



FINE SURGICAL INSTRUMENTS FOR RESEARCH™



### LETTER FROM THE MANAGING PARTNER

# To our family of valued customers, associates, and business partners,

I am always reinvigorated by the release of our new catalog, as it allows us the opportunity to give appreciation to all who are integral parts of Fine Science Tools. This is also a great time for reflection and setting our sights on what is to come in 2024, an exciting year where we will be celebrating our 50th Anniversary! The journey has been outstanding and our dedication to service and support has propelled us from a very humble beginning to where we are now and where we will go in the future. It remains a pleasure to work closely with such inspiring and talented customers who are devoted to their contributions in science for all of these years and we look forward to serving you for many more years to come. FST has remained steadfast in our assurance to supplying quality instrumentation worldwide to an array of professionals and students in the Biomedical Science and Medical Device Technology industries. It is our unrelenting commitment to quality that is the hallmark of our company. Whether it is innovating new instruments to perfectly meet your exact needs or our teams finding new applications for existing FST instruments, our best information comes from you.

I introduce to you this year's catalog theme, Bubbles illustrating the delicate and precise by nature forms – characteristics which also describe our surgical instruments. A bubble is a microcosm where each individual element bends toward fulfilling its purpose with the whole, similar to our FST teams across the globe.

Markus Gawenda Managing Partner

Resembling the designs of our instruments, bubbles appear simple but are complex encapsulation of elements that are fascinating to both children and adults with their beautiful shapes and colors. The lustrous appearance of bubbles and FST instruments alike catches the attention and curiosity of many.

In an effort to better serve our customers at the highest level and continue to offer our unwavering support, we are optimizing our sales structure and one of our first steps will be shifting operations from Canada to our devoted teams in the US and European offices. While change is inevitable there will always be a constant with our 100% satisfaction guarantee. We have formulated a smooth transition plan, which we can ensure will be seamless and considerate to our customers worldwide.

On behalf of all of Fine Science Tools I would like to thank you for your incredible support and your belief and trust in us to provide high quality surgical instruments to aid in your advancements and breakthroughs in science. Our achievements and longevity would not have been possible without your continued patronage. Fine Science Tools remains committed to being your partner in all aspects of your scientific developments and look forward to continuing our relationship with you for another 50+ years.

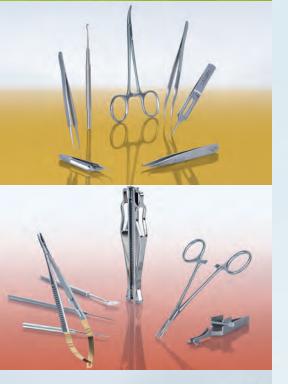
Thank you again for your continued support and loyalty.

Markus Gawenda

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Quality instruments with the student in mind		
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# **Catalog Features**

## **CATALOG FEATURES**

Most Items in the catalog

To provide you with our support regarding your decision in finding the right instruments for your purpose, the product feature details are explained below.

are shown in actual Size. Some Items in the catalog have a magnified view of the tip. 300% Most Items in the catalog have a illustrated view of the tip. Straight Sharp/Sharp Detailed length: 8 cm Item specifications Cutting edge: 2 mm Tip Ø: 0.05 mm No. 15000-03

### **ICONS:**



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



The tips have micro serrations to ensure a better grip on tissue or other materials.



These items are not suitable for an autoclave but can be sterilized by a different method. For example: hot bead sterilization, gas sterilization, plasma sterilization or hot air sterilization. Please contact us to receive more information regarding the best preferred method for your instruments.



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

Scissors: pages 33, 45 / Hemostatic Forceps: page 113 Needle Holders: pages 145 - 146 / Ligation Aid: page 125



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 35, 44 and 47



Our yearly selection of new instruments is based on a careful study and knowledge of our customer needs, as well as listening to their requests.



# $\frac{\textbf{F} \cdot \textbf{S} \cdot \textbf{T}}{\text{by DUMONT}}$

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. Below you will find detailed descriptions to help guide you in choosing the right Dumont forceps best suited for your needs.

# FINDING THE DUMONT FORCEPS BEST SUITED FOR YOUR NEEDS:

Alloys	Hardness	Magnetic	Temperature resistance	Autoclavable	Advantages
Titanium	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.
Dumoxel	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.
lnox	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.
Dumostar	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 lnox. Most cost effective alloy for laboratory use.
Carbon	Hardest	Yes	N/A	No	Extremely hard; ensuring strong tips. Easily stains and rusts without proper care. Carbon cannot be immersed in a water bath or sterilized.

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

Standard	Made for high precision and consistently precise work under a microscope.
Biology	Twice as fine as "Standard Tips." Especially produced for high precision laboratory work under the microscope.
Super Fine Tips	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	·

#2	Straight forceps with wide yet fine tips, referred to as Mouse	#5XL	E
	Laminectomy Forceps because of their popularity in breaking off delicate bone from mouse skulls.	#5/45	T
#2AP	Epoxy coated with flat wide blunt tips.	#5/45C	
#3	Long straight forceps with coarse tips. Popular in low magnification	#5/90	T
	procedures.	#5AC	S
#3C	Shorter version of #3.	#6	S
#4	Similar to the #5 but with broader shanks and stronger tips.	#7	
#5	Most popular style of Dumont straight forceps with fine tips which		С
	come in several styles.	#7B	C
#55	Similar to the #5 but with lighter shanks, giving the forceps a lighter spring action.	AA	S
<b>#FOO</b>		Μ	Ν
#5CO	Similar to the #55 but with even finer shanks producing the lightest spring action and longest meeting surface of any Dumont style.	Medical	0
#5L	Medical #5 forceps with slide sleeve for a secure hold and retention.	SS	L
#5SF	The finest tips ever produced by Dumont.	WA	C
			t

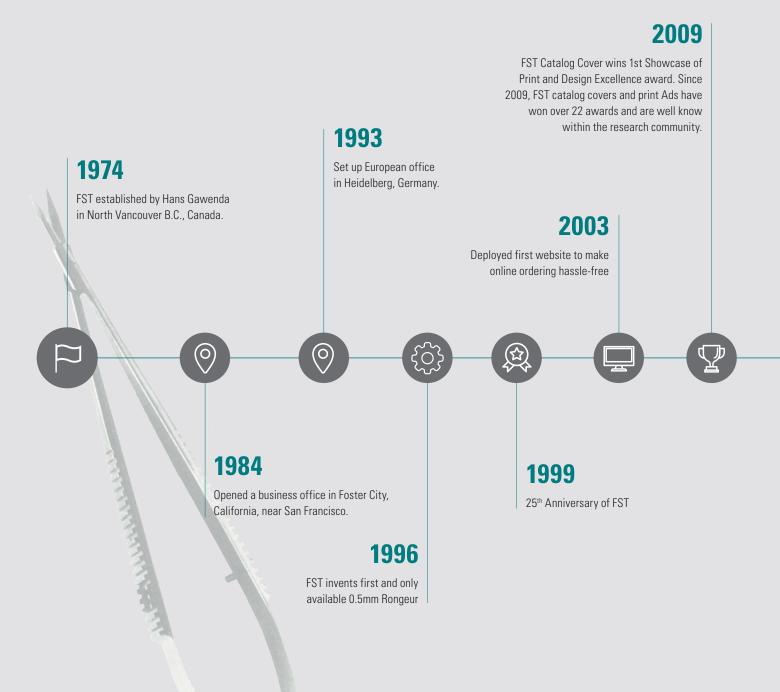
#5XL	Extra Long #5 forceps.	
#5/45	Tips angled at 45°.	
#5/45C	Designed to pick up cover slips from multi-well plates.	
#5/90	Tips angled at 90°.	
#5AC	Self-closing Anti-Capillary forceps.	
#6	Sharply angled, broad tips.	
#7	Most popular style of Dumont curved forceps with fine tips which come in several styles.	
#7B	Curved serrated tips.	
AA	Strong broad tips.	
М	Mini forceps.	
Medical	Denotes distinctive ribbed handle to maximize grip.	
SS	Long and narrow shanks with thin tips.	
WA	A One piece design with no soldering grooves allows the forceps to be thoroughly and easily cleaned preventing biofilm residue.	

# Timeline

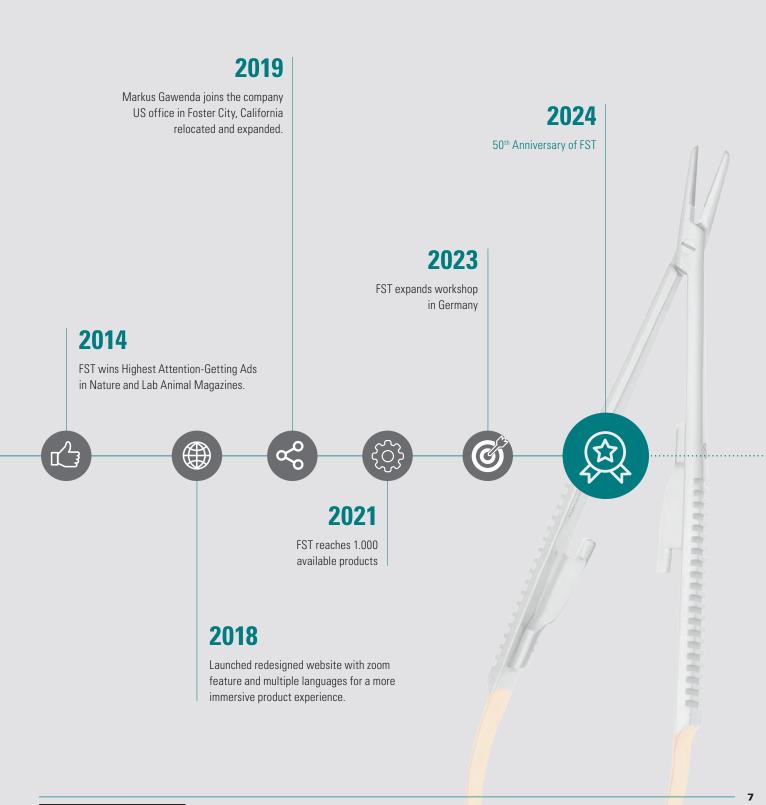


## **FST SINCE 1974**

For nearly 50 years, Fine Science Tools has been the leading distributor of precision surgical and microsurgical instruments, as well as laboratory accessories with offices in Foster City (USA) and Heidelberg (Germany) supporting and serving customers across the globe.







### RESEARCH ONLY

# **Handcrafted**



# **PRECISION THAT MAKES A MARK**

Our surgical mechanics refine and perfect instruments in FST's very own workshop, this is a step that only we take in this form. This is essential for the precision and quality of each and every one of our products.

For example, our Friedman-Pearson rongeurs with tip diameters of 0.5 or 0.7 mm, both are unique in the world. Also, our spring scissors

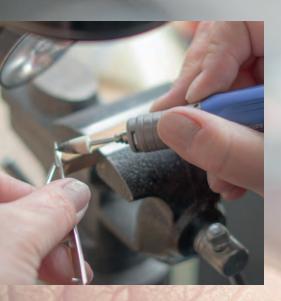


**CUSTOM DESIGN** 

If you have ever thought about how nice it would be to use a personalized, unique instrument, you should contact our custom design service as soon as possible.

We have the capabilities to manufacture any product to your specific requirements or to customize existing products to make them perfect for your application. have established themselves in the research industry and are second to none in terms of fineness.

The result: a level of quality that makes its mark - and to which we have now dedicated our own. Our new symbol "Hand-Crafted" stands for 100% guaranteed craftsmanship and instruments you can rely on in any situation.



# **FINE SCIENCE TOOLS SERVICE**

We at FST are constantly trying to improve ourselves and our service. This service includes the preparation and repair of instruments, custom-made products and individual pieces of various instruments according to customer requirements, customer-specific advice based on their application and more. Over the years we have built up a network of partners and collaborations with well-known institutions and companies. As a result, we also offer application-specific instrument kits including complementary items from our partners.

If you are interested or have any questions, please give us a call at one of our offices.

## **REPAIR SERVICE**

In our very own workshop in Heidelberg, Germany we not only manufacture and customize specific instruments according to customer requirements, but also offer a repair service for all of our products.

Which includes:

- General repairs
- Sharpening of scissors/spring scissors
- Adjustments of forceps
- Replacement of tungsten carbide jaws
- Cleaning & reconditioning
- Replacement, if an instrument is beyond repair



Additionally, our team is also available for repairs of your instruments which have not been purchased from FST.

# Satisfaction Guarantee

## **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.

# **100% SATISFACTION GUARANTEE**

*"If, for any reason, you are not completely satisfied with your purchase you may return it for a full refund."* 

Hans Gawenda, Founder, Fine Science Tools Inc.

# **SCISSORS TEST**

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

The picture below shows our cutting test for ring scissors based on the standards and specifications of surgical instruments in our office in Heidelberg. Each pair of scissors must perform a smooth cut without tearing or fraying the material, specifically at the fine tips. In addition, a specialized long-term test is done to identify the longevity of other featured alloys and cutting edges, tungsten carbide and ToughCut<sup>®</sup>. In this test the scissors will 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 showcase the addition of added features dramatically increases the cutting life of the scissors. Most notably, the cutting life is more than doubled with the addition of ToughCut<sup>®</sup> blades and over six times longer with our CeramaCut<sup>®</sup> feature.

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.



# **Alloys & Materials**

There are various alloys and materials which are used to produce micro surgical instruments for research with each having certain properties that would be advantageous in particular environments or applications. We will introduce theses alloys, describe their benefits and highlight unique tools for particular procedures that may be ergonomic and overall helpful for your studies and/or protocols.



### ToughCut<sup>®</sup> Scissors

- Black handles
- Last approx. 2.3x longer than stainless steel
- One cutting edge has micro serrations to minimize tissue slippage
- One cutting edge has increased sharpness
- (cutting edge with a 30° instead of 15° angle)



### **Tungsten Carbide Instruments**

- Golden handles (short gold plating)
- Last approx. 1.9x longer than stainless steel
- Is welded onto the cutting edges of scissors or tips of forceps and needles holders
- Available instruments: bone cutters, scissors, forceps, needles, needle holders, burrs

### Stainless Steel Instruments

Stainless steel is an alloy, which does exactly what its name implies: stains less than ordinary steel (iron).

• Autoclavable

2 F · S · T



### CeramaCut® Scissors

- Golden handles and black coating
- Last approx. 6.6x longer than stainless steel
- Cutting edges with Tungsten Carbide and Tough Cut plus ceramic coating
- Ceramic is one of the hardest materials on earth
- Reduced glare



### Tungsten Carbide & ToughCut® Scissors

- Golden handles (long gold plating)
- Last approx. 4.1x longer than stainless steel
- One cutting edge has micro serrations to minimize tissue slippage
- One cutting edge has increased sharpness (cutting edge with a 30° instead of 15° angle)



### **Ceramic Instruments**

- Ceramic coating
- Last approx. 2.3x longer than stainless steel
- Ceramic is one of the hardest materials on earth
- Reduced glare
- Available instruments: Dumont forceps and spring scissors



### **Titanium Instruments**

- Approx. 40% lighter than stainless steel
- Softer alloy than stainless steel
- Corrosion resistance (cannot rust)
- Non-Magnetic
- High temperature resistance up to 440°C / 824°F
- Available instruments: scissors, forceps, probes, hooks, spatula, vascular clamps

# Maintenance and Care

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**

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 reminisce. 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.
- $\setminus$  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.

/ Nee 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.

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.
- / Beads reach temperature of 240° 270°C (464° 518°F) within 15-20 minutes heating time.

Please see page 172 - 173 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 171, 174 and 176 - 178.



# **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 180. Instrument cases are available, see pages 178 – 180



# **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.

# SCISSORS, BONE INSTRUMENTS, KNIVES & SCALPELS

Spring Scissors	19 — 30
Fine Scissors	31 – 44
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### **SPRING SCISSORS**

### **Micro Vannas**

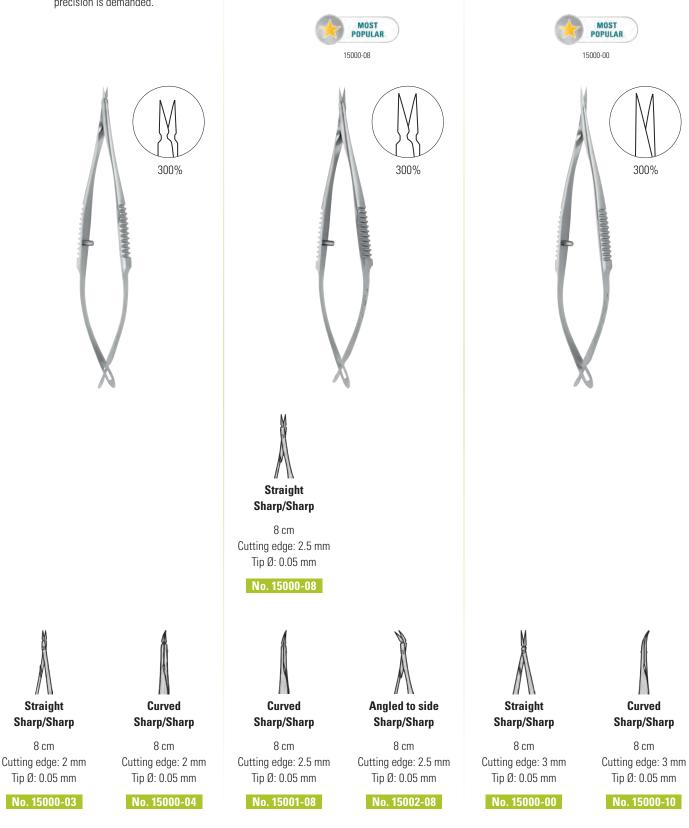
These Vannas-style spring scissors have the smallest blades ever produced. They are ideal where space is restricted and where absolute precision is demanded.

#### **Micro Vannas**

The short taper is ideal for small, precise cuts.

### **Micro Vannas**

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



SCISSORS

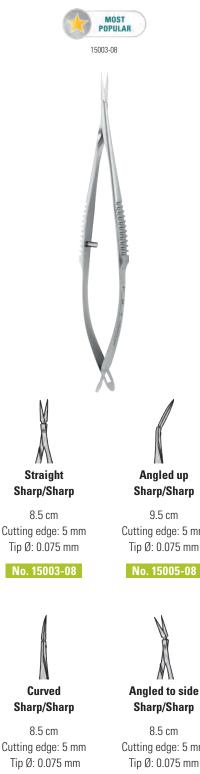
19

RESEARCH ONLY

8 cm

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

### Vannas-Tübingen



No. 15004-08

# Sharp/Sharp

Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15005-08

# Sharp/Sharp

Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15008-08

# Straight Sharp/Sharp

8.5 cm Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15903-08



Vannas Spring Scissors High Polished

The highly polished surface makes the scissors

more resistant to corrosion and easier to clean.

It also prevents tissue from sticking on it while

operating, it's also called non-sticky surface.

NEW ITEM

Sharp/Sharp 8.5 cm Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15904-08

Straight Sharp/Sharp

9 cm Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15403-08

### Vannas Spring Scissors Round Handle

The round handle allows an easy finger adjustment during the application. The hollow grind in the handle reduces the weight. The fine blades are tapered to give a better overview.







9 cm Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15404-08

### **SPRING SCISSORS**

### Vannas Scissors with Microserrations

Microserrated to minimize slippage.

SERRATED 300% Straight Sharp/Sharp 8.5 cm Cutting edge: 7 mm Tip Ø: 0.1 mm No. 15007-08



8.5 cm Cutting edge: 5 mm Tip Ø: 0.1 mm

No. 15070-08





Straight

Sharp/Sharp

10.5 cm

Cutting edge: 4 mm

Tip Ø: 0.15 mm

No. 15018-10

No. 15071-08





### **Miniature Vannas**

Finished under high magnification, these tips are especially useful when incising vessel walls for catheter insertion.





Moria 9600



Straight Sharp/Sharp



No. 15396-00

Moria 9601



Sharp/Sharp

8 cm Cutting edge: 5 mm Tip Ø: 0.1 mm

No. 15396-01

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

Curved

Sharp/Sharp

10.5 cm

Cutting edge: 4 mm

Tip Ø: 0.15 mm

No. 15019-10

**Titanium Vannas** 

# 





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



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

No. 15617-08



**Cohan-Vannas** 

Long cutting blades for a more controlled cut.



6 cm Cutting edge: 6 mm Tip Ø: 0.1 mm

No. 15000-02

Straight

**Blunt/Blunt** 

6 cm

Cutting edge: 6 mm

Tip Ø: 0.15 mm

No. 15000-12



Cutting edge: 6 mm Tip Ø: 0.1 mm

No. 15000-01

Curved Blunt/Blunt

6 cm Cutting edge: 6 mm Tip Ø: 0.15 mm

No. 15000-11







Straight Sharp/Sharp

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

No. 15124-12



Curved Sharp/Sharp

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



### **Round Handled Vannas**

Round handles allow easy fingertip adjustments.

