

## SURGICAL INSTRUMENTS AND MORE

l = 130 mm

QUALITY, COST-EFFECTIVE
INSTRUMENTS
FOR WHEREVER
SCIENCE TAKES

4.5±0.5

www.wpiinc.com

### Let us Be Your Partner in Discovery

We are at the dawn of an exciting, new day of science—improving the lives of all humanity with breakthroughs like pheno-genomic testing and therapy. Daily, researchers like you are discovering new models, pathways and techniques which impact our health and our environment. These discoveries result in life-changing and, in many cases life-prolonging, therapies and revolutionary protocols. We are also working with researchers in monitoring the effects of the environment in our oceans and streams. New surgical instruments are being created to assist in specific surgeries and diagnoses. This year we have added a wide range of surgical instruments that will help you with microsurgeries. For example, we have added a new line of tools specifically for work under a microscope. They are anti-reflective and are also modified with special tips to enable surgeries in arteries and veins.

At WPI, our solutions enable pioneers on the cusp of discovery to impact the quality of life for all of us for generations to come. WPI provides solutions for a wide range of disciplines, including electrophysiologist, molecular biology, cellular biology, surgical procedures and physiologists to advance the life science knowledge base. As researchers continue the quest for answers to life's mysteries, we provide the instruments to make laboratory research effective, reliable and reproducible. We aim to be your partner in the scientific adventure and instill confidence in your journey of discovery. We strive to understand your key application challenges and provide the instruments you need. We are listening. Your research methods and ideas, combined with our scientists and engineers, help us develop novel solutions for your work.

Our customers' journey of discovery, and the promise it brings of life-changing impact, inspires our team. Let us be your research partner with quality, cost-effective instruments for wherever science takes you.

We look forward to serving you for many years to come.



#### -WHY USE WPI SURGICAL INSTRUMENTS FOR YOUR RESEARCH?-

#### We strive to provide you with the best products and service at cost-effective prices

WPI is proud to offer you an extensive line of surgical instruments WPI Offers a 100% satisfaction guarantee on surgical for all your research needs. Whether you are looking for a pair of fine German surgical scissors or marine grade stainless steel forceps, the quality of surgical instruments is backed by a replacement guarantee. We pride ourselves on the craftsmanship of our surgical instruments. No animal surgical laboratory is complete without the extras. Whether you are looking for an electrocautery unit, a microdrill or a new microscope, let us help you select the equipment that is right for your application. When price is an issue, our standard line is an excellent alternative to European made surgical instruments. You get the same quality craftsmanship at affordable prices. We guarantee it.

instruments. If you are not satisfied with our surgical instruments, we will give you

a full refund upon request within 30 days of purchase. Simply contact our return department at (866) 606-1974 x 253 for instructions. Then, return the product with a copy of the completed RMA form. There is no restocking fee.

In addition, we guarantee our instruments to be free from any material defects. If any defects are found, we will replace or repair the instrument, at our discretion, free of charge. The one year warranty remains in effect for

as long as the instrument or product is used for its intended purpose with proper care and maintenance.

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All specifications are subject to change. For laboratory use only.

#### PRECISION IN YOUR HANDS



Our surgical instrumentation offering includes over 1,400 individual Instruments and 11 pre-assembled surgical-specific kits, which are designed for select surgical protocols.

We also offer researchers and veterinarian surgeons the opportunity to build custom surgical kits for their own needs.

## TOP LINE SURGICAL INSTRUMENTATION

WPI's quality line of surgical instruments is made of German steel with German craftsmanship, and it is constructed to our exact specifications. To match the quality of our German line, our intermediate line of surgical instruments also goes through a proper passivation with electrolytical polishing. The quality material and craftsmanship used in this line gives you the performance you demand at an economical price.

#### THREE GRADES OF SURGICAL INSTRUMENTS

**Premium**—Our premium instruments, designated by the "Made in Germany" stamp, are constructed of corrosion-resistant 300 and 400 steel and can withstand repetitive use and sterilization. They are made to strict specification and subjected to high quality control inspection at several key points during the manufacturing process. The quality and technical specifications of all our German products meet the DIN9 58298/1-18 standard as defined by the Deutsches Institut für Normung, the German national organization for standardization.

**Standard**–Our intermediate line is made in Asia with German steel and German craftsmanship. These instruments are also made from corrosion-resistant 300 and 400 steel and can withstand repetitive use and sterilization. They are also made to strict specifications and subjected to high quality control inspection at several points during the manufacturing process.

**Floor Grade/Disposable**–Floor grade quality instruments are forged with recycled steel, with little attention to detail. These are offered in bulk packaging of 12 or more instruments at a steeply discounted price. This line is recommended for single use.

**Surgical Accessories**–WPI has a complete line of surgical accessories including wound closure, optical loupes, swabs, brushes, sterilizers and cleaners.

#### **COST EFFECTIVE**

We strive to provide you with quality instruments at cost effective prices so you get more for less.

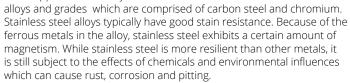


## CUTTING EDGE SURGICAL INSTRUMENTATION

WPI surgical instruments are produced with the finest quality materials to provide you with instruments of the highest precision.

#### STAINLESS STEEL (INOX)

Stainless steel is a generic name applied to a variety of



Our stainless steel line of instruments are manufactured of the highest quality materials. They are made of austenitic 316 steel, commonly known as "surgical steel" or "marine grade steel." The steel is highly corrosion resistant, and it is a common choice of material for biomedical implants. It is ASTM F138 compliant. This WPI line is an excellent alternative to premium German surgical instruments. The high-quality, corrosion-resistant instruments are available at a fraction of the cost of our premium German surgical instruments.

Inox stainless steel is well suited for medical purposes, because this stainless steel alloy has excellent corrosion resistance and good salt resistance. It is temperature resistant up to 400°C, and it can be autoclaved at 180°C.

#### DUMOXEL

Dumoxel steel is

resistant to staining but slightly softer and less magnetic than stainless steel (Rockwell Hardness measurement of 36). Its higher resistance to corrosion results from the high content of molybdenum and chromium. It is highly resistant to sulphuric acid, hydrochloric acid and other mineral and organic acids. It is also autoclavable. Dumoxel instruments are more likely to bend than to break. The maximum temperature this material can withstand is 350°C.

#### **DUMOSTAR**

Dumostar steel is sightly

resistant to metal fatigue, has great elasticity and is durable (Rockwell Hardness measurement of 62). It is resistant to mineral and organic acids and salt. It is also autoclavable. Unlike Dumoxel, Dumostar instruments are more likely to break than to bend. The maximum temperature this material can withstand is 550°C.

#### TITANIUM

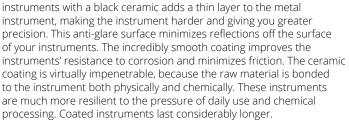
Titanium instruments

are completely stain-free, 40% lighter

than regular stainless steel and completely non-magnetic. Titanium is a soft alloy used for surgical instruments (Rockwell Hardness measurement of 37). Titanium instruments may be used in a corrosive environment. They are autoclavable. The maximum temperature this material can withstand is 550°C.

#### **BLACK COATED**

Coating surgical



#### **WORKING SMART**

## STERI-LITE MICROBEAD STERILIZER

Ideal for the sterilization of small research instruments, the chamber is filled with glass beads and heated up to 300°C. Eliminate bacteria, spores and other microorganisms. Chamber temperature is displayed on the large LED control panel and may be adjusted with the control knob.



#### **AUTOCLAVES**

The BioClave autoclave is extremely compact for benchtop applications of rapid, complete sterilization. It's built in water tank does not require connection to an external water supply. It is fully automatic. Just press START. This is the perfect autoclave for small scale sterilization of microdissection and veterinary instruments.



#### AURELIA® ROBUST™ BLUE NITRILE POWDER-FREE EXAMINATION GLOVES

- 5 mil thickness for improved puncture resistance
- Micro-textured finish for improved gripping action
- · Finger Textured
- Non-sterile
- Nitrile Gloves
- Powder Free, Latex Free
- Blue
- Box of 100, 10 boxes per case

#### OPHTHALMIC KITS AND INSTRUMENTS

We offer kits for specific research and veterinary procedures. And we have over 100 ophthalmic instruments each sold separately.



Robust

#### **CERAMIC COATED INSTRUMENTS**

Our black instruments are coated with titanium nitride (TiN), an extremely hard ceramic material. The TiN coating hardens and protects the cutting edge. Ceramic coated anti-reflective instruments are perfect for microscopy



and microsurgical applications. Coating surgical instruments with a black ceramic adds a thin layer to the metal instrument, making the instrument harder and giving you greater precision. This anti-glare surface minimizes reflections off the surface of your instruments. The incredibly smooth coating improves the instruments' resistance to corrosion and minimizes friction. The ceramic coating is virtually impenetrable, because the raw material is bonded to the instrument both physically and chemically. These instruments are much more resilient to the pressure of daily use and chemical processing. Coated instruments last considerably longer.

## PREMIXSLIP® INSTRUMENT LUBRICANT AND RUST INHIBITOR

A ten minute soak with PreMixSlip keeps surgical instruments looking new. Premixslip is a non-sticky, non-toxic, silicone-free and water soluble mineral oil lubricant that can withstand the high temperatures of autoclaving without becoming gummy.



#### **ENDOZIME ENZYMATIC DETERGENT**

Endozime (WPI #WP34521) is a multi-tiered enzymatic detergent with advanced proteolytic action and Rust inhibitors. Endozime AW® was designed for customers who are susceptible to allergic reactions when using cleaning chemicals containing dye. Its proprietary formulation removes all soil and inhibits rust.



#### SURGISTAIN RUST AND STAIN REMOVER

Surgistain® removes rust, spots and stains from surgical Instruments. Surgistain® will help maintain the life and efficiency of your instruments and reduce repair and replacements costs.

#### STERILIZATION TRAYS AND BASKETS

With top quality structural integrity, these trays are ideal for the handling and storage of all standard microdissection and surgical instruments. The unique "grid" design of the base makes it easy to install the silicone finger mats required to protect the delicate instruments. They have burr-free edges, and we offer a large selection to fit your needs.



#### DISSECTABLE™ DISSECTING BOARD

The DissecTable™ Dissection Board is a new and unique approach that makes this dissecting board more convenient than any other found on the market today. Made of heavy-duty stain resistant thick polyethylene, it will last for years to come without bending.



#### DISPO DISSECTING BOARD

Disposable boards offer a clean, safe, efficient way of handling infectious tissue specimens.

- White, cut-resistant boards with dimensional scales
- Reversible, printed on both sides
- Disposable
- Extruded co-polymer resin boards



#### START CREATING YOUR OWN KIT IN THREE EASY STEPS

#### ONE

Building your kit that contains just the right combination of the supplies you need is now even easier. Start by choosing the right sterilization container you need. There are several choices in this brochure or choose one of over 300 trays which are available online. (www. wpiinc.com/sterilizationtrays)

#### **TWO**

Chose only the instruments you need and save. See the suggestions in this brochure or visit us online to choose from over 1400 items.



#### **THREE**

Call or email our friendly customer service representatives and place your order. Real people answer the phones Monday through Friday, 8:00 AM to 5:00 PM EST, except holidays. (866) 606-1974 wpi@wpiinc.com



#### MAKE IT YOUR OWN

Spend your time wisely and increase your efficiency. WPI is offering you the opportunity to customize your kit with the instruments you need.

> "WE MUST USE TIME CREATIVELY." Martin Luther King Jr.

#### **CUSTOMIZE IN ALMOST NO TIME**

Our surgical instrumentation offering includes over 1,400 individual Instruments and 11 pre-assembled surgical-specific kits, which are designed for select surgical protocols. We also offer researchers and veterinarian surgeons the opportunity to build custom surgical kits for their own needs.

#### PICK-N-SAVE

Choose 3-5 instruments and save 5%.

Choose 6-10 instruments and save 10%.

Save even more when you order more than 10 instruments. Call your application specialist for a personal quote.

We empower your passion for life science advancement with application based products.

#### **DESCRIPTION**

Stermzatio	ii iidys
WP-4610	Wire Basket, side perforated, 240 x 120 x 30 mm
WP-4611	Wire Basket, side perforated, 240 x 120 x 50 mm
WP-4612	Wire Basket, side perforated, 240 x 120 x 60 mm
WP-4608	Wire Basket, side perforated, 240 x 120 x 70 mm
WP-4609	Wire Basket, side perforated, 240 x 120 x 100 mm
WP-4607	Wire Basket, side perforated, 240 x 250 x 30 mm

#### **Spring Scissors**

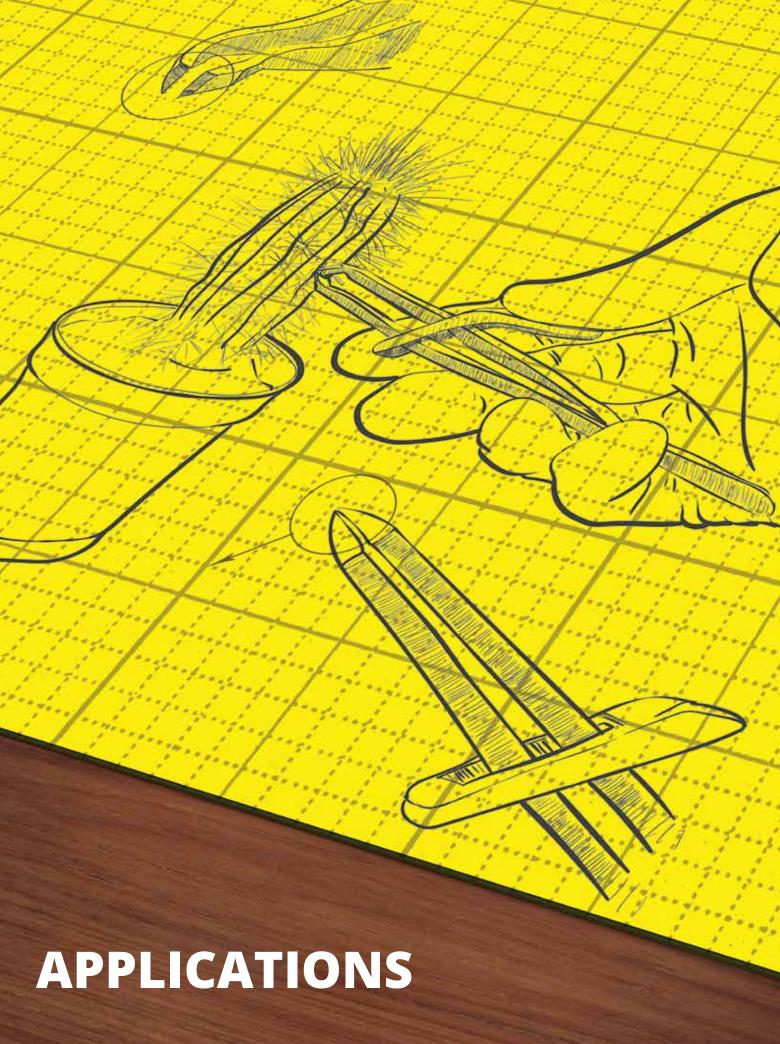
503308	Student spring scissors, blunt/blunt, curved		
503309	Student spring scissors, blunt/blunt, straight		
503310	Student spring scissors, sharp/ball, straight		
503222	Wescott student scissors, blunt tips		
503223	Wescott student scissors, sharp tips		
501777	Vannas student scissors, 9cm, straight		
501930	Vannas student scissors, 9cm, curved		
503749	McPherson vannas student scissors, blunt		

#### **Ring Scissors**

14218	iris scissors, SuperCut, Tucm, straight
14219	Iris scissors, SuperCut, 10cm, curved
501758	Iris scissors, 11.5cm, straight
501759	Iris scissors, 11.5cm, curved

#### Forceps/Tweezers

15914	Iris forceps, 10cm, 0.8mm, serrated, straight
15915	Iris forceps, 10cm, 0.8mm, serrated, curved
15917	Iris forceps, 10cm, 0.8mm, 1x2 teeth, curved
501974	Student tweezers #1, 11cm, 0.45x0.55mm tips
501975	Student tweezers #2, 11cm, 0.4x0.55mm tips
501976	Student tweezers #3, 11cm, 0.2x0.4mm tips
501977	Student tweezers #3C, 11cm, 0.4x0.45mm tips
501978	Student tweezers #4, 11cm, 0.4x0.45mm tips
501979	Student tweezers #5, 11cm, 0.4x0.45
501980	Student tweezers #6, 11cm, 0.4x0.5mm tips, 90°
501981	Student tweezers #7, 11cm, 0.4x0.5mm tips, curved



#### **MICRO SCISSORS**

MICRO TIJERAS MIKROSCHEREN MICRO FORBICI
MICRO TESOURA

**ABERTURA DA PAGNA** 

#### MICRO INTRAOCULAR SCISSORS

- 14 cm (5.5 in.) Long
- Stainless Steel

**500372** 25° Angled Blades

**500372-T** 25° Angled Blades, Titanium Handle

**500374** 35° Angled Blades

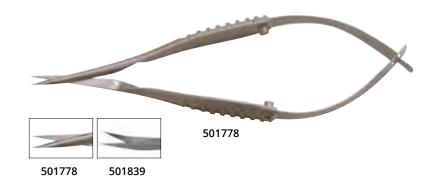




#### **VANNAS SCISSORS**

- Super Fine
- 8 cm (3.1 in.) Long
- 3 mm Blades
- 0.015 mm Tips
- Stainless Steel

**501778** Straight **501839** Curved



#### **VANNAS TUBINGEN SCISSORS**

- 8 cm (3.1 in.) Long
- Straight
- 0.3 mm Tip
- 5 mm Blade
- Stainless Steel with Ceramic Coating

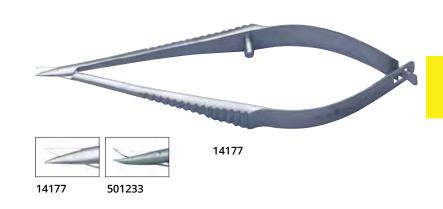
**504488** Straight **504499** Curved



#### **MCPHERSON-VANNAS SCISSORS**

- 7 cm (2.75 in.) Long
- 3 mm Blades
- 0.1 mm Tips
- Stainless Steel

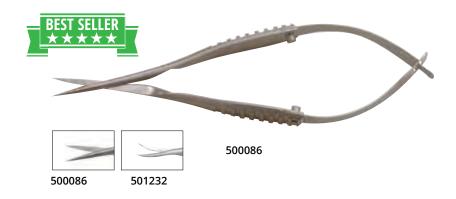
**14177** Straight **501233** Curved



#### **SUPER FINE VANNAS SCISSORS**

- 8.5 cm (3.3 in.) Long
- 7 mm Blades
- 0.025 x 0.015 mm Tips
- Stainless Steel

**500086** Straight **501232** Curved



#### **VANNAS SCISSORS**

- 9 cm (3.5 in.)
- 5 mm Blades
- 0.1 mm Tips
- Straight
- Stainless Steel

**14003** Standard **14003-G** German

Standard and German versions may differ slightly in appearance.



#### INSTRUMENTS FOR CRANIAL OPENING \_

INSTRUMENTS POUR L'OVERTURE DU CRÂNE STRUMENTI PER L'APERTURA DEL CRANIO INSTRUMENTOS PARA ABERTURA CRANEANA INSTRUMENTE FÜR SCHÄDELÖFFNUNG

#### **CORNEOSCLERAL PUNCH**

- 8 cm (3 in.) Long
- 2 mm wide blade
- Stainless Steel

500079

Corneoscleral Punch

**SEE PAGE 132** 



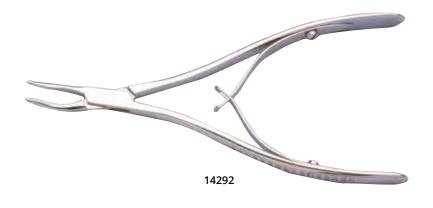
#### MICRO FRIEDMAN RONGEUR

- 15 cm (5.9 in.) Long
- Stainless Steel

**501332** 0.8 mm Tip **501333** 1.0 mm Tip **14292** 1.3 mm Tip

**14292-G** 1.3 mm Tip, **German** 

Standard and German versions may differ slightly in appearance.





#### **VESSEL CLIPS**

**CLIPS DE ANEURISMA** 

**CLIPS POUR ANEURISME** 

ANEURYSMEN UND GEFÄBCLIPSE

For temporary obstruction of blood flow. Ideal for small animal vessels.



**SEE PAGE122** 

#### **DISSECTING FORCEPS**

## PINCES À DISSECTION PINZAS PARA PREPARACIONES

## PINZE PER PREPARAZIONE PRÄPARIERKLEMMEN

#### **DRESSING FORCEPS**

- 12.5 cm (5 in.) Long
- 0.35 x 0.10 mm Serrated Tips
- Straight
- Stainless Steel,

**15908** Dressing Forceps





#### MICRO TWEEZER

- 15 cm (6 in.) Long
- Serrated
- Angled Tips
- German
- Stainless Steel

**501727-G** Micro Tweezer



#### **WPI SWISS TWEEZERS**

- 11.5 cm (4.5 in.) Long
- $0.18 \times 0.2$  mm Curved Tips
- Stainless Steel

**504504** WPI Swiss Tweezers



#### **OTHER SUGGESTED INSTRUMENTS**

50450677	504498	88
14142 85	504479	90
504478 90	50 <i>44</i> 81	88

For more suggestions, see pages 75-100.

#### **DURA DISSECTORS**

DISECADORES PARA DURA-MADRE DISSETORI PER DURAMADRE DISSECTEURS À DURE-MÈRE DURA DISSEKTOREN

#### Used to isolate the dura from other tissue

#### **DURA DISSECTOR**

- 20 cm (7.9 in.) Long
- Stainless Steel,

**503336** Dura Dissector

#### HALLE DURA KNIFE

- 21 cm (8.3 in.) Long
- Stainless Steel,

WP1200 Halle Dura Knife

#### **TONNIS DURA KNIFE**

- 13 cm (5 in.) Long
- Stainless Steel,

WP1420 Tonnis Dura Knife

#### **KIMURA SPATULA**

- 16 cm (6.3 in.) Long
- 2.5 mm Wide
- 0.3 mm Thick
- Stainless Steel,

**504773** Kimura Spatula

#### **GRAEFE HOOK**

- 15 cm (6 in.) Long
- Stainless Steel

**503221** Graefe Hook

#### DOUBLE END PROBE AND SEEKER

- 15 cm (6 in.) Long
- Sharp ends
- Stainless Steel

**504033** Double End Probe and Seeker



503221

503336

WP1200

WP1420

504773

a www.wpilite.com

#### OTHER SUGGESTED INSTRUMENTS

WORLD PRECISION INSTRUMENTS

#### NEEDLE HOLDERS —

PORTA-AGUJAS PORTAGHI NADEL HALTER PORTE-AIQUILLES

A needle holder, also called needle driver, is a surgical instrument, similar to a hemostat, used by doctors and surgeons to hold a suturing needle for closing wounds during suturing and surgical procedures.

#### STEVENS NEEDLE HOLDER

- 13 cm (5 in.) Long
- 1 mm Tips
- Serrated
- Straight
- Stainless Steel,

**14133** Stevens Needle Holder



#### **NEEDLE HOLDER WITH SCISSORS**

- 14 cm (5.5 in.) Long
- Straight
- 0.3 mm Smooth tips
- Round hollow handles
- Integrated scissors
- Stainless Steel,

**14115** Needle Holder with Scissors



#### MICRO CASTROVIEJO NEEDLE HOLDER

- 9 cm (3.5 in.) Long
- 0.5 cm Round tips with diamond dust
- Stainless Steel,

**503376** Straight **503377** Curved



#### ANIS NEEDLE HOLDER WITHOUT LOCK CVD

- Round handle
- 0.5 mm Delicate smooth tips
- Stainless Steel,

**WP6036** Curved, 12 cm, with Lock **WP6037** Curved, 11.5 cm (no Lock)



See other suggested instruments on pages 113-119

#### MICROINJECTION SYRINGE PUMP

Delivering picoliter volumes precisely

#### **FEATURES**

- Graphic display with SMARTouch™ touch screen controller for "intelligent," easy to use interface controlling up to four syringe pumps
- Splash proof touch screen
- User configurable mounting bar
- Dual mode motor drive
- Compatible with all UMP, UMP2 and UMP3 pumps
- Optional foot switch available
- 5 digit display

#### BENEFITS

- Accepts a wide variety of microinjection syringes
- Manual or automated injections
- Quiet operation for electrophysiology recordings
- Mounts directly on micromanipulator or stereotaxic frame
- Nominal injections down to 1 nL
- Rapid setup with intuitive touchscreen controller

#### **APPLICATIONS**

- Microinjection
- Neuroscience
- Microfluidics
- Micro delivery of biochemical agents or dyes

The UltraMicroPump 3 (UMP3) is a versatile pump which uses micro syringes to deliver picoliter to milliliter volumes. The pump is optimum for applications that require injections of precise and small amounts of liquid. With its touchscreen controller, UMP3 can displace as little as 0.53 µL/step (using 10 µL syringe with 60 mm scale length). The new SMARTouch™ controller for the UltraMicroPump features Patent Pending technology which includes:

- Total system calibration Calibrate the syringe and the controller together as a system. This feature eliminates the variability of the syringes and delivers the calibrated volume.
- Smart smoothness The controller can be set to automatically adjust microstepping according to the injection rate to deliver the smoothest flow
- User defined travel limits Set the limits for a specific syringe in the software. This prevents the pump from over-driving the plunger into the syringe, potentially causing syringe breakage.

The **MICRO2T** SMARTouch™ controller is feature rich. All operations are controlled through interactive touch screen. It has a graphical indication of the flow and the volume remaining in the syringe. It offers automatic end stop detection that is dependent on the syringe volume. You can control two pumps independently from one controller with its dual display. It also has automatic pump detection and a Pause/ Resume feature that allows dosing during infusion/withdrawal The volume accumulated is displayed on screen, as well as the percentage of volume left in the syringe. The SMARTouch™ controller is fully compatible with all earlier versions of the UltraMicroPump.

**Low Fluid Dead Volume** - Syringes may be filled externally and then inserted into the pump or filled while mounted in the pump. Fluids injected or withdrawn are held entirely within the micro syringe to maintain a low fluid dead volume.

**Flexibility in Mounting** - For positioning, the **UMP3** may be attached to any of several WPI micropositioners such as the **M3301** (manual), **DC3001** (motorized) or any manual stereotaxic manipulator.



#### **Rapid Setup with Intuitive Touchscreen Controller**

- An Integral component in the **UMP3** system is the SMARTouch™ touchscreen controller, which provides an "intelligent" and easy-to-use interface to up to four (or two) syringe pumps. Operating parameters are set with the touchscreen panel. You can save your parameters for instant recall. An optional footswitch offers "hands free" start/stop operation.

**Computer Control**—A USB port on the rear of the controller can be used to connect it to a computer for scripted protocols.

**NOTE: UMP3** accepts glass syringes with barrel diameters from 5.5 to 9 mm.

#### ULTRAMICROPUMP SPECIFICATIONS (based on 10 µL syringe)

#### NORMAL MODE

TRAVEL 62 m

 $\begin{array}{ll} \mbox{MINIMUM DISPENSING VOLUME} & 0.58 \ \mbox{nL/step} \ (10 \ \mbox{µL syringe}) \\ \mbox{LINEAR MOTION PER STEP} & 3.175 \ \mbox{µm/half step} \\ \mbox{WEIGHT} & 325 \ \mbox{g} \ (11.5 \ \mbox{oz.}) \\ \mbox{MOUNTING ROD DIAMETERS} & 7.9 \ \mbox{mm} \ (0.31 \ \mbox{in.}) \end{array}$ 

MAINS POWER SUPPLY 90-264VAC @ 47-63Hz 32 mm x 190 mm (1.3 in. x 7.5 in.)

#### **MICROSTEPPING MODE**

Precision is increased eight-fold

UMP3T-1UMP3T-2UMP3T-2UMP3U

MICRO2T SMARTouch Controller, Two-Channel
OPTIONAL ACCESSORIES/REPLACEMENT PARTS

13142 Footswitch for Micro2T\*502201 V-Clamp for Stereotaxic Frame

**503301** Extension Cable, Mini DIN (male-female) 10 ft.

**503207** Small Base Stand and Clamps

\*13142 is the foot pedal for use with the MICRO2T ONLY. It is not compatible with the old **MICRO4** controller, which uses the **15867** foot pedal. The two foot pedals are not cross-compatible.

#### **HOOKS**

Surgical grade hooks are designed for use as probes for dissection and to manipulate small pieces of tissue during surgical procedures.

#### HALVESTON "TEASER" HOOK

- 12.4 cm (4.9 in) Long
- Stainless Steel

504061

Halveston "Teaser" Hook



#### **TYRELL HOOK**

- 13 cm (5 in) Long
- Sharp/micro
- Stainless Steel

14136

Tyrell Hook



#### **ENGEL TENOTOMY HOOK**

- 13 cm (5.1 in) Long
- Double prongs with sharp tips
- Stainless Steel

**504021** Engel Tenotomy Hook



#### **GRAEFE HOOK**

- 15 cm (6 in) Long
- Stainless Steel

**503221** Graefe Hook



#### **SURGICAL SPOONS**

Surgical spoons or scoops are used for scraping or debriding tissue. A surgical spoon, curette or excavator can be used to remove pathologic tissue. A dental curette is used to scrape a carious cavity prior to a filling.

#### PERFORATED SPOON

- 15 cm (5.9 in.) Long
- Bowl diameter 20 mm (0.8 in.)
- Stainless Steel,

**501997** Perforated Spoon



#### WELLS ENUCLIATION SPOON

- 14 cm (5.5 in.) Long
- Stainless Steel

**503762** Wells Enucliation Spoon



#### PATON SPATULA AND SPOON

- 14 cm (5.5 in.) Long
- Stainless Steel

**504022** Paton Spatula and Spoon



#### **CULLER LENS SPOON**

- 13 cm (5.1 in.) Long
- Stainless Steel

**503760** Culler Lens Spoon



#### **BUNGE EVISCERATION SPOON**

- 13.5 cm (5.3 in.) Long
- Stainless Steel

**503761** Bunge Evisceration Spoon



#### **SPATULAS**

#### PATON SPATULA AND SPOON

- 14 cm (5.5 in.) Long
- Stainless Steel

**504022** Paton Spatula and Spoon

#### **HALVESTON TISSUE RETRACTOR**

- 12.5 cm (4.9 in.) Long
- Thin, curved blade, 7 mm
- Stainless Steel

**503759** Halveston Tissue Retractor

#### KIMURA SPATULA

- 16 cm (6.3 in.) Long
- 2.5 mm Wide spatula
- 0.3mm Thick
- Stainless Steel

504773 Kimura spatula



#### **CURETTE** -

#### **MEYHOEFER CURETTE**

- 13 cm (5.1 in) Long
- Stainless steel

504769 Size 2 (2.25 mm Spoon Diameter)l
 504771 Size 4 (3.5 mm Spoon Diameter)
 504770 Size 3 (2.5 mm Spoon Diameter)
 504772 Size 0 (1.5 mm Spoon Diameter)

## 504769 504769 504770 504771 504772

#### KIMURA SPATULA

- 16 cm (6.3 in.) Long
- 2.5 mm Wide spatula
- 0.3 mm Thick
- Stainless Steel

504773 Kimura spatula



#### **RETRACTORS**

#### DESMARRES LID RETRACTOR

- Flat serrated handle
- 14 cm (5.5 in.) Long

**WP108200** Size 0: Blade 11 mm wide **WP108220** Size 1: Blade 13 mm wide **WP108230** Size 2: Blade 15 mm wide



#### **KNIVES**

#### MICROSURGICAL KNIFE

- 13.5 cm (5.25 in) Long
- 15° Blade
- Disposable
- Package of 6

**501731** 3 mm Blade **500249** 5 mm Blade

# 501731 500249

#### **DISSECTING KNIFE**

- 13 cm (5.1 in) Long
- 1 mm Blade
- Right angle
- Stainless steel

**14135** Dissecting Knife

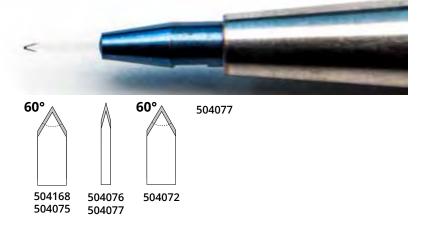


#### **SAPPHIRE BLADE**

- 0.20 mm Thick
- Double-edge lance
- Handle sold separately

**504077** 1.0 mm wide **504076** 0.5 mm wide

504072 0.75 mm wide, 60° Angle
504075 2.80 mm wide, 60° Angle, Elbow
504168 2.80 mm wide, 60° Angle, Elbow



#### TITANIUM HANDLE FOR SAPPHIRE BLADES

- 13 cm (5.12 in) Long
- Retractable
- Use with Sapphire Blades 504074, 504075 and 504168
- Blades sold separately
- Titanium,

**501811** Titanium Handle for Sapphire Blades



#### OTHER SUGGESTED KNIVES AND BLADES

#### **FORCEPS**

#### MICROINTRAOCULAR FORCEPS

- 14 cm Long
- 2.5 x 0.3 x 0.25 mm Jaws
- Stainless Steel

**500373** Microintraocular Forceps

# 500373

#### STRAIGHT FORCEPS

**555827L** Perone Lasik Forceps, 10.8cm (4.25") Long, 2mm

OD rings, Titanium



#### **SCISSORS**

#### **TENOTOMY SCISSORS**

- Commonly used in ophthalmology, neurology and plastic surgery
- One serrated blade prevents slippage
- Beveled blade, rounded tips to avoid punctures
- Smooth and clean cuts—minimal tearing
- · Stainless Steel

**14220** 12.5 cm, Straight

**14220-G** 12.5 cm, Straight, German **14221** 12.5 cm, SuperCut, Curved

**14221-G** 12.5 cm, SuperCut, Curved, **German** 

**14395** 10 cm, SuperCut, Straight

**14395-G** 11.5 cm, SuperCut, Straight, **German** 

## 14220 14220 14220 14221 14220

#### **MICRO SCISSORS**

- 12 cm Long
- Diamond coated blades

**503364** Curved **503365** Straight



#### OTHER SUGGESTED SCISSORS

14122-G48	50126373
1421869	501263-G73
14218-G 69	504487

#### **SCISSORS** -

#### **IRIS SUPERCUT SCISSORS**

- One edge micro serrated, one edge honed to the sharpness of a knife edge—prevents tissue slippage
- SuperCut
- 12.5 cm (5 in.)
- Straight
- Stainless Steel,

**14225** Iris Supercut Scissors



#### **WILMER IRIS SCISSORS**

- General procedure microdissection
- 10.5 cm (4 in.)
- 45° Angled Blades
- Stainless Steel,

**503248** Wilmer Iris Scissors



#### **MAYO SCISSORS**

- Robust configuration used to cut deep tissue and general dissection
- 17 cm (6.75 in.) Long
- Straight
- Stainless Steel

**501751** Mayo Scissors



#### OTHER SUGGESTED PATHOLOGY SCISSORS

50121864	50175864	50327570
50122264	50175964	50327671
50175363	50175267	50173972
50174765	1422469	

#### **FORCEPS & HEMOSTATS**

#### **DRESSING FORCEPS**

- Used to hold gauze and cotton during surgical procedures
- Used to pick up small objects or hold tissues or in any lab procedure
- Stainless Steel,

**501217** 12.5 cm (5 in.), Serrated

**500365** 30.5 cm (12 in.), Straight, Serrated Jaws **501727-G** 15 cm (6 in.), Serrated, Angled Tips, **German** 

Standard and German versions may differ slightly in appearance.









501217 501217-G

500365

#### **REVERSE ACTION TWEEZER**

- Used mostly where a high precision self-closing is needed
- Good for general lab applications, microscopy and assembly applications
- 16.5 cm (6.5 in.) Long
- 7.5 cm Tips
- 0.06 cm Jaw
- Stainless Steel

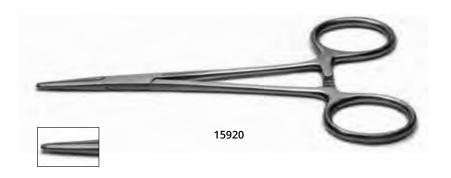
**504501** Reverse Action Tweezer



#### HALSTED MOSQUITO HEMOSTATIC FORCEPS

- 12.5 cm (5 in.) Long
- Straight
- Standard
- Stainless Steel

**15920** Halsted Mosquito Hemostatic Forceps



#### OTHER SUGGESTED PATHOLOGY FORCEPS

500365	86	50328380	6	50331392
15908	86	50331192	2	501727-G86
15010	86	502212 0	2	

#### **SURGERY-**

#### **CIRURGIA**

#### **CHIRURGIE**

#### **CHIRURGIA**

#### **METZENBAUM SCISSORS**

- Carbide is a harder metal than stainless steel and will retain its sharpness longer.
- 17.75 cm (7 in.) Long
- Tungsten Carbide blades
- Curved
- Stainless Steel

501745

Metzenbaum Scissors



#### **METZENBAUM SCISSORS**

- 14.5 cm (5.7 in.) Long
- Curved
- Stainless Steel

501253

Metzenbaum Scissors



### OLSEN-HEGAR NEEDLE HOLDER WITH SUTURE SCISSORS

- 14 cm (5.5 in.) Long
- Serrated
- Tungsten Carbide jaws

500227

Olsen-Hegar Needle Holder With Suture Scissors



#### **IRIS SCISSORS**

- 11 cm (4.3 in) Long
- Sharp tips
- SuperCut
- Straight
- One blade serrated and one honed to a razor edge
- Tungsten carbide insert blades
- Stainless steel

**501263** Iris Scissors



#### **MAYO SCISSORS**

- 17 cm (6.75 in.) Long
- Curved
- Stainless Steel

**501752** Mayo Scissors



#### LISTER BANDAGE SCISSORS

- 15 cm (6 in.) Long
- 4 cm Blades
- Stainless steel

**500444** Lister Bandage Scissors



#### **ROCHESTER-CARMALT HEMOSTATIC FORCEPS**

- 16 cm (6.25 in.) Long
- Curved
- Stainless Steel

**501243** Rochester-Carmalt Hemostatic Forceps



#### HARTMAN MOSQUITO HEMOSTATIC FORCEPS

- 12.5 cm (5 in.) Long
- Curved
- Stainless Steel

**15921** Hartman Mosquito Hemostatic Forceps



FOR MORE SUGGESTED INSTRUMENTS, SEE: PAGES 101-105 (HEMOSTATIC FORCEPS)

PAGES 46-75 (SCISSORS) PAGES 112-119 (NEEDLE HOLDERS)

#### ANIMAL TEMPERATURE CONTROLLER -

Maintain optimal animal temperature during research procedures

#### **FEATURES**

- Animal Temperature Controller with Adaptive mode–auto adjust PID regardless of animal size
- Plate's internal temperature sensor prevents localized hot spots under animal with maximum temperature stability
- Compatible with RTD (resistive temperature device) and thermocouple probes
- Extremely quiet DC heater to facilitate electrophysiological recordings
- Three temperature sensor inputs
- Auto shutdown if the plate reaches 45°C

#### **BENEFITS**

- Low noise temperature control system
- Adapts to different size animals automatically
- Accepts RTD and thermocouple probes.

#### **APPLICATIONS**

- Small animal surgery
- Stereotaxic surgery



**ATC2000** Animal Temperature Controller

#### RECOMMENDED ACCESSORIES (SELECT ONE SENSOR AND ONE PLATE)

Heating Plate with Built-In RTD Sensor, 15 x 25 cm
 Heating Plate with Built-In RTD Sensor, 15 x 10 cm
 Heating Plate with Built-In RTD Sensor, 15x4 cm\*

\*for Stereotaxic Frame

#### **OPTIONAL ACCESSORIES/REPLACEMENTS**

61824 RTD Rectal Temp Probe, 1.25 mm shaft 2.5 mm Ball Tip
RET-2 TC Rat Rectal Temp Probe, 1 mm shaft, 3.2 mm Ball Tip
RET-3 TC Mouse Rectal Temp Probe, 1 mm shaft, 1.6 mm Ball Tip
503573 Silicone Pad for ATC2000 (10 x 15 cm)
MT-D Needle Microprobe, 5 ft. cable
IT-18 0.025" Diameter Flexible Implantable Probe, 3 ft. cable

IT-18 0.025" Diameter Flexible Implantable Probe, 3 ft. cable
 IT-23 0.009" Diameter Flexible Implantable Probe, 3 ft. cable
 IT-1E 0.025" Diameter Flexible Implantable Probe, 3 ft. cable



ATC2000

The **ATC2000** Animal Temperature Controller is a low-noise heating system for maintaining animal body temperature during experimental procedures. The DC heater is extremely quiet in terms of electromagnetic radiation. This is essential in electrophysiological recordings which are very sensitive to electromagnetic interference. The controller uses proportional, integral, derivative (PID) technology to provide precise and stable control of a subject's temperature. Compared with switched on/off type controllers, PID controllers provide a much more precise and stable control of temperature. The PID approach is also more immune to the variation of the experimental conditions such as change in animal size and unexpected disturbances. Our unique adaptive mode technology automatically senses and adjusts the PID values based on the size of the animal.

#### **MULTIPLE TEMPERATURE SENSING INPUTS**

The ATC2000 has three temperature sensing inputs.

- The resistive temperature device (RTD) probe input can be used to monitor an RTD rectal probe to control the animal temperature or to monitor ambient temperature, induction chamber temperature or any other temperature.
- When using a thermocouple probe, the thermocouple (TC) probe input can be used just like the RTD input. (A T type thermocouple must be used.)
- The heater plate also has an internal temperature sensor. The ATC2000 monitors this sensor to prevent the localized hot spots under animal.

#### **OPERATIONAL MODES**

The controller has three operational modes:

- Normal mode uses the configured sensor (RTD or TC) or the plate sensor to drive the control loop.
- Adaptive mode uses the temperature of the heated plate and the temperature of the subject to control. This approach is less prone to overshoot, but somewhat slower than the normal mode, depending on the sampling rate used.
- Shutdown is a fail safe mode used if the plate temperature ever exceeds 45°C.

#### **REQUIRED ACCESSORIES**

The **ATC2000** is tuned at the factory. However, the PID parameters may also be set manually. The temperature resolution of the controller is 0.1°C. The rectal temperature probe has a 5 ft. ultra-flexible, shielded cable and an RTD sensor.

The metal heating plates (available separately) have built-in temperature sensors. The small heating plate (WPI#61840) is compatible with stereotaxic systems, the rigid, flat surface of the warming pads fits under the U-frame. Our homeothermic warming pads are washable with water and detergent.

A heating plate and a probe are required for use with this unit.

#### PERIODONTAL SURGERY KIT

Veterinary Periodontal Surgery Basic Kit, 11 instruments



Double End Explorer, 18 cm (7 in.), Stainless Steel



Orban Scaler, 18 cm (7 in.), Stainless Steel



Periodontal Probe, 15 cm (5.9 in.), Stainless Steel



Jacquette Scaler #1SSE, 18 cm (7 in.), Stainless Steel



Ochsenbein 1 Chisel, 16.5 cm (6.5 in.), Stainless Steel



Gracey Curettes #11-12, 18 cm (7 in.), Stainless Steel



Kirkland Gum Knife #15/16, 17.5 cm (6.9 in.), Stainless Steel



Scaler, Double-Ended #12, 18 cm (7 in.), Stainless Steel



Gracey Curettes #13-14, 18 cm (7 in.), Stainless Steel



Periostal Elevator, 17 cm (6.7 in.), Stainless Steel Double Ended: Rounded 5 mm Blade, Slightly Curved; 3 mm Spear Point



**500236** Scalpel Handle #3, 13 cm (5 in.), Stainless Steel For use with Sterile Stainless Steel Blades #10-15

#### **SURGICAL EXTRACTION**

These veterinary surgical instruments are designed for use in veterinary dentistry.

#### **UNIVERSAL PLIER**

- 15 cm (5.9 in.) Long
- Stainless Steel

**503405** Universal Plier



#### **RODENT MOLAR CUTTER**

- 17.5 cm (6.9 in.) Long
- Stainless Steel

**503441** Rodent Molar Cutter



#### **EXTRACTING FORCEPS #65**

- 19 cm (7.5 in.) Long
- Stainless Steel

**503398** Extracting Forceps #65



#### **EXTRACTING FORCEPS,**

- 14.5 cm (5.7 in.) Long
- Small breed
- Stainless Steel

**503397** Extracting Forceps



## EXTRACTING UNIVERSAL FORCEPS #150 (CRYER FORCEPS)

- 17.8 cm (7 in.) Long
- Stainless Steel

**503426** Ex

Extracting Universal Forceps #150 (Cryer Forceps)



#### **ROOT ELEVATOR #28 RIGHT**

- 15 cm (5.9 in.) Long
- Stainless Steel

**503401** Root Elevator #28 Right



#### **ROOT ELEVATOR**

- 14.6 cm (5.75 in.) Long
- Stainless Steel

**503427** Root Elevator



#### **ROOT ELEVATOR #301**

- 15 cm (5.9 in.) Long
- Stainless Steel

**503402** Root Elevator #301



#### **CRANE ELEVATOR, RIGHT**

- 15 cm (5.9 in.) Long
- Stainless Steel

**503404** Crane Elevator, Right



#### **ROOT ELEVATOR #27 LEFT**

- 15 cm (5.9 in.) Long
- Stainless Steel

503400 Root Elevator #27 Left



#### **CRANE ELEVATOR, LEFT**

- 15 cm (5.9 in.) Long
- Stainless Steel

**503403** Crane Elevator, Left



#### **RODENT DENTAL SPATULA**

- 16.5 cm (6.5 in.) Long
- Stainless Steel

**503440** Rodent Dental Spatula

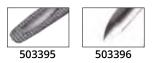


#### **ALBRIGHT FORCEPS**

- 16 cm (6.3 in.) Long
- Stainless Steel

503395 Albright Forceps, Round Tips503396 Albright Forceps, Sharp Tips





#### **GENERAL SURGERY VETERINARY PACK**

503407

This suggested kit for veterinary surgery includes 19 instruments plus a sterilization case.

#### For details on custom surgical kits, see page 4.



500236

#3 Scalpel Handle, 13 cm, Stainless Steel



501289

Snook Ovariectomy, 17.7 cm, Stainless Steel



500177

Brown–Adson Forceps, 12 cm, 7x7 Teeth, **Tungsten Carbide** Jaws



500023

Olsen Hegar Needle Holder with Suture Scissors, 14 cm, Stainless Steel



15921

Halsted Mosquito Forceps, 12.5 cm, Curved, Stainless Steel

3 included in General Surgery Pack



501700

Backhaus Towel Clamps, 13 cm, Stainless Steel

4 included in General Surgery Pack



501241

Kelly Hemostatic Forceps, 14 cm, Straight, Stainless Steel

2 included in General Surgery Pack



501243

Rochester Carmalt Forceps, 16 cm, Curved, Stainless Steel

4 included in General Surgery Pack



503392

Sterilization Case, 28x18 cm



501751

Mayo Scissors, 17 cm, Straight, Stainless Steel



501253

Metzenbaum Scissors, 14.5 cm, Curved, Stainless Steel

27

#### **SUGGESTED FELINE SPAY PACK**

503409

This kit includes 19 instruments. Be sure to get a sterilization basket with your purchase.

