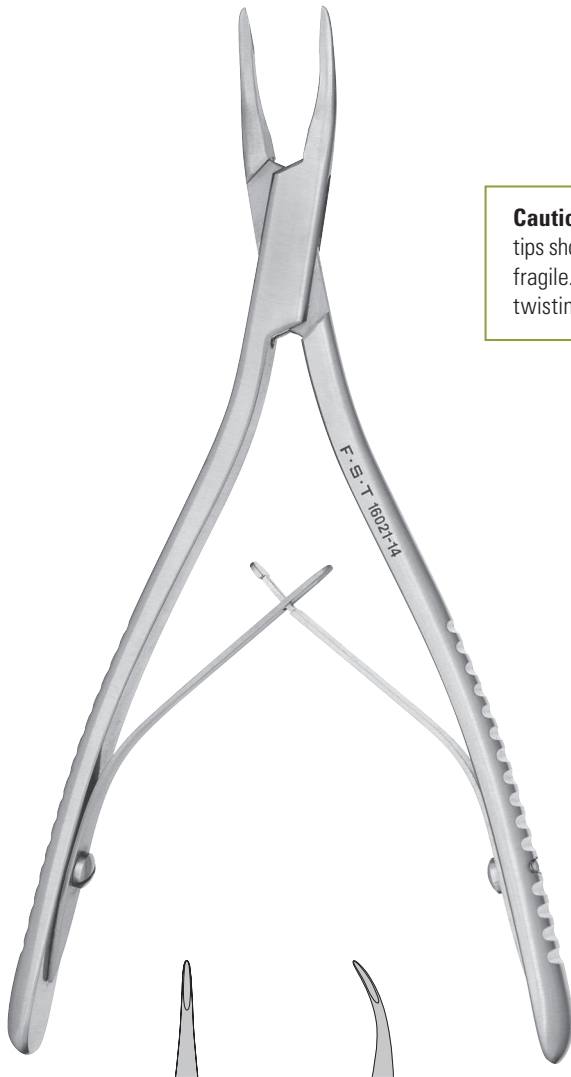


Straight  
Blunt/Blunt  
21 cm

No. 14200-21

**Friedman-Pearson**

This popular, fine-tipped rongeur is suited for delicate work. The fine-cupped jaws have been designed with a longer and slimmer approach for better visibility.



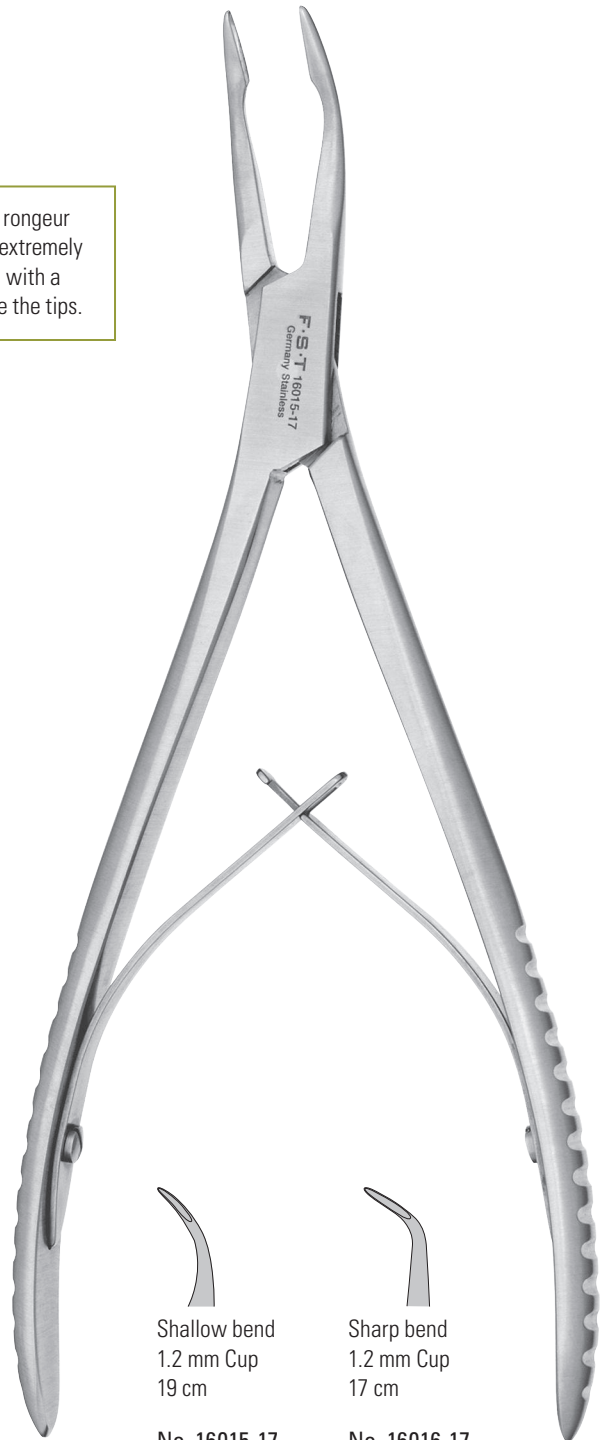
|                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |
| Straight<br>14 cm                                                                   | Curved<br>14 cm                                                                     |
| 0.5 mm Cup<br>No. 16220-14                                                          | 0.5 mm Cup<br>No. 16221-14                                                          |
| 0.7 mm Cup<br>No. 16120-14                                                          | 0.7 mm Cup<br>No. 16121-14                                                          |
| 1 mm Cup<br>No. 16020-14                                                            | 1 mm Cup<br>No. 16021-14                                                            |

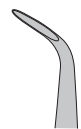
**Cautionary note:** The fine rongeur tips shown on this page are extremely fragile. Removal of material with a twisting motion can damage the tips.

**MOST  
POPULAR**

**Pearson**

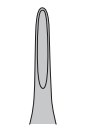
Provides excellent visibility at dissection site due to its extra long and narrow approach to the fine cutting jaws. Especially suitable for larger hands.



|                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |
| Shallow bend<br>1.2 mm Cup<br>19 cm                                                   | Sharp bend<br>1.2 mm Cup<br>17 cm                                                     |
| No. 16015-17                                                                          | No. 16016-17                                                                          |

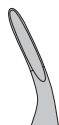
**Baby-Beyer**

Double-action rongeur with strong jaws helps relieve hand strain.



Straight  
2 mm Cup  
15 cm

No. 16023-15



Curved  
2 mm Cup  
15 cm

No. 16022-15

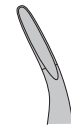


**Diameter of this circle determines cup size.**

Form an imaginary circle that will fit in the very tip of the instrument and measure its diameter.

**Beyer**

Double-action rongeur with strong jaws helps relieve hand strain.



Curved  
2.5 mm Cup  
18 cm

No. 16002-18

**Friedman**

Strong and large jaws are ideal for use on the harder, outer regions of the spinal cord. Also can be used to gain access to delicate structures encased in bone.



**Diameter of this circle determines cup size.**

Form an imaginary circle that will fit in the very tip of the instrument and measure its diameter.



Curved  
2.5 mm Cup  
13 cm

No. 16000-14

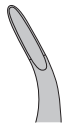
**Lempert**

Extra fine jaws.



Straight  
2.5 mm Cup  
16 cm

No. 16004-16



Curved  
2.5 mm Cup  
16 cm

No. 16005-16

**Luer**

Curved  
4 mm Cup  
15 cm

No. 16001-15

**Bone Trimmers**

Curved  
Cutting edge: 8 mm  
14 cm

No. 16109-14

**Cartilage Cutter**

Round cutting blades for tissue, cartilage and soft bone.



Curved  
Cutting edge: 9 mm  
14 cm

No. 16107-14

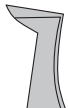
**Dumont #15a Bone Cutter**

Cutting edge on both outside and inside bevel. Cuts suture, cartilage, bone and steel wire to 0.06 mm, and copper wire to 0.15 mm.

**Not autoclavable.**



Hard carbon steel



Cutting edge: 10 mm  
Jaw opening: 2.5 mm  
Hard carbon steel  
11.5 cm

No. 11215-01

**Dumont #15a Bone Cutter  
Epoxy Coated**

Same structure and functionality as Item No. 11215-01 (left), but with an epoxy coating up to the cutting edge for easier care and maintenance. **Not autoclavable.**



Cutting edge: 6 mm  
Jaw opening: 2.5 mm  
Epoxy coated carbon steel  
11.5 cm

No. 11215-02

**Bone Forceps**

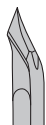
Strong cross-serrated tips for bone crushing and removal.



Angled  
Cross serrated  
Tip diameter: 1 mm  
11.5 cm

No. 16060-11



**Bone Nipper**

Angled  
Cutting edge: 5 mm  
11 cm

No. 16102-11

**Offset Bone Nipper**

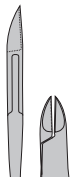
Strong jaws for cutting  
tough cartilage.



Angled  
Cutting edge: 7 mm  
10 cm

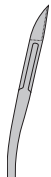
No. 16101-10



**Malleus Nipper**

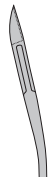
Straight  
Serrated  
Cutting edge: 9 mm  
11 cm

No. 16140-11



Angled down  
Serrated  
Cutting edge: 9 mm  
11 cm

No. 16141-11



Angled up  
Serrated  
Cutting edge: 9 mm  
11 cm

No. 16142-11

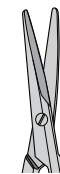
**Bone Cutting  
Spring Scissors**

Straight  
Cutting edge: 12 mm  
13 cm

No. 16144-13

**Delicate Bone Cutting  
Spring Scissors**

Slim, strong blades for cutting  
fine bones and tissues.



Curved  
Cutting edge: 12 mm  
12 cm

No. 16143-12

**Littauer Bone Cutter**

Cutting edge: 15 mm  
11 cm  
No. 16152-11

Cutting edge: 17 mm  
12.5 cm  
No. 16152-12

Cutting edge: 19 mm  
15 cm  
No. 16152-15

**Beebee Bone Scissors**

Very strong jaws with sharp points.



**MOST  
POPULAR**

Straight  
Cutting edge: 15 mm  
10 cm

No. 16044-10

**Tungsten Carbide Bone Scissors**

Strong heavy blades for cutting bone.



**TUNGSTEN  
CARBIDE**

For more information  
see page 183.

Tungsten Carbide Cutting Edges

Straight  
Cutting edge: 15 mm  
12.5 cm

No. 16030-12

Straight  
Cutting edge: 15 mm  
16 cm

No. 16030-16

**Boehler**

Bone splitting cutter with very fine tips and double action joint to relieve strain on your hand.



Angled up 10°  
Cutting edge: 18 mm  
15 cm

No. 16130-15

**Skull Flap Cutter**

One tip has a flat and narrow platform which fits between dura and skull. Other tip has sharp cutting edge.



Angled up 15°  
Cutting edge: 10 mm  
14 cm

No. 16050-15

## Cleveland Cutter



Straight

Cutting edge: 14 mm  
15 cm  
No. 16106-14

Cutting edge: 15 mm  
17 cm  
No. 16105-16

## Liston

Gross anatomy bone cutter.



Straight

Cutting edge: 20 mm  
14 cm  
No. 16104-14

Cutting edge: 30 mm  
20 cm  
No. 16104-19

**Bone Shears**

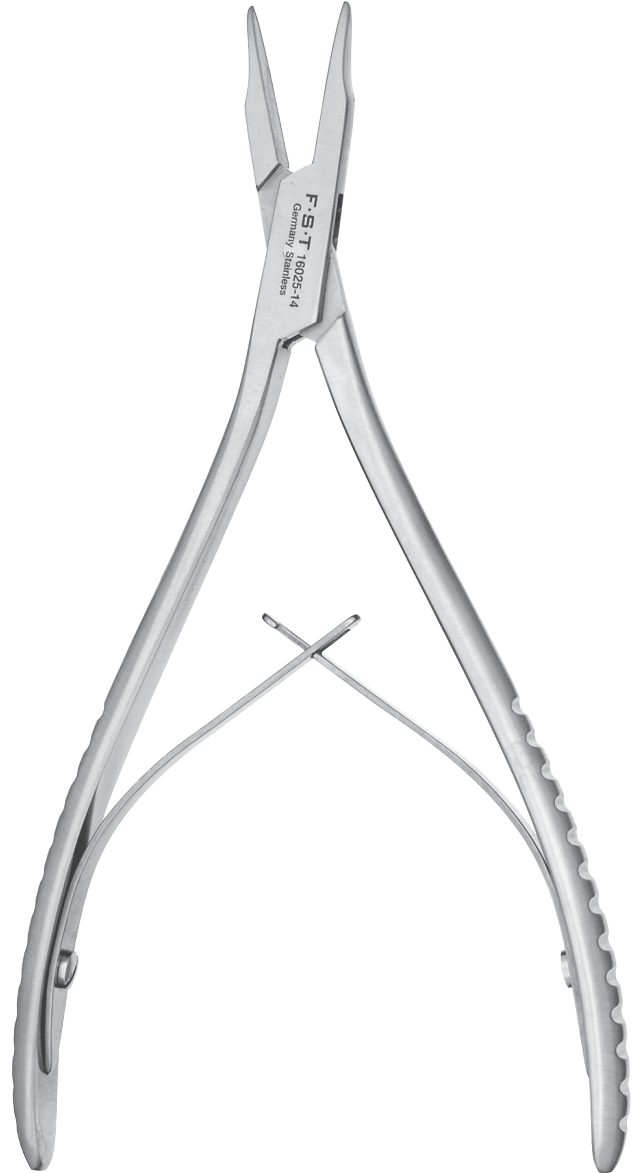
75% of actual size

Cutting edge: 6.5 cm  
24 cm

No. 16150-24

**Bone Pliers**

To peel back skull flaps.



Flat surface  
15.5 cm

No. 16025-14

### Self-Holding Pin and Bone Screw Forceps

Designed with a serrated tip and grooved cup for a stable and secure grip, these forceps hold pins and screws allowing precise placement at your target area. They are compatible with all Fine Science Tools insect pins, minuten pins and bone screws.



Polished stainless steel  
14 cm

No. 26100-00



### Miniature Self-Tapping Bone Screws

Used extensively to anchor dental cement to bone, these self-tapping screws have superior holding strength over ordinary machine screws. Stainless steel with fillister flat head.

Shaft diameter: 0.86 mm  
Length: 4 mm

Pkg. of 100 screws  
No. 19010-10

For pre-drilling use our 0.7 mm burs,  
see page 157.

Shaft diameter: 1.19 mm  
Length: 4.8 mm

Pkg. of 100 screws  
No. 19010-00

For pre-drilling use our 0.9 mm burs,  
see page 157.

### Bone Wax

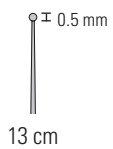
A beeswax-based compound for bone hemostasis. Soft, kneadable and ready to use. **Sterile.**



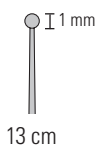
Box of 12 foil packs (2.5 g each)  
No. 19009-00

**Micro Curette**

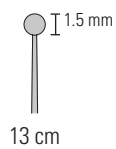
Curette tips consist of a scoop with sharp edges and are used for scraping or cleaning. They can also be used for separating and transporting, inoculating plates or transferring small amounts of chemicals.



No. 10080-05

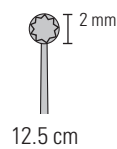


No. 10081-10



No. 10082-15

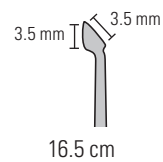
Serrations on  
cutting edge



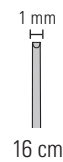
No. 10083-20

**Delicate Bone Scraper**

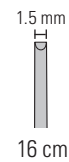
For scraping tissue without cutting into bone.



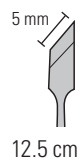
No. 10075-16

**Austin Chisel**

No. 10096-16



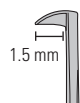
No. 10097-16

**Dissecting Chisel**

No. 10095-12

**Von Graefe Knife**

Used for cutting dura.



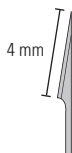
Angled 90°  
Cutting edge: 1.5 mm  
13 cm

No. 10059-13

One of the most popular dissecting knives with a microfine point. The cutting edge is lance shaped to provide the ideal cutting angle.

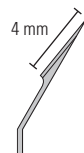


Cutting edge: 4 mm  
12.5 cm



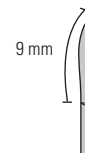
Straight

No. 10055-12



Angled 30°

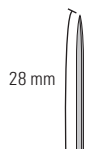
No. 10056-12

**Sichel**

Cutting edge: 9 mm  
12 cm

No. 10073-14



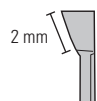


Cutting edge: 28 mm  
13 cm

No. 10370-13



200%

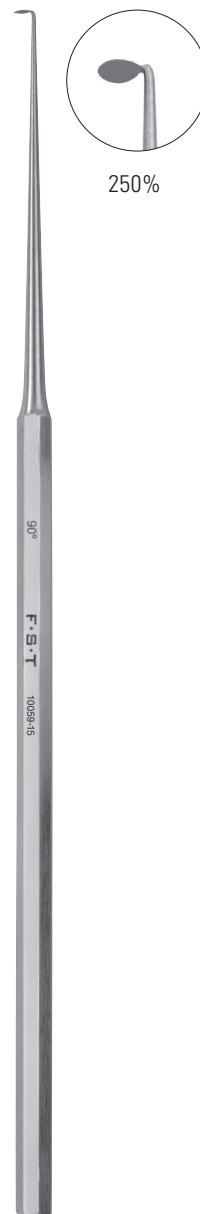


Side blade 20°  
Cutting edge: 2 mm  
15 cm

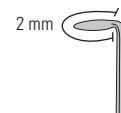
No. 10058-15

## Circle Knife

Sharp cutting edge around tip.



250%



Angled 90°  
Cutting edge: 2 mm  
16 cm

No. 10059-15

## Ceramic Blades

Advantages:

- Ceramic edge stays sharp 100 times longer than steel edge
- Rust and corrosion free
- Chemical and acid resistant
- Withstands up to 2400°C (4352°F)
- No electrostatic discharge concerns
- No trace metal contamination
- Fully nonmagnetic
- **Autoclavable**



Handle

12.5 cm  
No. 10025-50



Ceramic Blade

45° Cutting Edge  
Cutting edge: 8 mm  
33 x 6 x 0.5 mm

Pkg. of 5 blades  
No. 10025-45

## Diamond Knives

This knife has a gem-quality, neutral diamond blade which is honed to the finest cutting edge possible. The blade is made to an ophthalmic surgical standard and is inspected under 400x magnification. The retractable handle aids in care and storage.

### Cautionary note:

This blade is extremely fragile and vulnerable to lateral pressure.



Tip thickness: 0.15 mm  
Cutting edge: 1 mm  
12 cm



Cutting angle: 30°  
No. 10100-30



Cutting angle: 45°  
No. 10100-45



Grip slides up the handle to protect the tip for safe storage and packing.

## Obsidian Stone Age Scalpels

For applications where extremely fine cuts are required or for studies where trace metals from ordinary scalpel blades cannot be tolerated. These ultra fine cutting edges have been used in human surgical procedures where objectionable scar tissue results from the use of standard scalpels.

The blade is made from obsidian—a type of volcanic glass—which allows a much finer blade than is possible with the conventional steel blade. In some cases this makes the relatively inexpensive obsidian scalpel a suitable substitute for an expensive diamond knife.

Patterned after “stone age” knives which first made their appearance about 18,000 years ago, these modern versions utilize hard wood and plastic dowels for handles. Plastic dowels are made of polyoxymethylene.

### Cautionary note:

Obsidian is a very fragile material. Great care should be taken to not exert any lateral pressure on the blade during cutting. Each blade is hand-fashioned, so sizes, shapes and points will vary. While all the blades will have at least one sharp edge, some will have two.



150%

Wood Dowel  
Straight  
**Not autoclavable**

Approximate blade length: 6 mm  
No. 10110-01

Approximate blade length: 12 mm  
No. 10110-03



150%

Plastic Dowel  
Approximate blade length: 6 mm  
**Autoclavable**

Straight  
No. 10110-05



150%

Plastic Dowel  
Approximate blade length: 6 mm  
**Autoclavable**

Angled  
No. 10110-07

**Gross Anatomy Knives**

Handles are made of fiberglass reinforced yellow nylon with a slip resistant surface that allows little chance of bacterial accumulation. The blades are made of German Molybdenum Stainless Steel.

40% of  
actual size



Dissection knife

Cutting edge: 13 cm  
28 cm  
No. 10157-13

Cutting edge: 15 cm  
30 cm  
No. 10157-15

Cutting edge: 18 cm  
33 cm  
No. 10157-18

40% of  
actual size



Brain sectioning knife

Cutting edge: 30 cm  
45 cm  
No. 10152-30

## Blade Holders and Breakers



Flat surface

Jaw width: 4 mm  
11 cm  
No. 10052-11



Surface with concave  
and convex jaws

Handle diameter: 5.5 mm  
9 cm  
No. 10053-09

Handle diameter: 8 mm  
13 cm  
No. 10053-13

## Breakable Carbon Steel Blades

These special, high carbon content blades are the only blades that will break cleanly.

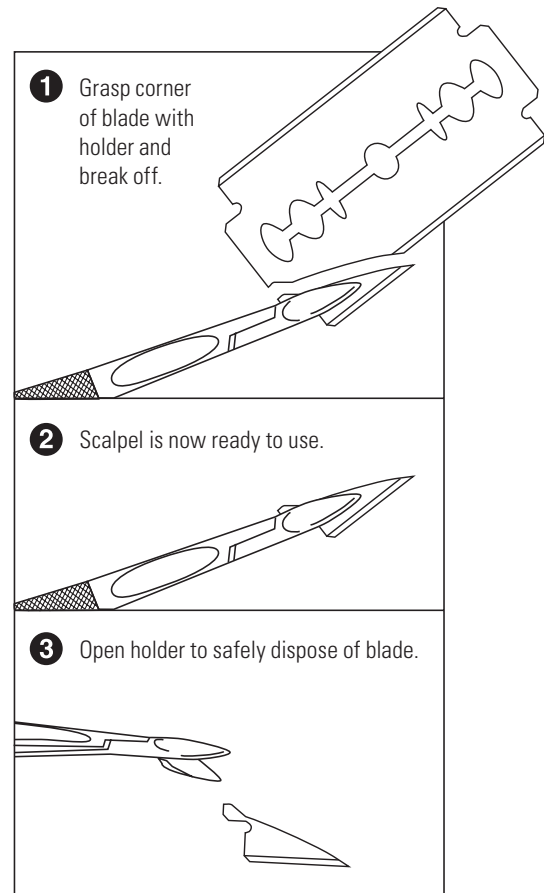


Blade thickness: 0.1 mm

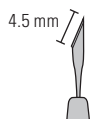
Box of 10 blades  
No. 10050-00

## Create Your Own Blade

With these blade holders/breakers and our special carbon steel blades, No. 10050-00, you can produce microblades in sizes that meet your own individual needs.



Cold forged from carbon steel and sharpened to eliminate tissue distortion and blade drag. 12.5 cm plastic handle with slip-proof grip. **Sterile.**



Cutting angle: 22.5°  
Tip thickness: 0.15 mm  
Cutting edge: 4.5 mm  
13.5 cm

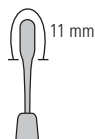
No. 10316-14

**MOST  
POPULAR**



Cutting angle: 15°  
Tip thickness: 0.15 mm  
Cutting edge: 5 mm  
13 cm

No. 10315-12



Crescent blade  
Tip thickness: 0.20 mm  
Cutting edge: 11 mm  
14 cm

No. 10317-14



Needle blade  
Tip thickness: 0.20 mm  
Cutting edge: 4 mm  
14.5 cm

No. 10318-14

## Interchangeable Carbon Steel Blades



Handle for  
Interchangeable  
Blades

9.5 cm  
No. 10035-00

12.5 cm  
No. 10035-12



Angled blade  
Carbon steel  
Cutting edge: 10 mm

Pkg. of 5 blades  
No. 10035-15



Curved blade  
Carbon steel  
Cutting edge: 10 mm

Pkg. of 5 blades  
No. 10035-20



Small flat blade  
Carbon steel  
Cutting edge: 1.5 mm

Pkg. of 5 blades  
No. 10035-05



Large flat blade  
Carbon steel  
Cutting edge: 2.75 mm

Pkg. of 5 blades  
No. 10035-10



Cane blade  
Carbon steel  
Cutting edge: 12 mm

Pkg. of 5 blades  
No. 10035-25



Arc blade  
Carbon steel  
Cutting edge: 12 mm

Pkg. of 5 blades  
No. 10035-30

**Scalpel with Plastic Handle #4**

For heavy, gross anatomy work.  
Molded to fit hand.



#4 Plastic  
13.5 cm

No. 10008-13

**Standard Scalpel Handle #4 Solid**

Especially suitable for large  
dissections.



#4 Solid  
13 cm

No. 10004-13

**Blades for #4 Scalpel Handle**

The alloy used has a high carbon content  
which provides a longer lasting edge. Blades  
come individually wrapped. **Non-sterile.**



Box of 100 blades  
No. 10020-00



Box of 100 blades  
No. 10021-00



Box of 100 blades  
No. 10022-00



Box of 100 blades  
No. 10023-00

### Standard Scalpel Handle #3 Solid



#3  
12 cm

No. 10003-12

**MOST  
POPULAR**

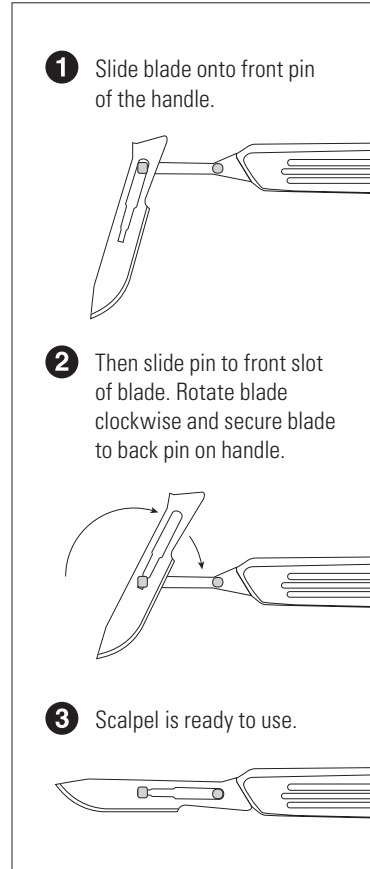
### Secure Scalpel Handle #3

A safety lock holds the blade securely, and allows simple and safe blade attachment and removal.



