gSource®

An ARCH Medical Solutions Company

Finest Quality Instruments
for Surgeons

gSource®

An ARCH Medical Solutions Company

gSource thanks the following individuals for their contributions in the creation of this catalog:

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About the gSource Catalog

The gSource catalog is arranged in order by instrument family. The first two digits of the gSource part number correspond to a general instrument group. Each page is marked with a general instrument group # followed by the page #.

This 2017 edition includes over 4,100 specially selected instruments with many primarily used in orthopedic and spinal procedures.

More than 100 instruments in the catalog are part of a collection of modified or improved versions of standard instruments referred to as the gLine. These instruments were created based on feedback received from surgeons and other healthcare professionals. The letter "g" in front of the instrument description identifies an item as a gLine instrument.

Please inquire about the availability of any instrument not shown in this catalog. For a quick answer on availability of other patterns not in the gSource catalog, refer to our website. You can view new instruments and use the cross reference feature to help you seach for the gSource equivalent of a brand-name part number. You can also email or fax us a copy of the instrument picture and description or instrument brand-name part number.

Instrument making is still a fine art done by master craftsmen in our German, Polish and U.S. facilities. As such, slight variations in pattern, overall length and style may occur. Every effort has been made to represent the instruments in this catalog with accurate pictures and detailed tip illustrations.

Ordering gSource Instruments

Healthcare Facilities

gSource is represented by a select group of distributors and representatives located worldwide. Contact gSource Customer Service for the authorized distributor or representative in your area.

Medical Device Companies (OEM)

Contact gSource Customer Service directly.

gSource, LLC
19 Bland Street
Emerson, NJ 07630
USA

P (800) 978-1119
(201) 599-2277
F (201) 599-3306
E email@gSource.com
www.gSource.com

gSourceLLC

ISO 13485:2003 Certified
FS 589741
FDA Registered

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gSource®
An ARCH Medical Solutions Company

01/2 - introduction to gSource

gSource

gSource is committed to putting the finest instruments into the hands of surgeons and their teams.

Not all instruments are created equal. Adequate for the job is, in reality, inadequate. A better instrument reduces distractions and facilitates surgical procedures. A better instrument helps a surgeon perform at his/her best.
A better instrument leads to better results.
gSource provides better instruments.

gSource Attributes

Whether crafted from German surgical stainless steel, or machined from U.S. surgical stainless steel, our instruments are recognized by their finely finished surface. They are designed to perform with precise surgical function and are also conceived to be affordable. It is this combination that distinguishes the gSource brand.

Orthopedic and Spinal Focus

Founded in 1999, gSource is more than a source for quality instrumentation. gSource is an advocate for the orthopedic and spinal community. We can be relied upon to provide superior instrumentation and do so in a time-critical fashion.

Service First

Your inquiries will be answered quickly and accurately by knowledgeable professionals. We are committed to being a valuable business partner and to always provide a real return on investment.

Custom Instrumentation

gSource will create entirely new instruments in a timely and economical manner. For an accurate quotation and delivery schedule, send us a sample, sketch or drawing.

Trusted Supplier to World Leaders

Many world leaders and innovators in orthopedics and spine have found in gSource a trusted and reliable partner. Contact us the next time you require an off-the-shelf or custom instrument.

Guarantee

All standard instruments are guaranteed for life against manufacturing defects of material and workmanship. Any instrument proving to be defective will be replaced or the purchase price refunded.

1. Tungsten carbide inserts are guaranteed for three years. Replaceable parts, other than springs, are guaranteed for one year. Replaceable springs are guaranteed for life against manufacturing defects of material and workmanship.
2. This guarantee is void if instruments are altered or not maintained or repaired properly or if they are not used for their intended surgical purpose.
3. Any unused instrument may be returned for full credit within 90 days of invoice date.

gSource Advantages

- Realistic price
- Verified quality
- On-time delivery
- Skilled German craftsmanship
- Precise U.S. machining
- Orthopedic and spinal focus
- Product development support
- CAD support
- Custom labeling, packaging and marking
- Unique and standard instrument patterns
- Large selection and inventory
- Forgings inventory
- Customer inventory management
- Instrument sharpening and repair
- Superior personal customer service
- ISO 13485:2003 Certified
- Full satisfaction guarantee

gSource, LLC   Emerson, NJ USA
Founded 1999

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An ARCH Medical Solutions Company

introduction to gSource - 01/3

Orthopedic and Spinal Focus

Product Development and CAD Support

Precise Machining*

Skilled Craftsmanship*

Custom Laser Marking

ISO 13485:2003 Certified

*courtesy of gSource manufacturing facility

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01/4 - introduction to gSource

Verified Quality
Hardness Tester

Verified Quality
Height Gauge

Verified Quality — Optical Comparator

Custom Labeling and Packaging

Customer Inventory Management

On-Time Delivery

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gSource Verified Quality

Every gSource instrument must pass detailed Quality Assurance (QA) tests before it can be sold.

Instruments are inspected for:
- Critical Dimensions
- Function
- Pattern Consistency
- Workmanship
- Material

We perform the following QA tests to ensure that every instrument we sell will perform its function during critical surgical procedures.

Surface inspection
All instruments are visually inspected for defects in material and surface finish. They must have a flawless satin finish and be free of excess lubricants and foreign substances.

Dimensions verified
Critical dimensions are measured with calipers, micrometers, or other specialty gauges and compared to technical drawings or gSource catalog descriptions. To ensure pattern consistency selected instruments are compared to inspection samples.

gSource Quality Policy

We ensure that gSource products consistently meet relevant and applicable requirements and specifications and we strive to provide outstanding service to our external and internal customers.

Top management ensures its commitment to comply with relevant and applicable requirements and to maintain the effectiveness of the gSource Quality Management System.

Our **gS** logo is a symbol for Verified Quality. This mark is proof of a lifetime guarantee.

bsi.
ISO 13485:2003 Certified
FS 589741
FDA Registered

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01/6 - introduction to gSource

gSource Quality Testing

In addition to general inspections, function tests are used to verify instrument quality.

Scissors
Cutting tests are performed on testing material. Scissors must not snag or bind when cutting appropriate layers of material. The heavier the scissors, the more layers of material they must cut. Blades must close smoothly without hesitation. Visual inspection is performed for burrs, especially on the cutting edge. Screw lock must be secure and a slight amount of hinge play should exist when opened.

Forceps
Closed jaws are checked against a light source to ensure that no substantial amount of light passes through. Jaws are clamped on plastic testing material. The impression should be clean and consistent. Teeth must mesh together closely. Jaws must be properly aligned. Ratchets must engage crisply and smoothly. While engaged at the first ratchet tooth, instruments should not open when tapped lightly against the edge of a table.

Needle Holders
Jaws must close tightly so that little or no light shines through the front 2/3 of closed jaws when tested against a light source. Jaws must hold suture material, and pass similar tests as outlined under forceps.

Retractors
Ratchets are checked for proper holding action. Tips are verified as either sharp, blunt or semi-sharp. Ratchet mechanisms must close smoothly. Holding power is tested to make sure ratchets remain engaged during use. Ratchet teeth must align properly.

Cutting Forceps
Cutting tests are performed with the appropriate test material. Forceps must cut cleanly with the front half of the jaws. Tips must close properly from the top to the middle of the jaws.

Pin and Wire Cutters
Cutting tests are performed according to the recommended maximum capacity of each instrument.

Only after an instrument has passed our QA inspection criteria will it be released to the market.

gSource Manufacturing

gSource instruments are manufactured from stainless steel. Stainless steel, though not truly stainless, is a highly corrosion and rust-resistant material. The metal is extremely strong and durable and has the ability to form protective or “passivation” layers.

Stainless steel differs from carbon steel by the amount of chromium present. Unprotected carbon steel rusts readily when exposed to air and moisture. This iron oxide film (the rust) is active and accelerates corrosion by forming more iron oxide. Stainless steels contain sufficient chromium to form a passive film of chromium oxide, which prevents further surface corrosion and blocks corrosion from spreading into the metal's internal structure. Passivation only occurs if the proportion of chromium is high enough.

Most gSource surgical instruments are made from German stainless steel type 1.4021 - equivalent to American steel type 420. This steel is highly corrosion resistant and has excellent longevity when properly maintained. Steel type 1.4021 is composed primarily of iron. Other components are:

Carbon	0.17-0.25%
Silicon	≤ 1.0%
Manganese	≤ 1.0%
Phosphorous	≤ 0.045%
Sulphur	≤ 0.043%
Chromium	12.0-14.0%

During the manufacturing process every effort is made to ensure that the instruments are corrosion resistant. However, if not properly maintained, stainless steel can rust and stain, reducing the life of the instrument or rendering it useless. For more detailed information on instrument care, see Section 100 – Instrument Care & Cleaning.

Heat Treatment
Heat treating makes the instruments hard and enables them to withstand rigorous use. Stainless steel is brought to a very high temperature and then cooled until it has reached the proper hardness. Hardness is measured in units called Rockwell Hardness (HRc). A typical hardness range for needle holders is HRc 40-48. For scissors, the range is HRc 50-58.

Heat treating and steel selection are just two of the more than 80 steps required to produce surgical instruments to gSource standards. We monitor and verify the accuracy of our manufacturing process through frequent audits.

Evaluation Samples

Samples for evaluation are available from gSource. Evaluation samples can only be supplied against a valid purchase order number and are invoiced at the time of shipment on established payment terms. Undamaged, unused evaluation samples may be returned for full credit within 45 days.

Trial Use Samples

gSource offers trial use samples for select instruments. Please contact gSource Customer Service to determine availability. gSource trial use samples may be used in surgery and are marked with "gSource Sample" and "Trial Use Only". gSource does not ship sterile instruments and sterilization is advised at your facility according to recommended parameters.

Trial use samples are supplied only against a valid purchase order number. Zero dollar purchase orders are not acceptable. Trial use samples are invoiced at the time of shipment at established cost with payment terms of net 60 days. Credit will be issued for the return of undamaged trial use samples within 60 days of invoice date. Trial use samples not returned to gSource within 60 days of invoice date will be payable in full. Customer may elect to purchase trial use samples. Trial use samples, used or unused, may be assessed at 25% restocking and reconditioning fee charge based upon the invoice amount.

Returns

gSource will accept instruments covered by the gSource guarantee. We cannot accept the following for credit or refund:

1. Instruments not in their original condition.
2. Instruments which have been used in surgery, unless defective. Used instruments must be sterilized prior to return and must be accompanied by a completed Certificate of Sterilization.
3. Instruments with an invoice date of more than 90 days.
4. Custom-made, custom-marked, special order or altered instruments.
5. K-Wires, Steinmann Pins, Cerclage Wire, Distraction Screws, Gigli Saw Blades.

At our discretion, a 15% restocking fee of the total value returned may apply, unless return is due to gSource error, defective product or if product was received damaged. Should instruments require neutralization for custom etching, a charge of $5.00 USD per unit will be assessed.

Instructions for Returns to gSource

A Return Authorization (RA#) is required for all returns to gSource. Please contact gSource Customer Service via email or telephone to obtain an RA# prior to your return.

The following information must be provided when requesting an RA#:

1. gSource part number(s) and quantity being returned
2. Reason for return
3. gSource invoice number or pack slip #

All returns to gSource must be accompanied by a completed Certificate of Sterilization (CofS). This is to comply with OSHA Standards (29CFR1910.1030) requiring all used instruments be sterilized prior to shipping. New instruments may be indicated on the CofS.

Please do not sterilize instruments that have not been used. A copy of our CofS will be provided to you at time of RA# assignment should you require one. Please note that sign off on a CofS by a third party is not acceptable.

Once assigned an RA#:

1. Package your returned instruments carefully and securely, using original gSource packaging and labeling where possible to securely protect against damage during transit.
2. Include a copy of the gSource invoice or pack slip, the Certificate of Sterilization and any other documentation needed.
3. Send your return to:
   gSource
   Attn: Returns
   19 Bland Street
   Emerson, NJ 07630
   The RA# must be noted prominently on the package. gSource reserves the right, at our discretion, to refuse any package not properly marked.
4. Ship your return to gSource via prepaid shipping.

All returns are subject to inspection by gSource Quality. A credit memo will be issued once the samples have passed inspection.

01/8 - introduction to gSource

Instrument Sharpening and Repair

gSource offers sharpening, spring and screw replacement and refurbishing repair services to ensure quality performance during the entire life of your gSource instruments.

Our highly skilled in-house repair technicians will expertly sharpen and repair your gSource instruments, and other instrument brands, according to gSource Verified Quality standards. Our superior customer service teamed with our instrument repair technicians will ensure you receive an excellent repair experience. Visit www.gSource.com for more information about our sharpening and repair services.

Repair Warranty

Instruments repaired by gSource repair technicians are guaranteed to be free from defects in material and workmanship for 90 days when used for their intended surgical purpose. Any repair that proves defective in workmanship or material within this 90 day period will either be repaired again or replaced, at the discretion of gSource, without charge. Instruments must be cleaned and sterilized prior to returning to gSource.

This warranty is void for gSource instruments serviced by any person or facility other than gSource. Warranty is not valid for gSource instruments that prove defective as a result of improper care and cleaning or misuse.

Instructions for Sending Repairs to gSource

1. Review our Repair Price List.
2. Print out and complete our Order Form. Please be sure to complete your contact information and address for the return shipment. Refer to the Price List for Repair Codes to include on Order Form where noted. Include the quantity, part number and description of the instrument being returned where noted.
3. Sterilize instrument prior to shipment to gSource. All returns to gSource must be accompanied by a Certificate of Sterilization.
4. Enclose the completed order form and Certificate of Sterilization in the package with the sterilized instrument needing sharpening or repair and ship via prepaid shipping to:
   gSource
   Attn: Repair Dept.
   19 Bland Street
   Emerson, NJ 07630

After sharpening and/or repair of your instrument is completed, you will receive an invoice for payment. Payment must be received prior to shipment of your repaired instrument. We accept VISA, MasterCard and AMEX credit card payments. When you receive your invoice, please contact gSource Customer Service with your credit card payment information. Our default ship method is UPS Ground unless an alternate method is specified.

Oxidation of lead surface is a normal process.

Per DIN EN 285, autoclave temperatures should not exceed:

Dry Heat:
356°F (180°C)
30 minutes

Steam:
248°F (120°C)
20 minutes

Avoid chemical sterilization.

gS 11.1900 14" Adult
gS 11.1920 10" Child

Lead Hand
with tabs

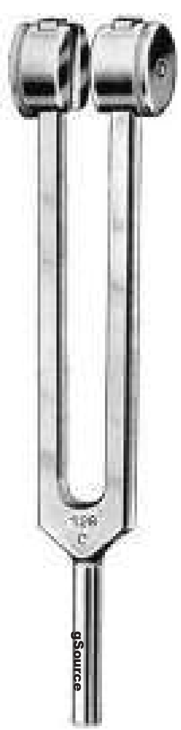
gS 11.1930 11"

Lead Hand

CPS = Cycles Per Second

C-128 CPS frequency for neurological testing.

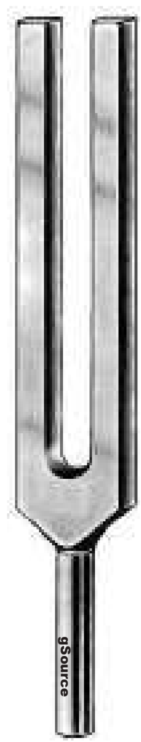
C-256 has extra long 2" handle to facilitate bone conduction tests.



gS 11.4128 8" C-128
gS 11.4256 6 1/2" C-256

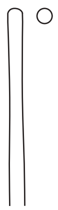
Tuning Fork
aluminum

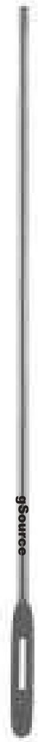
C-512 CPS frequency for auditory and conduction testing.



gS 11.4512 6 1/2" C-512

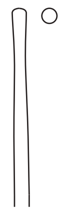
Tuning Fork
aluminum

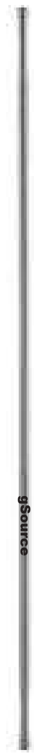




gS 11.7110 4 1/2"
gS 11.7111 5"
gS 11.7112 5 1/2"
gS 11.7113 6 1/4"
gS 11.7114 7"
gS 11.7115 8"
gS 11.7116 10"

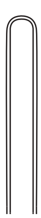
Probe with Eye
stainless steel
2mm diameter probe end

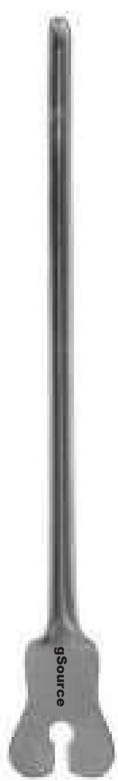




gS 11.7211 4 1/2"
gS 11.7213 5"
gS 11.7214 5 1/2"
gS 11.7216 6 1/4"
gS 11.7218 7"
gS 11.7220 8"
gS 11.7225 10"

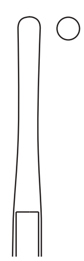
Double Ended Probe
stainless steel
2mm diameter probe end

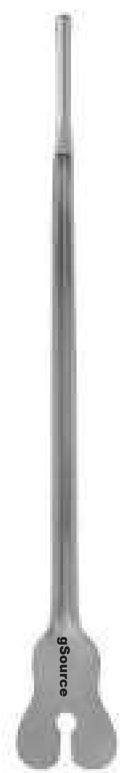




gS 11.7133 5"
gS 11.7134 5 1/2"
gS 11.7135 6"
gS 11.7136 7"
gS 11.7137 8"

Grooved Director
with tongue tie





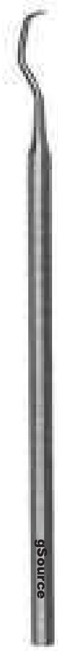
gS 11.7141 5"
gS 11.7142 5 1/2"
gS 11.7143 6"
gS 11.7144 7"
gS 11.7145 8"

Grooved Director
with tongue tie and probe

To test nerve reactions.

gS 11.6140 7"

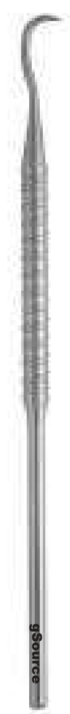
Wartenberg Pin Wheel



To check fracture and remove ingrown tissue.

gS 11.9500 6"

Sharp Hook



To check fracture and remove ingrown tissue.

gS 11.9525 6 1/4"

Sharp Hook
grooved handle

Includes brush and needle.

gS 11.5920 7 3/4"

Buck Neurological Hammer
stainless steel

To test deep
tendon reflexes.

gS 11.5600 7"
gS 11.5680 8"

Taylor Percussion Hammer

gS 11.5300 6 1/2"
gS 11.5340 blade only

Finger Ring Cutter
hollow handle

TiN coated blade stays sharp longer.

Plier handle provides strong, secure grip for better control.

gS 11.5360 6 1/2"
gS 11.5362 blade only

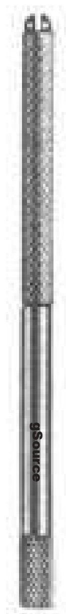
Finger Ring Cutter
plier handle

did you know… ?

The Taylor Percussion Hammer, gS 11.5600 and gS 11.5680 shown on this page, is also known as the tomahawk reflex hammer. It was designed by Dr. John Madison Taylor, a pediatric neurologist, in 1888 while working at the Philadelphia Orthopedic Hospital. This instrument is used to test deep tendon reflexes as part of a neurological physical examination in order to detect abnormalities in the central or peripheral nervous system.

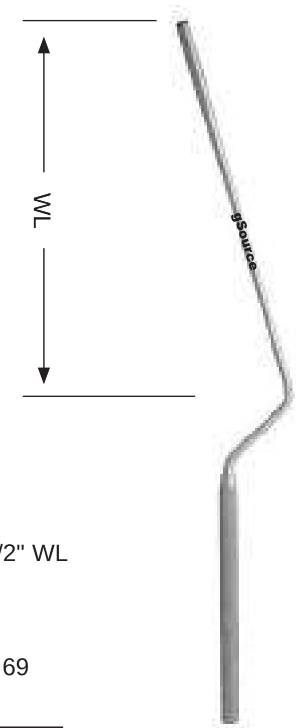
Dr. Taylor was born in 1855. He was a graduate of Princeton in 1876, and received his medical degree from the University of Pennsylvania in 1878. After serving as resident physician, he became assistant physician at Children's Hospital in Philadelphia. He established a large private practice in pediatrics and neurology in Philadelphia and also held academic positions, including appointments as professor of diseases of children at the Philadelphia Polyclinic. Dr. Taylor passed away in 1931.

WL = Working Length



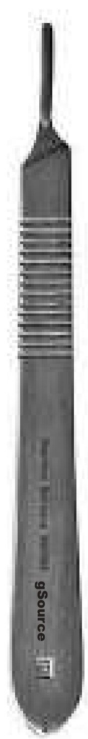
gS 12.1605 #3K 4"
gS 12.1604 #3KL 5"
gS 12.1606 #3KXL 6"

Scalpel Handle #3K
Beaver-style
for blades 61 through 69



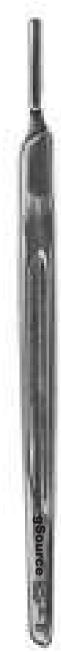
gS 12.1760 10", 5 1/2" WL

Landolt Bayonet Scalpel Handle
for blades 61 through 69
knurled handle



gS 12.1580 #3 standard 5"
gS 12.1590 #3S mm/cm scale 5"
gS 12.1610 #3L long 8"
gS 12.1615 #3LA long angled 8 1/2"
gS 12.1617 #3XL extra long 12"

Scalpel Handle #3
for blades 9 through 17



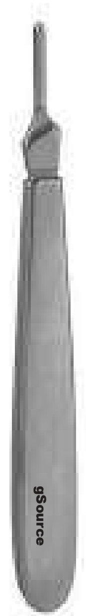
gS 12.1640 5"

Scalpel Handle #9 (7K)
for blades 9 through 17

12/2 - scalpel handles and knives

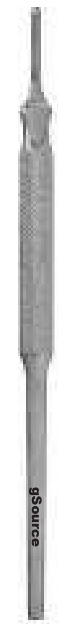
gS 12.2580 5"

Scalpel Handle #1015/8
for blades 9 through 17
hollow handle



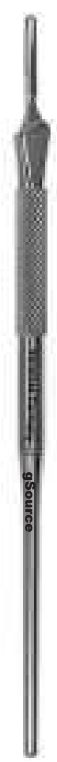
gS 12.2780 standard 6"
gS 12.2781 angled 5 3/4"

Scalpel Handle #1017/8
for blades 9 through 17
knurled handle



gS 12.1700 standard 6"
gS 12.1701 angled 6"

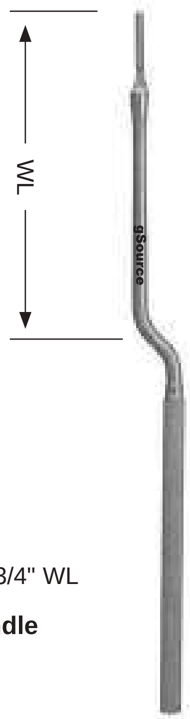
Siegel Scalpel Handle
for blades 9 through 17
knurled handle



gS 12.1620 6 1/2"

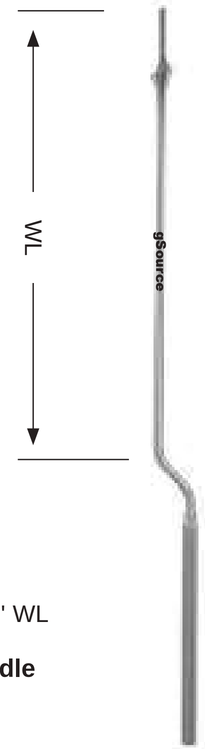
Scalpel Handle #7
for blades 9 through 17

WL = Working Length



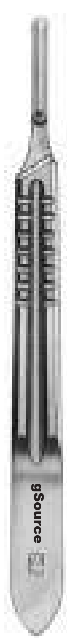
gS 12.1750 8 1/4", 3 3/4" WL

Bayonet Scalpel Handle
for blades 9 through 17
knurled handle



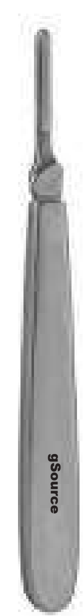
gS 12.1800 12", 6 3/4" WL

Bayonet Scalpel Handle
for blades 9 through 17
knurled handle



gS 12.1600 #4 standard 5 1/4"
gS 12.1601 #4 mm/cm scale 5 1/4"
gS 12.1602 #4L long 8 1/2"
gS 12.1603 #4LA long angled 8 1/2"

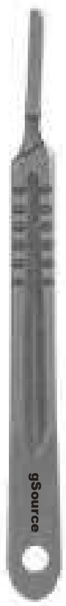
Scalpel Handle #4
for blades 18 through 36



gS 12.2590 5 1/2"

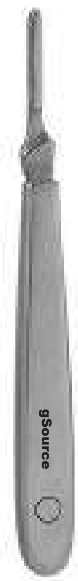
Scalpel Handle #1015/9
for blades 18 through 36

12/4 - scalpel handles and knives



gS 12.2540 5 1/2"

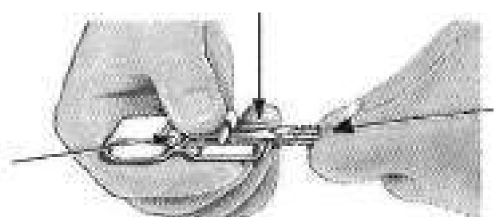
Post-Mortem Scalpel Handle #1015/4
for 60 and 70 blades



gS 12.2591 5 1/2"

Post-Mortem Scalpel Handle #1015/9
for 60 and 70 blades

1) Insert blade side up to align to guide.



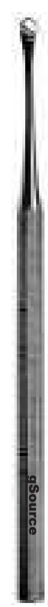
3) Pull blade off handle.

2) Press down.

Useful for safe and easy removal of blades from all handle styles. Helps to protect hands against accidental cuts and punctures.

gS 12.1000 2 1/2"

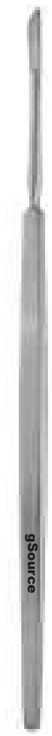
Blade Safe
surgical blade remover



gS 12.4200 5"

Soft Corn Knife
slightly curved oval blade

Useful for fistulotomy procedures.



gS 12.4000 9"

Ulrich Fistula Knife
straight

did you know… ?

Scalpel blade removers, such as gS 12.1000 shown on page 12/4, can also be used to put blades on the handle. Using a scalpel blade remover can help to reduce accidental lacerations and injuries, commonly caused when removing the blade with fingers or forceps.

The Centers for Disease Control and Prevention (CDC) estimates that about 385,000 sharps-related injuries occur annually among health care workers in hospitals. Approximately 4% of injuries are associated with reusable scalpels.

Listed below are the “sharps” safety guidelines for healthcare professionals as found on the CDC website: www.cdc.gov

Be Prepared
- Organize your work area with appropriate sharps disposal containers within reach
- Work in well-lit areas
- Receive training on how to use sharps safety devices
- Before handling sharps, assess any hazards-get help if needed

Be Aware
- Keep the exposed sharp in view
- Be aware of people around you
- Stop if you feel rushed or distracted
- Focus on your task
- Avoid hand-passing sharps and use verbal alerts when moving sharps
- Watch for sharps in linen, beds, on the floor, or in waste containers

Dispose of Sharps with Care
- Be responsible for the device you use
- Activate safety features after use
- Dispose of sharps in rigid sharps containers; do not overfill containers
- Keep fingers away from the opening of sharps containers

did you know… ?

The most common scalpel handle shapes are:

1) Flat handles: Commonly used for both rounded and straight incisions. The design of these handles is best suited for straight long cuts and general surgery. These include:

#3	#4	#7	#9
Page 12/1	Page 12/3	Page 12/2	Page 12/1
gS 12.1580	gS 12.1600	gS 12.1620	gS 12.1640
gS 12.1590	gS 12.1601		
gS 12.1610	gS 12.1602		
gS 12.1615	gS 12.1603		
gS 12.1617			

2) Rounded handles: Allow rotation between the finger and thumb. They are generally considered a better instrument for curved incisions. These include:

Beaver-style scalpel handle
Page 12/1
gS 12.1604
gS 12.1605
gS 12.1606
This handle can only be used with Beaver-style blades (61-69).

Siegel scalpel handle
Page 12/2
gS 12.1700
gS 12.1701
This handle accepts standard scalpel blades and in addition to having a rounded, knurled gripping surface, it has a smooth tapered tip that can also serve as a probe. Dr. Daniel Siegel's rounded design is ergonomic and allows the tips of the fingers to dictate the direction and depth of the incision.

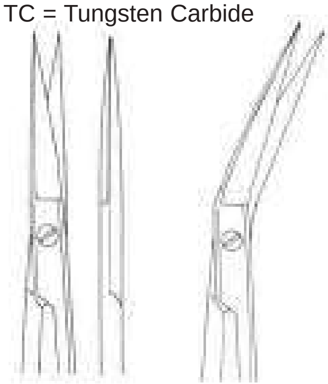
Bayonet scalpel handle
gS 12.1750 Page 12/3
gS 12.1760 Page 12/1
gS 12.1800 Page 12/3
The bayonet style handles are useful for achieving optimized visibility and access in surgical field, and for fine maneuvering and manipulation within field.

The most commonly used scalpel handle grips are:

1) Palmar grip: Usually used when making initial incisions or larger cuts. The index finger extends to the top rear of the blade and the thumb secures along the side of the handle. The second through fourth fingers hold the handle along the base of the thumb. It is commonly referred to as the “dinner knife” grip.

2) Pencil grip: Usually used when precise cuts with smaller blades are needed. The tips of the first and second fingers and the tip of the thumb hold the scalpel handle near the top rear of the blade while the handle rests on the fleshy base of the index finger and thumb. The handle should not rest too far along the index finger as it could cause an unstable grip and finger cramping.

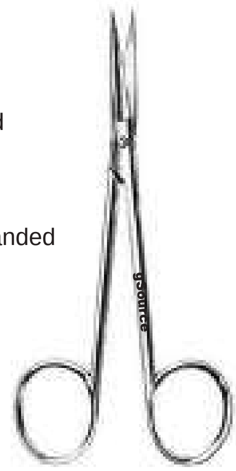
TC = Tungsten Carbide

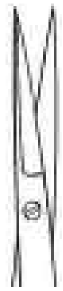


4" str   4 1/2" ang

gS 13.1640 3 1/2" str
gS 13.1660 3 1/2" cvd
gS 13.1670 4" str
gS 13.1671 4" str left-handed
gS 13.1672 4" cvd
gS 13.1680 4 1/2" str
gS 13.1720 4 1/2" cvd
gS 13.1721 4 1/4" cvd left-handed
gS 13.2380 4 1/2" angled
gS 13.1842 4 1/2" str TC
gS 13.1844 4 1/2" cvd TC

Iris Scissors
sharp points





gS 13.2381 str
gS 13.2382 cvd

Iris Scissors
4 1/2"
ribbon handles, sharp points

b/b = blunt/blunt
s/s = sharp/sharp

gS 13.2384 str b/b
gS 13.2385 cvd b/b
gS 13.2386 str s/s
gS 13.2390 cvd s/s

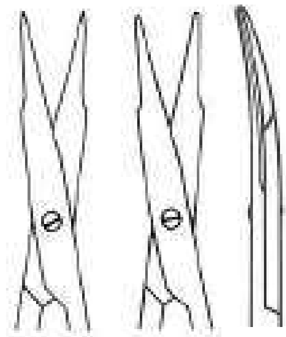
Knapp Iris Scissors
4"

gS 13.2392 str
gS 13.2393 cvd

Fine Scissors
4 1/2"
round shank, sharp points

13-14/2 - scissors

b/b = blunt/blunt
s/b = sharp/blunt
s/s = sharp/sharp
TC = Tungsten Carbide



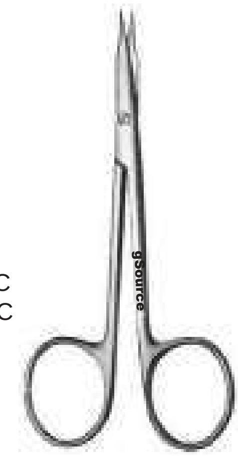
4 1/4" s/s   4 1/2" b/b   cvd

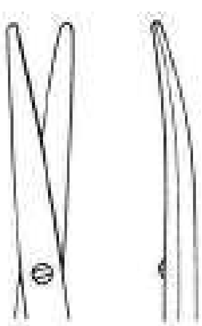
gS 13.4160 3 3/4" cvd

Gradle Scissors
sharp points

gS 13.2680	4 1/4" str b/b
gS 13.2720	4 1/4" cvd b/b
gS 13.2740	4 1/4" str s/s
gS 13.2760	4 1/4" cvd s/s
gS 13.2770	5 1/2" str b/b
gS 13.2772	5 1/2" cvd b/b
gS 13.2816	4 1/2" cvd s/s TC
gS 13.2830	4 1/2" cvd b/b TC

Stevens Tenotomy Scissors
fine blades





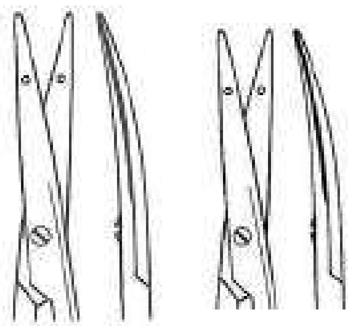
4 1/2"   cvd

gS 13.2600	4 1/2" str
gS 13.2640	4 1/2" cvd
gS 13.2642	4" str TC
gS 13.2644	4" cvd TC

Strabismus Scissors
blunt points

gS 13.6320	str s/s
gS 13.6340	str s/b
gS 13.6360	str b/b
gS 13.6380	cvd s/s
gS 13.6400	cvd s/b
gS 13.6420	cvd b/b
gS 13.6440	ang s/s

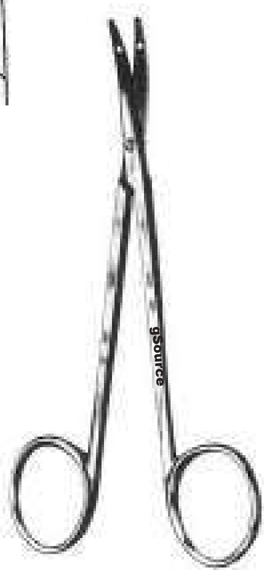
Plastic Surgery Scissors
4 3/4"

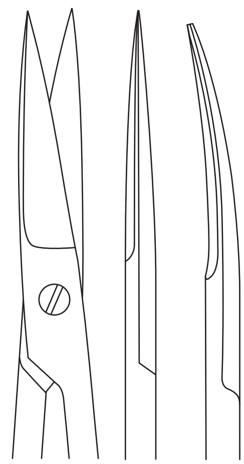


Suture holes in blade align when closed.

gS 13.3011 cvd
gS 13.3012 cvd fine

Littler Scissors
4 3/4"
with suture holes, blunt points



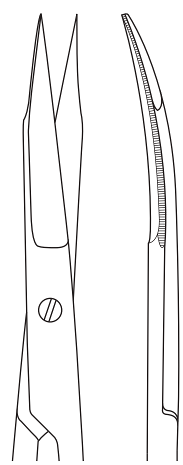


gS 13.4170 str
gS 13.4172 cvd

Nail Scissors
4"
sharp points

gS 13.6600 5" cvd

Ragnell Scissors
flat blades
blunt points

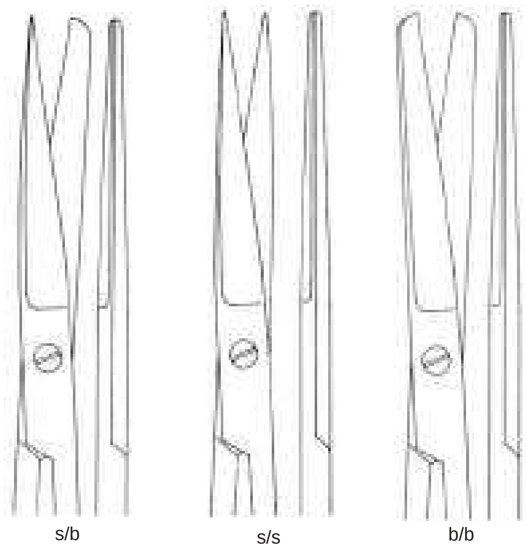


gS 13.7200 5" cvd

Goldman-Fox Scissors
serrated blade
sharp points

b/b = blunt/blunt
s/b = sharp/blunt
s/s = sharp/sharp

gS 13.4001 4 1/2" s/b
gS 13.4002 4 1/2" s/s
gS 13.4003 4 1/2" b/b
gS 13.4008 5" s/b left-handed
gS 13.4009 5" b/b left-handed
gS 13.4011 5" s/b
gS 13.4012 5" s/s
gS 13.4013 5" b/b
gS 13.4018 5 1/2" s/b left-handed
gS 13.4021 5 1/2" s/b
gS 13.4022 5 1/2" s/s
gS 13.4023 5 1/2" b/b
gS 13.4031 6 1/2" s/b
gS 13.4032 6 1/2" s/s
gS 13.4033 6 1/2" b/b



Operating Scissors
straight blades

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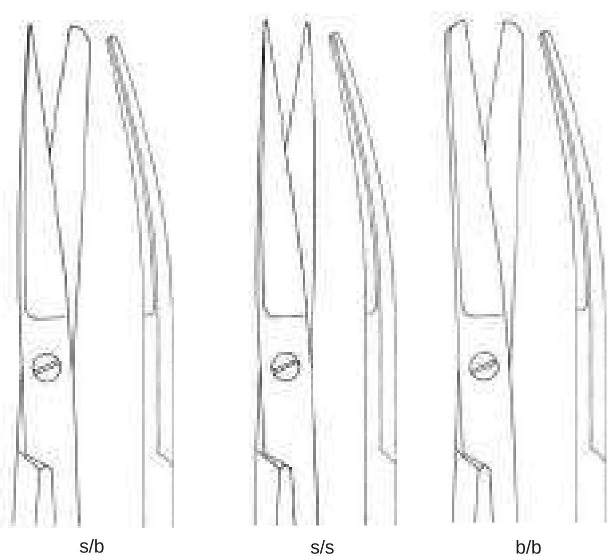
gS 13.4004 4 1/2" s/b
gS 13.4005 4 1/2" s/s
gS 13.4006 4 1/2" b/b
gS 13.4014 5" s/b
gS 13.4015 5" s/s
gS 13.4016 5" b/b
gS 13.4024 5 1/2" s/b
gS 13.4025 5 1/2" s/s
gS 13.4026 5 1/2" b/b
gS 13.4028 5 1/2" s/b left-handed
gS 13.4034 6 1/2" s/b
gS 13.4035 6 1/2" s/s
gS 13.4036 6 1/2" b/b

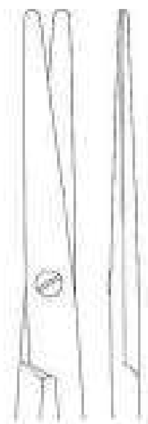


Operating Scissors
curved blades

TC = Tungsten Carbide

gS 13.5360 4 1/2"
gS 13.5430 5"
gS 13.5580 5 3/4"
gS 13.5581 5 3/4" left-handed
gS 13.5660 7"
gS 13.5661 7" left-handed
gS 13.5930 7" delicate
gS 13.5720 8"
gS 13.5760 9"
gS 13.5761 9" left-handed
gS 13.5820 10"
gS 13.5860 11"

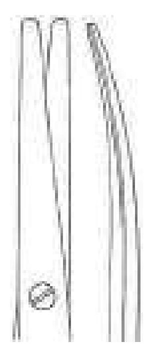
gS 13.7436 5 3/4" TC delicate
gS 13.7438 7" TC
gS 13.7440 7" TC delicate
gS 13.7480 8" TC
gS 13.7505 9" TC
gS 13.7525 9" TC delicate



Metzenbaum Scissors
straight blunt points

gS 13.5380 4 1/2"
gS 13.5450 5"
gS 13.5620 5 3/4"
gS 13.5920 5 3/4" delicate
gS 13.5621 6" left-handed
gS 13.5700 7"
gS 13.5701 7" left-handed
gS 13.5940 7" delicate
gS 13.5740 8"
gS 13.5780 9"
gS 13.5781 9" left-handed
gS 13.5840 10"
gS 13.5880 11"

gS 13.7433 5 3/4" TC
gS 13.7439 7" TC
gS 13.7460 7" TC delicate
gS 13.7485 8" TC
gS 13.7520 9" TC
gS 13.7535 9" TC delicate
gS 13.7466 10" TC
gS 13.7545 11" TC



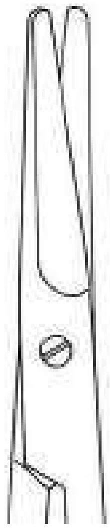
Metzenbaum Scissors
curved blunt points

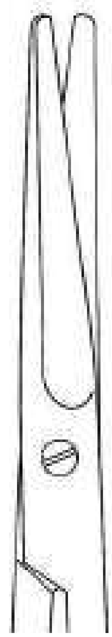
13-14/6 - scissors

TC = Tungsten Carbide

gS 13.3560 5 1/2" str
gS 13.3561 5 1/2" str left-handed
gS 13.3580 5 1/2" cvd
gS 13.3581 5 1/2" cvd left-handed
gS 13.3585 6" str
gS 13.3590 6" cvd
gS 13.3600 6 3/4" str
gS 13.3601 6 3/4" str left-handed
gS 13.3620 6 3/4" cvd
gS 13.3621 6 3/4" cvd left-handed
gS 13.3920 9" str
gS 13.3940 9" cvd

gS 13.3971 5 1/2" str TC
gS 13.3972 5 1/2" cvd TC
gS 13.3975 6 3/4" str TC
gS 13.3976 6 3/4" cvd TC
gS 13.3977 9" str TC
gS 13.3978 9" cvd TC


5 1/2"


6 3/4"

Mayo Scissors
blunt beveled blades

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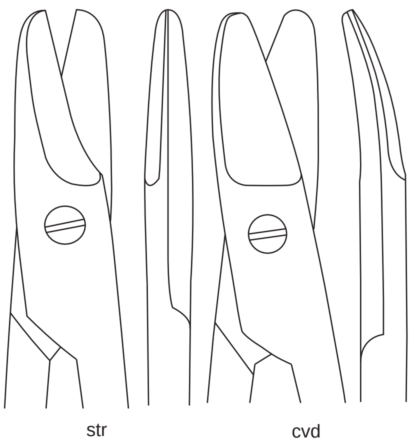
gS 13.3950 5 1/2" str
gS 13.3951 5 1/2" cvd
gS 13.3952 6 3/4" str
gS 13.3954 6 3/4" cvd

gS 13.3961 5 1/2" cvd TC
gS 13.3996 6 3/4" cvd TC

Mayo-Stille Scissors
blunt rounded blades

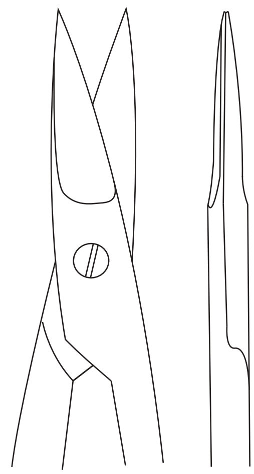
gS 13.4250 str
gS 13.4270 cvd

Mayo Noble Scissors
6 1/2"
blunt beveled blades



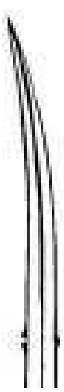
gS 13.4180 5 1/2" str
gS 13.4182 5 1/4" cvd

Sistrunk Scissors
blunt points, heavy pattern



gS 13.4190 5 1/4" str

Sistrunk Scissors
sharp points, heavy pattern



gS 13.7250 5 1/2" cvd

Jones Dissecting Scissors
delicate blades, sharp points
one serrated blade

gS 13.3114 5 1/2" cvd

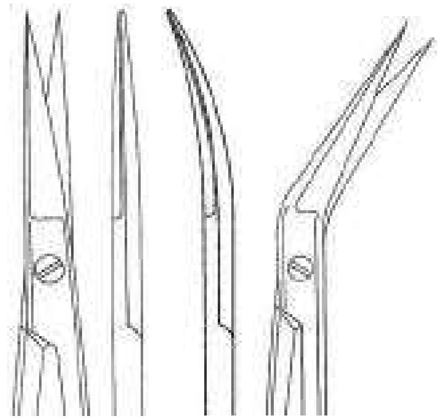
Joseph Scissors
sharp points

13-14/8 - scissors

TC = Tungsten Carbide

gS 13.2780 6" str
gS 13.2782 6" cvd
gS 13.2800 7" str
gS 13.2802 7" cvd

Reynolds Scissors
blunt points



gS 13.7060 str
gS 13.7070 cvd
gS 13.7120 ang
gS 13.7140 str TC
gS 13.7145 cvd TC

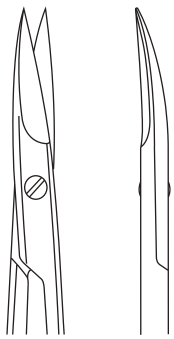
Kelly Scissors
6 1/4"
sharp points

gS 14.7125 6 3/4"

Knight Nasal Scissors
angled on side
blunt points

gS 14.0000 25°
gS 14.0001 45°
gS 14.0002 60°

Potts-Smith Scissors
7 1/2"
delicate sharp points

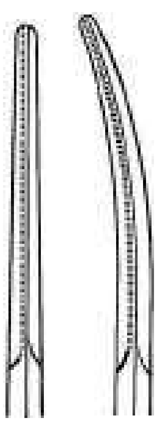


gS 14.2010 7 3/4" cvd

Dandy Trigeminal Scissors
angled, sharp points

gS 13.4340 str
gS 13.4360 cvd

Doyen Scissors
7"
blunt points



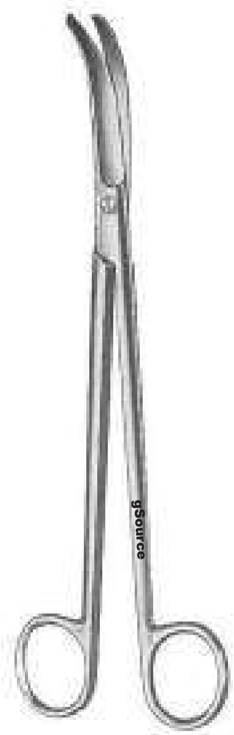
str cvd

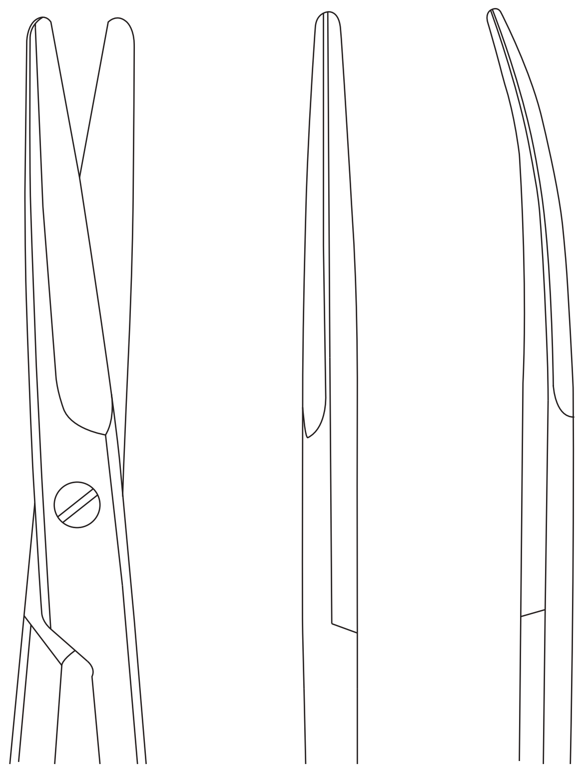
gS 13.3540 str
gS 13.3542 cvd

Gorney Scissors
8", blunt points
one serrated blade

gS 13.4290 8 1/2"

Jorgenson Scissors
heavy curve
blunt points

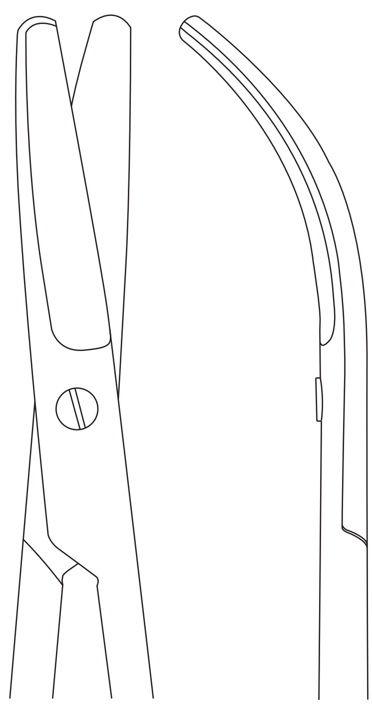




str cvd

gS 13.3965 str
gS 13.3966 cvd

Mayo-Harrington Scissors
9"
blunt rounded blades



gS 14.3000 13"

Bariatric Extra Long
Mueller Rectal Scissors
angled handle, blunt points

gS 15.1680 3 1/2"
gS 15.1920 5"

Spencer Stitch Scissors
delicate hooked blade

gS 15.1800 3 1/2"

Shortbent Stitch Scissors
delicate hooked blade

gS 15.1950 4 1/2"

Angled Stitch Scissors
angled delicate
hooked blade

gS 15.2040 4 3/4"

Northbent Stitch Scissors
delicate hooked blade

stitch scissors

gS 15.2200 5 1/2"

Littauer Stitch Scissors
delicate hooked blade

gS 15.6600 6"

Ingrown Nail Splitting Scissors
one serrated blade

did you know… ?

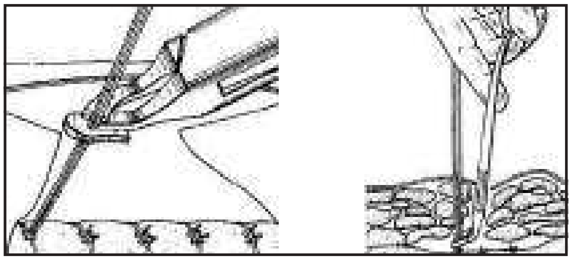
Stitch scissors are also known as suture scissors. The word suture comes from the Latin “sutura”, a sewn seam. In Latin, the verb “suere” means to sew, stitch, or tack together. The word scissors is derived from the Latin word “cisorium” meaning cutting tool.

These scissors are an indispensable tool in the medical field. They provide hospitals, doctor's clinics and operating rooms with the proper instrument to cut and remove suture string. Sizes vary depending on what length of suture is being removed. They are specifically designed to remove sutures through the design of the tip.

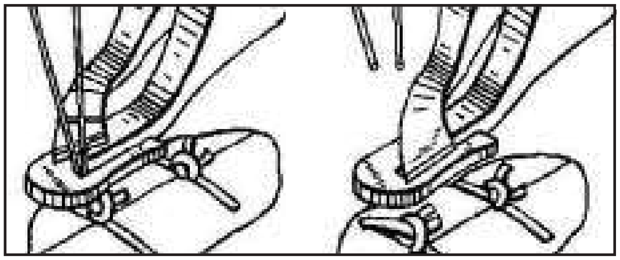
The basic tip design may be pointed or blunt ended. The blades are either hooked, curved or have a curved blunt blade to enable easy removal of sutures. The hook helps medical personnel easily lift the sutures to be cut.

Suture scissors are available in several sizes. The 3 1/2" suture scissors, gS 15.1680 and gS 15.1800, on page 15/1, are used when cutting and removing stitches in very small and tight places. The 3 1/2" Spencer Stitch Scissors, gS 15.1680, is the most popular model.

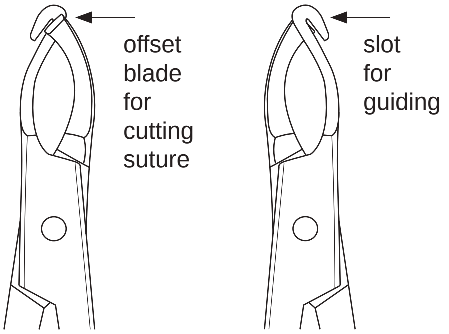
CGS = Chromic/Gut/Synthetic



After the suture knot is tied, the slot opening on the suture cutter uses the suture as a guide to gently push aside tissue while descending down until the knot is reached.



The knot stops the suture cutter as it is thicker than the slot is wide. The offset blade is set to be approximately 2mm above the knot and cuts the suture with precision and ease.



Helps to clip sutures at the correct level above the knot.

gS 15.2300

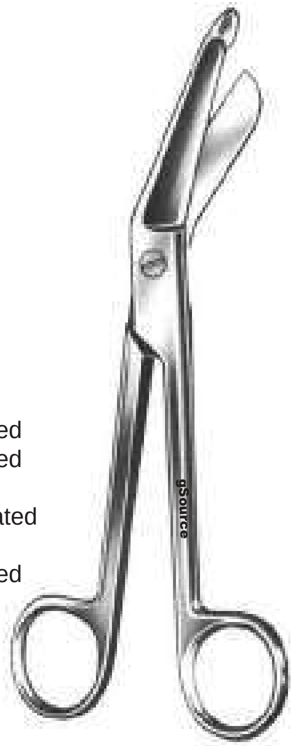
Suture Cutter
flat and reversible
for CGS 3-0/7-0, silk 2-0/6-0 range

bandage scissors

Most popular scissors for bandage and dressing removal.

gS 15.7680 3 1/2"
gS 15.7800 4 1/2"
gS 15.7920 5 1/2"
gS 15.7921 5 1/2" left-handed
gS 15.8011 6 1/2" left-handed
gS 15.8040 7 1/4"
gS 15.8041 7 1/4" one serrated blade
gS 15.8043 7 1/4" left-handed
gS 15.8070 8"

Lister Bandage Scissors
angled blade



Oversized finger ring helps relieve pressure on third metacarpal.

gS 15.8080 8"
gS 15.8082 8" one serrated blade

Lister Bandage Scissors
one large ring

Delicate blades and angled shank are ergonomically designed to cut finger and toe bandages.

Fine knob slides easily under bandages.

Keeps hands away from material being cut.

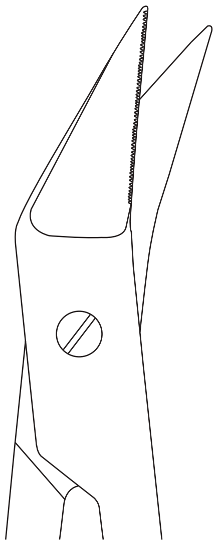
gS 15.8920 5 1/2"

Hi-Level Bandage Scissors (Knowles)
one serrated blade angled

For removal of finger and toe bandages.

gS 15.9040 5 1/2"

Knowles Bandage Scissors
one serrated blade straight



gS 15.9160 6 1/2"

Bandage Scissors
one serrated blade
angled, sharp points

For cutting tape and bandages.

gS 15.1600 8"

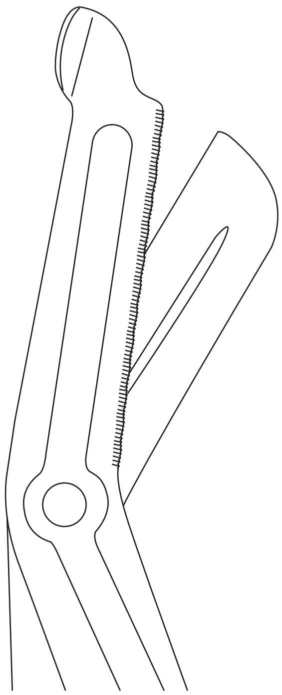
Esmarch Shears
heavy blades

For cutting plaster casting material.

gS 15.9250 9 1/2"

Bruns Shears
one serrated blade
heavy blades

15/6 - bandage scissors


7 1/2"

For cloth, bandages,
and light plaster.

gS 15.9299 5 1/2" black
gS 15.9300 7 1/2" black
gS 15.9301 7 1/2" blue
gS 15.9302 7 1/2" green
gS 15.9303 7 1/2" red

Utility Scissors

plastic handle, autoclavable
one serrated blade

gS 15.9200 7" str
gS 15.9202 7" cvd

Moleskin Scissors
one serrated blade
sharp/blunt points

For lightweight plaster casting material.

Angled blade keeps hands away from cutting material.

gS 15.9340 7 1/2"

Hercules Scissors
one serrated blade heavy

Notch next to hinge screw can be used to cut cerclage wire. (17 gauge/ø1.5mm max)

gS 15.9360 8"

Utility Shears
one serrated blade
locking clip

gS 15.9400 6 1/4"

Scissor Forceps
plier handle with springs
sharp points

did you know… ?

Lister bandage scissors, as shown on page 15/4, were invented by Dr. Joseph Lister, a British surgeon whose most significant achievement was his work on antiseptics, establishing the basis of modern sterile surgery.

Dr. Lister was born in 1827 and lived in a Quaker home in Upton, Essex county of England. He was the son of Joseph Jackson Lister, inventor of the compound microscope. He attended the University of London and graduated with a Bachelor of Medicine degree before entering the Royal College of Surgeons in London at the age of 26. In 1854, Dr. Lister became a surgeon assistant at the University of Edinburgh, Edinburgh Royal Infirmary in Scotland.

As professor of surgery at the University of Glasgow, Dr. Lister became aware of a paper published by the French chemist Louis Pasteur, suggesting three methods to eliminate the micro-organisms responsible for gangrene: filtration, exposure to heat, or exposure to chemical solutions. Conducting his own experiments, Dr. Lister confirmed Pasteur's conclusions and used his findings to develop antiseptic techniques for wounds. He found that carbolic acid solution, now known as phenol, reduced the incidence of gangrene when swabbed on wounds.
He published a series of articles describing this procedure in 1867.

Prior to Dr. Lister's studies, people believed that chemical damage from exposure to bad air (miasma) was responsible for wound infections. Hospital wards were aired out as a precaution. A surgeon was not required to wash his hands before seeing a patient as it was not considered necessary and facilities for washing hands were not available. Dr. Lister instructed surgeons to wear clean gloves and wash their hands before and after operations with 5% carbolic acid solutions. Instruments were also washed in the same solution and assistants sprayed the solution in the operating room. He also suggested not using porous natural materials in the manufacture of medical instrument handles.

Dr. Lister left Glasgow in 1869, returning to Edinburgh as Professor of Surgery at the University of Edinburgh, and continued to develop improved methods of antisepsis and asepsis. This led to the rise of sterile surgery.

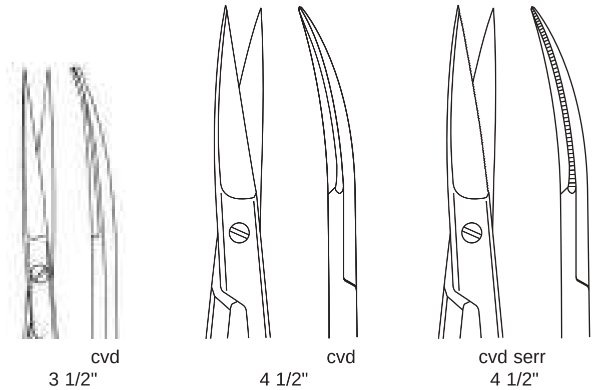
In 1879 Listerine mouthwash was named after him for his work in antisepsis. Also named in his honor is the bacterial genus Listeria, typified by the food-borne pathogen Listeria monocytogenes.

Dr. Lister was president of the Royal Society between 1895 and 1900. Following his death in 1912, a Memorial Fund led to the founding of the Lister Medal, an award presented by the Royal College of Surgeons of England in recognition of contributions to surgical science. It is considered as a most prestigious prize to be awarded to a surgeon.

Bandage scissors are angled tip scissors, with a blunt tip on the bottom blade, which helps in cutting bandages without gouging the skin. The bottom blade of the scissors is longer and goes easily under the bandages. The most popular is gS 15.8040, Lister Bandage Scissors 7 1/4", shown on page 15/4.

Super-Cut Scissors are renowned for their unsurpassed sharpness.

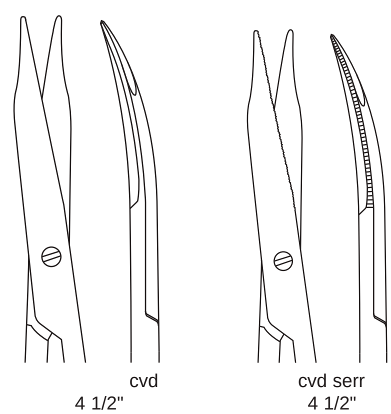
The stainless steel used to manufacture our Super-Cuts has been specially heat-treated to achieve a long-lasting razor sharp edge.



One serrated blade on gS 16.5610 helps to prevent tissue slippage and facilitates effortless cutting.

gS 16.5415 3 1/2" str
gS 16.5420 3 1/2" cvd
gS 16.5440 4 1/2" str
gS 16.5600 4 1/2" cvd
gS 16.5610 4 1/2" cvd serr

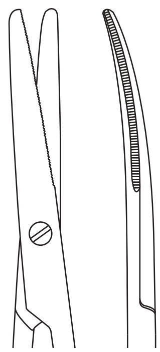
Super-Cut Iris Scissors
sharp points



One serrated blade on gS 16.5905 helps to prevent tissue slippage and facilitates effortless cutting.

gS 16.5840 4 1/2" str
gS 16.5900 4 1/2" cvd
gS 16.5905 4 1/2" cvd serr
gS 16.5940 5 1/4" cvd

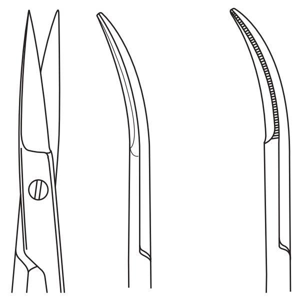
Super-Cut Stevens Tenotomy Scissors
blunt points



Useful in opthalmic as well as facial and hand procedures.

gS 16.7530 4 1/2" cvd serr

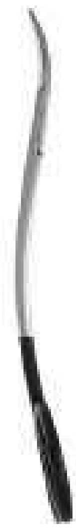
Super-Cut Strabismus Scissors
blunt points



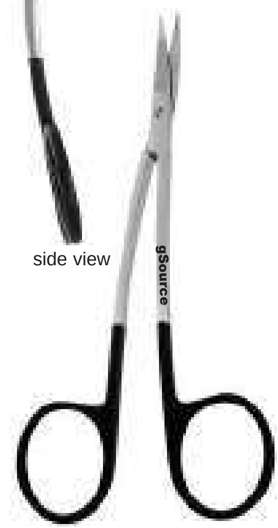
Useful for tissue dissection. S-shaped shanks help to maneuver in tight areas effectively. One serrated blade on gS 16.7545 helps to prevent tissue slippage and facilitates effortless cutting.

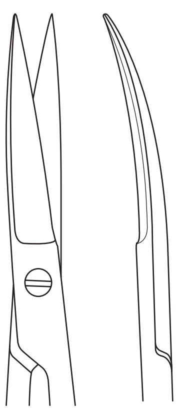
gS 16.7540 cvd
gS 16.7545 cvd serr

Super-Cut LaGrange Scissors
4 1/2", sharp points



side view

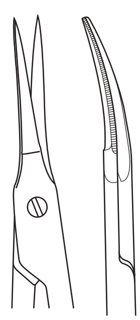




Useful for fine tissue dissection required during plastic surgery procedures.

gS 16.7550 4 3/4" cvd

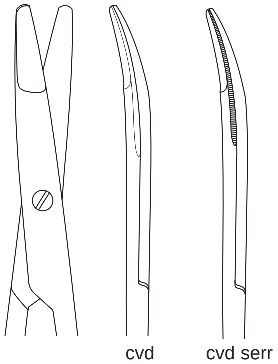
Super-Cut Wagner Scissors
sharp points



Useful for denser tissue dissection. One serrated blade helps to prevent tissue slippage and facilitates effortless cutting.

gS 16.7560 4 3/4" cvd serr

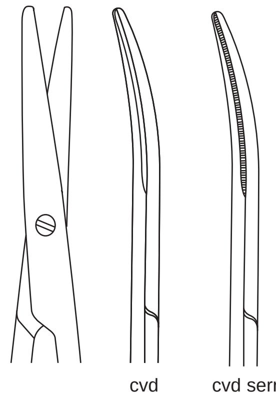
Super-Cut Turmspitz Scissors
sharp points



Flat blunted blades are useful for cutting tissue. One serrated blade on gS 16.7575 helps to prevent tissue slippage and facilitates effortless cutting.

gS 16.7570 cvd
gS 16.7575 cvd serr

Super-Cut Kilner Scissors
4 3/4", blunt points

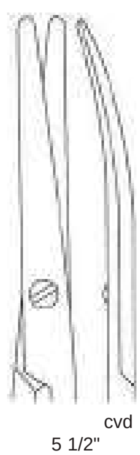


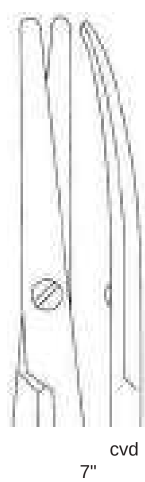
gS 16.4640 str
gS 16.4700 cvd
gS 16.4710 cvd serr

Super-Cut Baby Metzenbaum Scissors
4 1/2", blunt points

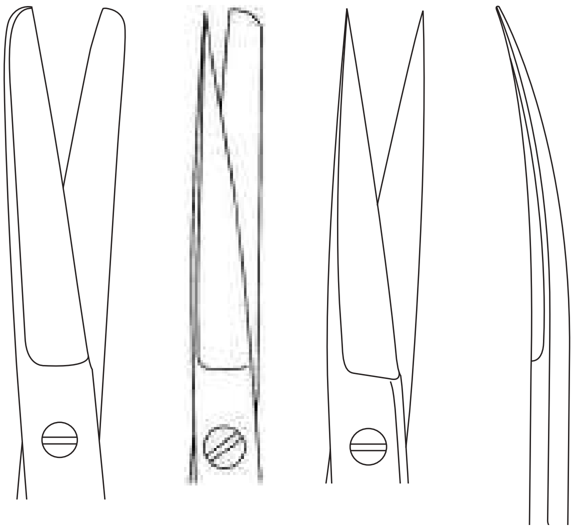
gS 16.4800 5 1/2" str
gS 16.4820 5 1/2" cvd
gS 16.4920 7" str
gS 16.4940 7" cvd
gS 16.4960 7" cvd delicate
gS 16.5018 8" str
gS 16.5020 8" cvd
gS 16.5180 9" cvd
gS 16.5300 11" cvd
gS 16.5350 12" cvd
gS 16.5370 14" cvd

Super-Cut Metzenbaum Scissors
blunt points





16/4 - super-cut scissors

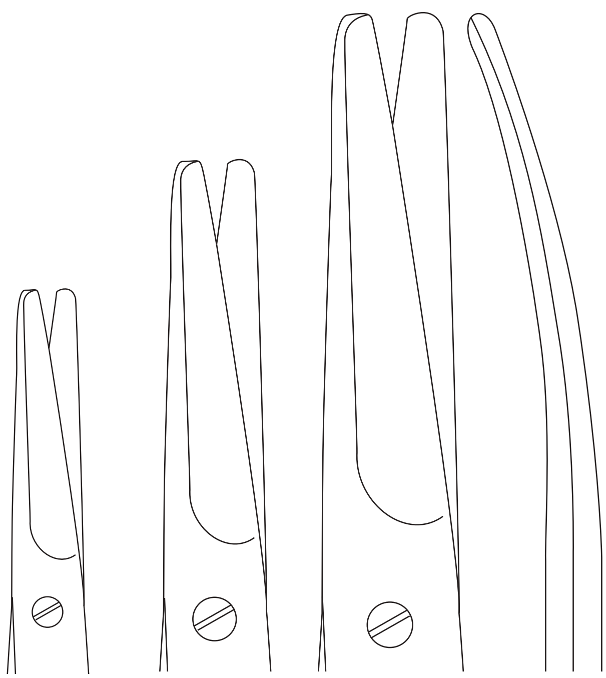


b/b   s/b   s/s   cvd

b/b = blunt/blunt
s/b = sharp/blunt
s/s = sharp/sharp

gS 16.3200 str s/b
gS 16.3210 str s/s
gS 16.3222 cvd b/b
gS 16.3202 cvd s/b
gS 16.3214 cvd s/s

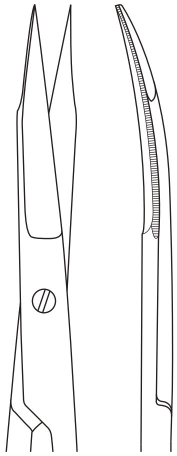
Super-Cut Operating Scissors
5 1/2"



5 1/2"   8"   11"   cvd 11"

gS 16.3800 5 1/2" str
gS 16.3802 5 1/2" cvd
gS 16.3920 6 3/4" str
gS 16.3980 6 3/4" cvd
gS 16.4190 8" str
gS 16.4195 8" cvd
gS 16.4210 9" str
gS 16.4220 9" cvd
gS 16.4225 11" cvd

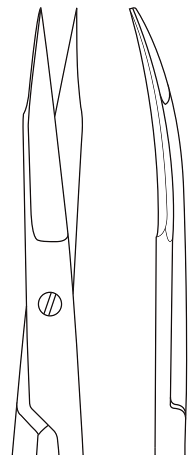
Super-Cut Mayo Scissors
beveled blades, blunt points



Useful in plastic surgery or hemorrhoid-ectomy and other rectal procedures. Curved, beveled blades taper into sharp, fine tips which allow small and precise cuts in small surgical areas. One serrated blade helps to prevent tissue slippage and facilitates effortless cutting.

gS 16.7580 5" cvd serr

Super-Cut
Goldman-Fox Scissors
sharp points



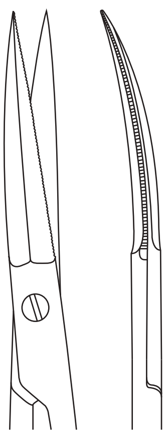
side view

S-shaped shanks help to maneuver in tight areas effectively.

gS 16.7585 5 1/4" cvd

Super-Cut
Goldman-Fox Scissors
sharp points

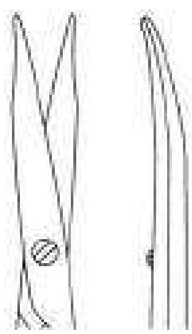
16



Useful in facial and plastic surgery procedures. Sharp tips allow small and precise cuts in small surgical areas and are helpful in spreading tissue. One serrated blade helps to prevent tissue slippage and facilitates effortless cutting.

gS 16.7590 5 1/2" cvd serr

Super-Cut
Peck Joseph Scissors
sharp points

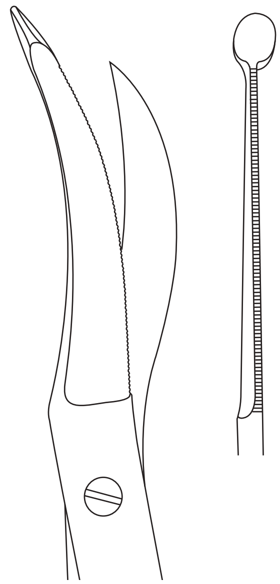


cvd

Long handles and very delicate blades for fine tissue dissection.

gS 16.5955 str
gS 16.5960 cvd

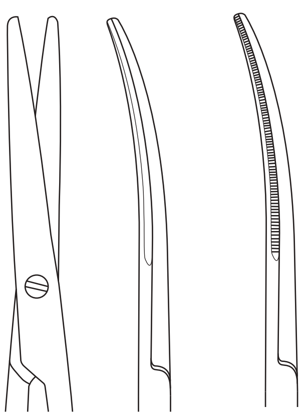
Super-Cut Jamison Scissors (Stevens)
6 1/4", blunt points



Blades are slightly curved for quick and easy cutting through tissue. One serrated blade helps to facilitate cutting the perineum and posterior vaginal wall in episiotomy procedures.

gS 16.7620 7" cvd serr

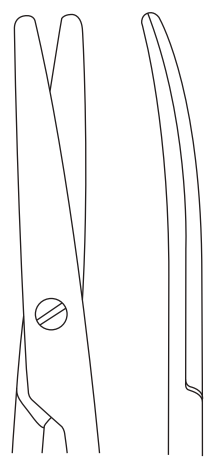
Super-Cut Waldmann Episiotomy Scissors
fine knob/sharp point



Long handles and delicate blades for fine tissue dissection. One serrated blade on gS 16.7610 helps to prevent tissue slippage and facilitates effortless cutting.

gS 16.7600 cvd
gS 16.7610 cvd serr

Super-Cut Toennis Adson Scissors
7", blunt points

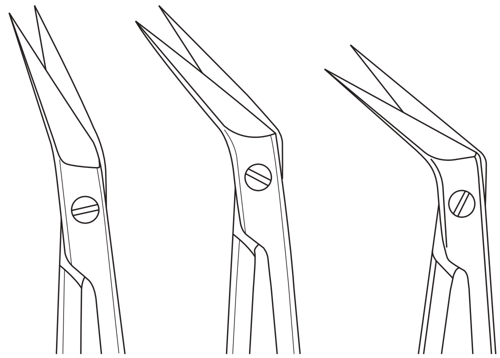


Useful for cutting and dissecting soft tissue. Curved blade helps to maneuver contours effectively.

gS 16.7630 7" cvd

Super-Cut McIndoe Scissors
blunt points

Useful for trimming and opening vessels in cardiovascular and thoracic procedures. Used to cut vertically along blood vessels to expose the inside in procedures such as carotid endarterectomy or femoral endarterectomy. Available in 25, 45, or 60 degrees based on the location of the surgical site and user preference.



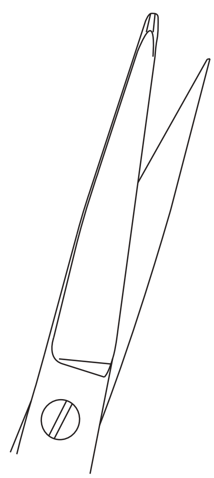
25° 45° 60°

gS 16.2500 25°
gS 16.2545 45°
gS 16.2560 60°

Super-Cut Potts-Smith Scissors
7 1/2", delicate sharp points

Our Super-Cuts Bandage Scissors:

- Offer superb control.
- Reduce hand fatigue.
- Cut through multiple layers with precision and ease.
- Retain sharp edges longer than ordinary scissors.

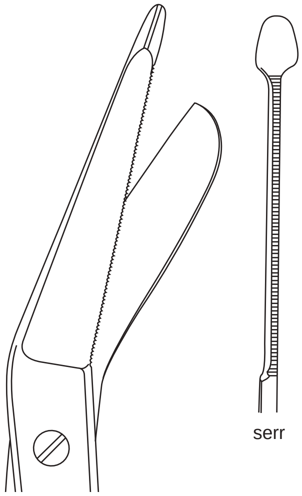


Delicate blades and angled shank are ergonomically designed to cut finger and toe bandages. Fine knob slides easily under bandages. Keeps hands away from material being cut.

gS 16.3020 5 1/2"

Super-Cut Hi-Level Bandage Scissors
delicate blades

16/8 - super-cut scissors

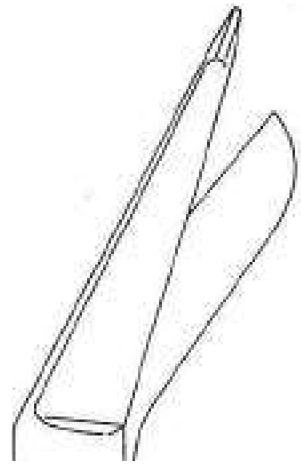


serr

5 1/2" serr

gS 16.3100 5 1/2"
gS 16.3110 5 1/2" serr
gS 16.3120 7 1/4"

Super-Cut Lister Bandage Scissors



Oversized finger ring helps relieve pressure on third metacarpal.

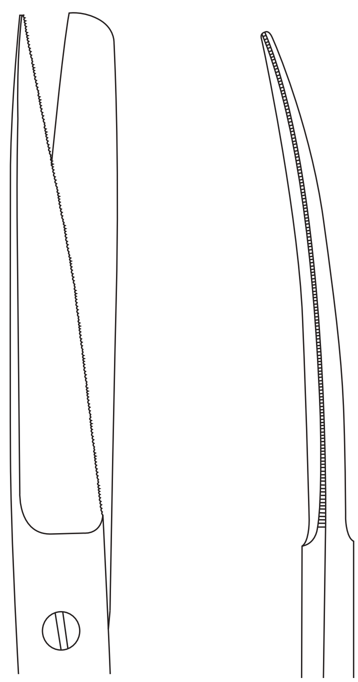
gS 16.3140 8"

Super-Cut Lister Bandage Scissors
one large ring

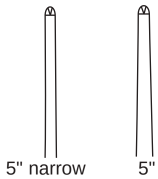
Useful for cutting moleskin, a cotton fabric frequently used in the prevention and treatment of blisters, corns, or calluses. One blade is serrated.