#### For details on custom surgical kits, see page 4.



501241

Kelly Hemostatic Forceps, 14 cm, Straight, Stainless Steel

2 included in Deluxe Feline Spay Pack



501751

Mayo Scissors, 17 cm, Straight, Stainless Steel

2 included in Deluxe Feline Spay Pack



15920

Halsted Mosquito Forceps, 12.5 cm, Straight, Stainless

Steel

2 included in Deluxe Feline Spay Pack



500236

#3 Scalpel Handle, 13 cm, Stainless Steel



501289

Snook Ovariectomy, 17.7 cm, Stainless Steel



501217

Dressing Forceps, 12.5 cm, Stainless Steel



V503382

Mayo-Hegar Needle Holder, 15 cm, Stainless



501288

Kelly Hemostatic Forceps, 14 cm, Curved, Stainless Steel

2 included in Deluxe Feline Spay Pack



15921

Halsted Mosquito Forceps, 12.5 cm, Curved, Stainless Steel

2 included in Deluxe Feline Spay Pack



14226

Adson Brown Forceps, 12 cm, Stainless Steel



V503380

Jones Towel Clamp, 9 cm, Stainless Steel

3 included in Deluxe Feline Spay Pack



501998

Olsen Hegar Needle Holder, 15 cm, Stainless Steel

#### SUGGESTED DELUXE CANINE SPAY PACK

503408

This kit includes 21 instruments. Be sure to get a sterilization basket with your purchase.

#### For details on custom surgical kits, see page 4.



**500236** #3 Scalpel Handle, 13 cm, Stainless Steel



**14226** Adson Brown Forceps, 12 cm, Stainless Steel



**501217** Dressing Forceps, 12.5 cm, Stainless Steel



**15920** Halsted Mosquito Forceps, 12.5 cm, Straight, Stainless Steel



**501241** Kelly Hemostatic Forceps, 14 cm, Straight, Stainless Steel

2 included in Deluxe Canine Spay Pack



**501324** Allis Tissue Forceps, 15 cm, 4x5 Teeth, Stainless Steel

2 included in Deluxe Canine Spay Pack



**V503382** Mayo-Hegar Needle Holder, 15 cm, Stainless Steel



15921 Halsted Mosquito Forceps, 12.5 cm, Curved, Stainless Steel



**501288** Kelly Hemostatic Forceps, 14 cm, Curved, Stainless Steel

2 included in Deluxe Canine Spay Pack





**501751** Mayo Scissors, 17 cm, Straight, Stainless Steel

**V503380** Jones Towel Clamp, 9 cm, Stainless Steel

3 included in Deluxe Canine Spay Pack



**501998** Olsen Hegar Needle Holder, 15 cm, Stainless Steel

2 included in Deluxe Canine Spay Pack

V503381



Groove Director, 15 cm, Stainless Steel

**501289** Snook Ovariectomy, 17.7 cm,

Stainless Steel

29

#### **SUGGESTED MICROSURGICAL PACK-**

501315

Microsurgical Pack, 10 pieces

#### For details on custom surgical kits, see page 4.







14112

Spring Scissors, 14 cm, Curved, Stainless Steel 14098

Dumont #5 Tweezers, 11 cm, Stainless Steel 14395

Tenotomy Scissors, 10 cm, Straight, Stainless Steel

C-----

501247

Knife Handle, 10 cm, Round Knurled, Stainless Steel



14137

Castroviejo Needle Holder, 14 cm, Stainless Steel 501313

Probe, 14 cm, 1 mm Diameter, Stainless Steel



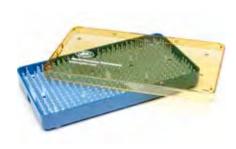
501250

Miniature Edge Blades, 12 Pack



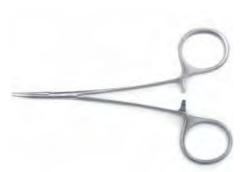
501314

Weitlaner Retractor, 10.2 cm, Stainless Steel



500253

Autoclavable Instrument Sterilization Tray with Silicone Mat, 10x10x2 cm



500452

Micro Hemostatic Forceps, 12.5 cm, Curved, Stainless Steel

#### **EXOTIC ANIMAL SURGICAL PACK -**

KIT-EXOTIC

Exotic Animal Surgical Pack, 12 piece

#### For details on custom surgical kits, see page 4.



**501244** Micro Adson Forceps, 12 cm, Stainless Steel



**500216-G** Iris Scissors, Tungsten Carbide Blades, 11 cm, Straight, Stainless Steel



**14192** Surgical Scissors, 14 cm, Straight, Sharp/Blunt Tips, Stainless Steel



**501291** Hartman Forceps, 9 cm, Curved, Stainless Steel



**501705** Hartman Mosquito Forceps, 9 cm, Stainless Steel



**500227-G** Olsen Hegar Needle Holder with suture scissors, Stainless Steel

2 included in Exotic Animal Surgical Pack





**500236** #3 Scalpel Handle, 13 cm, Stainless Steel



**15908** Dressing Forceps, 12.5 cm, Straight, Stainless Steel



14240 ALM Self-Retaining Retractor, Stainless Steel



14213 Instrument Sterilization Tray with Silicone Pads, 20 x 11 x 3 cm

#### **CAUTERY UNITS –**

Handheld disposable cautery are battery operated and are usually sold with replaceable tips. These thermal cautery units are designed for use in research laboratories. **Coagulation:** Use higher voltage in a pulsed manner to produce heat more slowly. With this method, tissue damage is more widspread (a few millimeters from the probe) and blood coagulates. **Cutting:** Use lower voltage with a continuous AC current to produce heat rapidly and completely vaporize the tissue at the tip of the probe.

#### HIGH TEMPERATURE CAUTERY

**500389** Handle

**500392** Kit (includes handle plus 2 #500394 tips and 2 #500393 tips)



#### DISPOSABLE ADJUSTABLE HIGH TEMPERATURE CAUTERY

**500388** Tip, 1500-2100°F, Sterile, 10 per box



#### LOW TEMPERATURE CAUTERY

**500390** Handle

**500391** Kit (includes handle plus 2 #500395 tips and 2 #500396 tips)



#### DISPOSABLE ADJUSTABLE LOW TEMPERATURE CAUTERY

**501090** Tip, 700-1200°F, Sterile,10 per box



#### **DISPOSABLE HIGH TEMP TIPS**

- Sterile
- For Handles #500389 and #500392
- 10 per box

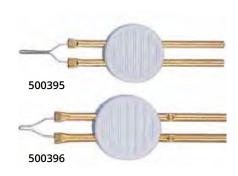
**500393** 2000° F **500394** 2200° F



#### **DISPOSABLE LOW TEMP TIPS**

- Sterile
- For Handles #500390 and #500391
- 10 per box

**500395** 1100° F, **500396** 1300° F



#### WORLD PRECISION INSTRUMENTS

#### THERMAL CAUTERY UNIT

Provides consistent, accurate hemostasis

#### **FEATURES**

- Comes with 3 tips
- Long battery life
- 24 gauge platinum wire

#### BENEFITS

- Maintain temperature during procedure
- No tissue damage
- No interference with implantable devices

#### **APPLICATIONS**

- Dermatology
- Ophtalmology
- Any surgical procedure

Traditional thermal cautery utilizes heat in the form of direct current to perform coagulation. This method eliminates the possibility of alternate site burns that can occur with electrosurgery. Only the heated wire tip comes in contact with the tissue and current does not enter the patient's body. WPl's Thermal Cautery Unit provides all the cautery power necessary for treating numerous minor surgical conditions and is ideal for applications such as dermatological, ophthalmological, occupational health, ENT, and plastic surgery cases, or any procedure that requires accurate hemostasis.

The Thermal Cautery Unit maintains the desired temperature during tissue contact and does not rapidly diminish like disposable battery powered cauteries. The autoclavable handpiece with six-foot cord accepts an assortment of reusable thermal cautery electrodes, allowing the surgeon to have the flexibility to perform a wide variety of procedures. This unit will outlast battery-powered units and save money on replacement batteries.

Reusable electrodes have solid 1-inch brass shanks; tips are made with 24 gauge platinum wire. These general purpose electrodes are supplied non-sterile, but may be autoclaved.

501292 501293 Thermal Cautery Unit, 110 V Thermal Cautery Unit, 220 V

Includes Handpiece and electrodes A, C and E

#### **REUSABLE ELECTRODES**

StyleWPI #DescriptionV503299Vasectomy Tip Electrode

**501294** Replacement Handpiece for **501292** & **501293** 

CAUTERY UNIT SPECIFICATIONSLINE VOLTAGE110 V/220 V, 60Hz/50HzOUTPUT WAVE SHAPEClipped SinusoidalOUTPUT POWER $0\text{-}30 \text{ W} \pm 6 \text{ W} (0.2 \Omega \text{ Load})$ MAXIMUM OUTPUT POWER $36 \text{ W} (0.2 \Omega \text{ Load})$ 

DIMENSIONS 13 cm x 13 cm x 20 cm (dxwxh)

SHIPPING WEIGHT 5 lb. (2.3 kg)



501292

503299

#### **ECONOMY ELECTROSURGICAL UNIT —**

Cut and coagulate with a press of the foot switch

#### **FEATURES**

- 10 levels of output intensity
- Three operational modes (cut, coagulate, cut/coagulate)
- Includes a variety of tips

#### **BENEFITS**

- Uses alternating current at radio frequencies
- 3 operational modes
- Economically priced

#### **APPLICATIONS**

- Cutting and coagulation of tissue
- Dermatology
- Ophtalmology
- Any surgical procedure

Electrosurgery utilizes alternating current at radio frequencies to cut and coagulate. Using this method, the current enters the subject's body and the subject becomes part of the electrical circuit. This requires the use of a return (or ground) plate. This economically priced electrosurgical unit has 10 levels of output intensity, three operational modes (cut, coagulate, and cut/coagulate) and various choices of electrodes. The unit comes complete and ready-to-use with a handpiece, ground plate, foot switch and one of each electrodes. All accessories can also be ordered separately.

501274 Electrosurgical Unit, 110 V501284 Ball Electrode, Ø 1.6 mm shaft



501274

#### **ELECTROSURGICAL UNIT SPECIFICATIONS**

OPERATION FREQUENCY 1.5 MHz STABLE & FINE POWER 10 Steps

POWER SUPPLY 110 V ± 10% - 50/60 Hz 1.8A, 210 VA 230 V ± 10% - 50/60 Hz 0.9A, 210 VA

OUTPUT POWER 70 W  $\pm$  5% WORKING FRQUENCY 1.5-1.7 MHz  $\pm$  5% DIMENSIONS 24 x 22 x 8.5 cm (lxwxh)

SHIPPING WEIGHT 10 lb. (4.5 kg)



## NON-REFLECTIVE TITANIUM COATING

Our black instruments are coated with titanium nitride (TiN), an extremely hard ceramic material. The TiN coating hardens and protects the cutting edge. Ceramic coated anti-reflective instruments are perfect for microscopy and microsurgical applications. Coating surgical instruments with a black ceramic adds a thin layer to the metal instrument, making the instrument harder and giving you greater precision. This anti-glare surface minimizes reflections off the surface of your instruments. The incredibly smooth coating improves the instruments' resistance to corrosion and minimizes friction. The ceramic coating is virtually impenetrable, because the raw material is bonded to the instrument both physically and chemically. These instruments are much more resilient to the pressure of daily use and chemical processing. Coated instruments last considerably longer.

Corrosion resistant • Non-reflective • Low friction • Wear and tear resistant • Biocompatible

## STARBISMUS SCISSORS

- Round tips
- Ceramic coated

**WPB407400** 12 cm (4.7 in.), Straight **WPB409000** 11 cm (4.5 in.), Curved



## **IRIS SCISSORS**

- 11 cm Long
- SuperCut
- Straight
- Ceramic coated

504487 Iris scissors

# 504487

## **VANNAS TUBINGEN SCISSORS**

- 8 cm Long
- Ceramic coated

504488 Straight504499 Curved





504488 504499

# **JAFFE FORCEPS**

- 10cm Long
- 0.3mm Tips
- Curved
- Ceramic coated
- Stainless Steel

WPB505210 Jaffe Forceps

# MICRO BARRAQUER NEEDLE HOLDER

- 12cm Long
- 0.45mm Fine Tips
- Curved
- Ceramic coated
- Stainless Steel

WPB6036 Micro Barraquer Needle Holder





## ST MARTIN MICRO CORNEAL FORCEPS

- 11cm Long
- Fine Tips
- Ceramic coated
- Stainless Steel

**WPB5035** St Martin Micro Corneal Forceps



# WESTCOTT SCISSORS, BLACK COATED

- 11 cm Long, Flat Handle
- Curved
- Ceramic coated
- Stainless Steel

**WPB4041** 0.14 mm Sharp Tips **WPB4030** 0.9 mm Blunt Tips



# LIEBERMANN SPECULUM V

- Wire lid tension is adjustable with thumbscrew control
- 12 mm Blades

WPB105675 Liebermann Speculum V



# HORTICULTURAL SCIENCE

We offer a unique assortment of instruments to aid on plant physiology, plant, molecular, cellular and developmental biology.

## **FORCEPS**

**15917** Iris Forceps, 10 cm, Curved, 1x2 Teeth, Stainless

Stee

**15914** Iris Forceps, 10 cm, Straight, Serrated, Stainless

Steel

**504473** Nugent Utility Forceps, 10 mm, Angled Tip,

Stainless Steel

**500456** Filter Forceps, 11 cm, Straight, Stainless Steel

**500457** Filter Forceps, 11 cm, Bent Flat Jaw, Stainless Steel

**503411** Horticultural Forceps, 12.5 cm, Stainless Steel

**501241** Kelly Hemostatic Forceps, 14 cm, Straight, Stainless

Steel

**501715** Kelly-Rankin Hemostatic Forceps, 15.5 cm, Curved,

Stainless Steel

**501714** Kelly-Rankin Hemostatic Forceps, 15.5 cm, Straight,

Stainless Steel

**501708** Rochester-Pean Hemostatic Forceps, 19 cm,

Curved, Stainless Steel

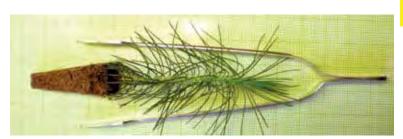
WPB315AS Black Epoxy Coated Cutter, 11 cm (4.3 in.),

Patented EZ Lever, strong blades, 6.5 mm from tip

to bend

WPB315AB Black Epoxy Coated Cutter, 11 cm (4.3 in.),

Patented EZ Lever, 4.5 mm from tip to bend



503411



#### **PROBE**

**501313** Probe, 14 cm, 1.0 mm Diameter, Stainless Steel

501313



#### **BIOPSY PUNCH**

**504639** Reusable Rapid Punch Biopsy Kit with replacement 0.5 mm tip

**504642** Replacement Tips for Reusable Rapid Biopsy Punch

Also see Disposable Biopsy Punches, page 136



Rapid-Punch with 0.5mm tip

# **SCALPELS**

500236 Scalpel Handle #3, 13 cm500237 Scalpel Handle #4, 14 cm

For blades, see page 110



500236

SCISSORS	
500380	Spence Stitch Ligature Scissors, 9 cm, Stainless Steel
501223	Operating Scissors, 16 cm, Sharp/Blunt, Straight, Stainless Steel
501224	Operating Scissors, 16 cm, Blunt/Blunt, Straight, Stainless Steel
501225	Operating Scissors, 16 cm, Sharp/Sharp, Straight, Stainless Steel
501226	Operating Scissors, 16 cm, Sharp/Blunt, Curved, Stainless Steel
501227	Operating Scissors, 16 cm, Blunt/Blunt, Curved, Stainless Steel
501228	Operating Scissors, 16 cm, Sharp/Sharp, Curved, Stainless Steel

Mayo Scissors, 17 cm, Straight, SuperCut with

Mayo Scissors, 17 cm, Curved, SuperCut, Titanium



## **KITS**

501259

503385

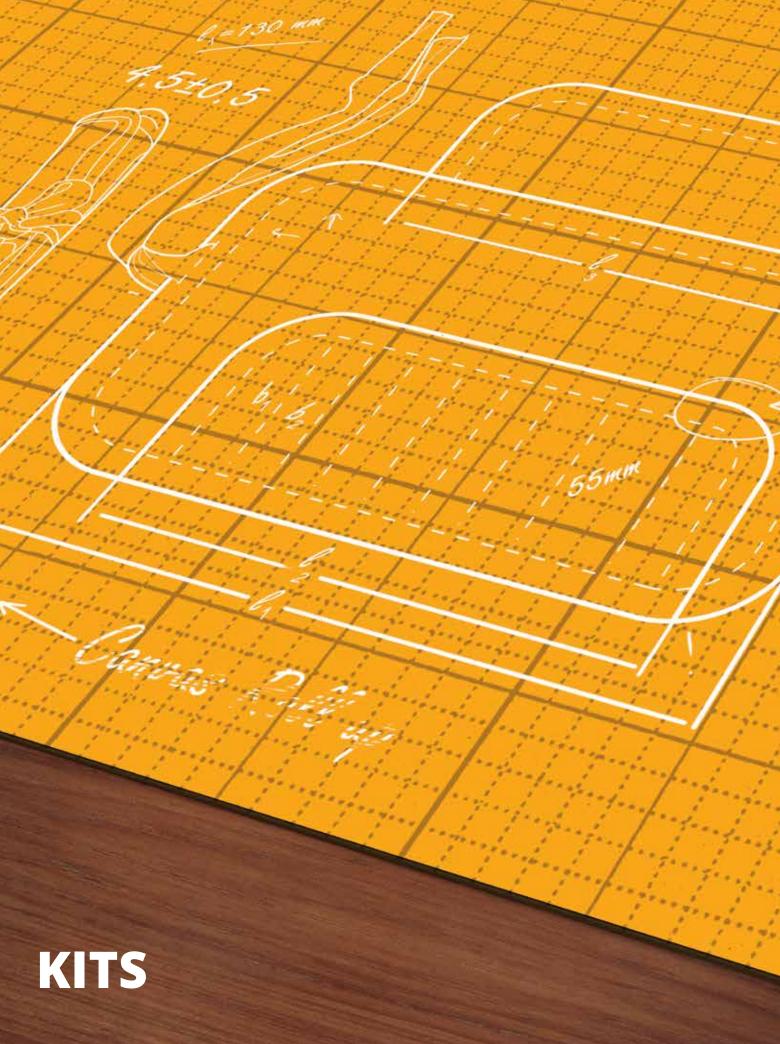
**501336** Student Kit, 8 pieces plus canvas roll-up

Tungsten Carbide

**504165** Student Botanical Kit, 11 pieces plus leather case







## PHYSIOLOGY KIT I

#### Kit Includes:

- SuperCut Tenotomy Scissors, Curved (14396)
- Dumont Forceps (500342)
- Rongeur, 3 mm jaw (14091)
- Filter Forceps, 11 cm, Straight, Flat Jaw (500456)
- Utility Scissors (501322)
- Probe, 1.0 mm Diameter, Blunt (501313)
- Operating Scissors, Straight, Sharp/Blunt (14192)

#### KIT-PHYSIO-I

Physiology Kit I (7 instruments)



## PHYSIOLOGY KIT II

#### Kit Includes:

- Vannas Scissors (14003)
- Stevenson Retractor (14131)
- SuperCut Iris Scissors, Straight (14218)
- Iris Forceps, Curved, Serrated (15915)
- Rongeur, 1.3 mm Jaw (14292)
- Adson Forceps, 1x2 Teeth (500092)
- Utility Scissors, Straight, Sharp/Blunt (501322)
- Olsen-Hegar Needle Holder (500227)
- Probe, 1.0 mm Diameter, Blunt (501313)
- Dumont Forceps (500342)
- Operating Scissors, Straight, Sharp/Blunt (14192)
- Portfolio (501319)





500342

15915

14240

## **MOUSE DISSECTING KIT**

#### Kit Includes:

- Dumont Forceps (500342)
- Wire Retractor (14130)
- Vannas Scissors (14003)
- Needle Holder (14109)
- Iris Forceps, Curved, Serrated (15915)
- Probe, 1.0 mm Diameter, Blunt (501313)
- Dissecting Scissors, 10 cm, Straight (14393)
- Portfolio (503294)

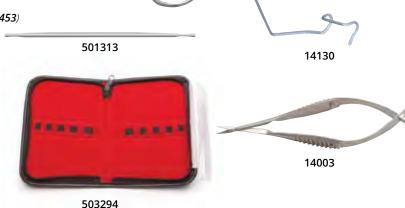
MOUSEKIT Mouse Kit (7 instruments plus zipper case)

504741

Mouse Kit for Telemetry Training (includes 500453)



Vessel Cannulation Forceps (500453) Included only with Kit **504741** 



14109

14393

15915

#### RAT DISSECTING KIT

#### Kit Includes:

- Dumont Forceps 500342
- Alm Retractor 14240
- Vannas Scissors 14124
- Needle Holder 14110
- Iris Forceps, Curved, Serrated 15915
- Probe, 1.0 mm Diameter, Blunt 501313
- SuperCut Iris Scissors, Straight 14218

**RATKIT** Rat Kit (7 instruments)

**504740** Rat Kit for Telemetry Training (includes **500453**)



Vessel Cannulation Forceps (500453)

Included only with Kit 504740



## STORAGE PORTFOLIO

**501319** Large Surgical Instrument Storage Portfolio,

Holds up to 40 Instruments

**503294** Small Surgical Instrument Storage Portfolio,

Holds up to 10 Instruments



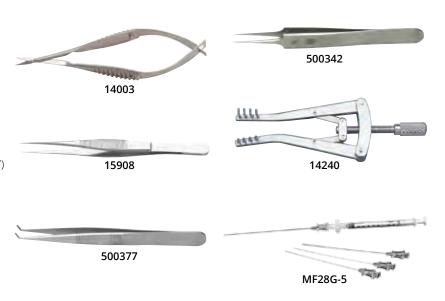
## **MOUSE VESSEL CANNULATION KIT**

#### Kit Includes:

- Dumont Forceps (500342)
- Vannas Scissors (14003)
- Alm Retractor (14240)
- Fine Serrated Forceps (15908)
- MicroFil 28 ga. (MF28G-5)
- Vessel Cannulation Forceps, 0.5 mm Diameter (500377)

501895

Mouse Vessel Cannulation Kit (6 instruments)



## **CATHERIZATION & CANNULATION KIT**

#### Kit Includes:

- Castroviejo Needle Holder, 14 cm (14137)
- Forceps, Mosquito 12.5 cm Straight (15920)
- Forceps, Adson-Brown 12 cm Tungsten Carbide (500177)
- Disposable Scalpel, No.15 (500351)
- Scissors, Ligature, 9 cm (500380)
- Scissors, Metzenbaum, Supercut (503269)
- Nugent Utility Forceps,10 mm (504473)
- WPI Swiss Tweezers, Stainless Steel, 11 cm (504506)
- Skin Stapler 35S, Sterile (504562)

**504742** Catherization & Cannulation Kit



## STUDENT BOTANICAL PORTFOLIO

#### Kit Includes:

- Scissors, 14 cm.
- Dropper
- Scalpel Handle #3
- 4 Scalpel Blades
- Teasing Needle, Straight
- · Teasing Needle, Angled
- Mariam Tweezers, Angled
- · Tweezers, Straight
- Surgical Instrument Portfolio

**504165** Student Botanical Portfolio (zipper case included)



## STUDENT ENTOMOLOGY PORTFOLIO

#### Kit Includes:

- 2 Teaser Needles, Straight
- 2 Teaser Needles, Angled
- Iris Scissors, 11.5 cm
- Scalpel Handle #3
- Adson Micro Forceps, 12 cm
- Dropper
- 2 Micro Dissection Forceps, 12 cm, Straight
- 2 Micro Dissection Forceps, 12 cm, Curved
- 2 Entomology Forceps, 10 cm
- Tweezers with Magnifying Mirror
- Stainless Steel Ruler, 6 in.
- 10 Blades #10
- Surgical Instrument Portfolio

**504166** Student Entomology Portfolio (17 pieces plus zipper case)



## STUDENT DISSECTION PORTFOLIO

## Kit Includes:

- Scalpel Handle #3
- Scalpel Handle #4
- Dressing Forceps, 16 cm
- Mayo Hager Needle Holder, 16 cm
- Teasing Needle, Straight
- Teasing Needle, Angled
- Hooks with Chain
- Tissue Forceps, 1:2, 16 cm
- Dissecting Scissors, 16 cm, Sharp/Blunt

- Kelly Forceps, 14 cm, Straight
- Dropper
- Stainless Steel Ruler, 6 in.
- Grooved Director, Plain
- Adson Tissue Forceps, 12 cm
- 4 Blades for Scalpel Handle #4
- 4 Blades for Scalpel Handle #3
- Surgical Instrument Portfolio

**504167** Student Dissection Portfolio (16 pieces plus zipper case)



## STUDENT ANATOMY PORTFOLIO

#### Kit Includes:

- Plastic Ruler, 6 in.
- Mall Probe
- Teaser Needle, Angled
- Teaser Needle, Straight
- Dressing Forceps, 16 cm
- Mosquito Forceps, 12.5 cm
- Blades for Scalpel Handle #3
- Scalpel Handle #4
- Blades for Scalpel Handle #4
- Dissecting Scissors, 14 cm, Sharp/Blunt
- Hooks with Chain
- Surgical Instrument Portfolio



• Scalpel Handle #3

**504164** Student Anatomy Portfolio (zipper case included)

#### STUDENT DISSECTING KIT

#### Kit Includes:

- Dissecting Scissors, 4.5 in.
- Dissecting Scissors, 4 in.
- Dressing Forceps, 5.5 in.
- Micro Dressing Forceps, 4 in.
- #4 Knife Handle

501336

Student Dissecting Kit

- Teasing Needle, Straight
- Teasing Needle, Angled
- #22 Surgical Blade
- · Canvas Roll-up



## SILICONE DISSECTING PAD KIT

#### Kit Includes:

- 2-Part SylGard Silicone Elastomer
- 20 Plastic Petri Dishes with Lids, 51 mm Diameter
- Pins

Make your own silicone dissecting pads easily and quickly. Mix the 2-part silicone right in the plastic petri dishes and allow to cure 24 hours at room temperature. Kit includes enough silicone to prepare 20 dishes.

**501986** Silicone Dissecting Pad Kit



#### **VETERINARY INSTRUMENT IDENTIFICATION KIT**

The Veterinary Instrument ID Kit has all the tools needed to prepare students for the State Proficiency Test, and it comes with a set of flash cards to teach identification of the tools used by Veterinary Assistants. The informative flash cards let you learn more about the uses of each instrument while you learn how to identify them.

Kit includes 28 of the most common surgical instruments:

- 1 Halsted Mosquito Hemostatic Forceps
- 2 Rochester-Ochsner Forceps
- 3 Olsen-Hegar Needle Holder
- 4 Babcock Tissue Forceps
- 5 Rochester-Pean Forceps
- 6 Mayo-Hegar Needle Holder
- 7 Allis Tissue Forceps
- 8 Metzenbaum Dissecting Scissors
- 9 Mayo Dissecting Scissors
- 10 Crile Forceps
- 11 Lister Bandage Scissor
- 12 Russian Thumb Forceps
- 13 Wire Suture Cutting Scissors
- 14 Gelpi Retractor

- 15 Bone Chisel
- 16 Brown-Adson Thumb Forceps
- 17 Snook Ovariohysterectomy Hook
- 18 Backhaus Towel Clamps
- 19 Rochester-Carmalt Hemostatic Forceps
- 20 Alligator Forceps
- 21 Adson Thumb Tissue Forceps
- 22 Weitlaner Retractor
- 23 Littauer Suture Removal Scissor
- 24 Tenotome Knife
- 25 Rat Tooth Thumb Forceps
- 26 Kelly Forceps
- 27 Bone Curette
- 28 DeBakey Vascular Thumb Forceps





## STEREOTAXIC KIT

#### Kit Includes:

- Metzenbaum Scissors, Supercut, Straight (503269)
- Scalpel Handle #3 (500236)
- Micro Dissecting Forceps, Angled, Serrated Tips (504479)
- Needle Holder, Round Handles, Straight (14080)

**504743** Stereotaxic Kit



## **ZEBRAFISH KIT 1**

#### Kit Includes:

- Student Vannas Scissors, 9cm, Straight, 500 micron Tip (501777)
- Microdissecting Forceps, 10.2 cm, Angled, Serrated (504479)
- Probes, 0.25 mm tips, 15 cm (WP10118)
- Probes, 0.25 mm tips, 45 ° angle, 15 cm (WP10218)

WP10118



WP200018 Zebrafish Kit #1



# **ZEBRAFISH KIT 2**

#### Kit Includes:

- Noyes Scissors, 12 cm, Straight, Sharp/Sharp, 15mm Blades (500228)
- Tissue Forceps,1x2 teeth (15918)
- Iris Forceps, 10cm, Curved, Serrated (15915)
- Probes, 0.25 mm tips, 15 cm (WP10118)
- Probes, 0.25 mm tips, 45 ° angle, 15 cm (WP10218)

**WP200218** Zebrafish Kit #2



mayo scissors **SCISSORS** 

## **SELECTING SCISSORS**

We offer a large variety of scissors, from standard ring scissors to the spring scissors. Here are some options to consider when you are selecting a fine pair of surgical scissors.

**Ceramic Coated Scissors**–Coating surgical instruments with a black ceramic offers several distinct advantages. First, the coating adds a thin layer to the metal instrument that actually makes the instrument harder, offering surgeons greater precision and perfection. This anti-glare surface minimizes any reflection off the surface of the instrument. In addition, the ceramic coating is incredibly smooth, which improves the instruments resistance to corrosion. The smooth surface also minimizes friction. The reduced wear and tear means coated instruments last considerably longer. It is nearly impossible to penetrate the ceramic coating, because the raw material is bonded to the instrument both physically and chemically. The black coated instruments are much more resilient to the pressure of daily use and chemical processing.

**SuperCut Scissors**—We offer some scissors that have the option of one edge being micro serrated, and the other edge having the sharpness of a knife edge. This option is provided in a number of scissor types and models. WPI designates this option with a black handle.

**SuperCut Tungsten Carbide**–Scissors combine the precise cutting action of the razor-sharp SuperCut blades with the durability of Tungsten Carbide. They provide a clean, smooth cut and retain their sharpness for an extended period of time. These scissors have one black handle and one gold handle.

**Diamond coated blades** increase the longevity of the cutting edge and improve the quality of the cut. Used to reduce wear on razor blades and industrial metal cutting tools, this coating is now being used in biomedical applications. Some studies have shown that even after double the normal usage of the cutting implement, no blade wear was detected.

Hardness of coated surface resists wear and increases life of cutting edge

- Anti-reflective coating resists glare and assists in better view of surgical field
- Coating is corrosion resistant
- Reduced friction at cutting site decreases necrosis of surrounding tissue and bone

## SPRING SCISSORS

- May be used with either left or right hand
- Designed for neurosurgical, vascular and ophthalmic procedures
- · Cuts by shearing, reduces crushing of tissue
- Fine tips are ideal for use in very restricted spaces
- Curved tips are useful to avoid cutting of underlying tissue
- Heavier blades are helpful when a thick tissue or vessel is to be cut
- Length of the scissor tips can help with the depth of the incision: Shorter tips for near-to-surface incision Longer tips for deep incision

WPI Vannas scissors have small, sharp blades specifically designed for researchers working in tight spaces.

## **VANNAS SCISSORS**

- Small, long blades for uses in ophthalmology, neurosurgery, microsurgery
- Super fine
- 8 cm Long
- 3 mm Blades
- 0.015 mm Tips
- · Stainless Steel

501778 Straight501839 Curved



## **VANNAS SCISSORS**

- · Diamond shaped tips
- 9 cm (3.5 in.) Long
- 5 mm Blades
- 0.1 mm Tips
- Stainless Steel

14003 Straight

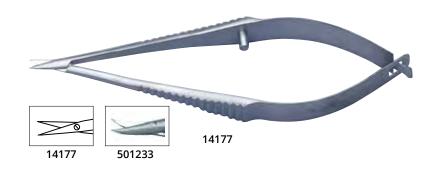
**14003-G** Straight, **German** 



## MCPHERSON-VANNAS SCISSORS

- 7 cm Long
- 3 mm Blades
- 0.1 mm Tips
- Stainless Steel

14177 Straight501233 Curved



## **VANNAS SCISSORS**

- 8 cm (3 in.) Long
- 5 mm Blades
- 0.1 mm Tips
- Stainless Steel

**14122-G** Curved, German



## **VANNAS SCISSORS**

- 8 cm (3 in.) Long
- Angled 5 mm blades
- Stainless Steel

**501790** 0.1 mm Tips



## **VANNAS SCISSORS**

- 8 cm (3 in.) Long
- 45° Angled 5 mm blades
- Stainless Steel

**500260** 0.1 mm Tips

**500260-G** 0.1 mm Tips **German** 

Standard and German versions may differ slightly in appearance.



## MCPHERSON-VANNAS SCISSORS

- 8 cm (3 in.) Long
- 5 mm Blades
- 0.1 mm Tips
- · Stainless Steel

**14124-G** Straight, **German** 

**501234** Curved

501234-G Curved, German

Standard and German versions may differ slightly in appearance.



WORLD PRECISION INSTRUMENTS

## MCPHERSON-VANNAS SCISSORS

- These scissors have slightly rounded tips for blunt dissection.
- 8 cm (3 in.) Long
- · Rounded tips
- Stainless Steel

**503215** 3 mm Blades, 0.22 mm Tips, Straight

**503214** 5 mm Blades, 0.22 mm Tips, 45° Angled to Side

**503217** 0.30 mm Tips, Curved

**503216** 0.50 mm Tips, Angled on Flat











## **VANNAS TUBINGEN SCISSORS**

- 8 cm (3 in.) Long
- 3 mm Blades
- German Steel

503378 Straight503379 Curved



# **VANNAS TUBINGEN SCISSORS, TITANIUM COATING**

- 8 cm (3 in.) Long
- Ceramic coated
- · Non-reflective
- · Corrosion resistant
- 5 mm Cutting edge
- 0.3 mm Tip
- · Stainless Steel

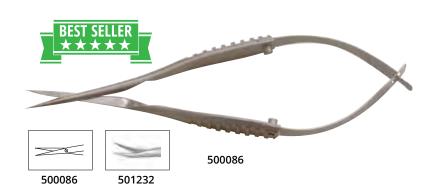
**504488** Straight **504499** Curved



## **SUPER FINE VANNAS SCISSORS**

- 8.5 cm (3.3 in.) Long
- 7 mm Blades
- 0.025 x 0.015 mm Tips
- Stainless Steel

**500086** Straight **501232** Curved



## **VANNAS SCISSORS**

- 9 cm (3.5 in.) Long
- 6 mm Blades
- 3 mm Cutting edge tips
- Stainless Steel

503371 Straight503372 Curved



## **STERN-GILLS SCISSORS**

- 10 cm (3.9 in.) Long
- Long, extra fine blades
- 10 mm Blades, angled
- Stainless Steel

**504490** Stern-Gills Scissors



## **SPRING SCISSORS**

- 10.5 cm (4 in.) Long
- 8 mm Blades
- Stainless Steel

501235 Straight14127 Curved

**14127-G** Curved, **German** 

Standard and German versions may differ slightly in appearance.



# MCPHERSON-WESCOTT CONJUNCTIVA SCISSORS

- 11 cm (4.3 in.) Long
- 9 mm Blunt blades
- Curved
- Stainless Steel

**504023** McPherson-Wescott Conjunctiva Scissors



#### KATENA-VANNAS SCISSORS

- 11 cm (4.3 in.) Long
- Stainless Steel

504024 7 mm Thin Blades, Straight
504025 7 mm Thin Blades, Curved
504026 10 mm Thin Blades, Straight
504027 10 mm Thin Blades, Curved



#### MICRO SCISSORS – DIAMOND LIKE CARBON COATED BLADES

Diamond like carbon coated blades increase the longevity of the cutting edge and improve the quality of the cut. Used to reduce wear on razor blades and industrial metal cutting tools, this coating is now being used in biomedical applications. Some studies have shown that even after double the normal usage of the cutting implement, no blade wear was detected.

- Hardness of coated surface resists wear and increases life of cutting edge
- Anti-reflective coating resists glare and assists in better view of surgical field
- · Coating is corrosion resistant
- Reduced friction at cutting site decreases necrosis of surrounding tissue and bone
- 12 cm (4.75 in.)
- · Sharp coated tips
- 8 mm Blades
- · Stainless Steel,

503365 Straight503364 Curved



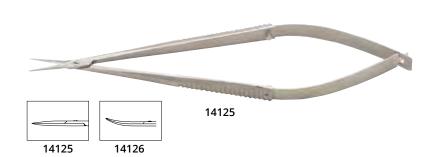
#### **SPRING SCISSORS**

- 12 cm (4.75 in.) Long
- 12 mm Extra fine, long blades
- Stainless Steel

14125 Straight

**14125-G** Straight, **German** 

**14126** Curved



## **NOYES SCISSORS**

- 12 cm Long
- 15 mm Tips
- Originally designed to remove the iris (iridectomy)
- Fine for multi-purpose use
- Best for trimming tissue from nerves

**500228** Sharp/Sharp Tips, Straight

**500228-G** Sharp/Sharp Tips, Straight, **German** 

**501236** Sharp/Sharp Tips, Curved

**501236-G** Sharp/Sharp Tips, Curved, **German** 

503305 Sharp/Blunt Tips, Straight
503306 Blunt/Blunt Tips, Straight
501237 14 cm, 20 mm Tips, Straight
501238 14 cm, 20 mm Tips, Curved

Standard and German versions may differ slightly in appearance.









36







501238

## **NOYES SPRING SCISSORS**

- 12 cm (4.75 in.) Long
- 14 mm Blades
- Angled
- Stainless Steel

**504491** Noyes Spring Scissors



## SUPERCUT SPRING SCISSORS

- 12.5 cm (4.9 in.) Long
- 9 mm Blades
- Straight
- Stainless Steel

**501924** Supercut Spring Scissors



## **ROUND HANDLED SPRING SCISSORS**

- Used in general microsurgery
- 14 cm (5.5 in.) Long
- Long, fine blades
- Stainless Steel

**14111** 6.5 mm Blades, Straight

**14111-G** 6.5 mm Blades, Straight, **German** 

**14112** 7 mm Blades, Curved

**14112-G** 7 mm Blades, Curved, **German** 

Standard and German versions may differ slightly in appearance.



## **WESTCOTT ROUND BLADE SCISSORS**

- 14 cm (5.5 in.) Long
- 10 mm Blades
- Angled
- Stainless Steel

**504492** Stainless Steel

WPB4041 Black Coated, Anti-Glare, Corrosion Resistant



## **SPRING SCISSORS**

- 14 cm (5.5 in.) Long
- 8 mm Blades
- Stainless Steel

15905 Straight

15905-G Straight, German15906-G Curved, German



## **MCCLURE IRIS SCISSORS**

- 9 cm (3.5 in.) Long
- Made in Germany

WP8549 McClure Iris Scissors



14112

## TITANIUM SCISSORS

100% anti-magnetic, corrosion-resistant, lightweight and strong, titanium alloy is ideal for biological and medical applications. Titanium has the tensile strength of carbon steel and is completely resistant to corrosion from nitric acid, chloride, salt water, and industrial and organic chemicals. Titanium is more flexible and 40% lighter than Inox. This reduces hand fatigue during long procedures. When heated or cooled, the dimensions of titanium alloy change less than half of what stainless steel alloys will, making titanium surgical instruments much more durable. Titanium is stain-free and temperature resistant up to 430°C. Titanium instruments are the premium choice for corrosive environments or MRI applications.

- 100% non-corrosive (great for seawater procedures)
- 40% lighter than stainless steel (reduces hand fatigue)
- 100% non-magnetic (MRI compatible)
- Anodized, non-glare blue finish

#### **IRIS SCISSORS**

- 9 cm (3.5 in.) Long
- Sharp 11 mm tips
- Straight
- Titanium

WP4400 Iris Scissors, Titanium



#### VANNAS CAPSULOTOMY SCISSORS

- 10.5 cm (4.1 in.) Long
- 12.5 mm Tips
- · Curved, sharp tips
- Titanium

**WP5060L** Vannas Capsulotomy Scissors, Titanium



#### MCPHERSON-WESTCOTT STITCH SCISSORS

- 11.5 cm (4.5 in.) Long
- 10.5 mm Tips
- Curved
- Titanium

**WP3000L** McPherson-Westcott Stitch Scissors, Titanium



# **CASTROVIEJO CURVED SCISSORS**

- 12 cm (4.7 in.) Long
- Titanium

**WP2100R** 16 mm Strongly Curved Tips

WP2120R Blunt 11 mm Tips



## **VANNAS SCISSORS**

- 8 cm (3.1 in.) Long
- 3 mm Tips
- Titanium

WP5000S Straight
WP5030S Angled



## **VANNAS SCISSORS**

- 8.2 cm (3.2 in.) Long
- Sharp 9.5 mm tips
- Titanium

WP5050 Straight
WP5070 Angled Up



## **IRIS SCISSORS**

- 9 cm (3.5 in.) Long
- Curved
- Sharp 11 mm tips
- Titanium

WP4410 Iris Scissors



## **VANNAS CAPSULOTOMY SCISSORS**

- 9.5 cm (3.7 in.) Long
- Angled
- Sharp
- 10.5 mm Tips
- Titanium

**WP5070L** Vannas Capsulotomy Scissors



## **VANNAS CAPSULOTOMY SCISSORS**

- 9.5 cm (3.7 in.) Long
- Curved
- Sharp
- 12.5 mm Tips
- Titanium

WP5060

Vannas Capsulotomy Scissors



# MCPHERSON-WESTCOTT CONJUNCTIVA SCISSORS

- 10.5 cm (4.1 in.) Long
- Curved
- Blunt
- Titanium

WP3000 McPherson-Westcott Conjunctiva Scissors



## **IRIS SCISSORS**

- 10.5 cm (4.1 in.) Long
- Curved
- Sharp 11 mm tips
- Titanium

WP4410L Iris Scissors



# **CASTROVIEJO SCISSORS**

- 10.5 cm (4.1 in.) Long
- 11 mm Tips
- Titanium

WP2220 Curved WP2222 Straight



## VANNAS CAPSULOTOMY SCISSORS

- 10.8 cm (4.25 in.) Long
- Straight
- Sharp 10.5 mm tips
- Titanium

**WP5050L** Vannas Capsulotomy Scissors



## **VANNAS SCISSORS**

- 11 cm (4.3 in.) Long
- Straight
- Sharp 13 mm blades
- Extra Thin
- Titanium

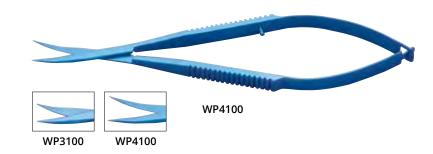
WP5120 Vannas Scissors



## **WESTCOTT CURVED SCISSORS**

- 11 cm (4.3 in.) Long
- 19 mm Tips
- Titanium

WP3100 Blunt WP4100 Sharp



## **WESTCOTT CURVED SCISSORS**

- 11.5 cm (4.5 in.) Long
- 21 mm Tips
- Titanium

WP3100L Blunt



# **CASTROVIEJO CURVED SCISSORS**

- 12 cm (4.7 in.) Long
- Blunt 16 mm tips
- Titanium

**WP2110R** 

Castroviejo Curved Scissors, Titanium



Properly cleaning and caring for your surgical instruments is the single easiest way to prolong their use and improve the outcome of your surgical procedure.

Watch our Care and Cleaning videos:



wpiinc.com/sterilize



# **STUDENT SPRING SCISSORS -**

Our economy line of spring scissors are perfect for students who are doing small animal surgeries or dissection in a research laboratory. Our student spring scissors are manufactured from hardened surgical grade stainless steel. They are perfect for classroom use or as disposable instruments.

## **MCPHERSON VANNAS STUDENT SCISSORS**

- Can be used in general microsurgery or ophthalmic procedures
- 9 cm (3.5 in.) Long
- 45° Angled, blunt tips
- Stainless Steel

**503749** McPherson Vannas Student Scissors



## **VANNAS STUDENT SCISSORS**

- 9 cm (3.5 in.) Long
- 8 mm Blades
- 500 μm Tips
- · Stainless Steel

501777 Straight501930 Curved



## STUDENT SPRING SCISSORS

- 9.5 cm (3.7 in.) Long
- Stainless Steel

503309 6 mm Blunt/Blunt Tips, Straight
503308 6 mm Blunt/Blunt Tips, Curved
503310 6 mm Sharp/Ball Tips, Straight



#### WESTCOTT STUDENT SCISSORS

- 11 cm (4.3 in.) Long
- · Stainless Steel

503222 Blunt Tips503223 Sharp Tips



# **RING SCISSORS**

Our standard scissors all have ring handles. They come in a variety of sizes and shapes for any research application. Tips may be straight, curved, angled or bent.

You can typically recognize the construction style of scissors based on the following color code:

- Black handled rings indicate SuperCut scissors (with one serrated blade).
- Gold handles indicate that the scissors have tungsten carbide inserts.
- One gold handle and one black handle indicates that the scissors have serrations in one blade (black handle) and tungsten carbide on the other (gold handle).
- Blue instruments are typically titanium.

## DISSECTING SCISSORS

- Multi-purpose use
- Ideal for cutting soft tissue or cartilage
- Stainless Steel

**14393** 10 cm (4 in.), Straight

**14393-G** 10 cm (4 in.), Straight, **German** 

**14394** 10 cm (4 in.), Curved

**14394-G** 10 cm (4 in.), Curved, **German** 

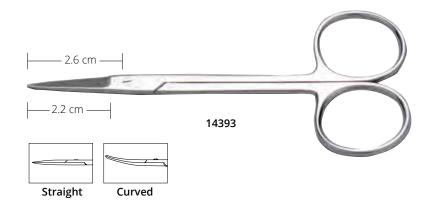
**15922** 12.5 cm (4 in.), Straight

**15922-G** 12.5 cm (4 in.), Straight, **German** 

**15923** 12.5 cm (4 in.), Curved

**15923-G** 12.5 cm (4 in.), Curved, **German** 

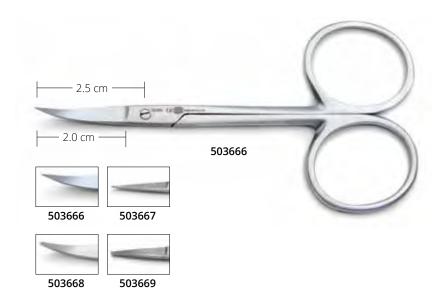
Standard and German versions may differ slightly in appearance.