#3  
12 cm

No. 10003-13



### Blades for #3 and #7 Scalpel Handles

The alloy used has a high carbon content which provides a longer lasting edge. Blades come individually wrapped. **Non-sterile.**



Box of 100 blades  
No. 10010-00



Box of 100 blades  
No. 10011-00



Box of 100 blades  
No. 10012-00



Box of 100 blades  
No. 10015-00



**Short Scalpel  
Handle #7 Solid**

#7 short  
12 cm

No. 10007-12

**Standard Scalpel  
Handle #7 Solid**

#7 long  
16.5 cm

No. 10007-16

**Scalpel Blade Remover**

For safe removal of scalpel blades, simply insert scalpel with blade into the Scalpel Blade Remover and press the sides together. This will dislodge the blade from handle and hold the blade securely for release.



6.5 cm

No. 10002-00

**Scalpel Blade Removal and Disposal Box**

This plastic device will remove used scalpel blades safely and retain them for safe disposal. Can be used for blades that fit the #3, #4, #7 and Gross Anatomy handles.

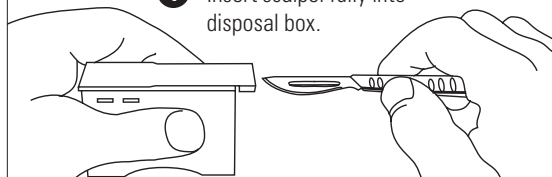
Capacity approximately 80 blades  
7.5 x 5 x 2.5 cm

Carton of 10 boxes  
No. 10002-50



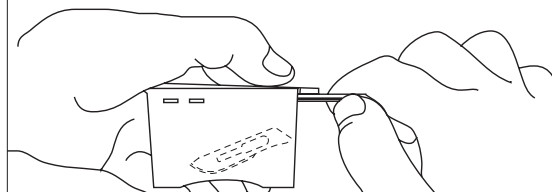
**Your fingers will never come in contact with the blade.**

- 1** Insert scalpel fully into disposal box.



- 2** Press down on disposal box cover.

- 3** Withdraw scalpel handle.



## Gross Anatomy Blade and Handle



7.5 cm

Box of 100 blades  
No. 10060-00



13 cm

No. 10060-13

## Disposable Safety Scalpels

Plastic handle #3 with stainless steel blades. The protective cartridge completely covers the blade for safe, fast, and easy disposal. **Single-use and non-sterile.**



#10 scalpels  
Pkg. of 10  
No. 10000-10



#11 scalpels  
Pkg. of 10  
No. 10000-11



#15 scalpels  
Pkg. of 10  
No. 10000-15

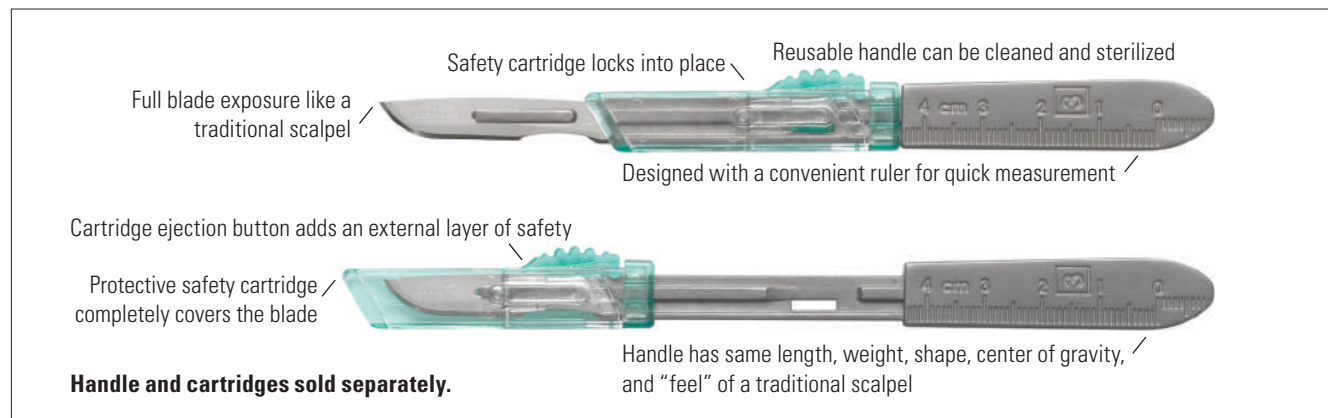


Scalpel shown with safety cartridge closed and locked into place.

Plastic handle with stainless steel blades  
14 cm

## Safety Scalpel Handle #3 and Blade Cartridges

The Safety Scalpel Handle #3 is compatible with all Safety Scalpel Blades. The handle is reusable and made of Teflon coated stainless steel which provides a non-stick surface. The Blade Cartridges are color-coded with clear windows for easy identification. The protective cartridge completely covers the blade for safe, fast, and easy disposal. **Handle is reusable and autoclavable. Blades are single-use and non-sterile.**



### Safety Scalpel Handle #3



Teflon coated stainless steel  
12.5 cm

No. 10006-12

### Safety Scalpel Blade Cartridges



#10 blades  
Pkg. of 10  
No. 10010-10



#11 blades  
Pkg. of 10  
No. 10011-10

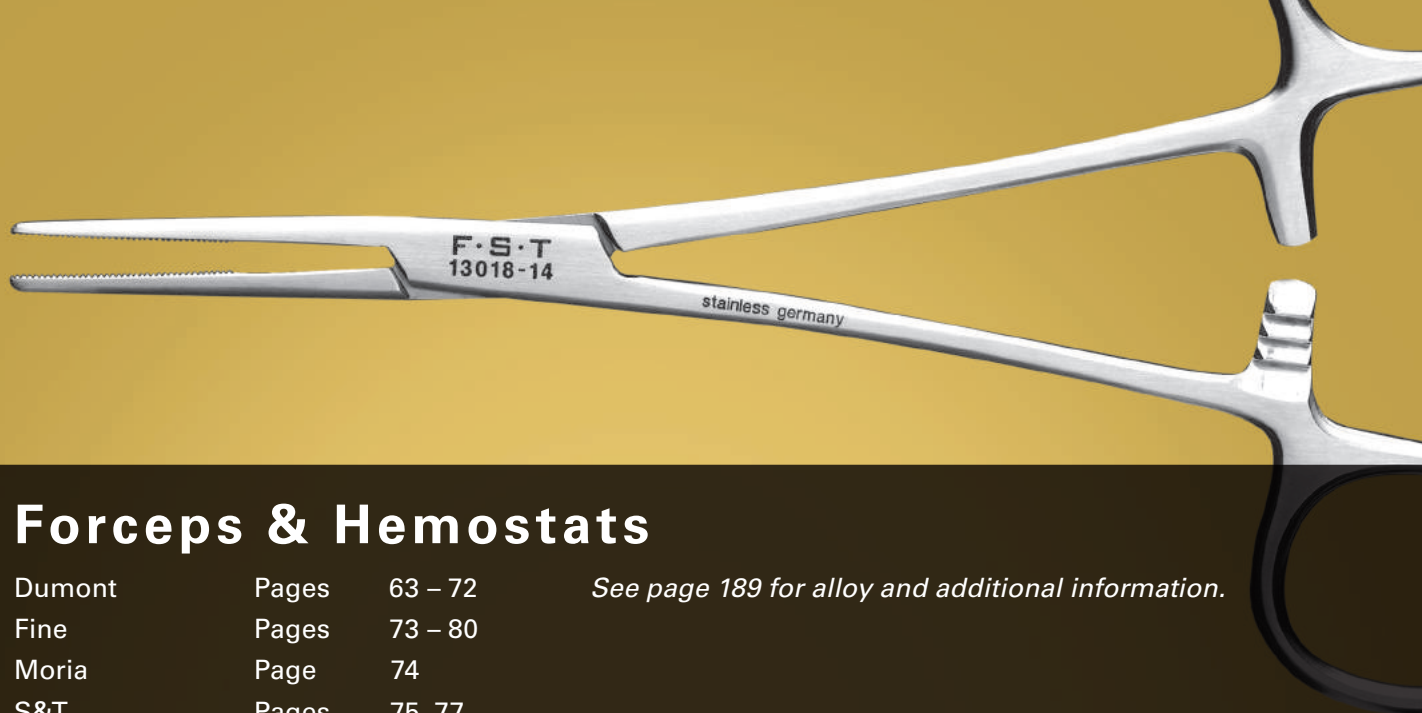


#15 blades  
Pkg. of 10  
No. 10015-10



Scalpel blade shown with safety cartridge closed and not attached to handle.

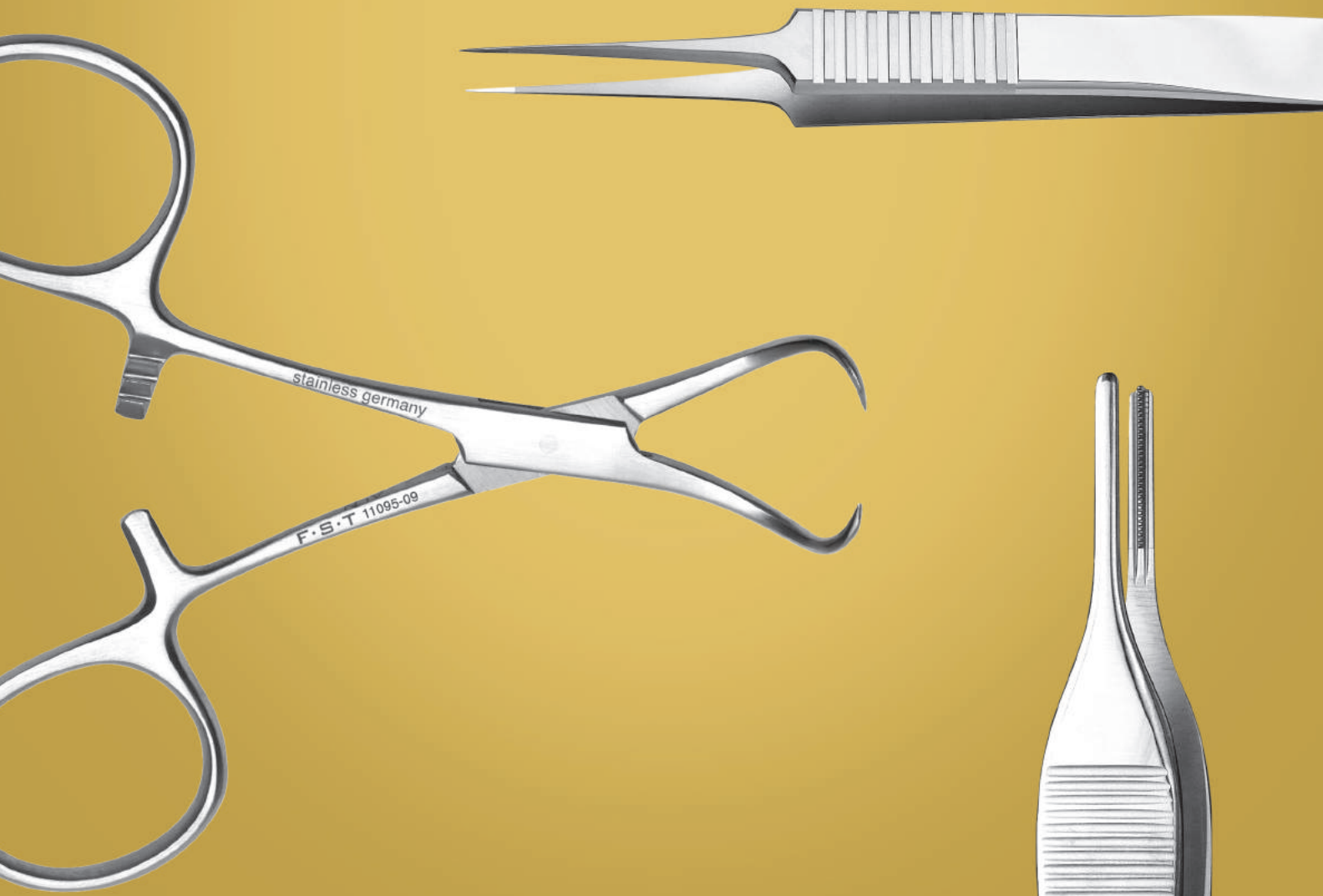
Safety Scalpel Blade Cartridges shown open and attached to handle.  
Handle and cartridges sold separately.



## Forceps & Hemostats

|           |       |         |
|-----------|-------|---------|
| Dumont    | Pages | 63 – 72 |
| Fine      | Pages | 73 – 80 |
| Moria     | Page  | 74      |
| S&T       | Pages | 75, 77  |
| Standard  | Pages | 81 – 91 |
| Hemostats | Pages | 92 – 97 |

*See page 189 for alloy and additional information.*



**Dumont #5SF**

The finest tips ever produced by Dumont.



Super fine tip  
0.025 x 0.005 mm  
Inox  
11 cm

No. 11252-00

**Dumont #5  
Fine Tips**

Finished under magnification and polished on the inside, the tips close flat to 3 mm and are less likely to open under excess pressure.



Biology tip  
0.05 x 0.01 mm  
Inox  
11 cm

No. 11254-20

**Dumont #5  
Ceramic Coated**

These forceps are non-reflective. The scratch and corrosion resistant coating guarantees durability.



Biology tip  
0.05 x 0.01 mm  
Ceramic coated inox  
11 cm

No. 11252-50

**Dumont #5CO**

These forceps have been honed down to make this the lightest and most precise Dumont forceps available.



Biology tip  
0.05 x 0.01 mm  
Dumostar  
11 cm

No. 11295-20

For information on  
Dumont alloys and tip styles,  
see page 189.

**MOST  
POPULAR**

**Dumont Micro-Blunted, Atraumatic Tipped Forceps**

The sides of these forceps are distinctively ribbed to provide a better holding surface for maximum control of the instrument. The shanks are arched toward each other to transmit more holding strength to the points. The smooth inside surfaces at the tips will close flat to 5 mm with gentle pressure, increasing the total holding area considerably. The microscopically matched tips are gently blunted to prevent tissue puncture and are recommended as micro needle holders.



Straight  
0.10 x 0.06 mm  
Inox  
11 cm

Medical #5  
No. 11253-20



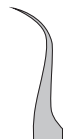
Off-center  
0.13 x 0.08 mm  
Inox  
11.5 cm

Medical #5A  
No. 11253-21



Short curve  
0.17 x 0.10 mm  
Inox  
12 cm

Medical #7S  
No. 11273-22



Curved  
0.17 x 0.10 mm  
Inox  
11.5 cm

Medical #7  
No. 11273-20



Angled 45°  
0.10 x 0.06 mm  
Inox  
11 cm

Medical #5/45  
No. 11253-25



Angled 90°  
0.10 x 0.06 mm  
Inox  
11 cm

Medical #5/90  
No. 11253-29

Dumont #55

Bevelled, like #5 but with extra light and fine shanks.



Biology tip  
0.05 x 0.02 mm  
11 cm

Inox  
No. 11255-20

Dumostar  
No. 11295-51

Dumont #5  
Mirror Finish Forceps

The last 5 mm on the inside of the tips are highly polished to help prevent tissue from sticking. Ideal for embryos, nerves, or any other adhesive tissue.



Standard tip  
0.10 x 0.06 mm  
Inox  
11 cm

No. 11251-23

Biology tip  
0.05 x 0.02 mm  
Inox  
11 cm

No. 11252-23

For information on  
Dumont alloys and tip  
styles, see page 189.

Dumont #5

These are the most widely used Dumont forceps.  
Bevelled, very fine shanks for best visibility.



Standard tip  
0.10 x 0.06 mm  
11 cm

Inox  
No. 11251-20

Dumoxel  
No. 11251-30

Dumostar  
No. 11295-00

Carbon  
0.08 x 0.04 mm  
**Not autoclavable**  
No. 11251-10

Biology tip  
0.05 x 0.02 mm  
11 cm

Inox  
No. 11252-20

Dumoxel  
No. 11252-30

Dumostar  
No. 11295-10

**TITANIUM**  
No. 11252-40

Dumont WA #5

These newly designed forceps offer improved stability with an ergonomic body that allows the forceps to fit more comfortably in your hand. A domed end with no soldering grooves allows the forceps to be thoroughly and easily cleaned, preventing biofilm residues.



Side View

Standard tip  
0.10 x 0.06 mm  
Inox  
12 cm

No. 11251-21

Biology tip  
0.05 x 0.02 mm  
Inox  
12 cm

No. 11252-21

For information on  
Dumont alloys and tip  
styles, see page 189.

Dumont #5XL



Standard tip  
0.10 x 0.06 mm  
Inox  
15 cm

No. 11253-10



**Dumont #L5**

Slide sleeve keeps tips together so specimens may be securely held and retained. Slide may be locked in place so that forceps can be used in regular fashion. **Autoclavable.**



Standard tip  
0.10 x 0.06 mm  
Inox  
11 cm

No. 11253-27

**Dumont #5  
Teflon® Coated**

These antimagnetic forceps are ideal for use in cryogenic environments and for EM samples.



Standard tip  
0.10 x 0.06 mm  
Teflon coated inox  
11 cm

No. 11626-11

**Dumont #5/45**

45° tips for improved visibility and control.



**MOST  
POPULAR**

Standard tip  
0.10 x 0.06 mm  
Dumoxel  
11 cm

No. 11251-35

**Dumont #5/45  
Cover Slip Forceps**

Designed to pick up cover slips out of multi-well plates. The tip width is squared for a better grip.



400%

1 mm from tip to bend  
Upper tip: 0.10 x 0.08 mm  
Lower tip: 0.10 x 0.02 mm  
Dumoxel  
11.5 cm

No. 11251-33

### Dumont #3

Tapered and sturdy shanks.



Standard tip  
0.17 x 0.10 mm  
12 cm

Dumoxel  
No. 11231-30

Dumostar  
No. 11293-00

### Dumont #3c



Standard tip  
0.17 x 0.10 mm  
Inox  
11 cm

No. 11231-20

### Dumont #6

Sharply angled tips for access to difficult areas.



Standard tip  
0.17 x 0.10 mm  
Inox  
11.5 cm

No. 11260-20

Dumont #7  
Fine Tips

Finished under magnification and polished on the inside, the tips close flat to 3 mm and therefore less likely to open under excess pressure.



For information on  
Dumont alloys and tip  
styles, see page 189.

Biology tip  
0.07 x 0.03 mm  
Inox  
11 cm  
No. 11274-20

Dumont #7



Standard tip  
0.17 x 0.10 mm  
11.5 cm  
Dumoxel  
No. 11271-30  
Dumostar  
No. 11297-00

Dumont #7  
Ceramic Coated



Biology tip  
0.07 x 0.04 mm  
Ceramic coated inox  
11 cm  
No. 11272-50

Dumont #7B



Standard tip  
Serrated  
0.17 x 0.10 mm  
Inox  
11 cm  
No. 11270-20

FORCEPS

·TITANIUM·

No. 11272-40

**Dumont #4**

Similar to #5, but with broader shanks.



Standard tip  
0.13 x 0.08 mm  
Dumoxel  
11 cm

No. 11241-30

Biology tip  
0.06 x 0.04 mm  
Dumoxel  
11 cm

No. 11242-40

Dumostar  
No. 11294-00

**Dumont #2  
Laminectomy Forceps**

These forceps can be used to break off delicate bone during mouse laminectomies, as well as fine skull bone removal.



0.40 x 0.02 mm  
Inox  
12 cm

No. 11223-20

**Dumont #2AP  
Epoxy Coated**

Provides good insulation for up to 220 AC voltage work and highly impervious to chemical solutions. Frozen or super cold sections will not adhere to the gripping surfaces.



Tip width: 1.5 mm  
Epoxy coated Inox  
12 cm

No. 11220-21

Dumont AA

Dumont AA  
Epoxy Coated

Slip-proof acid and electric shock resistant epoxy coating covering 17.5 mm from the tips.

Dumont SS

The tips are smooth on the inside for a gentle grip. Applying full strength will not separate tips and a strong hold on the smallest specimen is ensured.

For information on  
Dumont alloys and tip  
styles, see page 189.



0.4 x 0.2 mm  
Inox  
12.5 cm  
No. 11210-20



0.4 x 0.2 mm  
Epoxy coated inox  
12.5 cm  
No. 11210-10



Standard tip  
0.20 x 0.12 mm  
Inox  
13.5 cm  
No. 11203-23



Biology tip  
0.10 x 0.06 mm  
Dumoxel  
13.5 cm  
No. 11200-33



Angled 45°  
No. 11203-25

FORCEPS

## Dumont Mini Forceps



0.12 x 0.07 mm  
Inox  
7 cm

Style 3  
No. 11200-10

0.14 x 0.06 mm  
Inox  
7 cm

Style 4  
No. 11200-12

0.09 x 0.05 mm  
Inox  
8.2 cm

Style 5  
No. 11200-14

## Fine Forceps Repair Kit

Realign and repair fine forceps with this convenient kit. Bent forceps tips can be restraightened with the chain nose pliers. The sharpening stone has two grooves, 1.6 mm and 0.8 mm, to assist in reshaping the forceps tips. O-rings clamp the forceps shut to ensure that both shanks are equally aligned and sharpened. Instrument oil assists in producing a smooth sharp edge. Detailed instructions are included.



Kit includes:

- 1 Sharpening stone for fine forceps with ten O-rings (No. 29008-22)
- 1 Instrument oil, 50 ml bottle (No. 29055-00)
- 1 Chain nose pliers

No. 29000-00

**MOST  
POPULAR**

## O-Rings for Forceps

These rubber O-rings fit our forceps and keep them closed with variable degrees of pressure on the tips.

Pkg. of 10  
No. 11200-00



**Fine Forceps Mirror Finish**

The last 5 mm on the inside of the tips are highly polished to help prevent tissue from sticking. Ideal for embryos, nerves, or other adhesive tissue.



0.10 x 0.06 mm  
11 cm

No. 11412-11      No. 11413-11

**Fine Forceps Broad Shanks**

Straight forceps with sturdy coarse tips.



0.2 x 0.12 mm  
12 cm

No. 11445-12

**Fine Forceps Self-Closing**

Ideal for lifting and holding EM grids. Consistent pressure at tips. Correctly tensioned "cross-over" shanks come to a microscopically matched point.



0.08 x 0.04 mm  
11.5 cm

No. 11480-11



0.10 x 0.06 mm  
11 cm

No. 11485-11



0.20 x 0.12 mm  
11.5 cm

No. 11487-11

These forceps have the most finely executed points available. They are extremely light, superbly balanced, and have a gentle spring action. The shanks are specially designed with an arch which ensures maximum force to the tips. The tips close flat for 6 mm from the points to give a large holding area. The tips have been expertly finished under magnification.



Moria



Moria



Moria

Tip width: 0.5 mm  
Blunt  
10 cm



Straight  
11 cm

Moria MC40  
No. 11370-40



Curved  
11 cm

Moria MC40/B  
No. 11370-42



Straight  
13 cm

Moria 9980  
No. 11399-80



Curved  
13 cm

Moria 9987  
No. 11399-87



Smooth  
Moria MC32/B  
No. 11373-22



Smooth  
Moria MC31/B  
No. 11373-12



Microserrated  
Moria MC32  
No. 11370-32



Microserrated  
Moria MC31  
No. 11370-31



### SuperGrip Forceps

The tips are processed with MicroCrystals<sup>®</sup>, a method developed by S&T<sup>®</sup> to infuse tungsten carbide on stainless steel. The formation of this ultra-fine coating guarantees atraumatic handling of tissue while improving the grip dramatically. The recommended use is where forceps are utilized as needle holders or when slippery tissues might be encountered.



S&T<sup>®</sup>

0.3 x 0.25 mm  
11 cm



Straight

No. 00108-11



Angled 45°

No. 00109-11



The gripping surface is similar to a match head.

S&T<sup>®</sup>

0.3 x 0.25 mm  
11 cm



Straight

No. 00632-11

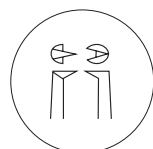


Angled 45°

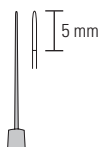
No. 00649-11

**Bonn**

The 1x2 forceps are the finest of their kind available.

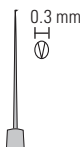


20x magnification



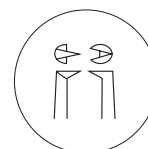
Smooth  
Tip width: 0.3 mm  
Tip platform: 5 mm  
7 cm

No. 11083-07

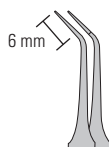


1x2 teeth  
Tip width: 0.45 mm  
Teeth width: 0.1 mm  
7 cm

No. 11084-07



20x magnification

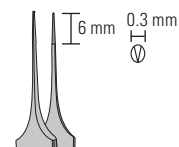


Angled 45°  
Tip width: 0.4 mm  
Platform  
9 cm

No. 11063-07

**Mirror Finish  
Suture Tying Forceps**

A unique tip style fusing a suture tying platform and a 1x2 teeth tip for tissue manipulation.

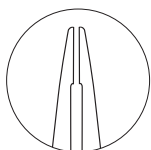


Straight  
Tip width: 0.3 mm  
Platform with 1x2 teeth  
9 cm

No. 11090-09

**Suture Tying Forceps**

The platform tips close flat. This ensures a reliable grip on sutures.

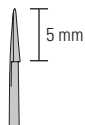


Tip diameter: 0.3 mm  
Tying platform: 6 mm  
13.5 cm

No. 00272-13

**Suture Tying Forceps**

The platform tips close flat. This ensures a reliable grip on sutures.

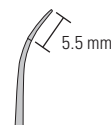


Tip diameter: 0.5 mm  
Tying platform: 5 mm  
10 cm

No. 18025-10

**Round Handled Suture Tying Forceps**

Round handles allow easy fingertip adjustments.

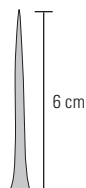


Tip diameter: 0.35 mm  
Tying platform: 5.5 mm  
10.5 cm

No. 18026-10

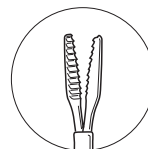
**Vial Forceps**

Tips taper for 6 cm allowing easy access to specimens in vials.



Tip diameter: 0.5 mm  
15 cm

No. 11006-15

**Vetro Grasping Forceps**

Serrated  
Tip diameter: 0.7 mm  
14 cm

No. 11900-14



Tip width: 0.6 mm  
7 cm



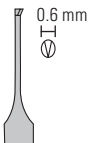
Straight  
Serrated

No. 11064-07



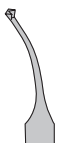
Curved  
Serrated

No. 11065-07



Straight  
1x2 teeth

No. 11066-07



Curved  
1x2 teeth

No. 11067-07

## Bishop-Harman

Extra light, fenestrated handles ensure a good grip.

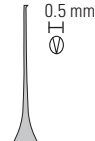


Tip width: 0.5 mm  
8.5 cm



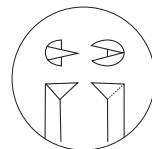
Serrated

No. 11069-08



1x2 teeth

No. 11070-08



10x magnification

## Octagon Forceps

The octagon shaped grip provides a particularly secure finger hold.