### **Spring Scissors**



**Ceramic Coated Spring Scissors** 





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

No. 15401-12







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

No. 15750-11



Sharp/Sharp

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

23

RESEARCH ONLY

12.5 cm

Cutting edge: 6 mm

Tip Ø: 0.075 mm

No. 15400-12

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

Vannas-Wolff

# Moria



Moria MC52

M

Straight Sharp/Sharp

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

No. 15370-52



Moria MC50

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

No. 15370-50



Vannas Ultra long cutting edge without sacrificing tip width.

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

No. 15009-08

Castroviejo

J -----



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

No. 15006-09



### **Castroviejo with Ball Tip**

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





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

No. 15033-09

RESEARCH ONLY

**Spring Scissors** 

Dowell





Straight Sharp/Sharp 10 cm Cutting edge: 8 mm Tip Ø: 0.15 mm No. 15024-10

**Blunt/Blunt** 10 cm Cutting edge: 8 mm Tip Ø: 0.3 mm

No. 15025-10



Tip Ø: 0.15 mm

No. 15023-10

Straight Sharp/Sharp

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

No. 15040-11



Sharp/Sharp

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

No. 15042-11

\*\*\*\*\*\*\*\*\*\*\*\*\*

### **Tungsten Carbide Noyes**

Tungsten carbide cutting edges provide long lasting sharpness.





Castroviejo



Straight Sharp/Sharp

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

No. 15012-12



Sharp/Sharp

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

No. 15011-12



Sharp/Sharp

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

No. 15013-12



Sharp/Sharp

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

No. 15514-12





Sharp/Sharp

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

No. 15017-10

26 FINE SCIENCE TOOLS









Westcott





No. 15015-11

Fine Angled Spring Scissors

These spring scissors aid in cutting tissues from various angles.





10 cm Cutting edge: 4 mm Tip Ø: 0.125 mm

27

RESEARCH ONLY

Straight

Sharp/Sharp

11 cm

Cutting edge: 5 mm

Tip Ø: 0.2 mm

No. 15650-11

Curved

Sharp/Sharp

11 cm

Cutting edge: 5 mm

Tip Ø: 0.2 mm

No. 15651-11

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

Angled up

Sharp/Sharp

9.5 cm

Cutting edge: 2 mm

Tip Ø: 0.1 mm

No. 15010-09

### **SPRING SCISSORS**



Trident II

Special design with short handle and inner spring.





Sharp/Sharp 8 cm

Cutting edge: 8 mm Tip Ø: 0.2 mm

No. 15110-08



Angled to side Sharp/Sharp

8 cm Cutting edge: 8 mm Tip Ø: 0.2 mm

No. 15111-08



Pascheff-Wolff

Very delicate blades.



/ // Angled up Sharp/Sharp

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

No. 15371-92



**Long Handle Spring Scissors** 

28 F·S·T

### **Micro Scissors**

With microserrations to minimize slippage.

### **Micro 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.** 





PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

### **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.

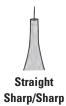
### **Biemer Scissors**

These scissors are designed to securely cut vessels without slipping.



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.



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

### No. 15300-00





Cutting edge: 4 mm Tip Ø: 2 mm

No. 15032-08



### Straight **Blunt/Blunt**

13 cm Cutting edge: 2 mm Tip Ø: 2 mm

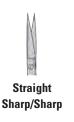
No. 15032-13

### **FINE SCISSORS**

### **Extre Fine Bonn**

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





8.5 cm Cutting edge: 10 mm

No. 14084-08



Straight

Sharp/Blunt

8.5 cm

Cutting edge: 10 mm

No. 14083-08

Straight

Sharp/Sharp

8.5 cm

Cutting edge: 10 mm

No. 14184-09

8.5 cm Cutting edge: 10 mm

No. 14085-08



Bonn

Highly polished.



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





Straight Blunt/Blunt

8.5 cm
Cutting edge: 10 mm

No. 14084-09

8.5 cm Cutting edge: 10 mm

Curved

**Blunt/Blunt** 

No. 14085-09

RESEARCH ONLY

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

Curved

Sharp/Sharp

8.5 cm

Cutting edge: 10 mm

No. 14185-09

### **Hardened Fine Iris Scissors**

These scissors have an anti-reflective finish to reduce glare.

# MOST



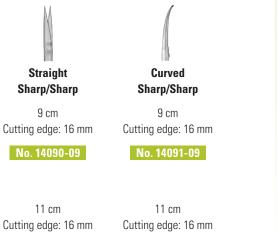


**Fine Iris Scissors** 

Made from Martensitic stainless

steel, combined with Molybdenum and

Vanadium.



No. 14090-11

No. 14091-11



10.5 cm Cutting edge: 16 mm

# Curved Sharp/Sharp

10.5 cm Cutting edge: 16 mm

No. 14094-11



### **FINE SCISSORS**



**Iris Scissors** Delicate pattern. MOST 14060-11 C F. S.T 14060-09 Straight Curved **Curved to side** Sharp/Sharp Sharp/Sharp Sharp/Sharp 9 cm 9 cm 9 cm Cutting edge: 16 mm Cutting edge: 16 mm Cutting edge: 16 mm No. 14060-09 No. 14061-09 No. 14062-09 10.5 cm 10.5 cm 10.5 cm Cutting edge: 16 mm Cutting edge: 16 mm Cutting edge: 16 mm No. 14060-10 No. 14061-10 No. 14062-10 11.5 cm 11.5 cm Cutting edge: 16 mm Cutting edge: 16 mm

No. 14060-11

No. 14061-11

33

SCISSORS

RESEARCH ONLY PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

**Moria Iris Scissors** 

### **Extra Narrow Iris Scissors**

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



F-5-T 14088-10

Side-view showing extra narrow pattern



34 FINE SCIENCE TOOLS



No. 14040-10

RESEARCH ONLY PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

**FINE SCISSORS** 

ToughCut® Tungsten Carbide MOST TOUGH MOST CUT 14058-09 14568-09 14058-11 14568-12 F. 5.T 1



Straight Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14058-09

11.5 cm Cutting edge: 16 mm

No. 14058-11

36

FINE SCIENCE TOOLS



**Sharp/Sharp** 9 cm

Cutting edge: 16 mm



11.5 cm Cutting edge: 16 mm

No. 14059-11



TUNGSTEN

CARBIDE

9 cm Cutting edge: 16 mm

#### No. 14568-09

11.5 cm Cutting edge: 16 mm

No. 14568-12

11.5 cm Cutting edge: 16 mm

9 cm

Cutting edge: 16 mm

No. 14569-09

No. 14569-12



RESEARCH ONLY

SCISSORS







Straight Sharp/Blunt

10 cm Cutting edge: 17 mm

#### No. 14028-10



10 cm Cutting edge: 17 mm

No. 14029-10

Straight Blunt/Blunt

10 cm Cutting edge: 16 mm

No. 14078-10



10 cm Cutting edge: 16 mm

No. 14079-10

38 F·S·T



No. 14575-11

Walton





Curved Sharp/Sharp

9.5 cm Cutting edge: 10 mm

No. 14077-09



10.5 cm Cutting edge: 10 mm

No. 14077-10



Sharp/Sharp

11 cm Cutting edge: 13 mm

No. 14064-11

```
Curved
Sharp/Sharp
```

11 cm Cutting edge: 13 mm

No. 14065-11

Straight Blunt/Blunt

11 cm

Cutting edge: 13 mm

No. 14066-11

Curved Blunt/Blunt

11 cm Cutting edge: 13 mm

No. 14067-11

40 FINE SCIENCE TOOLS

#### LaGrange

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

#### Shea

Transplant scissors with light and delicate pattern.







SCISSORS

41

Side-view

Curved Sharp/Sharp 11.5 cm

11.5 cm Cutting edge: 12 mm

No. 14173-12

#### **Dissector Scissors**

Slim blades for cutting tissue.

#### **Dissector Scissors**

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

#### **Spencer Ligature**

Used for cutting stitches or suture.



FINE SCIENCE TOOLS

#### **Tissue Separating Scissors**

## SCISSORS

#### **Bonn Artery**

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







9 cm Cutting edge: 10 mm 1.5 mm Ball Diameter

No. 14086-09



11.5 cm Cutting edge: 16 mm 1.5 mm Ball Diameter

#### No. 14080-11





44

FINE SCIENCE TOOLS

#### **Standard Pattern**

Our standard surgical scissors are recognized for these important features:

- Excellent feel and handling capability.
- Overall execution that marks them as fine examples of German craftsmanship.





14001-12 - 14001-18

1

stamless

F.S.T 14001-14

14008-14 Straight Blunt / Blunt Straight Straight Length Cutting edge Sharp / Sharp Sharp / Blunt No. 14002-12 No. 14001-12 No. 14000-12 12 26 No. 14002-13 No. 14001-13 No. 14000-13 28 13 14.5 No. 14002-14 No. 14000-14 30 No. 14001-16 No. 14000-16 36 16.5 18.5 40 No. 14000-18 No. 14000-20 20 44

Length (cm)	Cutting edge	Straight Sharp / Blunt
14.5	30	No. 14008-14

Length	Cutting edge	Curved Sharp / Sharp	Curved Sharp / Blunt	Curved Blunt / Blunt	
12	26	No. 14005-12	No. 14004-12	No. 14003-12	
13	28	No. 14005-13	No. 14004-13	No. 14003-13	
14.5	30	No. 14005-14	No. 14004-14	No. 14003-14	
16.5	36	No. 14005-16	No. 14004-16	No. 14003-16	
18.5	40		No. 14004-18	No. 14003-18	
20	44			No. 14003-20	

45

SCIENCE TOOLS

FINE

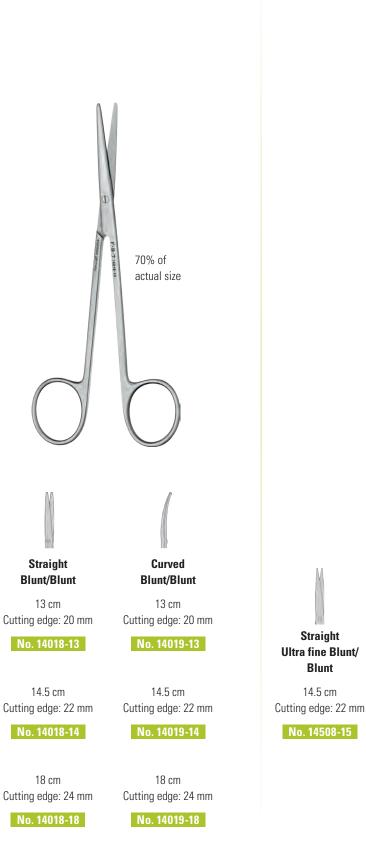




RESEARCH ONLY

Metzenbaum Baby

**Tungsten Carbide Metzenbaum Fino** 





**Blunt/Blunt** 

14.5 cm

Cutting edge: 22 mm

No. 14518-14

18 cm

Cutting edge: 24 mm

No. 14518-18

Curved Blunt/Blunt

**Ultra fine Blunt/** 

Blunt

14.5 cm

Cutting edge: 22 mm

No. 14509-15

14.5 cm Cutting edge: 22 mm

No. 14519-14

18 cm Cutting edge: 24 mm

No. 14519-18

48 F·S·T

#### Metzenbaum

ToughCut® Metzenbaum

49



RESEARCH ONLY

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#### Mayo-Stille

Mayo-Noble

80% of

0

F-5-T 14014-17

#### **Decapitation Scissors**

Stop guard at tips to prevent slippage.

51





RESEARCH ONLY

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

#### Friedmann-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.





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

SCIENCE TOOLS

#### 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

Cup size: 1 mm



No. 16016-17

Cup size: 4 mm

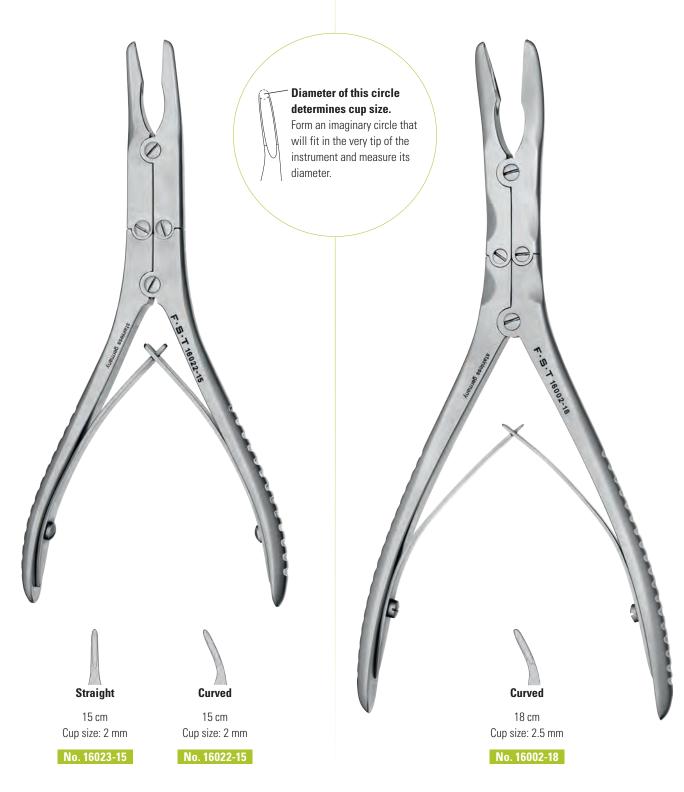
No. 16001-15

#### **Baby-Beyer**

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

#### Beyer

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



#### Friedmann

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. Extra fine jaws.



#### Cartilage Cutter

Round cutting blades for tissue, cartilage and soft bone.





Curved

14 cm Cutting edge: 9 mm

No. 16107-14

#### Curved

14 cm Cutting edge: 8 mm

No. 16109-14

56 FINE SCIENCE TOOLS

#### 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.





#### Dumont #15ARW Cutter

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.









Angled

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

No. 11215-02



Tungsten Carbide #15AGHM





#### Angled

11.5 cm Cutting edge: 10 mm Stainless Steel handle with Tungsten Carbide tips

No. 11515-02

57

Angled

11.5 cm

Cutting edge: 10 mm

Jaw Opening: 2.5 mm

Hard carbon steel

No. 11215-01

#### **Offset Bone Nipper**

Strong jaws for cutting tough cartilage.







Angled up 11 cm Cutting edge: 5 mm

No. 16102-11



Angled up 10 cm Cutting edge: 7 mm

No. 16101-10

58 F · S · T

#### **Delicate Bone Cutting Spring Scissors**

Slim, strong blades for cutting fine bones and tissues.





Curved Blunt/Blunt

12 cm Cutting edge: 12 mm

No. 16143-12



SERRATED

· S.T 16140-

**Bone Cutting Spring** Scissors

# Straight

11 cm Cutting edge: 9 mm

No. 16140-11

**Angled Down** 

11 cm Cutting edge: 9 mm No. 16141-11



Angled up

11 cm Cutting edge: 9 mm No. 16142-11



13 cm Cutting edge: 12 mm

No. 16144-13

RESEARCH ONLY

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Littauer Bone Cutter

#### **Beebee Bone Scissors**

Very strong jaws with sharp points.

#### **Tungsten Carbide Bone Scissors**

Strong heavy blades for cutting bone.





60

FINE

SCIENCE TOOLS

#### Boehler

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

#### **Skull Flap Cutter**

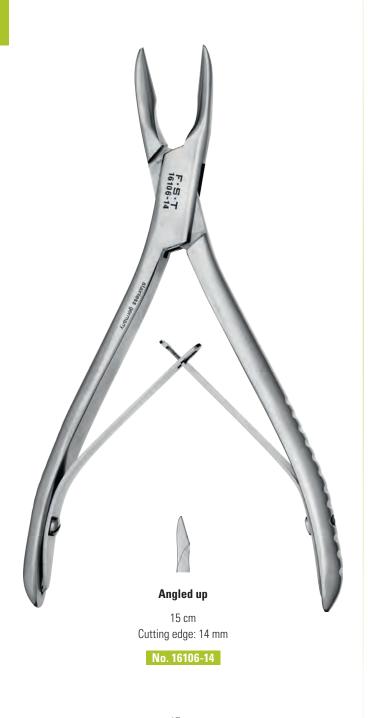
One tip has a flat and narrow platform which fits between dura and skull. Other tip has sharp cutting edge. The double action joint relieves strain on your hand.



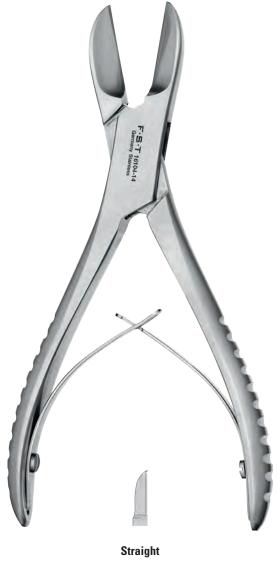




#### **Listen** Gross anatomy bone cutter.



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



14 cm Cutting edge: 20 mm

No. 16104-14

20 cm Cutting edge: 30 mm

No. 16104-19

62 -

FINE

SCIENCE TOOLS

#### **Bone Pliers**

To peel back skull flaps.





**Bone Shears** 

#### Curved

24 cm Cutting edge: 6.5 cm

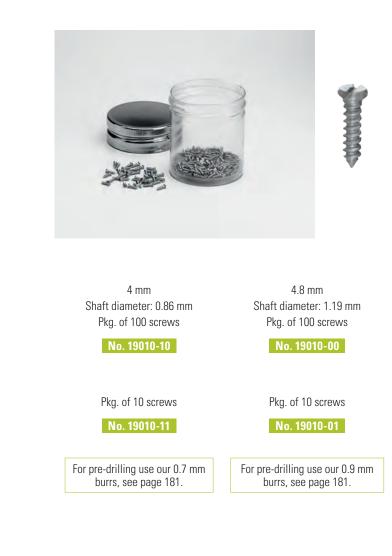
#### No. 16150-24

#### **Bone Forceps**

Strong cross-serrated tips for bone crushing and removal.

#### **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.



#### **Bone Wax**

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



Pkg. of 12 foil packs (2,5 g each)

No. 19009-00



F · S · T 16060-11 Germany Stainless (E

11.5 cm Tip Ø: 1 mm Cross serrated

No. 16060-11

#### **CURETTES & CHISELS**



**BONE INSTRUMENTS** 

RESEARCH ONLY



**KNIVES & SCALPELS** 

66 F · S · T

**MICRO KNIVES** 

**Micro Knife** 

Sharp cutting edge around tip.



**KNIVES & SCALPELS** 

#### **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 knives**

26 cm Cutting edge: 13 cm

28 cm Cutting edge: 15 cm

31 cm Cutting edge: 18 cm



44 cm Cutting edge: 30 cm

Brain sectioning knife



No. 10157-15



68 FINE SCIENCE TOOLS

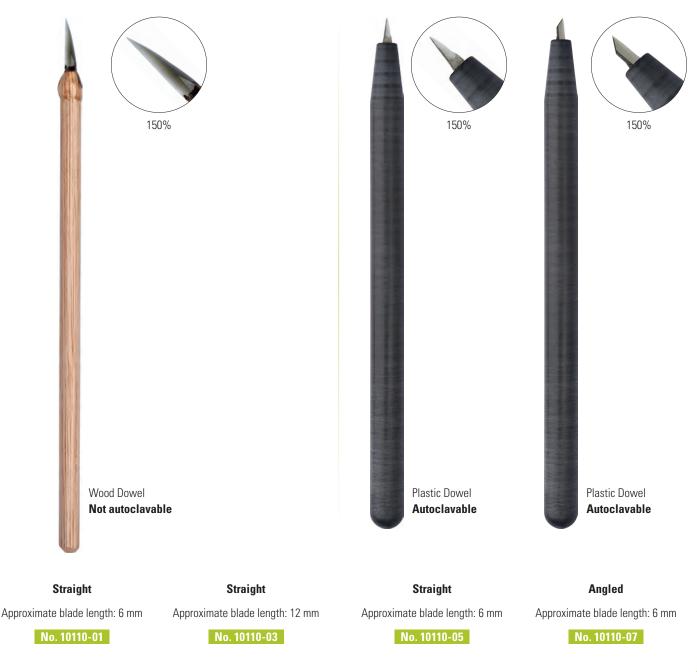
#### **OBSIDIAN KNIVES**

#### **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.



PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

#### **CERAMIC & DIAMOND KNIVES**

#### **Ceramic Blades**

#### Advantages:

 Ceramic edge stays sharp 100 times longer than steel edge

**Ceramic Blades** 

Angled 45° 33 x 6 x 0.5 mm Cutting edge: 4.5 mm Pkg. of 5 blades No. 10025-44

Angled 45° 33 x 6 x 0.5 mm Cutting edge: 2.5 mm Pkg. of 5 blades No. 10025-43

Angled 23° 33 x 6 x 0.5 mm Cutting edge: 14 mm Pkg. of 5 blades

No. 10025-23

Angled 45°

33 x 6 x 0.5 mm

Cutting edge: 8 mm

Pkg. of 5 blades

No. 10025-45

- 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



Aluminum Alloyed Handle

12.5 cm

No. 10025-50

#### **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

No. 10100-30



Grip slides up the handle to protect the tip for safe

storage and packing.

