F·S·T



FINE SURGICAL INSTRUMENTS FOR RESEARCH™



LETTER FROM THE OWNER

Dear Valued Customers, Partners, and Friends,

As I reflect on this milestone moment, I am filled with profound gratitude and a deep sense of emotion. 50 Fine Years ago, our journey began with a vision from my uncle Hans - a vision that has evolved into the vibrant tapestry of experiences, relationships, and achievements that define our company today.

Our story is not just one of business success, but of lasting partnerships forged in trust and mutual respect. It is a narrative woven with the threads of perseverance through challenges, innovation in the face of change, and above all, a commitment to quality and excellence in everything we do. We understand the critical importance of each instrument that bears our name, knowing that behind every tool lies an important mission relying on the knowledge, skill and dedication of our end users. This awareness drives us to maintain the highest standards of craftsmanship, sophistication, and reliability in our instruments.

To our loyal customers, your unwavering support and feedback have been the cornerstone of our growth. You have entrusted us with your needs, and it has been our privilege to serve you. Each interaction and request have been an opportunity for us to learn, to improve, and to strive for continuous evolution. We are thrilled to celebrate our company's birthday, and in this special moment, we want to extend our heartfelt gratitude. To show our appreciation for your support, we are introducing our Golden Ticket, where you will have the chance to win exciting prizes as our way of saying thank you for being a part of our story.

To our dedicated partners, your collaboration has been instrumental in our journey. Together, we have navigated uncharted waters, adapted to shifting landscapes, and embraced new horizons. Your expertise and commitment have helped us reach milestones we once only dreamed of.

Markus Gawenda

To our incredible team spanning across the globe, past and present, you are the heart and soul of Fine Science Tools. Your hard work, dedication, and passion have been the driving force behind our success. Through your creativity and determination, you have turned challenges into opportunities and brought aspirations to life.

In commemoration and tribute to our Founder Hans Gawenda, we are delighted to introduce the Bonn-Gawenda Scissors - a testament to our revolutionary capabilities encompassing state of the art features, fabricated with utmost sophistication. These limited-edition scissors celebrate our heritage of ingenuity and the astounding legacy Hans has left behind.

As we celebrate this 50th anniversary, we honor not only our past but also look forward to an exciting future. We are excited to announce the opening of FST Asia in Hong Kong, China, as we continue to diversify and enhance how we serve our customers across the globe. The world around us may change, but our commitment to delivering high quality instruments, vast selection, and unparalleled service remains steadfast.

To everyone who has been a part of our journey - thank you. Your belief and patronage in us have been our greatest asset. As we continue to write the next chapter of our story, we do so with optimism, humility, and a renewed sense of purpose.

Here's to the next 50 years of learning, innovation, growth, and shared success.

Warmest regards, Markus Gawenda



Timeline

FST SINCE 1974

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

2009

FST Catalog Cover wins 1st place award for Showcase of Print and Design Excellence. Since 2009, FST catalog covers and print ads have won over 22 awards

1974

FST is established by Hans Gawenda in North Vancouver B.C., Canada

1996

1984

FST invents and launches the first and only available 0.5 mm Cup Rongeur

FST opens a business office in Foster City, California, USA



FST opens a business office in Heidelberg, Germany 2003

Deployment of the first website with ordering capability

1999

Anniversary of FST 2006

Introduction of FST CeramaCut® scissors



















































2024

50th Anniversary of FST

2019

Markus Gawenda joins the company

> US Office moves and expands in Foster City, California, USA

\$

FST opens a business office in Hong Kong, China

> Launch of our FST "Exclusive Line"

New Webshop Launch

2014

FST wins the Highest Attention-Getting Ads in Magazines



Markus Gawenda becomes the sole owner

2021

FST establishes a global Management-Team

















































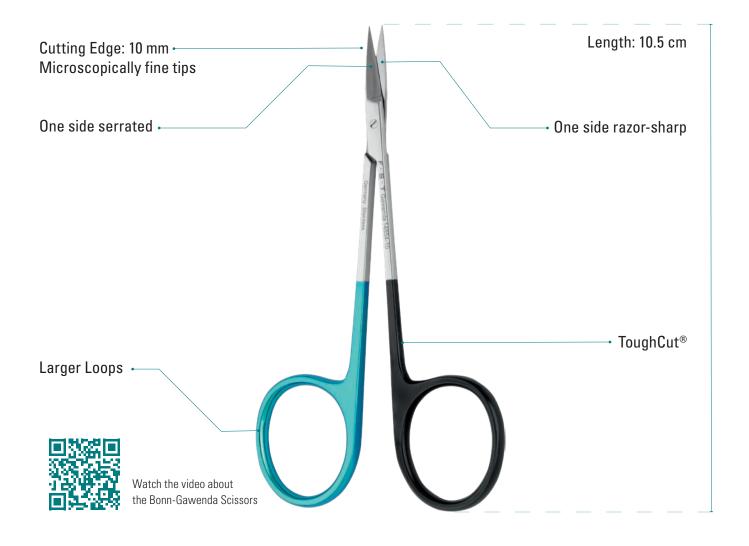
Exclusive Line

BONN-GAWENDA SCISSORS

To celebrate our 50th anniversary, we're proud to introduce the Exclusive Line, meticulously crafted to support every aspect of your research needs. At the heart of this collection is the Bonn-Gawenda Scissors, created as a tribute to our founder, Hans Gawenda, and symbolizing our legacy of innovation and excellence. These scissors stand out for their advanced design and exceptional craftsmanship, reflecting the high standards that have always defined our work.

The ToughCut® technology incorporates one micro-serrated cutting edge paired with a razor-sharp blade, delivering consistently clean and precise cuts. These scissors have perfect tips for precision work under a microscope. Designed with comfort and ergonomics in mind, the large finger loops and specially engineered handle ensure exceptional control throughout each use.







Introducing our Exclusive Line which offers a unique combination of popular features from our tools combined into one. Whether you're seeking elegance, stability and ergonomics, or versatile functionality, the Exclusive Line was specially designed to cater to every aspect of your research needs.



Look for the Exclusive Line icon in the catalog.

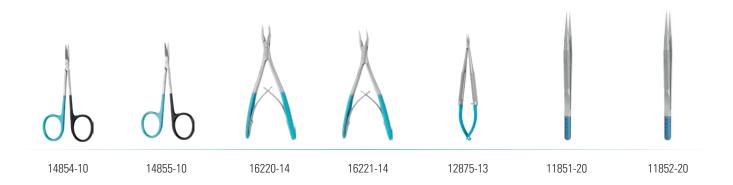


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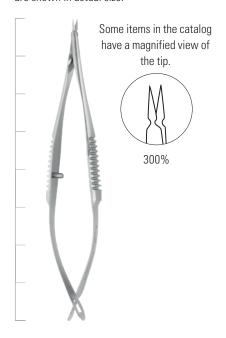
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Catalog Features

PRODUCT FEATURES

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

Most Items in the catalog are shown in actual size.



Most items in the catalog have an illustrated view of the tip.

Straight Sharp/Sharp

Lenath: 8 cm Cutting edge: 2 mm Tip Ø: 0.05 mm

No. 15000-03

Detailed item specifications.

ICONS



The Exclusive Line offers a unique combination of popular features of our tools combined into one. Whether you're seeking elegance, stability and ergonomics, or versatile functionality, the Exclusive Line is specially designed to cater to every facet of your research needs.



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



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.



These items are not suitable to 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 left-handed instruments in this catalog, look for the "lefthanded" icon on the pages below.

Scissors: pages 37, 48 Hemostatic Forceps: page 118 Needle Holders: pages 152 - 153 Ligation Aid: page 131



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 34, 38, 47 and 50



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

WE PROUDLY STOCK



Fine Science Tools offers a wide selection of the latest and most popular Dumont forceps. Handcrafted in Switzerland for more than a century, these forceps are known for their consistent and uncompromised fineness.

Dumont forceps come in an 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 Laminectomy Forceps because of their popularity in breaking off delicate bone from mouse skulls. |
| #2AP | Epoxy coated with flat wide blunt tips. |
| #3 | Long straight forceps with coarse tips. Popular in low magnification procedures. |
| #3C | Shorter version of #3. |
| #4 | Similar to the #5 but with broader shanks and stronger tips. |
| #5 | Most popular style of Dumont straight forceps with fine tips which come in several styles. |
| #55 | Similar to the #5 but with lighter shanks, giving the forceps a lighter spring action. |
| #5CO | Similar to the #55 but with even finer shanks producing the lightest spring action and longest meeting surface of any Dumont style. |
| #5L | Medical #5 forceps with slide sleeve for a secure hold and retention. |
| #5SF | The finest tips ever produced by Dumont. |

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

Handcrafted



PRECISION THAT MAKES A MARK

Our highly skilled and experienced surgical mechanics refine and perfect our instruments in FST's very own workshop, a step that only we take in this manner. This is crucial for the precision and consistent quality of our products. For example, our Friedmann-Pearson rongeurs with a tip diameter of 0.5 or 0.7 mm are unique in the world. Our spring

scissors have also established themselves in the research industry and are unsurpassed in their fineness. The result: a level of quality to be proud of - and to which we have now committed ourselves to. Our "Handcrafted" symbol stands for 100% guaranteed craftsmanship and instruments that you can rely on today, tomorrow, and always.





CUSTOM DESIGN

Have you ever thought about how wonderful it would be to have a personalized, unique instrument perfect for your needs? Please contact us to learn about our custom capabilities to manufacture any instrument to

your specific specifications and requirements. We as well have the capability to perform special modifications to our existing instruments.

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®. 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® blades and over six times longer with our CeramaCut® 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.





Tungsten Carbide®Lasts longer than stainless steel by: **1.9x**





Stainless Steel with ToughCut® Lasts longer than stainless steel by: 2.3x





Tungsten Carbide with ToughCut® Lasts longer than stainless steel by: 4.1x





CeramaCut® (Ceramic Coated Tungsten Carbide with ToughCut®) Lasts longer than

Lasts longer than stainless steel by: **6.6x**

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 back all of our products with a 100% satisfaction guarantee. 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.

FINE SCIENCE TOOLS SERVICE

We are constantly trying to improve ourselves and our service. Our 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.

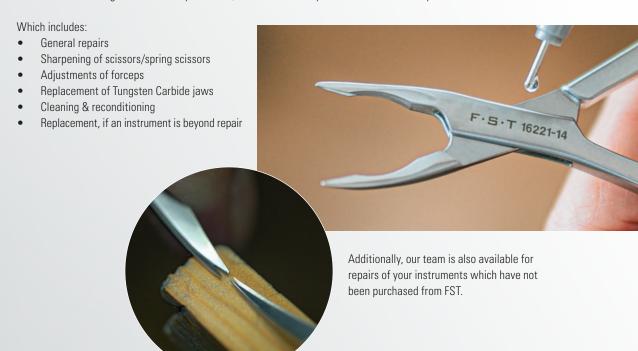
Over the years we have built up a network of partners and collaborations with well-known institutions and companies. As a result, we also offer application-specific instrument kits including complementary items from our partners.

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.



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® 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 tips of forceps and needles holders
- Available instruments: bone cutters, scissors,forceps, needles, needle holders, burrs





CeramaCut® Scissors

- · Golden handles and black coating
- Last approx. 6.6x longer than stainless steel
- Cutting edges with Tungsten Carbide and ToughCut® plus ceramic coating
- Tungsten Carbide 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)



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



Ceramic Instruments

- Ceramic coating
- Last approx. 2.3x longer than stainless steel
- Reduced glare
- Available instruments:
 Dumont forceps, spring scissors



Learn more about our Alloys & Materials





Maintenance & 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.



these areas can accumulate unwanted material.

joints and hinges. Then store them only in clean and dry environments.

RESEARCH ONLY

Rinse instruments thoroughly with distilled water, paying close attention to joints and hinges as

Air dry your instruments completely and use a can of compressed air to blow out any water at the



ULTRASONIC CLEANING

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



NOT recommended for delicate and micro instruments.



Follow the manufacturer's guidelines for specific instructions and cleaning cycle times.



Instruments should be processed for the full recommended cycle time.

Place instruments in the open position in the ultrasonic cleaner.

- Do NOT allow instruments with sharp blades to touch other instruments.
- - Do NOT place dissimilar metals (stainless, copper, chrome plated) in the same cleaning cycle.
 - Make sure all instruments are completely submerged.



After the ultrasonic cleaning cycle is complete, rinse instruments thoroughly to remove all ultrasonic cleaning solution.



Dry instruments thoroughly with a clean towel.



Use a spray lubricant in the hinges to minimize the risk of corrosion and maintain functionality.



STERILIZATION

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

STEAM STERILIZATION/AUTOCLAVING

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



Lubricate all instruments that have any metal to metal interaction such as; scissors, rongeurs, needle holders, hemostats, and retractors. Do NOT use WD-40 or other industrial lubricants.

Instruments may be autoclaved individually or in sets.



- Individual instruments: Disposable wraps or sterilization pouches are ideal. Make sure the pouch size is sufficient for the instrument to be in an open (unlocked) position.
- Instrument sets: Open and unlock all instruments. Place the heavier instruments on the bottom of the set when two layers are needed.



Do NOT lock instruments during autoclaving. This will prevent the steam from reaching and sterilizing the metal to metal surfaces, and heat expansion during autoclaving can cause cracks in the hinge areas.



Do NOT over load the autoclave chamber as this may hinder steam penetration.



Place a towel on the bottom of the pan to absorb excess moisture during autoclaving. Make sure the towel has no detergent residue and is pH neutral if immersed in water.



At the end of the autoclave cycle (before the drying cycle) unlock the autoclave door and open it slightly. Run the dry cycle for the recommended time period by the autoclave manufacturer.

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



 $_{\star}$ Beads reach temperature of 240° - 270 °C (464° - 518 °F) within 15-20 minutes heating time.

Please see page 178 - 179 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 177 and 180.





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 186 Instrument cases are available, see pages 182 - 186



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**

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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.





Straight Sharp/Sharp

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

No. 15000-08

Straight

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

Sharp/Sharp

No. 15000-03



Curved Sharp/Sharp

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

No. 15000-04



Curved Sharp/Sharp

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

No. 15001-08



Angled to side Sharp/Sharp

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

No. 15002-08

Micro Vannas

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







Straight Sharp/Sharp

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

No. 15000-00



Curved Sharp/Sharp

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

No. 15000-10

Vannas-Tübingen





Straight Sharp/Sharp

 $8.5\,\mathrm{cm}$ Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15003-08



Angled up Sharp/Sharp

 $9.5\,\mathrm{cm}$ Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15005-08



Curved Sharp/Sharp

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

No. 15004-08



Angled to side Sharp/Sharp

 $8.5\,\mathrm{cm}$ Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15008-08

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.



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.



Straight Sharp/Sharp

 $8.5\,\mathrm{cm}$ Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15903-08



Curved Sharp/Sharp

 $8.5\,\mathrm{cm}$ Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15904-08



Straight Sharp/Sharp

 $9\,\mathrm{cm}$ Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15403-08



Curved Sharp/Sharp

 $9\,\mathrm{cm}$ Cutting edge: 5 mm Tip Ø: 0.075 mm

No. 15404-08

Vannas Scissors with Microserrations

Microserrated to minimize slippage.







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

No. 15007-08



Straight Sharp/Sharp

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

No. 15070-08



Curved Sharp/Sharp

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

No. 15071-08

Vannas





Vannas

Ultra long cutting edge without sacrificing tip width.





Straight Sharp/Sharp

8 cm Cutting edge: 5 mm Tip Ø: 0.125 mm

No. 15044-08



Curved Sharp/Sharp

8 cm Cutting edge: 5 mm Tip Ø: 0.125 mm

No. 15043-08



Straight Sharp/Sharp

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

No. 15009-08

Miniature Vannas

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





Moria 9600

Moria 9601



Straight Sharp/Sharp

8 cm Cutting edge: 5 mm Tip Ø: 0.15 mm

No. 15396-00



Curved Sharp/Sharp

8 cm Cutting edge: 5 mm Tip Ø: 0.15 mm

No. 15396-01

Titanium Vannas





Straight Sharp/Sharp

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

No. 15610-08



Curved Sharp/Sharp

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

No. 15615-08



Angled up Sharp/Sharp

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.