Tip width: 0.8 mm  
9.5 cm



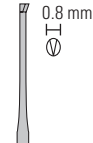
Straight  
Serrated

No. 11040-08



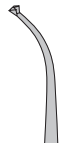
Curved  
Serrated

No. 11041-08



Straight  
1x2 teeth

No. 11042-08



Curved  
1x2 teeth

No. 11043-08

## Extra Fine Graefe Forceps



Tip width: 0.5 mm  
10 cm



Serrated  
No. 11150-10



Serrated  
No. 11151-10



Serrated  
No. 11152-10



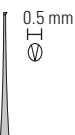
Smooth  
No. 11158-10



Smooth  
No. 11159-10



Smooth  
No. 11160-10



1x2 teeth  
No. 11153-10



1x2 teeth  
No. 11154-10



1x2 teeth  
No. 11155-10

## Graefe Forceps



Tip width: See below  
10 cm



Serrated  
Tip width: 0.8 mm  
No. 11050-10



Serrated  
Tip width: 0.8 mm  
No. 11051-10

**MOST  
POPULAR**



Serrated  
Tip width: 0.8 mm  
No. 11052-10



Serrated  
Tip width: 0.8 mm  
No. 11049-10

**·TITANIUM·**

Tip width: 1.2 mm  
No. 11650-10

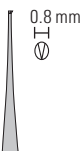
**·TITANIUM·**

Tip width: 1.2 mm  
No. 11651-10

**·TITANIUM·**

Tip width: 1.2 mm  
No. 11652-10

For more information  
see page 183.



1x2 teeth  
Tip width: 0.8 mm  
No. 11053-10



1x2 teeth  
Tip width: 0.8 mm  
No. 11054-10



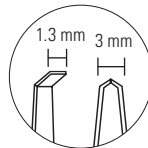
1x2 teeth  
Tip width: 0.8 mm  
No. 11055-10

The tips of these forceps arch toward each other, closing flat. Exceptional gripping power is possible with minimal damage to tissue. A limit pin prevents excessive applied pressure.



Slide lock  
Smooth  
Tip width: 1 mm  
11 cm

No. 11062-10

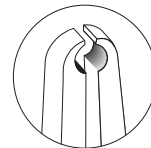


Tip thickness: 0.2 mm  
10 cm

No. 11071-10

### Pierce Fixation Forceps

For exceptional gripping power with no damage to sclera, vascular sheath and epineurium.



Tissue retention  
hole of 0.3 mm  
behind tips.

Straight  
0.1 x 0.4 mm  
13 cm

No. 18155-13

**Plastic Forceps**

These forceps are non-magnetic, acid resistant and able to withstand temperatures up to 240°C (464°F). Tips do not spread under pressure.



Acetyl  
11.5 cm  
Pkg. of 10 forceps



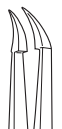
Sharp straight  
0.40 x 0.25 mm

No. 11700-00



Blunt straight  
1.5 x 0.40 mm

No. 11700-03



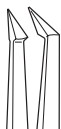
Sharp curved  
0.30 x 0.20 mm

No. 11700-01



Blunt curved  
1.5 x 0.40 mm

No. 11700-04

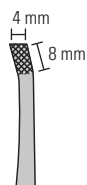


Sharp 45°  
0.30 x 0.20 mm

No. 11700-02

**Cross Action Forceps**

These tissue transport forceps have a gentle action.

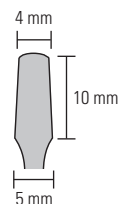


Cross serrated  
Tip width: 4 mm  
Tip depth: 8 mm  
10 cm

No. 11075-00

**Cover Glass Forceps**

10.5 cm



Straight

No. 11074-02

Angled

No. 11073-10



**Ring Forceps**

For transport of tissue and organs. With limit screw to prevent excessive applied pressure.



ID: 1 mm  
OD: 1.5 mm  
8.5 cm

No. 11101-09

ID: 2.2 mm  
OD: 3 mm  
9 cm

No. 11103-09

ID: 4.8 mm  
OD: 6 mm  
9 cm

No. 11106-09

**Circle Forceps**

Cupped forceps for atraumatic gripping of organs and tissues.



Tip diameter: 0.7 mm  
11.5 cm

No. 11072-11

**Live Insect Handling Forceps**

Very delicate.



Narrow  
10 cm

No. 26029-10

Wide  
10 cm

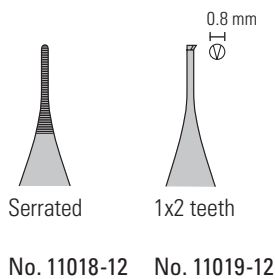
No. 26030-10

**Micro-Adson**

Our most delicate version of the popular Adson forceps.



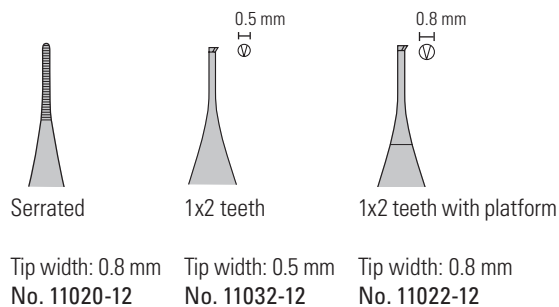
Tip width: 0.8 mm  
12 cm

**Micro-Adson with Fenestrated Handle**

Our delicate Micro-Adson forceps, with five windows to aid in stability and easy finger adjustments.



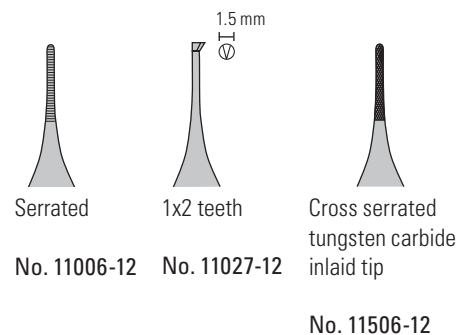
12 cm

**Adson**

Wide, strong grip with narrow tips.

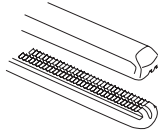


Tip width: 1.5 mm  
12 cm



**TUNGSTEN  
CARBIDE**

For more information  
see page 183.

**Adson DeBakey****Atraumatic  
DeBakey Serrations**

This tooth pattern, as shown, consists of one row of atraumatic teeth meshed with two opposite rows of atraumatic teeth.

These two forceps are ideal for gentle, atraumatic gripping of vessels, tissue and other delicate structures.



DeBakey serrations  
Tip width: 1.5 mm  
12.5 cm

No. 11617-12



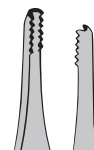
DeBakey serrations  
Tip width: 1.5 mm  
15 cm

No. 11616-15

**Adson-Graefe**

Fine sharp teeth  
Tip width: 4.5 mm  
12.5 cm

No. 11030-12

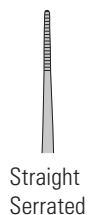
**Adson-Brown**

Shark teeth  
Tip width: 1.4 mm  
12 cm

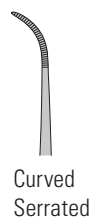
No. 11627-12

**Semken**

Slim pattern with long, narrow shanks and gentle spring action.



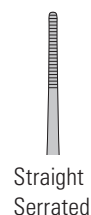
| Tip width<br>(mm) | Length<br>(cm) | Item         | Price |
|-------------------|----------------|--------------|-------|
| 1.3               | 13             | No. 11008-13 |       |
| 1.5               | 15             | No. 11008-15 |       |
| <b>•TITANIUM•</b> |                |              |       |
| 1.5               | 15             | No. 11608-15 |       |



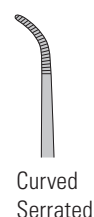
| Tip width<br>(mm) | Length<br>(cm) | Item         | Price |
|-------------------|----------------|--------------|-------|
| 1.3               | 13             | No. 11009-13 |       |
| 1.5               | 15             | No. 11009-15 |       |

**Narrow Pattern**

Lighter spring action than standard pattern for grasping more delicate tissue.



| Tip width<br>(mm) | Length<br>(cm) | Item         | Price |
|-------------------|----------------|--------------|-------|
| 2                 | 12             | No. 11002-12 |       |
| 2.15              | 13             | No. 11002-13 |       |
| 2.25              | 14.5           | No. 11002-14 |       |
| 2.35              | 16             | No. 11002-16 |       |
| 2.4               | 18             | No. 11002-18 |       |
| 2.75              | 20             | No. 11002-20 |       |
| 3.2               | 25             | No. 11002-25 |       |
| <b>•TITANIUM•</b> |                |              |       |
| 2.25              | 14.5           | No. 11602-14 |       |



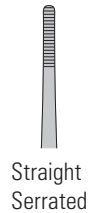
| Tip width<br>(mm) | Length<br>(cm) | Item         | Price |
|-------------------|----------------|--------------|-------|
| 2                 | 12             | No. 11003-12 |       |
| 2.15              | 13             | No. 11003-13 |       |
| 2.25              | 14.5           | No. 11003-14 |       |
| 2.35              | 16             | No. 11003-16 |       |
| 2.4               | 18             | No. 11003-18 |       |
| 2.75              | 20             | No. 11003-20 |       |

**•TITANIUM•**

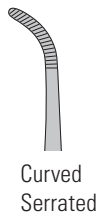
For more information  
see page 183.

**Standard Pattern**

Broad pattern with strong spring action.



| Tip width (mm) | Length (cm) | Item         | Price |
|----------------|-------------|--------------|-------|
| 2.5            | 12          | No. 11000-12 |       |
| 2.8            | 13          | No. 11000-13 |       |
| 3.25           | 14.5        | No. 11000-14 |       |
| 3.3            | 16          | No. 11000-16 |       |
| 3.7            | 18          | No. 11000-18 |       |
| 3.75           | 20          | No. 11000-20 |       |
| 3.9            | 25          | No. 11000-25 |       |
| 4              | 30          | No. 11000-30 |       |



| Tip width (mm) | Length (cm) | Item         | Price |
|----------------|-------------|--------------|-------|
| 2.5            | 12          | No. 11001-12 |       |
| 2.8            | 13          | No. 11001-13 |       |
| 3.25           | 14.5        | No. 11001-14 |       |
| 3.3            | 16          | No. 11001-16 |       |
| 3.7            | 18          | No. 11001-18 |       |
| 3.75           | 20          | No. 11001-20 |       |

**Mouse Handling Forceps**

Long handles make picking up small rodents easy and help prevent bites.



Forceps with serrated silicone tips  
Gripping surface: 15 x 20 mm  
21 cm

No. 11036-20



Replacement silicone tips

Pkg of 2 tips  
No. 11036-90



Slim 1x2 teeth

10 cm  
No. 11023-10

14.5 cm  
No. 11023-14

12 cm  
No. 11023-12

15.5 cm  
No. 11023-15



1x2 teeth

12 cm  
No. 11021-12

14.5 cm  
No. 11021-14

15.5 cm  
No. 11021-15



2x3 teeth

14.5 cm  
No. 11022-14

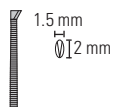
15.5 cm  
No. 11022-15



1x2 teeth

14 cm  
No. 11029-14

Used with rongeur No. 16021-14  
(page 36) in laminectomy to securely  
hold spinal column.

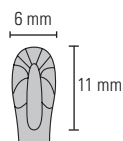
**Gillies**

Serrated  
1x2 teeth  
15 cm

No. 11028-15

**Russian**

Special cupped pattern  
for superior grip.

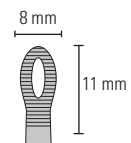


15 cm

No. 11026-15

**Organ Holding Forceps**

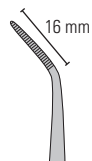
With limit screw to prevent  
excessive applied pressure.



Serrated  
14.5 cm

No. 11031-15

## London Forceps



Angled  
Serrated  
16 cm

No. 11080-02

## Titanium Forceps



·TITANIUM·

For more information  
see page 183.



Straight  
Serrated  
16 cm

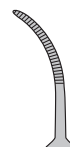
No. 11602-16

## Gerald Forceps



Straight  
Serrated  
18 cm

No. 11014-18



Curved  
Serrated  
18 cm

No. 11015-18



**Taylor Forceps**

Serrated and smooth versions available.



Straight  
Serrated  
17 cm

No. 11010-17



Curved  
Serrated  
17 cm

No. 11011-17



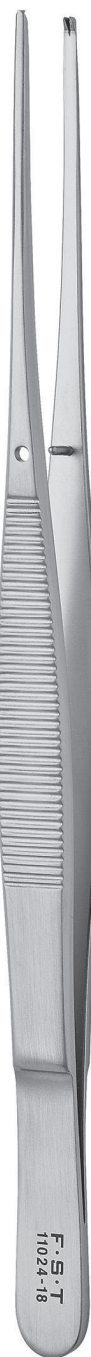
Straight  
Smooth  
17 cm

No. 11016-17



Curved  
Smooth  
17 cm

No. 11017-17

**Potts-Smith Forceps**

Straight  
Serrated

18 cm  
No. 11012-18

21 cm  
No. 11012-21

25 cm  
No. 11012-25



Curved  
Serrated

18 cm  
No. 11013-18

21 cm  
No. 11013-21



Straight  
1x2 teeth  
18 cm

No. 11024-18



Curved  
1x2 teeth  
18 cm

No. 11025-18

## Ultra Fine Hemostat



Tip width: 0.6 mm  
Smooth  
12 cm



Straight

No. 13020-12



Curved

No. 13021-12

## Fine Hemostat



Tip width: 1 mm  
Smooth  
12 cm



Straight

No. 13006-12



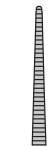
Curved

No. 13007-12

Micro-Mosquito



Tip width: 1.3 mm  
Serrated  
12 cm



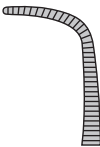
Straight

No. 13010-12



Curved

No. 13011-12



Angled 90°

No. 13012-12

Halsted-Mosquito



Tip width: 1.1 mm  
Serrated  
12.5 cm

Tip width: 1 mm  
Serrated  
Left handed  
12.5 cm



Straight

No. 13008-12



Curved

No. 13009-12



Straight

  
No. 13108-12



Curved

  
No. 13109-12

Crile

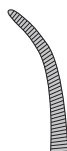


Tip width: 1.5 mm  
Serrated  
14 cm



Straight

No. 13004-14



Curved

No. 13005-14

Kelly



Tip width: 1.5 mm  
Serrated  
14 cm



Straight

No. 13018-14



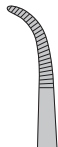
Curved

No. 13019-14

Baby-Mixer



Tip width: 1.3 mm  
Serrated  
14 cm



Curved

No. 13013-14

Providence-Hospital



Tip width: 1.5 mm  
Serrated  
14 cm



Straight

No. 13014-14



Curved

No. 13015-14

Hartman



Tip width: 1 mm  
Serrated  
10 cm



Straight

No. 13002-10



Curved

No. 13003-10

MOST  
POPULAR

Backhaus Towel Forceps



9 cm

No. 11095-09



13 cm

No. 11095-13

Allis Forceps

Tissue and organ holding forceps.



4 mm

5x6 teeth  
Tip width: 4 mm  
15 cm

Allis  
No. 11091-15

3 mm

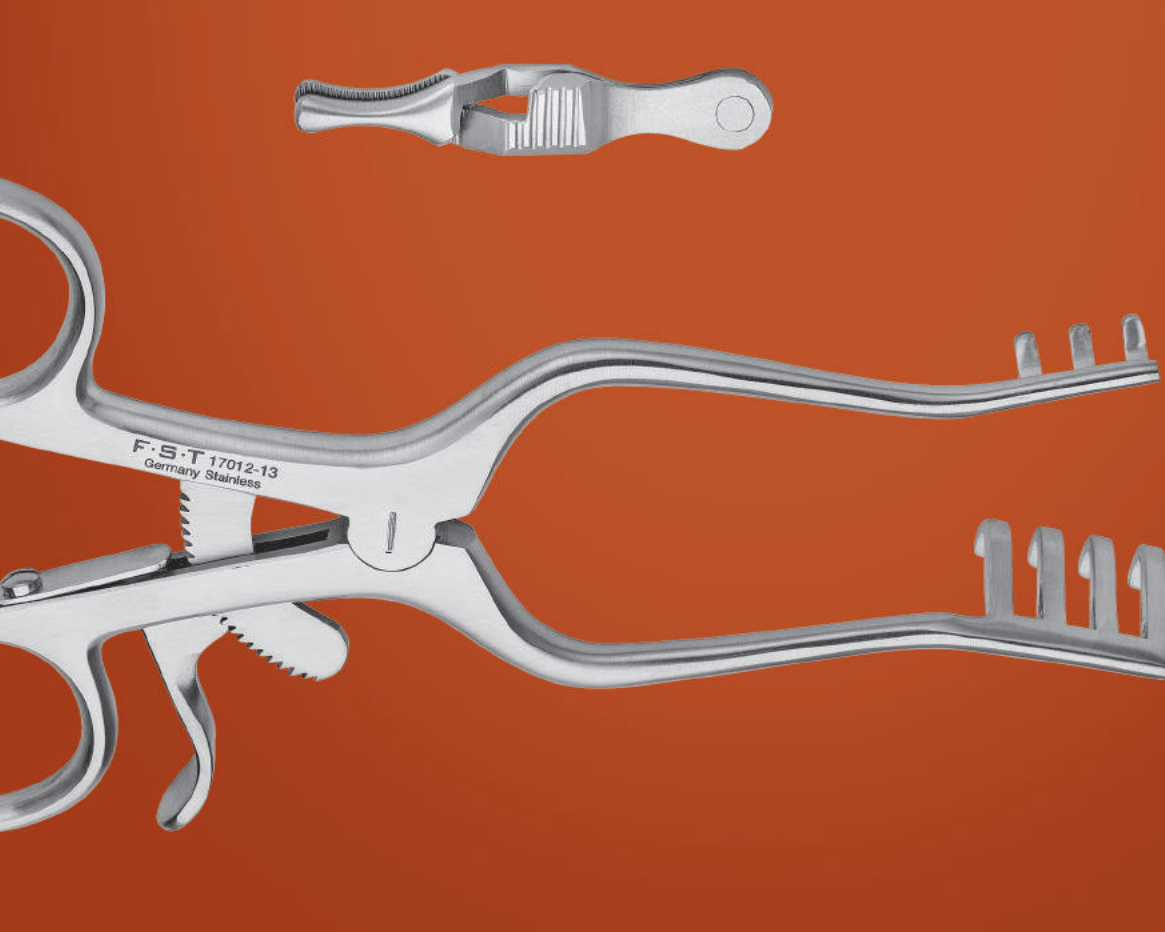
4x5 teeth  
Tip width: 3 mm  
12 cm

Allis-Baby  
No. 11092-12



## Probes, Needle Holders, Wound Closure, Retractors & Clamps

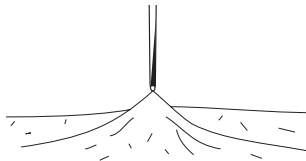
|                      |       |           |
|----------------------|-------|-----------|
| Probes & Hooks       | Pages | 99 – 103  |
| Spatulae             | Pages | 102 – 105 |
| Pins & Holders       | Pages | 106 – 107 |
| Spoons               | Page  | 108       |
| Featured Products    | Page  | 109       |
| Wound Closure        | Pages | 110 – 121 |
| Retractors           | Pages | 122 – 129 |
| Vascular Instruments | Pages | 130 – 139 |





Double Pronged Pick

For peritoneum, pleura, endocardium, organ capsules and skin. Grasps and lifts skin, tissue and dura, etc.



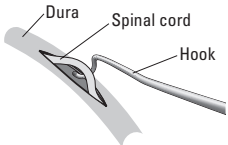
The tip consists of two very sharp, nearly horizontally opposed points. By applying gentle downward pressure and twisting slightly in a clockwise fashion, the points will embed themselves horizontally into fine membranes or skin, etc., so that it may be lifted upward. This instrument also has been used successfully when separating fine tissue from an underlying area that is not to be cut.



11 cm

No. 18067-11

Spinal Cord Hook



Shaped like a ligation aid and sized to isolate the spinal cord from the dura of adult mice and neonatal rats. The cord can then be cut with minimal damage to the dura.



250%

Tip diameter: 3 mm  
12 cm

No. 10162-12

## Bonn Micro Probes



Length: 13.5 cm



Actual size

Straight  
Tip diameter: 0.025 mm

No. 10030-13



200%

Angled 45°  
Tip diameter: 0.025 mm

No. 10032-13



Actual size

Curved  
Tip diameter: 0.025 mm

No. 10031-13



Actual size

Large curve  
Tip diameter: 0.038 mm

No. 10033-13

## Micro Points



Length: 15.5 cm



200%

Angled 90° short  
Tip diameter: 0.05 mm

No. 10063-15



200%

Angled 90°  
Tip diameter: 0.02 mm

No. 10065-15



200%

Angled 45°  
Tip diameter: 0.038 mm

No. 10066-15

## Probes and Explorers



Length: 15.5 cm



Actual size

Straight

Tip diameter: 0.25 mm

No. 10140-01

**MOST  
POPULAR**



Actual size

Short angle

Tip diameter: 0.12 mm

No. 10140-04



Actual size

Angled

Tip diameter: 0.15 mm

No. 10140-02



Actual size

Long angled

Tip diameter: 0.15 mm

No. 10140-03

## Micro Hooks



Length: See below



175%

Short round hook

Tip diameter: 0.05 mm

Length: 13 cm

No. 10064-14



175%

Sharp hook

Tip diameter: 0.075 mm

Length: 12 cm

No. 10061-12



175%

Blunt hook

Tip diameter: 0.30 mm

Length: 12 cm

No. 10062-12

## Titanium Micro Point, Y-Hook, and Spatula

These instruments are lightweight, color coded for easy identification, have an ergonomic design and a non-reflective surface.

### Micro Point



•TITANIUM•

For more information  
see page 183.



650%

Angled 45°  
Tip diameter: 0.4 mm  
Titanium  
12.5 cm

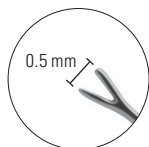
No. 10165-11

### Y-Hook



•TITANIUM•

For more information  
see page 183.



700%

Angled 45°  
Tip width: 0.5 mm  
Titanium  
12.5 cm

No. 10166-11

### Micro Spatula



•TITANIUM•

For more information  
see page 183.

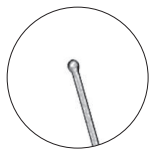


700%

Angled 30°  
Tip width: 0.6 mm  
Tip thickness: 0.25 mm  
Titanium  
12.5 cm

No. 10167-11

Vessel Dilating Probe



Tip diameter: 0.6 mm  
12.5 cm

No. 10160-13

Gross Anatomy Probe

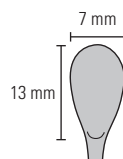


**MOST  
POPULAR**

Tip diameter: 1.2 mm  
15 cm

No. 10088-15

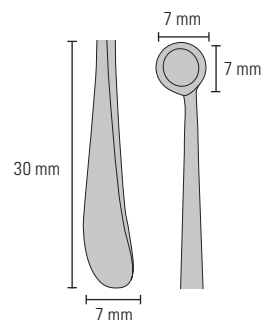
Combination Probe and  
Spatula



14 cm

No. 10090-13

Combination Spoon and Spatula



17.5 cm

No. 10090-17

## Micro Spatula



Tip width: 1 mm  
Tip thickness: 0.25 mm  
11 cm

No. 10089-11

## Mirror Finish Micro Spatula

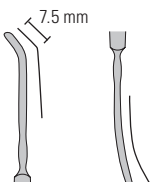
Mirror finished to provide a non-stick spatula.



Tip width: 0.8 mm  
Tip thickness: 0.25 mm  
12 cm

No. 10087-12

## Double-Ended Micro Spatula

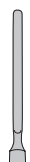


Tip width: 2 mm  
Tip thickness: 0.3 mm  
13 cm

No. 10091-12

**MOST  
POPULAR**

## Iris Spatulae



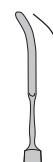
Tip width: 3 mm  
Tip thickness: 0.4 mm  
13 cm

No. 10094-13



Tip width: 1.7 mm  
Tip thickness: 0.3 mm  
13 cm

No. 10093-13



Tip width: 1.8 mm  
Tip thickness: 0.3 mm  
12 cm

No. 10092-12

**Mini Hippocampal Dissecting Tool**

The instrument ends are malleable to allow you to adjust their shape to the correct angle for optimal positioning.

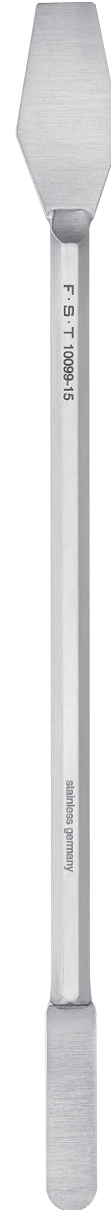


14.5 cm

No. 10099-12

**Hippocampal Dissecting Tool**

The instrument ends are malleable to allow you to adjust their shape to the correct angle for optimal positioning.



16 cm

No. 10099-15

### Pin Holder

Light weight.



Nickel-plated chuck  
Aluminum handle  
Jaw opening: 0–1 mm  
17 cm

No. 26018-17

### Pin Holder



Moria

**MOST  
POPULAR**

Nickel-plated  
Jaw opening: 0–1 mm  
12 cm

No. 26016-12

### Self Holding Pin and Bone Screw Forceps

Designed with a serrated tip and grooved cup for a stable and secure grip, these forceps hold pins and screws allowing precise placement at your target area. They are compatible with all Fine Science Tools insect pins, minuten pins and bone screws.



200%

Polished stainless steel  
14 cm

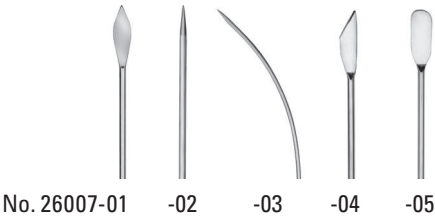
No. 26100-00



Insert Pins

All insert pins fit any of our pin holders.  
Pins are antimagnetic and acid resistant.

Stainless steel  
5 cm



Black Anodized Minutien Pins

These high quality pins are black for best visibility  
under high magnification and bright light.

Tip diameter: 0.0175 mm  
Rod diameter: 0.15 mm  
10 mm

Box of 500 pins  
No. 26002-15



Stainless Steel Minutien Pins

The thinnest and finest pins available.