**KNIVES & SCALPELS** 

**KNIVES & SCALPELS** 

#### **Blade Holders and Breakers**

#### **Breakable Carbon Steel Blades**

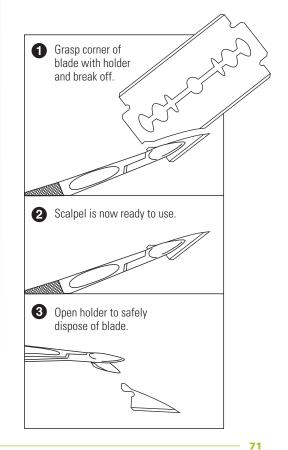
These special, high carbon content blades are the only blades that will break cleanly. **Not autoclavable.** 





#### **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.



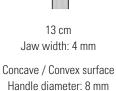




9 cm Jaw width: 4 mm

Concave / Convex surface Handle diameter: 5.5 mm

#### No. 10053-09



### No. 10053-13

RESEARCH ONLY

11 cm Jaw width: 4 mm

Flat surface

No. 10052-11

### **SCALPELS**

### **Carbon Steel Scalpel**

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

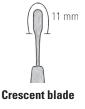
MOST NOT POPULAR AUTOCLAVABLE 10316-14 10315-12 Angled Curved **Carbon steel Carbon steel** Cutting edge: 10 mm Cutting edge: 10 mm Pkg. of 5 blades Pkg. of 5 blades F-S-T 10035-00 No. 10035-15 No. 10035-20 5 mm Small / Flat Large / flat 15° Cutting Angle **Carbon steel Carbon steel** 13 cm Cutting edge: 5 mm Cutting edge: 1.5 mm Cutting edge: 2.75 mm Tip thickness: 0.15 mm Pkg. of 5 blades Pkg. of 5 blades No. 10315-12 No. 10035-05 No. 10035-10 4 mm/ Handle for Interchangeable Blades 9.5 cm **Needle blade** No. 10035-00 Cane Arc **Carbon steel Carbon steel** 14.5 cm Cutting edge: 4 mm Cutting edge: 12 mm Cutting edge: 12 mm Tip thickness: 0.2 mm 12.5 cm Pkg. of 5 blades Pkg. of 5 blades No. 10318-14 No. 10035-12 No. 10035-25 No. 10035-30

22.5° Cutting angle 13.5 cm

4.5 mm

Cutting edge: 4.5 mm Tip thickness: 0.15 mm

No. 10316-14



14 cm Cutting edge: 11 mm Tip thickness: 0.2 mm



### Scalpel Handle #4 with Silicone

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

### Standard Scalpel Handle #4 Solid

Especially suitable for large dissections.

atacatat Li

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



Box. of 100 blades
No. 10022-00



Box. of 100 blades
No. 10023-00



RESEARCH ONLY

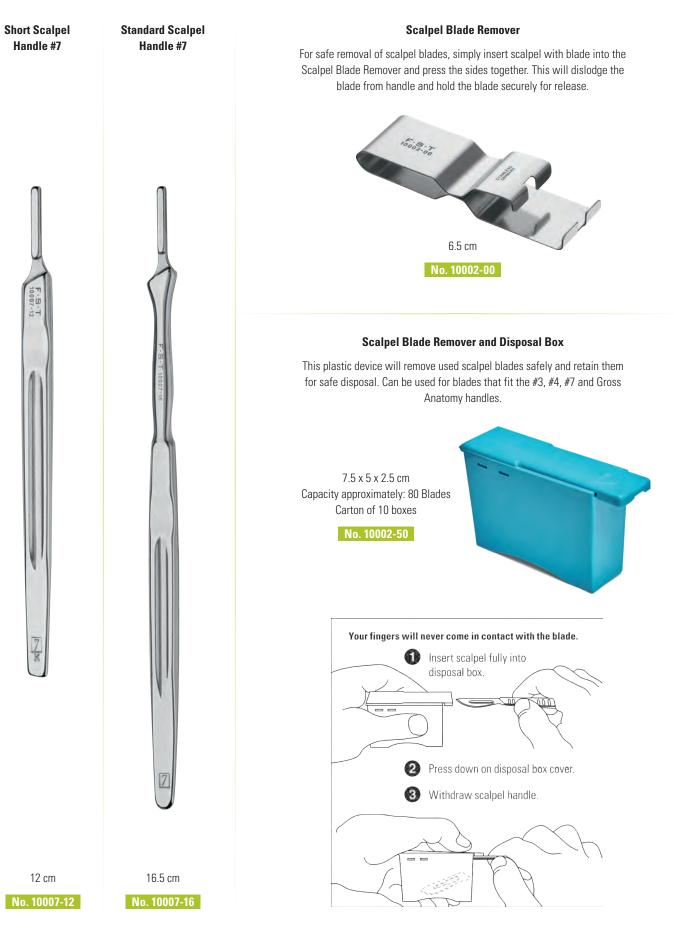
13.5 cm

No. 10009-13



74 F · S · T FINE SCIENCE TOOLS

**KNIVES & SCALPELS** 



### Gross Anatomy Blade and Handle

### **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.** 







13 cm

No. 10060-13

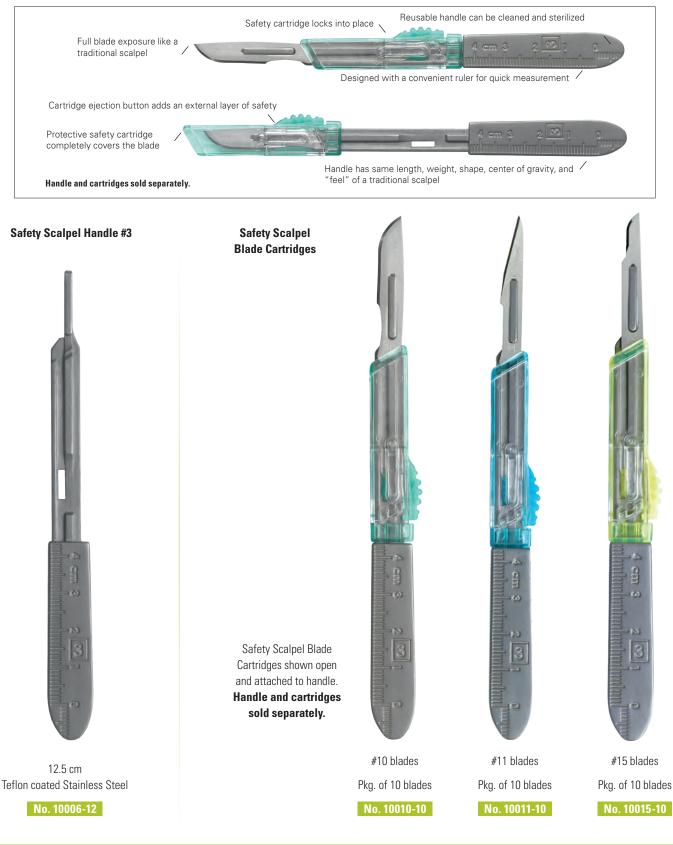
76 FINE SCIENCE TOOLS

7.5 cm Box of 100 blades

No. 10060-00

### **Safety Scalpel 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.** 



## FORCEPS, TWEEZERS, HEMOSTATS & VASCULAR INSTRUMENTS







#### Dumont #5SF

The finest tips ever produced by Dumont.

### 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.



11 cm

Inox

0.05 x 0.01 mm

No. 11254-20

### Dumont #5 Ceramic Coated

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



I 1252-50 Inox - Biology

0,05 mm

**Biology** 

11 cm

Ceramic coated Inox

0.05 x 0.01 mm

No. 11252-50

### Dumont #5CO

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



5SF

I 1252-00 Inox - Biology

CE

0,025 mm

Super fine

11 cm

Inox

0.025 x 0.005 mm

No. 11252-00



### Dumont Medical 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.





Medical #5

Standard Straight

11 cm Inox 0.1 x 0.06 mm

No. 11253-20



11.5 cm Inox

0.13 x 0.08 mm

// Medical #7S

0,17 mm

Standard Curved 12 cm Inox 0.17 x 0.1 mm

No. 11273-22



11.5 cm Inox 0.17 x 0.1 mm No. 11273-20

mm

No. 11253-25

0,10 mm

Medical #5/45

Standard

Angled 45°

11 cm

Inox

0.1 x 0.06 mm



Medical #5/90

Standard Angled 90°

11 cm Inox 0.1 x 0.06 mm

No. 11253-29





### Dumont #55

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

### 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.

### Dumont #5

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





11252-40





RESEARCH ONLY

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 $F \cdot S \cdot T$ by DUMONT 9

Dumont #5XL

X 11253-10 5 Inox - Med.

CE

0,10 mm

Standard

15 cm

Inox

### Dumont WA #5

These specially 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.







### 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.

### Dumont #5 Teflon® Coated

These antimagnetic forceps are ideal for use in cryogenic environments and for EM samples. Teflon<sup>®</sup> coating provides a non-stick surface.

0,10 mm

Standard

11 cm

Teflon coated Inox

0.1 x 0.06 mm

No. 11626-11



45° tips for improved visibility and control.

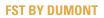


5/45

I 1251-35 Dumoxel®

CE

0,10 mm



### 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.

5/45C

I I 25 I -33 Dumoxel®- Biology

CE

0,10 mm



11 cm Inox 0.1 x 0.06 mm

No. 11253-27



300%

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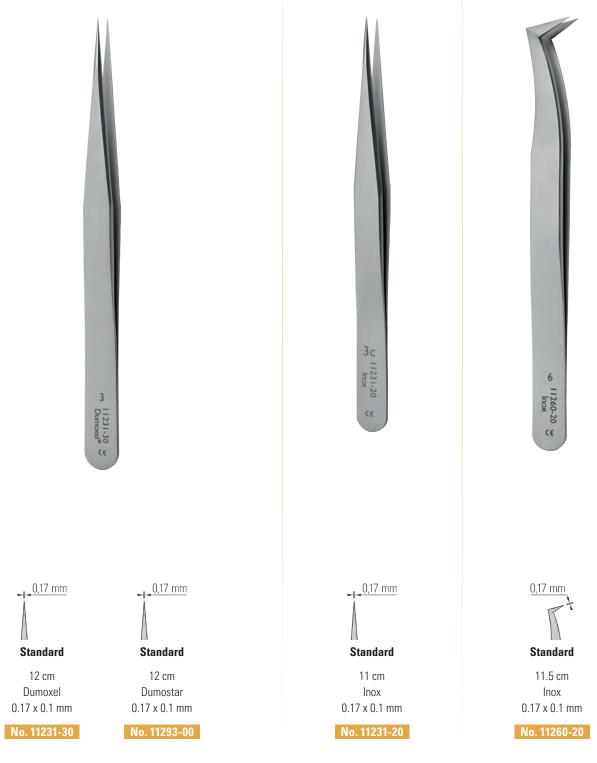
Dumont #3

Tapered and sturdy shanks.

Dumont #3c

### Dumont #6

Sharply angled tips for access to difficult areas.





**FST BY DUMONT** 



FORCEPS/TWEEZERS

F·S·T

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### Dumont #4

Similar to #5, but with broader shanks.

### Dumont #2 **Laminectomy Forceps**

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

2SP

1 1223-20 Inox

CE

0,40 mm

Standard

12 cm

Inox

0.4 x 0.02 mm

### Dumont #2AP **Epoxy Coated**

<u>F·S·T</u>

by DUMONT 9

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.









### **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.



**Dumont Mini Forceps** 







F · S · T

### **Gold Plated Forceps**

Gold-plating gives corrosion resistance to most chemicals, salts and acids. These forceps are perfect for any application where corrosion resistance and toughness are primary requirements.

### **Diamond Coated Forceps**

Diamond coating provides increased corrosion resistance and greater protection from wear and tear, which extends the operational life of the forceps, as well as providing a stronger grip at the tips.



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### **Mirror Finish Broad Shanks**

These forceps have long and narrow shanks with thin, highly polished tips to prevent tissue from sticking. Ideal for embryos, nerves, or other adhesive tissues.

Pkg. of 2 tips and 3 screws Replacement plastic tips Straight / Fine -4 cm 0.6 x 0.6 mm No. 11988-01 ٦ ω Pkg. of 2 tips and 3 screws ·T 11992 Replacement plastic tips η 71 ເກ Straight / Very fine -4 cm 0.5 x 0.5 mm CE No. 11988-02 0,5 mm 0,3 mm 1,5 mm 1,5 mm Straight Pkg. of 2 tips and 3 screws Replacement plastic tips 13 cm Straight Straight Curved 0.5 x 0.5 mm Curved / Very fine Stainless Steel body 13 cm 12 cm 13 cm 4 cm 0.3 x 0.15 mm 1.5 x 0.13 mm 1.5 x 0.1 mm with plastic tips 0.5 x 0.5 mm No. 11923-13 No. 11992-20 No. 11972-20 No. 11980-13 No. 11988-03

**#2A Forceps** 

### Forceps with Replaceable Tips

Stainless steel body with replaceable plastic tips. Tips are made of polyvinylidene fluoride (PVDF) and are electrostatic discharge (ESD) safe. Body and plastic tips are corrosion and abrasion resistant.



90

S·T SCIENCE TOOLS

### Fine Forceps Broad Shanks

Straight forceps with sturdy coarse tips.

### **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.

### **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



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### **Moria Ultra Fine Forceps**

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.

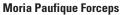
### **Moria Iris Forceps**

Balanced with gentle spring action and tips that are perfectly matched.



### **Moria Bonn Forceps**

Moria







### Moria 7835





**Straight** Tying platform with 1x2 teeth

7.5 cm Tip width: 0.3 mm Tying platform: 4 mm Stainless Steel

### No. 11383-50





Tying platform with 1x2 teeth

7.5 cm Tip width: 0.3 mm Tying platform: 4 mm Titanium

No. 11383-56



8.5 cm Tip width: 0.12 mm Tying platform: 5 mm Stainless Steel

### No. 11390-25

RESEARCH ONLY

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### S&T®

### **Fine Forceps**

S&T JF-5

0,3 mm

Straight

Standard

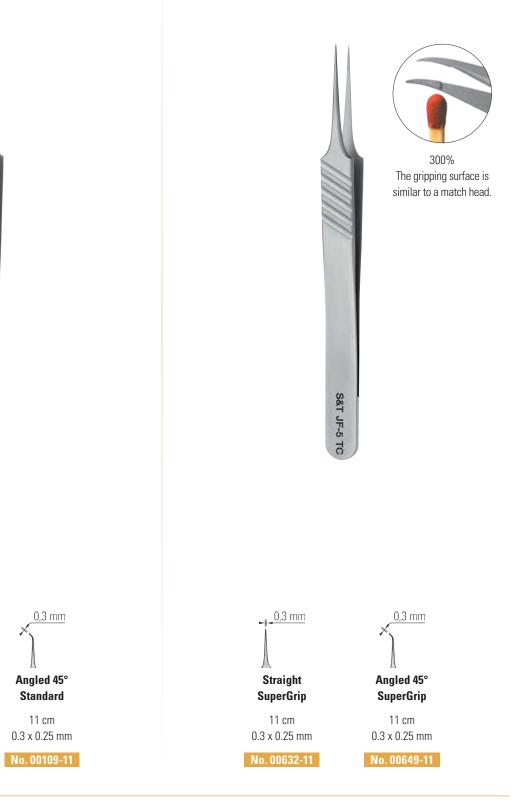
11 cm

0.3 x 0.25 mm

No. 00108-11

### 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.



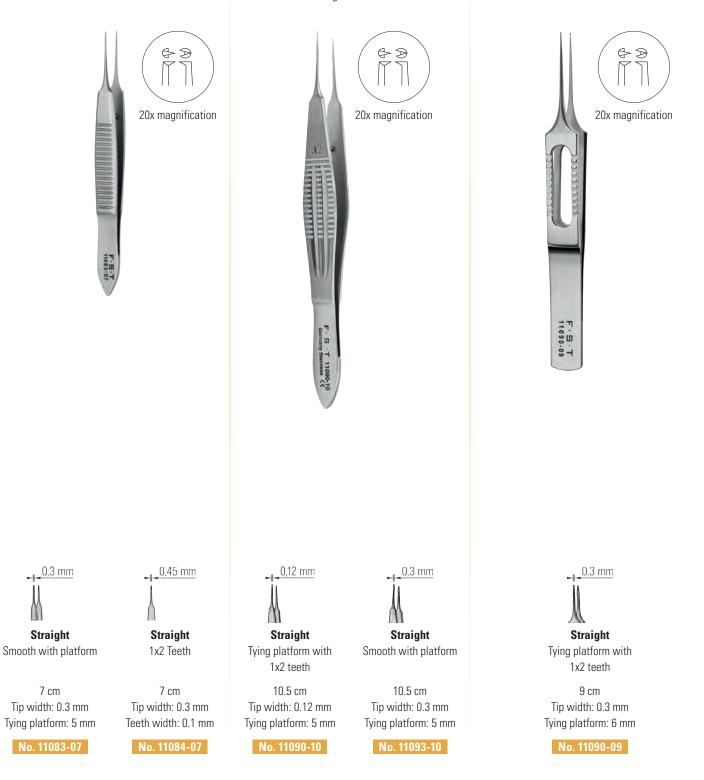


### **Mirror Finish Bonn Forceps**

The fine Bonn forceps features a tying platform and is also available with additional 1x2 teeth. It's designed for tissue manipulation and suturing. The wide handle ensures safe handling. The fine and precise tips make it suitable for work under a high magnification.

### Mirror Finish Suture Tying Forceps with Teeth

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



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### **Moria Suture Tying Forceps**

Used to suture after surgery is complete. This requires the manipulation of a calibrated nylon thread and the use of a specific instrument: a tying forceps, straight or curved, without teeth.





MOST

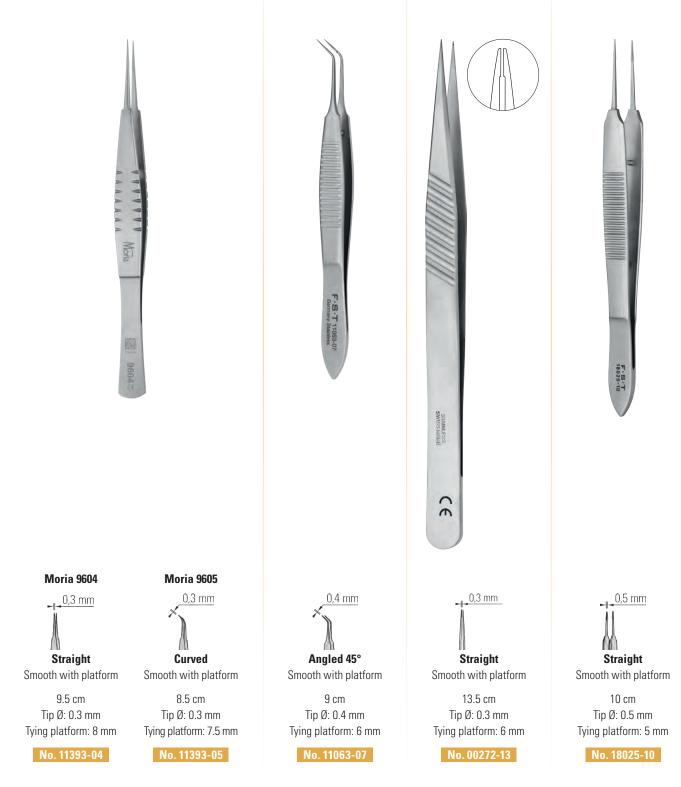
### **Suture Tying Forceps**

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

S&T<sup>®</sup>



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





### **Round Handled Suture Tying Forceps**

Round handles allow easy fingertip adjustments.

### **Vial Forceps**

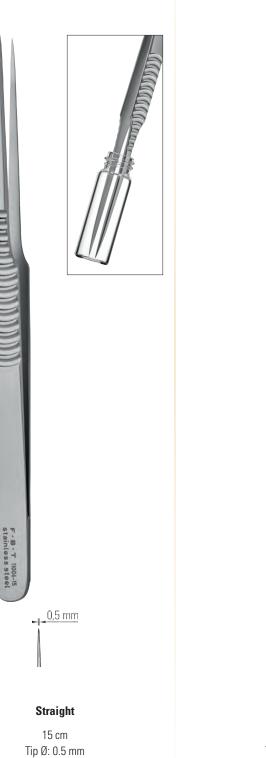
Tips taper for 6 cm allowing easy access to specimens in vials.