## MINI DISSECTING SCISSORS

- Multi-purpose use
- Ideal for cutting soft tissue or cartilage
- 8.5 cm (3.3 in.) Long
- Stainless Steel

503666 Sharp, Curved
 503667 Sharp, Straight
 503668 Blunt, Curved
 503669 Blunt, Straight



## **WPI SWISS SCISSORS**

- Multi-purpose use in microdissection procedures
- 9 cm (3.5 in.) Long
- Stainless Steel

504519	Curved, Extra Fine Tips
504520	Curved, Fine, Sharp Tips

**504521** Curved, Heavy Duty, Rounded Tips

504522 Curved, Strong, Beveled Tips
504613 Straight, Fine, Sharp Tips
504614 Straight, Fine, Sharp Tips
504615 Curved, Fine Blunt Tips



## MINI DISSECTING SCISSORS

- Various lab procedures
- Multi-purpose use
- 9.5 cm (3.75 in.) Long
- Curved
- Regular tips
- Stainless Steel

**503240** Mini Dissecting Scissors



## **MINI DISSECTING SCISSORS**

- Multi-purpose use
- 9.5 cm (3.75 in.) Long
- Straight
- Sharp fine tips
- Stainless Steel

**503241** Mini Dissecting Scissors



## MINI DISSECTING SCISSORS

- Multi-purpose or laboratory procedures
- 9.5 cm (3.75 in.) Long
- Straight
- Sharp, fine tips
- Square handle
- Stainless Steel

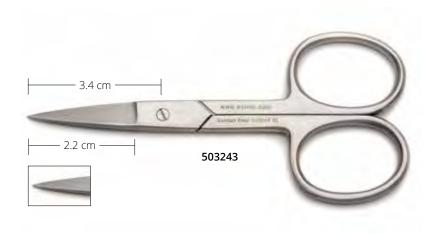
**503242** Mini Dissecting Scissors



## MINI DISSECTING SCISSORS

- Multi-purpose or laboratory procedures
- 9.5 cm (3.75 in.) Long
- Straight
- Sharp, medium tips
- Stainless Steel

**503243** Mini Dissecting Scissors



## MINI DISSECTING SCISSORS

- Multi-purpose or laboratory procedures
- 9.5 cm (3.75 in.) Long
- Straight
- Sharp, medium tips
- Stainless Steel

**503244** Mini Dissecting Scissors



## MINI DISSECTING SCISSORS

- Various lab procedures
- 9.5 cm (3.75 in.) Long
- Straight
- Sharp tips
- · Large rings
- · Stainless Steel

**503245** Mini Dissecting Scissors



## IRIS DISSECTING SCISSORS WITH PROBE TIPS

- Multi-purpose
- Ideal for detailed dissection of delicate tissues and can be used in suture removal
- 10 cm (4 in.) Long
- Blunt probe tips
- Stainless Steel

**500366** Straight

500366-G Straight, German

**500367** Curved

500367-G Curved, German



## **LAGRANGE SCISSORS**

- · Various lab procedures
- 10 cm (4 in.) Long
- S-shaped body
- Curved
- Stainless Steel

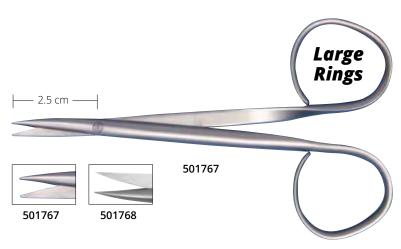
503246 LaGrange Scissors



## **RIBBON HANDLE IRIS SCISSORS**

- Designed for ophthalmology use
- Can cut through cartilage and soft tissue
- 11 cm (4.3 in.) Long
- Stainless Steel

**501767** Straight **501768** Curved



#### WORLD PRECISION INSTRUMENTS

## PLASTIC SURGERY SCISSORS

- Various lab procedures
- 11 cm (4.3 in.) Long
- · Curved blades
- Sharp/sharp tips
- · Stainless Steel

**503247** Plastic Surgery Scissors



## **IRIS SCISSORS**

- 11 cm (4.3 in.) Long
- · Pointed 32 mm tips
- Straight
- Titanium

555646S Iris Scissors, Titanium



## **OPERATING SCISSORS**

- Variety of tip combinations
- For general use
- Great for tough tissue, skin, fur, cartilage
- 11.5 cm (4.5 in.) Long
- Blunt/blunt version can be used to cut gauze, tubing or sutures
- Straight
- Stainless Steel

501753 Sharp/Blunt

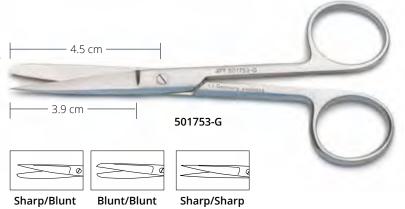
**501753-G** Sharp/Blunt, **German** 

501754 Sharp/Sharp

**501754-G** Sharp/Sharp, **German** 

501743 Blunt/Blunt

501743-G Blunt/Blunt, German



## **OPERATING SCISSORS**

- Variety of tip combinations
- For general use
- · Great for tough tissue, skin, fur, cartilage
- Blunt/blunt version can be used to cut gauze, tubing or sutures
- 11.5 cm (4.5 in.) Long
- Curved
- Stainless Steel

501755 Sharp/Sharp

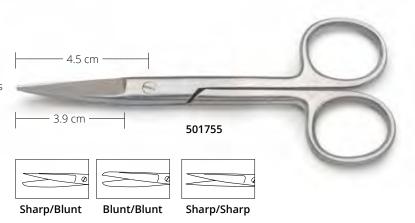
**501755-G** Sharp/Sharp, **German** 

**501756** Sharp/Blunt

**501756-G** Sharp/Blunt, **German** 

501757 Blunt/Blunt

**501757-G** Blunt/Blunt, **German** 



## **OPERATING SCISSORS**

- Variety of tip combinations
- · For general use
- Great for tough tissue, skin, fur, cartilage
- 14 cm (5.5 in.) Long
- Straight
- Blunt/blunt version can be used to cut gauze, tubing or sutures
- · Stainless Steel

14192 Sharp/Blunt

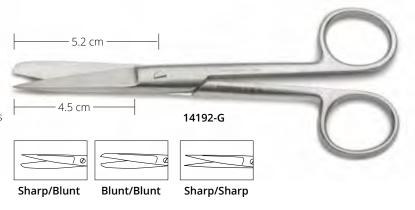
**14192-G** Sharp/Blunt, **German** 

501218 Sharp/Sharp

**501218-G** Sharp/Sharp, **German** 

501219 Blunt/Blunt

**501219-G** Blunt/Blunt, **German** 



#### OPERATING SCISSORS

- Variety of tip combinations
- · For general use
- · Great for tough tissue, skin, fur, cartilage
- Blunt/blunt version can be used to cut gauze, tubing or sutures
- 14 cm (5.5 in.) Long
- Curved
- · Stainless Steel

**501220** Sharp/Sharp

**501220-G** Sharp/Sharp, **German** 

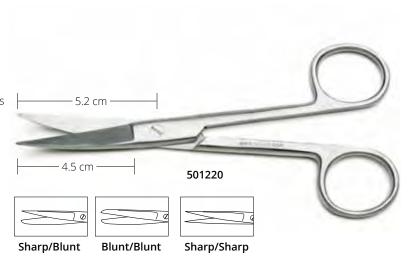
501221 Sharp/Blunt

**501221-G** Sharp/Blunt, **German** 

501222 Blunt/Blunt

**501222-G** Blunt/Blunt, **German** 

Standard and German versions may differ slightly in appearance.



## **IRIS SCISSORS**

- Ideal for use in microdissection, soft tissue removal or suture removal
- Can cut through small bones and cartilage
- 11.5 cm (4.5 in.) Long
- Stainless Steel

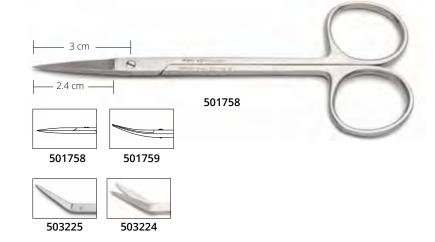
**501758** Straight

**501758-G** Straight, **German** 

**501759** Curved

501759-G Curved, German

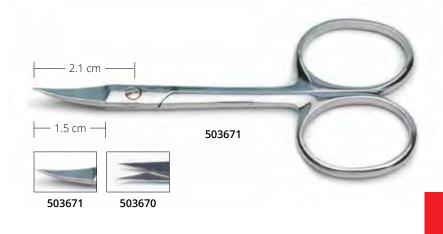
503225 45° Angled, Serrated503224 35° Angled, Serrated



## MINI IRIS SCISSORS

- Ideal for use in microdissection, soft tissue removal or suture removal
- · Can cut through small bones and cartilage
- 8 cm (3.1 in.) Long
- Sharp
- Stainless Steel

503670 Straight 503671 Curved



501747

## **METZENBAUM SCISSORS**

- Used in dissection to cut tissue
- Rounded tips
- · Stainless Steel

501747 11.5 cm (4.5 in.), Straight

501747-G 11.5 cm (4.5 in.), Straight, German

501748

501748-G

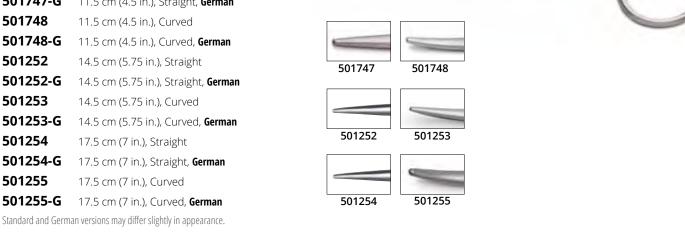
501252

501252-G

501253

501254

501255



3.3 cm -

3 cm -

## **GOLDMAN FOX SCISSORS**

- Used primarily in dentistry for cutting gingival tissue
- Can be used in any microdissection procedure
- 13 cm (5 in.)
- Serrated Tips
- Curved
- · Stainless Steel

503256 Goldman Fox Scissors



## **WILMER IRIS SCISSORS**

- General procedure microdissection
- 10.5 cm (4 in.) Long
- 45° Angled blades
- Stainless Steel

**503248** Wilmer Iris Scissors



## **ANGLED SCISSORS**

- Cuts through tissue, skin, fur and cartilage
- · Angled blades aid visibility
- 11 cm (4.3 in.) Long
- 45° Angled to side
- Sharp/sharp
- Serrated
- · Stainless Steel

**503225** Angled Scissors



## **ANGLED SCISSORS**

- Cuts through tissue, skin, fur and cartilage
- Angled blades aid visibility
- 14 cm (5.5 in.) Long
- Sharp/sharp
- 30° Angled to side
- Stainless Steel

**500047** Standard **500047-G German** 

Standard and German versions may differ slightly in appearance.



## **POTTS-SMITH SCISSORS**

- Longer shaft allows the scissor to be used in opening of an artery or vein
- 18 cm (7 in.) Long
- Stainless Steel

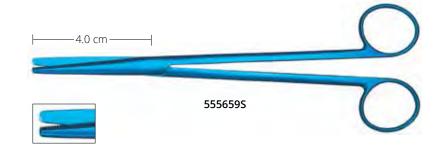
**503251** Angled 60° **503250** Angled 45°



## **MAYO HARRINGTON SCISSORS**

- Used in dissection, urology and thoracic procedures
- 14.5 cm (5.75 in.) Long
- 32 mm Tips
- Straight
- Titanium

**555659S** Mayo Harrington Scissors, **Titanium** 



## **MAYO SCISSORS**

- Heavy duty configuration used to cut deep tissue and general dissection
- 14 cm (5.5 in.) Long
- Stainless Steel

**501749** Straight

**501749-G** Straight, **German** 

**501750** Curved

**501750-G** Curved, **German** 

Standard and German versions may differ slightly in appearance.



## **KILNER SCISSORS**

- Also known as Ragnell
- For cutting tissue and membranes
- 14 cm (5.5 in.) Long
- Flat tips
- Curved
- · Stainless Steel

**503307** Kilner Scissors



## **MAYO SCISSORS**

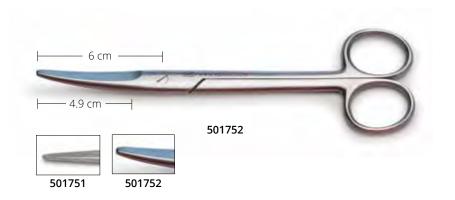
- Heavy duty configuration used to cut deep tissue and general dissection
- 17 cm (6.75 in.) Long
- Stainless Steel

**501751** Straight

**501751-G** Straight, **German** 

**501752** Curved

**501752-G** Curved, **German** 



#### **OPERATING SCISSORS**

- Recommended for cutting and dissecting tissue
- Also used for cutting surgical drapes
- 16 cm (6.25 in.) Long
- Stainless Steel

**501223** Sharp/Blunt, Straight

**501223-G** Sharp/Blunt, Straight, **German** 

**501224** Blunt/Blunt, Straight

**501224-G** Blunt/Blunt, Straight, **German** 

501225 Sharp/Sharp, Straight

**501225-G** Sharp/Sharp, Straight, **German** 

501226 Sharp/Blunt, Curved

**501226-G** Sharp/Blunt, Curved, **German** 

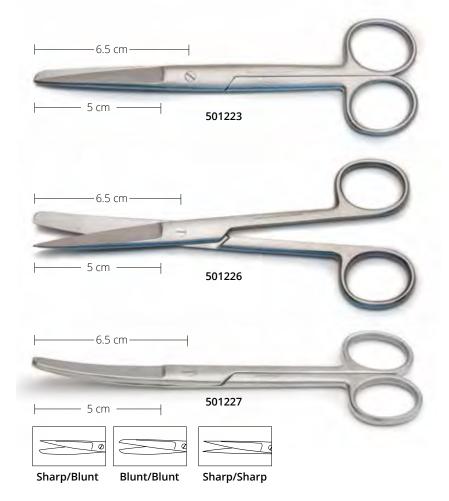
501227 Blunt/Blunt, Curved

**501227-G** Blunt/Blunt, Curved, **German** 

**501228** Sharp/Sharp, Curved

**501228-G** Sharp/Sharp, Curved, **German** 

Standard and German versions may differ slightly in appearance.



## **OPERATING SCISSORS**

- Recommended for cutting and dissecting tissue
- Also used for cutting surgical drapes
- 18 cm (7 in.) Long
- · Stainless Steel

500378	Sharp/Blunt, Straight	
	Silai pi Biairi, Salaigire	

**500378-G** Sharp/Blunt, Straight, **German** 

500379 Blunt/Blunt, Straight

**500379-G** Blunt/Blunt, Straight, **German** 

**501229** Sharp/Blunt, Curved

**501229-G** Sharp/Blunt, Curved, **German** 

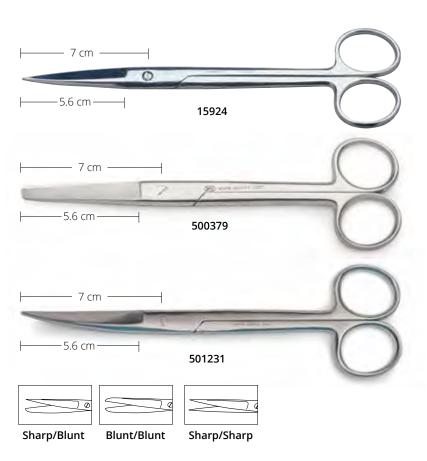
501230 Blunt/Blunt, Curved

**501230-G** Blunt/Blunt, Curved, **German 15924** Sharp/Sharp, Straight

15924 Sharp/Sharp, Straight15924-G Sharp/Sharp, Straight, German

501231 Sharp/Sharp, Curved

**501231-G** Sharp/Sharp, Curved, **German** 



# SuperCut Scissors

Our black handled surgical scissors designate our SuperCut scissors. These scissors have one on razor sharp blade and one micro-serrate blade. This construction offers a couple of advantages for surgeons.

- Sharp edge gives a clean cut with minimal tissue damage
- · Serrated edge actually holds the tissue to prevent it from slipping while you are making an incision

#### IRIS SUPERCUT SCISSORS

- One edge micro serrated, one edge honed to the sharpness of a knife edge—prevents tissue slippage
- Stainless Steel

**14218** 10 cm (4 in.), Straight

**14218-G** 10 cm (4 in.), Straight, **German** 

**14219** 10 cm (4 in.), Curved

**14219-G** 10 cm (4 in.), Curved, **German** 

**503259** 11.5 cm (4.5 in.), Straight **503260** 11.5 cm (4.5 in.), Curved

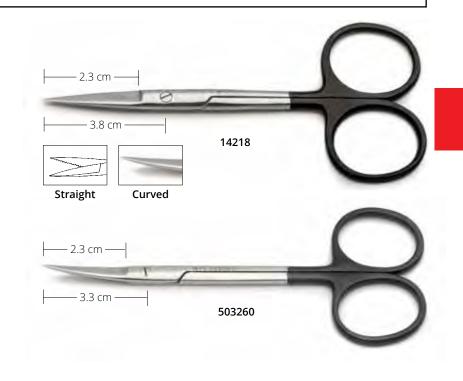
**14225** 12.5 cm (5 in.), Straight

**14225-G** 12.5 cm (5 in.), Straight, **German** 

**14224** 12.5 cm (5 in.), Curved

**14224-G** 12.5 cm (5 in.), Curved, **German** 

Standard and German versions may differ slightly in appearance.



#### IRIS SUPERCUT SCISSORS

- One edge micro serrated, one edge honed to the sharpness of a knife edge
- 10 cm (3.9 in.) Long
- 30° Angled blades
- Stainless Steel

500046 Iris Supercut Scissors



#### TENOTOMY SUPERCUT SCISSORS

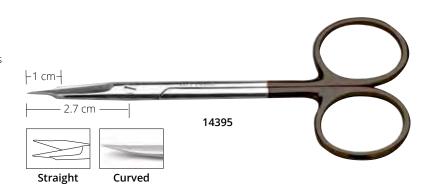
- One edge micro serrated, one edge honed to the sharpness of a knife edge
- · Stainless Steel

**14395** 10 cm (4 in.), Straight

**14395-G** 11.5 cm (4.5 in.), Straight, **German** 

**14396** 10 cm (4 in.), Curved

**14396-G** 10 cm (4 in.), Curved, **German** 



# IRIS SUPERCUT SCISSORS, TITANIUM POWDER COATED

- More resistance to rust and body fluids
- Anti slippage serrated blade
- Used in microsurgery
- 11 cm (4.3 in.) Long
- Anti-reflective
- One serrated blade
- Stainless Steel

**504487** Straight **504500** Curved



# STRABISMUS SCISSORS, TITANIUM POWDER COATED

- Anti-reflective
- More resistance to rust and body fluids
- · Anti slippage serrated blade
- Rounded tips
- · Stainless Steel

**WPB407400** 12 cm (4.7 in.), Straight **WPB409000** 11 cm (4.5 in.), Curved



## **METZENBAUM SUPERCUT SCISSORS**

· Cutting and dissecting tough tissue

 One edge micro serrated, one edge honed to the sharpness of a knife edge—serration prevents slippage

• Not recommended for cutting sutures or drains

Stainless Steel

**503269** 11.5 cm (4.5 in.), Straight **503270** 11.5 cm (4.5 in.), Curved 12 cm (5 in.), Straight

**14214-G** 12 cm (5 in.), Straight, **German** 

**14215** 12 cm (5 in.), Curved

**14215-G** 12 cm (5 in.), Curved, **German 503271** 16 cm (6.2 in.), Straight

**503272** 16 cm (6.2 in.), Curved **503273** 20 cm (7.75 in.), Straight

**503274** 20 cm (7.75 in.), Curved **503275** 25 cm (9.75 in.), Straight

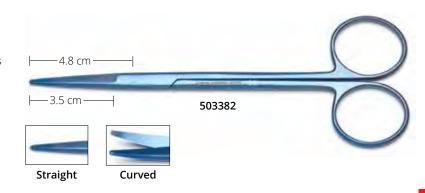




## **METZENBAUM SUPERCUT SCISSORS**

- Ideal for cutting and dissecting tough tissue
- One edge micro serrated, one edge honed to the sharpness of a knife edge—serration prevents slippage
- Not recommended for cutting sutures or drains
- Titanium

**503276** 25 cm (9.75 in.), Curved **503382** 14 cm (5.5 in.), Straight 14 cm (5.5 in.), Curved



## **TENOTOMY SCISSORS**

- Commonly used in ophthalmology, neurology and plastic surgery
- One serrated blade prevents slippage
- Beveled blade, rounded tips to avoid punctures
- · Smooth and clean cuts—minimal tearing
- Stainless Steel

**14220** 12.5 cm (5 in.), Straight

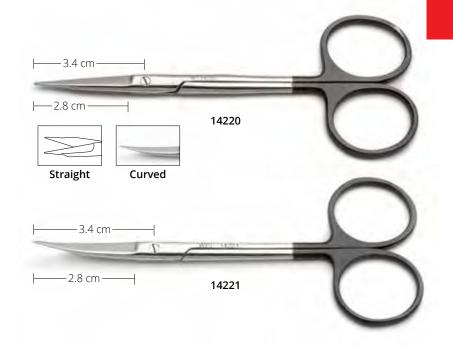
**14220-G** 12.5 cm (5 in.), Straight, **German** 

**14221** 12.5 cm (5 in.), Curved

**14221-G** 12.5 cm (5 in.), Curved, **German** 

503265 14 cm (5.5 in.), Straight
503266 14 cm (5.5 in.), Curved
503267 16 cm (6.2 in.), Straight
503268 16 cm (6.2 in.), Curved

Standard and German versions may differ slightly in appearance.



## MAYO SUPERCUT SCISSORS

- · Can be used to cut both heavy and delicate tissue
- One edge micro serrated, one edge honed to the sharpness of a knife edge—prevents slippage
- Beveled blade, rounded tips to avoid punctures
- · Smooth and clean cuts with minimal tissue tearing
- Stainless Steel

**14216** 14 cm (5.5 in.), Straight

**14216-G** 14 cm (5.5 in.), Straight, **German** 

**14217** 14 cm (5.5 in.), Curved

**14217-G** 14 cm (5.5 in.), Curved, **German** 

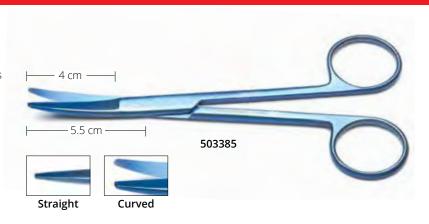
503277 16 cm (6.3 in.), Straight
503278 16 cm (6.3 in.), Straight
503279 20 cm (7.8 in.), Straight
503280 20 cm (7.8 in.), Curved
503281 25 cm (9.8 in.), Straight
503282 25 cm (9.8 in.), Curved
503384 17 cm (6.75 in.), Straight



## **MAYO SUPERCUT SCISSORS, TITANIUM**

- · Can be used to cut both heavy and delicate tissue
- One edge micro-serrated, one edge honed to the sharpness of a knife edge—prevents slippage
- Beveled blade, rounded tips to avoid punctures
- Smooth and clean cuts with minimal tissue tearing
- Lighter and more resistant to rust, blood, body fluids
- 17 cm (6.75 in.) Long
- Titanium

503384 Straight503385 Curved



## **Tungsten Carbide Scissors**

Our surgical scissors with gold handles have tungsten carbide inserts in the blades. Tungsten carbide instruments are more durable, hold an edge longer and last longer than stainless steel instrument.

## IRIS SCISSORS, TUNGSTEN CARBIDE

- · Used for incising and dissecting
- Tungsten carbide inserts help retain blade sharpness for longer
- 11 cm (4.3 in.) Long
- · Stainless Steel

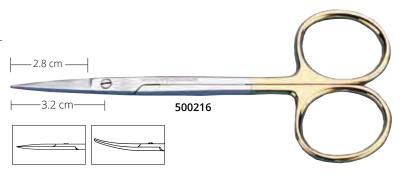
**500216** Straight

500216-G Straight, German

**500217** Curved

**500217-G** Curved, **German** 

Standard and German versions may differ slightly in appearance.



## **METZENBAUM SCISSORS, TUNGSTEN CARBIDE**

- Tungsten carbide inserts help retain blade sharpness longer
- Commonly used for dissecting or cutting heavy tissue
- Beveled blade, rounded tips to avoid punctures
- · Stainless Steel

**501739** 11.5 cm (4.5 in.), Straight

**501739-G** 11.5 cm (4.5 in.), Straight, **German** 

**501740** 11.5 cm (4.5 in.), Curved

**501740-G** 11.5 cm (4.5 in.), Curved, **German** 

**501733** 14.5 cm (5.75 in.), Straight

**501733-G** 14.5 cm (5.75 in.), Straight, **German** 

**501734** 14.5 cm (5.75 in.), Curved

**501734-G** 14.5 cm (5.75 in.), Curved, **German** 

**501744** 17.75 cm (7 in.), Straight

**501744-G** 17.75 cm (7 in.), Straight, **German** 

**501745** 17.75 cm (7 in.), Curved

**501745-G** 17.75 cm (7 in.), Curved, **German** 





## **MAYO SCISSORS, TUNGSTEN CARBIDE**

- Tungsten carbide inserts help retain blade sharpness longer
- Used to cut heavy tissue or suture
- Beveled blade, rounded tips to avoid punctures
- Stainless Steel

**500218** 14 cm (5.5 in.), Straight

**500218-G** 14 cm (5.5 in.), Straight, **German** 

**500219** 14 cm (5.5 in.), Curved

**500219-G** 14 cm (5.5 in.), Curved, **German** 

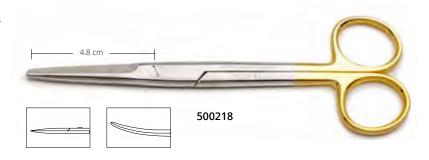
**500220** 17.5 cm (7 in.), Straight

**500220-G** 17.5 cm (7 in.), Straight, **German** 

**500221** 17.5 cm (7 in.), Curved

**500221-G** 17.5 cm (7 in.), Curved, **German** 

Standard and German versions may differ slightly in appearance.



## Tungsten Carbide SuperCut Scissors

Our black handled surgical scissors designate our SuperCut scissors. These scissors have one on razor sharp blade and one micro-serrate blade. Surgical scissors with one black handle and one gold handle are SuperCut scissors with tungsten carbide inserts. Tungsten carbide is harder than steel, which means the instruments last longer. The SuperCut edges offer a couple of advantages for surgeons.

- Sharp edge gives a clean cut with minimal tissue damage
- · Serrated edge actually holds the tissue to prevent it from slipping while you are making an incision

## IRIS SUPERCUT SCISSORS, TUNGSTEN CARBIDE

- Gold blade has tungsten carbide insert black blade is serrated
- · Produces clean cut without tearing the tissue
- · Used for cutting delicate or heavy tissue
- 11 cm (4.3 in.) Long
- Sharp tips
- Tungsten Carbide blades
- Stainless Steel

**501263** Straight

501263-G Straight, German

**501264** Curved

501264-G Curved, German

Standard and German versions may differ slightly in appearance.

## 

## **METZENBAUM SCISSORS, SUPERCUT**

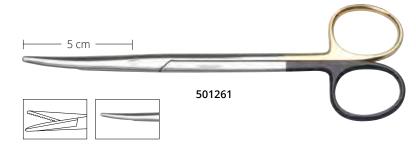
- Precise cutting action of the razor-sharp SuperCut blades with the durability of Tungsten Carbide. They provide a clean, smooth cut, and the blades retain their sharpness for an extended period of time.
- Used for dissection and trimming under delicate tissue
- Beveled blade, rounded tips to avoid punctures
- Tungsten Carbide blades
- · Stainless Steel

**501261** 15 cm (5.9 in.), Curved

**501261-G** 15 cm (5.9 in.), Curved, **German 503359-G** 15 cm (5.9 in.), Straight **German** 

**501262** 18 cm (7 in.), Curved

**501262-G** 18 cm (7 in.), Curved **German** 



## **MAYO SUPERCUT SCISSORS**

- Gold blade has tungsten carbide insert black blade is serrated
- Used for cutting heavy tissue
- · Produces clean cut with minimal tearing
- 17 cm (6.75 in.) Long
- 5.5 mm Tips
- Tungsten Carbide blades
- Stainless Steel

**501259** Straight

**501259-G** Straight, **German** 

**501260** Curved

501260-G Curved, German

Standard and German versions may differ slightly in appearance.



## Miscellaneous Scissors

This product category includes bandage scissors, surgical wire cutting scissors, plastic handled scissors, ligature scissors, micro alligator scissors and left hand dissection scissors.

## **SPENCER STITCH SCISSORS**

- Used for suture removal
- A hook-shaped blade is used to grab the suture and lift it for cutting
- · Stainless Steel

**500380** 9 cm (3.5 in.)

**500380-G** 9 cm (3.5 in.), **German 501703** 10.75 cm (4.25 in.)

**501703-G** 10.75 cm (4.25 in.), **German** 

**501704** 13.25 cm (5.5 in.)

**501704-G** 13.25 cm (5.5 in.), **German** 

Standard and German versions may differ slightly in appearance.

## **ROGER WIRE CUTTING SCISSORS**

- · One serrated blade and two notched blades
- · For cutting fine wires
- 12 cm (4.75 in.) Long
- Stainless Steel

**501321** Roger Wire Cutting Scissors

**501321-G** Roger Wire Cutting Scissors, **German** 

Standard and German versions may differ slightly in appearance.



## **METZENBAUM SCISSORS**

- 14 cm (5.5 in.) Long
- Curved
- Stainless steel

WP4099 Metzenbaum Scissors



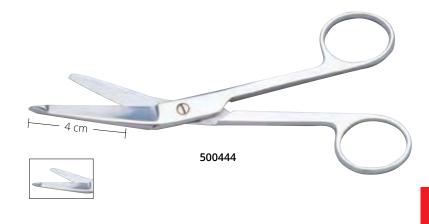
## LISTER BANDAGE SCISSORS

- Angled blade with smooth tips
- Used for cutting dressings and bandages
- Stainless Steel

**500444** 15 cm (6 in.)

**500444-G** 15 cm (6 in.), **German 501701** 8.75 cm (3.5 in.) **501702** 10.75 cm (4.25 in.)

**501702-G** 10.75 cm (4.25 in.), **German** 



## LISTER BANDAGE SCISSORS

- Angled blade with smooth tips
- Used for cutting dressings and bandages
- 15 cm (6 in.) Long
- Titanium

**555656S** Lister Bandage Scissors, Titanium



## MICRO INTRAOCULAR SCISSORS

For delicate surgeries or dissections, micro scissors are extremely practical. The scissor tips of our intraocular scissors are the smallest tips available, and they have super fine blades.

## MICRO INTRAOCULAR SCISSORS

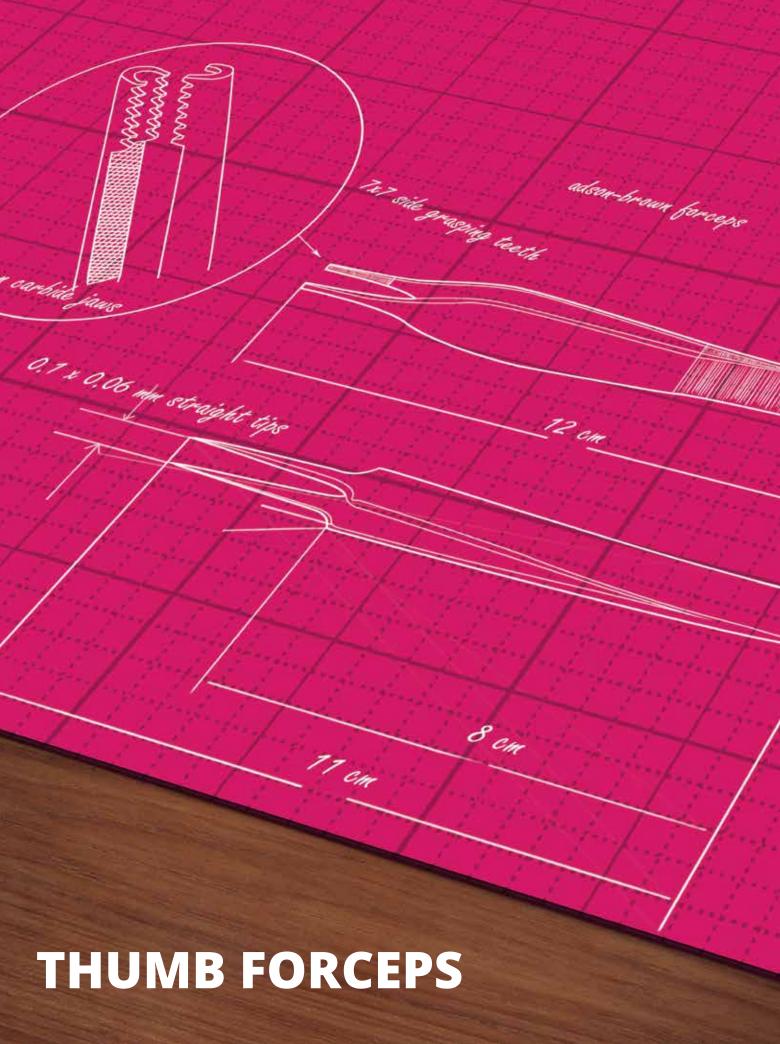
- 14 cm (5.5 in.) Long
- Stainless Steel

**500372** 25° Angled Blades

**500372-T** 25° Angled Blades, **Titanium** Handle

**500374** 35° Angled Blades

# Smallest tip in the world! 500372



## THUMB FORCEPS

Surgical forceps can be broadly divided into two categories, thumb forceps (frequently called tweezers or pinning forceps) and ring forceps (also called hemostats and locking forceps). Thumb forceps are spring forceps used by compression between your thumb and forefinger and are used for grasping, holding or manipulating body tissue. They are non-ratchet style. For example, you could use thumb forceps to hold or move tissue during surgery or to move dressings.

Thumb forceps are available with a variety of tips. The tips may be flat, serrated, cupped, ringed, grooved, diamond dusted or have teeth. The tips may also be straight, curved or angled. Serrated tweezers (thumb forceps) are designed for use with tissues. The serrations or teeth actually cause less damage than flat forceps, because it requires less pressure to maintain a firm grip. Use smooth or cross-hatched forceps for removing sutures, moving dressing or other drapes.

Commonly used thumb forceps include Adson forceps, Iris forceps and Foester forceps.

## **SWISS TWEEZERS**

Our Swiss surgical tweezers are manufactured from fine Swiss steel. We offer a variety of tweezers and forceps.

## WPI SWISS TWEEZERS

- Used in microsurgical procedures to grasp fine tissue
- Sharp tips may puncture tissue
- 10.5 cm (4.1 in.) Long
- Extra fine 90° angled tips

**504508** Stainless Steel

**504509** Acid-Resistant/Anti-magnetic





504508 504509

## WPI SWISS TWEEZERS

- 11 cm (4.3 in.) Long
- · Handcrafted to perfection in Switzerland
- For use in general laboratory and medical applications, microscopy, precision manufacturing, electronic industry, watch making
- 0.1 x 0.06 mm Straight tips

**504506** Stainless Steel

**504507** Acid-Resistant/Anti-magnetic





## **WPI SWISS TWEEZERS**

- 11 cm (4.3 in.) Long
- Diamond Like Carbon coated tips to improve hardness, toughness and wear characteristics

**504524** Ni-Cr-Mo Superalloy

504516 Ni-Cr-Mo Superalloy, Diamond Coated Tips504515 Anti-magnetic, Diamond Coated Tips





## WPI SWISS TEFLON-COATED TWEEZERS

- 11 cm (4.3 in.) Long
- 0.25 x 0.1 mm Super fine tips
- Non-porous and non-shiny surface
- Stainless steel with temperature and corrosion resistant Teflon coating

**503361** Teflon-Coated Tweezers



## WPI SWISS TWEEZERS, HTC (HIGH TEMPERATURE COATING)

- 11 cm (4.75 in.) Long
- · Smooth finish
- Heat resistant up to 620°C (1150°F)
- Very resistant to chemicals
- · Stainless steel with HTC

**504617** Straight #2, 2 mm Flat Tips **504619** Curved #7, Very Fine Tips



## **WPI SWISS TWEEZERS**

• 11.5 cm (4.5 in.) Long

· Stainless Steel

**504504**  $0.18 \times 0.2 \text{ mm Curved Tips}$ 

**504505** Acid-Resistant/Anti-magnetic, Curved Tips





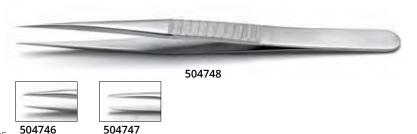
## **WPI SWISS TWEEZERS**

- 12 cm (4.75 in.) Long
- Acid Resistant
- · Anti-Magnetic
- Stainless steel

**504746** High Precision Tweezers, Straight, Thick

**504747** High Precision Tweezers, Straight, Flat/Round Tips

**504748** Biology Tweezers, Fine Tips



## WPI SWISS CUTTING TWEEZERS

- 11.5 cm (4.5 in.) Long
- Angled blades
- Stainless Steel

**504744** Stainless Steel

**504745** High Precision, Tungsten Carbide Tips







## **WPI SWISS TWEEZERS - DELUX**

- Antimagnetic, acid resistant
- Premium quality kit made in Switzerland
- Most popular instruments compiled in one kit
- For use in medical and general laboratory applications microscopy, electronics, watch making

**504518** High Precision (Kit of 5)





## WPI SWISS TWEEZERS - PREMIUM

- Quality student kit made in Switzerland
- Most popular student instruments compiled in one kit

**504616** Student Kit (5 instruments)



## STUDENT FORCEPS KITS

- Quality student kits
- Stainless Steel

**WP00118** 3 Instruments (**501979**, **501978**, **501981**)

**WP00218** 5 Instruments (**501979**, **501978**, **501981**,

**501974, 501977**) plus canvas roll-up (**501838**)



## **DUMONT FORCEPS**

High quality Dumont tweezers are available in a variety of metals.

**Dumostar** – Anti-magnetic. Dumostar is more elastic and more corrosion-resistant than the best stainless steel.

**Dumoxel** – Extremely flexible. Dumoxel is 95% anti-magnetic and stain resistant.

Stainless Steel - This is the standard metal for most surgical instruments.

## MINI DUMONT #M5S

- 8.2 cm (3.25 in.) Long
- 0.09 x 0.05 mm Tips
- Stainless Steel

**501764** Mini Dumont #M5S

## M5S \*TAINLES\*

## **DUMONT #3C**

- 11 cm (4.3 in.) Long
- 0.08 x 0.04 mm Tips
- Non-magnetic
- · Non-corrosive
- · Dumostar Steel

**500064** Dumont #3C



## **DUMONT #4**

- 11 cm (4.3 in.) Long
- 0.06 x 0.02 mm Tips
- Non-magnetic
- Non-corrosive
- · Dumostar Steel

**500339** Dumont #4



## **DUMONT #4**

- 11 cm (4.3 in.) Long
- Stainless Steel

**500340** 0.13 x 0.08 mm Tips **500231** 0.02 x 0.06 mm Tips





## 500085



500340

500231

## **DUMONT #5**

- 11 cm (4.3 in.) Long
- Non-magnetic
- Non-corrosive
- Dumostar Steel

**500085** 0.025 x 0.015 mm Tips **500233** 0.1 x 0.06 mm Tips

## **DUMONT #5**

- 11 cm (4.3 in.) Long
- 0.1 x 0.06 mm Tips
- Non-magnetic
- Dumoxel Steel

**14098** Dumont #5

## **DUMONT #5**

- 11 cm (4.3 in.) Long
- Stainless Steel

**501985** 0.025 x 0.005 mm Tips **500341** 0.05 x 0.01 mm Tips **500342** 0.10 x 0.06 mm Tips

## **DUMONT #5**

- 11 cm (4.3 in.) Long
- 0.05 x 0.01 mm Tips
- · Biology
- Stainless Steel

**14095** Dumont #5

## **DUMONT #5**

- 11 cm (4.3 in.) Long
- 0.05 x 0.01 mm Tips
- Self-closing
- Stainless Steel

**501202** Dumont #5

## **DUMONT #5**

- 11 cm (4.3 in.) Long
- Stainless Steel

**14101** 0.05 x 0.01 mm Tips, Bent 45° **501201** 0.05 x 0.01 mm Tips, Bent 90° **500232** 0.02 x 0.06 mm Tip, Half Curved

## **DUMONT #5**

- 11 cm (4.3 in.) Long
- 0.1 x 0.06 mm Tips
- Titanium

**14096** Dumont #5













## **THUMB FORCEPS**

## **DUMONT #5B**

- 11 cm (4.3 in.) Long
- 0.05 x 0.01 mm Tips
- Bent 45°
- Biology
- · Stainless Steel

**500234** Dumont #5B

## **DUMONT #55**

- 11 cm (4.3 in.) Long
- Non-corrosive
- Non-magnetic
- Dumostar Steel

**500235** Dumont #55

## **DUMONT #55**

- 11 cm (4.3 in.) Long
- 0.05 x 0.01 mm Tips
- Stainless Steel

**14099** Dumont #55

## **DUMONT #7**

- 11 cm (4.3 in.) Long
- 0.17 x 0.1 mm Tips
- Curved
- Serrated jaws
- Titanium

**501302** Dumont #7

## **DUMONT #7**

- 11 cm (4.3 in.) Long
- 0.07 x 0.03 mm Tips
- Curved
- Self-closing
- Stainless Steel

**501205** Dumont #7

## **DUMONT FORCEPS**

- 12 cm (4.75 in.) Long
- 2.0 x 0.20 mm Tips
- Wide and square
- Stainless Steel

**503233** Dumont Forceps













## **DUMONT #1**

- 12 cm (4.75 in.) Long
- 0.20 x 0.12 mm Tips
- Stainless Steel

**500335** Dumont #1



## **DUMONT #2**

- 12 cm (4.75 in.) Long
- Stainless Steel

**500336** 0.34 x 0.14 mm Tips

**500230** 0.17 x 0.07 mm Tips - Medical Biology



## **DUMONT #3**

- 12 cm (4.75 in.) Long
- 0.08 x 0.04 mm Tips
- Non-corrosive
- Non-magnetic
- Dumostar Steel

**500337** Dumont #3



## **DUMONT #3**

- 12 cm (4.75 in.) Long
- Stainless Steel

**500338** 0.17 x 0.10 mm Tips **503235** 0.20 x 0.12 mm Tips



## **DUMONT #7**

- 12 cm (4.75 in.) Long
- 0.17 x 0.1 mm Tips
- Curved
- Stainless Steel

**14097** Dumont #7



## **DUMONT #7**

- 12 cm (4.75 in.) Long
- 0.17 x 0.1 mm Tips
- Curved
- Titanium

**14187** Dumont #7



## **THUMB FORCEPS**

## **DUMONT #7**

- 12 cm (4.75 in.)
- 0.17 x 0.1 mm Tips
- Curved
- · Non-magnetic
- Dumoxel Steel

14188 Dumont #7



## **DUMONT #7**

- 12 cm (4.75 in.) Long
- Self-closing

501206

Dumoxel, 0.08 x 0.04 mm Tips

503234

Stainless Steel, 1.50 x 0.20 mm Tips, Flat and Rounded



501206



501206 503234

## **VESSEL CANNULATION**

Vessel cannulation forceps are designed to insert small catheters into vessels. The small hollow jaws of the forceps ensure a secure insertion without damage.

## **VESSEL CANNULATION FORCEPS**

• Stainless Steel

500377 10 cm (4 in.), 0.5 mm Diameter Cannula 500453 10 cm (4 in.), 1.0 mm Diameter Cannula

504765 WPI Swiss, 13 cm (5.1 in.), 0.35 mm OD Cannulation 503375 Dumont, 13 cm (5.1 in.), 1.0 mm OD Cannulation











503375

## DRESSING FORCEPS

Dressing forceps are used when dressing wounds. They hold gauze and other dressings. They may also be used during wound debridement to remove infected or necrotic tissue or debris from the wound. They may also be used for suturing.

## GRAEFE FORCEPS

- Used in iridectomy and other ophthalmic procedures
- Can be used microdissection or general laboratory procedures
- 7 cm (2.75 in.) Long
- 0.7 mm Tips
- Serrated
- Stainless Steel

14142 Straight

14142-G Straight, German

501215 Curved

501215-G Curved, German

Standard and German versions may differ slightly in appearance.

## NUGENT UTILITY FORCEPS

- Designed for ophthalmic procedures to grasp eye tissue
- Tip anged at 45° allows better visibility of work area
- A pin inside the shank limits the applied pressure
- Can be used in general laboratory procedures
- 10 cm (4 in.) Long
- 1 mm Tips
- Serrated
- · Stainless Steel

504473 **Angled** 504489 Straight

## IRIS FORCEPS

- · Designed for grasping or handling tissue during ophthalmic procedures
- Can be used in microsurgery or general laboratory procedures
- 10 cm (4 in.) Long
- 0.8 mm Tips
- Serrated
- Stainless Steel

15914 Straight

15914-G Straight, German

15915 Curved

15915-G Curved, German

Standard and German versions may differ slightly in appearance.

## ADSON FORCEPS

- Used to grasp tissue during stapling of the skin
- 12 cm (4.75 in.) Long
- Serrated
- Stainless Steel

14226 1.5 mm Tips

14226-G 1.5 mm Tips, German 500222 Tungsten Carbide Jaws

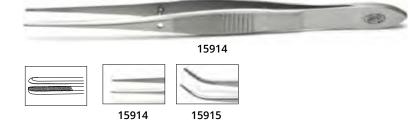
500222-G Tungsten Carbide |aws, German

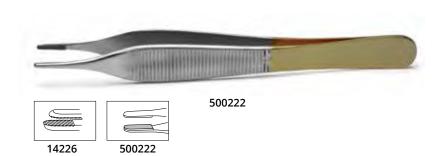
Standard and German versions may differ slightly in appearance.











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## DRESSING FORCEPS

- · Used for grasping tissue and for applying dressings and packing
- Serrated
- · Stainless Steel

**501217** 12.5 cm (5 in.)

**501217-G** 12.5 cm (5 in.), **German** 

**500363** 15.5 cm (6 in.)

**500363-G** 15.5 cm (6 in.), **German** 

**500364** 25.5 cm (10 in.)

**500364-G** 25.5 cm (10 in.), **German** 

**500365** 30.5 cm (12 in.)

**500365-G** 30.5 cm (12 in.), **German** 

Standard and German versions may differ slightly in appearance.







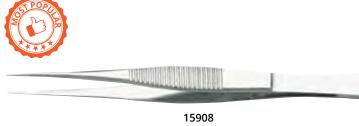
## DRESSING FORCEPS

- Used for grasping tissue and for applying dressings and packing
- 12.5 cm (5 in.) Long
- Serrated
- · Stainless Steel

**15908** 0.35 x 0.10 mm Tips, Straight, Sharp

**15919** 0.35 x 0.10 mm Tips, Straight

**503283** 0.5x 0.39 mm Tips, Straight, Round





## **TISSUE FORCEPS**

- · Used for grasping and manipulation of tissue
- Can be used for general lab procedures
- 15 cm (6 in.) Long
- Serrated
- Angled tips
- Stainless Steel

**501727-G** Micro Tweezer, **German** 

Standard and German versions may differ slightly in appearance.



## MCINDOE DRESSING FORCEPS

- · Criss-cross serration
- Designed for tissue holding, removing debris from wounds, or placing dressing and packing
- Can be used in general laboratory procedures
- 15.5 cm (6 in.) Long
- Serrated
- · Stainless Steel

501268 Standard Jaws501267 Tungsten Carbide Jaws

**501267-G** Tungsten Carbide Jaws, German

Standard and German versions may differ slightly in appearance.





## TROUTMAN FORCEPS WITH TYING PLATFORM

- 10 cm (3.9 in.)
- Curved 0.52 mm Tip
- · Stainless Steel with black coating

WPB505210 Troutman Forceps, Black



## **TISSUE FORCEPS**

**Tissue forceps** are used in surgical procedures for grasping tissue. Often, the tips have "teeth" to securely hold a tissue. Typically tissue forceps are designed to minimize damage to biological tissue.

## **GRAEFE FORCEPS**

- Used in ophthalmic procedures and microsurgery
- · Can be used in general lab procedures
- 7 cm (2.75 in.) Long
- 0.7 mm Tips
- 1x2 Teeth
- Stainless Steel

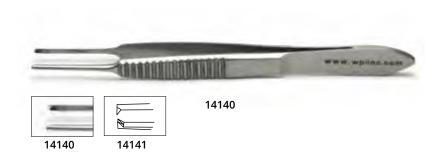
**14140** Straight

**14140-G** Straight, **German** 

**14141** Curved

**14141-G** Curved, **German** 

Standard and German versions may differ slightly in appearance.



## **MOREFIELD SUTURE FORCEPS**

- 11 cm (4.3 in.) Long
- 0.9 mm Tips
- Straight

WPF5055 Stainless Steel

**WPB5056** Stainless Steel with Black Titanium Coating



## ST. MARTIN FORCEPS

- 11 cm (4.3 in.) Long
- Straight

**WPB5035** Stainless Steel with Black Titanium Coating

WPF5035 Stainless Steel



## **LESTER FORCEPS**

- 1x2 Teeth
- 8.8 cm (3.5 in.) Long
- Stainless Steel

WPF5042 Lester Forceps



## MICRO DISSECTING FORCEPS

- Fine tips for microsurgery
- 8.9 cm (3.5 in.) Long
- Stainless Steel

**504480** Self Closing, Fine Tips

**504481** Smooth, Angular Jaws, Extra Fine Tips



## **KELMAN MCPHERSON FORCEPS**

- Angled tips 0.41 mm
- 7.5 cm Long

**WPF5050** Kelman McPherson Forceps



## **BISHOP HARMON FORCEPS**

- Small, fine forceps used in ophthalmology for tissue grasping and manipulation
- Can be used in general lab applications
- 9 cm (3.5 in.) Long
- Stainless Steel

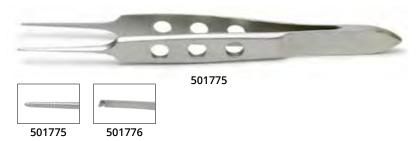
**501775** Serrated Tips

**501775-G** Serrated Tips, **German** 

**501776** 1x2 Teeth

**501776-G** 1x2 Teeth, **German** 

Standard and German versions may differ slightly in appearance.