Tip diameter: 0.0125 mm  
Rod diameter: 0.1 mm  
10 mm

Box of 500 pins  
No. 26002-10

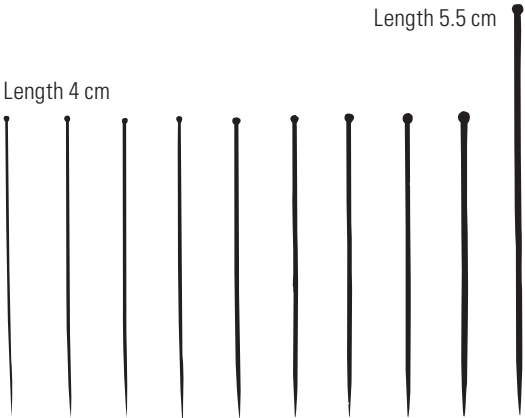


Tip diameter: 0.02 mm  
Rod diameter: 0.2 mm  
10 mm

Box of 500 pins  
No. 26002-20

Black Anodized Insect Pins

Nylon heads  
Tip diameter: 0.03 mm  
Pkg. of 100 pins



| Size              | 000 | 00  | 0   | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Rod diameter (mm) | .25 | .30 | .35 | .40 | .45 | .50 | .55 | .60 | .65 | .70 |
| No. 26000         | -25 | -30 | -35 | -40 | -45 | -50 | -55 | -60 | -65 | -70 |

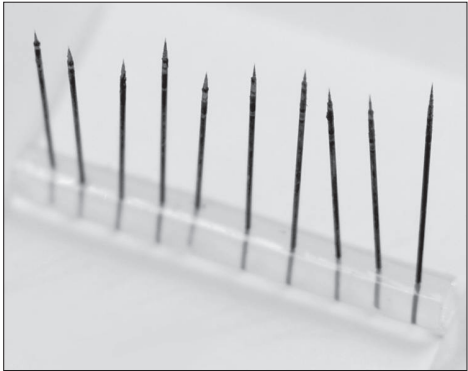
Stainless Steel Insect Pins

Nylon heads  
Tip diameter: 0.03 mm  
Pkg. of 100 pins

| Size              | 000 | 00  | 0   | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Rod diameter (mm) | .25 | .30 | .35 | .40 | .45 | .50 | .55 | .60 | .65 | .70 |
| No. 26001         | -25 | -30 | -35 | -40 | -45 | -50 | -55 | -60 | -65 | -70 |

Etched Tungsten Micro Needles

These tungsten micro needles are drawn to a 1 micron tip and three different rod diameters are offered. Each provides lateral stability as well as minimal spring action during manipulation. The micro needles can be used with our pin holders shown on page 106.



Tip diameter: 1  $\mu$ m (0.001 mm)  
12 mm

Box of 10 needles

| Rod diameter (mm) | Item         | Price |
|-------------------|--------------|-------|
| 0.125             | No. 10130-05 |       |
| 0.25              | No. 10130-10 |       |
| 0.5               | No. 10130-20 |       |

**Spoon**

Diameter: 8 mm  
Depth: 2 mm  
12.5 cm

Moria 1121B  
No. 10321-08

**Mini Perforated Spoon**

Most commonly used to take embryos out of solution and handling very small organs.



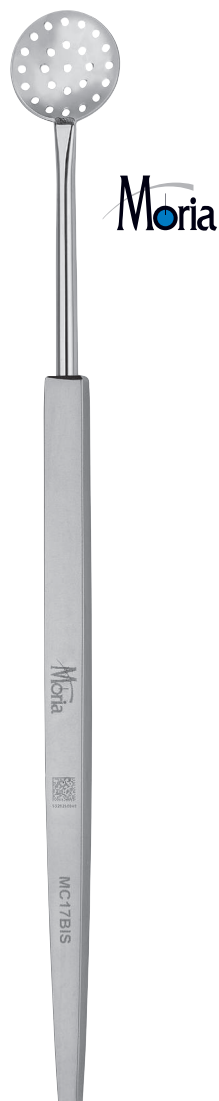
Perforations are  
0.8 mm in diameter.

Diameter: 8 mm  
Depth: 1 mm  
10 cm

Moria MC 17C  
No. 10370-19

**Perforated Spoon**

Most commonly used to take embryos out of solution and handling very small organs.



Perforations are  
0.9 mm in diameter.

**MOST  
POPULAR**

Diameter: 15 mm  
Depth: 3 mm  
14.5 cm

Moria MC 17 BIS  
No. 10370-18

Diameter: 20 mm  
Depth: 5 mm  
14.5 cm

Moria MC 17  
No. 10370-17

**Mirror Finish  
Cutting Spoon**

Non stick cutting spoon.

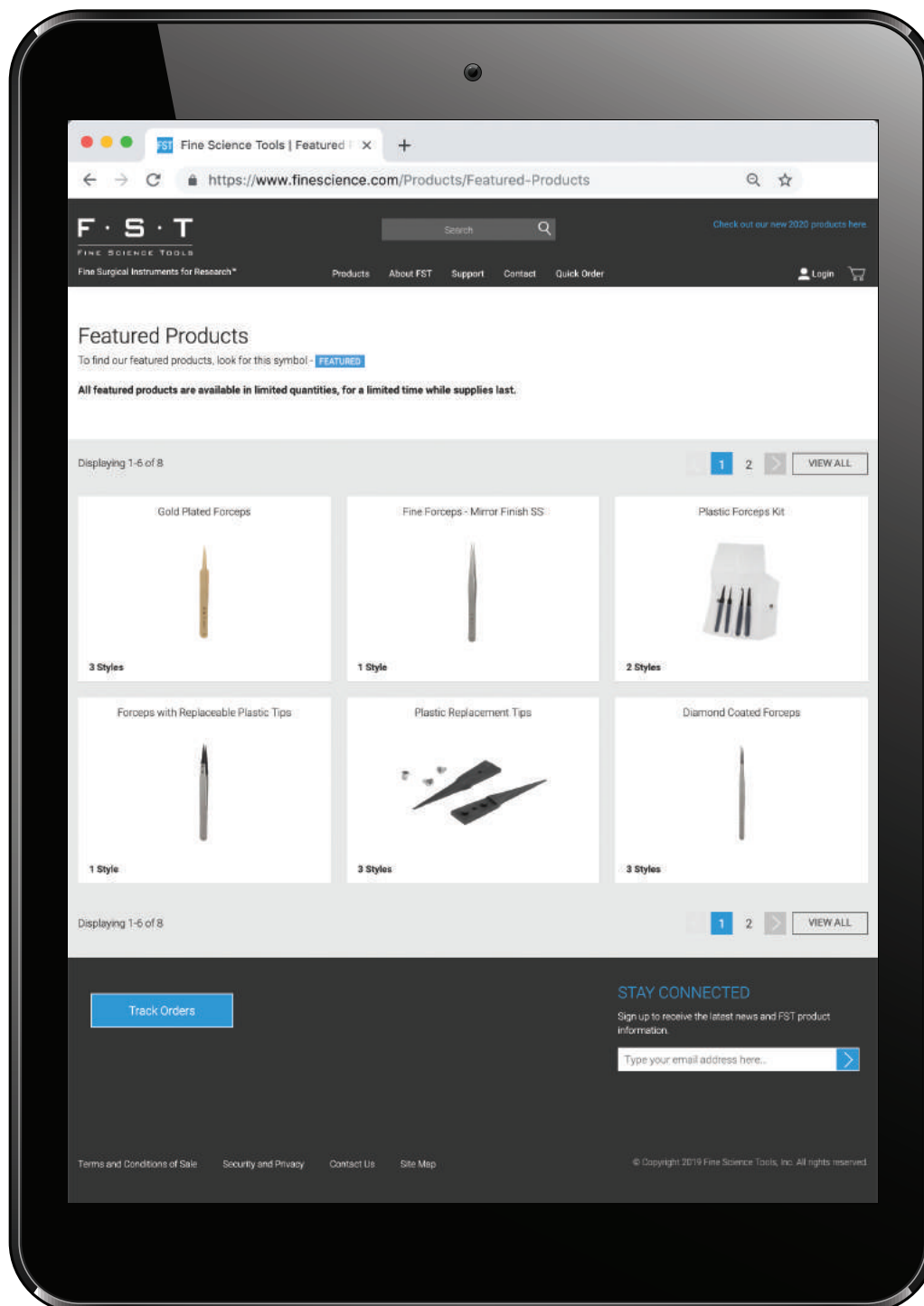


Diameter: 4.5 mm  
Depth: 0.15 mm  
13 cm

No. 10360-13

## Featured Products Online

Our Featured Products are available in limited quantities, for a limited time while supplies last. Please visit our website, **finescience.com** for updates on what's new and currently available.



FEATURED  
PRODUCTS

## Castroviejo

Micro pattern, with slightly blunted tips.



Straight  
9 cm

With lock  
No. 12060-01

Without lock  
No. 12060-02

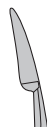


Curved  
9 cm

With lock  
No. 12061-01

Without lock  
No. 12061-02

## Needle Holder with Suture Cutter



Curved  
Cutting edge: 3.5 mm  
14 cm

Without lock  
No. 12075-14

### Cautionary note:

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 116).

## Round Handled Needle Holder

Round handles allow easy fingertip adjustments.



Straight  
12.5 cm

With lock  
No. 12075-12

Without lock  
No. 12076-12

**Mathieu**

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



14 cm  
With lock  
No. 12010-14

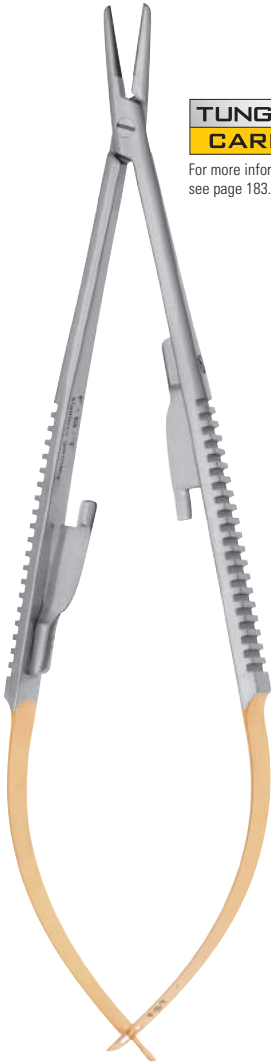


With tungsten  
carbide jaws  
14 cm  
With lock  
No. 12510-14



For more information  
see page 183.

**Castroviejo with Tungsten Carbide Jaws**



For more information  
see page 183.



With tungsten carbide jaws  
14 cm  
With lock  
No. 12565-14

Halsey



Smooth  
13 cm

No. 12001-13



With tungsten  
carbide jaws  
13 cm

No. 12501-13

**TUNGSTEN  
CARBIDE**

For more information  
see page 183.

Halsey with Tungsten Carbide Jaws



**TUNGSTEN  
CARBIDE**

For more information  
see page 183.



With tungsten  
carbide jaws  
12.5 cm

No. 12500-12

Olsen-Hegar with Suture Cutter



10 mm cutting edge  
1.5 mm jaw surface  
12 cm



15 mm cutting edge  
2 mm jaw surface  
14 cm

**MOST  
POPULAR**

No. 12002-12

No. 12002-14



No. 12102-12

Olsen-Hegar with Suture Cutter  
and Tungsten Carbide Jaws



**TUNGSTEN  
CARBIDE**

For more information  
see page 183.



With tungsten  
carbide jaws  
10 mm cutting edge  
1.5 mm jaw surface  
12 cm

No. 12502-12



With tungsten  
carbide jaws  
15 mm cutting edge  
2 mm jaw surface  
14 cm

No. 12502-14



No. 12512-12

NEEDLE HOLDERS

Crile-Wood



15 cm

No. 12003-15



With tungsten  
carbide jaws  
15 cm

No. 12503-15



No. 12504-15

**TUNGSTEN  
CARBIDE**

For more information  
see page 183.

Mayo-Hegar



16 cm

No. 12004-16

18 cm

No. 12004-18



**Slim Elongated Needle Holder  
with Tungsten Carbide Jaws**



Side View



With tungsten  
carbide jaws  
15 cm

No. 12005-15

**Ryder Mini-Select Needle Holder**

This needle holder has been uniquely fashioned with tungsten carbide dust tips, giving the clamping platform an extra secure grip.



With tungsten  
carbide dust tips  
15 cm

No. 12505-15

Microsurgical Needles with Suture Thread Attached

The combination of proprietary needle design technology and state-of-the-art manufacturing techniques has enabled S&T to provide a microsurgical needle that is unmatched in the industry. S&T 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 non-absorbable 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

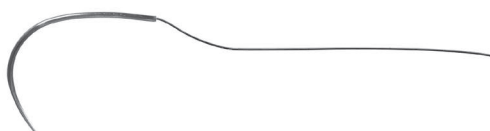
No. 12051-11



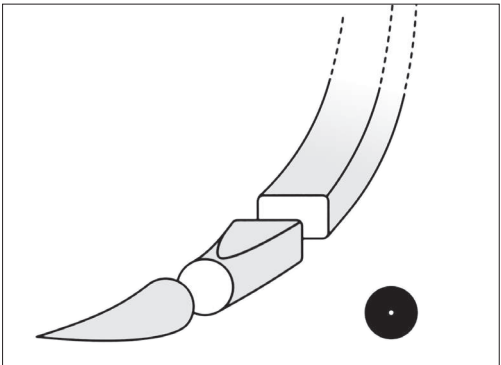
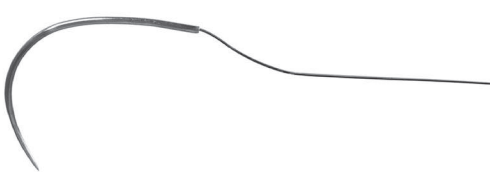
No. 12051-10



No. 12051-09



No. 12051-08



Standard taper point needle

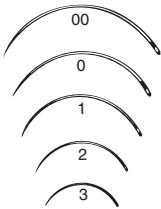


| Suture size | Suture length (cm) | Needle diameter (micron) | Needle diameter (mm) | Needle chord length (mm) | Circle | Arch (mm) | Item         | Price |
|-------------|--------------------|--------------------------|----------------------|--------------------------|--------|-----------|--------------|-------|
| 11/0        | 10                 | 50                       | 0.05                 | 3                        | 3/8    | 3.8       | No. 12051-11 |       |
| 10/0        | 10                 | 70                       | 0.07                 | 3                        | 3/8    | 3.8       | No. 12051-10 |       |
| 9/0         | 15                 | 100                      | 0.1                  | 4                        | 3/8    | 5.1       | No. 12051-09 |       |
| 8/0         | 15                 | 140                      | 0.14                 | 5                        | 3/8    | 6.4       | No. 12051-08 |       |

Suture Needles

Polished stainless steel  
3/8 curved  
Round with standard eye  
Diameter 0.35 mm  
**Non-sterile**

Pkg. of 12 needles



| Size | Item         | Price |
|------|--------------|-------|
| 00   | No. 12050-20 |       |
| 0    | No. 12050-10 |       |
| 1    | No. 12050-01 |       |
| 2    | No. 12050-02 |       |
| 3    | No. 12050-03 |       |

Silk Suture

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

Braided silk  
**Non-sterile**



| Size | Diameter (mm) | Spool length (m) | Item         | Price |
|------|---------------|------------------|--------------|-------|
| 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 76 and 77.

Nylon Monofilament Suture

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

Nylon monofilament  
**Non-sterile**



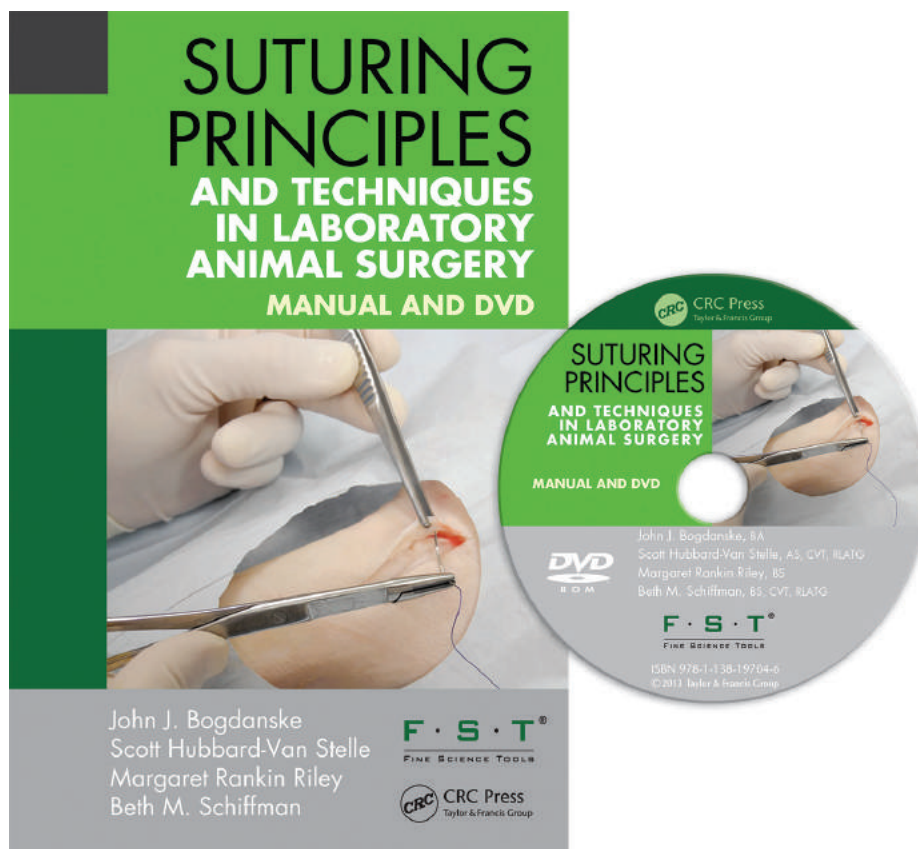
| Size | Diameter (mm) | Spool length (m) | Item         | Price |
|------|---------------|------------------|--------------|-------|
| 8/0  | 0.04          | 91               | No. 18030-80 |       |
| 7/0  | 0.05          | 91               | No. 18030-70 |       |
| 6/0  | 0.07          | 91               | No. 18030-60 |       |
| 5/0  | 0.10          | 91               | No. 18030-50 |       |
| 4/0  | 0.15          | 91               | No. 18030-40 |       |
| 3/0  | 0.20          | 91               | No. 18030-30 |       |

## Suturing Principles and Techniques in Laboratory Animals

Introduces the basic principles, materials and surgical instruments required for suturing and wound closure used on animals. The manual 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 DVD provides descriptive narrative and step-by-step video demonstrations for each of the suturing techniques.

### Manual and DVD



Includes: Fine Science Tools Item Number  
Reference Page for all surgical instruments  
used in the manual.

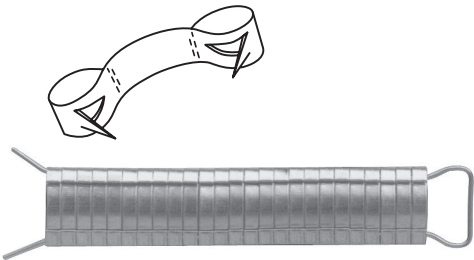
No. 23005-10

Michel Suture Clips

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

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

Larger clip sizes also available.



Applying Forceps



For all Michel suture clips  
12.5 cm

No. 12018-12

Applying and Removing Instruments



For clip sizes 12040-02 and larger  
Curved  
13 cm

No. 12028-12



For clip size 12040-01 only  
Angled  
13 cm

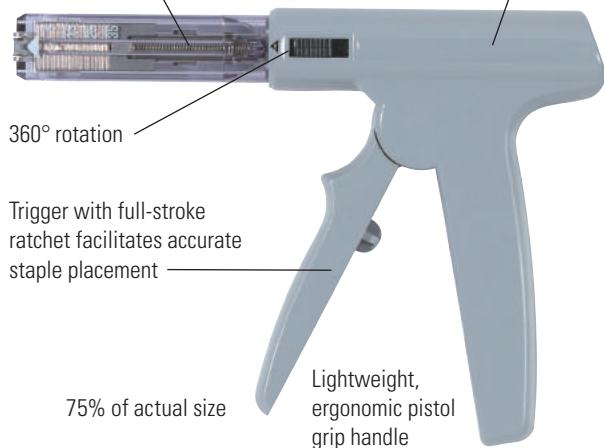
No. 12029-12

## Reloadable Skin Stapler with Rotating Head

The 360° degree swivel nose and unique design offers maximum visibility at the delivery point. The stainless steel staples are non-sterile and feature the patented "Twin Towers" 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



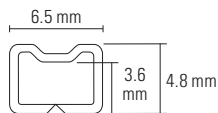
360° rotation

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.



75% of actual size

10 cm  
No. 12030-04

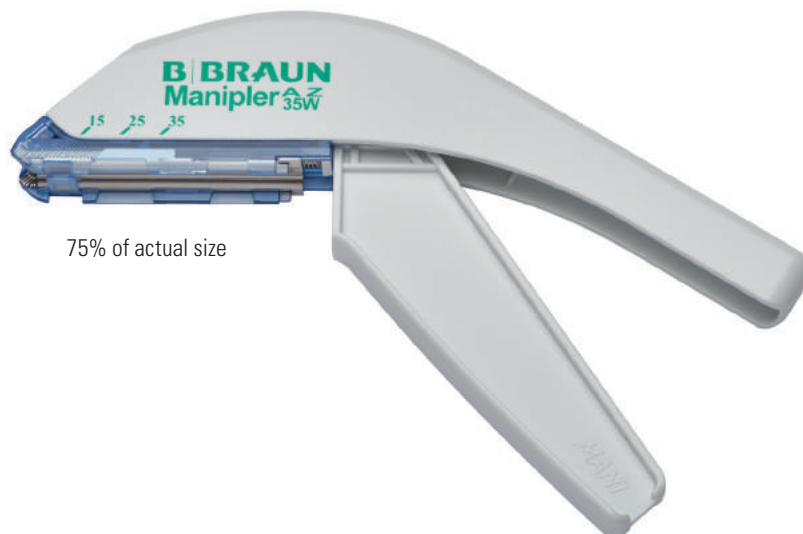
## Manipler® Skin Stapler

Quality, slim, lightweight design with consistent actuation and staple count indicator. **Disposable, sterile, and not autoclavable.**

15 cm

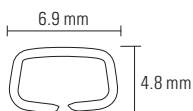
35 staples per cartridge

No. 12035-00



75% of actual size

Staple Dimensions:

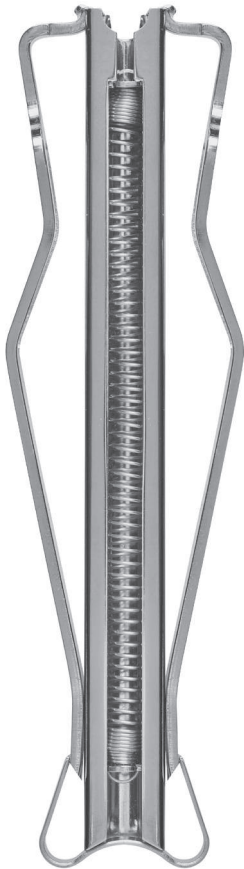


Staple, actual size:



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 and not autoclavable. Components sold separately or as a kit.**



Applier



Clips



Remover

AUTOCLIP SYSTEM

AutoClip® Kit

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

No. 12020-00

AutoClip® applier  
11.5 cm

No. 12020-09

AutoClip® 9 mm clips  
Pkg. of 100 clips

No. 12022-09

AutoClip® remover  
12.5 cm

No. 12023-00

## Guthrie

Extra delicate pattern.