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

No. 18026-10





No. 11006-15

### **Graefe Forceps**

### **Bishop-Harman**

Extra light, fenestrated handles ensure a good grip.

### **Octagon Forceps**

The octagon shaped grip provides a particularly secure finger hold.

F-5-7

The length of all forceps is 7 cm The dimensions of all tips are 0.6 x 0.5 mm  $\,$ 





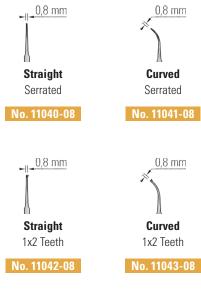
The length of all forceps is 8.5 cm The dimensions of all tips are 0.5 x 0.5 mm



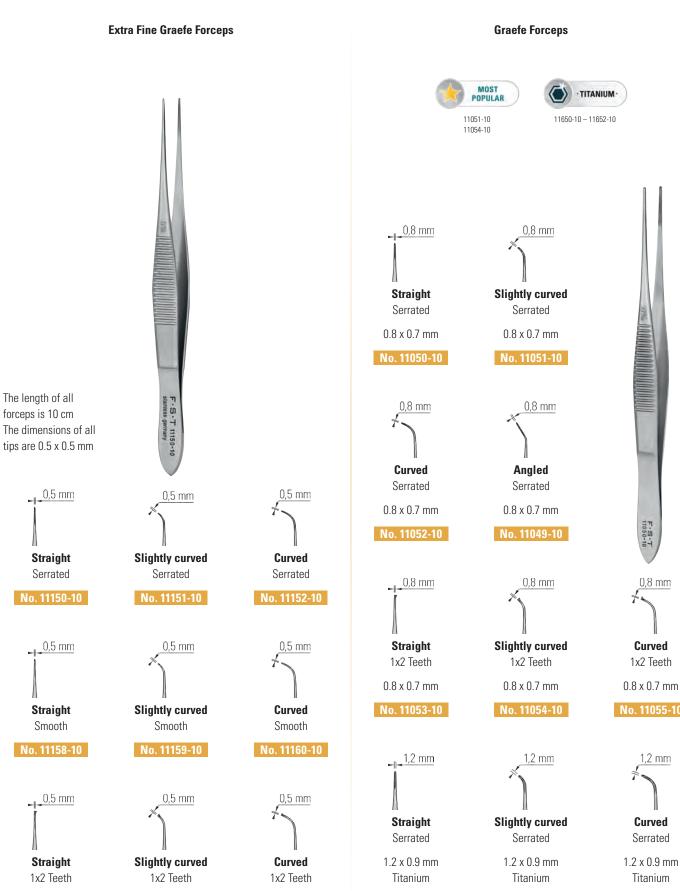




The length of all forceps is 9.5 cm The dimensions of all tips are 0.8 x 0.5 mm



FORCEPS/TWEEZERS



RESEARCH

No. 11154-10

DNLY

No. 11155-10

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

No. 11651-10

No. 11650-10

No. 11652-10

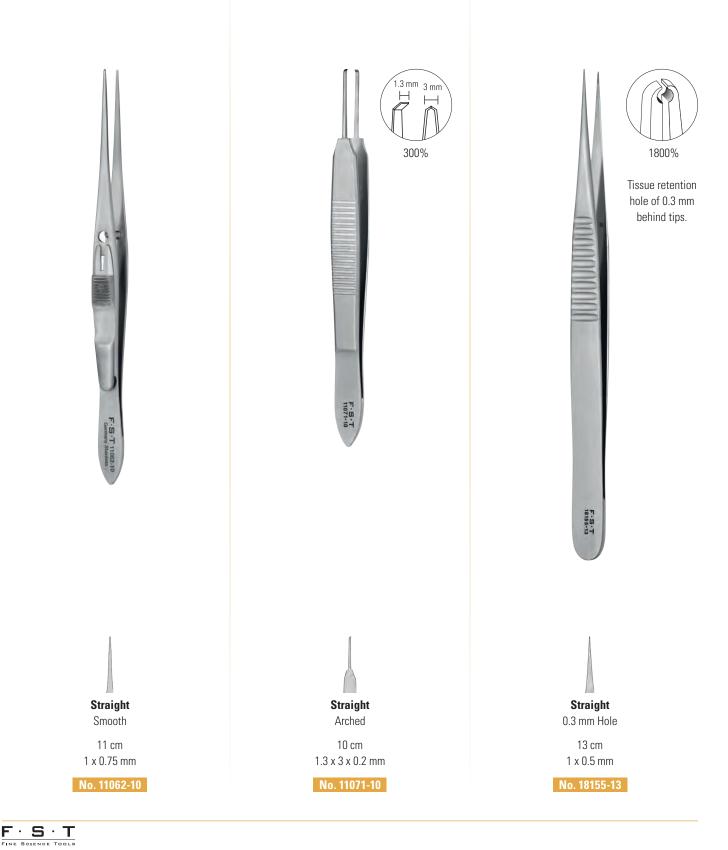
### **Sliding Lock Forceps**

### **Episcleral Forceps**

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.

### **Pierse Fixation Forceps**

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



100 \_

**Cover Glass Forceps** 

### **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. Plastic forceps are made of Acetyl and will be sold in packages of 10 pieces.

### **Cross Action** Forceps

These tissue transport forceps have a gentle action.



Straight Sharp

11.5 cm 0.4 x 0.25 mm

No. 11700-00



Curved Sharp

11.5 cm 0.3 x 0.2 mm

No. 11700-01



1.5 x 0.4 mm No. 11700-04

Straight

Blunt

11.5 cm

1.5 x 0.4 mm

No. 11700-03

Curved

Blunt

11.5 cm



No. 11075-00

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No. 11074-02

### **Ring Forceps**

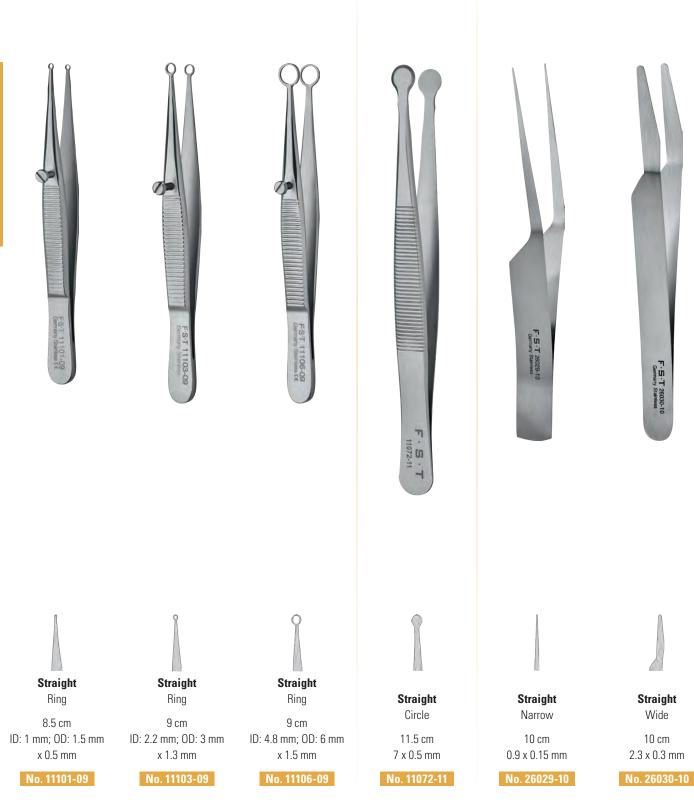
For transport of tissue and organs. With limit screw to prevent excessive applied pressure.

### **Circle Forceps**

Cupped forceps for atraumatic gripping of organs and tissues.

### Live Insect Handling Forceps

Very delicate.



102 F · S · T FINE SOLENCE TOOLS

### **STANDARD FORCEPS**

### Micro-Adson

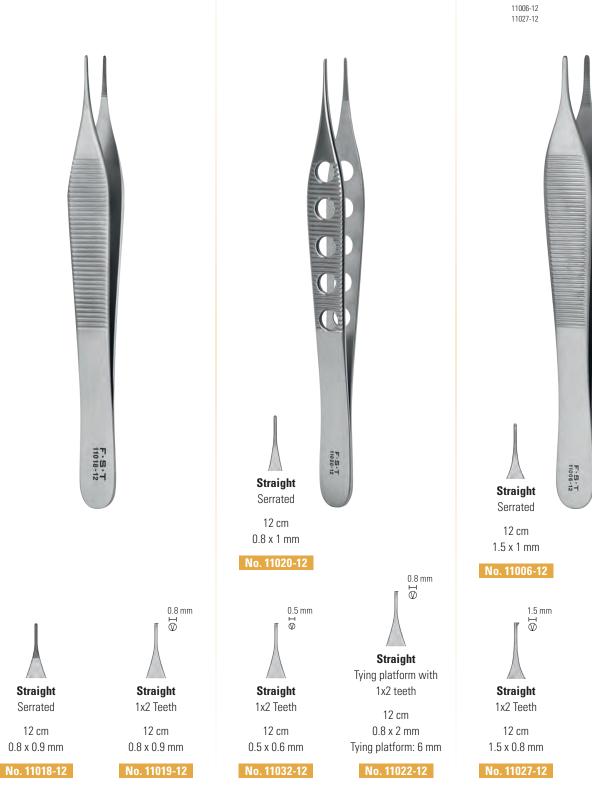
Our most delicate version of the popular Adson forceps.

### **Micro-Adson with Fenestrated Handle**

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

# Wide, strong grip with narrow tips.

Adson



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Straight

**Cross Serrated** 

Tungsten Carbide

12 cm

1.5 x 1.3 mm

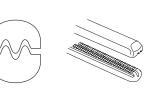
No. 11506-12

### **Adson DeBakey**

Adson-Graefe

Adson-Brown





### 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

12.5 cm 1.75 x 1.5 mm

### No. 11617-12



15 cm 1.75 x 1.5 mm

No. 11616-15





12.5 cm 4.5 x 1.25 mm

No. 11030-12





12 cm 2 x 1.4 mm

No. 11627-12



### **Standard Pattern**

Broad pattern with strong spring action.

### Narrow Pattern

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





	<b>Straight</b> Serrated	
Length (cm)	Tip width (mm)	ltem
12	2.5	No. 11000-12
13	2.8	No. 11000-13
14.5	3.25	No. 11000-14
16	3.3	No. 11000-16
18	3.7	No. 11000-18
20	3.75	No. 11000-20
25	3.9	No. 11000-25
30	4	No. 11000-30



Serrated

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



<b>Straight</b> Serrated	
Tip width	

Length (cm)	Tip width (mm)	ltem
12	2	No. 11002-12
13	2.15	No. 11002-13
14.5	2.25	No. 11002-14
14.5	2.25	No. 11602-14
16	2.35	No. 11002-16
18	2.4	No. 11002-18
20	2.75	No. 11002-20
25	3.2	No. 11002-25



Serrated

Length (cm)	Tip width (mm)	ltem
12	2	No. 11003-12
13	2.15	No. 11003-13
14.5	2.25	No. 11003-14
16	2.35	No. 11003-16
18	2.4	No. 11003-18
20	2.75	No. 11003-20

### **STANDARD FORCEPS**

SCIENCE TOOLS

### Semken

### The Semken tweezers are characterized by their slim shape and fine tips. Their anatomical (toothing) or surgical (1x2 teeth) tips make them ideal for grasping tissue. The serrated grip surface ensures a secure hold during use.



### **DeBakey Round Handle Forceps**

Ideal for gentle, atraumatic gripping of vessels, tissue and other delicate structures. Two rows of atraumatic teeth interfit with one oppostie row of atraumatic teeth. The round handles allow easy fingertip adjustments.



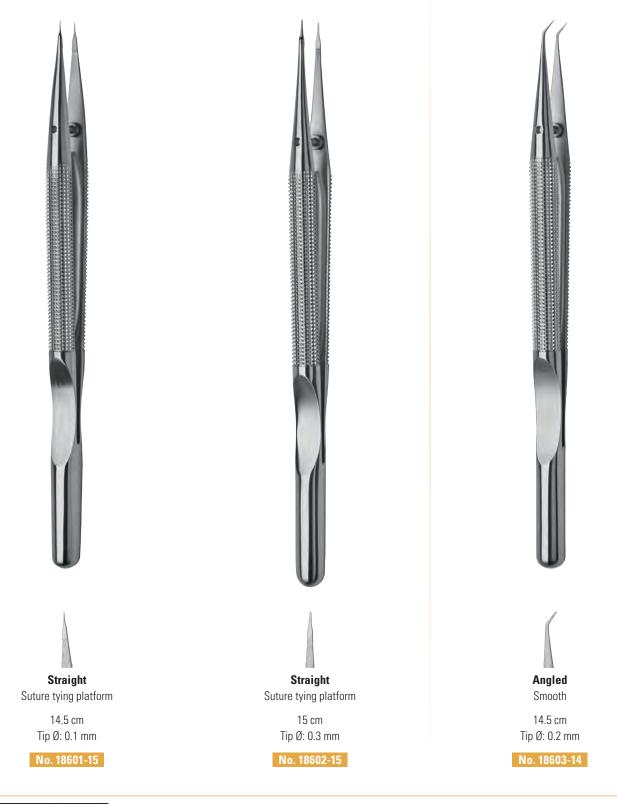
15 cm Tip width: 1.2 mm

No. 11076-15

### **Multipurpose Forceps**

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.

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.



# **Tissue Forceps** Used with rongeur No. 16021-14 in laminectomy to securely hold spinal column. 2 mm ∭]3 mm $\emptyset$ F-5-T 11029-14 F-S-T 11023-14 F-S-T 11021-14 F-S-T 11022-14 Straight 1x2 Teeth / Narrow 10 cm No. 11023-10 Straight 1x2 Teeth / Standard 12 cm 12 cm No. 11023-12 No. 11021-12 Straight 2x3 Teeth / Standard 14.5 cm 14.5 cm 14.5 cm No. 11023-14 No. 11021-14 No. 11022-14 Curved 1x2 Teeth / Narrow

15.5 cm

No. 11022-15

14 cm

No. 11029-14

**Tissue Forceps** 

108 SCIENCE TOOLS FINE

15.5 cm

No. 11023-15

15.5 cm

No. 11021-15

### Gillies

#### Russian

Special cupped pattern for superior grip.

#### **Organ Holding Forceps**

With limit screw to prevent excessive applied pressure.

1



1x2 Teeth & cross serrated

15 cm 1.5 x 2 mm

No. 11028-15



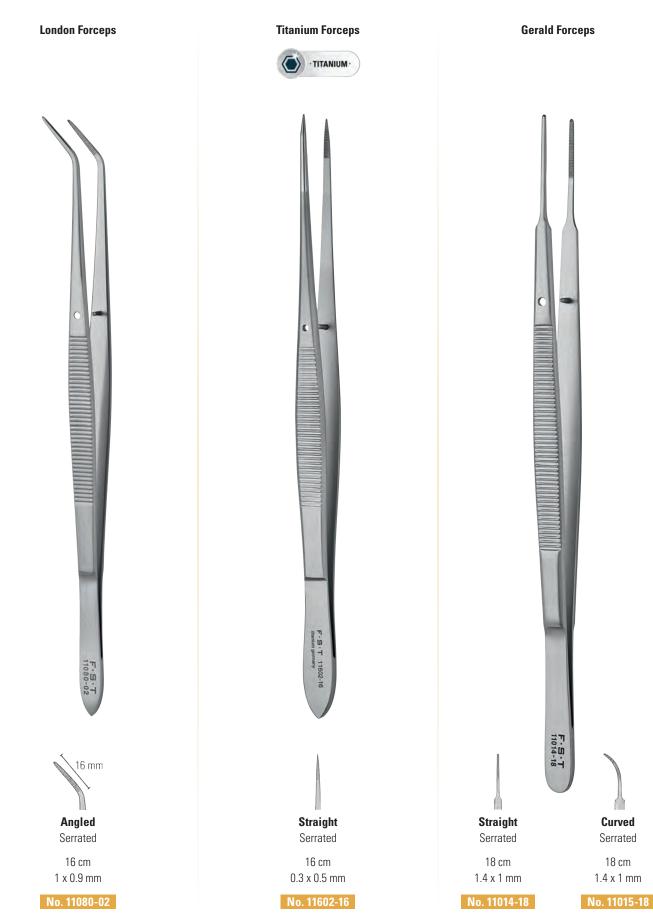


15 cm 6 x 11 mm **No. 11026-15**  <sup>8</sup> mm 11 mm **Straight** Serrated 14.5 cm 8 x 11 mm

F-5-T 11031-15

No. 11031-15

109



110 FINE SCIENCE TOOLS

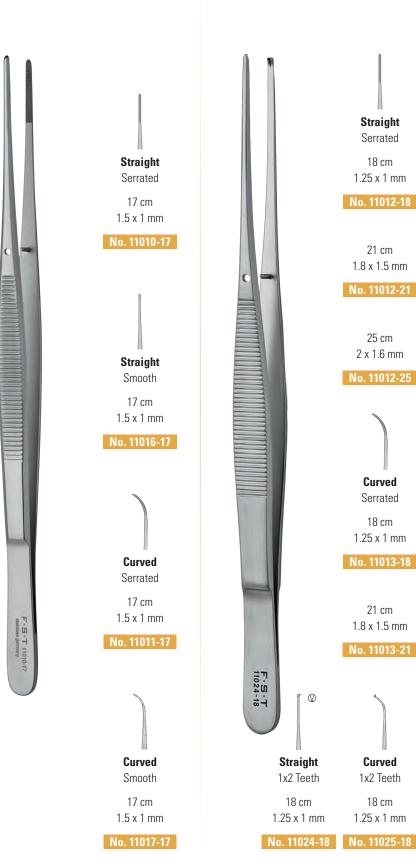
#### **Taylor Forceps**

Serrated and smooth versions available.

**Potts-Smith Forceps** 

#### **Mouse Handling Forceps**

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





RESEARCH ONLY

## **Ultra Fine Hemostat**







No. 13020-12

112

FINE SCIENCE TOOLS



12 cm Tip width: 0.6 mm

No. 13021-12



12 cm Tip width: 1 mm

No. 13006-12



12 cm Tip width: 1 mm

No. 13007-12

HEMOSTATS

### **Micro-Mosquito**

## Halsted-Mosquito



HEMOSTAT

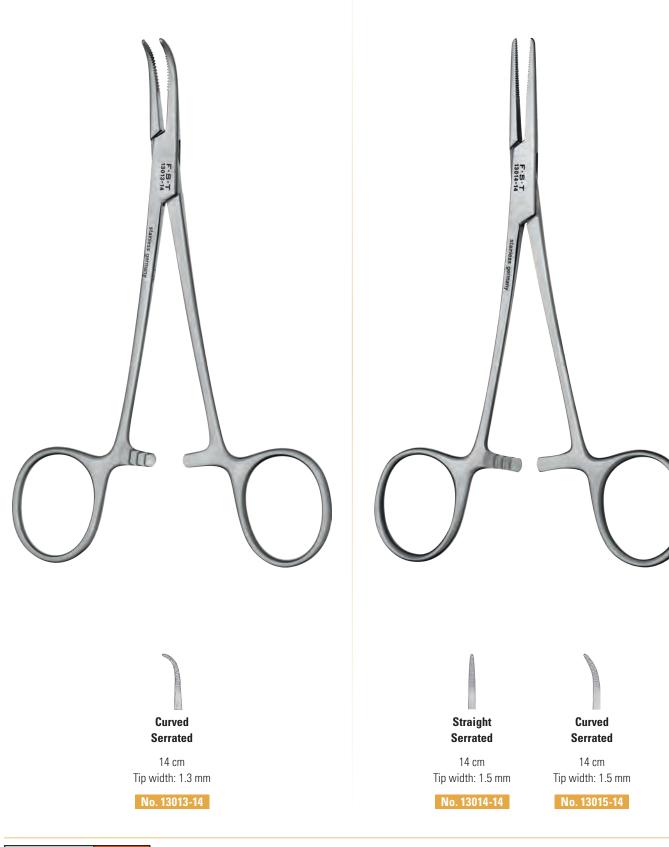
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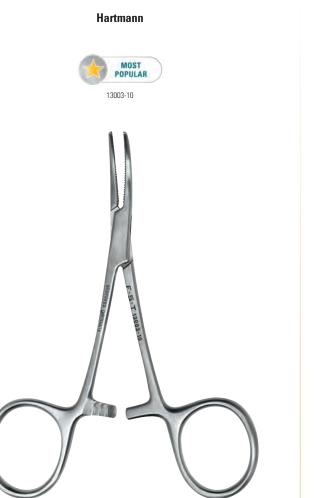
FINE SCIENCE TOOLS

**Providence-Hospital** 



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**Backhaus Towel Clamp** 



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FINE SCIENCE TOOLS

Lorna Towel Clamp

# Allis Clamp

Tissue and organ holding forceps.