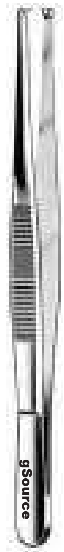
gS 16.3150 str serr
gS 16.3152 cvd serr

Super-Cut Moleskin Scissors
7", sharp/blunt points



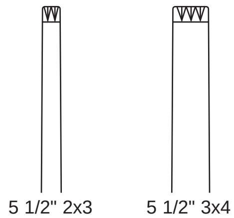
cvd

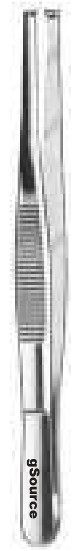




gS 17.3513 5" narrow
gS 17.3514 5 1/2" narrow
gS 17.3516 6" narrow
gS 17.3518 7" narrow
gS 17.3520 8" narrow
gS 17.3640 4 1/2"
gS 17.3680 5"
gS 17.3720 5 1/2"
gS 17.3760 6"
gS 17.3780 7"
gS 17.3800 8"
gS 17.3860 10"
gS 17.3900 12"

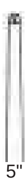
Tissue Forceps
1x2 teeth





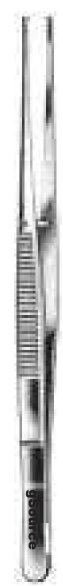
		teeth
gS 17.3920	5"	2x3
gS 17.3960	5 1/2"	2x3
gS 17.3970	6 1/4"	2x3
gS 17.3980	10"	2x3
gS 17.4040	5 1/2"	3x4
gS 17.4042	6 1/4"	3x4

Tissue Forceps



gS 17.4100 4 1/2"
gS 17.4140 5"
gS 17.4180 5 1/2"
gS 17.4220 6"
gS 17.4222 7"
gS 17.4226 8"
gS 17.4228 10"

Tissue Forceps
1x2 teeth
fluted handle

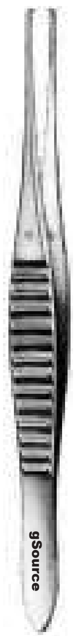


gS 17.1800 5"
gS 17.1880 6"

Semken Tissue Forceps
1x2 teeth

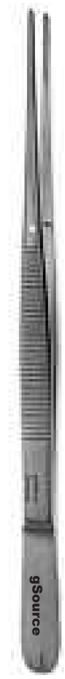
17/2 - tissue forceps

TC = Tungsten Carbide



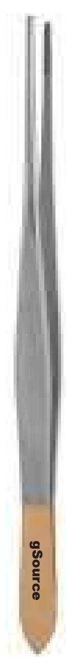
gS 17.2010 serrated
gS 17.2012 TC cross serrated

Gillies Forceps
6"
1x2 teeth



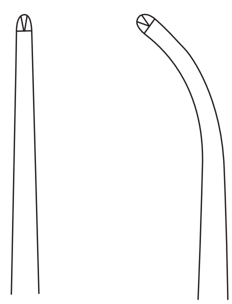
gS 17.4070 7"
gS 17.4072 8"
gS 17.4074 10"
gS 17.4076 12"

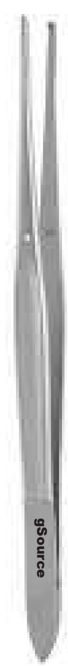
Potts-Smith Tissue Forceps
1x2 teeth
serrated



gS 17.1693 6 3/4" TC

Cushing Tissue Forceps
1x2 teeth
cross serrated



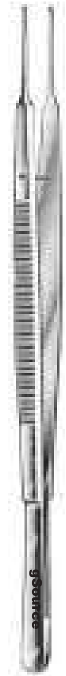


gS 17.1690 str
gS 17.1692 cvd

Cushing Tissue Forceps
6 3/4"
1x2 teeth

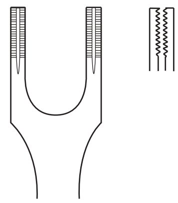
TC = Tungsten Carbide

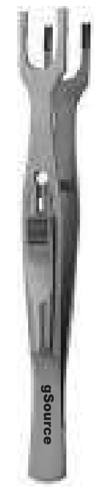
str cvd



gS 17.0430 str
gS 17.0450 cvd
gS 17.0440 str TC

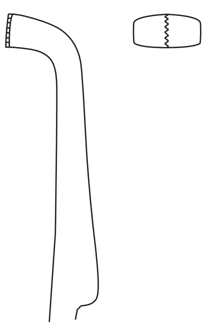
Gerald Tissue Forceps
7"
1x2 teeth, delicate



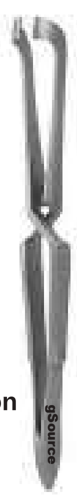


gS 17.8900 4 1/2" 8mm

Muscle Biopsy Clamp
with slide catch

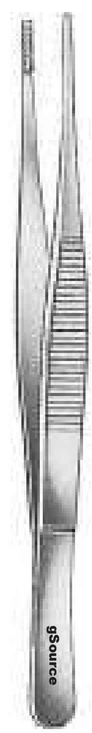


Useful in approximating wound edges.



gS 17.4400 4"

Lange Wound Approximation Forceps
cross action, curved, with teeth



gS 17.1973 6"
gS 17.1974 8"
gS 17.1975 10"

Brown Forceps
side grasping 9x9 teeth

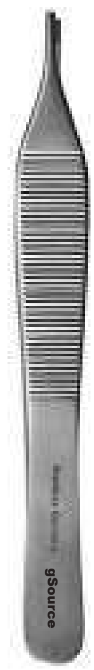
17/4 - tissue forceps

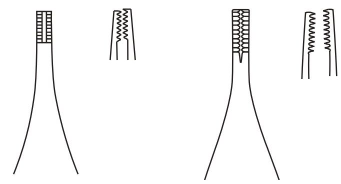
TC = Tungsten Carbide

7x7 9x9

	teeth
gS 17.1920	7x7
gS 17.1929	9x9

Adson Brown Forceps
4 3/4"
side grasping teeth



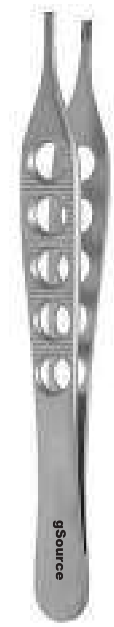


7x7 9x9

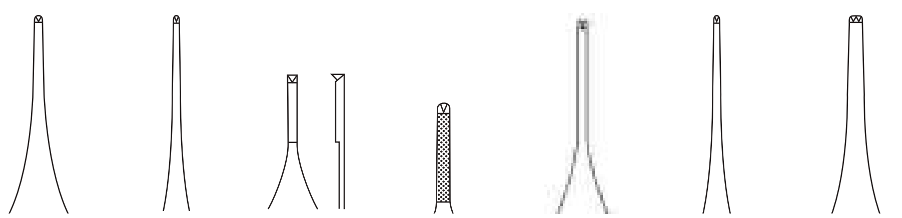
Lightweight forceps due to fenestrations.

	teeth
gS 17.1925	7x7
gS 17.1935	9x9

Adson Brown Forceps
4 3/4", side grasping teeth
fenestrated handles

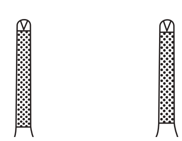


17



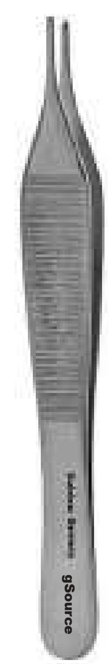
gS 17.1660 gS 17.1640 gS 17.1665 gS 17.1630 gS 17.1500 gS 17.1570 gS 17.1670

		teeth
gS 17.1660	4 3/4"	1x2 1.3mm
gS 17.1640	4 3/4"	1x2 delicate 0.9mm
gS 17.1665	4 3/4"	1x2 deli tying platform smooth 0.9mm
gS 17.1630	4 3/4"	1x2 cross serrated 1.3mm
gS 17.1500	6"	1x2 2.0mm
gS 17.1570	6"	1x2 delicate 0.9mm
gS 17.1670	4 3/4"	2x3 1.7mm
gS 17.1632	4 3/4"	1x2 TC cross serrated 1.6mm
gS 17.1634	6"	1x2 TC cross serrated 2.0mm

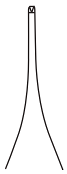


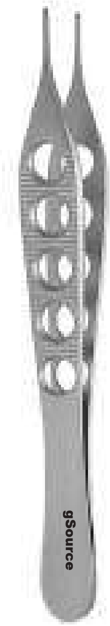
gS 17.1632 gS 17.1634

Adson Tissue Forceps



TC = Tungsten Carbide

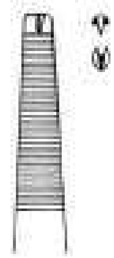




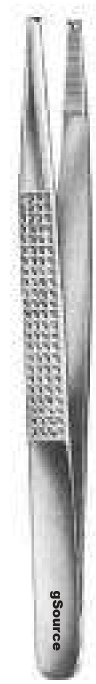
Lightweight forceps
due to fenestrations.

gS 17.1666 4 3/4" 1.0mm

Adson Tissue Forceps
1x2 teeth
fenestrated handle

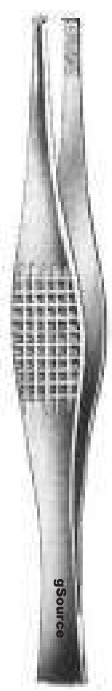


1x2



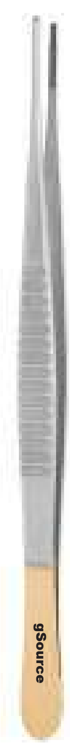
		teeth
gS 17.4302	6 3/4"	1x2
gS 17.4307	7"	2x3
gS 17.4312	9 1/2"	1x2

Bonney Tissue Forceps
serrated



	teeth
gS 17.4238	1x2
gS 17.4240	2x3

Ferris Smith Tissue Forceps
7", serrated



gS 17.6020 8" 2.0mm

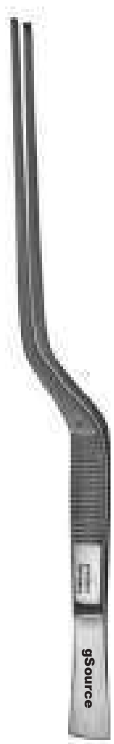
Daicoff Vascular Needle Pulling Forceps
1x2 teeth, TC, cross serrated

gSource
An ARCH Medical Solutions Company

tissue forceps

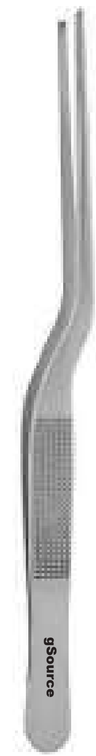
gS 17.2860 7 1/4"

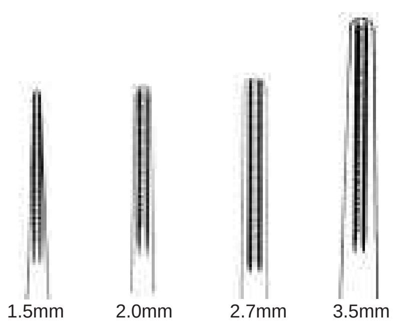
Cushing Tissue Forceps
1x2 teeth
bayonet



gS 17.6110 8 3/4"

D'Errico Tissue Forceps
1x2 teeth
bayonet

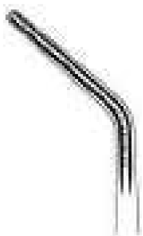


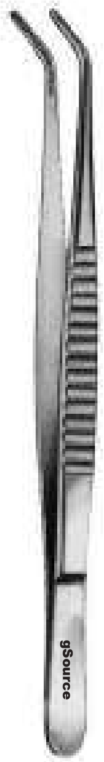


gS 17.0616	6 1/4"	1.5mm	**gS 17.0832**	6 1/4"	2.7mm
gS 17.0620	8"	1.5mm	**gS 17.0833**	8"	2.7mm
gS 17.0624	9 1/2"	1.5mm	**gS 17.0834**	9 1/2"	2.7mm
gS 17.0626	12"	1.5mm	**gS 17.0835**	12"	2.7mm
gS 17.0816	6 1/4"	2mm	**gS 17.1016**	6 1/4"	3.5mm
gS 17.0820	8"	2mm	**gS 17.1020**	8"	3.5mm
gS 17.0824	9 1/2"	2mm	**gS 17.1024**	9 1/2"	3.5mm
gS 17.0830	12"	2mm	**gS 17.1030**	12"	3.5mm

DeBakey Tissue Forceps
atraumatic

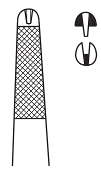
DA = Double Action
TC = Tungsten Carbide





gS 17.0916 6 1/2"
gS 17.0920 8"
gS 17.0924 9 1/2"
gS 17.0930 12"

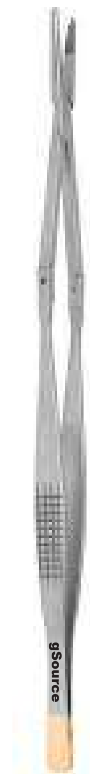
DeBakey Forceps
2mm
angled atraumatic

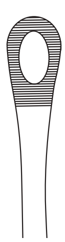


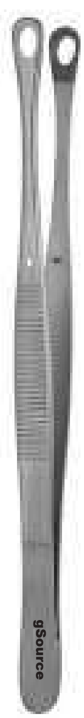
Useful for larger
patients during
bariatric procedures.

gS 17.8000 12" with platform

Bariatric Extra Long
Suture Forceps DA
1x2 teeth, TC, cross serrated

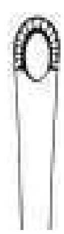






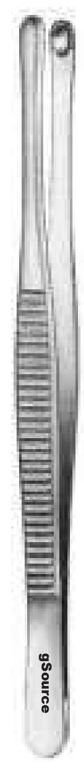
gS 17.0458 7"
gS 17.0459 9"

Singley Tissue Forceps
serrated fenestrated tips

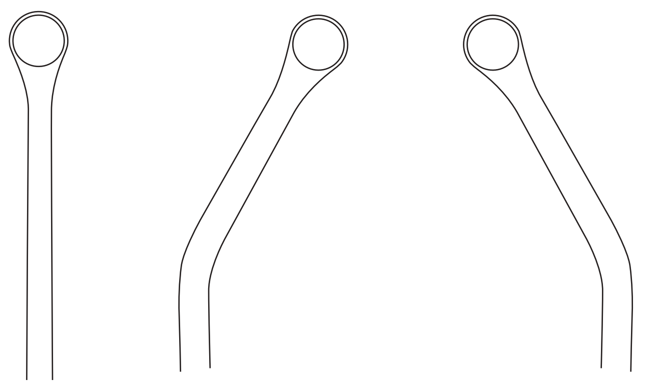


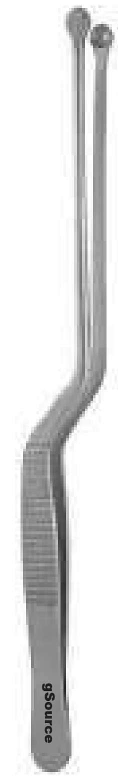
gS 17.2920 6"
gS 17.2960 8"
gS 17.2980 10"

Russian Tissue Forceps
serrated cupped tips



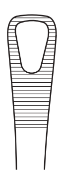
17/8 - tissue forceps

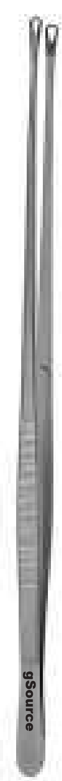

straight
curved up
curved down



gS 17.6260 straight
gS 17.6262 curved up
gS 17.6264 curved down

Adson Hypophyseal Forceps
9", 6mm round cups
bayonet



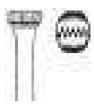


Useful for larger
patients during
bariatric procedures.

gS 17.0470 14"

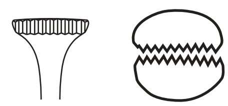
Bariatric Extra Long
Singley Tuttle Tissue Forceps
serrated fenestrated tips


4x5


5x6

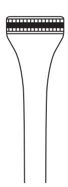
		teeth
gS 17.2050	4 3/4"	4x5
gS 17.2070	5 1/2"	4x5
gS 17.2100	6"	3x4
gS 17.2120	6"	4x5
gS 17.2160	6"	5x6
gS 17.2240	7 1/2"	5x6
gS 17.2255	8 1/2"	5x6
gS 17.2257	9 1/2"	5x6

Allis Tissue Forceps



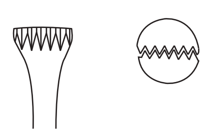
gS 17.2250 6"

Allis Adair Forceps
10x11 teeth


12"

gS 17.2306	6 1/4"
gS 17.2308	8"
gS 17.2312	10"
gS 17.2314	12"

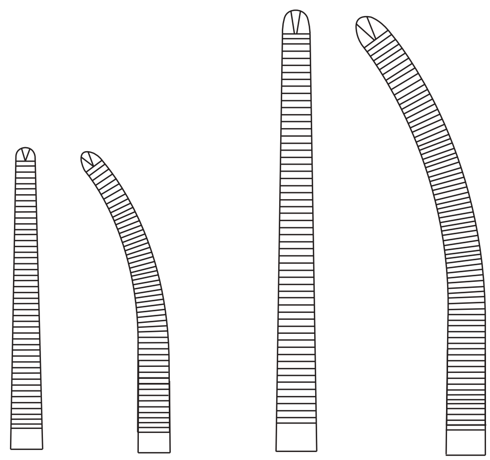
Allis Tissue Forceps
atraumatic teeth



gS 17.2280 8"

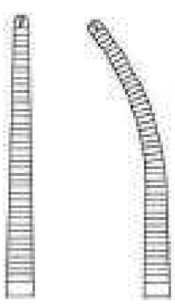
Thoms Tissue Forceps
6x7 teeth

gS 17.5150	13cm [5"] str
gS 17.5151	13cm [5"] cvd
gS 17.5152	14cm [5 1/2"] str
gS 17.5154	14cm [5 1/2"] cvd
gS 17.5160	16cm [6 1/4"] str
gS 17.5180	16cm [6 1/4"] cvd
gS 17.5260	18cm [7"] str
gS 17.5280	18cm [7"] cvd
gS 17.5360	20cm [8"] str
gS 17.5380	20cm [8"] cvd
gS 17.5460	22cm [8 1/2"] str
gS 17.5480	22cm [8 1/2"] cvd
gS 17.5500	24cm [9 1/2"] str
gS 17.5520	24cm [9 1/2"] cvd
gS 17.5560	26cm [10"] str
gS 17.5580	26cm [10"] cvd
gS 17.5586	30cm [12"] str
gS 17.5587	30cm [12"] cvd



6 1/4" str   6 1/4" cvd   8" str   8" cvd

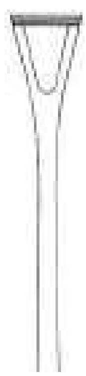
Rochester Ochsner Forceps
1x2 teeth
serrated



str   cvd

gS 17.5060	str
gS 17.5080	cvd

Kocher Forceps
5 1/2", 1x2 teeth
serrated

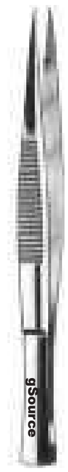


7"

gS 17.4250	6 1/4"
gS 17.4255	7"
gS 17.4241	8"
gS 17.4260	9 1/2"
gS 17.4264	12"

Babcock Forceps
serrated fenestrated tips

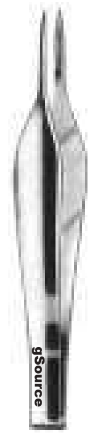
3 1/2"



gS 18.4640 3 1/2" str
gS 18.4660 4 1/2" str

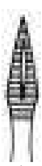
Plain Splinter Forceps
serrated

3"

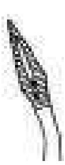


gS 18.4860 3" str
gS 18.4900 4 1/2" str

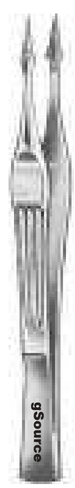
Feilchenfeld Splinter Forceps
serrated



str

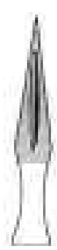


cvd



gS 18.5100 4 1/4" str
gS 18.5120 4 1/4" cvd

Carmalt Splinter Forceps
serrated



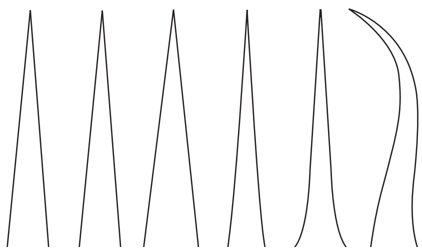
str

ang

gS 18.5780 6" str
gS 18.5785 6" ang

Virtus Splinter Forceps
serrated

18/2 - splinter forceps



#1 #3 #3C #4 #5 #7

		style	
gS 18.5500	4 3/4"	#1	fine
gS 18.5502	4 3/4"	#3	very fine
gS 18.5504	4 1/2"	#3C	very fine
gS 18.5506	4 1/2"	#4	very fine
gS 18.5508	4 1/2"	#5	very fine
gS 18.5510	4 3/4"	#7	very fine

#1 #3 #3C #4 #5 #7

Swiss Jewelers Forceps
smooth

str ang

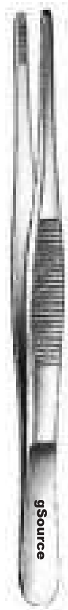
gS 18.6090	5 1/2" str
gS 18.6110	5 1/4" ang

Williams Splinter Forceps
serrated

gS 18.6210	4 3/4" cvd

Peet Splinter Forceps
double curve

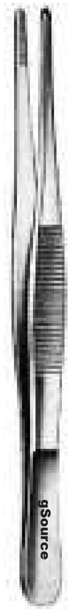
6"



gS 19.1799 4 1/2"
gS 19.1800 5"
gS 19.1840 5 1/2"
gS 19.1880 6"
gS 19.1882 7"
gS 19.1884 8"
gS 19.1886 10"
gS 19.1888 12"

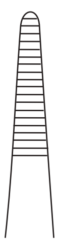
Dressing Forceps
serrated

6 1/4"

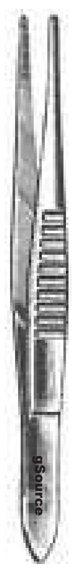


gS 19.1920 4 1/2"
gS 19.1935 6 1/4"
gS 19.1937 7"
gS 19.1940 8"
gS 19.2000 10"
gS 19.2060 12"

Dressing Forceps
narrow, serrated



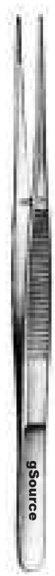
6"



gS 19.2280 4 1/2"
gS 19.2282 5"
gS 19.2284 5 1/2"
gS 19.2286 6"
gS 19.2288 7"
gS 19.2290 8"
gS 19.2292 10"

Dressing Forceps
fluted handle
serrated

6"

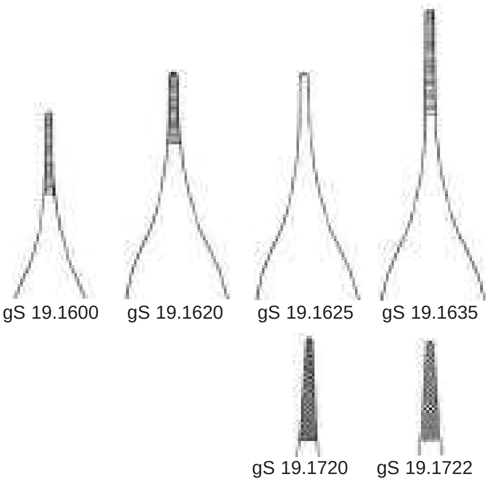


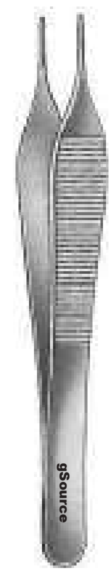
gS 19.1760 5"
gS 19.1761 6"

Semken Dressing Forceps
delicate, serrated

19/2 - dressing forceps

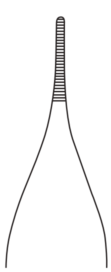
TC = Tungsten Carbide

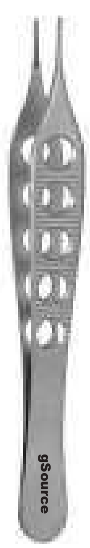




gS 19.1600 4 3/4" delicate, serrated
gS 19.1620 4 3/4" standard, serrated
gS 19.1625 4 3/4" smooth
gS 19.1720 4 3/4" standard TC, serrated
gS 19.1635 6", serrated
gS 19.1722 6" TC, serrated

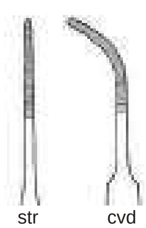
Adson Dressing Forceps

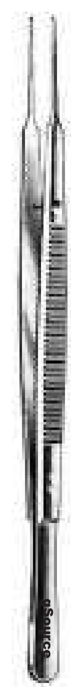




gS 19.1621 4 3/4"

Adson Dressing Forceps
standard, serrated
fenestrated handles

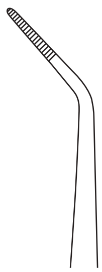


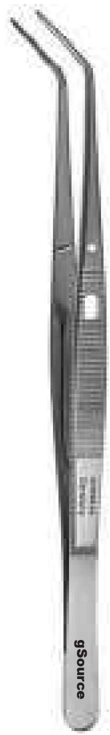


gS 19.2800 7" str
gS 19.2806 7" cvd
gS 19.2810 7" str TC 1.0mm

Gerald Dressing Forceps
delicate
serrated

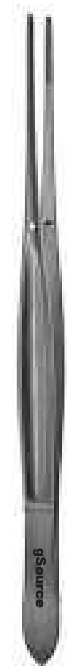
TC = Tungsten Carbide





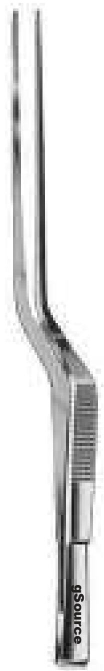
gS 19.1770 6"

Cotton and Dressing Forceps
angled with lock, serrated



gS 19.1750 7"
gS 19.1756 7" TC

Cushing Dressing Forceps
straight, serrated
smooth handle



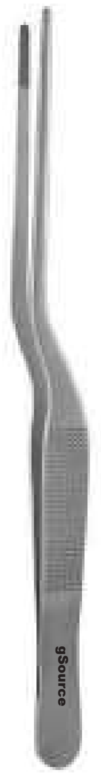
gS 19.2840 7 1/4"
gS 19.2855 7 1/4" TC

Cushing Bayonet Dressing Forceps
serrated

gS 19.2860 8 1/2"

Adson Bayonet Dressing Forceps
serrated

19/4 - dressing forceps



gS 19.2982 8 3/4"

D'Errico Bayonet Dressing Forceps
serrated

did you know... ?

The word forceps is derived from the Latin “forca”, meaning a snare or trap. Mechanically, forceps employ the principle of the lever to grasp and apply pressure.

These type of forceps are commonly referred to as “thumb forceps” or “pick ups”. They are held between the thumb and two or three fingers of one hand, with the top end resting on top of the outside of the hand at the base of the thumb and index finger. Spring tension at one end holds the grasping ends apart until pressure is applied. This allows one to quickly and easily grasp small objects or tissue to move and release it, or to grasp and hold tissue with easily variable pressure. They are used to hold tissue in place when applying sutures, to gently move tissues out of the way during exploratory surgery and to move dressings or draping without using the hands or fingers.

Dr. Harvey Cushing is credited with creating the field of brain surgery as a surgical discipline. Born in Cleveland, Ohio in 1869, he attended Yale University, and after graduating in 1891, entered Harvard Medical School and received his medical degree in 1895. He performed post-graduate training as an intern at Massachusetts General Hospital and then at Johns Hopkins Hospital. At Hopkins he was influenced by several famous physicians: William H. Welch, Howard A. Kelly, Sir William Osler and in particular William Halsted, who most influenced his surgical skills.

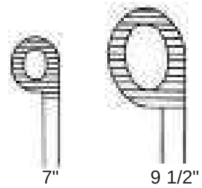
In 1911, he was appointed surgeon-in-chief at the Peter Bent Brigham Hospital in Boston and then as professor of surgery at the Harvard Medical School in 1912. He reported on an endocrinological syndrome caused by a malfunction of the pituitary gland, which he termed "polyglandular syndrome", also known as Cushing’s disease. In 1915, before the Clinical Congress of Surgeons in Boston, he showed the possibility of influencing stature by operating on the pituitary gland. In 1930, Dr. Cushing was awarded the Lister Medal for his contributions to surgical science. From 1933 to 1937, when he retired, he worked at Yale University School of Medicine.

He developed many of the tools and techniques of surgical practice which are still in use today. He was one of the first physicians in the U.S. to use x-rays to diagnose patients; he introduced an apparatus to measure blood pressure during operations; he recommended keeping a record of the patient's vital signs during an operation, and he was the first to use electrocoagulation, the clotting of tissue using a high frequency electrical current applied locally with a metal instrument or needle with the aim of stopping bleeding, for surgery. Cushing Forceps are shown on pages 2 and 3 in this section.

Dr. Cushing achieved worldwide recognition because of his innovation, skill and published observations. He is credited for training the first generation of neurosurgeons in the U.S. At the end of his career, he was rewarded through the foundation of the first national neurosurgical association, the Harvey Cushing Society, now known as the American Association of Neurological Surgeons (AANS). The Harvey Cushing/John Hay Whitney Medical Library at Yale University was also named in his honor. He passed away in 1939.

Useful for guiding a tracheal tube into the larynx or a nasogastric tube into the esophagus under direct vision. It is also used to place pharyngeal packs and remove foreign bodies.

The angle in the forceps enables them to be used with the handles out of the direct line of sight.

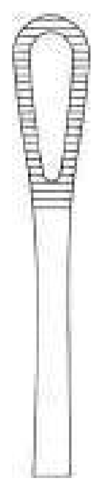


gS 20.3901 7"
gS 20.3902 8"
gS 20.3903 9 1/2"

Magill Catheter Forceps
serrated

gS 20.5440 7" str

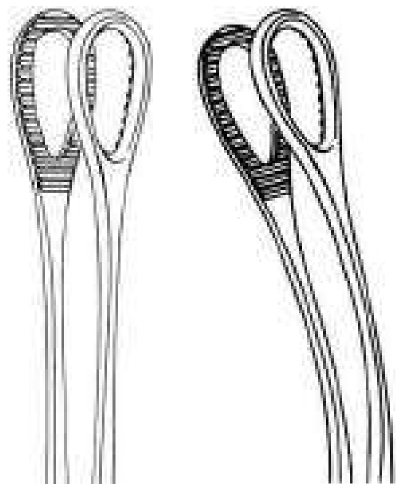
Presbyterian Tubing Forceps
smooth



gS 20.4925 7" str
gS 20.4927 10" str

Rampley Sponge Forceps
serrated

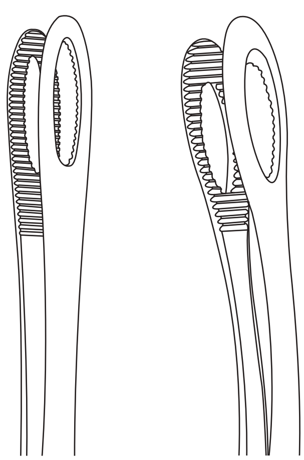
20/2 - sponge and towel forceps



9 1/2" str　　9 1/2" cvd

gS 20.4660 7" str serr
gS 20.4680 7" cvd serr
gS 20.4700 7" str smooth
gS 20.4720 7" cvd smooth
gS 20.4860 9 1/2" str serr
gS 20.4880 9 1/2" cvd serr
gS 20.4900 9 1/2" str smooth
gS 20.4920 9 1/2" cvd smooth

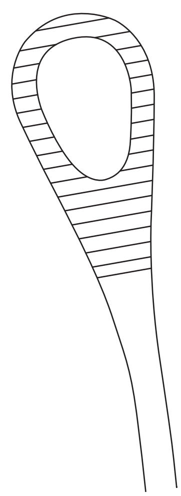
Foerster Sponge Forceps



str　　cvd

gS 20.4922 10" str
gS 20.4923 10" cvd

Foerster Sponge Forceps
narrow serrated long



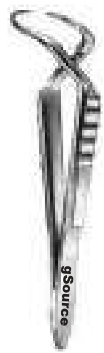
gS 20.8000 12 1/2" cvd

Bariatric Extra Long Kelly Sponge Forceps
serrated

Useful for attaching and securing drape material or for grasping tissue in order to apply traction.

gS 20.5700 3"
gS 20.5780 3 1/2"

Jones Towel Forceps
perforating sharp points

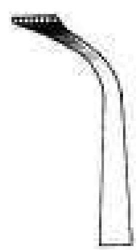


gS 20.5580 3 1/2"
gS 20.5620 5 1/4"

Backhaus Towel Forceps
perforating sharp points

gS 20.5640 5 1/4"

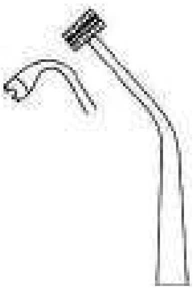
Backhaus Roeder Towel Forceps
perforating, sharp ball tips



gS 20.5660 4"
gS 20.5680 5 1/4"

Lorna Towel Forceps (Edna)
non-perforating fine teeth

20/4 - sponge and towel forceps

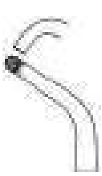


gS 20.5560 5 3/4"

Peers Towel Forceps
non-perforating
serrated tips

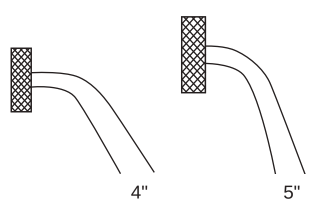
gS 20.5571 5"

Ball and Socket Towel Forceps
non-perforating ball tip



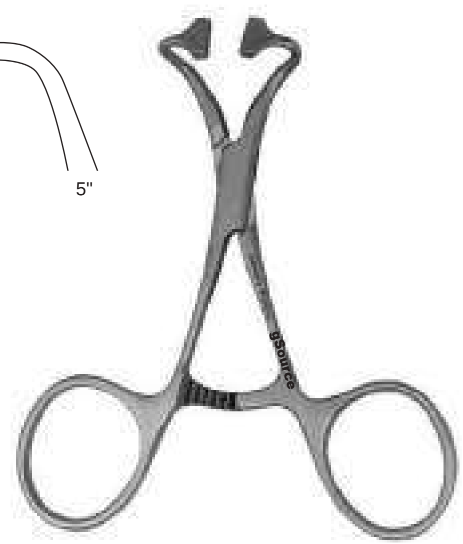
gS 20.5564 4"
gS 20.5565 5 1/4"

Tohoku-Japan Non-perforating Towel Forceps
cross serrated



gS 20.5554 4"
gS 20.5555 5"

Non-perforating Towel Forceps
cross serrated



gSource
An ARCH Medical Solutions Company

TC = Tungsten Carbide


smooth


serrated TC

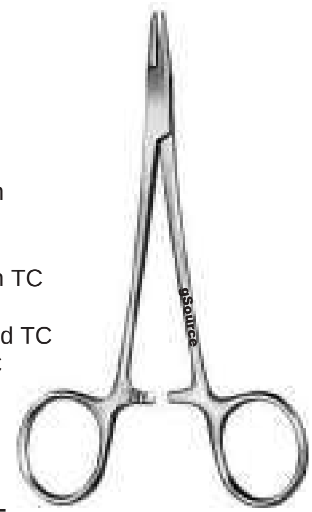
gS 21.1640 5" smooth
gS 21.1660 5" serr
gS 21.1650 5" smooth TC
gS 21.1670 5" serr TC

Halsey Needle Holder


4 1/2" smooth

gS 21.1710 4 1/2" smooth extra delicate
gS 21.1680 5" smooth
gS 21.1712 4 3/4" smooth TC extra delicate
gS 21.1714 4 3/4" serrated TC
gS 21.1700 5" smooth TC

Webster Needle Holder

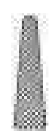


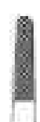

4 3/4"


4 3/4" TC

gS 21.1920 4 3/4"
gS 21.1940 4 3/4" TC

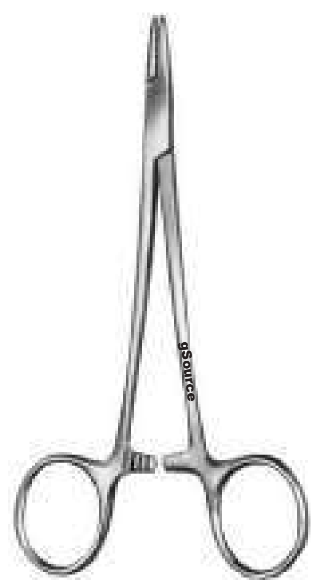
Derf Needle Holder
serrated


5"


5 1/2" TC

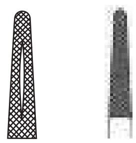
gS 21.2620 5"
gS 21.2640 5 1/2"
gS 21.2660 5 1/2" TC

Hegar-Baumgartner Needle Holder
serrated



21/2 - needle holders

TC = Tungsten Carbide

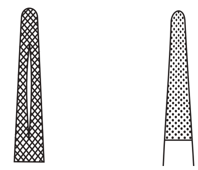


6" 6" TC

gS 21.2700 6"
gS 21.2710 7"
gS 21.2721 8"
gS 21.2730 9"

gS 21.2740 6" TC
gS 21.2741 6" TC left-handed
gS 21.2750 7" TC
gS 21.2760 8" TC
gS 21.2780 9" TC
gS 21.2782 10" TC
gS 21.2784 12" TC

Crile-Wood Needle Holder
serrated



6 1/4" 6 1/4" TC

gS 21.4280 6 1/4"
gS 21.4284 7"
gS 21.4288 8"

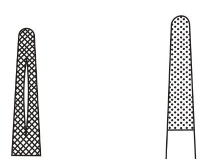
gS 21.4290 6 1/4" TC
gS 21.4294 7" TC
gS 21.4298 8" TC

Mayo Hegar
Needle Holder
delicate, serrated

gS 21.3700 5 1/2"
gS 21.3720 6"
gS 21.3780 7"
gS 21.3840 8"
gS 21.3845 9 1/2"
gS 21.3860 10 1/2"
gS 21.3865 12"

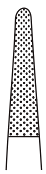
gS 21.4000 5 1/2" TC
gS 21.4020 6" TC
gS 21.4080 7" TC
gS 21.4140 8" TC
gS 21.4150 9 1/2" TC
gS 21.4160 10 1/2" TC
gS 21.4170 12" TC

Mayo Hegar Needle Holder
serrated



6" 6" TC

TC = Tungsten Carbide

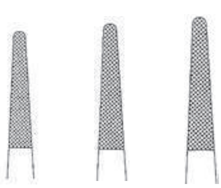


gS 21.1850 5" serr TC

Converse Needle Holder

gS 21.2040 5"

Collier Needle Holder
fenestrated jaw
serrated



7" 9" 12"

gS 21.4516 6 1/4" TC
gS 21.4518 7" TC
gS 21.4520 8" TC
gS 21.4523 9" TC
gS 21.4526 10" TC
gS 21.4531 12" TC

DeBakey Needle Holder
delicate, serrated

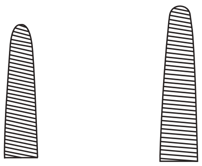
1mm 2mm

gS 21.3400 5" 1mm TC
gS 21.3420 6" 1mm TC
gS 21.3440 7" 1mm TC
gS 21.3460 8" 1mm TC
gS 21.3480 9" 1mm TC
gS 21.3485 10" 1mm TC
gS 21.3570 5" 2mm TC
gS 21.3640 6" 2mm TC
gS 21.3650 7" 2mm TC
gS 21.3660 8" 2mm TC
gS 21.3670 9" 2mm TC
gS 21.3680 10" 2mm TC

Ryder Needle Holder
delicate, serrated

21/4 - needle holders

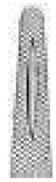
TC = Tungsten Carbide



5 1/4" 7 1/4"

gS 21.2300 5 1/4"
gS 21.2320 7 1/4"

Brown Needle Holder
serrated



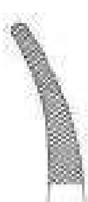
gS 21.2450 10"

Masson Needle Holder
serrated

7 1/2"

gS 21.2520 7 1/2" TC
gS 21.2540 10 1/2" TC

Sarot Needle Holder
serrated



8"

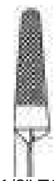
gS 21.2330 8"
gS 21.2332 8" TC
gS 21.2335 10" TC
gS 21.2340 12" TC

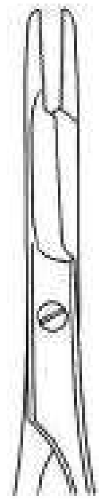
Heaney Needle Holder
curved, serrated

TC = Tungsten Carbide

Combination needle holder and
suture scissors.


4 1/2" TC

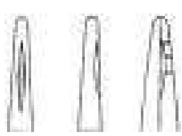

5 1/2" TC



gS 21.5240 4 1/2" delicate serr
gS 21.5280 5 1/2" serr
gS 21.5320 6 1/2" serr
gS 21.5340 7 1/4" serr

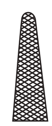
gS 21.5400 4 1/2" delicate serr TC
gS 21.5420 4 3/4" delicate smooth TC
gS 21.5480 5 1/2" serr TC
gS 21.5520 6 1/2" serr TC
gS 21.5522 7 1/4" serr TC

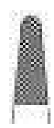
Olsen Hegar Needle Holder

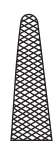

inside side

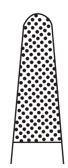
gS 21.2060 5"
smooth jaw with groove
gS 21.2080 5" TC
serrated jaw

Neivert Needle Holder
one offset ring


5 1/2"


5 1/2" TC


8"


8" TC

gS 21.2980 5 1/2"
gS 21.2990 8"
gS 21.3000 5 1/2" TC
gS 21.3020 8" TC

Mathieu Needle Holder
serrated

TC = Tungsten Carbide

did you know… ?

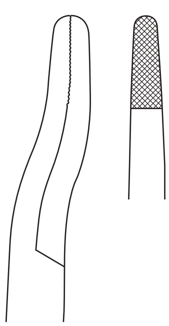
Alfred Hegar was a German gynecologist born in 1830 in Darmstadt. He became Professor of Gynecology and Obstetrics at the University of Freiburg in 1864 and was the author of important works on uterine surgery techniques, colporrhaphy (surgical repair of a defect in the vaginal wall), pregnancy diagnosis and childbed fever infection. An operation for repairing a ruptured perineum was known as “Hegar’s operation”. He also developed surgical tools, such as a needle holder and Hegar’s dilator, for widening the cervical canal. He passed away in 1914.

Needle holders are used to hold the needle when closing a wound with sutures. Although needle holders look similar to hemostats, their jaws are thicker and shorter. Shorter patterns are needed when working close to the surface while longer patterns are for deeper cavities. Like hemostats, they also have ratcheted handles that lock when closed, in order to hold the needle. This allows a surgeon to pass the needle through both sides of the wound without dropping it, as rotation of the needle holder is required during this process.

The size of the needle will determine the size of the needle holder to be used. Generally, if the needle is small, the jaws of the needle holder should also be small. If a needle is not held securely in the jaws of a selected needle holder, choose a larger size needle holder to avoid the needle slipping or becoming overstressed, which may lead to breakage.

Some gSource needle holders, forceps, scissors, pin cutters, pliers, and wire tighteners are manufactured using tungsten carbide (TC) in the working ends or jaws of the instrument. Tungsten carbide is an alloy of tungsten and carbon. It is harder than the steel used in the manufacture of needles, wires, and pins and therefore is very durable. While generally more expensive, these instruments offer long-term savings due to TC material being stronger and more resistant to “metal-on-metal” wear than stainless steel patterns. Instruments manufactured with tungsten carbide are usually identified by their gold-plated handles.

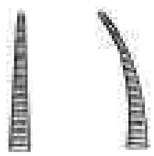
Instruments with tungsten carbide should never be immersed in sterilizing solutions containing benzyl ammonium chloride (BAC) as it will soften and dissolve the tungsten carbide. Never use bleach as it will cause severe pitting.



Useful for larger patients.

gS 21.8000 14" TC

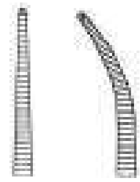
Bariatric Extra Long Needle Holder
serrated



str cvd

gS 22.1630 str
gS 22.1670 cvd

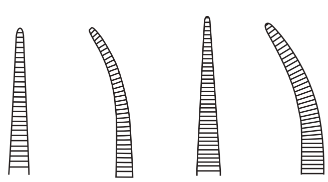
Hartmann Mosquito Forceps
4", serrated



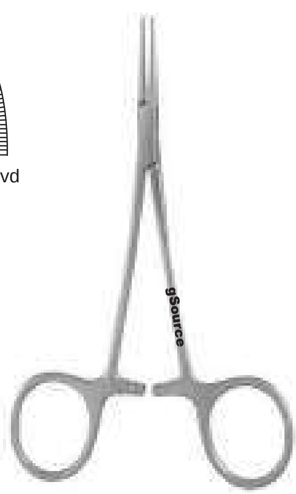
str cvd

gS 22.1752 str
gS 22.1754 cvd

Hartmann Mosquito Forceps
4", serrated 1x2 teeth

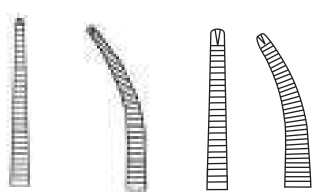


4" str 4" cvd 5" str 5" cvd



gS 22.1710 4" str
gS 22.1730 4" cvd
gS 22.1750 5" str
gS 22.1751 5" cvd

Micro Hartmann Forceps
delicate serrated

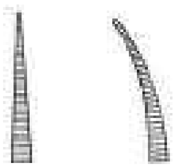


str deli cvd deli str cvd

gS 22.1758 str delicate
gS 22.1759 cvd delicate
gS 22.1760 str
gS 22.1780 cvd

Mosquito Forceps
5", serrated 1x2 teeth

22/2 - hemostatic forceps



gS 22.1812 str
gS 22.1813 cvd

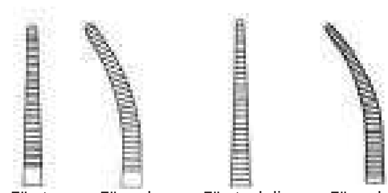
Petit-Point Jacobson Mosquito Forceps
5", very delicate serrated

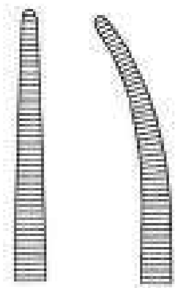
gS 22.2060 str
gS 22.2080 cvd

Providence Hospital Forceps
5 1/2", serrated

gS 22.2560 5" str
gS 22.2600 5" str delicate
gS 22.2580 5" cvd
gS 22.2620 5" cvd delicate
gS 22.2590 5 1/2" cvd
gS 22.2655 7" str
gS 22.2656 7" cvd
gS 22.2657 8" str
gS 22.2658 8" cvd

Mosquito Forceps (Halsted)
serrated

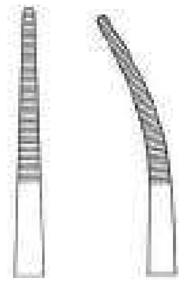




str cvd

gS 22.2760 str
gS 22.2800 str delicate
gS 22.2780 cvd
gS 22.2820 cvd delicate

Crile Forceps
5 1/2"
serrated jaws



str cvd

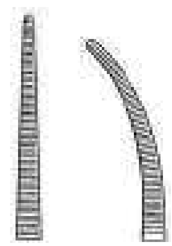
gS 22.2660 str
gS 22.2680 cvd

Kelly Forceps
5 1/2"
serrated jaws

str cvd

gS 22.2690 5 1/2" str
gS 22.2691 5 1/2" cvd
gS 22.2692 6 1/4" str
gS 22.2693 6 1/4" cvd
gS 22.2694 7 1/4" str
gS 22.2695 7 1/4" cvd

Coller Forceps
delicate serrated

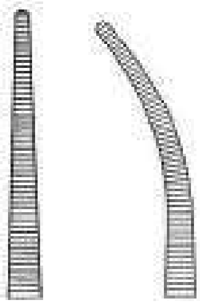


str cvd

gS 22.8422 str
gS 22.8424 cvd

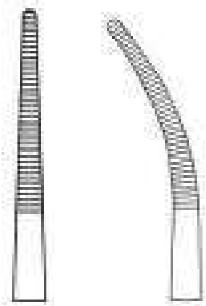
Leriche Forceps
6"
delicate serrated

22/4 - hemostatic forceps



gS 22.2860 str
gS 22.2880 cvd

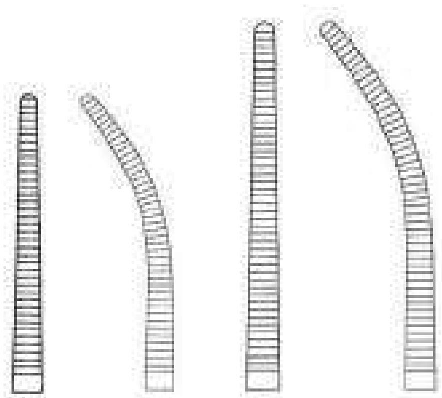
Rankin-Crile Forceps
6 1/4"
serrated jaws



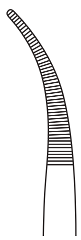
gS 22.2960 str
gS 22.2980 cvd

Rankin-Kelly Forceps
6 1/4"
serrated jaws

gS 22.4020 13cm [5"] str
gS 22.4040 13cm [5"] cvd
gS 22.4060 14cm [5 1/2"] str
gS 22.4061 14cm [5 1/2"] str left-handed
gS 22.4080 14cm [5 1/2"] cvd
gS 22.4160 16cm [6 1/4"] str
gS 22.4180 16cm [6 1/4"] cvd
gS 22.4260 18cm [7"] str
gS 22.4280 18cm [7"] cvd
gS 22.4360 20cm [8"] str
gS 22.4380 20cm [8"] cvd
gS 22.4460 22cm [8 1/2"] str
gS 22.4480 22cm [8 1/2"] cvd
gS 22.4500 24cm [9 1/2"] str
gS 22.4520 24cm [9 1/2"] cvd
gS 22.4560 26cm [10"] str
gS 22.4580 26cm [10"] cvd
gS 22.4600 30cm [12"] str
gS 22.4620 30cm [12"] cvd
gS 22.4920 40cm [16"] cvd

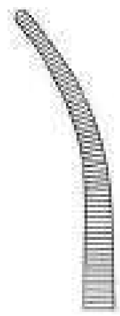


Rochester Pean Forceps
serrated



gS 22.1820 7" slight cvd

Jacobson Hemostatic Forceps
delicate serrated



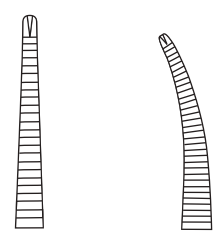
gS 22.8482 8" slight cvd

Heiss Artery Forceps
serrated

str cvd

gS 22.8440 str
gS 22.8460 cvd

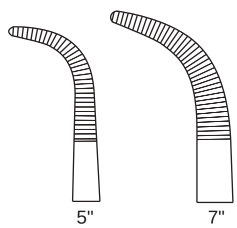
Adson Hemostatic Forceps
7 1/4"
serrated



str cvd

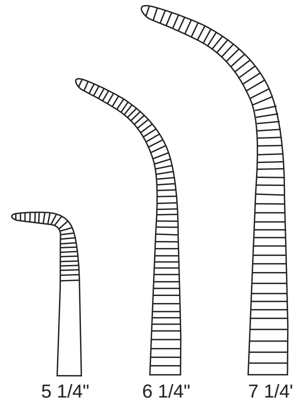
gS 22.8470 str
gS 22.8472 cvd

Adson Artery Forceps
7 1/4"
serrated 1x2 teeth



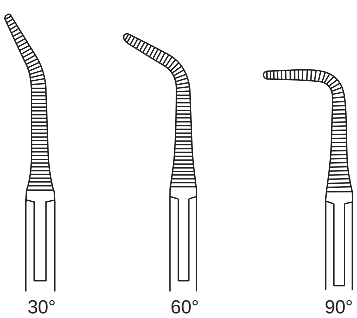
gS 22.6550 5"
gS 22.6560 7"

Mixter Baby Forceps
curved serrated



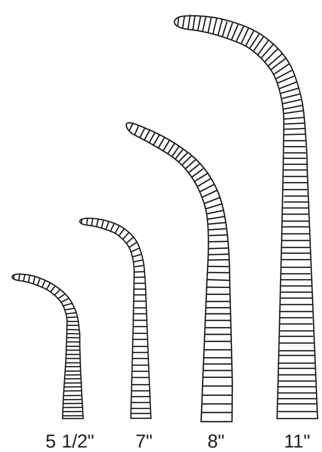
gS 22.6570 5 1/4" delicate
gS 22.6620 6 1/4"
gS 22.6640 7 1/4"

Mixter Forceps
curved serrated



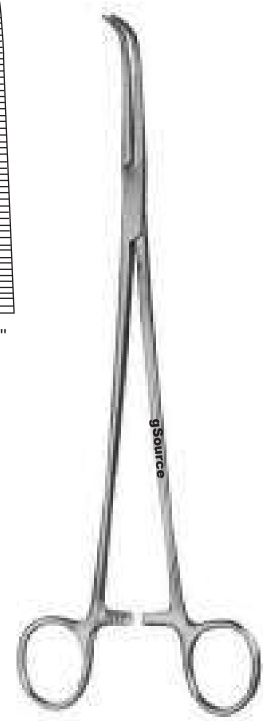
gS 22.6730 30°
gS 22.6760 60°
gS 22.6790 90°

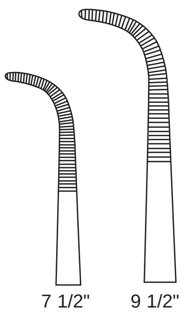
Bailey Forceps
7"
angled, fine serrated



gS 22.2710 5 1/2"
gS 22.2712 7"
gS 22.2713 8"
gS 22.2714 9"
gS 22.2715 10"
gS 22.2725 11"

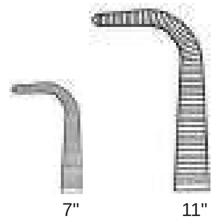
Gemini Forceps
curved serrated





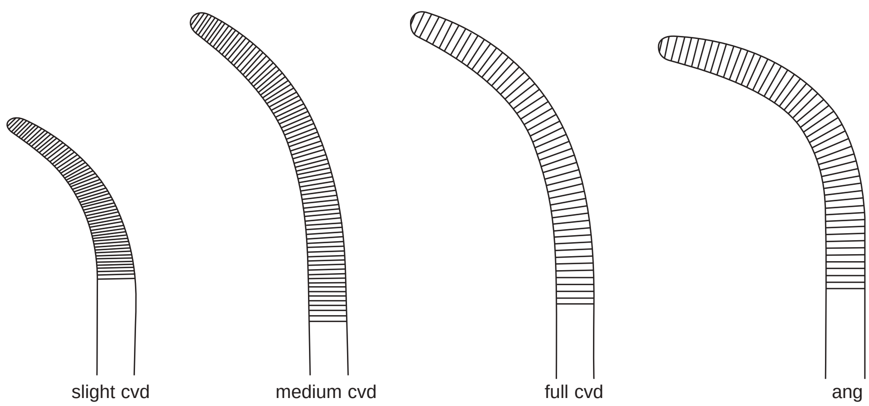
gS 22.6680 7 1/2"
gS 22.6682 9 1/2"

Kantrowitz Forceps
right angle
serrated



gS 22.6670 7"
gS 22.6671 11"

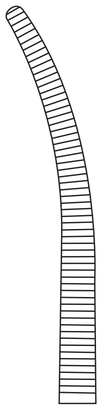
Meeker Artery Forceps
right angle
serrated



Useful in thoracic procedures due to partially serrated jaws and ability to grasp arteries or maneuver tapes around the arteries of the heart.

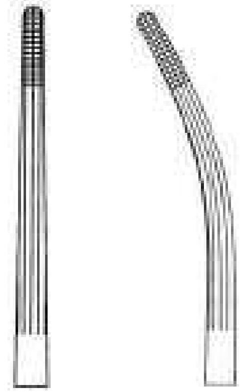
gS 22.7702 slight cvd
gS 22.7704 medium cvd
gS 22.7706 full cvd
gS 22.7708 ang

Rumel Dissecting Forceps
9"
serrated



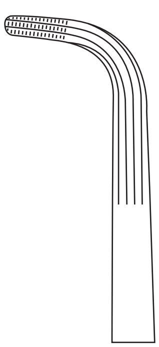
gS 22.2740 8 1/2" cvd

Vanderbilt Deep Vessel Forceps
serrated



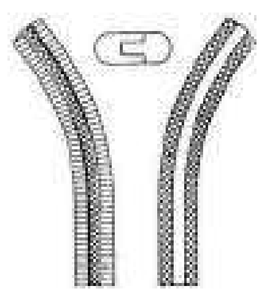
gS 22.6160 6 1/4" str
gS 22.6180 6 1/4" cvd
gS 22.6360 8" str
gS 22.6380 8" cvd

Rochester-Carmalt Fcps
cross serrated tip
longitudinally serrated jaws



gS 22.6650 8 1/2" full cvd

Mixter Forceps
cross serrated tip
longitudinally serrated jaws

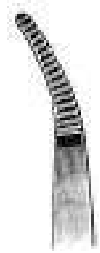


gS 22.9160 6 1/4" str
gS 22.9180 6 1/4" cvd
gS 22.9260 7 3/4" str
gS 22.9280 7 3/4" cvd

Ferguson Forceps
serrated 1x2 jaws

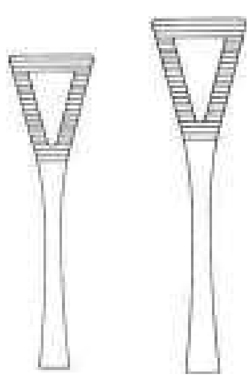
gS 22.7602 slight cvd
gS 22.7604 full cvd

Schnidt Forceps
7 1/2"
serrated



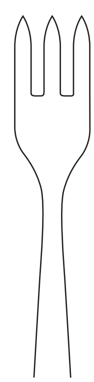
gS 22.7606 7 1/2" slight cvd

Schnidt Forceps
one open ring
serrated



gS 22.8660 6"
gS 22.8662 8"

Pennington Tissue Forceps
serrated jaw



gS 22.7960 6 1/4"

Lahey Traction Forceps
3x3 sharp

22/10 - hemostatic forceps

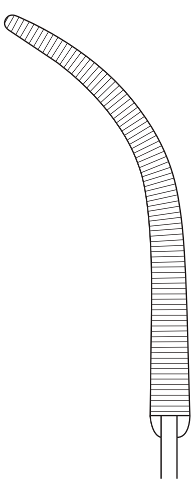
did you know… ?

The primary use of a hemostat is to clamp and hold onto blood vessels. It is important to block off blood vessels during surgery so that the patient does not bleed to death. “Hemo” is a Latin prefix word that means blood and “stat” is an abbreviation for the Latin word “*statim*” meaning immediately.

Hemostats resemble a pair of scissors with the blade replaced by a blunted grip. They also feature a locking mechanism to allow them to act as clamps.

gS 22.8715 6"

Pratt Scalp Forceps
fine teeth



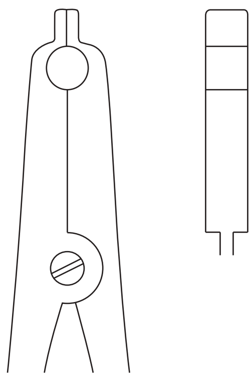
Useful for larger patients.

gS 22.9310 14" cvd

Bariatric Extra Long
Zenker Ligature Forceps
serrated

gSource®
An ARCH Medical Solutions Company

Used to hold and apply Raney scalp clips in order to provide hemostasis of the edges of scalp flaps. Helps to prevent loss of large amounts of blood and pooling of blood in certain areas of the scalp.



gS 23.6000 6 1/4"

Raney Clip Applying Forceps

did you know… ?

Neurosurgery in the late 19th and early 20th centuries was often hindered due to a lack of effective methods of scalp hemostasis.

The benefits of manual pressure in hemostasis (gauze pads held down manually at the base of the flap and around the margins of the wound, possibly in combination with hemostatic clamps) was rediscovered by Dr. Charles Frazier in 1906 and endorsed by Dr. Harvey Cushing. It was Dr. Cushing's practice to place hemostats along the cut edge of the galea aponeurotica (the aponeurosis underlying the scalp and linking the frontalis and occipitalis muscles, also called epicranial aponeurosis) while simultaneously applying pressure. The forceps would be reflected over the scalp edge, allowing the instruments to hang which ensured the galeal edge folded sharply backward. Occlusion of scalp bleeding was ensured by the combined weight of the instruments and the pressure of the reflected and out-folded galea. Dr. Cushing indicated this technique afforded him the luxury of bloodless incisions on several occasions. The chance of tears forming in the galea from the weight-induced hemostasis was reduced with the introduction of angular hemostatic forceps in 1927 by Dr. Anatole Kolodny.

Attempts to reduce the bulk of bunched hemostats lead to the development of steel clips. Dr. Henry Souttar was first to describe small steel clips applied with forceps to the scalp edge. In 1933 Dr. Alfred Adson and Dr. Edgar Fincher squeezed silver clips onto the scalp margin. In 1934 Dr. Percival Bailey brought the Michel clip applier to the U.S., which he fashioned by modifying an instrument in use by Dr. Clovis Vincent in Paris.

Two brothers, Aidan and Rupert Raney, worked in southern California and came up with a unique idea leading to the development of the modern Raney scalp clips in 1936. This innovation allowed safe and bloodless craniotomies to be performed and revolutionized scalp hemostasis.

The Raney Clip Applying Forceps, shown on this page, can be used to apply Raney Scalp Clips. The clips have overlapping jaws with smooth radii to help ensure secure atraumatic placement.

did you know… ?

A craniotomy is the surgical removal of part of the bone from the skull to expose the brain. Specialized tools are used to remove the section of bone called the bone flap. The bone flap is temporarily removed, then replaced after the brain surgery has been done.

Some craniotomy procedures may use the guidance of computers and imaging (magnetic resonance imaging (MRI) or computerized tomography (CT) scans) to reach the precise location within the brain that is to be treated. This technique requires the use of a frame placed onto the skull or a frameless system using superficially placed markers or landmarks on the scalp. When either of these imaging procedures is used along with the craniotomy procedure, it is called stereotactic craniotomy.

Scans made of the brain, in conjunction with these computers and localizing frames, provide a three dimensional image, for example, of a tumor within the brain. It is useful in making the distinction between tumor tissue and healthy tissue and reaching the precise location of the abnormal tissue.

Other uses include stereotactic biopsy of the brain (a needle is guided into an abnormal area so that a piece of tissue may be removed for exam under a microscope), stereotactic aspiration (removal of fluid from abscesses, hematomas, or cysts), and stereotactic radiosurgery (such as gamma knife radiosurgery).

An endoscopic craniotomy is another type of craniotomy that involves the insertion of a lighted scope with a camera into the brain through a small incision in the skull.

Aneurysm clipping is another surgical procedure which may require a craniotomy. A cerebral aneurysm (also called an intracranial aneurysm or brain aneurysm) is a bulging weakened area in the wall of an artery in the brain, resulting in an abnormal widening or ballooning. Because of the weakened area in the artery wall, there is a risk for rupture (bursting) of the aneurysm. Placement of a metal clip across the "neck" of the aneurysm isolates the aneurysm from the rest of the circulatory system by blocking blood flow, thereby preventing rupture.

Craniectomy is a similar procedure during which a portion of the skull is permanently removed or replaced later during a second surgery after the swelling has gone down.

Other related procedures that may be used to diagnose brain disorders include cerebral arteriogram, computed tomography (CT) scan of the brain, electroencephalogram (EEG), magnetic resonance imaging (MRI) of the brain, positron emission tomography (PET) scan, and X-rays of the skull.

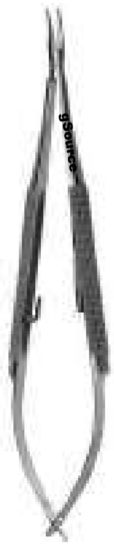
A craniotomy may be done for a variety of reasons, including, but not limited to, the following:

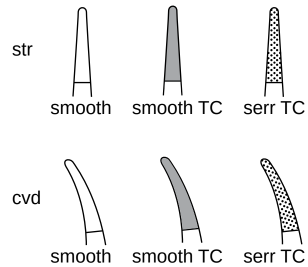
- Diagnosing, removing, or treating brain tumors
- Clipping or repairing of an aneurysm
- Removing blood or blood clots from a leaking blood vessel
- Removing an arteriovenous malformation (AVM), an abnormal mass of blood vessels (arteries and veins)
- Draining a brain abscess. An infected pus-filled pocket
- Repairing skull fractures
- Repairing a tear in the membrane lining the brain (dura mater)
- Relieving pressure within the brain (intracranial pressure) by removing damaged or swollen areas of the brain that may be caused by traumatic injury or stroke
- Treating epilepsy, a neurological condition involving the brain that makes people more susceptible to seizures
- Implanting stimulator devices to treat movement disorders such as Parkinson's disease or dystonia (a type of movement disorder)

TC = Tungsten Carbide

gS 24.1320   5 1/2" cvd

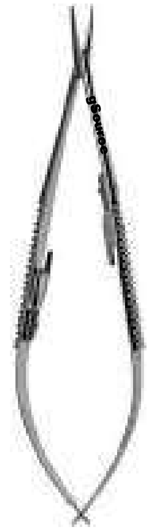
Barraquer Needle Holder
with lock

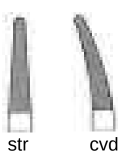




gS 24.2860   5 1/2" str smooth
gS 24.2880   5 1/2" cvd smooth
gS 24.2882   5 1/2" str smooth TC
gS 24.2884   5 1/2" cvd smooth TC
gS 24.2886   5 1/2" str serr TC
gS 24.2887   5 1/2" cvd serr TC

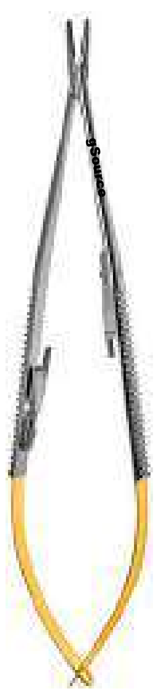
Castroviejo Needle Holder
with lock





gS 24.2892   7" str serr TC
gS 24.2893   7" cvd serr TC

Castroviejo Needle Holder
with lock



did you know… ?

Microsurgical procedures require equipment which magnifies the operating field. Microsurgical instruments must be capable of delicately manipulating structures barely visible to the naked eye, with handles large enough to hold comfortably and securely. They must also take into account the tremor of the surgeon's hand, which can be greatly amplified under magnification.

did you know… ?

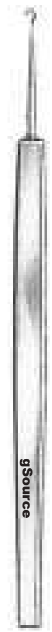
Ramón Castroviejo was a Spanish and American eye surgeon known for his achievements in corneal transplantation. Born in 1904 in Logroño, Spain he received his medical education at the University of Madrid. He graduated in 1927 and worked at the Chicago Eye, Ear, Nose and Throat Hospital and the Mayo Clinic before coming to Columbia Presbyterian Medical Center in New York in 1931. He became the director of Ophthalmology at St. Vincent's Hospital and later purchased the Hammond House and modified the top two floors of the building to open as an eye hospital.

He improved the technique for grafting of the human cornea in the 1930's and 1940's, prompting the worldwide adoption of corneal transplantation as a standard way to deal with severe corneal pathology. Rather than create a circular window in the cornea, he created a rectangular one and was successful in his transplants. Although the medical community was slow to recognize his successes, Dr. Castroviejo was eventually commended and recognized for his sight-saving corneal tissue transplant techniques, which he continued to refine and teach for many years. Dr. Castroviejo also promoted the donation of corneal tissue in the United States and designed numerous ophthalmic instruments, including the Castroviejo needle holder, an instrument used in eye and microsurgery, as shown on page 1 in this section. After his retirement he moved to Madrid, and passed away in 1987.

Ignacio Barraquer was a Spanish ophthalmologist known for advancing cataract surgery. Dr. Barraquer was born in 1884 in Barcelona, Catalonia, Spain and received his medical doctorate in 1908 in Barcelona. Upon his father's retirement, he was appointed as Acting Professor of Ophthalmology at the School of Medicine and held this position until 1923. He invented many surgical instruments and procedures involving cataract surgery. Among his other achievements, Barraquer also founded, planned, and designed the Centro de Oftalmología Barraquer. He passed away in 1965.

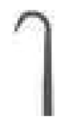
José Barraquer came from a family of four generations of prominent ophthalmologists, and is acknowledged as the father of refractive surgery. He was the son of Ignacio Barraquer and was born in 1916 in Barcelona, Spain, but moved in 1953 to Bogota, Colombia. There, he founded the Barraquer Institute of America, where he trained many of the refractive surgeons practicing around the world today. The Barraquer Institute of America is a civilian non-profit scientific institution dedicated to the research, study, teaching and dissemination of the science of ophthalmology. One of its goals is to provide free eye care to poor Colombians. The Barraquer Institute also established the first eye bank in Colombia.

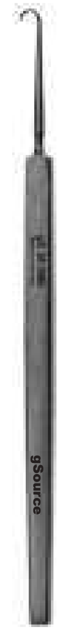
Dr. Barraquer promoted the improvement of suture material and technique in cataract and corneal surgery, and designed numerous surgical instruments, including the Barraquer Needle Holder, as shown on page 1 in this section. He was dedicated to the idea of reshaping the cornea to change the eye's refractive power. He developed the breakthrough eye technology that made LASIK (Laser-Assisted Stromal In-situ Keratomileusis) surgery possible. LASIK involves the use of lasers to carve very thin slices of cornea which are then reshaped so as to reduce nearsightedness and other optical health problems. He invented the cryolathe and microkeratome, which are the instruments used to perform LASIK surgery. Dr. Barraquer continued to practice, invent and teach until his death in 1998.



gS 25.2312 sharp
gS 25.2313 blunt

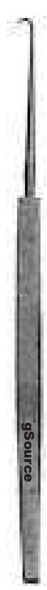
Tyrell Hook
5", 1 prong
1.5mm





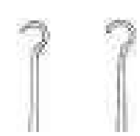
gS 25.1980 5" sharp

Skin Hook
1 prong
3.5mm

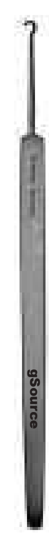


gS 25.2575 5 1/2" sharp

Cushing Dura Hook
1 prong
2.0mm



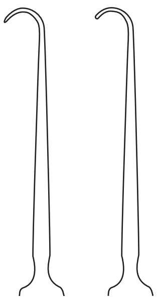
sharp blunt

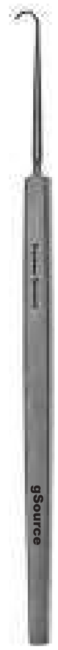


gS 25.2561 sharp
gS 25.2562 blunt

Frazier Hook
5", 1 prong
2.5mm

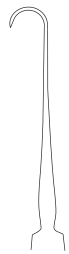
25/2 - skin and nerve hooks

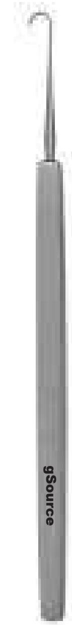




gS 25.1990 sharp
gS 25.1992 blunt

Wiener Skin Hook
5", 1 prong
3.5mm



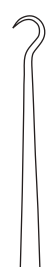


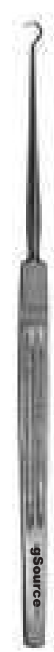
gS 25.1212 5" sharp

O'Connor Skin Hook
1 prong
5.0mm

gS 25.1600 3.0mm
gS 25.1640 5.0mm
gS 25.1680 7.0mm

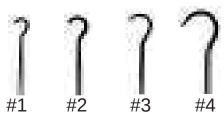
Kleinert-Kutz Hook
6", 1 prong
sharp

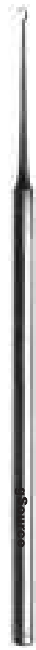




gS 25.2102 6 1/2" sharp

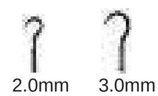
Johnson Skin Hook
1 prong
4.0mm





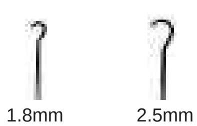
	#	
gS 25.1101	1	1.0mm
gS 25.1102	2	2.0mm
gS 25.1103	3	3.0mm
gS 25.1104	4	4.0mm

Niro Skin Hook
6 3/4", 1 prong
sharp



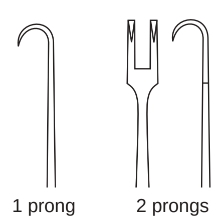
gS 25.1770 2.0mm
gS 25.1830 3.0mm

Gillies Hook
7", 1 prong
sharp



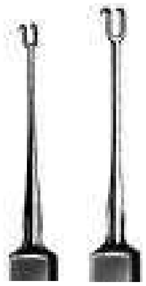
gS 25.1450 1.8mm
gS 25.1455 2.5mm

Converse Skin Hook
7", 1 prong
delicate, sharp

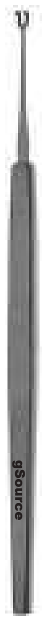


gS 25.1351 1 prong
gS 25.1352 2 prongs

Lahey Skin Hook
4 3/4", sharp
4.0mm

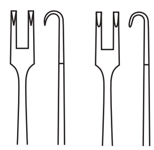


1.5mm 2.5mm



gS 25.4490 1.5mm
gS 25.4500 2.5mm

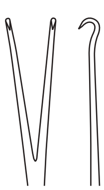
Guthrie Hook
5", 2 prongs
sharp

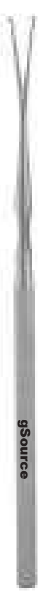


sharp blunt

gS 25.1400 sharp
gS 25.1402 blunt

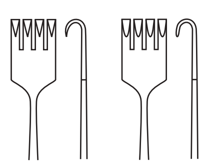
Freer Skin Hook
6", 2 prongs
2.0mm



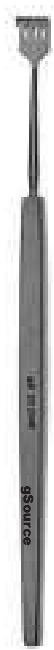


gS 25.1362 6" sharp

Barsky Skin Hook
2 prongs
2.0mm



sharp blunt



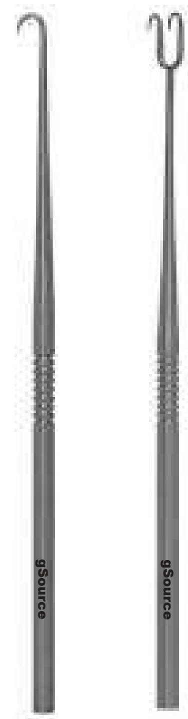
gS 25.2595 sharp
gS 25.2596 blunt

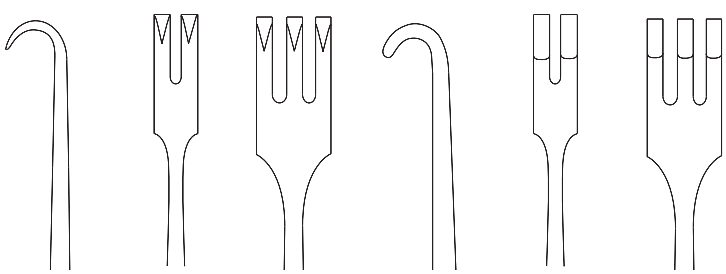
Rollet Retractor
5 1/2", 4 prongs
2.0mm

gS 25.1880 gS 25.1910 gS 25.1920 gS 25.1930 gS 25.1940

		depth	apart
gS 25.1880	1 prong	5.0mm	
gS 25.1910	2 prongs	3.5mm	2.0mm
gS 25.1920	2 prongs	3.5mm	5.0mm
gS 25.1930	2 prongs	3.5mm	7.0mm
gS 25.1940	2 prongs	3.5mm	10.0mm

Joseph Hook
6 1/4"
sharp



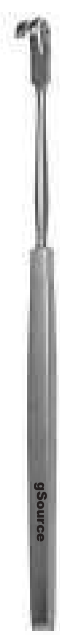


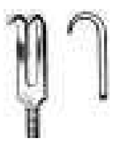
gS 25.2609 gS 25.2610 gS 25.2620 gS 25.2640 gS 25.2660 gS 25.2720

	sharp	depth
gS 25.2609	1 prong	4.0mm
gS 25.2610	2 prongs	6.0mm
gS 25.2620	3 prongs	7.0mm

	blunt	depth
gS 25.2640	1 prong	4.0mm
gS 25.2660	2 prongs	6.0mm
gS 25.2720	3 prongs	7.0mm

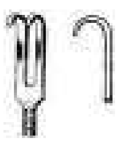
Rigid Retractor
6 1/2"



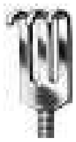


gS 25.2802

gS 25.2803



gS 25.2812

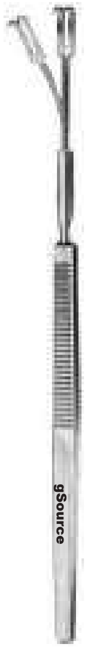


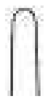
gS 25.2813

	sharp	depth
gS 25.2801	1 prong	4.0mm
gS 25.2802	2 prongs	5.0mm
gS 25.2803	3 prongs	5.0mm
gS 25.2804	4 prongs	5.0mm

	blunt	depth
gS 25.2811	1 prong	4.0mm
gS 25.2812	2 prongs	5.0mm
gS 25.2813	3 prongs	5.0mm
gS 25.2814	4 prongs	5.0mm

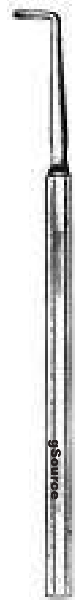
Flexible Retractor
6 1/4"
flexible shaft





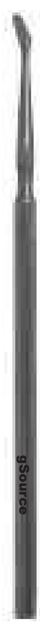
gS 25.2580 6"

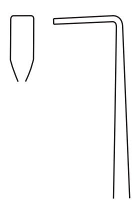
Hoen Dural Separator
blunt, 90°
3.0mm



gS 25.2581 6 1/2"

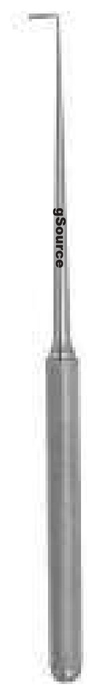
Hoen Dural Separator
blunt, 45°
3.0mm

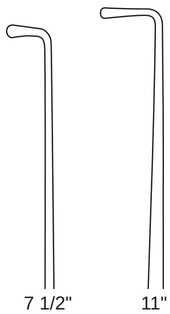


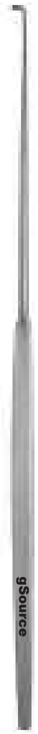


gS 25.2200 8 1/4"

gSeparator, Penelope
blunt, 90°
3.2mm

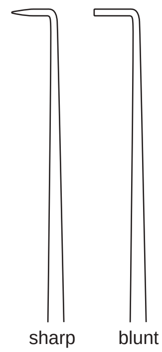






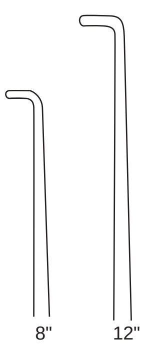
gS 25.1870	7 1/2"	5.0mm
gS 25.1871	7 1/2"	7.0mm
gS 25.1873	11"	5.0mm
gS 25.1874	11"	7.0mm

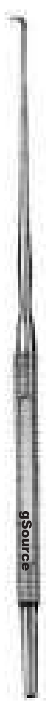
Cushing Nerve Hook
blunt, 90°



gS 25.2570 sharp
gS 25.2571 blunt

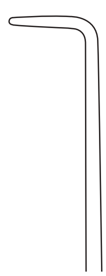
Adson Dura Hook
8", 90°
5.0mm

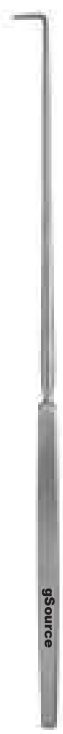




gS 25.1865 8"
gS 25.1869 12"

Adson Nerve Hook
blunt, 90°
4.0mm





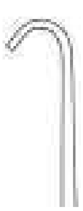
gS 25.1862 9"

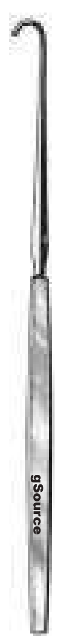
Hoen Nerve Hook
blunt, 90°
10.0mm

25/8 - skin and nerve hooks

gS 25.1851 straight
gS 25.1852 angled right
gS 25.1850 angled left

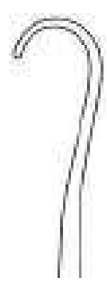
Dandy Nerve Hook
9", blunt
90°, 4.0mm

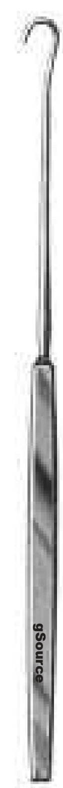




gS 25.1840 6 1/2" blunt

Graham Hook
1 prong
7.0mm

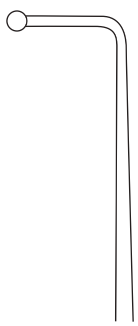


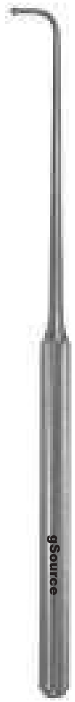


gS 25.1845 8" blunt

Smithwick Button Hook
1 prong
10.0mm

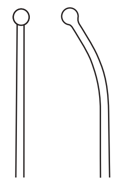
OD = Outside Diameter

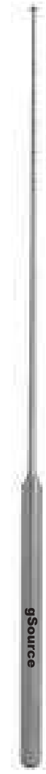




gS 25.2000 9 1/2"

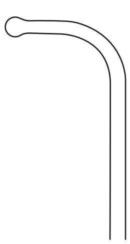
Ball Probe
90°
15.0mm, ball OD 2.6mm

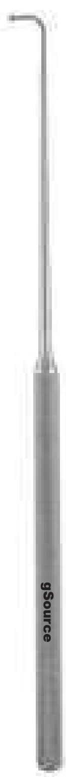




gS 25.2020 straight
gS 25.2025 curved

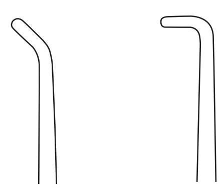
gProbe, Ball
10 1/2", ball OD 2.3mm
with graduation lines

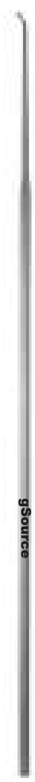




gS 25.2030 12"

gProbe, Ball
90°
ball OD 2.6mm





gS 25.2045 45°
gS 25.2050 90°

gProbe, Nerve
15", blunt

did you know… ?

Sir Harold Delf Gillies was born in 1882 in New Zealand, and later became a London based otolaryngologist who is considered by many as the father of plastic surgery.

In World War I, Dr. Gillies developed many of the techniques of modern plastic surgery from caring for soldiers suffering from disfiguring facial injuries. Dr. Gillies volunteered in France with the Red Cross, and during that time he learned about plastic surgery. His work was expanded upon during World War II by his cousin and a former student, who pioneered treatments for members of the Royal Air Force crew who suffered from severe burns. In 1946, Dr. Gillies carried out the first female-to-male sex reassignment surgery and in 1951 the first male-to-female sex reassignment surgery. He passed away in 1960.

Walter Edward Dandy was an American neurosurgeon and scientist. He is widely considered as one of the founding fathers of neurosurgery, and is credited with numerous neurosurgical discoveries and innovations, including:

- Description of the circulation of cerebrospinal fluid in the brain.
- Surgical treatment of hydrocephalus, a condition in which fluid accumulates in the brain.
- Invention of air ventriculography, a method of taking x-ray pictures of the ventricles of the brain after air has been introduced to replace the cerebrospinal fluid. By introducing ventriculography in 1918, and later encephalography, he made the accurate diagnosis and localization of tumors of the brain and intracranial tissues possible.
- Introduction of pneumoencephalography, a radiographic visualization of the cerebral ventricles and subarachnoid spaces after the injection of air or gas. It has been largely replaced by CT (computed tomography) and MRI (magnetic resonance imaging) techniques.
- Description of brain endoscopy.
- Establishment of the first intensive care unit.
- First clipping of an intracranial aneurysm.

Born in 1886, Dr. Dandy graduated in 1907 from the University of Missouri and enrolled in the Johns Hopkins University School of Medicine, graduating in 1910 at the age of 24. He became the sixth appointee to the Hunterian Laboratory of Experimental Medicine under Harvey W. Cushing from 1910-1911. In 1911, he earned a Master of Arts degree for his work in the Hunterian Laboratory, and went on to join the Johns Hopkins Hospital surgical staff for one year as Dr. Cushing's Assistant Resident. Dr. Dandy completed his general surgical residency at the Johns Hopkins Hospital under William S. Halsted in 1918.

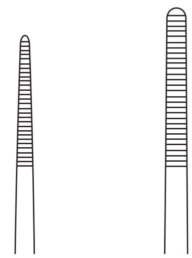
While Dr. Dandy was introduced to the field of neurosurgery by Dr. Cushing, it was George J. Heuer who completed Dr. Dandy's neurosurgical training following Dr. Cushing's departure in 1912. Dr. Heuer had graduated from the Johns Hopkins University School of Medicine in 1908, worked as Dr. Cushing's first Assistant Resident from 1908-1909, and served as Dr. Halsted's Chief Resident from 1911 to 1914. When Dr. Heuer left Hopkins in 1922 to become the head of surgery at the University of Cincinnati, Dr. Dandy remained as the only neurosurgeon at the Johns Hopkins Hospital until his death in 1946.

During his 40-year medical career his contributions to the field of neurosurgery include 159 articles and 5 books, among them a classic text on neurosurgery, "Surgery of the Brain". The discovery of ventriculography was considered his greatest contribution. Dr. Dandy also devised new instruments, including the Dandy Nerve Hook on page 8 of this section, and performed over 2,000 operations, among them operations for hydrocephalus, brain abscesses, subdural hematoma, trifacial neuralgia, and intervertebral discs.

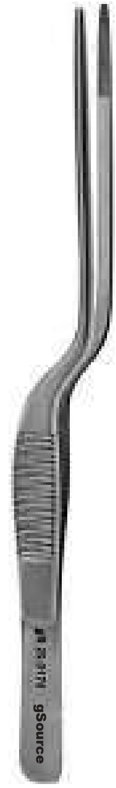
The Department of Neurosurgery at New York University was established with the recruitment of Thomas I. Hoen in 1951. Dr. Hoen's academic credentials included medical school at Johns Hopkins in Baltimore, Maryland; a Halsted fellowship in surgery at Johns Hopkins; general surgery and then neurosurgical training at the Peter Bent Brigham Hospital in Boston, Massachusetts, under Dr. Harvey Cushing; and further neurosurgical training under Dr. Wilder Penfield at the Royal Victoria Hospital in Montreal, Canada. After training, Dr. Hoen accepted academic posts in Montreal and then was professor of neurology and neurosurgery at New York Medical College, Flower and Fifth Avenue Hospitals from 1931 to 1951. The Hoen Dural Separators are shown on page 6 in this section.

gS 26.0150 4 3/4"

Wilde Ear Dressing Forceps
angled, delicate, serrated



5 1/2" 6 1/4"

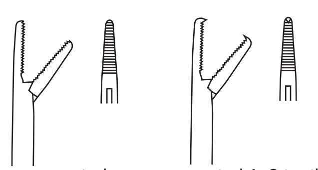


gS 26.0175 5 1/2"
gS 26.0177 6 1/4"

Lucae Ear Dressing Forceps
bayonet handle, serrated

gS 26.0220 8"

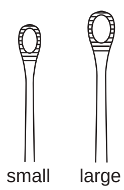
Jansen Ear Dressing Forceps (Gruenwald)
bayonet handle, serrated

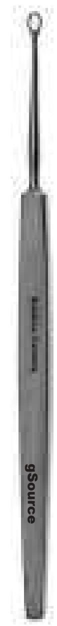


serrated serrated 1x2 teeth

gS 26.7652 3 1/2" serr
gS 26.7653 5 1/2" serr
gS 26.7655 3 1/2" serr 1x2 teeth
gS 26.7656 5 1/2" serr 1x2 teeth

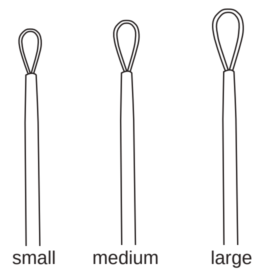
Hartmann Alligator Forceps
serrated

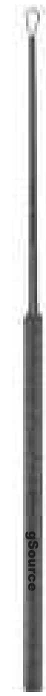




gS 26.0480 small
gS 26.0482 large

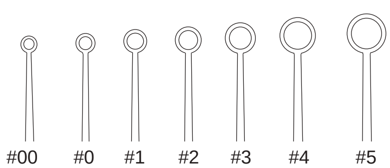
Shapleigh Ear Curette
6"
straight

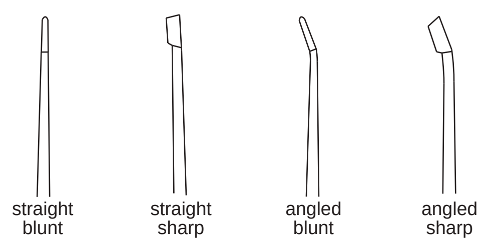




gS 26.1960 small
gS 26.1980 medium
gS 26.2000 large

Billeau Ear Loop
6 1/2"
straight

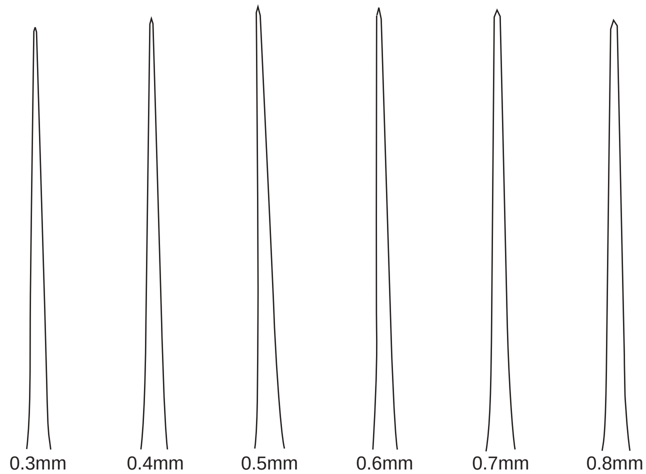


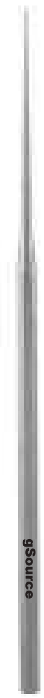


straight blunt		straight sharp, one side		angled blunt		angled sharp, one side	
gS 26.0590	#00	**gS 26.0701**	#00	**gS 26.0740**	#00	**gS 26.0910**	#00
gS 26.0610	#0	**gS 26.0702**	#0	**gS 26.0760**	#0	**gS 26.0920**	#0
gS 26.0630	#1	**gS 26.0703**	#1	**gS 26.0780**	#1	**gS 26.0930**	#1
gS 26.0650	#2	**gS 26.0704**	#2	**gS 26.0800**	#2	**gS 26.0940**	#2
gS 26.0670	#3	**gS 26.0705**	#3	**gS 26.0820**	#3	**gS 26.0950**	#3
gS 26.0680	#4	**gS 26.0706**	#4	**gS 26.0840**	#4	**gS 26.0960**	#4
gS 26.0690	#5	**gS 26.0707**	#5	**gS 26.0860**	#5	**gS 26.0970**	#5

Buck Ear Curette
6 1/2"

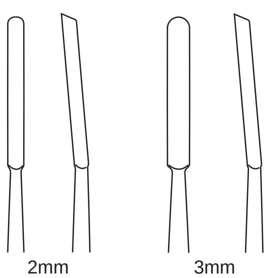
Useful for middle ear surgery, tympanoplasty and stapedotomy.





gS 26.0303 0.3mm
gS 26.0304 0.4mm
gS 26.0305 0.5mm
gS 26.0306 0.6mm
gS 26.0307 0.7mm
gS 26.0308 0.8mm

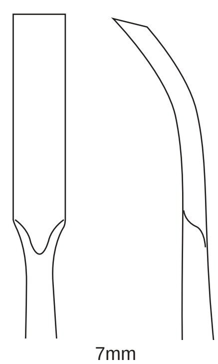
Fisch Perforator
6 1/4" straight
sharp point



Useful for endaural procedures.

gS 26.0332 2mm
gS 26.0333 3mm

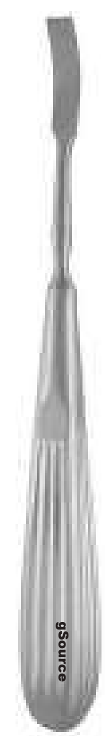
Lempert Elevator
6 3/4"
slightly angled, sharp

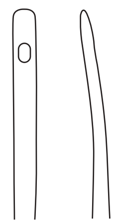


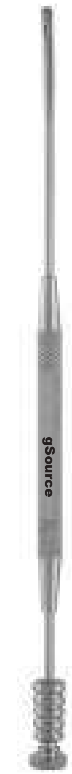
Commonly used in ear, nose and throat procedures.

gS 26.0337 7" 7 mm

Lempert Elevator
curved
sharp



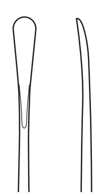




Useful in nasal septum
procedures.

gS 26.0423 8" 3mm

Gorney Suction Elevator
blunt



Useful in ear, nose
and throat procedures.

gS 26.1000 6 1/2" 3mm

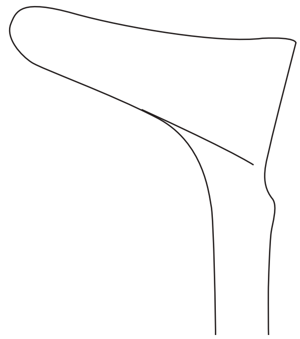
Duckbill Shambaugh Derlacki Raspatory
curved
sharp

gSource
An ARCH Medical Solutions Company

Prepares cartilage implant material.

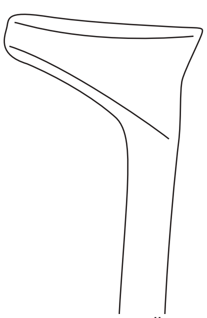
gS 26.9010 5/8" x 2 3/4" x 1 1/4" x 1 1/4", crusher
gS 26.9011 3 1/2", 15mm, slide

Cottle Cartilage Crusher

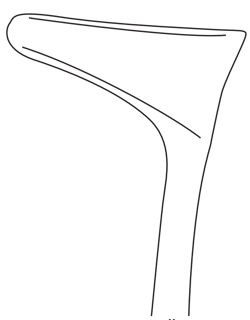


gS 26.2160 5 3/4" light, adult

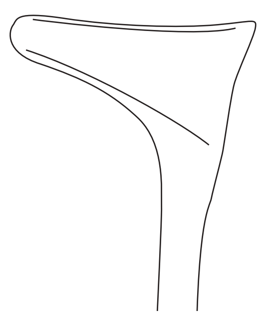
Vienna Speculum



small



medium



large

gS 26.2100 small
gS 26.2120 medium
gS 26.2140 large

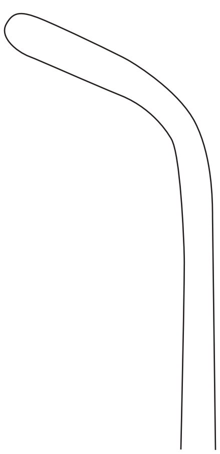
Vienna Speculum
5 3/4"
with spring

gS 26.8095 4 3/4"
gS 26.8097 5 1/2"

Sluder-Jansen
Mouth Gag (Molt)
with silicone tip protectors

gS 26.2910 6"

Laborde Tracheal Dilator
3 blades



gS 26.2930 5" child
gS 26.2932 5 1/2" adult

Trousseau Dilator
bi-valve

did you know... ?

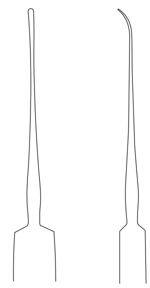
Armand Trousseau was a French internist who was born in Tours in 1801, and received his doctorate in Paris in 1825. He made his early reputation on yellow fever and laryngeal phthisis, a disease characterized by the wasting away or atrophy of the larynx. He was the first to undertake a tracheotomy in 1831 and popularized this intervention in the treatment of croup, usually due to diphtheria. He was also the first to aspirate the pleural cavity in 1843 and gave the first description of haemochromatosis, a disease in which too much iron builds up in your body.

In 1839 Dr. Trosseau was appointed physician to the Hospital Ste Antoine in Paris, and later moved to physician-in-chief at the Hotel-Dieu in 1850.
In 1861 he published a two volume text, Clinique Medicale de l'Hotel-Dieu which contained many accurate descriptions of common childhood diseases, such as scarlet fever, measles, rubella, mumps, diphtheria, whooping cough, cholera infantum and neonatal syphilis. He passed away in 1867.