## SUTURE TYING FORCEPS

- Used to grasp and manipulate tissue and grasp fine sutures in ophthalmology
- Can be used in general lab procedures
- 10 cm (3.9 in.) Long
- 0.5 x 0.5 mm Tips
- 5 mm Platform
- Stainless Steel

**504498** Suture Tying Forceps



## JAFFE FORCEPS, CURVED

- 10 cm (4 in.) Long
- 3 mm Tip
- · Stainless Steel with black coating

WP505210 Jaffe Forceps, Curved



## **CASTROVIEJO SUTURING FORCEPS**

- 5.5 mm (2.2 in.) Tying platform
- Wide textured handle
- Stainless Steel

WP5025501 Castroviejo Suturing Forceps



## **BONN SUTURING FORCEPS**

- 7.5 cm (3 in.) Long
- 0.5 mm Tying platform
- Stainless Steel

WP507835 Bonn Suturing Forceps



## **TUEBINGEN SUTURE FORCEPS**

- 9.5 cm (3.75 in.) Long
- 0.5 mm Tips, smooth
- Stainless Steel

**WPF505000** Tuebingen Suture Forceps



## BLACK EPOXY COATED TWEEZERS WITH PATENTED EZ LEVER

- 11 cm (4.25 in.) Long
- Strong blades
- Stainless Steel with black coating

**WPB315AB** 4.5 mm from tip to bend **WPB315AS** 6.5 mm from tip to bend





WPB315AB WPB315AS

## **THUMB FORCEPS**

## **BONN FORCEPS WITH TYING PLATFORM**

- Used in ophthalmic procedures and microsurgery
- Can be used in general lab procedures
- 7.2 cm (2.8 in.) Long
- 0.3 mm Tips
- · Stainless Steel

**504475** Bonn Forceps with Tying Platform

# 504475

## **IRIS FORCEPS**

- Used for grasping tissue and dressing applications in microscopy
- 10 cm (4 in.) Long
- 0.8 mm Tips
- 1x2 Teeth
- Stainless Steel

15916 Straight

15916-G Straight, German

**15917** Curved

15917-G Curved, German

Standard and German versions may differ slightly in appearance.





## MICRO DISSECTING FORCEPS

- General tissue manipulation and dressing applications
- 10.2 cm (4 in.) Long
- · Stainless Steel

504479 Angled, Serrated 0.8 mm Tips504482 Angled, Fine Sharp Tips504483 Straight Fine Sharp Tips



## MICRO DISSECTING IRIS FORCEPS

- For tissue graspng in ophthalmic procedures
- For general microsurgery
- 10.2 cm (4 in.) Long
- 0.5 mm Tips
- Full curve
- Serrated
- · Extra delicate
- · Stainless Steel

**504478** Micro Dissecting Iris Forceps



## FOERSTER TISSUE FORCEPS

- Used mostly to apply dressing and strips over wounds
- Can be used in general microsurgery
- 10.2 cm (4 in.) Long
- 0.5 mm Tips
- Serrated
- · Stainless Steel,

504476 Straight504477 Curved



## **GRAEFE FIXATION FORCEPS**

- Ophthalmic forceps used to hold the eyelid
- Vertical serration holds the tissue firmly
- 11.5 cm (4.5 in.) Long
- 4 mm Tips
- 5x5 Teeth
- · Stainless Steel

**501988** Graefe Fixation Forceps



## MICRO ADSON TISSUE FORCEPS

- Used for grasping or holding delicate tissue
- All Adson forceps are the same length, differentiated by very different inner tips
- 12 cm (4.75 in.) Long
- 0.8 mm Fine point tips
- · Stainless Steel

**501244** 1x2 Teeth

501244-G 1x2 Teeth, German501245 Serrated Tips

**501245-G** Serrated Tips, **German** 

Standard and German versions may differ slightly in appearance.







501244

## **ADSON-BROWN FORCEPS**

- Used often in plastic or hand surgery
- The two rows of teeth interlock when closed
- 12 cm (4.75 in.)
- 7x7 Side teeth
- Tungsten carbide maws
- Stainless Steel

**500177** Adson-Brown Forceps

**500177-G** Adson-Brown Forceps, **German** 

Standard and German versions may differ slightly in appearance.



## **ADSON FORCEPS**

- Teeth at the tips aid in grasping and holding delicate tissue
- Can also be used in general lab procedures
- 12 cm (4.75 in.) Long
- 1x2 Teeth
- Stainless Steel

**500092** 1.5 mm Tips

500092-G 1.5 mm Tips, German500178 Tungsten Carbide Jaws

**500178-G** Tungsten Carbide Jaws, German

Standard and German versions may differ slightly in appearance.



## TISSUE FORCEPS

- Used mostly for grasping heavy tissue during wound closure
- Can also be used in general lab procedures
- 12.5 cm (5 in.) Long
- 1 x 2 Teeth
- · Stainless Steel

15918 Straight

15918-G Straight, German

501216 Curved

501216-G Curved, German 501742-G Straight, German 501741-G

Standard and German versions may differ slightly in appearance.

Straight, German



15918





501216-G

501741-G 501742-G

## TISSUE FORCEPS

- · For grasping heavy tissue
- 14.5 cm (5.7 in.) Long
- · Stainless Steel

503311 4 x 5 Teeth 503312 3 x 4 Teeth 503313 2 x 3 Teeth









503311 503312 503313

## **DEBAKEY FORCEPS**

- $\bullet\;$  Atraumatic tip A set of very fine serrations along the length of one tip interlock with a single row of serrations on the other tip, gripping tissue, vessels and organs without damage
- Considered a cardiac and vascular forceps
- 15 cm (6 in.) Long
- 1.5 mm Wide
- · Stainless Steel

501239 Straight

501239-G Straight, German 501996 45° Angled Tips

Standard and German versions may differ slightly in appearance.



501239







501239 501996

## **DEBAKEY FORCEPS**

- 16 cm (6.25 in.) Long
- Micro
- 1.2 mm Wide
- Atraumatic
- Stainless Steel

503212 Straight 503213 Angled



503212 503213

## GILLIES DISSECTING FORCEPS

- Used to grasp tissue in general surgery
- Cross-serrated tips with teeth
- 15.5 cm (6 in.) Long
- 1 x 2 Teeth
- · Stainless Steel

501265 Tungsten Carbide Jaws, Standard 501265-G Tungsten Carbide Jaws, German 501266 Gillies Dissecting Forceps 501266-G Gillies Dissecting Forceps, German

Standard and German versions may differ slightly in appearance.



501265





503203

501265 501266

## MISCELLANEOUS FORCEPS

These unique instruments are well suited for unusual tasks or special circumstances.

## RING-TIPPED FORCEPS WITH ADJUSTMENT SCREW

- · For gripping and holding tissue
- Used in ophthalmology to evert the eyelid
- Can be used in general laboratory procedures
- 10 cm (3.9 in.) Long
- · Stainless Steel

503202 4.8 mm ID, 6.0 mm OD 503203 2.2 mm ID, 3.0 mm OD

## **RUSSIAN FORCEPS**

- · Round tips with star burst serrations
- Used to grasp dense tissue and during wound closure
- Can be used in general laboratory procedures
- 15.25 cm (6 in.) Long
- 7 mm Diameter oval tips
- Serrated
- Stainless Steel

501987 Russian Forceps

## THE REPORT OF THE PARTY OF THE 501987

503203



503202

## **RUBBER-TIPPED FORCEPS**

- · For rodent handling
- 21 cm (8.25 in.)
- · Stainless Steel

503370 Rubber-Tipped Forceps 504645 Replacement Rubber Tips





## FRANCIS CHALAZION WITH LOCKING THUMB SCREW

- Open upper blade with inside dimension of 19 mm x 12 mm
- 9 cm (3.5 in.) Long
- Stainless Steel

WP505600 Francis Chalazion with Locking Thumb Screw



## **DELRIN PLASTIC TWEEZERS**

- Resistant to moisture, solvents and other chemicals
- FDA approved Delrin for use in the food industry
- Can be used in general lab applications, electronics, microscopy

**503362** 11.8 cm (4.6 in.), Curved



## REVERSE ACTION TWEEZER

- Used mostly where a high precision self-closing is needed
- Good for general lab applications, microscopy and assembly applications
- 16.5 cm (6.5 in.) Long
- 7.5 cm Tips
- 0.06 cm Jaw
- Stainless Steel

**504501** Reverse Action Tweezer



## **VACUUM PICK-UP FORCEPS**

Pick up and handle flat objects, such as microscope slide cover slips. It lifts up to 80 g. No batteries are required. Vacuum produced by finger button. It includes one straight machined metal needle, one angled metal needle, three spare rubber cups (4, 6, 9 mm) and lubricant.

- 17.5 cm Long
- 1.5 cm Diameter handle

**504523** Vacuum Pick-Up Forceps



## WPI SWISS CARBON FIBER-TIPPED FORCEPS

- 13 cm (5.1 in.) Long
- Antimagnetic body, replaceable carbon fiber tips
- Ceramic contains no metal, leaves no trace metal residue on tissue
- Not electrically conductive
- Corrosion-resistant
- · Low heat conductivity, high heat resistance
- Stainless Steel

504517 Carbon Fiber-Tipped Forceps504527 Replacement Carbon Fiber Tips



## **ROUND HOLLOW HANDLED FORCEPS**

Hollowing out the handles of long, round-handled instruments decreases their overall weight. This makes them efficient and non-fatiguing when operating under a microscope. The round shape of the handle also makes these surgical instruments easier to manipulate during surgery. Made from high quality stainless steel, these instruments are an excellent addition to a microsurgical instrument kit.

## **ROUND, HOLLOW HANDLE FORCEPS**

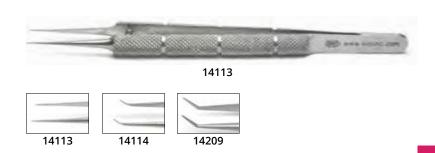
- 15 cm (6 in.) Long
- · Stainless Steel

**14113** 0.15 mm Straight

**14113-G** 0.15 mm, Straight, **German14114** 0.3 mm Tips Curved

**14114-G** 0.3 mm Tips, Curved, **German 14209** 0.15 mm Tips, 45° Angle

Standard and German versions may differ slightly in appearance.



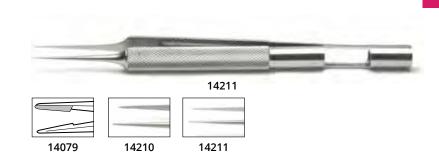
## **ROUND, HOLLOW HANDLE FORCEPS**

- 14 cm (5.5 in.) Long
- Straight
- Stainless Steel

**14079** 0.15 mm Tips, Smooth

**14210** 0.3 mm Tips with Tying Platform

**14211** 0.15 mm Tips



## **DILATOR FORCEPS**

- Used in microsurgery, hand surgery, plastic surgery, neurosurgery
- 14 cm (5.5 in.) Long
- Straight
- 0.15 mm Tips
- Stainless Steel

**15910** Dilator Forceps



## MICRO INTRAOCULAR FORCEPS

Our micro forceps have small tips, 0.25 mm thick and 2.5 mm long. These forceps are designed for maximum control in confined spaces or for delicate surgeries.

## MICRO INTRAOCULAR FORCEPS

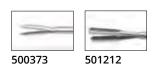
- Mostly used in ophthalmology to manipulate tissue or sutures
- Can be used in general microsurgery
- 14 cm (5.5 in.) Long
- Stainless Steel

**500373** 2.5 × 0.3 × 0.25 mm Jaws (l×w×t), 1.5 mm Max. Opening

**501212** 3 × 0.6 × 0.4 mm Jaws (l×w×t) 1.4 mm Max. Opening



500373



WORLD PRECISION INSTRUMENTS

www.wpiinc.com

## FILTERS AND GEL FORCEPS

Filter and gel forceps are designed for the handling delicate silicon wafers, scintillation discs, glass slides, coverslips and gels. These forceps have smooth, flat tips to avoid scratching or damaging what they grasp.

## FILTER FORCEPS

- Polypropylene finger grip great for gel handling
- 11 cm (4.3 in.) Long
- Straight
- Flat jaw
- · Stainless Steel

**500455** Filter Forceps

# 500455

## FILTER FORCEPS

- · Great for gel handling
- 11 cm (4.3 in.) Long
- Straight
- · Flat jaw
- Stainless Steel

**500456** Filter Forceps

**500456-G** Filter Forceps, **German** 

Standard and German versions may differ slightly in appearance.





## FILTER FORCEPS

- · Great for gel handling
- 11 cm (4.3 in.) Long
- Bent
- Flat jaw
- Self-closing
- · Stainless Steel

**500457** Filter Forceps



## **TITANIUM FORCEPS**

100% anti-magnetic, corrosion-resistant, lightweight and strong, titanium alloy is ideal for biological and medical applications. Titanium has the tensile strength of carbon steel and is completely resistant to corrosion from nitric acid, chloride, salt water, and industrial and organic chemicals. Titanium is more flexible and 40% lighter than Inox. When heated or cooled, the dimensions of titanium alloy change less than half of what stainless steel alloys will, making titanium surgical instruments much more durable. Titanium is stain-free and temperature resistant up to 430°C. Titanium tools are the premium choice for corrosive environments or MRI applications.

- 100% non-corrosive (great for sea water procedures)
- 40% lighter than stainless steel (reduces hand fatigue)
- 100% non-magnetic (MRI compatible)
- · Anodized, non-glare blue finish

## **FORCEPS**

- 8.5 cm (3.3 in.) Long
- 12 mm Tips
- · 4.5 mm Tying platform
- Straight
- Titanium

WP5000 Forceps



## **COLIBRI SUTURING FORCEPS WITH TYING PLATFORM**

- 7.5 cm (3 in.) Long
- 1x2 140° Teeth
- Titanium

**WP1520** Colibri Suturing Forceps with Tying Platform



## **KELMAN-MCPHERSON FORCEPS**

- 8.5 cm (3.3 in.) Long
- 45° Angled Tips
- 7.5 mm Smooth Jaw
- Titanium

WP5030 Kelman-McPherson Forceps



## FORCEPS WITH TYING PLATFORM

- 8.5 cm (3.3 in.) Long
- 12 mm Tips
- 5 mm Tying platform
- Straight with 0.12 mm teeth (1x2)
- Titanium

**WP2000** Forceps with Tying Platform



## **MCPHERSON FORCEPS**

- 8.5 cm (3.3 in.) Long
- 45° Angled tips
- Titanium

**WP5010** 8.5 cm (3.3 in.), 4.5 mm Tying Platform **WP5030L** 11.5 cm (4.5 in.), 6 mm Tying Platform



## **BISHOP HARMON FORCEPS**

- 9 cm (3.5 in.) Long
- 1 x 2 Teeth
- Titanium

**WP3510** Bishop Harmon Forceps



## **THUMB FORCEPS**

## **JEWELERS #5 FORCEPS**

- 11 cm (4.3 in.) Long
- Titanium

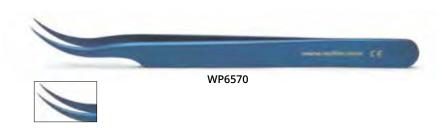
**WP6560** 0.05 x 0.01 mm Tips, Angled 45° **WP6550** 0.01 x 0.06 mm Tips, Straight



## **JEWELERS #7 FORCEPS**

- 11 cm (4.3 in.) Long
- 0.07 x 0.01 mm Tips
- Titanium

**WP6570** Jewelers #7 Forceps



## **FECHTNER CONJUNCTIVA FORCEPS**

- 11 cm (4.3 in.) Long
- 1 mm Rings
- Titanium

WP1820 Fechtner Conjunctiva Forceps



## STRAIGHT FORCEPS

- 11.5 cm (4.5 in.) Long
- Titanium

WP2020 1 x 2, 0.12 mm Teeth, 5 mm Tying Platform

**WP500097** Calibri Forceps with 6 mm Tying Platform

**WP2020-1** Straight Forceps, 1x2 0.12 mm Teeth, 4 mm Tying

Platform









WP2020

WP500097

WP2020-1

## **ADSON FORCEPS**

- 12 cm (4.7 in.) Long
- 1 mm Serrated Tips
- Titanium

WP4152 Adson Forceps



## STUDENT FINE TWEEZERS

Made of quality stainless steel, these tweezers are useful for general dissections where ultra fine tips are not necessary. These forceps are perfect for students. Economically priced, they are affordable enough for everyone to have their own instruments. They may be used in microdissection, microscopy and electronics, as well as general lab procedures.

## STUDENT TWEEZER, STYLE 1

- 11 cm (4.3 in.) Long
- 0.45 x 0.55 mm Tips
- Stainless Steel

**501974** Style 1

**501974-6** Style 1, 6 per pack

## 501974

## STUDENT TWEEZER, STYLE 2

- 11 cm (4.3 in.) Long
- 0.40 x 0.55 mm Tips
- Stainless Steel

**501975** Style 2

**501975-6** Style 2, 6 per pack



## STUDENT TWEEZER, STYLE 3

- 11 cm (4.3 in.) Long
- 0.20 x 0.40 mm Tips
- Stainless Steel

**501976** Style 3

**501976-6** Style 3, 6 per pack



## STUDENT TWEEZER, STYLE 3C

- 11 cm (4.3 in.) Long
- 0.40 x 0.45 mm Tips
- Stainless Steel

**501977** Style 3C

**501977-6** Style 3C, 6 per pack



## STUDENT TWEEZER, STYLE 4

- 11 cm (4.3 in.) Long
- 0.40 x 0.45 mm Tips
- Stainless Steel

**501978** Style 4

**501978-6** Style 4, 6 per pack



## STUDENT TWEEZER, STYLE 5

- 11 cm (4.3 in.) Long
- 0.40 x 0.45 mm Tips
- Stainless Steel

**501979** Style 5

**501979-6** Style 5, 6 per pack



## STUDENT TWEEZER, STYLE 6

- 11 cm (4.3 in.) Long
- 0.40 x 0.50 mm Tips
- Stainless Steel

**501980** Style 6

**501980-6** Style 6, 6 per pack

## 501980 STAINLESS A

## STUDENT TWEEZER, STYLE 7

- 11 cm (4.3 in.) Long
- 0.40 x 0.50 mm Tips
- Stainless Steel

501981 Style 7501981-6 6 per pack

## TROTMANN FORCEPS

- 10 cm Long
- Curved
- · Serrated tips

WP5052 Trotmann Forceps

## **HORTICULTURAL FORCEPS**

- 12.5 cm (5 in.) Long
- Wide, Angled Tips, 0.4 mm Thick
- Stainless Steel

**503411** Horticultural Forceps



## **GLASS HOLDING FORCEPS**

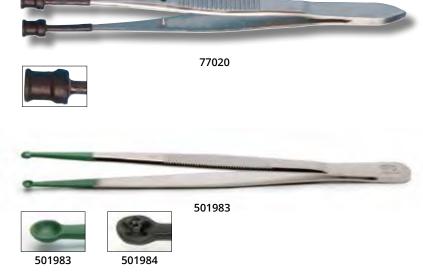
- 10 cm Long
- Good for holding capillary glass or fine tubing

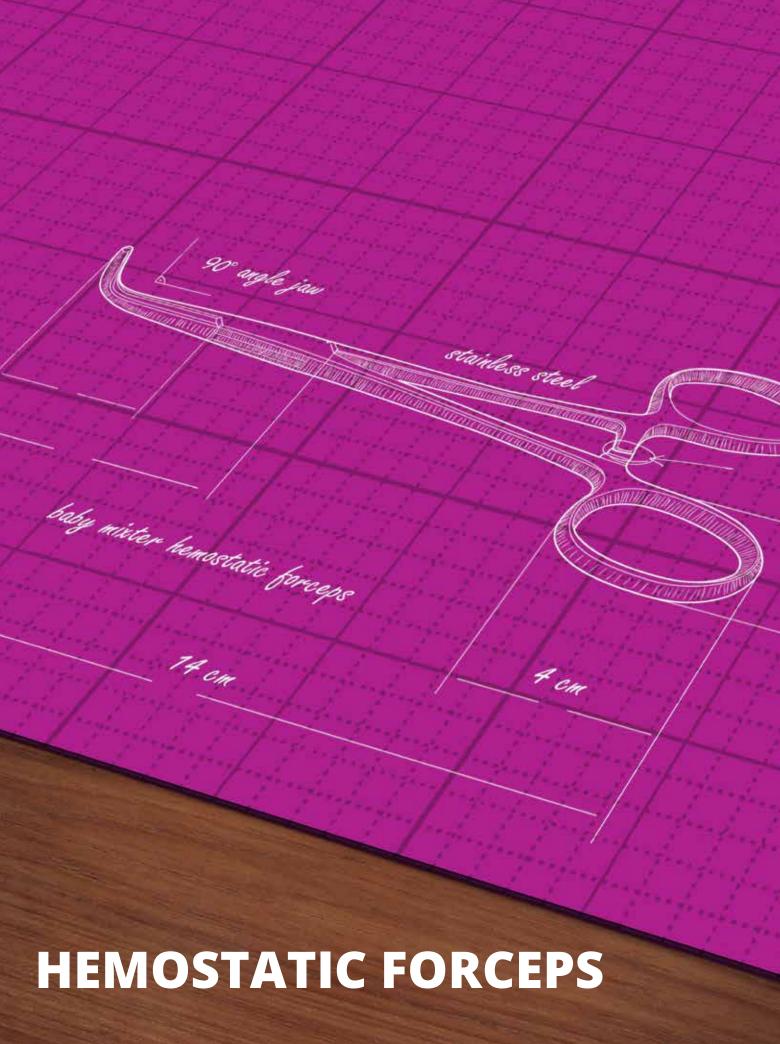
**77020** Glass Holding Forceps

## **CUPPED FORCEPS**

- Atraumatic
- Holding organs or delicate tissue
- Non stick surface

501983 Teflon Coated501984 Ceramic Coated





## **HEMOSTATIC FORCEPS**

Ring forceps (also called hemostatic forceps) are hinged and look like ring scissors. Frequently, hemostatic forceps have a locking mechanism, called a ratchet, which is used for clamping. The jaws of the locking forceps gradually come together as each increment of the ratchet is employed.

- · Used to compress blood vessels or other tubular structures to obstruct the flow of blood or fluids
- Used for small, delicate vessels
- · Full serrated jaws
- Used in ophthalmology, biopsy, skin grafting or general surgery and lab procedures

## MICRO MOSQUITO HEMOSTATIC FORCEPS

- 12.5 cm (5 in.) Long
- Serrated
- 0.4 x 0.8 mm Tips
- · Stainless Steel

**500451** Straight

**500451-G** Straight, **German** 

**500452** Curved

500452-G Curved, German

**503360** Right-Angle

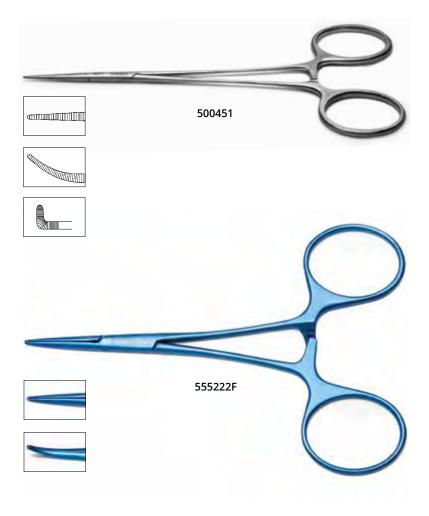
Standard and German versions may differ slightly in appearance.

## HALSTED MOSQUITO HEMOSTATIC FORCEPS

- 9.5 cm (3.7 in.) Long
- Titanium

**555222F** Straight

**555223F** Curved



## RADOLF HOLDING FORCEPS

- 13.5 cm (5.3 in.) Long
- Curved
- Serrated jaw
- · Stainless Steel

**503220** Radolf Holding Forceps



## HALSTED MOSQUITO HEMOSTATIC FORCEPS

Serrated

· Stainless Steel

**15920** 12.5 cm (5 in.), Straight

**15920-G** 12.5 cm (5 in.), Straight, **German** 

**15921** 12.5 cm (5 in.), Curved

**15921-G** 12.5 cm (5 in.), Curved, **German** 

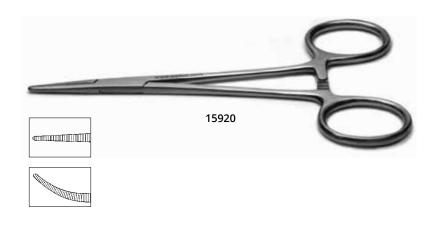
**501705** 9 cm (3.5 in.), Straight

**501705-G** 9 cm (3.5 in.), Straight, **German** 

**501291** 9 cm (3.5 in.), Curved

**501291-G** 9 cm (3.5 in.), Curved, **German** 

Standard and German versions may differ slightly in appearance.



## MIXTER HEMOSTATIC FORCEPS

• 14 cm (5.5 in.) Long

- "Baby"
- · Right Angle
- · Stainless Steel

**501240** Mixter Hemostatic Forceps

**501240-G** Mixter Hemostatic Forceps, **German** 

Standard and German versions may differ slightly in appearance.



## **ROCHESTER-OSCHNER HEMOSTATIC FORCEPS**

- Serration on the entire length of the jaws
- Good grip on heavy/tough tissue
- · Stainless Steel

**501709** 14 cm (5.5 in.), Straight

**501709-G** 14 cm (5.5 in.), Straight, **German** 

**501710** 14 cm (5.5 in.), Curved

**501710-G** 14 cm (5.5 in.), Curved, **German** 

**501326** 16 cm (6.25 in.), Straight

**501326-G** 16 cm (6.25 in.), Straight, **German** 

**501711** 16 cm (6.25 in.), Curved

**501711-G** 16 cm (6.25 in.), Curved, **German** 



## **HEMOSTATIC FORCEPS**

## **ROCHESTER-PEAN HEMOSTATIC FORCEPS**

· Also known as Mayo or Pean

• Used for clamping or occluding of large vessels on deeper wounds

• Heavy construction with broad, serrated jaw

· Stainless Steel

**501325** 16 cm (6.25 in.), Straight

**501325-G** 16 cm (6.25 in.), Straight, **German** 

**501706** 16 cm (6.25 in.), Curved

**501706-G** 16 cm (6.25 in.), Curved, **German** 

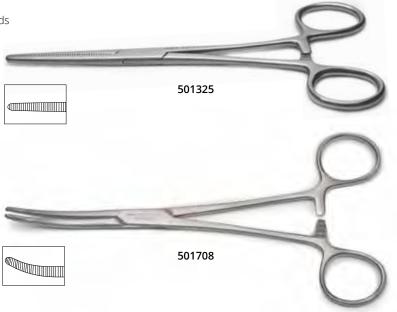
**501707** 19 cm (7.5 in.), Straight

**501707-G** 19 cm (7.5 in.), Straight, **German** 

**501708** 19 cm (7.5 in.), Curved

**501708-G** 19 cm (7.5 in.), Curved, **German** 

Standard and German versions may differ slightly in appearance.



## CRILE HEMOSTATIC FORCEPS

Mostly used before ligation or cauterization to occlude blood vessels

• Serration on entire length of jaws

· Stainless Steel

**501242** 14 cm (5.5 in.), Straight

**501242-G** 14 cm (5.5 in.), Straight, **German** 

**501730** 14 cm (5.5 in.), Curved

**501730-G** 14 cm (5.5 in.), Curved, **German** 14 cm (5.5 in.), Straight/Smootl

**503227** 14 cm (5.5 in.), Straight/Smooth 14 cm (5.5 in.), Curved/Smooth

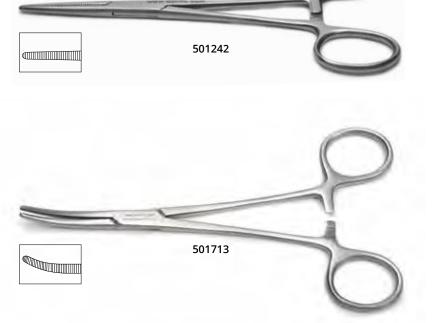
**501712** 15.9 cm (6.25 in.), Straight

**501712-G** 15.9 cm (6.25 in.), Straight, **German** 

**501713** 15.9 cm (6.25 in.), Curved

**501713-G** 15.9 cm (6.25 in.), Curved, **German** 15.9 cm (6.25 in.), Straight/Smooth

**503229** 15.9 cm (6.25 in.), Curved/Smooth



## **KELLY HEMOSTATIC FORCEPS**

- Serration half way up the tip
- · Used for clamping and occluding
- · Stainless Steel

**501241** 14 cm (5.5 in.) Straight

**501241-G** 14 cm (5.5 in.) Straight, **German** 

**501288** 14 cm (5.5 in.), Curved

**501288-G** 14 cm (5.5 in.), Curved, **German** 

**501714** 15.5 cm (6 in.), Straight

**501714-G** 15.5 cm (6 in.), Straight, **German** 

**501715** 15.5 cm (6 in.), Curved

**501715-G** 15.5 cm (6 in.), Curved, **German** 

Standard and German versions may differ slightly in appearance.



- 15 cm (6 in.) Long
- Interlocking 4x5 teeth on the tip
- Used to hold slippery tissue or organs during electrosurgery
- · Stainless Steel

**501324** Allis Tissue Forceps

**501324-G** Allis Tissue Forceps, **German** 

Standard and German versions may differ slightly in appearance.

## **BABCOCK TISSUE FORCEPS**

- Non-perforated tips
- Used to hold delicate tissue
- Atraumatic

**504218** Babcock Tissue Forceps

## **ROCHESTER-CARMALT HEMOSTATIC FORCEPS**

- "Stars and stripes" hemostat
- Longitudinal serrations along the blade, with a cross-hatched tip
- Securely clamp tissue without cutting it
- Scissor like ratchet handles
- · Stainless Steel

**501287** 16 cm (6.25 in.), Straight

**501287-G** 16 cm (6.25 in.), Straight, **German** 

**501243** 16 cm (6.25 in.), Curved

**501243-G** 16 cm (6.25 in.), Curved, **German** 

**501717** 20 cm (7.75 in.), Straight

**501717-G** 20 cm (7.75 in.), Straight, **German** 

**501716** 20 cm (7.75 in.), Curved

**501716-G** 20 cm (7.75 in.), Curved, **German** 











dissecting knife stainles 13 cm disposable scalpel #10 10 per box **SCALPELS & KNIVES** 

#### SAPPHIRE KNIVES ——

Clear blade increases view of tissue—chemically inert to lymph, blood and disinfectant solutions

#### STRAIGHT STAINLESS STEEL HANDLE FOR SAPPHIRE BLADE

- · Can be used in various medical procedures due to non-thrombogenic surface
- Blades sold separately
- 13 cm (5 in.) Long
- Stainless Steel

**500317** Straight Stainless Handle for Sapphire Blade

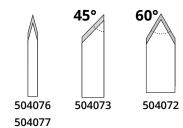


500317

#### SAPPHIRE BLADE

- For use with Handle 500317
- 0.20 mm Thick

504072 Double Edge Lancet, 0.75 mm Wide, Angled 60°
504076 Double Edge Lancet, 0.50 mm Wide, Straight
504077 Double Edge Lancet, 1.00 mm Wide, Straight
504073 Single Edge Lancet, 1 mm Wide, Angled 45°



#### WHY CHOOSE A SAPPHIRE BLADE?

Our sapphire knives are constructed of single crystal, synthetic sapphires (Al $_2$ O $_3$ ). While not as hard as a diamond, they are still hundreds of times harder than steel razor blades. The durability of the blade guarantees a long operational life that exceeds 100 incisions. In addition, the blade and handle can be sterilized using any currently known procedure.

The super sharp cutting edge, mirror surface finish and low friction coefficient combine to create an accurate, clean cut with minimal tissue trauma. Scarring is reduced, and incisions heal quickly. Both the stainless steel and titanium handles feature safety locks to protect the super sharp cutting edge from damage and prevent injuries to medical personnel.



Hand held sapphire knives are ideal for delicate dissection and microsurgery. Sapphire blades offer several advantages.

- They are extremely hard, and the edge is honed razor sharp. Because of this, they hold the edge better than standard surgical instruments. They are able to make over 100 incisions.
- The incisions made with a sapphire blade are much finer than can be made with standard instruments. This leaves less cell damage along the incision. You get an accurate, clean cut with minimal tissue trauma, which speeds healing and reduces scarring.
- Because these knives are non-metallic, there is no metal ion reactivity. They are chemically inert to lymph, blood and disinfectants.
- The blades of a sapphire knife are clear, allowing you to see the tissue under the knife's edge.

If handled properly, a sapphire knife should last for years. Be aware that sapphire hardness also makes the blade brittle. It should be handled with care. Rough handling and dropping can dull the delicate edge. Excessive force can break the tip.

TIP! Never test the sharpness of a sapphire knife on a finger!

The sapphire knife may be cleaned in an ultrasonic bath or wet sterilized as long as it doesn't touch other instruments or solid objects.

#### STRAIGHT TITANIUM HANDLE FOR SAPPHIRE BLADE

- Blades sold separately
- 13 cm (5 in.) Long

Titanium

**501811** Straight Handle



501811

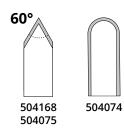
#### **SAPPHIRE BLADE**

• For use with Handle 501811

**504074** 0.25 mm Thick, 1.50 mm Wide, Round/Sharp

**504075** Elbow Double Lancet, 0.20 mm Thick, 2.80 mm Wide, Angled 60°

**504168** 0.20 mm Thick, 2.80 mm Wide, Angled 60°



#### MINIATURE BLADES

These small blades are sterile, perfect for small incisions.

**501247** Blade Handle, Round, Knurled, Stainless Steel,

10 cm (3.9 in.)

**501247-G** Blade Handle, Round, Knurled, Stainless Steel,

10 cm (3.9 in.), **German** 

**501248** Hex Blade Handle, Stainless Steel, 10 cm

(3.9 in.)

**501249** Needle Blades, 4.5 cm, Stainless Steel, 6 per

pack

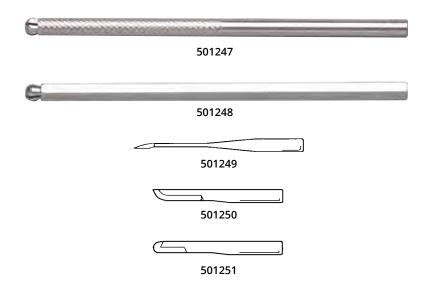
**501250** Miniature Edge Blades, 3.5 cm, Stainless Steel,

12 per pack

**501251** Miniature Edge Blades, 3.5 cm, Round Tip,

Stainless Steel, 12 per pack

Standard and German versions may differ slightly in appearance.



#### **SCALPEL HANDLES**

A variety of scalpel handles and razor blade holders are available here.

#### **SCALPEL HANDLE #3**

- 13 cm (5 in.) Long
- · Reusable, non-sterile
- For use with blades for tissue separation or surgical incision, #10, #11, #12, #15
- · Stainless Steel

**500236** Scalpel Handle #3

**500236-G** Scalpel Handle #3, **German** 

Standard and German versions may differ slightly in appearance.

#### **SCALPEL HANDLE #4**

- 14 cm (5.5 in.) Long
- · Reusable, non-sterile
- For use with blades for tissue separation or surgical incision, #20, #21, #22, #23, #24
- · Stainless Steel

**500237** Scalpel Handle #4

**500237-G** Scalpel Handle #4, **German** 

Standard and German versions may differ slightly in appearance.

### Warm tradition page

500236



500237

#### **SCALPEL HANDLE #7**

- 16 cm (6.25 in.) Long
- Stainless Steel

**500238** Scalpel Handle #7

**500238-G** Scalpel Handle #7, **German** 

Standard and German versions may differ slightly in appearance.



500238

#### RAZOR BLADE HOLDER

- · Special jaw shape prevents blades from slipping
- 12 cm (4.75 in.) Long
- Round Tips
- Convex/Concave Jaws

**14134** Razor Blade Holder

**14134-G** Razor Blade Holder, **German** 

Standard and German versions may differ slightly in appearance.



### STERILE STAINLESS STEEL SCALPEL BLADES - USED FOR SKIN INCISIONS

Attaching a blade to the handle is easy.

- 1. Grasp the blade with a needle holder just above the opening of the non-cutting side.
- 2. Align the groove on the handle with the opening of the blade.
- 3. Slide the blade into the handle until it clicks into place.

#### **FEATHER® BLADES**

Used for skin incision and tissue separation. All stainless steel scalpel blades are made by Feather, using a precise beveling technique to create the edge's micron sharpness. These are the finest blades available.

- Sterile
- 100 per box

504169	#10 Feather Blades for Handles #3 or #7
504170	#11 Feather Blades for Handles #3 or #7
504171	#12 Feather Blades for Handles #3 or #7
504172	#15 Feather Blade for Handles #3 or #7
504173	#20 Feather Blades for Handle #4
504174	#21 Feather Blades for Handle #4
504175	#22 Feather Blades for Handle #4
504176	#23 Feather Blades for Handle #4
504177	#24 Feather Blades for Handle #4



#### STANDARD BLADES

- · Surgical quality
- Exceptionally strong and uniformly sharp
- A good alternative to Feather
- 100 per Box

500239	#10 Standard Blades for Handles #3 or #7
500240	#11 Standard Blades for Handles #3 or #7
500242	#15 Standard Blades for Handles #3 or #7
500243	#20 Standard Blades for Handle #4
500244	#21 Standard Blades for Handle #4
500245	#22 Standard Blades for Handle #4
500246	#23 Standard Blades for Handle #4
500247	#24 Standard Blades for Handle #4
500248	#25 Standard Blades for Handle #4









#### **BLADE SAFE SURGICAL BLADE REMOVER**

• Remove blades easily and safely from any style surgical blade handle.

**501335** Blade Safe Surgical Blade Remover



501335

#### MICRO DISSECTING KNIFE

- 13 cm (5.1 in.) Long
- 1 mm Blade, 90° Angle

**14135** Micro Dissecting Knife



14135

#### WORLD PRECISION INSTRUMENTS

#### **DISPOSABLE KNIVES**

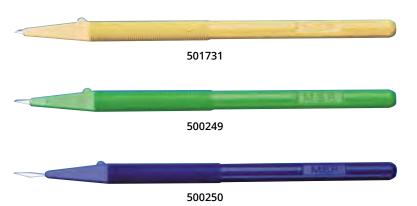
Disposable knives, scalpels and lancets are an affordable solution for sterile surgical instruments.

#### MICROSURGICAL KNIVES

- 13.5 cm (5.25 in.) Long
- Disposable
- Sterile
- 6 per pack

501731 Microsurgical Knife, 15° 3 mm Blade, 500249 Microsurgical Knife, 15° 5 mm Blade

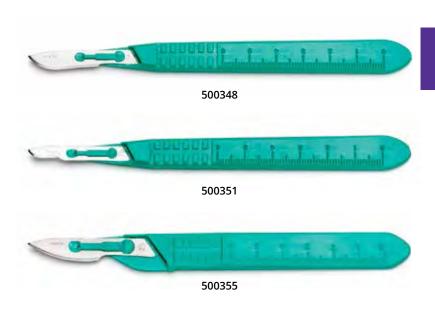
500250 Roundstock Ophthalmic Knife, 15° 5.7 mm Blade



#### **DISPOSABLE SCALPELS**

- · Carbon steel blades
- Non-slip handles
- · Used for incisions and underlying tissue
- Packed 10 per box
- Sterile
- · Individually wrapped

500348 #10 500349 #11 500350 , #12 500351 #15 500352 #20 500353 #21 500354 #22 500355



#### **DISPOSABLE SAFETY SCALPELS**

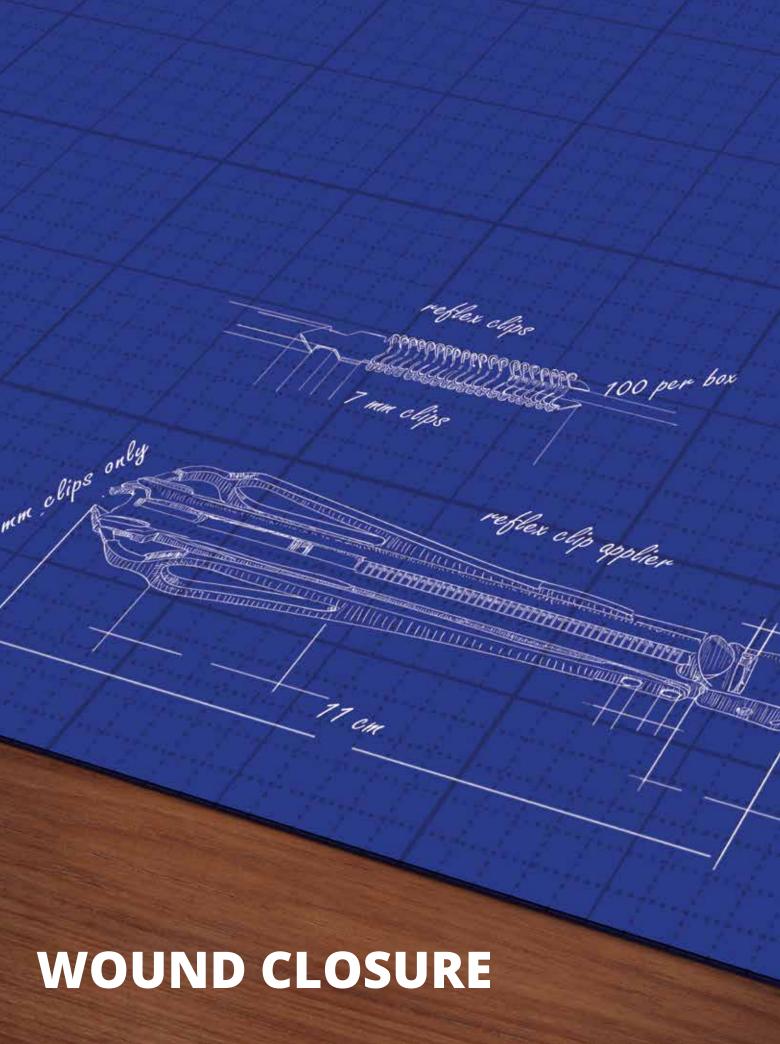
#23

- · Retractable Blade
- Ambidextrous
- 10 per box

501337 #10 501338 #11 501339 #15



501338



#### SELECTING WOUND CLOSURE INSTRUMENTS

Suture instruments are used to ligate, repair and approximate tissue after a surgical procedure.

**Needle holders**, also known as needle forceps or needle drivers, are used in suturing during a surgical procedure. Needle holders typically have a textured tip for a secure hold. Often they have a ratchet (or other mechanism for locking). Some have tungsten carbide inserts in the tips. Tungsten carbide inserts are more durable than stainless steel, last longer and typically offer a better grip. Tungsten carbide (TC) is harder than stainless steel. Look for the gold handles which designate tungsten carbide inserts.

Titanium needle holders are lighter weight, which makes them easier to use during long procedures.

Choose your needle holders based on the size of the needle you are using, so that they securely hold your needle. The smaller the needle, the smaller the needle holder.

**Staples** are designed to be non-crushing when they are inserted into tissue.

This section includes some of our most popular instruments used to aid in wound closure.

**Tissue Adhesives** which you select will depend largely on your biomedical research laboratory application. If you are building electrodes, you might use a silver-filled, conductive epoxy to connect a Ag/AgCl pellet. For instantaneous bonding when mounting a rodent brain slice, you might select an ethyl cyanoacrylate. When you are looking for a low toxicity adhesive with some elasticity and good moisture resistance, a silicone adhesive is the option of choice.

#### SPRING-HANDLE NEEDLE HOLDERS

These squeeze-handle needle holders may be used ambidextrously.

#### MICRO CASTROVIEJO NEEDLE HOLDER

- 9 cm Long
- Round 0.5 cm tips
- Diamond dusted tips
- · Stainless Steel

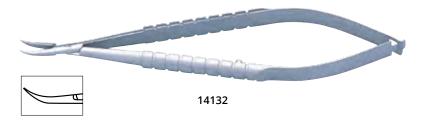
503376 Straight503377 Curved

## 503376 503376

#### **NEEDLE HOLDER**

- 12.5 cm (5 in.) Long
- Curved
- Round handles
- 0.4 mm Tips
- · Smooth laws
- · Stainless Steel

**14132** Needle Holder



#### STEVENS NEEDLE HOLDER

- 13 cm (5 in.) Long
- Straight
- 1 mm Tips
- Serrated
- Stainless Steel

**14133** Stevens Needle Holder

**14133-G** Stevens Needle Holder, **German** 

Standard and German versions may differ slightly in appearance.



#### **NEEDLE HOLDER**

- 0.4 mm Tips
- Smooth jaws with lock
- · Stainless Steel

**503355** 14 cm (5.5 in.), Straight **503354** 20 cm (7.75 in.), Curved



#### **NEEDLE HOLDER**

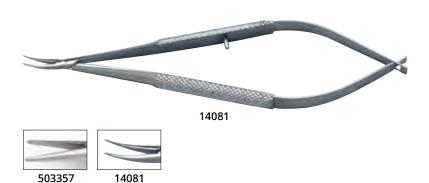
- 14 cm (5.5 in.) Long
- Round handles
- 0.4 mm Tips
- · Smooth jaws
- · Stainless Steel

**14081** Curved

**14081-G** Curved, **German** 

**503357** Straight

Standard and German versions may differ slightly in appearance.



#### CASTROVIEJO NEEDLE HOLDER

- 14 cm (5.5 in.) Long
- 1.2 mm Tips

· Stainless Steel

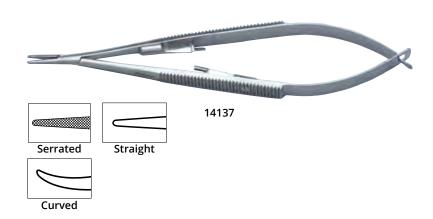
- Lock
- . . . . . .

**14137** Serrated, Straight

14137-G Serrated, Straight, German
 555419NT Serrated, Straight, Titanium
 500223 Straight, Tungsten Carbide Jaws
 500223-G Tungsten Carbide Jaws, German

503257 Smooth, Straight503258 Smooth, Curved

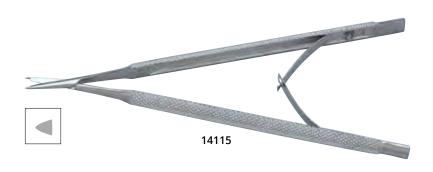
Standard and German versions may differ slightly in appearance.



#### **NEEDLE HOLDER WITH SCISSORS**

- 14 cm (5.5 in.) Long
- Straight
- · Round handles
- 0.3 mm Tips
- Smooth
- · Stainless Steel

**14115** Needle Holder with Scissors



#### **ROUND HANDLED NEEDLE HOLDER**

- 14 cm (5.5 in.) Long
- · Round, hollow handles
- · Smooth jaws
- · Stainless Steel

14207 Straight14206 Curved

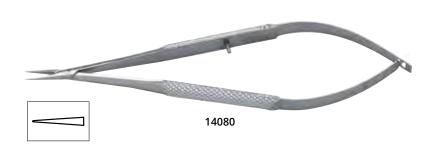


#### **ROUND HANDLED NEEDLE HOLDER**

- 14 cm (5.5 in.) Long
- Round handles
- 0.3 mm Tip
- Smooth
- Stainless Steel

14080 Straight
14080-G Straight, German
14361 Straight, Titanium
WP1530 Curved, Titanium

Standard and German versions may differ slightly in appearance.