2.5 mm



2 Pronged  
Blunt  
13 cm

No. 17021-13

6 mm



2 Pronged  
Blunt  
13.5 cm

No. 17023-13

## Blair

6 mm



4 Pronged  
Blunt  
13.5 cm

No. 17022-13

## Fomon

13 mm



2 Pronged  
2 mm Ball at each tip  
17 cm

No. 17020-17



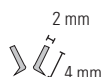
### Slide Retractor with Blades



Maximum spread: 1 cm  
Atraumatic blades  
2 cm

No. 17004-03

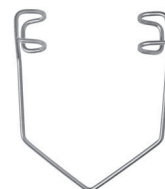
### Mini-Goldstein



Maximum spread: 0.5 cm  
3x3 Sharp teeth  
2 cm

No. 17002-02

### Mini-Colibri



Maximum spread: 1 cm  
2 cm

No. 17000-01

RETRACTORS

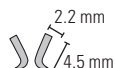
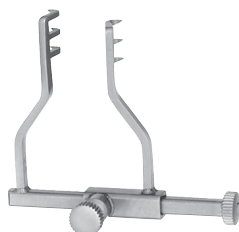
### Slide Retractor with Teeth



Maximum spread: 1 cm  
2x2 Blunt teeth  
2 cm

No. 17005-03

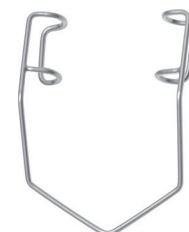
### Goldstein



Maximum spread: 1.8 cm  
3x3 Sharp teeth  
3 cm

No. 17003-03

### Colibri



Maximum spread: 1.5 cm

3 cm  
No. 17000-03

4 cm  
No. 17000-04



Maximum spread: 1.2 cm

3 cm  
No. 17000-02

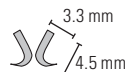
## Fine Adjustable Wire Retractor



Maximum spread: 3.5 cm  
Thin, curved blades  
5 cm

No. 17004-05

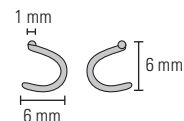
## Agricola



Maximum spread: 3.5 cm  
3x3 Sharp teeth  
4 cm

No. 17005-04

## Speculum



Maximum spread: 3.5 cm  
Thin, curved blades and grooved finger grips  
4.5 cm

Moria 7699  
No. 17370-53

### Alm Retractor with Wire Teeth



Maximum spread: 4 cm  
Arms gently curved down  
7 cm

No. 17010-07

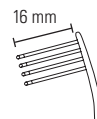
### Alm Retractor with Blunt Teeth



Maximum spread: 4 cm  
Arms gently curved down  
7 cm



Blunt teeth  
No. 17008-07



Long blunt teeth  
No. 17009-07

### Alm Retractor with Blades



Maximum spread: 4.5 cm  
Arms gently curved down  
Thin, curved blades  
7.5 cm

No. 17009-08

## Spring-Loaded Retractor



Curved atraumatic blades

Maximum spread: 3 cm  
Blade dimensions: 14 x 10 mm  
5.5 cm

No. 17006-05

Maximum spread: 4 cm  
Blade dimensions: 22 x 16 mm  
8 cm

No. 17007-08

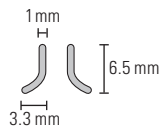
## Bowman



Maximum spread: 2.5 cm  
8 cm

No. 17001-07

Heiss



Maximum spread: 2.3 cm  
4x4 Blunt teeth  
10 cm

No. 17011-10

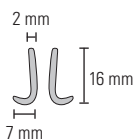
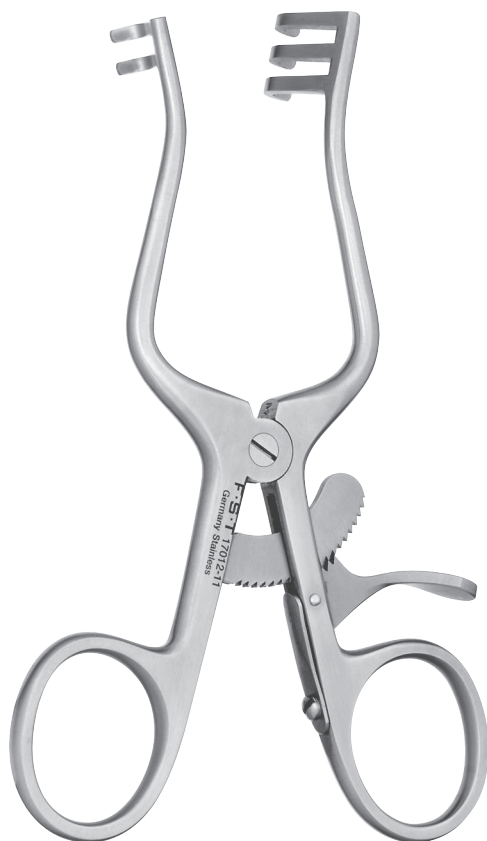
Gelpi



Maximum spread: 3 cm  
Angled down  
1x1 Sharp teeth  
10 cm

No. 17017-10

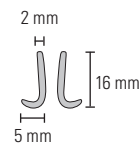
Weitlaner-Locktite



Maximum spread: 4.5 cm  
2x3 Blunt teeth  
11 cm  
No. 17012-11

Maximum spread: 6.5 cm  
3x4 Blunt teeth  
13 cm  
No. 17012-13

Wullstein



Maximum spread: 4.5 cm  
Angled down  
3x3 Blunt teeth  
11 cm

No. 17018-11

**Individual parts:**

Short fixator, 2.5 cm high  
Each  
No. 18200-01

Tall fixator, 5 cm high  
Each  
No. 18200-02

Small base plate, (20 x 30 cm)  
Each  
No. 18200-03

Large base plate, (25 x 35 cm)  
Each  
No. 18200-04

Wire handles, 10 cm long  
Pkg. of 10  
No. 18200-05

Wire handles, 14 cm long  
Pkg. of 10  
No. 18200-06

Elastomer, 2 m roll  
No. 18200-07

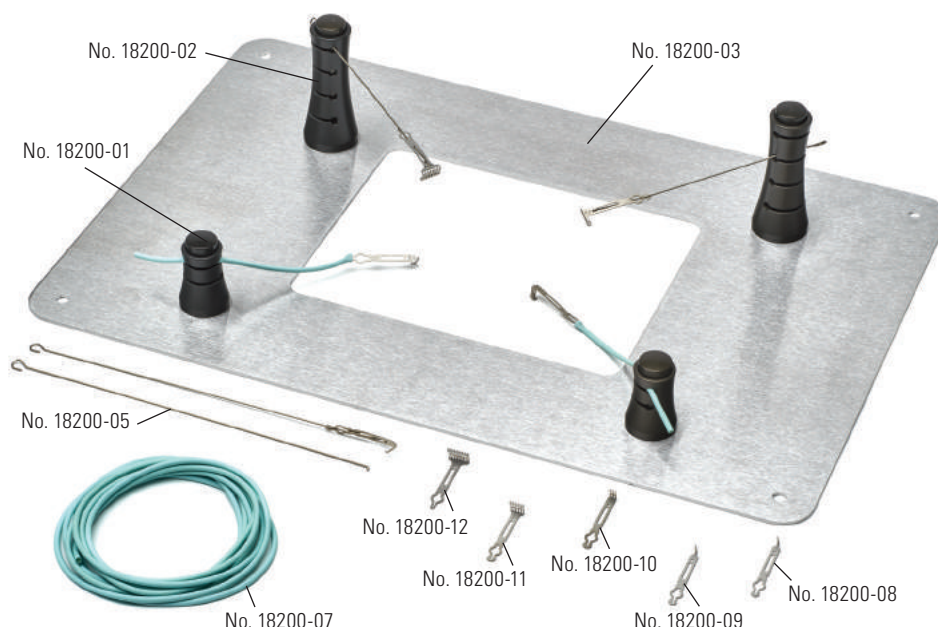
Sharp retractors  
Pkg. of 10  
No. 18200-08

Blunt retractors, 1 mm wide  
Pkg. of 10  
No. 18200-09

Blunt retractors, 2.5 mm wide  
Pkg. of 10  
No. 18200-10

Blunt retractors, 5 mm wide  
Pkg. of 10  
No. 18200-11

Blunt retractors, 7.5 mm wide  
Pkg. of 10  
No. 18200-12



## Magnetic Fixator Retraction System

This Small Animal Retraction System simplifies set-up procedure and provides the examiner with an excellent overview of the operative site. It consists of three components: Base Plate (Nos. 18200-03 & 18200-04); Fixators (Nos. 18200-01 & 18200-02); and Retractors (Nos. 18200-05 through 18200-12).

The Base Plates are made from magnetic stainless steel and are available in two sizes. The surface is nonreflective and both plates have a window in the center which allows the animal contact with body temperature control systems. The window sizes are 10 x 13 cm for the small base plate and 15 x 25 cm for the large.

The Fixators are movable anchors made from anodized aluminum with a surgical grade rare earth magnet in the base for attachment anywhere on the Base Plate. The magnets do not interfere with lab electronics and can be used in close proximity (3 cm) to ferro-magnetic items. They incorporate pushbutton-activated spring locks that grip either the Wire or Elastomer Retractors.

The Retractors are interchangeable Retractor Tips (Nos. 18200-08 through 18200-12) which attach to either Retractor Wire (Nos. 18200-05 & 18200-06) for static retraction or to Elastomer (No. 18200-07) for dynamic retraction. The Retractor Tips are light and atraumatic to delicate tissue or membrane.

**All system components are autoclavable.**

### Kit for animals up to 200 g

Includes:

- 1 Small base plate (No. 18200-03)
- 2 Short fixators (No. 18200-01)
- 1 Tall fixator (No. 18200-02)
- 1 Elastomer, 2 m roll (No. 18200-07)
- 1 Package of retractors, blunt, 1 mm wide (No. 18200-09)
- 1 Package of retractors, blunt, 2.5 mm wide (No. 18200-10)

No substitutions

No. 18200-20

### Kit for animals from 200 g up to 5 kg

Includes:

- 1 Large base plate (No. 18200-04)
- 2 Short fixators (No. 18200-01)
- 2 Tall fixators (No. 18200-02)
- 1 Elastomer, 2 m roll (No. 18200-07)
- 1 Package of retractors, blunt, 2.5 mm wide (No. 18200-10)
- 1 Package of retractors, blunt, 5 mm wide (No. 18200-11)

No substitutions

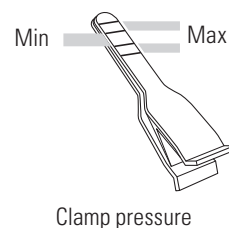
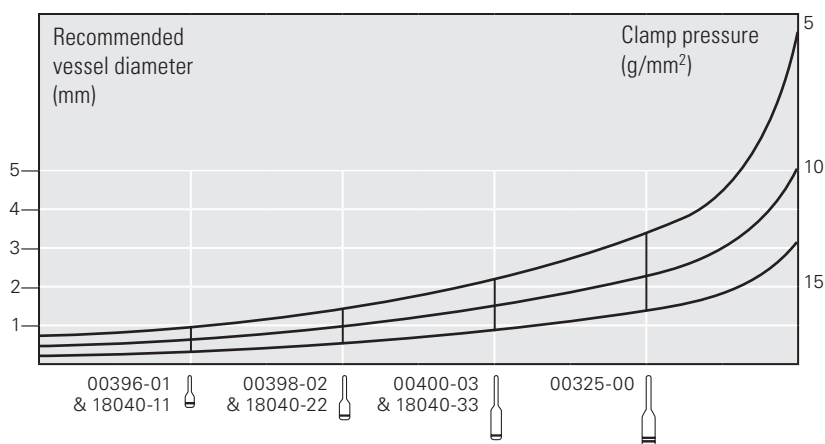
No. 18200-50

## 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 5g/mm<sup>2</sup> when used on the largest vessel in its range, and 15g/mm<sup>2</sup> 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.

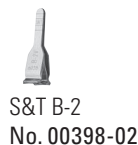
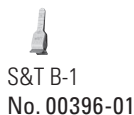
| Clamp (ea)          | L x W (mm) | Vessel Diameter Range (mm) |
|---------------------|------------|----------------------------|
| 00396-01 & 18040-11 | 3.5 x 1.0  | 0.4 - 1.0   °   ○          |
| 00398-02 & 18040-22 | 5.5 x 1.5  | 0.6 - 1.5   °   ○          |
| 00400-03 & 18040-33 | 7.5 x 1.75 |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



See page 131 for Micro Clamp and Double Clamp Appliers.

### Micro Clamps

S&T®



### 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.





## Micro Clamp Applying Forceps



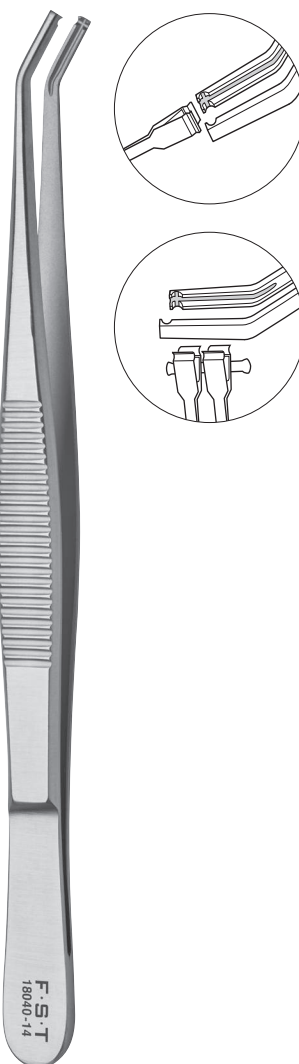
**S&T®**

Only compatible with  
S&T Micro Clamps  
14 cm

With lock  
No. 00071-14

Without lock  
No. 00072-14

## Micro Clamp Applying Forceps



Compatible with S&T  
Micro Clamps and  
Double Micro Clamps  
14.5 cm

No. 18040-14

Micro Clip Applicator  
with Lock

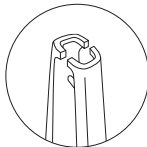


For use with our  
18055 series  
micro serrefines  
14 cm

No. 18056-14

Forceps Style Clip Applicator

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



For use with our  
18055 series  
micro serrefines  
14 cm

No. 18057-14

Stainless Steel Micro Serrefines

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

Delicate atraumatic  
serrations  
Spring width: 2 mm



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



|                   | No. 18055-05 | -06  |
|-------------------|--------------|------|
| Jaw length (mm)   | 6            | 4    |
| Jaw width (mm)    | 1            | 0.75 |
| Total length (mm) | 17           | 16   |
| Jaw pressure (g)  | 100          | 125  |

Titanium Micro Serrefines

·TITANIUM·

Lightweight with strong  
clamping pressure.

For more information  
see page 183.

Delicate atraumatic serrations  
Spring width: 2 mm



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

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

### Moria Vessel Clamp

Finely serrated (atraumatic)  
Light pressure  
For vessels up to 2 mm in diameter  
Calibrated to 15g/mm<sup>2</sup>  
1.8 mm wide, 3 cm long  
Straight  
33 mm



Moria 201/A  
No. 18320-11



### Dietrich Bulldog Clamps

Serrated  
Good access to deep seated vessels  
Closing pressure: 50 g (light)  
Weight: 3 g



Straight  
52.5 mm  
No. 18038-45



Angled  
50 mm  
No. 18039-45

### Schwartz Micro Serrefines

Non-serrated  
Strong pressure  
26 mm

**MOST  
POPULAR**

Straight  
No. 18052-01



Light bend  
No. 18052-02



Sharp bend  
No. 18052-03



### Moria Bulldog Type Clamps

Non-serrated  
Strong pressure  
2 mm wide  
53 mm



Straight  
Moria MC43  
No. 18374-43



Curved  
Moria MC44  
No. 18374-44



### Bulldog Type Serrefines

Serrated

Straight  
Medium pressure  
28 mm  
No. 18050-28



Curved  
Medium pressure  
28 mm  
No. 18051-28



Straight  
Strong pressure  
35 mm  
No. 18050-35



Straight  
Strong pressure  
50 mm  
No. 18050-50



Curved  
Strong pressure  
35 mm  
No. 18051-35

Curved  
Strong pressure  
50 mm  
No. 18051-50

### Mini Serrefines

Smallest bulldog-type hemostatic clamps  
Medium pressure  
Gentle serrations  
2 mm wide  
28 mm

Straight  
No. 18054-28



Curved  
No. 18053-28



### Bulldog Artery Spring Clamp

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

Straight  
Serrated  
Light pressure  
30 mm



**TITANIUM**

For more information  
see page 183.

No. 18144-30



## Silver Neuro Clips

These single-use, silver neuro clips are meant for permanent vessel occlusion.

Pkg. of 100 clips  
No. 18040-00

## 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

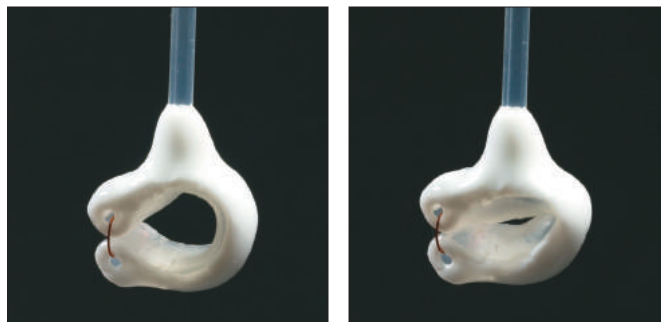
- Step 1** Apply the occluder cuff around the exposed blood vessel. Secure it in place with suture material through the eyelets.
- Step 2** Occlude the vessel to the desired degree by inflating the diaphragm with air or liquid injected into the actuating tube using a syringe and blunt needle. Clamp the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

### Benefits

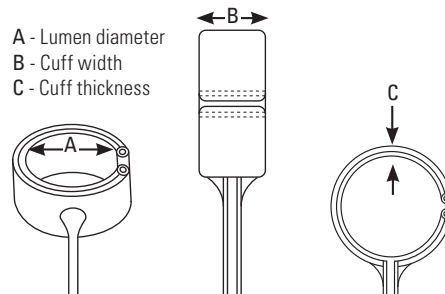
- Occlusion is accomplished without traction on vessels or surrounding tissues.
- The actuating tube may be exteriorized from the occlusion site for remote actuation.
- Performance during implantations is reliable and consistent.
- Autoclavable or cold sterilized, and easily maintained.
- Made from soft, 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.



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



#### VO-1.5 N

Lumen diameter: 1.5 mm  
Cuff width: <3.5 mm  
Cuff thickness: 1.5 mm

No. 18080-01

#### VO-2

Lumen diameter: 2 mm  
Cuff width: 5 mm  
Cuff thickness: 1.5 mm

No. 18080-02

#### VO-3

Lumen diameter: 3 mm  
Cuff width: 5 mm  
Cuff thickness: 1.5 mm

No. 18080-03

## V-Hook

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



400%

Tip diameter: 0.4 x 0.2 mm  
11 cm

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.



150%

Ultrafine  
Hole diameter: 0.4 mm  
10.5 cm

No. 18062-12



175%

Hole diameter: 1 mm  
13.5 cm

No. 18062-13



150%

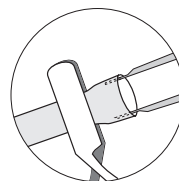


Hole diameter: 1 mm  
13.5 cm

No. 18063-13

## Vessel Dilators

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



DILATORS



Angled 10°  
11 cm

Tip diameter: 0.1 mm  
No. 00126-11

Tip diameter: 0.2 mm  
No. 00125-11



Angled 45°  
Tip diameter: 0.2 mm  
13.5 cm

No. 00276-13



Angled 10°  
12 cm

Tip diameter: 0.1 mm  
No. 18131-12

Tip diameter: 0.2 mm  
No. 18132-12

Tip diameter: 0.3 mm  
No. 18133-12

Balanced Instruments

Balanced instruments are designed to put the center of gravity between the thumb and index finger. This is accomplished by adding a slight counter weight to the proximal end of the instruments. The design enhances tactile feel, aiding in better control and precision.

Vessel Dilators

The tips of these multipurpose forceps are configured to enable their use as dilators at the front, as well as needle holders and tying forceps further in the back. The platform at the tips close parallel ensuring a reliable grip.

Vessel Dilator



86% of actual size



Straight  
Suture tying platform  
Tip diameter: 0.1 mm  
14.5 cm

No. 18601-15



86% of actual size



Straight  
Suture tying platform  
Tip diameter: 0.3 mm  
15 cm

No. 18602-15



86% of actual size



Angled  
Smooth  
Tip diameter: 0.2 mm  
14.5 cm

No. 18603-14

## 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.

8 cm

No. 18000-10

#### 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.

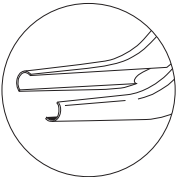


Instruments sold separately.



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.



S&T®

For tubing between  
0.5 and 1 mm OD  
11 cm

No. 00574-11



DUMONT  
SWISSMADE

For tubing of 0.35 mm OD  
11 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

CANNULATION



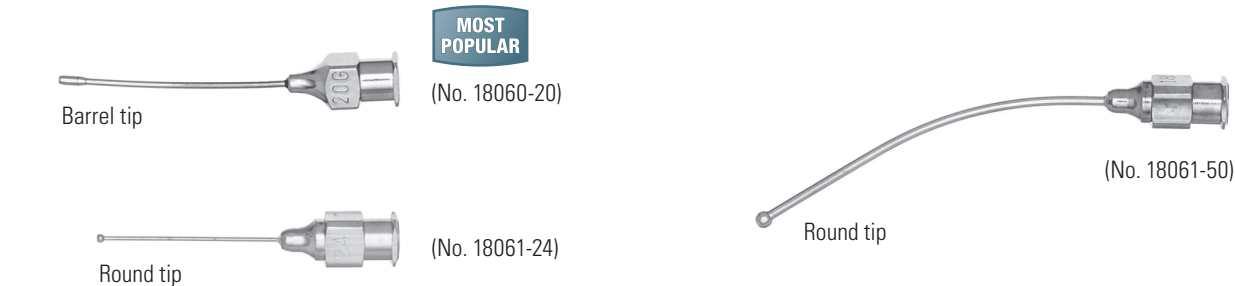
## Surgical & Laboratory Accessories

|                               |       |           |
|-------------------------------|-------|-----------|
| Animal Accessories            | Pages | 141 – 143 |
| Instrument Care & Accessories | Pages | 144 – 155 |
| Surgical Accessories          | Pages | 156 – 159 |
| Laboratory Accessories        | Pages | 160 – 171 |



Reusable Gavage Feeding Needles

Stainless steel feeding needles with luer lock hub. Also ideal for transcardiac perfusions with a fixative.



| Gauge | Length (mm) | Tip diameter (mm) | Shape    | Mice    | Rats      | Guinea pigs | Item         | Price |
|-------|-------------|-------------------|----------|---------|-----------|-------------|--------------|-------|
| 24    | 25          | 1.25              | Straight | >14 g   |           |             | No. 18061-24 |       |
| 22    | 25          | 1.25              | Straight | 15-20 g |           |             | No. 18061-22 |       |
| 20    | 30          | Barrel            | Straight | 20-25 g |           | 50-75 g     | No. 18060-20 |       |
| 20    | 38          | 2.25              | Straight | 20-25 g |           | 50-75 g     | No. 18064-20 |       |
| 20    | 38          | 2.25              | Curved   | 20-25 g |           | 50-75 g     | No. 18065-20 |       |
| 18    | 38          | 2.25              | Straight | 20-30 g | 100-200 g | 250-300 g   | No. 18061-38 |       |
| 18    | 50          | 2.25              | Curved   | 25-30 g | 100-200 g | 250-300 g   | No. 18061-50 |       |
| 16    | 75          | 3.00              | Curved   |         | 150-300 g | 350-450 g   | No. 18061-75 |       |
| 16    | 100         | 3.00              | Curved   |         | 150-300 g | 350-450 g   | No. 18061-10 |       |

Single Use Gavage Feeding Needles

These economical feeding needles feature plastic luer hubs with silicone tips. They are nontoxic and nonpyrogenic. Needles can be easily formed to any desired shape. **Sterile.**



Pkg. of 5 needles

| Gauge | Length (mm) | Tip diameter (mm) | Shape    | Mice    | Rats      | Guinea pigs | Item         | Price |
|-------|-------------|-------------------|----------|---------|-----------|-------------|--------------|-------|
| 20    | 38          | 1.75              | Flexible | 20-25 g | 50-75 g   |             | No. 18061-20 |       |
| 18    | 50          | 2.50              | Flexible | 25-30 g | 100-200 g |             | No. 18061-18 |       |
| 15    | 75          | 3.00              | Flexible |         | 200-350 g | 400-600 g   | No. 18061-15 |       |

**GenoPunch**

The interchangeable GenoPunch aids in the fast and simple collection of the 2 mm tissue sample for DNA analysis and/or genotyping. FST Exclusive Item. **Autoclavable.**



80% of actual size

GenoPunch includes:

- 1 GenoPunch
- 1 0.5 ml tube holder
- 1 1.6 ml tube holder
- 1 Screwdriver
- 4 Screws



FST does not supply microtubes.

Stainless steel and anodized aluminum  
Punch diameter: 2 mm  
11.5 cm

No. 24215-02

**Ear Punch**

Designed to ensure a fast and clean punch, this ear punch is lightweight and fits comfortably in the palm of your hand. FST Exclusive Item. **Autoclavable.**



80% of actual size

Stainless steel and  
anodized aluminum  
Punch diameter: 2 mm  
11.5 cm

No. 24214-02

**Finger Loop Ear Punch**

This ear punch provides stability and control for researchers using the numbering system. The 1 mm ear punch offers greater numbering variations and/or patterns.



80% of actual size

10.5 cm

Punch diameter: 1 mm  
No. 24212-01

Punch diameter: 2 mm  
No. 24212-02

## Self Piercing Ear Tags

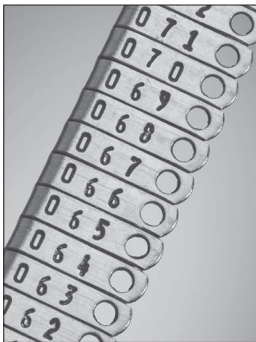
Ideal for use in small animals such as mice and rats, these ear tags come numbered from 1-100 or 1-500. Silver colored tags with black numbers provide high visibility making them easy to read. Once applied, tags seal and cannot be removed, providing an easy to use, permanent identification method. These ear tags are safe for use in salt water.



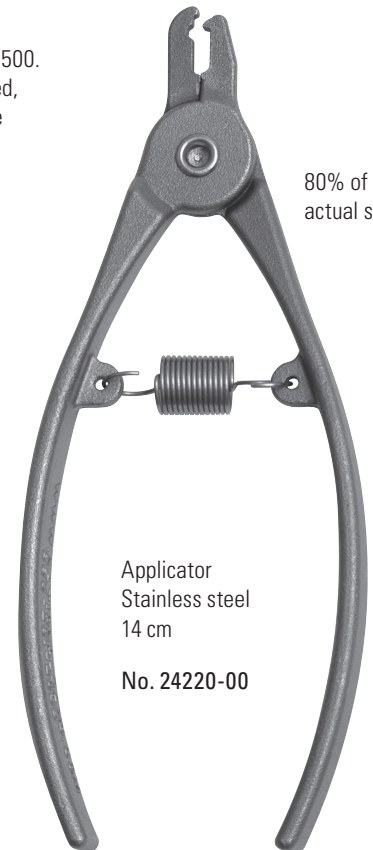
Ear tags  
Alloy: Monel  
7.8 x 2.8 mm

Black numbers 1-100  
No. 24220-10

Black numbers 1-500  
No. 24220-50



Ear Tags (enlarged view)



80% of  
actual size

Applicator  
Stainless steel  
14 cm

No. 24220-00

## Animal Microtattoo System

A quick, efficient and affordable method of permanently identifying laboratory animals (mice as early as 1 day old). Designed and tested by laboratory animal technicians, the system utilizes a hypodermic needle at one end of a stainless steel forceps and a small metal cup containing green tattoo paste at the other side of the forceps.

By squeezing the forceps together, the needle penetrates the toe, footpad or ear of the animal and injects a deposit of green tattoo paste into the animal. A grid location pattern provided enables a numbering system that extends over 1 million.

Use of the microtattoo system is humane and in compliance with regulatory agencies for the care and use of laboratory animals. Detailed instructions are included. **Both the microtattoo forceps and green tattoo paste are autoclavable.**

Animal microtattoo system includes:

- 1 Pair plated steel microtattoo forceps
- 1 Tube (1 oz.) of green tattoo paste
- 1 Aluminum planchette
- 2 Hypodermic needles
- 1 Plastic holding case



55% of  
actual size

Animal microtattoo system  
13 cm

No. 24201-00



Green tattoo paste  
1 oz

No. 24201-01



## Silicone Seal and Lubricant

This stiff non-melting silicone base maintains its consistency from -40°C to 200°C (40°F to 392°F) with less than 2% evaporation after 24 hours of exposure to 150°C (302°F). Typical applications include lubrication of stopcock rotating parts and other lab items. Seals vacuum and low pressure systems. Compatible with glass, plastics, metals, synthetic rubber gaskets and seals. **Autoclavable.**

15 ml container  
No. 29051-45

## Demagnetizer

This safe and easy to operate tabletop demagnetizer has a large coil opening of 8 x 4 cm in a rigid, molded housing. Can be used to demagnetize or magnetize instruments.

12 x 5.5 x 9 cm

No. 18000-15



*European version differs from photo.*

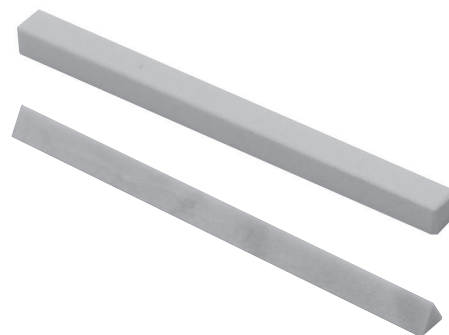
## Instrument Sharpening Stones

Natural Arkansas oil stones feature unequaled fineness, hardness and structural density. When used with mineral oil, they will produce a sharper cutting edge.