Useful in oculoplastic procedures for the lacrimal duct.

gS 27.9700 0000/000
gS 27.9702 00/0
gS 27.9704 0/1
gS 27.9706 1/2
gS 27.9708 2/3
gS 27.9710 3/4
gS 27.9712 4/5
gS 27.9714 5/6
gS 27.9716 6/7
gS 27.9718 7/8

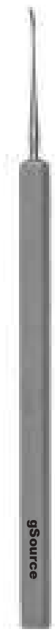
Bowman Probe
5"
double ended

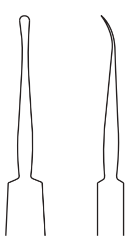


Useful in removing a corneal foreign body.

gS 27.7325 4 3/4"

Davis Foreign Body Spud
0.8mm blade

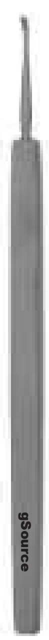




Useful in removing a corneal foreign body.

gS 27.7331 4 3/4"

Ellis Foreign Body Spud
1.2mm blade

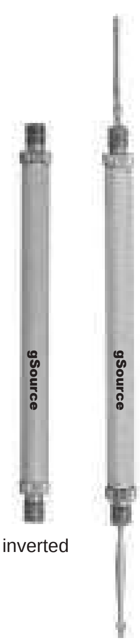


Useful to remove debris from cornea or sclera.

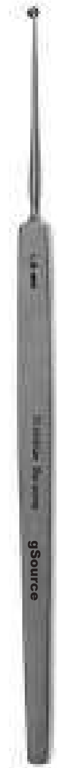
Reversible screw handle allows the spud and needle to be placed on either end and inverted inside handle when not in use.

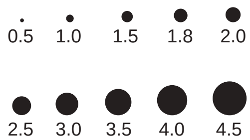
gS 27.7546 4 3/4"

Dix Spud and Needle
double ended
invertable



inverted



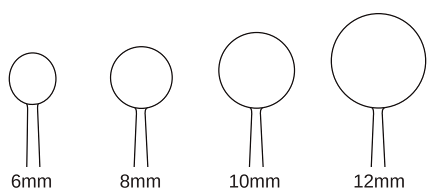


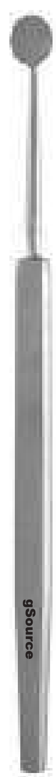
gS 27.7605   0.5mm
gS 27.7610   1.0mm
gS 27.7615   1.5mm
gS 27.7618   1.8mm
gS 27.7620   2.0mm
gS 27.7625   2.5mm
gS 27.7630   3.0mm
gS 27.7635   3.5mm
gS 27.7640   4.0mm
gS 27.7645   4.5mm

Meyerhoefer Curette
5"

did you know... ?

The Meyerhoefer Curette shown on this page is also referred to as the Meyerhoefer Chalazion Curette. A chalazion, also known as a meibomian gland lipogranuloma, is a cyst in the eyelid that is caused by inflammation of a blocked meibomian gland, usually on the upper eyelid. Chalazia differ from styes in that they are subacute and usually painless nodules. They may become acutely inflamed, but usually point inside the lid rather than on the lid margin. Depending on the chalazion's texture, the excision procedure varies. While fluid matter can be removed in a minimally invasive manner, hardened matter can require the need for a larger incision to be made so the matter can be scraped out.

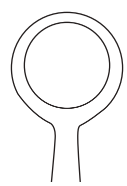


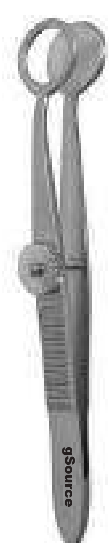


Useful for an evisceration to remove contents of the eye from the orbit, while leaving the scleral shell and extraocular muscles intact.

gS 27.7706   #0, 6mm
gS 27.7707   #1, 7mm
gS 27.7708   #2, 8mm
gS 27.7710   #3, 10mm
gS 27.7711   #4, 11mm
gS 27.7712   #5, 12mm

Bunge Evisceration Spoon
5"

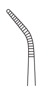


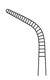


Useful in exposing a chalazion or other cysts of the eyelid. Ring blade surrounds the cyst and helps to evert eyelid when tightened.

gS 27.7000   3 3/4"

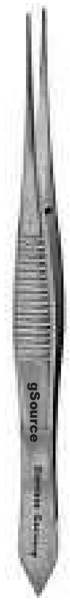
Hunt Chalazion Forceps
12mm ring ID
set screw


half cvd

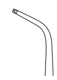

full cvd

gS 27.5280 str
gS 27.5282 half cvd
gS 27.5284 full cvd

Eye Dressing Forceps
4"
delicate, serrated

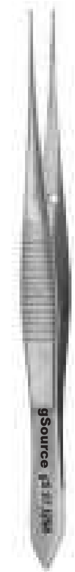



half cvd


full cvd

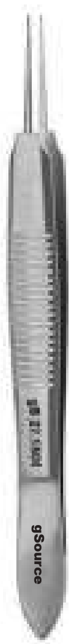
gS 27.5290 str
gS 27.5292 half cvd
gS 27.5294 full cvd

Iris Forceps
4"
1x2 teeth



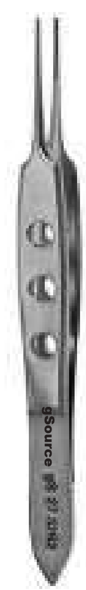
gS 27.1501 0.12mm
gS 27.1503 0.3mm
gS 27.1505 0.5mm
gS 27.1507 1.0mm
gS 27.1509 1.5mm

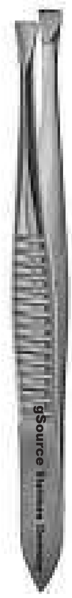
Castroviejo Suture Forceps
4"
with tying platform, 1x2 teeth



gS 27.5260 serr 0.5mm
gS 27.5262 serr 0.8mm
gS 27.5264 1x2 0.5mm
gS 27.5266 1x2 0.8mm

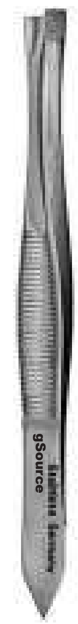
Bishop Harmon Forceps
3 1/2"





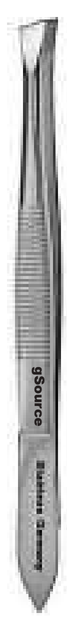
gS 27.6640 3 1/4"

Littauer Cilia Forceps
straight blade
smooth



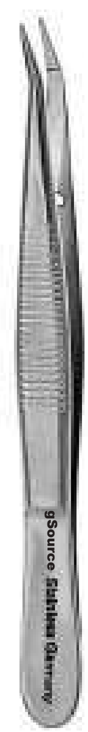
gS 27.6600 3 1/2"

Douglas Cilia Forceps
straight blade
serrated



gS 27.6680 3 1/2"

Bergh Cilia Forceps
angled blade
serrated



gS 27.6690 4 1/2"

Barraquer Cilia and Suture Forceps
angled, smooth

gS 29.0022 4 3/4"

Vasectomy Forceps

gS 29.0020 5 1/2"

Vasectomy Forceps
3mm curved end

gS 29.4650 4 1/4"

Umbilical Scissors

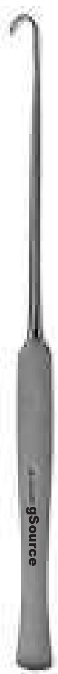
gS 29.0050 7 3/4"

Adair Breast Clamp
curved

Useful for vets when spaying a female dog.

gS 29.4310 8"

Snook Hook



gS 29.0675 6 3/4"

Doyen Myoma Screw
with T-handle

did you know… ?

OB/GYN is an abbreviation for obstetrics/gynecology.

An obstetrician is a physician who has successfully completed specialized education and training in the management of pregnancy, labor, and puerperium (the time-period directly following childbirth).

A gynecologist is a physician who has a successfully completed specialized education and training in the health of the female reproductive system, including the diagnosis and treatment of disorders and diseases. Typically, the education and training for both fields occurs concurrently.

An obstetrician/gynecologist is a physician specialist who provides medical and surgical care to women and has particular expertise in pregnancy, childbirth, and disorders of the reproductive system. This includes preventative care, prenatal care, detection of sexually transmitted diseases, Pap test screening, and family planning.

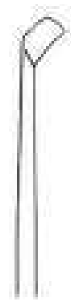
There are four recognized subspecialties in this field:

1. Gynecologic Oncology
Concerned with consultation and comprehensive management of patients with gynecologic cancer. Requires knowledge of major cancer treatments, diagnosis, and complications of oncology.

2. Maternal/Fetal Medicine
Concerned with the care and consultation of patients with complications of pregnancy. Requires knowledge of obstetrics, medical and surgical complications of mother and fetus, current approaches to diagnosis and treatment, and newborn adaptation.

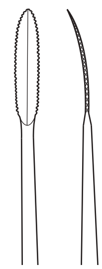
3. Reproductive Endocrinology and Infertility
Concerned with the management of complex problems relating to reproductive endocrinology and infertility. Requires knowledge of diagnosis and treatment of endocrinology and infertility disorders.

4. Urogynecology/Reconstructive Pelvic Surgery
Concerned with the health of the female urinary tract and surgery as a treatment. Requires knowledge of complex benign pelvic conditions, lower urinary tract disorders, pelvic floor dysfunction, and reconstructive pelvic.

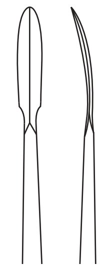


gS 30.0145
Retrograde Knife
5mm,
45° angle

gS 30.0200
Bayonet Knife

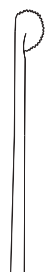


gS 30.0300
Banana Knife
serrated
cutting edges

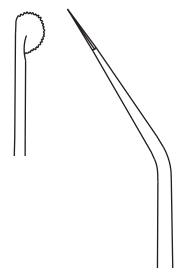


gS 30.0310
Banana Knife
smooth
cutting edges

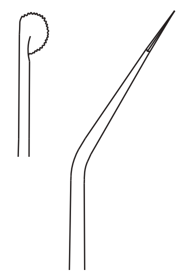
gS 30.0400
Scalpel Knife



gS 30.0503
Rosetta Knife
3mm
serrated, straight

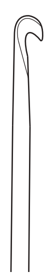


gS 30.0513
Rosetta Knife
3mm
serrated, 30°
left angle

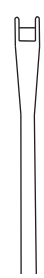


gS 30.0523
Rosetta Knife
3mm
serrated, 30°
right angle

gS 30.0600
Sickle Knife



gS 30.0703
Hook Knife
3mm
90° curved



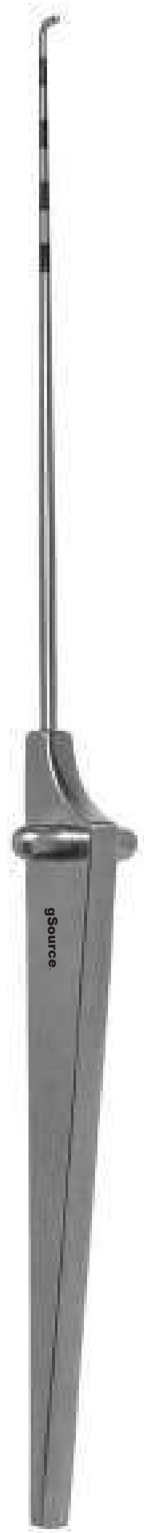
gS 30.0803
Smillie Meniscotome
3mm straight

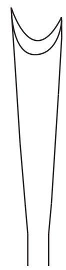
gS 30.0805
Smillie Meniscotome
5mm straight

Triangular handle instruments
9 1/2"

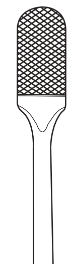
gSource®
An ARCH Medical Solutions Company

Ø = diameter

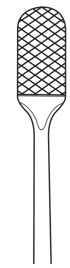




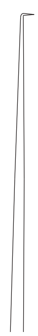
gS 30.0807
Smillie Meniscotome
7mm straight



gS 30.0900
Cartilage File
fine
cross serrated

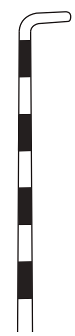


gS 30.0910
Cartilage File
coarse
cross serrated

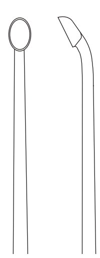


gS 30.1000
Hook Probe
fine
pointed tip

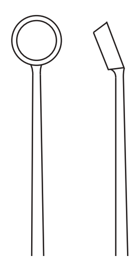
gS 30.1013
Hook Probe
3mm blunt,
5mm grad lines



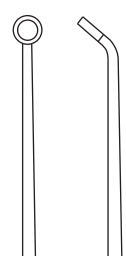
gS 30.1015
Hook Probe
5mm blunt,
5mm grad lines



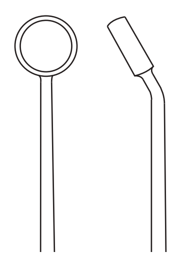
gS 30.2033
Curette
3mm,
30° angle



gS 30.2105
Ring Curette
Ø 5mm,
15° angle



gS 30.2303
Ring Curette
Ø 3mm,
30° angle



gS 30.2307
Ring Curette
Ø 7mm,
30° angle

Triangular handle instruments
9 1/2"

Ø = diameter

gS 30.3102

Mini Basket Forceps
4" shaft, Ø 2mm
1mm bite

gS 30.3202

Mini Biopsy Forceps
4" shaft, Ø 2mm
2mm bite

Ø = diameter

gS 30.3212

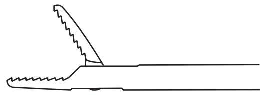
Mini Biopsy Forceps
4" shaft, Ø 2mm
2mm cup, serrated

gS 30.3334

Grasping Forceps
5" shaft, Ø 3.4mm
3.4mm alligator jaw

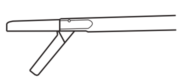
Ø = diameter

top &
bottom
jaw



gS 30.3335

Grasping Forceps
5 1/4" shaft, Ø 3.4mm
3.4mm alligator jaw, rachet



gS 30.4000

Mini Scissors
4" shaft, Ø 2mm
downward cutting

Ø = diameter

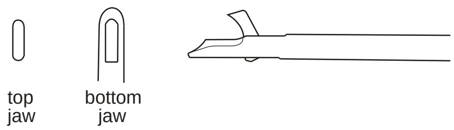
gS 30.4234

Hook Scissors
5" shaft, Ø 3.4mm
lower blade serrated

gS 30.4034

Standard Scissors
5 1/4" shaft, Ø 3.4mm
upward cutting, blunt tips

Ø = diameter



gS 30.5134

Hook Punch
5" shaft, Ø 3.4mm
scoop jaw, 1.6mm bite

gS 30.3336

Aggressor Forceps
5 1/4" shaft, Ø 3.4mm
3.4mm jaw, 15° up

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did you know… ?

The word arthroscopy comes from two Greek words, "arthro" (joint) and "skopein" (to look). The term literally means "to look within the joint."

Arthroscopy was pioneered in the early 1950s by Dr. Masaki Watanabe of Japan to perform minimally invasive cartilage surgery and reconstructions of torn ligaments. It is a minimally invasive surgical procedure in which an examination and sometimes treatment of damage of the interior of a joint is performed using an arthroscope, a type of endoscope that is inserted into the joint through a small incision. Arthroscopic procedures can be performed either to evaluate or to treat many orthopedic conditions. The surgical instruments used are smaller than traditional instruments. Surgeons view the joint area on a video monitor, and can diagnose and repair torn joint tissue, such as ligaments and menisci or cartilage.

The advantage of arthroscopy over traditional open surgery is that the joint does not have to be opened up fully. Instead, for knee arthroscopy for example, only two small incisions are made — one for the arthroscope and one for the surgical instruments to be used in the knee cavity to fully remove the knee cap. This reduces recovery time and may increase the rate of surgical success due to less trauma to the connective tissue. There is also less scarring because of the smaller incisions. Irrigation fluid is used to distend the joint and make a surgical space. Sometimes this fluid leaks into the surrounding soft tissue causing extravasation and edema.

The joints that are most commonly treated by arthroscopy are the knee, shoulder, elbow, wrist, ankle, foot, and hip. Some uses include:

Knee: treating meniscus injury, reconstruction of the anterior cruciate ligament and for cartilage microfracturing.

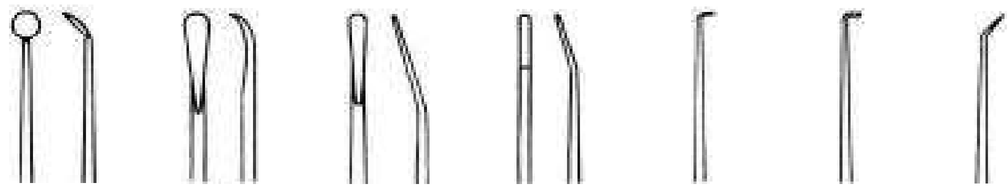
Shoulder: treating various diseases of the shoulder including subacromial impingement, acromioclavicular osteoarthritis, rotator cuff tears, frozen shoulder (adhesive capsulitis), chronic tendonitis and partial tears of the long biceps tendon, SLAP lesions (superior labral tear from anterior to posterior) and shoulder instability.

Elbow: treating painful symptoms of many problems that damage the cartilage surfaces and other soft tissues surrounding the joint. Elbow arthroscopy may also be recommended to remove loose pieces of bone and cartilage, or release scar tissue that is blocking motion. Common procedures include:

- Treatment of tennis elbow (lateral epicondylitis)
- Removal of loose bodies (loose cartilage and bone fragments)
- Release of scar tissue to improve range of motion
- Treatment of osteoarthritis (wear and tear arthritis)
- Treatment of rheumatoid arthritis (inflammatory arthritis)
- Treatment of osteochondritis dissecans (activity related damage to the capitellum portion of the humerus seen in throwers or gymnasts)

Wrist: treating symptoms of repetitive strain injury, fractures of the wrist and torn or damaged ligaments. It can also be used to ascertain joint damage caused by arthritis.

Arthroscopic spinal procedures allow a surgeon to access and treat a variety of spinal conditions with minimal damage to surrounding tissues, including spinal disc herniation and degenerative discs, spinal deformity, tumors, and general spine trauma.



gS 33.0201 gS 33.0202 gS 33.0203 | gS 33.0210 | gS 33.0211 | gS 33.0216 gS 33.0217 gS 33.0218 | gS 33.0220 | gS 33.0221 | gS 33.0222

gS 33.0225 | gS 33.0227 gS 33.0228 | gS 33.0230 | gS 33.0233 gS 33.0235 | gS 33.0237 gS 33.0238

Note: Tip details
not to scale.

Round Dissectors, angled

gS 33.0201 1mm
gS 33.0202 2mm
gS 33.0203 3mm

Elevators

gS 33.0210 curved
gS 33.0211 angled

Spatula Dissectors, angled

#
gS 33.0216 6 small
gS 33.0217 7 medium
gS 33.0218 8 large

Hooks, angled

gS 33.0220 90° sharp
gS 33.0221 90° blunt
gS 33.0222 45° sharp

Needle

gS 33.0225 straight sharp

Curettes, 1mm

gS 33.0227 straight
gS 33.0228 angled

Ball Dissectors

gS 33.0230	straight	0.8mm
gS 33.0233	90°	3mm
gS 33.0235	90°	5mm
gS 33.0237	40°	4mm
gS 33.0238	40°	8mm

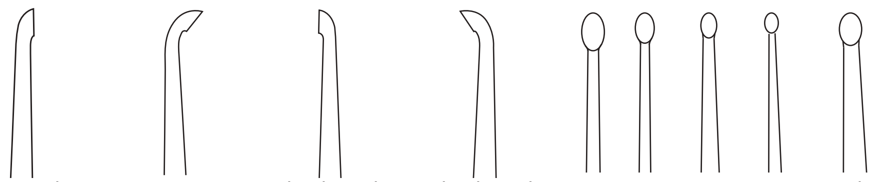
Rhoton-Style Micro Dissector Instruments
7 1/2"

33/2 - micro

Black aluminum offset handle is designed to provide increased field visualization while providing greater precision and control during microdiscectomy surgery. Rounded corners and flat sides allow for easy rotation with control, stable power and leverage to help reduce unwanted torque.

Each instrument is marked on front of handle for easy identification.

See side view picture of gS 33.4103 on right for tip orientation.

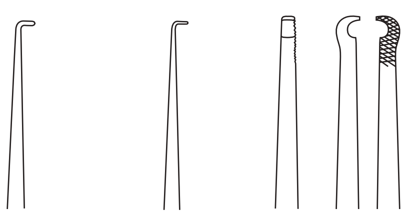


forward straight (FS) | forward angled (FA) | backward straight (BS) | backward angled (BA) | 0 | 00 | 000 | 0000 | cortical bone cutter

FS	FA	BS	BA	#
gS 33.4101	**gS 33.4111**	**gS 33.4121**	**gS 33.4131**	Curette 0
gS 33.4102	**gS 33.4112**	**gS 33.4122**	**gS 33.4132**	Curette 00
gS 33.4103	**gS 33.4113**	**gS 33.4123**	**gS 33.4133**	Curette 000
gS 33.4104	**gS 33.4114**	**gS 33.4124**	**gS 33.4134**	Curette 0000
gS 33.4105	**gS 33.4115**	**gS 33.4125**	**gS 33.4135**	Cortical bone cutter

Microdiscectomy Cervical Curette and Cortical Bone Cutter
8 1/2"
offset aluminum handle, black

gS 33.4103



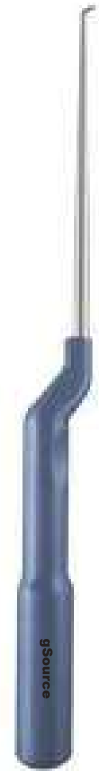
gS 33.4136 | gS 33.4137 | gS 33.4139

gS 33.4136 | gS 33.4137 | gS 33.4139

gS 33.4136 Micro nerve hook, 1.8mm
gS 33.4137 Ultra micro nerve hook, 1.5mm
gS 33.4139 Bone waxer, 2.0mm

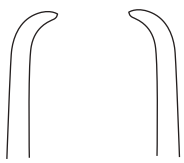
Microdiscectomy Cervical Instruments
8 1/2"
offset aluminum handle, black

Anodized aluminum offset handle is designed to provide increased field visualization while providing greater precision and control during microdiscectomy surgery. Round handle has fingertip indentations to help allow for easy rotation with control.

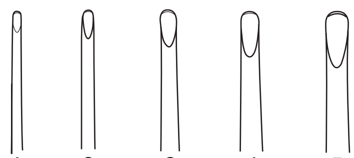


gS 33.5003

See side view picture of gS 33.5003 on right for tip orientation.



forward angled (FA) | backward angled (BA)

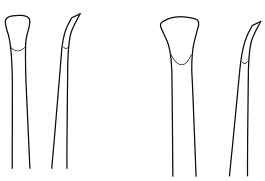


1 2 3 4 5

FA	BA	#
gS 33.5001	**gS 33.5011**	1
gS 33.5002	**gS 33.5012**	2
gS 33.5003	**gS 33.5013**	3
gS 33.5004	**gS 33.5014**	4
gS 33.5005	**gS 33.5015**	5

Microdiscectomy Cervical Curette

10"
offset aluminum handle

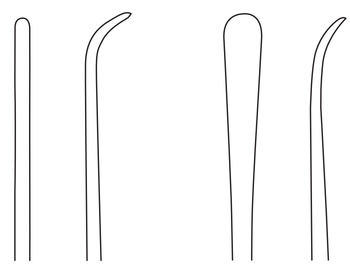


3mm 5mm

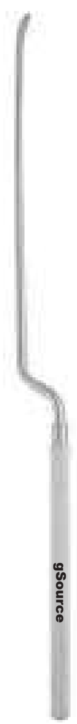
gS 33.5023 3mm
gS 33.5025 5mm

Microdiscectomy Cervical Dissector

10", straight
offset aluminum handle



2mm 4.5mm

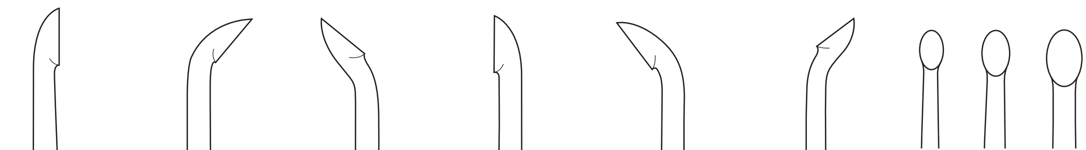


gS 33.4520 2mm
gS 33.4545 4.5mm

Caspar Bayonet Micro Dissector

9", curved
knurled handle

See side view picture of gS 33.4202 on right for tip orientation.

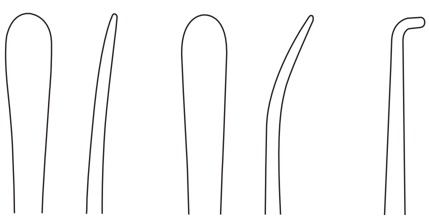


forward straight (FS)	forward angled (FA)	forward down (FD)	backward straight (BS)	backward angled (BA)	backward down (BD)	0	1	2

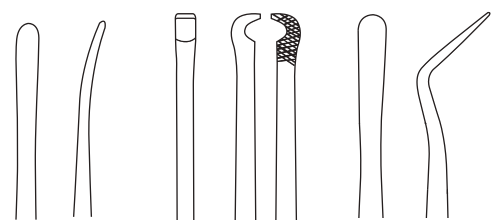
gS 33.4202

FS	FA	FD	BS	BA	BD	#
gS 33.4200	**gS 33.4210**	**gS 33.4220**	**gS 33.4230**	**gS 33.4240**	**gS 33.4250**	0
gS 33.4201	**gS 33.4211**	**gS 33.4221**	**gS 33.4231**	**gS 33.4241**	**gS 33.4251**	1
gS 33.4202	**gS 33.4212**	**gS 33.4222**	**gS 33.4232**	**gS 33.4242**	**gS 33.4252**	2

Microdiscectomy Lumbar Curette
9 1/2"
offset aluminum handle, black



gS 33.4253 gS 33.4254 gS 33.4255

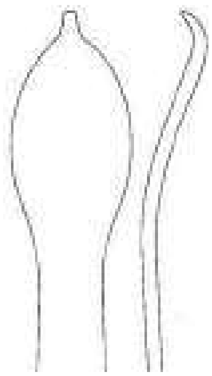


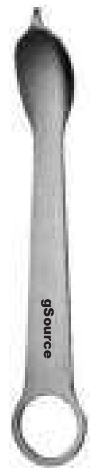
gS 33.4256 gS 33.4257 gS 33.4258

gS 33.4253 Penfield dissector #1, 6mm slightly curved
gS 33.4254 Penfield dissector #2, 6mm curved
gS 33.4255 Nerve hook, 1.3mm
gS 33.4256 Penfield dissector #4, 3mm slightly curved
gS 33.4257 Bone waxer, 2.8mm
gS 33.4258 Spine probe, 3.8mm

Microdiscectomy Lumbar Instruments
9 1/2"
offset aluminum handle, black

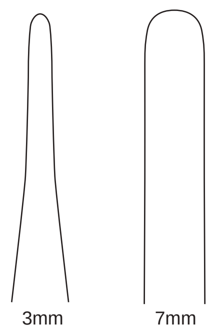
gS 33.4254 gS 33.4255 gS 33.4257 gS 33.4258

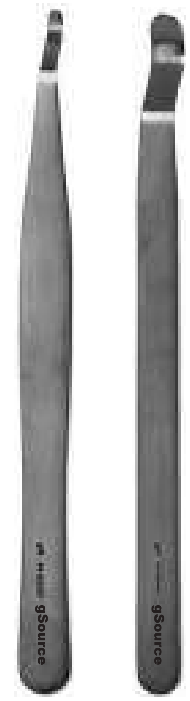




gS 34.9260 4 3/4"

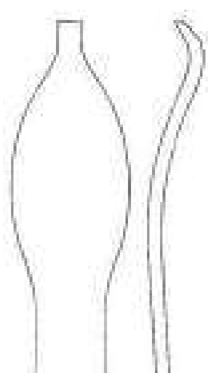
Hohmann Retractor
with finger ring
15mm

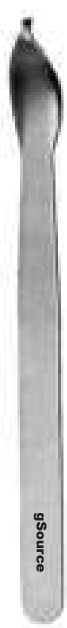




gS 34.9230 5 1/2" 3mm
gS 34.9240 6" 7mm

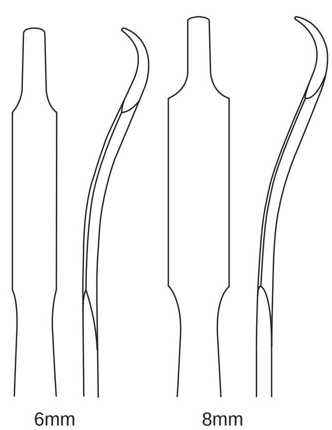
Hayes Hand Retractor

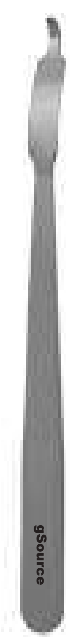




gS 36.9270 6"

Hohmann Retractor
15mm

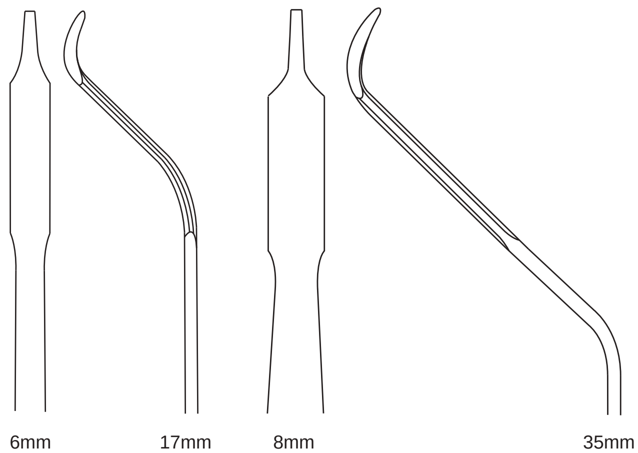




gS 36.9300 6mm
gS 36.9320 8mm

Hohmann Retractor Mini
6 1/2"

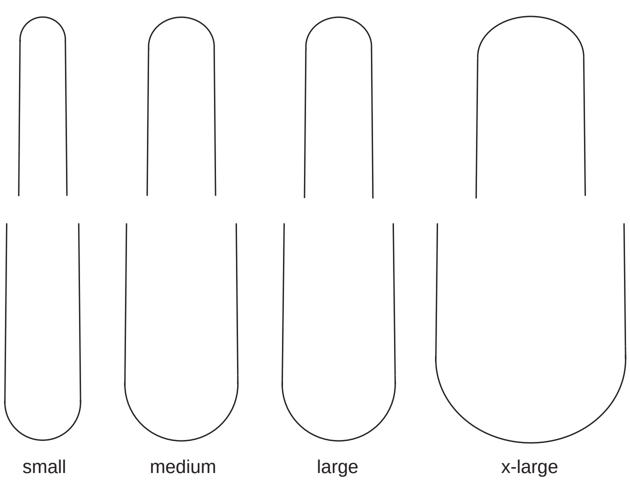
34-37/2 - hand-held retractors



			45° drop
gS 36.9340	6"	6mm	17mm
gS 36.9345	5 1/2"	6mm	35mm
gS 36.9350	6"	8mm	17mm
gS 36.9355	5 1/2"	8mm	35mm

gRetractor, Hohmann Mini
bent handle

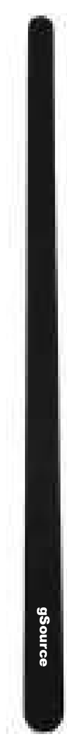
gS 36.9350 gS 36.9355



Rounded edges help to reduce the risk of lacerations.

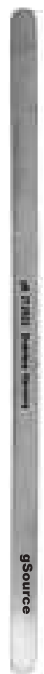
gS 37.1006	small	6mm and 10mm
gS 37.1009	medium	9mm and 15mm
gS 37.1011	large	11mm and 20mm
gS 37.1014	x-large	14mm and 25mm

gSilicone Brain Spatula
7"
malleable copper, silicone coated, black



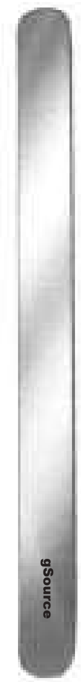
gS 37.0042	1/4"
gS 37.0043	3/8"
gS 37.0044	1/2"
gS 37.0045	5/8"
gS 37.0046	3/4"
gS 37.0047	1"
gS 37.0048	1 1/4"
gS 37.0049	1 1/2"

Davis Brain Spatula
7"
malleable, stainless steel



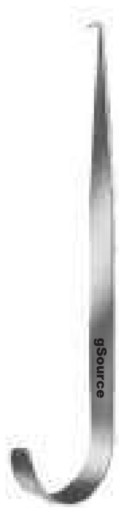
gS 36.8518	6"	1/4"
gS 36.8520	6"	1/2"
gS 36.8522	6"	3/4"
gS 36.8524	6 3/4"	5/8"
gS 36.8550	7 1/2"	1"
gS 36.8560	8"	1/4"
gS 36.8561	8"	3/8"
gS 36.8563	8"	1/2"
gS 36.8564	8"	5/8"
gS 36.8565	8"	3/4"
gS 36.8660	13"	3/4"
gS 36.8680	13"	1"
gS 36.8700	13"	1 1/4"
gS 36.8720	13"	1 1/2"
gS 36.8722	13"	1 3/4"
gS 36.8760	13"	2"
gS 36.8762	13"	2 1/2"
gS 36.8764	13"	3"

Ribbon Retractor
malleable
stainless steel



gS 34.1960 5 1/4"

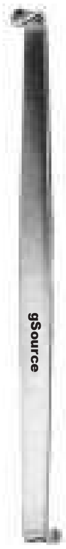
Jackson Tracheal Hook
one sharp hook



	width x depth
gS 34.1934	4mm x 14mm
	7mm x 22mm
gS 34.1935	5mm x 19mm
	8mm x 22mm

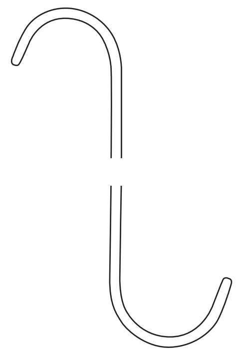
Crile Retractor
4"
double ended

34-37/4 - hand-held retractors



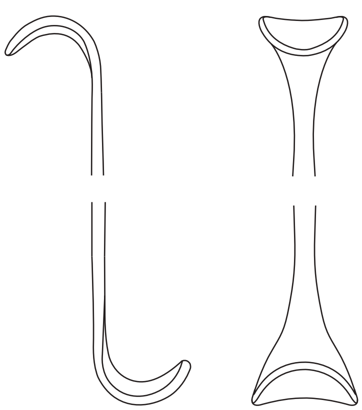
gS 36.6140 5 1/4"

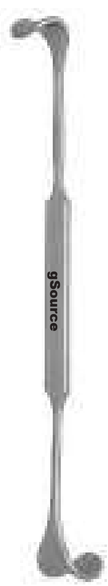
"S" Retractor
double ended
5mm and 13mm



gS 36.6150 4 1/4" 8mm and 11mm
gS 36.6160 5 3/4" 6mm and 9mm

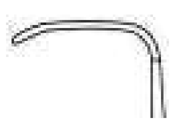
Luer "S" Retractor
double ended





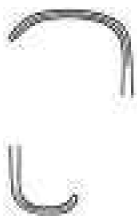
gS 34.1950 5 1/2"

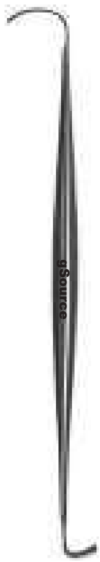
Rose Retractor
11.5mm width x 12mm depth
10mm width x 14.5mm depth



gS 34.1760 6"

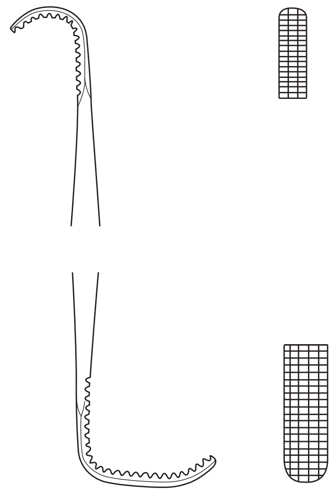
Davis Retractor
6mm width x 17mm depth
9mm width x 20mm depth



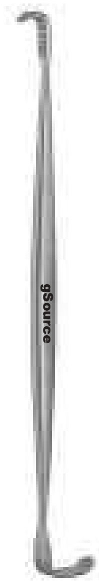


gS 34.1940   5 3/4"

Ragnell Retractor
4mm width x 8mm depth
6mm width x 15mm depth

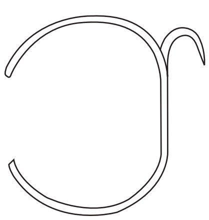


Fine cross serrations on inside blades help prevent slippage.



gS 34.1942   5 3/4"

Ragnell-Linde Retractor
4mm width x 8mm depth
6mm width x 15mm depth



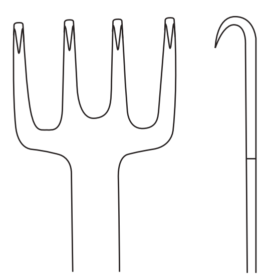
gS 34.2405

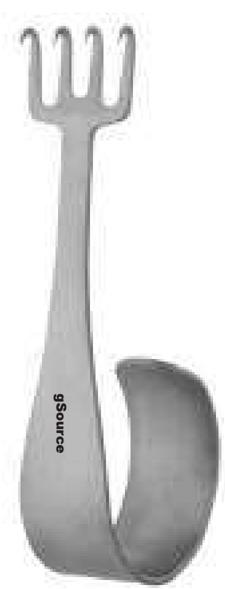
gS 34.2405

gS 34.2417

gS 34.2405   1 prong   5mm
gS 34.2417   2 prongs   17mm

Millard Thumb Hook
1"
sharp prongs

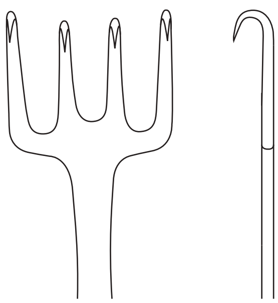




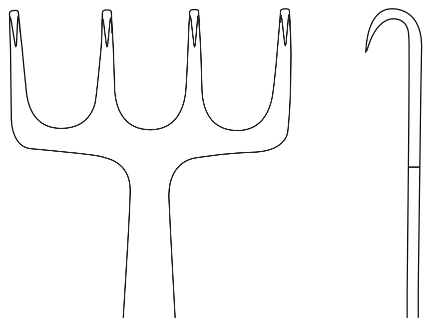
gS 34.2420   3 1/2"   20mm

Freeman Face Lift Retractor
4 sharp prongs, in-line

34-37/6 - hand-held retractors



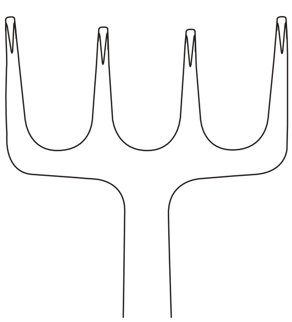
gS 34.2422

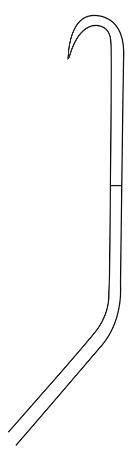


gS 34.2436

		prongs
gS 34.2422	22mm	offset
gS 34.2423	22mm	in-line
gS 34.2435	36mm	offset
gS 34.2436	36mm	in-line

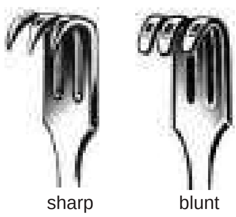
Freeman Face Lift Retractor
7" straight
4 sharp prongs

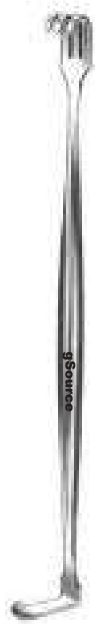




gS 34.3437 37mm offset prongs

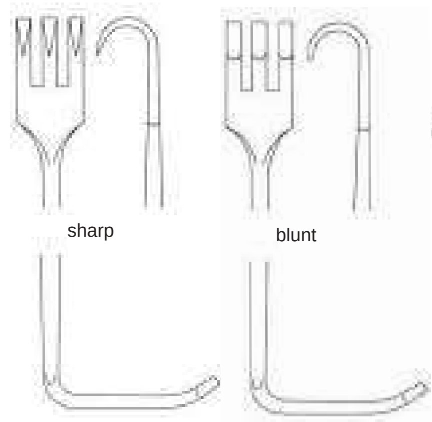
Freeman Face Lift Retractor
7" curved backward
4 sharp prongs





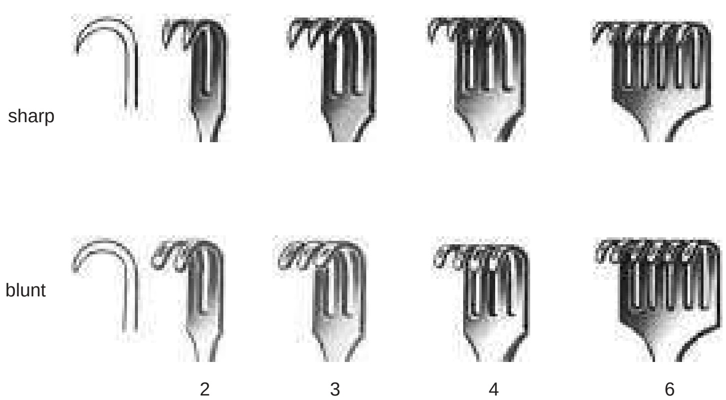
gS 34.1920 sharp
gS 34.1930 blunt

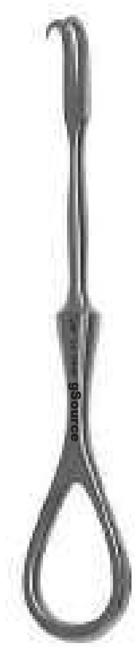
Mathieu Retractor
6 1/4"
3 prongs



gS 34.1845 3 prongs sharp
gS 34.1855 3 prongs blunt
gS 34.1865 2 blunt prongs and
1 sharp middle prong

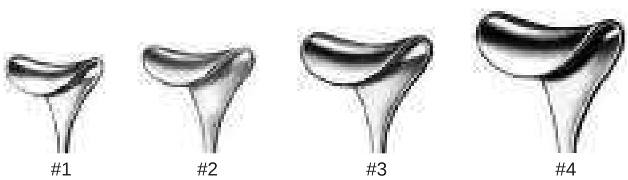
Senn Retractor
6 1/4"

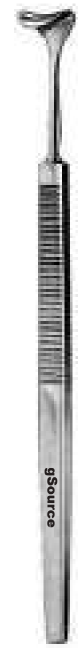




	sharp prongs		blunt prongs
gS 34.2980	2	**gS 34.3080**	2
gS 34.3020	3	**gS 34.3120**	3
gS 34.3040	4	**gS 34.3140**	4
gS 34.3060	6	**gS 34.3160**	6

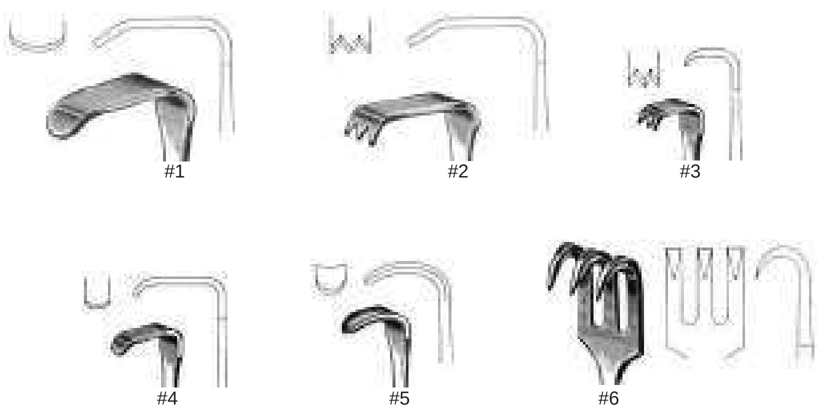
Volkmann Retractor
4 1/2"
ring handle

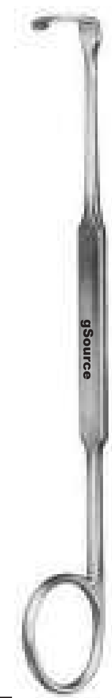




	#
gS 34.4580	1 12mm
gS 34.4600	2 13mm
gS 34.4620	3 15mm
gS 34.4640	4 17mm

Desmarres Lid Retractor
5 1/2"
all blades 10mm depth



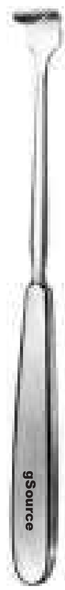


	#	width x depth
gS 34.2160	1	7mm x 18mm
gS 34.2180	2	6mm x 17mm
gS 34.2220	3	4mm x 8mm
gS 34.2240	4	4mm x 10mm
gS 34.2280	5	4mm x 7mm
gS 34.2300	6	8mm x 7mm

Meyerding Finger Retractor
7"
with single finger ring

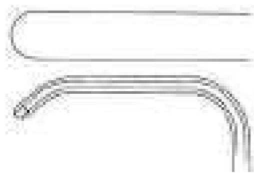
gS 36.6200 7 3/4"

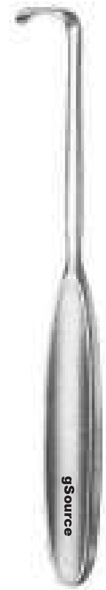
Little Retractor
13mm



gS 36.6280 7 3/4"

Lahey Retractor
6mm width x 26mm depth

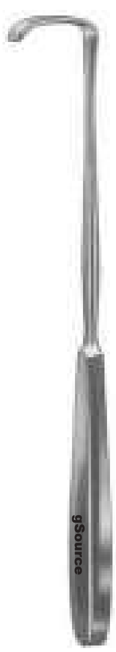




gS 36.2000

	width x depth
gS 36.2000	3/8" x 1 1/4"
gS 36.2040	3/8" x 1 1/2"
gS 36.2080	1/2" x 1 1/2"
gS 36.2120	5/8" x 1 1/2"

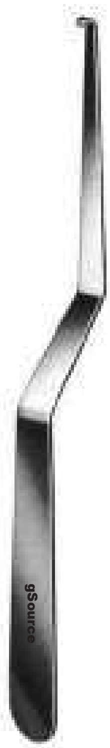
Langenbeck Retractor
8 1/2"
hollow handle



	width x depth
gS 36.2128	1/4" x 1"
gS 36.2130	3/8" x 1 1/8"
gS 36.2132	1/2" x 1 1/8"
gS 36.2134	5/8" x 1 1/8"
gS 36.2136	1/2" x 1 5/8"
gS 36.2138	5/8" x 1 5/8"

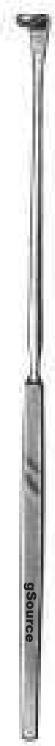
Langenbeck Retractor
8 1/2"
ring handle

34-37/10 - hand-held retractors



gS 36.6380 8 1/2"

Nerve Root Retractor
bayonet handle
4mm



gS 36.6300 8 1/2"

Love Retractor
straight
7mm width x 5mm depth

gS 36.6320 8 1/2"

Love Retractor
45°
7mm width x 5mm depth

gS 36.6340 8 1/2"

Love Retractor
90°
7mm width x 5mm depth

gS 36.6360 8mm
gS 36.6362 13mm

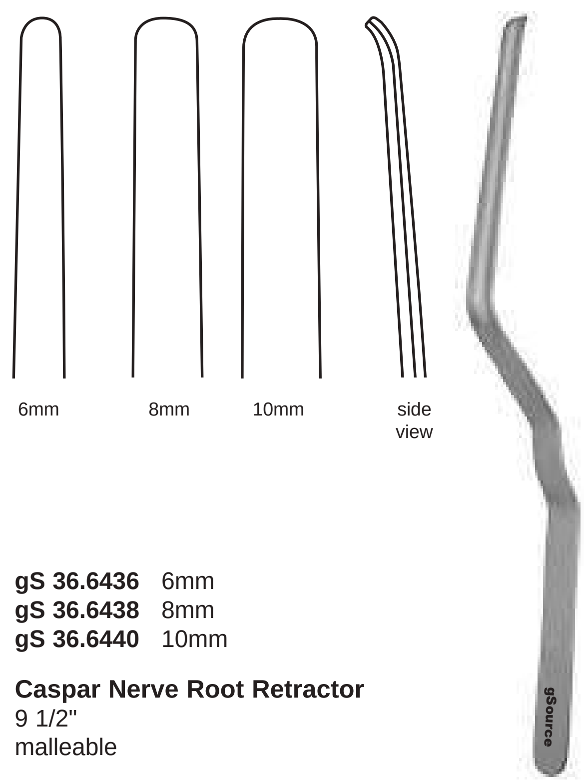
Scoville Nerve Retractor
8"
angled

gS 36.6507 7mm
gS 36.6509 9mm
gS 36.6513 13mm

Holscher Retractor
9 1/2"
fenestrated handle

gS 36.6410 8 1/2"

Campbell Nerve Root Retractor
10mm



gS 36.6436 6mm
gS 36.6438 8mm
gS 36.6440 10mm

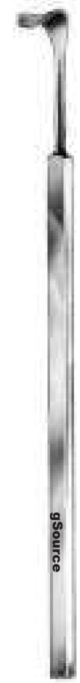
Caspar Nerve Root Retractor
9 1/2"
malleable

34-37/12 - hand-held retractors

gS 36.6420 9 1/2"

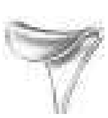
gRetractor, Sandhu Nerve Root
3.2mm, blunt, 90°
malleable

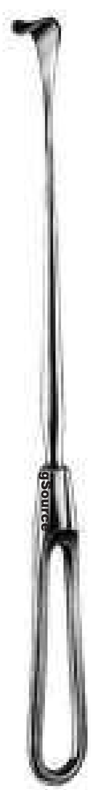
10mm 12mm



gS 36.6230 10mm
gS 36.6232 12mm

Cushing Vein Retractor
8"





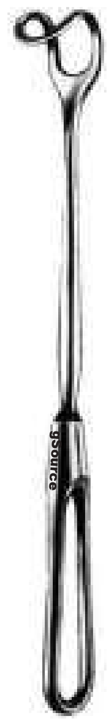
gS 36.6210 9"

Cushing Vein Retractor
13mm
fenestrated handle

gS 36.6238 8 1/2"

Cushing Decompression Retractor
fenestrated handle and blade

gSource
An ARCH Medical Solutions Company

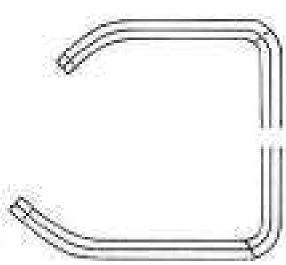


gS 36.6240 8 1/2"

Green Retractor
fenestrated handle and blade
20mm width x 23mm depth

gS 36.5735 5 1/2"

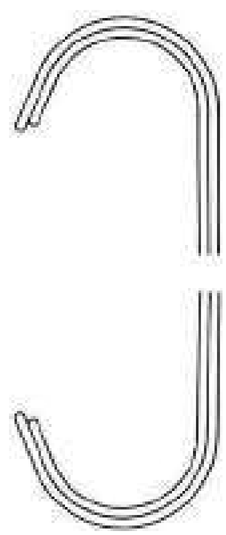
Children's Hospital Retractor
11mm width x 22mm depth
14mm width x 35mm depth



4 3/4"

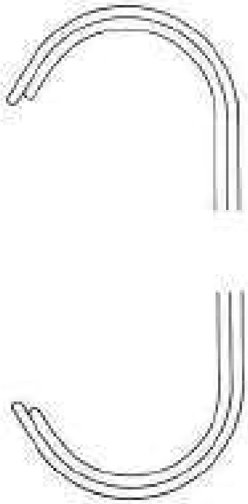
gS 36.6030 4 3/4"
gS 36.6035 6"

Farabeuf Retractor
double ended
set of 2



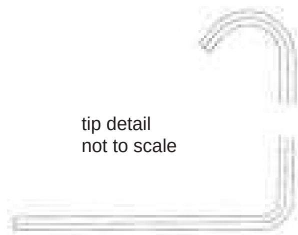
gS 36.5800 5"

Parker Retractor
double ended
set of 2



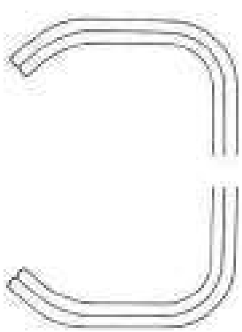
gS 36.5820 7 1/4"

Parker Retractor
double ended
set of 2



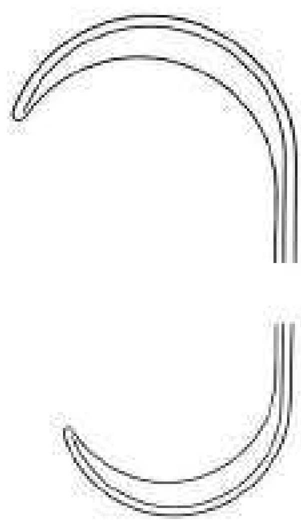
gS 36.5940 6"

Parker-Mott Retractor
double ended
set of 2



gS 36.4880 6"

Mayo-Collins Retractor
double ended
set of 2



gS 36.4760 7 1/2"

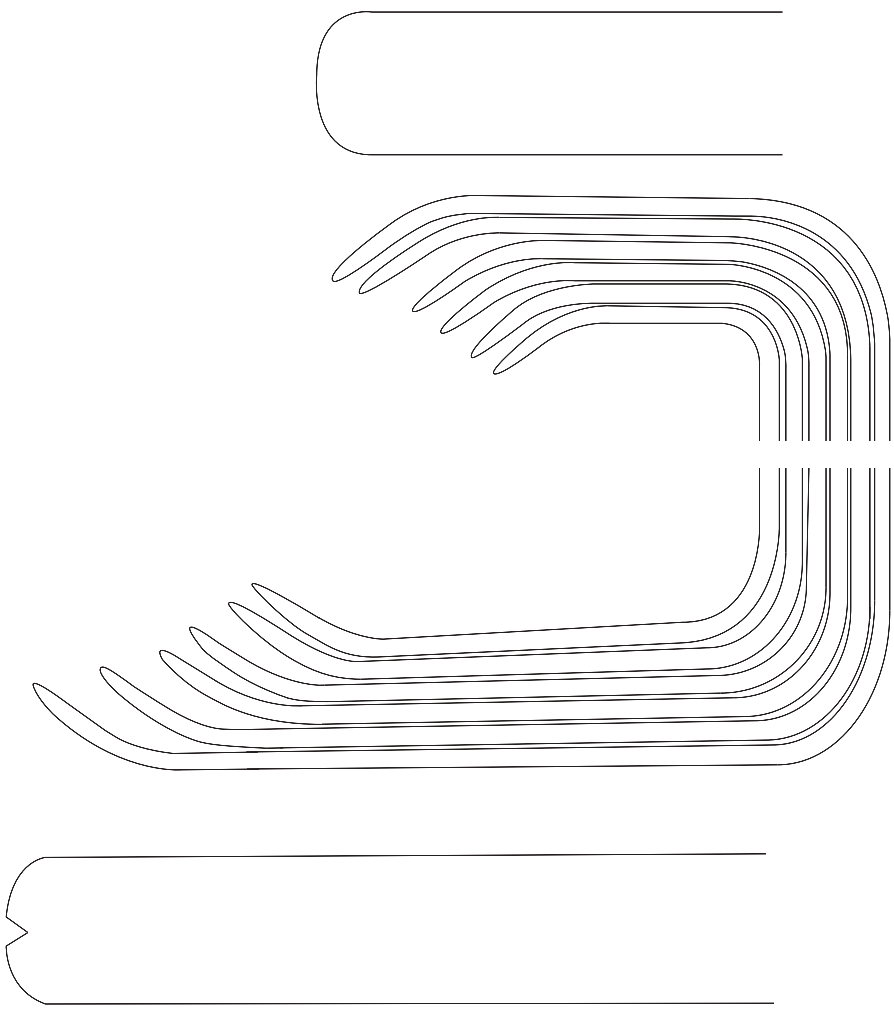
Goelet Retractor
double ended

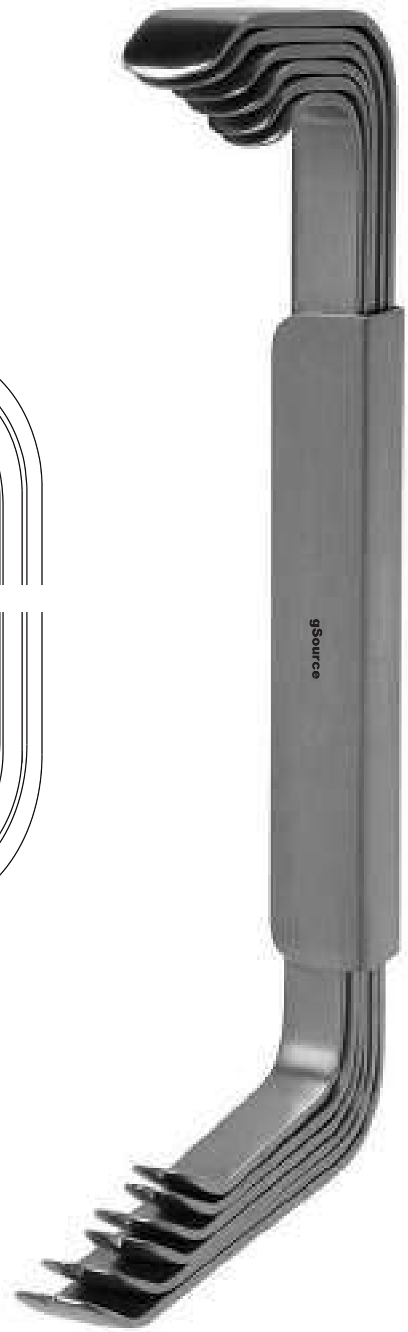
OAL = Overall Length

Set includes 6 retractors, one each
of the following sizes:

OAL	Blade Depth	Blade Width
9"	114mm and 71mm	19mm
8 3/4"	102mm and 65mm	19mm
8 1/2"	91mm and 56mm	16mm
8 1/4"	83mm and 48mm	16mm
8"	75mm and 42mm	13mm
7 3/4"	68mm and 35mm	13mm

5" clip (holds retractors)

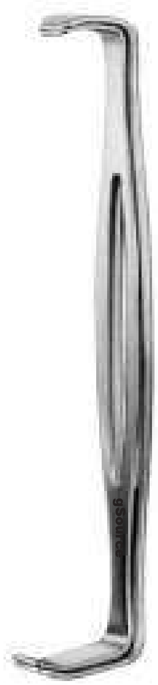




gS 36.6100 9"

Sofield Retractor
double ended
set of 6 with clip

34-37/16 - hand-held retractors

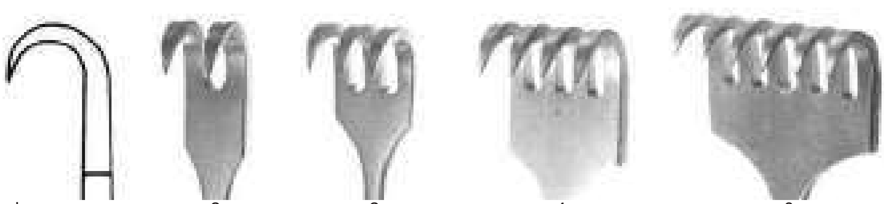


gS 36.4720 8 1/2"

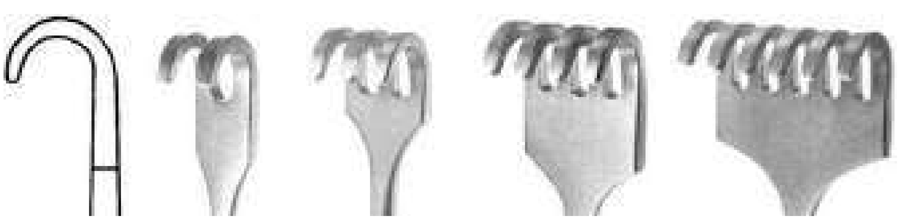
US Army Navy Retractor
double ended
set of 2

gS 36.3120 9 1/2" small
gS 36.3140 10 1/2" large

Richardson Eastman Retractor



sharp 2 3 4 6



blunt 2 3 4 6

	sharp prongs		blunt prongs
gS 35.3121	2	**gS 35.3122**	2
gS 35.3131	3	**gS 35.3132**	3
gS 35.3141	4	**gS 35.3142**	4
gS 35.3161	6	**gS 35.3162**	6

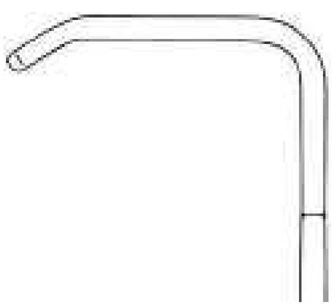
Murphy Retractor
7 3/4"
with side wings

gS 36.1724 7 1/2"

Israel Retractor
4 blunt prongs
with side wings

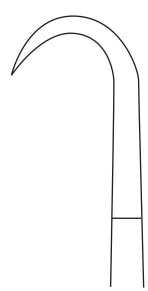
	prongs
gS 36.1780	3
gS 36.1800	4
gS 36.1802	5
gS 36.1804	6

Israel Retractor
9 1/2", blunt prongs
ring handle



gS 36.3820 9"

Ollier Retractor
4 blunt prongs
ring handle



gS 36.4061 9"

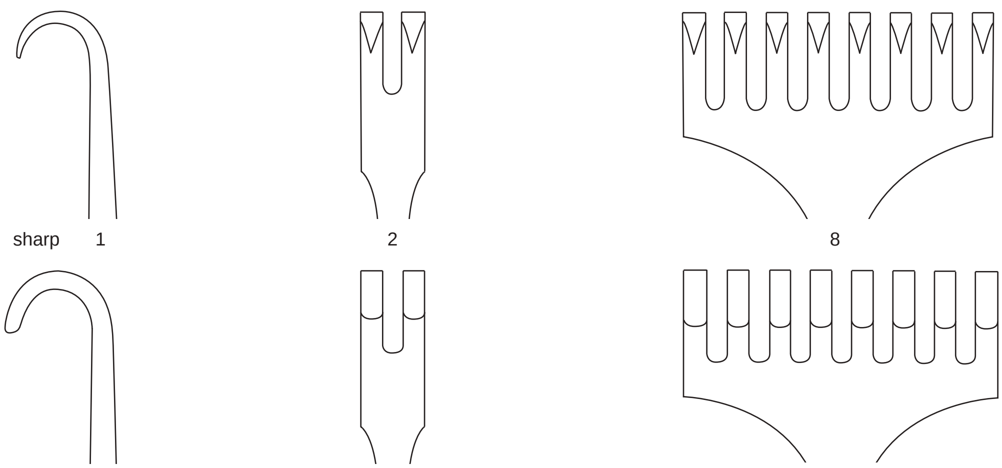
Volkmann Retractor
6 sharp prongs
ring handle

gS 34.4380 10" 38mm

Mueller Rake Retractor
8 sharp prongs
ring handle

	width x depth
gS 36.3842	2 1/4" x 1 1/2"
gS 36.3844	2 1/4" x 2"
gS 36.3846	2 1/4" x 2 1/2"
gS 36.3848	2 1/4" x 3"

Deep Rake Retractor
11"
4 blunt prongs



	sharp prongs
gS 36.3540	1
gS 36.3580	2
gS 36.3620	3
gS 36.3640	4
gS 36.3660	6
gS 36.3670	8

	blunt prongs
gS 36.3676	1
gS 36.3680	2
gS 36.3720	3
gS 36.3740	4
gS 36.3760	6
gS 36.3780	8

Volkmann Retractor
8 1/2"
ring handle

gS 36.2240

	width x depth
gS 36.2240	5/8" x 1 3/4"
gS 36.2241	7/8" x 2 1/2"
gS 36.2242	3/4" x 2 7/8"

Sauerbruch Retractor
9"

		width x depth
gS 36.3160	9 1/2"	1 1/2" x 2"
gS 36.3180	9 1/2"	2" x 2 1/2"
gS 36.3200	10"	2 1/2" x 3"
gS 36.3220	10 1/2"	3" x 3 1/2"

Kelly Retractor
loop handle

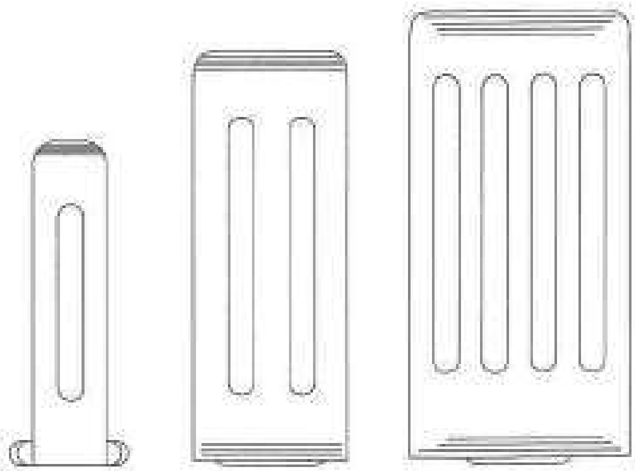
	width x depth
gS 36.3070	3/4" x 1"
gS 36.3072	1" x 1 1/4"
gS 36.3074	1 1/2" x 1 1/2"
gS 36.3076	3/4" x 2"

Richardson Retractor
9 1/2"
loop handle

		width x depth
gS 36.3000	9 1/2"	3/4" x 1"
gS 36.3020	9 1/2"	1" x 1 1/4"
gS 36.3040	9 1/2"	1 1/2" x 1 1/2"
gS 36.3060	9 1/2"	3/4" x 2"
gS 36.3050	10"	1 3/4" x 2 5/8"

Richardson Retractor
grip handle

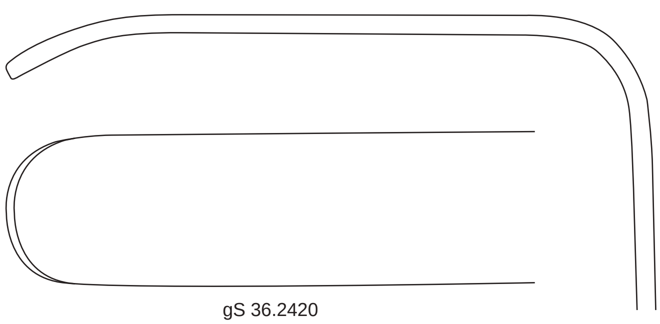
tip details
not to scale



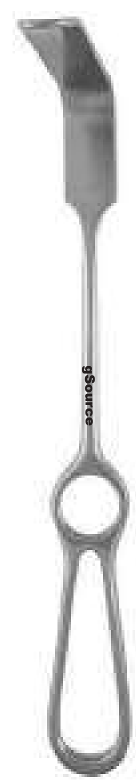
gS 36.2320 gS 36.2322 gS 36.2324

		width x depth
gS 36.2320	9 1/2"	22mm x 82mm
gS 36.2322	10"	43mm x 108mm
gS 36.2324	10"	65mm x 115mm

Coryllos Retractor
ring handle



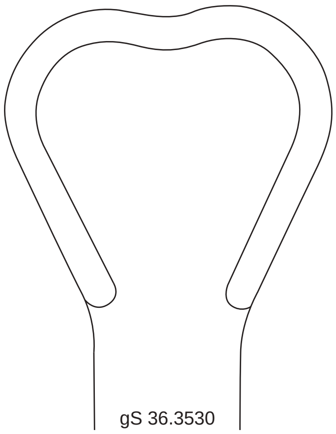
gS 36.2420



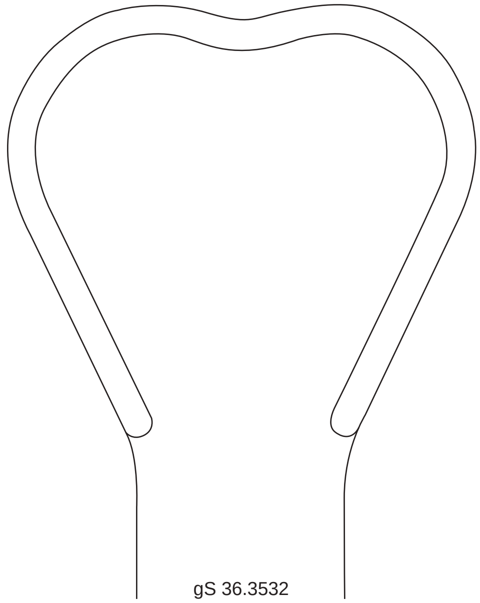
	width x depth
gS 36.2420	20mm x 82mm
gS 36.2422	20mm x 102mm
gS 36.2424	25mm x 122mm
gS 36.2426	25mm x 140mm
gS 36.2428	30mm x 162mm
gS 36.2430	30mm x 182mm

Brunner Retractor
10"
ring handle

WL = Working Length



gS 36.3530



gS 36.3532

Biocompatible silicone handle helps to prevent slippage and provide a secure grip.

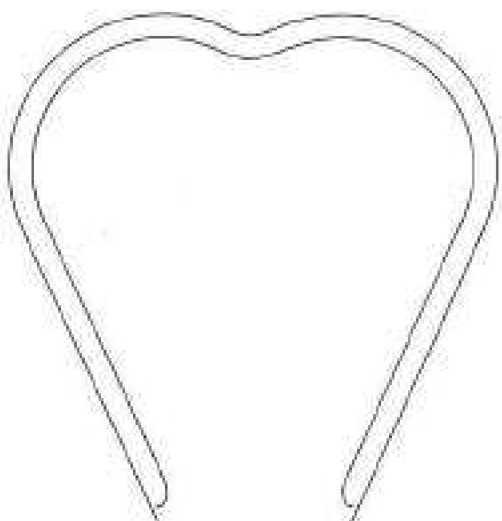
gS 36.3530 40mm
gS 36.3532 62mm

gRetractor, Harrington
12 1/2", 5" WL
5" blue silicone grip handle

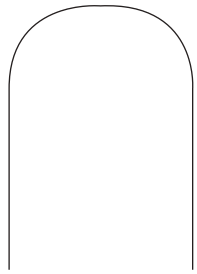
Commonly referred to as a “sweetheart” retractor due to shape of the working end. Useful in abdominal cavity.

		width x depth
gS 36.3512	9"	1" x 3"
gS 36.3514	13"	1 1/2" x 5"
gS 36.3516	13"	2 1/2" x 5"
gS 36.3518	13"	2 1/2" x 7"

Harrington Retractor
grip handle



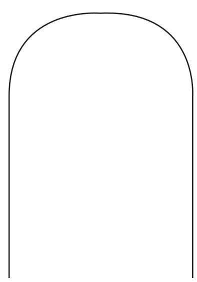
gS 36.3518

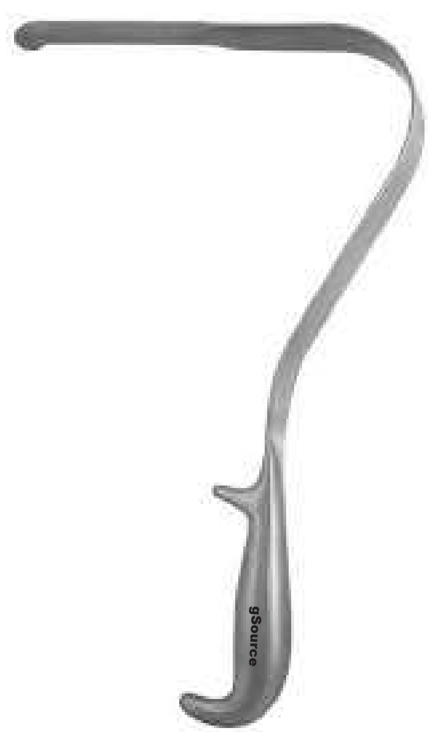


Designed to retract the left renal vein during procedures on abdominal aorta or renal arteries. Gently curved distal tip for atraumatic control.

		width x depth
gS 36.3504	12"	1" x 4"
gS 36.3507	12 1/2"	1" x 7"

Wylie Renal Vein Retractor
grip handle





Designed to retract the left renal vein during procedures on abdominal aorta or renal arteries. Gently curved distal tip for atraumatic control.

	width x depth
gS 36.3470	1" x 7"
gS 36.3480	1" x 10"

Wylie Renal Vein Retractor
13"
grip handle with horn

gS 36.3236 8"

Deaver Pediatric Retractor
5/8"

gS 36.3248 7"

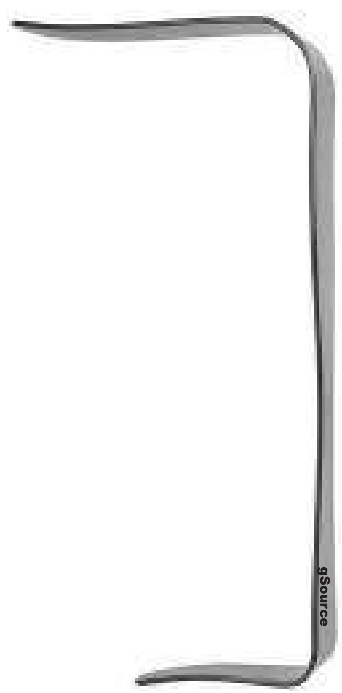
Deaver Retractor
3/4"

gS 36.3250 8 1/2"

Deaver Retractor
7/8"

gS 36.3285 9"

Deaver Retractor
1"



gS 36.3291 10 1/2"

Deaver Retractor
1"

gS 36.3292 12"

Deaver Retractor
1"

gS 36.3293 12"

Deaver Retractor
1 1/2"

gS 36.3294 13"

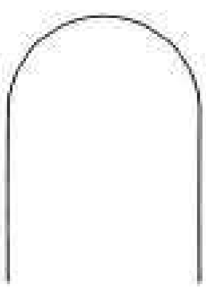
Deaver Retractor
1"

gS 36.3298 12"

Deaver Retractor
2"

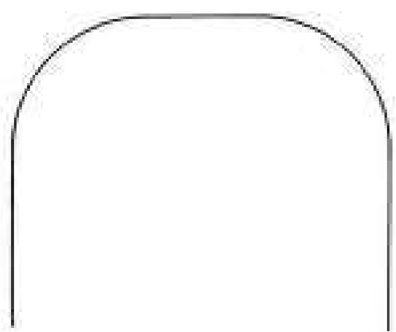
gS 36.3296 12"

Deaver Retractor
3"



gS 36.3300 10"
gS 36.3320 12"
gS 36.3340 13"

Deaver Retractor
1"
grip handle



gS 36.3400

gS 36.3350	12"	1 1/2"
gS 36.3400	12"	2"
gS 36.3410	14 1/2"	2 1/2"
gS 36.3420	12"	3"
gS 36.3430	12"	4"

Deaver Retractor
grip handle

Useful in total shoulder arthroplasty and open rotator cuff procedures for retracting the deltoid muscle.

gS 36.9362 8"

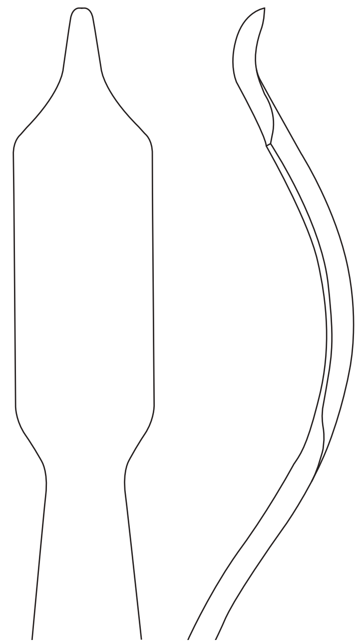
gRetractor
18mm, blunt
60°

Useful to gain exposure when placed between the glenoid and humeral head.

The two prongs wrap around the posterior rim to help distribute force to the glenoid neck.

gS 36.9750 7"

Humeral Head Retractor
2 blunt prongs
strong curve

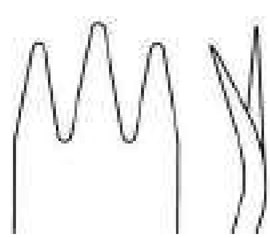


gS 36.9760 8 3/4"

Humeral Head Retractor
18mm
rounded end

gS 36.9700 7"

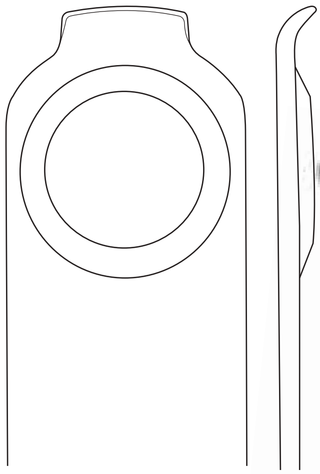
Bristow/Bankart Humeral Retractor
2 blunt prongs



gS 36.9720 7 1/2"

Bristow/Bankart Soft Tissue Retractor
22mm, 3 blunt prongs

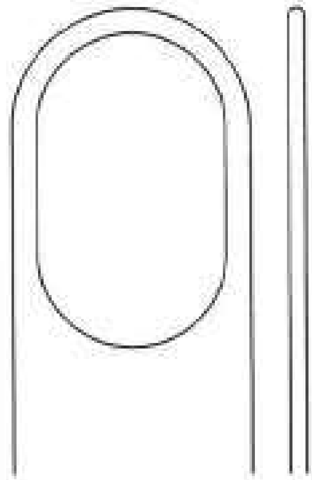
34-37/28 - hand-held retractors



32mm

	width x depth
gS 35.3932	32mm x 81mm
gS 35.3940	40mm x 94mm

Fukuda Style Retractor
6 1/2"
with lip, T-handle

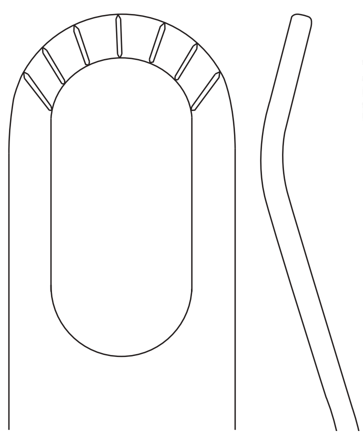


32mm

Useful for retracting the humeral head while exposing the glenoid.

	width x depth
gS 36.0000	32mm x 81mm
gS 36.0001	38mm x 81mm

Fukuda Style Retractor
7 1/2"
T-handle



30mm

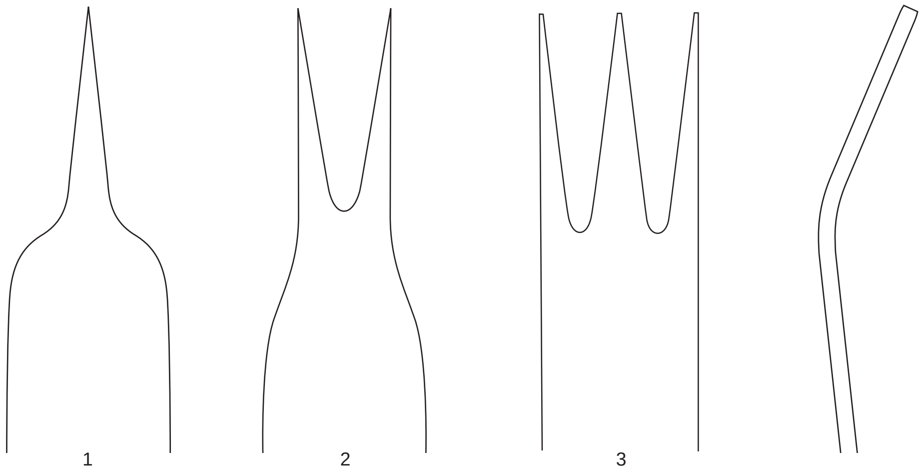
Useful for retracting the humeral head while exposing the glenoid.

Once seated in the gleno-humeral joint, the oval ring retracts the humeral head to allow exposure of the glenoid rim and its articular surface.

Serrations around ring help to improve traction.

gS 36.0030 30mm
gS 36.0035 35mm

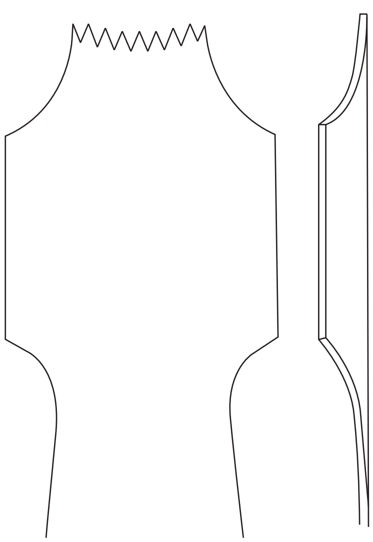
Fukuda-Kujat Style
Humeral Head Retractor
9", with T-handle



1 2 3

	prongs
gS 36.9729	1
gS 36.9730	2
gS 36.9731	3

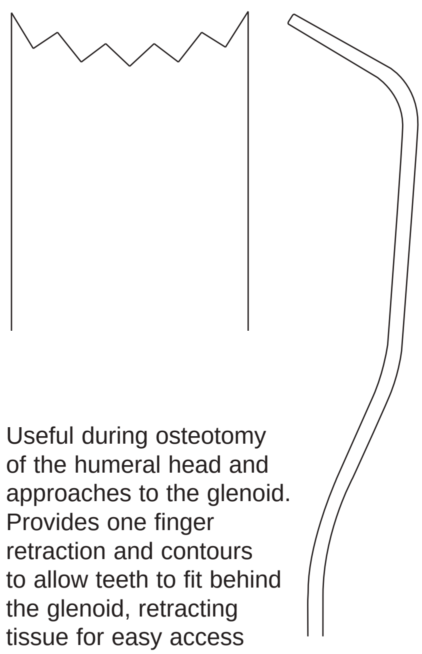
Capsule Retractor
10", sharp prongs
22mm



Convex teeth are seated in the glenoid rim while the curve helps to provide optimal visibility to the site.

gS 36.9790 8 1/2"

Glenoid Neck Retractor
18mm
sharp teeth

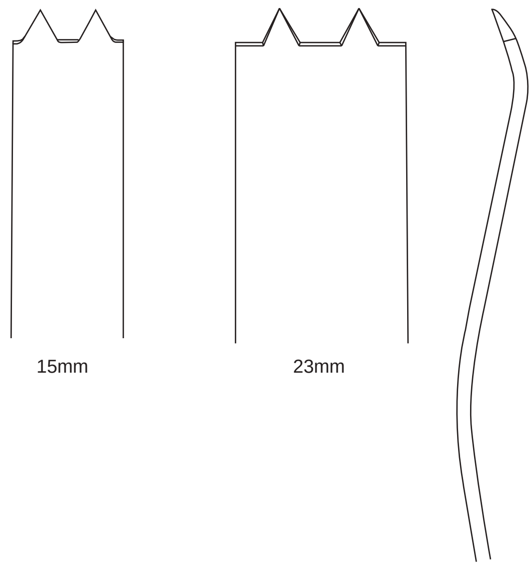


Useful during osteotomy of the humeral head and approaches to the glenoid. Provides one finger retraction and contours to allow teeth to fit behind the glenoid, retracting tissue for easy access to the glenoid.

gS 36.9793 10"

Posterior Glenoid Neck Retractor
30mm, sharp teeth

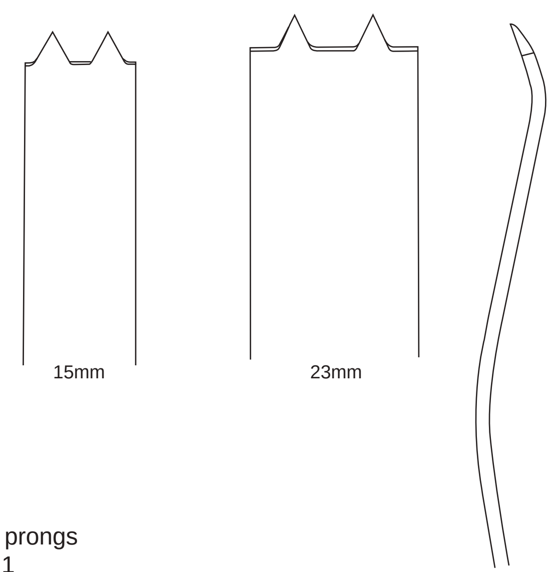
34-37/30 - hand-held retractors

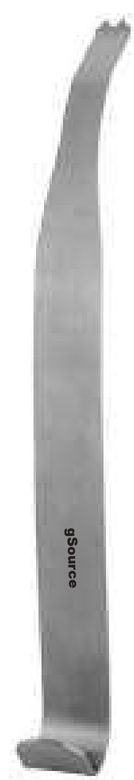


Useful to medially retract the subscapularis when prongs are securely seated in the glenoid neck. Also useful in securing the medial flap during capsule repair.

gS 36.9946	10"	23mm
gS 36.9952	11"	15mm

Kolbel Glenoid Retractor
2 sharp prongs

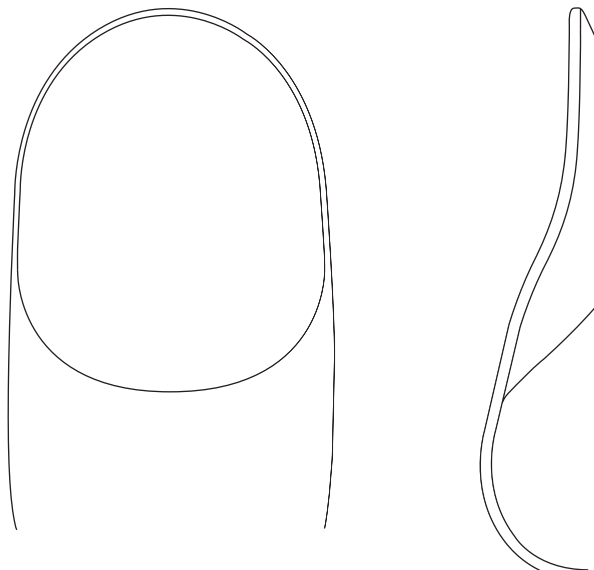




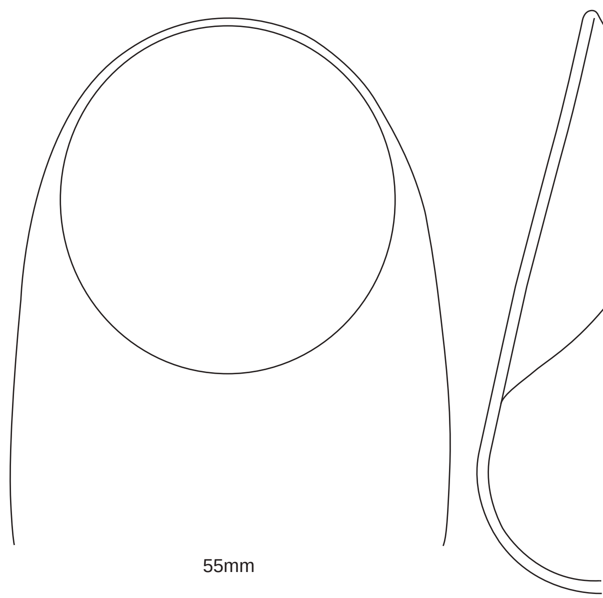
Useful to medially retract the subscapularis when prongs are securely seated in the glenoid neck. Also useful in securing the medial flap during capsule repair.

			prongs
gS 36.9950	11"	15mm	1
gS 36.9956	11"	23mm	1
gS 36.9962	11 1/2"	15mm	2
gS 36.9973	11 1/2"	23mm	2

Kolbel Glenoid Retractor
sharp prongs



42mm



55mm

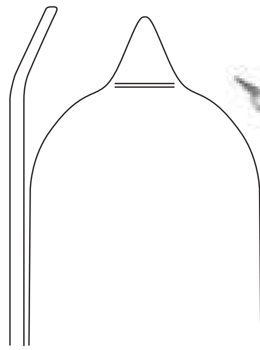
Useful for retracting the deltoid and exposing the humeral head.