#### MATHIEU FINE NEEDLE HOLDER

- 14 cm (5.5 in.) Long
- Serrated
- Tungsten Carbide jaws
- Stainless Steel

**500225** Mathieu Fine Needle Holder

**500225-G** Mathieu Fine Needle Holder, **German** 

Standard and German versions may differ slightly in appearance.



#### CASTRO OLSEN-HEGAR NEEDLE HOLDER

- 15 cm (6 in.) Long
- Lock
- Suture Scissors
- Serrated
- Stainless Steel

**501998** Castro Olsen-Hegar Needle Holder



#### TITANIUM NEEDLE HOLDERS

These needle drivers are constructed of titanium, which offers several advantages for small animal surgical procedures:

- 100% anti-magnetic so it can be used for MRI applications
- · Completely resistant to corrosion from nitric acid, chloride, salt water and industrial and organic chemicals
- Lightweight and strong with the tensile strength of carbon steel
- Titanium is more flexible and 40% lighter than Inox stainless steel
- When heated or cooled, the dimensions of titanium alloy change less than half of what stainless steel alloys will, making titanium surgical instruments much more durable even with autoclaving
- Titanium is stain-free and temperature resistant up to 430°C.

#### **NEEDLE HOLDER**

- 14 cm (5.5 in.) Long
- Straight
- · Smooth jaws
- Titanium

**14361** Needle Holder, Straight



#### BARRAQUER NEEDLE HOLDER

- 11.5 cm (4.5 in.) Long
- Curved
- · 9 mm Delicate jaws
- Sharp
- · Titanium

**WP1690** No Lock **WP1680** Lock



#### TROUTMAN NEEDLE HOLDER

- 11.5 cm (4.5 in.) Long
- Curved
- 10 mm Jaws
- Blunt
- Titanium

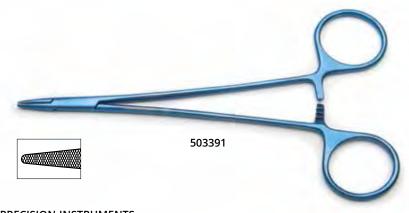
WP3620 Troutman Needle Holder



#### **NEEDLE HOLDER, SERRATED JAWS**

- 16 cm (6.3 in.) Long
- Straight
- Serrated laws
- Titanium

**503391** Needle Holder



#### RING-HANDLE NEEDLE HOLDERS

Our ring handled needle holders all have a ratchet locking mechanism to securely hold your needles.

#### **DERF NEEDLE HOLDER**

- 12 cm (5 in.) Long
- Straight
- · Serrated jaws
- · Stainless Steel

**501246** Derf Needle Holder

**501246-G** Derf Needle Holder, **German** 

Standard and German versions may differ slightly in appearance.



#### MICRO OLSEN-HEGAR NEEDLE HOLDER

- 12 cm (4.75 in.) Long
- Straight
- · Serrated jaws with suture scissors
- 10 mm Jaws
- 2 mm Tips
- · Stainless Steel

**501989** Micro Olsen-Hegar Needle Holder



#### **BRUCE CLARKE NEEDLE HOLDER**

- 12.5 cm (5 in.) Long
- Straight
- · Serrated jaws,
- Stainless Steel

**503219** Bruce Clarke Needle Holder



#### **WOUND CLOSURE**

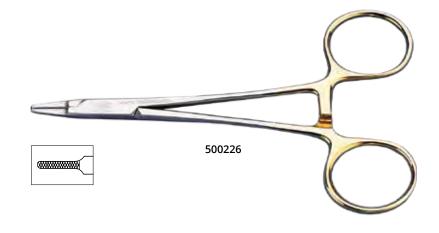
#### RYDER NEEDLE HOLDER

- 13 cm (5 in.) Long
- Straight
- Serrated
- Tungsten Carbide Jaws
- · Stainless Steel

**500226** Ryder Needle Holder

**500226-G** Ryder Needle Holder, **German** 

Standard and German versions may differ slightly in appearance.



#### HALSEY NEEDLE HOLDER

- 14 cm (5.5 in.) Long
- Straight
- Serrated
- Tungsten Carbide jaws
- Stainless Steel

**15926** Halsey Needle Holder

**15926-G** Halsey Needle Holder, **German** 

Standard and German versions may differ slightly in appearance.



#### **WEBSTER NEEDLE HOLDER**

- 12.5 cm (5 in.) Long
- Straight
- 1.2 mm Tips with lock
- · Stainless Steel

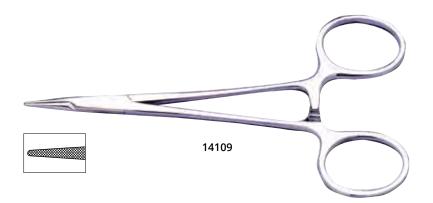
**501843** Smooth Jaw,

**14109** Serrated/Extra Delicate

**14109-G** Serrated/Extra Delicate, **German** 

**501929** Straight

Standard and German versions may differ slightly in appearance.



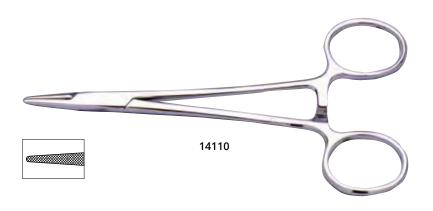
#### HALSEY NEEDLE HOLDER

- 14 cm (5.5 in.) Long
- Straight
- Serrated jaws
- Stainless Steel

**14110** Halsey Needle Holder

**14110-G** Halsey Needle Holder, **German** 

Standard and German versions may differ slightly in appearance.



#### **OLSEN-HEGAR NEEDLE HOLDER WITH SUTURE SCISSORS**

- Straight
- Serrated
- Tungsten Carbide jaws
- Stainless Steel

**501312** 12 cm (4.75 in.) **500227** 14 cm (5.5 in.)

**500227-G** 14 cm (5.5 in.), **German** 

**501725** 16.5 cm (6.5 in.)

**501725-G** 16.5 cm (6.5 in.), **German** 

Standard and German versions may differ slightly in appearance.



#### **OLSEN-HEGAR NEEDLE HOLDER**

- 14 cm (5.5 in.) Long
- Straight
- · Serrated jaws with suture scissors
- · Stainless Steel

500023 Olsen-Hegar Needle Holder

**500023-G** Olsen-Hegar Needle Holder, **German** 

Standard and German versions may differ slightly in appearance.



#### **CRILE-WOOD NEEDLE HOLDER**

- Straight
- Serrated
- Tungsten Carbide jaws
- Stainless Steel

**500224** 14.5 cm (5.75 in.)

500224-G 14.5 cm (5.75 in.), German503741 15 cm (5.9 in.), Left-Handed

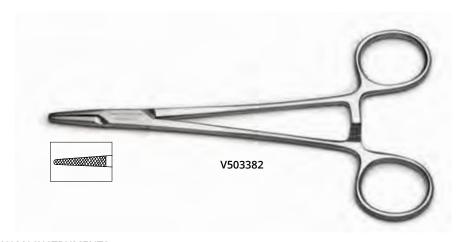
Standard and German versions may differ slightly in appearance.



#### **MAYO-HEGAR NEEDLE HOLDER**

- 15 cm (6 in.) Long
- Straight
- Stainless Steel

V503382 Mayo-Hegar Needle Holder



#### **SKIN STAPLERS**

Surgical staples are commonly used in place of sutures for closing wounds after surgery. Staples are typically faster to apply than suturing by hand. Staple lines are accurate and consistent, preventing wound leakage.

#### **SKIN STAPLER**

The **WPSS01** skin stapler is an affordable, reliable solution for ideal veterinary wound closures.

- Made in the U.S.A.
- · Designed specifically for veterinarians
- · Clear handle makes it easy to spot contaminants
- Uses reloadable cartridges containing 35 stainless steel staples
- · Autoclavable handle
- Improves patient safety by considerably reducing surgery and anesthesia time
- Angled tip design helps you maintain a clear view of the incision line at all times
- · Lightweight but durable with a comfortable ergonomic grip design
- Simple to use simple to reload
- Designed to reduce problems with rotated staples

**WPSS01** Skin Stapler (one staple cartridge included)

WPSS02 Staple Cartridge (35 staples)





Stainless steel skin staples are 3.6 mm high by 6.9 mm wide after closure.

#### **SURGICLOSE SKIN STAPLER**

The SurgiClose™ REP is a reusable device which allows for reloading of sterile multi-feed staples and can be re-sterilized (by autoclave, gas and chemical means) for approximately 100 procedures.

- Extensively engineered materials including surgical stainless steel and thermoplastic resins
- Extremely shallow tissue channel and eversion assisting design
- Sterile staple cartridges sold separately
- Ergonomic design for 5<sup>™</sup> through 95<sup>™</sup> percentile of female/male veterinarians

**504564** SurgiClose REP Skin Stapler, High Temp Autoclavable

**504565** SurgiClose® REP Disposable Cartridges



#### LEVER ACTION SKIN STAPLER 35S WITH 35 PRELOADED STAPLES

This affordable skin stapler's simple design and quality construction provides consistent and reliable performance. It fits comfortably in your hand to enhance control of skin closure and also reduces surgery time.

- 35 staples pre-loaded
- Individually sterile
- · Lever action staplers are the most popular design on the market
- Distinctive staple shuttling feature greatly reduces track friction, a primary cause of jamming
- Short trigger stroke for ease of use and non-stop feed
- · Handle design comfortably fits a wide range of hand sizes
- · Staple lines are more likely to prevent leakage of blood or air
- · Angled head allows visibility of incision to ensure precise staple placement during an operation
- Arrow indicator assists in accurate staple alignment
- Staple count indicator allows you to view staples remaining to help minimize waste
- Quality construction and simple design assure reliable, consistent performance

Lever Action Skin Stapler 35S with 35 Preloaded Staples, Sterile, Staple size:  $5.7 \text{ mm} \times 3.8 \text{ mm}$  or  $6.5 \text{ mm} \times 4.7 \text{ mm}$ 





504562

#### **CLIPS AND CLAMPS**

Save time in surgery using our **reflex clips**. They are a fast, effective suture alternative for wound closure. Choose the 9 mm clips for use in rats or 7 mm clips for mice and young rats. The spring-loaded clip applier is easy to use. You get minimal tissue trauma and maximum holding power. Use the clip remover to extract the clips when the wound heals. The clips, applier and remover are all autoclavable.

Vessel clips are used to clamp arteries or veins during surgical procedures. These vascular clamps come in a variety of shapes and sizes.

#### **REFLEX CLIP APPLIER**

• 11 cm (4.3 in.) Long

500343 For 7 mm Clips500345 For 9 mm Clips



#### **REFLEX CLIP**

- 100 per box
- · Non-sterile
- · Stainless Steel

**500344** 7 mm **500346** 9 mm



500344

#### REFLEX CLIP REMOVING FORCEPS

- 12 cm (4.75 in.) Long
- For 7 mm and 9 mm clips
- Stainless Steel

**500347** Reflex Clip Removing Forceps

# 500347



#### STAPLE REMOVER

- 12 cm (4.5 in.) Long
- For use with Disposable Skin Stapler
- · Stainless Steel

**501830** Staple Remover

#### **APPLYING FORCEPS**

- 18 cm (7 in.) Long
- For silver clips #500087
- · Stainless Steel

**500088** Applying Forceps



#### **WOUND CLOSURE**

#### SILVER CLIPS

- Micro Vascular
- 5.1 mm Long
- 0.5 x 0.8 mm
- 100 per pack
- · Stainless Steel

500087 Silver Clips



- 20 g pressure
- For 0.5 to 1.0 mm Vessel
- · Stainless Steel

14084 Approximator

#### SCHWARTZ VESSEL CLIP

- · Strong Angle
- 1.7 x 8 mm Jaws,
- German

501788-G Schwartz Vessel Clip

500087



14084



501788-G

#### **VESSEL CLIPS**

- 5 per pack
- · Stainless Steel

15911 0.8 x 5 mm Jaws, 10 g Pressure 15913 1 x 6 mm Jaws, 15 g Pressure 14120 1.5 x 5 mm Jaws, 30 g Pressure 14121 1.5 x 8 mm Jaws, 60 g Pressure









14121

#### FROG HEART CLIPS

- 5 per pack
- · Stainless Steel

501902 Two Flat Loops, 2.5 mm Diameter, 24 mm, 501903 Two Flat Loops, 0.6 mm Diameter, 17 mm 501904 Two Flat Tips, 1 x 3 mm Tips, 18 mm



501904

#### **MICRO VESSEL CLIPS**

- Straight
- German

501779-G 0.75 x 4 mm Jaws 501780-G 0.8 x 6 mm Jaws





#### **BULLDOG CLAMPS**

**14119** Micro Bulldog Clamp, 3 cm (1.2 in.), 8x1.2 mm Serrated

Jaws, Curved, Stainless Steel

**14119-G** 3.7 cm (1.5 in.), 11x2.6 mm Serrated Jaws, Curved, **German** 

**14118** Small Bulldog Clamp, 6 cm (2.3 in.), Serrated Jaws, Straight,

Stainless Steel

Standard and German versions may differ slightly in appearance.



#### **DIEFFENBACH BULLDOG CLAMPS**

- 6.5 cm (2.5 in.) Long
- · Serrated jaws
- · Stainless Steel

**14117** Curved

**14117-G** Curved, **German** 

14116 Straight

**14116-G** Straight, **German** 

Standard and German versions may differ slightly in appearance.



#### APPLYING FORCEPS

- 10 cm (4 in.) Long
- For Approximator #14084 and Vessel Clips #14120, #15911, and #14121
- · Stainless Steel

**14189** Applying Forceps



14189

#### **JONES TOWEL CLAMP**

- 9 cm (3.5 in.) Long
- Curved
- Stainless Steel

**V503380** Jones Towel Clamp



#### **BACKHAUS TOWEL CLAMP**

- Curved
- Locking Handle
- Stainless Steel

**501320** 9 cm (3.5 in.)

**501320-G** 9 cm (3.5 in.), **German** 

**501700** 13 cm (5.25 in.)

**501700-G** 13 cm (5.25 in.), **German** 

Standard and German versions may differ slightly in appearance.



123

#### "SUPER" ADHESIVES FOR LIFE SCIENCE RESEARCH

#### Four times stronger than butyl cyanoacrylate and less toxic

Cyanoacrylate adhesives have been on the market since 1958. Most industrial or household grade cyanoacrylate is made of shorter alkyl chain derivatives such as methyl or ethyl cyanoacrylate (7341 and 7342). They are very useful for temporarily holding tissues such as mounting specimens for microtome sectioning. However, they are not suitable for bonding wounds on live animals. The difficulties of using cyanoacrylate for bonding live animals are:

- · A strong, irritating odor.
- Quick loss of bonding strength due to breakdown of the bonding by hydration.
- The breakdown products, cyanoacetate and formaldehyde, are toxic and can cause inflammatory reactions.
- · They have low flexibility and tend to be brittle.

To overcome these problems, several longer alkyl chain cyanoacrylates have been developed especially for veterinary and human use. The first longer alkyl chain product is butyl cyanoacrylate. This product has been used for animal and human applications outside the USA since 1970. It is much less toxic and has a lower odor than the methyl or ethyl cyanoacrylate. The butyl cyanoacrylate offered by WPI is Vetbond™.

A family of adhesives containing octyl cyanoacrylate, a plasticizer and stabilizer, was developed In the 1990's (one of them approved by FDA for human use). When bonding to tissue, these new adhesives are four times stronger and less toxic than butyl cyanoacrylate. Compared with the traditional suture, the new super adhesive has several advantages. On average, it takes only one-tenth of the time to close an incision. The bonding strength is equal to 5-0 monofilament suture. It also has a mysterious antimicrobial effect that can decrease infection rates in contaminated wounds. Bonding will slough off naturally in 5 to 7 days. Cosmetic appearance of the healed incision is also better.

Gluture Topical Tissue Adhesive 503763 forms a strong and flexible film and is thus more suitable for surface wound bonding, protection, and holding a sensor or other device on the tissue. Setting time is about 10 seconds, which gives ample time for application. It can also be used for temporarily holding a live tissue. For example, there is a report of using it to hold nematodes on a glass slide for patch-clamp neurons recording.

All of the products offered by WPI are veterinary grade (not suitable for human application). Though very similar to the grade for human use, they are **not sterile** and **do not have FDA approval**.

#### **CYANOACRYLATE ADHESIVE**

- 10 vials per pack, each approximately 1.5 mL
- Faster healing process
- · Strong bonding
- Anti-microbial

7341 Cyanoacrylate Adhesive, low viscosity—90-120 cps7342 Cyanoacrylate Adhesive, high viscosity—1100-1600



#### **VETBOND TISSUE ADHESIVE**

- · Bonds tissue
- Use in place of sutures for small animal surgery
- · Antimicrobial effect
- · Use in forensic science
- Butyl Cyanoacrylate
- · Low toxicity
- Cures in < 10 seconds

**VETBOND** 3M Vetbond™ Adhesive (3 mL)



#### LIQUIVET RAPID TISSUE ADHESIVE

Fast-acting cyanoacrylate-based tissue adhesive for wound care. Polymerizes in 2 seconds. Ideal for skin closure.

Excellent for quick repair of minor lacerations, abrasions, and other minor wounds.

For veterinary use only. LiquiVet monomeric formulation forms a thin, waterproof adhesion to bond tissue in a variety of vet procedures. Comes in 3 g dispensing bottle with five applicators.

504561 LiquiVet Rapid Tissue Adhesive



504561

#### **GLUTURE TOPICAL TISSUE ADHESIVE**

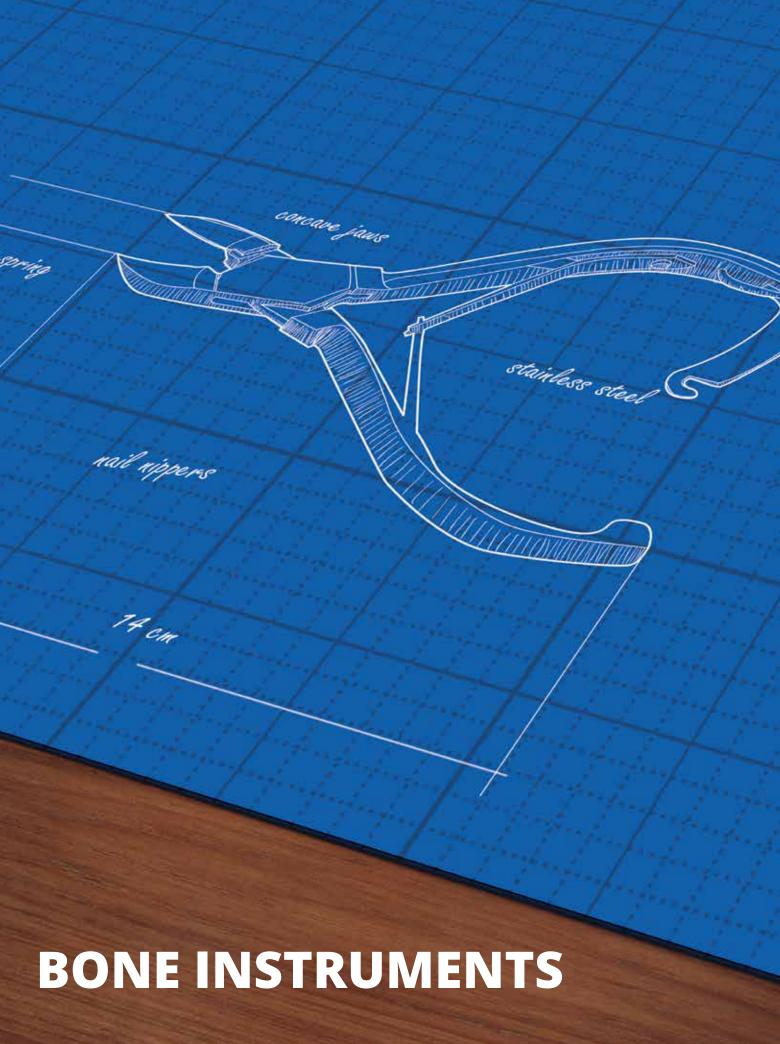
Gluture Topical Tissue Adhesive 503763 forms a strong and flexible film and is thus more suitable for surface wound bonding, protection, and holding a sensor or other device on the tissue. Setting time is about 10 seconds, which gives ample time for application. It can also be used for temporarily holding a live tissue. For example, there is a report of using it to hold nematodes on a glass slide for patch-clamp neurons recording.

- · Strong and flexible
- 10 second setting time

503763 Gluture, 1.5 mL (10 tips)







#### **BONE CUTTERS & RONGEURS**

Rongeurs are like pliers with a heavy, pointed jaw. They are used for gnawing holes in bones during surgery. This could be used in neurosurgery where the surgeon must remove part of the skull to expose the brain. It could be used in an orthopedic surgery or even a cadaver dissection. With the rongeurs, we have bone cutters too. These are also heavy duty instruments designed for manipulating bones during small animal surgery.

- · Manufactured for durability and precise use
- Short tips
- May be used to cut nails, cartilage and skin

#### **BONE CUTTER SCISSORS**

- 10.5 cm Long
- Strong Tips
- · Stainless Steel

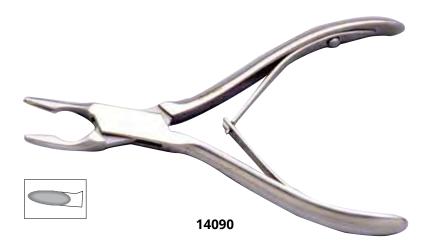
503253 Serrated, Straight
503255 Serrated, Curved
503252 Smooth, Straight
503254 Smooth, Curved



#### MINI BLUMENTHAL RONGEUR

- 11 cm (4.3 in.)
- Durable, strong handles
- Double spring handles
- · Cup shaped tips
- 2 mm Jaw
- · Stainless Steel

14090 Mini BLumenthal Rongeur14090-G Mini BLumenthal Rongeur, German



#### FRIEDMAN RONGEUR

- · Double spring handles
- 2.5 mm Jaw
- Stainless Steel

**14089** 13 cm (5 in.)

**14089-G** 13 cm (5 in.), **German** 

**503295** 15 cm (6 in.)

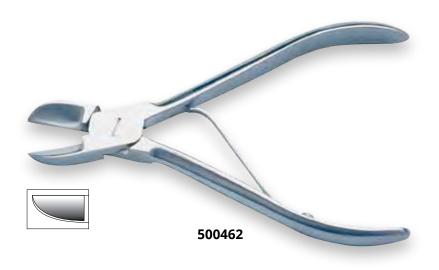
Standard and German versions may differ slightly in appearance.



#### LISTON BONE CUTTING FORCEPS

- Spring handles
- · Stainless Steel

**500462** 14 cm (5.5 in.), Straight **500358** 19 cm (7.5 in.), Straight



#### SINGLE BLADE BONE CUTTER

- 14 cm (5.5 in.) Long
- Double spring handles
- 23 mm (0.9 in.) Jaw
- 1 mm Blade tip
- 2 mm Block tip
- Stainless Steel

**501990** Single Blade Bone Cutter



#### **NAIL NIPPERS**

- 14 cm (5.5 in.)
- Concave jaws
- Double spring handles
- · Stainless Steel

500362 Nail Nippers

**500362-G** Nail Nippers, **German** 

Standard and German versions may differ slightly in appearance.



#### MICRO FRIEDMAN RONGEUR

- 15 cm (5.9 in.) Long
- · Double spring handles
- Stainless Steel

501332 0.8 mm Tip501333 1.0 mm Tip14292 1.3 mm Tip

**14292-G** 1.3 mm Tip, **German** 

Standard and German versions may differ slightly in appearance.



#### **BLUMENTHAL RONGEUR**

- 15 cm (6 in.)
- 3 mm Jaw
- Double spring handles
- Stainless Steel

**14091** Blumenthal Rongeur

**14091-G** Blumenthal Rongeur, **German** 

Standard and German versions may differ slightly in appearance.



#### **BONE CUTTER**

- 11 cm (4.3 in.) Long
- · Oval Cutting Surface
- 1 cm Cup
- · Sharp tips
- · Stainless Steel

**501269** Bone Cutter

#### **NAIL NIPPER**

- 11 cm (4.3 in.) Long
- Sharp tips
- Stainless Steel

500137 Nail Nipper

**500137-G** Nail Nipper, **German** 

Standard and German versions may differ slightly in appearance.



#### **CORNEOSCLERAL PUNCH**

- This corneoscleral punch is an excellent tool for opening the skull of a small animal without damaging the brain or spinal cord.
- The lower jaw of the punch is a flat plate which can be inserted into the skull with much less damage to the brain than a rongeur.
- 8 cm (3 in.)

**500079** 2 mm Wide **500143** 1.5 mm Wide



#### WIRE CUTTERS, TUNGSTEN CARBIDE

- 15 cm (6 in.) Long
- · Tungsten carbide tip
- · No spring
- · Round head
- · Stainless Steel

**503674** Wire Cutters



#### **BONE CURETTES** —

Surgical spoons or scoops are used for scraping or debriding tissue. A surgical spoon, curette or excavator can be used to remove pathologic tissue. A dental curette is used to scrape a carious cavity prior to a filling.

#### **VOLKMAN CURETTE #3**

- 17 cm (6.7 in.) Long
- Oval Cutting Surface
- 1 cm Cup
- Stainless Steel

**503689** Vokman Curette #3



#### **VOLKMAN CURETTE #00**

- 17 cm (6.7 in.) Long
- Oval Cutting Surface
- 5 cm Cup
- · Stainless Steel

**503753** Vokman Curette #00



#### **SCHROEDER CURETTE**

- 22 cm (8.7 in.) Long
- · Oval Cutting Surface
- 3x5 mm Cup
- Stainless Steel

**503429** Schroeder Curette



#### **MISCELLANEOUS CURETTES & MORE**

This collection contains a variety of curettes, spatulas, probes and dissectors for research applications and dissection..

#### **MEYERHOEFER CURETTE**

- 1.5 mm Diameter
- · Stainless Steel

**501773** 14 cm (5.5 in.)

**501773-G** 14 cm (5.5 in.), **German** 

Standard and German versions may differ slightly in appearance.

### 501773

#### **MEYHOEFER CURETTE**

- 13 cm (5.1 in.)
- · Stainless Steel

504772 Size 0, 1.50 mm Diameter
504769 Size 2, 2.25 mm Diameter
504770 Size 3, 2.50 mm Diameter
504771 Size 4, 3.50 mm Diameter



#### PERFORATED SPOON

- 15 cm (5.9 in.) Long
- Bowl diameter 20 mm (0.8 in.)
- · Stainless Steel

**501997** Perforated Spoon



#### **WELLS ENUCLIATION SPOON**

- 14 cm (5.5 in.) Long
- Stainless Steel

**503762** Wells Enucliation Spoon



#### **BUNGE EVISCERATION SPOON**

- 13.5 cm (5.3 in.) Long
- Stainless Steel

**503761** Bunge Evisceration Spoon



#### **CULLER LENS SPOON**

- 13 cm (5.1 in.) Long
- Stainless Steel

**503760** Culler Lens Spoon



#### PATON SPATULA AND SPOON

- 14 cm (5.5 in.) Long
- Stainless Steel

• **504022** Paton Spatula and Spoon



#### **GROOVE DIRECTOR**

- 15 cm (6 in.) Long
- · Stainless Steel
- V503381 Groove Director



#### **DOUBLE END PROBE AND SEEKER**

- 15 cm (6 in.) Long, Sharp Ends
- Stainless Steel
- **504033** Double End Probe and Seeker



#### KIMURA SPATULA

- 16 cm (6.3 in.) Long
- 2.5 mm Wide, 0.3 mm Thick
- Stainless Steel
- **504773** Kimura Spatula



#### PATON SPATULA AND SPOON

- 14 cm (5.5 in.) Long
- · Stainless Steel

**504022** Stainless Steel, 14 cm (5.5 in.) Long



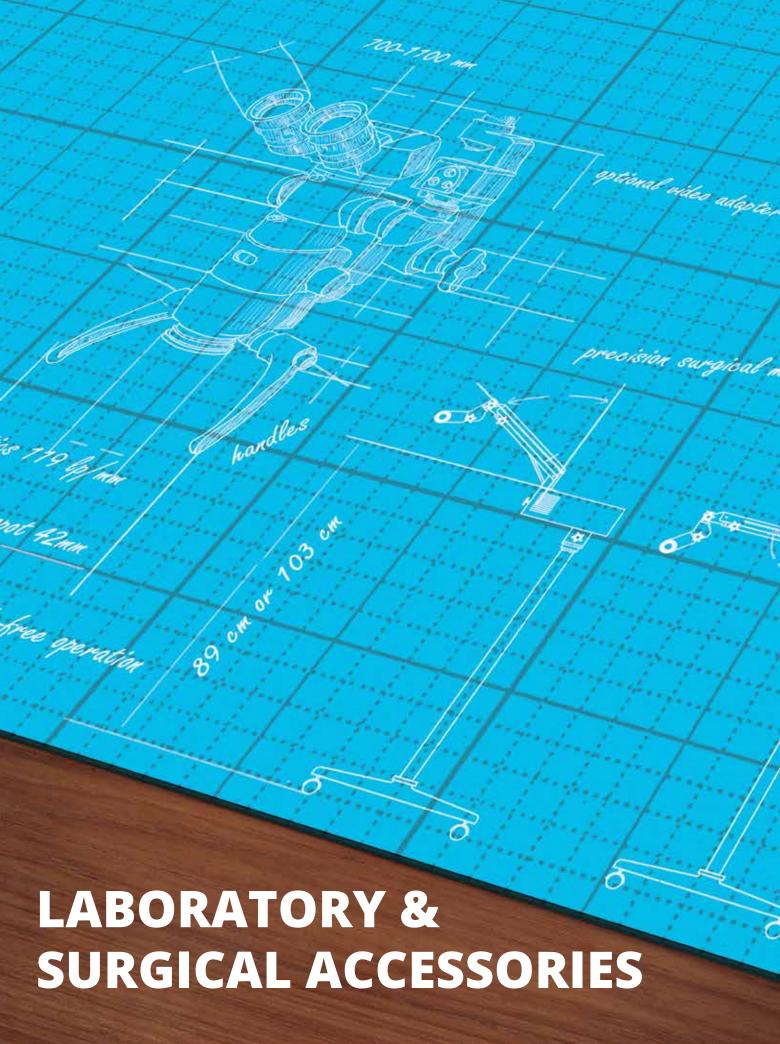
#### **DURA DISSECTOR**

20 cm (7.9 in.) Long Stainless Steel

**503336** Dura Dissector



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#### EAR PUNCHES & TAGS FOR RODENTS

Animal researchers use our ear punches and tags as a method of identifying their research animals. These identification ear tags are perfect for rats, mice, rodents and small animals.

#### **EAR TAGS**

501866 Ear Tags, Pack of 100, Sequence 000-099
501867 Ear Tags, Pack of 100, Sequence 100-199
501868 Ear Tags, Pack of 100, Sequence 200-299
501869 Ear Tags, Pack of 100, Sequence 300-399
501870 Ear Tags, Pack of 100, Sequence 400-499
501871 Ear Tags, Pack of 100, Sequence 500-599
501872 Ear Tags, Pack of 100, Sequence 600-699
501873 Ear Tags, Pack of 100, Sequence 700-799
501874 Ear Tags, Pack of 100, Sequence 800-899
501875 Ear Tags, Pack of 100, Sequence 900-999
501893 Ear Tags, Pack of 1000, Sequence 000-999
504062 Ear Tags, Pack of 1000, Sequence 2000-2999
504063 Ear Tags, Pack of 1000, Sequence 3000-3999
504064 Ear Tags, Pack of 1000, Sequence 3000-3999
504071 Ear Tags, Pack of 1000, Sequence 4000-4999



#### **EAR TAG APPLICATOR**

**503292** Ear Tag Applicator

#### **EAR PUNCH**

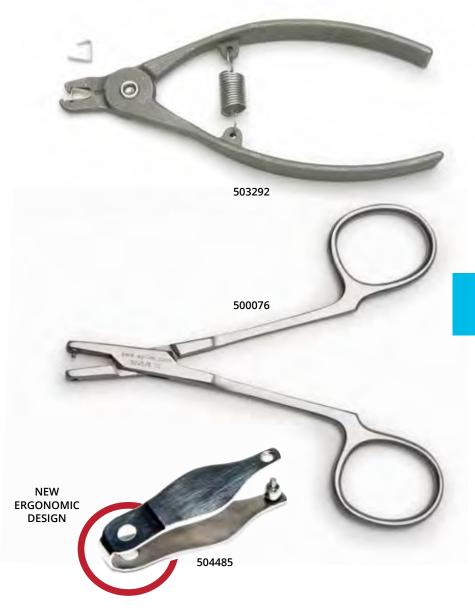
- 10 cm (4 in.) Long
- Stainless Steel

500077 2 mm Diameter500076 1 mm Diameter

#### **EAR PUNCHES**

Stainless Steel

500075 5.7 cm (2.25 in.), 2 mm Diameter
 504485 5.5 cm (2.2 in.), 1 mm Diameter
 504486 5.5 cm (2.2 in.), 2 mm Diameter



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#### BIOPSY PUNCHES

Surgeons and laboratory technicians use biopsy punches and curettes to remove tissue samples. These punches are for use in research laboratories.

#### REUSABLE BIOPSY PUNCHES WITH PLUNGER

- Individual Sterile Packs, Limited Reuse
- Tip material: 304 stainless steel
- Sterilization: ETO (ethyline oxide)

### Rapid-Care - 0.75

504529

#### **APPLICATIONS**

- **Electrophysiology**—Patch recording (various regions of the specimen can be punched prior to separation).
- Biomedical Pharmacology—Collect samples from the brain neurotransmitters for analyzing the metabolic changes in response to active substances, or skin samples to analyze the response of anti aging medications.
- **Anatomy**—Sample brain regions for analysis of neurotransmitter concentrations of mRNA levels.
- Forensic Sampling—WPI punches can easily cut, retrieve, store and eject material like skin, gel, films, paint chips and paper. (Better samples are collected using one of our self-healing cutting mats 504620 or 504621.)
- Microfluidics—Punch flow inlets in microfluidics chambers molded of PDMS (polydimethylsiloxane).

504638	ID 0.3E mm OD 0.63 mm Wall 0.1E mm	504649	ID 3.0 mm, OD 3.4 mm, Wall 0.20 mm
30 <del>4</del> 036	ID 0.35 mm, OD 0.63 mm, Wall 0.15 mm	304043	1D 3.0 111111, OD 3.4 111111, Wall 0.20 111111
504528	ID 0.50 mm, OD 0.80 mm, Wall 0.15 mm	504650	ID 3.5 mm, OD 3.9 mm, Wall 0.20 mm
504529	ID 0.75 mm, OD 1.07 mm, Wall 0.15 mm	504651	ID 4.0 mm, OD 4.4 mm, Wall 0.20 mm
504646	ID 1.0 mm, OD 1.26 mm, Wall 0.15 mm	504652	ID 5.0 mm, OD 5.5 mm, Wall 0.25 mm
504530	ID 1.2 mm, OD 1.5 mm, Wall 0.15 mm	504653	ID 6.0 mm, OD 6.5 mm, Wall 0.25 mm
504647	ID 1.5 mm, OD 1.9 mm, Wall 0.20 mm	504654	ID 7.0 mm, OD 7.5 mm, Wall 0.25 mm
504531	ID 2.0 mm, OD 2.4 mm, Wall 0.20 mm	504655	ID 8.0 mm, OD 8.5 mm, Wall 0.25 mm
50/6/18	ID 2.5 mm OD 2.0 mm Wall 0.20 mm		

# ID 2.5 mm, OD 2.9 mm, Wall 0.20 mm

#### REUSABLE RAPID-PUNCH BIOPSY KIT

The Rapid-Punch consists of a razor sharp cutting tip designed to cut, retrieve and store cored samples from source materials such as tissue, gels, paper, cloth, leaves, paint chips, films or other thin substrates. The Rapid-Punch is recommended as the special DNA sampling tool. It is ideal for forensic and most laboratory sampling purposes. Designed for heavy, numerous and precise sampling operations. It is durable, lasting up to 2000 punches.

504639	Reusable Rapid Punch Kit with 0.5 mm Tip
WP1010	Reusable Rapid Punch Kit with 1.0 mm Tip
WP1212	Reusable Rapid Punch Kit with 1.2 mm Tip
WP2020F	Reusable Rapid Punch Kit with 2.0 mm Tip
WP3030	Reusable Rapid Punch Kit with 3.0 mm Tip
504640	Replacement Tip for Rapid Punch size 0.5 mm
504641	Replacement Tip for Rapid Punch size 1.0 mm
504642	Replacement Tip for Rapid Punch size 1.2 mm
504643	Replacement Tip for Rapid Punch size 2.0 mm
504644	Replacement Tip for Rapid Punch size 3.0 mm
504735	Replacement Plunger for Rapid Punch, 0.5 mm
504736	Replacement Plunger for Rapid Punch, 1.0 mm
504737	Replacement Plunger for Rapid Punch, 1.2 mm
504738	Replacement Plunger for Rapid Punch, 2.0 mm
504739	Replacement Plunger for Rapid Punch, 3.0 mm

Brazil: (013) 406-29703 · info@brazil.wpiinc.com · www.wpiinc.com



#### DISPOSABLE BIOPSY PUNCHES — NO PLUNGER

Our disposable biopsy punches have a seamless, stainless steel, razor sharp cutting edge. They are individually packaged in color-coded, transparent, sturdy blister pack to protect the cutting edge. Its ribbed handle provides maximum control and comfort.

Pack of 50

501816 1.5 mm Diameter501817 2.0 mm Diameter501818 3.0 mm Diameter



501818

#### **CUTTING MATS FOR BIOPSY PUNCHES**

- Protect your work surface and the cutting edge of your biopsy punches
- Ensure clean cuts without burrs or rough edges
- Reversible, inert, self-healing cutting mats for biopsy punches
- Sterilize with ethanol
- · 1.5mm thick

Use our cutting mats for clean cuts through your tissue samples. Our mats ensure that your cored sample comes out whole without burrs or rough edges. Our 1.5mm thick, five layer composite cutting mats are reversible, inert and self-healing. These mats are designed for use with your biopsy punches.

**504620** Cutting Mat, 2.5x3 in. **504621** Cutting Mat, 6x8 in.



#### **SWABS & BRUSHES**

Absorbent paper points are perfect for small surgeries, micro cleaning brushes are an excellent choice for cleaning fine surgical instruments, and our foam swabs work well as solvent applicators.

#### **ABSORBENT PAPER POINTS**

- · Made from highly absorbent paper
- Uniformly rolled to ensure correct size
- · Good for very small areas

**504179** Sterile, C

**504180** Sterile, Extra Fine

**504181** Sterile, #15 **504182** Sterile, M



#### MICRO CLEANING BRUSHES

- · Bendable handles
- Can be used to apply small amounts of liquid or to clean small areas
- Lint free
- Non-absorbent
- 2 mm diameter fiber head

**503231** Vial of 100



503231

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#### **LABORATORY & SURGICAL ACCESSORIES**

#### MEDIUM POINTED WRAPPED SWAB

Durable wrapped foam swabs designed for precise applications. Our wrapped foam swabs provide good particle entrapment and work well as solvent applicators. The small tips on many of the styles allow use in very tight tolerance areas. With the most durable head of any foam swabs, wrapped foam delivers superior abrasion resistance for removal of tough contaminants. Wicking action pulls solvent from surfaces. The small tip allows use in very tight tolerance areas, while the pointed end works especially as pick.

- Handle: nylon Head: polyurethane foam
- Swab length: 7.1 cm (2.8 in.)
- Handle width: 2.5 mm (0.10 in.)

**504525** Medium Point, 125 per pack

- Head length: 27.5 mm (1.08 in.)
- Head thickness: 3.6 mm (0.14 in.)
- Head width: 3.6 mm (0.14 in.)



#### **SMALL POINTED SEALED FOAM SWAB**

Economical general purpose swabs. Best solvent retention. The most cost-effective swabs for general purpose applications. 100 ppi reticulated medical grade foam provides excellent particle entrapment. The open cell structure gives the best solvent holding ability of any style of swab. These swabs are free of adhesives or binders that could contaminate your application. Fiber-less construction does not generate particles.

- Handle: polypropylene
- · Head: polyurethane foam
- Swab length: 8.0 cm (3. 2 in.)
- Handle width: 2.4 mm (0.10 in.)

**504526** Small Pointed, Sealed, 125 per pack

- Head length: 9.9 mm (0.39 in.)
- Head thickness: 2.7 mm (0.11 in.)
- Head width: 3.3 mm (0.13 in.)

504526

#### **CATHETERS**

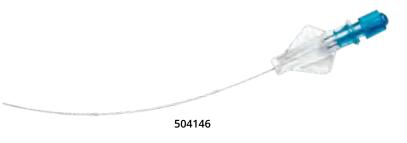
Catheters (used for sampling or dosing) can vary and depend on access or animal size. We carry catheters used for common applications. All catheters are ETO sterilized. Need a custom design? Tubing diameters, material, beads, shapes and lengths of existing products can be modified, as necessary. Call us with your requirements at (866) 606-1974 (Toll free in the USA).

#### VASCULAR & ARTERIAL CATHETERS FOR MICE

504143 Carotid Artery Catheter, 32G, 82 mm, 1 per pack504144 Femoral Artery Catheter, 110 mm, 1 per pack

#### TAIL VEIN CATHETERS

504147 Catheter for Mouse, 29G Cannula, 1 per pack504148 Catheter for Rat, 23G Cannula, 1 per pack



#### MICRO CANNULA

This micro cannula is ideal for placement in the carotid or femoral artery of mice, rats and other small animal blood vessels. It can be used with a pressure transducer (WPI'S **BLPR2**) for blood pressure measurement, or in conjunction with a micro-syringe injection system (like WPI's **UMP3** or **MMP** pumps). The incorporated standard female luer fitting makes connecting to existing experimental plumbing quick and easy. The cannula is provided with a contoured-tip stainless steel stylet (trocar) to facilitate placement using established techniques. A movable "shoulder" ring provides a tie-in point to prevent accidental removal. The cannula may be left in place for two hours or more, and with proper care and cleaning, may be reused multiple times. Instructions for use included.

- · Biocompatible Perflourocarbon Tubing Material
- 3 in
- Autoclavable
- 0.4 mm OD
- 0.2 mm ID

**KZ1101** 3 in., Autoclavable, 3 in., 0.4 mm OD, 0.2 mm ID



#### **OTHER SURGICAL ACCESSORIES**

This surgical instrument category includes a variety of items a researcher may need, like gloves, surgical instrument cases, cannulas and a surgery table that is perfect for rodents.

#### MAGNETIZER/DEMAGNETIZER

Instantly magnetize or demagnetize small surgical instruments and small steel parts that are over 1.3" in length and 1/8" in diameter. No batteries or electricity required. The box is high quality molded ABS plastic, impact resistant and cadmium free. Dimensions are 2"x2"x1" The innovative step design lets you control the level of magnetism imposed on your tools.

To magnetize a tool — Insert tool into the "+" opening and slide back and forth. Continue this procedure until the desired level of magnetism is reached. To demagnetize a tool — Insert tool at the lowest "-" opening. Slide back and forth. Continue the procedure, moving up to the next step until the tool is completely demagnetized.

**501900** Magnetizer/Demagnetizer



501900

#### NITRILE EXAM GLOVES, EXTRA THICK, POWDER FREE

- Latex-free exam gloves for durability and safety
- Ambidextrous
- · Non-sterile, single use, disposable
- 100 gloves per box, 10 boxes per case
- Key Differentiator: High elongation of 550%

#### **BENEFITS**

- 5 Mil thickness for improved puncture resistance
- · Micro-textured finish delivers improved grip

Robust® Blue Nitrile Powder-Free Examination Gloves are made from a special Nitrile (NBR) compound. They are ambidextrous and non-sterile. Each batch of gloves is air-tested to detect pinholes. Their 5 Mil thickness offers superior puncture resistance, and their micro-textured finish delivers improved grip.

WP-93896 Gloves, Nitrile Powder-free, Small, Blue, Case of 10 boxes WP-93897 Gloves, Nitrile Powder-free, Medium, Blue, Case of 10 boxes WP-93898 Gloves, Nitrile Powder-free, Large, Blue, Case of 10 boxes WP-93899 Gloves, Nitrile Powder-free, X-Large, Blue, Case of 10 boxes WP-93896-1 Gloves, Nitrile Powder-free, Small, Blue, Box of 100 WP-93897-1 Gloves, Nitrile Powder-free, Medium, Blue, Box of 100 WP-93898-1 Gloves, Nitrile Powder-free, Large, Blue, Box of 100 WP-93899-1 Gloves, Nitrile Powder-free, X-Large, Blue, Box of 100



#### **LABORATORY & SURGICAL ACCESSORIES**

#### **ERGONOMIC MICRO-SHEAR FLUSH CUTTER**

Micro-shears utilize a shearing cut to provide a clean and smooth cut. Anti-shock shear cutting greatly reduces mechanical shock delivered to the component and requires less effort to cut a wire as compared to compression wire cutters.

- Optimized to work in high density areas.
- Rockwell hardness of 55-57 RC.
- Cutting capacity: 18 AWG (1.02 mm) soft wire.
- · Stainless Steel

The ergonomic design offers several benefits:

- Ergonomic handle reduces repetitive motion strain
- Anti-slip rubber outer surface for improved grip
- · Perfect stiffness for increased productivity
- Easy pick up with or without gloves
- Ultimate operator comfort from UCP intelligent design
- · ESD-safe material

**504749** 12.7 cm (5 in.), Black Blades

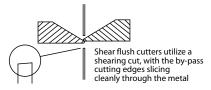


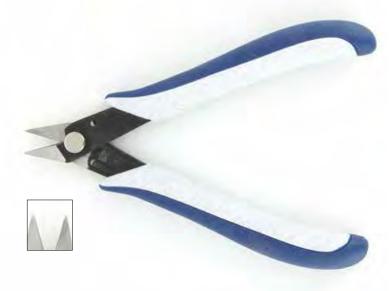
#### **ERGONOMIC MINI-SCISSORS**

- Innovative design of these cutters lessens operator hand strain
- 12.7 cm (5 in.) Long
- Cutting capacity: 20 AWG (0.8 mm) soft wire
- 0.005" (0.127 mm) mylar, plastic and shielded cable
- · Stainless Steel

504750

Ergonomic Mini-Scissors





#### **ERGONOMIC MICRO-SHEAR FLUSH CUTTER**

- Size and shape of these cutters are optimized to work in high density areas
- 12.7 cm (5 in.) Long
- Cutting capacity: 16 AWG (1.29 mm) soft wire
- Polished blades
- Stainless Steel

**504751** Ergonomic Micro-Shear Flush Cutters



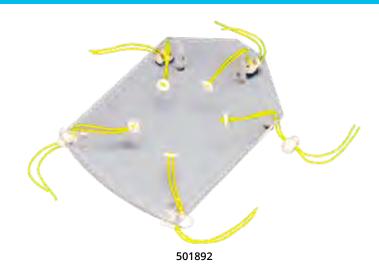
#### **LABORATORY & SURGICAL ACCESSORIES**

#### **SURGERY TABLE**

Constructed of clear acrylic, this economical surgery table features adjustable nylon cords for fast animal restraint and a slight incline for easy viewing. The acrylic construction is durable, yet easy to clean. The nylon cords can be adjusted at the point of contact with the animal and also under the table itself. The surgery table is designed for use in dissecting small animals such as frogs, birds, mice, rats, guinea pigs, etc.

- · Acrylic
- 20x14.5 cm
- 4 cm High (Rear)
- 2 cm High (Front)

**501892** Surgery Table



#### **INSTRUMENT PORTFOLIO**

Store your instruments in style. Elastic bands hold instruments in place against soft velveteen fabric. Portfolio folds in half and zips closed. Large portfolio holds up to 40 instruments, and the small portfolio holds up to 10.