M Straight Sharp/Sharp

6 cm Cutting edge: 6 mm Tip Ø: 0.1 mm

No. 15000-02



Curved Sharp/Sharp

6 cm Cutting edge: 6 mm Tip Ø: 0.1 mm

No. 15000-01



Straight Blunt/Blunt

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

No. 15000-12



Curved Blunt/Blunt

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

No. 15000-11

Spring Scissors

Ceramic Coated Spring Scissors

Ceramic Coated Titanium Castroviejo











10 cm Cutting edge: 8 mm





Tip Ø: 0.15 mm No. 15024-10



10 cm Cutting edge: 8 mm Tip Ø: 0.3 mm

Straight

Blunt/Blunt

No. 15025-10



Curved Sharp/Sharp

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

No. 15023-10



Straight Sharp/Sharp

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

No. 15750-11



Curved Sharp/Sharp

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

No. 15751-11



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

Castroviejo

Castroviejo with Ball Tip

Castroviejo

Same as No. 15006-09 but with a ball tip (Ø 1.3 mm) to prevent piercing of underlying tissue.









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

No. 15006-09



Angled to side Sharp/Ball tip

9 cm Cutting edge: 8 mm Tip Ø: 1.3 mm

No. 15033-09



Curved Sharp/Sharp

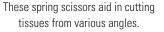
10 cm Cutting edge: 10 mm Tip Ø: 0.2 mm

No. 15017-10

Vannas-Wolff

Fine Angled Spring Scissors

Dowell



Moria







Moria MC52

Moria MC50





Straight Sharp/Sharp

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

No. 15370-52



Curved Sharp/Sharp

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

No. 15370-50



Angled up Sharp/Sharp

9.5 cm Cutting edge: 2 mm Tip Ø: 0.1 mm

No. 15010-09



Angled up Sharp/Sharp

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

No. 15010-10



Straight Sharp/Sharp

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

No. 15040-11



Angled up Sharp/Sharp

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

No. 15042-11

Pascheff-Wolff Vannas Westcott

Very delicate blades.











Moria MC19/B



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

No. 15371-92



 $10.5\,\mathrm{cm}$ Cutting edge: 4 mm Tip Ø: 0.15 mm

No. 15018-10



Sharp/Sharp

 $10.5\,\mathrm{cm}$ Cutting edge: 4 mm Tip Ø: 0.15 mm

No. 15019-10



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

No. 15015-11

Noyes

Tungsten Carbide Noyes

Tungsten carbide cutting edges provide long lasting sharpness.









Straight Sharp/Sharp

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

No. 15012-12



Curved Sharp/Sharp

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

No. 15011-12



Angled up Sharp/Sharp

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

No. 15013-12



Straight Sharp/Sharp

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

No. 15514-12

ToughCut® Spring Scissors

Round Handled Vannas Round handles allow easy fingertip

adjustments.

Spring Scissors









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

No. 15123-12





Straight Sharp/Sharp

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

No. 15400-12



Curved Sharp/Sharp

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

No. 15401-12



Straight Sharp/Sharp

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

No. 15020-15



Curved Sharp/Sharp

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

No. 15021-15

Long Handle Spring Scissors



Special design with short handle and inner spring.







Straight 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

Curved

Sharp/Sharp

18.5 cm

Cutting edge: 5 mm

Tip Ø: 0.2 mm

No. 15027-18

Micro Scissors

With microserrations to minimize slippage.

300% 300% Straight Angled to side Sharp/Sharp Sharp/Sharp 14.5 cm 14.5 cm Cutting edge: 2.5 mm Cutting edge: 2.5 mm Tip Ø: 0.175 mm Tip Ø: 0.175 mm

No. 15031-14

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.**



No. 15030-14

Ultra Fine Clipper Scissors II

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



Uses:

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



Straight Sharp/Sharp

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

No. 15300-00

Biemer Scissors

These scissors are designed to securely cut vessels without slipping.





8.5 cm Cutting edge: 4 mm Tip Ø: 2 mm

No. 15032-08

Bonn-Gawenda Scissors

The innovative Bonn-Gawenda scissors from our Exclusive Line combine a precise cutting edge, similar to our spring scissors and our ToughCut® feature which ensures an exact cut without slipping. These scissors have perfect tips for precision work under a microscope. Designed with comfort and ergonomics in mind, the large finger loops and specially engineered handle ensure exceptional control throughout each use.













10.5 cm Cutting edge: 10 mm

No. 14854-10



Curved
Sharp/Sharp

10.5 cm Cutting edge: 10 mm

No. 14855-10

Extra Fine Bonn

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







8.5 cm Cutting edge: 10 mm

No. 14084-08



Curved Sharp/Sharp

8.5 cm Cutting edge: 10 mm

No. 14085-08



Straight Sharp/Blunt

8.5 cm Cutting edge: 10 mm

No. 14083-08

Extra Fine Bonn

Highly polished.



ToughCut® Bonn-Strabismus

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

TOUGH



Hardened Fine Iris Scissors

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





8.5 cm Cutting edge: 10 mm

No. 14184-09



8.5 cm Cutting edge: 10 mm

No. 14185-09



8.5 cm Cutting edge: 10 mm

No. 14084-09



8.5 cm Cutting edge: 10 mm

No. 14085-09



Straight Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14090-09

11 cm Cutting edge: 16 mm

No. 14090-11



Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14091-09

11 cm Cutting edge: 16 mm

No. 14091-11

Fine Iris Scissors

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



Curved Sharp/Sharp

10.5 cm Cutting edge: 16 mm

No. 14094-11 No. 14095-11

Iris Scissors

Delicate pattern.







Straight Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14060-09

10.5 cm Cutting edge: 16 mm

No. 14060-10

11.5 cm Cutting edge: 16 mm

No. 14060-11



Curved Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14061-09

10.5 cm Cutting edge: 16 mm

No. 14061-10

11.5 cm Cutting edge: 18 mm

No. 14061-11



Curved to side Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14062-09



10.5 cm Cutting edge: 16 mm

No. 14062-10



Angled to side Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14063-09

Straight

Sharp/Sharp

10.5 cm

Cutting edge: 16 mm

Left Handed Iris Scissors Moria Iris Scissors Extra Narrow Iris Scissors Extra narrow, delicate pattern. Very slim blades with gentle cutting action. Moria MOST POPULAR LEFT-HANDED Moria 4877A Side-view showing extra narrow pattern Straight Curved **Straight** Straight Sharp/Sharp Sharp/Sharp Sharp/Sharp Sharp/Sharp 10.5 cm 10.5 cm 12.5 cm 10.5 cm Cutting edge: 10.5 mm Cutting edge: 18 mm Cutting edge: 18 mm Cutting edge: 16 mm

No. 14370-22

No. 14161-10

No. 14160-10

No. 14088-10

Largo Loops Scissors







Wagner





10 cm Cutting edge: 16 mm

No. 14040-10



10 cm Cutting edge: 16 mm

No. 14041-10



Sharp/Sharp

12 cm Cutting edge: 20 mm

No. 14068-12



Curved Sharp/Sharp

12 cm Cutting edge: 20 mm

No. 14069-12



Straight Sharp/Sharp

12 cm Cutting edge: 20 mm

No. 14070-12



Curved Sharp/Sharp

12 cm Cutting edge: 20 mm

No. 14071-12

Fine Scissors Lexer-Baby







10 cm Cutting edge: 17 mm

No. 14028-10



10 cm Cutting edge: 17 mm

No. 14029-10



10 cm Cutting edge: 16 mm

No. 14078-10



Blunt/Blunt

10 cm Cutting edge: 16 mm

No. 14079-10

ToughCut®

ugncut









Straight Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14058-09

11.5 cm Cutting edge: 16 mm

No. 14058-11



Curved Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14059-09

11.5 cm Cutting edge: 16 mm

No. 14059-11







Tungsten Carbide



Straight Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14568-09

11.5 cm Cutting edge: 16 mm

No. 14568-12



Curved Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14569-09

11.5 cm Cutting edge: 16 mm

No. 14569-12

ToughCut® and Tungsten Carbide









9 cm Cutting edge: 16 mm

No. 14558-09

11.5 cm Cutting edge: 16 mm

No. 14558-11



Curved Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14559-09

11.5 cm Cutting edge: 16 mm

No. 14559-11

CeramaCut®

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









9 cm

Cutting edge: 16 mm No. 14958-09

11.5 cm Cutting edge: 16 mm

No. 14958-11



Curved Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14959-09

11.5 cm Cutting edge: 16 mm

No. 14959-11

Strabismus

Tungsten Carbide Strabismus







9 cm Cutting edge: 12 mm

No. 14074-09

11.5 cm Cutting edge: 20 mm

No. 14074-11



Curved **Blunt/Blunt**

9 cm Cutting edge: 12 mm

No. 14075-09

11.5 cm Cutting edge: 20 mm

No. 14075-11





Blunt/Blunt

9 cm Cutting edge: 12 mm

No. 14574-09

11 cm Cutting edge: 20 mm

No. 14574-11



Curved Blunt/Blunt

9 cm Cutting edge: 12 mm

No. 14575-09

11 cm Cutting edge: 20 mm

No. 14575-11

Stevens Tenotomy



Walton





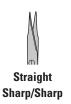
9.5 cm Cutting edge: 10 mm

No. 14077-09



10.5 cm Cutting edge: 10 mm

No. 14077-10



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

LaGrange

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





11.5 cm Cutting edge: 12 mm

No. 14173-12

Shea

Transplant scissors with light and delicate pattern.





12 cm Cutting edge: 16 mm

No. 14105-12

Side-view

Dissector Scissors

Slim blades for cutting tissue.



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

Spencer Ligature

Used for cutting stitches or suture.









Angled to side Sharp/Sharp

10 cm Cutting edge: 6 mm

No. 14081-09



Angled to side Sharp/Sharp

10.5 cm Cutting edge: 8 mm

No. 14082-09



Straight Sharp/Sharp

9 cm Cutting edge: 16 mm

No. 14076-09

Bonn Artery

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



Tissue Separating Scissors





Straight Sharp/Ball tip

9 cm Cutting edge: 10 mm 1.5 mm Ball Diameter

No. 14086-09



Straight Sharp/Ball tip

11.5 cm Cutting edge: 16 mm 1.5 mm Ball Diameter

No. 14080-11



Straight Blunt/Blunt

11.5 cm Cutting edge: 16 mm

No. 14072-10

Graefe **Adjustable Loops Fine Scissors** Kaye The finger loops can be enlarged to fit These scissors have semi-sharp outer almost any size. edges to better facilitate dissection. LARGE LOOP LARGE LOOP **SERRATED** Angled up Straight Straight Curved Sharp/Sharp Sharp/Sharp **Blunt/Blunt Blunt/Blunt** 10.5 cm 9.5 cm 9.5 cm 10.5 cm Cutting edge: 12 mm Cutting edge: 8 mm Cutting edge: 8 mm Cutting edge: 14 mm No. 14037-10 No. 14106-09 No. 14171-10 No. 14108-09

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.

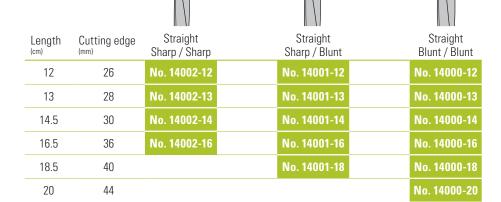




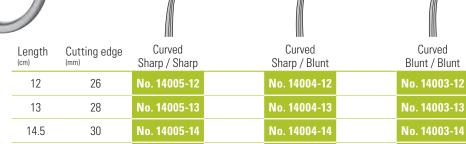
14008-14

F-5-T 14001-14

20



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



16.5 36 No. 14004-18 18.5 40

No. 14003-20 44

No. 14003-18

ToughCut® Standard Pattern

Tungsten Carbide Standard Pattern











13 cm Cutting edge: 28 mm

No. 14054-13



17.5 cm Cutting edge: 42 mm

No. 14130-17



Straight Sharp/Sharp

14.5 cm Cutting edge: 34 mm

No. 14502-14



Straight Sharp/Blunt

14.5 cm Cutting edge: 34 mm

No. 14501-14



Curved Sharp/Sharp

14.5 cm Cutting edge: 34 mm

No. 14505-14



Curved Sharp/Blunt

14.5 cm Cutting edge: 34 mm

No. 14504-14

Standard Pattern with Serrations





Standard Pattern with Large Finger Loops

These finger loops are approximately 1.5x larger than our standard surgical scissors.





Lister

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







14 cm Cutting edge: 30 mm

No. 14007-14



14.5 cm Cutting edge: 30 mm

No. 14101-14



Blunt/Blunt

14 cm Cutting edge: 26 mm

No. 14131-14

Metzenbaum Baby

Tungsten Carbide Metzenbaum Fino

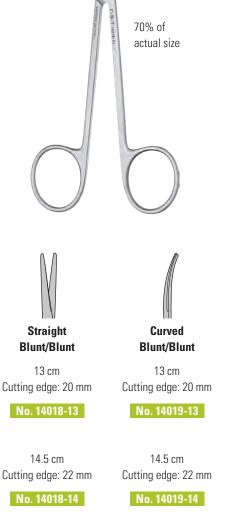






Ultra fine Blunt/ Blunt

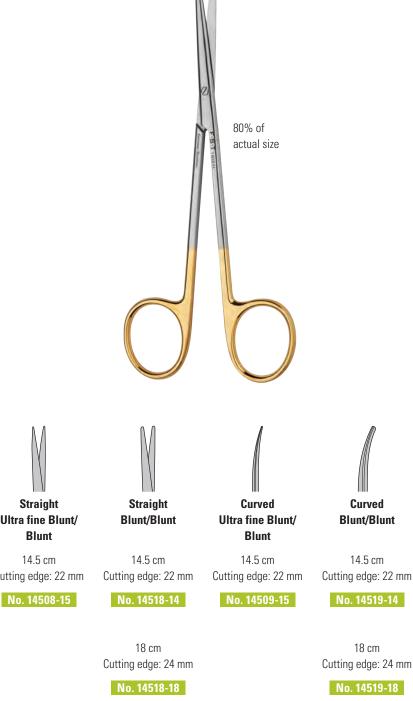
14.5 cm Cutting edge: 22 mm



18 cm

Cutting edge: 24 mm

No. 14019-18



18 cm

Cutting edge: 24 mm

No. 14018-18

Metzenbaum

ToughCut® Metzenbaum





Straight Blunt/Blunt

14.5 cm Cutting edge: 22 mm

No. 14116-14

18 cm Cutting edge: 24 mm

No. 14116-18



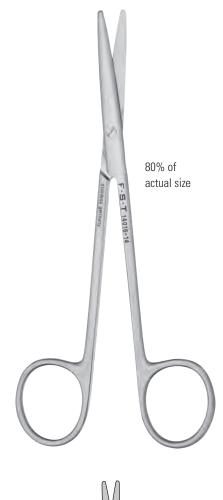
Curved Blunt/Blunt

14.5 cm Cutting edge: 22 mm

No. 14117-14

18 cm Cutting edge: 24 mm

No. 14117-18



Straight Sharp/Blunt

14.5 cm Cutting edge: 22 mm

No. 14024-14

Straight Blunt/Blunt

14.5 cm Cutting edge: 22 mm

No. 14016-14

18 cm Cutting edge: 24 mm

No. 14016-18

Curved Blunt/Blunt 14.5 cm

Cutting edge: 22 mm No. 14017-14

18 cm Cutting edge: 24 mm

No. 14017-18

Mayo ToughCut® Mayo **Tungsten Carbide Mayo** TOUGH TUNGSTEN CARBIDE **TUNGSTEN** CUT CARBIDE TOUGH CUT 14512-15 & 14512-17 0 80% of 80% of 80% of actual size actual size actual size **Straight** Curved Straight Curved **Straight** Curved Straight Blunt/Blunt Blunt/Blunt Blunt/Blunt **Blunt/Blunt Blunt/Blunt Blunt/Blunt Blunt/Blunt** 15 cm Cutting edge: 28 mm No. 14010-15 No. 14110-15 No. 14011-15 No. 14510-15 No. 14512-15 17 cm Cutting edge: 32 mm No. 14010-17 No. 14011-17 No. 14110-17 No. 14111-17 No. 14510-17 No. 14511-17 No. 14512-17

Mayo-Stille Mayo-Noble **Decapitation Scissors** Stop guard at tips to prevent slippage. MOST Popular 80% of 80% of 65% of 1 actual size actual size actual size Straight Curved Blunt/Blunt Blunt/Blunt 15 cm 15 cm Cutting edge: 28 mm Cutting edge: 28 mm No. 14012-15 No. 14013-15 **Straight** Curved Straight Blunt/Blunt **Blunt/Blunt Blunt/Blunt** 17 cm 17 cm 16.5 cm 16.5 cm 21 cm Cutting edge: 32 mm Cutting edge: 32 mm Cutting edge: 30 mm Cutting edge: 30 mm Cutting edge: 50 mm No. 14012-17 No. 14013-17 No. 14014-17 No. 14015-17 No. 14200-21

Micro Friedmann-Pearson Rongeur

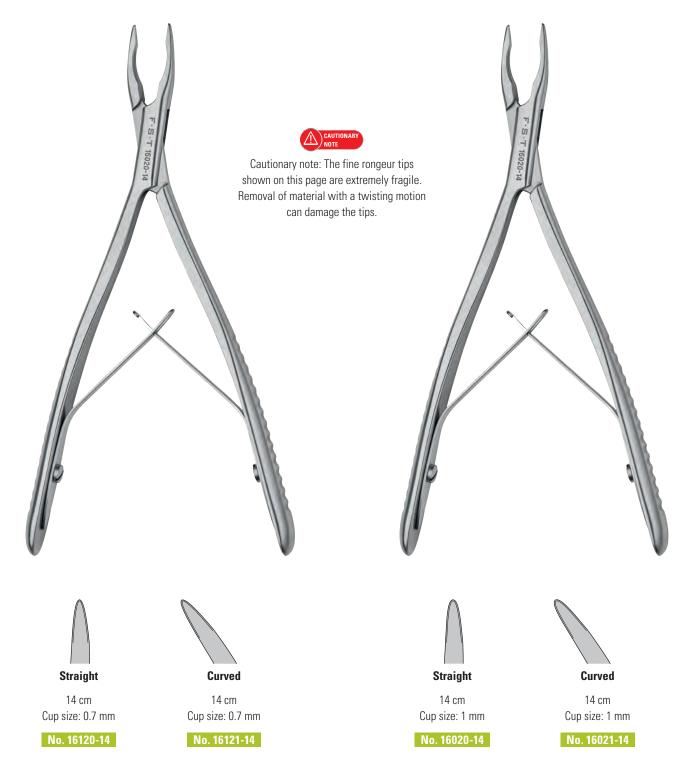
Experience the unparalleled precision of our flagship rongeur which features a specialized 0.5 mm cup diameter, tailored for the finest research techniques. These rongeurs guarantee effortless cutting while ensuring captured tissue remains secure and intact.