(ॾ)] 4 mm (ॾ)] 3 mm			$\left\{ \right\}$	
Straight	Straight	Curved	Curved	
5x6 Teeth	4x5 Teeth	Serrated	Serrated	
15 cm	12 cm	10 cm	13 cm	
Tip width: 4 mm	Tip width: 3 mm	Tip width: 7 mm	Tip width: 7 mm	
No. 11091-15	No. 11092-12	No. 11096-10	No. 11096-13	

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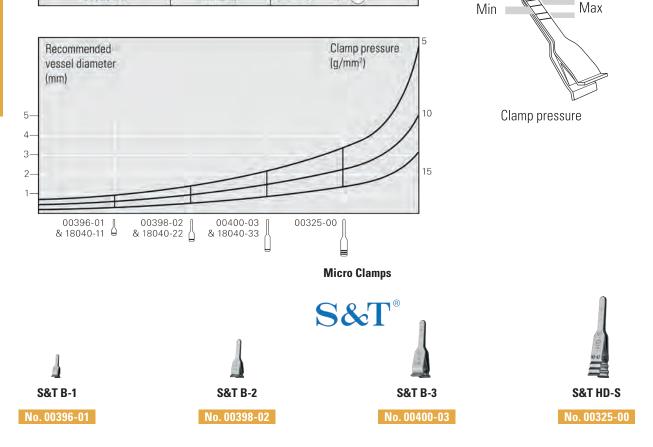
PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

## **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/mm2 when used on the largest vessel in its range, and 15g/mm2 when used on the smallest vessel. Even at the higher range, S&T's micro clamps have the gentlest working pressure of any small vessel clamp available.

Clamp (ea)	L x W (mm)	Vessel Diameter Range (mm)
00396-01 & 18040-11	3.5 x 1.0	0.4 - 1.0 - 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 0 ()
00325-00	10 x 2.15	2.0 - 5.0 0



#### **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** 

**Micro Clamp Applying Forceps** 





#### Micro Clip Applicator with Lock



## Forceps Style Clip Applicator

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



Application forceps for Biemer clamps made of surgical stainless steel.





#### **Stainless Steel Micro Serrefines**

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



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

Delicate atraumatic serration



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

Jaw dimesions (mm)	Total length <sup>(mm)</sup>	Jaw pressure (g)	ltem	
6 x 1	17	85	No. 18055-05	
4 x 0.75	16	85	No. 18055-06	$\sim$

## **Titanium Micro Serrefines**

Lightweight with strong clamping pressure.

Delicate atraumatic serration



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

14 cm For use with FST 18055 and 18555 series micro serrefines.

Lock: Yes

No. 18056-14



14 cm For use with FST 18055 and 18555 series micro serrefines.

Lock: No
No. 18057-14

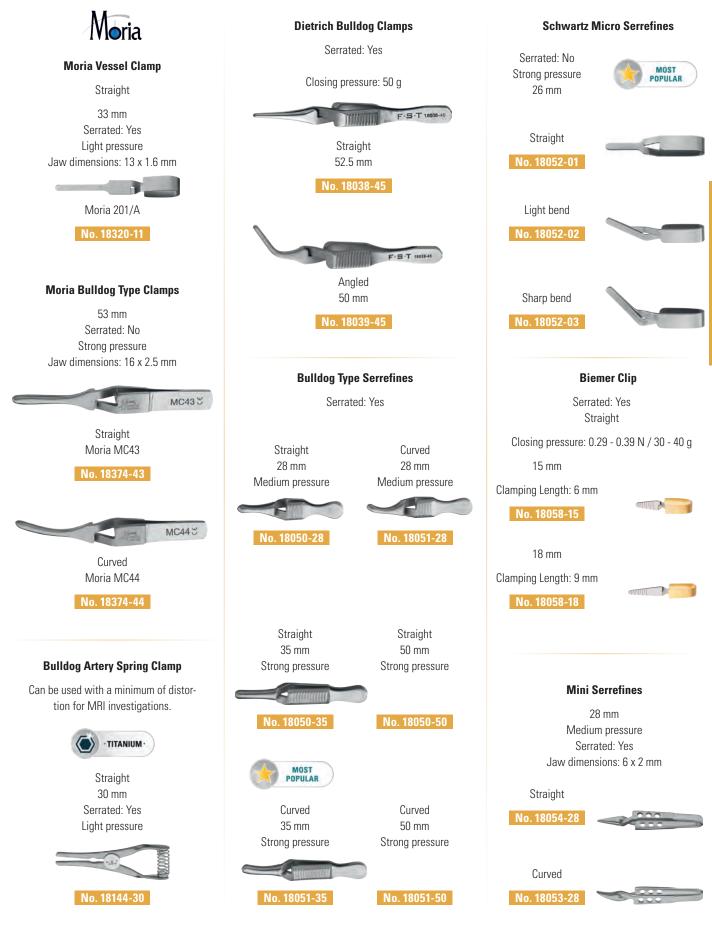
For use with FST 18058 (Biemer Clip) series Lock: No

14 cm

No. 18059-14



## **CLAMPS & OCCLUDERS**



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**VASCULAR INSTRUMENTS** 

## Horizon<sup>™</sup> Metal Ligation System

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



Horizon™ Ligation Clips

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

No. 18070-10

Horizon™ Clip Remover

> Straight 16.5 cm

No. 18073-00

Horizon™ Ligation Applicator Curved 20 cm

HORIZON

No. 18070-00



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 instruction**

1. Apply the occluder cuff around the exposed blood vessel. Secure it in place with suture material through the eyelets.

2. Occlude the vessel to the desired degree by inflating the diaphragm with air or liquid injected into the actuating tube using a syringe and blunt needle. Clamp the tubing to maintain occlusion of the vessel over time.

3. To deflate, simply withdraw the air or liquid.

#### Benefits

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

#### Selection

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



## **Vessel Dilators**

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



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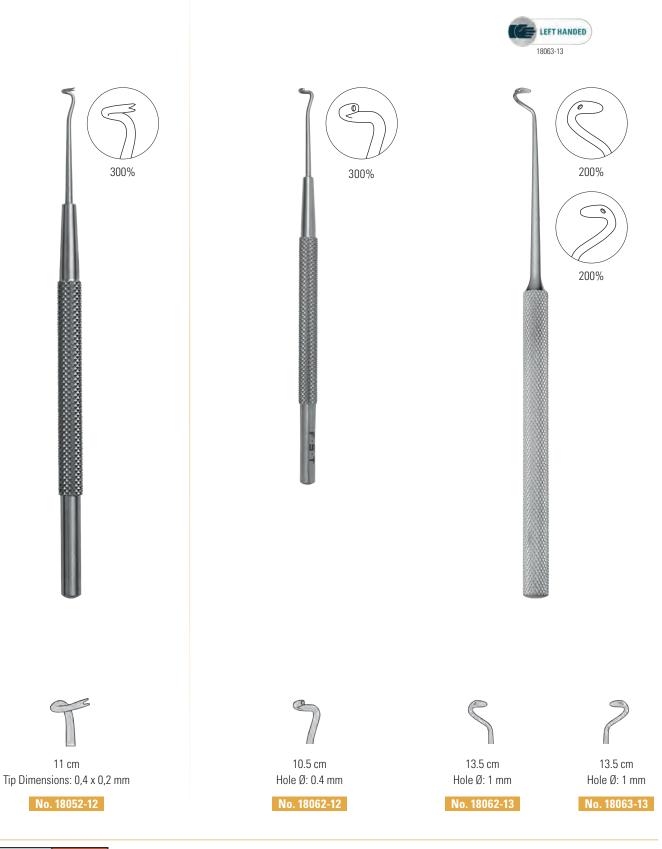
FINE SCIENCE TOOLS

## V-Hook

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

Ligation Aids



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PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

#### **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.



## Approach

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





#### Insertion

Remove trocar and advance cannula.





#### Secure

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



Instruments sold separately.

8 cm Cannula size: 0.33 mm OD - 0.16 mm ID

No. 18000-10



## **CANNULATION FORCEPS**

#### **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.









13 cm

For tubing of 0.35 mm OD

No. 11280-11

11 cm

For tubing of 0.5 mm OD

No. 11281-11

11 cm

For tubing of 1 mm OD

No. 11282-11



11.5 cm For tubing of 0.35 mm OD

No. 18403-11

11.5 cm For tubing of 0.6 mm OD

No. 18406-11

13.5 cm For tubing of 0.6 mm OD

No. 18406-13

11 cm For tubing of 0.35 mm OD

## No. 00608-11

11 cm For tubing of 0.5-1 mm OD

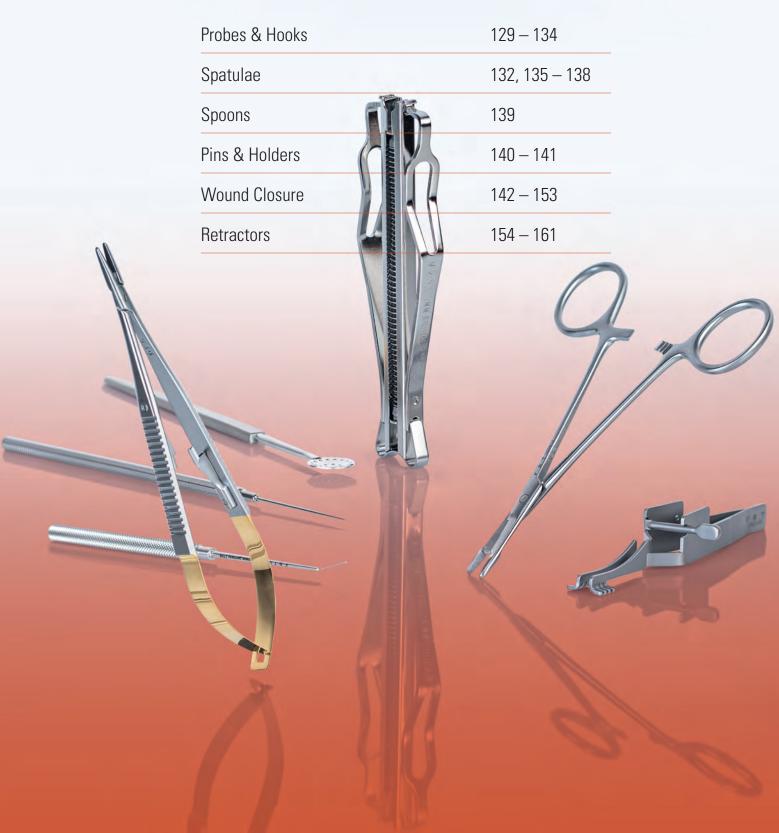
No. 00574-11

RESEARCH ONLY

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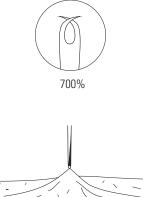
127

# PROBES, NEEDLE HOLDERS, WOUND CLOSURE, RETRACTORS & CLAMPS

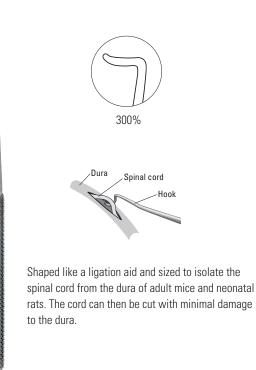


#### **Double Pronged Pick**

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



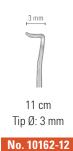
The tip consists of two very sharp, nearly horizontally opposed points. By applying gentle downward pressure and twisting slightly in a clockwise fashion, the points will embed themselves horizontally into fine membranes or skin etc., so that it may be lifted upward. This instrument also has been used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



**Spinal Cord Hook** 



1 mm



RESEARCH ONLY

F.S.T 10162-12

**Bonn Micro Probes** 

Actual size

**Angled 45°** 13.5 cm Tip Ø: 0.025 mm

No. 10032-13

Actual size



Wide Hook

13.5 cm Tip Ø: 0.038 mm

# No. 10033-13

130 FINE SCIENCE TOOLS Actual size



**Straight** 13.5 cm Tip Ø: 0.025 mm



Actual size



**Narrow Hook** 13.5 cm Tip Ø: 0.025 mm





**Angled 90° Short** 15.5 cm Tip Ø: 0.05 mm

No. 10063-15



Angled 45°

15.5 cm Tip Ø: 0.038 mm

No. 10066-15





**Angled 90° Long** 15.5 cm Tip Ø: 0.02 mm



**Mico Hooks** 



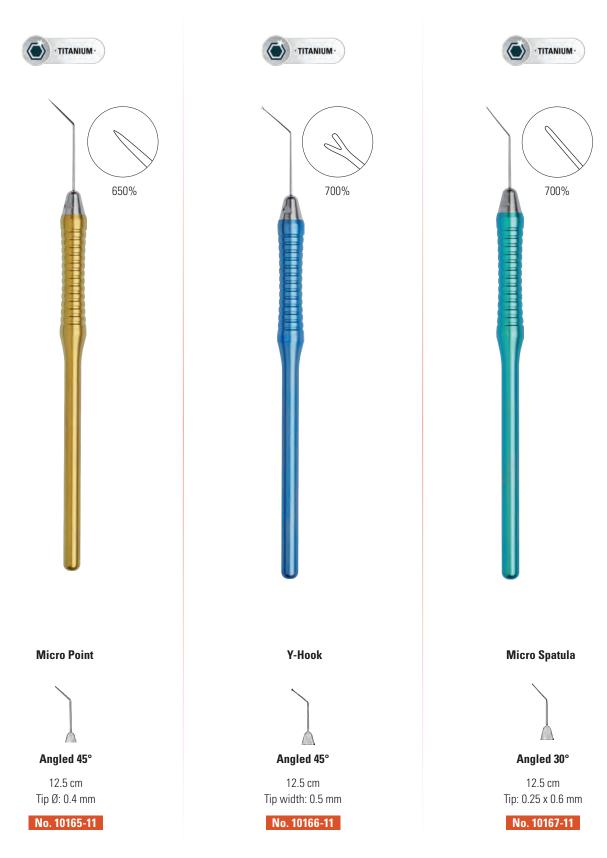
**Probes and Explorers** 

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

131

#### 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.



132 F · S · T

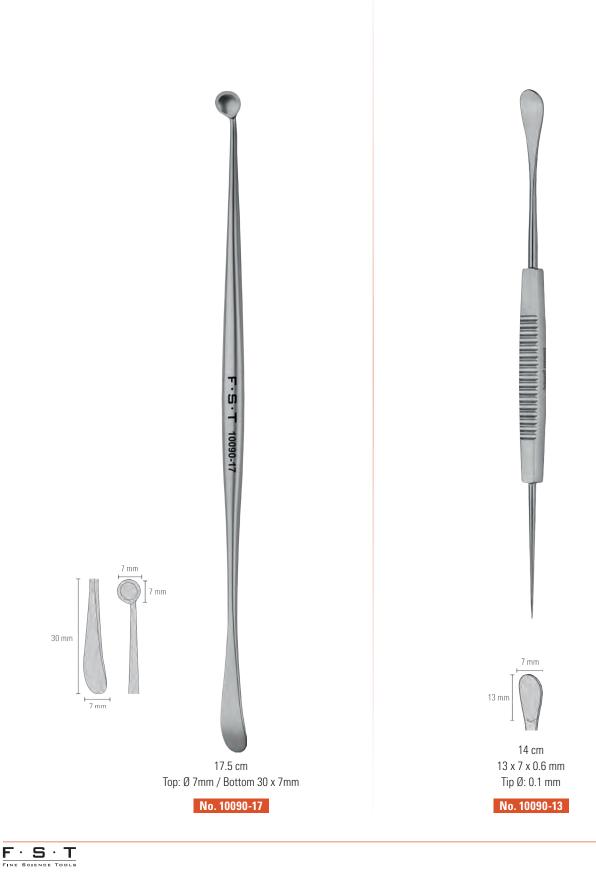
## **PROBES & DIRECTOR**



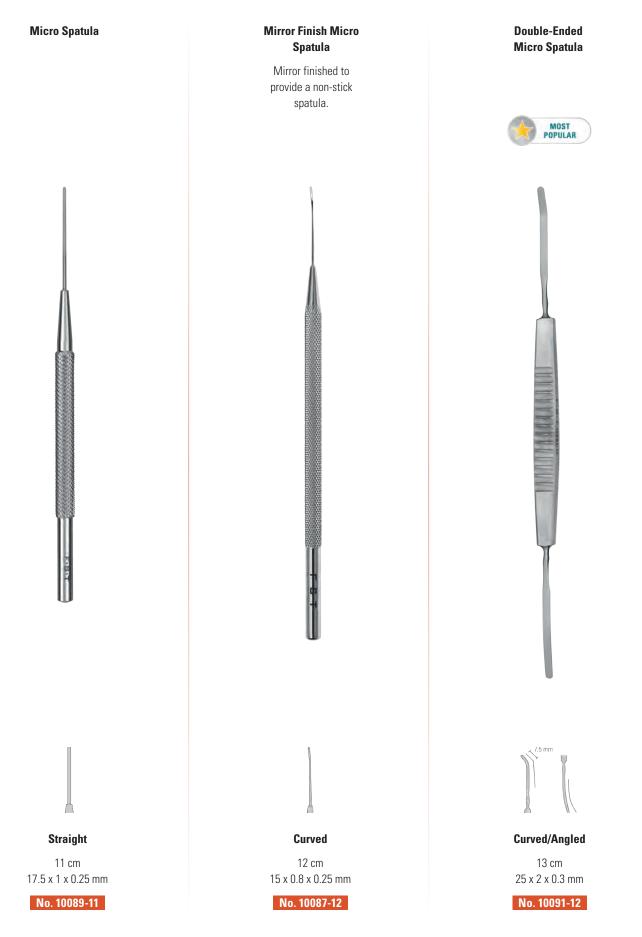
RESEARCH ONLY

**PROBES & HOOKS** 

Combination Spoon and Spatula Combination Probe and Spatula



134



135



Curved

12 cm 20 x 1.8 x 0.3 mm

# No. 10092-12



F-8-T 10092-12

# Slightly curved

13 cm 23 x 1.7 x 0.3 mm

No. 10093-13



Straight

13 cm 33 x 3 x 0.4 mm

# No. 10094-13







137

## Mini Hippocampal Dissecting Tool

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

## **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 20 x 6 mm & 13 x 3 mm Tip thickness: 0.5 mm

No. 10099-12

138 F · S · T

**SPOONS** 



RESEARCH ONLY

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139

SPOONS

Pin Holder

Light weight





Moria MC1

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

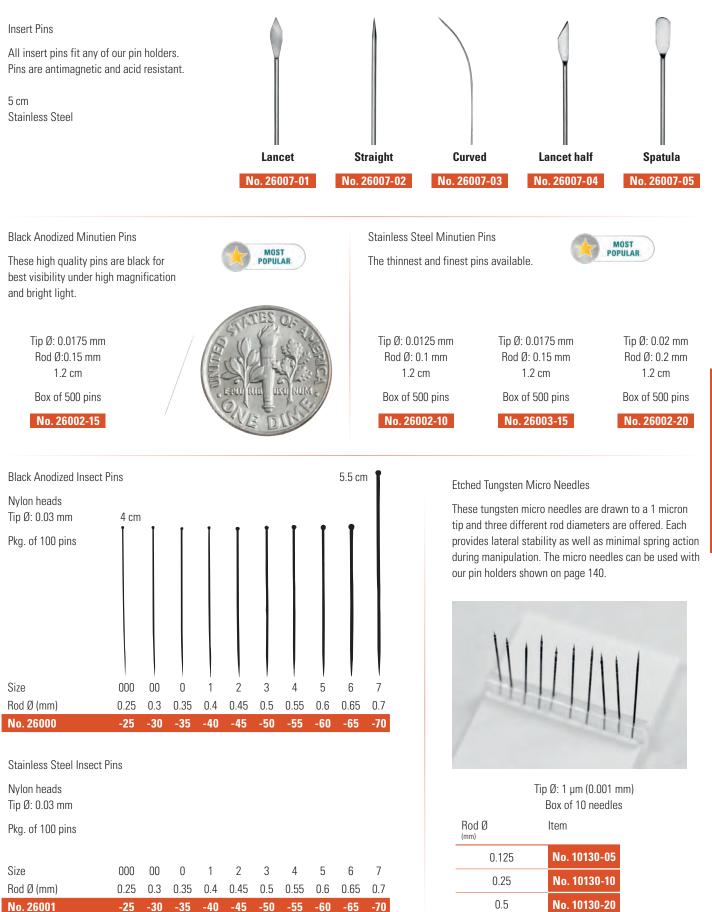
No. 26016-12



17 cm Aluminum handle with nickel-plated chuck Jaw opening: 0 to 1 mm

## No. 26018-17





PINS & HOLDERS

141

PINS

#### Kalt Needle Holder

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



Castroviejo

Micro pattern, with slightly blunted tips.