**501319** Large **503294** Small

**501838** Canvas Pouch for Instruments



**501838** Instruments not included.

#### DISSECTABLE™ DISSECTION BOARD

#### Clean, safe, efficient way of handling infectious tissue specimens

A new and unique approach makes this dissection board more convenient than any other found on the market today. Made of heavy-duty stain resistant thick polyethylene, it will last for years to come without bending.

- · Reusable polyethylene
- Two sizes 575 x 400 cm or 330.2 x 279.4 cm
- Stain resistant
- Double sided one large area, or two smaller areas on opposite side
- Carved drain groves
- · Dimensional scales in centimeters and inches

WP-618	DissecTable Dissection Board, Small, 13 x 11 x 0.5", Case of 96
WP-620	DissecTable Dissection Board, Large, 23 x 16 x 0.5", Case of 48
WP-625	DissecTable Dissection Base for WPI-620, 23 x 16 x 0.5"



#### DISPO-CUT™ DISSECTION BOARD

#### Clean, safe, efficient way of handling infectious tissue specimens

The DispoCut™ Disposable Dissection Board is strong but inexpensive enough to throw away. It is a clean, safer and more efficient way of handling infectious tissue specimens. Ideal for pathology labs, medical schools, classroom dissections, forensic labs, medical research labs, pharmaceutical labs, surgery and more. When sterilizing, DispoCut™ may be safely wiped down with alcohol or autoclaved. Reversible.

- · Reversible
- Printed imperial and metric dimensional scales in inches, centimeters and millimeters
- Seven dimensional circles from 4 to 16 mm and five larger ones from 2 to 6 cm in diameter
- Strong surface will not dull knifes but well suited for using dissecting pins
- Temperature performance range: -27°C to 71°C (17°F to 160°F)
- · Melting point: 162°C (324°F)

WP-630-1 DispoCut Dissection Board Small 6x8" Case of 96
 WP-630-2 DispoCut Dissection Board Medium 9x12" Case of 48
 WP-630-3 DispoCut Dissection Board Large 12x19" Case of 24



### **OMNIDRILL35 MICRO DRILL**

Drill, grind or finish bone or teeth

### **FEATURES**

- Excellent tool for grinding, finishing, and drilling bone and other material
- High-torque motor (35,000 rpm) is quiet
- Includes foot switch

### **BENEFITS**

- Removable nose cone that can be cleaned and sterilized
- · Consistent power for the duration of its use
- Variable speeds so you control the amount of heat generated

### **APPLICATIONS**

Grinding, finishing, cutting and drilling bone, teeth and other material

This line-powered micro drill will make easy work of grinding, finishing, cutting and drilling bone, teeth and other material. The high-torque 35,000 rpm (maximum) motor is quiet and has minimal vibration which reduces wear on the motor and provides greater comfort for you. It also features a forward and reverse switch, "E Type" handpiece and handpiece holder. The handpiece has a removable nose cone that can be cleaned and sterilized. It accepts 3/32" and 2.33 mm bur shanks. Unlike battery-powered drills, this unit maintains consistent power for the duration of use. The wide range of speeds allows you to control the amount of heat generated.

503598 OmniDrill35 Micro Drill System, 110 V
 503599 OmniDrill35 Micro Drill System, 220 V

Stand, tips, cutoff disk, mandrels and footswitch are all included. Replacements available below.

### OMNIDRILL35 SPECIFICATIONS

INPUT 110 V, 50/60 Hz (**503598**) 240 V, 50/60 Hz (**503599**)

OUTPUT 0-32 VDC FUSE 1 A

OPERATING SPEED 0-35,000 RPM
DIMENSIONS 178 x 114 x 89 mm (7 x 4.5 x 3.5 in.)

WEIGHT 1.7 kg (3.75 lb)









### OPTIONAL ACCESSORIES/REPLACEMENT PARTS

501850	Abrading Tip, Rubber, 5 per pack
501851	Abrading Tip, Stone, 5 per pack
501852	Accessory Stand
501853	Ball Mill, Carbide, #1, 0.031" Diameter, 5 per pack
501854	Ball Mill, Carbide, #2, .0039" Diameter, 5 per pack
501855	Ball Mill, Carbide, #3, 0.047" Diameter, 5 per pack
501856	Ball Mill, Carbide, #4, 0.055" Diameter, 5 per pack
501857	Ball Mill, Carbide, #5, 0.063" Diameter, 5 per pack
501858	Ball Mill, Carbide, #6, 0.071" Diameter, 5 per pack
501842	Ball Mill, Carbide, #7, 0.083" Diameter, 5 per pack
501860	Ball Mill, Carbide, #1/4, 0.019" Diameter, 5 per pack
501861	Ball Mill, Carbide, #1/2, 0027" Diameter, 5 per pack

501862 Cutoff Disk, 20 per pack
501863 Mandrel, Screw, 5 per pack
501864 Mandrel, Threaded, 5 per pack

**504459** Footswitch

502237 Stereotaxic Holder for OmniDrill35 Microdrill503563 Micro Drill Accessories Kit (assorted bits & stand)







### PRECISION SURGICAL MICROSCOPE

Ideal for small animal surgery

### **FEATURES**

- · Motorized focusing system, allows hands-free operation
- Optional video adapter
- Improved optics 119 lp/mm
- · Convenient handles
- New head tilting mechanism

### BENEFITS

- Light weight, compact and easy to maneuver
- Dual bulbs prevent illumination failure during surgery
- Five magnification steps

### **APPLICATIONS**

- Small animal surgery
- Veterinary surgery

WPI's improved precision **SurgioScope** (now with five magnification steps) is a portable, high quality surgical microscope offering outstanding image quality and value. Incorporating an agile extension arm and excellent working distance objectives, the SurgioScope provides convenient movement and maneuverability necessary for accurate positioning. These important features, together with a high quality optical system, provide sharp image contrast and enhanced large field of vision. The SurgioScope comes fully equipped with a footcontrolled motorized focusing system, normally only found in more expensive surgical microscopes. A unique dual lamp housing enables safe and rapid changing of the lamp during an operation, without the need to power down. The optional video port on the trinocular version permits operational procedures to be monitored or recorded simultaneously using a video recorder and a **COLCAM** video camera or digital stills with **USBCAM50**.

### SURGIOSCOPE SPECIFICATIONS

TOTAL MAGNIFICATION (F200) 3.2x-25x ADJUSTABLE DIOPTER  $\pm$  6 Diopter

ADJUSTABLE INTERPUPILLARY DISTANCE  $\,$  min. 50 mm - max. 70 mm  $\,$ 

EYEPIECE 12.5x
FINE FOCUS ADJUSTMENT RANGE 30 mm
WORKING HEIGHT (Arm Movement Range Above Floor)

89 cm Post.....Focus from 34.5" (88 cm) to 51" (130 cm) above floor \* 103 cm Post. Focus from 40.5" (103 cm) to 57" (146 cm) above floor \*

\* Subtract Working Distance for height above specimen, 103 cm post recommended for F350 objective.

recommended for F330 objective.

RANGE OF MOTION

Maximum Stretch Radius of Arm .. 870 mm Vertical Movement Range .............. 700-1100 mm

ILLUMINATION

Spot = 42 mm

Dual lamp housing with quick-change spare and internal coaxial fiber

optic cable.

HALOGEN-TUNGSTEN LAMP

12 V, 100W, with cold reflection
OPTIONAL CAMERA

COLCAM. USBCAM50 (½" CCD)

USBCAM33 (1/3" CCD)

POWER 110 V, 50-60 Hz, or 220 V, 50-60 Hz

SHIPPING WEIGHT 94 lb. (43 kg)



Objectives									
Objective	Working Distance	Magnification step	Visual Field of view (mm)	Camera field 1/2" CCD (mm)	Camera field 1/3" CCD (mm)				
<b>F100</b> #504284	90 mm	6.4, 10, 16, 26, 40x	25, 15.5, 10, 6, 4	25, 15.5, 10, 6, 4.5	17.5, 11.5, 7, 4.6, 2.8				
F200 (included)	190 mm	3.2, 5, 8, 13, 20x	50, 31, 20, 12, 8	50, 31, 20, 12, 8	35, 23, 14, 9, 5.5				
<b>F250</b> #504285	240 mm	2.6, 4, 6.4, 10.4, 16x	65, 40, 25, 16, 10	63, 40, 25, 16, 10	45, 28, 18, 11, 7				
<b>F300</b> #504286	290 mm	2.1, 3.3, 5.3, 8.7, 13x	75, 46.5, 30, 18, 12	75, 46.5, 30, 18, 12	52.5, 34.5, 21, 13.5, 8.3				
<b>F350</b> #504287	340 mm	1.8, 2.9, 4.6, 7.4, 11x	91, 57, 36, 22, 14	88, 55, 35, 21, 13	60, 38, 24, 15, 9.5				
Fc	For additional objectives and specifications, see www.wpiinc.com								

PSMB5N Binocular SurgioScope, F200 objective

**PSMT5N** Trinocular SurgioScope, Beam Splitter, Standard Video Adapter, F200 Objective

Specify 89 cm or 103 cm post. Specify line voltage.

### OPTIONAL ACCESSORIES/REPLACEMENT PARTS

501636	1/2" CS-mount Adapter (requires Beam Splitter 501637)
501637	Beam Splitter
504284	F100 Objective
504285	F250 Objective
504286	F300 Objective
504287	F350 Objective
500162	Replacement lamp, 12 V, 100 W

### **RETRACTORS & EYE SPECULUMS**

Retractors are used to hold an incision or a wound open, or to hold an organ or tissue out of the way to expose what is underneath. We stock three broad categories of retractors.

**Self-retaining retractors** have a mechanical devise for holding the tissue during surgery, allowing hands free operations. Self-retaining retractors have a screw, ratchet or some type of clamp to hold the tissue by itself. These allow the surgeon to operate with two free hands.

**Hand retractors** must be held by an assistant, a robot or the surgeon during a procedure.

**Wire Retractors** are the simplest style of retractor. Usually the wire has some spring so that the surgeon can pinch it together, position it and release it. These also free up the surgeon's hands.

Our most common retractors include the Belfour, Gelpi, Weitlaner, Barraquer, Wire and Stevenson retractors.

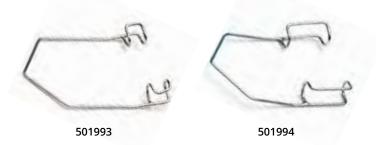
### **EYE SPECULUMS**

Eye Specula may be fixed or adjustable and are used in eye surgery procedures.

### **WIRE SPECULUM**

- 4 cm (1.6 in.) Long
- Maximum Spread 15 mm
- Stainless Steel

**501993** 5 x 5 mm Blades, 5 mm Depth **501994** 13 x 5 mm Blades, 7 mm Depth

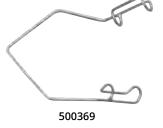


### BARRAQUER SPECULUM

- 4 cm (1.5 in.) Long
- 10 x 4 mm Blades
- · 7 mm Depth
- Maximum Spread 3 cm
- Stainless Steel

**500369** Standard **500369-G German** 

Standard and German versions may differ slightly in appearance.



### **WIRE SPECULUM**

- 5 cm (2 in.) Long
- 10 x 5 mm Blades
- 5 mm Depth
- Stainless Steel

**14130** Maximum Spread 13 mm

**14130-G** Maximum Spread 13 mm, **German** 

**500368** Maximum Spread 25 mm

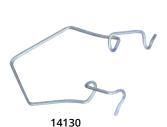
**500368-G** Maximum Spread 25 mm, **German** 



### **WIRE SPECULUM**

- 4.5 cm (1.75 in.) Long
- 13.5 mm Blades
- Maximum Spread 20 mm
- Titanium

**555801L** Wire Speculum







### **LABORATORY & SURGICAL ACCESSORIES**

### **KD MOUSE/RAT EYE SPECULUM**

Stainless Steel

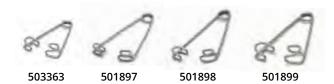
**503363** Extra Small, 2 mm Blades, 1.75 mm Maximum

Spread **501897** 

Small, 2.2 mm Blades, 5 mm Maximum Spread

**501898** Medium, 3.2 mm Blades, 6 mm Maximum Spread

**501899** Large, 4 mm Blades, 1 cm Maximum Spread



### **FIXED RETRACTORS**

Self-Retaining Retractors have a mechanical device for holding tissue during surgery, allowing hands free operations. Self-retaining retractors have a screw, ratchet or some type of clamp to hold the tissue by itself. These allow the surgeon to operate with two free hands.

### AGRICOLA RETRACTOR

Small, self-retaining retractor perfect for small animal surgery and dissection.

- 4 cm (1.6 in.) Long
- 3 x 3 Sharp prongs
- · 2.5 cm Maximum spread
- · Stainless Steel

**501846** Agricola Retractor

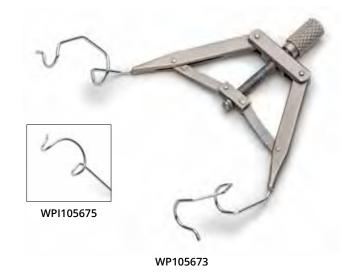


501846

### LIEBERMANN SPECULUM, SELF-RETAINING

- 7 cm (2.8 in.) Long
- 15 mm Wire blades
- 6 cm Maximum spread
- · Stainless Steel

**WP105673** Liebermann Speculum, W Wire **WP1105675** Liebermann Speculum, V Wire





- 7 cm (2.8 in.) Long
- Black Coating
- 15 mm Wire blades
- 6 cm Maximum spread
- · Stainless Steel,

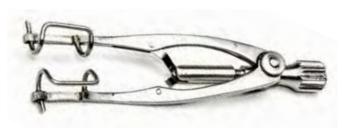
WPB105675 Liebermann Speculum, W Wire, Black



### RETRACTOR, SELF-RETAINING

- 7.5 cm (3 in.) Long
- Maximum spread 3 cm
- Square 1.2 cm blades
- Stainless Steel

**504472** Retractor, Self-Retaining



504472

### ALM SELF-RETAINING RETRACTOR

- 7 cm (2.75 in.) Long
- · Loop prongs
- · Stainless Steel

503675 ALM Self-Retaining Retractor



### MODIFIED ALM SELF-RETAINING RETRACTOR

Smaller, thinner prongs for use on mouse and rat eyelids

- 7 cm (2.75 in.) Long
- 2 x 2 Prongs
- 5.6 cm Maximum spread

501844 Modified ALM Self-Retaining Retractor



501844

### **GOLDSTEIN RETRACTOR**

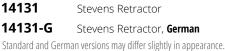
- Small, self-retaining retractor perfect for small animal surgery and dissection
- 3 x 3 Sharp Prongs
- · Stainless Steel

501967 2 cm (0.78 in.), 1.0 cm Maximum Spread 501968 3 cm (1.18 in.), 1.8 cm Maximum Spread 501969 4 cm (1.57 in.), 3.5 cm Maximum Spread



### STEVENSON RETRACTOR

- 8 cm (3 in.) Long
- 3 x 3 Prongs
- 3 mm Deep
- 15 mm Maximum spread
- Stainless Steel





14131

### **LABORATORY & SURGICAL ACCESSORIES**

### ALM SELF-RETAINING RETRACTOR

- 7 cm (2.75 in.) Long
- 4x4 prongs
- 6 cm Maximum spread
- Stainless Steel

**14240** ALM Self-Retaining Retractor

**14240-G** ALM Self-Retaining Retractor, **German** Standard and German versions may differ slightly in appearance.



### **KNAPP SPECULUM**

- 8.3 cm (3.25 in.) Long
- 15 x 6 mm Blades
- 4.6 cm Maximum spread
- Stainless Steel

**14129** Knapp Speculum

**14129-G** Knapp Speculum, **German** 

Standard and German versions may differ slightly in appearance.



### **JANSEN RETRACTOR**

- 11.5 cm (4.5 in.) Long
- 3 x 3 Prongs
- 3 cm Maximum Spread
- Blunt
- Stainless Steel

**501770** Jansen Retractor

**501770-G** Jansen Retractor, **German** 

Standard and German versions may differ slightly in appearance.



### SNOOK OVIARECTOMY HOOK

- 17.7 cm (7 in.) Long
- Stainless Steel

**501289** Snook Oviarectomy Hook



### U.S. ARMY RETRACTOR

- 17.7 cm (7 in.) Long
- Set of 2
- Stainless Steel

**501330** U.S. Army Retractor



501330

### **GELPI RETRACTOR, SELF-RETAINING**

Stainless Steel

**501720** 14 cm (5.5 in.) Long

**501720-G** 14 cm (5.5 in.) Long, **German** 

**501719** 11.5 cm (4.5 in.) Long

Standard and German versions may differ slightly in appearance.



### **SENN RETRACTOR**

- 15.9 cm (6.25 in.) Long
- Stainless Steel

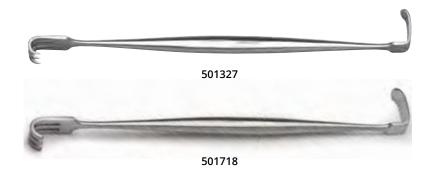
**501327** Sharp

**501327-G** Sharp, **German** 

**501718** Blunt

501718-G Blunt, German

Standard and German versions may differ slightly in appearance.



### WEITLANER RETRACTOR, SELF-RETAINING

- 10.2 cm (4 in.) Long
- 2 x 3 Prongs
- Stainless Steel

**501328** 3 cm Maximum Spread, Blunt

**501328-G** 3 cm Maximum Spread, Blunt, **German** 

**501314** 4 cm Maximum Spread, Sharp

Standard and German versions may differ slightly in appearance.



### WEITLANER RETRACTOR, SELF-RETAINING

- 14 cm (5.5 in.) Long
- 3 x 4 Prongs
- Stainless Steel

**501722** 4.5 cm Maximum Spread, Blunt

**501722-G** 4.5 cm Maximum Spread, Blunt, **German** 

**501721** 4 cm Maximum Spread, Sharp

**501721-G** 4 cm Maximum Spread, Sharp, **German** 

Standard and German versions may differ slightly in appearance.



### **LABORATORY & SURGICAL ACCESSORIES**

### WEITLANER RETRACTOR, SELF-RETAINING

- 16.5 cm (6.5 in.) Long
- 3 x 4 Prongs
- Stainless Steel

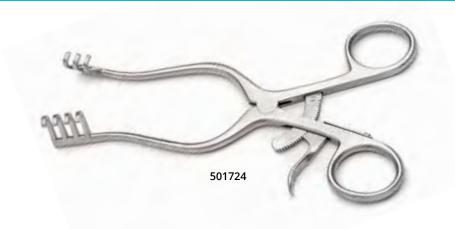
**501724** 6.5 cm Maximum Spread, Blunt

**501724-G** 6.5 cm Maximum Spread, Blunt, **German** 

**501723** 7 cm Maximum Spread, Sharp

**501723-G** 7 cm Maximum Spread, Sharp, **German** 

Standard and German versions may differ slightly in appearance.



### **BABY BALFOUR ABDOMINAL RETRACTOR**

- Works well for most small animals up to 60 lb.
- 9.5 cm (3.7 in.) Maximum spread
- · Stainless Steel

**504197** Baby Balfour Abdominal Retractor



504197

### RETRACTOR, SELF-RETAINING

- For small animal surgery and dissection
- 4.5 cm (1.75 in.) Long
- Maximum spread 2.3 cm
- · Stainless Steel

**503209** Retractor, Self-Retaining



### CASTROVIEJO CALIPERS WITH SCREW LOCK

- Used to measure joints, small bones or to take eye measurements
- 75 mm (3 in.) Long
- 20 mm scale
- Stainless Steel

**501200** Castroviejo Calipers with Screw Lock



### **HOOKS, PROBES**

Hooks and probes may be used for lifting and retracting tissues. For example, a dura hook is used to retract and hold the tough, outer layer of the membrane that encloses the brain, the dura.

### HALVESTON "TEASER" HOOK

- 12.4 cm (4.9 in.) Long
- Stainless Steel

**504061** Halveston "Teaser" Hook



### HALVESTON TISSUE RETRACTOR

- 12.5 cm (4.9 in.) Long
- Thin curved 7mm blade
- Stainless Steel

**503759** Halveston Tissue Retractor



### **TYRELL HOOK**

- 13 cm (5 in.) Long
- Sharp
- Stainless Steel

**14136** Tyrell Hook

**14136-G** Tyrell Hook, **German** 

Standard and German versions may differ slightly in appearance.



### **SCLERAL DEPRESSOR**

- 13 cm (5 in.) Long
- · Double-ended with pocket clip
- Stainless Steel

**503353** Scleral Depressor



### **ENGEL TENOTOMY HOOK**

- 13 cm (5.1 in.) Long
- Double prong
- Sharp tips
- Stainless Steel

**504021** Engel Tenotomy Hook



504021

### **LABORATORY & SURGICAL ACCESSORIES**

### **DESMARRES LID RETRACTOR**

- 14 cm (5.5 in.) Long
- Flat serrated handle

**WP108200** Size 0: Blade 11 mm wide **WP108220** Size 1: Blade 13 mm wide **WP108230** Size 2: Blade 15 mm wide



### **PROBE**

- 14 cm (5.5 in.) Long
- 1.0 mm Diameter
- Stainless Steel

**501313** Probe



### **DISSECTING NEEDLES**

- 14 cm (5.5 in.) Long
- 12 per Box,
- · Stainless Steel

**500458** Straight **500460** Angled



### **WECKER SPATULA**

- 14 cm (5.5 in.), Long
- Stainless Steel

**501772** 3 mm Wide Blade

**501772-G** 2 mm Wide Blade, **German** 



### **GRAEFE HOOK**

- 15 cm (6 in.) Long
- Stainless Steel

**503221** Graefe Hook



### **DURA HOOK**

- 15 cm (6 in.) Long
- Sharp
- Stainless Steel

**503322** Dura Hook



### RODENT ACCESSORY

Safe, simple, effective!

### **FEATURES**

- · Large, stable base
- Hardened blades for long service
- Ambidextrous configuration
- 3 sizes
- · Cuts through bone

### **BENEFITS**

- Blades are drawn together by magnetic force to ensure a clean and precise cut through very strong bones and skin
- · Spring action, locking device prevents blades from accidentally falling
- Fluoropolymer coated base for easy cleanup

### **APPLICATIONS**

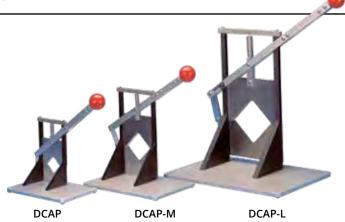
Decapitator

**DCAP** For Rodents/Other Small Animals, 1.5 x 1.5 in. Opening

 $\label{eq:DCAP-M} \textbf{DCAP-M} \qquad \text{For Large Rodents/Other Medium Animals, 2.5 x 2.5 in.}$ 

Opening

**DCAP-L** For Larger Animals, 4.0 x 4.0 in. Opening

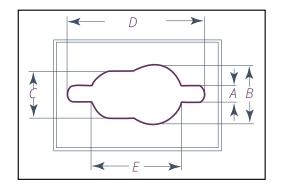


The small animal guillotine is easy to use with extra added safety features. There is a large base for stability, long handle for extra leverage, spring action so the blades can not fall down unexpectedly, hardened stainless blades for endurance, simplified construction for easy maintenance. The fluoropolymer coated surface on the base makes cleaning easy.

The guillotine is considered one of the most humane methods to sacrifice a subject.

### **RODENT BRAIN MATRICES**

WPI offers a large selection of acrylic and stainless steel brain matrices. These matrices are sturdy and can be heated, chilled, autoclaved, scrubbed and stand up to rigorous daily use. Coronal matrices have the additional feature of a mid-line sagittal cut to facilitate splitting of the left and right hemispheres. Sections can be as fine as 1 mm. The olfactory/spinal/notch is cut into each matrix.





### **SPECIFICATIONS**

Order#	Subject	Material	Section	Α	В	C	D	E	Cavit Deptl	vveiviii
RBMA-200C	Adult Mouse, 40-75 g	Acrylic	Coronal	3.18	11.1	8.73	19.1	12.2	7.4	0.5 lb.
RBMA-200S	Adult Mouse, 40-75 g	Acrylic	Sagittal	3.18	11.1	8.73	19.1	12.2	7.4	0.5 lb.
RBMA-300C	Rat, 175-300g	Acrylic	Coronal	4.76	15.9	12.7	36.6	23.8	7.61	0.5 lb.
RBMA-300S	Rat, 175-300g	Acrylic	Sagittal	4.76	15.9	12.7	36.6	23.8	7.61	0.5 lb.
RBMA-600C	Rat, 300g-600g	Acrylic	Coronal	4.76	19.8	14.7	36.6	24.7	10.91	0.5 lb.
RBMA-600S	Rat, 300g-600g	Acrylic	Sagittal	4.76	19.8	14.7	36.6	24.7	10.91	0.5 lb.
RBMS-200C	Adult Mouse	Stainless Steel	Coronal	3.18	11.1	8.73	19.1	12.2	7.4	1.0 lb.
RBMS-200S	Adult Mouse	Stainless Steel	Sagittal	3.18	11.1	8.73	19.1	12.2	7.4	1.0 lb.
RBMS-300C	Rat, 175-300g	Stainless Steel	Coronal	4.76	15.9	12.7	36.6	23.8	7.61	1.0 lb.
RBMS-300S	Rat, 175-300g	Stainless Steel	Sagittal	4.76	15.9	12.7	36.6	23.8	7.61	1.0 lb.
RBMS-600C	Rat, 300g-600g	Stainless Steel	Coronal	4.76	19.8	14.7	36.6	24.7	10.91	1.0 lb.
RBMS-600S	Rat, 300g-600g	Stainless Steel	Sagittal	4.76	19.8	14.7	36.6	24.7	10.91	1.0 lb.

### LUER VALVE ASSORTMENT KIT

Build your own liquid flow experiment

### **FEATURES**

- Over 300 assorted parts
- Luer fittings for quick and easy connect and disconnect

### BENEFITS

Sold individually or in kits

### **APPLICATIONS**

Liquid flow experimental setups

A useful kit (right) for building your own liquid flow experiment. It provides the means to start, stop, add, divide and control a flow of liquid or gas. Included in the kit are over 200 assorted parts such as one-way and three-way stopcocks, manifolds, Y-connectors, injection sites, male and female luer caps, check valves, syringe-activated check



**14011** Luer Valve Assortment Kit

valves, slide clamps, roller clamps, and pinch clamps. All (except clamps) have a luer fitting for quick and easy connecting and disconnecting. Includes assorted luer fittings for use with flexible tubing.

### **LUER-TO-TUBING COUPLER ASSORTMENT KIT -**

Quick connects in nylon and polypropylene

### **FEATURES**

- Over 250 assorted parts in each kit
- Valves are polycarbonate, and the valve handles are polyethylene. Do not autoclave those parts.

### **BENEFITS**

- Polypropylene parts (504954)can be autoclaved repeatedly at 121°C/15PSI, 15 min. cycle
- Polypropylene fittings are chemically inert and resistant to most organic and inorganic solvents
- Nylon fittings are strong and can be bonded with adhesive.

### APPLICATIONS

Liquid flow experimental setups







504955

Assemble quick-disconnect luer fittings for use with flexible tubing with internal diameters of 1/16", 3/32" and 1/8". A variety of quick-disconnect connectors can be quickly made for connecting small diameter flexible tubing; 3-way connections can be made with the use of the 3-way luer tee; luer plugs, tees, connectors, bulk-head mounts, color coding rings, locking nuts, male and female luers—are all included to enhance the versatility of this kit. The kit has over 250 assorted parts and is offered in two different types of materials. Nylon parts are not autoclavable.

**504954** Luer-to-Tubing Coupler Assortment Kit (Polypropylene)

**504955** Luer-to-Tubing Coupler Assortment Kit (Nylon)

### **LUER VALVE ASSORTMENT KIT 14011 PARTS**

Build your own liquid flow experimental setup.













14034-40 Injection Site Male luer lock Pack of 40

**14039-10** Check Valve Pack of 10

14044-5 Syringe Activated Dual Check Valve Pack of 5

14045-20 Syringe Slip Luer Valve Activated Check Pack of 20

**13822-10** 0.135"/3.4 mm OD Tubing Pack of 10

**14041-60**Roller Clamp
3/16" Tubing
Pack of 60

**7465-20**Pinch Clamp
Large Bore
Pack of 20



**14040-50** Pinch Clamp for 7mm Tubing Pack of 50



**3742-20** Female T Luer Pack of 20



**14047-10**4-Port Infusion Y
Swivel Thread
Pack of 10



**14048-20** 3-Port Infusion Y Swivel Thread Pack of 20



**14057-10** 4-Way Stopcock, Luer Lock Pack of 10



14036-15 4-Way Luer Stopcock Pack of 15



**14058-10** 4-Way Stopcock, Luer Lock Pack of 10



**14035-10**4-Way Stopcock,
Luer lock,
Pack of 10



**14051-100**Pinch Clamp for 5 mm Tubing
Pack of 100



14038-10 1-Way Stopcock Luer Lock, Pack of 10



**14054-10** 1-Way Stopcock, Luer Slip Pack of 10



**14055-2** 4-Port Manifold (6 Female Ports) Pack of 2



**14059-2** 3-Port Manifold (5 Female Ports) Pack of 2



**13156-100** Female Luer Fitting for 1/16" ID Tubing Pack of 100



**13157-100**Female Luer
Fitting for
3/32" ID Tubing
Pack of 100



**13158-100**Female Luer
Fitting for
1/8" ID Tubing
Pack of 100



**13159-100**Female Luer
Fitting for
5/32" ID Tubing
Pack of 100



**13160-100**Male Luer
Fitting for
1/16" ID Tubing
Pack of 100



**13161-100**Male Luer
Fitting for
3/32" ID Tubing
Pack of 100



13162-100 Male Luer Fitting for 1/8" ID Tubing

Pack of 100



**13163-100**Male Luer
Fitting for
5/32" ID Tubing
Pack of 100



**14061-60**Male/Female
Luer Plug
Pack of 60



**14042-100** Slide Clamp for 2.5 mm O.D. Tubing Pack of 100

Parts in kit may differ slightly in appearance from those pictured.

### LABORATORY ADHESIVES-

These adhesives are commonly used in a research laboratory.

### **ELECTRICALLY CONDUCTIVE SILVER EPOXY**



Two-component silver-filled epoxy for electrical connections which cannot be soldered, such as Ag/AgCl pellets. This widely used silver-filled epoxy features low viscosity and smooth flowing character. Pure silver is dispersed in both resin and hardener. Cures in 15 minutes at 120 °C. Mix ratio 1:1. May be premixed and frozen for later use.

Shipping weight: 1 lb. (0.5 kg)

4898 Silver Epoxy (1 oz.)

### SILICONE RTV ADHESIVE (NON-ACIDIC)



Because it is non-corrosive, this material is ideal for use on metal, for encapsulating small circuits on connectors. After cure, will withstand -55° to 200 °C. No mixing required.

Shipping weight: 1 lb. (0.5 kg)

7128 RTV Coating (3 oz.)

### **SYLGARD**



A two-part silicone elastomer, ideal for potting and encapsulating applications. Very low dielectric constant sealing compound used in patch clamping and many other lab applications. After cure, will withstand -55° to 200 °C.

Brazil: (013) 406-29703 · info@brazil.wpiinc.com · www.wpiinc.com

Shipping weight: 2 lb. (1 kg)

**SYLG184** Sylgard (1.1 lb)

### **ELECTRICALLY CONDUCTIVE CARBON EPOXY**



Two-component carbon-epoxy, curable at room and elevated temperatures. Ideal for electrostatic discharge protection and EMI/RFI shielding. 1:1 mix ratio. May be premixed and frozen for later use. Shipping weight: 1 lb. (0.5 kg)

7335 Carbon Epoxy (2 oz.)

### SILICONE RTV ADHESIVE



Clear silicone sealant provides good bonding to plastic. After cure, will withstand -55 to 200 °C. No mixing required. A handy, general purpose laboratory sealant. (Releases acetic acid during curing.)

Shipping weight: 1 lb. (0.5 kg)

1571 RTV Sealant (4.7 oz.)

### RTV PRIME COAT

Enhances adhesion of silicone adhesives to many difficult-to-bond plastic surfaces.

Shipping weight: 1 lb. (0.5 kg)

6820 RTV Prime Coat, 400 ml (13.5 oz.)





Comes with three sticks of special formula hot melt glue. UL approved. 110V 60 Hz only. Shipping weight: 1 lb. (0.5 kg)

13316 Mini Glue Gun

### PRECIOUS METAL AND SPECIALTY WIRE-

Bare and coated metal wire for most laboratory applications



Annealed silver wire (AGWxxxx), 99.99% pure, is available in five diameters; three of those sizes are also available with a Teflon coating (AGTxxxx).

Gold wire (AUWxxxx) is 99.99% pure.

**Carbon wire** (C3005) is a single 30-micron fiber of electrochemically activated carbon. This fiber is especially useful in micro-electrochemical experiments.

**Platinum/iridium wire** — uncoated (**PTxxxx**) and Teflon-coated (PTTxxxx) — is an alloy of 90% platinum and 10% iridium, giving excellent tensile strength and corrosion resistance. Uncoated pure platinum wire (PTPxxx) is 99.95% pure.

Stainless steel wire (SSxxxxx) is type 316.

Teflon-coated stainless steel (type 304) wire (SSTxxxx) is available in 25-ft and 50-ft lengths. The Teflon coating is 150 micro-in. thick (4 µm). The Teflon coating is designed to reduce surface friction, only. It is not insulation.

Tungsten wire (TGWxxxx), available in three diameters, is 99.95% pure.

Micro coaxial cables (MAXxxxx) are ideal for microelectrode fabrication and construction of similar research tools. The dual shielding eliminates electrical interference caused by radio frequencies (RF), electrostatic and microphonics (e.g., bending and vibration. Available with single or dual (twin) conductors.

Catalog No.	Metal	Coating	AWG*	Diameter	Precut Length
AGT0510	Silver	Teflon	36	0.005 in. (0.125 mm) <sup>1</sup>	10 ft (3 m)
AGT0525	Silver	Teflon	36	0.005 in. (0.125 mm) <sup>1</sup>	25 ft (7.6 m)
AGT05100	Silver	Teflon	36	0.005 in. (0.125 mm) <sup>1</sup>	100 ft (30 m)
AGT1010	Silver	Teflon	30	0.010 in. (0.25 mm) <sup>1</sup>	10 ft (3 m)
AGT1025	Silver	Teflon	30	0.010 in. (0.25 mm) <sup>1</sup>	25 ft (7.6 m)
AGT10100	Silver	Teflon	30	0.010 in. (0.25 mm) <sup>1</sup>	100 ft (30 m)
AGT1510	Silver	Teflon	26-27	0.015 in. (0.38 mm) <sup>1</sup>	10 ft (3 m)
AGT1530	Silver	Teflon	26-27	0.015 in. (0.38 mm) <sup>1</sup>	30 ft (9.1 m)
AGW0510	Silver	_	36	0.005 in. (0.125 mm)	10 ft (3 m)
AGW0530	Silver	_	36	0.005 in. (0.125 mm)	30 ft (9.1 m)
AGW1010	Silver	_	30	0.010 in. (0.25 mm)	10 ft (3 m)
AGW1030	Silver	_	30	0.010 in. (0.25 mm)	30 ft (9.1 m)
AGW1510	Silver	_	26-27	0.015 in. (0.38 mm)	10 ft (3 m)
AGW1530	Silver	_	26-27	0.015 in. (0.38 mm)	30 ft (9.1 m)
AGW2010	Silver	_	24	0.020 in. (0.5 mm)	10 ft (3 m)
AGW2030	Silver	_	24	0.020 in. (0.5 mm)	30 ft (9.1 m)
AGW4010	Silver	_	18	0.040 in. (1.0 mm)	10 ft (3 m)
AUW0170	Gold	_	50	0.001 in. (0.025 mm)	70 ft (21 m)
AUW201	Gold	_	24	0.020 in. (0.5 mm)	1 ft (30 cm)
C3005	Carbon	_	49	0.0012 in. (30 μm)	5 ft (1.5 m)
PT1002	Platinum / Iridium	_	30	0.010 in. (0.25 mm)	2 ft (61 cm)
PT0402	Platinum / Iridium	_	38	0.004 in. (0.102 mm)	2 ft (61 cm)
PT0203	Platinum / Iridium	_	44	0.002 in. (0.051 mm)	3 ft (91 cm)
PT0110	Platinum / Iridium	_	50	0.001 in. (0.025 mm)	10 ft (3 m)
PTP101	Platinum	_	30	0.010 in. (0.25 mm)	1 ft (30 cm)
PTP201	Platinum	_	24	0.020 in. (0.5 mm)	1 ft (30 cm)
PTP401	Platinum	_	18	0.039 in. (1.0 mm)	1 ft (30 cm)
PTP406	Platinum	-	18	0.039 in. (1.0 mm)	0.5 ft (15.2 cm)
PTT0502	Platinum / Iridium	Teflon	36	0.005 in. (0.125 mm) <sup>1</sup>	2 ft (61 cm)
PTT0203	Platinum / Iridium	Teflon	44	0.002 in. (0.051 mm) <sup>1</sup>	3 ft (91 cm)
PTT0110	Platinum / Iridium	Teflon	50	0.001 in. (0.025 mm) <sup>1</sup>	10 ft (3 m)
SS31605	Stainless Steel	_	36	0.005 in. (0.125 mm)	50 ft (15.2 m)
SS31614	Stainless Steel	-	27	0.014 in. (0.36 mm)	30 ft (9.1 m)
SST30407-25	Stainless Steel	Teflon	33	0.007 in. (0.18 mm) <sup>3</sup>	25 ft (7.6 m)
SST30407-50	Stainless Steel	Teflon	33	0.007 in. (0.18 mm) <sup>3</sup>	50 ft (15.2 m)
TGW0325	Tungsten	_	40	0.003 in. (0.075 mm)	25 ft (7.6 m)
TGW0515	Tungsten	_	36	0.005 in. (0.125 mm)	15 ft (4.6 m)
TGW1510	Tungsten	_	26-27	0.015 in. (0.38 mm)	10 ft (3 m)

### MICROCOAXIAL CABLES

MAX3820	Tinned Cu Alloy	Coaxial	0.0173 in. (0.44 mm)	20 ft (6 m)4
MAX4020	Tinned Cu Alloy	Twin Coaxial	0.0158x0.024 in. (0.4x0.61 mm)	20 ft (6 m)5

<sup>\*</sup>Brown & Sharpe

<sup>1</sup> Plus 0.002 in. for Teflon coating 3 Teflon adds 0.00015 in. (4 µm) to diameter

<sup>4</sup> Impedance: 50 ohm; capacitance: 95 pF/m; resistance: 5 ohm/m 5 Impedance: 100 ohm; capacitance: 54 pF/m; resistance: 1.9 ohm/m

### LABORATORY GLASSWARE

All WPI glassware meets or exceeds current ASTM standards

### **GRIFFIN BEAKERS**

### ASTM E960 Type I

CG-0001	Griffin Beaker, 10 mL, Type I, Pack of 12
CG-0002	Griffin Beaker, 20 mL, Type I, Pack of 12
CG-0003	Griffin Beaker, 30 mL, Type I, Pack of 12
CG-0005	Griffin Beaker, 100 mL, Type I, Pack of 12
CG-0006	Griffin Beaker, 150 mL, Type I, Pack of 12
CG-0007	Griffin Beaker, 250 mL, Type I, Pack of 12
CG-0008	Griffin Beaker, 400 mL, Type I, Pack of 12
CG-0009	Griffin Beaker, 600 mL, Type I, Pack of 6



### **GRIFFIN BEAKERS, HEAVY-DUTY\***

### ASTM E960 Type II

CG-0010	Griffin Beaker, 1000 mL, Type I, Pack of 6
CG-0015	Griffin Beaker, 150 mL, Type II, Pack of 12
CG-0016	Griffin Beaker, 250 mL, Type II, Pack of 12
CG-0017	Griffin Beaker, 400 mL, Type II, Pack of 12
CG-0018	Griffin Beaker, 600 mL, Type II, Pack of 6
CG-0019	Griffin Beaker, 1 L, Type II, Pack of 6
CG-0020	Griffin Beaker, 2 L, Type II, Pack of 4
*25-30	% heavier than standard weight beakers.

### **GRADUATED CYLINDER**

Calibrated "To Deliver"

### Class A, ASTM E1272, E542

CG-0150 Graduated Cylinder, 10 mL, Class A

CG-0151 Graduated Cylinder, 25 mL, Class A

CG-0152 Graduated Cylinder, 50 mL, Class A

CG-0153 Graduated Cylinder, 100 mL, Class A

CG-0154 Graduated Cylinder, 250 mL, Class A

CG-0155 Graduated Cylinder, 500 mL, Class A

### Class B

CG-0160 Graduated Cylinder, 5 mL, Class B

CG-0163 Graduated Cylinder, 50 mL, Class B

CG-0165 Graduated Cylinder, 250 mL, Class B

CG-0166 Graduated Cylinder, 500 mL, Class B

CG-0167 Graduated Cylinder, 1000 mL, Class B

· Includes plastic bumper guards

· White enamel graduations



### MIXING CYLINDER

Calibrated "To Deliver"

### Class A , ASTM E542, E1272

CG-0171 Mixing Cylinder, 25 mL, 0.2 mL div., Class A

CG-0173 Mixing Cylinder, 100 mL, 1 mL div., Class A

CG-0174 Mixing Cylinder, 250 mL, 2 mL div., Class A

### Class B

CG-0180 Mixing Cylinder, 10 mL, 0.2 mL div., Class B

CG-0181 Mixing Cylinder, 25 mL, 0.2 mL div., Class B

**CG-0182** Mixing Cylinder, 50 mL, 1 mL div., Class B

CG-0183 Mixing Cylinder, 100 mL, 1 mL div., Class B

CG-0187 Mixing Cylinder, 2000 mL, 20 mL div., Class B

· White enamel graduations

· Single metric scale

 • 
 \$ stoppers included



For easy connections to filter pumps. Necks are finished to give excellent fitting for rubber stoppers (not included).

### FILTER FLASKS WITH TUBULATION

### **ASTM E1406 Type II, Class 1**

CG-0081 Filter Flask, 50 mL, with Tubulation (8 mm OD), #4 stopper, 6/pkg CG-0082 Filter Flask, 125 mL, with Tubulation (10 mm OD), #5 stopper, 6/pkg CG-0083 Filter Flask, 250 mL, with Tubulation (10 mm OD), #6 stopper, 6/pkg CG-0084 Filter Flask, 500 mL, with Tubulation (10 mm OD), #7 stopper, 6/pkg CG-0085 Filter Flask, 1000 mL, with Tubulation (10 mm OD), #8 stopper, 6/pkg

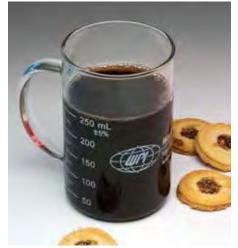
\*25-30% heavier than standard weight flasks.

### **ERLENMEYER FLASKS WITH NARROW MOUTH**

### ASTM E1404, Type I, Class 1

CG-0100 Erlenmeyer Flask, 25 mL, Narrow Mouth, stopper #0, 12/pkg **CG-0101** Erlenmeyer Flask, 50 mL, Narrow Mouth, stopper #1, 12/pkg **CG-0102** Erlenmeyer Flask, 125 mL, Narrow Mouth, stopper #5, 12/pkg CG-0103 Erlenmeyer Flask, 250 mL, Narrow Mouth, stopper #5½, 12/pkg CG-0104 Erlenmeyer Flask, 500 mL, Narrow Mouth, stopper #7, 6/pkg CG-0105 Erlenmeyer Flask, 1000 mL, Narrow Mouth, stopper #9, 6/pkg

### **BEAKER MUG**



This handy 300 mL "Caffeine Beaker" will be right at home in the lab or the office, with your favorite beverage, hot or cold (even those lacking caffeine). Yes, it's heat resistant but is not for use on a burner or hot plate. (Cookies not included.)

CG-9999 Coffee Beaker, 300 mL



**CG-0600** Mortar & Pestle, Glass, 2 oz. (59 mL), 8.9 cm OD **CG-0601** Mortar & Pestle, Glass, 4 oz. (118 mL), 10 cm OD

CG-9998

### **GLASSWARE SAMPLE SET**



Glassware Sample Set

159

### **LABORATORY & SURGICAL ACCESSORIES**

### **DIGITAL CALIPER**

### For easy and accurate measurements

The high quality electronic digital caliper is a useful tool — no laboratory should be without one because it is more accurate and easier to use than the traditional analog devices. Measure in either inches or millimeters at the touch of a button. The floating zero feature allows you to read the increment without calculation. The caliper is made from hardened stainless. The caliper measures up to 150 mm (6 in.) with 0.01 mm (or 0.0005") resolution. The caliper is designed to be water-resistant to IP54 as defined in the IEC529 standard. The IP54 code's first digit "5" means dust-protected. The second digit "4" means that the caliper is protected against splashing water — it can withstand a shower from every direction for 10 minutes.



**501601** Digital Caliper

**502157** Replacement Battery (package of 10)

### NON-ROTATING SPINDLE DIGITAL MICROMETER HEAD

### Build your own precision micro-positioning device

The new non-rotating spindle digital micrometer head allows you to create your own micro-positioning instrument. With micron-level accuracy, it gives higher precision than a normal micromanipulator. Since the spindle does not rotate as it advances, instruments can be directly attached without the need for a complicated decoupling device. The digital display eliminates the need to squint at the notational scale. Readings can be clearly seen in either inches or millimeters. You can read both absolute position and the increment relative to a previously chosen point.

**502102** Non-Rotating Spindle Micrometer Head



### **POWERFUL BALL JOINT RARE EARTH MAGNET**

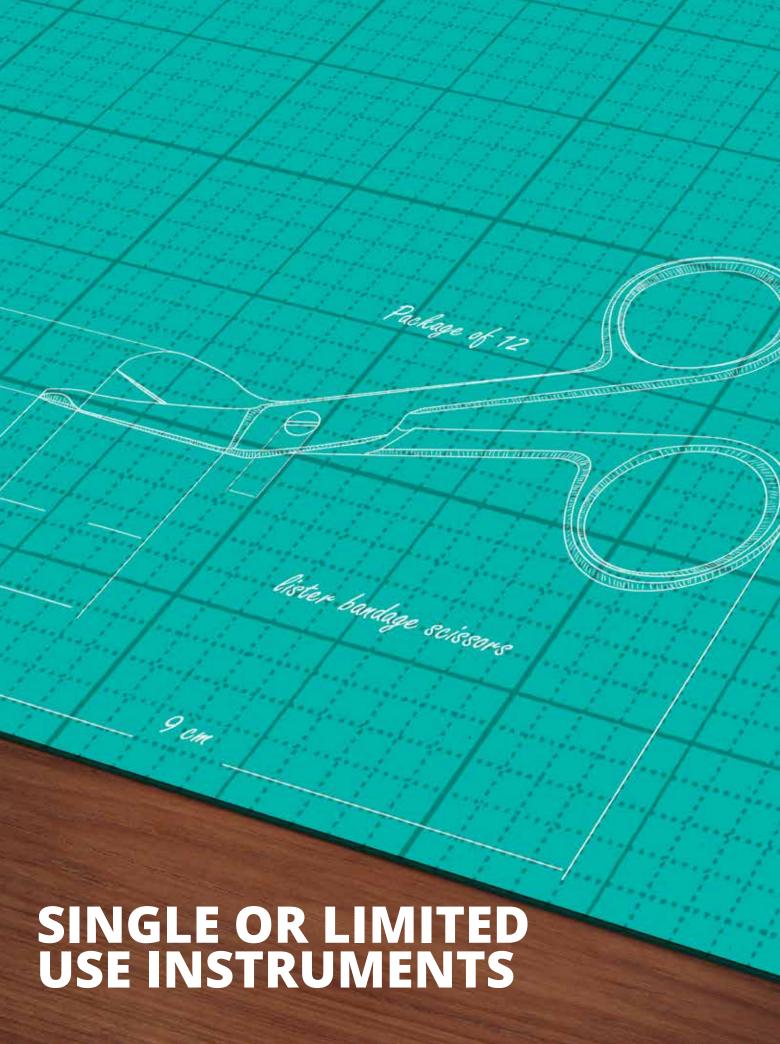
### Construct holding devices for small parts/equipment

- Small but very powerful: holds 2 kilograms (~5 pounds)!
- Steel ball rotates freely 360° on a 180° axis
- M3 mounting screw on ball for attachment to equipment
- Magnet base threaded (M3) for mounting onto a base or equipment

This novel magnetic ball joint has phenomenal holding power for up to 2kg of attached weight while permitting the ball a full 360° rotation on a 180° axis. You can freely orient your equipment to an infinite number of positions within this rotation. This is made possible by the combination of a steel ball (10 mm diameter) and a powerful rare earth magnet contained in the magnet cylinder ( $\phi$  10 x 20 mm). Convenient M3 attachment sites are provided on both the ball (male) and the magnet base (female). For use with micromanipulators for the positioning and holding of optical instruments including various lighting sources and lasers, pipettes and any small parts that would benefit from the flexibility offered by this new magnetic ball joint.