Friedmann-Pearson Rongeur

Best suited for delicate work, this is one of our finest tip rongeurs in our product line. The fine-cupped jaws have been designed with a longer and slimmer approach for better visibility.





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.





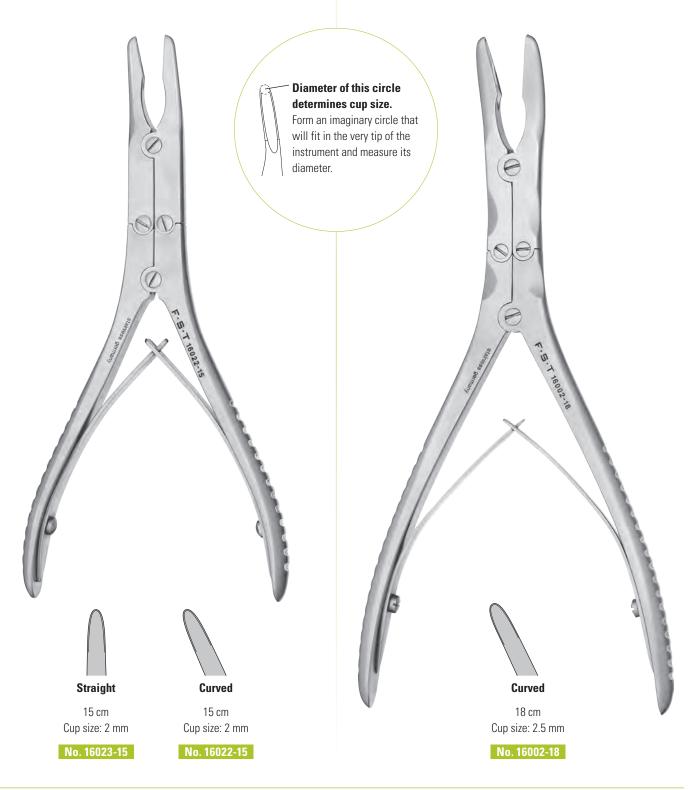
Luer

Baby-Beyer

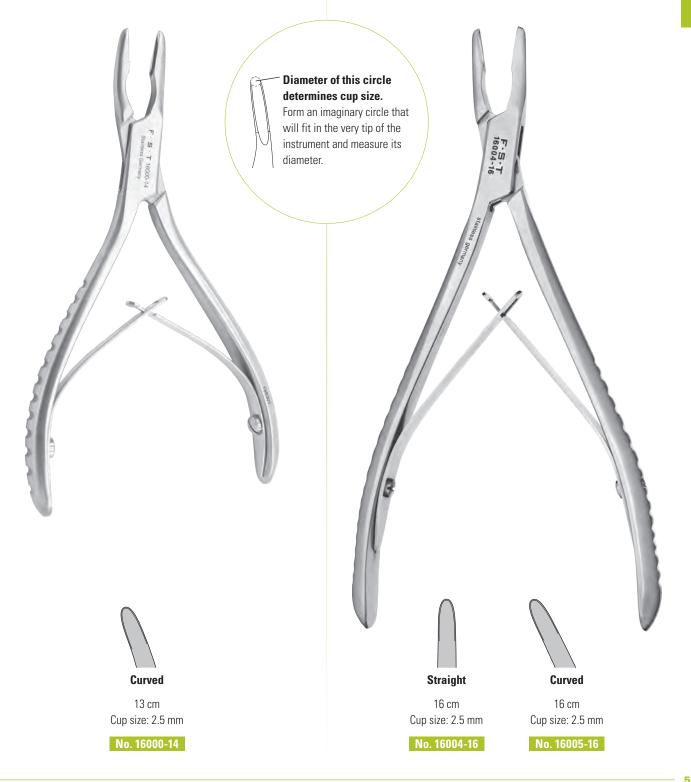
Double-action rongeur with strong jaws helps relieve hand strain.

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.



Bone Trimmers

Cartilage Cutter

Round cutting blades for tissue, cartilage and soft bone.





Curved

14 cm Cutting edge: 8 mm

No. 16109-14





Curved

14 cm Cutting edge: 9 mm

No. 16107-14

Dumont #15A 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.









Angled

11.5 cm Cutting edge: 10 mm Jaw Opening: 2.5 mm

Hard carbon steel

No. 11215-01

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.









AngledCutting

11.5 cm Cutting edge: 6 mm Jaw Opening: 2.5 mm

Epoxy coated carbon steel

No. 11215-02

Tungsten Carbide #15AGHM Cutter

High precision cutting tweezers are suitable for applications which require cutting small material or performing small cuts. The extreme hard Tungsten Carbide blade insert is designed to cut the hardest metals.







AngledCutting

11.5 cm Cutting edge: 10 mm Jaw Opening: 4 mm Anti-Magnetic Anti-Acid Stainless Steel (SA), sandblasted

No. 11515-02

Bone Nipper



Strong jaws for cutting tough cartilage.







11 cm Cutting edge: 5 mm

No. 16102-11



Aligica ap

10 cm Cutting edge: 7 mm

No. 16101-10

Malleus Nipper SERRATED





11 cm Cutting edge: 9 mm

No. 16140-11

Bone Cutting Spring Scissors





13 cm Cutting edge: 12 mm

No. 16144-13

Delicate Bone Cutting Spring Scissors

Slim, strong blades for cutting fine bones and tissues.





12 cm Cutting edge: 12 mm

No. 16143-12

Littauer Bone Cutter

Beebee Bone Scissors Very strong jaws with sharp points.

Tungsten Carbide Bone Scissors Strong heavy blades for cutting bone.











No. 16152-11



Straight 12.5 cm Cutting edge: 19 mm

Straight 15 cm







Straight 10 cm Cutting edge: 15 mm No. 16044-10





12.5 cm Cutting edge: 15 mm



16 cm Cutting edge: 15 mm

No. 16030-12 No. 16030-16



Cutting edge: 17 mm

No. 16152-12



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.





Cleveland Cutter

Listen

Gross anatomy bone cutter.





No. 16104-14

20 cm Cutting edge: 30 mm

No. 16104-19

17 cm Cutting edge: 15 mm

No. 16105-16

Bone Pliers

To peel back skull flaps.

Bone Shears





Curved

24 cm Cutting edge: 65 mm

No. 16150-24

Bone Forceps

Strong cross-serrated tips for bone crushing and removal.





11.5 cm Tip Ø: 1 mm Cross serrated

No. 16060-11

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.



4 mm Shaft diameter: 0.86 mm Pkg. of 100 screws

No. 19010-10

4.8 mm Shaft diameter: 1.19 mm Pkg. of 100 screws

No. 19010-00

Pkg. of 10 screws

No. 19010-11

Pkg. of 10 screws

No. 19010-01

For pre-drilling use our 0.7 mm burrs, see page 187.

For pre-drilling use our 0.9 mm burrs, see page 187.

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

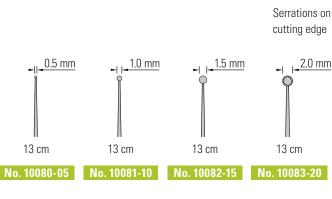
Dissecting

Chisel

Austin Chisel

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







Delicate Bone

Scraper

No. 10096-16

No. 10075-16

Von Graefe Knife

Used for cutting dura.



Cataract Knife

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



Sichel





13 cm Cutting edge: 1.5 mm

No. 10059-13



12.5 cm Cutting edge: 4 mm

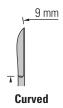
No. 10055-12



Angled 30°

12.5 cm Cutting edge: 4 mm

No. 10056-12



12 cm Cutting edge: 9 mm

No. 10073-14

Micro Knife Micro Knife Side Cut **Circle Knife** Sharp cutting edge around tip. 200% 250% 2.0 mm 28 mm Straight Side cut Round 13 cm 15 cm 16 cm Cutting edge: 28 mm Cutting edge: 2 mm Cutting edge: 2 mm

No. 10058-15

No. 10370-13

No. 10059-15

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.



Dissection knives

26 cm Cutting edge: 13 cm

No. 10157-13

28 cm Cutting edge: 15 cm

Cutting edge: 18 cm No. 10157-15

No. 10157-18

31 cm



Brain sectioning knife

44 cm Cutting edge: 30 cm

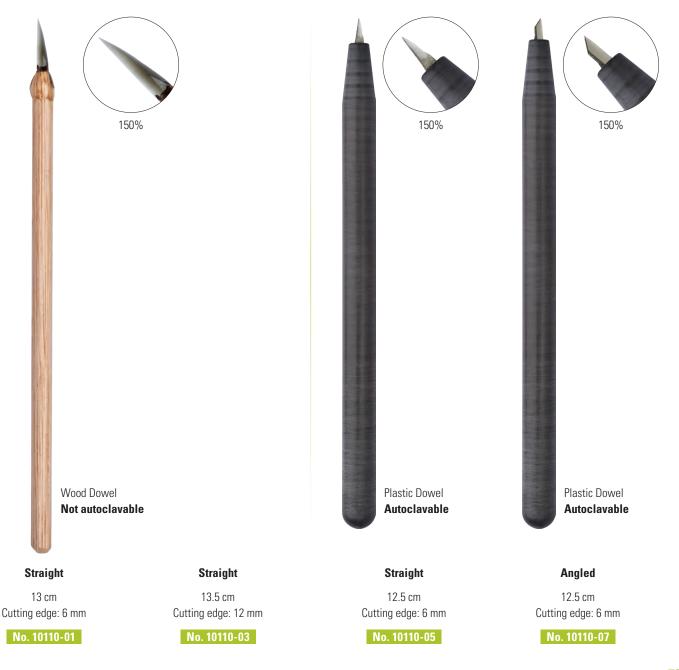
No. 10152-30

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.



Ceramic Blades

Advantages:

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

Aluminum Alloyed

Handle

12.5 cm

No. 10025-50

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

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.









Cutting angle: 30°

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

No. 10100-30



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

No. 10100-45

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

Blade Holders and Breakers



Jaw width: 4 mm

Flat surface

No. 10052-11



9 cm Jaw width: 4 mm

Concave / Convex surface Handle diameter: 5.5 mm

No. 10053-09



13 cm Jaw width: 4 mm

Concave / Convex surface Handle diameter: 8 mm

No. 10053-13

Breakable Carbon Steel Blades

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

Not autoclavable.



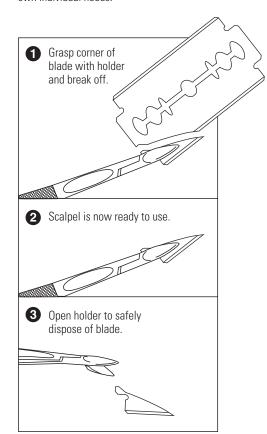


Blade thickness: 0.1 mm Pkg. of 10 blades

No. 10050-00

Create Your Own Blade

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



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.





22.5° Cutting angle

13.5 cm Cutting edge: 4.5 mm Tip thickness: 0.15 mm

No. 10316-14



Crescent blade

14 cm Cutting edge: 11 mm

No. 10317-14



15° Cutting Angle

13 cm Cutting edge: 5 mm Tip thickness: 0.15 mm

No. 10315-12



Needle blade

14.5 cm Cutting edge: 4 mm Tip thickness: 0.2 mm

No. 10318-14

Interchangeable Carbon Steel Blades





Angled **Carbon steel**

Cutting edge: 10 mm Pkg. of 5 blades

No. 10035-15



Curved Carbon steel

Cutting edge: 10 mm Pkg. of 5 blades

No. 10035-20



Small / Flat Carbon steel

Cutting edge: 1.5 mm Pkg. of 5 blades

No. 10035-05



Large / flat Carbon steel

Cutting edge: 2.75 mm Pkg. of 5 blades

No. 10035-10



Tip thickness: 0.2 mm



No. 10035-00

12.5 cm

No. 10035-12



Cane Carbon steel

Cutting edge: 12 mm Pkg. of 5 blades

No. 10035-25



Arc Carbon steel

Cutting edge: 12 mm Pkg. of 5 blades

No. 10035-30

Scalpel Handle #4 with Silicone

For heavy, gross anatomy work.

Molded to fit hand.

Standard Scalpel Handle #4 Solid

Especially suitable for large dissections.

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.**





#20 blades

Box of 100 blades

No. 10020-00



#21 blades

Box of 100 blades

No. 10021-00



#22 blades

Box of 100 blades

No. 10022-00



#23 blades

Box of 100 blades

No. 10023-00





13.5 cm

No. 10009-13

13 cm

No. 10004-13

#3 Standard

#3 Secure

Blades for #3 and #7 Scalpel Handles

#3 Stalluaru

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

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











#10 blades

Box of 100 blades

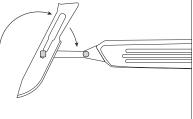
No. 10010-00



F-S-T 10003-13

F.S.T 10003-12

STANTES GERMAN Then slide pin to front slot of blade. Rotate blade clockwise and secure blade to back pin on handle.







#11 blades

Box of 100 blades

No. 10011-00



#12 blades

Box of 100 blades





#15 blades

Box of 100 blades

No. 10015-00

12 cm **No. 10003-12**

12 cm

No. 10003-13

Short Scalpel Handle #7

Standard Scalpel Handle #7

Scalpel Blade Remover

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

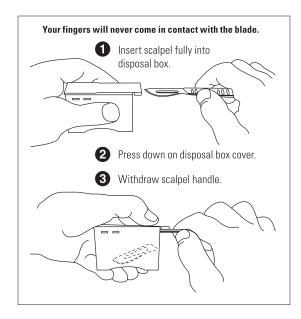


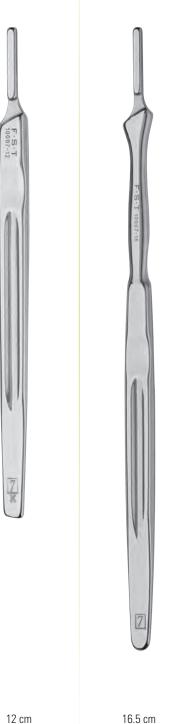
No. 10002-00



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







12 cm

No. 10007-12

No. 10007-16

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.**





Scalpel shown with safety cartridge closed and locked into place.