142 F · S · T Straight

9 cm

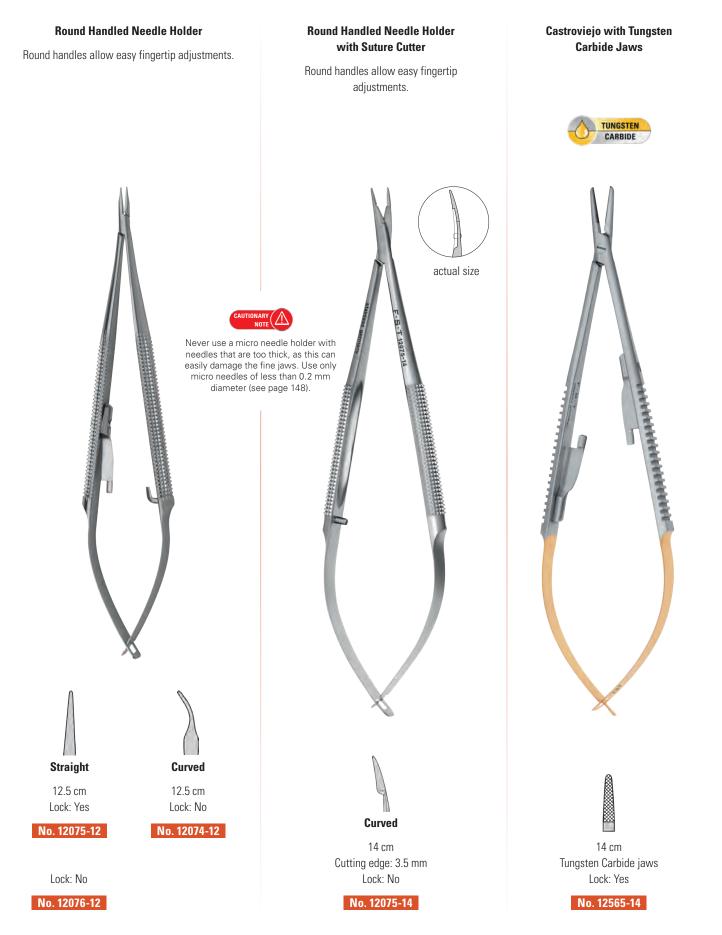
Lock: Yes

No. 12060-01

Lock: No

No. 12060-02

#### **NEEDLE HOLDERS**



RESEARCH ONLY

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

143

Halsey Halsey with Tungsten Carbide Jaws TUNGSTEN CARBIDE TUNGSTEN CARBIDE MOST POPULAR F-5-T 12001-13 F.S.T 12500-12 13 cm 13 cm 12.5 cm Tungsten Carbide jaws Smooth Tungsten Carbide jaws Lock: Yes Lock: Yes Lock: Yes No. 12001-13 No. 12501-13 No. 12500-12

144 FINE SCIENCE TOOLS

### **NEEDLE HOLDERS**



RESEARCH ONLY

145

WOUND CLOSURE



146 FINE SCIENCE TOOLS



147

### **Microsurgical Needles with Suture Thread Attached**

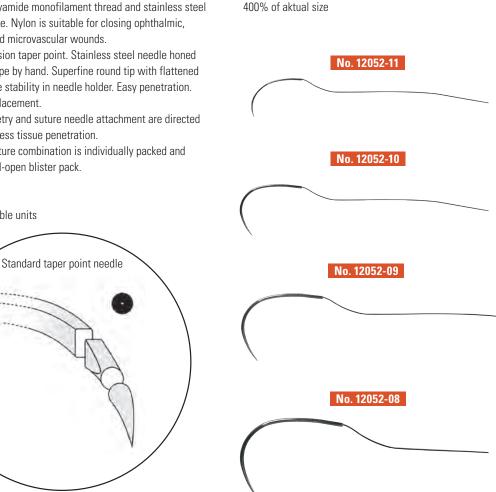
The combination of proprietary needle design technology and state-of-the-art manufacturing techniques has enabled FST to provide a microsurgical needle that is unmatched in the industry. FST microsurgical needles provide frictionless tissue penetration. They are inspected under the microscope at critical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

Features:

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

### Sterile

Pkg. of 12 disposable units



Suture size	Suture length (cm)	Needle Ø (micron)	Needle Ø $_{\rm (mm)}$	Needle chord length	Circle	Arch	ltem
11/0	10	50	0.05	3.8	3/8	3.8	No. 12052-11
10/0	10	70	0.07	3.8	3/8	3.8	No. 12052-10
9/0	15	100	0.1	5	3/8	5.1	No. 12052-09
8/0	15	140	0.14	5	3/8	6.4	No. 12052-08

F·S·T SCIENCE TOOLS

### **SUTURES & NEEDLES**

### **Suture Needles**

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

Ø: 0.35 mm

Sterile: No

Pkg. of 12 needles

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

1

<u><u></u></u>

0....

α

### **Silk Suture**

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

Braided Silk Sterile: No Can be ETO sterilized



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

0 . . 1.1.. 1.

### For Suture Tying Forceps, see pages 79, 80 and 81.

### **Nylon Monofilament Suture**

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

Nylon monofilament Non sterile Can be ETO sterilized



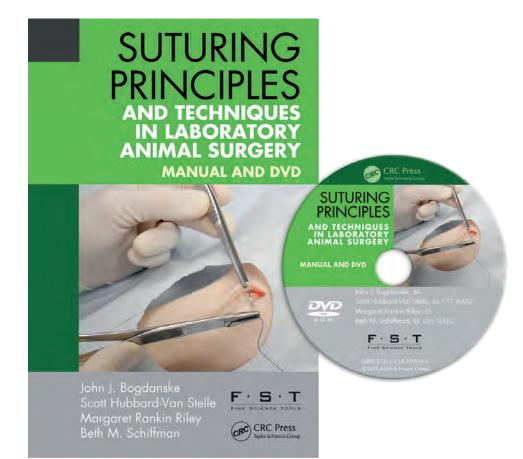
Size Suture Ø Spool length Item (mm) (m) No. 18030-80 8/0 0.04 91 7/0 0.05 91 No. 18030-70 6/0 0.07 91 No. 18030-60 5/0 0.1 91 No. 18030-50 4/0 91 No. 18030-40 0.15 No. 18030-30 3/0 0.2 91

### **Suturing Principles and Techniques in Laboratory Animal Surgery**

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

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

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



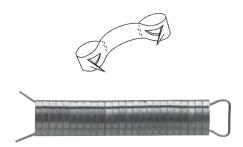


**CLIPS** 

### Michel Suture Clips

- Anti-magnetic
- Acid-resistant stainless steel
- Pkg. of 1.000 clips

Size	ltem
7.5 x 1.75	No. 12040-01
11 x 2	No. 12040-02
12 x 2.5	No. 12040-03



### **Applying Forceps**



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

No. 12018-12

**Applying and Removing Instruments** 



### **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 a patented staple design which make for guick 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.



**Surgical Staple Remover** 

Compatible with Reloadable Skin Stapler with

Rotating Head and Manipler® Skin Stapler.

### Manipler<sup>®</sup> Skin Stapler

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



152 — F·S

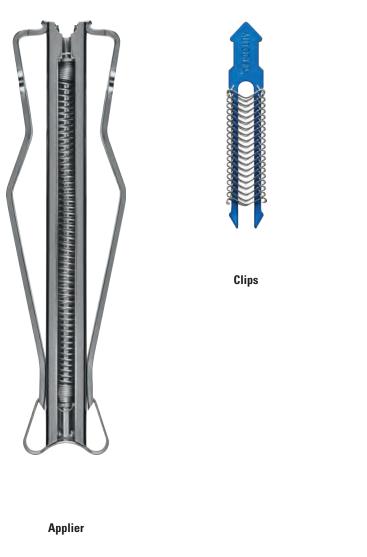
Т

WOUND CLOSURE

### AutoClip® System

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





# 

### AutoClip® Kit

- 1 Applier
- 9 mm clips (100)
- 1 Remover
- Storage case
- AutoClip® applier 11.5 cm

No. 12020-09

AutoClip® clips 9 mm Pkg. of 100 clips No. 12022-09



AutoClip® remover 12.5 cm

No. 12023-00

No. 12020-00

RESEARCH ONLY

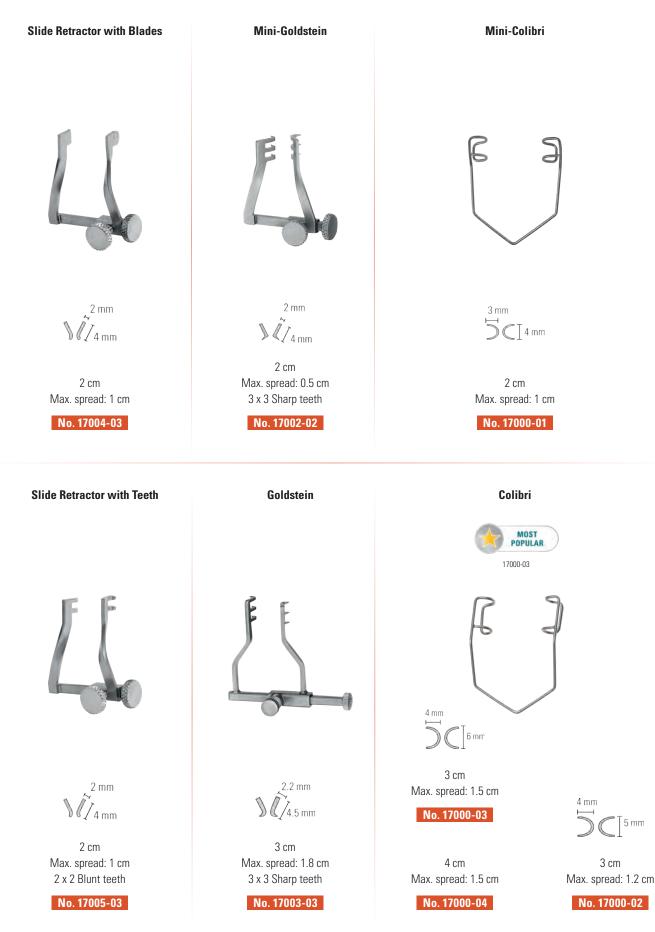
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### **RETRACTORS**



154 FINE SCIENCE TOOLS

**RETRACTORS** 



PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

155



Max. spread: 3.5 cm Curved

No. 17370-53

Colibri



4 mm 4 mm

Moria 6346D

3.4 cm Max. spread: 1.5 cm

FINE SCIENCE TOOLS

156

No. 17300-02



Moria 6346C

3.3 cm Max. spread: 1.5 cm

No. 17300-03



Moria 6346B

3.5 cm Max. spread: 2 cm

No. 17300-04



4 cm Max. spread: 3.5 cm 3 x 3 Sharp teeth

No. 17005-04

### Alm Retractor with Blunt Teeth

**Alm Retractor with Blades** 





5.5 mm

7 cm

Max. spread: 4 cm

Slightly curved

4 x 4 Blunt

No. 17008-07



4.5 mm

5.5 mm

7.5 cm

Max. spread: 4.5 cm

Slightly bent

No. 17009-08

RETRACTORS

3 mm ⊢ ⊃ **(**] 4 mm

7 cm Max. spread: 4 cm Slightly curved down

No. 17010-07



PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

16 mm

7 cm

Max. spread: 4 cm

Slightly curved

4 x 4 Blunt

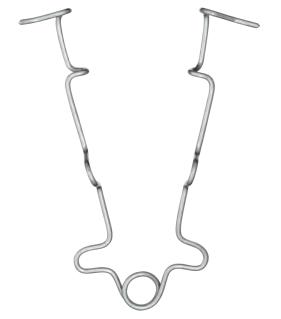
No. 17009-07

157

### **Spring-Loaded Retractor**

Curved atraumatic blades







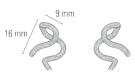
5.5 cm Max. spread: 3 cm 14 x 10 mm

### No. 17006-05



8 cm Max. spread: 4 cm 22 x 16 mm

No. 17007-08



8 cm Max. spread: 2.5 cm

No. 17001-07

158

FINE SCIENCE TOOLS

Heiss Gelpi 17017.



10 cm Angled down Max. spread: 3 cm 1 x 1 Sharp teeth

No. 17017-10



10 cm Max. spread: 2.3 cm 4 x 4 Blunt teeth

No. 17011-10

159

### Weitlaner-Locktite

Wullstein







Angled down 3 x 3 Blunt teeth

11 cm Max. spread: 3 cm

No. 17018-11



Straight 2 x 3 Blunt teeth 11 cm Max. spread: 4 cm

No. 17012-11



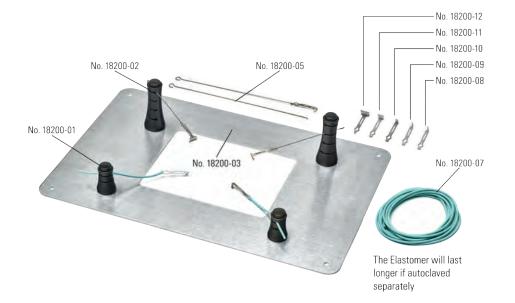
Max. spread: 4 cm

No. 17012-13

160

F FINE

SCIENCE TOOLS



### **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

### Individual parts:

Short fixator, 3 cm high Each No. 18200-01

Tall fixator, 6 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, 1 mm wide 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

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### ACCESSORIES & INSTRUMENT CARE

Animal Accessories	163 — 168
Instrument Care & Accessories	169 — 180
Surgical Accessories	181 — 184
Laboratory Accessories	185 — 197



### **Reusable Gavage Feeding Needles**

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



Gauge	Length (mm)	Tip Ø	Tip Shape	Shape	Mice	Rats	Guinea pigs (g)	ltem
24	25	1.25	Round	Straight	>14			No. 18061-24
22	25	1.25	Round	Straight	15-20			No. 18061-22
20	38	2.25	Round	Straight	20-25	50-75		No. 18064-20
20	38	2.25	Round	Curved	20-25	50-75		No. 18065-20
18	38	2.25	Round	Straight	20-30	100-200	250-300	No. 18061-38
18	50	2.25	Round	Curved	25-30	100-200	250-300	No. 18061-50
16	75	3	Round	Curved		150-300	350-450	No. 18061-75
16	100	3	Round	Curved		150-300	350-450	No. 18061-10

These needles come with a barrel tip.



Barrel tip

No. 18060-20

Gauge	Length	Tip Shape	Shape	Mice	Rats	Guinea pigs <sup>(g)</sup>	ltem
24	25	Barrel	Straight	>14			No. 18060-24
22	25	Barrel	Straight	15-20			No. 18060-22
20	30	Barrel	Straight	20-25	50-75		No. 18060-20
20	38	Barrel	Straight	20-25	50-75		No. 18063-20
20	38	Barrel	Curved	20-25	50-75		No. 18067-20
18	38	Barrel	Straight	20-30	100-200	250-300	No. 18060-18
18	50	Barrel	Curved	25-30	100-200	250-300	No. 18067-50
16	75	Barrel	Curved		150-300	350-450	No. 18067-75
16	100	Barrel	Curved		150-300	350-450	No. 18067-10

### 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.** 



### **Disposable Flexible PTFE Feeding Needles**

These affordable needles feature flexible PTFE tube with silicone tip and plastic luer hub, delivered in sterile pouches. They are very flexible, and translucent for easy confirmation of reagent delivery. The soft silicone tips are non-toxic and non-pyrogenic and ensure that no damage occurs during the insertion. **Sterile**.





	(mm)	(11111)	(9)	(9)	(9)	
20	38	1.8	20-25	50-75		No. 18961-20
18	38	2	20-30	100-200	250-300	No. 18961-18
17	52	2.4	25-30	100-200	250-300	No. 18961-17
15	78	2.6		200-350	400-600	No. 18961-15
18	75	2	25-30	150-250	250-300	No. 18961-75
17	85	2.4	25-30	150-250	250-300	No. 18961-85

### 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.** 

MOST

POPULAR

### **Blue Ear Punch**

The Ear Puncher relieves stress on the wrist during ID marking as it requires only a very gentle pressure to cut a hole. The stainless steel puncher has a sloped edge that provides a cut rather than a punch, which minimizes discomfort. The ear puncher should be lubricated to improve longevity. **Autoclavable.** 



GenoPunch includes

**F**•**S**•**T** 24215-02 made in germany

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

FST does not supply microtubes.



11.5 cm Stainless Steel and Anodized Aluminum Punch Ø: 2 mm

No. 24215-02

14 cm Punch Ø: 1 mm No. 24916-01

14 cm Punch Ø: 2 mm

-01

No. 24916-02



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### **EAR PUNCHES**

### Ear Punch with Replaceable Tip

Designed to ensure a fast and clean punch, this ear punch is lightweight and fits comfortably in the palm of your hand. The tip is replaceable. Autoclavable.

### 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.

### **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.



### Handle and Tip

11.5 cm Anodized aluminum handle and stainless steel tip Punch Ø: 2 mm

### No. 24213-02

**Replacement Tip** Punch Ø: 2 mm

### No. 24213-12







10.5 cm Punch Ø: 2 mm

### No. 24212-02

Punch Ø: 1 mm

No. 24212-01

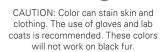
11.5 cm Stainless Steel and anodized aluminum Punch Ø: 2 mm

### No. 24214-02

### **MARKING PENS**

### **Marking Pen**

The Marking Pen was developed for easy, long lasting identification of laboratory animals. The markers contain no harmful chemicals and instead nontoxic pigment approved by the Japanese Ministry of Health for use in food, drugs and cosmetics. It is intended for use on the fur and not the skin and will last for 6-12 weeks.







### **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.

# 

### 50% of actual size

F S T

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

**ANIMAL ACCESSORIES** 

### **Self Piercing Ear Tags**

These ear tags come numbered from 1-1000. The silver colored ear tags are made of monel and the laser marked 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.





### Custom alphanumeric sequences and numbers above 1000 are available by special order.

Customized ear tags available in packages of 100 or 500. The following markings are possible: 1 to 6 numbers only or 1 to 6 letters and numbers.

For special order, use item No. 70000-10 and indicate sequence. Please allow 4 to 5 weeks for delivery.

Alloy: Monel

0.8 cm

No. 1-500

Ear tags - #s 1 to 500

No. 24221-50



Alloy: Monel 0.8 cm No. 1-100 Ear tags - #s 1 to 100 No. 24221-10

Alloy: Monel 0.8 cm No. 501-1000

No. 24221-90

Picture similar

Ear tags - #s 501 to 1000

**Animal Microtattoo System** 

A guick, 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 (No. 24201-00) 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

FINE SCIENCE TOOLS

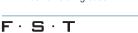




Animal microtattoo system 13 cm

Green tattoo paste 29.6 ml No. 24201-01

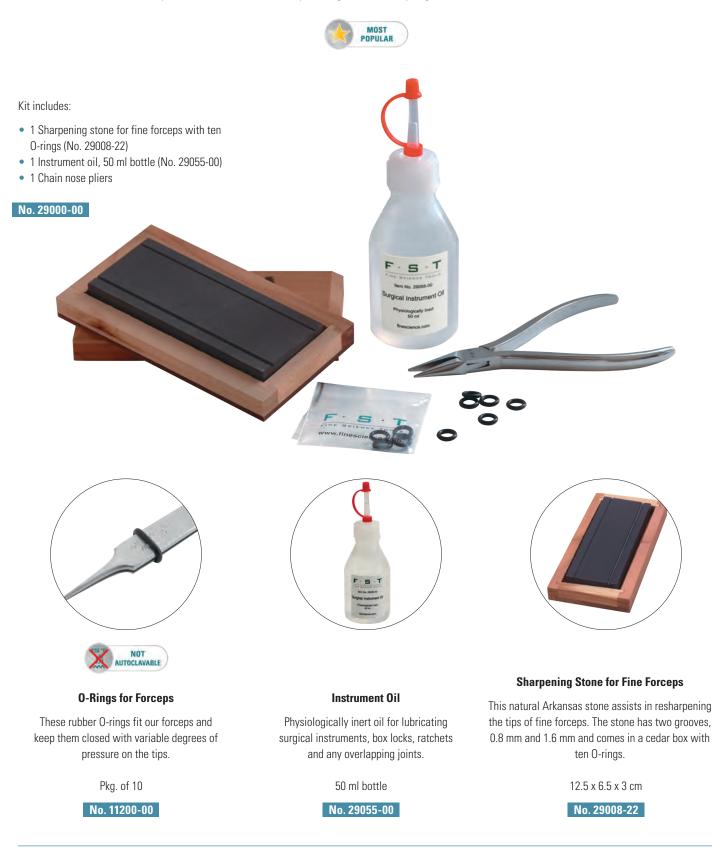




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### **Fine Forceps Repair Kit**

Realign and repair fine forceps with this convenient kit. Bent forcep 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 resharpening the forcep 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.