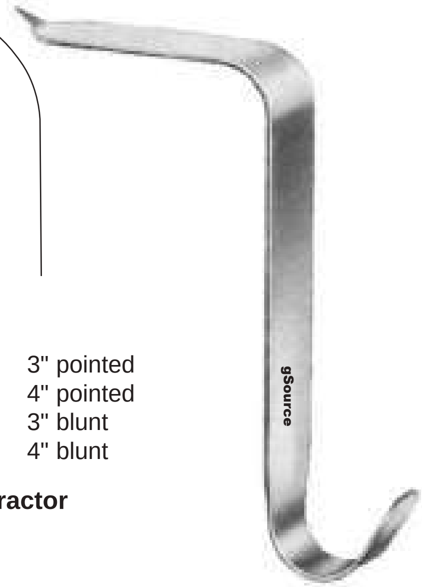
gS 36.9738 42mm
gS 36.9740 55mm

Browne-Deltoid Retractor
11"
T-handle with ring

gS 36.4788 13mm
gS 36.4790 18mm
gS 36.4791 20mm
gS 36.4792 23mm

Blade Retractor
7 1/2"
angled





gS 36.5580	7 1/2"	3" pointed
gS 36.5600	8"	4" pointed
gS 36.5550	7 1/2"	3" blunt
gS 36.5560	8"	4" blunt

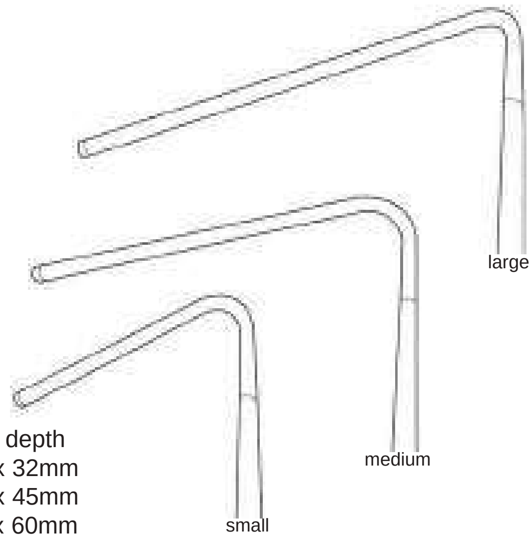
Taylor Spinal Retractor

gS 35.3000 5"

Smillie Retractor
13mm width x 18mm depth
down curved, T-handle

gS 35.2920 5 1/2"

Smillie Retractor
13mm width x 55mm depth
up curved, T-handle



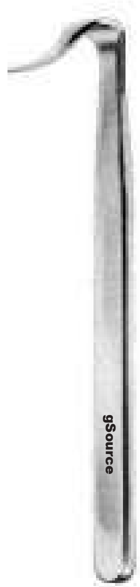
		width x depth
gS 35.2980	small	19mm x 32mm
gS 35.2940	medium	19mm x 45mm
gS 35.2960	large	19mm x 60mm

Smillie Retractor
5 1/2"
angled blade, T-handle

gS 37.3068	medium blades:	11mm width 57mm and 69mm depth
gS 37.3070	large blades:	11mm width 63mm and 76mm depth

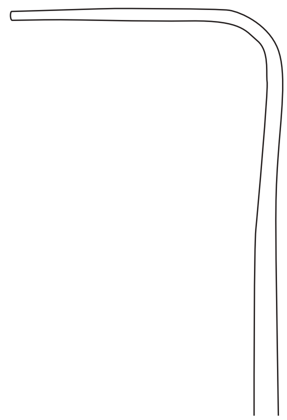
Z Knee Retractor
(Doane Retractor)
6"

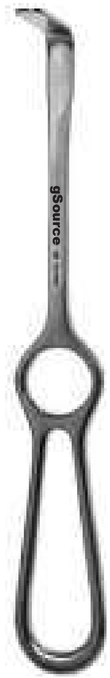
34-37/34 - hand-held retractors



gS 37.3060 7"

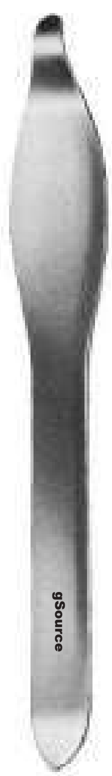
Blount Knee Retractor
7mm





gS 37.3064 8 1/2"

Knee Retractor
9mm width x 38mm depth
ring handle



gS 37.3020 10 1/2"

Blount Retractor
37mm

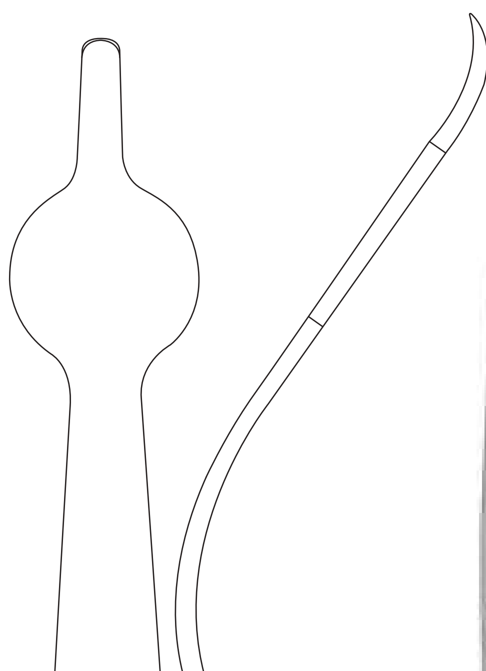
gS 37.3040 10 1/2"

Blount Retractor
44mm
double prong

Useful in knee
procedures.

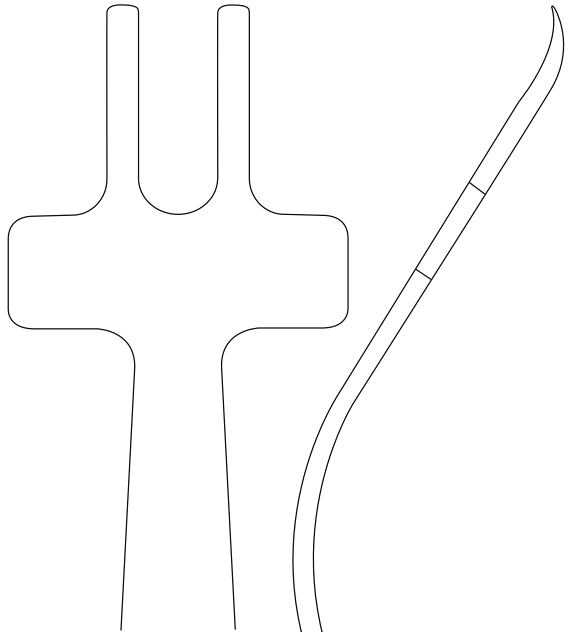
gS 36.9127 7 3/4"

Tibial Retractor
5mm
rounded end



gS 36.9108 8 1/2"

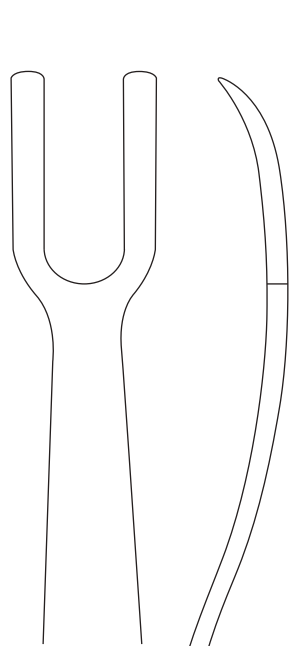
Collateral Retractor
25mm
rounded end



Useful in protecting the
lateral collateral ligament
and exposing the
proximal tibia.

gS 36.9110 9 1/2"

Collateral Soft Tissue Retractor
45mm
11mm 2 prongs blunt

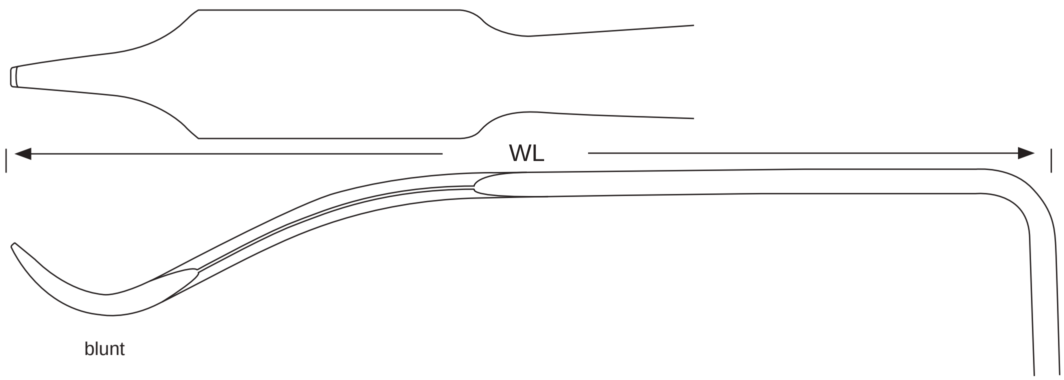


Useful in retracting the
tibia away from the femur.

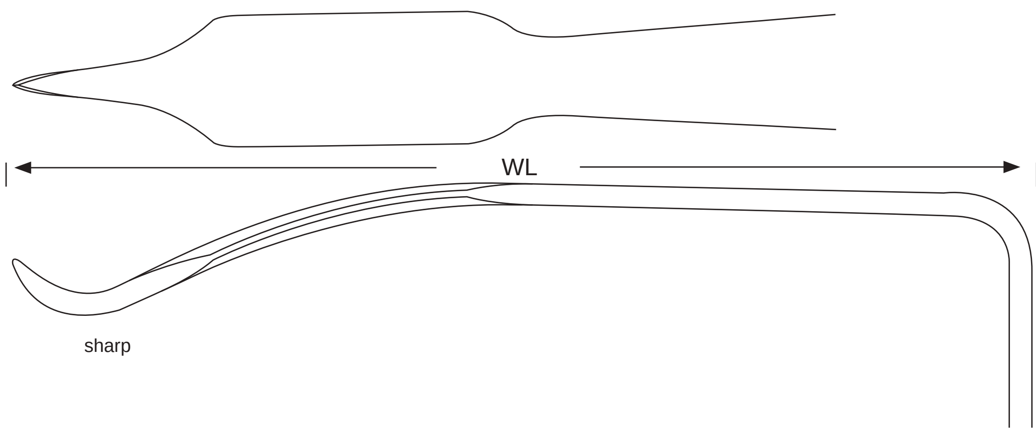
gS 36.9119 10 1/2"

PCL (Posterior Cruciate Ligament) Retractor
19mm
11mm 2 prongs blunt

WL = Working Length



blunt

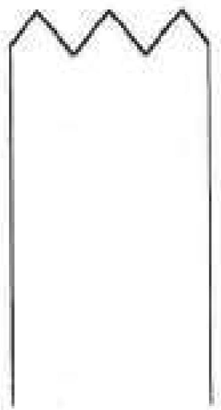


sharp

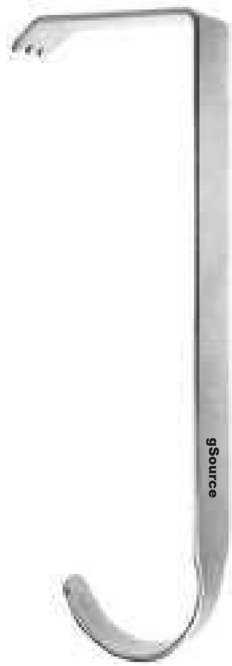
gS 37.3010 blunt
gS 37.3011 sharp

Ranawat Knee Retractor
9 1/2"
17mm, 5 1/4" WL, 90°

34-37/38 - hand-held retractors

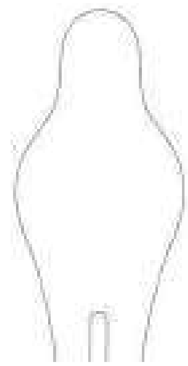


gS 36.1590



	width x depth
gS 36.1580	3/4" x 2"
gS 36.1590	1" x 2"
gS 36.1600	1" x 3"
gS 36.1610	1" x 4"

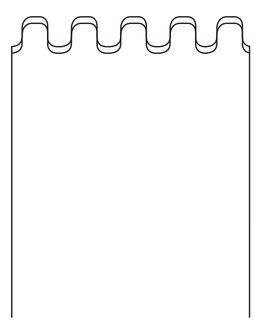
Hibbs Retractor
9 1/2"
sharp teeth



Tip detail
not to scale

gS 36.9800 1 3/4"
gS 36.9840 2 1/2"

Bennett Retractor
10"
grip handle



gS 36.2508 8"
gS 36.2511 11"
gS 36.2514 14"

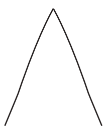
T-Handle Retractor
32mm width x 110mm depth
angled blade, blunt teeth

		width x depth
gS 36.2580	9"	5/8" x 2 1/4"
gS 36.2620	9"	1" x 2 3/4"
gS 36.2640	9 1/2"	2" x 3 3/4"

Meyerding Retractor
with teeth, grip handle

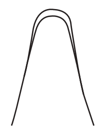
gS 36.2680 10 1/2"

Meyerding Retractor
3/4" width x 6" depth
with teeth



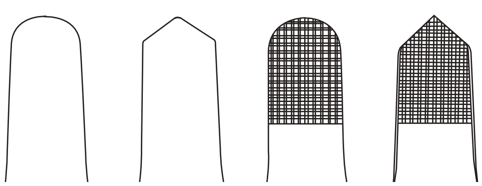
gS 37.3072 9" pointed smooth

Aufranc Cobra Retractor
30mm
grip handle



gS 37.3150 11" blunt smooth

Aufranc Cobra Retractor
32mm
grip handle

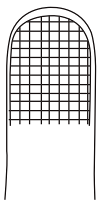


gS 37.3120 gS 37.3140 gS 37.3100 gS 37.3080

gS 37.3120 blunt smooth
gS 37.3140 pointed smooth
gS 37.3100 blunt serrated
gS 37.3080 pointed serrated

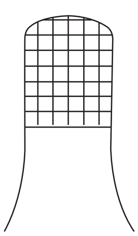
Aufranc Cobra Retractor
11 1/2", 32mm
grip handle

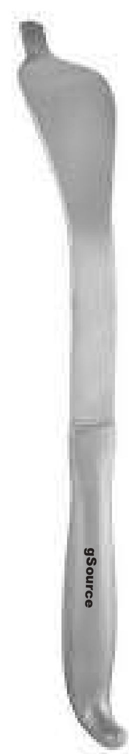
gS 37.3100



gS 37.3160 11 1/2" blunt cross serrated

Aufranc Cobra Retractor
38mm
grip handle

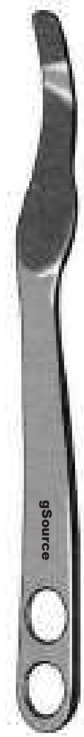




gS 37.3180 12" blunt cross serrated

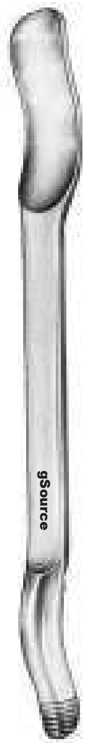
gRetractor, Aufranc Cobra
40mm
grip handle

34-37/42 - hand-held retractors



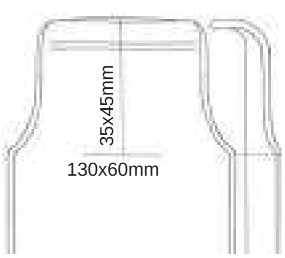
gS 37.2100 10 1/2"

Pelvic Retractor
1" blunt

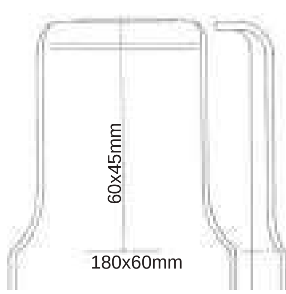


gS 36.9920 12"

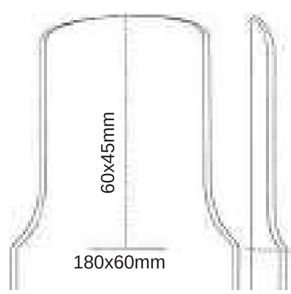
Murphy Bone Skid



gS 37.2210



gS 37.2212

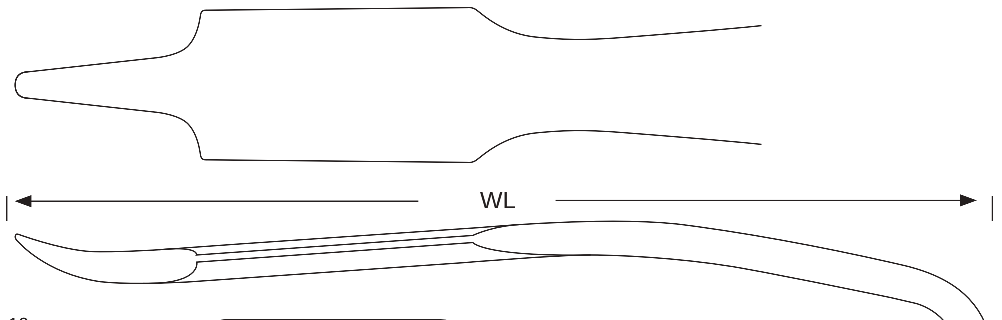


gS 37.2214

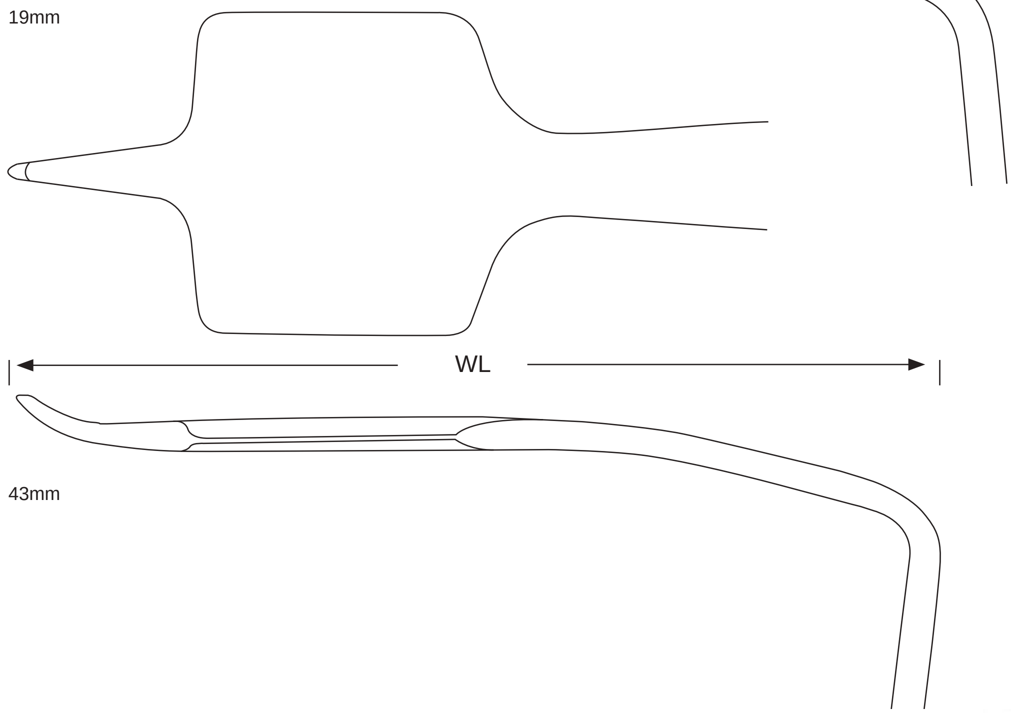
gS 37.2210 11 1/2" with lip
gS 37.2212 13" with lip
gS 37.2214 13" without lip

St. Mark's Pelvic Retractor
angled blade
grip handle

WL = Working Length



19mm



43mm

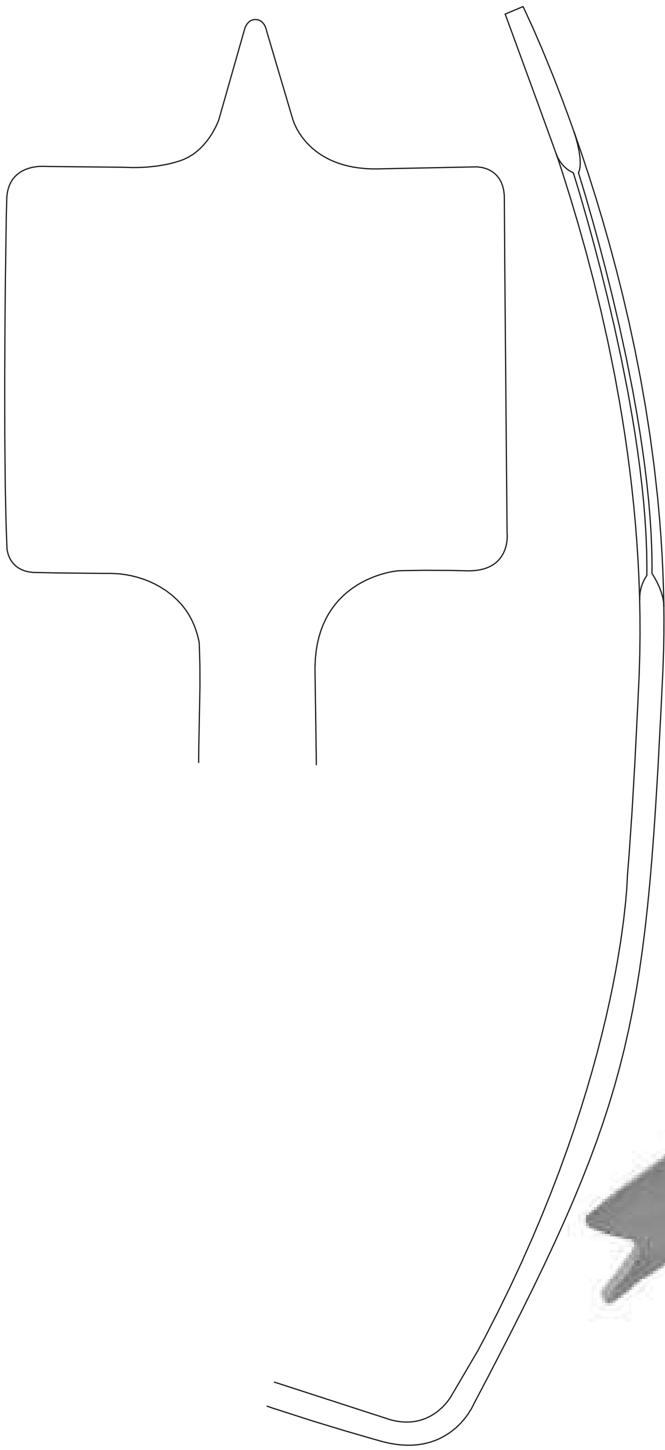
gS 36.9387 is useful for knee retraction due to narrow design.

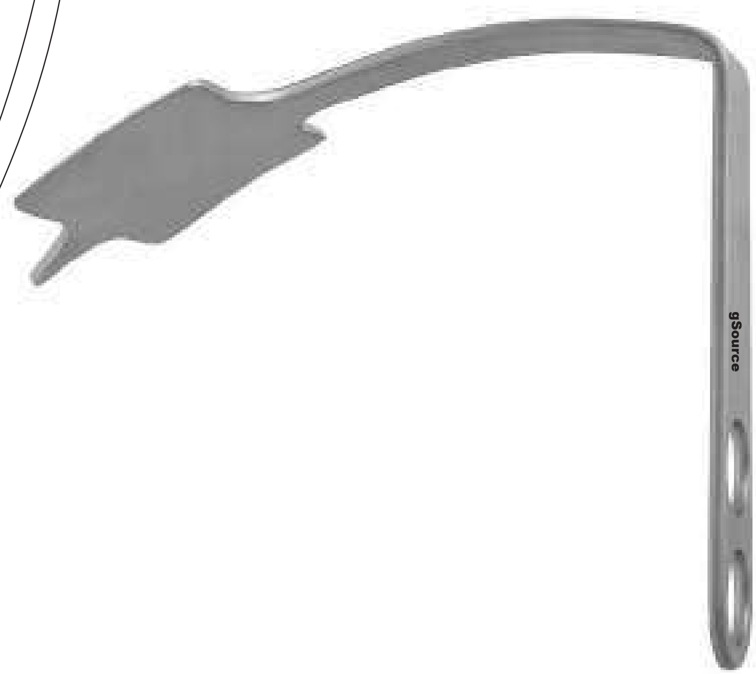
gS 36.3990 is useful for retracting tissue at the margins of the joint in knee and hip arthroplasty. For optimal exposure, placement is made over the margins of the joint.

gS 36.9387 19mm
gS 36.9390 43mm

gRetractor, Bent Hohmann
6 3/4"
4 3/4" WL, 90°, rounded end

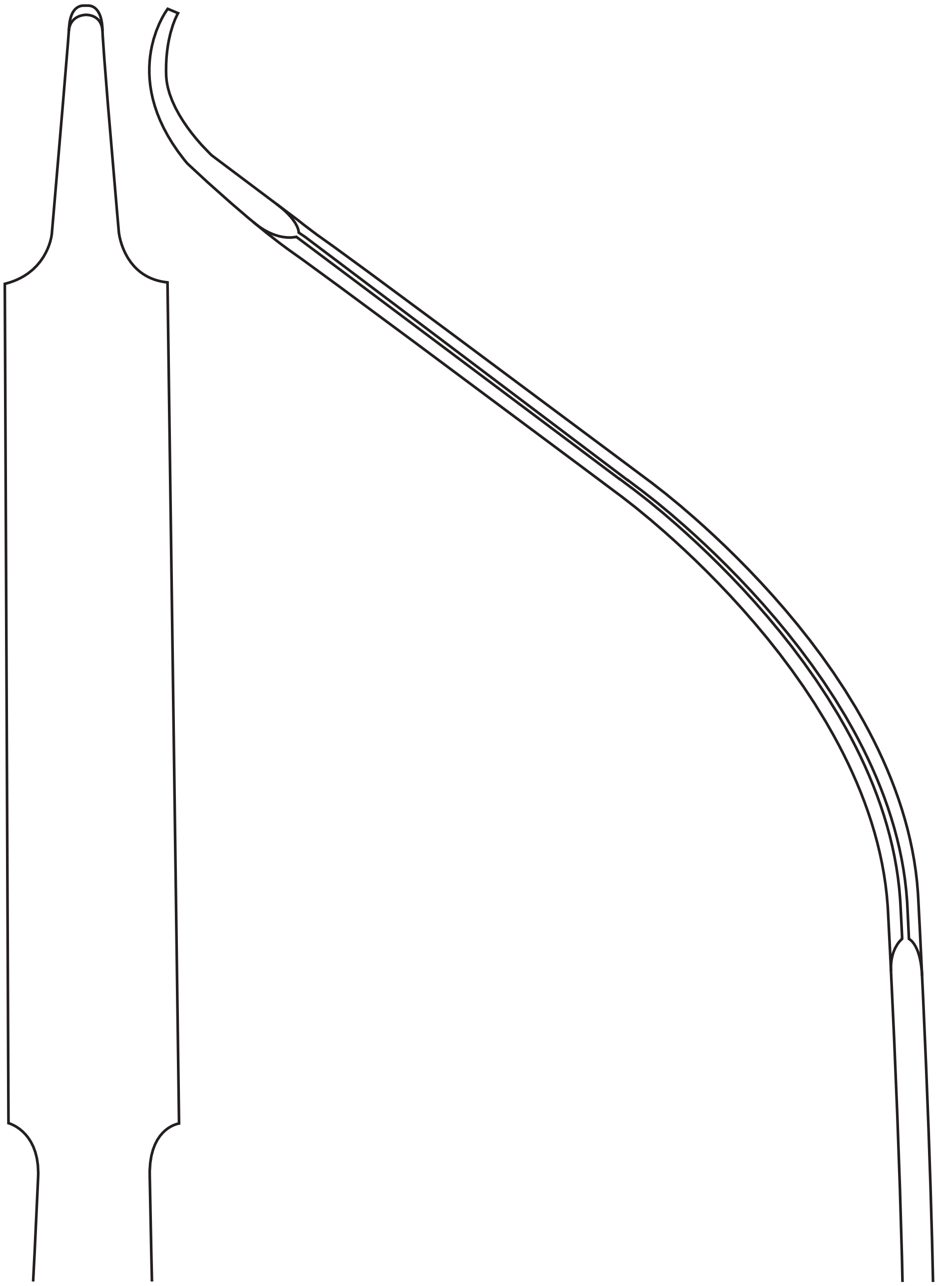
WL = Working Length





gS 36.9510 8"

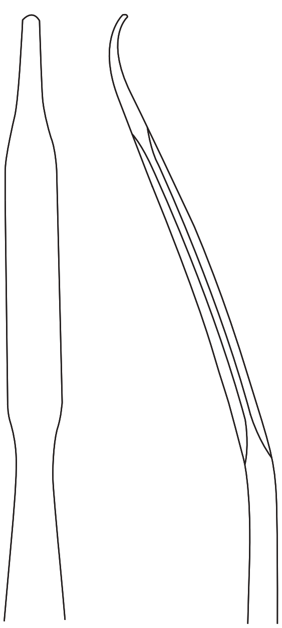
Bent Hohmann Retractor
70mm
7" WL, 90°, rounded end



Useful for retracting the femur anteriorly during total hip arthroplasty. For optimal exposure, placement is made over the pelvic brim.

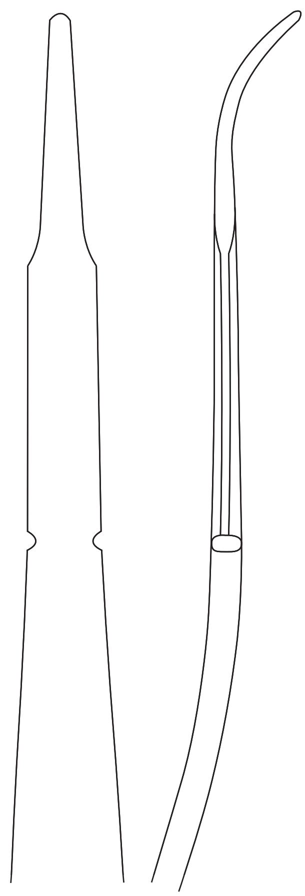
gS 36.9622 12 1/2"

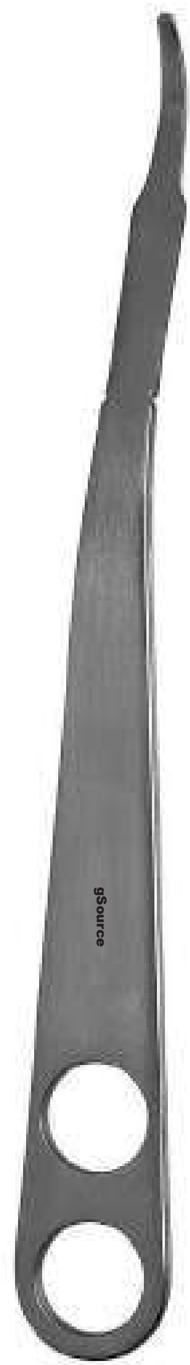
C-Retractor
22mm
rounded end



gS 36.9365 8 1/2"

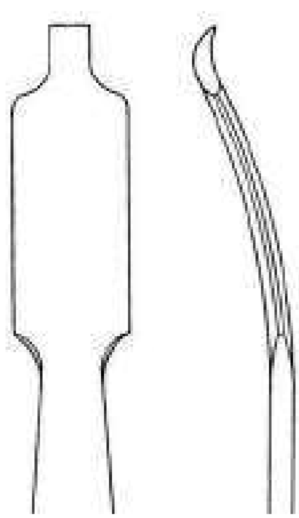
Hohmann Retractor
8mm
rounded end





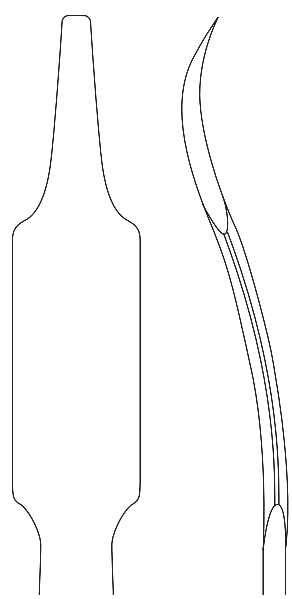
gS 36.9370 9 1/2"

Hohmann Retractor
10mm
rounded end



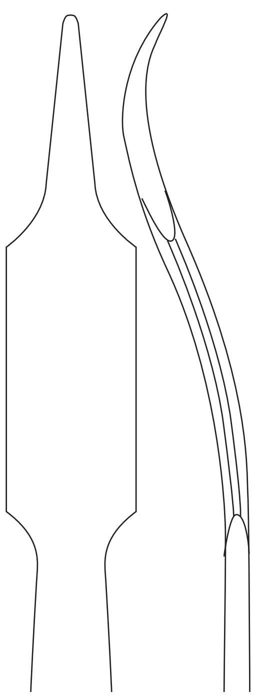
gS 36.9378 8 1/2"

Hohmann Retractor (Wagner)
17mm, short tip
straight end



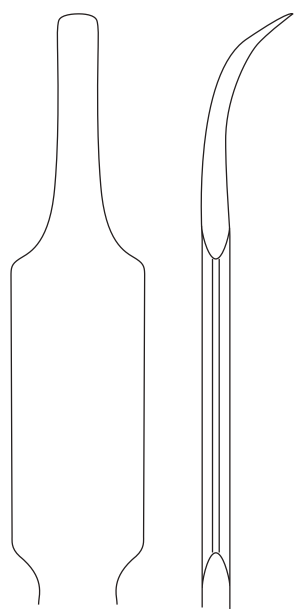
gS 36.9380 9 1/2"

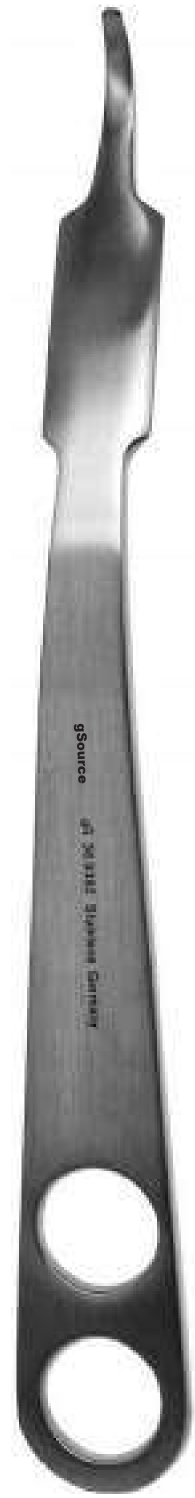
Hohmann Retractor
17mm, long tip
straight end



gS 36.9384 9 1/2"

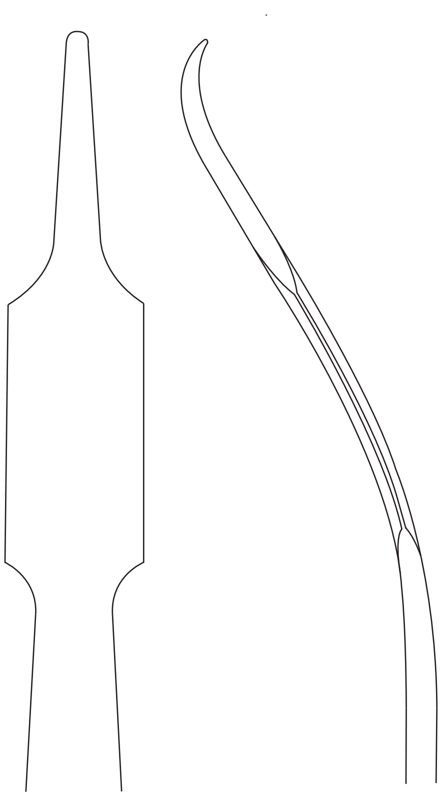
Hohmann Retractor
17mm
rounded end





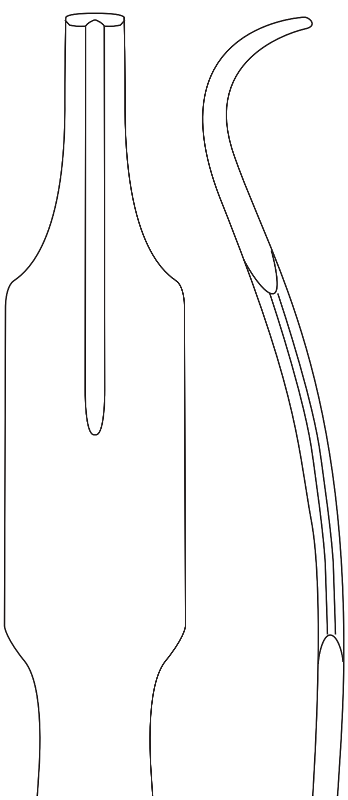
gS 36.9382 9 1/2"

Hohmann Retractor
18mm
rounded end



gS 36.9442 9 1/2"

Hohmann Retractor
18mm
rounded end

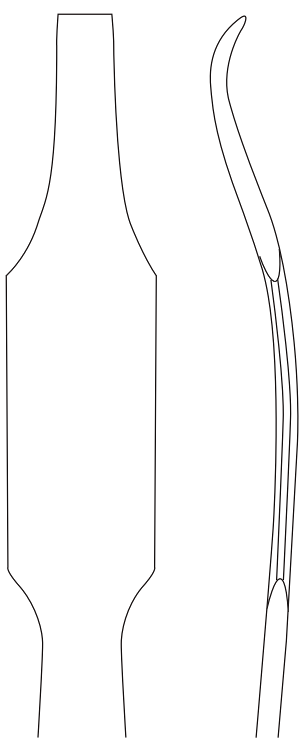


gS 36.9488 9 1/2"

Hohmann Retractor (Lange)
24mm, grooved
straight end

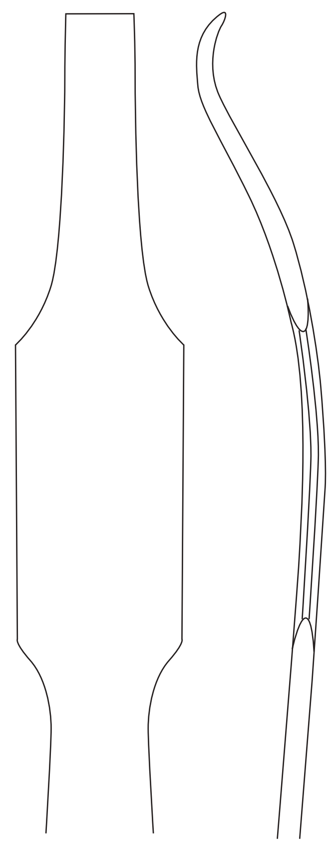
gS 36.9482 10 1/2"

Hohmann Retractor
22mm
rounded end



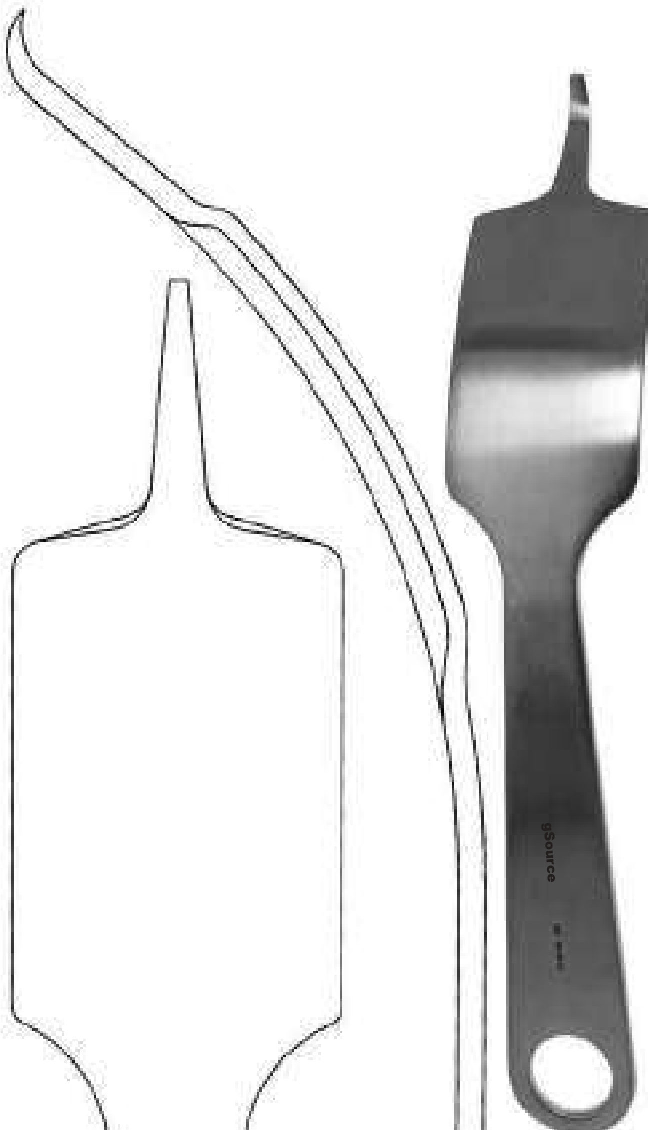
gS 36.9480 10"

Hohmann Retractor
22mm
straight end



gS 36.9407 10"

Hohmann Retractor
25mm
straight end

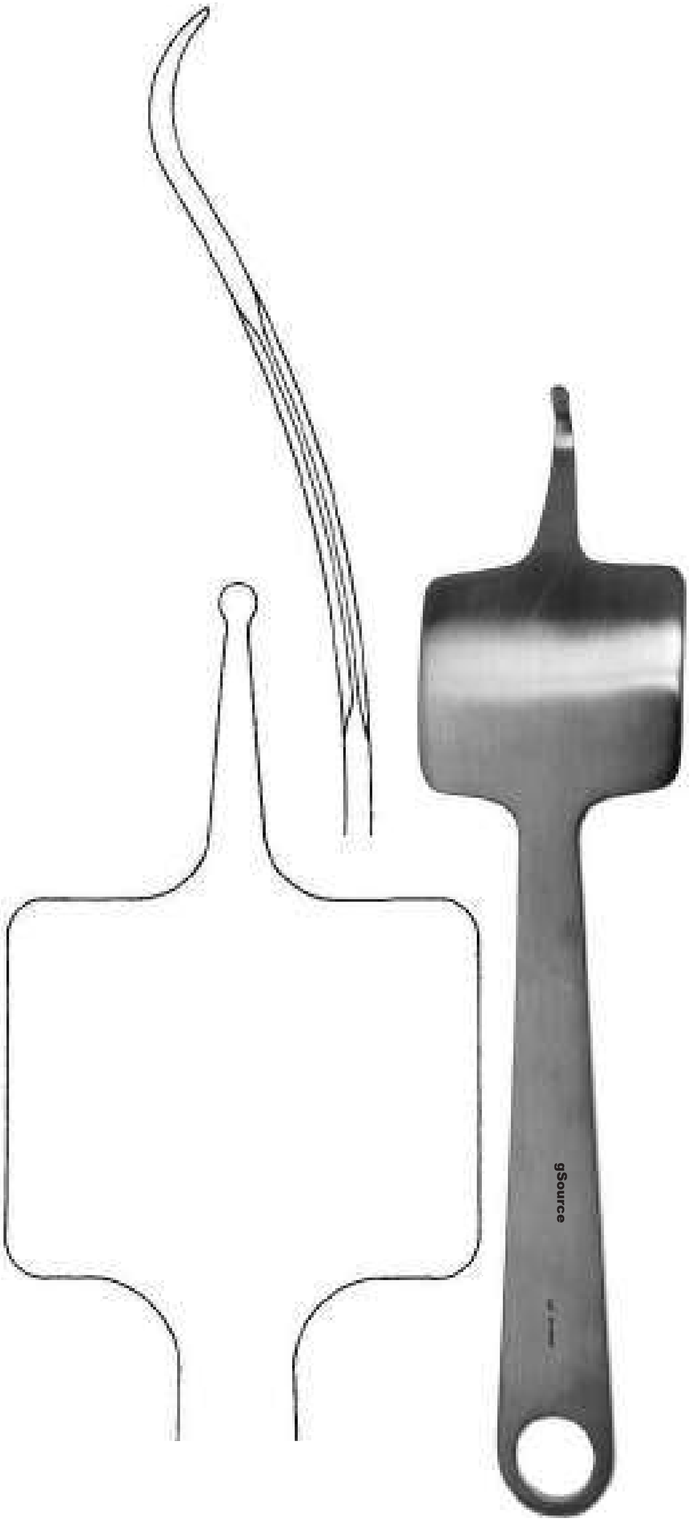


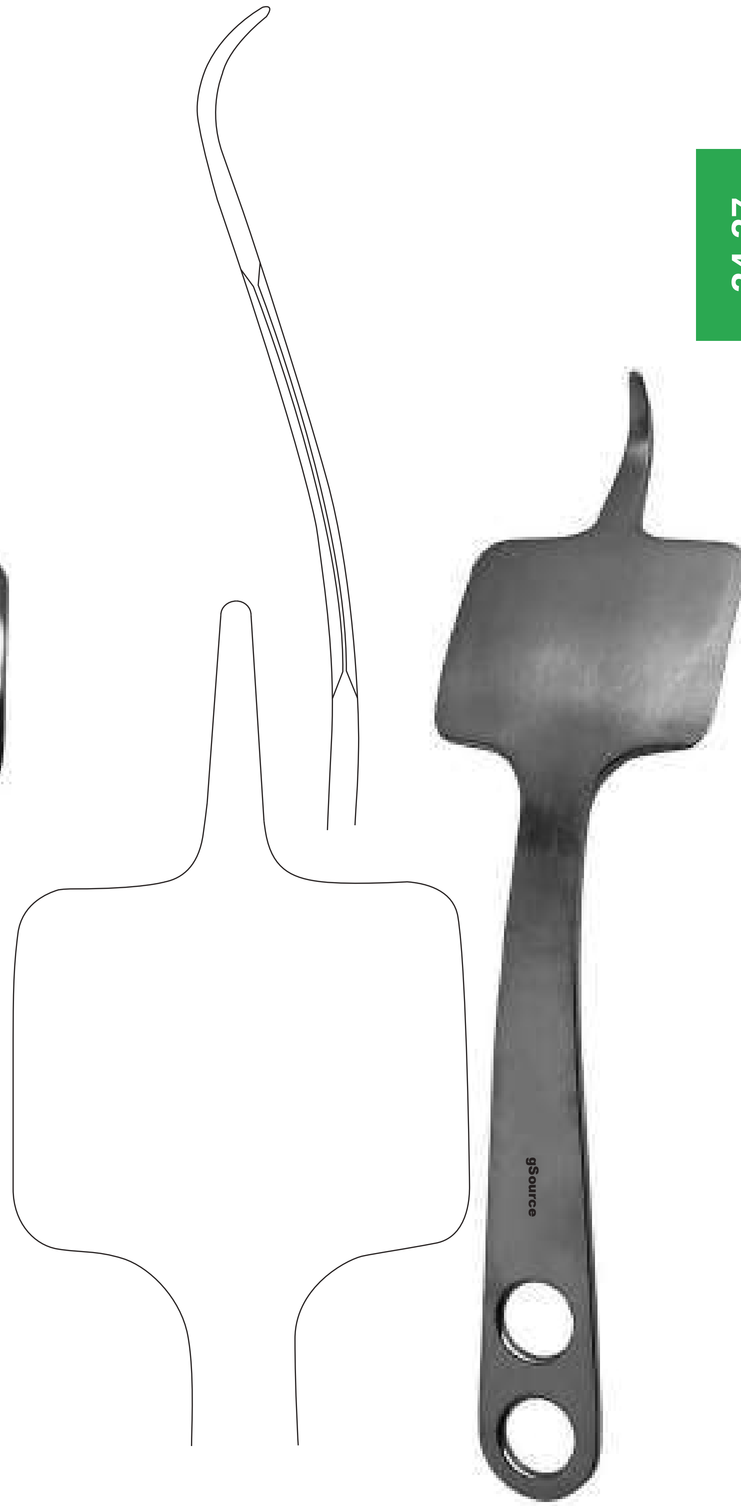
gS 36.9410 9 1/2"

Hohmann Retractor
43mm
straight end

gS 36.9430 9 1/2"

Hohmann Retractor
43mm
rounded end



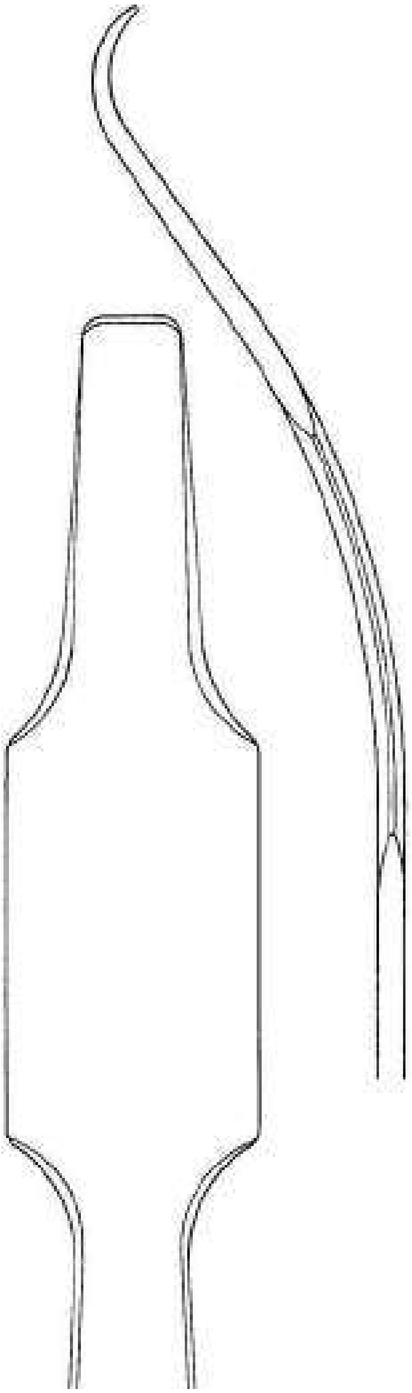


gS 36.9500 10 1/2"

Hohmann Retractor
65mm
tear drop end

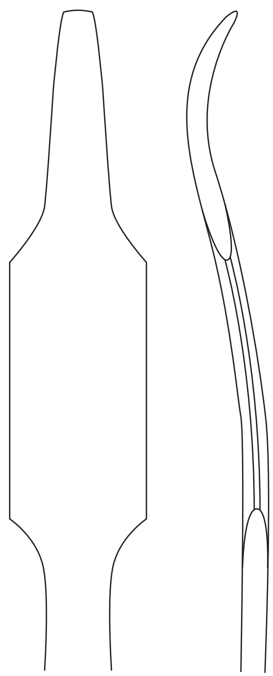
gS 36.9505 10 1/2"

Hohmann Retractor
70mm
rounded end



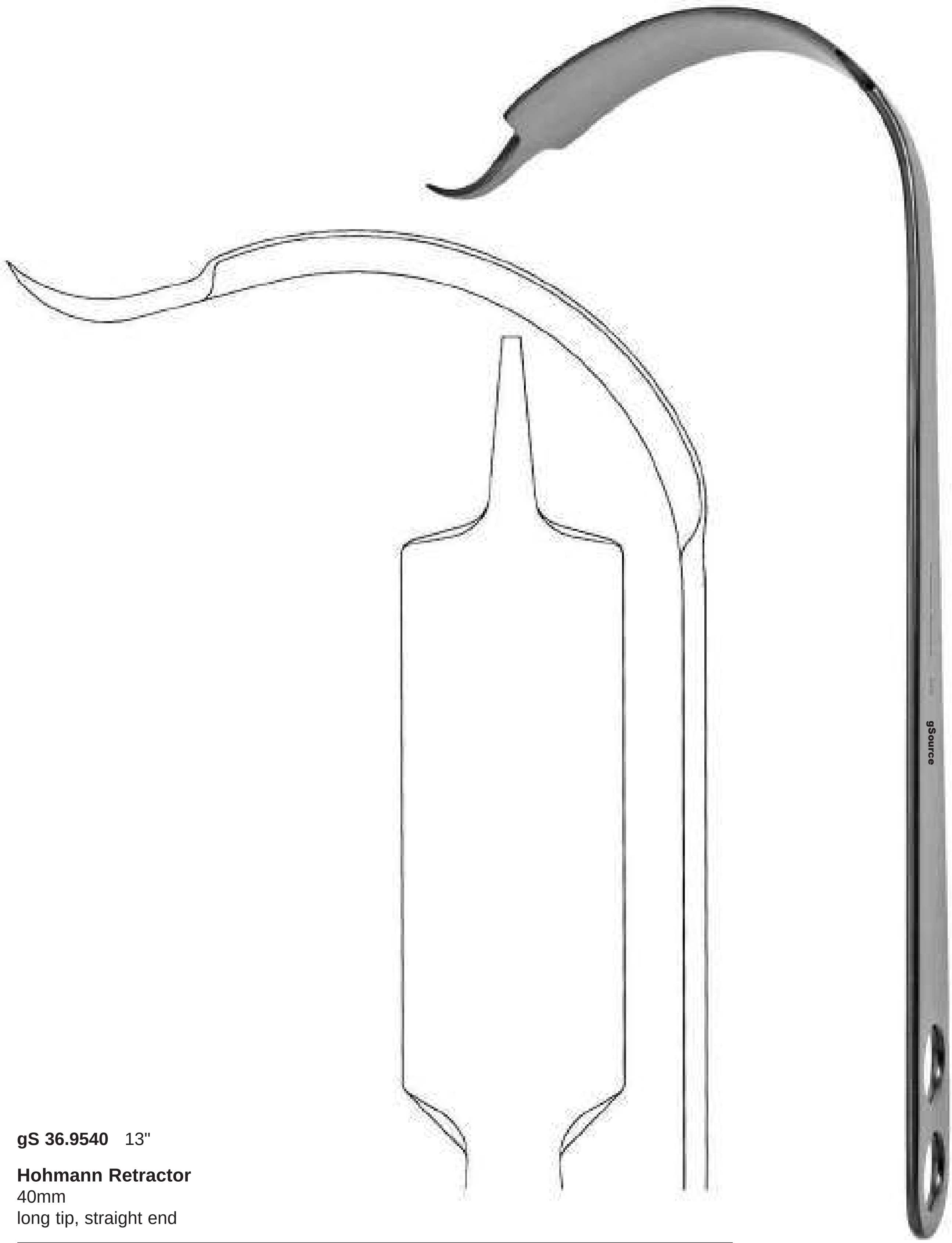
gS 36.9490 11"

Hohmann Retractor
35mm
straight end



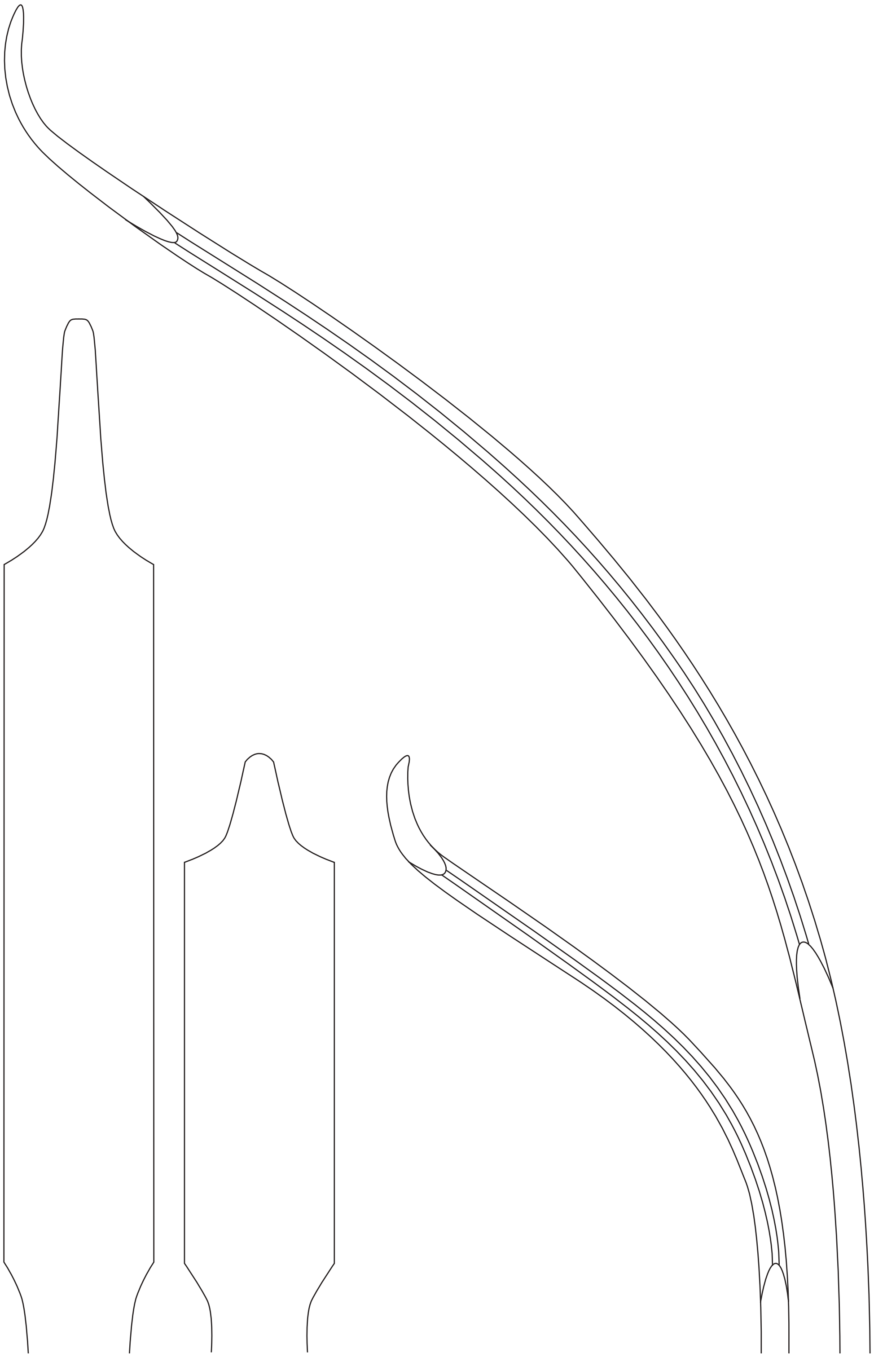
gS 36.9475 12"

Hohmann Retractor
17mm
straight end



gS 36.9540 13"

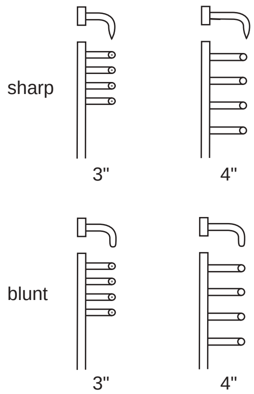
Hohmann Retractor
40mm
long tip, straight end



gS 36.9520 gS 36.9518 gS 36.9518 gS 36.9520

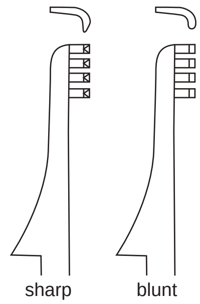
gS 36.9518 one finger ring, short rounded end
gS 36.9520 two finger rings, long rounded end

Hohmann Retractor
16"
22mm



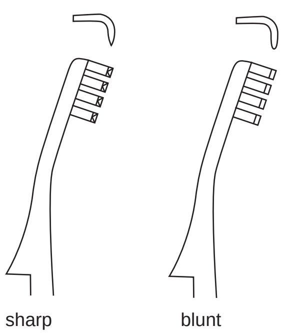
gS 38.5150 3" sharp
gS 38.5165 4" sharp
gS 38.5140 3" blunt
gS 38.5160 4" blunt

Alm Retractor
4x4 prongs



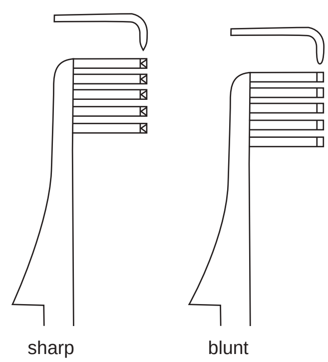
gS 38.5170 sharp
gS 38.5180 blunt

Self Retaining Retractor
(Heiss) 4", straight
4x4 prongs



gS 38.5185 sharp
gS 38.5186 blunt

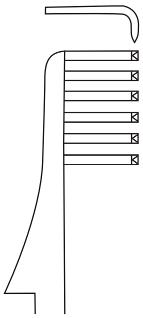
Self Retaining Retractor
(Heiss) 4", angled
4x4 prongs



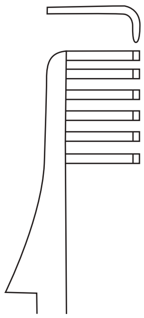
gS 38.5190 sharp
gS 38.5191 blunt

Self Retaining Retractor
(Heiss) 4 1/4", straight
5x5 prongs

38-40/2 - self-retaining retractors



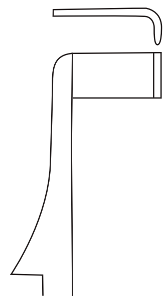
sharp



blunt

gS 38.5192 sharp
gS 38.5193 blunt

Self Retaining Retractor
4 1/4", straight
6x6 prongs



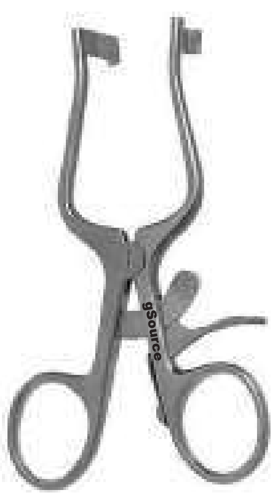
gS 38.5195 4" blunt

Self Retaining Retractor
straight
6mm width x 12mm depth blade

Helps to provide
increased visibility of
the tendon sheath in
trigger finger procedures.
Also useful in other small
incision procedures.

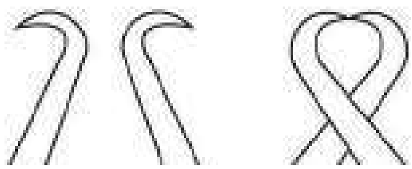
gS 38.5500 4 1/4" blunt

gRetractor, Trigger Finger
6.5mm width x 12mm depth
blade



gS 38.5219 sharp
gS 38.5220 blunt

Jansen Retractor
(Mastoid) 4"
3x3 prongs

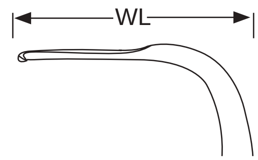


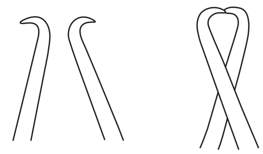
5 1/2"

gS 38.8797 4"
gS 38.8799 5 1/2"

Johnson Neuroma Retractor

WL = Working Length

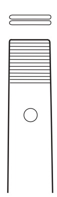




3 1/4"

gS 38.8793 3 1/4", 7.5mm
gS 38.8795 4", 9.5mm

gRetractor, Johnson Neuroma
90° angle, 1 1/4" WL



Useful in facilitating lateral column lengthening of the calcaneus.

Thru hole on blades allows for passing of 1.3mm K-wire.

gS 40.3490 3 3/4"

gSpreader, Calcaneal
6mm outside serrated blades with thru hole
1 1/4" opening

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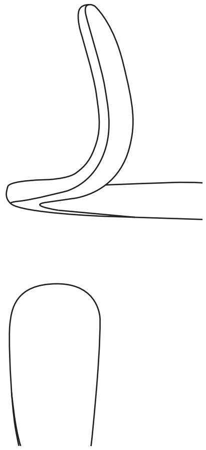
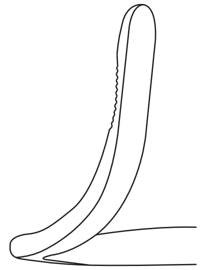
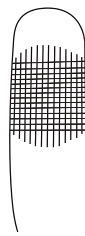
self-retaining retractors



gS 38.5300 4 1/2"

Schink Retractor
smooth blades

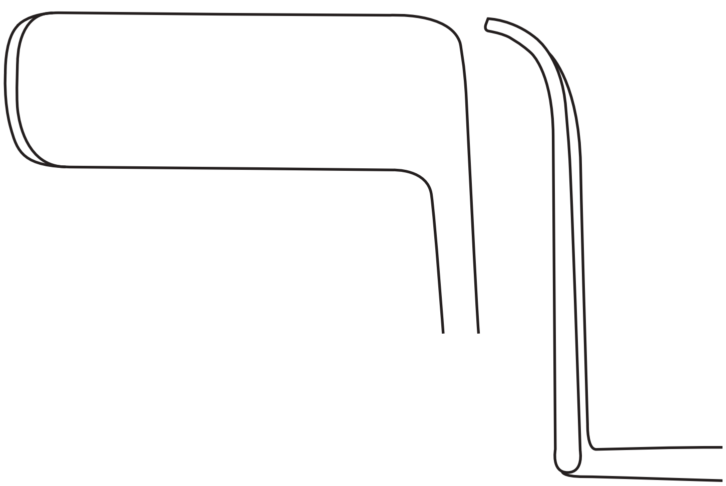




Outside serrated blades provide a more secure hold on metatarsals.

gS 38.5490 4 1/2"

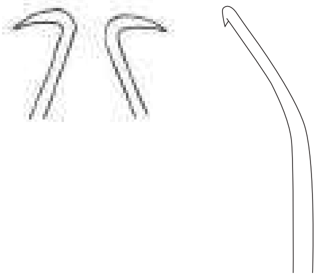
Metatarsal Retractor
(Cox Metatarsal Spreader)
serrated blades



Deep blades are useful in appendectomy procedures.

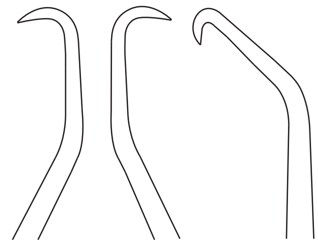
gS 38.5670 7"

Rigby Retractor
20mm width x 60mm depth
smooth blunt blades



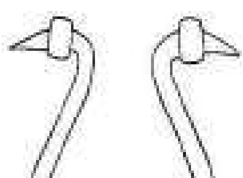
gS 38.8760 3 1/2"
gS 38.8790 4 3/4"
gS 38.8800 5 1/2"
gS 38.8820 7 1/2"

Gelpi Retractor
sharp points

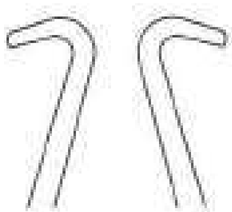


gS 38.8780 4 1/2"
gS 38.8804 6 1/2"

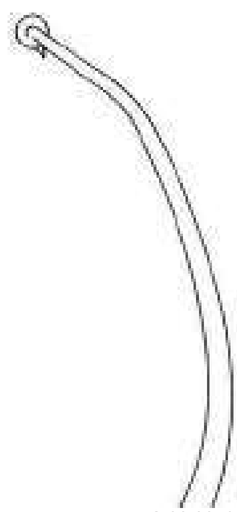
Gelpi Retractor
sharp points
angled, delicate



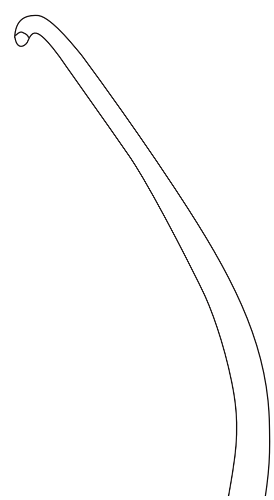
gS 38.8810



gS 38.8830



gS 38.8810



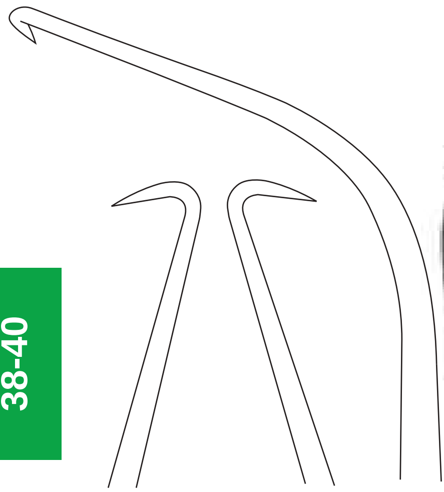
gS 38.8830

gS 38.8810 ball tip, sharp
gS 38.8830 blunt

Gelpi Retractor
7 1/2"

38-40/6 - self-retaining retractors

WL = Working Length

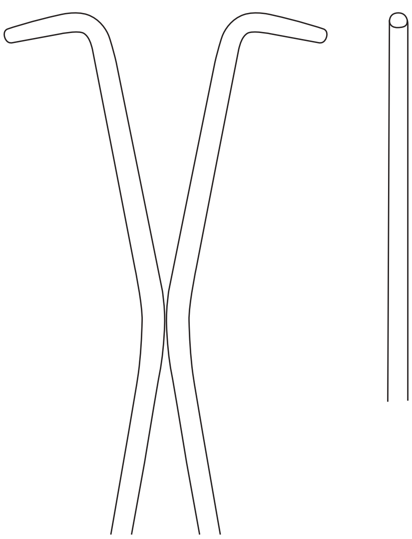


gS 38.8918 6 1/2"

Gelpi Seletz Retractor
1x1 sharp points

gS 40.8710 11"

Wiltse Gelpi Retractor
strong curve
1x1 sharp points

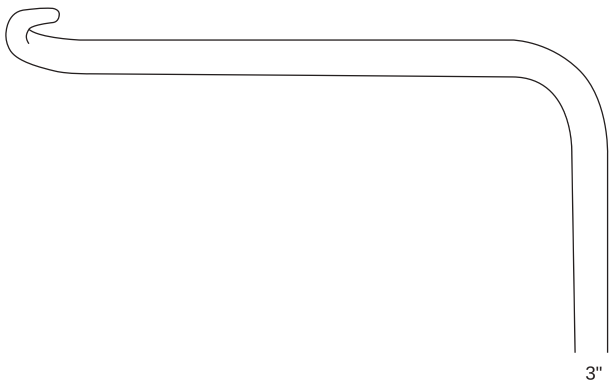


Useful in holding back muscle while retracting the hip capsule.

gS 40.8670 7 3/4"

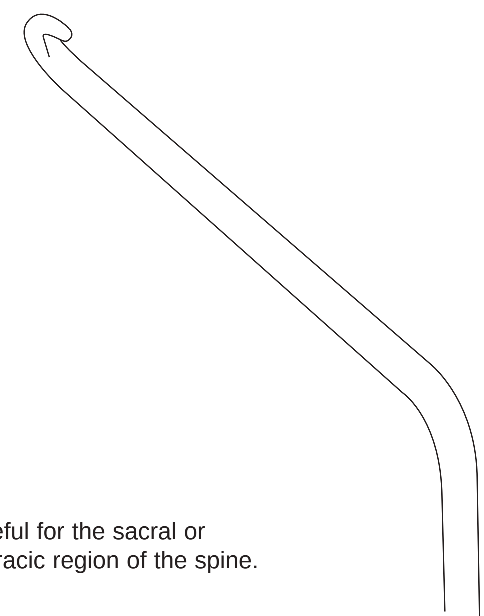
gRetractor, Deep Gelpi
4 1/2" WL, 90° angle
1x1 blunt points

WL = Working Length



	WL
gS 40.8608	3"
gS 40.8610	4"
gS 40.8612	5"

Deep Gelpi Retractor
10 1/2", 90° angle
1x1 blunt points, speedlock



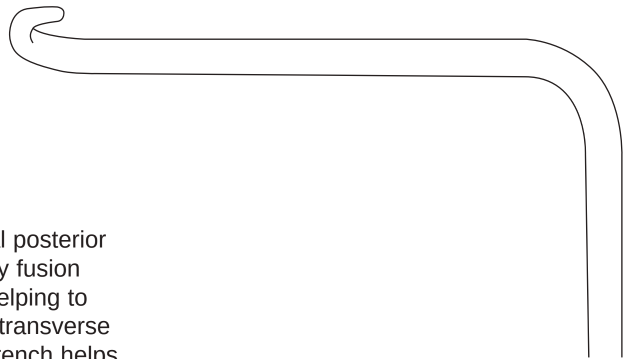
Useful for the sacral or
thoracic region of the spine.

gS 40.8628 12"

Deep Gelpi Retractor
3" WL, 45° angle
1x1 blunt points, speedlock

38-40/8 - self-retaining retractors

WL = Working Length



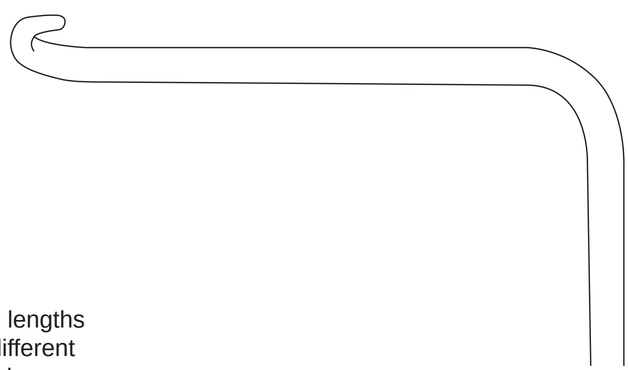
3"

38-40

Useful for lateral posterior lumbar interbody fusion procedures in helping to retract past the transverse process. The wrench helps to provide extra torque to attain maximum exposure.

	WL
gS 40.8570	3"
gS 40.8572	4"

Deep Gelpi Lateral Retractor
10 1/2", 90° angle
1x1 blunt points, speedlock, wrench



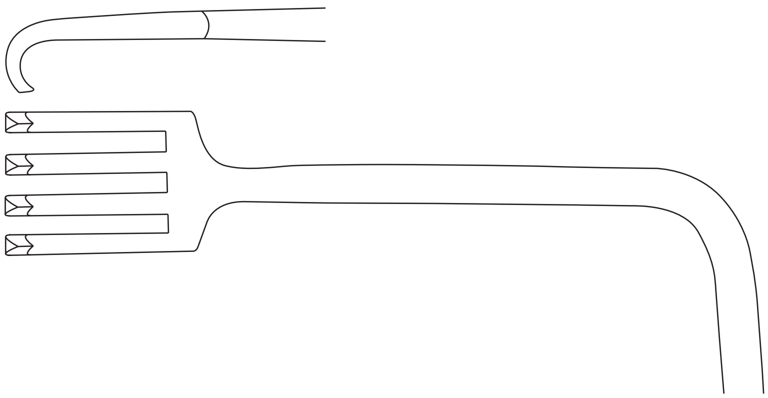
3"

Varying working lengths accommodate different patient sizes and are designed to apply limited pressure on tissue and muscle, helping to reduce tissue necrosis.

	WL
gS 40.8618	3"
gS 40.8620	4"
gS 40.8622	5"

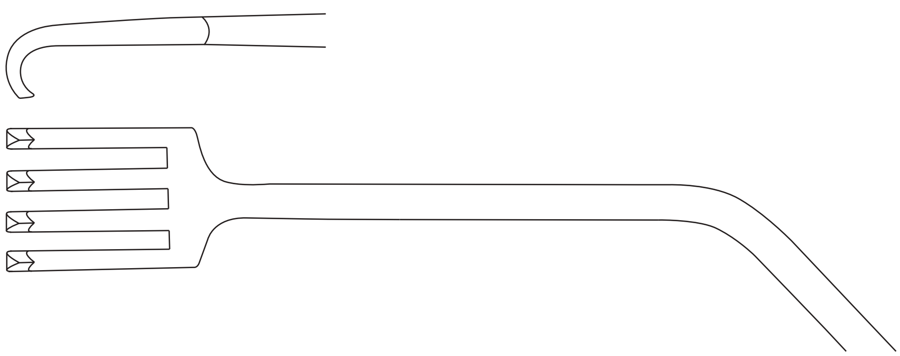
Deep Gelpi Retractor
10 1/2", 90° angle
1x1 blunt points, ratchet

WL = Working Length



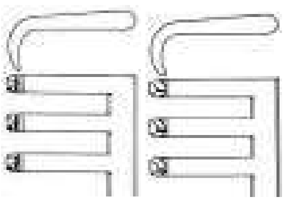
	WL
gS 40.8632	2"
gS 40.8638	3 1/2"
gS 40.8640	4"
gS 40.8642	5"

Deep Gelpi Retractor
10 1/2", 90° angle,
4 sharp prongs, speedlock



gS 40.8648 13"

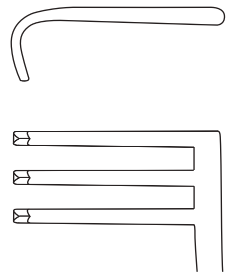
Deep Gelpi Retractor
3 1/2" WL, 45° angle
4 sharp prongs, speedlock



sharp blunt

gS 38.5920 sharp
gS 38.5940 blunt

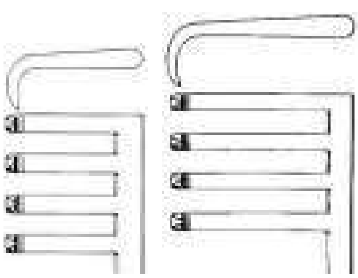
Weitlaner Retractor
4 1/2"
2x3 prongs



25mm sharp

	depth
gS 38.5825	25mm sharp
gS 38.5826	25mm blunt
gS 38.5830	30mm sharp
gS 38.5831	30mm blunt

gRetractor, Weitlaner
4 1/2"
2x3 prongs

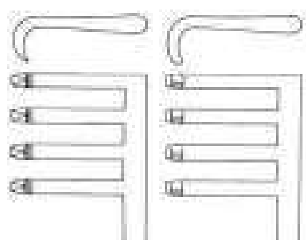


5 1/2" sharp 8" sharp

	sharp
gS 38.5980	5 1/2"
gS 38.6020	6 1/2"
gS 38.6040	8"
gS 38.6060	9 1/2"

	blunt
gS 38.6180	5 1/2"
gS 38.6220	6 1/2"
gS 38.6240	8"
gS 38.6260	9 1/2"

Weitlaner Retractor
3x4 prongs

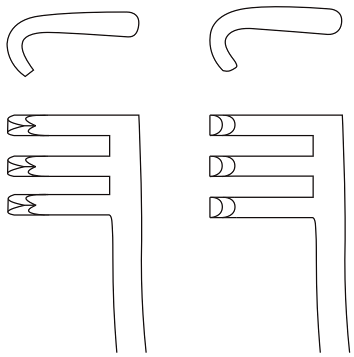


sharp blunt

Handle is gently curved to conform to contour of skull. Non-obstructive design is also useful for hand and foot procedures.

gS 38.5816 sharp
gS 38.5814 blunt

Scalp Contour Retractor
5 1/2"
3x4 prongs

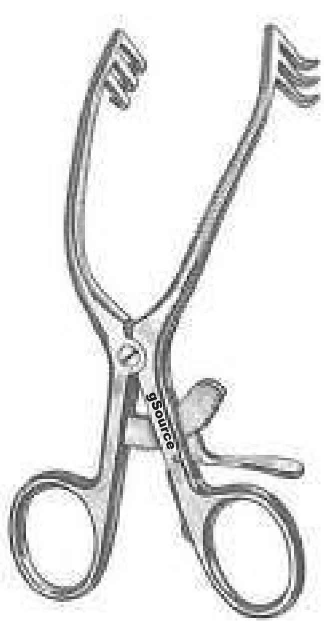


sharp blunt

Helps to facilitate bilateral
exposure of soft tissue.

gS 38.6350 5 1/4" sharp
gS 38.6360 6" sharp
gS 38.6362 6" blunt

Wullstein-Weitlaner Retractor
3x3 prongs

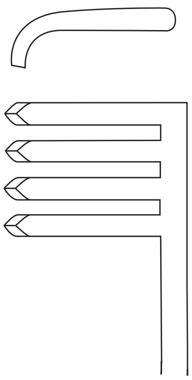


gS 38.7276 5"

Schuknecht Retractor
3x3 sharp prongs
3" max opening

gS 38.6280 6"

Mollison Retractor
4x4 sharp prongs



Useful for retraction of the cerebellum in neurological procedures.

gS 40.5430 6 1/2"

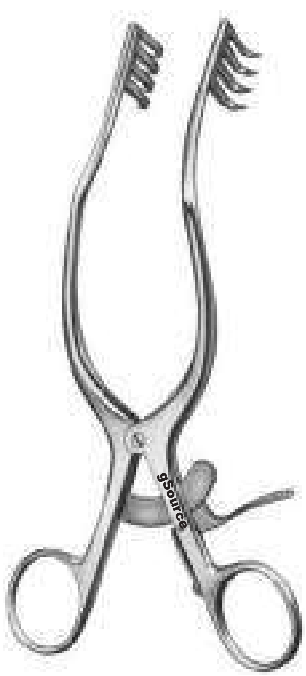
Adson Cerebellar Retractor
angled 80° arms
4x4 sharp prongs

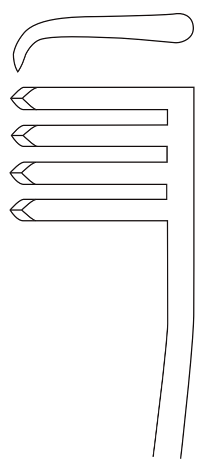
gS 40.5420 7 1/2"

Adson Retractor
straight arms
4x4 sharp prongs

gS 40.5440 7 1/2"

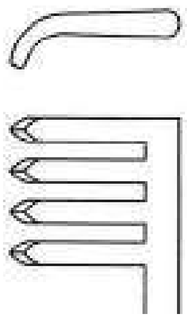
Adson Retractor
angled arms
4x4 sharp prongs





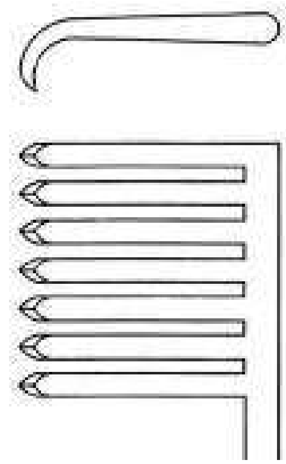
gS 40.5445 7 1/2"

Adson Retractor
angled 35°/20° arms
4x4 sharp prongs



gS 40.5450 7 1/2"

D'Errico-Adson Retractor
angled arms
4x4 sharp prongs



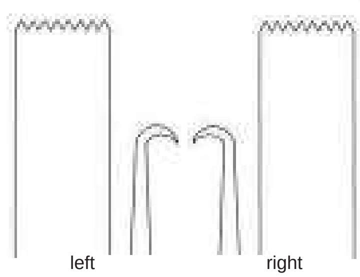
gS 40.6990 7 1/2"

Miskimon Cereb. Retractor
angled arms
7x7 sharp prongs

	width x depth
gS 40.7232	1" x 1 1/4"
gS 40.7234	1" x 1 5/8"
gS 40.7236	1" x 2"
gS 40.7238	1" x 2 1/4"

Meyerding Retractor
7"

tip detail not
to scale

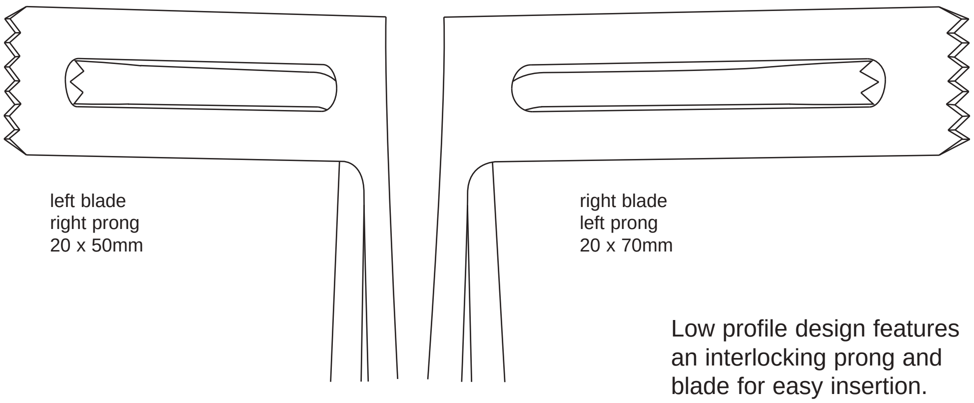


gS 40.7180

gS 40.7180 left
gS 40.7181 right

Markham Meyerding Retractor
7"
1" width x 2 1/4" depth blade

38-40/14 - self-retaining retractors



Low profile design features an interlocking prong and blade for easy insertion.

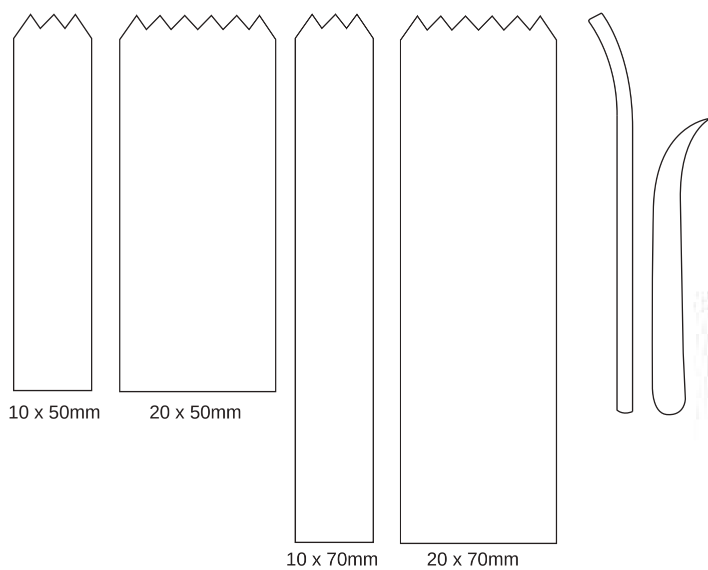
Useful during posterior cervical procedures and micro lumbar discectomies.