#60 blades

7.5 cm Box of 100 blades

No. 10060-00

#10 scalpels

14 cm Pkg. of 10 blades

No. 10000-10

#11 scalpels

14 cm Pkg. of 10 blades

No. 10000-11

#15 scalpels

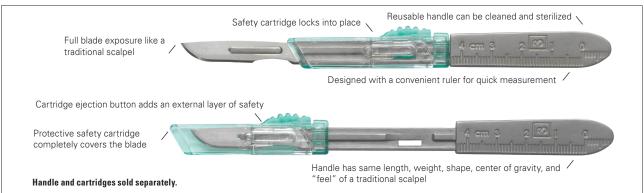
14 cm Pkg. of 10 blades

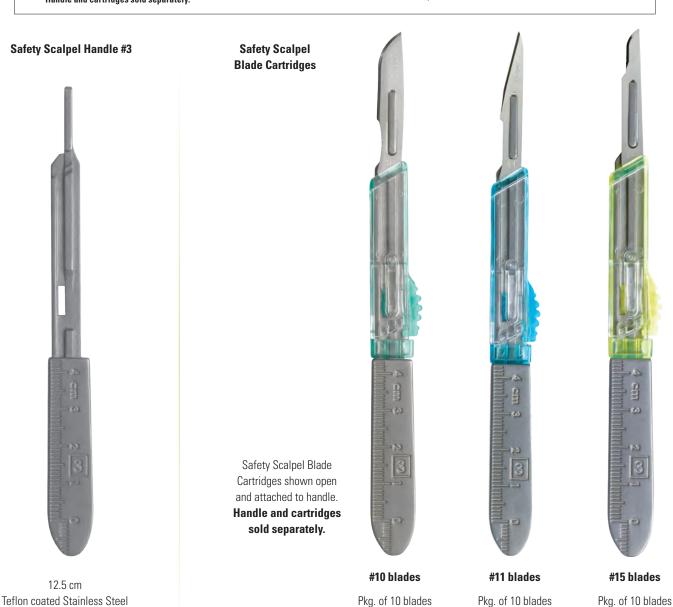
No. 10000-15

No. 10060-13

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.**





No. 10006-12

No. 10015-10

No. 10011-10

No. 10010-10

FORCEPS, TWEEZERS, HEMOSTATS & VASCULAR INSTRUMENTS





Dumont #5SF

The finest tips ever produced by Dumont.





" 0.025 mm

Super fine

11 cm 0.025 x 0.005 mm Inox

No. 11252-00

Dumont #5 Fine Tips

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



<u>0.05 mm</u>

Biology

11 cm 0.05 x 0.01 mm Inox

No. 11254-20

Dumont #5 Ceramic Coated

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





0.05 mm

Biology

11 cm 0.05 x 0.01 mm Ceramic coated Inox

No. 11252-50

Dumont #5CO

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





0.05 x 0.01 mm Dumostar

No. 11295-20



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.









Standard Straight

11 cm 0.1 x 0.06 mm Inox

No. 11253-20

Medical #5A



Standard Off-Center

11.5 cm 0.13 x 0.08 mm Inox

No. 11253-21

Medical #7S



Standard Curved

12 cm 0.17 x 0.1 mm Inox

No. 11273-22

Medical #7



Standard Curved

11.5 cm 0.17 x 0.1 mm Inox

No. 11273-20

Medical #5/45



Standard Angled 45°

11 cm 0.1 x 0.06 mm Inox

No. 11253-25

Medical #5/90



Standard Angled 90°

11 cm 0.1 x 0.06 mm Inox

No. 11253-29



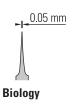
Dumont #55

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.





11 cm 0.05 x 0.02 mm Inox

No. 11255-20

11 cm 0.05 x 0.02 mm Dumostar

No. 11295-51



11 cm 0.1 x 0.06 mm Inox

No. 11251-23



0.05 x 0.02 mm Inox

No. 11252-23

Dumont #5

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











11 cm 0.1 x 0.06 mm Inox

No. 11251-20

Dumoxel

No. 11251-30

Dumostar

No. 11295-00



Inox No. 11252-20

0.05 mm

Dumoxel

0.08 mm

Standard

11 cm

0.08 x 0.04 mm

Carbon steel

No. 11251-10

No. 11252-30

Dumostar

No. 11295-10

Titanium

No. 11252-40





Dumont WA #5

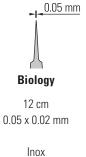
These specially designed forceps offer improved stability with an ergonomic body that allows the forceps to fit more comfortably in your hand. A domed end with no soldering grooves allows the forceps to be thoroughly and easily cleaned, preventing biofilm residues.







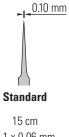
No. 11251-21



No. 11252-21

Dumont #5XL





0.1 x 0.06 mm

Inox

No. 11253-10



Dumont #L5

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



0.10 mm

Standard

11 cm 0.1 x 0.06 mm

Inox

No. 11253-27

Dumont #5 Teflon® Coated

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



0.10 mm

Standard

11 cm 0.1 x 0.06 mm

Teflon coated Inox

No. 11626-11

Dumont #5/45

45° tips for improved visibility and control.





0.10 mm

Standard

11 cm 0.1 x 0.06 mm

Dumoxel

No. 11251-35

Dumont #5/45 Cover Slip Forceps

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





1 mm from tip to bend

11.5 cm Upper tip: 0.1 x 0.08 mm, Lower tip: 0.1 x 0.02 mm Dumoxel

No. 11251-33



Dumont #3

Tapered and sturdy shanks.



Dumont #6

Sharply angled tips for access to difficult areas.



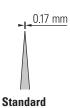






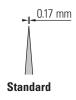
12 cm 0.17 x 0.1 mm Dumoxel

No. 11231-30



12 cm 0.17 x 0.1 mm Dumostar

No. 11293-00



11 cm 0.17 x 0.1 mm Inox

No. 11231-20



Standard

11.5 cm 0.17 x 0.1 mm Inox

No. 11260-20

Dumont #7B



Dumont #7 **Fine Tips**

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







11.5 cm 0.07 x 0.03 mm Inox

No. 11274-20



MOST Popular









Dumoxel®

0.07 mm

Standard

11.5 cm 0.17 x 0.1 mm Dumoxel

No. 11271-30

Dumostar

No. 11297-00





Dumostar

No. 11297-10

Titanium No. 11272-40













11.5 cm 0.07 x 0.04 mm Ceramic coated Inox

No. 11272-50



11.5 cm 0.17 x 0.1 mm Inox

No. 11270-20

F · S · T by DUMONT 9

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.

Dumont #2AP Epoxy Coated

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











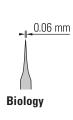


11 cm 0.13 x 0.08 mm Dumoxel

No. 11241-30

Dumostar

No. 11294-00



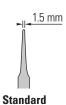
11 cm 0.06 x 0.04 mm Dumoxel

No. 11242-40



12 cm 0.4 x 0.02 mm Inox

No. 11223-20



12 cm 1.5 x 0.7 mm Epoxy coated Inox

No. 11220-21



Dumont AA

Dumont AA Epoxy Coated

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

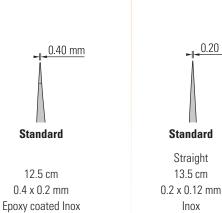


Dumont SS

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

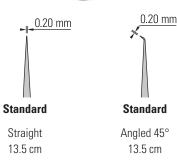






No. 11210-10









13.5 cm

0.1 x 0.06 mm

Dumoxel

No. 11200-33



12.5 cm 0.4 x 0.2 mm Inox

No. 11210-20

Inox

No. 11203-23

Dumont Mini Forceps









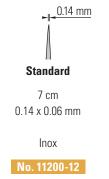




Mini #3

Standard 7 cm 0.12 x 0.07 mm





Mini #5



1.2 mm For components

11.5 cm 8 x 1.2 mm

Dumoxel No. 11229-08

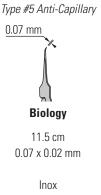


For components

11.5 cm 10 x 1.2 mm

Dumoxel

No. 11229-10



No. 11258-20

Inox

No. 11200-10

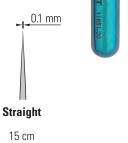
Balanced #5 Forceps

These forceps feature an ergonomic design and ultra fine tips for optimal comfort and accuracy. The balanced action of the forceps ensures seamless efficiency during prolonged tasks, providing ease in rotational pivoting with the rounded handle and a counterweight technology providing enhanced control and stability.











0.1 x 0.06 mm



15 cm 0.05 x 0.02 mm

No. 11852-20

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.









11 cm 0.1 x 0.06 mm Gold plated Stainless Steel

No. 11915-11



12 cm 0.2 x 0.1 mm Gold plated Stainless Steel

No. 11917-12



11 cm 0.1 x 0.06 mm Gold plated Stainless Steel

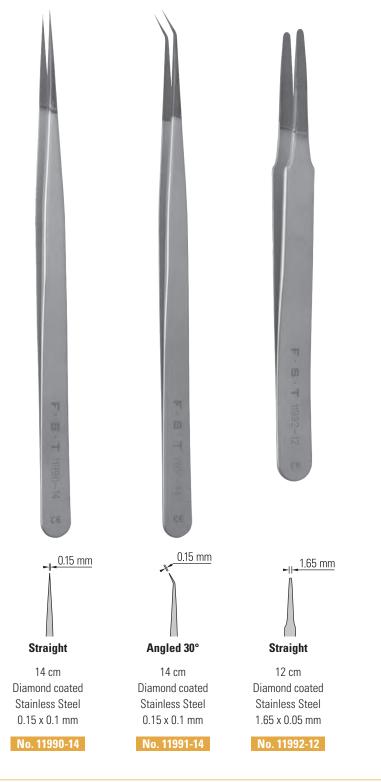
No. 11911-11

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.

Diamond Coated Forceps

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.







0.3 x 0.15 mm

No. 11923-13

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.

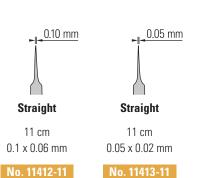




Fine Forceps Mirror Finish

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.

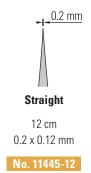




Fine Forceps Broad Shanks

Straight forceps with sturdy coarse tips.







4 cm

0.5 x 0.5 mm

No. 11988-03



with plastic tips

0.5 x 0.5 mm

No. 11980-13

#2A Forceps

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.









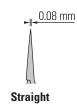


1.5 x 0.1 mm **No. 11992-20**



12 cm 1.5 x 0.1 mm

No. 11972-20



11.5 cm 0.08 x 0.04 mm

No. 11480-11



Straight

11 cm 0.1 x 0.06 mm

No. 11485-11



Curved

11.5 cm 0.2 x 0.12 mm

No. 11487-11

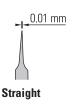


Moria Ultra Fine Forceps

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 MC40 Moria MC40/B



11 cm 0.05 x 0.01 mm

No. 11370-40



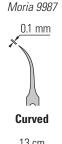
11 cm 0.05 x 0.01mm

No. 11370-42 No. 11399-80



Moria 9980

Straight 13 cm 0.1 x 0.06 mm



13 cm 0.1 x 0.06 mm No. 11399-87

Moria Iris Forceps

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



0.50 mm

Moria MC31/B

Straight Curved

Smooth Smooth 10 cm 10 cm 0.5 x 0.3 mm 0.5 x 0.3 mm

No. 11373-22 No. 11373-12





No. 11370-31

Moria

Moria Bonn Forceps

Moria Paufique Forceps









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

Moria TI7835



Straight
Tying platform with
1x2 teeth

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

No. 11383-56

Moria 3225



Straight
Tying platform with
1x2 teeth

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

No. 11390-25



Fine Forceps

SuperGrip Forceps

The tips are processed with MicroCrystals®, a method developed by S&T® 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.







300% The gripping surface is similar to a match head.





0.3 mm





Bonn

The 1x2 teeth forceps No. 11084-07 are the finest of their kind with 0.1 mm wide teeth. The smooth forceps No. 11083-07 have a narrow 5 mm long platform. Both forceps have a pin inside the shanks to limit the applied pressure.



Mirror Finish Bonn Forceps

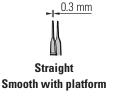
The fine Bonn forceps features a tying platform and is also available with additional 1x2 teeth. It's designed for tissue manipulation and suturing. The wide handle ensures safe handling. The fine and precise tips make it suitable for work under a high magnification.



Mirror Finish Suture Tying Forceps with Teeth

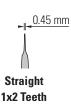
A unique tip style fusing a suture tying platform and a 1x2 teeth tip for tissue manipulation.





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

No. 11083-07



7 cm Tip width: 0.3 mm Teeth width: 0.1 mm

No. 11084-07



Straight Tying platform with 1x2 teeth

10.5 cm Tip width: 0.12 mm Tying platform: 5 mm

No. 11090-10



Straight Smooth with platform

10.5 cm Tip width: 0.3 mm Tying platform: 5 mm

No. 11093-10



Straight
Tying platform with
1x2 teeth

9 cm Tip width: 0.3 mm Tying platform: 6 mm

No. 11090-09

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.





Moria 9604



Straight Smooth with platform

9.5 cm Tip Ø: 0.3 mm Tying platform: 8 mm

No. 11393-04

Moria 9605



Curved Smooth with platform

8.5 cm Tip Ø: 0.3 mm Tying platform: 7.5 mm

No. 11393-05

McPherson Forceps





0.4



Angled 45° Smooth with platform

9 cm Tip Ø: 0.4 mm Tying platform: 6 mm

No. 11063-07

Suture Tying Forceps

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







Straight Smooth with platform

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

No. 00272-13

Suture Tying Forceps

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





Straight Smooth with platform

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

No. 18025-10

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.





Curved Smooth with platform

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

No. 18026-10







15 cm Tip Ø: 0.5 mm

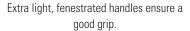
No. 11006-15

Graefe Forceps

Bishop-Harman

Octagon Forceps

The octagon shaped grip provides a particularly secure finger hold.





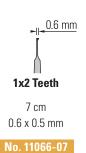














0.6 mm

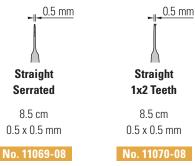
Curved

Serrated

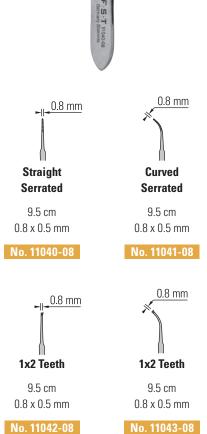
7 cm

 $0.6 \times 0.5 \text{ mm}$









Extra Fine Graefe Forceps

Graefe Forceps





11650-10 - 11652-10

The length of all forceps is 10 cm



MOST

POPULAR

The length of all forceps is 10 cm The dimensions of all tips are 0.5 x 0.5 mm



Serrated No. 11150-10



No. 11158-10



No. 11153-10



Slightly curved Serrated

No. 11151-10



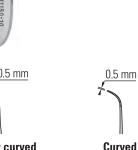
Slightly curved Smooth

No. 11159-10



Slightly curved 1x2 Teeth

No. 11154-10



Curved Serrated

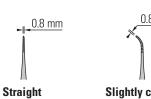
No. 11152-10



Smooth No. 11160-10



No. 11155-10



Serrated 0.8 x 0.7 mm

No. 11050-10



Curved Serrated

0.8 x 0.7 mm

No. 11052-10



Straight 1x2 Teeth

0.8 x 0.7 mm

No. 11053-10



1.2 x 0.9 mm Titanium

No. 11650-10



Slightly curved Serrated

0.8 x 0.7 mm





Angled Serrated

0.8 x 0.7 mm

No. 11049-10



Slightly curved 1x2 Teeth

0.8 x 0.7 mm

No. 11054-10



Slightly curved Serrated

> 1.2 x 0.9 mm Titanium

No. 11651-10



Curved 1x2 Teeth

0.8 x 0.7 mm

No. 11055-10



Serrated

1.2 x 0.9 mm Titanium

No. 11652-10

Sliding Lock Forceps

Episcleral Forceps

Pierse Fixation Forceps

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

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.







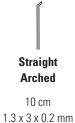
1800%

Tissue retention hole of 0.3 mm behind tips.