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PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

### **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.** 



### 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, Purple, Blue and Orange. **Autoclavable.** 



### **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. 9 colors available. **Autoclavable.** 



Color	Roll length	Tape width	Material	ltem
Green	510	0.6	Vinyl	No. 29070-01
Blue	510	0.6	Vinyl	No. 29070-02
Yellow	510	0.6	Vinyl	No. 29070-03
Red	510	0.6	Vinyl	No. 29070-04
White	510	0.6	Vinyl	No. 29070-05
Black	510	0.6	Vinyl	No. 29070-06
Brown	510	0.6	Vinyl	No. 29070-07
Orange	510	0.6	Vinyl	No. 29070-08
Purple	510	0.6	Vinyl	No. 29070-09



### **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.



### Material properties:

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

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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

RESEARCH ONLY

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### **HOT BEAD STERILIZER**

### **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), 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
- 1 Bag 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.

60 % of actual size

SCIENCE TOOLS

### FST 250 Sterilizer

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

No. 18000-45

### Replacement glass beads for FST 250

Weight: 150 g

No. 18000-46

### FST 350 Sterilizer

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

No. 18000-50

### **Replacement glass beads for FST 350**

Weight: 300 g

No. 18000-51



### **Micro Bead Sterilizer with Glass Beads**

Micro Bead Sterilizer is ideal for the sterilization of small and large research tools (forceps, scissors, etc.). When the chamber is filled with the included glass beads, high temperatures (up to 300° C) can be used to eliminate the presence of bacteria, spores and other micro-organisms.

## Snall sterilizer shown. Instruments not included. 60 % of actual size ISS cm ISS cm Ista attrilizer

**Tall Sterilizer 110V** 

Well Ø: 4 cm

Well depth: 14 cm

Well volume: 175 ml

Total unit size: 14.5 x 15.5 x 21.5 cm

No. 18090-50

### **Small Sterilizer 110V**

Well Ø: 4 cm Well depth: 8 cm Well volume: 100 ml Total unit size: 14.5 x 15.5 x 15.5 cm

No. 18090-45

### Small Sterilizer 220V

Well Ø: 4 cm Well depth: 8 cm Well volume: 100 ml Total unit size: 14.5 x 15.5 x 15.5 cm

No. 18090-46

### Replacement glass beads for small sterilizer

Weight: 150 g

No. 18000-47

### Tall Sterilizer 220V

Well Ø: 4 cm Well depth: 14 cm Well volume: 175 ml Total unit size: 14.5 x 15.5 x 21.5 cm

No. 18090-51

### **Replacement glass beads for tall sterilizer**

Weight: 300 g

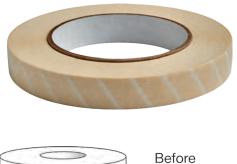
### No. 18000-52

RESEARCH ONLY

### PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

### **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** 

### **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.





Cases not included.

38 x 38 cm Pkg. of 25 wraps

No. 28015-15

51 x 51 cm Pkg. of 25 wraps

No. 28020-20





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

**Magnetic Sterilization Mat** 



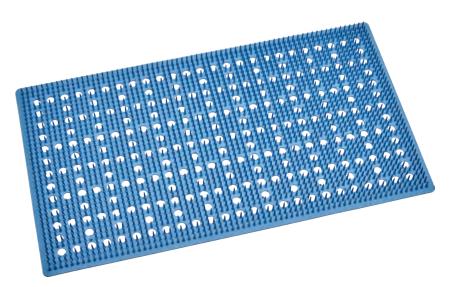
Instruments not included.

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.



### **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.



No. 20820-00



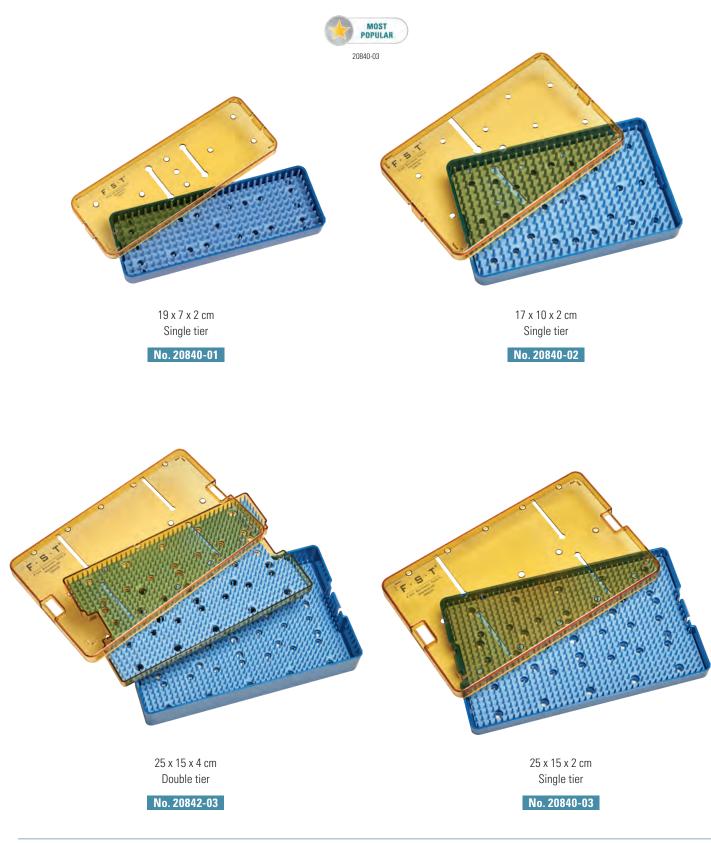


INSTRUMENT CARE & ACCESSORIES

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### **Sterilization Container**

This sterilization container is made from Ultem<sup>®</sup> 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.



PRODU

RESEARCH ONLY

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### **Dual Clasping Stainless Steel Sterilization Container**

This container will assist in the sterilization and storage of your fine surgical instruments. It comes with a custom fit silicone mat to keep instruments in place while the sterilizing process and storage. The textile filters are necessary for keeping instruments sterile while they remain in the container. Suitable for autoclave or ethylene oxide sterilization.





### **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.





### **Colored Aluminum Cases**

This instrument case comes with a spiked silicone mat for secure storage of surgical instruments. Four colors available but

may vary due to lot to lot variations.

### The case and silicone insert are autoclavable but should not be used for sterilization of surgical instruments.



### **Instrument Case**

This plastic case is compact, safe, secure, and slotted for placement of individual surgical instruments, aiding in the prevention of tip damage. Seven colors available. **Case is autoclavable but should not be used for sterilizing surgical instruments.** 



INSTRUMENT CARE & ACCESSORIES

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

### **INSTRUMENT STORAGE**

#### **Roll Up Travel Case**

Vinyl dissection roll up case with Velcro strap to hold the case closed. Holds up to 10 tools, one ruler holder, and one Velcro sealed pouch. **Instruments not included.** 

36 x 23 cm (unfolded) Black Vinyl

No. 20831-10



#### **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.** 



#### **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**.



1.6 x 19.1 mm Pkg. of 25 Material: Plastisol

No. 29060-01



4.8 x 25.4 mm Pkg. of 25 Material: Plastisol

No. 29060-05



No. 29060-02



9.5 x 25.4 mm Pkg. of 25 Material: Plastisol

No. 29060-06



2.8 x 19.1 mm Pkg. of 25 Material: Plastisol

No. 29060-03



3.2 x 25.4 mm Pkg. of 25 Material: Plastisol

No. 29060-04



Assorted pack, five of each size Pkg. of 30 Material: Plastisol

No. 29060-00



hree of each size Pkg. of 12 Material: Plastisol

No. 29066-00



12.7 x 2 mm Pkg. of 10 Material: Plastisol

No. 29066-01



9 x 25.5 mm Pkg. of 10 Material: Plastisol

No. 29066-02



15 x 25 mm Pkg. of 10 Material: Plastisol

No. 29066-03

25 x 26 mm

Pkg. of 10 Material: Plastisol

No. 29066-04



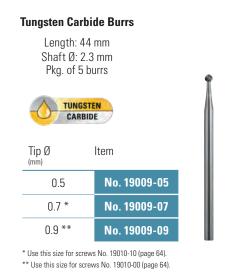
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-21

No. 19007-29

Stainless Steel Burrs			<b>Carbon Steel Burrs</b>		
Length: 44	mm		Length: 44 mm		
Shaft Ø: 2.	• • • • • • • • • • • • • • • • • • • •		Shaft Ø: 2.3 mm		
Pkg. of 10 burrs		ę	Pkg. of 10 burrs		
		×	NOT		
				19007-07	
Tip Ø	Item		Tip Ø	ltem	
0.7 *	No. 19008-07		0.5	No. 19007-	
0.9 **	No. 19008-09		0.7 *	No. 19007	
1.4	No. 19008-14		0.9 **	No. 19007-	
	vs No. 19010-10 (page 64).		1.4	No. 19007	
** Use this size for screws No. 19010-00 (page 64).			2.1	No. 19007	
			2.9	No. 19007-	

\* Use this size for screws No. 19010-10 (page 64). \*\* Use this size for screws No. 19010-00 (page 64).



## **Stainless Steel Trephines**

Side opening for clearing of material.



#### **Stainless Steel Circular Saw**

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



Ø: 1.6 cm 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.



Length: 45 mm Shaft Ø: 2.3 mm

No. 18000-18

#### **High Temperature Cautery Kit**

This 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.





#### Low Temperature Cautery Kit

This low temperature cautery kit is a great alternative to disposable cautery units. Temperature at the tips is approximately 649°C (1200°F). Replacement cautery tips are available. Not autoclavable.



Plastic body Stainless steel tips: 0.2 mm Ø Operation temperature: 1000°C (1832°F) Total weight: 70 g Length: 16 cm (without tip) Cautery kit includes: 1 Cautery handle 2 AA batteries 2 Standard tips 1 Storage case 2 Fine tips

> 65% of actual size



Plastic body Stainless steel tips: 0.2 mm Ø Operation temperature: 649°C (1200°F) Total weight: 60 g Length: 12 cm (without tip)

Cautery kit includes:

- 1 Cautery handle
- 1 AA battery
- 2 Fine tips
- 1 Storage case
- 2 Elongated fine tips





Replacement tips Single use Straight / Standard Sterile: Yes

Box of 10 tips

No. 18010-01

Replacement tips Single use Straight / Fine Sterile: Yes

Box of 10 tips

No. 18010-02



Replacement tips Single use Straight / Fine Sterile: Yes

Box of 10 tips

No. 18019-01

Replacement tips Single use Elongated Straight / Fine Sterile: Yes

Box of 10 tips

No. 18019-02



Cautery Kit

No. 18010-00

Cautery Kit

No. 18019-00

#### **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.



Cautery Kit No. 18000-00

No. 18000-01

No. 18000-02



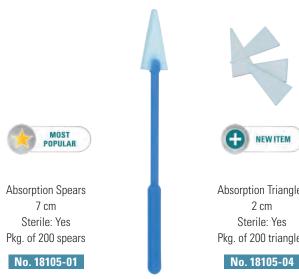
PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

#### **Neuro Punches**

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

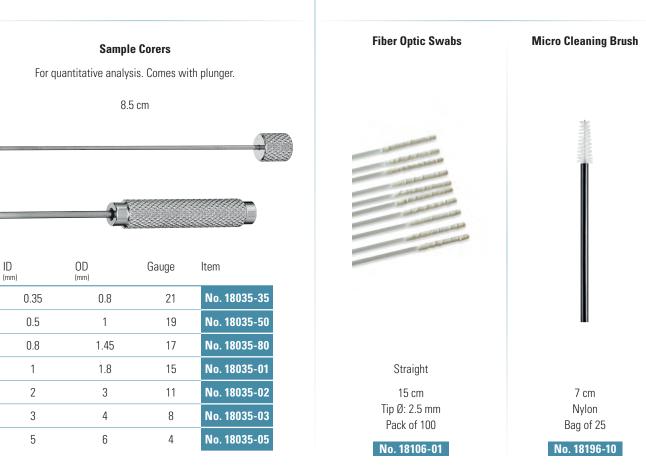
#### **Absorption Spears and Triangles**

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 nonirritating to delicate tissue and leaves no fibrous residue that might cause wound contamination. The Absorption Spears are sterilized by radiation.





Pkg. of 200 triangles



ID (mm)	OD (mm)	Gauge	Length (cm)	ltem
0.31	0.61	24	4.2	No. 18036-24
0.41	0.7	22	4.5	No. 18036-22
0.69	1	19	4.5	No. 18036-19





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#### **Miniature File Set**

Comes with 8 different file profiles in a vinyl pouch.

# NOT 10 cm Carbon Steel No. 30076-14 **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



No. 29008-12

#### 4-in-1 Screwdriver

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

#### **Ceramic Blade Cutter**

Ceramic edge stays sharp 100 times longer than a steel edge. Rust and corrosion free. No trace metal contamination. **Autoclavable.** 



## Replacement blade Straight

Cutting Edge: 58 mm

No. 10025-71

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Handle 9.5 cm, with

attachment 11.5 cm

Nickel handle

No. 30051-10

Straight

13 cm

Cutting Edge: 58 mm

No. 10025-70

#### **UTILITY SCISSORY**

#### **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.

#### **Universal Scissors**

The scissor blades are made of high quality stainless-steel and guarantee a perfect cut. Handles are made of glass fiber reinforced polyamide.



21 cm Stainless steel with plastic handle

No. 37500-00

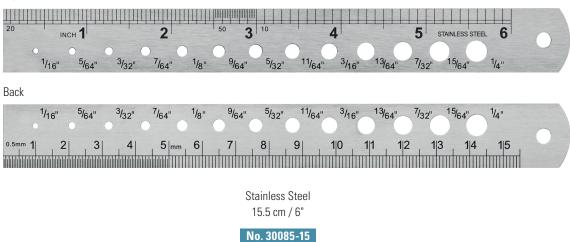
13 cm Stainless steel with plastic handle

No. 37500-05



#### **Ruler with Gauge Measurements**





#### **Rulter with Metric Conversion Table**

Front



Back



Stainless Steel 30 cm / 12"

No. 30085-30

## Ruler Label

Used for stable measurements in all surgical platforms.



50% of actual size

#### **Plastic Vernier Caliper**

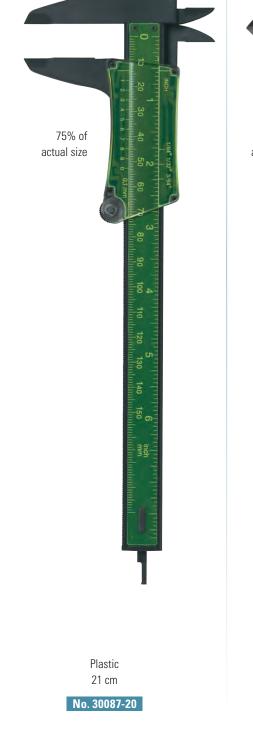
Tough polymer is unbreakable under normal conditions. Measures inside, outside, step and depth, metric and inch to 0.1 mm or 1/64". Maximum measurement: 153 mm.

#### **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.

#### **Castroviejo Surgical Caliper**

Used for precise measurement during surgery.



LABORATORY ACCESSORIES

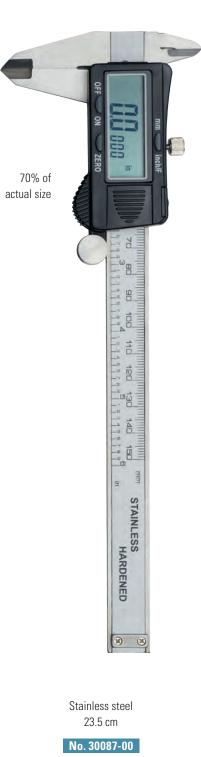
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F

FINE

S·T

SCIENCE TOOLS





0-20 mm with 0.5 mm divisions Tip Ø: 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.



#### **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

76 x 26 mm 1 mm with 100 divisions (0.01 mm)

No. 29025-02



#### **ACCESSORIES**

#### **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 AA battery (not 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 (if connected) Ø: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



LABORATORY ACCESSORIES



#### **Headband Magnifier**

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



#### **VisorLIGHT**<sup>™</sup>

Small, portable light source with 26 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.

Magnification: 2.5x Working distance: 20 cm (8")

#### No. 28030-02

Magnification: 2.75 Working distance: 15 cm (6")

No. 28030-03

Magnification: 3.5x Working distance: 10 cm (4")

#### No. 28030-04



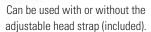
AA battery (not included)
No. 28030-10

#### Interchangeable Magnifier Headset with LED

Economical and fully interchangeable headband magnifier with LED light.

Includes:

- Multiple Lens Magnifications (1.0x, 1.5x, 2.0x, 2.5x, 3.5x)
- LED Light Source
- Tilting Functionality
- Cushioned Nose Pads
- Adjustable Headband
- Interchangeable Lens Frames
- Requires 3 AAA Batteries (Batteries not included)



Magnification: 1x, 1.5x, 2x, 2.5x and 3.5x Field of view: Variable Working distance: Variable

No. 28080-10





#### **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.



No. 28050-30

No. 28050-35

#### **Eschenbach Magnifier Spectacles**

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

#### **Spectacles Headband**

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



#### **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: 40 cm (16") Weight: 49 g

No. 28030-20

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

#### **Eschenbach Clip-On LED Light**



#### **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: SMD LED Power source: 120 V & 230 V

#### 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: 7,5 cm (3") Lens material: PXM® lightweight lens with patented Ceratec®scratch resistant coating Illumination: SMD LED Power source: 6V (4 AA-Batteries included)

#### No. 28020-28

#### **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)





#### 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 mobilux® DIGITAL inspection

The reflection-free and high-contrast 4.3-inch display ensures relaxed work. The HD camera arranged centrally under the display enables easy orientation. A magnification of up to 15x can be selected continuously or in increments by touching the magnifying glass symbol. The integrated LED lighting offers great variability in lighting and exposure settings for a wide variety of applications. The mobilux® offers measurement and comparison functions via adjust-able scales and templates as well as simultaneous comparison measurements of the target and actual status via a split screen on the PC.

With the photo function, the live image seen through the magnifying glass can be saved as a photo on an inserted SD card. The images can also be easily transferred to a computer via a USB connection. In addition, the USB connection to the computer enables the live image of the magnifying glass to be transferred to the PC monitor, so the mobilux<sup>®</sup> can also be used as a screen reader. The "mobilux<sup>®</sup> digital" program supplied must first be installed on the computer (Windows Vista, Windows 7, 8 or Windows 10).

Delivery incl. USB cable length 2m, SD memory card (incl. software), hand strap, manual, case for storage, calibration plate. Mains adapter for EU, GB, US, AUS included.



Magnification: 4 -15x Field of view: Variable Working distance: Variable Screen size: 11 cm (4.3") Screen resolution: 480 x 272 px User input: Touchscreen

No. 28070-50

#### Eschenbach laboCOMFORT

With the laboCOMFORT, both hands remain free to work. The screen can be folded up when not in use. Various locking options for individual height adjustment of the magnifying screen. The headband magnifier can also be used by people who wear glasses.

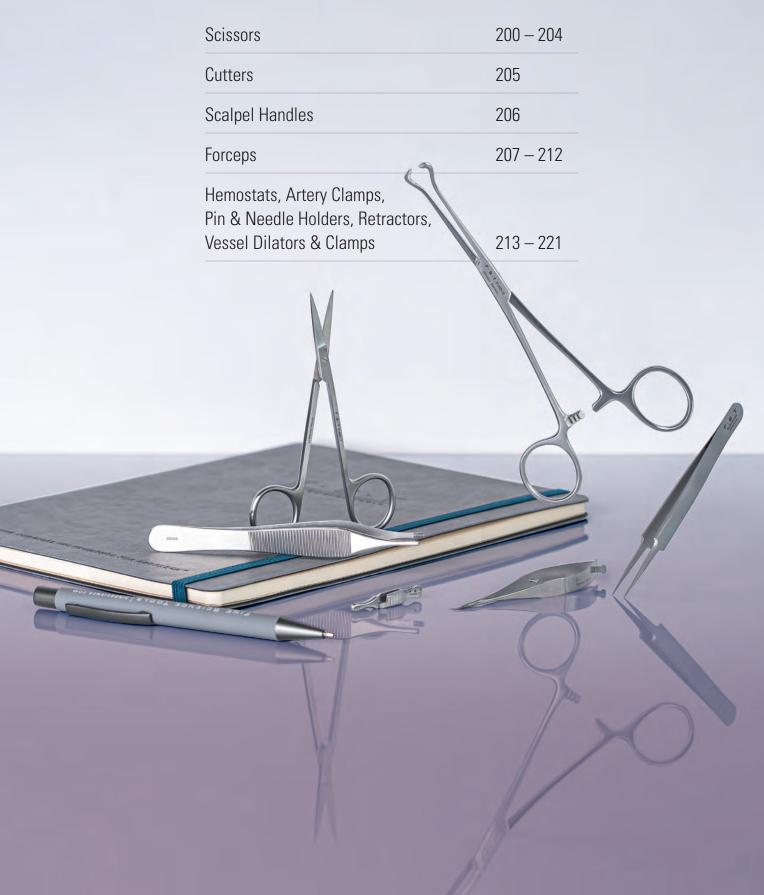


Can be used with the Eschenbach Clip-On LED light.