Toothed prong provides less trauma and helps to achieve a more stable hold.

left blade	width x depth
gS 40.8350	20mm x 50mm
gS 40.8360	20mm x 70mm

right blade	width x depth
gS 40.8352	20mm x 50mm
gS 40.8362	20mm x 70mm

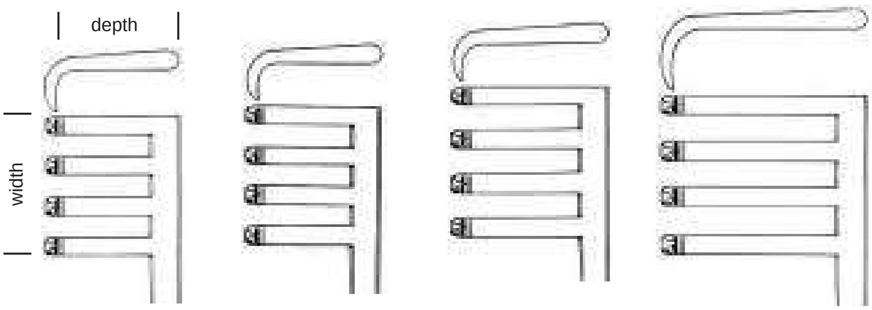
Discectomy Retractor
7"



left blade	width x depth
gS 40.7350	10mm x 50mm
gS 40.7360	10mm x 70mm
gS 40.7370	20mm x 50mm
gS 40.7380	20mm x 70mm

right blade	width x depth
gS 40.7352	10mm x 50mm
gS 40.7362	10mm x 70mm
gS 40.7372	20mm x 50mm
gS 40.7382	20mm x 70mm

Williams Discectomy Retractor
7"

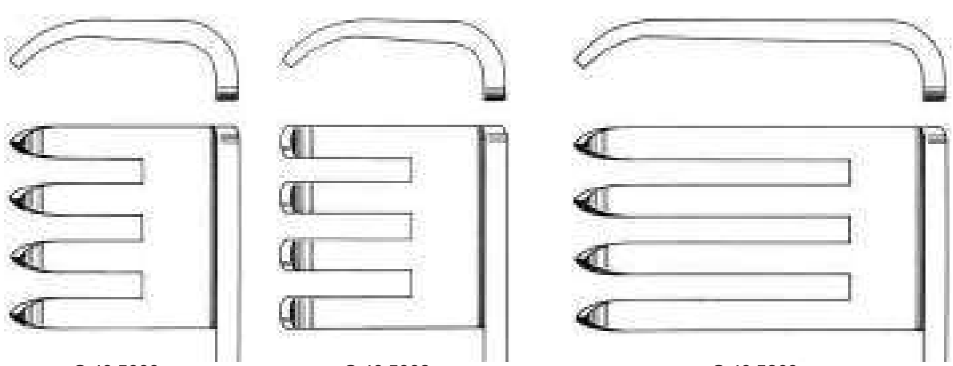


sharp 5 1/2" 6 1/2" 8 1/2" 9 1/2"

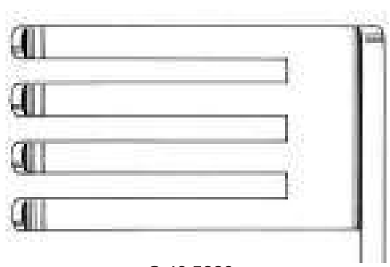
	sharp	width x depth
gS 40.6500	5 1/2"	20mm x 15mm
gS 40.6320	6 1/2"	20mm x 15mm
gS 40.6410	8 1/2"	22mm x 17mm
gS 40.6420	9 1/2"	22mm x 24mm

	blunt	
gS 40.6502	5 1/2"	20mm x 15mm
gS 40.6504	6 1/2"	20mm x 15mm
gS 40.6506	8 1/2"	22mm x 17mm
gS 40.6508	9 1/2"	22mm x 24mm

Beckman-Weitlaner Retractor
hinged arms
3x4 prongs



gS 40.5900 gS 40.5902 gS 40.5860



gS 40.5880

	sharp width x depth
gS 40.5900	1" x 1"
gS 40.5860	1" x 1 3/4"

	blunt width x depth
gS 40.5902	1" x 1"
gS 40.5880	1" x 1 3/4"

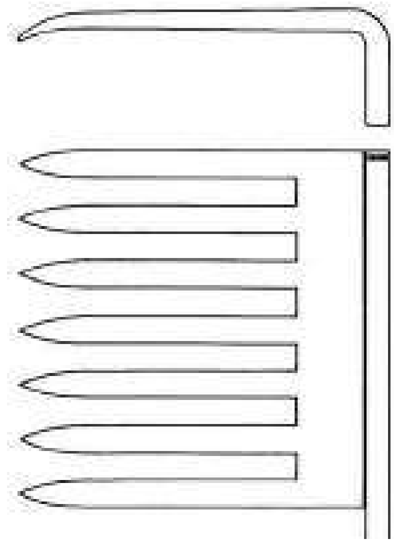
Beckman-Adson Retractor
12" hinged arms
4x4 prongs

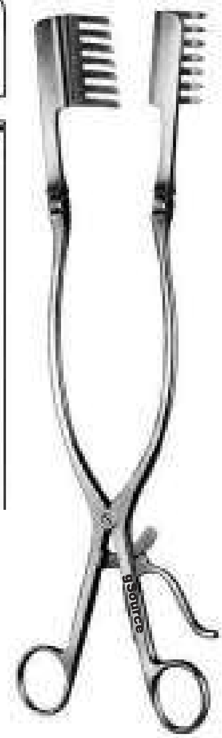
38-40/16 - self-retaining retractors

sharp

gS 40.5840 sharp
gS 40.5842 blunt

Beckman Retractor
12 1/2" hinged arms
4x4 prongs, 5/8" x 1 1/8"



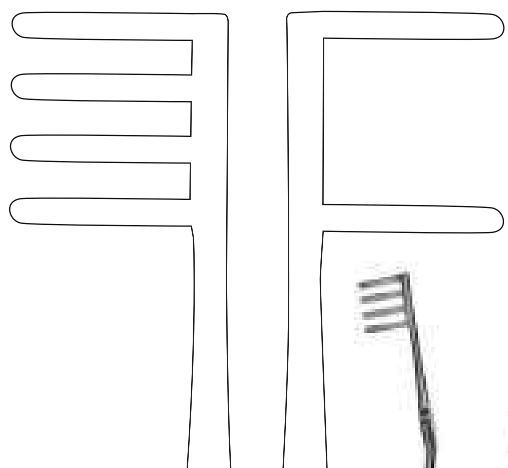


gS 40.4760 12 1/2"

Beckman Eaton Retractor
7x7 sharp prongs
maximum opening: 6 1/4" hinged

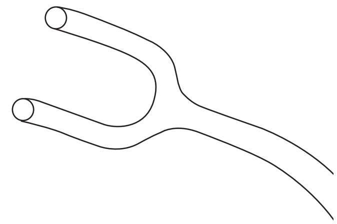
gS 40.5820 12 1/2"

Adson Retractor
hinged arms
4x5 blunt prongs



gS 40.6100 12 1/4"

Horizontal Retractor (Sexton)
hinged arms, 4x2 blunt prongs
maximum opening: 6 1/2"



Helps to facilitate the introduction of deep retractors necessary for visibility of the glenoid, acromion and rotator cuff.

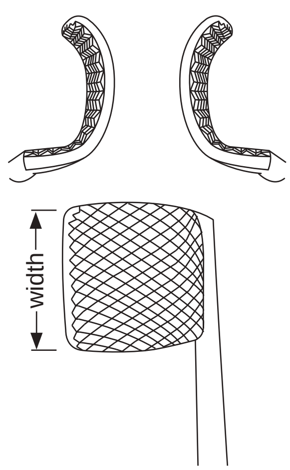
gS 38.9018 7"

Kolbel Soft Tissue Retractor
angled 2x2 blunt prongs

Helps to retract soft tissue of the gleno-humeral joint.

gS 38.9020 7"

Kolbel Soft Tissue Retractor
curved 2x2 blunt prongs



Useful for gentle tissue retraction and retracting the deltoid muscle.

gS 40.3160 6"

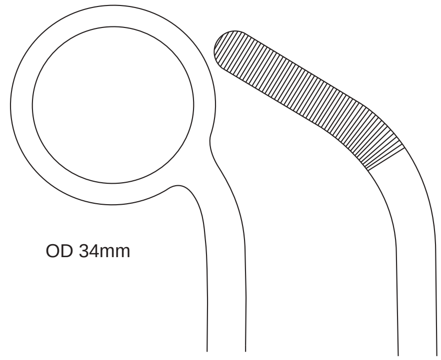
gRetractor, Rahner
20mm width
angled

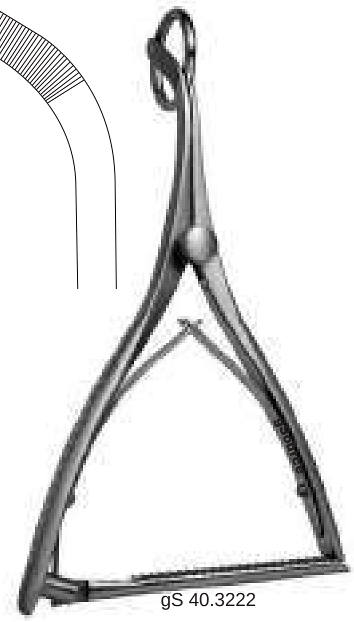
gS 40.3210 ring left
gS 40.3212 ring right

Rotator Cuff Retractor
(Gerber)
7", outside serrated blade

gS 40.3212

OD = Outside Diameter





gS 40.3222

gS 40.3220 ring left
gS 40.3222 ring right

gRetractor, Rotator Cuff
7", 34mm OD
outside serrated blade

Useful for the spreading and stabilization of space between individual vertebrae.

Turn key is removable and can be placed on either side of the spreader eliminating the need for individual left and right distractors.

gS 40.2610 4"
gS 40.2611 replacement turn key

Vertebra Spreader
pivoting 180° arms
2 1/2" spread

gS 40.2590 5"

Vertebra Spreader #1
(Cloward Style)
with ratchet, 3/4" spread

gS 40.3120 6 1/2"

Cervical Spreader
angled
with teeth

gS 40.2412

Lumbar Lamina Spreader
arm length 2 3/4"
spread 3 1/8"

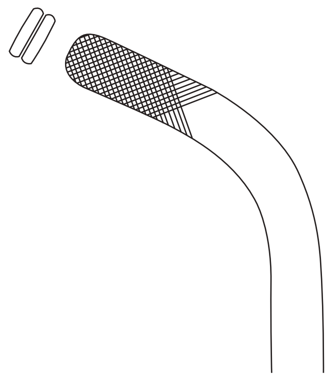
gS 40.2410

Lumbar Lamina Spreader #1
arm length: 3"
spread: 2 1/8"

gS 40.2414

Lumbar Lamina Spreader
arm length 4"
spread 2 3/4"

38-40/20 - self-retaining retractors

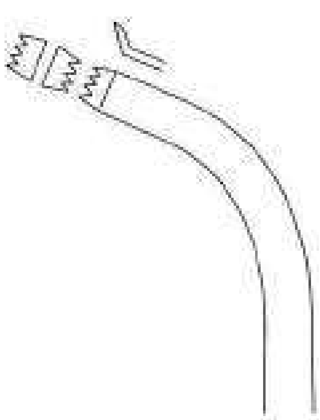


Useful in facilitating a lateral release during bunionectomy procedures.

3mm-30mm calibrations marked on bottom side of ratchet help to measure and assess the width needed for the lateral portion of the bone graft.

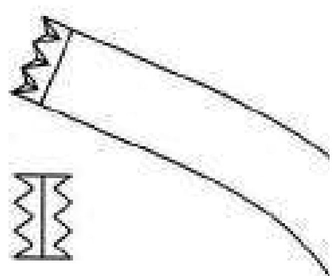
gS 40.3150 5 1/2"

gRetractor, Abramsohn
outside cross serrated blades
calibrated ratchet



gS 40.3170 with teeth
gS 40.3180 without teeth

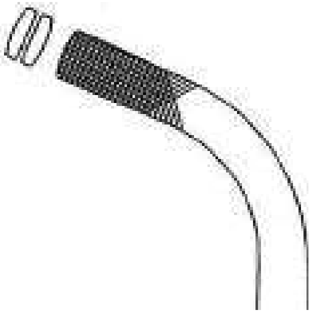
Inge Retractor
6 1/2"



gS 40.3300 10"

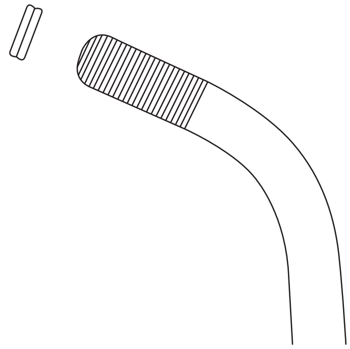
Inge Retractor
with teeth

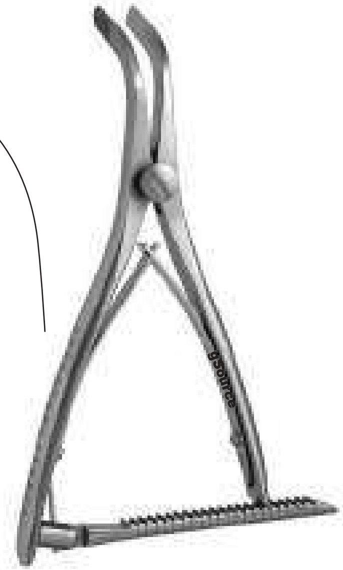
Ratchet is calibrated in mm and measures size of opening. Useful in many procedures to accurately assess bone graft needs.



gS 40.3190 6 1/2"

Saxena-Style Retractor
outside cross serrated blades
calibrated ratchet

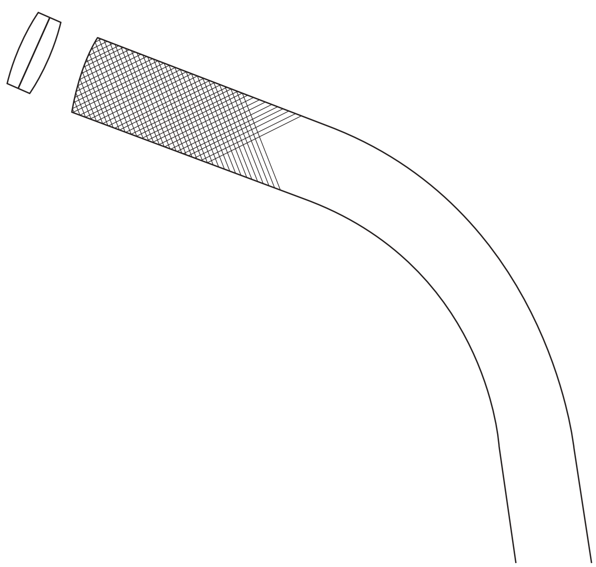




gS 40.3192 6 1/2"

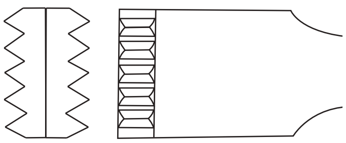
Saxena-Style Retractor
outside serrated blades
calibrated ratchet

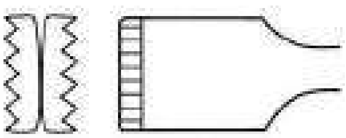
Ratchet is calibrated in mm and measures size of opening. Useful in many procedures to accurately assess bone graft needs.



gS 40.3195 10"

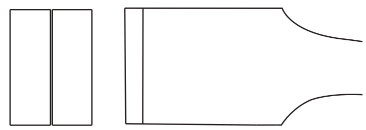
Saxena-Style Retractor
outside cross serrated blades
calibrated ratchet


flat


concave

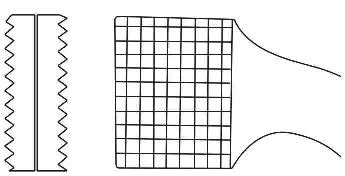
	blades
gS 40.3260	flat
gS 40.3270	concave

Lamina Spreader
10 1/2"
with teeth



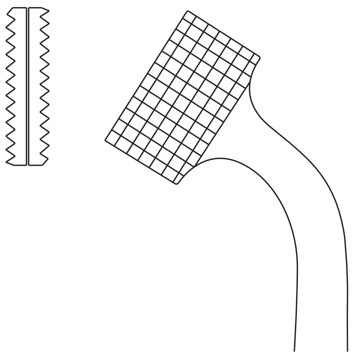
gS 40.3265 10 1/2"

Lamina Spreader
flat blades
without teeth



gS 40.3275 10 1/2"

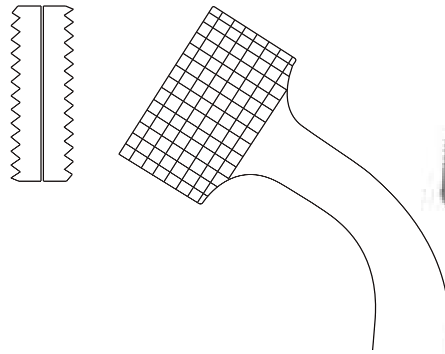
Lamina Spreader
outside cross serrated blades
20mm width x 15mm depth



Blades help to separate the femur and tibia during total knee procedures.

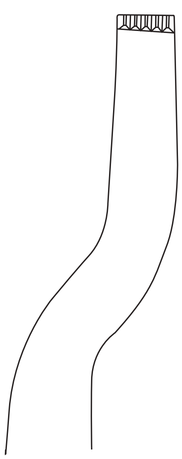
gS 40.3321 6 1/2"

Femoral Tibial Spreader
21mm width x 13mm depth
cross serrated outside blades



gS 40.3323 9 1/2"

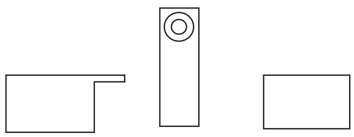
Femoral Tibial Spreader
23mm width x 13mm depth
cross serrated outside blades

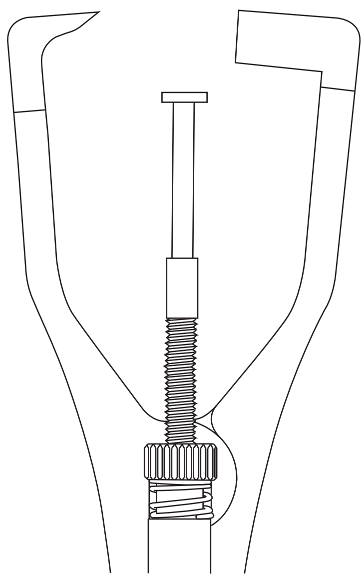


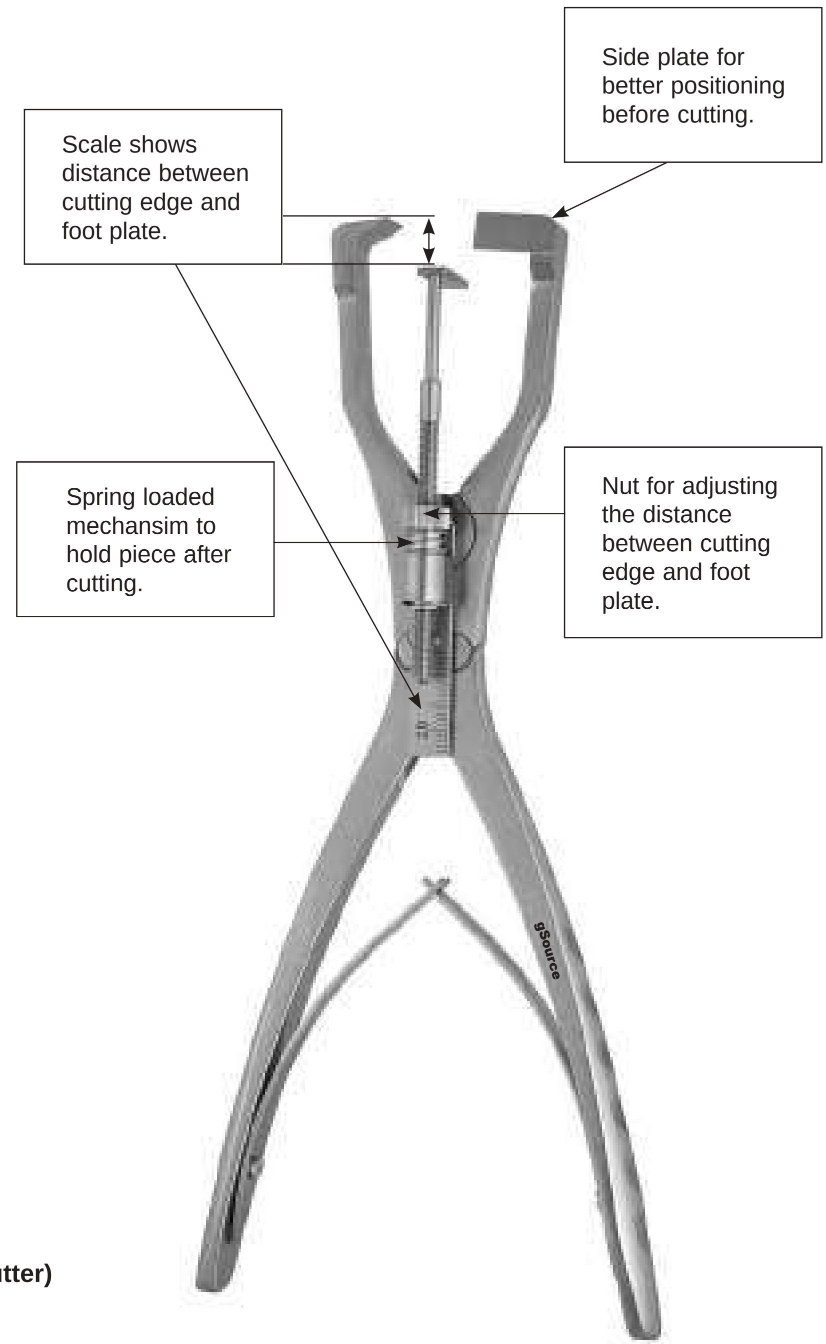
Bayoneted blades help to provide optimized visibility to surgical site.

gS 40.3500 11"

Spreader
7mm width bayoneted blades
with teeth



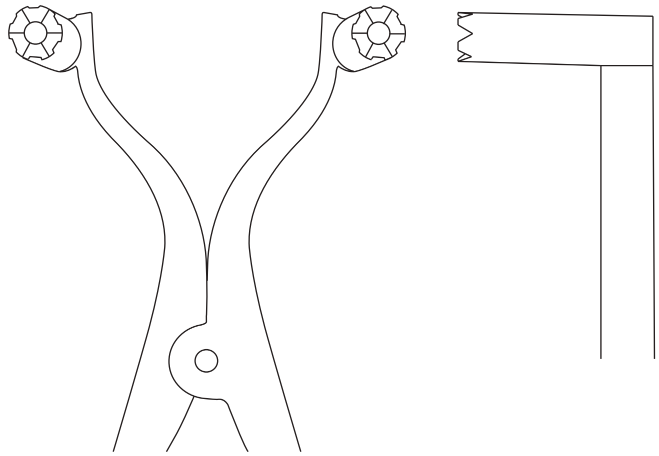




Useful for removing small pieces of bone for grafting procedures. The length of the bone piece required can be adjusted by turning the nut. To remove a bone piece, the bone must have contact with the base and side plates. By pressing the handles together, the piece of bone is separated and held by a spring mechanism in the closed base and side plates.

	width
gS 40.1027	7mm
gS 40.1029	9mm

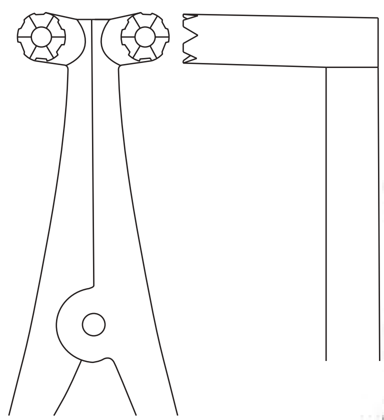
Bone Graft Harvesting Forceps (Graft Cutter)
8 1/2"
for graft from 6mm-9mm



Outspread arms are useful for small bone fixation and other indications.

gS 40.1120 6"

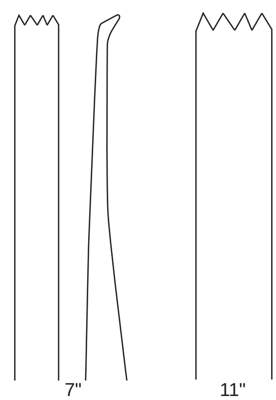
gDistractor, Open
with guides, calibrated ratchet
max cap 2.4mm [.094"]



For small bone fixation procedures.

gS 40.1100 6"

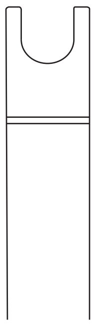
gDistractor
with guides, calibrated ratchet
max cap 2.4mm [.094"]



gS 40.3418 7"
gS 40.3428 11"

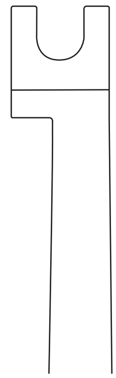
Vertebra Distractor
straight
with teeth

OD = Outside Diameter



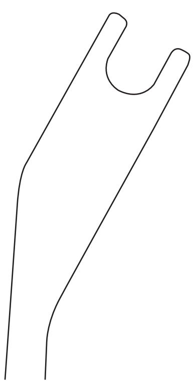
gS 40.3555 10"

gDistractor, MIS
for 5.5mm OD rods



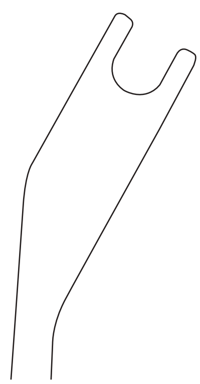
gS 40.3565 11"

gCompressor, MIS
for 5.5mm OD rods



gS 40.3655 13"

gDistractor, Parallel
for 5.5mm OD rods



gS 40.3665 13"

gCompressor, Parallel
for 5.5mm OD rods

Drill guide for parallel positioning of the distraction screws.

For right side approach.

gS 40.1010

gS 40.1016

gS 40.1010 right body 2 1/2" spread
gS 40.1012 right body 3 1/4" spread, long bar
gS 40.1016 right drill guide, plastic handle, black

Caspar Distractor Right

Drill guide for parallel positioning of the distraction screws.

For left side approach.

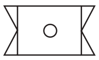
gS 40.1020

gS 40.1026

gS 40.1020 left body 2 1/2" spread
gS 40.1022 left body 3 1/4" spread, long bar
gS 40.1026 left drill guide, plastic handle, black

Caspar Distractor Left

OD = Outside Diameter
TL = Thread Length



gS 40.1030 8 1/4"

Caspar Bone Graft Holder and Impactor
phenolic handle

For pre-drilling holes for distraction screws.

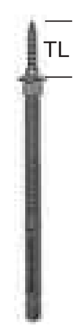
	depth
gS 40.1040	8mm
gS 40.1042	14mm

Twist Drill for Distraction Screws
5 3/4", 1.7mm OD

gS 40.1035 8"

Screwdriver for Distraction Screws
plastic handle, black

An internal fiixation device, such as the Distraction Screws shown below, must never be reused. They are intended for single use only.



	TL
gS 40.1052	12mm
gS 40.1054	14mm
gS 40.1056	16mm
gS 40.1058	18mm

Distraction Screws
1 screw per package
non-sterile

	width x depth
gS 40.7520	20mm x 36mm
gS 40.7522	20mm x 53mm
gS 40.7524	20mm x 68mm
gS 40.7526	20mm x 85mm
gS 40.7530	36mm x 36mm
gS 40.7532	36mm x 53mm
gS 40.7534	36mm x 68mm
gS 40.7536	36mm x 85mm

Kolbel Retractor Blades
blunt

gS 40.7505 5 1/2"

Kolbel Retractor
frame only
hinged

gS 40.7510 8"

Kolbel Retractor
ring handle only

gS 40.7515 8"

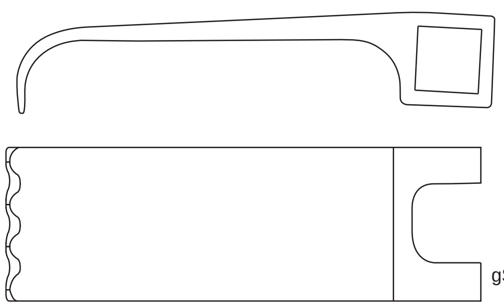
Kolbel Retractor
ring handle only
hinged

TiAIN = Titanium Aluminum Nitride

Interchangeable blades slide easily onto the hinged arms of frame allowing for quick set-up and removal. Useful in microdiscectomy or microdecompression spinal surgeries.
TiAIN coating helps to eliminate light reflections.

gS 40.2000 5 1/2", frame only, hinged

McCulloch Retractor
60mm spread
TiAIN coated, black matte finish



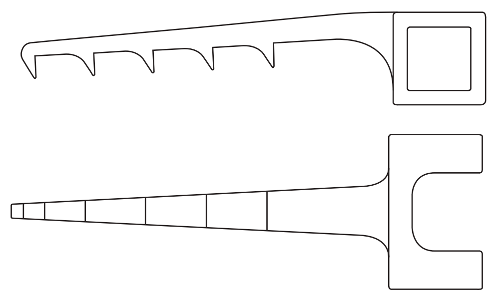
gS 40.2050

serrated narrow blade (pair) - width x depth

gS 40.2030 20mm x 30mm
gS 40.2040 20mm x 40mm
gS 40.2050 20mm x 50mm
gS 40.2060 20mm x 60mm
gS 40.2070 20mm x 70mm
gS 40.2080 20mm x 80mm

serrated wide blade (pair) - width x depth

gS 40.2130 27mm x 30mm
gS 40.2140 27mm x 40mm
gS 40.2150 27mm x 50mm
gS 40.2160 27mm x 60mm
gS 40.2170 27mm x 70mm
gS 40.2180 27mm x 80mm



gS 40.2350

hook blade (each) - depth

gS 40.2220 20mm
gS 40.2230 30mm
gS 40.2240 40mm
gS 40.2250 50mm
gS 40.2260 60mm
gS 40.2270 70mm

toothed hook blade (each) - depth

gS 40.2320 20mm
gS 40.2330 30mm
gS 40.2340 40mm
gS 40.2350 50mm
gS 40.2360 60mm
gS 40.2370 70mm

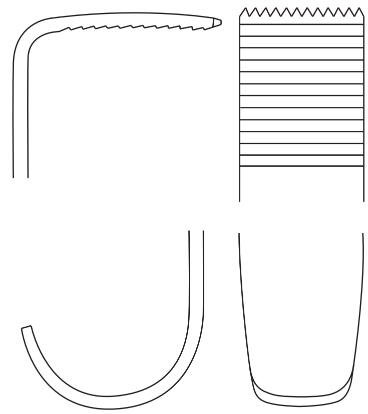
McCulloch Retractor Blades
TiAIN coated, black matte finish

Highly versatile retractor with interchangeable center and side blades. Center blade is attached to the retractor with the wing nut and blade can be adjusted as needed. There is a ball-snap attachment for the side blades.

Useful in peripheral vascular surgery of the carotid, subclavian, femoral, popliteal and tibial regions as well as in spinal surgery of the cervical and lumbar regions. Also useful in orthopedic surgery for hip and shoulder procedures and in general surgery for inguinal hernia, appendectomy and other minor procedures.

gS 40.6000 7"

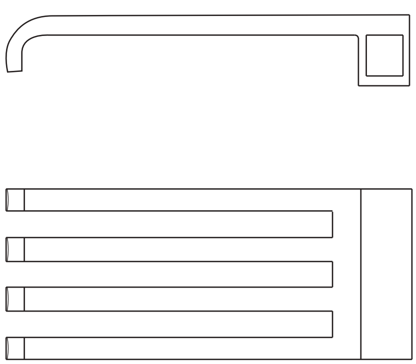
Henly Retractor
ring handle only



gS 40.6002

	width x depth
gS 40.6001	16mm x 19mm
gS 40.6002	16mm x 25mm
gS 40.6003	16mm x 32mm
gS 40.6004	16mm x 76mm

Henly Retractor
Adjustable Center Blade
with teeth, serrated

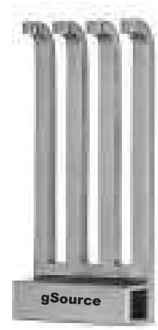


gS 40.6012

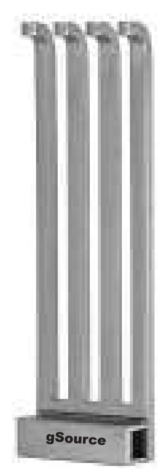
	width x depth
gS 40.6011	23mm x 17mm
gS 40.6012	23mm x 42mm
gS 40.6013	23mm x 67mm

Henly Retractor Blades
4 blunt prongs
set of 2

17mm



42mm



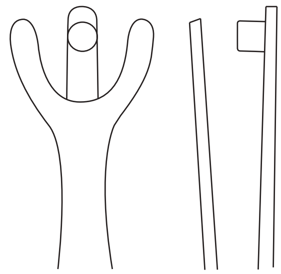
67mm

Highly versatile retractor. Double hinged arms fold along patient's back helping to provide unhindered access to surgical site. Interchangeable blades easily connect into openings on hinged arms of frame.

For blades gS 40.7644 through gS 40.7678.

gS 40.7690 8 3/4"

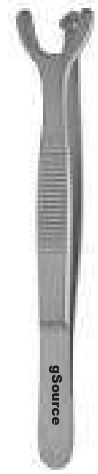
Double Hinged Retractor
ring handle only



Useful for
blade removal.

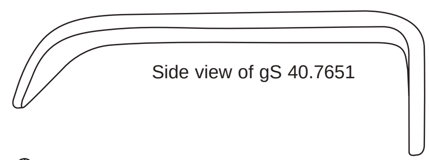
gS 40.7625 4 1/2"

Retractor Blade Ejector Forceps

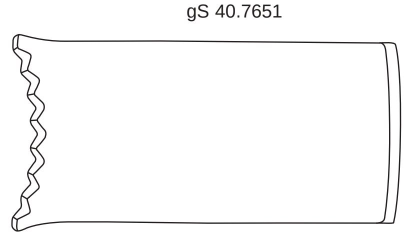


width x depth	blunt	serrated	5 prong
24mm x 25mm	**gS 40.7644**	**gS 40.7657**	**gS 40.7678**
24mm x 30mm	**gS 40.7647**	**gS 40.7658**	**gS 40.7668**
24mm x 35mm	**gS 40.7648**	**gS 40.7659**	**gS 40.7669**
24mm x 40mm	**gS 40.7649**	**gS 40.7660**	**gS 40.7670**
24mm x 45mm	**gS 40.7650**	**gS 40.7661**	**gS 40.7671**
24mm x 50mm	**gS 40.7651**	**gS 40.7662**	**gS 40.7672**
24mm x 55mm	**gS 40.7652**	**gS 40.7663**	**gS 40.7673**
24mm x 60mm	**gS 40.7653**	**gS 40.7664**	**gS 40.7674**
24mm x 65mm	**gS 40.7654**	**gS 40.7665**	**gS 40.7675**
24mm x 70mm	**gS 40.7655**	**gS 40.7666**	**gS 40.7677**
24mm x 75mm	**gS 40.7656**	**gS 40.7667**	**gS 40.7678**

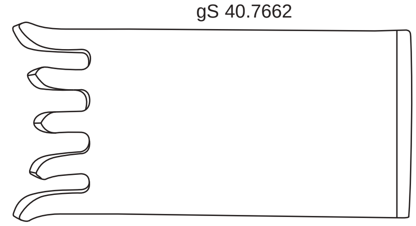
Caspar Retractor Blades



gS 40.7651



gS 40.7662



gS 40.7672

gS 40.7631 6 1/2" hinged

Caspar Retractor Handle
ring handle only

gS 40.7610 4 1/2", 4" arms with 85 mm opening

Caspar Cervical Spreader
hinged, transversal
frame only

blade	depth
gS 40.8802	25mm
gS 40.8803	30mm
gS 40.8804	5mm
gS 40.8805	40mm
gS 40.8806	45mm
gS 40.8807	50mm
gS 40.8808	55mm
gS 40.8809	60mm

gS 40.8801 6" handle only

Cervical Retractor Small
blunt blades

blade	depth
gS 40.8831	25mm
gS 40.8832	30mm
gS 40.8833	35mm
gS 40.8834	40mm
gS 40.8835	45mm
gS 40.8836	50mm
gS 40.8837	55mm
gS 40.8838	60mm

gS 40.8830 10" handle only, hinged

Cervical Retractor Large
4 sharp prongs

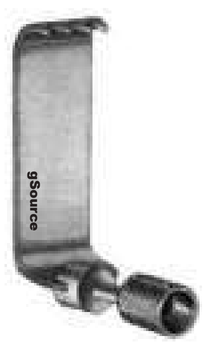
38-40/34 - self-retaining retractors

gS 40.5459

Scoville Retractor
body only
5 1/2" arms with 6 3/4" spread

gS 40.5460

Scoville-Haverfield Retractor
hinged, body only
5 3/4" arms with 7 1/4" spread



	depth
gS 40.5470	2"
gS 40.5480	3"
gS 40.5490	2" with cross pin
gS 40.5500	2 3/4" with cross pin

Scoville Hook

	width x depth
gS 40.5510	1" x 2 1/2"
gS 40.5520	2" x 2 1/2"
gS 40.5530	1 1/8" x 2 5/8"
gS 40.5540	1" x 3 1/2"

Scoville Blade
with teeth

	width x depth
gS 40.5560	1 1/2" x 1 5/8"
gS 40.5570	1 7/8" x 2 5/8"

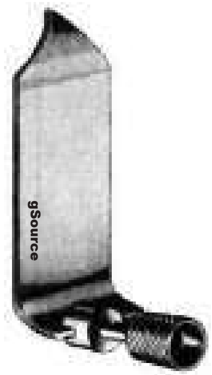
Scoville Blade
4 prongs

	width x depth
gS 40.5580	1" x 2 1/4"
gS 40.5590	1" x 3"
gS 40.5600	2" x 3 1/2"

Meyerding Blade
with fine teeth

	width x depth
gS 40.5610	1" x 2"
gS 40.5620	2" x 2"
gS 40.5630	1" x 2 1/2"
gS 40.5640	1 1/2" x 2 1/2"
gS 40.5650	1" x 3"
gS 40.5660	1 1/2" x 3"
gS 40.5670	2" x 3"
gS 40.5680	1" x 4"
gS 40.5690	2" x 4"

Hibbs Blade
with teeth



	width x depth
gS 40.5710	1 1/4" x 3"
gS 40.5720	1 1/4" x 4"

Taylor Spinal Blade

	width x depth
gS 40.5730	1 1/2" x 1 3/4"

Taylor Laminectomy Blade
3 prongs

	width x depth
gS 40.5740	2" x 1 7/8"
gS 40.5750	2 1/2" x 2 1/2"
gS 40.5760	2 1/4" x 3 1/8"

Taylor Laminectomy Blade
4 prongs

	width x depth
gS 40.8901	1 3/4" x 1 5/8" with 5 3/4" opening
gS 40.8902	2 5/8" x 1 3/4" with 7 3/4" opening
gS 40.8903	2 5/8" x 2 3/4" with 8 1/2" opening

Finochietto Rib Spreader
stainless steel

gS 40.9002

Finochietto Rib Spreader
small, aluminum, with 7" opening
1 1/8" width x 1 3/4" depth blades

gS 40.9004

Finochietto Rib Spreader
medium, aluminum, with 7" opening
1 5/8" width x 2 3/8" depth blades

gS 40.9030

Finochietto Rib Spreader
infant, with 3" opening
13/16" width x 3/4" depth blades

gS 40.9020

Tuffier Rib Spreader
6 1/2" opening
2" width x 1 3/4" depth blades

did you know… ?

Anterolateral thoracotomy is a surgical technique in which entry to the chest is made with an incision below the breast but above the costal margins (lower edge of the chest (thorax) formed by the bottom edge of the rib cage). The incision involves the pectoralis, serratus anterior, and intercostal muscles. Left anterolateral thoracotomy is common for open chest massage, a critical maneuver in the management of traumatic cardiac arrest. Anterolateral thoracotomy requires the use of a retractor similar to a rib spreader, such as the Tuffier Rib Spreader shown on this page.

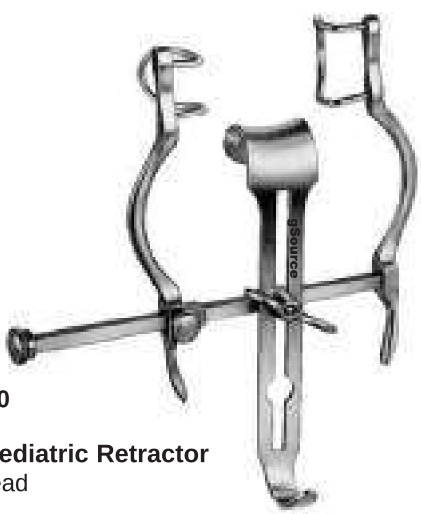
Theodore Tuffier was a French surgeon born in 1857, whose contributions were in the field of intratracheal anesthesia, pulmonary resection and experimental cardiac surgery. He performed the first partial lung resection in 1891.

gS 40.9320

Favaloro-Morse Spreader
8" opening
1 1/2" width x 1 1/8" depth blades

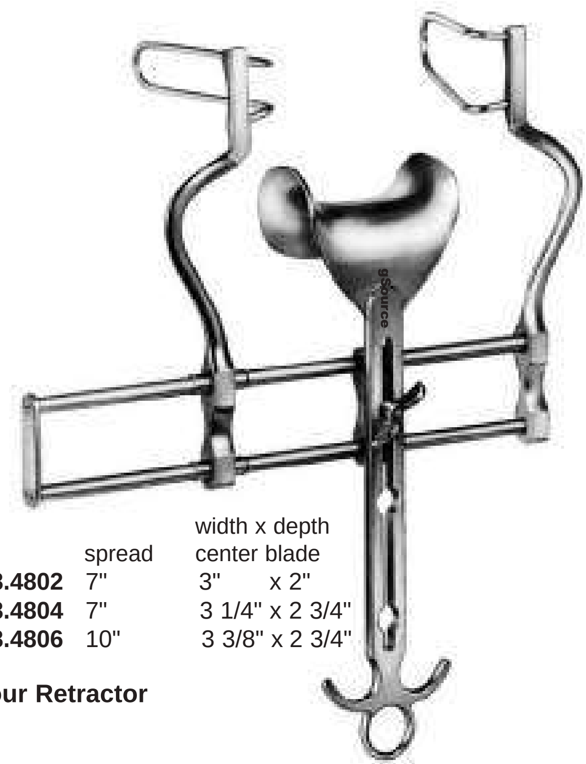
gS 40.9100 8"

Bailey Rib Contractor
4 1/2" opening



gS 38.4800

Balfour Pediatric Retractor
3 1/2" spread



	spread	width x depth center blade
gS 38.4802	7"	3" x 2"
gS 38.4804	7"	3 1/4" x 2 3/4"
gS 38.4806	10"	3 3/8" x 2 3/4"

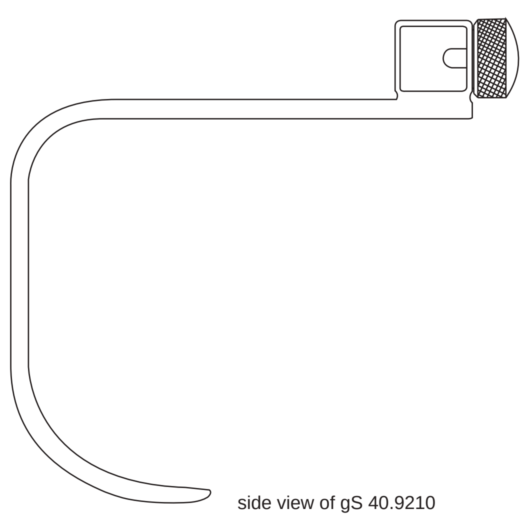
Balfour Retractor

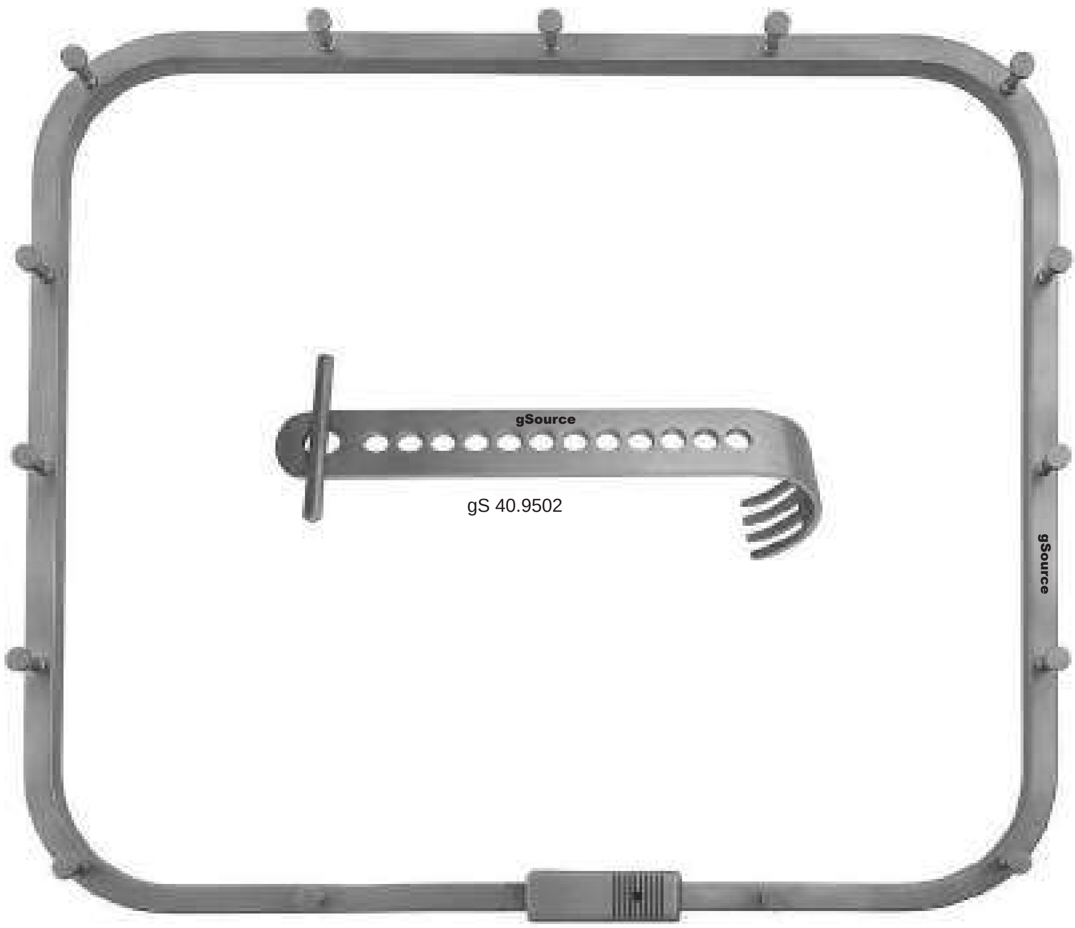
short blade	width x depth	shape
gS 40.9202	25mm x 25mm	curved round
gS 40.9210	25mm x 51mm	curved flat
gS 40.9214	25mm x 64mm	curved flat
gS 40.9215	25mm x 76mm	curved flat
gS 40.9218	25mm x 114mm	curved flat

long blade		
gS 40.9204	25mm x 25mm	curved round
gS 40.9220	25mm x 51mm	curved flat
gS 40.9224	25mm x 64mm	curved flat
gS 40.9225	25mm x 76mm	curved flat
gS 40.9228	25mm x 114mm	curved flat

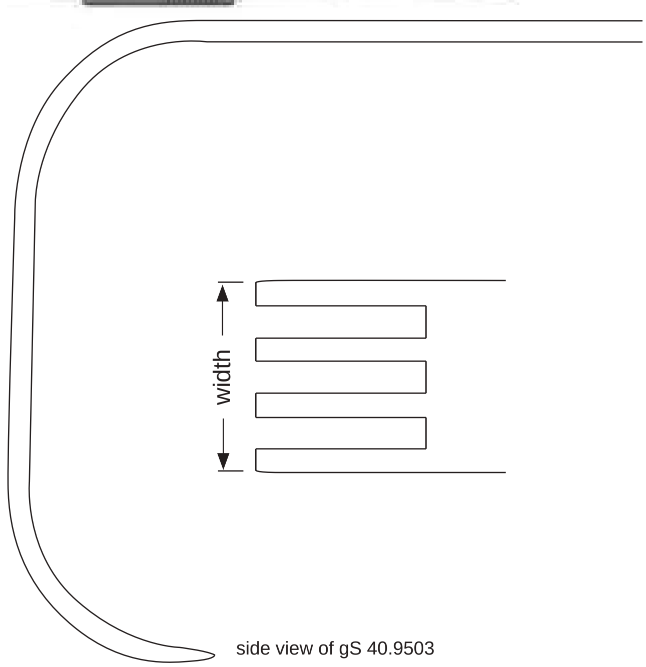
gS 40.9280 frame only 12" x 9 1/2"
gS 40.9282 weight only with chain – 4 lbs.

Initial Incision Retractor
(Charnley)


side view of gS 40.9210



gS 40.9510



side view of gS 40.9503

Multiple holding posts on frame allow for better positioning and the ability to use numerous blades at the same time. Provides excellent exposure during hip arthroplasty and hip fracture surgery. Blades have T-handles to help prevent hand slippage. Blade handle length is 6".

T-handle blade	width x depth
gS 40.9502	1" x 2"
gS 40.9503	1" x 3"
gS 40.9504	1" x 4"
gS 40.9505	1" x 5"
gS 40.9506	1" x 6"

gS 40.9510 square frame only 12 3/4" x 11 1/4"

Hip Retractor

did you know... ?

Donald Church Balfour was born in 1882 in Toronto, Canada and obtained the degree of bachelor of medicine in 1906 from the University of Toronto. During his internship at the Hamilton General Hospital, he became influenced by Dr. Ingersoll Olmstead, a prominent surgeon, who recommended him for an opening at the Mayo Clinic in the department of pathology in 1907. He was accepted and worked with Drs. Louis B. Wilson and William C. MacCarty in the surgical pathology department. In 1909, he became a junior surgeon and rotated between the surgical services of the Drs. Mayo (William J. and Charles). In 1910 he married Carrie Mayo, daughter of Dr. William J. Mayo. In 1912 he became head of a section of general surgery in the Mayo Clinic.

Dr. Balfour contributed much of his time to the work of the Mayo Foundation. From 1915 to 1923 he was associate professor of surgery, and from 1923 to 1947 he was professor of surgery. He was chief of the Division of Surgery of the Mayo Foundation from 1923 to 1935, and became director of the Mayo Foundation in 1937, serving in that capacity until his retirement in 1947. He became internationally recognized for the management of difficult gastrointestinal cases and focused his research and writings of more than 225 articles on disorders of the stomach and duodenum (the beginning portion of the small intestine, starting at the lower end of the stomach and extending to the jejunum, the middle portion of the small intestine).

He also designed numerous instruments, including the Balfour Retractor shown on page 37, and equipment such as a device for holding bottles of solution, the operating table and operating room mirror. Dr. Balfour received recognition from the Mayo Clinic, as well as from numerous national and international organizations. He held honorary fellowship in the Royal College of Surgeons of England, Edinburgh, and Australasia. Dr. Balfour was one of the founders of the World Medical Organization and a charter member of the World Health Organization and of the Central Surgical Association. He passed away in 1963.

Enrique Finochietto was born in 1881 in Buenos Aires, Argentina and entered medical school at age 16. He received his medical degree from the University of Buenos Aires in 1904. After graduation, he became an intern at the Hospital Rawson in Buenos Aires and remained a member of its staff for his entire life.

Finochietto studied nose and throat, gynecological, and orthopedic surgical practices in many western European hospitals from 1906 to 1909. Upon his return to Buenos Aires, he was appointed chief of the surgical division at the Hospital Rawson. He returned to Europe in 1918, working during World War I in the Argentine Hospital for the Wounded in Passy, located near Paris. For his dedication and work, he received the Legion of Honor and Red Cross Medal in 1919. Finochietto then traveled to the United States and visited with Harvey Cushing and the Mayo brothers. He observed surgical practices at the Mayo Clinic and other prominent hospitals before returning to Argentina.

While he acted as chief of the surgical division at the Hospital Rawson, the facility was undergoing an extensive enlargement and modernization. Finochietto planned the new surgical pavilion (Pavilion IX), where he worked alongside his brothers, Drs. Miguel Ángel and Ricardo Finochietto. Pavilion IX included numerous innovations of his design such as an outpatient department with separate dressing and examining rooms, separate sterile dressing packages, a narrower stretcher to maneuver through the halls more easily, separate departments of orthopedic surgery, endoscopy and pathology, as well as laboratories and radiology departments that were located within the hospital itself. He also eliminated the book form of medical records and instead created separate envelopes for patients.

Dr. Finochietto not only changed the way surgical pavilions were organized and operated, he also invented many surgical instruments with sixty-seven inventions to his credit. These included a motorized surgical table which allowed a patient to be moved to any position, a special orthopedic table, a bench that allowed surgeons to operate while seated, the surgical vacuum, Finochietto scissors, and the Finochietto thoracic rib spreaders as shown on pages 35-36 in this section.

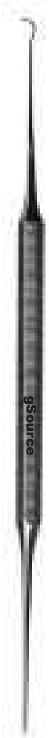
Establishing the Surgical Graduate School of Buenos Aires, he also changed how surgery was taught and performed in Argentina. Finochietto was adamant about giving students more practical experience in surgery and included instruction on proper, professional demeanor throughout a surgical procedure. He also taught as a Clinical Professor of Surgery at the University of Buenos Aires and became the president of the Buenos Aires Surgical Society in 1922. He developed new surgical techniques in 1924 for the treatment of the stomach, duodenum and small intestine. In 1929 Dr. Finochietto performed the first intervention on a cardiac lesion in Argentina, successfully repairing a bullet wound to the heart of a minor. He passed away in 1948 at the age of 66.

gS 42.5950 6" #92

Probe and Packer
double ended

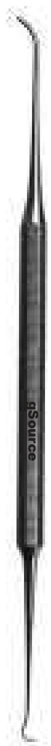
gS 42.5980 5 3/4" #91

Spatula and Packer
double ended
blunt/blunt



gS 42.6020 5 3/4" #90

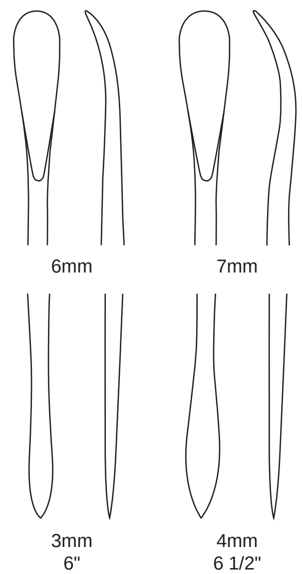
Excavator and Packer
double ended



gS 42.6180 6" #89

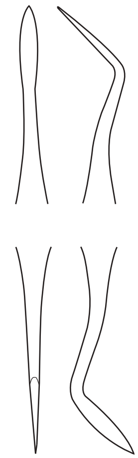
Probe and Excavator
double ended

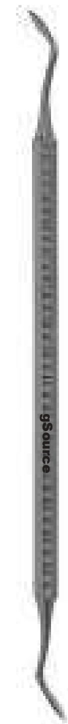
42-43/2 - elevators



gS 42.6120 6"
gS 42.6121 6 1/2" #7A

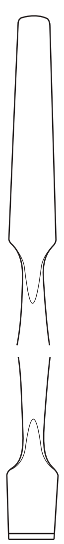
Beale Spatula and Packer
double ended, sharp/sharp





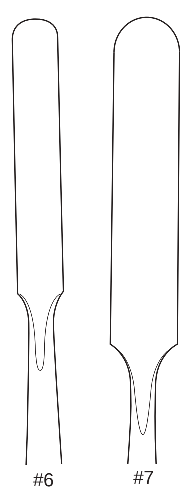
gS 42.6140 6 1/4" #3

Hollenback Elevator and Spatula
double ended, sharp/sharp



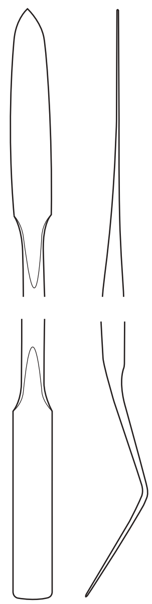
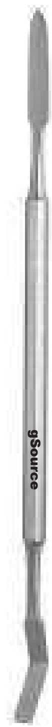
gS 42.6330 6 3/4"

Weston Spatula and Chisel
double ended, octogonal handle



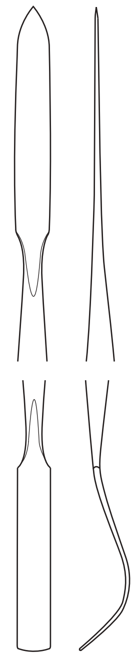
gS 42.6316 7" #6
gS 42.6317 7 1/2" #7

Spatula
octogonal handle

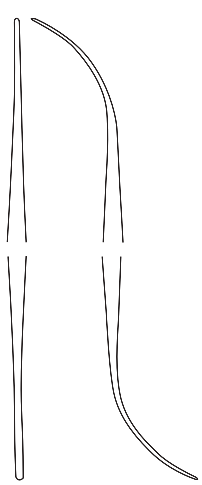
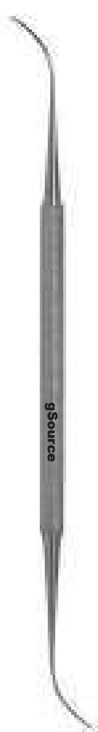
gS 42.6305 7" #5

Spatula
double ended, sharp point
bent end, octogonal handle



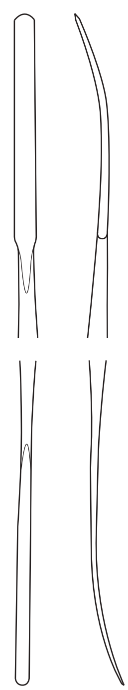

gS 42.6306 6 3/4" #6

Spatula
double ended, sharp point
curved end, octogonal handle

gS 42.6220 6 3//4"

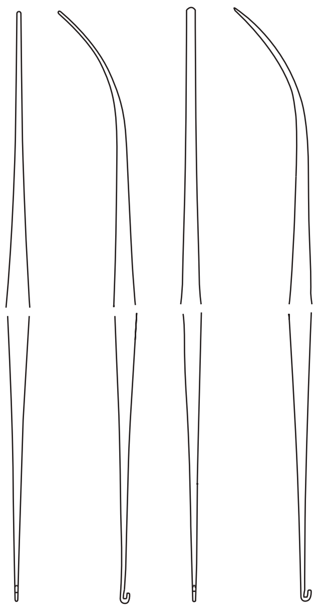
Varady Micro Spatula
double ended, sharp/sharp
0.7mm and 1.2mm




gS 42.6221 7"

Varady Dissecting Spatula
double ended, sharp/sharp
1.9mm and 2.9mm

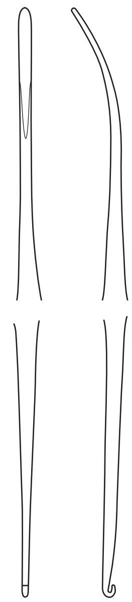
42-43/4 - elevators



gS 42.6222 gS 42.6223

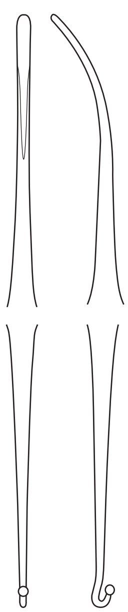
gS 42.6222 0.7mm spatula/1.3mm hook
gS 42.6223 1.1mm spatula/1.5mm hook

Varady Extractor
6 3/4"
double ended, sharp/sharp



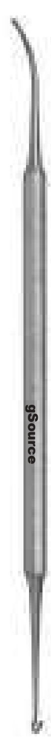
gS 42.6224 7"

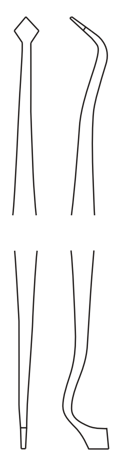
Varady Extractor
double ended, blunt/blunt
1.7mm spatula/1.8mm hook



gS 42.6225 7"

Varady Extractor
double ended, blunt/blunt
1.9mm spatula/2.8mm hook



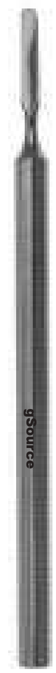


gS 42.6130 6 1/2"

Frahm Lancet
double ended
sharp/sharp

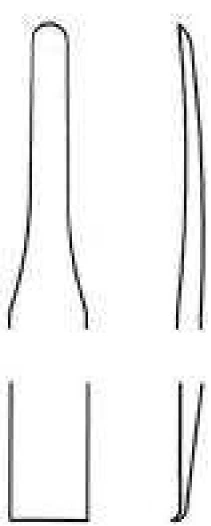
gS 42.5940 6 1/2"

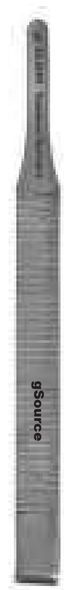
Johnson-Tucker Hook and Fork
delicate, double ended



gS 42.6790 4 1/2" narrow blade
gS 42.6900 5" wide blade

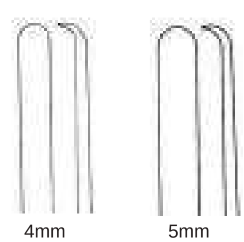
Locke Elevator
with McGlamry Bullneck
to resist bending

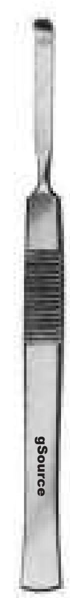




gS 43.3680 5 1/2"

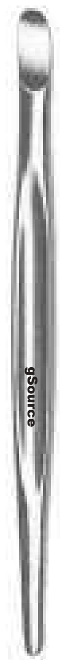
Carroll Elevator
sharp
5mm and 10mm ends





gS 43.3050 6" 4mm wide
gS 43.3052 5 1/2" 5mm wide

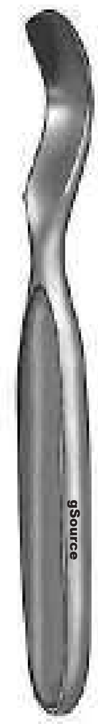
McKenty Elevator
semi-sharp



gS 42.1750 sharp/blunt
gS 42.1760 blunt/blunt

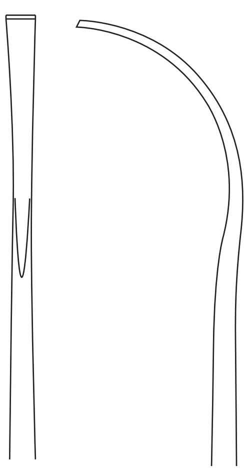
Sayre Elevator
6 1/2"
5mm and 9mm ends

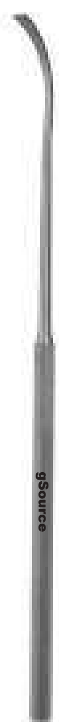
Designed to deglove a metatarsal head.



gS 42.8590 9mm
gS 42.8600 11mm
gS 42.8620 13mm
gS 42.8640 15mm
gS 42.8660 17mm

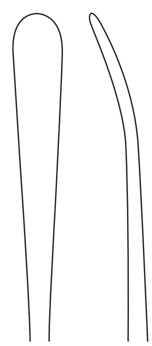
Metatarsal Elevator
(McGlamry)
6 1/2", sharp



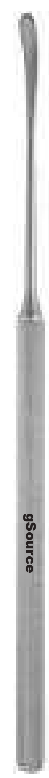


gS 43.9260 8 1/2"

gElevator, Ganz
sharp 4mm, curved
with 5" knurled handle

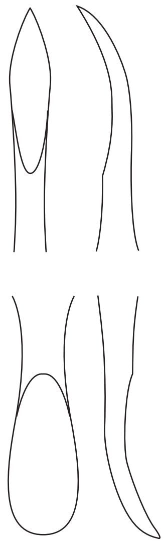


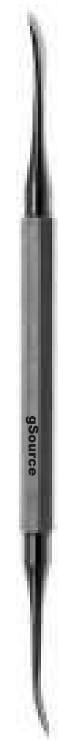
Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures.



gS 43.9286 10 1/2"

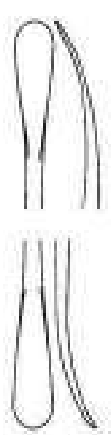
gDissector
blunt 6mm, slight curve
with 6" knurled handle

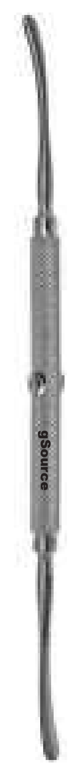




gS 43.3700 7 1/4"

Molt #9 Elevator (Dingman)
double ended
sharp/sharp 6mm and 7mm ends



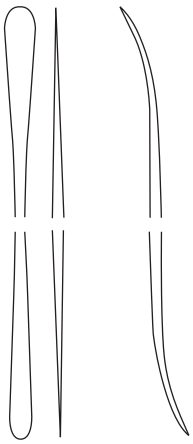


Side wings prevent rolling.

gS 42.7140 7 1/2"

Freer Elevator
double ended
sharp/blunt 5mm ends

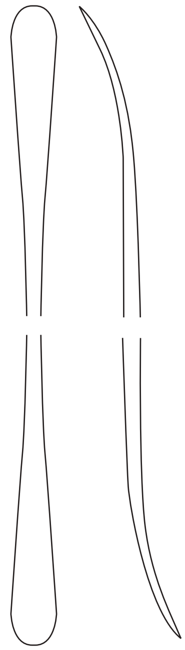
42-43/8 - elevators



str cvd

gS 42.7130 straight
gS 42.7132 curved

Presbyterian Hospital Elevator
7", double ended
semi-blunt/blunt 4mm ends



Side wings prevent rolling.

gS 42.7165 9 1/2"

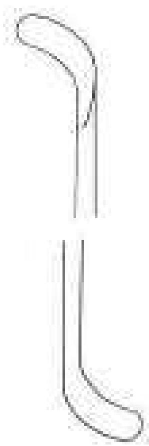
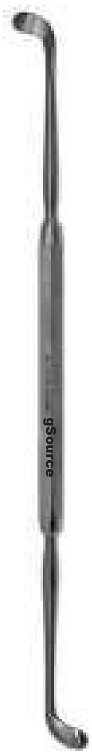
Davis Dissector (McCulloch)
double ended
sharp/blunt 6mm ends

gS 42.7143 7"

Watson-Cheyne Elevator
double ended
blunt/blunt 9mm and 10mm ends

gS 42.7145 7 1/2"

McDonald Elevator
double ended
blunt/blunt 5mm ends

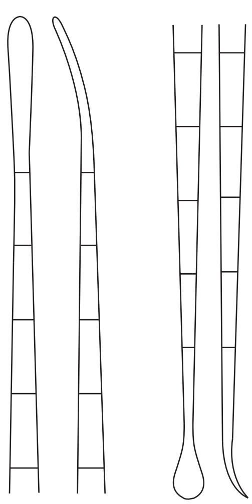



gS 43.3048 8"

Pennington Elevator
double ended, right and left
sharp/sharp 6mm ends

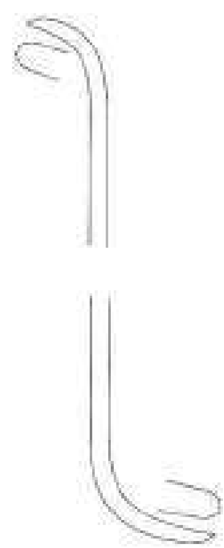
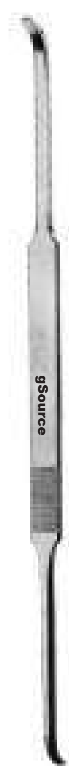

gS 43.3205 8 1/2"

Howarth Elevator
double ended, sharp/blunt
5mm and 4.5mm ends



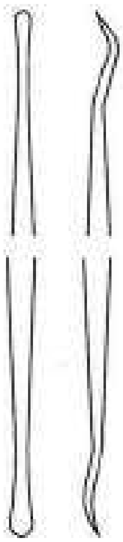

gS 42.7690 9"

Cottle Elevator
double ended, graduation lines
sharp/blunt 3mm and 4mm ends

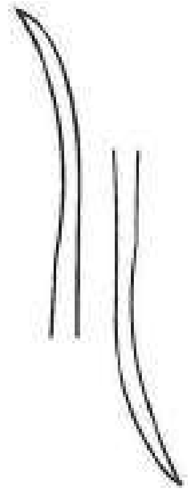
gS 42.7523 9"

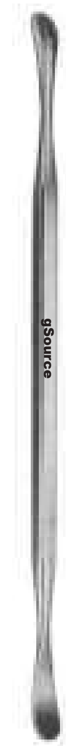
Cottle Elevator
double ended, semi-sharp
4.5mm ends



gS 42.7160 7 3/4"

Kleinert-Kutz Elevator
double ended
sharp/sharp 2mm and 3mm ends

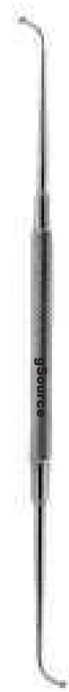




gS 43.7160 8 1/2"

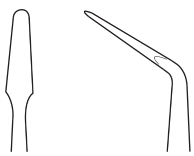
Alerdyce Elevator
double ended
semi-sharp/blunt 7mm ends

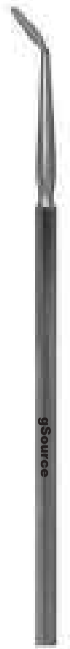
1.0/2.0mm 2.0/2.5mm



gS 42.7418 1.0mm and 2.0mm balls
gS 42.7420 2.0mm and 2.5mm balls

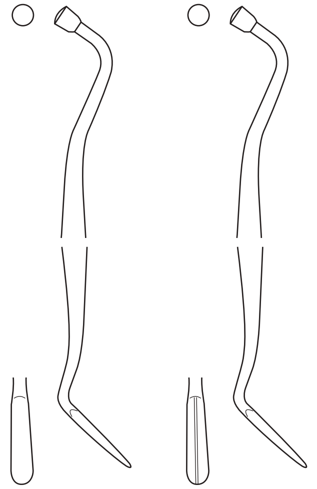
Ball End Elevator
8 1/2"
double ended ball tips





gS 42.7180 6 1/2"

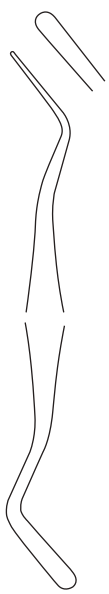
Frazier Dura Separator
blunt

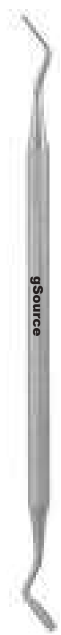


gS 42.7169 gS 42.7170

gS 42.7169 without groove
gS 42.7170 with groove

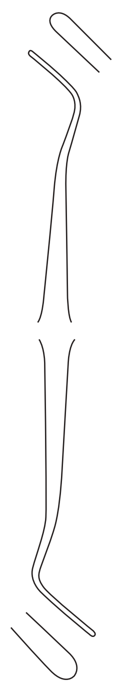
Woodson Dura Separator and Packer
7", double ended, blunt 3mm





gS 42.7171 7"

Woodson Elevator and Spatula
double ended, blunt 3mm



gS 42.7172 10"

Woodson Elevator and Spatula
double ended, blunt 3mm

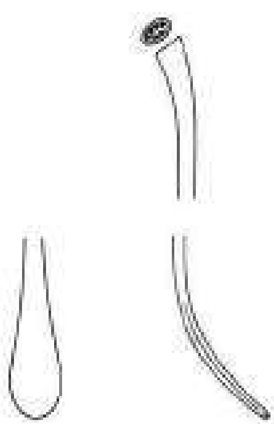
42-43/12 - elevators


gS 43.9221 7"

Penfield Elevator #1
double ended

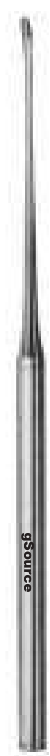

gS 43.9222 7 3/4"

Penfield Elevator #2
double ended



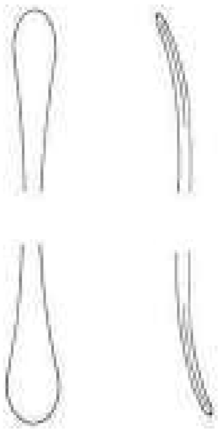

gS 43.9223 7 3/4"

Penfield Elevator #3
double ended

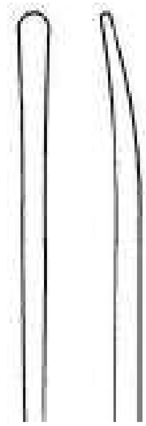
gS 43.9224 8 1/2"

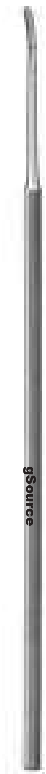
Penfield Elevator #4



gS 43.9225 11 1/2"

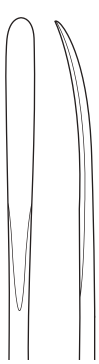
Penfield Elevator #5
double ended



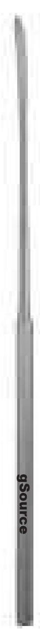


gS 43.9250 15"

Penfield Elevator
blunt 4mm

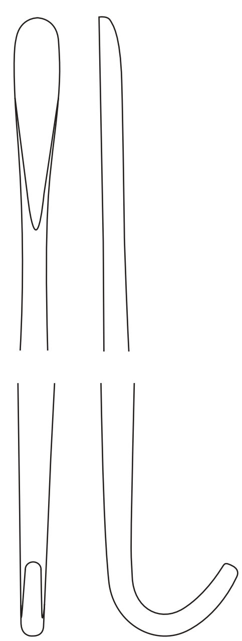


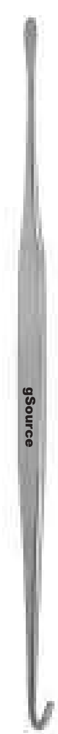
4mm



gS 42.7150 semi-blunt 4mm
gS 42.7152 blunt 6mm

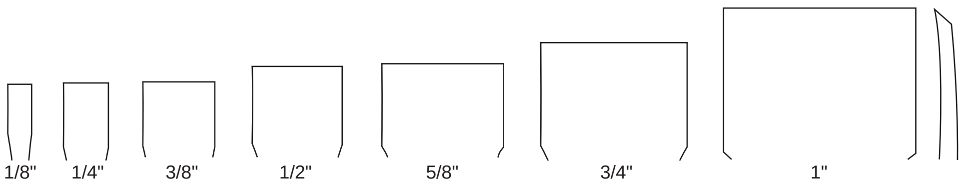
Sachs Nerve Elevator
8"

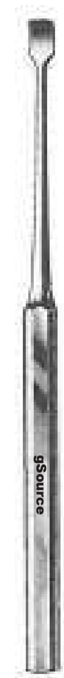




gS 42.7230 11 1/2"

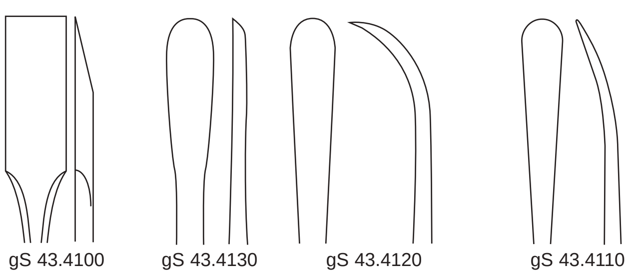
Smithwick Hook & Dissector
semi-sharp 5mm dissector
blunt 10mm hook

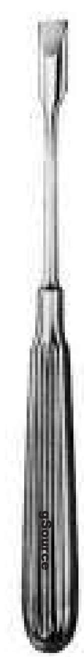




gS 43.3575	7"	1/8"
gS 43.3580	7"	1/4"
gS 43.3600	7 1/2"	3/8"
gS 43.3620	7 1/2"	1/2"
gS 43.3630	7 1/2"	5/8"
gS 43.3640	8"	3/4"
gS 43.3660	8 1/2"	1"

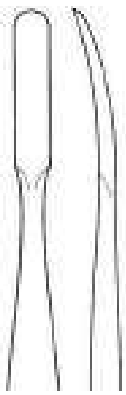
Key Elevator
sharp

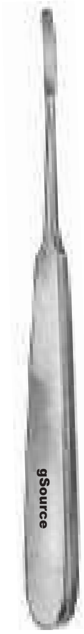




			edge
gS 43.4100	straight	8mm sharp	straight
gS 43.4130	straight	7mm semi-sharp	curved
gS 43.4120	curved	7mm semi-sharp	curved
gS 43.4110	slightly curved	7mm blunt	curved

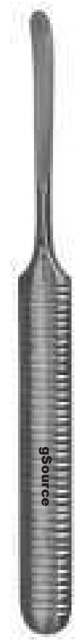
Adson Elevator
6 3/4"





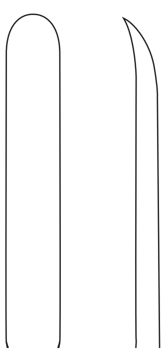
gS 42.7816 6 1/4"

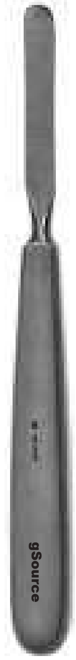
Joseph Elevator
slightly curved
sharp 4mm



gS 42.7810 6"

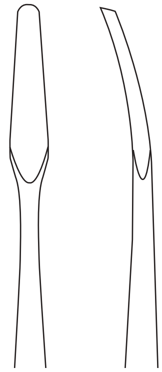
Williger Bone Elevator
slightly curved
sharp 6mm

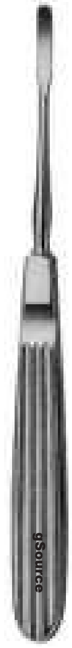




gS 43.3020 7"

Bone Raspatory
slightly curved
sharp 8mm





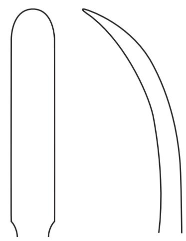
gS 43.3010 6 3/4"

Joseph Raspatory
slightly curved
sharp 3mm

42-43/16 - **elevators**

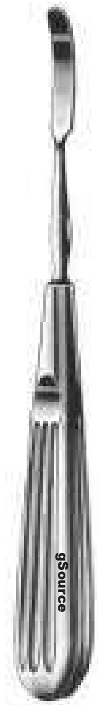
gS 42.7719 7 1/2"

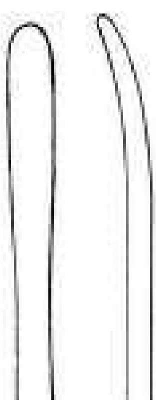
Cottle Elevator
slightly curved
semi-sharp 9mm



gS 42.7716 7 1/2"

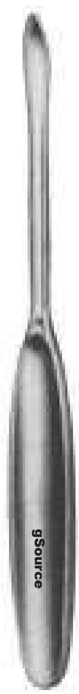
Cottle Elevator (Joseph)
curved
sharp 5.5mm

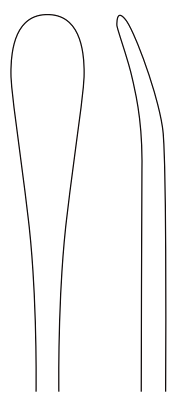




gS 43.3190 7 3/4"

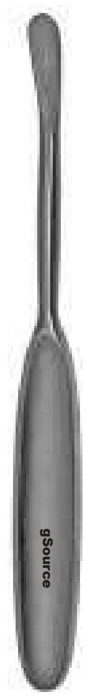
Lane Elevator
blunt
6mm

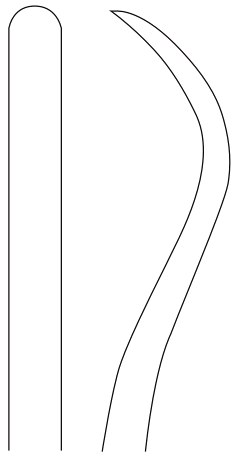




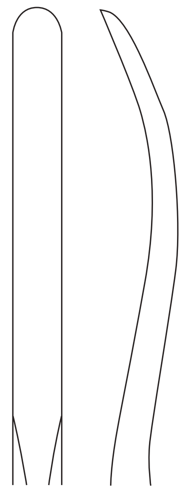
gS 43.3192 7 3/4"

Lane Elevator
blunt
10mm

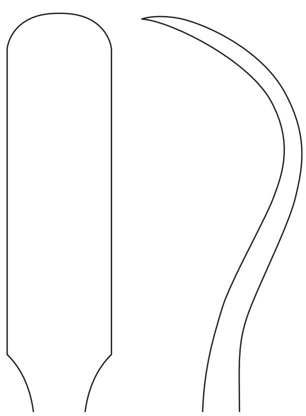




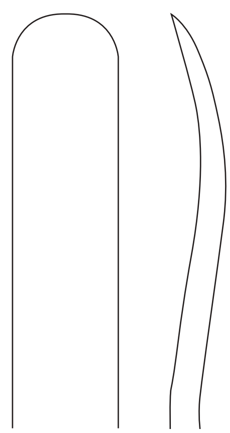
gS 43.3460



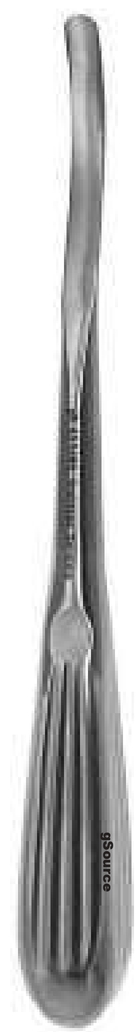
gS 43.3480



gS 43.3440

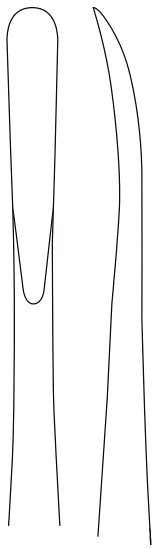


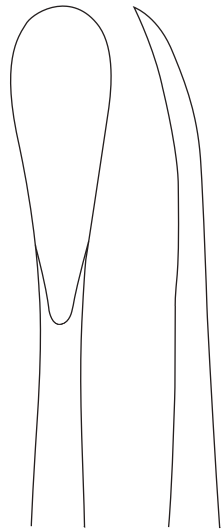
gS 43.3450

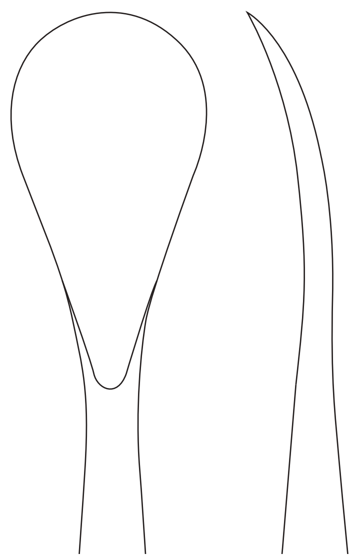


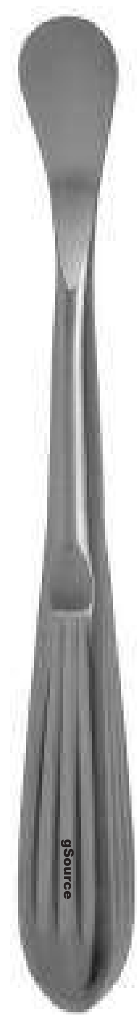
			curve
gS 43.3460	7 3/4"	7mm	full
gS 43.3480	8"	7mm	slight
gS 43.3440	7 1/2"	14mm	full
gS 43.3450	7 1/2"	14mm	slight

Crego Elevator
sharp



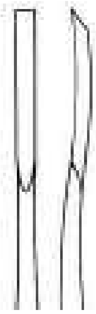
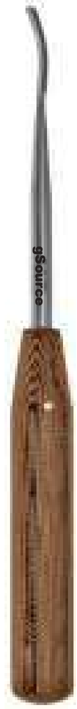






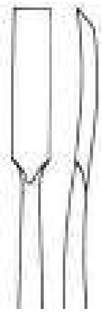
gS 43.2410 1/4"
gS 43.2420 1/2"
gS 43.2430 3/4"
gS 43.2440 1"

Periosteal Elevator
7 1/4", curved sharp blade
curved edge, hollow handle

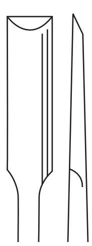
gS 43.3060 7 1/4"

Periosteal Elevator
curved sharp 3mm
straight edge, phenolic handle



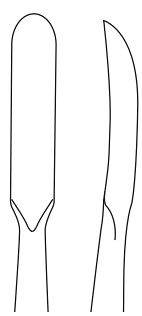

gS 43.3070 7 1/4"

Periosteal Elevator
curved sharp 6mm
straight edge, phenolic handle



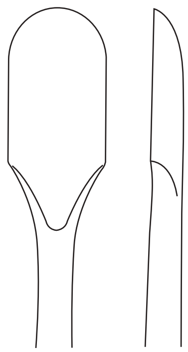

gS 43.3110 7 1/4"

Periosteal Elevator
straight sharp 6mm
straight edge, phenolic handle



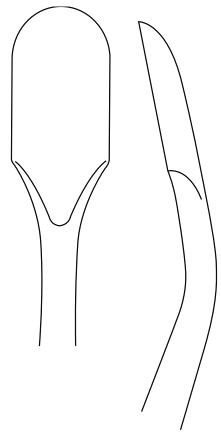

gS 43.3120 7 1/4"

Periosteal Elevator
curved sharp 6mm
curved edge, phenolic handle



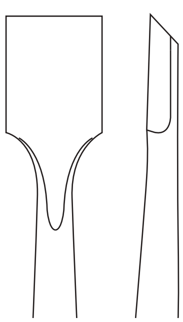
gS 43.3130 7 3/4"

Periosteal Elevator
straight sharp 14mm
curved edge, phenolic handle



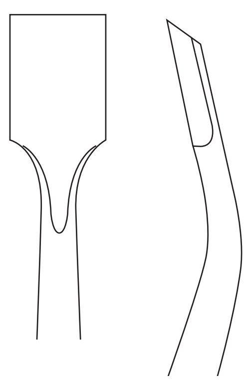
gS 43.3140 7 1/4"

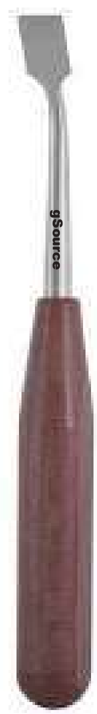
Periosteal Elevator
angled sharp 14mm
curved edge, phenolic handle



gS 43.3150 7 1/4"