11 cm 1 x 0.75 mm

No. 11062-10



No. 11071-10



13 cm 1 x 0.5 mm

No. 18155-13

Plastic Forceps

These forceps are non-magnetic, acid resistant and able to withstand temperatures up to 240 °C (464 °F). Tips do not spread under pressure. Plastic forceps are made of Acetyl and will be sold in packages of 10 pieces.



These tissue transport forceps have a gentle action.

Cover Glass Forceps













11.5 cm 0.4 x 0.25 mm

No. 11700-00



Blunt 11.5 cm

Straight

1.5 x 0.4 mm

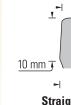
No. 11700-03



Angled Cross serrated

10 cm 4 x 8 mm

No. 11075-00

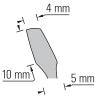


Straight Smooth

5 mm

10.5 cm 4 x 10 x 0.6 mm

No. 11074-02



Angled Smooth

10.5 cm 4 x 10 x 0.6 mm

No. 11073-10



Curved Sharp

11.5 cm 0.3 x 0.2 mm

No. 11700-01



Angled 45° Sharp

11.5 cm 0.3 x 0.2 mm

No. 11700-02



Curved **Blunt**

11.5 cm 1.5 x 0.4 mm

No. 11700-04

Ring Forceps

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



Cupped forceps for atraumatic gripping of organs and tissues.

Live Insect Handling Forceps

Very delicate.















8.5 cm ID: 1 mm OD: 1.5 mm x 0.5 mm

No. 11101-09



Straight Ring

9 cm ID: 2.2 mm OD: 3 mm x 1.3 mm

No. 11103-09



Straight Ring

9 cm ID: 4.8 mm - OD: 6 mm x 1.5 mm

No. 11106-09



Straight Circle

11.5 cm 7 x 0.5 mm

No. 11072-11



Straight Narrow

10 cm 0.9 x 0.15 mm

No. 26029-10



Straight Wide

10 cm 2.3 x 0.3 mm

No. 26030-10

Micro-Adson

Our most delicate version of the popular Adson forceps.

F-5-T 11018-12

Straight Serrated

12 cm 0.8 x 0.9 mm

No. 11018-12



12 cm 0.8 x 1.3 mm

No. 11019-12

Micro-Adson with Fenestrated Handle

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



0.8 x 1 mm No. 11020-12

Serrated

12 cm



12 cm $0.5 \times 0.6 \text{ mm}$

No. 11032-12



Straight Tying platform with 1x2 teeth

12 cm 0.8 x 2 mm Tying platform: 6 mm

No. 11022-12

Adson

Wide, strong grip with narrow tips.









Straight 1x2 Teeth

12 cm 1.5 x 2 mm

No. 11027-12



Straight **Cross Serrated Tungsten Carbide**

> 12 cm 1.5 x 1.3 mm

No. 11506-12

Adson-Brown

Adson DeBakey

Ideal for gentle, atraumatic gripping of vessels, tissue and other delicate structures. Two rows of atraumatic teeth interfit with one opposite row of atraumatic teeth.

F.S.T





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.



Straight DeBakey serrations

12.5 cm 1.75 x 1.5 mm

No. 11617-12



Straight DeBakey serrations

15 cm 1.75 x 1.5 mm

No. 11616-15

Adson-Graefe





Straight Fine teeth

12.5 cm 4.5 x 1.25 mm

No. 11030-12





Straight Shark teeth

12 cm 2 x 1.4 mm

No. 11627-12

Standard Pattern

Broad pattern with strong spring action.





Straight Serrated

| Length (cm) | lip width | Item |
|----------------|-----------|--------------|
| 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 |



Curved Serrated

| Length (cm) | Tip width | Item | |
|-------------|-----------|--------------|--|
| 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 | |

Narrow Pattern

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









Straight Serrated

| Length (cm) | Tip width | Item |
|----------------|-----------|--------------|
| 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 |

TITANIUM



Curved Serrated

| Len _(cm) | gth | Tip width | ltem |
|---------------------|-----|-----------|--------------|
| 1 | 2 | 2 | No. 11003-12 |
| 1 | 3 | 2.15 | No. 11003-13 |
| 14 | 1.5 | 2.25 | No. 11003-14 |
| 1 | 6 | 2.35 | No. 11003-16 |
| 1 | 8 | 2.4 | No. 11003-18 |
| 2 | 20 | 2.75 | No. 11003-20 |

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.





Straight Serrated

13 cm Tip width: 1.3 mm

No. 11008-13

15 cm Tip width: 1.5 mm

No. 11008-15

15 cm Tip width: 1.5 mm Titanium

No. 11608-15





15 cm Tip width: 1.5 mm

Curved

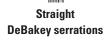
Serrated

No. 11009-15



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





15 cm Tip width: 1.2 mm

No. 11076-15



12.5 cm Tip width: 1.3 mm

No. 11024-12



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.

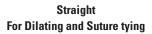




14.5 cm Tip Ø: 0.1 mm

No. 18601-15

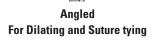




15 cm Tip Ø: 0.3 mm

No. 18602-15





14.5 cm Tip Ø: 0.2 mm

No. 18603-14



Tissue Forceps





Straight 1x2 Teeth / Narrow

10 cm

No. 11023-10 Straight 1x2 Teeth / Standard

12 cm

12 cm

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

15.5 cm

15.5 cm

15.5 cm

No. 11023-15 No. 11021-15 No. 11022-15

Tissue Forceps

Used with rongeur No. 16021-14 in laminectomy to securely hold spinal column.





14 cm

No. 11029-14

Gillies

C

1.5 mm 2.0 mm

F·S·T 11028-15

Straight 1x2 Teeth & cross serrated

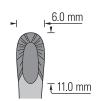
> 15 cm 1.5 x 2 mm

No. 11028-15

Russian

Special cupped pattern for superior grip.





Straight **Cupped teeth**

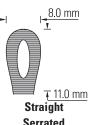
> 15 cm 6 x 11 mm

No. 11026-15

Organ Holding Forceps

With limit screw to prevent excessive applied pressure.





Serrated

14.5 cm 8 x 11 mm

No. 11031-15



London Forceps



Angled Serrated

16 cm 1 x 0.9 mm

No. 11080-02

Titanium Forceps







16 cm 0.3 x 0.5 mm

No. 11602-16

Gerald Forceps



No. 11015-18

- 11

No. 11014-18

Taylor Forceps Potts-Smith Forceps Mouse Handling Forceps Serrated and smooth versions available. Long handles make picking up small rodents easy and help prevent bites. Straight Serrated Straight 18 cm Serrated 1.25 x 1 mm 17 cm No. 11012-18 1.5 x 1 mm No. 11010-17 21 cm 1.8 x 1.5 mm No. 11012-21 25 cm 2 x 1.6 mm Straight No. 11012-25 Smooth 17 cm 1.5 x 1 mm No. 11016-17 Curved Serrated 18 cm 1.25 x 1 mm Curved No. 11013-18 21 cm Serrated Forceps with serrated silicone tips 17 cm 21 cm 15 x 20 mm 1.5 x 1 mm F-S-T 11010-1.8 x 1.5 mm No. 11036-20 No. 11011-17 No. 11013-21 F.S.T 11024-18 (Q) [H] Curved **Straight** Curved Smooth 1x2 Teeth 1x2 Teeth 17 cm 18 cm Replacement silicone tips 18 cm 1.5 x 1 mm 1.25 x 1 mm 1.25 x 1 mm Pkg. of 2 tips No. 11017-17 No. 11024-18 No. 11025-18 No. 11036-90

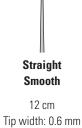
These are the finest hemostats in our product line.

Ultra Fine Hemostat

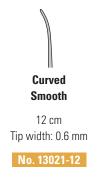




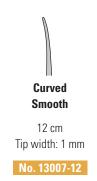




No. 13020-12







Micro-Mosquito

Halsted-Mosquito

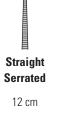




13108-12 13108-12







Curved Serrated 12 cm Tip width: 1 mm Tip width: 1 mm No. 13011-12 No. 13010-12

Angled 90° Serrated 12 cm Tip width: 1 mm

No. 13012-12

Straight Serrated 12.5 cm Tip width: 1.1 mm No. 13008-12

Left handed

No. 13108-12

Curved Serrated 12.5 cm Tip width: 1.1 mm No. 13009-12 Left handed

Crile

Kelly





Straight Serrated

14 cm Tip width: 1.5 mm **No. 13004-14** Curved Serrated

14 cm Tip width: 1.5 mm

No. 13005-14



14 cm Tip width: 1.5 mm

No. 13018-14



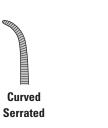
Curved Serrated

14 cm Tip width: 1.5 mm

No. 13019-14

Baby-Mixter





14 cm Tip width: 1.3 mm

No. 13013-14





14 cm Tip width: 1.5 mm

No. 13014-14



Curved Serrated

14 cm Tip width: 1.5 mm

No. 13015-14

Hartmann





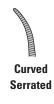
Backhaus Towel Clamp





10 cm Tip width: 1 mm

No. 13002-10



10 cm Tip width: 1 mm

No. 13003-10



 $9\,\mathrm{cm}$

No. 11095-09



Curved Round tips

13 cm

No. 11095-13

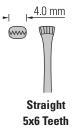
Allis Clamp

Tissue and organ holding forceps.



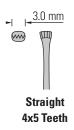
Lorna Towel Clamp





15 cm Tip width: 4 mm

No. 11091-15



12 cm Tip width: 3 mm

No. 11092-12



10 cm Tip width: 7 mm

No. 11096-10



Curved Serrated

13 cm Tip width: 7 mm

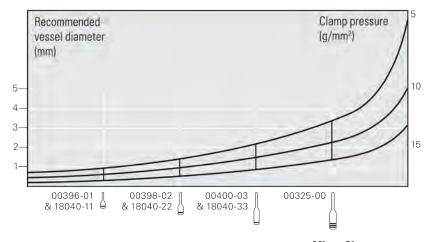
No. 11096-13

Clamp Size and Clamp Pressure

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

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

| Clamp (ea) | L x W (mm) | Vessel Diameter Range (mm) |
|---------------------|------------|----------------------------|
| 00396-01 & 18040-11 | 3.5 × 1.0 | 0.4 - 1.0 |
| 00398-02 & 18040-22 | 5.5 x 1.5 | 0.6 - 1.5 |
| 00400-03 & 18040-33 | 7.5 × 1.75 | 1.0 - 2,25 0 |
| 00325-00 | 10 x 2.15 | 2.0 - 5.0 |











No. 00398-02





No. 00325-00

Double Micro Clamps

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







No. 18040-22



No. 00400-03

No. 18040-33

Micro Clamp Applying Forceps

For use with S&T vascular clamps.

S&T®





14 cm Lock: Yes

No. 00071-14

Lock: No

No. 00072-14

Micro Clamp Applying Forceps

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







Lock: No

No. 18040-14

Micro Clip Applicator with Lock

Forceps Style Clip Applicator

Biemer Clip Applicator (Forceps Style)

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

Application forceps for Biemer clamps made of surgical stainless steel.







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





14 cm For use with FST 18058 (Biemer Clip) series

Lock: No

No. 18059-14

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

Titanium Micro Serrefines

Lightweight with strong clamping pressure.

Delicate atraumatic serration



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

Biemer Clip

Serrated: Yes Straight

15 mm

Clamping Length: 6 mm Clamping Length: 9 mm

18 mm

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

No. 18058-15

No. 18058-18



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

Bulldog Artery Spring Clamp

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



-0

Straight

No. 18144-30

30 mm Serrated: Yes Light pressure

Moria

Moria Vessel Clamp

Straight

33 mm Serrated: Yes Light pressure

Jaw dimensions: 13 x 1.6 mm

Moria 201/A



No. 18320-11

Moria Bulldog Type Clamps

53 mm Serrated: No

Strong pressure
Jaw dimensions: 16 x 2.5 mm

Straight

Moria MC43



No. 18374-43

Curved

Moria MC44



Dietrich Bulldog Clamps

Serrated: Yes Closing pressure: 50 g



Straight

No. 18038-45



Bulldog Type Serrefines

Serrated: Yes



Straight

28 mm Medium pressure



No. 18050-28

Curved

28 mm Medium pressure



No. 18051-28



Straight 35 mm

Strong pressure

No. 18050-35

All lines and a

Curved

35 mm Strong pressure

No. 18051-35

Straight

50 mm Strong pressure

No. 18050-50

Curved

50 mm Strong pressure

No. 18051-50

Schwartz Micro Serrefines



Serrated: No Strong pressure 26 mm

Straight



No. 18052-01

Light bend



No. 18052-02



No. 18052-03

Mini Serrefines

28 mm Medium pressure Serrated: Yes

Jaw dimensions: 6 x 2 mm

Straight



No. 18054-28

Curved



No. 18053-28



Horizon™ Metal Ligation System

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



Ligation Applicator

Curved

20 cm

No. 18070-00

128

Clip Remover

Straight

16.5 cm

No. 18073-00

Vascular Occluders

Applications

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

Operation instruction

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

Benefits

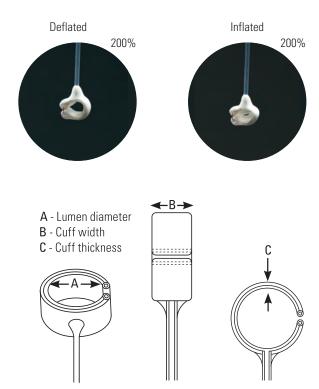
- Occlusion is accomplished without traction on vessels or surrounding tissues
- The actuating tube may be exteriorized from the occlusion site for remote actuation.
- Performance during implantations is reliable and consistent.
- Easily maintained: can be autoclaved or cold sterilized.
- Made from soft,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



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



A: Lumen diameter

B: Cuff width

C: Cuff thickness

VO-1.5 N

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

No. 18080-01

V0-2

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

No. 18080-02

V0-3

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

No. 18080-03

V-Hook

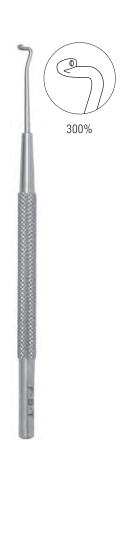
Aids in feeding fine suture around blood vessels, works very similar to ligation aids.

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.







LEFT-HANDED



Tip Dimensions: 0.4 x 0.2 mm

No. 18052-12



10.5 cm Hole Ø: 0.4 mm

No. 18062-12



13.5 cm Hole Ø: 1 mm

No. 18062-13



13.5 cm Hole Ø: 1 mm

No. 18063-13

Vessel Dilators

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









11 cm Tip Ø: 0.1 mm

No. 00126-11

Tip Ø: 0.2 mm

No. 00125-11





13.5 cm Tip Ø: 0.2 mm

No. 00276-13





12 cm Tip Ø: 0.1 mm

No. 18131-12

Tip Ø: 0.2 mm

No. 18132-12

Micro Cannulation System

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



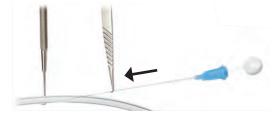
Features

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



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

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.













No. 11280-11

For tubing of 0.5 mm OD 11 cm

No. 11281-11

For tubing of 1 mm OD 11 cm

No. 11282-11



For tubing of 0.35 mm OD 11.5 cm

No. 18403-11

For tubing of 0.6 mm OD 11.5 cm

No. 18406-11

For tubing of 0.6 mm OD 13.5 cm

No. 18406-13

For tubing of 0.35 mm OD 11 cm

No. 00608-11

For tubing of 0.5-1 mm OD 11 cm

No. 00574-11

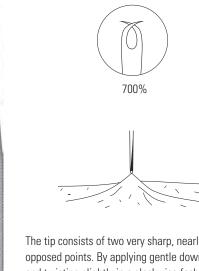


PROBES, NEEDLE HOLDERS, WOUND CLOSURE, RETRACTORS

| | Probes & Hooks | 135 – 139 |
|----|----------------|-----------|
| | Spatulae | 140 — 144 |
| | Spoons | 145 |
| | Pins & Holders | 146 — 147 |
| | Wound Closure | 148 — 159 |
| 40 | Retractors | 160 — 167 |
| | | |

Double Pronged Pick

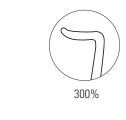
For peritoneum, pleura, endocardium, organ capsules and skin. Grasps lifts skin, tissue and dura etc.