6 mm x 9 cm

Square stone  
No. 29008-01

Triangular stone  
No. 29008-12



## Instrument Oil and Oil Pen

Physiologically inert oil for lubricating surgical instruments, box locks, ratchets and any overlapping joints. Oil pen is refillable.

50 ml bottle  
No. 29055-00



7 mm needle  
12.5 cm

12 ml oil pen  
No. 29055-12



### Sharpening Stone for Fine Forceps

This natural Arkansas stone assists in reshaping the tips of fine forceps. The stone has two grooves, 0.8 mm and 1.6 mm, and comes in a cedar box with ten O-rings.

4 x 1 x 10 cm

No. 29008-22



### Fine Forceps Repair Kit

Realign and repair fine forceps with this convenient kit. Bent forceps tips can be restraightened with the chain nose pliers. The sharpening stone has two grooves, 1.6 mm and 0.8 mm, to assist in reshaping the forceps tips. O-rings clamp the forceps shut to ensure that both shanks are equally aligned and sharpened. Instrument oil assists in producing a smooth sharp edge. Detailed instructions are included.

Kit includes:

- 1 Sharpening stone for fine forceps with ten O-rings (No. 29008-22)
- 1 Instrument oil, 50 ml bottle (No. 29055-00)
- 1 Chain nose pliers

No. 29000-00

**MOST  
POPULAR**

### Optical Cleaning Kit and Lens Paper

This convenient kit contains everything you need to clean lens surfaces safely. Perfect for microscopes, camera lenses, binoculars, telescopes, graphic art optics, and all other fragile lenses. Storage case included.

Kit includes:

- 1 Bottle of lens cleaner (30 ml)
- 1 Ultra soft duster brush
- 1 Cleaning cloth (20 x 20 cm)
- 3 Books of lens paper (25 sheets each)

Kit

No. 29000-10

Lens Paper

15 x 10 cm

Book of 50 sheets

No. 29015-50





### Instrument Marking Tape

Organize instruments quickly and easily with this economical, non-toxic, pressure sensitive tape. Color is unaffected by boiling, cold sterilization or autoclaving. 8 colors available. **Autoclavable.**

Material: Vinyl  
290 x 0.6 cm (each roll)



Green  
No. 29071-01



Blue  
No. 29071-02



Yellow  
No. 29071-03



Red  
No. 29071-04



White  
No. 29071-05



Black  
No. 29071-06



Brown  
No. 29071-07



Orange  
No. 29071-08

### Instrument Marking Tape 8 Assorted Colors

Organize instruments quickly and easily with this economical, non-toxic, pressure sensitive tape. Color is unaffected by boiling, cold sterilization or autoclaving. Includes 8 assorted color rolls: Yellow, Red, Black, White, Green, Brown, Blue and Orange. **Autoclavable.**

Material: Vinyl  
107 x 0.6 cm (each roll)

No. 29080-00





Instrument Tip Protectors

These tip protectors are a convenient, color-coded way to protect surgical instrument tips and edges. They provide exceptional protection and are vented to prevent rusting from condensation. Instrument tip protectors are recommended during handling, storage, and sterilization. **Autoclavable.**  
Material: Plastisol



1.6 x 19.1 mm

Pkg. of 25  
No. 29060-01



2 x 19 mm

Pkg. of 25  
No. 29060-02



2.8 x 19.1 mm

Pkg. of 25  
No. 29060-03



3.2 x 25.4 mm

Pkg. of 25  
No. 29060-04



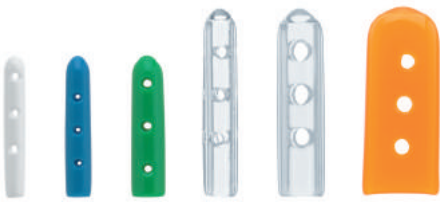
4.8 x 25.4 mm

Pkg. of 25  
No. 29060-05



2 x 9.5 x 25.4 mm

Pkg. of 25  
No. 29060-06



Assorted pack, five of each size

Pkg. of 30  
No. 29060-00

**MOST POPULAR**

Double Tip Protectors

These vented tip protectors are designed to hold hemostats and rongeurs firmly while allowing the jaws, box hinge and tips to stay open for thorough sterilization. **Autoclavable.**  
Material: Plastisol



12.7 x 20 mm

Pkg. of 10  
No. 29066-01



9 x 25.5 mm

Pkg. of 10  
No. 29066-02



15 x 25 mm

Pkg. of 10  
No. 29066-03



25 x 26 mm

Pkg. of 10  
No. 29066-04



Assorted pack, three of each size

Pkg. of 12  
No. 29066-00

TIP PROTECTORS

## Self Sealing Sterilization Pouches

Preformed pouches with self adhering tape are blue tinted on one side for visualization of contents, and paper-backed on the other side. Pouches will work with either steam autoclave or ethylene oxide sterilization.

### Advantages:

- Protects instruments during sterilization.
- Provides sterile storage until use.
- Write on pouches for easier identification during sterilization.



10 x 18 cm  
For instruments up to 13 cm long

Pkg. of 100 pouches  
No. 28000-07

13 x 26 cm  
For instruments up to 23 cm long

Pkg. of 100 pouches  
No. 28000-10

18 x 30 cm  
For instruments up to 26 cm long

Pkg. of 100 pouches  
No. 28000-12

## Hot Bead Sterilizer

The sterilizer provides a safe, effective and convenient method for sterilizing your surgical instruments prior to and during surgery or tissue culture. Without using potentially dangerous gases, flames or chemicals, you can ensure that your instruments will be free of pathogens and microbial contaminants.

The beads take 15–20 minutes to reach 240°C to 270°C (464°F to 518°F), and then the sterilizer is ready for use. The temperature is thermostatically maintained, and the unit can be left on all day. Instruments require approximately 20 seconds of contact with the beads for complete sterilization. The sterilizer is safe to use even in laminar flow hoods.

Sterilization test results conducted by the Pasteur Institute in Lille, France, are available upon request. Available in 110V and 220V. CE Certified and UL Approved.

### Sterilizer includes:

- Sterilizer unit
- 2 Bags of glass beads
- 1 Dust cover for well
- 1 Small heat-tempered glass dish for small objects (only with FST 250)



FST 250 shown.  
Instruments not included.

STERILIZER

### FST 250 Sterilizer

Well diameter: 4 cm  
Well depth: 8 cm  
Well volume: 100 ml  
Total unit size: 14.5 x 12.5 x 13.5 cm

No. 18000-45

Replacement glass beads for FST 250  
No. 18000-46

### FST 350 Sterilizer

Well diameter: 4 cm  
Well depth: 14 cm  
Well volume: 175 ml  
Total unit size: 20.5 x 12.5 x 13.5 cm

No. 18000-50

Replacement glass beads for FST 350  
No. 18000-51

## Autoclave Tape Dispenser

Easy loading core with heavy duty steel construction and a non-skid base. Serrated cutting blade cuts tape fast and cleanly.



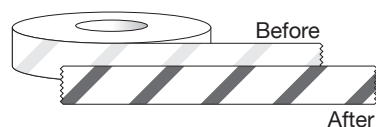
Coated steel  
23.5 cm

No. 28001-00

Tape sold separately.

## Autoclave Tape

Tape will permanently indicate diagonal stripes after exposure to steam autoclave temperature between 121°C and 130° C during a 40-60 minute time period. Use with sterilization pouches, sterilization wraps and sterilization cases.



2 cm x 55 m

No. 28001-02

## Surgical Skin Marker

This marker features a versatile tip for precise fine (0.2 mm) line marking, or when held at an angle, a broad (2 mm) line marking.

The marker's violet ink is nontoxic, non-tattooing and surgical prep-resistant. Markings can be removed from the skin with isopropyl alcohol. A six-inch ruler calibrated in both centimeters and inches is included.

14 cm

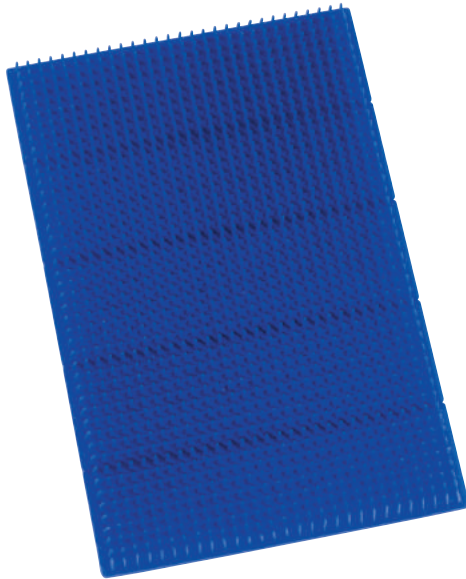
No. 18000-30



80% of actual size

**Silicone Mat**

High quality, extra soft mat for safe and secure placement of delicate instruments. This mat can easily be cut along the premarked grooves to fit in various sized instrument cases. **Autoclavable.**



30 x 20 cm

No. 20325-00

**Magnetic Sterilization Mat**

Used during sterilization and for safe anti-slip placement around surgical settings. **Autoclavable.**



Instruments not included.

30 x 20 cm

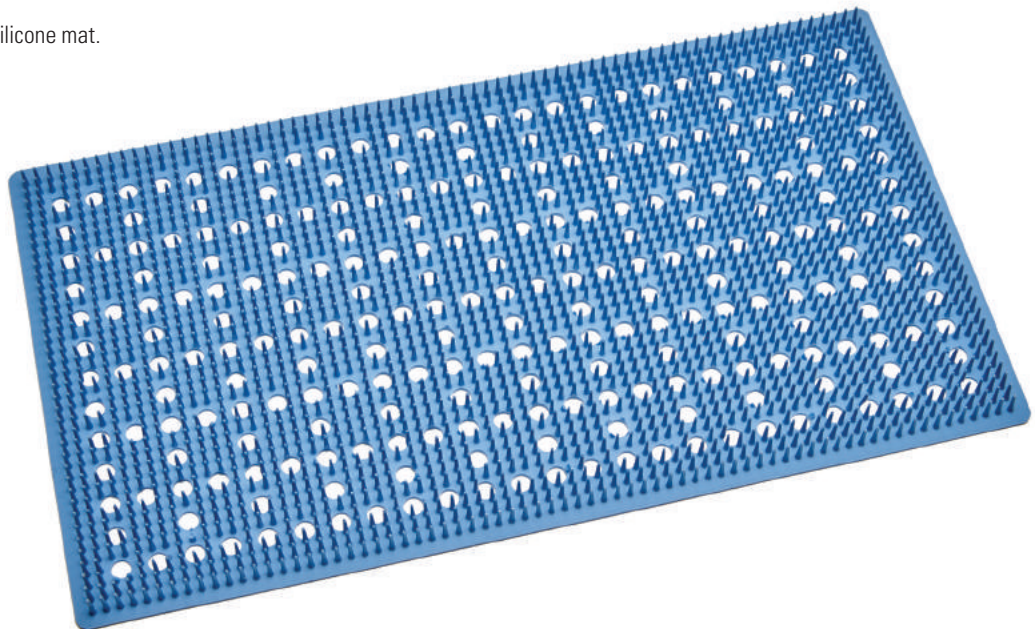
No. 20350-00

**Silicone Mat**

Large, economical silicone mat.  
**Autoclavable.**

46 x 25 cm

No. 20325-10



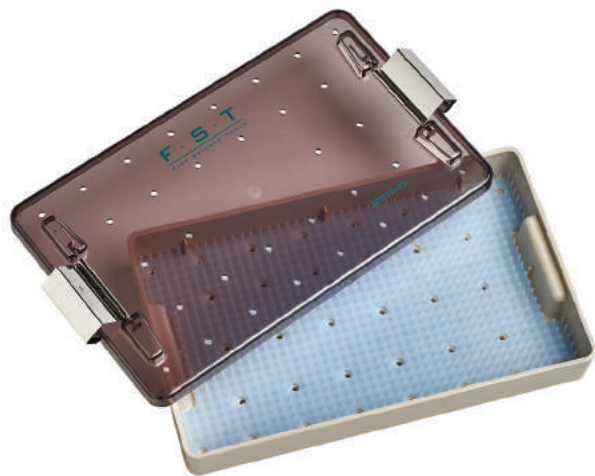


Sterilization Container

This plastic sterilization container includes a silicone mat for safe placement of instruments. Perforated top is clear for visual identification of instruments. **Suitable for autoclave or ethylene oxide sterilization.**



19 x 10 x 2 cm  
No. 20810-01



27 x 16 x 4 cm  
No. 20810-02



Two Tiered Sterilization Container

This plastic sterilization container has two tiers of silicone slots that will accommodate up to 12 different instruments. Hinged top and bottom lock tight. Container is perforated. **Suitable for autoclave or ethylene oxide sterilization.**

25 x 12 x 3 cm  
No. 20820-00

Disposable Sterilization Wraps

These biodegradable cellulose fiber wraps are resistant to tears and conform easily to maintain a breathable yet impervious barrier to airborne bacteria, saline, blood and water. Wrapping your instrument case securely will ensure the sterility of your instruments until ready for use. Available in two sizes.



38 x 38 cm

51 x 51 cm

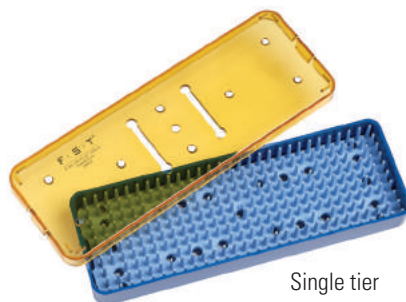
Pkg. of 25 wraps  
No. 28015-15

Pkg. of 25 wraps  
No. 28020-20

Cases not included.

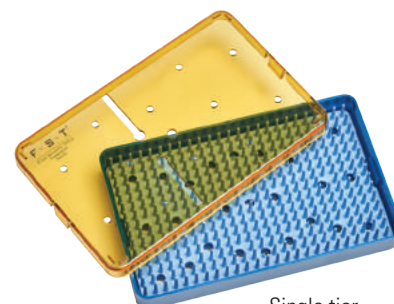
## Sterilization Container

This sterilization container is made from Ultem® polymer to ensure strength and long lasting durability. The transparent perforated lid provides easy identification of your surgical instruments. Silicone mat is included for a safe and secure hold. Trays are also stackable for convenience. **Suitable for autoclave or ethylene oxide sterilization.**



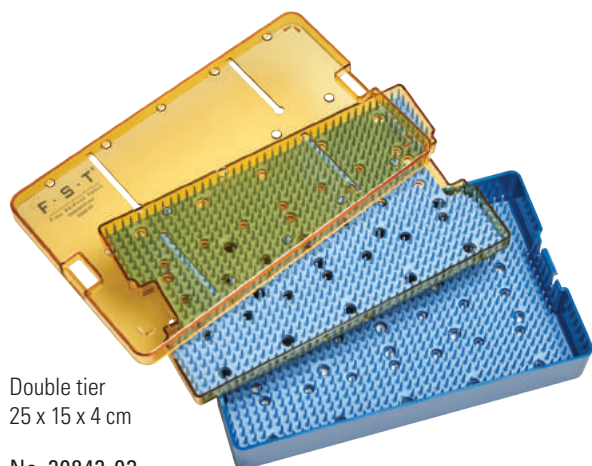
Single tier  
19 x 7 x 2 cm

No. 20840-01



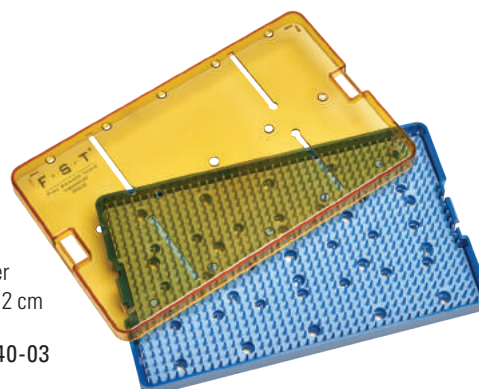
Single tier  
17 x 10 x 2 cm

No. 20840-02



Double tier  
25 x 15 x 4 cm

No. 20842-03



Single tier  
25 x 15 x 2 cm

No. 20840-03

## Dual Clasp Stainless Steel Sterilization Container

This container will assist in the sterilization and storage of your fine surgical instruments. It comes with a custom fit silicon mat and one single-use filter for keeping the instruments sterile while they remain in the container. **Suitable for autoclave or ethylene oxide sterilization.**



30 x 14 x 4 cm

No. 20850-00

5 Long-term textile filters  
No. 20850-10

## Stainless Steel Sterilization Container

Removable perforated interior plates hold long-term textile filters which keep the instruments sterile while they remain in the container. Lid can be locked in place. Comes with two textile filters installed. **Suitable for autoclave or ethylene oxide sterilization.**



20 x 10 x 4 cm

No. 20890-51

10 Long-term textile filters  
No. 20890-72

## Deluxe Stainless Steel Instrument Case

This case is built to withstand the roughest lab use. The lid is hinged and has a secure locking clasp. The inside bottom of the case is lined with a silicone mat which will cushion the most delicate instruments against impact.

The inside top of the lid has two specially shaped silicone strips which press down gently on the instruments inside the case as the lid is closed, holding them securely in place.

**Case and silicone inserts are autoclavable but should not be used for sterilizing surgical instruments.**

20 x 14 x 5 cm

No. 20020-00



## Utility Instrument Case

Comes with a silicone mat for safe placement of instruments. **Case and silicone insert are autoclavable but should not be used for sterilizing surgical instruments.**

18 x 9 x 3 cm

No. 20311-21

**MOST  
POPULAR**





Instrument Case

This plastic case is compact, safe, secure, and slotted for placement of individual surgical instruments, aiding in the prevention of tip damage. Five colors available.

**Case is autoclavable but should not be used for sterilizing surgical instruments.**

17 x 8 x 2 cm

MOST  
POPULAR



Instruments not included.



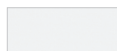
Blue

No. 20830-00



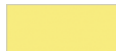
Green

No. 20830-01



Clear

No. 20830-02



Yellow

No. 20830-03



Pink

No. 20830-04



Orange

No. 20830-05

NEW  
ITEM



Purple

No. 20830-06

CASES



### Instrument Beaker with Silicone Bottom

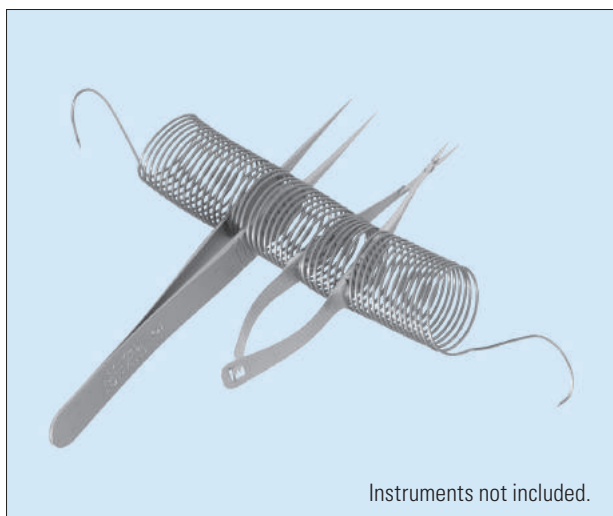
Instruments are placed in the beaker with their tips immersed in distilled water when not in immediate use. This keeps the instruments clean and functional and ready to grasp. The instrument tips are protected from damage by the soft silicone rubber bottom. Segmented lid keeps instruments organized and secure.

Diameter: 10 cm

Height: 8 cm

No. 00081-00

**S&T®**



### Instrument Holding Spring

For the safe placement of delicate surgical instruments during use. Pin the sharp ends into the drape to secure the mounting spring.

Diameter: 2 cm

Length: 4 cm (closed)

No. 18090-00

**Stainless Steel Burrs**

Shaft diameter: 2.3 mm  
Length: 44 mm  
Pkg. of 10 burrs



| Diameter (mm) | Item         | Price |
|---------------|--------------|-------|
| 0.7*          | No. 19008-07 |       |
| 0.9**         | No. 19008-09 |       |
| 1.4           | No. 19008-14 |       |

\* Use this size for screws No. 19010-10.

\*\* Use this size for screws No. 19010-00.

**Carbon Steel Burrs**

Shaft diameter: 2.3 mm  
Length: 44 mm  
Pkg. of 10 burrs



| Diameter (mm) | Item         | Price |
|---------------|--------------|-------|
| 0.5           | No. 19007-05 |       |
| 0.7*          | No. 19007-07 |       |
| 0.9**         | No. 19007-09 |       |
| 1.4           | No. 19007-14 |       |
| 2.1           | No. 19007-21 |       |
| 2.9           | No. 19007-29 |       |

**MOST  
POPULAR**

\* Use this size for screws No. 19010-10.

\*\* Use this size for screws No. 19010-00.

**Tungsten Carbide Burrs**

Shaft diameter: 2.3 mm  
Length: 44 mm  
Pkg. of 5 burrs



**NEW  
ITEM**

**TUNGSTEN  
CARBIDE**

For more information see page 183.

| Diameter (mm) | Item         | Price |
|---------------|--------------|-------|
| 0.5           | No. 19009-05 |       |
| 0.7*          | No. 19009-07 |       |
| 0.9**         | No. 19009-09 |       |

\* Use this size for screws No. 19010-10.

\*\* Use this size for screws No. 19010-00.

**Stainless Steel Trephines**

Side opening for clearing of material.

Shaft diameter: 2.3 mm  
Length: 44 mm  
Sold individually



1.8 - 2.7 mm

5 mm

| Diameter (mm) | Item         | Price |
|---------------|--------------|-------|
| 1.8           | No. 18004-18 |       |
| 2.3           | No. 18004-23 |       |
| 2.7           | No. 18004-27 |       |
| 5             | No. 18004-50 |       |

DRILL BITS

**Stainless Steel Circular Saw**

For cutting bone and other hard substances.  
Attaches to mandrel (No. 18000-18), right.

Diameter: 16 mm  
Thickness: 0.1 mm

Pkg. of 10 saws  
No. 18000-20

**Stainless Steel Mandrel**

Screw allows attachment of discs and circular saws for use with high speed drills.

Shaft diameter: 2.3 mm  
Length: 45 mm

No. 18000-18



## Low Cost Cautery Kit

This low cost, high temperature cauterizer is a great alternative to disposable cautery units. Temperature at tips is approximately 1000°C (1832°F). Replacement cautery tips are available. **Not autoclavable.**



Plastic body  
Stainless steel tips: 0.2 mm diameter  
Total weight: 60 g  
Length: 17.5 cm (without tip)

Cautery kit includes:

- 1 Cautery handle
- 2 AA Batteries
- 2 Standard tips
- 1 Storage case
- 2 Fine tips

Cautery kit  
No. 18010-00

65% of actual size



Replacement tips  
Straight standard

Box of 10 tips  
No. 18010-01



Replacement tips  
Straight fine

Box of 10 tips  
No. 18010-02

## Small Vessel Cauterizer

This small hand-held unit keeps bleeding to a minimum and therefore provides a surgical field clear of clamps and hemostats. The cauterizer should be activated momentarily so the delicate tips do not burn out. Temperature at tips is approximately 1000°C (1832 °F). Replacement cautery tips are available. **Autoclavable.**



Heavy gauge stainless steel body  
Platinum-iridium tips: 0.3 mm diameter  
Total weight: 100 g  
Length: 13.5 cm (without tip)

Cautery kit includes:

- 1 Cautery handle
- 2 AA Batteries
- 1 Straight fine tip
- 1 Storage Case
- 1 Angled fine tip

Cautery kit  
No. 18000-00

**Cautionary note:**  
Remove batteries before autoclaving.

65% of actual size



Replacement tip  
Straight fine

No. 18000-01



Replacement tip  
Angled fine

No. 18000-02



Replacement tip  
Straight knife

No. 18000-03



Replacement tip  
Straight knob

No. 18000-04

Neuro Punches

N.I.H. style neuro punches for punch removal of frozen brain microregions.

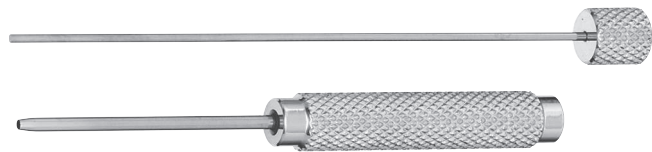


| ID (mm) | OD (mm) | Gauge | Length (cm) | Item         | Price |
|---------|---------|-------|-------------|--------------|-------|
| 0.31    | 0.61    | 24    | 4.2         | No. 18036-24 |       |
| 0.41    | 0.70    | 22    | 4.5         | No. 18036-22 |       |
| 0.69    | 1.00    | 19    | 4.5         | No. 18036-19 |       |

Sample Corers

For quantitative analysis. Comes with plunger.

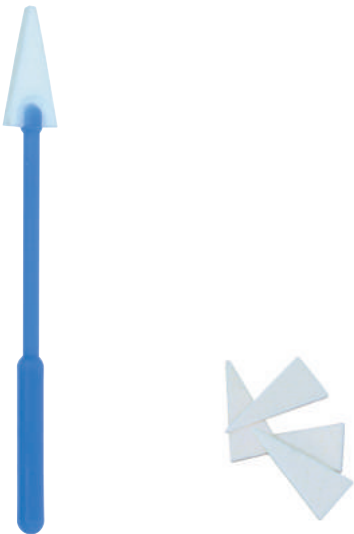
8.5 cm



| ID (mm) | OD (mm) | Gauge | Item         | Price |
|---------|---------|-------|--------------|-------|
| 0.35    | 0.80    | 21    | No. 18035-35 |       |
| 0.50    | 1.00    | 19    | No. 18035-50 |       |
| 0.80    | 1.45    | 17    | No. 18035-80 |       |
| 1.00    | 1.80    | 15    | No. 18035-01 |       |
| 2.00    | 3.00    | 11    | No. 18035-02 |       |
| 3.00    | 4.00    | 8     | No. 18035-03 |       |
| 5.00    | 6.00    | 4     | No. 18035-05 |       |

Absorption Spears and Triangles

These synthetic surgical sponges absorb fluids twice as fast as the best cotton sponges and have three times their fluid-holding capacity. They are made from strong, soft, lint-free biocompatible-proven material that is non-irritating to delicate tissue and leaves no fibrous residue that might cause wound contamination. The Absorption Spears are sterilized by radiation.