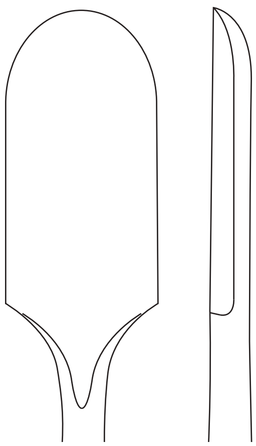
Periosteal Elevator
straight sharp 13mm
straight edge, phenolic handle

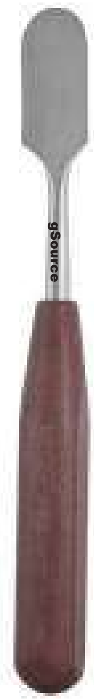




gS 43.3160 7 3/4"

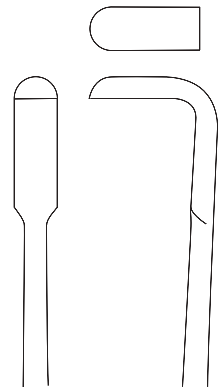
Periosteal Elevator
angled sharp 13mm
straight edge, phenolic handle





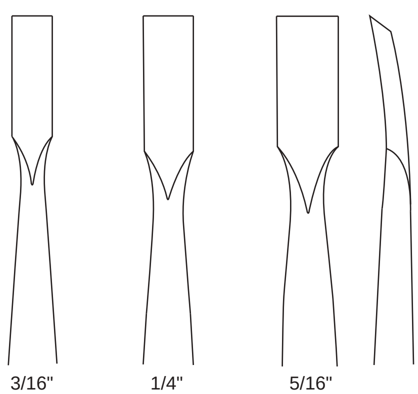
gS 43.3170 7 1/4"

Periosteal Elevator
straight sharp 20mm
curved edge, phenolic handle



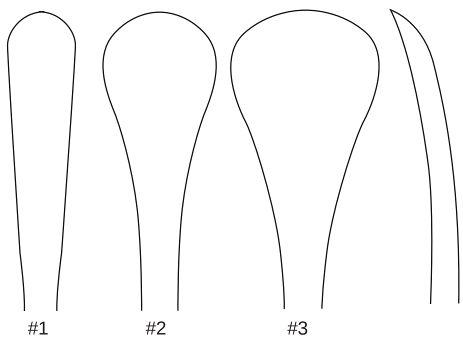
gS 43.2306 7"

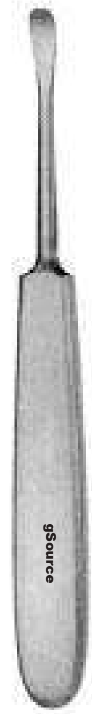
Periosteal Elevator
90° sharp 6mm
curved edge, plastic handle, black



gS 43.3185 3/16" [5.0mm]
gS 43.3186 1/4" [6.4mm]
gS 43.3188 5/16" [8.0mm]

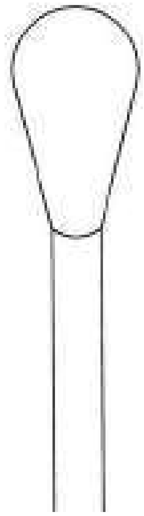
Periosteal Elevator
8", curved sharp
straight edge





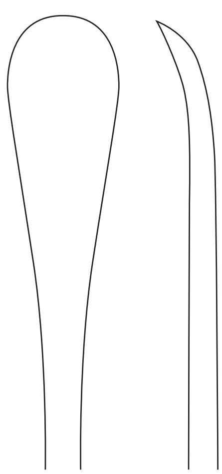
	#	
gS 43.4160	1	9mm
gS 43.4162	2	15mm
gS 43.4164	3	20mm

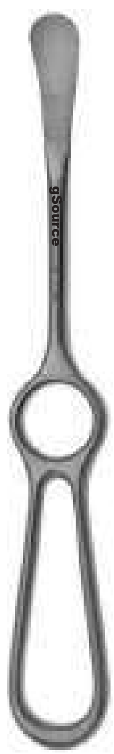
Hoen Elevator
7 1/2"
sharp



gS 43.1850 7 1/2"

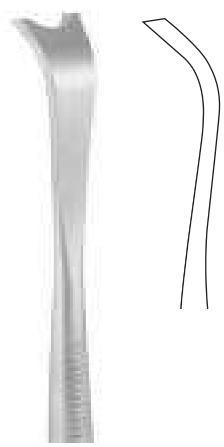
Sedillot Elevator
sharp 18mm





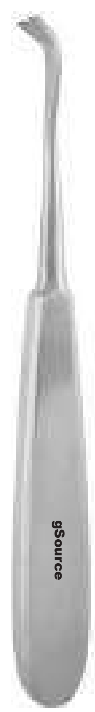
gS 43.1852 8"

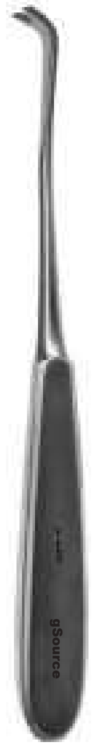
Sedillot Elevator
sharp 16mm
ring handle



gS 43.2281 7 1/2"

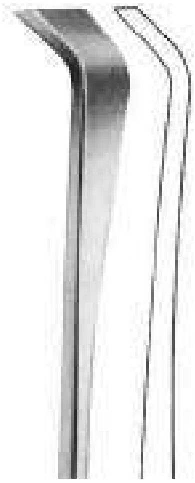
Semb Periosteal
Elevator #1

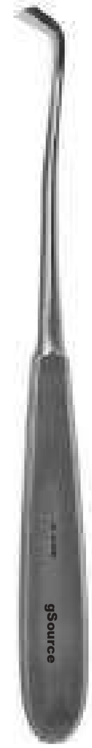




gS 43.2282 9"

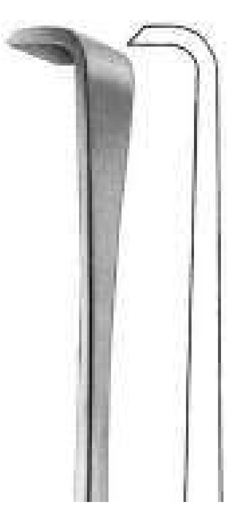
Semb Periosteal Elevator #2
12mm

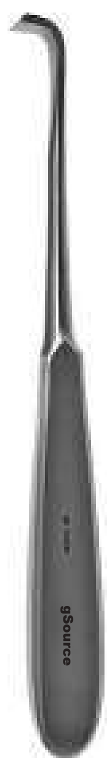




gS 43.2283 9"

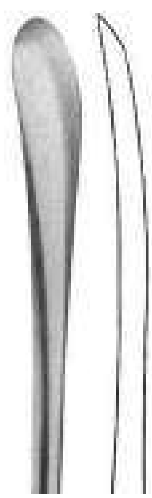
Semb Periosteal Elevator #3
13mm

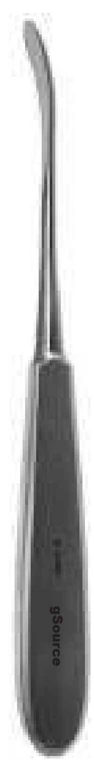




gS 43.2284 9"

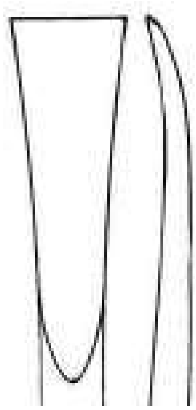
Semb Periosteal Elevator #4
90° 13mm

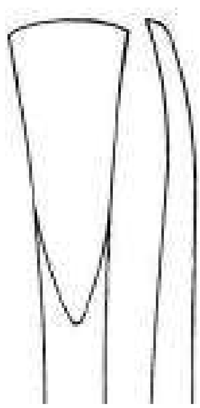


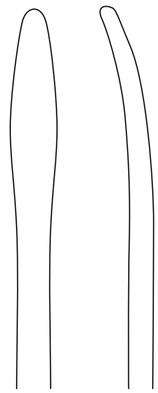


gS 43.2287 9"

Semb Periosteal Elevator #5
15mm

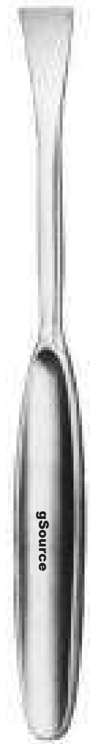

gS 43.4210


gS 43.4220

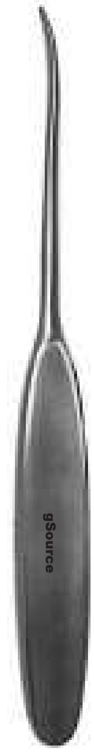

gS 43.4212

gS 43.4210 15mm sharp straight edge
gS 43.4220 15mm sharp curved edge
gS 43.4212 6mm blunt

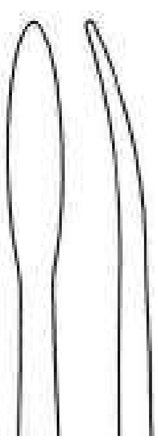
Cushing Elevator
7 1/2"

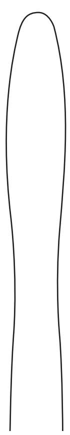


gS 43.4210

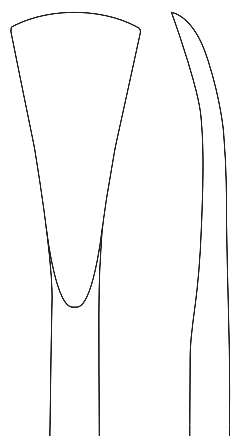


gS 43.4212


6mm

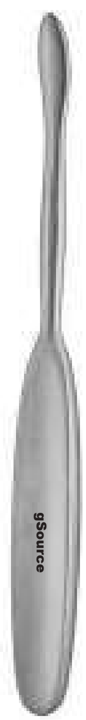

8mm


10 mm

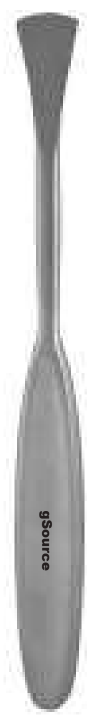

17mm

gS 43.3220 6mm blunt
gS 43.3222 8mm blunt
gS 43.3224 10mm blunt
gS 43.3240 17mm sharp

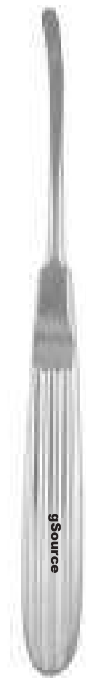
Langenbeck Elevator
7 3/4"



gS 43.3224

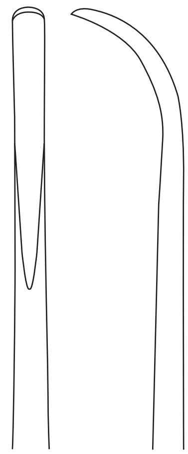


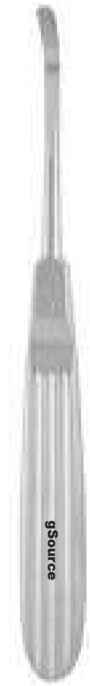
gS 43.3240



gS 43.1942 6 3/4"

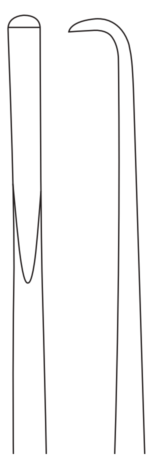
Muehling Raspatory
sharp 4mm slightly curved

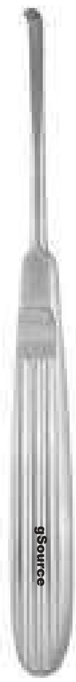




gS 43.1943 6 3/4"

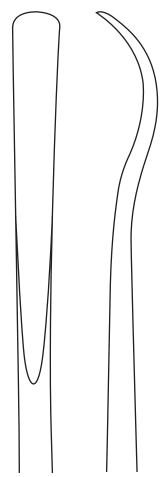
Muehling Raspatory
sharp 4mm curved

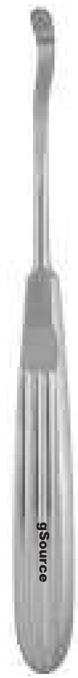




gS 43.1944 6 3/4"

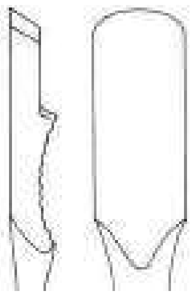
Muehling Raspatory
sharp 4mm 90°

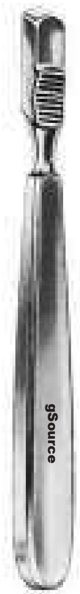




gS 43.1965 6 3/4"

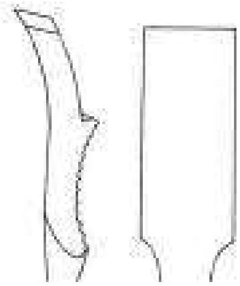
Muehling Raspatory
sharp 6mm
full curve

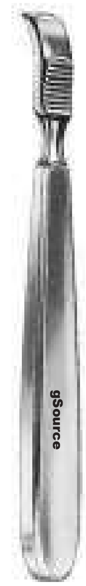




gS 43.2060 6"

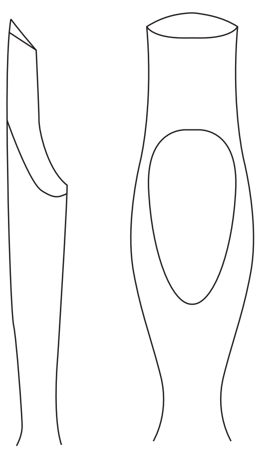
Farabeuf Raspatory
sharp 13mm
straight, convex edge

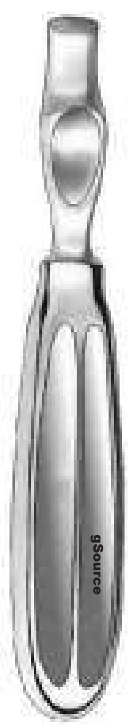




gS 43.2080 6"

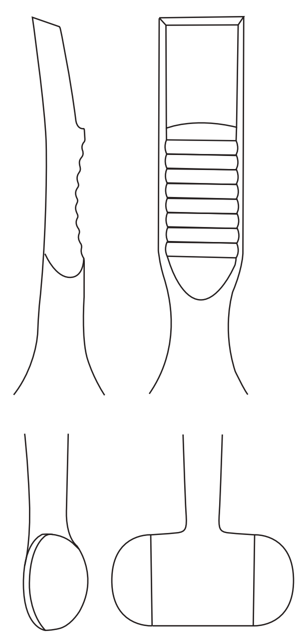
Farabeuf Raspatory
sharp 13mm
curved, straight edge

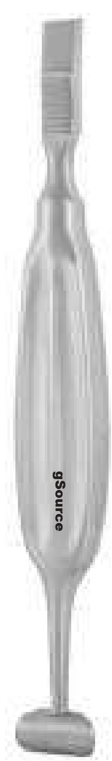




gS 43.2120 6 3/4"

Kirmission Raspatory
sharp



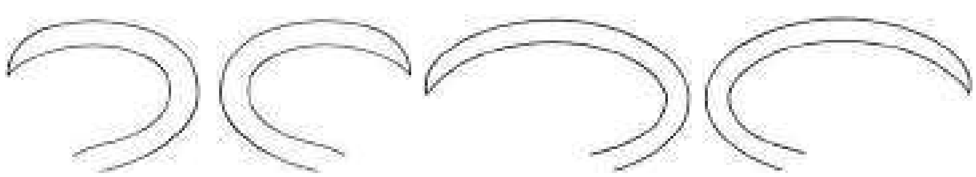


gS 43.2100 8"

Alexander Farabeuf Raspatory
sharp/sharp

did you know… ?

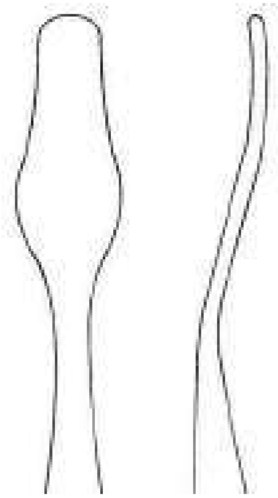
Eugène-Louis Doyen was a French surgeon born in Reims in 1859. He studied medicine in Reims and Paris and opened a private medical institute in Paris. As a skilled and innovative physician, he introduced several surgical techniques and medical instruments such as the Doyen Rib Raspatory shown on this page. He was a pioneer in the use of electrosurgery and electrocoagulation, and also marketed a yeast extract he called “mycolysine” for the treatment of infectious diseases. He had a strong interest in photography and cinematography and produced films of operations including a craniectomy, an abdominal hysterectomy and a separation of conjoined twins in the area of the xiphoid process of the sternum. Doyen also served as editor-in-chief of the Revue Critique de Mèdecine et de Chirurgie, as well as the Archives de Doyen, a medical-surgical journal of the Doyen Institute. He passed away in 1916.

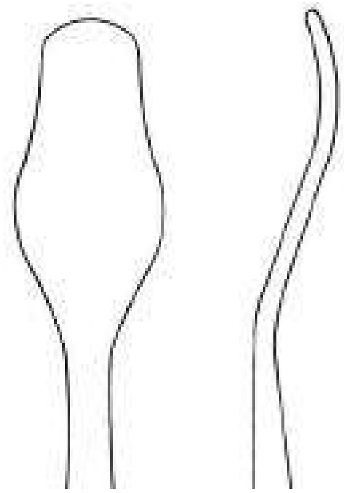


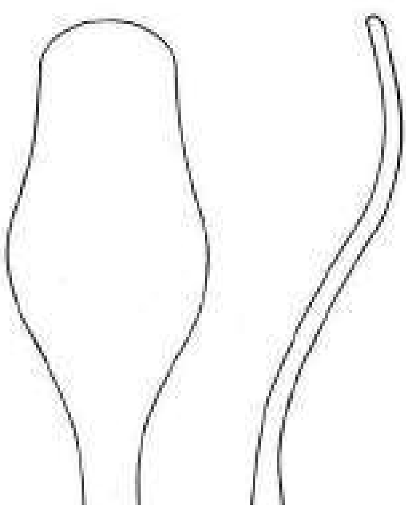
child left child right adult left adult right

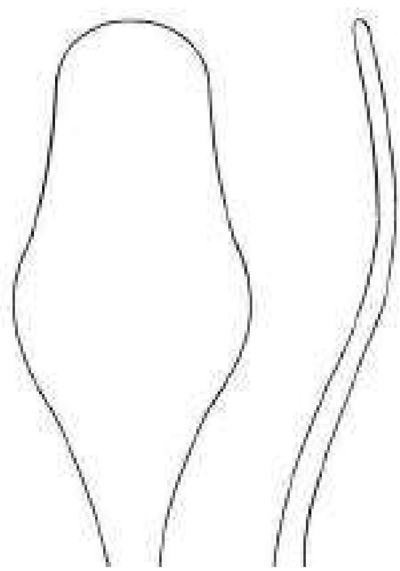
gS 43.2258 child left
gS 43.2259 child right
gS 43.2260 adult left
gS 43.2261 adult right

Doyen Rib Raspatory
7"
sharp end


13mm

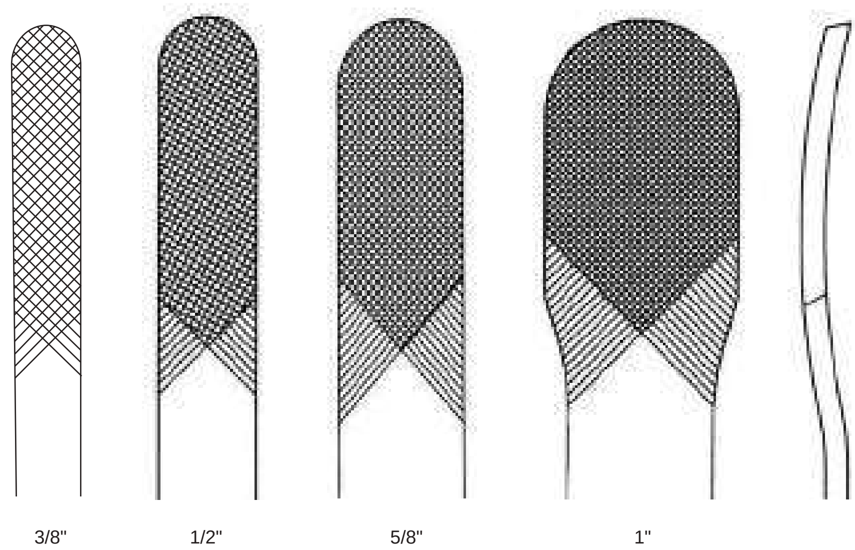

19mm

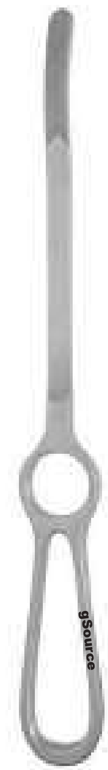

25mm


30mm

gS 43.3500	7 1/2"	13mm
gS 43.3520	8"	19mm
gS 43.3540	9"	25mm
gS 43.3560	10"	30mm

Chandler Elevator
blunt

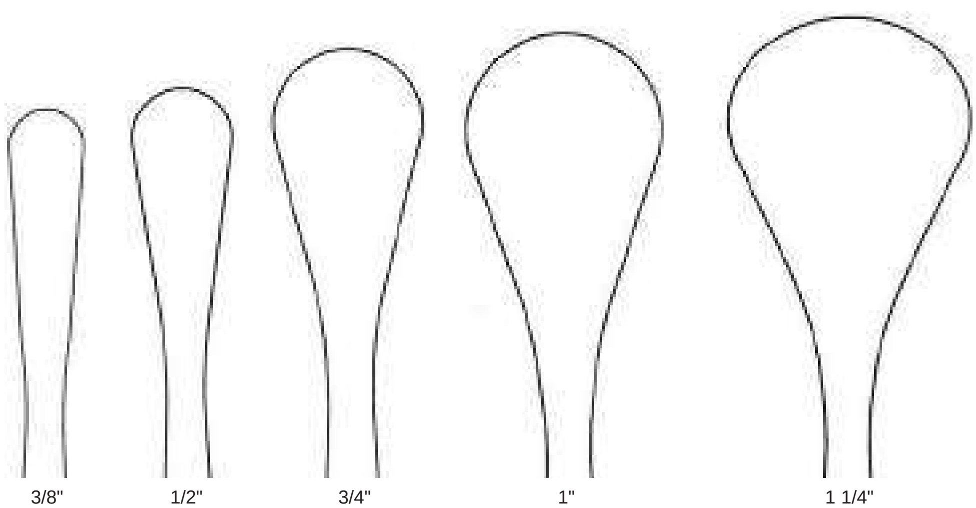


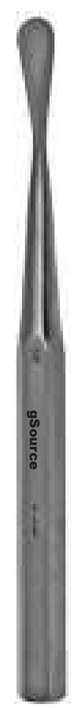


gS 43.9010 10 1/2" 3/8"
gS 43.9020 10 1/2" 1/2"
gS 43.9030 10 1/2" 5/8"
gS 43.9040 14" 1"

Useful for shoulder surgery, to elevate or retract soft tissue and muscle.

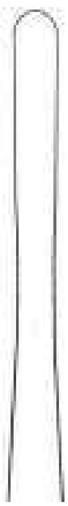
Darrach Elevator
blunt tips with serrations



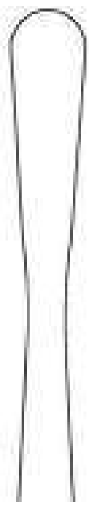


gS 43.4396 3/8"
gS 43.4400 1/2"
gS 43.4420 3/4"
gS 43.4440 1"
gS 43.4460 1 1/4"

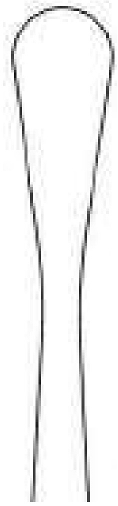
Cobb Elevator
9 1/2", sharp
with solid stainless steel hexagonal handle



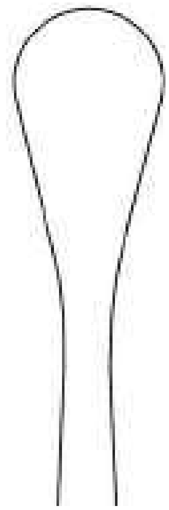
1/4"



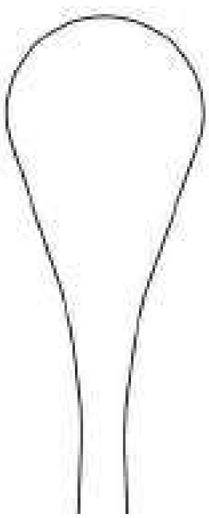
3/8"



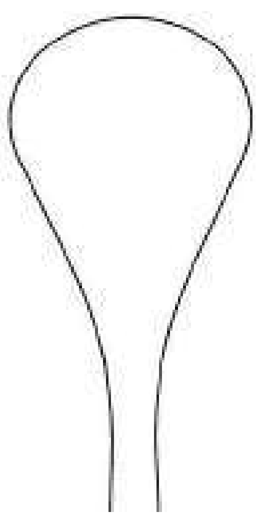
1/2"



3/4"



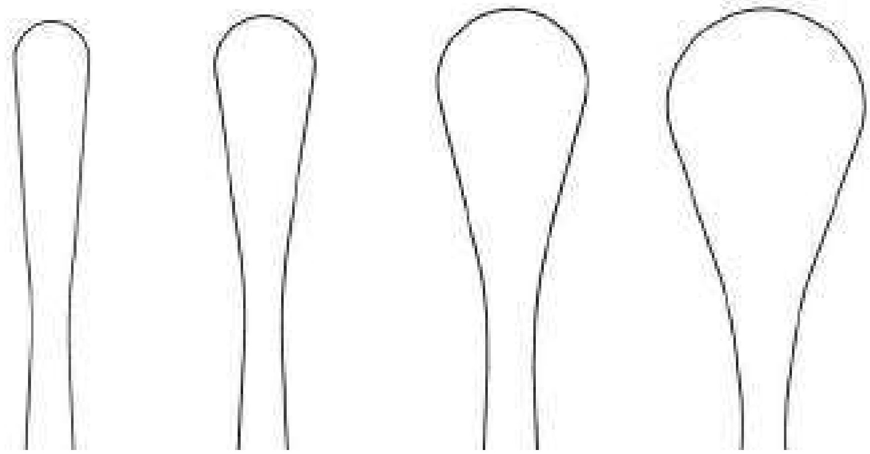
1"



1 1/4"

gS 43.5020 1/4"
gS 43.5030 3/8"
gS 43.5040 1/2"
gS 43.5060 3/4"
gS 43.5070 1"
gS 43.5080 1 1/4"

Cobb Elevator
9", sharp
with knurled aluminum handle

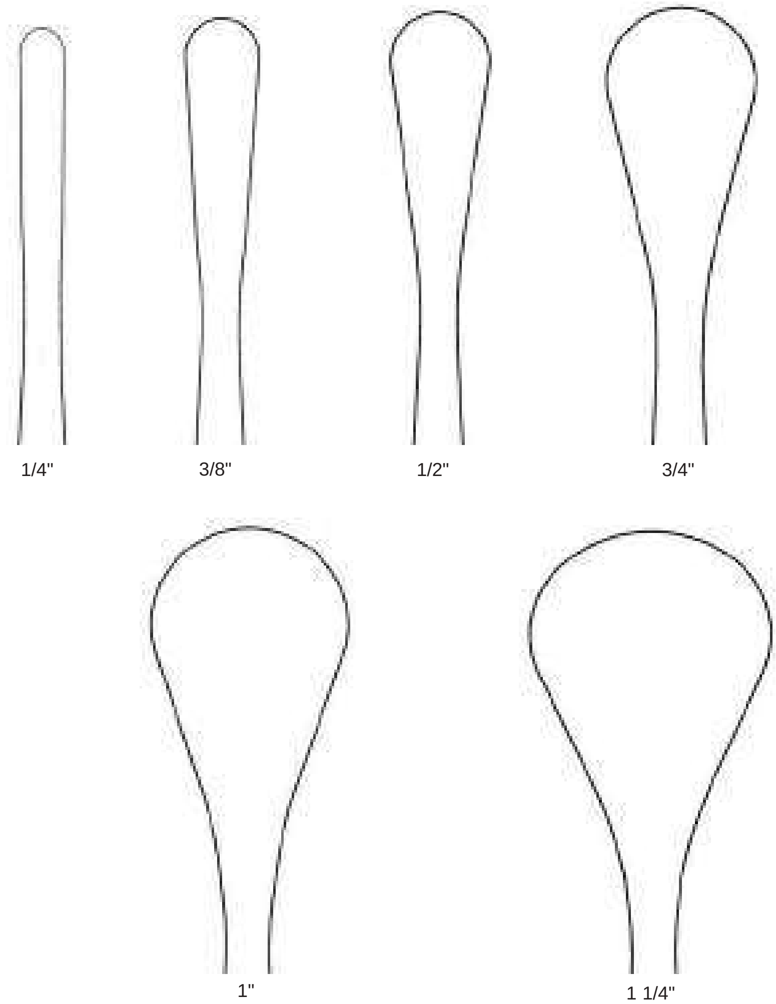


3/8"   1/2"   3/4"   1"

gS 43.5331 3/8"
gS 43.5341 1/2"
gS 43.5361 3/4"
gS 43.5381 1"

Cobb Elevator
10", sharp
with phenolic handle

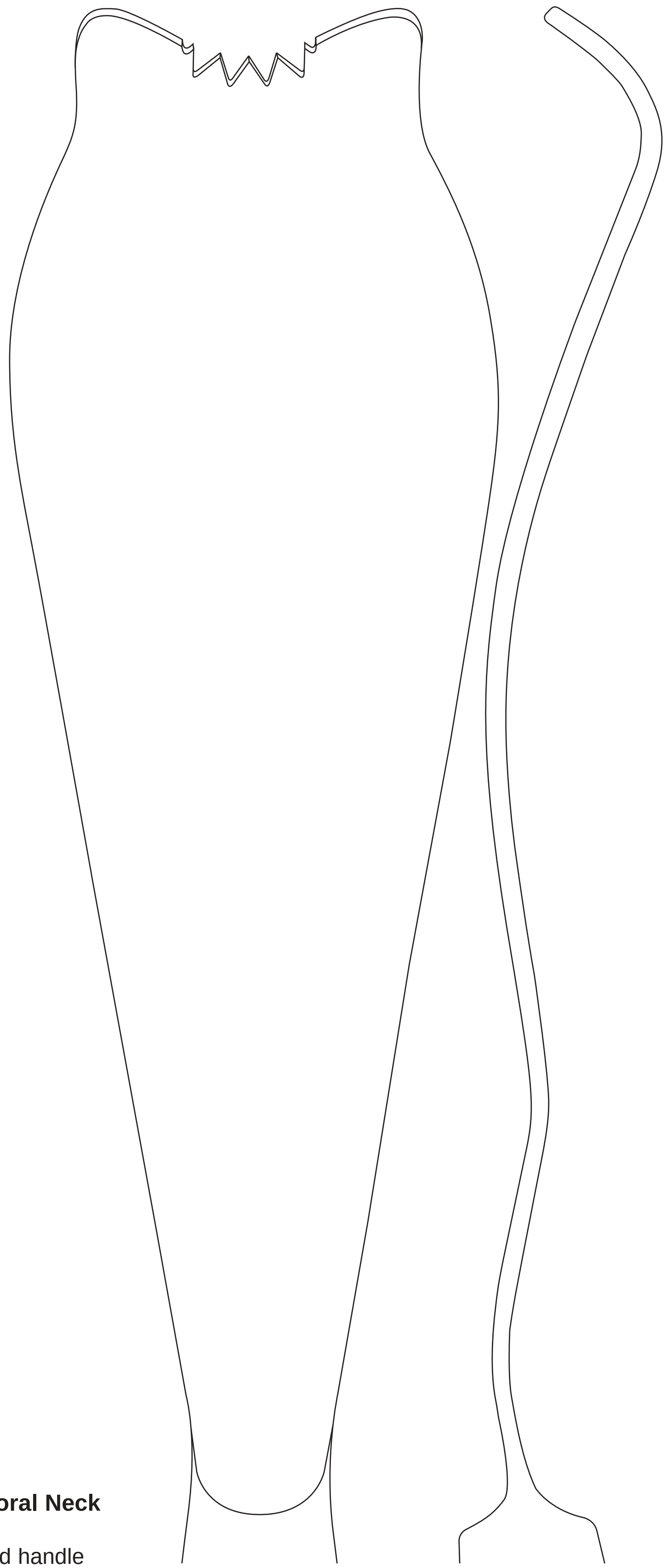
42-43/32 - elevators



	stainless steel handle
gS 43.5129	1/4"
gS 43.5131	3/8"
gS 43.5141	1/2"
gS 43.5161	3/4"
gS 43.5181	1"
gS 43.5201	1 1/4"

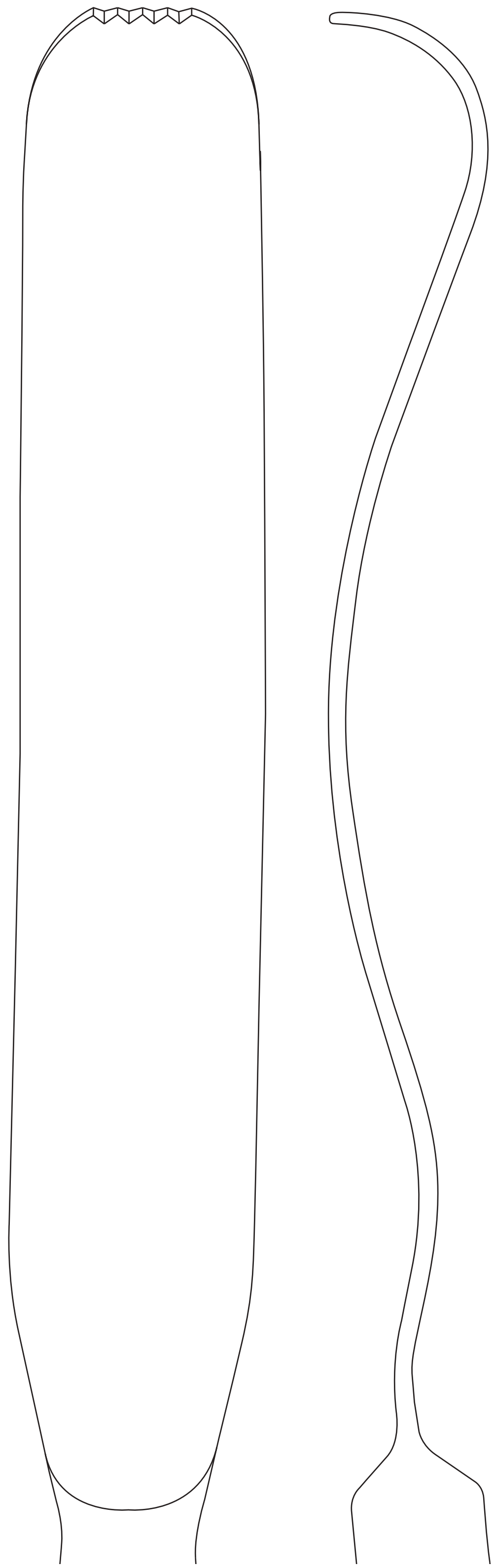
	aluminum handle
gS 43.5130	3/8"
gS 43.5140	1/2"
gS 43.5160	3/4"
gS 43.5180	1"
gS 43.5200	1 1/4"

Cobb Elevator
11", sharp
with knurled handle



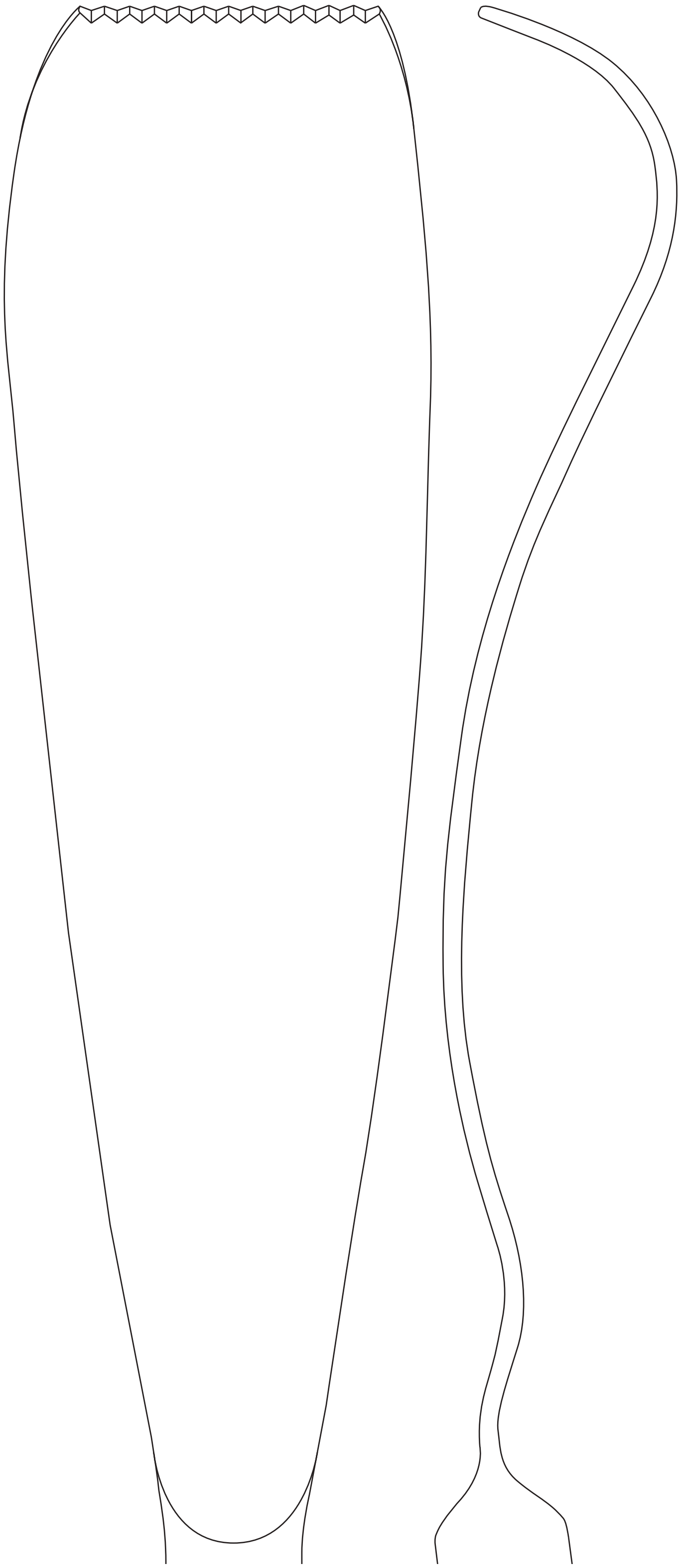
gS 43.9420 13"

gElevator, Femoral Neck
70mm
with 4 1/2" knurled handle



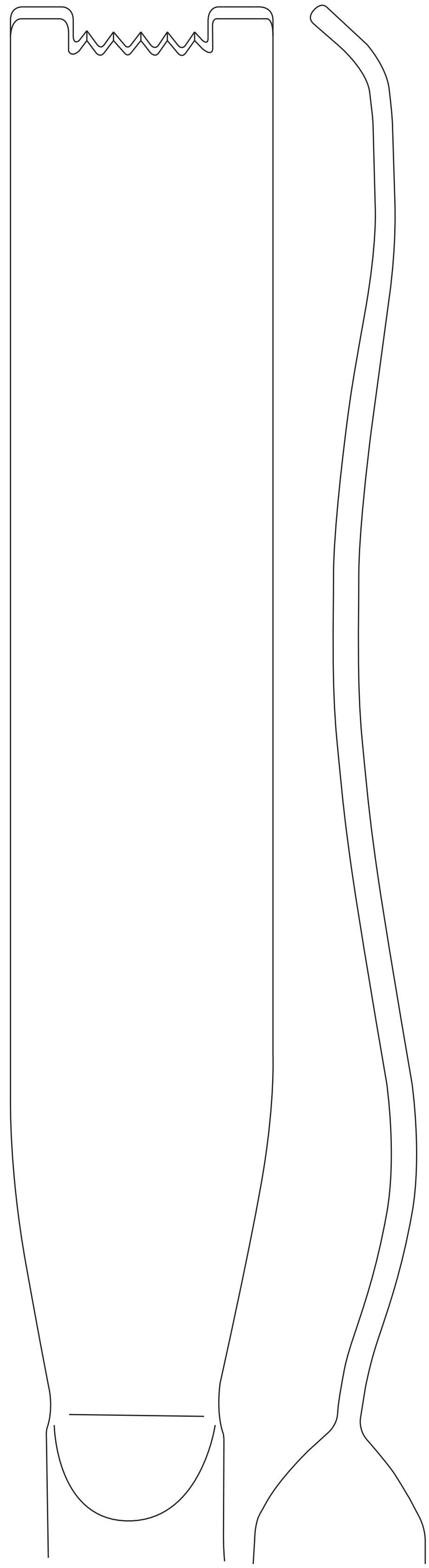
gS 43.9425 15"

gElevator, Femoral Neck
31mm
with 7" knurled handle



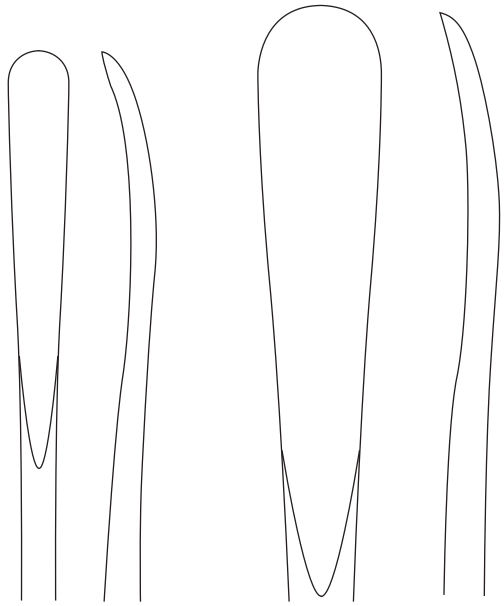
gS 43.9428 16"

gElevator, Femoral Neck
56mm
with 8 1/2" knurled handle

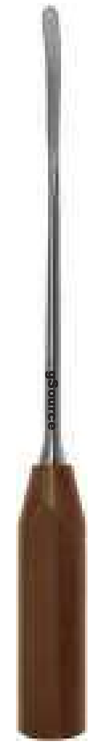


gS 43.9438 17 1/2"

gElevator, Femoral Neck
38mm
with 9" knurled handle

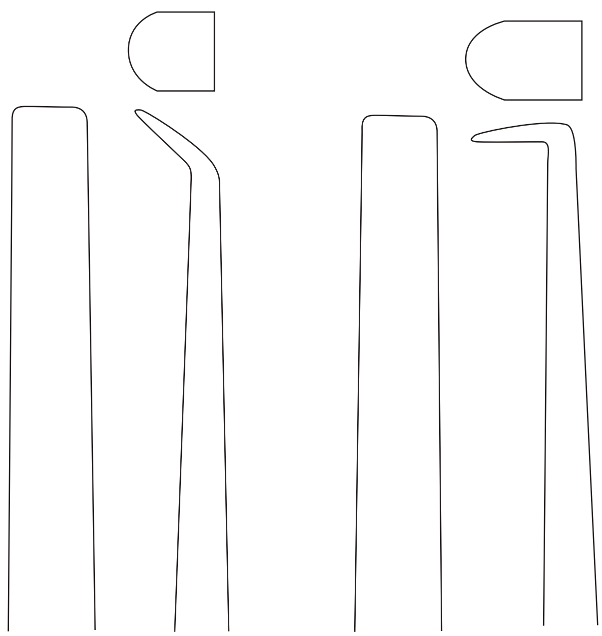


8mm 17mm

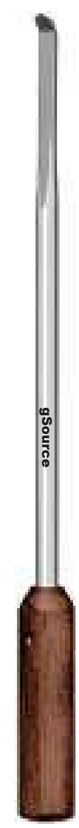


gS 43.9308 8mm
gS 43.9317 17mm

Wagner Elevator
13" sharp, slightly curved
with phenolic handle

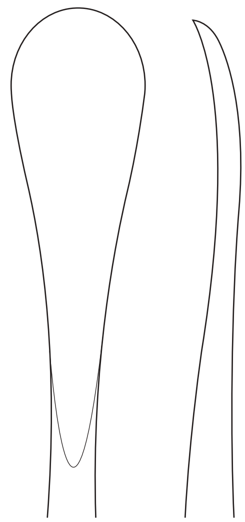


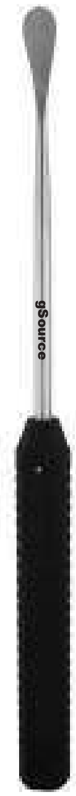
45° 90°



gS 43.9410 45°
gS 43.9414 90°

Rib Elevator
17", 9mm sharp
with phenolic handle

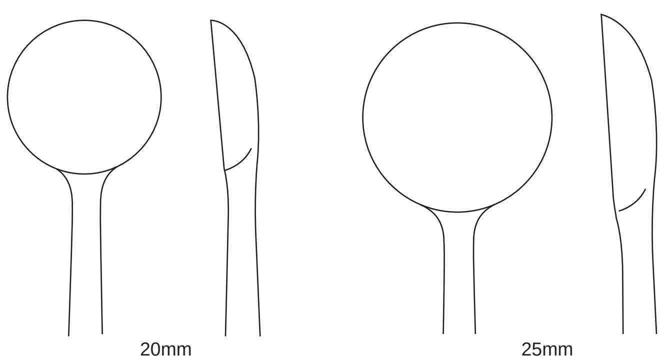




Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control.

gS 43.9817 17"

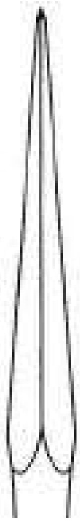
gElevator, Bone, Double Handed
sharp 17mm curved
with 9" plastic handle, black

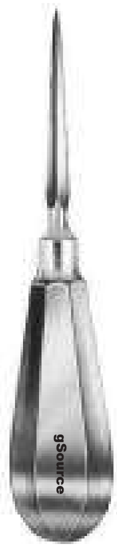


Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control.

gS 43.9920 20mm
gS 43.9925 25mm

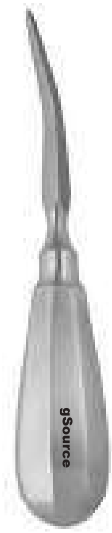
gElevator, Endplate, Double Handed
17" straight, sharp
with 9" plastic handle, black





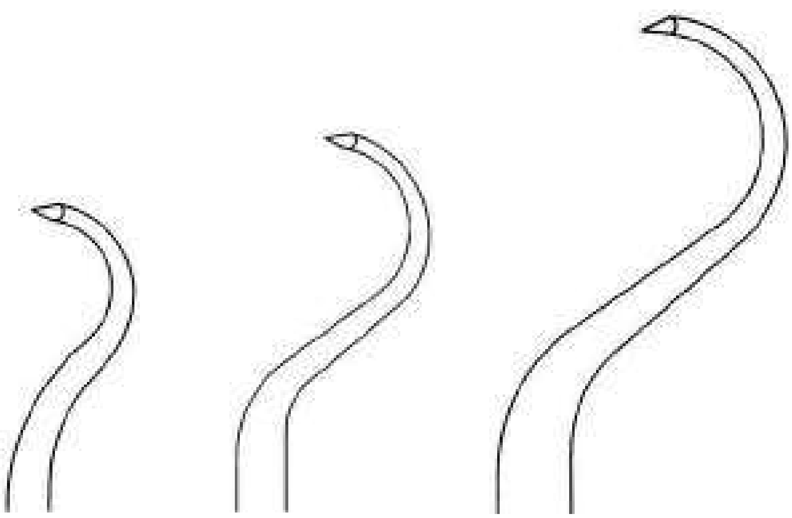
gS 44.4360 6 1/4"

Bone Awl
straight
square taper

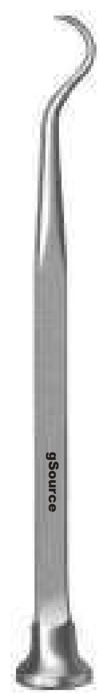


gS 44.4361 6 1/4"

Bone Awl
angled
square taper



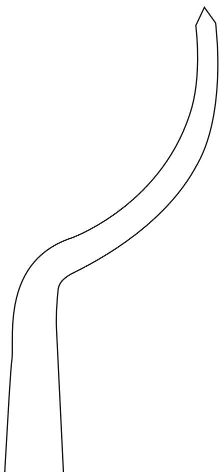
small medium large



gS 44.0130 small curve
gS 44.0140 medium curve
gS 44.0150 large curve

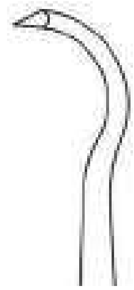
Shoulder Percussion Awl
8 1/2"

44/2 - bone awls



gS 44.0220 8"

Glenoid Punch (Bankart)



gS 44.0157 7"
gS 44.0160 9"

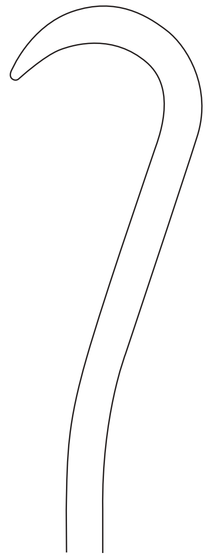
Shoulder Penetrating Awl
small curve
phenolic handle

gS 44.5200 11"

Kuntscher Diamond Pointed Awl

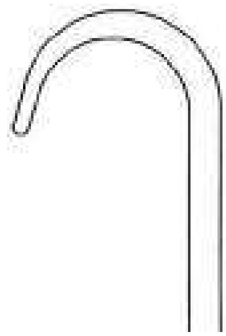
gS 44.4513 10"

gAwl
sharp point
phenolic handle



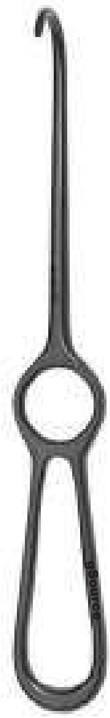
gS 45.4320 sharp
gS 45.4321 blunt

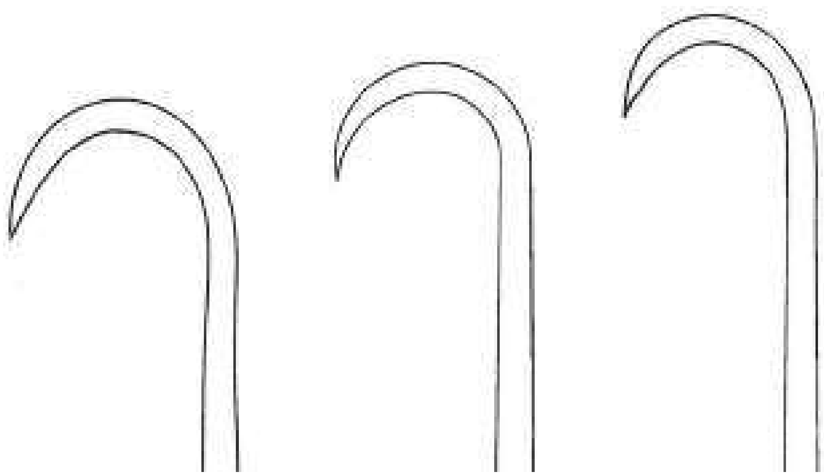
Bone Hook
8"
T-handle, 20mm deep

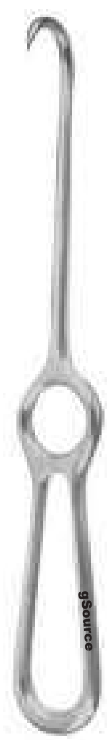


gS 45.4343 8 1/2"

Volkmann Bone Hook
blunt
20mm deep

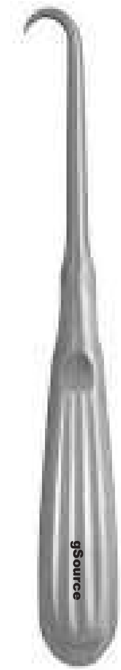


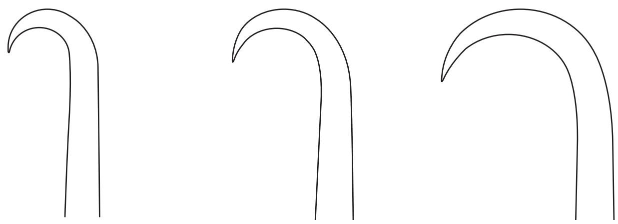




gS 45.4340 8" 25mm deep
gS 45.4346 8 1/2" 20mm deep
gS 45.4350 9 1/2" 20mm deep

Volkmann Bone Hook
sharp

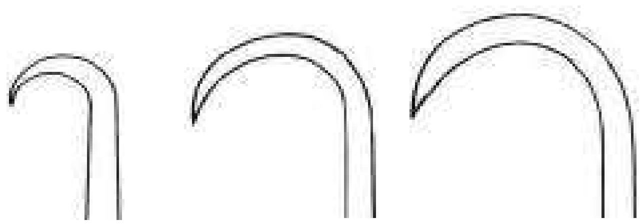




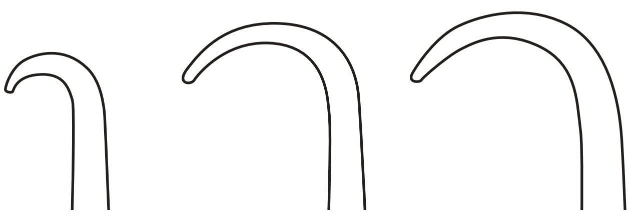
8mm 11mm 17mm

gS 45.3700 8mm
gS 45.3702 11mm
gS 45.3704 17mm

Carroll Bone Hook
7"
sharp



10mm sharp 19mm sharp 25mm sharp

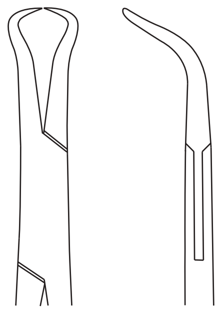


10mm blunt 19mm blunt 25mm blunt

gS 45.4420 10mm deep, sharp
gS 45.4430 19mm deep, sharp
gS 45.4440 25mm deep, sharp

gS 45.4450 10mm deep, blunt
gS 45.4460 19mm deep, blunt
gS 45.4470 25mm deep, blunt

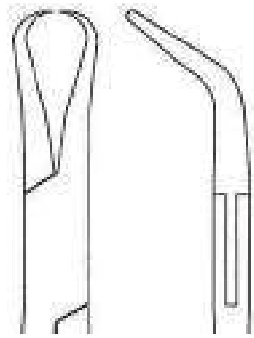
Bone Hook
9"



Max opening with
ratchet engaged: 16mm.

gS 46.2180 3 1/2"

Termite Forceps
curved pointed tips



Max opening with
ratchet engaged: 14mm.

gS 46.2190 4 3/4"

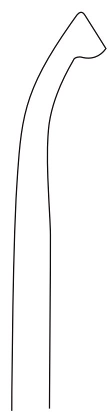
Stagbeetle Forceps
curved pointed tips

For positioning mini plates.

Max opening with
ratchet engaged: 16mm.

gS 46.2390 5"

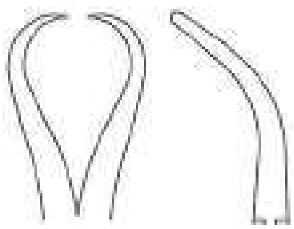
Plate and Bone Holding Forceps
one pointed tip, one footplate



Max opening with
ratchet engaged: 13mm.

gS 46.2395 5 1/2"

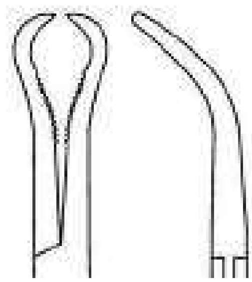
Plate Holding Forceps
curved



Max opening with ratchet engaged: 16mm.

gS 46.4000 5"

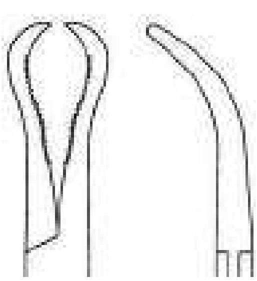
Bone Reduction Forceps
curved, pointed tips



Max opening with ratchet engaged: 16mm.

gS 46.2330 5"

Bone Reduction Forceps
curved, pointed tips
10mm serrations

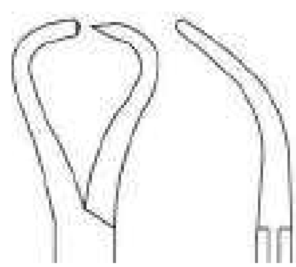


Max opening with ratchet engaged: 16mm.

gS 46.2350 5"

Bone Reduction Forceps
curved, pointed tips
15mm serrations

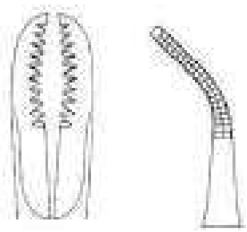
One tip has a stepped point for better hold on bone.



Max opening with ratchet engaged: 13mm.

gS 46.2370 5"

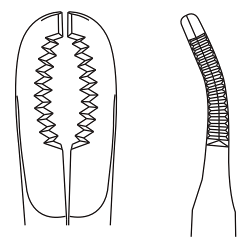
Bone Reduction Forceps
curved, one pointed tip
one step-pointed tip



Max opening with
ratchet engaged: 15mm.

gS 46.2280 6"

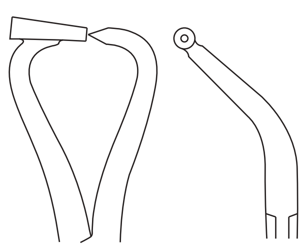
Bone Reduction Forceps
curved
serrated jaws



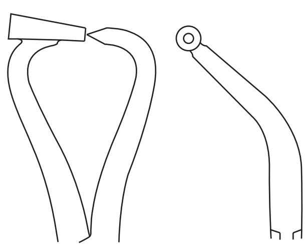
Max opening with
ratchet engaged: 30mm.

gS 46.2282 6"

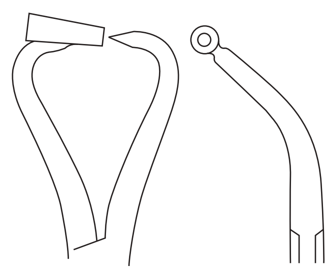
Bone Reduction Forceps
curved
narrow serrated jaws



0.9mm



1.2mm



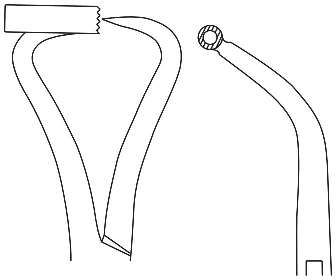
1.6mm

For positioning k-wires.

Max opening with
ratchet engaged: 12mm.

gS 46.4009 0.9mm [.035"]
gS 46.4012 1.2mm [.047"]
gS 46.4016 1.6mm [.062"]

Bone Reduction Forceps
5 1/2"
curved with guide

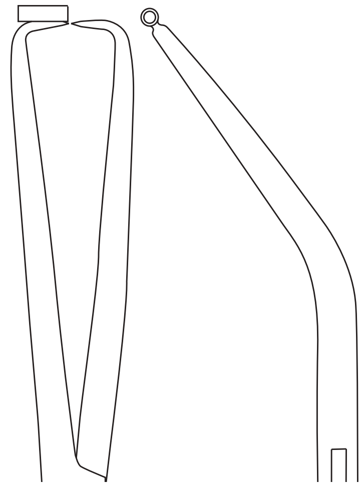


For positioning k-wires
with diameter up to
1.6mm [.062"].

Max opening with
ratchet engaged: 13mm.

gS 46.4040 5 1/4"

Bone Reduction Forceps
curved with 1.6mm [.062"]
guide

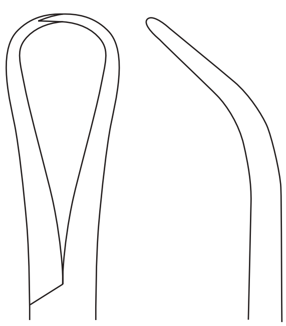


For positioning k-wires
with diameter up to
1.1mm [.045"].

Max opening with
ratchet engaged: 18mm.

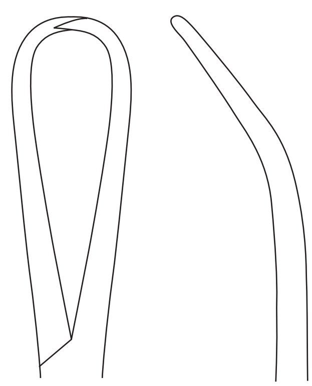
gS 46.4060 6 3/4"

Bone Reduction Forceps
curved with 1.1mm [.045"]
guide



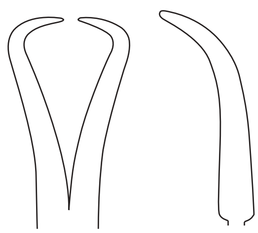
gS 46.4116 6 1/2"

Glenoid Perforating Forceps
strong angle



gS 46.4117 6 1/2"

Glenoid Perforating Forceps
slight angle



2mm-10mm calibrations on ratchet help with determining bone diameter when using compression screws.

Max opening with ratchet engaged: 10mm.

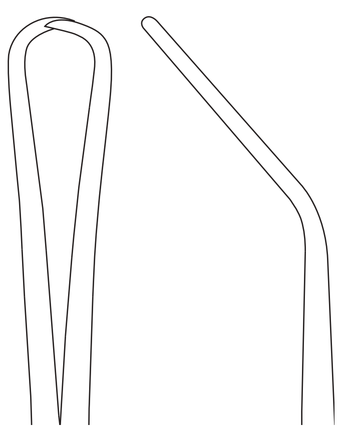
gS 46.2375 5"

Phalangeal Percutaneous Bone Reduction Forceps

Useful for sesamoid removal.

gS 46.8870 6"

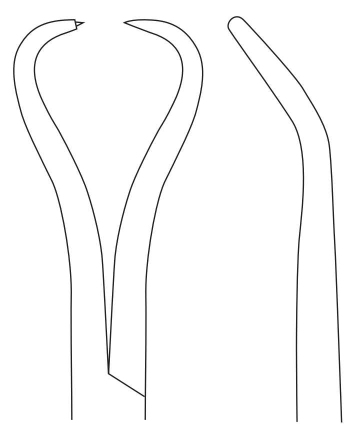
Locke Phalangeal Forceps
serrated jaws with 1x2 teeth



Max opening with ratchet engaged: 15mm.

gS 46.2320 7"

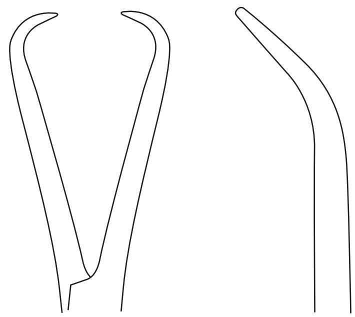
Bone Reduction Forceps (Reill)
curved jaw



One step-pointed tip.

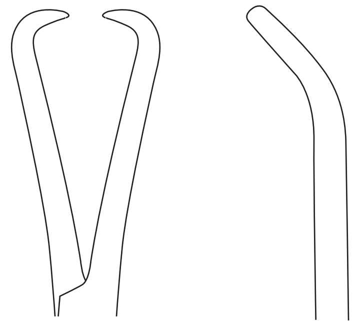
gS 46.2335 7"

Bone Reduction Forceps
double ratchet
opening: 4mm to 45mm



gS 46.2332 6"

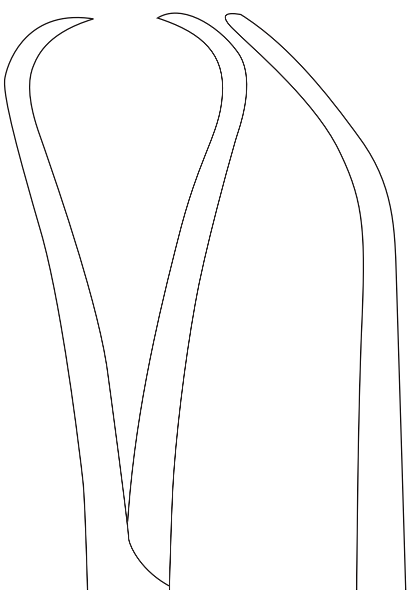
gForceps, Bone Reduction
double ratchet
opening: 2mm to 35mm

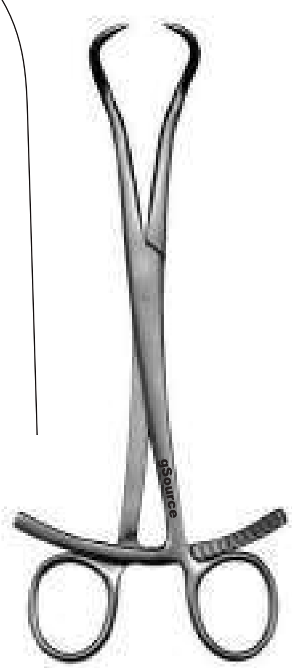


Heavy tips are
shorter for strength.

gS 46.2333 6"

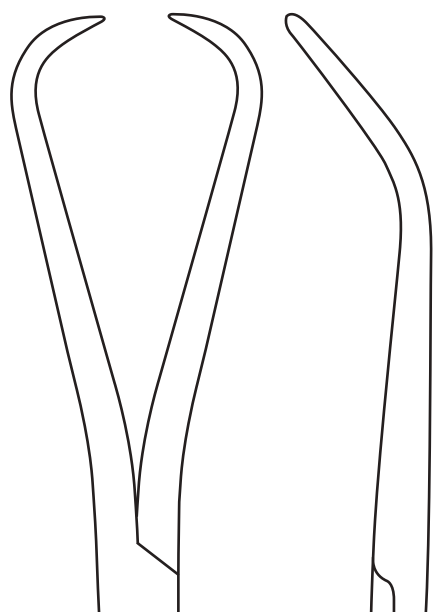
gForceps, Bone Reduction
double ratchet, heavy tips
opening: 2mm to 35mm

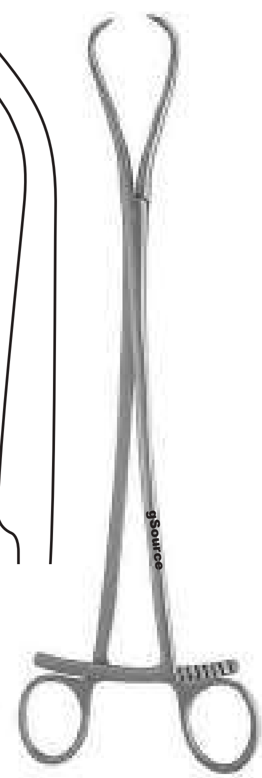




gS 46.2340 8"

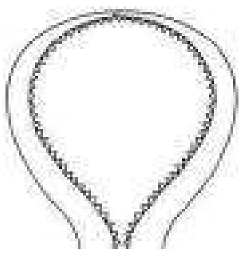
Bone Reduction Forceps
double ratchet
opening: 9mm to 100mm





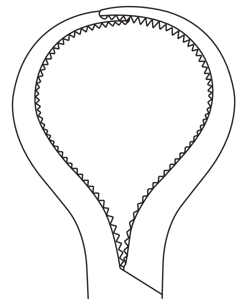
gS 46.2348 12"

Bone Reduction Forceps
double ratchet
opening: 5mm to 45mm



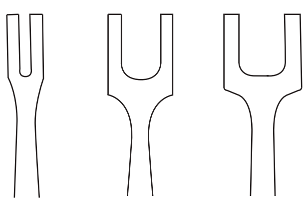
gS 46.2300 7"

Lewin Bone Holding Forceps
slightly curved
overlapping serrated jaws



gS 46.2305 6 3/4"

gForceps, Lewin Bone Holding
30° angled handle
overlapping serrated jaws

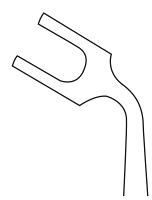


5mm 8mm 10mm

Jaws with 8 pointed teeth help to provide stabilization and guidance for small bone fixation.

gS 46.3005	5 1/2"	5mm
gS 46.3008	5 1/2"	8mm
gS 46.3010	6 1/4"	10mm

Ikuta Bone Clamp
straight

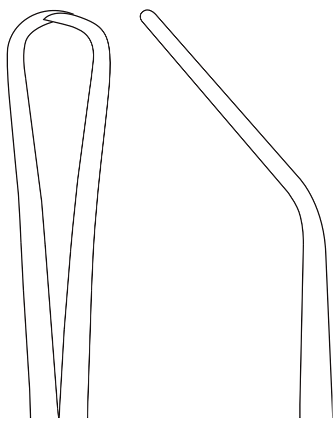


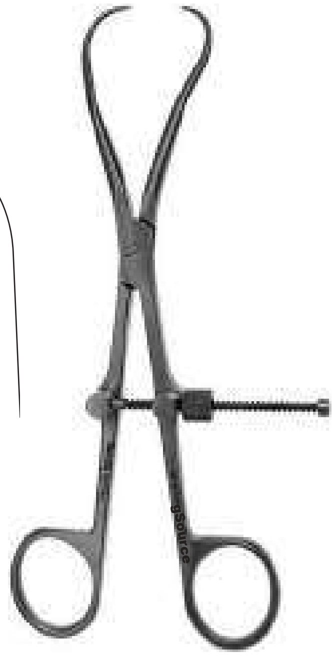
8mm

Space between prongs allows for placement of k-wires or screws.

gS 46.3015	5 1/2"	5mm
gS 46.3018	5 1/2"	8mm
gS 46.3020	6 1/4"	10mm

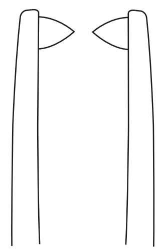
Ikuta Bone Clamp
angled





gS 46.2342 8"

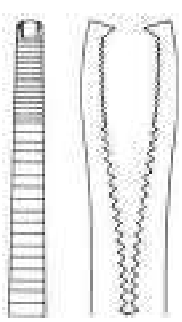
Bone Reduction Forceps
with speedlock
max opening: 70mm



1x1 sharp points

gS 46.8520 8 1/2"

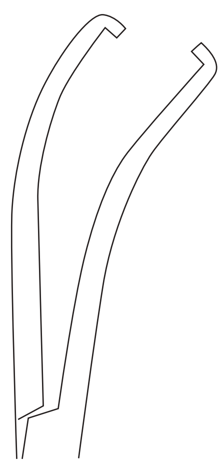
Malleolar Forceps
with ratchet
max opening: 60mm



Delicate serrated jaws for small bone fragments.

gS 46.8910 7 1/2"

Dingman Forceps
angular serrated jaws
2x2 sharp teeth

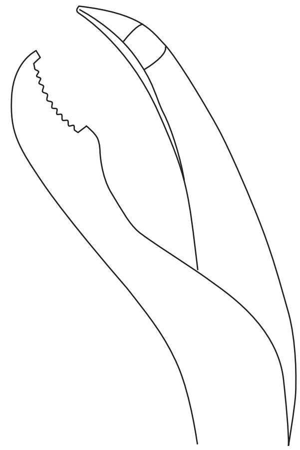


gS 46.8872 6 1/2"

Sesamoidectomy Clamp
curved jaw

gS 46.8510 8 1/2"

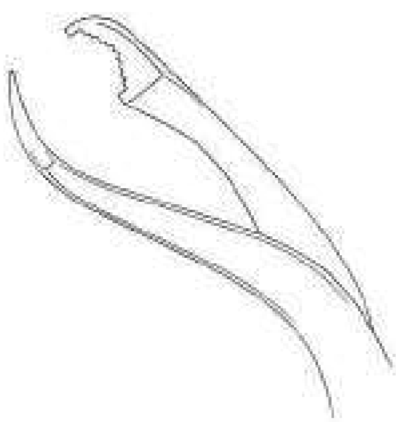
Fibula Forceps
with speedlock
angled tips



Max opening with
ratchet engaged: 28mm.

gS 46.1990 6 1/2"

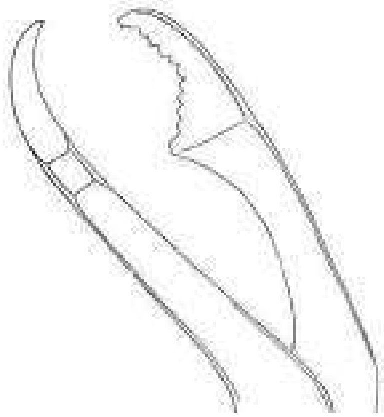
Verbrugge Forceps
reversed jaw
with long ratchet



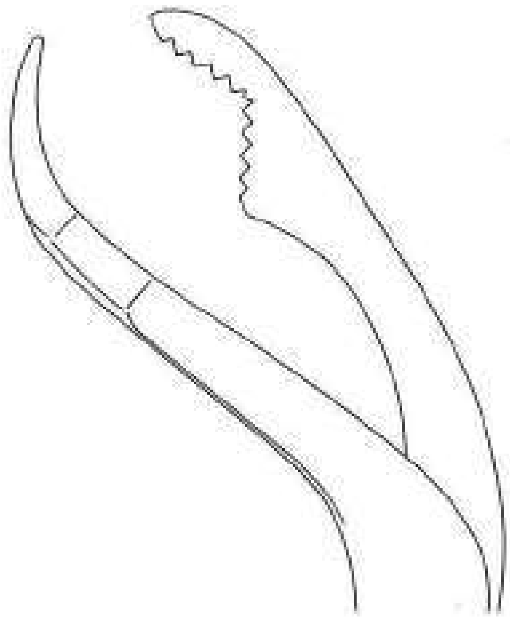
Max opening with
ratchet engaged: 9mm.

gS 46.2210 7"

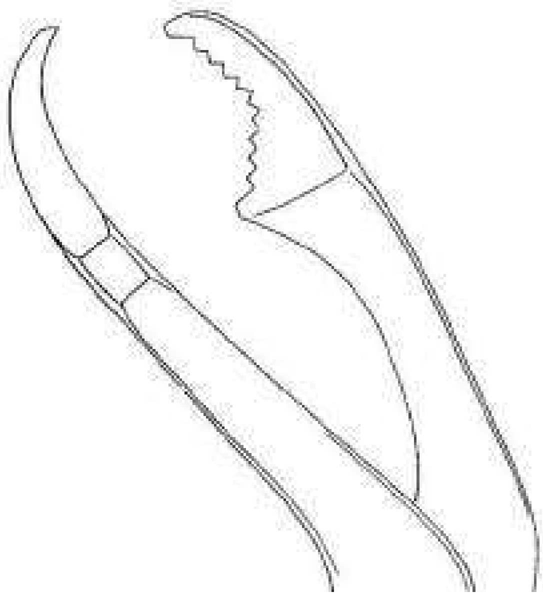
Verbrugge Forceps
with short ratchet



10"



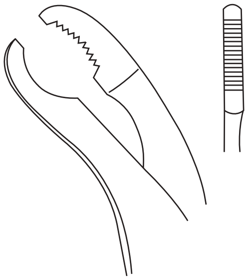
10 1/2"



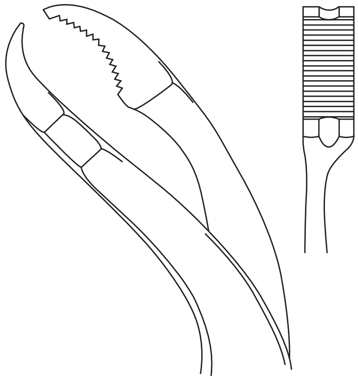
11"

		Max opening with ratchet engaged
gS 46.2220	10"	52mm
gS 46.2240	10 1/2"	48mm
gS 46.2260	11"	48mm

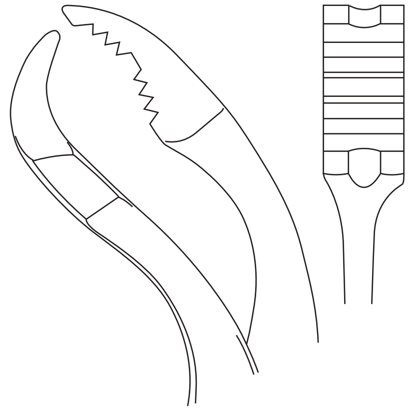
Verbrugge Forceps
with long ratchet



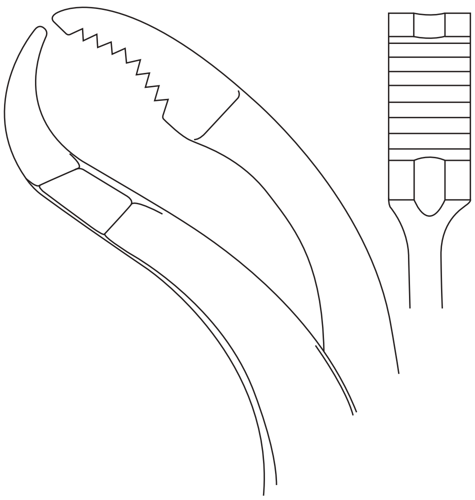
6"



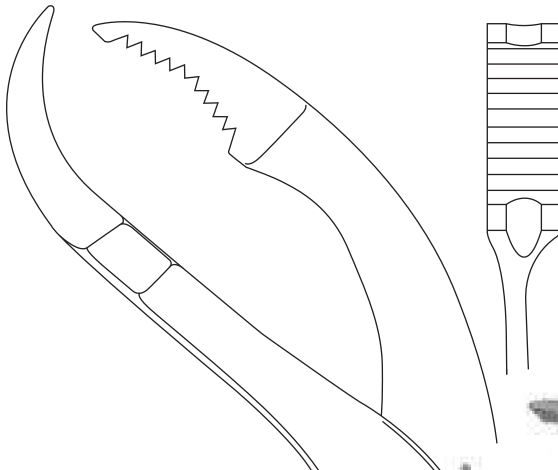
7 1/2"



9 1/2"



10"

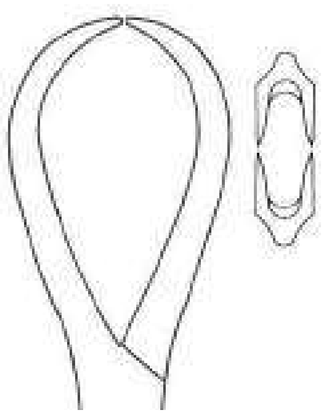


11"

		Max opening
gS 46.1900	6"	25mm
gS 46.1920	7 1/2"	55mm
gS 46.1940	9 1/2"	65mm
gS 46.1960	10"	65mm
gS 46.1980	11"	65mm

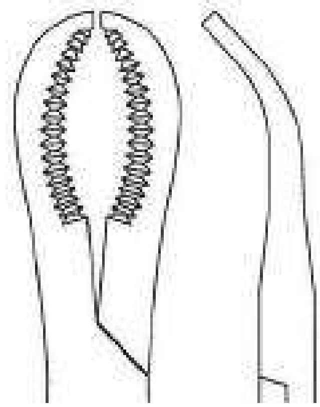
Verbrugge Forceps
self-centering with speedlock

46-47/12 - bone holding



gS 46.2310 7"

Patella Forceps
speedlock, 2x2 sharp teeth
max opening: 48mm



7"

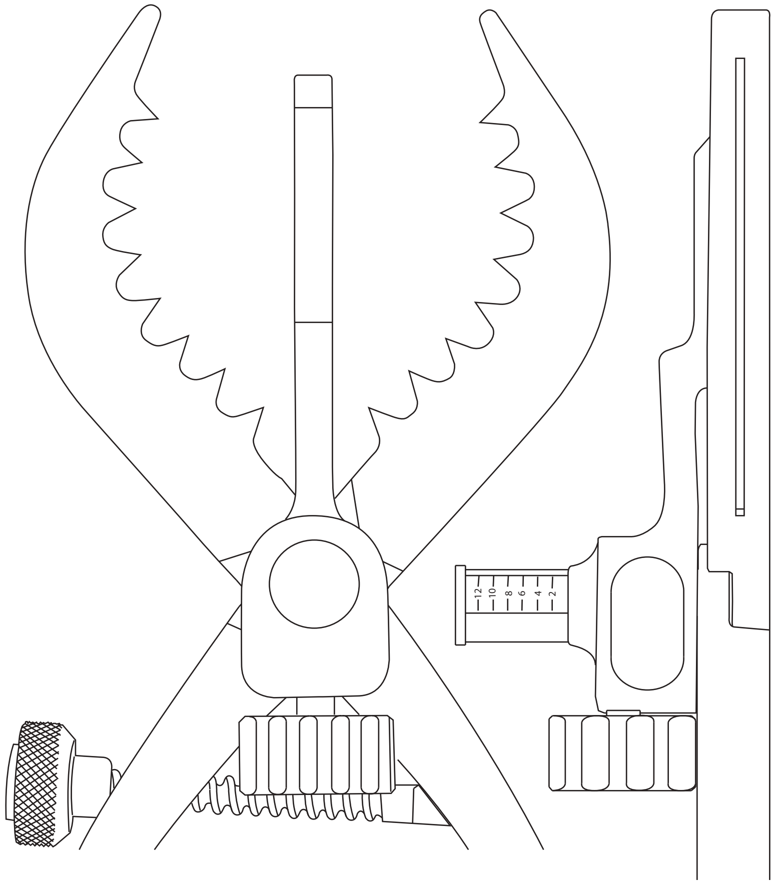
gS 46.2407 7" max: 28mm
gS 46.2409 9" max: 45mm

Bone Holding Forceps
with speedlock
curved serrated jaws

For positioning 2.7mm and 3.5mm plates.

gS 46.2380 8"

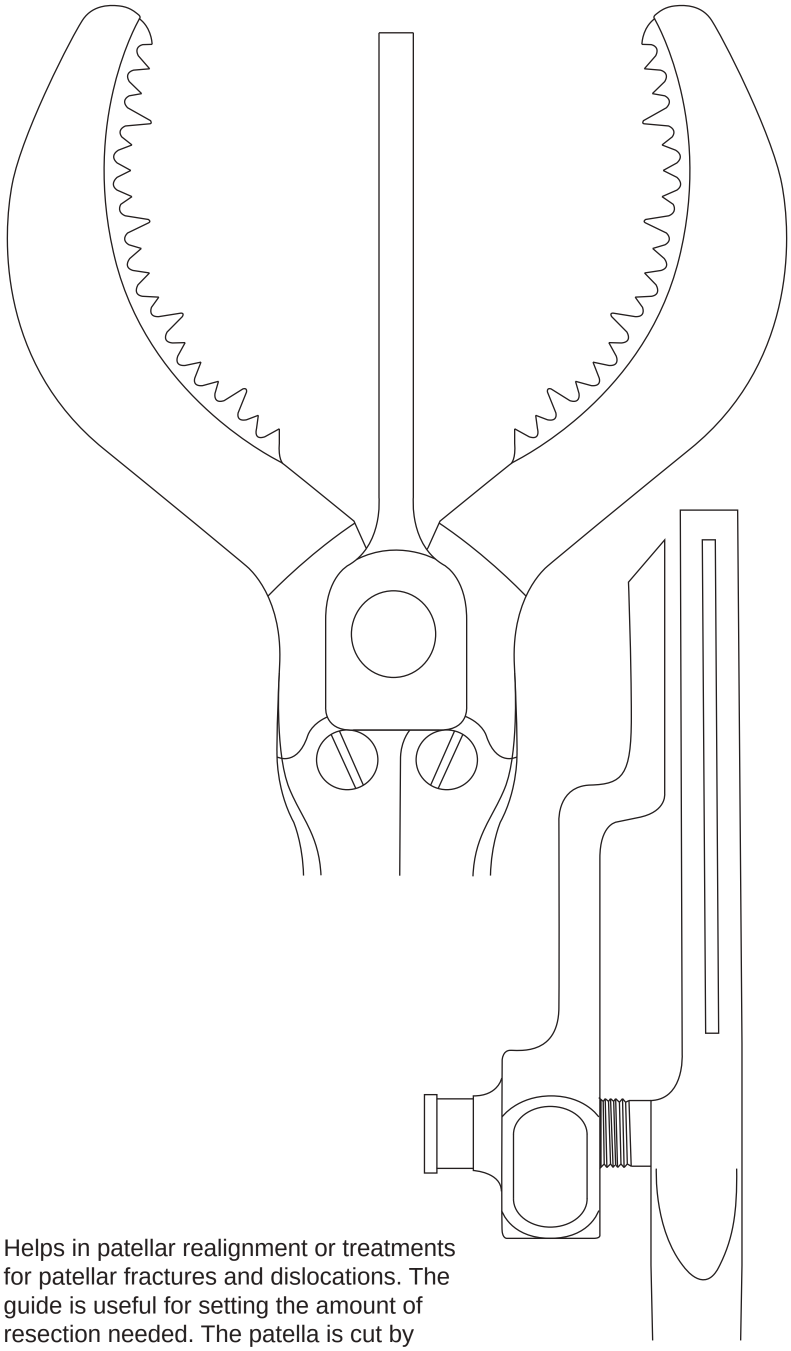
Plate Holding Forceps
with swivel foot



Helps in patellar realignment or treatments for patellar fractures and dislocations. The guide is useful for setting the amount of resection needed. The patella is cut by inserting the saw blade through the saw guides on either side of the jaw.

gS 46.2312 9 1/2"

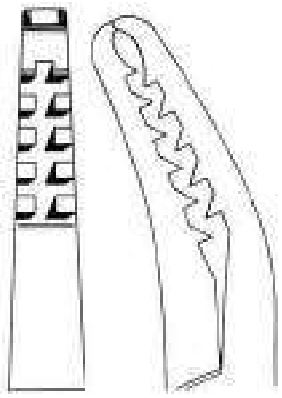
Patella Osteotomy Forceps
for 1.10mm saw blades
with speedlock



Helps in patellar realignment or treatments for patellar fractures and dislocations. The guide is useful for setting the amount of resection needed. The patella is cut by inserting the saw blade through the saw guides on either side of the jaw.