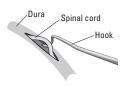


F-S-T 18067-11 stainless germany

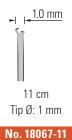
The tip consists of two very sharp, nearly horizontally opposed points. By applying gentle downward pressure and twisting slightly in a clockwise fashion, the points will embed themselves horizontally into fine membranes or skin etc., so that it may be lifted upward. This instrument also has been used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

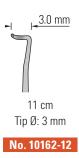






Shaped like a ligation aid and sized to isolate the spinal cord from the dura of adult mice and neonatal rats. The cord can then be cut with minimal damage to the dura.







Bonn Micro Probes Micro Points

Actual size Actual size Angled 45° Straight 13.5 cm 13.5 cm Tip Ø: 0.025 mm Tip Ø: 0.025 mm No. 10032-13 No. 10030-13 Actual size Actual size **Wide Hook Narrow Hook** 13.5 cm 13.5 cm

Tip Ø: 0.025 mm

No. 10031-13



300%

Tip Ø: 0.02 mm

No. 10065-15

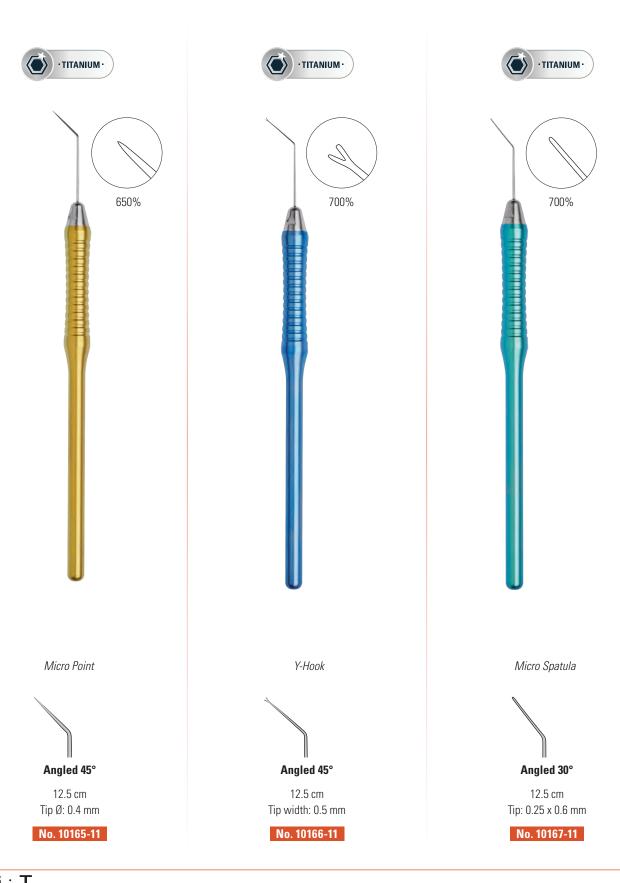
Tip Ø: 0.038 mm

No. 10033-13

Probes and Explorers Micro Hooks MOST Popular Actual size Actual size 175% Angled 80° Short Straight Micro hook 15.5 cm 15.5 cm 13 cm Tip Ø: 0.12 mm Tip Ø: 0.25 mm Tip Ø: 0.05 mm No. 10140-04 No. 10140-01 No. 10064-14 175% 175% Actual size Actual size Angled 80° Long Angled 80° **Blunt hook Sharp hook** 15.5 cm 15.5 cm 12 cm 12 cm Tip Ø: 0.15 mm Tip Ø: 0.15 mm Tip Ø: 0.3 mm Tip Ø: 0.075 mm No. 10140-03 No. 10140-02 No. 10062-12 No. 10061-12

Titanium Micro Point, Y-Hook, and Spatula

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



Vessel Dilating Probe Gross Anatomy Probe MOST Popular 200% Angled Angled 45° 12.5 cm 15 cm Tip Ø: 0.6 mm Tip Ø: 1.2 mm

Grooved Director

The Grooved Director is a specialized multipurpose device which is used by surgeons in different areas to probe cavities and wounds for example.





13 cm with Tongue Tie

No. 10290-13

No. 10160-13

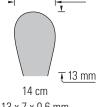
No. 10088-15

Combination Spoon and Spatula

Combination Probe and Spatula







13 x 7 x 0.6 mm Tip Ø: 0.1 mm

No. 10090-13

Micro Spatula **Mirror Finish Micro Double-Ended** Spatula Micro Spatula Mirror finished to provide a non-stick spatula. ₹7.5 mm Curved/Angled Straight Curved 11 cm 12 cm 13 cm 17.5 x 1 x 0.25 mm 15 x 0.8 x 0.25 mm 25 x 2 x 0.3 mm No. 10087-12 No. 10091-12 No. 10089-11

Iris Spatula







12.5 cm 20 x 1.8 x 0.3 mm

No. 10092-12



Slightly curved

12.5 cm 23 x 1.8 x 0.3 mm

No. 10093-13



Straight

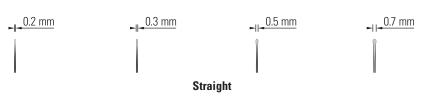
12.5 cm 33 x 3 x 0.3 mm

No. 10094-13

Micro Spatula Kit

Kit with 4 pieces.





6 cm

Tip width: Black: 0.2 mm, Blue: 0.3 mm, Green: 0.5 mm, Red: 0.7 mm

No. 10098-06

Mini Hippocampal Dissecting Tool

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

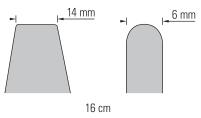
3 mm _ 6 mm 14.5 cm 20 x 6 mm & 13 x 3 mm Tip thickness: 0.5 mm

No. 10099-12

Hippocampal Dissecting Tool

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





27 x 14 mm & 27 x 6 mm Tip thickness: 0.5 mm

No. 10099-15

Mirror Finish Cutting Spoon

Non stick cutting spoon.

Spoon

Mini Perforated Spoon

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



Perforated Spoon

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









Moria 1121B



12.5 cm Tip Ø: 8 mm Depth: 2 mm

No. 10321-08



Moria MC 17C



10 cm Tip Ø: 8 mm Depth: 1 mm Hole Ø: 0.8 mm





Moria MC 17



14.5 cm 14.5 cm Tip Ø: 15 mm Tip Ø: 20 mm Depth: 3 mm Depth: 5 mm Hole Ø: 0.9 mm Hole Ø: 0.9 mm

No. 10370-18

No. 10370-17



13 cm Tip Ø: 4.5 mm Depth: 0.15 mm

No. 10360-13

Pin Holder

Light weight.





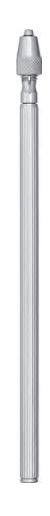
17 cm Aluminum handle with nickel-plated chuck Jaw opening: 0 to 1 mm

No. 26018-17

Pin Holder







Moria MC1

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

No. 26016-12

Insert Pins

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

5 cm Stainless Steel



Black Anodized Minutien Pins

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

Tip Ø: 0.0175 mm Rod Ø:0.15 mm 1.2 cm

Box of 500 pins

No. 26002-15

Stainless Steel Minutien Pins

The thinnest and finest pins available.



Box of 500 pins

No. 26002-10



Tip Ø: 0.0175 mm Rod Ø: 0.15 mm 1.2 cm

Box of 500 pins

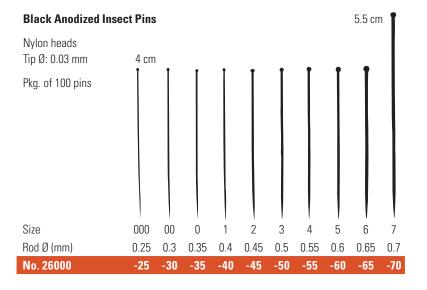
No. 26003-15



Tip Ø: 0.02 mm Rod Ø: 0.2 mm 1.2 cm

Box of 500 pins

No. 26002-20



Stainless Steel Insect Pins

Nylon heads Tip Ø: 0.03 mm

Pkg. of 100 pins

Size 000 00 0 2 3 5 6 7 Rod Ø (mm) 0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7 No. 26001 -30 -40 -25 -35 -45 -50 -55 -60 -65

Etched Tungsten Micro Needles

These Tungsten micro needles are drawn to an approximate 1 micron tip and three different rod diameters are offered. Each provides lateral stability as well as minimal spring action during manipulation. The micro needles can be used with our pin holders shown on page 146.





Tip Ø: 1 μm Box of 10 needles

| Item | $\operatorname{Rod}\nolimits \ensuremath{\mathscr{Q}}_{\ensuremath{(mm)}}$ |
|--------------|--|
| No. 10130-05 | 0.125 |
| No. 10130-10 | 0.25 |
| No. 10130-20 | 0.5 |

Castroviejo

Micro pattern, with slightly blunted tips.







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



Straight

9 cm Tip width: 0.6 mm Lock: Yes

No. 12060-01

Tip width: 0.6 mm Lock: No

No. 12060-02



Curved

9 cm Tip width: 0.6 mm Lock: Yes

No. 12061-01

Tip width: 0.6 mm Lock: No

No. 12061-02

Round-Handled Micro/Macro Needle Holder

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









13.5 cm

Lock: Yes

No. 12875-13

Round Handled Needle Holder

Round handles allow easy fingertip adjustments.

Round Handled Needle Holder with Suture Cutter

Round handles allow easy fingertip adjustments.

Actual size

Kalt

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





Curved

Serrated: Yes

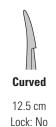
13.5 cm

Lock: Yes

No. 12081-14







No. 12074-12

Lock: No

Straight

12.5 cm

Lock: Yes

No. 12075-12

No. 12076-12



14 cm Cutting edge: 3.5 mm Lock: No

No. 12075-14

Straight

Serrated: Yes

13.5 cm

Lock: Yes

No. 12080-14

Castroviejo with Tungsten Carbide Jaws







Straight

14 cm Tungsten Carbide jaws Lock: Yes

No. 12565-14

Mathieu

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



12510-14





14 cm Extra narrow profile Lock: Yes

No. 12010-14



14 cm Tungsten Carbide jaws Lock: Yes

No. 12510-14

Halsey

TUNGSTEN CARBIDE 12501-13



Halsey with Tungsten Carbide Jaws









13 cm Smooth Lock: Yes

No. 12001-13



13 cm
Tungsten Carbide jaws
Lock: Yes

No. 12501-13



13 cm Tungsten Carbide jaws Lock: Yes

No. 12500-12

Olsen-Hegar with Suture Cutter







Cutting edge: 10 mm Lock: Yes

No. 12002-12

No. 12102-12



14 cm

Cutting edge: 15 mm Lock: Yes

No. 12002-14

Olsen-Hegar with Suture Cutter and Tungsten Carbide Jaws





12502-12 12512-12



Tungsten Carbide jaws
Cutting edge: 10 mm
Lock: Yes

No. 12502-12

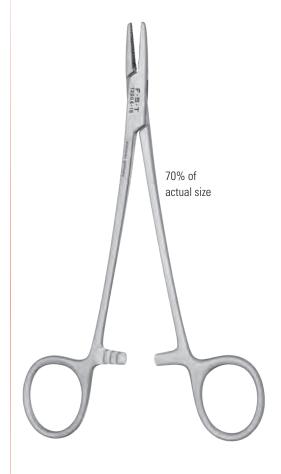
No. 12512-12



14 cm Tungsten Carbide jaws Cutting edge: 15 mm Lock: Yes

No. 12502-14

Mayo-Hegar





16 cm



18 cm

Lock: Yes

No. 12004-16

Lock: Yes

No. 12004-18

Crile-Wood

Slim Elongated Needle Holder with Tungsten Carbide Jaws





12504-15









15 cm Tungsten Carbide jaws

15 cm Lefthanded & Tungsten Carbide jaws

Lock: Yes



15 cm Tungsten Carbide jaws

Lock: Yes

No. 12005-15



Lock: Yes No. 12003-15

15 cm

Lock: Yes No. 12503-15

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.



400% of actual size

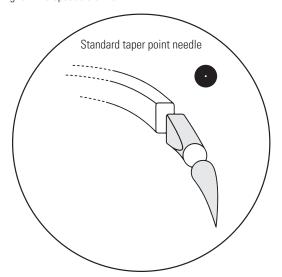


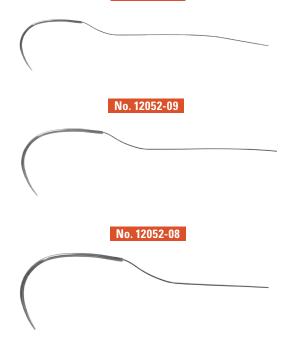
No. 12052-10



Sterile

Pkg. of 12 disposable units





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

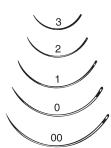
Suture Needles

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

Ø: 0.35 mm

Sterile: No

Pkg. of 12 needles



MOST POPULAR

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

Silk Suture

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

Braided Silk
Sterile: No

Can be ETO sterilized







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

For Suture Tying Forceps, see pages 100 - 102.

Nylon Monofilament Suture

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

Nylon monofilament

Sterile: No

Can be ETO sterilized



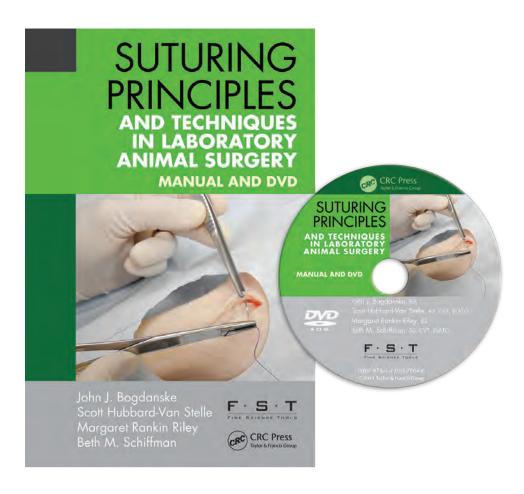
| | Item | Spool length | Suture Ø | Size |
|----------|------|--------------|----------|------|
| 18030-80 | No. | 91 | 0.04 | 8/0 |
| 18030-70 | No. | 91 | 0.05 | 7/0 |
| 18030-60 | No. | 91 | 0.07 | 6/0 |
| 18030-50 | No. | 91 | 0.1 | 5/0 |
| 18030-40 | No. | 91 | 0.15 | 4/0 |
| 18030-30 | No. | 91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

Suturing Principles and Techniques in Laboratory Animal Surgery

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

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

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



No. 23005-10

Michel Suture Clips

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

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



Applying Forceps



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

No. 12018-12



Reloadable Skin Stapler with Rotating Head

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

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



Surgical Staple Remover

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



10 cm

No. 12030-04

Manipler® Skin Stapler

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

Disposable, sterile and not autoclavable.