Absorption Spears  
Sterile  
7 cm

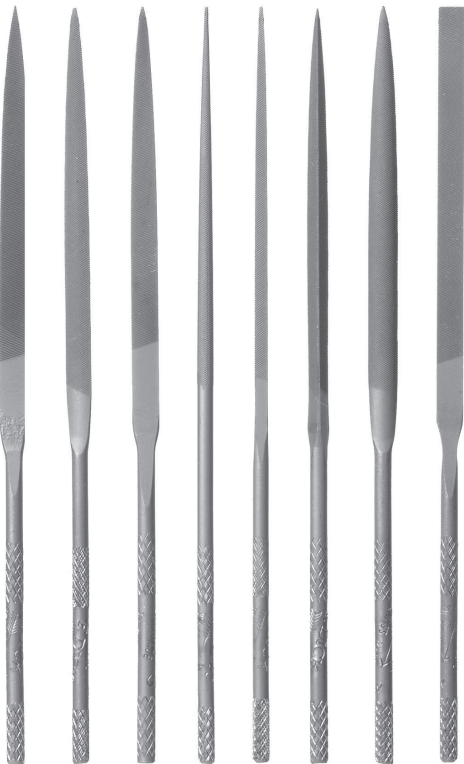
Box of 200 spears  
No. 18105-01

Absorption Triangles  
Sterile  
2 cm

Box of 500 triangles  
No. 18105-03

### Miniature File Set

Comes with 8 different file profiles in a vinyl pouch.  
**Not autoclavable.**



10 cm

No. 30076-14

### Screwdriver Set

6 screwdrivers with nickel-plated handles, hardened blades of 1, 1.5, 1.8, 2.3, 2.9 and 3.6 mm width. Comes in a wooden case.



No. 30090-06

**4-in-1 Screwdriver**

With 4 hardened, interchangeable blades stored in handle: 1.5, 2, 2.5, and 3 mm.



10.5 cm

No. 30051-10

**Utility Scissors**

These scissors are extremely hard (54 on the Rockwell scale). Useful for cutting tin or aluminum sheets, bone, plastics, etc. The strong, 3 mm thick blades are magnetic. The plastic handles are anatomically shaped. **Not autoclavable.**



75% of actual size

Stainless steel with plastic handle  
21 cm

Right-handed  
No. 37500-00

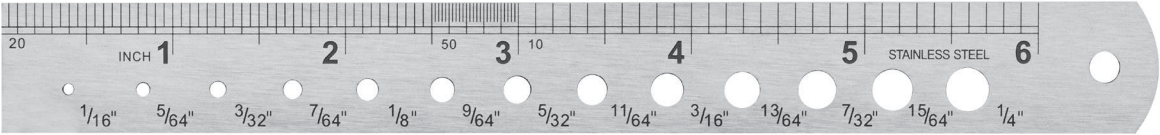
**LEFT  
HANDED**   
No. 37000-00



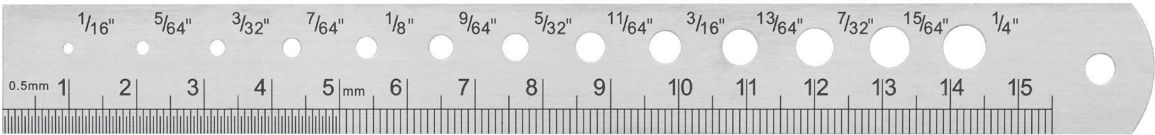
Ruler with Gauge Measurements

Stainless steel  
15 cm (6")  
No. 30085-15

90% of actual size



Front

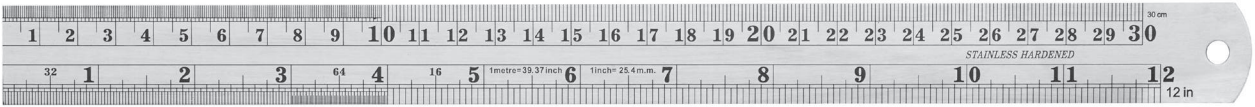


Back

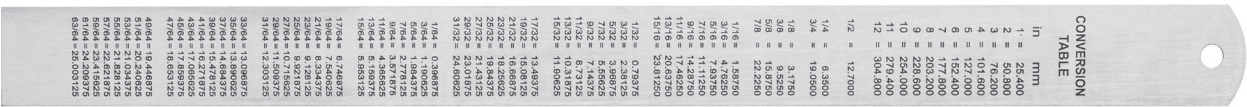
Ruler with Metric Conversion Table

Stainless steel  
30 cm (12")  
No. 30085-30

50% of actual size



Front



Back

Ruler Label

Used for stable measurements in  
all surgical platforms.

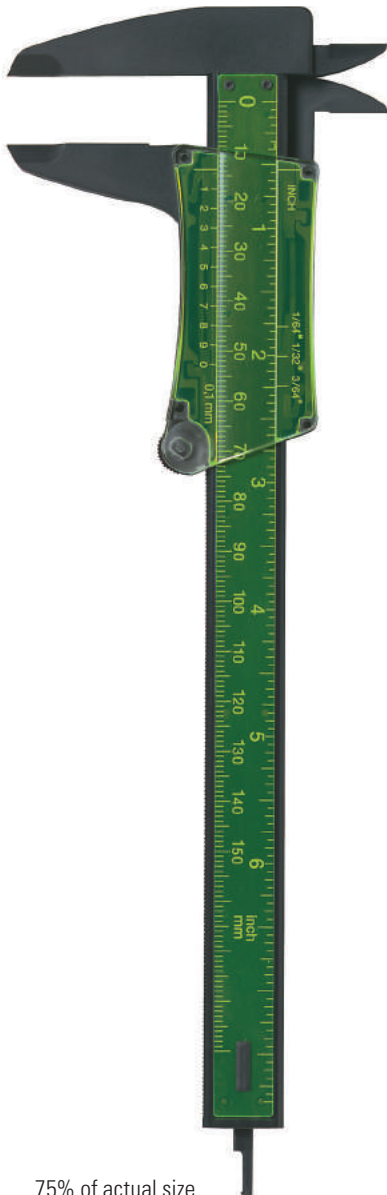
6 cm  
Pkg. of 25 labels  
No. 29027-00





**Plastic Vernier Caliper**

Tough polymer is unbreakable under normal conditions. Measures inside, outside, step and depth, metric and inch to 0.1 mm or 1/64". Capacity is 13 cm.



75% of actual size

21 cm

No. 30087-20

**Digital Electronic Caliper**

Wide screen LED display with the ability to measure in millimeters, inches and fractions. Measures inside, outside, step and depth. Battery, spare battery and plastic storage case included.



70% of actual size

Stainless steel  
23.5 cm

No. 30087-00

**Castroviejo Surgical Caliper**

Used for precise measurement during surgery.



0-20 mm with 0.5 mm divisions  
Tip diameter: 0.5 mm  
8.5 cm

No. 18000-35

### Magnifying Loupe with Micrometer and LED

High quality loupe features a removable micrometer and ultra-bright LED lights surrounding the circumference for a defined image and clear contrast.

Magnification: 10x  
Field of view: 30 mm  
Working distance: 10 mm (without scale)  
Illumination: Ultra-bright LED  
38 x 38 x 40 mm

No. 29026-10

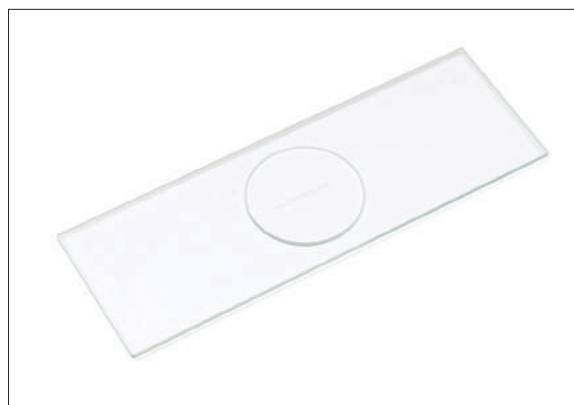


### Large Scale Stage Micrometer

A precision glass scale suitable for calibration and measurement of large field stereo microscope images. Comes with 15x eyepiece and case.

50 mm with 500 divisions (0.1 mm)  
80 x 25 mm  
8 cm

No. 29026-00



### Stage Micrometers

These are highly accurate stage micrometers for use with transmitted light in both compound and stereo microscopes. Comes with a plastic case.

76 x 26 mm

10 mm with 100 divisions (0.1 mm)  
No. 29025-01

1 mm with 100 divisions (0.01 mm)  
No. 29025-02

### Electronic Clock / Triple Timer

Three activities can be timed up or down simultaneously or individually. Time can be displayed either in 12 or 24 hours and features a memory function. Maximum countdown time is 19 hours, 59 minutes, 59 seconds. Minimum time interval is 1 second. The timer housing includes a powerful magnet for mounting.

LCD display: 4.5 x 4.5 cm

7 x 8.5 x 1.5 cm

AAA battery included

No. 27000-01



### Gold Wire Contacts

Matching pin and socket. Contacts are crimp terminated, but also can be used for solder connections.

Total length: 16 mm (when connected together)

Diameter: 1.2 mm

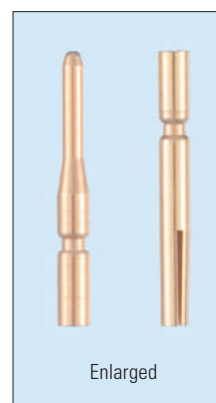
Opening for wire: 0.63 mm

Pkg. of 50 male contacts

No. 19003-00

Pkg. of 50 female contacts

No. 19003-01



**Headband Magnifier**

Precision ground and polished optical glass lenses. The padded headband is lightweight and fully adjustable. Can be worn with spectacles.



Headband magnifier shown with VisorLIGHT™ (sold separately).

Magnification: 2.5x  
Working distance: 200 mm (8")

No. 28030-02

Magnification: 2.75x  
Working distance: 150 mm (6")

No. 28030-03

Magnification: 3.5x  
Working distance: 100 mm (4")

No. 28030-04

**VisorLIGHT™**

Small, portable light source with 3.9 cm cord for attachment to headband. It comes with a battery pack that holds two AA batteries. Completely adjustable. Replacement bulbs are available upon request.



No. 28030-10



## Interchangeable Magnifier Headset with LED

Economical and fully interchangeable headband magnifier with LED light.

Includes:

- Glasses Frame with Adjustable Lens Holder
- Adjustable Head Strap
- Magnification Lenses (1x, 1.5x, 2x, 2.5x, and 3.5x) with a protective storage box
- 2 Super Bright White LED bulbs
- 3 AG10 Batteries

Magnification: 1x, 1.5x, 2x, 2.5x, and 3.5x

Field of view: Variable

Working distance: Variable

No. 28080-00

**MOST  
POPULAR**



Can be used with or without the adjustable head strap (included).

### Galilean Loupes

These loupes are lightweight and easy to use. Made from the finest optical coated lenses which deliver excellent clarity and high resolution. The loupes are mounted onto a strong yet flexible wraparound safety frame with a headband for stability and comfort. Ability to flip loupes up for use as safety glasses. Comes with mini screwdriver for fine adjustments, micro cloth, and storage case.

Magnification: 3x  
Working distance: 400 mm (16")  
Weight: 72 g

No. 28050-30

Magnification: 3.5x  
Working distance: 300 mm (12")  
Weight: 77 g

No. 28050-35



### Eschenbach Magnifier Spectacles

These magnifier spectacles allow full adjustments on almost all parts. Headband keeps spectacles steady and in place. (Sold separately.) Leather case included.

Magnification: 2.5x  
Working distance: 350 mm (14")  
Weight: 70 g  
Plastic frame reinforced with fiberglass

No. 28040-30



### Spectacles Headband

Compatible with the Eschenbach Max Detail Spectacles (Item No. 28030-20) and Eschenbach Magnifier Spectacles (Item No. 28040-30).

Material: Neoprene

No. 28080-90



### Eschenbach Max Detail Spectacles

These spectacles are portable, lightweight, and easily adjustable. Designed with frosted objective lens housing which eliminates distracting reflections. Bendable ear pieces for a secure, comfortable fit. Protective case is included.

Magnification: 2x

Field of view: 110 mm (4")

Working distance: 400 mm (16")

Weight: 49 g

No. 28030-20

**MOST  
POPULAR**



Max Detail Spectacles shown with Eschenbach Clip-On LED Light (sold separately).

### Eschenbach Clip-On LED Light

A compact and lightweight light source with two high-performance SMD LED's and a lens that concentrates the light producing a more powerful, bright and homogenous field of view. Light can be set high or low. Compatible with the Max Detail Spectacles and Headband Magnifiers. Comes with 3 AA batteries and storage case.

Weight: 11 g

No. 28030-25





## Optical Cleaning Kit

This convenient kit contains everything you need to clean lens surfaces safely. Perfect for microscopes, camera lenses, binoculars, telescopes, graphic art optics, and all other fragile lenses. Storage case included.

Kit includes:

- 1 Bottle of lens cleaner (30 ml)
- 1 Ultra soft duster brush
- 1 Cleaning cloth (20 x 20 cm)
- 3 Books of lens paper (25 sheets each)

No. 29000-10



## Lens Paper

This premium grade optical lens tissue is extremely soft and safe for any glass or plastic optical lens surface.

15 x 10 cm

Book of 50 sheets

No. 29015-50



### Eschenbach Vario Flex with LED

The Vario LED Flex ensures ease and precision by its smooth flexible neck and tiltable magnifying lens. This magnifier's innovative features provide a spacious working platform suitable for any application. Mounting clamp provides uncompromised workspace due to its sturdy, slim design. The magnification lens is illuminated with shadow-free full or half ring optimum bright LEDs.

Magnification: 2.5x  
 Diopter: 6D  
 Lens size: 76 mm  
 Lens shape: Aspheric  
 Working distance: Variable  
 Lens material: PXM® lightweight lens with patented Ceratec® scratch-resistant coating  
 Illumination: Latest SMD LED technology  
 Power source: 120V & 220V

No. 28015-25



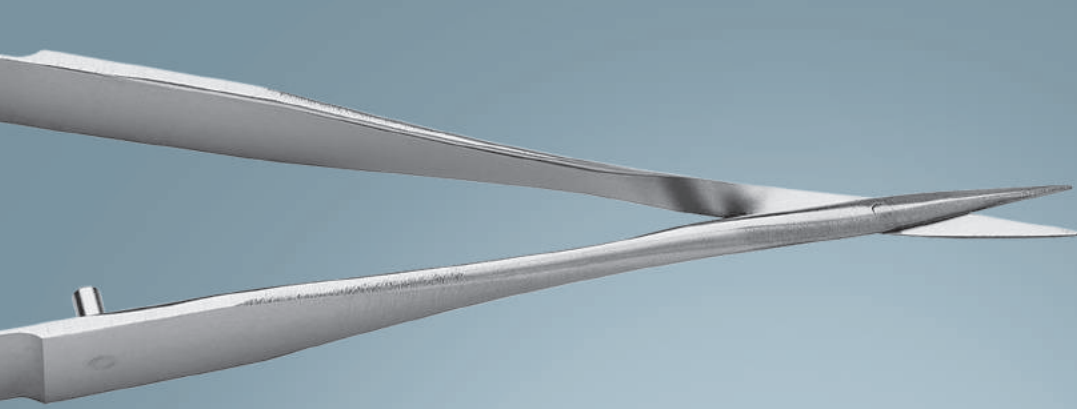
### Eschenbach Scribolux Magnifier

This magnifier provides an illuminated platform suitable for any working condition. The open design allows for a spacious working platform. Supplied in a microfiber pouch for protecting and cleaning the lens.

Magnification: 2.8x  
 Diopter: 7/11D  
 Lens size: 100 x 75 mm  
 Lens shape: Aspheric  
 Working distance: 75 mm (3")  
 Lens material: PXM® lightweight lens with patented Ceratec® scratch-resistant coating  
 Illumination: Latest SMD LED technology  
 Power source: 4 AA batteries (included)

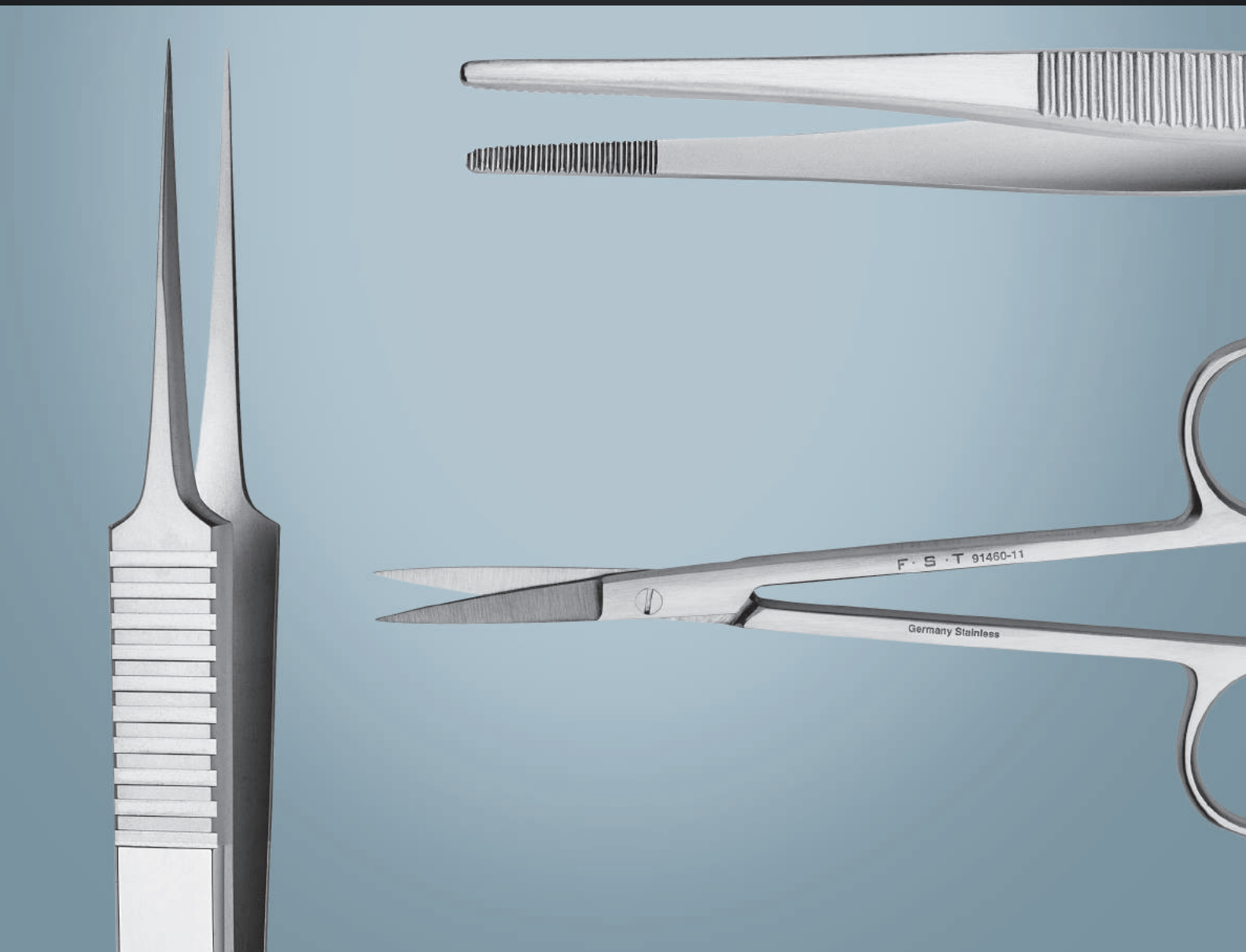
No. 28020-28





## Student Quality Instruments

|                                                                    |       |           |
|--------------------------------------------------------------------|-------|-----------|
| Scissors                                                           | Pages | 173 – 174 |
| Vessel Dilator                                                     | Page  | 175       |
| Forceps                                                            | Pages | 175 – 177 |
| Hemostat, Needle Holder, Pin Holder,<br>Scalpel Handle & Retractor | Pages | 178 – 179 |



Vannas Spring Scissors

Ideal for introductory courses in microdissection. The manufacturer, material and general pattern are the same as our No. 15003-08 but with much of the costly hand finishing omitted.



Cutting edge: 5 mm  
Tip diameter: 0.35 mm  
9 cm



Straight

No. 91500-09

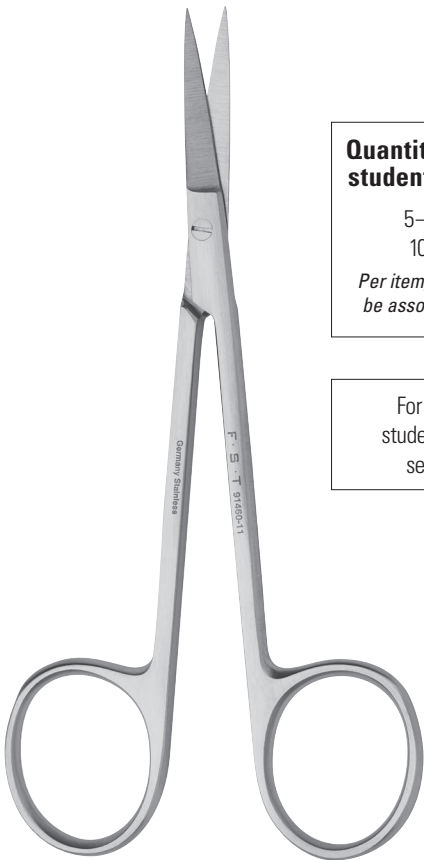


Curved

No. 91501-09

MOST POPULAR

Fine Scissors



11.5 cm



Straight

No. 91460-11



Curved

No. 91461-11

MOST POPULAR

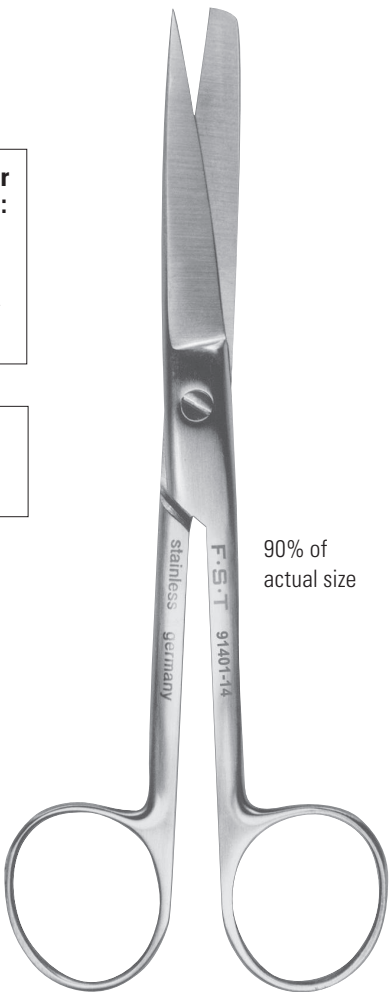
Quantity discount for student instruments:

5-9 = 5%  
10+ = 10%

Per item, selection cannot be assorted for discount.

For more info on student instruments see page 187.

Surgical Scissors



90% of actual size



Sharp/Sharp

10.5 cm  
No. 91402-10

12 cm  
No. 91402-12

14.5 cm  
No. 91402-14



Sharp/Blunt

10.5 cm  
No. 91401-10

12 cm  
No. 91401-12

14.5 cm  
No. 91401-14



Blunt/Blunt

10.5 cm  
No. 91400-10

12 cm  
No. 91400-12

14.5 cm  
No. 91400-14

**Lister Scissors**

Longer blunt blade prevents damaging tissue underneath skin without losing the cutting line.



Angled to side  
Blunt/Blunt  
14 cm

No. 91413-14

**Quantity discount for  
student instruments:**

5-9 = 5%

10+ = 10%

*Per item, selection cannot  
be assorted for discount.*

For more info on  
student instruments  
see page 187.

**Bone Scissors**

For cutting fine bone.



Curved  
Cutting edge: 9 mm  
9 cm

No. 91604-09

Vessel Dilator



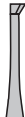
Angled 10°  
Tip diameter: 0.5 mm  
11 cm  
No. 91815-11

Standard Pattern

Broad pattern with strong spring action.



  
Serrated  
Tip width: 2.5 mm  
11.5 cm  
No. 91100-12

  
1x2 teeth  
Tip width: 2.5 mm  
12 cm  
No. 91121-12

  
Tip width: 3.5 mm  
16 cm  
No. 91100-16

**Quantity discount for student instruments:**

5-9 = 5%  
10+ = 10%

*Per item, selection cannot be assorted for discount.*

Adson

Wide, strong grip with narrow tips.



  
Serrated  
Tip width: 1.5 mm  
12 cm  
No. 91106-12

  
1x2 teeth  
Tip width: 1.5 mm  
12 cm  
No. 91127-12

## Dumont #5



**MOST  
POPULAR**

Standard tip  
0.1 x 0.06 mm  
Inox  
11 cm

No. 91150-20

## Dumont #7



Standard tip  
0.17 x 0.1 mm  
Inox  
11 cm

No. 91197-00

**Quantity discount for  
student instruments:**

5-9 = 5%

10+ = 10%

*Per item, selection cannot  
be assorted for discount.*

For more info on  
student instruments  
see page 187.

Fine Forceps  
Straight



0.2 x 0.1 mm  
11 cm

No. 91115-10

Fine Forceps  
Broad Shanks



0.2 x 0.2 mm  
12 cm

No. 91113-10

Fine Forceps  
Curved



0.2 x 0.2 mm  
12 cm

No. 91117-10

Fine Forceps  
Angled



0.2 x 0.2 mm  
11 cm

No. 91110-10

Quantity discount for  
student instruments:

5-9 = 5%

10+ = 10%

*Per item, selection cannot  
be assorted for discount.*

## Halsted-Mosquito Hemostat

## Halsey Needle Holder

**Quantity discount for student instruments:**

5-9 = 5%

10+ = 10%

*Per item, selection cannot be assorted for discount.*

For more info on student instruments see page 187.

Straight  
12.5 cm

No. 91308-12

Curved  
12.5 cm

No. 91309-12



13 cm

No. 91201-13

For suture needles,  
see page 116 & 117.



Pin Holder



Nickel-plated  
Jaw opening: 0-1 mm  
7.5 cm

No. 91606-07

For pins, see  
page 107.

Standard Scalpel  
Handle #3



12 cm

No. 91003-12

For scalpel blades,  
see page 58.