**500871** Magnetic Ball Joint





### CHROME-FINISH STAINLESS SINGLE USE INSTRUMENTS

You can get discounts if you buy surgical instruments in bulk. Our economy surgical instruments are typically sold in packages of 12. These are an ideal choice for students or for one-time use. All our bulk instruments are all made of surgical grade stainless steel. All sales are final on single use instrument packs.

503728-12

### **HARTMAN MOSQUITO FORCEPS**

- 9 cm Long
- 12 per pack
- · Stainless Steel

**503728-12** Straight **503729-12** Curved

### **IRIS SCISSORS**

- 11.5 cm Long
- 12 per pack
- Stainless Steel

**503708-12** Iris Scissors, Straight

# 503708-12

503729-12

503729-12

### **ADSON FORCEPS**

- 12 cm Long
- Straight
- 12 per pack
- Stainless Steel

**503719-12** Serrated Tips **503720-12** 1 x 2 Teeth

### **IRIS FORCEPS**

- 10 cm Long
- Serrated
- 12 per pack
- Stainless Steel

**503721-12** Straight

**503722-12** Curved





### **HALSTEAD MOSQUITO FORCEPS**

- 12.5 cm Long
- 12 per pack
- Stainless Steel

**503723-12** Straight **503724-12** Curved

### **CRILE FORCEPS**

- 14 cm Long
- 12 per pack
- Stainless Steel

503700-12 Straight503701-12 Curved

### **KELLY FORCEPS**

- 14 cm Long
- Straight
- 12 per pack
- Stainless Steel

**503702-12** Straight **503703-12** Curved

### **BOZEMAN FORCEPS**

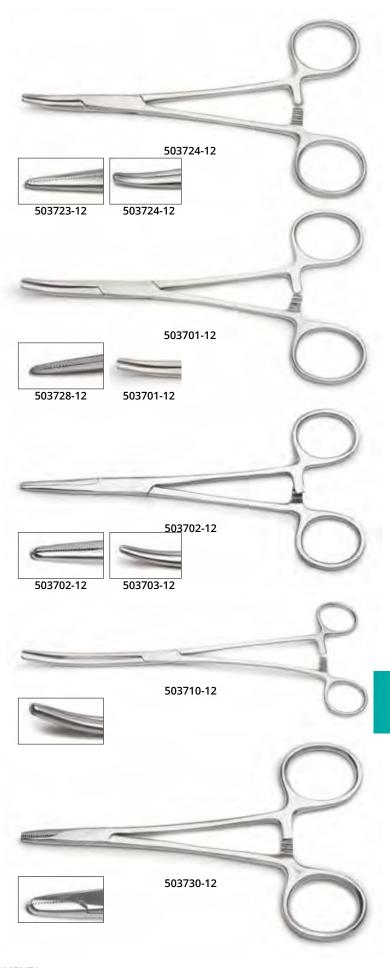
- 25 cm (9.8 in.) Long
- Curved
- 12 per pack
- Stainless Steel

**503710-12** Bozeman Forceps

### **DERF NEEDLE HOLDERS**

- 12.5 cm (5 in.) Long
- Straight
- 12 per pack
- Stainless Steel

**503730-12** Derf Needle Holders



### SINGLE OR LIMITED USE INSTRUMENTS

### **OPERATING SCISSORS**

- 14 cm (5.5 in.) Long
- 12 per pack
- Stainless Steel

**503717-12** Blunt/Blunt, Straight

**503713-12** Blunt/Blunt, Curved

503714-12 Sharp/Blunt, Straight

**503715-12** Sharp/Blunt, Curved

503716-12 Sharp/Sharp, Straight

**503727-12** Sharp/Sharp, Curved

**503718-12** Sharp/Blunt, Curved

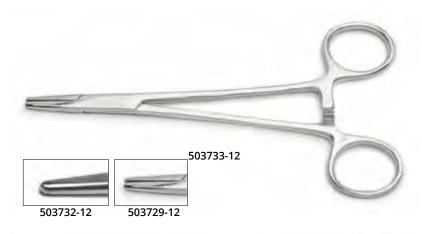


### **MAYO HEGAR NEEDLE HOLDERS**

- Straight
- 12 per pack
- Stainless Steel

**503732-12** 17.8 cm (7 in.) Long

**503733-12** 15 cm (6 in.) Long



### **WEBSTER NEEDLE HOLDERS**

- 12.5 cm (5 in.) Long
- Straight
- 12 per pack
- Stainless Steel

**503731-12** Webster Needle Holders

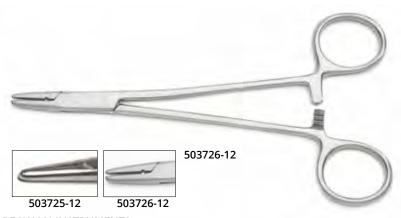


### **CRILE-WOOD NEEDLE HOLDERS**

- 17.8 cm (7 in.) Long
- Straight
- 12 per pack
- Stainless Steel

**503725-12** 17.8 cm (7 in.) Long

**503726-12** 15 cm (6 in.) Long



### SINGLE- OR LIMITED-USE MICROSURGICAL INSTRUMENTS

Non-sterile packages of 10. All sales are final.



### **SPECULUMS**

WP6/418	Barraquer Eye Speculum, Pediatric, Closed Loop Wire, 10 mm Blades, 25 mm wide, 10 per pack, Stainless Steel
WP30258	Wortham Eye Speculum, Pediatric, Closed Loop 34x21 mm, retraction size 10x3.5 mm, 10 per pack, Stainless Steel

WP47418 Barraquer Eye Speculum, Adult, Solid 13 mm Blades, 31 mm wide, 10 per pack, Stainless Steel

WP37418 Lancaster Eye Speculum, 15 mm Blades, 8 cm Long, Solid Blades with Spring and Tension Control Screw, 10 per pack, Stainless Steel

WP57418 Castroviejo Eye Speculum, Fenestrated Blades, Screw Control Spread, 84 mm Long, 10 per pack, Stainless Steel

### **FORCEPS**

<b>VVF 304 10</b> Bottli Forceps, 10 cm Long, 0.12 min 1x2 reeth with 3 min Flationni, Flat Handle, 10 per pack, Stainless Sit	WP90418	Bonn Forceps, 10 cm Long, 0.12 mm 1x2 Teeth with 5 mm Platform, Flat Handle, 10 per pack, Stainless Steel
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WP15418 Utrata Capsulorhexis Forceps, 9.5 cm Long, Straight, Cystotome Tip, 13 mm Bend, 9.5 cm Long, 10 per pack, Stainless Steel

WP28418 Masket Capsulorexis Forceps, 10 cm Long, Curved, Cystotome Tip, 11 mm Bend, Fine Tips, 10 per pack, Stainless Steel

WP38418 Capsulorhexis Forceps, straight, cystotome tip 11 mm, round ,10.8 cm, 10 per pack, Stainless Steel

WP65418 Colibri Forceps (Barraquer), 7.7 cm Long, 0.12 mm 1x2 Teeth, 10 per pack, Stainless Steel

WP75418 Castroviejo Colibri Forceps, 10.8 cm Long, 0.12 mm 1x2 Delicate Teeth, Flat Handle, 10 per pack, Stainless Steel

**WP11418** Tying Forceps, curved, 9.6 cm Long, 6 mm Tying Platform, Flat Handle, 10 per pack, Stainless Steel

**WP06418** Paufique Suture Forceps, 8.5 cm Long, Straight, 1x2 Teeth, 6 mm Tying Platform, 10 per pack, Stainless Steel

WP61418 MacPherson Forceps, 10 cm, Long, Angled, 12 mm from Tip to Bend, Flat Handle, 10 per pack, Stainless Steel

WP63418 Moorfield Forceps, 12 cm Long, Straight, 14 mm Grooved Tips, Flat Handle, 10 per pack, Stainless Steel

WP71418 Barraquer Needle Holder without Lock, 10.5 cm, Curved, Smooth Tips, 6 mm Jaws, 10 per pack, Stainless Steel

WP86418 Barraquer Needle Holder with Lock, 12 cm, Curved, 6 mm Jaws, 10 per pack, Stainless Steel

### **SCISSORS**

WP22418 Vannas Scissors, 9 cm Long, Curved, 9.5 mm Blades with Sharp Pointed Tips, 10 per pack, Stainless Steel

WP07018 Castroviejo Corneal Scissors, 10 cm Long, Angled Right, 9 mm Blades, Blunt Tips, 10 per pack, Stainless Steel

WP05418 Desmarres Chalazion Forceps, 10.5 cm, Solid 26 mm Wide Lower Plate, Upper Plate Oval 15x23 mm, 10 per pack, Stainless Steel

WP96418 Castroviejo Corneal Scissors, 10 cm Long, Angled Left, 9 mm blades, Blunt Tips, 10 per pack, Stainless Steel

WP27418 Westcott Scissors, 11.2 cm Long, 16 mm Blades with Blunt Tips, 10 per pack, Stainless Steel

WP73418 Westcott Scissors, 10.5 cm Long, 23 mm Blades with Curved Blunt Tips,10 per pack, Stainless Steel

WP17118 Strabismus Scissors, 10.4 cm Long, Curved, 25 mm Blades, 10 per pack, Stainless Steel

### **MANIPULATORS**

**WP21418** Burrato Hook, 12 cm Long, 45° Angle, 0.25 mm Diameter, Blunt tip, 10 per pack, Stainless Steel

WP32418 Straight Micro Manipulator, 12 cm Long, 45° Angled, 0.35 mm Diameter, 10 per pack, Stainless Steel
 WP64618 Lester Lens Manipulator, 11.5 cm Long, 45° Angle, 0.44 mm Diameter Hourglass Shaped Tip, 10 per pack, Stainless Steel

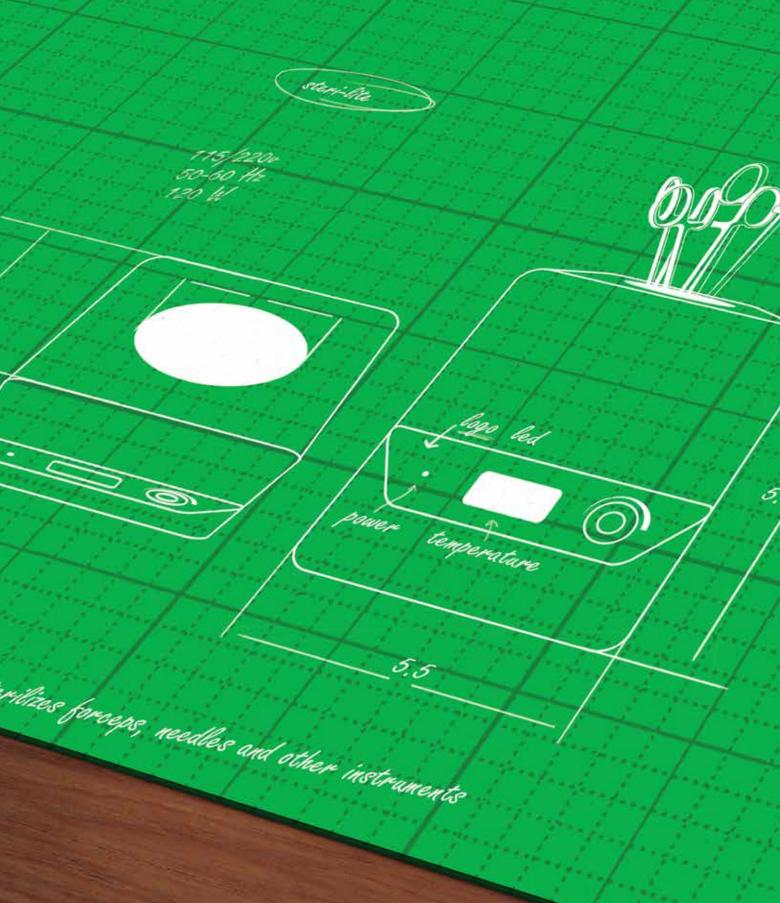
**WP56418** Drysdale Nucleus Manipulator, 11.5 cm Long, 1.1 mm Flattened Paddle Tip, 10 per pack, Stainless Steel

**WP66418** Pisacano Nucleus Rotator, 11.5 cm Long, 45° Angle, 0.7 mm Diameter Flat Blunt Tip, 10 per pack, Stainless Steel

**WP26418** Mann-Hunkeler Capsule Retractor, 11.5 cm Long, Angled, 0.6 mm Diameter Semiball Tip, 10 per pack, Stainless Steel

WP16418 Chalazion Curette, 13 cm Long, Double Ended, Sharp, 1.5 mm and 2.5 mm Diameter, 10 per pack, Stainless Steel

WP97418 Graefe Strabismus Hook, 13.5 cm Long, Straight, Blunt Tip, 10 per pack, Stainless Steel



# STERILIZERS, CLEANERS & ACCESSORIES

### DRY STERILIZER -

Heat sterilize instruments in seconds

### STERI-LITE MICRO BEAD STERILIZER

### **FEATURES**

- Large LED control panel
- Adjustable temperature control up to 300°C
- Sterilizes forceps, needles and other instruments
- Choose Bead capacity: 300 g (ST5193), 150 g (ST5191)

### BENEFITS

- No chemicals
- No flames
- No risk of burns
- · No disinfectant fluids

### APPLICATIONS

· Sterilize your microdissecting and tissue culture instruments, thoroughly and conveniently, in seconds

WPI's Steri-Lite Micro Bead Sterilizer is ideal for the sterilization of small research instruments (forceps, scissors, etc.). When the chamber is filled with the included glass beads, high temperatures (up to 300°C) can be used to eliminate bacteria, spores and other microorganisms.

Chamber temperature is displayed on the large LED control panel and may be adjusted with the control knob. The outer casing of the unit stays cool to the touch, even when it is used continually. The supplied safety cover can be placed over the chamber to conserve energy and reduce the heating/ramping rate. The Steri-Lite Sterilizer does not use gas, flame or chemicals and is safe for use in hoods.

With adjustable temperature, the sterilizer can be used for incubations and the decontamination of plastic objects/tools.

This product is designed for RESEARCH and DEVELOPMENT USE ONLY.



### STERI-LITE SPECIFICATIONS

TEMPERATURE RANGE:

PREHEAT TIME: Approximately 25 min. to 300°C

CHAMBER DIAMETER: 40 mm

CHAMBER HEIGHT: ST5191: 80 mm

ST5193: 140 mm

DIMENSIONS: **ST5191:** 14x14.5x15.5 cm (5.5x5.7x6.1 in.)

ST5193: 14X14.5X21.5 cm (5.5X5.7X8.7 in.)

BEAD CAPACITY: ST5191: 150 g

**ST5193:** 300 g

WEIGHT: **ST5191:** 2 Kg

ST5193: 2.5 Kg

ELECTRICAL: ST5191: 115 V or 230 V, 50-60 Hz, 120 W

**ST5193:** 115 V or 230 V, 50-60 Hz, 250 W

WARRANTY: 2 Years ST5193 Steri-Lite Micro Bead Sterilizer, large, 300 g, 14x14.5x21.5 cm (5.5x5.7x8.7 in.)

ST5191 Steri-Lite Micro Bead Sterilizer, small, 150 g, 14x14.5x15.5

cm (5.5x5.7x6.1 in.)

### ULTRASONIC CLEANERS

Ultrasonic baths are an excellent method for cleaning small batches of surgical instruments.

### DIGITAL ULTRASONIC CLEANER

### **FEATURES**

- · Heats up to 65°C
- · Tanks shape accommodates long instruments
- Compact size for benchtop use
- Quiet operation
- · Viewing window
- · Lightweight and portable

### BENEFITS

- · Simple operation with digital control panel
- · Preset cleaning cycles for efficiency

### **APPLICATIONS**

Versatile enough for a variety of cleaning applications

The Ultrasonic Cleaner is a high efficiency cleaner specially developed to clean surgical instruments. The Ultrasonic Cleaner is a quick and effective way to clean lab tools. Ultrasonic waves pump micron-sized bubbles into the water. These bubbles fit into the tightest spaces that would be impossible to clean by traditional methods. When the bubbles implode, water hits the instrument at speeds up to 250 mph. A digital control panel simplifies operations. Cleaning cycles are preset and optimized for the most efficient cleaning of your surgical instruments.

### Effective cleaning with the option of heat

The Ultrasonic Cleaner uses a powerful generator to create ultrasonic waves that provide effective cleaning action in most cases. When heavy biological debris or oily residue is present, the cleaning power can be enhanced with its heating feature that warms the water up to  $65^{\circ}$ C.

### High-capacity elongated tank

The elongated tank easily accommodates long surgical instruments or other lab equipment that may not fit into smaller desktop ultrasonic cleaners.

### Quiet operation\*

The Ultrasonic Cleaner will work quietly without disrupting work in the laboratory. The tank has a lid to decrease the noise, and the viewing window allows you to monitor the progress.

### Small footprint

This compact cleaner takes up little space for convenient storage on the bench. Its light weight makes it easy to transport.

\* Warning: Ultrasonic sound waves emitted by this cleaner may disturb laboratory animals.



### **SPECIFICATIONS**

VOLTAGE RATING & FREQUENCY 100-120V, 50/60 Hz
POWER CONSUMPTION 100-120V, 160 W
ULTRASONIC FREQUENCY 42,000 Hz
TANK MATERIAL Stainless Steel

PLASTIC HOUSING MATERIAL ABS

TANK SIZE 25x150x80 mm (9.9x5.9x3.2 in.)

TANK CAPACITY 2500 mL (5.29 pt.)

(Max.) 2100 mL (4.44 pt.) (Min.) 600 mL (1.27 pt.) Plastic tray; power cord

ACCESSORIES Plastic tray; power cord
5-CYCLE DIGITAL TIMER 10, 15, 20, 25 and 30 minute

NET WEIGHT 2.5 kg WARRANTY One year

504495

Digital Ultrasonic Cleaner (available only in USA and Canada)

### QUANTREX ULTRASONIC CLEANING SYSTEM

### **FEATURES**

- · 60 Minute timer
- · Vinyl-clad steel and stainless steel
- · 14 quality inspection steps for strength and durability

### BENEFITS

- · Provides super-strength cleaning every time
- When used with L&R's specialty formulated solutions, the selfcontained, compact unit offers efficient trouble-free cleaning
- Each Quantrex machine comes standard with increased power strength you can see as soon as you turn the unit on
- Stainless steel drain with multi-positional outlet for easy removal of solution

### **APPLICATIONS**

· Versatile enough for a variety of cleaning applications

### **SPECIFICATIONS**

**DIMENSIONS** 26.0 x 16.5 x 21.0 cm

(10.25 x 6.5 x 8.25 in.)

SHIPPING WEIGHT 4.5 kg (10 lb.) TANK CAPACITY 3.2 L (0.85 gal.) INTERNAL DIMENSIONS 23.8 x 13.7 x 10.2 cm

(9.4 x 5.4 x 4.0 in.)





504216

### **UBATH ULTRASONIC CLEANER**

### **FEATURES**

- · Half liter stainless steel tank
- · Durable and compact

### BENEFITS

· Robust all-metal construction allows for continuous duty

### APPLICATIONS

· Microdissection and veterinary instrument cleaning

### **UBATH SPECIFICATIONS**

INPUT POWER PEAK OUTPUT 70 W, 55 kHz TANK CAPACITY 0.53 L (18 oz.) TANK I.D. 12.1 x 8.6 x 6.6 cm (4¾ x 3¾ x 2% in.)

13.7 x 10.5 x 12.1 cm

TANK O.D. (5% x 4% x 4¾ in.)

SHIPPING WEIGHT 1.8 kg (4 lb.)

**UBATH-Y** Ultrasonic Cleaner (110 V)

**UBATH-B** Ultrasonic Cleaner (220 V, UK plug) 504766 Sterilization Mesh Cassette, 40x40x20 mm 504767 Sterilization Mesh Cassette, 80x80x34 mm 504768 Sterilization Mesh Cassette, 105x70x25 mm



### INSTRUMENT CARE PRODUCTS

With proper care you can extend the life of your surgical instruments. The products in this category may safely be used to clean, disinfect, sterilize and maintain your fine surgical instruments.

### RAPICIDE® OPA/28 HIGH-LEVEL DISINFECTANT

The superior way to reprocess heat-sensitive semi-critical devices that are unsuitable for sterilization.

- A 10-minute high-level disinfection time that's faster than all other OPA high-level disinfectants in the healthcare market today.
- Up to twice the reuse life of existing OPA's, lasts 28 days in comparison to 14 day use products.
- Because of the low vapor pressure, irritation to the eyes nose and throat are reduced when compared to glutaraldehyde. OPA/28 also effectively inactivates: TB, HIV2, MRSA, VRE, Hepatitis Viruses

**504611** Rapicide Disinfectant (1 gal.)



### BARRIER MILK INSTRUMENT PROTECTOR/LUBRICANT

Barrier Milk ready to use spray helps prevent corrosion of instruments when used prior to sterilization. Protects and extends the life of instruments during autoclaving. Simply spray the instrument directly before autoclaving with the unique water-based blend of lubricants and corrosion inhibitors.

The fine mist works its way into hinges and box locks as well as covering all instruments with protection

- · Nitrate-free
- · Chromate-free
- · Phenolic-free
- Non-Irritating
- · Neutral pH
- · Mild, pleasant odor

**504215** Barrier Milk Spray (8 oz.)



### CIDEX OPA

- Excellent biocide for WPI's nitric oxide sensors and other sensitive instruments which cannot be subjected to alcohol or autoclave.
- CIDEX OPA Solution, a 0.55% ortho-phthalaldehyde solution, is glutaraldehyde-free and effective at room temperature (68°F). Test strips are available to test the MEC of the solutions. Non-corrosive to instruments.

**7364-4** Cidex OPA (1 gal.)



### ALCONOX POWDERED PRECISION CLEANER

Alconox can be used as a paste, a soak and ultrasonically. It can be used on glass, metal, stainless steel, porcelain, ceramic, plastic, rubber and fiberglass. It can also be used on soft metals such as copper aluminum, zinc and magnesium if rinsed promptly.

Alconox can be used to remove: soil, grit, grime, buffing compound, slime, grease, blood, tissue, oils, salts, deposits, particulates, solvents, chemicals, radioisotopes, radioactive contaminants, silicone oils, and mold release agents.

- · Leaves no interfering residues on reusable labware
- · Use with manual cleaning or ultrasonic cleaners
- · Free rinsing
- · Corrosion inhibited

**13740** Alconox Powdered Cleaner (4 lbs.)



### **ENZOL ENZYMATIC DETERGENT**

ENZOL Detergent is a mild pH, enzyme-based, presoak-plus-cleaner for removing tough, driedon or hard-to-reach organic matter from instruments before they are disinfected in CIDEX Solution.

- Effective at room temperature (no need for hot water)
- · Safe for instruments, including delicate endoscopes
- · Mild pH reduces the likelihood of corrosion
- Easy to rinse, so it won't clog scopes or leave a residue on instruments
- · Low foaming, making it effective for use in automated equipment

**7363-4** Enzol Enzymatic Detergent (1 gal.)



### **ENDOZIME ENZYMATIC DETERGENT**

### **FEATURES**

- · Advanced Proteolytic Action Increased protein enzyme activity
- Proprietary blend of enzymes designed to remove all bio-burden blood, carbohydrates, protein, polysaccharides, fats, starches, oils, uric acid and other nitrogenous compounds
- Biologically active additives speed the process of liquefaction and solubilization

### BENEFITS

- · Inhibits rust
- Safe for use on all surgical instruments and scopes. It will not harm any metals, plastic, rubber or corrugated tubing.
- · Low-sudsing, neutral pH, non-abrasive, free rinsing and 100% biodegradable

### **APPLICATIONS**

• Endozime is specifically designed for use in all washers, washer sterilizers, ultrasonic cleaners and manual cleaning protocols.

Endozime AW® designed for customers who are susceptible to allergic reactions when using a cleaning chemicals containing dye. It contains a proprietary formulation of protease, amylase, lipase, carbohydrase and enzymes with A.P.A. (Advanced Proteolytic Action), which removes all soil and inhibits rust. Endozime AW® increases protein enzyme activity to provide a faster more thorough penetration into hard to reach places on surgical instruments and scopes.

WP-34521 16.9 oz.



### **SURGI-STAIN RUST AND STAIN REMOVER**

### **FEATURES**

- · A 10-minute soak keeps instruments looking new
- · Mild acidic solution removes rust, stains, spotting and corrosion
- · Routine use of Surgi-Stain® will enhance the life and efficiency of stainless steel instruments

### BENEFITS

- · Restores instruments' original finish
- · Non-corrosive and will not harm stainless steel
- · Save money by restoring instruments instead of replacing or repairing them
- · Restores articulation to box-locks and joints
- · Prevents destructive pitting on ridges of micro and ophthalmic instruments

### **APPLICATIONS**

 Surgi-Stain® is a quick, safe and efficient revitalizing solution that removes rust, pitting, stains and corrosion from stainless steel surgical instruments.

For more then 20 years, hospitals worldwide have saved hundreds of thousands of dollars by using Surgi-Stain® to restore instruments. Used routinely as part of the Ruhof System, Surgi-Stain® will help maintain the life and efficiency of your instruments and reduce repair and replacements costs. If used on a monthly basis in conjunction with our enzymatic cleaners Surgi-Stain® will restore the instruments' original finish and loosen box-locks and joints. It is an excellent choice for use on all ophthalmic and microsurgical instruments.

**WP-34572** 16 oz. Bottle



Protect your surgical and dissecting instruments with this specially formulated lubricant.

**500126** Spray Lube (8 oz.)

# SURGI-STAIN Amnoras Rust and Comments From Stainteas Steel face Amnoration Safety and Comments From Stainteas Steel face From Stainteas Steel face From Stainteas Steel face From Stainteas Steel face From Stainteas Steel Comment From Stainteas Steel From Stai



## PREMIX-SLIP INSTRUMENT LUBRICANT AND RUST INHIBITOR FEATURES

- · High-grade mineral oil lubricant and rust inhibitor
- · Steam penetrable, steam sterilizable and ETO sterilizable
- · Non-oily, non-sticky, non-toxic and silicone free.
- · 16 oz. spray bottle

### **BENEFITS**

- · Prevents rust, spots, stains and corrosion, prolonging the life of the instrument
- · Prevents damage due to misuse of stiff or grinding instruments
- · Routine use enhances the life and efficiency of instruments
- · Greatly reduces repair and replacement cost

### **APPLICATIONS**

- · Lubricate and inhibit rust on all your surgical instruments
- · 16 oz. spray bottle

Premix-Slip® is a non-sticky, non-toxic, silicone-free and water soluble mineral oil lubricant that can withstand the high temperatures of autoclaving without becoming gummy. Forming a protective barrier on surgical instruments, Premix-Slip® prevents rusting, staining and spotting while restoring articulation to sticky box-locks and joints.

**WP-34552** 16 oz



### STERILIZATION BASKETS & TRAYS

### INTRODUCTION

WPI offers a comprehensive range of surgical instrument baskets and trays. Our instrument trays and baskets provide a high degree of protection for costly surgical instruments during storage, transportation and sterilization. Trays are available in a variety of sizes and designs that accommodate a wide range of surgical instruments.

We are backed by ISO 9001-2008, ISO 13485, 2003 Certification, CE & FDA. Our baskets are made from high quality stainless steel, providing both strength and durability at an affordable price. They are designed with rounded corners and edges to avoid two common problems:

- Burr-free rounded corners prevent wraps from being torn by sharp edges
- Smooth edges reduce user injury

### EXCEPTIONALY ROBUST AND RESISTANT TO ACCIDENTAL DAMAGE

We present a comprehensive range of surgical instrument sterilizing baskets including:

- · Side Perforated Baskets
- · Wire Mesh Baskets
- · Fine Mesh Baskets
- Endoscopy Baskets
- Customized baskets for holding scopes

We guarantee all products against poor craftsmanship and material. Any item found defective will be repaired or replaced free of charge. This guarantee does not cover any product which becomes defective through misuse, negligence or mishandling.

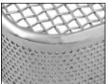


### SIDE PERFORATED BASKETS WITH WIRE BASE

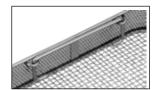
The wire base is designed for quickly drying instruments after washing and sterilizing. They are perfect for handling and storage of instruments.

- · Manufactured with stainless steel 304, non-magnetic
- Electropolished
- · Burr free to protect wraps and prevent injury
- Smooth rounded corners
- Side walls are perforated to protect sharp instrument edges and tips from damage. The hole size is 2.0 mm.
- · Meets all the requirements of automatic washing and sterilization for all types of instruments
- Separate lids are available with single frame, double frame and detention shapes
- Available with drop in and folding handles

- · Top and bottom frame diameter: 5.0 mm
- Base available in wire mesh with opening squares of 4.2 mm and wire diameter of 1.0 mm
- The images show the smooth round corners (left below) and the inner mounted drop in handles (right below)



Rounded corners



Drop in Handles mounted on the inside

WP-4610	240X120X30 mm	WP-4617	240X250X100 mm				
WP-4611	240X120X50 mm	WP-4656	405X250X30 mm	WP-4620	480X250X70 mm	WP-4623	300x300x60 mm
WP-4612	240X120X60 mm	WP-4657	405X250X50 mm	WP-4621	480X250X100 mm	WP-4624	470x400x60 mm
WP-4608	240X120X70 mm	WP-4658	405X250X60 mm	WP-4661	540X250X30 mm	WP-4625	480x480x50 mm
WP-4609	240X120X100 mm	WP-4659	405X250X70 mm	WP-4662	540X250X50 mm	WP-4626	480x480x60 mm
WP-4607	240X250X30 mm	WP-4660	405X250X100 mm	WP-4663	540X250X60 mm	WP-4628	500x300x50 mm
WP-4613	240X250X50 mm	WP-4606	480X250X30 mm	WP-4664	540X250X70 mm	WP-4632	550x430x50 mm
WP-4615	240X250X60 mm	WP-4618	480X250X50 mm	WP-4665	540X250X100 mm	WP-4634	600x300x60 mm
WP-4616	240X250X70 mm	WP-4619	480X250X60 mm	WP-4622	300x300x50 mm		

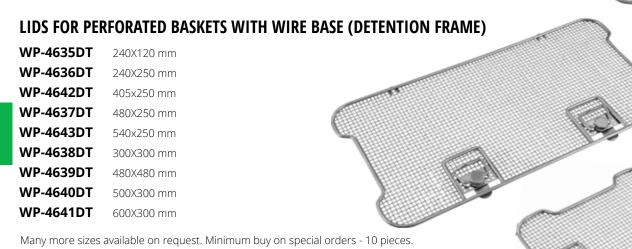
Many more sizes available on request. Minimum buy on special orders - 10 pieces.



### **STERILIZERS, CLEANERS & ACCESSORIES**



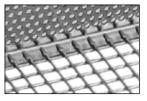


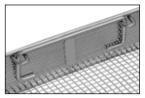


### SIDE PERFORATED BASKETS WITH FLAT BASE

The flat base is designed for quick drying of the instruments after washing and sterilizing. These baskets are also used for handling and storage of instruments.

- Manufactured with stainless steel 304
- Electropolished
- Burr free to protect wraps and prevent injury
- Smooth rounded corners
- Double frame lids available
- Side walls are perforated to protect sharp instrument edges and tips from damage. The hole size is 2.0 mm.
- · Meets all the requirements of automatic washing and sterilization for all types of instruments
- · Separate lids are available with single frame, double frame and detention shapes
- Available with drop in and folding handles
- · Top and bottom frame diameter: 5.0 mm
- Flat base basket available in welded mesh with opening square 6.0 mm, wire diameter 1.2
- Stacking frame can also be available on request.
- The images show the flat base from the inside (upper left), the inner mounted drop handles (upper right), the flat base from the outside (lower left) and the smooth rounded corners (lower right).











WP-4545	120X250x50 mm
WP-4546	120X250x60 mm
WP-4547	120X250x70 mm
WP-4548	120X250x100 mm
WP-4549	240x250x50 mm
WP-4550	240x250x60 mm
WP-4551	240x250x70 mm

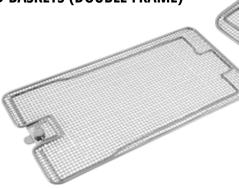
WP-4552 240x250x100 mm **WP-4553** 405X250x50 mm WP-4554 405X250x60 mm **WP-4555** 405X250x70 mm **WP-4556** 405X250x100 mm **WP-4557** 480x250x50 mm **WP-4558** 480x250x60 mm

**WP-4559** 480x250x70 mm **WP-4560** 480x250x100 mm **WP-4561** 540X250x50 mm **WP-4562** 540X250x60 mm **WP-4563** 540X250x70 mm **WP-4564** 540X250x100 mm **WP-4565** 480X360x50 mm

**WP-4566** 480X360x60 mm **WP-4567** 480X360x70 mm WP-4568 480X360x100 mm **WP-4569** 480x480x50 mm **WP-4570** 480x480x60 mm **WP-4571** 480x480x70 mm **WP-4572** 480x480x100 mm

Many more sizes available on request. Minimum buy on special orders - 10 pieces.

### LIDS FOR PERFORATED BASKETS (DOUBLE FRAME) WP-4582 120X250 mm WP-4583 240X250 mm WP-4584 405X250 mm WP-4585 480X250 mm WP-4586 540X250 mm WP-4587 480X360 mm WP-4588 480X480 mm





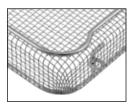
Many more sizes available on request. Minimum buy on special orders - 10 pieces.

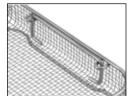
### **STERILIZERS, CLEANERS & ACCESSORIES**

### **WIRE MESH BASKETS WITH DROP IN HANDLES**

Wire Mesh Baskets are used for washing, disinfecting, sterilizing, storing and handling surgical instruments.

- Manufactured with stainless steel 304
- · Electropolished
- Burr free to protect wraps and prevent injury
- · Smooth rounded corners
- · Handles are mounted on the inside and drop inside the basket for stacking
- Single frame, double frame and detention frame lids available
- · Meets all the requirements of automatic washing and sterilization for all types of instruments
- · Top and bottom frame diameter: 5.0 mm
- Wire mesh with mesh openings of 4.5 mm, wire diameter of 1.0 mm
- · Baskets are stackable



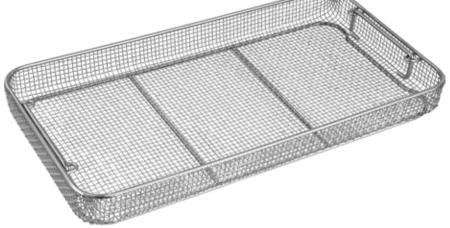




WP-4411

WP-4412





480X250X100 mm

480X480X30 mm

WP-4401	105X240X30 mm	WP-4413	240X250X60 mm	WP-4425	405X250X100 mm	WP-4437	480X480X50 mm
WP-4402	105X240X50 mm	WP-4414	240X250X70 mm	WP-4426	480X240X30 mm	WP-4438	480X480X60 mm
WP-4403	105X240X60 mm	WP-4415	240X250X100 mm	WP-4427	480X240X50 mm	WP-4439	480X480X70 mm
WP-4404	105X240X70 mm	WP-4416	250X250X30 mm	WP-4428	480X240X60 mm	WP-4440	480X480X100 mm
WP-4405	105X240X100 mm	WP-4417	250X250X50 mm	WP-4429	480X240X70 mm	WP-4441	540X250X30 mm
WP-4406	240X240X30 mm	WP-4418	250X250X60 mm	WP-4430	480X240X100 mm	WP-4442	540X250X50 mm
WP-4407	240X240X50 mm	WP-4419	250X250X70 mm	WP-4431	480X250X30 mm	WP-4443	540X250X60 mm
WP-4408	240X240X60 mm	WP-4420	250X250X100 mm	WP-4432	480X250X50 mm	WP-4444	540X250X70 mm
WP-4409	240X240X70 mm	WP-4421	405X250X30 mm	WP-4433	480X250X60 mm	WP-4445	540X250X100 mm
WP-4410	240X240X100 mm	WP-4422	405X250X50 mm	WP-4434	480X250X70 mm		

WP-4435

WP-4436

405X250X60 mm

405X250X70 mm

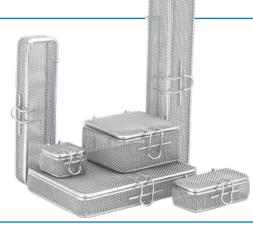
Many more sizes available on request. Minimum buy on special orders - 10 pieces.

WP-4423

WP-4424

240X250X30 mm

240X250X50 mm



FOR FINE MESH BASKETS WITH LIDS, SEE PAGE 181.

### LIDS FOR WIRE MESH BASKETS (SINGLE FRAME)

WP-4455	105X240 mm
WP-4456	240X240 mm
WP-4457	240X250 mm
WP-4458	250X250 mm
WP-4459	405X250 mm
WP-4460	480X240 mm
WP-4461	480X250 mm
WP-4462	480X480 mm
WP-4463	540X250 mm



### LIDS FOR WIRE MESH BASKETS (DOUBLE FRAME)

**WP-4455D** 105X240 mm **WP-4456D** 240X240 mm **WP-4457D** 240X250 mm

**WP-4458D** 250X250 mm

**WP-4459D** 405X250 mm

**WP-4460D** 480X240 mm

**WP-4461D** 480X250 mm

**WP-4462D** 480X480 mm

**WP-4463D** 540X250 mm

### LIDS FOR WIRE MESH BASKETS (DETENTION FRAME)

**WP-4455DT** 105X240 mm

WP-4456DT 240X240 mm

**WP-4457DT** 240X250 mm

**WP-4458DT** 250X250 mm

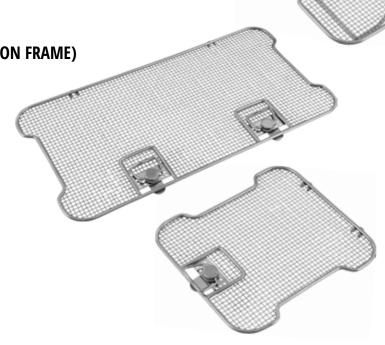
**WP-4459DT** 405X250 mm

WP-4460DT 480X240 mm

WP-4461DT 480X250 mm

WP-4462DT 480X480 mm

WP-4463DT 540X250 mm



### **STERILIZERS, CLEANERS & ACCESSORIES**

### CRIMPED WIRE MESH BASKETS WITH TILT HANDLES

Crimped Wire Mesh Baskets are used for washing, disinfecting, sterilizing, storaging and handling surgical instruments.

- · Manufactured with stainless steel 304
- Electropolished
- Burr free to protect wraps and prevent injury
- · Smooth rounded corners
- · Tilt handles are mounted on the inside and drop inside the basket for stacking
- Single frame, double frame and detention frame lids available
- · Meets all the requirements of automatic washing and sterilization for all types of instruments
- · Top and bottom frame diameter: 5.0 mm
- Crimped mesh with mesh openings of 5 mm, wire diameter of 0.9 mm
- Baskets are stackable









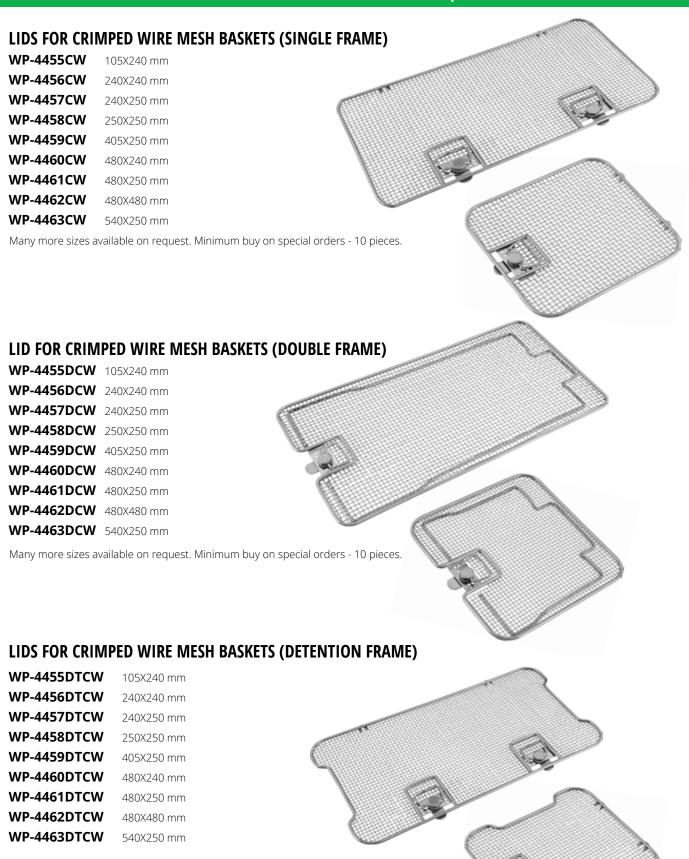
WP-4401CW	105X240X30 mm	WP-4413CW	240X250X60 mm	WP-4
WP-4402CW	105X240X50 mm	WP-4414CW	240X250X70 mm	WP-4
WP-4403CW	105X240X60 mm	WP-4415CW	240X250X100 mm	WP-4
WP-4404CW	105X240X70 mm	WP-4416CW	250X250X30 mm	WP-4
WP-4405CW	105X240X100 mm	WP-4417CW	250X250X50 mm	WP-4
WP-4406CW	240X240X30 mm	WP-4418CW	250X250X60 mm	WP-4
WP-4407CW	240X240X50 mm	WP-4419CW	250X250X70 mm	WP-4
WP-4408CW	240X240X60 mm	WP-4420CW	250X250X100 mm	WP-4
WP-4409CW	240X240X70 mm	WP-4421CW	405X250X30 mm	WP-4
WP-4410CW	240X240X100 mm	WP-4422CW	405X250X50 mm	WP-4
WP-4411CW	240X250X30 mm	WP-4423CW	405X250X60 mm	WP-4
WP-4412CW	240X250X50 mm	WP-4424CW	405X250X70 mm	WP-4
Many more sizes	available on reques	st. Minimum buv o	n special orders - 10	) pieces

**4426CW** 480X240X30 mm **4427CW** 480X240X50 mm **4428CW** 480X240X60 mm **4429CW** 480X240X70 mm **4431CW** 480X250X30 mm **4432CW** 480X250X50 mm **4434CW** 480X250X70 mm 4435CW 480X250X100 mm 4436CW 480X480X30 mm

**4425CW** 405X250X100 mm **WP-4437CW** 480X480X50 mm WP-4438CW 480X480X60 mm **WP-4439CW** 480X480X70 mm **WP-4440CW** 480X480X100 mm WP-4441CW 540X250X30 mm **4430CW** 480X240X100 mm **WP-4442CW** 540X250X50 mm WP-4443CW 540X250X60 mm **WP-4444CW** 540X250X70 mm **4433CW** 480X250X60 mm **WP-4445CW** 540X250X100



THIS BENCHTOP AUTOCLAVE IS PERFECT FOR QUICK STERILIZATION OF SMALL PACKAGES.



Many more sizes available on request. Minimum buy on special orders - 10 pieces.

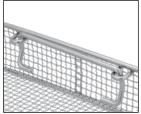
# **STERILIZERS, CLEANERS & ACCESSORIES**

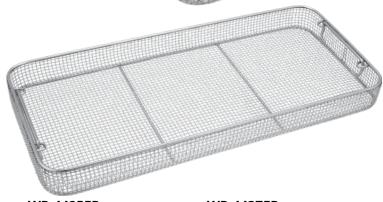
## **CLASSIC CRIMPED WIRE MESH BASKETS, TILTED HANDLES**

Classic Crimped Wire Mesh Baskets are used for washing, disinfecting, sterilizing, storaging and handling surgical instruments.

- · Manufactured with stainless steel 304
- Electropolished
- · Burr free to protect wraps and prevent injury
- · Smooth rounded corners
- · Tilt handles
- · Single frame, double frame and detention frame lids available
- Meets all the requirements of automatic washing and sterilization for all types of instruments
- Top and bottom frame diameter: 5.0 mm
- · Crimped mesh with mesh openings of 6 mm, wire diameter of 1.0 mm
- · Smooth corners and tilt handles







				No. of Street, or other Persons	
WP-4401ER	105X240X30 mm	WP-4413ER	240X250X60 mm	WP-4425ER	405X250X100 mm
WP-4402ER	105X240X50 mm	WP-4414ER	240X250X70 mm	WP-4426ER	480X240X30 mm
WP-4403ER	105X240X60 mm	WP-4415ER	240X250X100 mm	WP-4427ER	480X240X50 mm
WP-4404ER	105X240X70 mm	WP-4416ER	250X250X30 mm	WP-4428ER	480X240X60 mm
WP-4405ER	105X240X100 mm	WP-4417ER	250X250X50 mm	WP-4429ER	480X240X70 mm
WP-4406ER	240X240X30 mm	WP-4418ER	250X250X60 mm	WP-4430ER	480X240X100 mm
WP-4407ER	240X240X50 mm	WP-4419ER	250X250X70 mm	WP-4431ER	480X250X30 mm
WP-4408ER	240X240X60 mm	WP-4420ER	250X250X100 mm	WP-4432ER	480X250X50 mm
WP-4409ER	240X240X70 mm	WP-4421ER	405X250X30 mm	WP-4433ER	480X250X60 mm
WP-4410ER	240X240X100 mm	WP-4422ER	405X250X50 mm	WP-4434ER	480X250X70 mm
WP-4411ER	240X250X30 mm	WP-4423ER	405X250X60 mm	WP-4435ER	480X250X100 mm
WP-4412ER	240X250X50 mm	WP-4424ER	405X250X70 mm	WP-4436ER	480X480X30 mm

MP-4437ER 480X480X50 mm
WP-4438ER 480X480X60 mm
WP-4439ER 480X480X70 mm
WP-4440ER 480X480X100 mm
WP-4441ER 540X250X30 mm
WP-4442ER 540X250X50 mm
WP-4443ER 540X250X60 mm
WP-4444ER 540X250X70 mm
WP-4445ER 540X250X70 mm
WP-4445ER 540X250X100

Many more sizes available on request. Minimum buy on special orders - 10 pieces.



Many sterilization baskets are available in a variety of other sizes. If you do not see exactly what you need, give us a call. If you order at least 10 units, we will place a custom order just for you.

Call (866) 606-1974

Toll free in the USA

## **FINE MESH BASKETS WITH LIDS**

Fine Mesh Baskets With Lids are used for washing, sterilizing and storing micro surgical instruments.