AutoClip® System

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











Remover

Applier

AutoClip® Kit

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

No. 12020-00

AutoClip® applier

No. 12020-09

11.5 cm

AutoClip® clips

9 mm Pkg. of 100 clips

No. 12022-09

AutoClip® clips

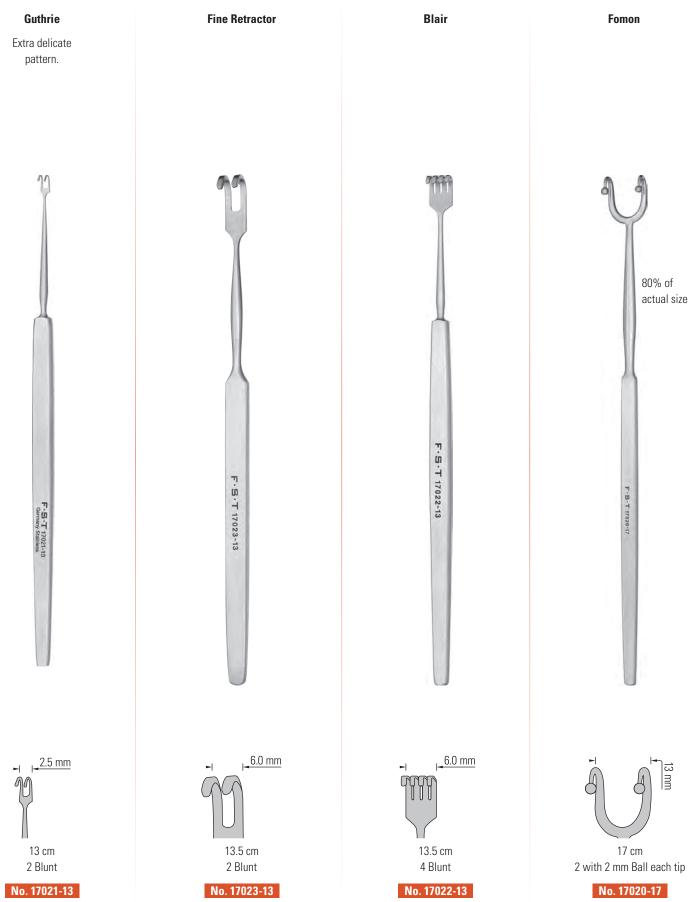
9 mm Pkg. of 1,000 clips

No. 12022-19

AutoClip® remover

12.5 cm

No. 12023-00



Slide Retractor with Blades



4 mm 2 mm

2 cm Max. spread: 1 cm

No. 17004-03

Mini-Goldstein



4 mm 2 mm

2 cm Max. spread: 0.5 cm 3 x 3 Sharp teeth

No. 17002-02

Mini-Colibri





4 mm

2 cm Max. spread: 1 cm

No. 17000-01

Slide Retractor with Teeth



4 mm 2 mm

2 cm Max. spread: 1 cm 2 x 2 Blunt teeth

No. 17005-03

Goldstein



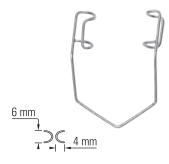


3 cm Max. spread: 1.8 cm 3 x 3 Sharp teeth

No. 17003-03

Colibri





3 cm Max. spread: 1.5 cm

No. 17000-03

4 cm Max. spread: 1.5 cm

No. 17000-04



3 cm Max. spread: 1.2 cm

No. 17000-02

Speculum



Moria 7699

4.5 cm Max. spread: 3.5 cm Curved

No. 17370-53

Colibri

Moria



Moria 6346D

3.4 cm Max. spread: 1.5 cm

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

Fine Adjustable Wire Retractor



6 mm 567

5 cm Max. spread: 3.5 cm Curved

No. 17004-05

Agricola





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

No. 17005-04

Alm Retractor with Blunt Teeth

Alm Retractor with Blades









7 cm Max. spread: 4 cm WireSlightly curved down

No. 17010-07



7 cm Max. spread: 4 cm Slightly curved 4 x 4 Blunt

No. 17008-07



7 cm Max. spread: 4 cm Blunt teeth 4 x 4 Blunt

No. 17009-07



7.5 cm Max. spread: 4.5 cm Blades

No. 17009-08

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

Heiss

Gelpi







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

No. 17011-10



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

No. 17017-10







Straight 2 x 3 Blunt teeth

Straight 3 x 4 Blunt teeth

11 cm Max. spread: 4 cm 13 cm Max. spread: 4 cm

No. 17012-11

No. 17012-13



Angled down 3 x 3 Blunt teeth

11 cm Max. spread: 3 cm

No. 17018-11



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 Fach

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

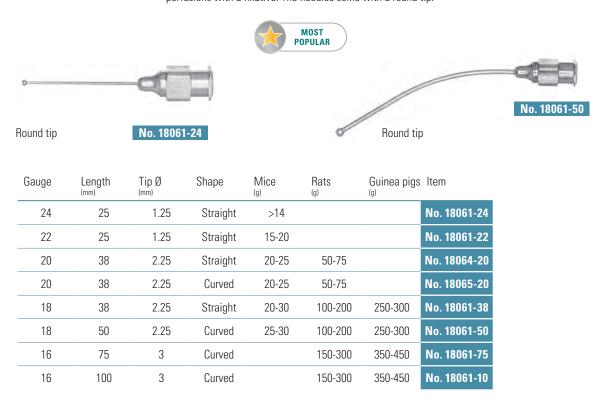
ACCESSORIES & INSTRUMENT CARE

| Animal Accessories | 169 – 174 |
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| Surgical Accessories | 187 — 190 |
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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.





These needles come with a barrel tip.



No. 18060-20

| Gauge | Length (mm) | Tip Ø | Shape | Mice (g) | Rats (g) | Guinea pigs | Item |
|-------|----------------|-------|----------|-------------|-------------|-------------|--------------|
| 24 | 25 | 1.7 | Straight | >14 | | | No. 18060-24 |
| 22 | 25 | 1.7 | Straight | 15-20 | | | No. 18060-22 |
| 20 | 30 | 1.7 | Straight | 20-25 | 50-75 | | No. 18060-20 |
| 20 | 38 | 1.7 | Straight | 20-25 | 50-75 | | No. 18063-20 |
| 20 | 38 | 1.7 | Curved | 20-25 | 50-75 | | No. 18067-20 |
| 18 | 38 | 1.7 | Straight | 20-30 | 100-200 | 250-300 | No. 18060-18 |
| 18 | 50 | 2 | Curved | 25-30 | 100-200 | 250-300 | No. 18067-50 |
| 16 | 75 | 2.4 | Curved | | 150-300 | 350-450 | No. 18067-75 |
| 16 | 100 | 2.4 | 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.**



| Gauge | Length (mm) | Tip Ø | Mice (g) | Rats (g) | Guinea pigs | ltem |
|-------|----------------|-------|-------------|-------------|-------------|--------------|
| 20 | 38 | 1.75 | 20-25 | 50-75 | | No. 18061-20 |
| 18 | 50 | 2.5 | 25-30 | 100-200 | | No. 18061-18 |
| 15 | 75 | 3 | | 200-350 | 400-600 | No. 18061-15 |

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.**

Pkg. of 5 needles



| ltem | Guinea pigs | Rats (g) | Mice (g) | Tip Ø | Length (mm) | Gauge |
|--------------|-------------|-------------|-------------|-------|-------------|-------|
| No. 18961-20 | | 50-75 | 20-25 | 1.8 | 38 | 20 |
| No. 18961-18 | 250-300 | 100-200 | 20-30 | 2 | 38 | 18 |
| No. 18961-17 | 250-300 | 100-200 | 25-30 | 2.4 | 52 | 17 |
| No. 18961-15 | 400-600 | 200-350 | | 2.6 | 78 | 15 |
| No. 18961-75 | 250-300 | 150-250 | 25-30 | 2 | 75 | 18 |
| No. 18961-85 | 250-300 | 150-250 | 25-30 | 2.4 | 85 | 17 |

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.





GenoPunch includes

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

FST does not supply microtubes.



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

No. 24215-02

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.



14 cm Punch Ø: 1 mm

No. 24916-01

14 cm Punch Ø: 2 mm

No. 24916-02

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.**



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

Ear Punch

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

Autoclavable.





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

No. 24214-02

Finger Loop Ear Punch

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



10.5 cm Punch Ø: 2 mm

No. 24212-02

Punch Ø: 1 mm

No. 24212-01

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.

CAUTION: Color can stain skin and clothing. The use of gloves and lab coats is recommended. These colors will not work on black fur.



| Black | Blue | Green | Red | Yellow | Orange |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Fine Tip 4.5 x 7.5 mm 10 ml |
| No. 24202-06 | No. 24202-02 | No. 24202-01 | No. 24202-04 | No. 24202-03 | No. 24202-05 |





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

No. 18000-30

Self Piercing Ear Tags

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

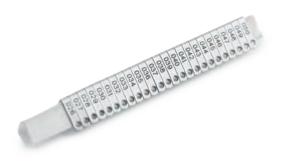




Custom alphanumeric sequences and numbers above 1000 are available by special order.

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.





Picture similar

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

No. 24221-10

Alloy: Monel 0.8 cm No. 1-500 Ear tags - #s 1 to 500

No. 24221-50

Alloy: Monel 0.8 cm No. 501-1000 Ear tags - #s 501 to 1000

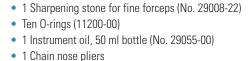
No. 24221-90

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.



Kit includes:



No. 29000-00







O-Rings for Forceps

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

Pkg. of 10

No. 11200-00



Instrument Oil

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

50 ml bottle

No. 29055-00



Sharpening Stone for Fine Forceps

This natural Arkansas stone assists in resharpening the tips of fine forceps. The stone has two grooves, 0.8 mm and 1.6 mm and comes in a cedar box with ten 0-rings.

12.5 x 6.5 x 3 cm

No. 29008-22

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.**



| Color | Roll length | Tape width | Material | ltem |
|--------|-------------|------------|----------|--------------|
| Green | 290 | 0.6 | Vinyl | No. 29071-01 |
| Blue | 290 | 0.6 | Vinyl | No. 29071-02 |
| Yellow | 290 | 0.6 | Vinyl | No. 29071-03 |
| Red | 290 | 0.6 | Vinyl | No. 29071-04 |
| White | 290 | 0.6 | Vinyl | No. 29071-05 |
| Black | 290 | 0.6 | Vinyl | No. 29071-06 |
| Orange | 290 | 0.6 | Vinyl | No. 29071-08 |
| Purple | 290 | 0.6 | Vinyl | No. 29071-09 |

Instrument Marking Tape 7 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 7 assorted color rolls: Yellow, Red, Black, White, Green, Blue and Orange. **Autoclavable.**



| 107 | 0.6 | Vinyl | No. 29080-02 |
|-----|-----|-------|--------------|
|-----|-----|-------|--------------|

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 | Item |
|--------|-------------|------------|----------|--------------|
| 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.



 $$10\ x\ 18\ cm$$ 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

 $$18\,x\,30\mbox{ cm}$$ For instruments up to 26 cm long

Pkg. of 100 pouches

No. 28000-12

HOT BEAD STERILIZERS

Hot Bead Sterilizer with Glass Beads

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 110 V and 220 V. 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.

60 % of actual size

Instruments not included.

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

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 250

Weight: 150 g

No. 18000-46

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 $300 \,^{\circ}\text{C}$ / $572 \,^{\circ}\text{F}$) can be used to eliminate the presence of bacteria, spores and other micro-organisms.

Small Sterilizer 110 V

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

No. 18090-45

Small Sterilizer 220 V

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 220 V

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

Tall Sterilizer 110 V

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

Replacement glass beads for tall sterilizer

Weight: 300 g

No. 18000-52

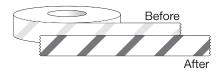
Autoclave Tape

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.

The tape can be used in:

- Gravity sterilizers operating at 121 °C (+3 °C) for 30 minutes or
- Pre-vacuum sterilizers operating at 132 °C (+3 °C) for 4 minutes and 135 °C (+3 °C) for 3 minutes
- Shelf life/durability is 36 months



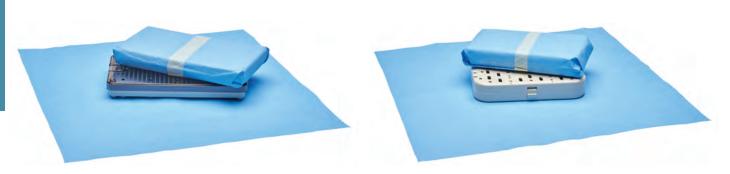


1,90 cm x 55 m

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

Magnetic Sterilization Mat

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



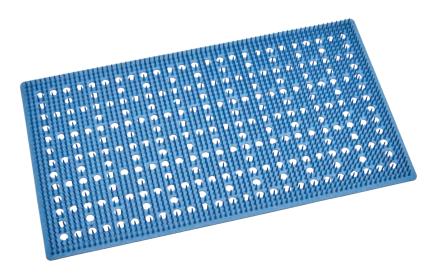
Instruments not included.

30 x 20 cm

No. 20350-00

Silicone Mat

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



46 x 25 cm

No. 20325-10

Sterilization Container

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



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.



30 x 14 x 4 cm

5 Long-term textile filters

1 Long-term textile filter

No. 20850-00

No. 20850-10

No. 20850-11

Sterilization Container

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







19 x 7 x 2 cm Single tier

No. 20840-01

17 x 10 x 2 cm Single tier

No. 20840-02





25 x 15 x 4 cm Double tier

No. 20842-03

25 x 15 x 2 cm Single tier

No. 20840-03

Colored Aluminum Cases

This instrument case comes with a spiked silicone mat for secure storage of surgical instruments. Five 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.



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.





Silver 18 x 9 x 3 cm

No. 20311-21

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 STORAGE

Roll Up Travel Case

Vinyl dissection roll up case with Velcro strap to hold the case closed. Holds up to ten 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.





1.6 x 19.1 mm Pkg. of 25 Material: Plastisol

No. 29060-01



2 x 19 mm Pkg. of 25 Material: Plastisol

No. 29060-02



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



4.8 x 25.4 mm Pka. of 25 Material: Plastisol

No. 29060-05



9.5 x 25.4 mm Pkg. of 25 Material: Plastisol

No. 29060-06











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

No. 29060-00

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 through sterilization. Autoclavable.



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



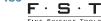
25 x 26 mm Pkg. of 10 Material: Plastisol

No. 29066-04



Assorted pack, three of each size Pkg. of 12 Material: Plastisol

No. 29066-00



Stainless Steel Burrs

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

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

^{*} Use this size for screws No. 19010-10 (page 68).

Carbon Steel Burrs

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





| Tip Ø | Item |
|--------|--------------|
| 0.5 | No. 19007-05 |
| 0.7 * | No. 19007-07 |
| 0.9 ** | No. 19007-09 |
| 1.4 | No. 19007-14 |
| 2.1 | No. 19007-21 |
| 2.9 | No. 19007-29 |

^{*} Use this size for screws No. 19010-10 (page 68).

Tungsten Carbide Burrs

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



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

^{*} Use this size for screws No. 19010-10 (page 68).

Stainless Steel Trephines

Side opening for clearing of material.

Length: 44 mm Shaft Ø: 2.3 mm Sold individually

| Tip Outer Ø | Item |
|-------------|--------------|
| 1.8 | No. 18004-18 |
| 2.3 | No. 18004-23 |
| 2.7 | No. 18004-27 |
| 5 | No. 18004-50 |



Stainless Steel Circular Saw

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



Ø: 16 mm Thickness: 0.1 mm Pkg. of 10 saws

No. 18000-20

Stainless Steel Mandrel

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



Length: 45 mm Shaft Ø: 2.3 mm

No. 18000-18

^{**} Use this size for screws No. 19010-00 (page 68).

^{**} Use this size for screws No. 19010-00 (page 68).

^{**} Use this size for screws No. 19010-00 (page 68).

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.**







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

No. 18010-00

Cautery kit includes:

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



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

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: 649 °C (1200 °F)
Total weight: 60 g
Length: 12 cm (without tip)

Cautery Kit

No. 18019-00

Cautery kit includes:

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



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

Small Vessel Cauterizer

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



Heavy gauge stainless steel body Platinum-iridium tips: 0.3 mm \emptyset Total weight: 100 g

Length: 13.5 cm (without tip)

Cautery Kit

No. 18000-00

Cautery kit includes:

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



Remove batteries before autoclaving.



Replacement tips
Reusable
Straight / Fine

No. 18000-01



Replacement tips
Reusable
Angled / Fine

No. 18000-02



Replacement tips
Reusable
Straight / Fine

No. 18000-03



Replacement tips **Reusable**Straight knob

No. 18000-04

Neuro Punches

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



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

Sample Corers

For quantitative analysis. Comes with plunger.

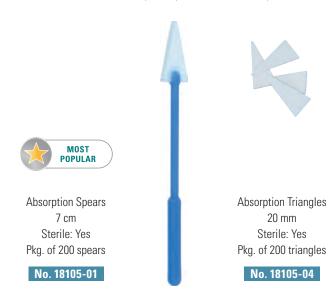
8.5 cm



| ID (mm) | OD (mm) | Gauge | Item |
|------------|------------|-------|--------------|
| 0.35 | 0.8 | 21 | No. 18035-35 |
| 0.5 | 1 | 19 | No. 18035-50 |
| 0.8 | 1.45 | 17 | No. 18035-80 |
| 1 | 1.8 | 15 | No. 18035-01 |
| 2 | 3 | 11 | No. 18035-02 |
| 3 | 4 | 8 | No. 18035-03 |
| 5 | 6 | 4 | No. 18035-05 |

Absorption Spears and Triangles

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





No. 18196-10

No. 18106-01

Miniature File Set

Comes with eight different file profiles in a vinyl pouch.





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

6 mm x 9 cm Triangular stone

No. 29008-12

4-in-1 Screwdriver

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





Handle 9.5 cm, with attachment 11.5 cm Nickel handle

No. 30051-10

Ceramic Blade Cutter

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



Plastic handle with ceramic blade

Straight

13 cm

Cutting Edge: 58 mm

No. 10025-70

Replacement blade

Straight

Cutting Edge: 58 mm

No. 10025-71

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.