**Quantity discount for  
student instruments:**  
5-9 = 5%  
10+ = 10%  
*Per item, selection cannot  
be assorted for discount.*

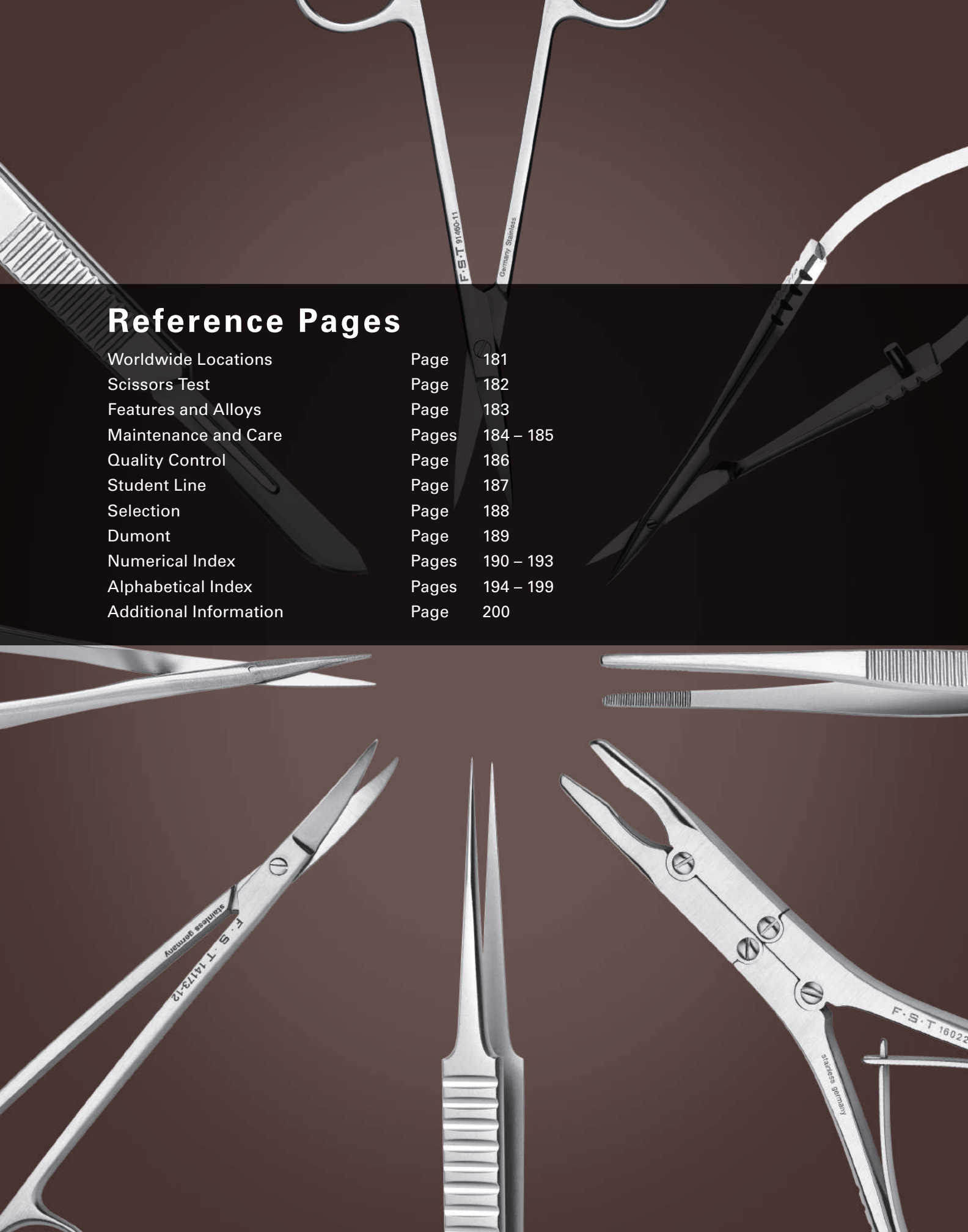
Spring-Loaded Retractor



Curved atraumatic blades  
Maximum spread: 3 cm  
Blade dimensions: 14 x 10 mm  
8.5 cm

No. 91706-05

STUDENT



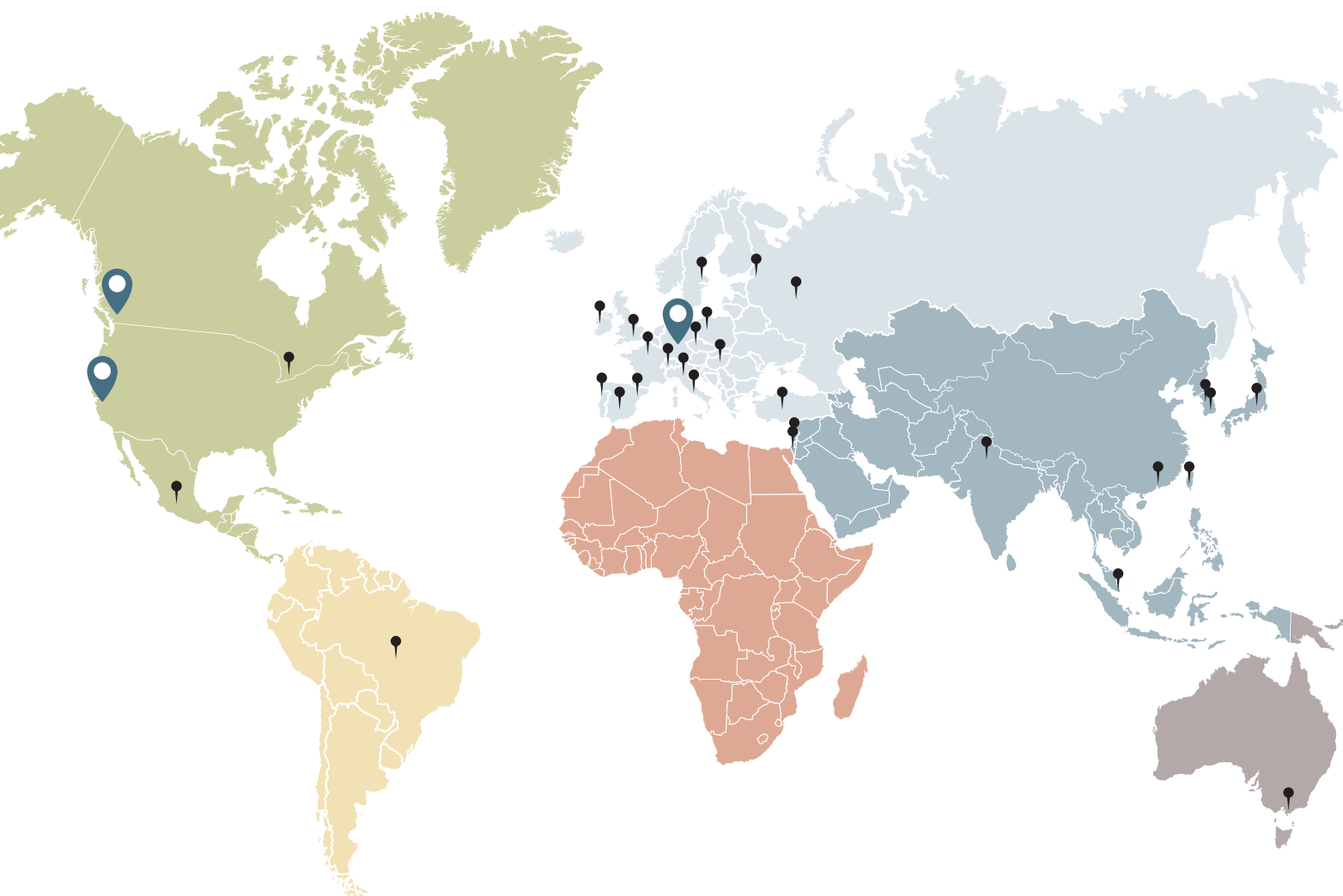
## Reference Pages

|                        |       |           |
|------------------------|-------|-----------|
| Worldwide Locations    | Page  | 181       |
| Scissors Test          | Page  | 182       |
| Features and Alloys    | Page  | 183       |
| Maintenance and Care   | Pages | 184 – 185 |
| Quality Control        | Page  | 186       |
| Student Line           | Page  | 187       |
| Selection              | Page  | 188       |
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| Alphabetical Index     | Pages | 194 – 199 |
| Additional Information | Page  | 200       |

# Fine Science Tools Around the World

## Commitment to excellence

For decades, we've demonstrated our commitment to excellence with genuine quality and a 100% satisfaction guarantee. As a result, our products continue to be the preferred instruments among scientists and biomedical researchers worldwide.



We have offices and dealers throughout the world  
and have been shipping globally since 1974.



### Offices

[finescience.com](https://finescience.com)  
[finescience.de](https://finescience.de)  
[finescience.ca](https://finescience.ca)

USA  
Europe  
Canada/International



### Dealers

To see a complete list of Fine Science Tools dealers,  
please visit us at [finescience.com/Dealers](https://finescience.com/Dealers).

Does paying more for a pair of scissors really buy more value and a longer cutting life?

Pictured below is a scissors testing device used to compare various alloys and cutting edge styles. The scissors repeatedly cut through a continuous feed of cotton cloth, and a counter keeps track of the number of cuts made to evaluate when the scissors begin to show a decrease in cutting quality.

The results verify that the addition of various features dramatically increases the cutting life of the scissors. Most notably, the cutting life is more than doubled with the addition of ToughCut blades to stainless steel, and over six times longer with CeramaCut blades.

See the chart below for a comparison of four different scissors sold by FST.

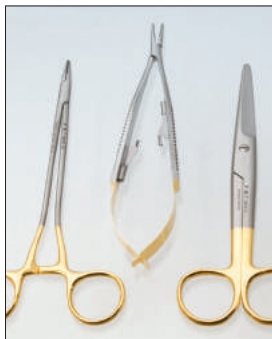


*The cutting life is more than doubled with the addition of ToughCut blades to stainless steel, and over six times longer with CeramaCut blades.*

| Alloy/Material                                            | Lasts longer than stainless steel by: |
|-----------------------------------------------------------|---------------------------------------|
| Tungsten Carbide                                          | 1.9x                                  |
| Stainless Steel with ToughCut                             | 2.3x                                  |
| Tungsten Carbide with ToughCut                            | 4.1x                                  |
| CeramaCut (Ceramic Coated Tungsten Carbide with ToughCut) | 6.6x                                  |

See page 183 for more information on ToughCut, Tungsten Carbide and CeramaCut.

## Tungsten Carbide



When you place heavy demands on your surgical instruments, be it scissors, needle holders, or forceps, you should consider the benefits of tungsten carbide, one of the hardest alloys available. Tungsten carbide scissors last almost two times longer than stainless steel, and needle holder tips can be made with a pyramid cross pattern that holds suture needles much more securely. Inlays are either glued or welded into place.

Compare the extra cost of these instruments with the length of useful wear and you have a cost effective solution for your instrument requirements. Tungsten carbide instruments are identified by their gold handles.

Scissors: pages 9, 20–21, 23, 30–32, 34 and 44

Forceps: page 84

Needle Holders: pages 111–115

Burrs: page 157

Look for this symbol



## ToughCut® Scissors



ToughCut scissors feature two unique cutting edges that cut through the toughest tissue with exceptional ease and accuracy. One blade is honed to razor sharpness, and the other is micro-serrated to minimize tissue slippage during cutting. Scissors with ToughCut edges are identified by their black handles.

For ToughCut scissors that last almost two times longer, select ToughCut with tungsten carbide cutting edges.

Scissors: pages 6, 15, 20–21, 30, 33–34

Look for this symbol



## Ceramic and CeramaCut® Instruments



One of the hardest materials on Earth, ceramic is used in surgical instruments to form edges that last longer than stainless steel and even longer than tungsten carbide. Ceramic also has a high slide capacity which reduces surface tension and results in a much cleaner cut than metal instruments. Our CeramaCut scissors combine ToughCut technology with tungsten carbide edges and a ceramic coating for one of the best, cleanest cutting scissors available on the market today.

CeramaCut Scissors: page 21

Ceramic Blades: page 52

Ceramic Coated Forceps: pages 63 and 69

Ceramic Coated Spring Scissors: pages 7 and 10

Look for this symbol



## Titanium

Titanium instruments are over 40% lighter than equivalent stainless steel instruments, with better flexibility and strength. Elemental titanium (Ti) is a very strong, lustrous, white metal with a specific gravity of 4.54. Titanium and titanium alloys readily form stable protective surface layers, giving them excellent corrosion resistance to saltwater, laboratory saline solutions, blood and other bodily fluids, oxidizing acids, alkalis and chlorides. Titanium is 100% nonmagnetic; a great benefit when working with nerves. Its inherent surface oxide film provides bactericidal and non-allergenic properties. Titanium alloys can be heated up to 440°C (824°F).

Scissors: pages 5 and 10

Forceps: pages 65, 69, 80, 86 and 90

Probes, Y-Hook and Spatula: page 102

Vascular Clamps: pages 132–133

Look for this symbol





# Cleaning, Sterilization, Maintenance, & Storage of Surgical Instruments

*Proper care of your surgical instruments will improve their longevity and function. Below are different cleaning, sterilization, and maintenance processes to guide you through your techniques.*

## General Care & Maintenance

Guidelines to extend the life of your surgical instruments.

- Clean and thoroughly dry your instruments as soon as possible after each use, paying special attention to joints, hinges, and anywhere there is metal to metal contact.
- Handle your instruments delicately and with care.
- Use your instruments for their intended purpose.
- Store your instruments with tip protectors, and always place them so that they do not touch each other.

## Cleaning

Fine surgical instruments should be cleaned immediately after use. Blood or saline solutions left on instruments for any length of time can quickly start corrosive action. Time, temperature, and agitation play important roles in the cleaning process. Time affects the efficiency of cleaning solutions as most are effective after a certain time period. Higher temperature cleaning solutions result in better cleaning. During manual or ultrasonic cleaning it is helpful to loosen any surgical residue. Before any of the below procedures, rinse your instruments under warm running water to remove all blood and tissue. Instruments can be cleaned manually or ultrasonically, but always:

- Use a neutral pH (pH 7) cleaning solution.
  - Clean instruments in the open position to ensure a thorough and effective cleaning process.
  - Use soft textile or paper cloths, soft plastic brushes made of nylon, or water spray guns.
- Do **NOT** use steel wool, wire brushes, or scouring pads as these are abrasive to the instruments.

## Manual Cleaning

- Make sure all instruments are visibly clean and free from stains, wiping them carefully to remove all blood and tissue matter.
- Rinse instruments thoroughly with distilled water, paying close attention to joints and hinges as these areas can accumulate unwanted material.
- Air dry your instruments completely and use a can of compressed air to blow out any water at the joints and hinges. Then store them only in clean and dry environments.

## Ultrasonic Cleaning

Ultrasonic cleaning is the most effective cleaning method. The vibrating sound waves create micron-sized bubbles in the solution that grow with the alternating pressure. When the bubbles reach a particular size, they collapse creating a force that dislodges dirt and particles, even in the smallest of crevices.

- **NOT** recommended for delicate and micro instruments.
- Follow the manufacturer's guidelines for specific instructions and cleaning cycle times. Instruments should be processed for the full recommended cycle time.
- Place instruments in the open position in the ultrasonic cleaner.
  - Do **NOT** allow instruments with sharp blades to touch other instruments.
  - Do **NOT** place dissimilar metals (stainless, copper, chrome plated) in the same cleaning cycle.
  - Make sure all instruments are completely submerged.
- After the ultrasonic cleaning cycle is complete, rinse instruments thoroughly to remove all ultrasonic cleaning solution.
- Dry instruments thoroughly with a clean towel.
- Use a spray lubricant in the hinges to minimize the risk of corrosion and maintain functionality.

## Sterilization

It is important that instruments are free from all traces of organic or other matter prior to sterilization.

### Steam Sterilization/Autoclaving

The autoclave process utilizes moist heat (or steam) under pressure for sterilization. The steam used must be from distilled water and free of all impurities.

- Lubricate all instruments that have any metal to metal interaction such as; scissors, rongeurs, needle holders, hemostats, and retractors. Do **NOT** use WD-40 or other industrial lubricants.
- Instruments may be autoclaved individually or in sets.
  - **Individual instruments:** Disposable wraps or sterilization pouches are ideal. Make sure the pouch size is sufficient for the instrument to be in an open (unlocked) position.
  - **Instrument sets:** Open and unlock all instruments. Place the heavier instruments on the bottom of the set when two layers are needed.
- Do **NOT** lock instruments during autoclaving. This will prevent the steam from reaching and sterilizing the metal to metal surfaces, and heat expansion during autoclaving can cause cracks in the hinge areas.
- Do **NOT** over load the autoclave chamber as this may hinder steam penetration.
- Place a towel on the bottom of the pan to absorb excess moisture during autoclaving. Make sure the towel has no detergent residue and is pH neutral if immersed in water.
- At the end of the autoclave cycle (before the drying cycle) unlock the autoclave door and open it slightly. Run the dry cycle for the recommended time period by the autoclave manufacturer.

**IMPORTANT NOTE:** Do **NOT** mix instruments of different or unknown alloys in the autoclave.

Please note: If the autoclave door is fully opened before the drying cycle, cold air will rush into the chamber, which can cause condensation on the instruments. This will result in water stains on the instruments.

### Hot Bead Sterilization

Recommended for speed and convenience when instrument tips or blade sterilization is required. The Hot Bead Sterilizer does not use dangerous gases, flames, or chemicals. Highlights:

- Bench top set up.
- Only 20 seconds of contact required to ensure your instruments are free of pathogens and microbial contaminants.
- Can be left on all day.
- Beads reach temperature of 240° - 270°C (464° - 518°F) within 15-20 minutes heating time.

Please see page 149 for more information on the FST Hot Bead Sterilizers.

### Ethylene Oxide (ETO) Sterilization

This method is recommended for instruments that will not tolerate high temperatures or moisture (e.g., catheters, cannulae, etc.). This is a process consisting of 4 primary variables; gas concentration, humidity, temperature and time. Sterilization pouches and wraps available, see pages 148 and 152.

## Storage

Surgical instruments should be properly stored in a clean and dry environment. It is highly recommended to use tip protectors and instrument cases to avoid possible damage to your instruments. Instrument tip protectors are available, see page 147. Instrument cases are available, see pages 152 – 155.

## Oxidation (Rust)

All FST stainless steel surgical instruments are manufactured from medical grade stainless steel under strict European standards. It is very important to properly take care of your instruments to extend their lifespan.

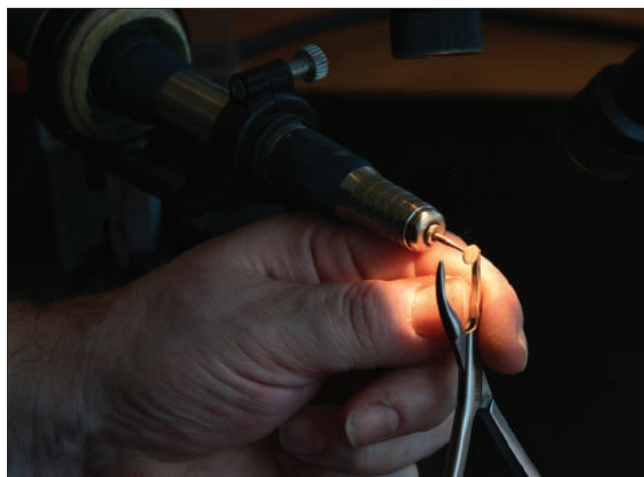
Although stainless steel is corrosive resistant, it can still rust or stain if handled improperly. Under unfavorable conditions instruments may oxidize because stainless steel that is exposed to physical, thermal, or chemical manipulations may lose some of its stainless properties.

## Quality Control

The high quality of Fine Science Tools surgical and microsurgical instruments is the result of our relentless attention to detail. Almost every instrument we sell is manufactured by skilled European craftsmen, designed to exacting specifications made from the finest German stainless steel alloys, and forged from the strongest, lightest materials available, and tested to ensure precision performance and ergonomics.

We are dedicated to quality control, with technicians in our German office inspecting most FST instruments. Aside from checking instrument dimensions and specifications, we thoroughly inspect tip sharpness, cutting edges, springs, joints, and other various components. Only after passing our detailed inspections, instruments are approved and sealed with our "FST Inspected" sticker.

We are proud to guarantee all of our products with your 100% satisfaction. If, for any reason, you are not completely satisfied with your purchase, you may return it for a full refund.







## FST Student Quality Instruments

One of the hallmarks of FST has always been to accurately assess the needs of our customers. We gather information not only from the lab, but from conferences, journals and researchers. Whether it is designing new tools or finding new applications for existing instruments, we believe our best information comes directly from you.

Our customers wanted reduced costs and quantity discounts without sacrificing the precision and quality inherent in German instruments. To meet their needs, we have developed a full line of "student" instruments. They were created for use in the classroom where students are learning proper instrument care.

Unlike our competitors, the quality of these instruments does not drop dramatically with the price. Our student line uses quality stainless steel and maintains the precision you expect from FST. In addition they carry our unconditional satisfaction guarantee while being offered at a significantly reduced price.

Not intended as a substitute for our highest quality instruments, the student line may require extra care as the alloys used are more susceptible to corrosion. All of our shipments come with an instruction pamphlet describing the use and care of surgical instruments. Visit our website at [finescience.com](http://finescience.com) for more information.

### Features:

- Economy
- Quantity discounts
- Quality
- German craftsmanship
- Less hand finishing
- Less expensive alloys

## We Proudly Stock



Fine Science Tools is proud to offer a large selection of left-handed surgical instruments to the research community. To find our left-handed instruments in this catalog, look for the “left-handed” icon on the pages below.

Scissors: pages 17, 29 and 161

Hemostatic Forceps: page 93

Needle Holders: pages 113-114

Ligation Aid: page 135



FST features a selection of scissors with larger than normal finger loops. Most of these loops are easily adjustable to fit larger fingers more comfortably. To find our large loop scissors please look for the “large loop” icon on the pages below.

Scissors: pages 19, 28 and 31



Fine Science Tools has noted which items are most frequently purchased for use in a variety of surgical procedures. To find our most popular items, look for the “most popular” icon throughout the catalog.



Fine Science Tools offers a wide selection of the latest and most popular Dumont forceps. Hand crafted in Switzerland for more than a century, these forceps are known for their consistent and uncompromised fineness. Dumont forceps come in a wide array of styles and alloys. On page 189, you will find detailed descriptions to help guide you in choosing the right Dumont forceps best suited for your needs.



Moria of France is one of the most respected and well known ophthalmic instrument manufacturers in the world, offering some of the finest surgical instruments in the industry for almost 200 years.

Only quality Swedish and German stainless alloys are selected; and many hours of highly skilled labor are put into the manufacturing process, which includes hand crafted sharpening, balancing, and polishing, often done under 40x magnification. Moria's product line includes scissors, spring scissors, forceps, spoons, vessel clamps, and more.



This Swiss manufacturer has established itself as one of the premier suppliers of superb microsurgical instruments worldwide. Unique designs, precise instrument balance, and optimum angles gives S&T instruments the “right feel” which is important for all procedures. S&T's product line includes forceps, needle holders, scissors, vessel clamps, sutures, vessel cannulation forceps, vessel dilators, and more.

## Finding the Dumont forceps best suited for your needs:



| Alloys          | Hardness   | Magnetic | Temperature resistance | Autoclavable | Advantages                                                                                                                                                                                                                                              |
|-----------------|------------|----------|------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Titanium</b> | Least Hard | No       | Up to 430° C           | Yes          | Resistant to corrosion from nitric acid, chloride, and salt water. Titanium is 40% lighter than stainless steel.                                                                                                                                        |
| <b>Dumoxel</b>  | Hard       | No       | 400° C                 | Yes          | The most popular alloy available for Dumont forceps offers the best resistance to corrosion, sulphuric environments, hydrochloric acids, and all other mineral and organic acids.                                                                       |
| <b>Inox</b>     | Harder     | Yes      | 400° C                 | Yes          | Available for most Dumont forceps. Contains chromium added to carbon steel, which results in some loss of hardness but offers good stainless qualities and resistance to corrosion.                                                                     |
| <b>Dumostar</b> | Harder     | No       | 500° C                 | Yes          | More durable and corrosion resistant than the best stainless steels. Highly resistant to mineral and organic acids, and salt water. Dumostar lasts an average of four times longer than Dumoxel and Inox. Most cost effective alloy for laboratory use. |
| <b>Carbon</b>   | Hardest    | Yes      | N/A                    | No           | Extremely hard; ensuring strong tips. Easily stains and rusts without proper care. <b>Carbon cannot be immersed in a water bath or sterilized.</b>                                                                                                      |

**Tip profiles:** Dimensions vary. See each style for specific dimensions (width x thickness).

|                        |                                                                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standard</b>        | Made for high precision and consistently precise work under a microscope.                                                                                                            |
| <b>Biology</b>         | Twice as fine as "Standard Tips." Especially produced for high precision laboratory work under the microscope.                                                                       |
| <b>Super Fine Tips</b> | Four times finer than the "Standard Tips." These tips are extremely delicate for the finest work under the microscope. Extra care is needed for these tips as they are very fragile. |

| Styles         |                                                                                                                                                                 |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>#2</b>      | Straight forceps with wide yet fine tips, referred to as Mouse Laminectomy Forceps because of their popularity in breaking off delicate bone from mouse skulls. |
| #2AP           | Epoxy coated with flat wide blunt tips.                                                                                                                         |
| <b>#3</b>      | Long straight forceps with coarse tips. Popular in low magnification procedures.                                                                                |
| #3C            | Shorter version of #3.                                                                                                                                          |
| <b>#4</b>      | Similar to the #5 but with broader shanks and stronger tips.                                                                                                    |
| <b>#5</b>      | Most popular style of Dumont straight forceps with fine tips which come in several styles.                                                                      |
| #55            | Similar to the #5 but with lighter shanks, giving the forceps a lighter spring action.                                                                          |
| #5C0           | Similar to the #55 but with even finer shanks producing the lightest spring action and longest meeting surface of any Dumont style.                             |
| #5L            | Medical #5 forceps with slide sleeve for a secure hold and retention.                                                                                           |
| #5SF           | The finest tips ever produced by Dumont.                                                                                                                        |
| #5XL           | Extra Long #5 forceps.                                                                                                                                          |
| #5/45          | Tips angled at 45°.                                                                                                                                             |
| #5/45C         | Designed to pick up cover slips from multi-well plates.                                                                                                         |
| #5/90          | Tips angled at 90°.                                                                                                                                             |
| <b>#6</b>      | Sharply angled, broad tips.                                                                                                                                     |
| <b>#7</b>      | Most popular style of Dumont curved forceps with fine tips which come in several styles.                                                                        |
| #7B            | Curved serrated tips.                                                                                                                                           |
| <b>AA</b>      | Strong broad tips.                                                                                                                                              |
| <b>M</b>       | Mini forceps.                                                                                                                                                   |
| <b>Medical</b> | Denotes distinctive ribbed handle to maximize grip.                                                                                                             |
| <b>SS</b>      | Long and narrow shanks with thin tips.                                                                                                                          |
| <b>WA</b>      | One piece design with no soldering grooves allows the forceps to be thoroughly and easily cleaned preventing biofilm residue.                                   |

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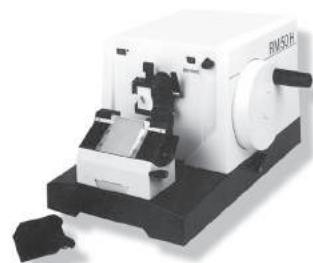
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