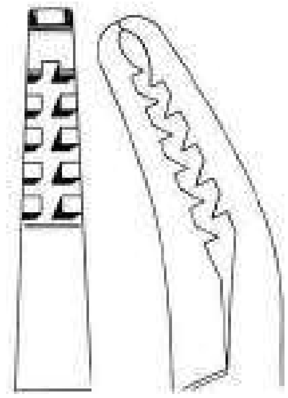
gS 46.2315 11"

Patella Osteotomy Forceps
for 1.20mm saw blades
with speedlock



gS 46.2430 7 1/2"

Semb Bone Forceps
angled on side
deep teeth



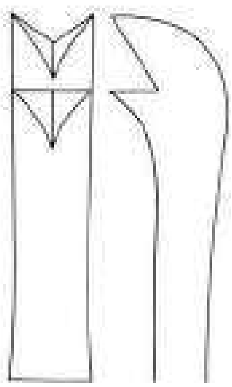
gS 46.2432 7 1/2"

Semb Bone Forceps
angled on side
deep teeth, with ratchet

gS 46.2470 8 1/2"

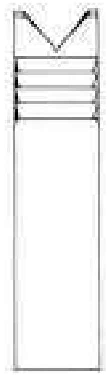
Van Buren Bone Forceps
angled on side
serrated jaws

46-47/16 - bone holding



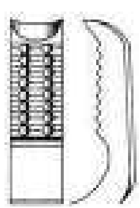
gS 46.2440 8"

Fergusson Bone Forceps
deep 2x2 teeth

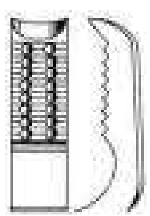


gS 46.2450 8"

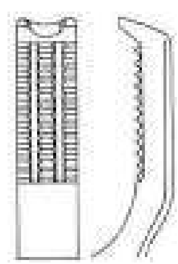
Langenbeck Bone Forceps
partially serrated
2x2 teeth



5 1/2"



6 1/2"



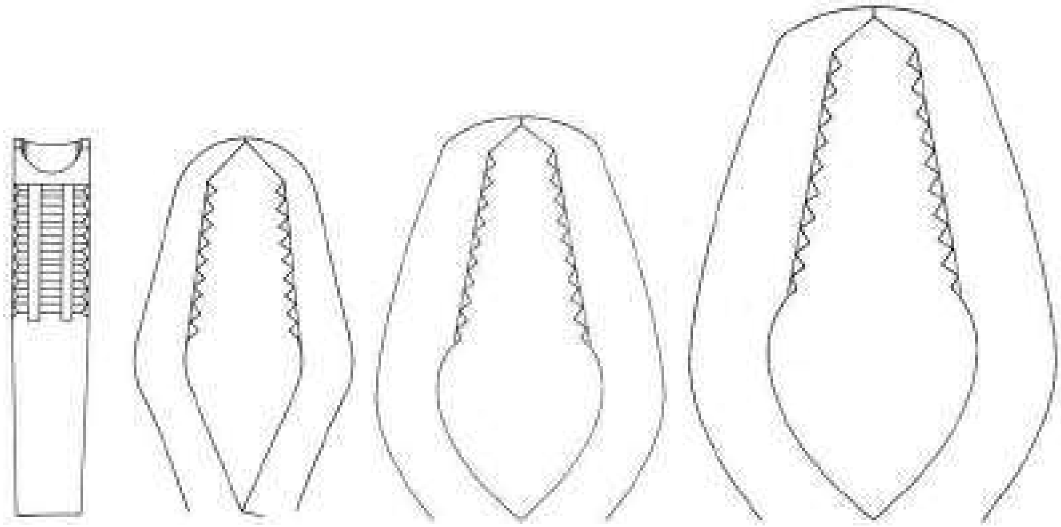
9 1/2"

gS 46.1620 5 1/2" with ratchet
gS 46.1630 6 1/2" with ratchet
gS 46.1640 9 1/2" with ratchet

gS 46.1645 5 1/2" without ratchet
gS 46.1650 6 1/2" without ratchet
gS 46.1655 9 1/2" without ratchet

Kern Bone Forceps
serrated jaws
2x2 teeth

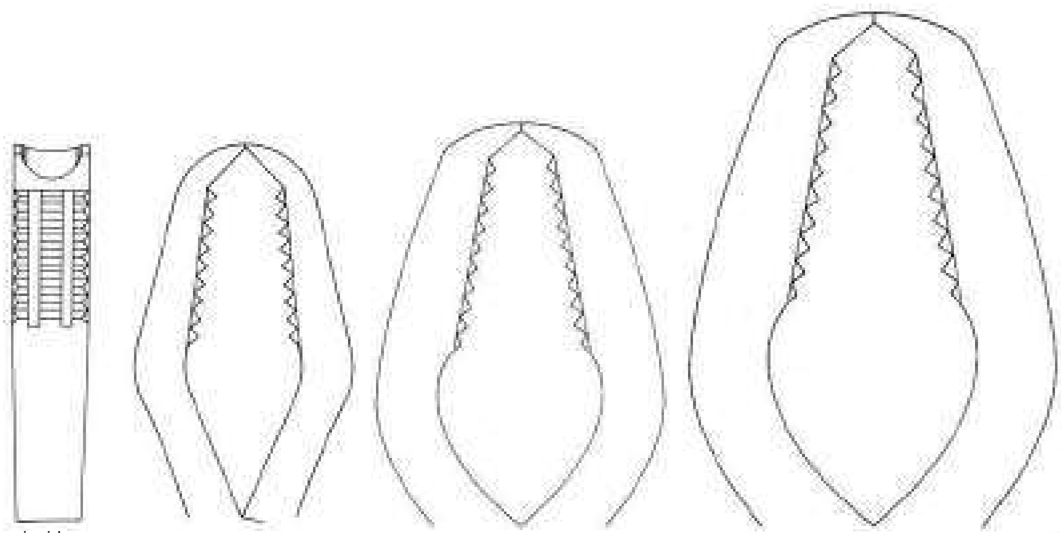
shown with ratchet



inside jaw | 13" light | 13" standard | 18" heavy

gS 46.1850 13" light
gS 46.1855 13" standard
gS 46.1860 18" heavy

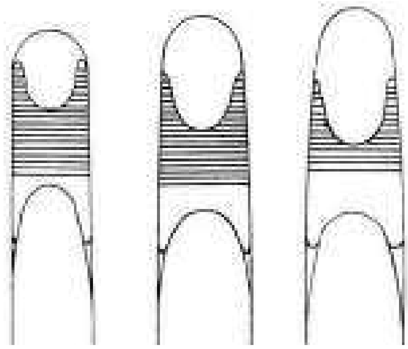
Lane Bone Forceps
without ratchet
2x2 teeth, serrated jaws

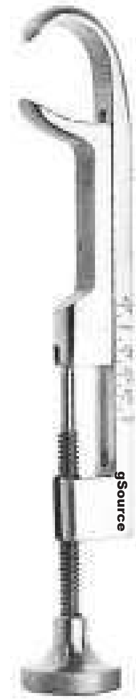


inside jaw | 13" light | 13" standard | 18" heavy

		Max opening with ratchet engaged
gS 46.1815	13" light	30mm
gS 46.1820	13" standard	34mm
gS 46.1832	18" heavy	48mm

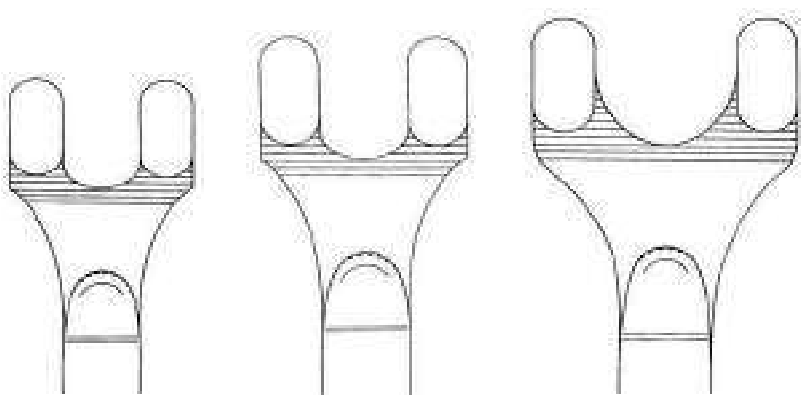
Lane Bone Forceps
with ratchet
2x2 teeth, serrated jaws

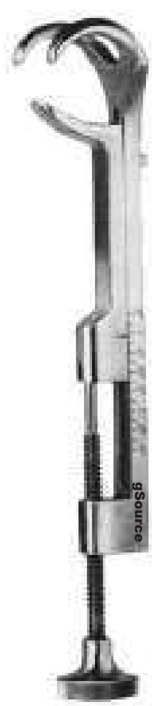




		Max cap opening
gS 46.2650	5"	1"
gS 46.2655	7"	2"
gS 46.2660	8 1/2"	2 1/2"

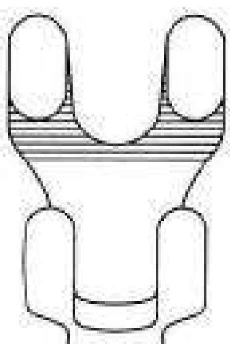
Lowman Bone Clamp
1x1 jaws



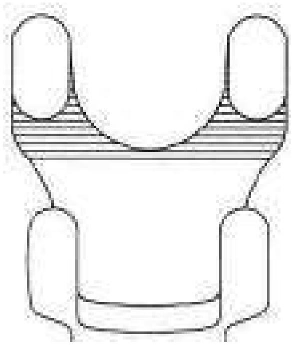


		Max cap opening
gS 46.2520	5"	1"
gS 46.2540	7 1/4"	2"
gS 46.2560	8"	2 1/2"

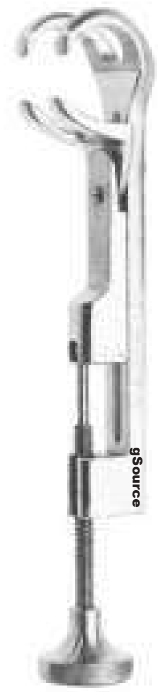
Lowman Bone Clamp
1x2 jaws



7"

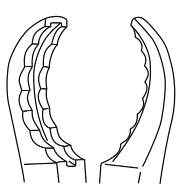


8"

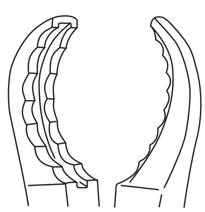


		Max cap opening
gS 46.4680	7"	2"
gS 46.4685	8"	2 1/2"

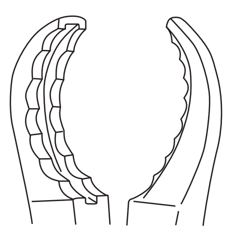
Lambert-Lowman Bone Clamp
2x2 jaws



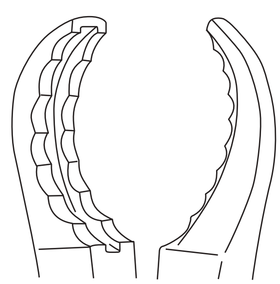
7 1/4"



9"



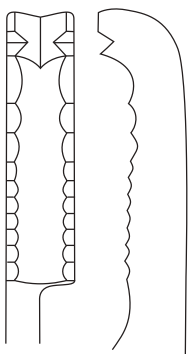
9 1/2"



11"

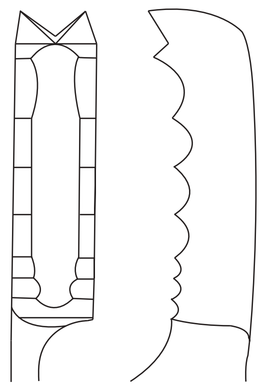
gS 46.2116 7 1/4"
gS 46.2118 9"
gS 46.2120 9 1/2"
gS 46.2122 11"

Ulrich Bone Holding Forceps
straight
with speedlock



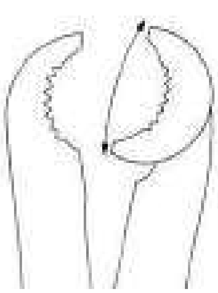
gS 47.0919 7 1/2"

Farabeuf Lambotte Forceps
adjustable jaw with ratchet



gS 47.1020 10"

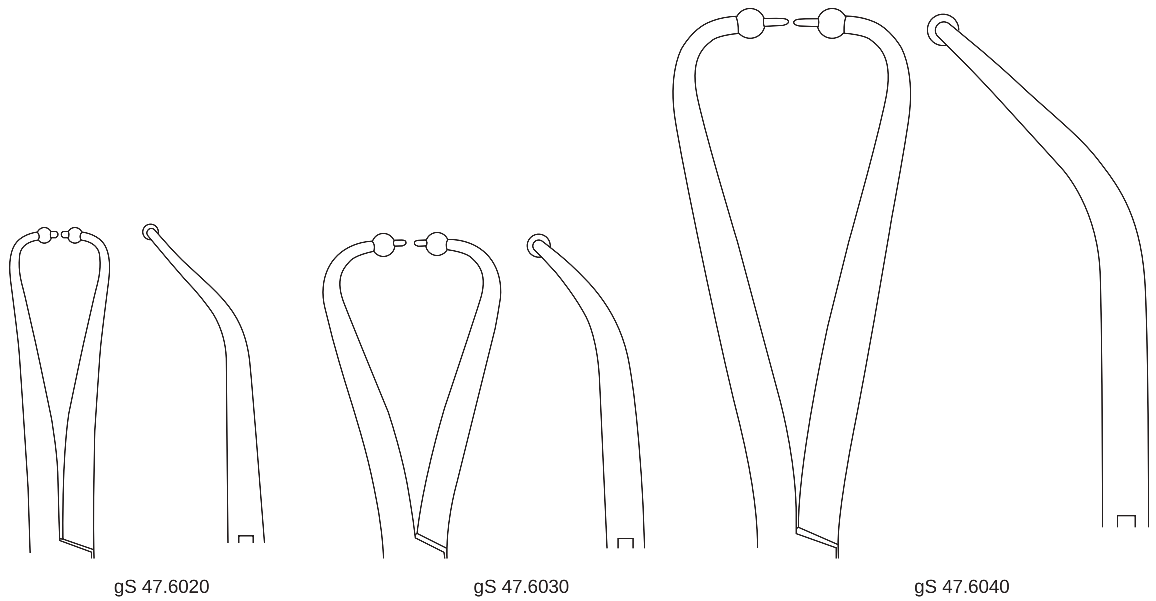
Farabeuf Lambotte Forceps
adjustable jaw with ratchet



gS 47.1130 8 1/2"
gS 47.1140 10 1/2"
gS 47.1150 11 1/2"

Lambotte Bone Forceps
adjustable jaw with swivel head
with ratchet

OD = Outside Diameter



Pointed-ball tips help to prevent penetration of bone.

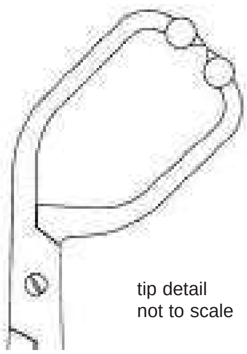
Speedlock allows for quick tightening and release of clamp on bone and helps to provide a secure hold.

Curved pattern helps with positioning on bone.

		OD Ball Tips
gS 47.6020	5 1/2"	2mm
gS 47.6030	6 1/2"	3mm
gS 47.6040	8"	4mm

gClamp, Bone Fragment
ball tips, curved
speedlock

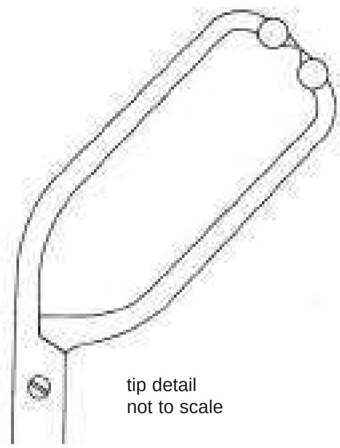
46-47/22 - bone holding



tip detail
not to scale

gS 47.6190   7 3/4"

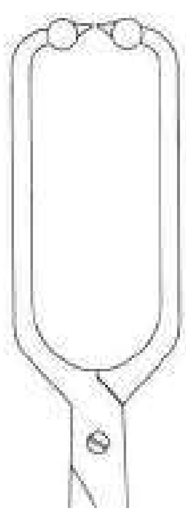
Pelvic Reduction Forceps
angled short pointed ball tips
with speedlock



tip detail
not to scale

gS 47.6192   9 1/2"

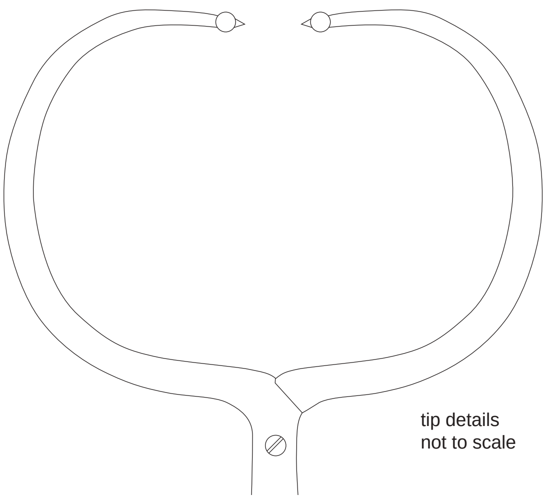
Pelvic Reduction Forceps
angled long pointed ball tips
with speedlock



tip detail
not to scale

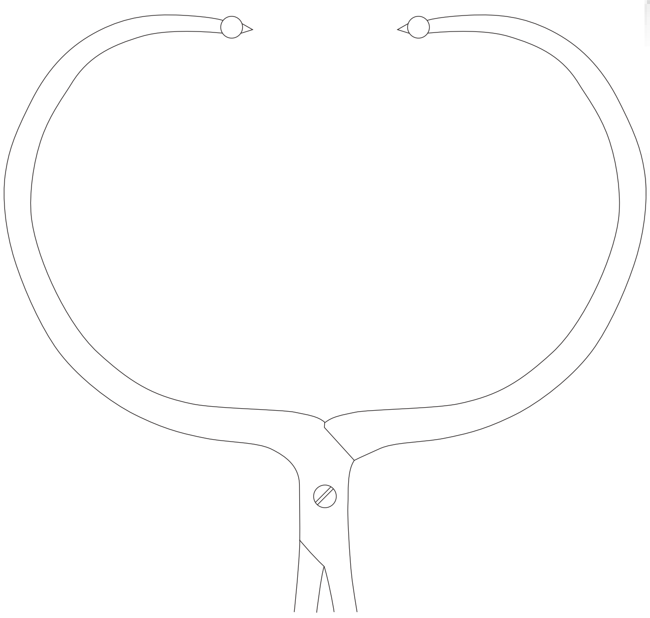
gS 47.6196 10"

Pelvic Reduction Forceps
straight long pointed ball tips
with speedlock



tip details
not to scale

gS 47.6300

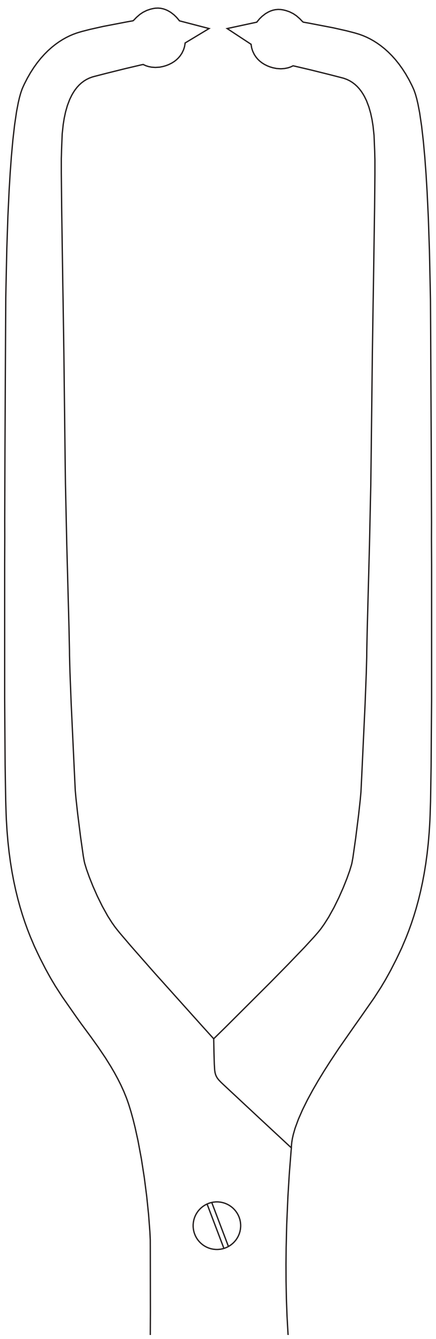


gS 47.6301

gS 47.6300 medium 14mm-128mm opening
gS 47.6301 large 39mm-181mm opening

Periarticular Reduction Forceps
15" straight, pointed ball tips
with speedlock

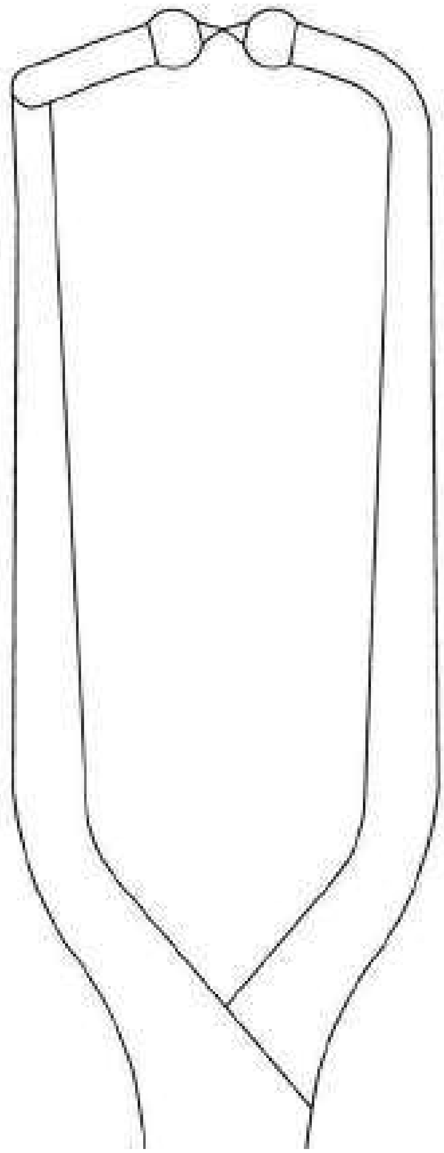
46-47/24 - bone holding



46-47

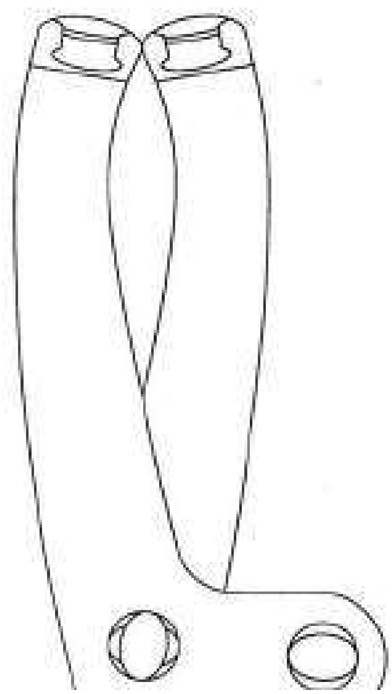
gS 47.6200 16"

Pelvic Reduction Forceps
straight long pointed ball tips
with speedlock



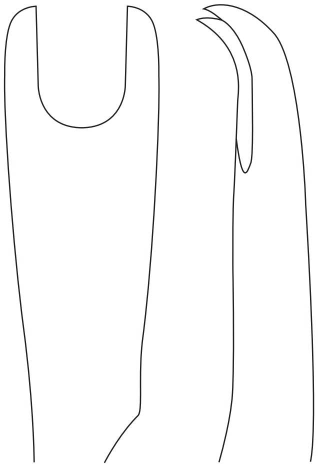
gS 47.6208 16"

Pelvic Reduction Forceps
long 1x2 pointed ball tips
with speedlock



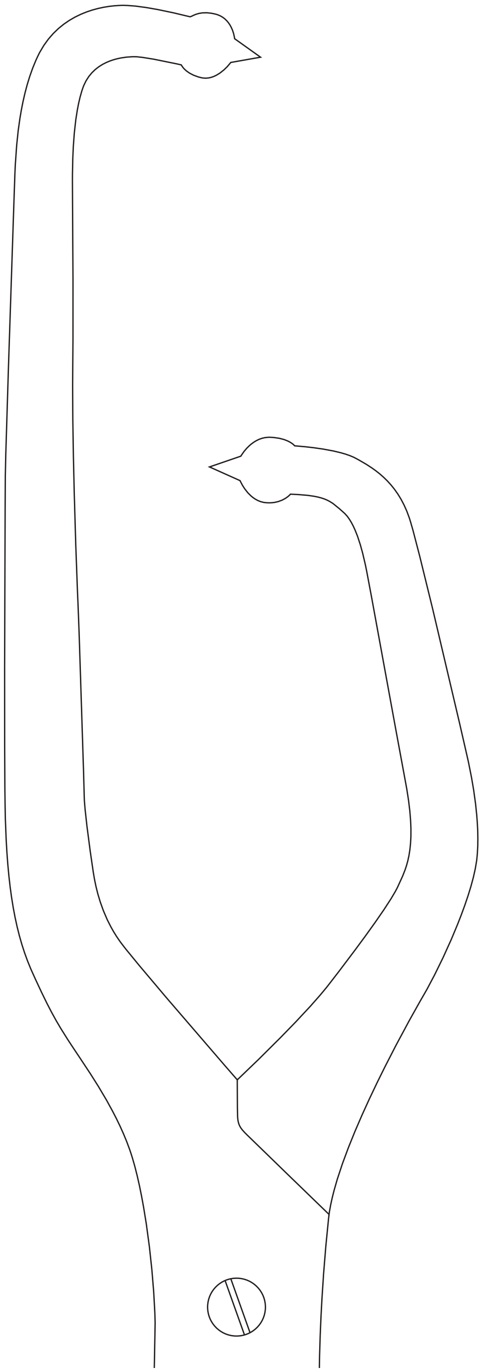
gS 47.6212 13 1/2"

Pelvic Reduction Forceps
adjustable jaw for screws
with speedlock



gS 47.1064 12 1/2"

Bishop Bone Forceps
adjustable jaw
with ratchet



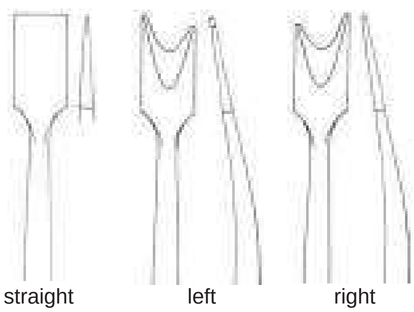
gS 47.6204 16"

Pelvic Reduction Forceps
asymmetric pointed ball tips
with speedlock

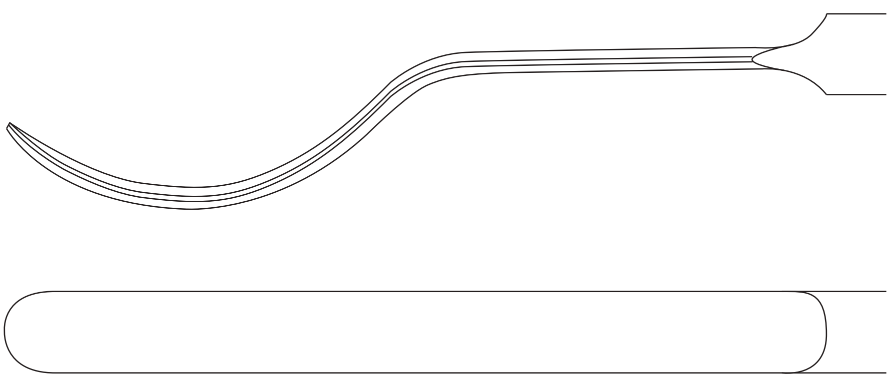
Commonly referred to as a meniscus knife.

Useful for cutting and making incisions into the menisci in the knee.

gS 49.8620 straight
gS 49.8660 curved left
gS 49.8700 curved right



Smillie Knife
6 3/4"
with "T" grip handle

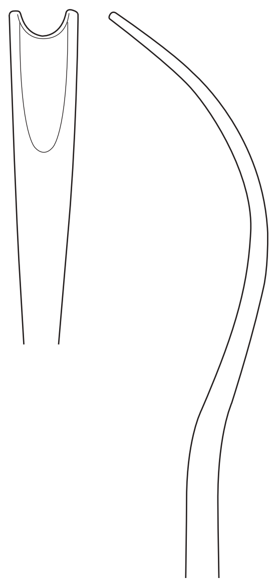


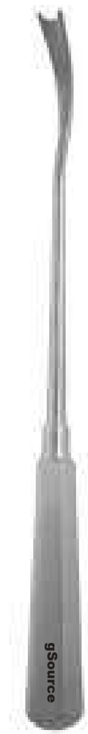
Useful for detaching the labrum from the acetabulum.

gS 49.3300 8"

Krull Acetabular Knife
12mm blade

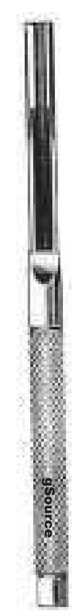
49/2 - cartilage



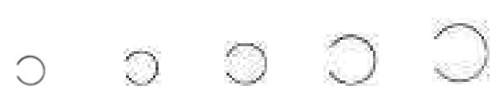


gS 49.8800 10"

Downing Cartilage Knife
concave edge with guards

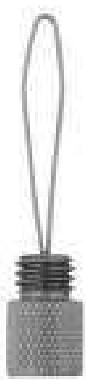


gS 49.1001 3mm
gS 49.1002 4mm
gS 49.1003 5mm
gS 49.1004 6mm
gS 49.1005 7mm



3mm 4mm 5mm 6mm 7mm

Bunnell Tendon Stripper
6"
with knurled handle

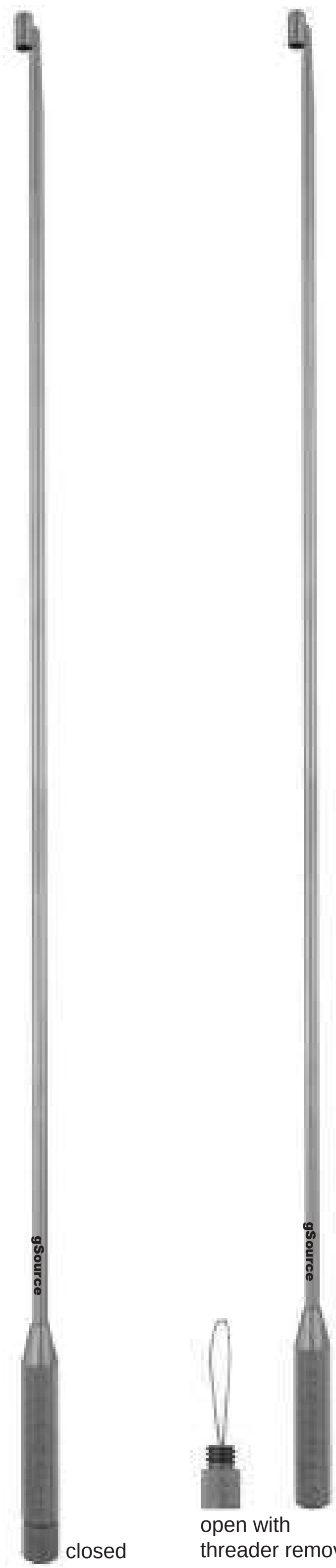


Useful for stripping a tendon to a select diameter for positioning the tendon during bone attachment or other procedures.

Threader is removed by unscrewing from handle end.

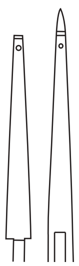
gS 49.8500 16 1/2"

Tendon Stripper
with threader



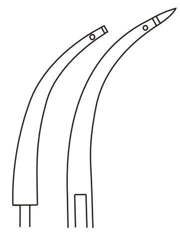
closed

open with
threader removed



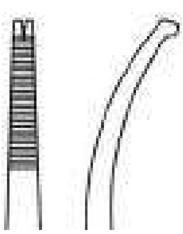
gS 49.7141 4 3/4"
gS 49.7151 6"

Tendon Passer
straight
one stepped tip



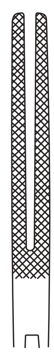
gS 49.7142 4 3/4"
gS 49.7152 6"

Tendon Passer
curved
one stepped tip



gS 49.3180 7 1/4"

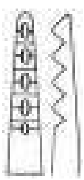
Preston Ligamentum Flavum Forceps
angled serrated jaws, 1x2 teeth



Helps with suturing double layered cartilage transplants.

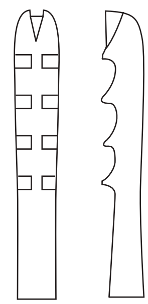
gS 49.3025 6 1/4"

Aiach Cartilage Graft Forceps
5mm slotted jaws



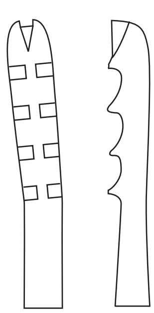
gS 49.2018 7 1/2"

Martin Cartilage Clamp
straight
with teeth



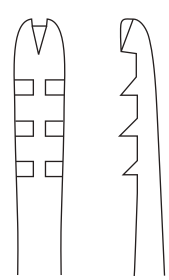
gS 49.2210 8"

Walton Cartilage Clamp
(Bircher-Ganske)
straight with teeth



gS 49.2220 8"

Walton Cartilage Clamp
(Bircher-Ganske)
slightly curved with teeth



gS 49.2230 8"

Walton Cartilage Clamp
(Bircher-Ganske)
curved on side with teeth

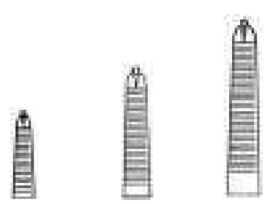
gS 49.8300 5 1/2"

Hoen Grasping Forceps
serrated
1x2 teeth

gS 49.8400 4 1/2"

Carroll Tendon Pulling Forceps
curved shaft
serrated jaws

gS 49.8450 6"
gS 49.8455 7 1/2"
gS 49.8460 9 1/2"

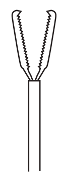


6" 7 1/2" 9 1/2"

Brand Tendon Pulling Forceps
angled shaft
serrated jaws with 1x2 teeth

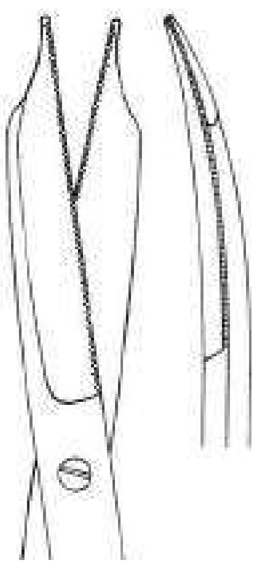
gS 49.8350 8"

Kleinert-Kutz Tendon Retriever
rigid shaft, serrated 1x2



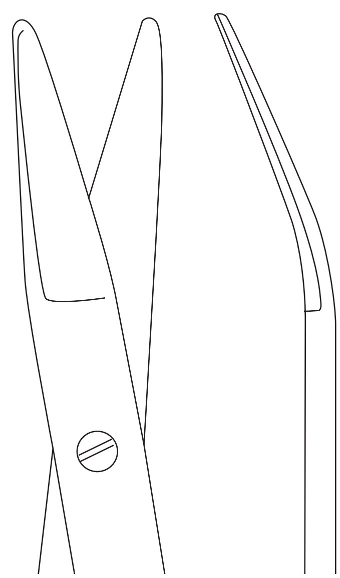
gS 49.8356 8"

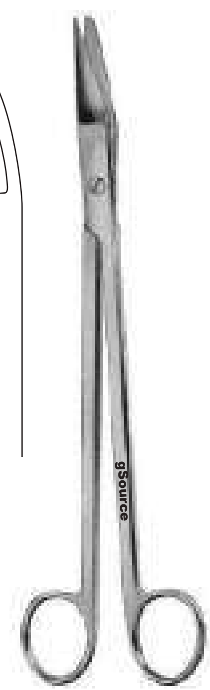
Kleinert-Kutz Tendon Retriever
flexible shaft, serrated 1x2



gS 49.9280 8"

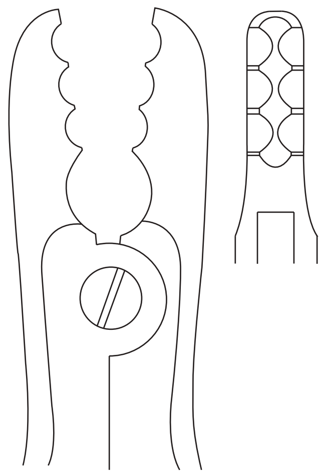
Martin Cartilage Scissors
two curved serrated blades





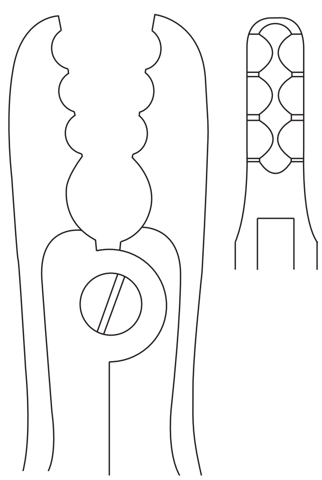
gS 49.9290 9 1/2"

Mueller Capsule Scissors
angular blades



gS 49.2280 8 1/2"

Ortho Grasper
curved handle
7x20mm bite



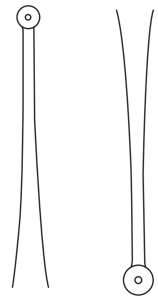
gS 49.2300 10 1/2"

Ortho Grasper
straight handle
7x20mm bite

1.5 / 2.0 1.5 / 2.5

gS 50.5080 1.5mm / 2.0mm
gS 50.5920 1.5mm / 2.5mm

Curette Excavator
5 1/2"
double ended, with holes

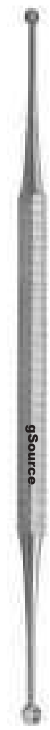


3.0 4.0

Features larger cup
sizes and wider neck.

gS 50.5930 5 1/2"

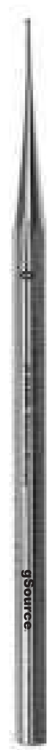
gCurette, Excavator
3.0mm / 4.0mm
double ended, with holes



1.0mm 1.5mm 2.0mm 2.5mm

gS 50.5590 #57-0 1.0mm
gS 50.5610 #57-1 1.5mm
gS 50.5630 #57-2 2.0mm
gS 50.5650 #57-3 2.5mm

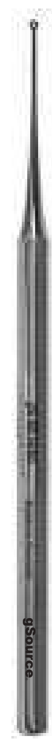
Curette Excavator
5"
single ended, without hole



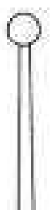
1.0mm 2.0mm 2.5mm

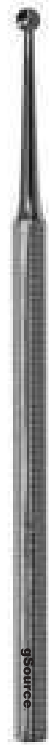
gS 50.5680 #58-0 1.0mm
gS 50.5780 #58-1 1.5mm
gS 50.5000 #58-2 2.0mm
gS 50.5040 #58-3 2.5mm

Curette Excavator
5"
single ended, with hole



50/2 - dermal curettes

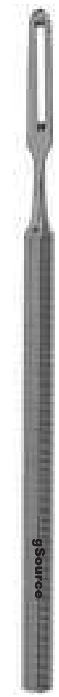




Commonly referred to
as Verruca curette.
McGlamry Bullneck
resists bending.

gS 50.5570 4mm
gS 50.5571 5mm

Curette Excavator #4
5"
single ended, without hole



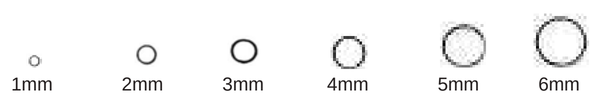
Inside cutting edge of blade useful
for shaving down and reducing the
thickness of nails in order to help
relieve pressure.

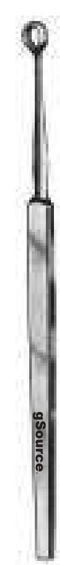
gS 50.4050 5"

Ingrown Nail Shaver
single ended
with fenestrated blade

Useful for scraping skin
lesions and growths such
as warts or melanomas.

Round ring on working
end is sharp on inside
and blunt on outside so
surrounding skin is not
damaged when lesion is
removed.



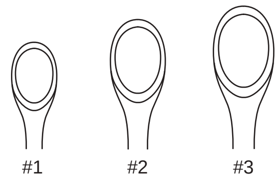


gS 50.5950 1mm
gS 50.5960 2mm
gS 50.5970 3mm
gS 50.5980 4mm
gS 50.5990 5mm
gS 50.6000 6mm

Fox Curette
5 1/2"
round

Useful for scraping skin lesions and growths such as warts or melanomas.

Oval ring on working end is sharp on inside and blunt on outside so surrounding skin is not damaged when lesion is removed.

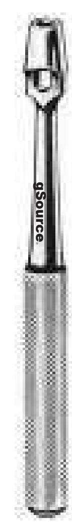


gS 50.6030 #1 small
gS 50.6050 #2 medium
gS 50.6070 #3 large

Piffard Curette
5 1/2"
oval

Useful in removal of skin samples for biopsy. Round end is sharp and when pushed into the skin and twisted slightly, it excises a small plug of skin. The depth of the excision needed is determined by the physician. Knurled handle helps to provide a secure gripping surface.

Can also be used in gynecological biopsies where deeper tissue samples are needed.



gS 50.6110 2mm
gS 50.6120 3mm
gS 50.6130 4mm
gS 50.6140 5mm
gS 50.6150 6mm
gS 50.6170 8mm

Keyes Punch
4"
round

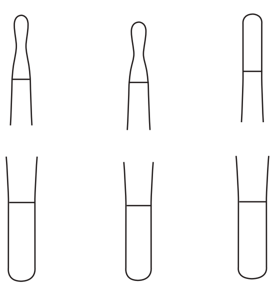
Useful for treating facial blemishes. Lancet helps to rupture pustules. Cup has a small round hole used for extraction by placing it around the blemish and applying gentle pressure.

gS 50.6660 4"

Saalfeld Comedone Extractor
lancet and fenestrated cup

gS 50.6662 5 1/2"

Saalfeld Comedone Extractor
lancet and fenestrated cup



crimped fine square

Useful for treating facial blemishes. By placing the appropriate working loop end around the blemish and applying gentle pressure, debris is forced out.

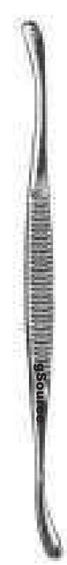
gS 50.6800 crimped
gS 50.6820 fine
gS 50.6840 square

Schamberg Comedone Extractor
3 3/4", fenestrated loops

Useful for treating facial blemishes. The spoon ends each have a small round hole used for extraction by placing it around the blemish and applying gentle pressure.

gS 50.6920 5 3/4"

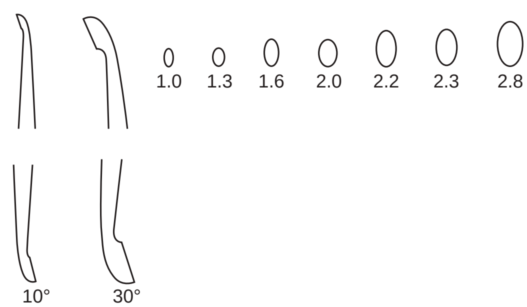
Unna Comedone Extractor
fenestrated spoon ends

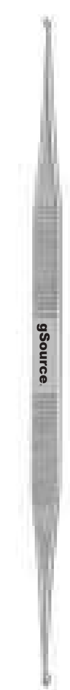


Useful for treating facial blemishes. Lancet helps to rupture pustules. Cup has a small round hole used for extraction by placing it around the blemish and applying gentle pressure. Cap protects lancet when not in use.

gS 50.7040 6 1/2"

Walton Comedone Extractor
one fenestrated cup
curved lancet with cap





Useful in dermal procedures as well as ENT procedures.

		10° angle
gS 50.4234	7"	1.0mm / 1.6mm
gS 50.4230	7"	1.6mm / 2.0mm
gS 50.4238	7"	2.3mm / 2.8mm
		30° angle
gS 50.4210	6"	1.0mm / 1.3mm
gS 50.4212	6"	1.0mm / 2.0mm
gS 50.4214	6"	1.6mm / 2.0mm
gS 50.4216	6"	2.2mm / 2.8mm
gS 50.4220	6 1/4"	1.6mm / 1.6mm
gS 50.4222	6 1/4"	1.6mm / 2.0mm
gS 50.4232	7"	1.6mm / 2.0mm
gS 50.4236	7"	1.0mm / 1.6mm
gS 50.4240	7"	2.3mm / 2.8mm

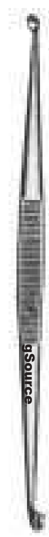
House Stapes Curette
double ended
oval cups

50/6 - dermal curettes

Useful for scraping
biological tissue or
debris for biopsy, excision,
or cleaning procedures.
Also useful for smoothing
away unwanted bumps
or growths.

gS 50.7200 5 1/2"

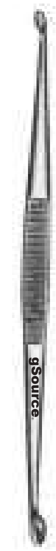
Martini Curette
4mm / 5mm round ends



Useful for dermal,
small bone and
periodontal procedures.

gS 50.7300 5 1/2"

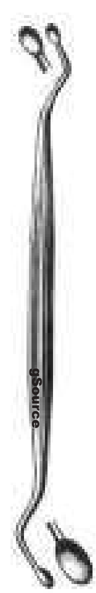
Williger Curette
3mm / 4mm oval cups



Useful for scraping
biological tissue or
debris for biopsy, excision,
or cleaning procedures.

gS 50.7320 6"

Jansen Curette
3mm / 4mm oval cups



did you know… ?

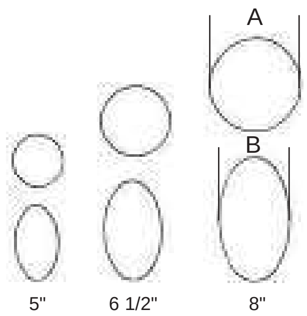
During a skin biopsy, a physican will remove a small sample of skin for testing in order to help in the diagnosis of the patient’s skin condition or lesion.

Three common skin biopsy procedures include:

Shave biopsy – Superficial skin biopsy where a thin layer is shaved off the suface of a lesion. A lesion may be a tumor or an area of inflammation.

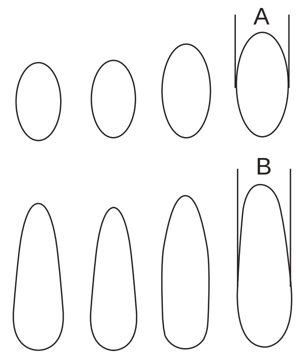
Punch biopsy – A cylindrical sample is removed to view layers of a lesion.

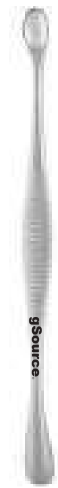
Excisional biopsy – A scalpel is used to remove the entire visible portion of a lesion.



		cup width A/B
gS 51.6600	5"	6.8/6.3mm
gS 51.6620	6 1/2"	9.0/7.0mm
gS 51.6610	8"	11.1/9.1mm

Volkmann Curette
oval/round

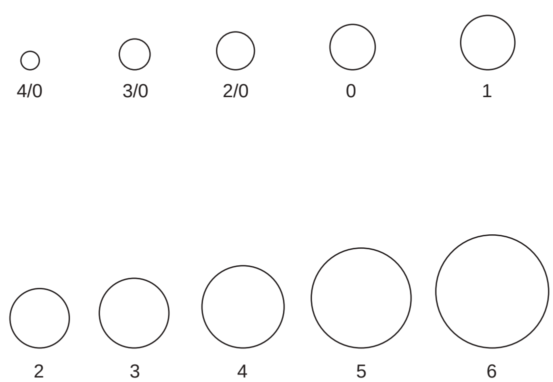


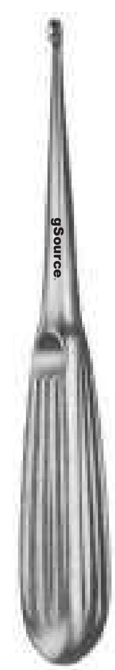


		cup width A/B
gS 51.3000	5"	6.3/7.5mm
gS 51.3020	5 1/2"	6.2/6.8mm
gS 51.3030	6 1/2"	6.8/7.3mm
gS 51.3040	8"	7.4/8.0mm

Volkmann Curette
oval/oval

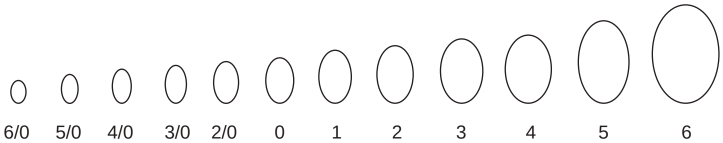
	#	cup width
gS 51.2190	4/0	2.6mm
gS 51.2200	3/0	3.3mm
gS 51.2210	2/0	4.8mm
gS 51.2220	0	5.8mm
gS 51.2230	1	7.3mm
gS 51.2240	2	8.3mm
gS 51.2250	3	10.2mm
gS 51.2260	4	11.8mm
gS 51.2270	5	12.8mm
gS 51.2280	6	14.0mm

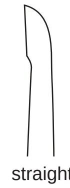




Brun Curette (Spratt)
6 1/4", straight
round cups, hollow handle

51/2 - bone curettes

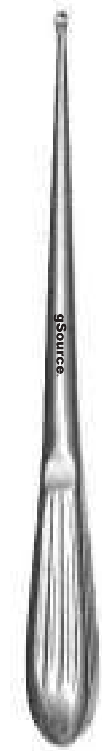


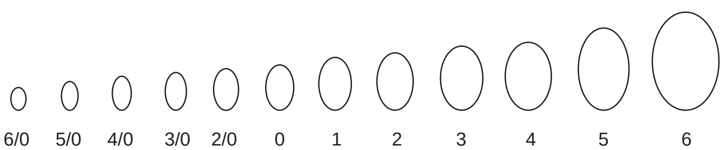


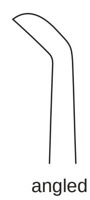
#	cup width	7"	8"	9"
6/0	2.0mm	—	**gS 51.6475**	**gS 51.6624**
5/0	2.2mm	**gS 51.6110***	**gS 51.6476**	**gS 51.6626**
4/0	2.5mm	**gS 51.6120***	**gS 51.6477**	**gS 51.6628**
3/0	2.8mm	**gS 51.6130***	**gS 51.6478**	**gS 51.6630**
2/0	3.3mm	**gS 51.6150***	**gS 51.6479**	**gS 51.6640**
0	3.7mm	**gS 51.6170***	**gS 51.6480**	**gS 51.6650**
1	4.3mm	**gS 51.6190***	**gS 51.6481**	**gS 51.6660**
2	4.8mm	**gS 51.6210***	**gS 51.6482**	**gS 51.6670**
3	5.6mm	**gS 51.6230***	**gS 51.6483**	**gS 51.6680**
4	6.1mm	**gS 51.6250***	**gS 51.6484**	**gS 51.6690**
5	6.7mm	**gS 51.6290***	**gS 51.6485**	**gS 51.6700**
6	8.8mm	**gS 51.6310***	**gS 51.6486**	**gS 51.6710**

*Fits in gS 98.6020 gRack, Brun Curettes - see page 98-99/9.

Brun Curette
straight
oval cups, hollow handle



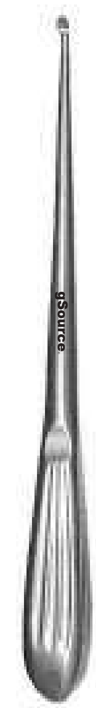


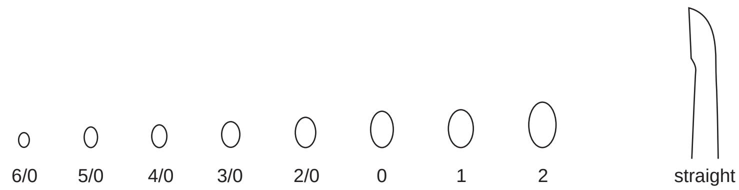


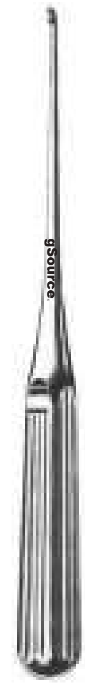
#	cup width	7"	8"	9"
6/0	2.0mm	—	**gS 51.6497**	**gS 51.2070**
5/0	2.2mm	**gS 51.6400***	**gS 51.6498**	**gS 51.2080**
4/0	2.5mm	**gS 51.6401***	**gS 51.6487**	**gS 51.2090**
3/0	2.8mm	**gS 51.6402***	**gS 51.6488**	**gS 51.2100**
2/0	3.3mm	**gS 51.6403***	**gS 51.6489**	**gS 51.2110**
0	3.7mm	**gS 51.6404***	**gS 51.6490**	**gS 51.2120**
1	4.3mm	**gS 51.6410***	**gS 51.6491**	**gS 51.2130**
2	4.8mm	**gS 51.6420***	**gS 51.6492**	**gS 51.2140**
3	5.6mm	**gS 51.6430***	**gS 51.6493**	**gS 51.2150**
4	6.1mm	**gS 51.6440***	**gS 51.6494**	**gS 51.2160**
5	6.7mm	**gS 51.6450***	**gS 51.6495**	**gS 51.2170**
6	8.8mm	**gS 51.6460***	**gS 51.6496**	**gS 51.2180**

*Fits in gS 98.6020 gRack, Brun Curettes - see page 98-99/9.

Brun Curette
angled
oval cups, hollow handle

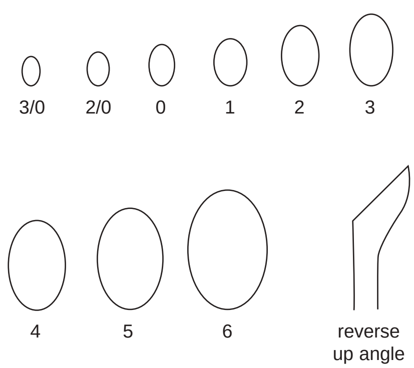


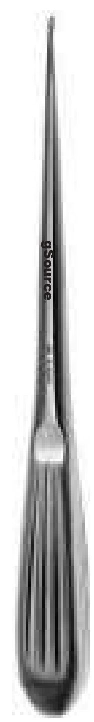




	#	cup width
gS 51.2015	6/0	1.5mm
gS 51.2017	5/0	1.7mm
gS 51.2020	4/0	2.0mm
gS 51.2024	3/0	2.4mm
gS 51.2027	2/0	2.7mm
gS 51.2030	0	3.0mm
gS 51.2036	1	3.3mm
gS 51.2038	2	3.6mm

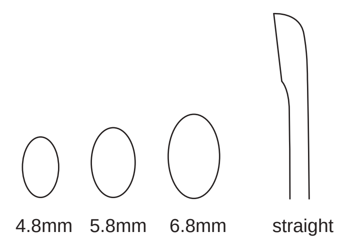
Lempert Curette
8", straight
oval cups, hollow handle





	#	cup width
gS 51.6800	3/0	2.5mm
gS 51.6820	2/0	2.8mm
gS 51.6840	0	3.3mm
gS 51.6851	1	4.0mm
gS 51.6852	2	4.5mm
gS 51.6853	3	5.5mm
gS 51.6854	4	7.5mm
gS 51.6855	5	8.5mm
gS 51.6856	6	10.0mm

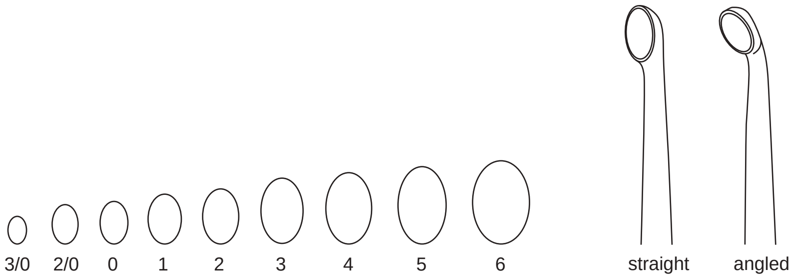
Epstein Curette
8", reverse up angle
oval cups, hollow handle

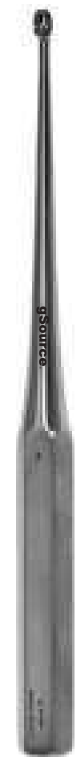


	cup width
gS 51.5481	4.8mm
gS 51.5482	5.8mm
gS 51.5483	6.8mm

Halle Curette
8 1/2", straight, malleable
oval cups, hollow handle

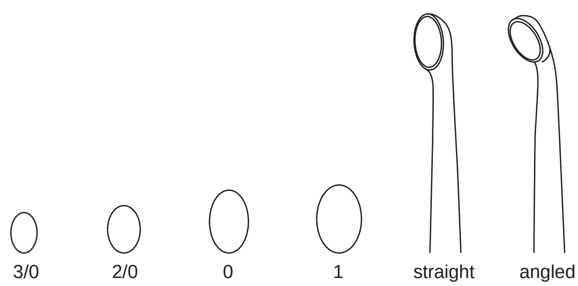
51/4 - bone curettes





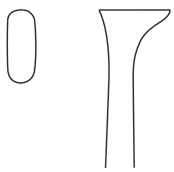
#	straight	angled	cup width
3/0	**gS 51.6510**	**gS 51.2500**	2.8mm
2/0	**gS 51.6520**	**gS 51.2510**	3.3mm
0	**gS 51.6530**	**gS 51.2520**	3.8mm
1	**gS 51.6540**	**gS 51.2530**	4.3mm
2	**gS 51.6550**	**gS 51.2540**	4.8mm
3	**gS 51.6560**	**gS 51.2550**	5.5mm
4	**gS 51.6570**	**gS 51.2560**	6.0mm
5	**gS 51.6580**	**gS 51.2570**	6.8mm
6	**gS 51.6590**	**gS 51.2580**	8.8mm

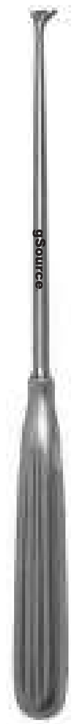
Brun Curette
9"
oval cups, hex handle



#	straight	angled	cup width
3/0	**gS 51.6862**	**gS 51.6872**	3.6mm
2/0	**gS 51.6863**	**gS 51.6873**	4.4mm
0	**gS 51.6864**	**gS 51.6874**	5.2mm
1	**gS 51.6865**	**gS 51.6875**	6.0mm

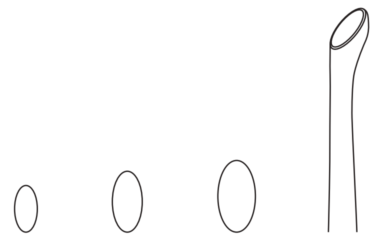
Bushe Curette
10"
oval cups, hollow handle

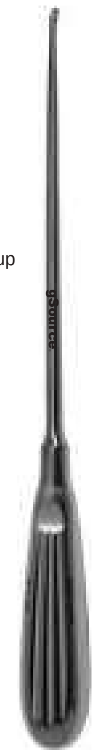




gS 51.4938 9 1/2"

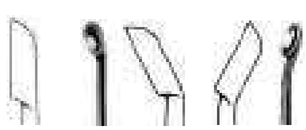
Youngblood Curette
reverse cup, oval
3.8mm cup width, hollow handle

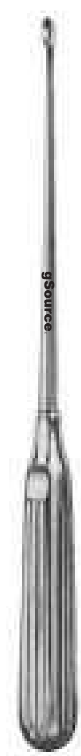




	cup width
gS 51.6883	3mm
gS 51.6884	4mm
gS 51.6885	5mm

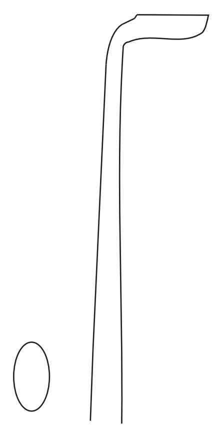
Bushe Curette
10", reverse up angle
oval cups, hollow handle

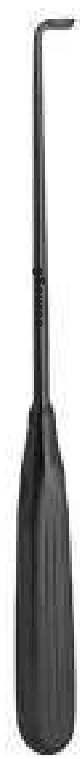




gS 51.6740 straight
gS 51.6760 down
gS 51.6780 up (reverse angle)

Scoville Curette
10"
4.7mm cup width, oval
hollow handle

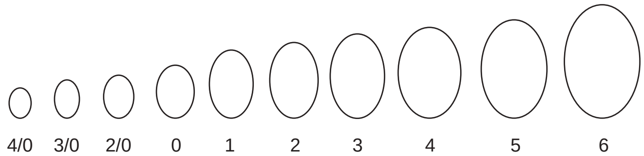


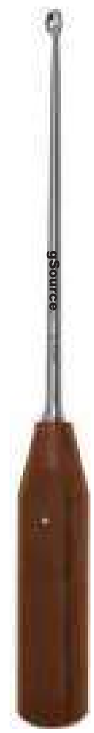


gS 51.6790 10"

Scoville Curette
90° up (reverse angle)
4.7mm cup width, oval
hollow handle

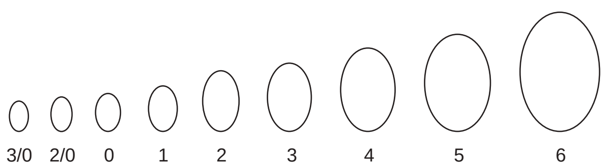
51/6 - bone curettes





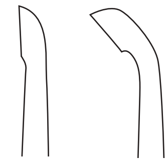
#		cup width
4/0	**gS 51.6944**	2.9mm
3/0	**gS 51.6946**	3.3mm
2/0	**gS 51.6948**	4.0mm
0	**gS 51.6950**	5.0mm
1	**gS 51.6954**	5.8mm
2	**gS 51.6956**	6.4mm
3	**gS 51.6958**	7.2mm
4	**gS 51.6960**	8.3mm
5	**gS 51.6962**	8.7mm
6	**gS 51.6964**	10.0mm

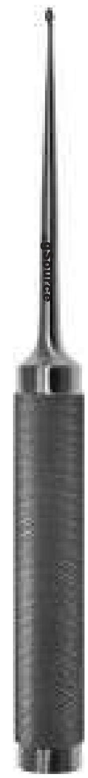
Volkmann Long Curette
11", straight
oval cups, phenolic handle



#		cup width
3/0	**gS 51.5107**	2.5mm
2/0	**gS 51.5108**	2.8mm
0	**gS 51.5110**	3.3mm
1	**gS 51.5111**	3.8mm
2	**gS 51.5112**	4.8mm
3	**gS 51.5113**	5.8mm
4	**gS 51.5114**	7.2mm
5	**gS 51.5115**	8.7mm
6	**gS 51.5116**	10.5mm

Spinal Fusion Curette
11", straight
oval cups, knurled hollow handle

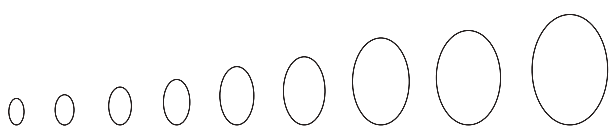


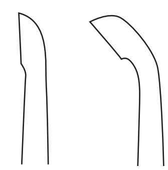


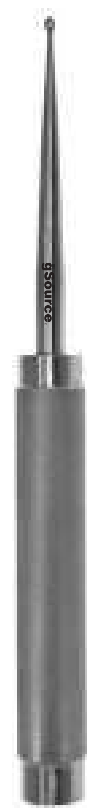
Lightweight stainless steel handle - weighs 50% less than our standard pattern. (gS 51.5221 - gS 51.5411)

#	straight	angled	cup width
3/0	**gS 51.5708**	**gS 51.5808**	2.8mm
2/0	**gS 51.5709**	**gS 51.5809**	3.3mm
0	**gS 51.5710**	**gS 51.5810**	3.6mm
1	**gS 51.5711**	**gS 51.5811**	4.3mm
2	**gS 51.5712**	**gS 51.5812**	4.8mm
3	**gS 51.5713**	**gS 51.5813**	5.6mm
4	**gS 51.5714**	**gS 51.5814**	6.0mm
5	**gS 51.5715**	**gS 51.5815**	6.7mm
6	**gS 51.5716**	**gS 51.5816**	8.8mm

Cobb Curette
11"
oval cups, lightweight knurled hollow stainless steel handle



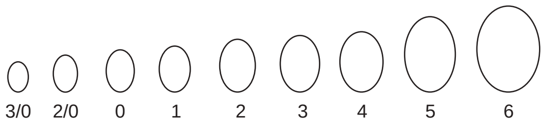


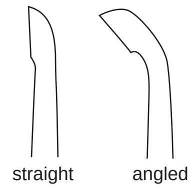


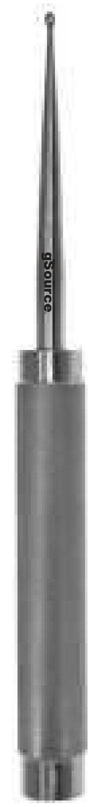
#	straight	angled	cup width
3/0	**gS 51.5221**	**gS 51.5331**	2.0mm
2/0	**gS 51.5231**	**gS 51.5341**	2.5mm
0	**gS 51.5241**	**gS 51.5351**	3.0mm
1	**gS 51.5251**	**gS 51.5361**	3.5mm
2	**gS 51.5261**	**gS 51.5371**	4.5mm
3	**gS 51.5271**	**gS 51.5381**	5.5mm
4	**gS 51.5281**	**gS 51.5391**	7.5mm
5	**gS 51.5291**	**gS 51.5401**	8.5mm
6	**gS 51.5301**	**gS 51.5411**	10.0mm

Cobb Curette
11"
oval cups, knurled stainless steel handle

51/8 - bone curettes

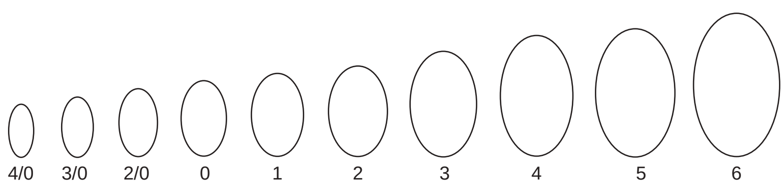


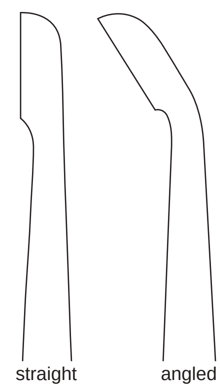


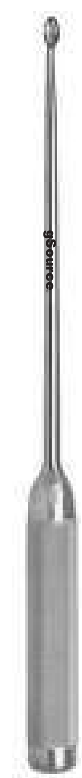


#	straight	angled	cup width
3/0	**gS 51.5448**	**gS 51.5468**	2.7mm
2/0	**gS 51.5449**	**gS 51.5469**	3.2mm
0	**gS 51.5450**	**gS 51.5470**	3.7mm
1	**gS 51.5451**	**gS 51.5471**	4.3mm
2	**gS 51.5452**	**gS 51.5472**	4.7mm
3	**gS 51.5453**	**gS 51.5473**	5.2mm
4	**gS 51.5454**	**gS 51.5474**	5.7mm
5	**gS 51.5455**	**gS 51.5475**	6.7mm
6	**gS 51.5456**	**gS 51.5476**	8.3mm

Cobb Curette
11"
oval cups, knurled aluminum handle

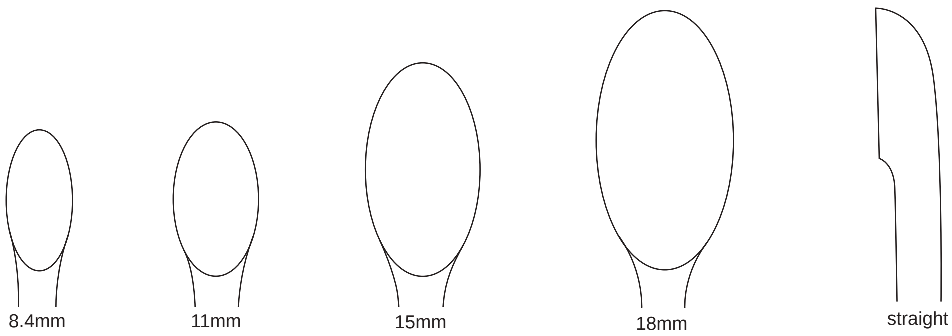






#	straight	angled	cup width
4/0	**gS 51.7407**	**gS 51.7427**	3.3mm
3/0	**gS 51.7408**	**gS 51.7428**	4.2mm
2/0	**gS 51.7409**	**gS 51.7429**	5.1mm
0	**gS 51.7410**	**gS 51.7430**	6.0mm
1	**gS 51.7411**	**gS 51.7431**	6.9mm
2	**gS 51.7412**	**gS 51.7432**	7.8mm
3	**gS 51.7413**	**gS 51.7433**	8.7mm
4	**gS 51.7414**	**gS 51.7434**	9.6mm
5	**gS 51.7415**	**gS 51.7435**	10.5mm
6	**gS 51.7416**	**gS 51.7436**	11.4mm

Bone Curette
15"
oval cups, knurled hollow handle

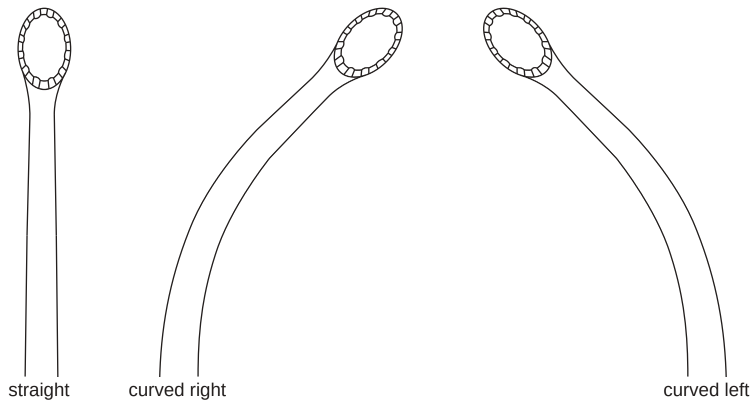


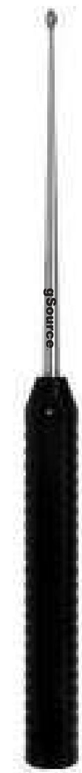
	cup width
gS 51.7501	8.4mm
gS 51.7502	11mm
gS 51.7503	15mm
gS 51.7504	18mm

Bone Curette
15", straight
oval cups, double handed knurled T-handle

51/10 - bone curettes

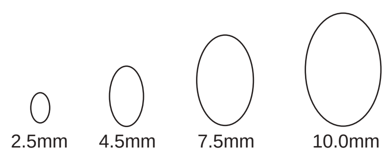
Double handed grip provides
maximum control.

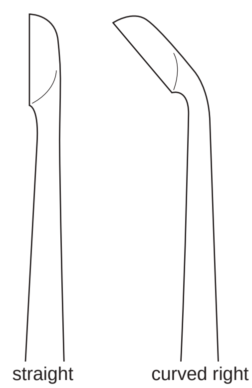


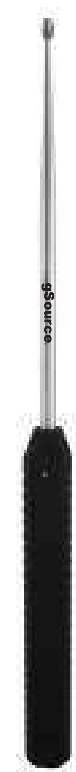


gS 51.4800 straight
gS 51.4801 curved right
gS 51.4802 curved left

Tooth Curette, Double Handed
17", cup width, 6.5mm
oval toothed cups, 9" plastic handle, black







Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control. Angled curettes allow access to posterolateral corners.

straight	angled	cup width
gS 51.7802	**gS 51.7812**	2.5mm
gS 51.7804	**gS 51.7814**	4.5mm
gS 51.7807	**gS 51.7817**	7.5mm
gS 51.7810	**gS 51.7820**	10.0mm

gCurette, Double Handed
17", oval cups
9" plastic handle, black

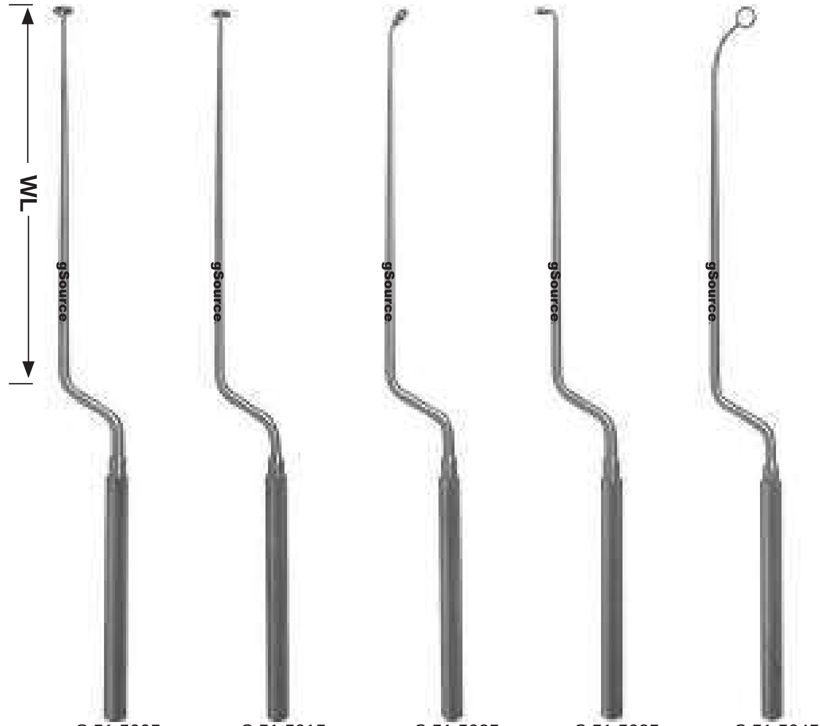
WL = Working Length

3mm 5mm

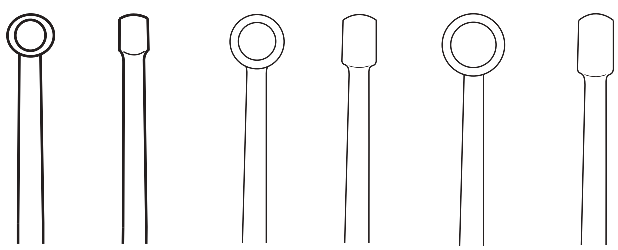
Handle is knurled on front side
and flat on back side.

gS 51.5003 3mm angled up
gS 51.5005 5mm angled up
gS 51.5013 3mm angled down
gS 51.5015 5mm angled down
gS 51.5023 3mm 45° right
gS 51.5025 5mm 45° right
gS 51.5033 3mm 90° left
gS 51.5035 5mm 90° left
gS 51.5045 5mm curved right
gS 51.5055 5mm curved left

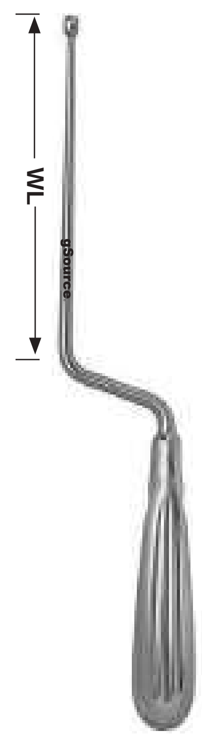
Hardy Bayonet Curette
9 1/2", round fenestrated cup
sharp/sharp
knurled handle, 4 3/4" WL



gS 51.5005 angled up | gS 51.5015 angled down | gS 51.5025 45° right | gS 51.5035 90° left | gS 51.5045 curved right

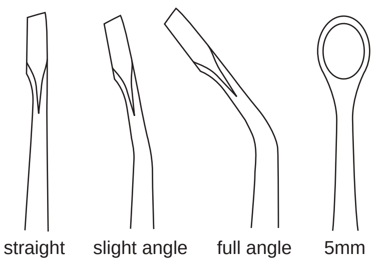


4mm 5mm 6mm



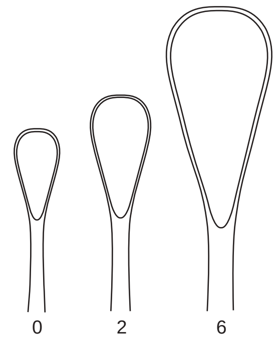
gS 51.5094 4mm
gS 51.5095 5mm
gS 51.5096 6mm

Kraemer Bayonet Ring Curette
10", straight, round fenestrated cup
sharp/sharp
hollow handle, 4 1/2" WL



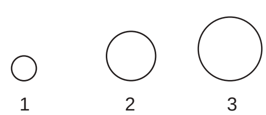
gS 51.5490	straight
gS 51.5492	slight angle
gS 51.5494	full angle

Semmes Ring Curette
9", oval fenestrated 5mm cup width
sharp/blunt
hollow handle



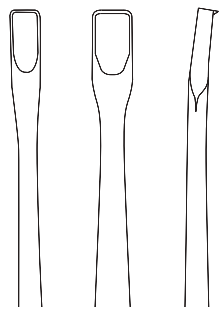
		#	cup width
gS 51.5620	10"	0	6mm
gS 51.5622	10"	2	8mm
gS 51.5626	10 1/2"	6	14mm
gS 51.5630	11 1/2"	0	6mm
gS 51.5632	11 1/2"	2	8mm
gS 51.5636	12"	6	14mm

Ring Curette
straight, oval fenestrated cups
sharp/blunt
hollow handle

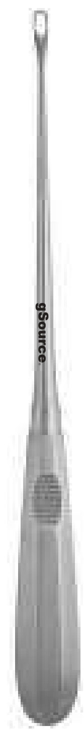


#	straight	angled	cup width
1	**gS 51.5500**	**gS 51.5560**	3mm
2	**gS 51.5520**	**gS 51.5580**	6mm
3	**gS 51.5540**	**gS 51.5600**	8mm

Cone Ring Curette
9", round fenestrated cups
sharp/sharp
knurled aluminum handle

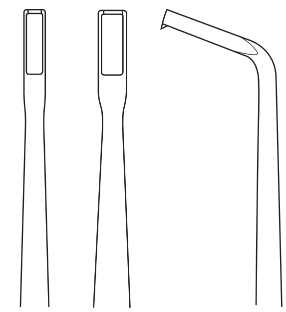


4mm 5mm

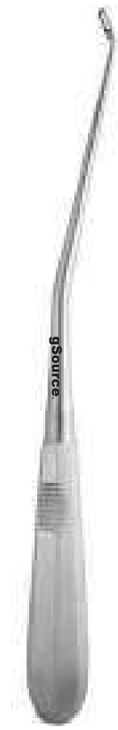


gS 51.5904 4mm
gS 51.5905 5mm

Caspar Bone Curette
10", straight, toothed
square fenestrated cup
sharp/blunt

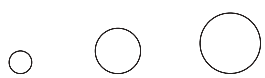


3mm 4mm

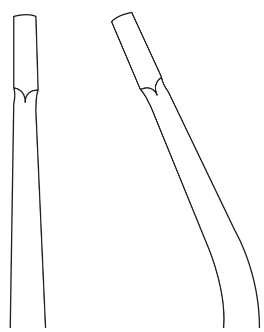


gS 51.5913 3mm
gS 51.5914 4mm

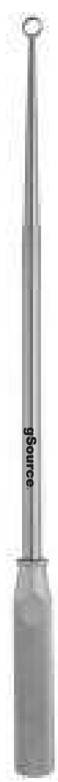
Caspar Bone Curette
10 1/2", angled, toothed
square fenestrated cup
sharp/blunt

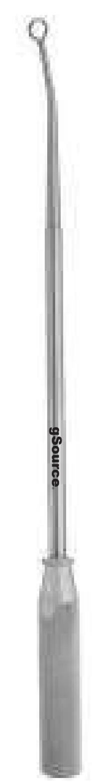


1 2 3



straight angled



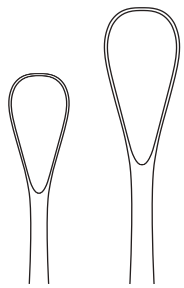


Useful in removing excess tissue for sampling or growths during neurological procedures.

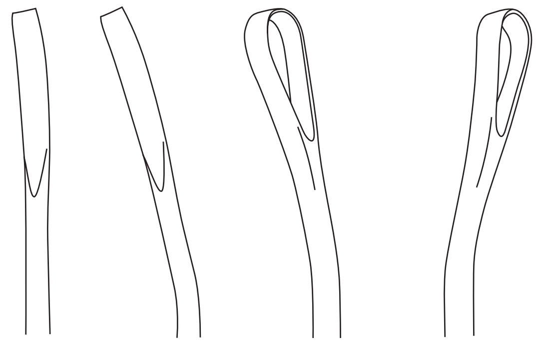
#	straight	angled	cup width
1	**gS 51.5601**	**gS 51.5611**	3mm
2	**gS 51.5602**	**gS 51.5612**	6mm
3	**gS 51.5603**	**gS 51.5613**	8mm

Cone Ring Curette
15", round fenestrated cups
sharp/sharp
knurled aluminum handle

51/14 - bone curettes



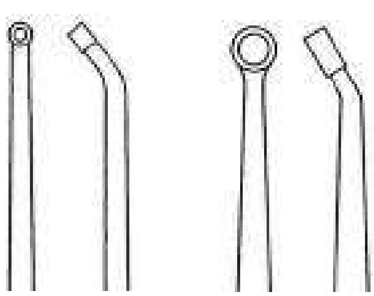
8mm 11mm



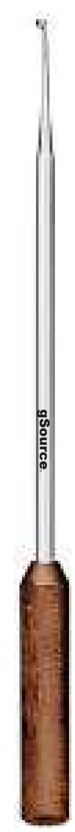
straight angled curved left curved right

gS 51.5640	straight	8mm	sharp/blunt
gS 51.5645	straight	11mm	sharp/blunt
gS 51.5650	angled	8mm	sharp/sharp
gS 51.5655	angled	11mm	sharp/sharp
gS 51.5660	angled	8mm	sharp/sharp, right curved shaft
gS 51.5665	angled	11mm	sharp/sharp, right curved shaft
gS 51.5670	angled	8mm	sharp/sharp, left curved shaft
gS 51.5675	angled	11mm	sharp/sharp, left curved shaft

Zielke Ring Curette
13 1/2", oval fenestrated cups
ergonomic plastic handle

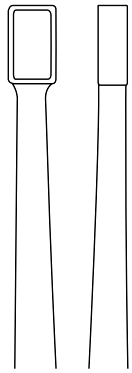


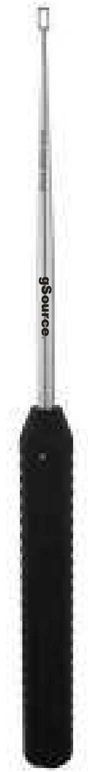
3mm 6mm



gS 51.5682	17" angled	3mm
gS 51.5684	20" angled	6mm

Cone Ring Curette
round fenestrated cups
sharp/sharp
phenolic handle

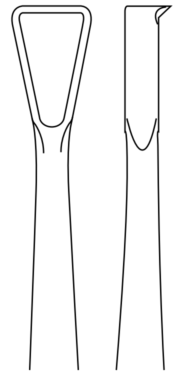




Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control.

gS 51.7706 17"

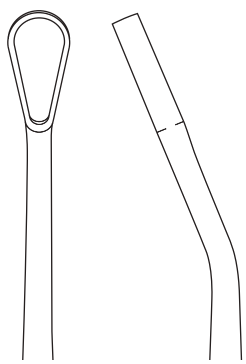
gCurette, Box, Double Handed
straight, 6mm fenestrated cup
sharp/blunt
9" plastic handle, black



Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control.

gS 51.7710 17"

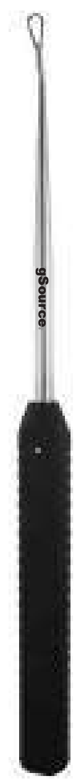
gCurette, Triangle, Double Handed
straight, 10mm fenestrated cup
sharp/blunt
9" plastic handle, black



Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control.

gS 51.7908 17"

gCurette, Teardrop Ring, Double Handed
angled, 8mm fenestrated cup
sharp/sharp
9" plastic handle, black



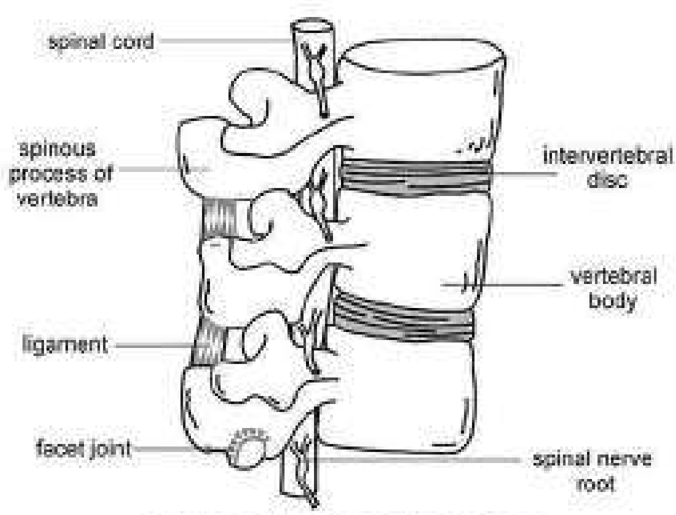
did you know… ?

Anterior lumbar interbody fusion (ALIF) is a traditional open spine surgery aimed at removing the source of neural compression in the spine and immobilizing a section of the back so that pain triggered by movement (mechanical pain) is eliminated. “Anterior” indicates that the procedure is performed through the front of the body. “Lumbar” refers to the lower back, while “interbody” means the main component of the surgery takes place in the space between two adjacent vertebrae.

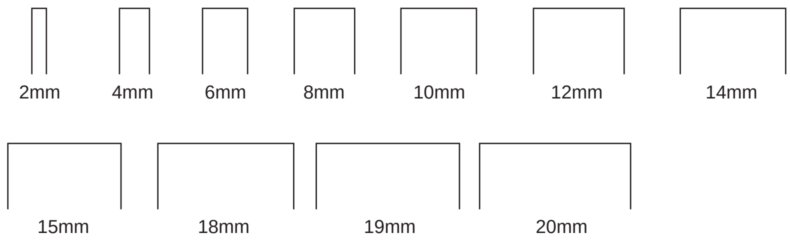
ALIF is commonly performed for a variety of painful spinal conditions, such as spondylolisthesis and degenerative disc disease, among others. As we age, the spongy discs between vertebrae begin to deteriorate, they lose water content and disc height. This causes them to “collapse” into the spine, where they can bulge or rupture into the spinal canal, exerting painful pressure on surrounding spinal nerves.

For anterior spinal fusion, an incision is made on one side of the abdomen. Organs, soft tissue, and blood vessels are moved aside so there is a wide exposure of the intervertebral disc without retraction of the spinal nerves, decreasing risk of neurologic injury.

A discectomy is performed to remove all or part of the damaged disc. The intervertebral space is widened, both to make room for a bone graft and implants and to enlarge the foramina, which are the open spaces on the sides of each vertebra through which spinal nerves pass. A bone graft and implants are inserted between the vertebral bodies and in time, the bones should completely fuse together. In some cases, the two fused vertebrae are further immobilized with rods and screws attached to the pedicles.