Magnification: 3x Working distance: 13 cm (5")

No. 28030-13

## **STUDENT INSTRUMENTS**



## **FST STUDENT QUALITY INSTRUMENTS**



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

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. Visit our website at **finescience.com** for more information.



T-53-T 0150

F . B .

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

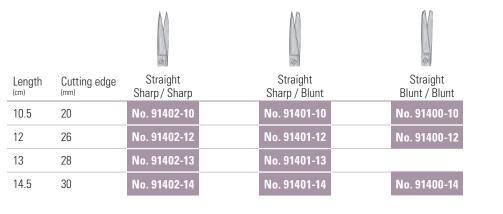


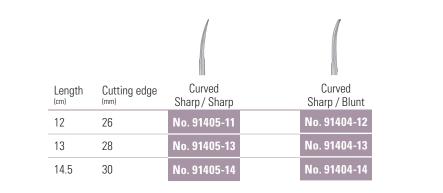
FINE SCIENCE TOOLS

200

**STUDENT** 

#### **Surgical Scissors**









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

Wagner





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

FINE BOIENCE TOOLS





9 cm Cutting edge: 16 mm

No. 91476-09

Straight

Sharp/Sharp

11.5 cm

Cutting edge: 20 mm No. 91468-12

Mayo

#### **Lister Scissors**

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

80% of actual size F.S.T 91413-14 DISCOUNT Quantity discount for student instruments: 5-9=**5%** 10 + = 10%Per item, selection cannot be assorted for discount. **STUDENT** Angled to side Angled to side Angled to side Curved Straight Curved **Blunt/Blunt Blunt/Blunt Blunt/Blunt** Sharp/Blunt **Blunt/Blunt Blunt/Blunt** 14 cm 18 cm 20 cm 14.5 cm 17 cm 17 cm Cutting edge: 32 mm Cutting edge: 26 mm Cutting edge: 30 mm Cutting edge: 34 mm Cutting edge: 28 mm Cutting edge: 32 mm No. 91413-14 No. 91413-18 No. 91413-20 No. 91409-15 No. 91410-17 No. 91411-17

RESEARCH ONLY

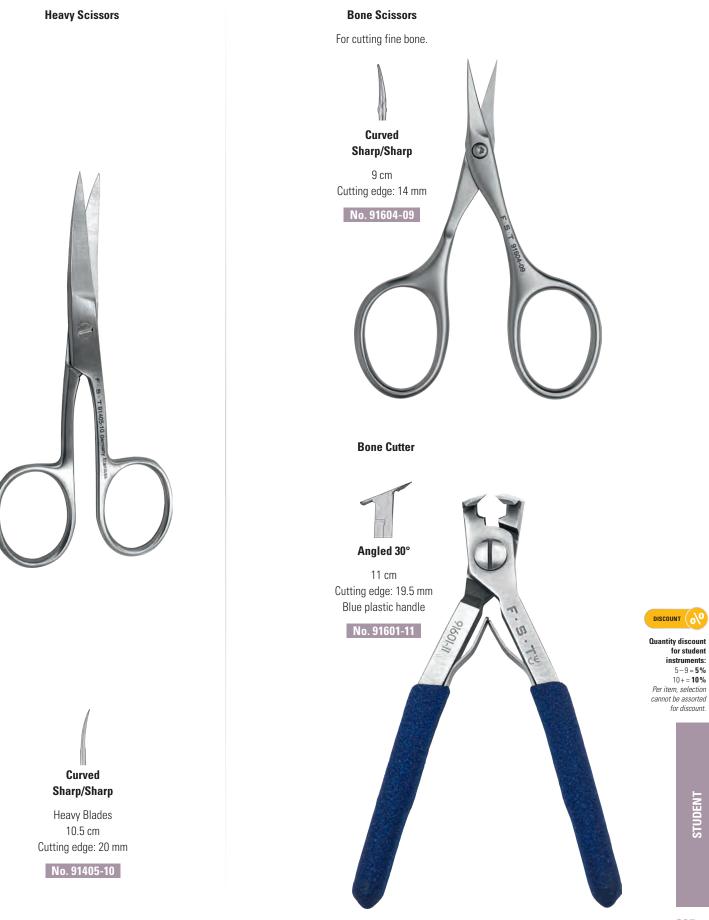
PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

Metzenbaum Baby

Metzenbaum



FINE SCIENCE TOOLS



STUDENT

#### Scalpel Handle #4

Standard Scalpel Handle #3







For scalpel blades, see page 74.

#3 12 cm No. 91003-12



 $\begin{array}{l} \textbf{Quantity discount}\\ \textbf{for student}\\ \textbf{instruments:}\\ 5-9=5\%\\ 10+=10\%\\ Per item, selection\\ cannot be assorted\\ for discount. \end{array}$ 



Dumont #5

MOST

Dumont #7





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

#### Fine Forceps Straight

**Fine Forceps Broad Shanks** 

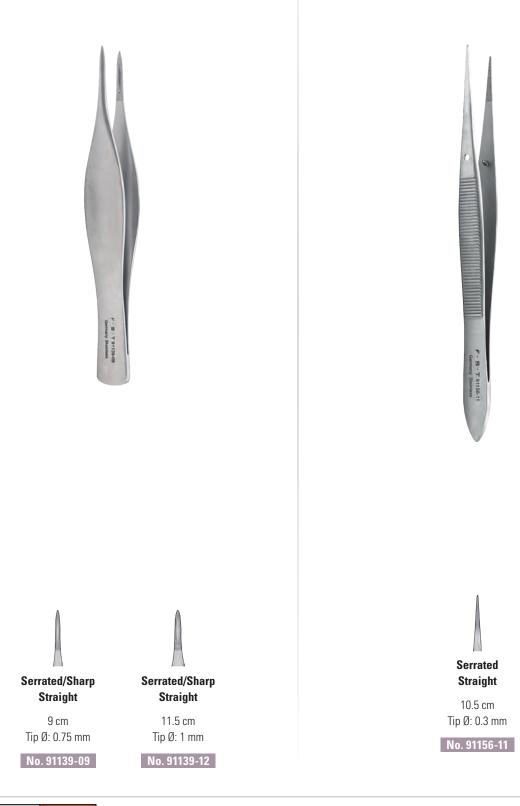
**Fine Forceps Curved** 

**Fine Forceps Angled** 



FINE SCIENCE TOOLS

#### Feilchenfeld



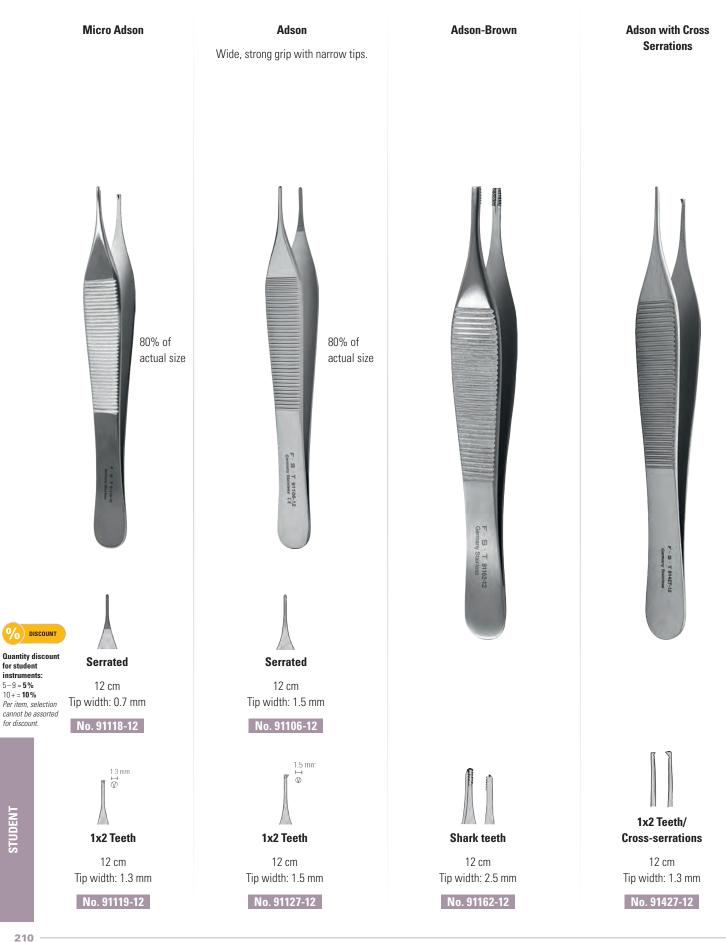
Quantity discount for student instruments: 5-9 = 5%10 + = 10%Per item, selection cannot be assorted for discount.

209

RESEARCH ONLY

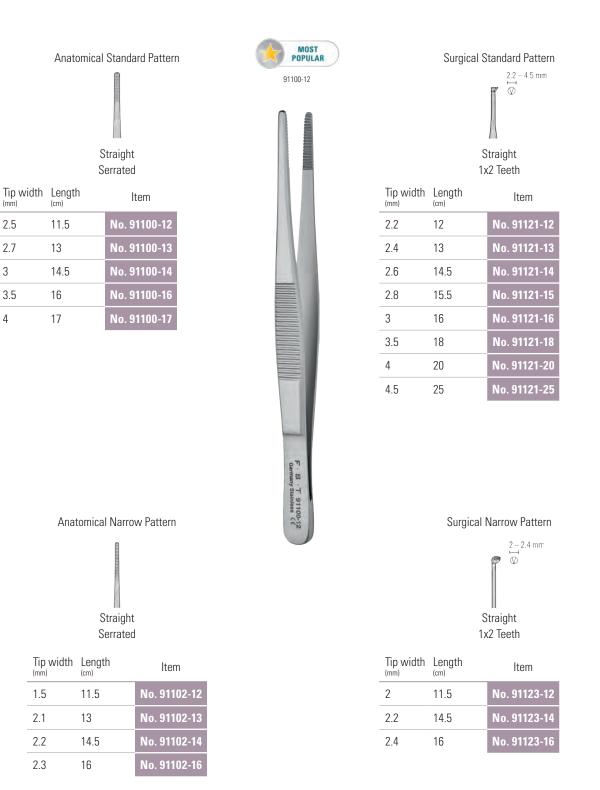
PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

#### **STANDARD FORCEPS**



#### **Anatomical and Surgical Forceps**

Broad pattern with strong spring action.



STUDENT

DISCOUNT (

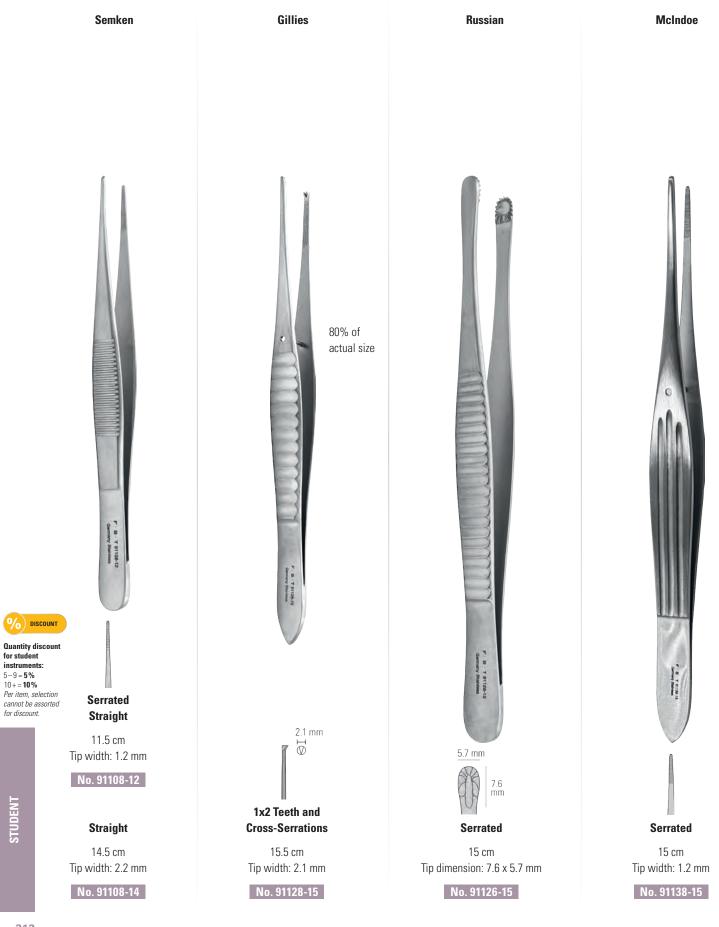
Quantity discount for student instruments: 5-9 = 5%

10+=**10%** Per item, selection cannot be assorted

for discount.

RESEARCH ONLY

#### **STANDARD FORCEPS**



STUDENT

FINE SCIENCE TOOLS

#### Halsted-Mosquito

Hartmann



No. 91309-12

No. 91331-12



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

No. 91308-12

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

Curved

Serrated

10 cm

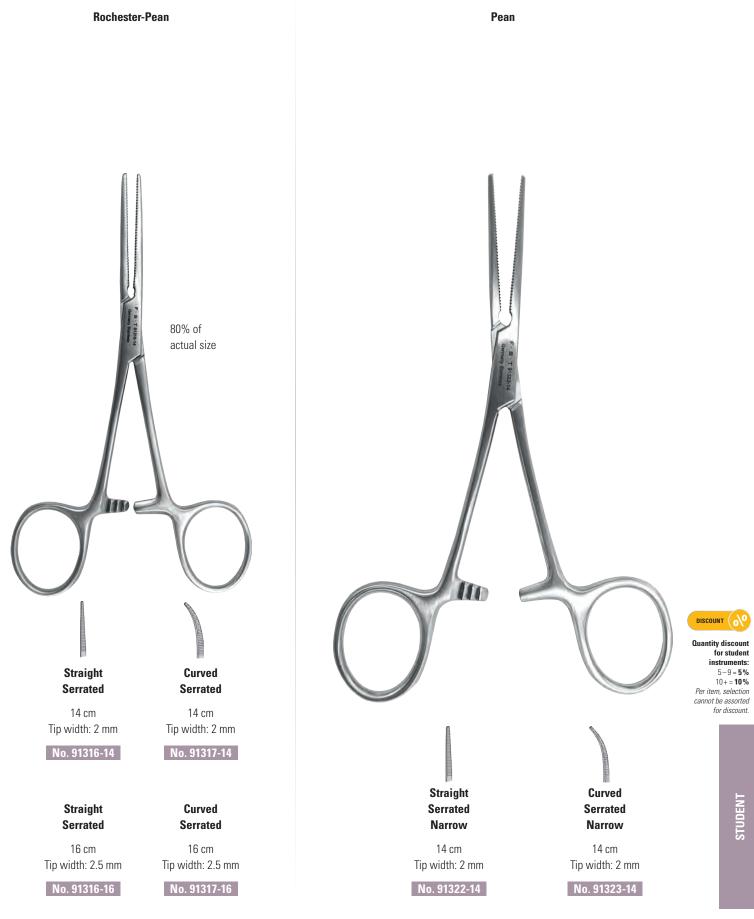
Tip width: 1.5 mm

No. 91303-10

Crile

Kelly





RESEARCH ONLY

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

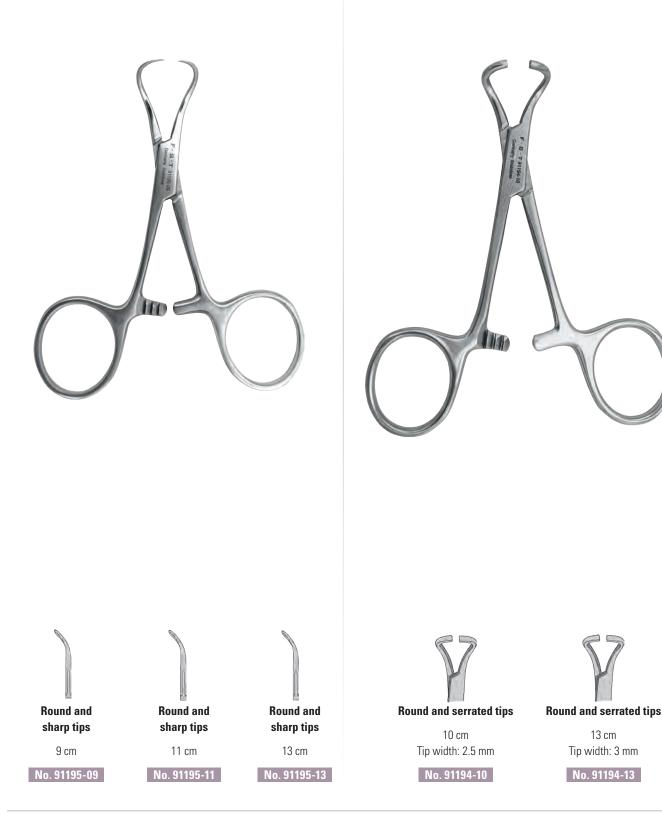
#### Ochsner-Kocher

Kocher



#### **Backhaus Towel Clamp**

Tohoku Towel Clamp



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

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE



**Allis Clamp** 

**Lister Sine Clamp** 







Serrated

16 cm

Tip width: 3 mm

No. 91199-16



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

STUDENT

219

#### 5x6 Teeth

15 cm Tip width: 6 mm

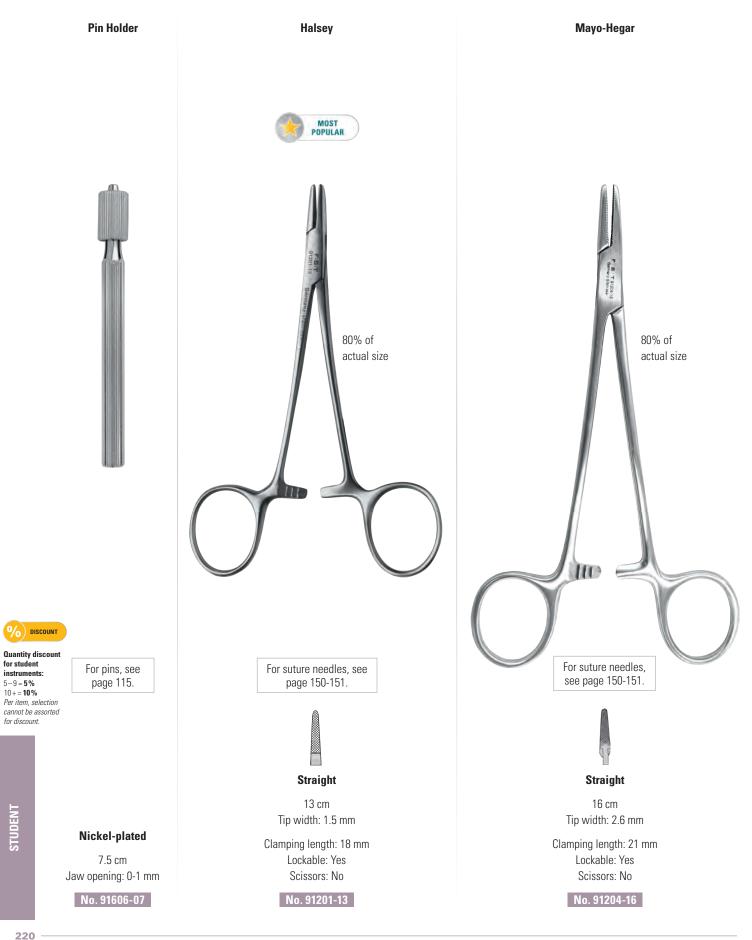
No. 91191-15

#### **Cross-Serrated**

15 cm Tip width: 4 mm

No. 91198-15

#### RESEARCH ONLY



**STUDENT** 

FINE SCIENCE TOOLS



RESEARCH ONLY

PRODUCTS ARE FOR RESEARCH AND VETERINARY PURPOSES ONLY · MOST ITEMS SHOWN IN ACTUAL SIZE

221

00071-14	119	10035-00	72	10110-05	69	11003-12	105	11042-08	98	11200-14	88
00072-14	119	10035-05	72	10110-07	69	11003-13	105	11043-08	98	11200-33	87
00108-11	94	10035-10	72	10130-05	141	11003-14	105	11049-10	99	11203-23	87
00109-11	94	10035-12	72	10130-10	141	11003-16	105	11050-10	99	11203-25	87
00125-11	124	10035-15	72	10130-20	141	11003-18	105	11051-10	99	11210-10	87
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00396-01	118	10052-11	71	10152-30	68	11008-15	106	11062-10	100	11223-20	86
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10000-11	76	10060-00	76	10167-11	132	11013-18	111	11071-10	100	11251-20	81
10000-15	76	10060-13	76	10290-13	133	11013-21	111	11072-11	102	11251-21	82
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222  $F \cdot S \cdot T$ Fine Solence Tools

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