21 cm Stainless steel with plastic handle

No. 37500-00

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.



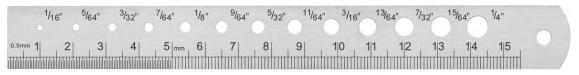


13 cm Stainless steel with plastic handle

No. 37500-05

Ruler with Gauge Measurements

Front



Back



Stainless Steel 15.5 cm / 6"

No. 30085-15

Rulter with Metric Conversion Table

Front



Back



50% of actual size

Stainless Steel 30 cm / 12"

No. 30085-30

Ruler Label

Used for stable measurements in all surgical platforms.



SPECIMEN ______DATE _____

6 cm Pkg. of 25 labels

No. 29027-00

Plastic Vernier Caliper

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

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.



Stainless Steel 23.5 cm

No. 30087-00

Castroviejo Surgical Caliper

Used for precise measurement during surgery.



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

8.5 cm

No. 18000-35

Plastic 21 cm

No. 30087-20





Magnifying Loupe with Micrometer and LED

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

Magnification: 10x Field of view: 30 mm Working distance: 10 mm (without scale) Ultrabright LED

38 x 38 x 40 mm

No. 29026-10





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

No. 29025-02

Electronic Clock/Triple Timer

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

LCD display: 4.5 x 4.5 cm 7 x 8.5 x 1.5 cm 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 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



Headband Magnifier

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



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

No. 28030-02

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

No. 28030-03

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

No. 28030-04

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







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.



Magnification: 3x Working distance: 40 cm (16") Weight: 72 g

No. 28050-30

Magnification: 3.5x Working distance: 30 cm (12") Weight: 77 g

No. 28050-35

Eschenbach Magnifier Spectacles

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



Working distance: 35 cm (14")
Weight: 70 g
Plastic frame reinforced with fiberglass

No. 28040-30

Spectacles Headband

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



Material: Neoprene

No. 28080-90

Eschenbach Max Detail Spectacles

These spectacles are portable, lightweight, and easily adjustable. Designed with frosted objective lens housing which eliminates distracting reflections.

Bendable ear pieces for a secure, comfortable fit. Protective case is included.



Magnification: 2x Field of view: 110 mm (4") Working distance: 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

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

MOST POPULAR

MOST POPULAR

Weight: 106 g

No. 28030-25

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: 6 V (4 AA-Batteries included)

No. 28020-28



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 adjustable 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® can also be used as a screen reader. The "mobilux® digital" program supplied must first be installed on the computer (Windows Vista, Windows 7, 8 or Windows 10).

Delivery incl. USB cable length 2 m, 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





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



Optical Cleaning Kit

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

Kit includes:

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



No. 29000-10

Lens Paper

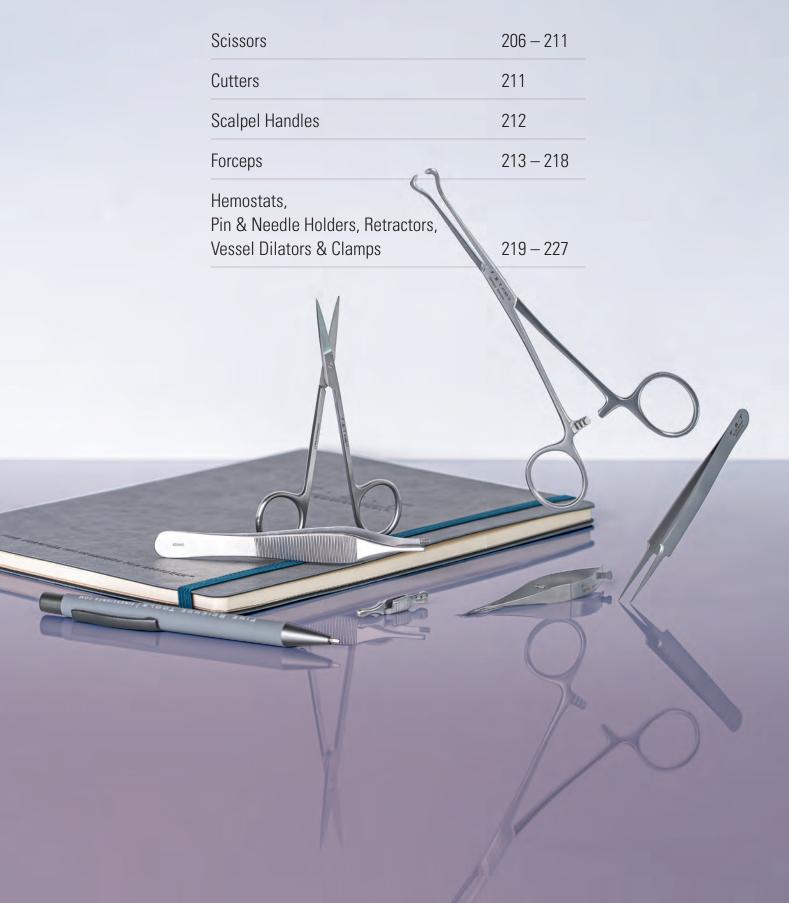
This premium grade optical lens tissue is extremely soft and safe for any glass or plastic optical lens surface.



15 x 10 cm Book of 50 sheets

No. 29015-50

STUDENT QUALITY INSTRUMENTS



FST STUDENT LINE



FEATURES:

- 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.

Vannas Spring Scissors

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







Quantity discount for student instruments: 5-9=5% 10+=10%

Per item, selection cannot be assorted for discount.



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

No. 91500-09



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

No. 91501-09









Straight Sharp/Sharp

11.5 cm Cutting edge: 16 mm

No. 91460-11



Curved Sharp/Sharp

11.5 cm Cutting edge: 16 mm

No. 91461-11



No. 91408-14

Sanvenero

Surgical Scissors

| Length | Cutting edge | Straight Sharp / Sharp | Straight Sharp / Blunt | Straight Blunt / Blunt | |
|--------|--------------|---------------------------|---------------------------|---------------------------|--------------------|
| 10.5 | 20 | No. 91402-10 | No. 91401-10 | No. 91400-10 | |
| 12 | 26 | No. 91402-12 | No. 91401-12 | No. 91400-12 | |
| 3 | 28 | No. 91402-13 | No. 91401-13 | | |
| 4.5 | 30 | No. 91402-14 | No. 91401-14 | No. 91400-14 | |
| Length | Cutting edge | Curved Sharp / Sharp | Curved Sharp / Blunt | | stainless |
| 12 | 26 | No. 91405-11 | No. 91404-12 | | 91401-14 Serman |
| 13 | 28 | No. 91405-13 | No. 91404-13 | | 1-14 |
| 14.5 | 30 | No. 91405-14 | No. 91404-14 | | |
| | | | | | |

Wagner

Spencer Ligature







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



11.5 cm Cutting edge: 20 mm

Sharp/Sharp

No. 91468-12



9 cm Cutting edge: 16 mm

No. 91476-09

Lister Scissors

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

Mayo





Quantity discount for student instruments: 5-9=5% 10+=10%

Per item, selection cannot be assorted for discount.



14 cm Cutting edge: 26 mm

No. 91413-14



Angled to side Blunt/Blunt

18 cm Cutting edge: 30 mm

No. 91413-18



Angled to side Blunt/Blunt

20 cm Cutting edge: 34 mm

No. 91413-20



Curved Sharp/Blunt

14.5 cm Cutting edge: 28 mm

No. 91409-15



Straight Blunt/Blunt

17 cm Cutting edge: 32 mm

No. 91410-17



Curved Blunt/Blunt

17 cm Cutting edge: 32 mm

No. 91411-17

Metzenbaum Baby

0/0 DISCOUNT

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



14.5 cm Cutting edge: 22 mm

No. 91419-14



FINE SCIENCE TOOLS

Heavy Scissors





Heavy Blades 10.5 cm Cutting edge: 20 mm

No. 91405-10

Bone Scissors

For cutting fine bone.



Bone Cutter





Quantity discount for student 5 - 9 = 5%10 + = **10 %**

Per item, selection cannot be assorted for discount.

STUDENT INSTRUMENTS

0/0 DISCOUNT





For scalpel blades, see page 77.

13 cm No. 91004-13



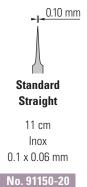
For scalpel blades, see page 78.

12 cm

No. 91003-12









11 cm Inox 0.17 x 0.1 mm

No. 91197-00

Feilchenfeld

Splinter Forceps







Quantity discount for student 5 - 9 = 5%

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



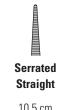
9 cm Tip Ø: 0.75 mm

No. 91139-09



11.5 cm Tip Ø: 1 mm

No. 91139-12



10.5 cm Tip Ø: 0.3 mm

No. 91156-11

0/0 DISCOUNT

Quantity discount for student

Per item, selection cannot be assorted for discount.

5-9 = **5%** 10 + = **10%**

Micro Adson **Adson with Cross** Adson Adson-Brown **Serrations** Wide, strong grip with narrow tips. 80% of 80% of actual size actual size F S . T 91162-12 ny Stainless Serrated Serrated 12 cm 12 cm Tip width: 0.7 mm Tip width: 1.5 mm No. 91118-12 No. 91106-12 -I I <u>1.3 mm</u> 1.5 mm 1x2 Teeth 1x2 Teeth **Shark teeth** 1x2 Teeth/ **Cross-serrations** 12 cm 12 cm 12 cm 12 cm Tip width: 1.3 mm Tip width: 1.5 mm Tip width: 2.5 mm Tip width: 1.3 mm No. 91162-12 No. 91119-12 No. 91127-12 No. 91427-12

Anatomical and Surgical Forceps

Broad pattern with strong spring action.

Anatomical Standard Pattern



Straight Serrated

| Tip width | Length (cm) | Item |
|-----------|----------------|--------------|
| 2.5 | 11.5 | No. 91100-12 |
| 2.7 | 13 | No. 91100-13 |
| 3 | 14.5 | No. 91100-14 |
| 3.5 | 16 | No. 91100-16 |
| 4 | 17 | No. 91100-17 |

Anatomical Narrow Pattern



Straight Serrated

| Tip width | Length (cm) | ltem |
|-----------|----------------|--------------|
| 1.5 | 11.5 | No. 91102-12 |
| 2.1 | 13 | No. 91102-13 |
| 2.2 | 14.5 | No. 91102-14 |
| 2.3 | 16 | No. 91102-16 |

Surgical Standard Pattern



Straight 1x2 Teeth

| Tip width | Length (cm) | Item |
|-----------|----------------|--------------|
| 2.2 | 12 | No. 91121-12 |
| 2.4 | 13 | No. 91121-13 |
| 2.6 | 14.5 | No. 91121-14 |
| 2.8 | 15.5 | No. 91121-15 |
| 3 | 16 | No. 91121-16 |
| 3.5 | 18 | No. 91121-18 |
| 4 | 20 | No. 91121-20 |
| 4.5 | 25 | No. 91121-25 |

Surgical Narrow Pattern



Straight 1x2 Teeth

| Tip width | Length (cm) | Item |
|-----------|----------------|--------------|
| 2 | 11.5 | No. 91123-12 |
| 2.2 | 14.5 | No. 91123-14 |
| 2.4 | 16 | No. 91123-16 |



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

for discount.

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

Gillies Semken Russian McIndoe 80% of 80% of 80% of actual size actual size actual size Serrated ►| |<u>2.1 mm</u> 1<u>₹5.7 mm</u> Straight 11.5 cm \bigcirc Tip width: 1.2 mm No. 91108-12 ₹ 7.6 mm 1x2 Teeth and **Serrated Serrated** Straight **Cross-Serrations** 14.5 cm 15.5 cm 15 cm 15 cm Tip width: 2.2 mm Tip width: 2.1 mm Tip dimension: 7.6 x 5.7 mm Tip width: 1.2 mm No. 91108-14 No. 91128-15 No. 91126-15 No. 91138-15

Halsted-Mosquito









Quantity discount for student 5-9=**5%**

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

Straight **Serrated**

12.5 cm Tip width: 1.4 mm

No. 91308-12

Curved **Serrated**

12.5 cm Tip width: 1.4 mm

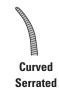
No. 91309-12



Curved 1x2 Teeth and **Serrations**

12.5 cm Tip width: 2 mm

No. 91331-12



10 cm Tip width: 1.5 mm

No. 91303-10

Crile

Kelly





Quantity discount for student

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

Straight Serrated

Straight

Serrated

14 cm

Tip width: 1.5 mm

No. 91304-14

16 cm Tip width: 2 mm

No. 91304-16



Curved Serrated

14 cm Tip width: 1.5 mm

No. 91305-14

Curved Serrated

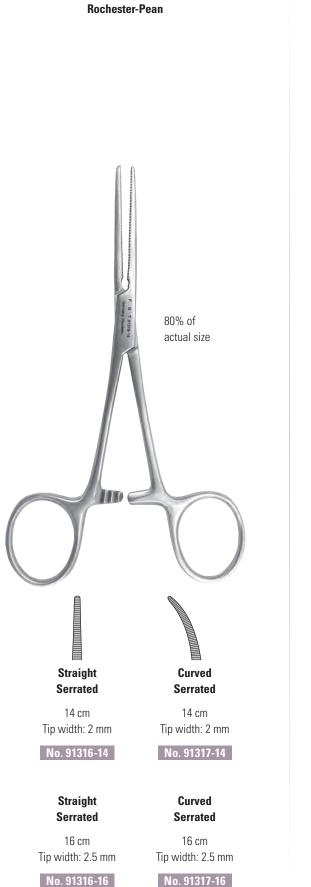
16 cm Tip width: 2 mm

No. 91305-16



No. 91318-14

No. 91319-14





Pean

for student instruments: 5-9 = 5% 10+=10% Per item, selection

Per item, selection cannot be assorted for discount.

ı

0/0 DISCOUNT Quantity discount for student 5-9 = **5%** 10 + = **10%**

Per item, selection cannot be assorted for discount.

Ochsner-Kocher **Kocher**



1x2 Teeth and Serrations

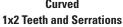
14 cm Tip width: 2.2 mm

No. 91328-14

Straight 1x2 Teeth and Serrations

> 16 cm Tip width: 3 mm

No. 91328-16



14 cm Tip width: 2.2 mm

No. 91329-14

Curved **1x2 Teeth and Serrations**

> 16 cm Tip width: 3 mm

No. 91329-16



Tip width: 2.2 mm

No. 91330-14

Tip width: 2.2 mm

No. 91331-14







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

10+= 10% Per item, selection cannot be assorted for discount.



Round and sharp tips

9 cm

No. 91195-09



Round and sharp tips

11 cm

No. 91195-11



Round and sharp tips

13 cm

No. 91195-13



Round and serrated tips

10 cm Tip width: 2.5 mm

No. 91194-10



Round and serrated tips

13 cm Tip width: 3 mm

No. 91194-13





0/0 DISCOUNT

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



13 cm Tip width: 7 mm

No. 91196-13

Allis Clamp 60% of actual size



Hose Clamp



Lister Sine Clamp



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

16 cm Tip width: 3 mm

Serrated

No. 91199-16



15 cm Tip width: 6 mm

No. 91191-15



15 cm Tip width: 4 mm

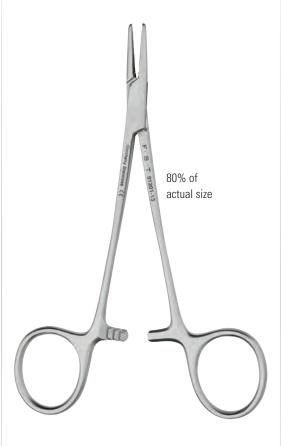
No. 91198-15

Pin Holder

Halsey

Mayo-Hegar









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

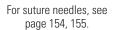
page 147.

For pins, see



7.5 cm Jaw opening: 0 to 1 mm

No. 91606-07





Straight

13 cm Tip width: 1.5 mm

Clamping length: 18 mm Lockable: Yes Scissors: No

No. 91201-13



Straight

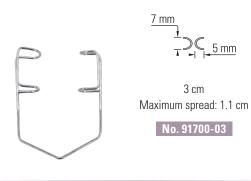
16 cm Tip width: 2.6 mm

Clamping length: 21 mm Lockable: Yes Scissors: No

No. 91204-16



Spring-Loaded Retractor 80% of actual size Atraumatic blades 8.5 cm Maximum spread: 3 cm No. 91706-05 Barraquer





DISCOUNT (

Quantity discount



Dieffenbach

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