- · Manufactured with stainless steel 304
- · Electropolished
- Burr free to protect wraps and prevent injury
- · Smooth rounded corners
- Top and lid frame wire diameter: 3.5 mm and 4.0 mm (depending on the basket)
- Fine mesh with opening squares of 1.6 mm and wire diameter of 0.7 mm
- · Wire locking clip

WP-4343	40X40x20 mm	WP-4358	220x140x50 mm
WP-4344	70x70x30 mm	WP-4359	210x170x20 mm
WP-4345	80x40x20 mm	WP-4360	235x155x40 mm
WP-4346	80x40x30 mm	WP-4361	240x90x40 mm
WP-4347	80x80x34 mm	WP-4362	240x120x35 mm
WP-4348	80x80x40 mm	WP-4363	275x175x35 mm
WP-4349	90x90x50 mm	WP-4364	280x170x60 mm
WP-4350	150x110x20 mm	WP-4365	250x200x20 mm
WP-4351	160x40x20 mm	WP-4366	300x180x20 mm
WP-4352	105x70x25 mm	WP-4367	200x110x40 mm
WP-4353	141x50x40 mm	WP-4368	225x110x50 mm
WP-4354	150x50x35 mm	WP-4369	235x120x60 mm
WP-4355	180x130x20 mm	WP-4370	270x135x40 mm
WP-4356	190x85x100 mm	WP-4371	280x145x50 mm
WP-4357	200x100x35 mm	WP-4372	400x250x50 mm



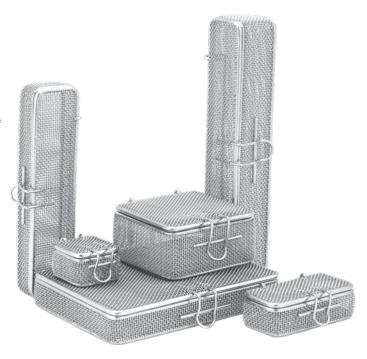
Many more sizes available on request. Minimum buy on special orders - 10 pieces.

## MICRO FINE MESH BASKETS WITH LIDS

Micro Fine Baskets are used for washing, sterilizing and storing delicate micro surgical instruments and parts.

- · Manufactured with stainless steel 304
- · Electrolyte polished
- Top and lid frame wire diameter: 3.5 mm
- Micro fine mesh with opening squares of 1.0 mm and wire diameter of 0.5 mm
- · Wire locking clip

WP-4343MM 40	X40x20 mm	WP-4350MM	150x110x20 mm
<b>WP-4344MM</b> 703	x70x30 mm	WP-4351MM	160x40x20 mm
WP-4345MM 80	x40x20 mm	WP-4352MM	105x70x25 mm
<b>WP-4346MM</b> 803	x40x30 mm	WP-4353MM	141x50x40 mm
<b>WP-4347MM</b> 803	x80x34 mm	WP-4354MM	150x50x35 mm
<b>WP-4348MM</b> 803	x80x40 mm	WP-4355MM	180x130x20 mm
<b>WP-4349MM</b> 90:	x90x50 mm		

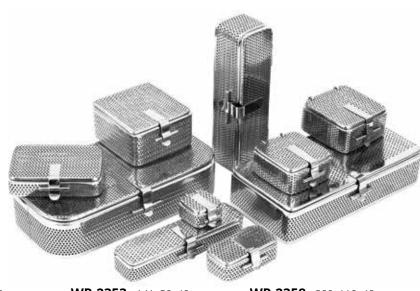


# **STERILIZERS, CLEANERS & ACCESSORIES**

#### **FULL PERFORATED TRAYS WITH LIDS**

Micro Fine Baskets are used for washing, sterilizing and storing delicate micro surgical instruments and parts.

- · Manufactured with stainless steel 304
- Electropolished
- · Smooth rounded corners
- · Perforated hole size of 2.0 mm
- · Hinged lids
- Top and lid frame rod diameter: 3.5 mm and 4.0 mm (depending on the basket)
- Full wall perforation to protect sharp instruments' edges and tips from damage
- Fine mesh with opening squares of 1.6 mm and wire diameter of 0.7 mm
- · Sheet locking clip



WP-2343	40X40X20 mm	WP-2348	80x80x40 mm	WP-2353	141x50x40 mm	WP-2358	200x110x40 mm
WP-2344	70x70x30 mm	WP-2349	90x90x50 mm	WP-2354	150x50x35 mm	WP-2359	225x110x50 mm
WP-2345	80x40x20 mm	WP-2350	150x110x20 mm	WP-2355	190x85x35 mm		
WP-2346	80x40x30 mm	WP-2351	160x40x20 mm	WP-2356	200x100x35 mm		
WP-2347	80x80x34 mm	WP-2352	105x70x25 mm	WP-2357	240x90x40 mm		

### **ENDOSCOPE STERILIZATION TRAY WITH LENS BASKET**

Endoscope Baskets provide security for costly endoscopes during washing and sterilization processes. The silicone padding also provides protection for the endoscope during handling and storage.

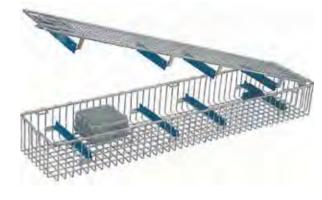




Small Lens Baskets

Locking Clip

**WP-4046** 640x150x77 mm



#### ARTHROSCOPE BASKETS



**WP-4040** 180X80X52 mm **WP-4041** 290X80X52 mm **WP-4042** 290X80X52 mm



#### **ENDOSCOPE BASKETS**

Endoscope Baskets provide security for costly endoscopes during washing and sterilization processes. The silicone padding also provide protection for the endoscope during handling and storage.

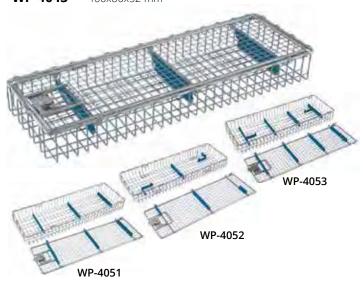
- · Safely sterilize and store expensive endoscopes
- · Silicone pads to protect endoscope during handling and storage
- Electropolished
- Burr free to prevent injury
- Locking clip
- · Variety of sizes

· Top lid and frame wire diameter of 5.0 mm

· Loop wire diameter of 2.0 mm



**WP-4044** 460x80x52 mm 460x80x52 mm 460x80x52 mm



WP-4051 460x160x52 mm WP-4052 460x160x52 mm WP-4053 460x160x52 mm







**WP-4049** 290x160x52 mm **WP-4050** 290x160x52 mm



**WP-4066** 460x225x52 mm **WP-4067** 460x225x52 mm



**WP-4068** 580x160x52 mm **WP-4069** 580x160x52 mm

# **STERILIZERS, CLEANERS & ACCESSORIES**

### MICRO OPHTHALMIC BASKETS WITH LIDS

Micro ophthalmic baskets are specially designed for delicate micro surgical instruments.

- · Manufactured with stainless steel 304
- · Electrolyte polished
- · Silicone inserts on the bottom of the baskets accommodates micro instruments
- · Lids have silicone strips to grip the instruments
- · Side walls are constructed of perforated sheets
- · Easy to open locking handle
- · Designed for delicate micro instruments

**WP90-22000** 240x250x38 mm **WP90-22001** 480x250x38 mm **WP90-22002** 400x250x38 mm





#### INSTRUMENT CASSETTES WITH SPRING HOLDING LIDS

These cassettes are specially designed to minimize the contact area when instruments are inside the cassette. Each instrument is held by a separate spring. The cassette holds thick and thin instruments securely in a single cassette arrangement.

WP-4242 178X64x32 mm
WP-4243 178X114x32 mm
WP-4244 203X140x38 mm
WP-4245 203x280x38 mm
WP-4246 220x125x40 mm
WP-4247 250x220x40 mm





### FINE MESH CASSETTES FOR MICRO INSTRUMENTS

These cassettes are specially designed to micro instruments. They are perfect for cleaning instruments, especially when the water spray comes from any angle.

WP-4148 240X90x40 mm WP-4149 235x80x30 mm WP-4150 235x155x40





### **INSTRUMENT CASSETTES**





### **MICRO CASSETTES**

WP-3041

WP-3042

74x45x20 mm

74x59x24 mm

Micro cassettes are great for sterilization of micro surgical instruments and small clamps.



**CLIP-IN INSERT** 

**WP-3051** 185x82x18 mm **WP-3052** 185x140x18 mm

#### **FIXING CLAMP**

- · Adjustable clamp length
- Universally adaptable for all sizes of surgical instruments
- Easily dismantled for cleaning purposes.

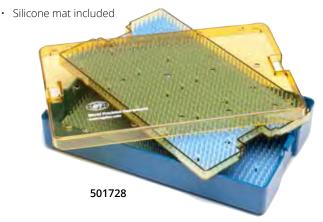
**WP-4141** 60/220x220x39 mm **WP-4142** 60x220x39 mm

## STERILIZING TRAYS

Fine surgical instruments are too valuable not to protect. WPl's sterilizing trays help reduce damage from everyday use. With top quality structural Integrity, these trays are ideal for the handling and storage of all standard microdissection and surgical instruments.

- GE's ULTEM® resin ensures product strength, structural integrity and extended life cycle.
- See-through lids make it easy to locate the correct instrument.
- · Suitable for all methods of sterilization (autoclave, steam, dry heat and chemical).
- · Unique "grid" design in base makes it easy to install the silicone finger mat required to protect the delicate instruments.

#### STERILIZING TRAYS



500252 6 x 15 x 2 cm (2.5 x 6 x 0.75 in.) Base, Silicone Mat, Lid
500253 10 x 19 x 2 cm (4 x 7.5 x 0.75 in.) Base, Silicone Mat, Lid
500254 15 x 25.5 x 2 cm (6 x 10 x 0.75 in.) Base, Silicone Mat, Lid
501728 15 x 25.5 x 4 cm (6 x 10 x 1.5 in.) Base, Insert Tray, Lid,

2 Mats

# STERILIZATION & STORAGE CASE

• Stainless Steel case with Silicone pads

**14213** 19.7 x 10.7 x 3.2 cm **501934** 23 x 15 x 5 cm



#### **INSTRUMENT STERILIZATION TRAY**

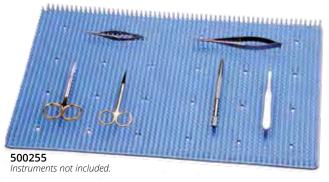


**503392** 28 x 18 cm, Rubber Grips, Stainless Steel

## **WIRE BASKET**



# SILICONE MAT

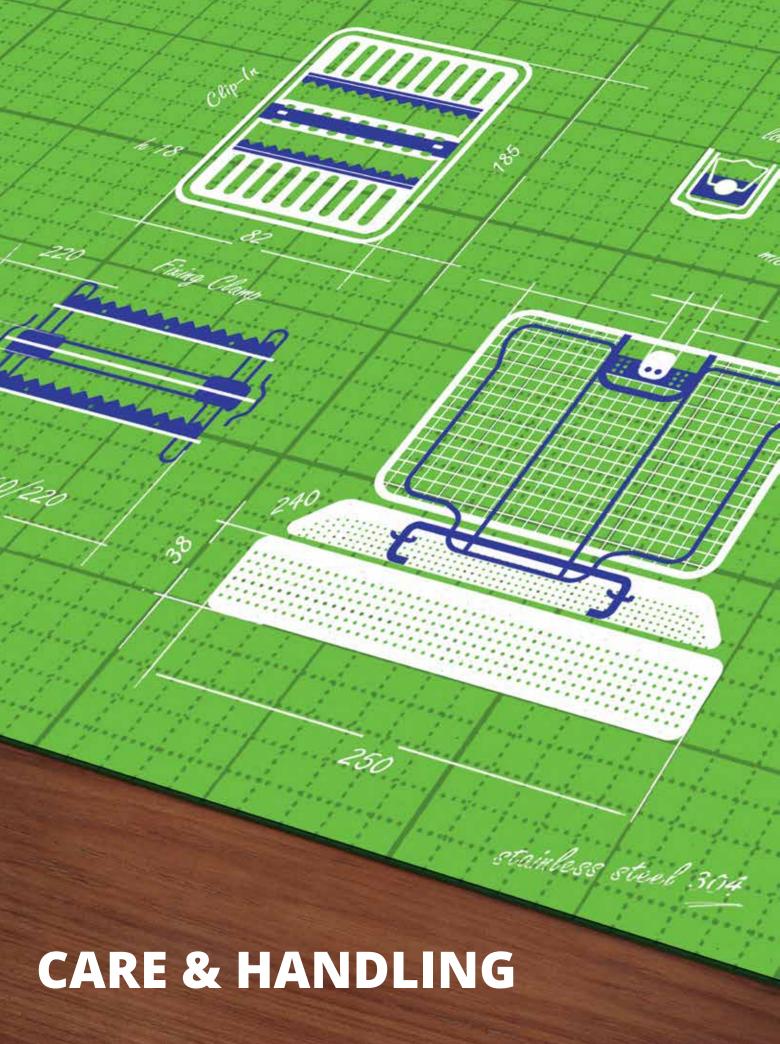


**500255** 38 x 25.5 cm (15 x 10 in.)

## STERILIZER TRAY FOR KNIFE



**501729** 15 x 6 x 2 cm (6 x 2.5 x 0.75 in.), Base, Lid, 2 Bars



## INSTRUMENT CARE & HANDLING

Managing the instrument care process begins with understanding the many types and styles and using the correct one for your procedure. Most surgical instruments are made of surgical stainless steel and are quite robust and resilient, however, they are not indestructible. Stainless steel does stain. It just stains less than other types of steel.

Properly cleaning and caring for your surgical instruments is the single easiest way to prolong their use and improve the outcome of your surgical procedure.

#### Watch our Care and Cleaning videos:



wpiinc.com/sterilize



## CLEANING YOUR INSTRUMENTS

The proper care and handling of surgical instruments is the simplest way to protect your investment and add years to the life of your instruments. It starts with a proper cleaning.

#### RINSING

The first step in properly cleaning your instruments is to rinse off all blood, bodily fluids and tissue immediately after use. Dried soils may damage the instrument surface and make cleaning difficult. Use plain water, but do not use hot water, because proteinous substances will coagulate.



#### **MANUAL CLEANING**

When you are cleaning instruments:

- · Use stiff plastic cleaning brushes.
- Do not use steel wool or wire brushes.
- · Use only neutral pH detergents.
- If not rinsed properly, low pH detergents may breakdown the stainless protective surface and cause black staining.
- High pH detergents may cause surface deposits of brown stains, which can interfere with the smooth operation of the instrument.
- Mix a product such as Alconox (WPI # 13740) according to the manufacturer's directions and use to it wash the instruments.
- 2. Use appropriate brushes to clean each surgical instrument.
  - Use a microbrush to remove debris from the hinged area of scissors, forceps, hemostats, ronguers, needle holders and retractors.
  - Use a microbrush to remove the debris from the box lock area and the ratchet of hemostats and needle holders.
  - Use a microbrush to clean the delicate tips of tweezers.
  - Use a microbrush to remove debris from all moving parts of retractors.
  - Use a stiff brush to clean the tip serrations and handle serrations of dressing forceps and needle holders.
  - Use a stiff brush to clean the teeth of tissue forceps.
  - Brush delicate instruments carefully and handle them separately from general instruments. Ultrasonic cleaning is recommended for delicate instruments like micro scissors (also known as Vannas scissors).
- Inspect all instrument surfaces to ensure they are visibly clean and free of stains and tissue. Inspect each instrument for proper function and condition.
  - Scissor blades should glide smoothly and the blades must not be loose when they are in the closed position.
  - Check that forceps tips are properly aligned.

- Hemostats should lock and unlock easily, and the joints should not be too loose.
- Check needle holder jaws for wear. They should not show light through the jaws.
- Examine cutting instruments and knives to be sure their blades are sharp and undamaged.



- Rinse instruments thoroughly under running water. While rinsing, open and close scissors, hemostats, needle holders and other hinged instruments to ensure that hinge areas are also rinsed.
- Dry instruments thoroughly with a clean towel. This minimizes the risk of corrosion and formation of water spots. Use a spray lubricant (WPI #500126) in the hinges to improve the function of the instrument.

#### **ULTRASONIC CLEANING**

The vibrating sound waves create micron-size bubbles in the solution that grow with the alternating pressure. When they reach a resonant size, the bubbles implode creating a force that dislodges dirt and particles, even in the smallest of crevices. The use of an ultrasonic detergent (instead of plain water) greatly improves the rate of cavitation.

- First, mix the enzymatic cleaner (like Enzol WPI #7363-4), or other neutral pH or mild alkaline detergent (like Alconox - WPI #13740) according to the manufacturer recommendations. Use deionized water, if available.
- Run the ultrasonic cleaner for several minutes to degas the solution and obtain the correct temperature.
- Place the instruments in an open position into the ultrasonic cleaner. Do not allow instruments with sharp blades to touch other instruments. All instruments must be fully submerged.



**CAUTION**: Do not place dissimilar metals (stainless, copper, chrome plated, etc.) in the same cleaning cycle.

4. Process instruments in the cleaner for 5 to 10 minutes.

- 5. Rinse the instruments with water to remove the ultrasonic cleaning solution and any remaining soils.
- Dry the instruments thoroughly with a clean towel. This minimizes the risk of corrosion and the formation of water spots.
- 7. Use a spray lubricant (WPI **#500126**) in the hinges to improve the function of the instrument.

#### **AUTOMATIC WASHER**

Follow the manufacturer's recommendations. Lubricate instruments after the last rinse cycle and before the sterilization cycle.



#### **SOAKING**

Large, non-delicate instruments may be soaked in a corrosion inhibiting detergent (like Alconox - WPI #13740) when other cleaning methods are not practical. Rinse and dry your instruments after soaking them.



## STERILIZING YOUR INSTRUMENTS

Sterilization removes all microbes from the surface of your surgical instruments. For tips on cleaning, disinfecting and sterilizing your surgical instruments, see our video series on Caring for your Surgical Instrument Investment at www.wpiinc.com/sterilize.

#### **AUTOCLAVING**

 Using a surgical instrument lubricant (WPI #500126), lubricate all instruments that have any metal-to-metal action such as scissors, hemostats, needle holders, self retaining retractors, etc.

**CAUTION**: Do not use WD-40, oil or other industrial lubricants.

**CAUTION**: Never lock an instrument during autoclaving. This will prevent the steam from reaching and sterilizing the metal-to-metal surfaces. Heat expansion during autoclaving could cause cracks in hinge areas.

- 2. Place a towel on bottom of the sterilization tray to absorb excess moisture during autoclaving. Arrange the instruments in the trays.
- 3. Load the autoclave chamber, but do not overload it. Overloading may hinder steam penetration.
- 4. Run your autoclave according to the manufacturer's directions. At the end of the autoclave cycle (before the drying cycle) unlock autoclave door and open it no more than a crack (about 3/4"). Run the dry cycle for the period recommended by the autoclave manufacturer. If the autoclave door is opened fully before the

drying cycle, cold room air will rush into the chamber, causing condensation on the instruments. This will result in water stains on instruments and also cause wet packs.

#### **COLD STERILIZATION**

Most cold sterilization solutions require a 10-hour immersion to render instruments sterile, but this prolonged chemical action may be more detrimental to surgical instruments than the 20-minute autoclave cycle. If the instruments only need to be disinfected (clean and free of most microorganisms), cold sterilization is acceptable, since disinfection will take place in only 10 minutes. However, to render the instruments sterile (with absolutely no microorganisms surviving), autoclaving is recommended.



**CAUTION**: For instruments with tungsten carbide inserts (needle holders, scissors, tissue forceps), do not use solutions containing benzyl ammonium chloride which will destroy the tungsten carbide inserts.

## STORING YOUR INSTRUMENTS

Proper storage of surgical instruments extends their life, and keeps them clean and ready for use.

Instruments should be stored in a clean and dry environment until use. If it is important to keep them sterile, opt for sterilization trays or keep them wrapped in their sterile packages. Instruments stored in covered, dry, sterile trays remain sterile for up to a week. Store wrapped packages in a warm, dry, closed cabinet. Instruments remain sterile as long as the wrapping is dry and intact.



# STAIN GUIDE FOR STAINLESS STEEL

Although stainless steel is corrosive resistant, it can still rust and/or stain if it is handled improperly. To determine if a discoloration is rust or just a stain, attempt to erase the discoloration with a pencil eraser. If there is pitting in the metal under the discoloration, it is corrosion. If the discoloration is removed, it was just a stain.

STAIN COLOR	CAUSE
Brown/Orange	High pH
Dark Brown	Low pH
Bluish/Black	Reverse plating due to mixed metals during cleaning process
Multi-color	Excessive heat

STAIN COLOR	CAUSE
Light/Dark Spots	Water droplets drying on the surface
Black	Contact with ammonia
Gray	Excessive use of rust remover solution
Rust	Dried-on blood or bio-debris

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## GLOSSARY-

We have collected some of the common terms you may find in our catalog.



**Arthroscopy**–Using an arthroscope to examine the inside of a joint.

Aspirate-Using suction to remove fluid or gas from a joint area or cavity.

Atraumatic-Will not cause damage to tissue by crushing or biting. Autoclave-Piece of equipment that uses heat and steam to sterilize surgical instruments.

**Biopsy**-To excise and analyze living tissue from an organism.

**Blunt**-Tip of a surgical instrument that has a rounded shape. (Opposite: Sharp)

Caliper-An instrument used to make measurements during Blunt/Blunt implant procedures and when installing orthopedic screws.

Cavitation-The forming of tiny bubbles created by sound waves during the cleaning process in an ultrasonic cleaner.

**Ceramic coating**–Our black instruments have a thin titanium nitride (TiN) coating. TiN is an extremely hard ceramic material, which hardens and protects the cutting edge. Coating surgical instruments with a black ceramic offers several distinct advantages. They are nonreflective, corrosion resistant, low friction, wear and tear resistant and biocompatible.

**Corrosion**–Gradual eroding of a surface on surgical instruments which may be caused by exposure to chemicals or failure to properly clean and store them.

**Corrosive**–Causes the gradual dissolving and deterioration of a substance, especially by chemicals.

Cleaning detergents-Solutions manufactured to aid in the removal of dirt, protein and biological debris from surgical instruments. This is the first stage of caring for surgical instruments, but it does not disinfect or sterilize the instruments.

Curette-A small, sharp, ice cream scoop shaped instrument used to scrape, shape and remove bone material during a surgery.

Curved-Gentle bend in the tip of a pair of scissors or forceps.

Dissect-To methodically take apart, cut up or

separate tissue for the purpose of analysis. To study the minute details.

**Dissector**–Surgical instrument probe used during a dissection to separate tissues or tissue layers.

**Hemostat**–Ring forceps (also called hemostatic forceps) which are hinged and look like ring scissors and are used to control blood flow. Frequently, hemostats have a locking mechanism called a ratchet, that is used for clamping. Hemostats are used to compress blood vessels or other tubular structures to obstruct the flow of blood or fluids.

Jaws-Business end of ring handled forceps or scissors that is used for grasping or cutting.

Lamina-A thin layer of organic material. For example, it could come from a bone or membrane.

**Laminectomy**–Excision, or cutting away, of the posterior arch of a vertebrae.

**Retractor**–Surgical instrument used to hold an incision or a wound open, or to hold an organ or tissue out of the way to expose what is underneath. Three broad categories of retractors include hand retractors, self-retaining retractors and wire retractors. Hand retractors must be held by an assistant, a robot or the surgeon during a procedure. Self-retaining retractors have a mechanical device for holding tissue during surgery, allowing hands free operations. Selfretaining retractors have a screw, ratchet or some type of clamp to hold the tissue by itself. These allow the surgeon to operate with two free hands. Wire retractors are the simplest style of retractor. Usually

the wire has some spring so that the surgeon can pinch it together, position it and release it. These also free up the surgeon's hands.

Rongeur-Surgical instrument like pliers with a heavy, pointed jaw. They are used for gnawing holes in bones during surgery. This could be neurosurgery where the surgeon must remove part of the skull to expose the brain, an orthopedic surgery or a cadaver dissection.

**Scissors**–Surgical instrument that has two blades joined together in the middle so that the sharp edges slide against each other, shearing what is between the blades. Two main styles exist. Standard scissors have ring handles to put your thumb and index finger in. Spring scissors fit in the palm of your hand and are held between your fingertips and thumb. They shear as you squeeze your thumb and fingers together. They may be used ambidextrously.

Self-retaining-A surgical instrument which can maintain a fixed position. A self-retaining retractor or clamp may have a screw to set the position when surgeon has it in the correct spot. The retractor will remain in position, leaving the surgeon a free hand.

**Serrations**–Small grooves on the edge or tips of a surgical instrument. They typically have a pattern which could be vertical grooves, horizontal grooves, diamond cuts or cross-hatching.

**Shanks**-The mid-section of ring handled surgical scissors or forceps where a ratchet mechanism may be located.

**Sharp**-Tip of a surgical instrument which has a pointed tip. A pair of scissors or a rake retractor can have pointed tips. Sharp is a common slang for any sharp surgical instrument. Sharp/Sharp (Opposite: Blunt)



**Smooth**-Tip of a surgical instrument that has no teeth.

**Soft tissue instruments**-Basic surgical instruments which are required for making incisions, subcutaneous tissue dissection and wound closure.

**Spotting**–Discolorations and marks on a surgical instrument caused by non-adhesive surface contaminants.

**Staining**–Discolorations and marks on a surgical instrument caused by semi-adhesive surface contaminants. These are difficult to remove.

Stainless steel-An alloy of steels where the main metal is iron alloyed with chromium, carbon, manganese, silicon and other elements. Chromium helps with rust resistance, and the other elements can be added for specific characteristics. Most surgical instruments are manufactured from stainless steel.

**Sterilization**–Process that destroys all microbial life, including spores, on your surgical instruments to make them safe from contamination. Dry heat or autoclaving are the preferred method of sterilizing surgical instruments. Gas and chemical sterilization methods exist too.

Tungsten carbide inserts-Tungsten carbide metal plates are soldered or welded into the jaw of an instrument. Tungsten carbide instruments are more durable, hold an edge longer and last longer than stainless steel instrument Surgical instruments with gold handles have tungsten carbide inserts in the blades. NOTE: Inserts may also be replaced, extending the life of an instrument.

Teeth-Small, pointed notches or projections on the end of tissue forceps which are used to grasp tissue and prevent the instrument from slipping.



Tissue-A group of cells acting together that have a specialized purpose or perform a particular function.

**Ultrasonic cleaner**–Mechanical tank that used sound waves (known as cavitation) to clean surgical instruments. They are commonly used before lubrication and sterilization.

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1405-9-2	14057-10								
1409-9	14058-10			500076		500342	40, 41, 42, 81		
1401-16.0   155   1421.   59   500079   8, 8, 130   500344.   121   501220.   6.4     14079   9.5   14213.   3.1, 86   500085.   80   500345.   121   501221.   6.4     14080.   1.15   14214.   70   500086.   7, 49   500346.   121   501221.   6.4     14080.   1.15   14214.   70   500088.   121   500347.   121   501221.   6.4     14080.   1.15   14214.   70   500088.   121   500348.   111   501222.   6.4     14080.   1.15   14215.   70   500088.   121   500348.   111   501222.   6.4     14081.   1.14   14215.   70   500088.   121   500348.   111   501222.   6.4     14081.   1.14   14215.   70   500092.   40, 91   500390.   111   501222.   38, 68     14089.   128   14216.   71   50022.   491   500350.   111   501223.   38, 68     14099.   128   14217.   71   500137.   310   500552.   111   501223.   38, 68     14099.   128   14217.   71   500137.   310   500552.   111   501224.   38, 68     14099.   127   14218.   4, 40, 46   9   500162.   144   500555.   111   501225.   38, 68     14091.   40, 129   14219.   4, 69   500162.   144   500555.   111   501225.   38, 68     14091.   40, 129   14219.   4, 69   500177.   77, 42, 91   500363.   111   501225.   38, 68     14091.   129   14219.   4, 69   500177.   77, 42, 91   500362.   129   501227.   38, 68     14096.   81   14219.   4, 69   500177.   77, 42, 91   500362.   129   501227.   38, 68     14096.   81   14219.   77, 71   50078.   91   500362.   129   501227.   38, 68     14099.   22   14219.   77, 71   50078.   91   500363.   86   501227.   38, 68     14099.   23   14212.   77, 71   50078.   91   500363.   86   501227.   38, 68     14099.   30   31   14220.   77, 71   50078.   91   500363.   86   501227.   38, 68     14099.   31   34226.   38, 69   500217.   77, 72   500364.   86   501229.   68     14110.   41, 118   14224.   69   500217.   77, 72   500364.   86   501229.   68     14110.   41, 118   14224.   69   500217.   77, 72   500364.   86   501229.   68     14110.   41, 118   14224.   69   500217.   77, 72   500364.   86   501229.   68     14110.   41,		14210	95	500077		500343			
14079.   95   14213.   31,86   500085.   80   500345.   121   501226.   64     14080.   115   14214.   70   500086.   7,49   500346.   121   501221.   64     14080.   115   14214.   70   500087.   122   500347.   121   501221.   64     14081.   114   14215.   70   500088.   121   500348.   111   501222.   64     14081.   114   14215.   70   500088.   121   500348.   111   501222.   64     14081.   114   14215.   71   500092.   40,91   500399.   111   501222.   64     14084.   122   14216.   71   500092.   91   500399.   111   501223.   38,68     14089.   128   14216.   71   500176.   172,188,189   500351.   42,111   501223.   38,68     14089.   128   14216.   71   500137.   130   500352.   111   501224.   38,68     14089.   128   14217.   71   500137.   130   500352.   111   501224.   38,68     14090.   127   14218.   4,40,41,69   500143.   130   500353.   111   501225.   38,68     14090.   127   14218.   4,40,41,69   500143.   130   500354.   111   501225.   38,68     14091.   40,129   1218-6.   69   500162.   144   500355.   111   501225.   38,68     14091.   129   14219.   4,69   500177.   74,29   500382.   128   501226.   38,68     14096.   81   14220.   77,71   500178.   91   500362.   129   501226.   68     14097.   81   14226.   77,71   50078.   91   500383.   128   501226.   38,68     14099.   22   14214.   77,71   50078.   91   500362.   129   501226.   68     14099.   23   14221.   77,71   50078.   91   500362.   129   501226.   68     14099.   41,118   14226.   69   500777.   77,29,91   50084.   86   501228.   38,68     14100.   81   14220.   77,71   500216.   77,71   500216.   77   500864.   86   501228.   38,68     14109.   41,118   14226.   69   500271.   77   500864.   86   501228.   68     14100.   41,118   14226.   69   500271.   77   500864.   86   501228.   68     14110.   41,118   14226.   69   500271.   77   500866.   60   500230.   18,68     14110.   41,118   14226.   69   500271.   77   500866.   60   500233.   74   60     14111.   53   14240.   31,41,42,48   500226.   73   500666.   62		14211	95	500079	8, 130			501220	
14000.   115   14214.   70   500086   7,49   500346   121   501221-1   64     14009-6		14213		500085	80			501220-G	
1409G		14214	70	500086				501221	64
14081-6		14214-G	70	500087				501221-G	64
14081-G		14215	70	500088		500348		501222	64
14084   122   14216   71   50009-G   91   500050   111   501223   38,68   14089   128   141217   71   500125   172,188,189   500351   42,111   501224   38,68   14089   127   14217G   71   500137   130   500352   111   501224   38,68   14090   127   14217G   71   500137   130   500353   111   501224   68   14090   127   14218   4,40,416   900143   130   500354   111   501225   38,68   14091   40,129   14218   4,40,416   900143   130   500355   111   501225   38,68   14091   40,129   14218   4,69   500162   144   500355   111   501255   38,68   14091   41219   4,69   500177   27,42   91   500388   128   50126   68   14091   41219   4,69   500177   27,42   91   500386   129   501226   68   14095   81   14220   77,71   500178   91   500362   129   501227   38,68   14098   30,81   14221   77,71   500178   91   500362   129   501227   38,68   14099   32   14221   77,71   500176   72   500363   86   501228   38,68   14099   32   14221   77,71   50016   72   500364   86   501228   38,68   14099   32   14221   77,71   500216   72   500364   86   501228   68   14099   41,118   14224   69   500277   72   500365   86   501229   68   1409   41,118   14225   69   500217   72   500365   86   501229   68   1409   41,118   14225   69   500217   72   500365   86   501229   68   14100   41,118   14225   69   500218   73   500365   73   500365   74   86   501229   68   14100   41,118   14225   69   500218   73   500365   60   62   501231   68   14110   60   118   14225   74   74   74   74   74   74   74   7		14215-G	70	500092	40, 91	500349		501222-G	
14089.   128		14216	71	500092-G	91	500350		501223	
14089-G.   128		14216-G	71			500351			
14090.   127									
14090-G.         127         14218.         4, 40, 41, 69         500143.         130         500354.         111         501225.         38, 68           14091.         40, 129         14219.         6, 69         500162.         144         500355.         111         501225-G.         68           14091-G.         129         14219.         6, 49         500177.         72, 42, 91         500358.         128         501226.         38, 68           14095.         81         14219.         6, 69         500177-G.         91         500362.         129         501226.         68           14095.         81         14220.         17,71         500178.         91         500362.         129         501227.         36,68           14097.         33         14220.         17,71         500178.         91         500362.         129         501227.         36,68           14098.         30,81         14221.         17,71         500178.         91         500362.         86         501227.         36,68           14099.         32         14221-G.         17,71         500178.         72         500362-G.         86         501228-G.         68 <t< td=""><td></td><td>14217-G</td><td> 71</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		14217-G	71						
14091         40, 129         14218-G.         69         500162.         144         500355.         111         501225-G.         68           14091-G.         129         14219.         4, 69         500177.         27, 42, 91         500358.         128         501226.         36,68           14095.         81         14220.         17,71         500178.         91         500362-G.         129         501227.         38,68           14096.         81         14220.         17,71         500178-G.         91         500362-G.         129         501227.         38,68           14097.         83         14220.         17,71         500178-G.         91         500363.         86         501227-G.         68           14098.         30,81         14221-G.         17,71         500216-G.         31,72         500363-G.         86         501228-G.         68           14098.         82         14221-G.         17,71         500216-G.         31,72         500364-G.         86         501229-G.         68           14101.         81         14224-G.         69         500217-G.         72         500365-G.         86         501229-G.         68									
1499-G.   129   14219.   4,69   500177-C.   27,42,91   500358.   128   501226.   38,68   14095.   81   14219-G.   69   500177-G.   91   500362-G.   129   501227-G.   68   14096.   81   14220-G.   117,71   500178.   91   500362-G.   129   501227-G.   68   14097.   83   14220-G.   117,71   500178-G.   91   500363.   86   501227-G.   68   14098.   30,81   14221.   17,71   50016-G.   72   500363-G.   86   501228-G.   88   14099.   82   14221-G.   17,71   500216-G.   31,72   500364-G.   86   501228-G.   68   14099.   82   14224-G.   69   500217.   72   500364-G.   86   501229-G.   68   14109.   41,118   14224-G.   69   500217-G.   72   500365-G.   86   501229-G.   68   14109-G.   118   14224-G.   69   500217-G.   72   500365-G.   86   501229-G.   68   14109-G.   118   14225-G.   69   500218-G.   73   500365-G.   86   501239-G.   68   14106-G.   118   14225-G.   69   500218-G.   73   500366-G.   62   501239-G.   68   14110-G.   118   14226-G.   28,29,85   500219-G.   73   500366-G.   62   501231-G.   68   14110-G.   118   14226-G.   28,29,85   500219-G.   73   500366-G.   62   501231-G.   68   14110-G.   118   14226-G.   28,29,85   500219-G.   73   500366-G.   62   501231-G.   68   14111-G.   53   14240-G.   148   500220-G.   73   500367-G.   62   501231-G.   68   14111-G.   53   14240-G.   148   500220-G.   73   500367-G.   62   501231-G.   68   14111-G.   53   14240-G.   148   500220-G.   73   500368-G.   145   501234-G.   68   14111-G.   53   14240-G.   148   500220-G.   73   500368-G.   145   501234-G.   68   14111-G.   53   14240-G.   148   500220-G.   73   500368-G.   145   501234-G.   68   14111-G.   53   14240-G.   148   500220-G.   73   500368-G.   145   501234-G.   68   14111-G.   53   14240-G.   148   500220-G.   73   500368-G.   145   501234-G.   48   14113-G.   95   14393-G.   145,99   500221-G.   73   500368-G.   145   501234-G.   48   14113-G.   95   14393-G.   145,99   500221-G.   73   500368-G.   145   501234-G.   48   14111-G.   95   14393-G.   145,99   500223-G.   114   500373-G.   145   501234-G									
14095									
14096.         81         14220.         17,71         500178.         91         500362-G.         129         501227.         38,68           14097.         83         14220-G.         17,71         500178-G.         91         500363.         86         501227-G.         68           14098.         30,81         14221-G.         17,71         500216-G.         31,72         500364-G.         86         501228-G.         68           14101.         81         14224.         69         500217.         72         500364-G.         86         501229-G.         68           14109.         41,118         14224-G.         69         500217-G.         72         500364-G.         86         501229-G.         68           14109.         41,118         14224-G.         69         500217-G.         72         500364-G.         86         501229-G.         68           14109-G.         118         14225-G.         69         500218-G.         73         50036-G.         86         501229-G.         68           14110-G.         118         14226-G.         89         500219-G.         73         50036-G.         62         501230-G.         68           1411									
14097									
14098.   30,81   14221-G.   17,71   500216.   72   500363-G.   86   501228.   38,68   14099.   82   14221-G.   17,71   500216-G.   31,72   500364.   86   501228-G.   68   14101   81   14224-G.   69   500217-G.   72   500365.   19,86   501229-G.   68   14109.   41,118   14224-G.   69   500217-G.   72   500365.   19,86   501229-G.   68   14109-G.   118   14225-G.   69   500218.   73   500365-G.   86   501230-G.   68   14109-G.   118   14225-G.   69   500218-G.   73   500366-G.   62   501230-G.   68   14110-G.   118   14225-G.   69   500218-G.   73   500366-G.   62   501230-G.   68   14110-G.   118   14226-G.   82,9,85   500219-G.   73   500366-G.   62   501231-G.   68   14111-G.   53   14226-G.   85   500219-G.   73   500367-G.   62   501231-G.   68   14111-G.   53   14226-G.   85   500219-G.   73   500367-G.   62   501231-G.   68   14111-G.   53   14226-G.   84   500220.   73   500368-G.   62   501232.   7,49   14112-G.   53   14220-G.   148   500220-G.   73   500368-G.   145   501233.   7,48   14112-G.   53   14229-G.   8,40,129   500221-G.   73   500368-G.   145   501234.   48   14113-G.   53   14292-G.   8,40,129   500221-G.   73   500368-G.   145   501234.   48   14113-G.   59   14393-G.   59   500221-G.   73   500369-G.   145   501235-G.   48   14113-G.   59   14393-G.   59   500221-G.   73   500369-G.   145   501235-G.   50   14114-G.   59   14393-G.   59   500222-G.   85   500372.   6   501236-G.   52   14114-G.   59   14393-G.   59   500223-G.   114   500372-T.   6,75   501236-G.   52   14114-G.   51   14394-G.   59   500223-G.   114   500372-T.   6,75   501236-G.   50   14116-G.   123   14395-G.   17,90,69   500224-G.   119   500374.   6,75   501236-G.   50   14116-G.   123   14395-G.   17,90,69   500225-G.   115   500376-G.   68   501239-G.   50   14117-G.   123   14395-G.   17,69   500225-G.   115   500376-G.   68   501239-G.   50   14117-G.   123   14395-G.   17,69   500225-G.   115   500376-G.   68   501239-G.   50   14117-G.   501236-G.   501236-G.   501236-G.   501236-G.   501236-G.   501236-G.									,
14099									
14101.       81       14224.       69       500217.       72       500364-G.       86       501229.       68         14109.       41, 118       14224-G.       69       500217-G.       72       500365.       19, 86       501229-G.       68         14109.       118       14225.       18, 69       500718.       73       500365-G.       86       501230.       68         14110.       41, 118       14225.       6.       69       500218-G.       73       500366.       62       501230-G.       68         14110.       41, 118       14226.       28, 29, 85       500219.       73       500366.       62       501231-G.       68         14110.       53       14226-G.       85       500219-G.       73       500367-G.       62       501231-G.       68         14111.       53       14240-G.       148       500220-G.       73       500367-G.       62       501231-G.       68         14112.       30, 53       14240-G.       148       500220-G.       73       500367-G.       62       501231-G.       68         14112G.       53       1429-G.       148       500220-G.       73       500368-G.									
14109.									
14109-G									
14110.									
14110-G         118         14226.         28,29,85         500219.         73         500366-G.         62         501231.         68           14111.         53         14226-G.         85         500219-G.         73         500367.         62         501231-G.         68           14111.         53         14240.         31,41,42,148         500220.         73         500367-G.         62         501231-G.         68           14112.         30,53         14240-G.         148         500220-G.         73         500368.         145         501233.         7,48           14112-G.         53         14292.         8,40,129         500221-G.         73         500368-G.         145         501234.         48           14113.         95         14292-G.         8,129         500221-G.         73         500368-G.         145         501234.         48           14113.         95         14292-G.         8,129         500221-G.         73         500369-G.         145         501234-G.         48           14113.         95         14361.         115,116         500222.         85         500369-G.         145         501235-G.         50           1									
14111.         53         14226-G.         85         500219-G.         73         500367.         62         501231-G.         68           14111-G.         53         14240.         31,41,42,148         500220.         73         500367-G.         62         501232.         7,49           14112.         30,53         14240-G.         148         500220-G.         73         500368.         145         501233.         7,48           14112-G.         53         1429.         8,40,129         500221-         73         500368-G.         145         501234.         48           14113.         95         14292-G.         8,129         500221-G.         73         500369-G.         145         501234-G.         48           14113.         95         14361.         115,116         500222-G.         85         500369-G.         145         501234-G.         48           14114.         95         14393.         41,59         500222-G.         85         500372.         6         501236-G.         52           14114-G.         95         14393-G.         59         500223-G.         114         500372-T.         6,75         501236-G.         52           1									
14111-G.         53         14240.         31,41,42,148         500220.         73         500367-G.         62         501232.         7,49           14112.         30,53         14240-G.         148         500220-G.         73         500368.         145         501233.         7,48           14112-G.         53         14292.         8,40,129         500221-G.         73         500368-G.         145         501234.         48           14113.         95         14292-G.         8,129         500221-G.         73         500369-G.         145         501234-G.         48           14113.G.         95         14393.         115,116         500222.         85         500369-G.         145         501234-G.         48           14114.         95         14393.         41,59         500222-G.         85         500372.         6         501236.         52           14114-G.         95         14393-G.         59         500223-G.         114         500372-T.         6,75         501236-G.         52           14116.         123         14394-G.         59         500223-G.         114         500372-T.         6,75         501237.         52									
14112.         30,53         14240-G.         148         500220-G.         73         500368.         145         501233.         7,48           14112-G.         53         14292.         8,40,129         500221.         73         500368-G.         145         501234.         48           14113.         95         14292-G.         8, 129         500221-G.         73         500369.         145         501234-G.         48           14113-G.         95         14361.         115,116         500222.         85         500369-G.         145         501234-G.         48           14114.         95         14393.         41,59         500222-G.         85         500372.         6         501236.         52           14114-G.         95         14393-G.         59         500223.         114         500372-T.         6,75         501236-G.         52           14116.         123         14394-G.         59         500223-G.         114         500373-T.         6,75         501237.         52           14116.         123         14394-G.         59         500224-G.         119         500374.         6,75         501238.         52           14116. <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
14112-G.         53         14292.         8, 40, 129         500221.         73         500368-G.         145         501234.         48           14113.         95         14292-G.         8, 129         500221-G.         73         500369.         145         501234-G.         48           14113-G.         95         14361.         115, 116         500222.         85         500369-G.         145         501234-G.         48           14114.         95         14393.         41, 59         500222-G.         85         500372.         6         501236.         52           14114-G.         95         14393-G.         59         500223.         114         500372-T.         6, 75         501236-G.         52           14115.         114         14394.         59         500223-G.         114         500373.         17, 95         501237.         52           14116.         123         14394-G.         59         500224-G.         119         500374.         6, 75         501238.         52           14116-G.         123         14395-G.         17, 30, 69         500224-G.         119         500377.         42, 84         501239.         92									
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Equipment is shipped in adequate commercial packing. All packages should be checked thoroughly before being discarded. Shipping and handling expenses, including adequate insurance coverage, are paid by the customer.

#### **Claims and Returns**

Inspect all shipments upon receipt. Missing cartons or obvious damage to cartons should be noted on the delivery receipt before signing. Concealed loss or damage should be reported at once to the carrier and an inspection requested. All claims for shortage or damage must be made within ten (10) days after receipt of shipment. Claims for lost shipments must be made within thirty (30) days of receipt of invoice or other notification of shipment. Please save damaged or pilfered cartons until claim is settled. In some instances, photographic documentation may be required. Some items are time-sensitive; WPI assumes no extended warranty or any liability for use beyond the date specified on the container

Do not return any goods to us without obtaining prior approval and instructions from our Returns Department. Goods returned unauthorized or by collect freight may be refused. Goods accepted for restocking will be exchanged or credited to your WPI account and are subject to a restock fee of up to 25%. Goods returned which were ordered by customers in error are subject to a 25% restock fee. Equipment which was built as a special order cannot be returned.

#### **Repairs**

Contact our Returns Department for assistance in the repair of apparatus. Do not return goods until instructions have been received. Returned items must be securely packed to prevent further damage in transit. The Customer is responsible for paying shipping expenses, including adequate insurance on all items returned for repairs. Identification of the item(s) by model number, name, serial number and proof of purchase (packing slip number or invoice number) as well as complete description of the difficulties experienced should be written on the RMA request form and a copy of the form must be included with the item.

## ORDERING INFORMATION

Orders from North America should be directed to WPI's main office:

World Precision Instruments, Inc.

175 Sarasota Center Boulevard Sarasota, Florida 34240-9258

Telephone: (941) 371-1003 (collect calls not accepted). Facsimile copies of purchase orders, inquiries or other correspondence may be transmitted to WPI's Fax number: (941) 377-5428. When sending written purchase orders to confirm a telephone order, please clearly mark "CONFIRMING" on the order to avoid it being shipped a second time. Our Sales Department's e-mail address is: sales@wpiinc.com

North American customers may also order many products online through WPI's Web site — www.wpiinc.com. All customers may use the online Quote Request Form and online Purchase Order Form.

Orders from Belgium, Denmark, Eire, Finland, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland (FR) and the United Kingdom should be directed to

WPI UK: 1 Hunting Gate
Hitchin, Hertfordshire SG4 0TJ England
Tel: +44 (0)1462 424700 Fax: +44 (0)1462 424701
E-mail: wpiuk@wpi-europe.com

Customers in **France** may call +33 (0)970 44 9000 or e-mail wpifr@wpi-europe.com.

Orders from Austria, Germany, Greece, Italy, Malta, Netherlands, Russian States, Switzerland (DE) and Turkey should be directed to

**WPI Germany:** Zossener Strasse 55-58 D-10961 Berlin, Germany

Tel: +49 (0) 30-6188845 Fax: +49 (0)30-6188670 E-mail: wpide@wpi-europe.com

Orders from China, Hong Kong and Taiwan should be directed to

**WPI China:** WPI Shanghai Trading Co., Ltd., Rm 25e No8 Dong Fang Rd., Lu Jia Zui Financial District Shanghai PRC

Tel: + 86 688 85517

Email: chinasales@china.wpiinc.com

Orders from **Brazil** should be directed to

WPI Brazil: Av: Conselheiro Nebias, 756 sala 2611

Santos - Sao Paulo - Brasil CEP: 11045-002

Email: Info@brazil.wpiinc.com

Orders from the countries listed below should be directed to the appropriate WPI distributors. All other international orders should be directed to WPI's main office and factory in Sarasota, Florida.

To expedite shipment of orders outside North America (other than to areas served by the international offices above), payment must be made in advance via wire transfer, check payable in U.S. dollars, or charged to a credit card. Proforma Invoices will gladly be furnished upon request. Please specify proper electrical current for your order.







AT HOME AND AROUND THE GLOBE
HELPING RESEARCHERS MAKE OUR WORLD
HEALTHY AND HAPPY