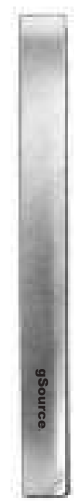


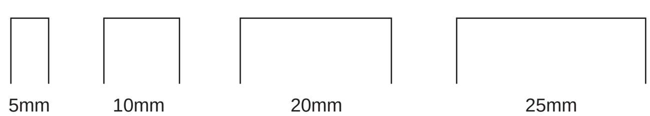
LUMBAR SPINE AND SPINAL CORD



	straight		curved
gS 52.4355	2mm		
gS 52.4360	4mm	**gS 52.4472**	4mm
gS 52.4380	6mm	**gS 52.4473**	6mm
gS 52.4400	8mm	**gS 52.4474**	8mm
gS 52.4420	10mm	**gS 52.4475**	10mm
gS 52.4440	12mm	**gS 52.4477**	12mm
gS 52.4430	14mm	**gS 52.4476**	14mm
gS 52.4450	15mm	**gS 52.4478**	15mm
gS 52.4460	18mm	**gS 52.4479**	18mm
gS 52.4470	19mm	**gS 52.4480**	19mm
gS 52.4350	20mm		

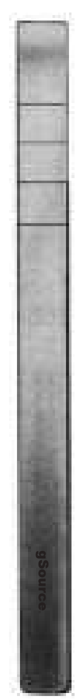
Mini Lambotte Osteotome
5"

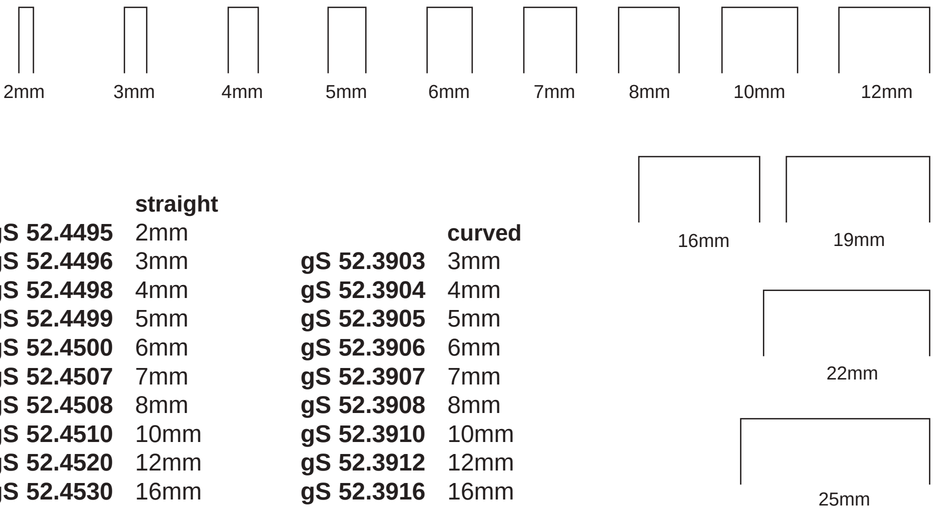




gS 52.0400	str	10mm
gS 52.0460	str	20mm
gS 52.0500	str	25mm
gS 52.0700	cvd	5mm
gS 52.0750	cvd	10mm

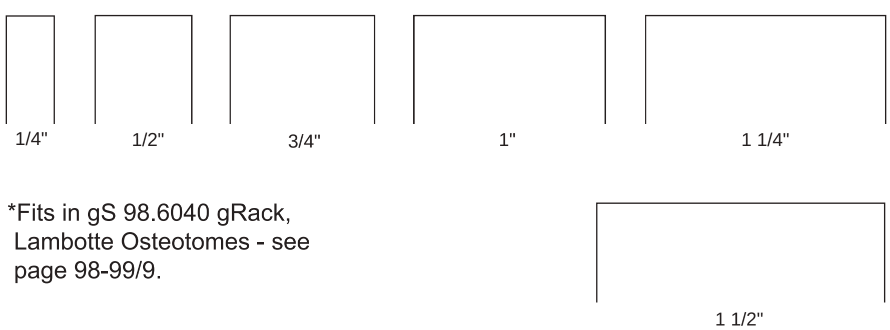
Long Bevel Osteotome
7" with calibration lines
long beveled cutting end





	straight		curved
gS 52.4495	2mm		
gS 52.4496	3mm	gS 52.3903	3mm
gS 52.4498	4mm	gS 52.3904	4mm
gS 52.4499	5mm	gS 52.3905	5mm
gS 52.4500	6mm	gS 52.3906	6mm
gS 52.4507	7mm	gS 52.3907	7mm
gS 52.4508	8mm	gS 52.3908	8mm
gS 52.4510	10mm	gS 52.3910	10mm
gS 52.4520	12mm	gS 52.3912	12mm
gS 52.4530	16mm	gS 52.3916	16mm
gS 52.4540	19mm	gS 52.3919	19mm
gS 52.4550	22mm	gS 52.3922	22mm
gS 52.4560	25mm	gS 52.3925	25mm

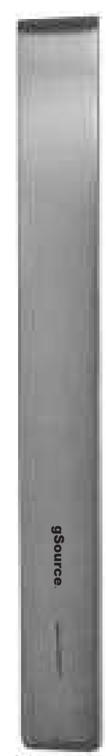
Lambotte Osteotome
7"
with calibration lines

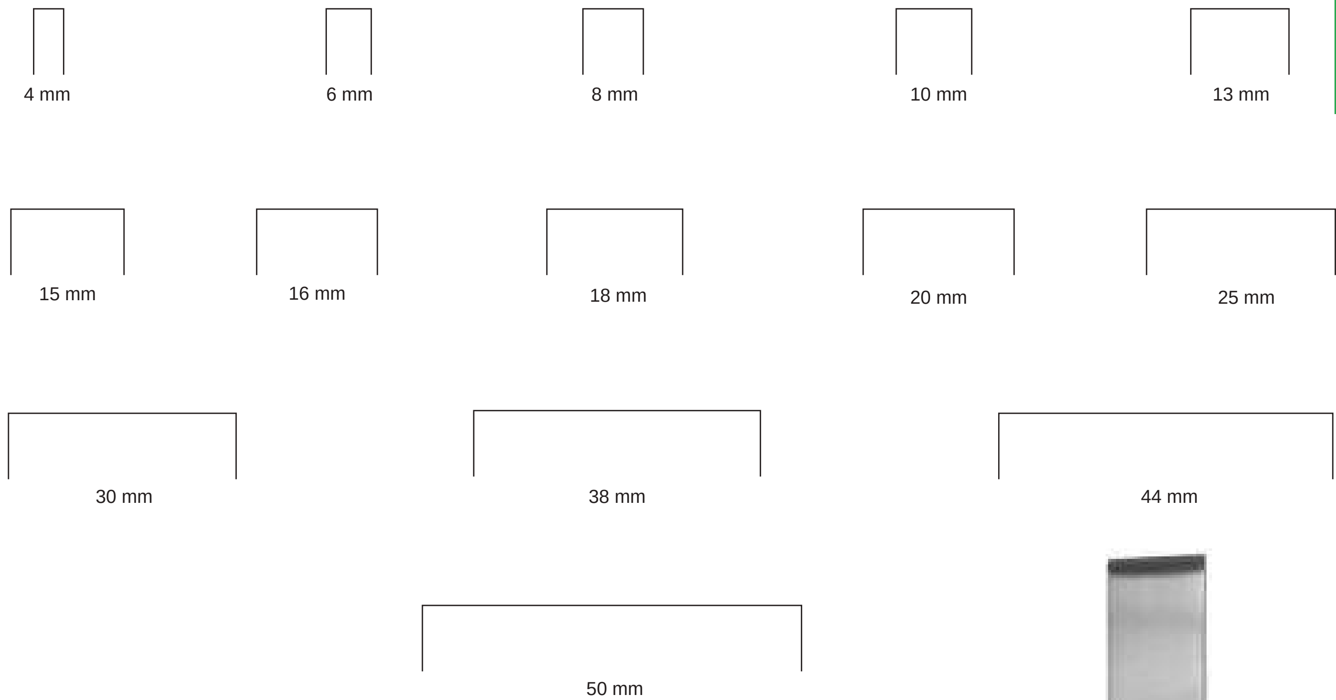


*Fits in gS 98.6040 gRack, Lambotte Osteotomes - see page 98-99/9.

	straight			curved	
gS 52.4040	1/4"	[6mm]*	gS 52.4280	1/4"	[6mm]*
gS 52.4060	1/2"	[13mm]*	gS 52.4290	1/2"	[13mm]*
gS 52.4100	3/4"	[19mm]*	gS 52.4300	3/4"	[19mm]*
gS 52.4140	1"	[25mm]*	gS 52.4310	1"	[25mm]*
gS 52.4180	1 1/4"	[32mm]*	gS 52.4320	1 1/4"	[32mm]*
gS 52.4220	1 1/2"	[38mm]*	gS 52.4330	1 1/2"	[38mm]*

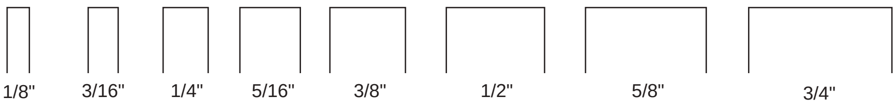
Lambotte Osteotome
9"

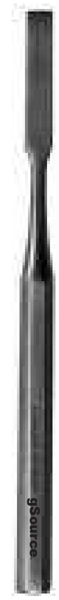




	straight
gS 52.5004	4mm
gS 52.5006	6mm
gS 52.5008	8mm
gS 52.5010	10mm
gS 52.5013	13mm
gS 52.5015	15mm
gS 52.5016	16mm
gS 52.5018	18mm
gS 52.5020	20mm
gS 52.5025	25mm
gS 52.5030	30mm
gS 52.5038	38mm
gS 52.5044	44mm
gS 52.5050	50mm

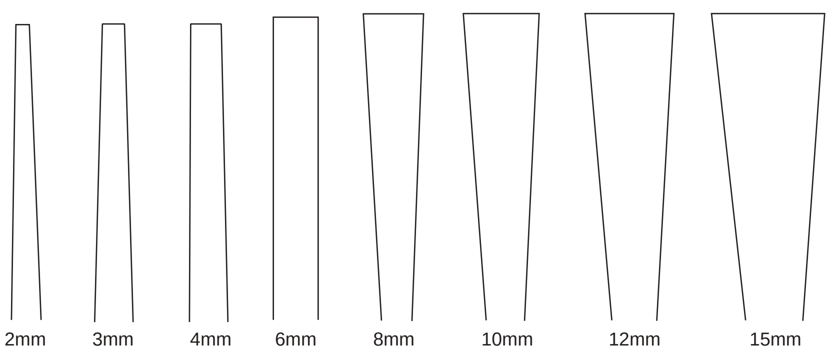
Lambotte Osteotome
9 3/4"

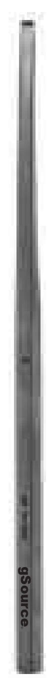




5 1/4" straight	5 1/4" curved			6 3/4" straight		
gS 52.5970	**gS 52.6053**	1/8"	[3mm]	**gS 52.6073**	1/8"	[3mm]
gS 52.5980	**gS 52.6054**	3/16"	[4mm]	**gS 52.6074**	3/16"	[4mm]
gS 52.5990	**gS 52.6056**	1/4"	[6mm]	**gS 52.6076**	1/4"	[6mm]
gS 52.6000	**gS 52.6058**	5/16"	[8mm]	**gS 52.6078**	5/16"	[8mm]
gS 52.6010	**gS 52.6060**	3/8"	[10mm]	**gS 52.6080**	3/8"	[10mm]
gS 52.6020	**gS 52.6063**	1/2"	[13mm]	**gS 52.6082**	7/16"	[12mm]
gS 52.6030	**gS 52.6066**	5/8"	[16mm]			
gS 52.6040	**gS 52.6069**	3/4"	[19mm]			

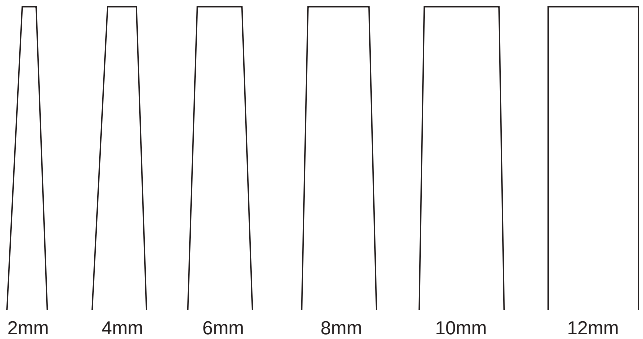
Hoke Osteotome
hexagonal handle

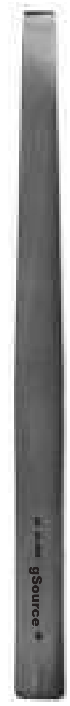




gS 52.3680	2mm
gS 52.3690	3mm
gS 52.3700	4mm
gS 52.3720	6mm
gS 52.3740	8mm
gS 52.3760	10mm
gS 52.3780	12mm
gS 52.3800	15mm

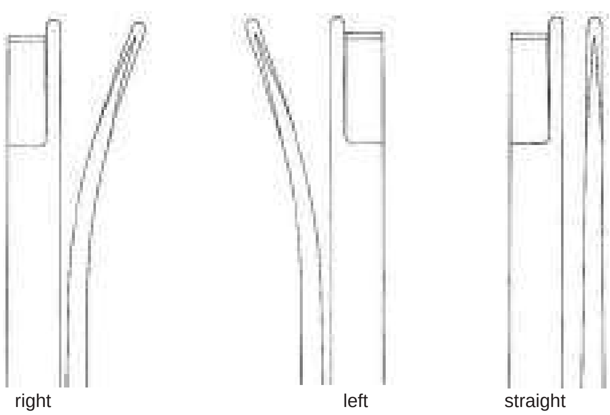
Sheehan Osteotome
6 1/4" straight
hexagonal handle, with cross serrations on handle end

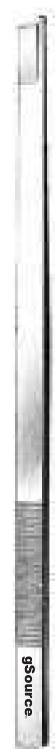




gS 52.4902 2mm
gS 52.4904 4mm
gS 52.4906 6mm
gS 52.4908 8mm
gS 52.4910 10mm
gS 52.4912 12mm

Converse Osteotome
7"
straight

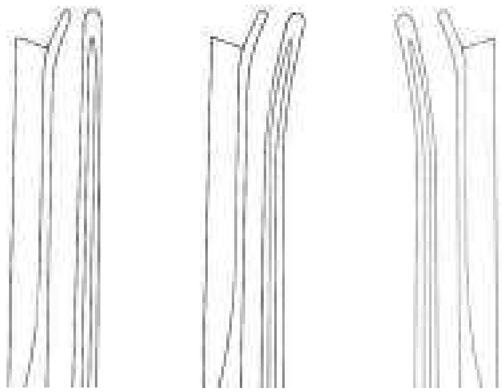




gS 52.1220 curved right guard
gS 52.1222 curved left guard
gS 52.1318 straight with guard

Anderson-Neivert Osteotome
8" with single guard
7mm

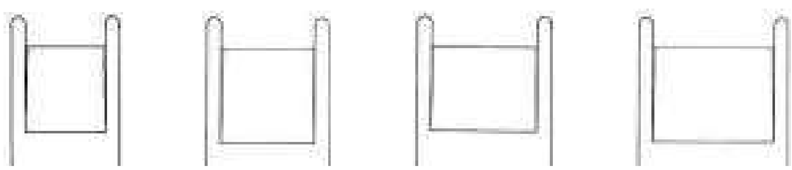
52-53/6 - osteotomes



straight curved right curved left

gS 52.0300 straight
gS 52.0301 curved right
gS 52.0302 curved left

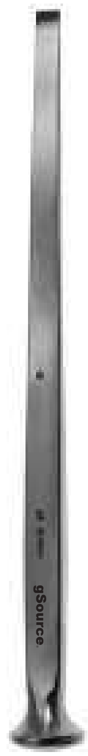
Silver Osteotome
7" with single guard

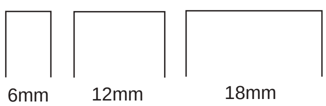


10mm 12mm 14mm 16mm

gS 52.0310 10mm
gS 52.0311 12mm
gS 52.0312 14mm
gS 52.0313 16mm

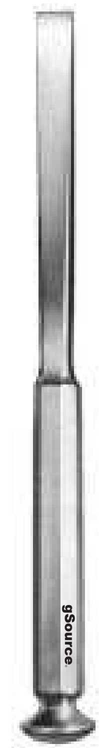
Cinelli Osteotome
6 1/2" with double guard
straight

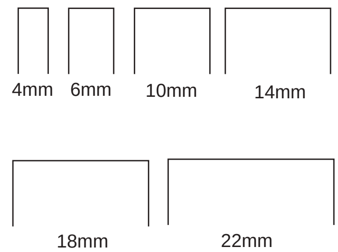




gS 52.3840	6mm
gS 52.3860	12mm
gS 52.3880	18mm

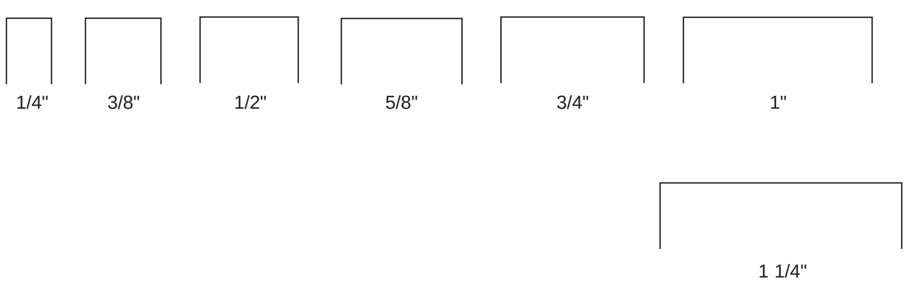
Army Pattern Osteotome
7"
straight

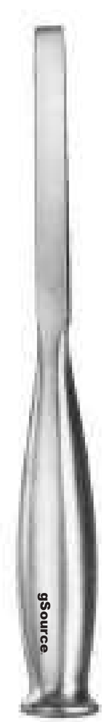




gS 52.1008	4mm
gS 52.1010	6mm
gS 52.1020	10mm
gS 52.1040	14mm
gS 52.1060	18mm
gS 52.1080	22mm

Stille Osteotome
8"
straight

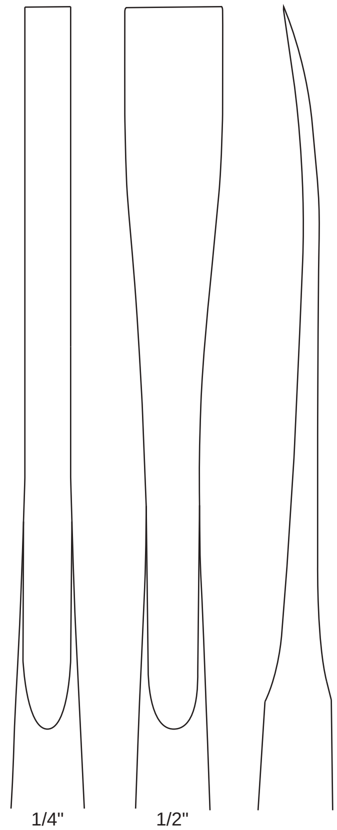


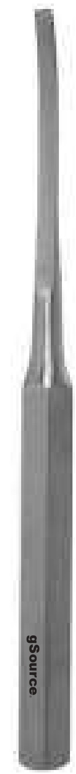


	straight			**curved**	
gS 52.5480	1/4"	[6mm]	**gS 52.5570**	1/4"	[6mm]
gS 52.5490	3/8"	[10mm]	**gS 52.5580**	3/8"	[10mm]
gS 52.5500	1/2"	[13mm]	**gS 52.5590**	1/2"	[13mm]
gS 52.5510	5/8"	[16mm]	**gS 52.5600**	5/8"	[16mm]
gS 52.5520	3/4"	[19mm]	**gS 52.5610**	3/4"	[19mm]
gS 52.5530	1"	[25mm]	**gS 52.5620**	1"	[25mm]
gS 52.5540	1 1/4"	[32mm]	**gS 52.5630**	1 1/4"	[32mm]

Smith Peterson Osteotome
8"
solid handle

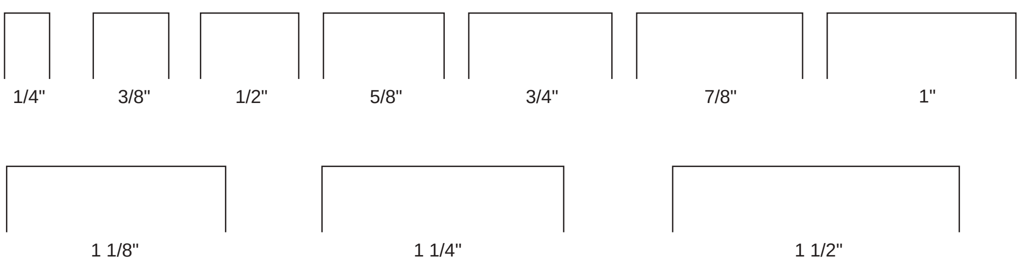
52-53/8 - osteotomes

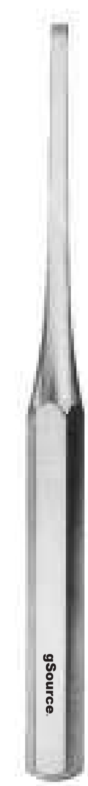




gS 52.4870	1/4"	[6mm]
gS 52.4873	1/2"	[13mm]

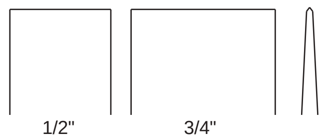
gOsteotomes, Hibbs
9 1/2" curved
hollow hexagonal handle

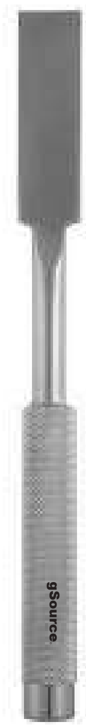




	straight			curved	
gS 52.4590	1/4"	[6mm]	**gS 52.4730**	1/4"	[6mm]
gS 52.4600	3/8"	[10mm]	**gS 52.4760**	3/8"	[10mm]
gS 52.4610	1/2"	[13mm]	**gS 52.4770**	1/2"	[13mm]
gS 52.4620	5/8"	[16mm]	**gS 52.4780**	5/8"	[16mm]
gS 52.4630	3/4"	[19mm]	**gS 52.4790**	3/4"	[19mm]
gS 52.4640	7/8"	[22mm]	**gS 52.4800**	7/8"	[22mm]
gS 52.4650	1"	[25mm]	**gS 52.4810**	1"	[25mm]
gS 52.4660	1 1/8"	[29mm]	**gS 52.4820**	1 1/8"	[29mm]
gS 52.4670	1 1/4"	[32mm]	**gS 52.4830**	1 1/4"	[32mm]
gS 52.4680	1 1/2"	[38mm]	**gS 52.4840**	1 1/2"	[38mm]

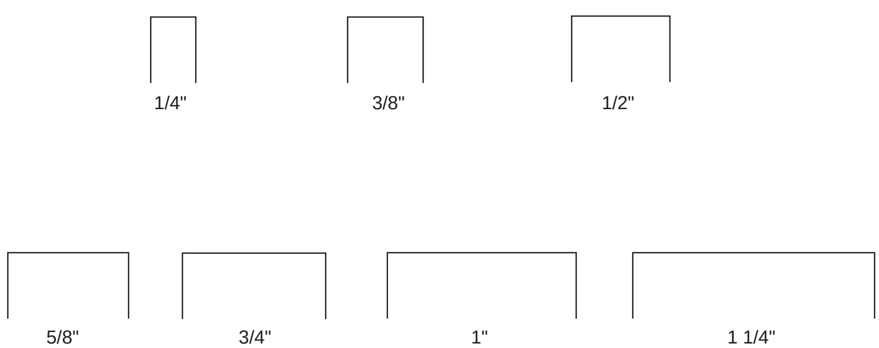
Hibbs Osteotome
9 1/2"
solid hexagonal handle





gS 53.0012	1/2"	[13mm]
gS 53.0019	3/4"	[19mm]

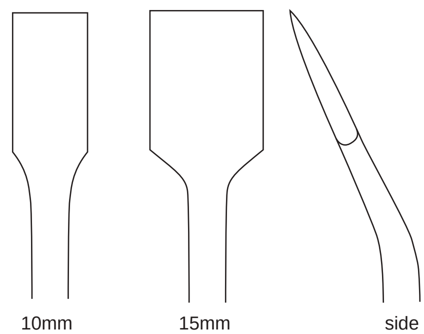
Osteotome
8" straight
knurled stainless steel handle

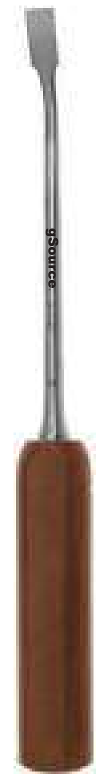


	straight			curved	
gS 53.4500	1/4"	[6mm]	**gS 53.4570**	1/4"	[6mm]
gS 53.4510	3/8"	[10mm]	**gS 53.4580**	3/8"	[10mm]
gS 53.4520	1/2"	[13mm]	**gS 53.4590**	1/2"	[13mm]
gS 53.4530	5/8"	[16mm]	**gS 53.4600**	5/8"	[16mm]
gS 53.4540	3/4"	[19mm]	**gS 53.4610**	3/4"	[19mm]
gS 53.4550	1"	[25mm]	**gS 53.4620**	1"	[25mm]
gS 53.4560	1 1/4"	[32mm]	**gS 53.4630**	1 1/4"	[32mm]

Cobb Osteotome
11"
knurled stainless steel handle

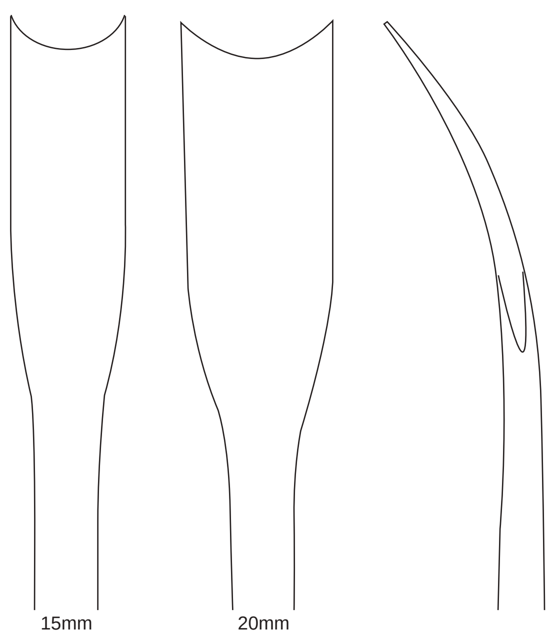
52-53/10 - osteotomes

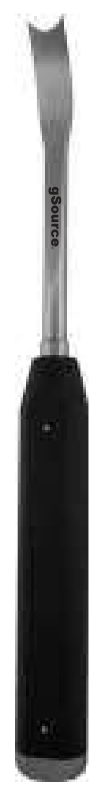




gS 53.4410 10mm
gS 53.4415 15mm

Lexer Osteotome
11"
angled shaft, phenolic handle

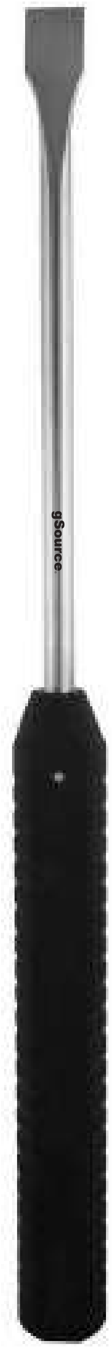




Stainless steel
end cap on
handle.

gS 53.4715 15mm
gS 53.4720 20mm

Pelvic Osteotome
12" curved
plastic handle, black



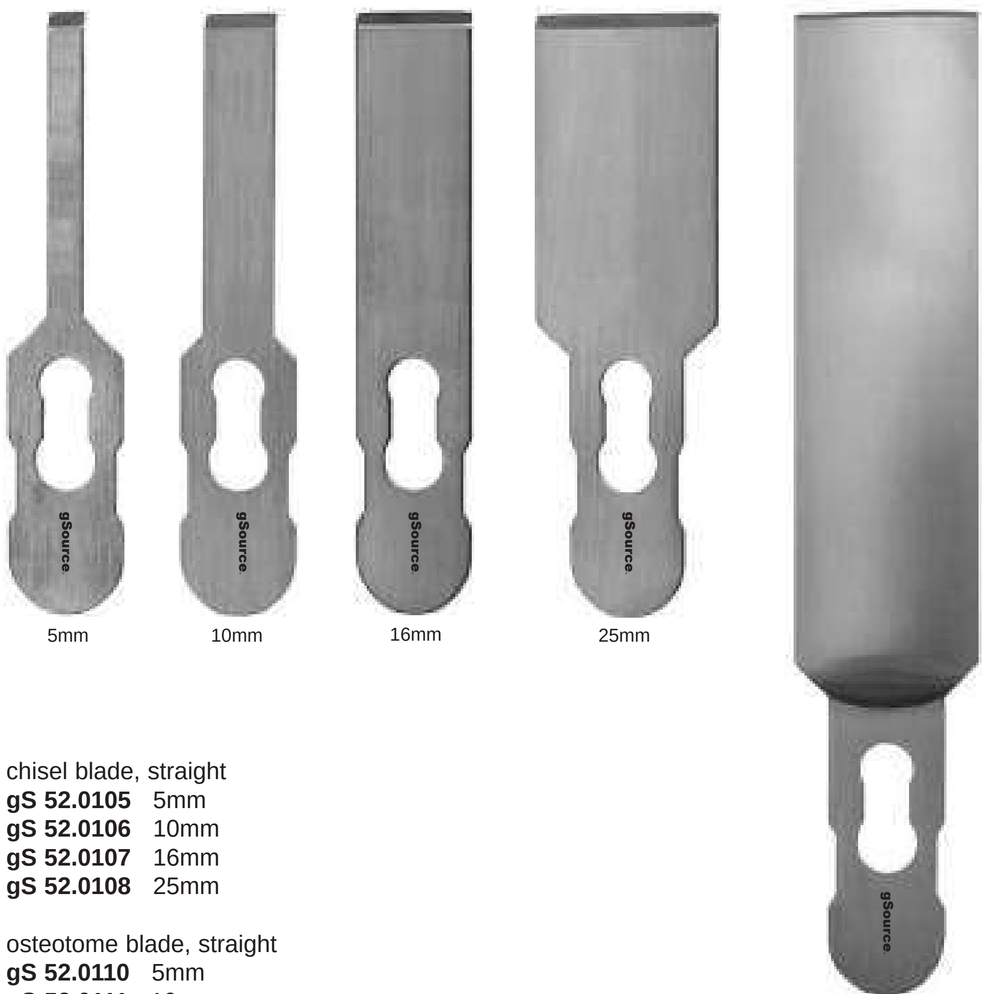
Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control.

gS 53.7918 18mm
gS 53.7925 25mm

gOsteotome, Double Handed
17" straight
9" plastic handle, black

52-53/12 - osteotomes

Plastic handle is autoclavable to
250° F [121° C].



5mm 10mm 16mm 25mm

60mm radius

3.0mm

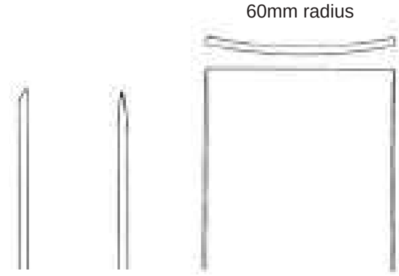
3 1/4" hex key 5 1/4" hex key

chisel blade, straight
gS 52.0105 5mm
gS 52.0106 10mm
gS 52.0107 16mm
gS 52.0108 25mm

osteotome blade, straight
gS 52.0110 5mm
gS 52.0111 10mm
gS 52.0112 16mm
gS 52.0113 25mm

gouge blade
gS 52.0160 60mm radius

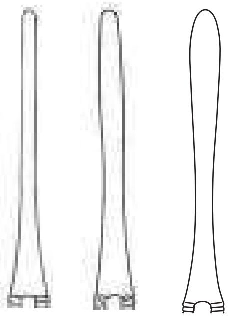
gS 52.0100 handle only
gS 52.0101 key only, 3 1/4" 3.0mm hex
gS 52.0103 key only, 5 1/4" 3.0mm hex
knurled aluminum handle
gS 52.0102 replacement screw only

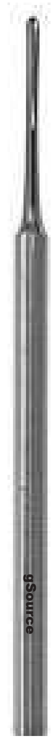


chisel osteotome gouge

Interchangeable Osteotome, Chisel and Gouge
7"
plastic handle, black

handle

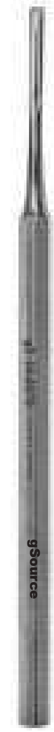

2mm 3mm 4mm



gS 54.6240 2mm
gS 54.6280 3mm
gS 54.6290 4mm

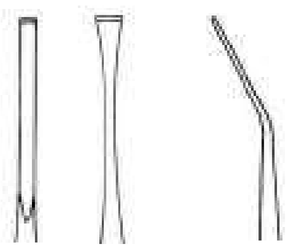
Nucleus Knife
5 1/4" straight, single ended
blunt blade

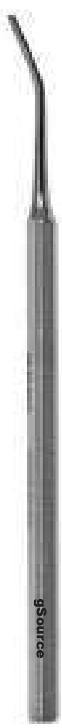

small large



gS 54.6570 #59 small
gS 54.6600 #61 large

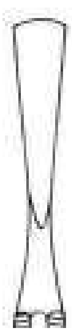
Nail Splitter
5" straight, single ended
sharp blade

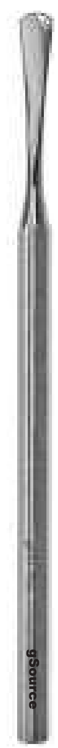

small large



gS 54.6620 #60 small
gS 54.6680 #62 large

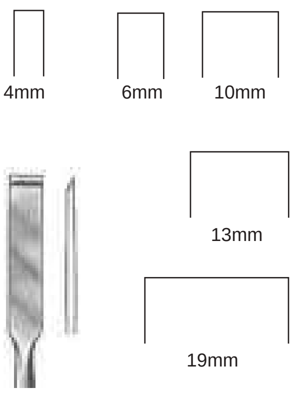
Nail Splitter
5" angled, single ended
sharp blade





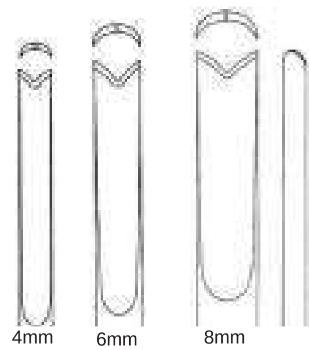
gS 54.7500

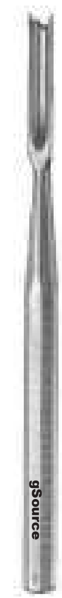
Chisel Spade
5 1/4" curved edge
single ended



gS 54.6050 4mm
gS 54.6060 6mm
gS 54.6070 10mm
gS 54.6080 13mm
gS 54.6090 19mm

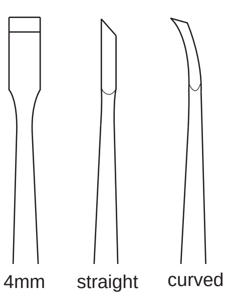
Hoke Chisel
5 1/4" straight

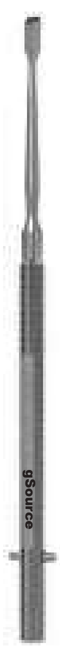




gS 54.1090 4mm
gS 54.1092 6mm
gS 54.1094 8mm

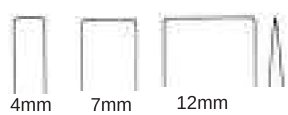
Hajek Septum Chisel
6" straight
sharp "V" edge

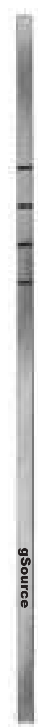




gS 54.1060 straight
gS 54.1070 curved

Freer Septum Chisel
6 1/2"
4mm



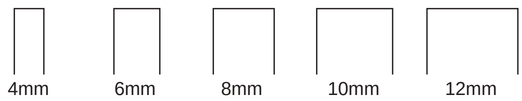


Tapered osteotome end.

Serrated tamp end.

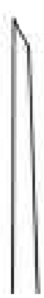
gS 54.1085 4mm
gS 54.1086 7mm
gS 54.1087 12mm

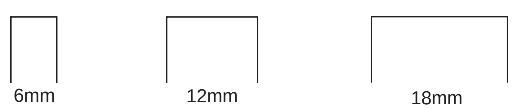
Cottle Septum Chisel
7" straight tapered end
graduation lines

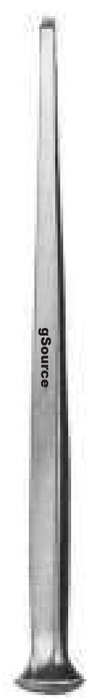


gS 54.3600 4mm
gS 54.3620 6mm
gS 54.3640 8mm
gS 54.3660 10mm
gS 54.3680 12mm

Mini Lexer Chisel
7" straight
phenolic handle

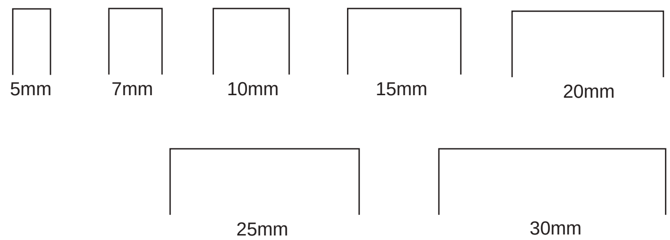






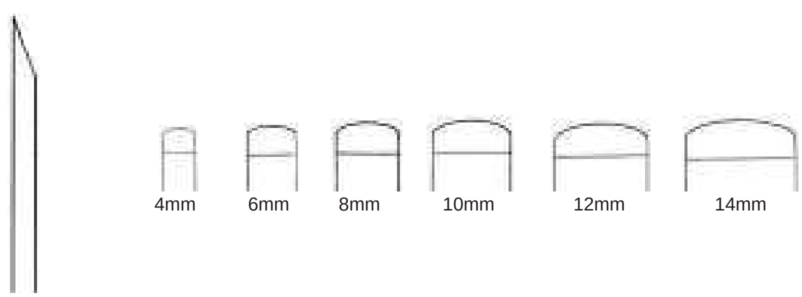
gS 54.3890 6mm
gS 54.3900 12mm
gS 54.3910 18mm

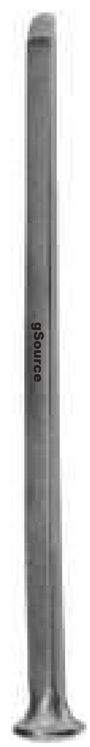
Army Pattern Chisel
7"



gS 54.3460 5mm
gS 54.3480 7mm
gS 54.3500 10mm
gS 54.3520 15mm
gS 54.3540 20mm
gS 54.3560 25mm
gS 54.3580 30mm

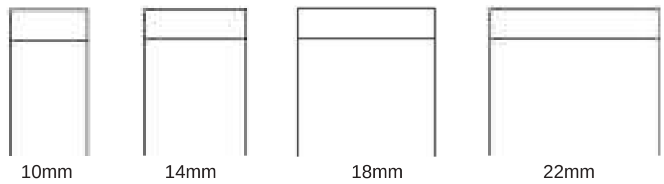
Lexer Chisel
8 1/2" straight
phenolic handle

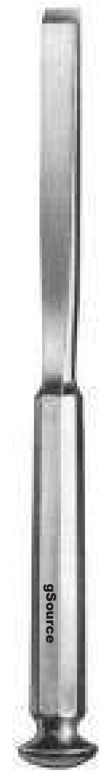




gS 54.1400 4mm
gS 54.1410 6mm
gS 54.1420 8mm
gS 54.1430 10mm
gS 54.1440 12mm
gS 54.1450 14mm

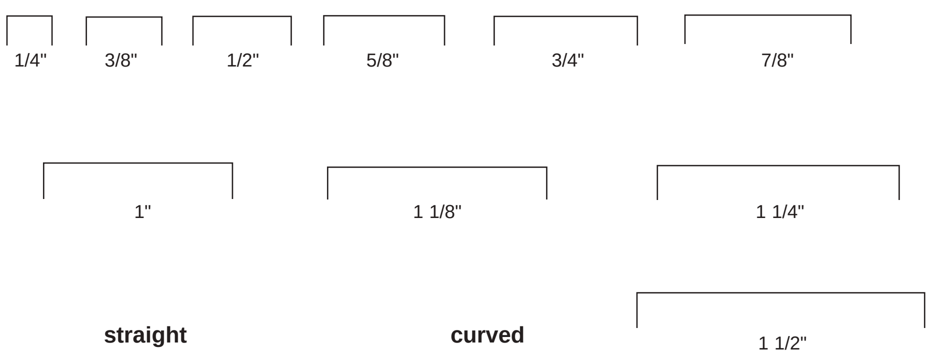
Alexander Chisel
7" straight chisel
rounded edge

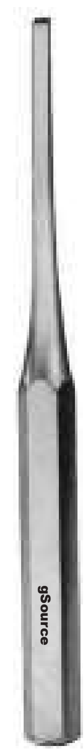




gS 54.1100	10mm
gS 54.1120	14mm
gS 54.1140	18mm
gS 54.1160	22mm

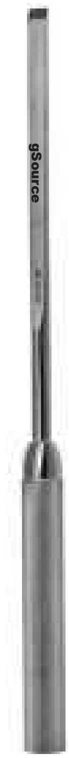
Stille Type Chisel
8"
straight edge

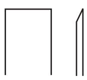




	straight		curved
gS 54.1590	1/4"	**gS 54.1730**	1/4"
gS 54.1600	3/8"	**gS 54.1740**	3/8"
gS 54.1610	1/2"	**gS 54.1750**	1/2"
gS 54.1620	5/8"	**gS 54.1760**	5/8"
gS 54.1630	3/4"	**gS 54.1770**	3/4"
gS 54.1640	7/8"	**gS 54.1780**	7/8"
gS 54.1650	1"	**gS 54.1790**	1"
gS 54.1660	1 1/8"	**gS 54.1800**	1 1/8"
gS 54.1670	1 1/4"	**gS 54.1810**	1 1/4"
gS 54.1680	1 1/2"	**gS 54.1820**	1 1/2"

Hibbs Chisel
9"
solid hexagonal handle





gS 54.1906 6mm

Spinal Fusion Chisel
9 1/2" straight
knurled handle

did you know… ?

Spinal fusion is one of the surgical procedures that have been performed for many years to treat chronic painful spinal conditions, in both the neck and the lower back. Additionally, spinal fusions have been performed to correct spinal deformities such as scoliosis, or curvature of the spine, and instability or abnormal movement between adjoining vertebras. Spinal fusion is the linking of adjacent vertebra through the process of bone formation. Usually, this procedure is augmented with the addition of metal implants such as rods and screws or hooks and rods. Newer intervertebral implants that are cylindrical shapes can actually be placed into the area where the intervertebral disc joins one vertebra to the other. The hallmark of spinal fusion requires that bone grow between one vertebra and the other. Until very recently, this has been accomplished with the use of bone graft material. The gold standard, which all other graft materials are compared to, is the patient's own bone. To use the patient's own bone requires taking bone from one site in the patient's body, usually the pelvic bone or the iliac bone. This bone is "harvested" using chisels, gouges and other bone cutting instruments. That bone is then packed between the vertebras or around the vertebra in such a way to stimulate bone growth and ultimately fuse the vertebra together.

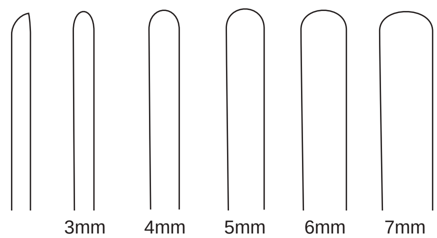
did you know… ?

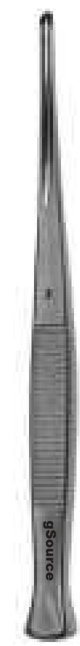
Dr. Michael Hoke was among the earliest orthopedic surgeons in the South and a leader in charitable institutions for crippled children. He was born in 1874 in Lincolnton, North Carolina. He completed his medical degree at the University of Virginia and then interned at the Johns Hopkins University. In 1897 he began a general surgery practice in Atlanta. In 1900 he spent a year in Boston for post-graduate study in orthopedics and then returned to Atlanta to become the South's first specialist in orthopedics. While there, he developed a keen interest in crippled children, often caring for those unable to pay. He devised a procedure performed on the feet of polio victims which became known as the "Hoke operation".

The Scottish Rite Convalescent Hospital for Crippled Children was founded in 1915 through the dedication of Mrs. Bertie Wardlow and Dr. Michael Hoke. The two-cottage Decatur facility gave indigent, crippled children a place to recover after having surgery at Piedmont Hospital and Wesley Memorial Hospital (now Emory University Hospital). Three years later, in 1918, a new 50 bed building was opened on West Hill Street with the facilities to become a full orthopedic surgical hospital for those who could not afford to pay for care, and featured a natural light surgical suite. The new hospital focused on treating Georgia children crippled by polio, and was the first hospital in the United States devoted to the orthopedic care of children. The Oakhurst hospital served as a model for the 19 Shriner's Hospitals for Crippled Children which were later opened around the nation. After returning back to North Carolina he was the first principal surgeon at the North Carolina Orthopedic Hospital, opened in 1921.

President Franklin D. Roosevelt, himself a polio victim, took a special interest in Dr. Hoke's work. In 1931 he persuaded Dr. Hoke to leave his Atlanta practice and take a post as surgeon-in-chief at the Georgia Warm Springs Foundation (now known as Roosevelt Warm Springs Institute). The operations were paid for by the Foundation for Infantile Paralysis, which later became the March of Dimes. President Roosevelt's first visit to Warm Springs was in 1924 when he heard about improvements made by polio victims as a result of swimming in the 88-degree natural spring at the Georgia resort. President Roosevelt purchased the property in 1927 and turned it into a polio treatment center. Dr. Hoke and his wife occupied the "Little White House" at Warm Springs, as it became known, vacating it when President Roosevelt was in residence. Dr. Hoke was not the President's personal physician, but had his respect and trust. Declining in health, Dr. Hoke was forced to retire to Beaufort, South Carolina in 1937. He died in 1944.

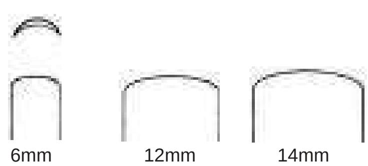
The Hoke Chisel is shown on page 2 in this section.

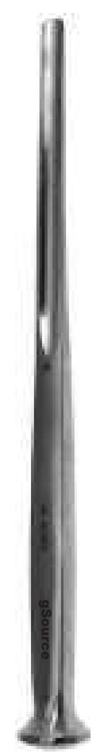




gS 56.0003 3mm
gS 56.0004 4mm
gS 56.0005 5mm
gS 56.0006 6mm
gS 56.0007 7mm

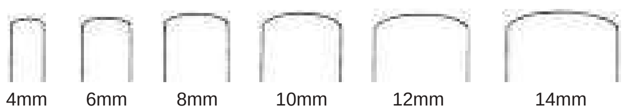
Partsch Gouge
5 1/2" straight
rounded edge

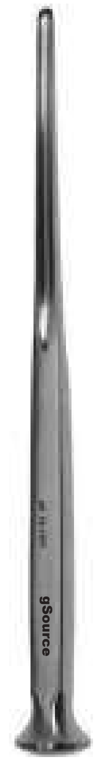




gS 56.3920 6mm
gS 56.3930 12mm
gS 56.3940 14mm

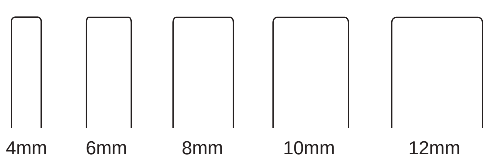
Army Pattern Gouge
6 1/2" straight
rounded edge





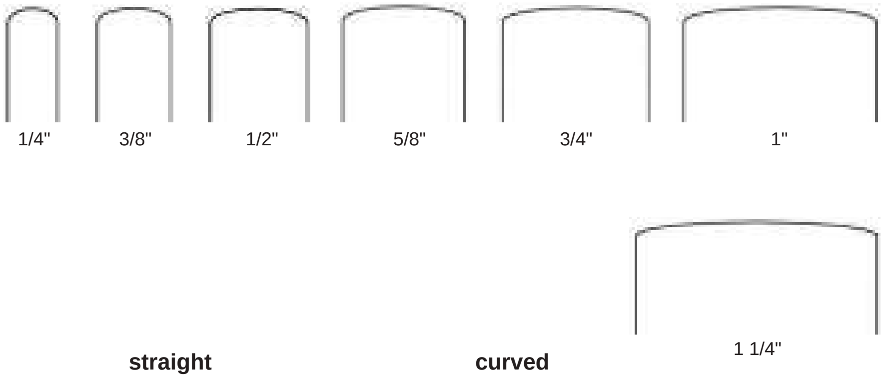
gS 56.1500 4mm
gS 56.1510 6mm
gS 56.1520 8mm
gS 56.1530 10mm
gS 56.1540 12mm
gS 56.1550 14mm

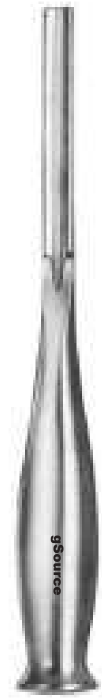
Alexander Gouge
7" straight
rounded edge



gS 56.0104 4mm
gS 56.0106 6mm
gS 56.0108 8mm
gS 56.0110 10mm
gS 56.0112 12mm

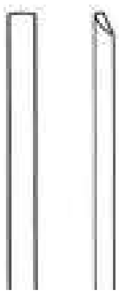
Mini Lexer Gouge
7" straight
phenolic handle

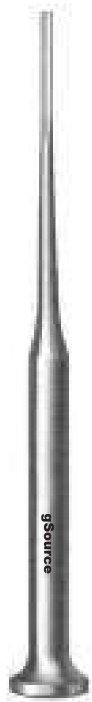




	straight		curved
gS 56.5660	1/4"	**gS 56.5870**	1/4"
gS 56.5670	3/8"	**gS 56.5880**	3/8"
gS 56.5680	1/2"	**gS 56.5890**	1/2"
gS 56.5760	5/8"	**gS 56.5900**	5/8"
gS 56.5770	3/4"	**gS 56.5910**	3/4"
gS 56.5780	1"	**gS 56.5930**	1"
gS 56.5790	1 1/4"	**gS 56.5950**	1 1/4"

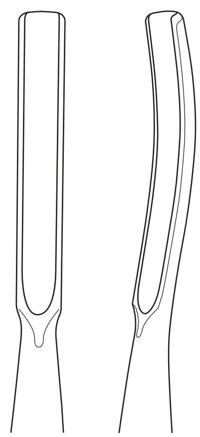
Smith Peterson Gouge
8"
rounded edge





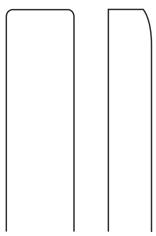
gS 56.0190 3mm

Shoulder Penetrating Gouge
8 1/2" straight



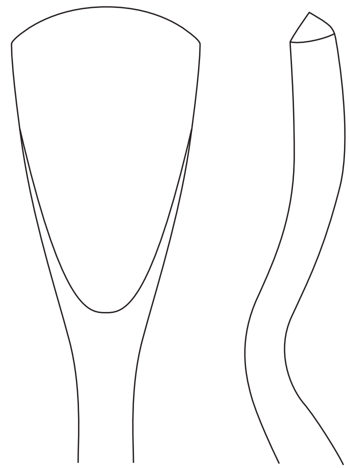
gS 56.1020 6mm

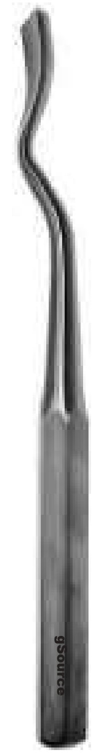
gGouge, Tanaka
9 1/2" curved
phenolic handle



gS 56.1009 9mm

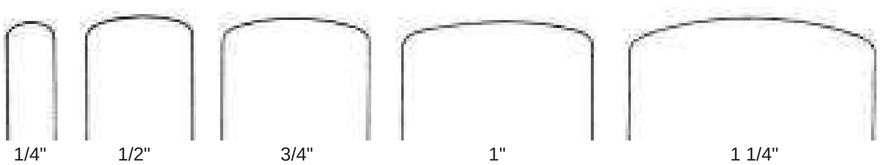
Screw Removal Gouge
9" straight
phenolic handle

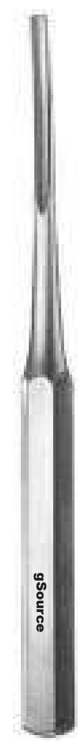




gS 56.1280 25mm

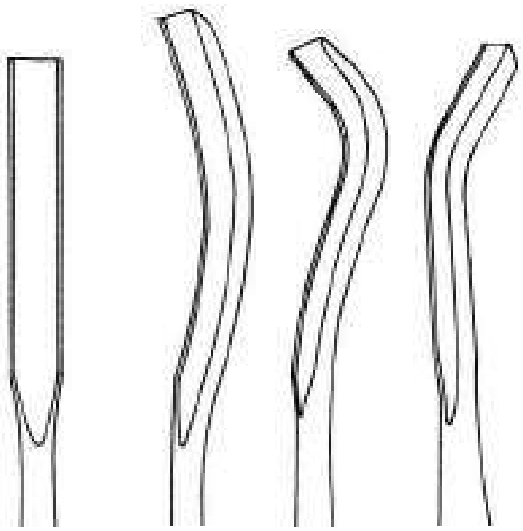
Swan Neck Gouge
9" curved
solid hexagonal handle

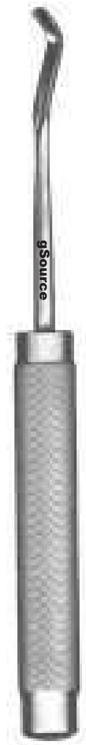




	straight		curved
gS 56.4870	1/4"	**gS 56.5020**	1/4"
gS 56.4880	3/8"	**gS 56.5030**	3/8"
gS 56.4890	1/2"	**gS 56.5040**	1/2"
gS 56.4900	5/8"	**gS 56.5050**	5/8"
gS 56.4910	3/4"	**gS 56.5070**	3/4"
gS 56.4920	7/8"	**gS 56.5080**	7/8"
gS 56.4930	1"	**gS 56.5090**	1"
gS 56.4940	1 1/8"	**gS 56.5100**	1 1/8"
gS 56.4950	1 1/4"	**gS 56.5110**	1 1/4"
gS 56.5010	1 1/2"	**gS 56.5120**	1 1/2"

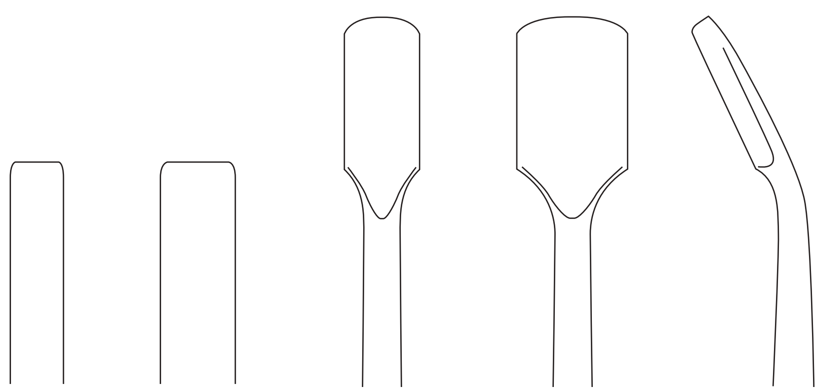
Hibbs Gouge
9 1/2"
solid hexagonal handle

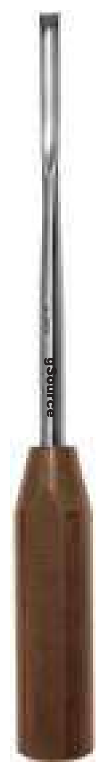




gS 56.1300 straight
gS 56.1320 half curve
gS 56.1340 full curve
gS 56.1360 reverse curve

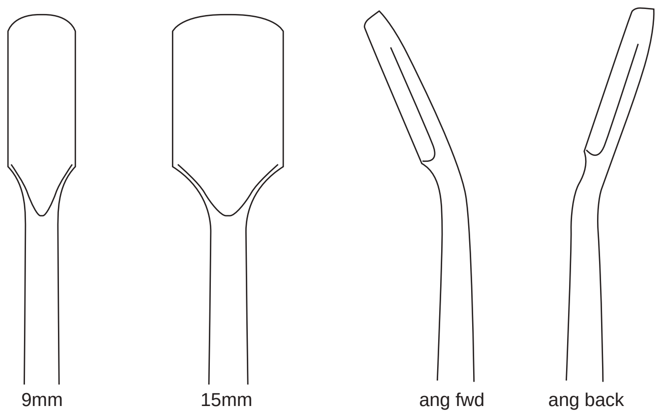
Cobb Gouge
11"
knurled stainless steel handle





gS 56.5970 str 7mm
gS 56.5972 str 10mm
gS 56.5980 ang fwd 10mm
gS 56.5982 ang fwd 15mm

Lexer Gouge
11"
phenolic handle



gS 56.6018 str 9mm
gS 56.6020 str 15mm
gS 56.6010 ang fwd 9mm
gS 56.6014 ang fwd 15mm
gS 56.6012 ang back 9mm
gS 56.6016 ang back 15mm

Wagner Gouge
13 1/2"
phenolic handle

did you know… ?

Gouges are used to scoop away strips of soft bone and are often used during bone grafting procedures. Bone grafting is a surgical procedure that places new bone or replacement material into spaces between or around broken bone due to fractures, or in holes in bone due to defects, in order to aid in healing. It is used to repair bone fractures that are complex and pose risk to the patient, or fail to heal properly. Also, it is used to help fusion between vertebrae, correct deformities, or provide structural support for fracture of the spine. Defects in bone caused by congenital disorders, traumatic injury, or surgery for bone cancer, as well as facial or cranial reconstruction, can also be treated.

A bone graft can help repair a defect in three ways:
- Osteogenesis, the formation of new bone by the cells contained within the graft.
- Osteoinduction, a chemical process in which molecules contained within the graft (bone morphogenetic proteins - BMP) convert the patient's cells into cells capable of forming bone.
- Osteoconduction, a physical effect where the graft matrix configures a scaffold on which cells in the recipient form new bone.

The word “graft” commonly refers to an autograft or an allograft. An autograft is a graft made of bone from a patient’s own body, normally taken from the hip bones or ribs. A graft using bone from a cadaver which has been frozen and stored in a tissue bank is an allograft. Allografts are used if there is an inadequate amount of autograft material available, and the limited size and shape of a patient’s bone. Allograft bone is used in reconstructive surgery of the hip, knee, and long bones, as well as in cases of bone loss due to trauma or tumors. Once the bone graft is accepted by the body, the transplanted bone slowly converts into new living bone or soft tissue.

Bone tissue is a matrix-like structure primarily composed of a protein called collagen. It is strengthened by hydroxyapatite, deposits of calcium and phosphate salts. Four types of bone cells are located within and around this matrix and together are responsible for building the bone matrix, maintaining it, and remodeling the bone as needed. They are:
- Osteoblasts, which produce the bone matrix.
- Osteocytes, mature osteoblasts that maintain the bone.
- Osteoclasts, which break down and remove bone tissue.
- Bone lining cells, which cover bone surfaces.

Solid stainless steel.
Convex head.

gS 59.7010 6 1/2"

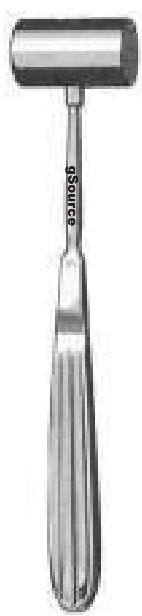
Mini Mallet
weight: 4oz [113g]
head diameter: 20mm

Lead-filled head should only be used to strike flat surfaces.

Stainless steel handle.

gS 59.7014 6 1/2"

Mini Mallet
weight: 5oz [142g]
head diameter: 20mm



Solid stainless steel.

gS 59.7018 7"

Mini Mallet
weight: 4oz [113g]
head diameter: 20mm

Small round contact surface useful in areas where access is limited.

Stainless steel head with phenolic handle.

gS 59.7120 8"

Narrow Tip Mallet
weight: 6oz [170g]
head diameter: 7mm

59/2 - mallets

Lead-filled head should only be used to strike flat surfaces.

Stainless steel handle.

gS 59.7560 7 3/4"

Mallet #49
weight: 7oz [198g]
head diameter: 22mm

Solid stainless steel.
Convex/convex head.

gS 59.7590 7 1/2"

Lucae Mallet
weight: 7oz [198g]
head diameter: 19mm

Solid stainless steel.
Convex/flat head.

gS 59.7600 8"

Lucae Mallet
weight: 8oz [227g]
head diameter: 25mm

Solid stainless steel.
Convex/convex head.

gS 59.7595 7 1/2"

Lucae Mallet
weight: 9oz [255g]
head diameter: 25mm

Solid stainless steel.

gS 59.7615 7"

Partsch Mallet
weight: 6oz [170g]
head diameter: 22mm

Solid stainless steel.

gS 59.7870 8"

Hajek Mallet
weight: 7oz [198g]
head diameter: 27mm

Stainless steel head with replaceable nylon caps and aluminum handle.

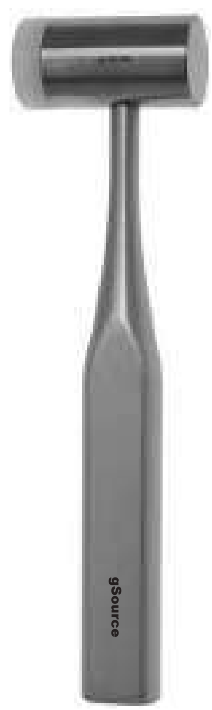
gS 59.7620 7 1/2" mallet
gS 59.7621 nylon cap only

Nylon Mallet
weight: 7oz [198g]
head diameter: 25mm

Combination mallet with one replaceable nylon capped end and one stainless steel end. Aluminum handle.

gS 59.7860 7 1/2" mallet
gS 59.7621 nylon cap only

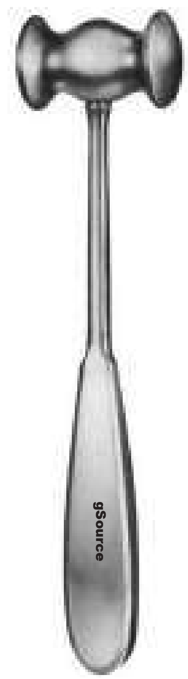
Combination Mallet
weight: 8oz [227g]
head diameter: 25mm



Solid stainless steel.

gS 59.7818 7 1/2"

Cloward-style Mallet
weight: 8oz [227g]
head diameter: 20mm



Solid stainless steel.

gS 59.8600 8"

Collin Mallet
weight: 8oz [227g]
head diameter: 30mm

Phenolic head and handle.

gS 59.7876 10"

Phenolic Lightweight Mallet
weight: 9oz [255g]
head diameter: 43mm

Replaceable double nylon caps with green silicone handle.

gS 59.8800 8 1/2"
gS 59.7621 nylon cap only

gMallet
weight: 9oz [255g]
head diameter: 25mm

Lead-filled head should only be used to strike flat surfaces.

Stainless steel handle.

gS 59.7610 7 1/2"

Gerzog Mallet
weight: 10oz [284g]
head diameter: 25mm

Stainless steel head with replaceable nylon caps.

Stainless steel handle.

gS 59.7570 7 1/2" mallet
gS 59.7571 nylon cap only

Mead Mallet
weight: 11oz [311g]
head diameter: 20mm

Solid stainless steel.
Short handle.

gS 59.7840 6 1/2"

Crane Mallet
weight: 11oz [311g]
head diameter: 32mm

Stainless steel head with aluminum handle.

Convex/flat surfaces.

gS 59.7605 7 1/4"

Cottle Mallet
weight: 12oz [340g]
head diameter: 30mm

Stainless steel head with smooth phenolic handle.

gS 59.7641 9"

Phenolic Handle Mallet
weight: 12oz [340g]
head diameter: 30mm

Phenolic head and handle.

gS 59.7873 9 1/2"

Phenolic Mallet
weight: 14oz [397g]
head diameter: 60mm

Solid stainless steel.

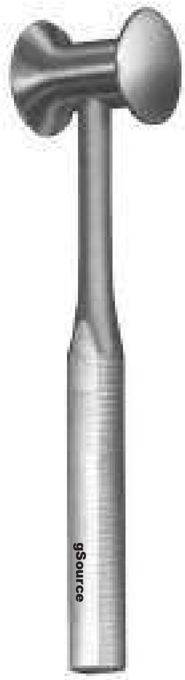
gS 59.7821 9"

Cloward-style Mallet
weight: 14oz [397g]
head diameter: 25mm

Stainless steel head with aluminum handle.

gS 59.8660 9 1/2"

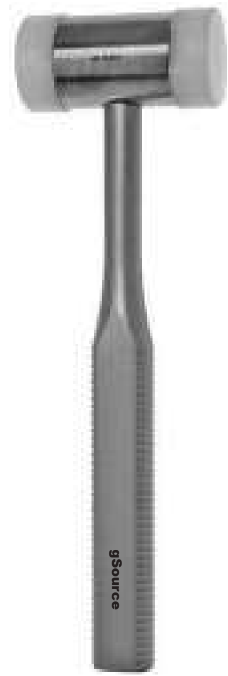
Bergman Mallet
weight: 15oz [425g]
head diameter: 30mm



Stainless steel head with
aluminum handle.

gS 59.8670 9 1/2"

Bergman Mallet
weight: 1lb 1oz [482g]
head diameter: 45mm



Replaceable double nylon
caps with aluminum handle.

Nylon cap diameter is 37mm.

gS 59.8710 9 1/2" mallet
gS 59.8711 replacement key
gS 59.8712 nylon cap only

Nylon Mallet
weight: 1lb 1oz [482g]
steel head diameter: 35mm

Solid stainless steel.

gS 59.7624 7"

Ortho Short Mallet
weight: 1lb 2oz [510g]
head diameter: 30mm

Stainless steel head
with aluminum handle.

gS 59.7710 9 1/2"

Ortho Mallet
weight: 1lb 2oz [510g]
head diameter: 30mm/40mm

Solid stainless steel.
Short handle.

gS 59.7845 7"

Crane Mallet
weight: 1lb 3oz [538g]
head diameter: 38mm

Stainless steel head with
one nylon cap/one solid
end and 13mm slot.
Green silicone handle.

gS 59.8810 8 1/2"

gMallet Slotted
weight: 1lb 5oz [595g]
head diameter: 35mm

Dead blow mallet with one
replaceable nylon cap/
one solid end. Black plastic
handle. Repercussion free.

gS 59.7878 10 1/2" mallet
gS 59.7879 nylon cap only

Repercussion Free Mallet
weight: 1lb 5oz [595g]
head diameter: 30mm

Stainless steel head with
smooth phenolic handle.

gS 59.7642 9"

Phenolic Handle Mallet
weight: 1lb 4oz [570g]
head diameter: 35mm

Solid stainless steel.

gS 59.7580 8"

Kirk Mallet
weight: 1lb 6oz [624g]
head diameter: 38mm

Stainless steel head with grooved phenolic handle.

gS 59.7885 10 1/2"

Phenolic Handle Mallet
weight: 1lb 8oz [680g]
head diameter: 32mm

Stainless steel head with aluminum handle.

gS 59.7650 9 1/2"

Ombredanne Mallet
weight: 1lb 9oz [708g]
head diameter: 40mm

Stainless steel head with smooth phenolic handle.

gS 59.7644 9"

Phenolic Handle Mallet
weight: 1lb 11oz [770g]
head diameter: 40mm

Stainless steel head with black plastic handle.

gS 59.7880 10 1/2"

Plastic Handle Mallet
weight: 1lb 10oz [737g]
head diameter: 35mm

Aluminum head and handle.

gS 59.7910 9"

Meyerding Mallet
weight: 1lb 12 oz [792g]
head diameter: 51mm

Solid stainless steel.

gS 59.7626 7 1/2"

Ortho Heavy Short Mallet
weight: 1lb 14oz [850g]
head diameter: 38mm

Solid stainless steel.

gS 59.7628 7 1/4"

Heath Mallet
weight: 1lb 15oz [879g]
head diameter: 40mm

Stainless steel head
with aluminum handle.

gS 59.7629 7 1/4"

Heath Mallet
weight: 2lbs [906g]
head diameter: 45mm

Stainless steel head with
grooved phenolic handle.

gS 59.8900 11"

He-Man Mallet
weight: 2lbs [906g]
head diameter: 38/33/24mm

Solid stainless steel.

gS 59.7660 11"

Ortho Mallet
weight: 2lbs 2oz [964g]
head diameter: 35mm

Solid stainless steel.

gS 59.7627 10"

Ortho Mallet
weight: 2lbs 3oz [1000g]
head diameter: 38mm

Stainless steel head with grooved phenolic handle.

gS 59.7890 10 1/2"

Phenolic Handle Heavy Mallet
weight: 2lbs 9oz [1162g]
head diameter: 45mm

Solid stainless steel.

gS 59.7670 10 1/2"

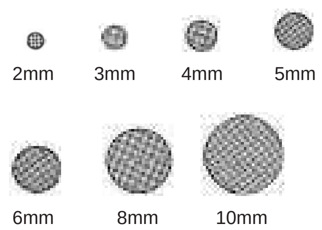
Ortho Heavy Mallet
weight: 3lbs 3oz [1446g]
head diameter: 50mm

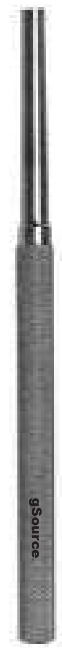
did you know… ?

A mallet is a kind of hammer with a relatively large head. The term is descriptive of the overall size and proportions of the tool, but not the materials it may be made of. The main function is to drive instruments and exert force on osteotomes, chisels, gouges, etc. It is mostly used in orthopedic surgery, particularly bone grafting.

Repercussion can be a problem, especially when using a heavy mallet to strike metal objects. The Repercussion Free Mallet, gS 59.7878 on page 59/8, is a specialized mallet helpful in minimizing damage to the struck surface and in controlling striking force with minimal rebound from the struck surface. The minimal rebound is helpful in avoiding accidental damage to precision work, especially in tight locations.

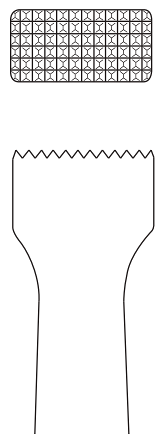
Dead blow mallets typically have an internal cavity partially filled with steel shot. This modification evens out the time-impulse curve of the impact, enabling a more powerful blow to be delivered without risk of marring the target. Compared to a conventional mallet, the dead blow mallet conveys less peak force spread over a longer time interval. Be sure to select the proper mallet size as failure to do so may cause separation of handle and head or breakage of head.

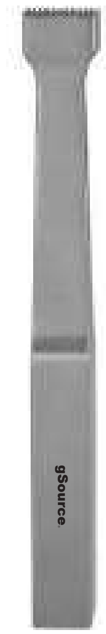




gS 60.9930 2mm
gS 60.9940 3mm
gS 60.9950 4mm
gS 60.9960 5mm
gS 60.9970 6mm
gS 60.9980 8mm
gS 60.9990 10mm

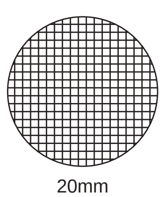
Bone Tamp
6 1/2"
cross serrated end





gS 60.0600 6 1/4"

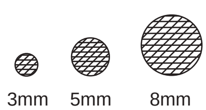
gImpactor, Hibbs Bone
3/8" x 3/4"
cross serrated end



Tap grafts into place with
minimal bone trauma.
Grid pattern on nylon cap
helps prevent slippage.

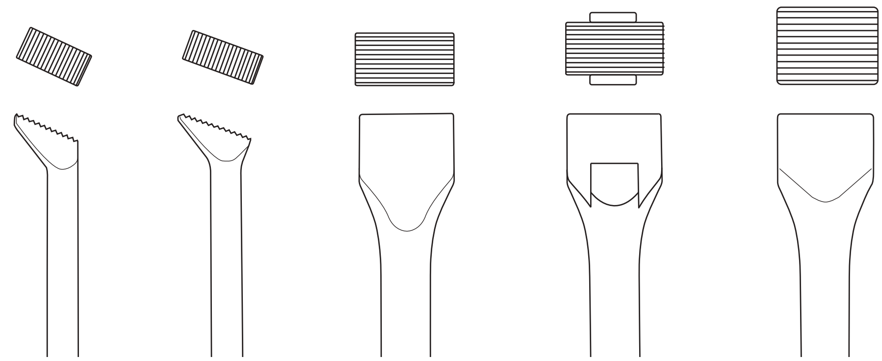
gS 60.0800 impactor
gS 60.0801 nylon cap only

Bone Impactor
6 1/2" with nylon cap
aluminum handle

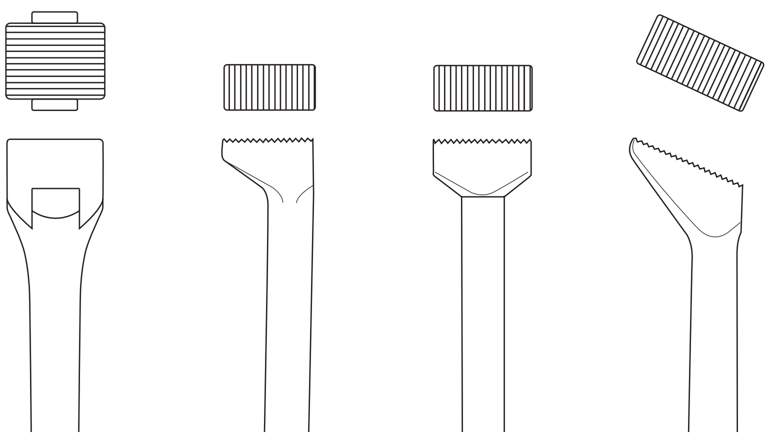


gS 60.7503 3mm
gS 60.7505 5mm
gS 60.7508 8mm

Caspar Bone Tamp
8" cross serrated end
plastic handle, black



gS 60.1801 gS 60.1802 gS 60.1803 gS 60.1804 gS 60.1805

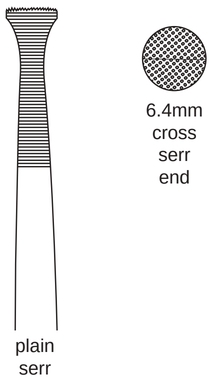


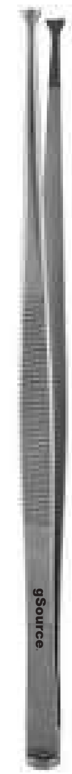
gS 60.1806 gS 60.1807 gS 60.1808 gS 60.1809

gS 60.1801	7"	10mm x 4.3mm micro offset
gS 60.1802	7"	10mm x 4.3mm micro lateral
gS 60.1803	8 1/2"	7mm x 12.5mm standard
gS 60.1804	8 1/2"	7mm x 12.5mm standard guarded
gS 60.1805	8 1/2"	10mm x 13mm wide
gS 60.1806	8 1/2"	10mm x 13mm wide guarded
gS 60.1807	8 1/2"	11.5mm x 6.5mm offset
gS 60.1808	8 1/2"	12.5mm x 6mm narrow
gS 60.1809	8 1/2"	16mm x 6.5mm angled

Lumbar and Cervical Impactor
serrated end

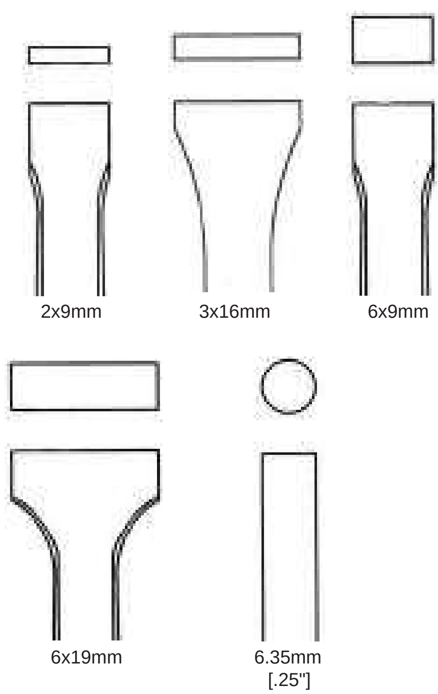
gS 60.1801 gS 60.1803

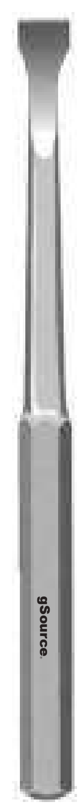




gS 60.2764 10"

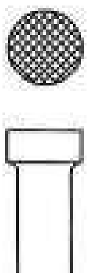
gGraft Holder/Impactor Forceps, Bone
6.4mm
cross serrated end

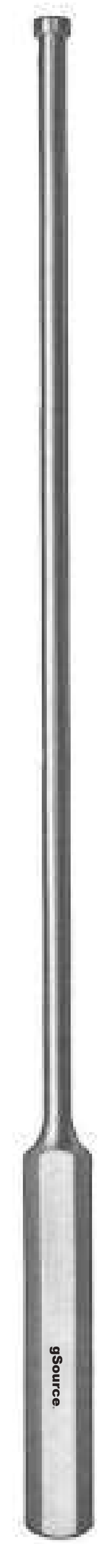




gS 60.8510 2mm x 9mm
gS 60.8500 3mm x 16mm
gS 60.8520 6mm x 9mm
gS 60.8530 6mm x 19mm
gS 60.8540 6.35mm [.25"] diameter

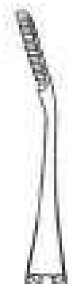
Bone Chip Packer
10"

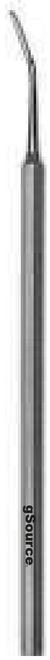




gS 60.8743 17"

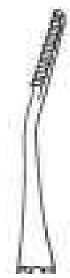
Bone Tamp
9.5mm [.375"] cross serrated end

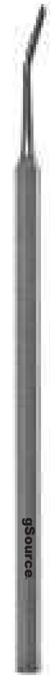




gS 61.6338 6"

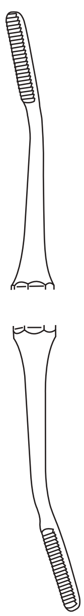
Bone File #92A
2mm plain serrated delicate
angled down

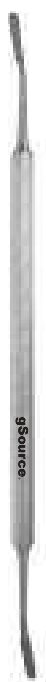




gS 61.6340 6"

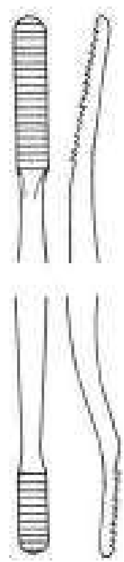
Bone File #92B
2mm plain serrated delicate
angled up





gS 61.6380 6 3/4"

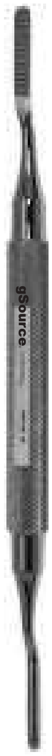
Nail Rasp #93
2mm plain serrated delicate
angled up and down



gS 61.1700 7"

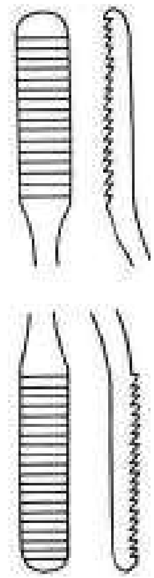
Bone Rasp #64
3mm and 4mm plain serrated
slight angle and straight

61-62/2 - bone files and rasps

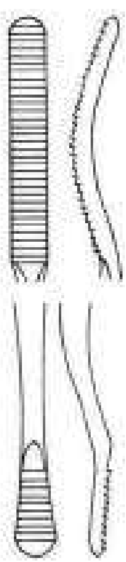
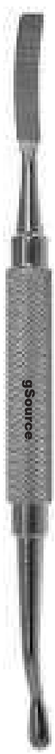
gS 62.6398 7"

Polokoff Rasp
3mm and 4mm plain serrated
straight



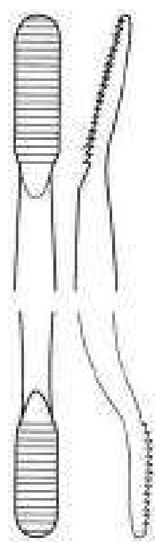

gS 62.6400 8 1/2"

Polokoff Rasp
6mm plain serrated
straight

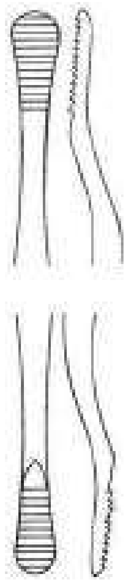
gS 61.6420 7"

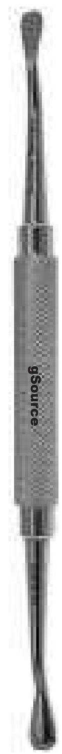
Bone File #10
5mm plain serrated
curved up and straight




gS 61.6455 7"

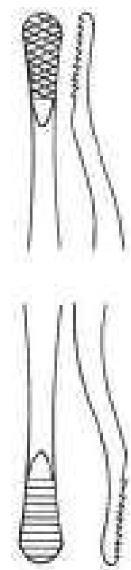
Bone File #33
6mm and 5mm plain serrated
angled up and straight

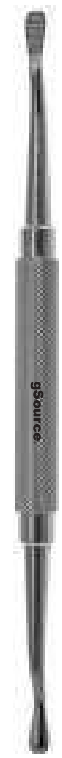




gS 61.6430 7"

Bone File #12 (Miller)
5mm and 7mm plain serrated
straight



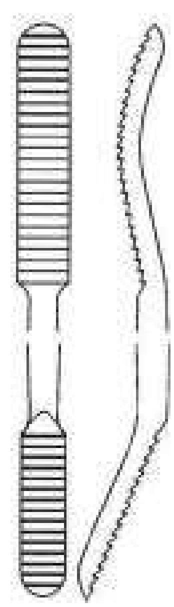


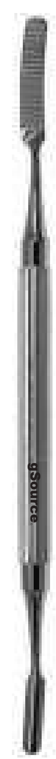
gS 61.6440 7"

Bone File #12A
5mm plain and cross serrated
straight

gS 61.6450 7"

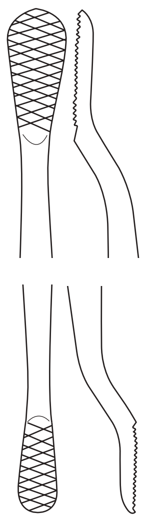
Bone File #12CA
5mm and 7mm cross serrated
straight





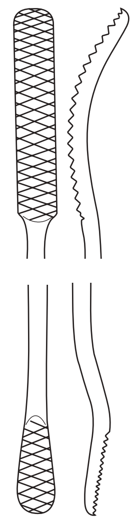
gS 61.6475 7 1/4"

Bone File #45
5mm and 6mm plain serrated
curved up and angled up



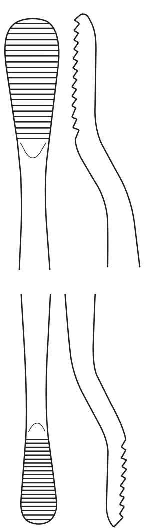
gS 61.6511 7"

Miller Colburn Bone File #1
5mm and 7mm cross serrated
straight



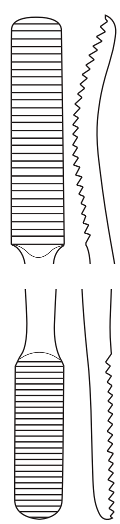
gS 61.6512 7 1/2"

Miller Colburn Bone File #2
5mm and 4.5mm cross serrated
curved up and straight



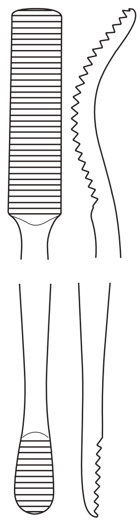
gS 61.6501 7"

Miller Colburn Bone File #1
5mm and 7mm plain serrated
straight, downward cutting



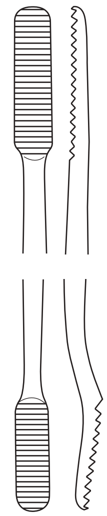
gS 61.6502 7"

Miller Colburn Bone File #2
7mm and 6mm plain serrated
curved up and straight, downward cutting



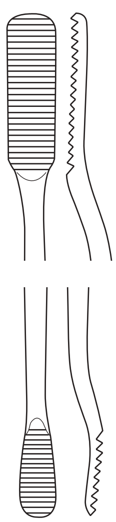
gS 61.6503 7"

Miller Colburn Bone File #3
7mm and 5mm plain serrated
curved up and straight, downward cutting



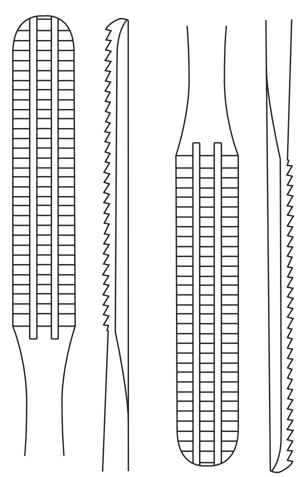
gS 61.6504 7 1/2"

Miller Colburn Bone File #4
5mm and 4mm plain serrated
straight, downward cutting



gS 61.6505 7 1/2"

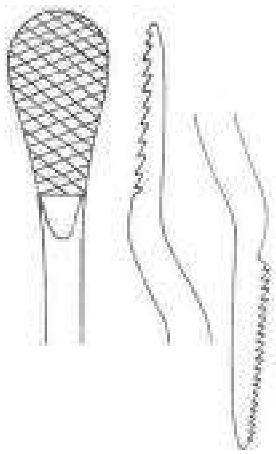
Miller Colburn Bone File #5
6mm and 5.5mm plain serrated
straight, downward cutting



gS 62.1670 8 1/2"

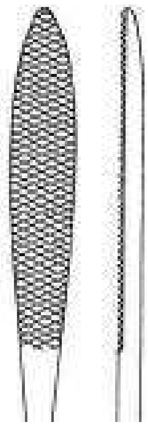
Maltz Rasp
8mm coarse plain serrated
straight up and downward cutting

bone files and rasps



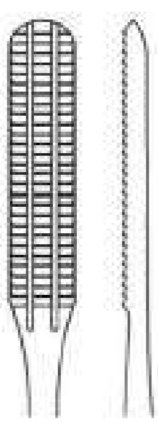
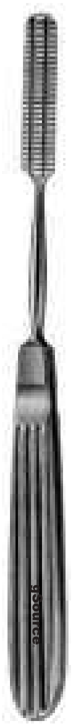

gS 61.6477 8 1/2"

Bone Rasp
13mm fine and coarse serrated
straight



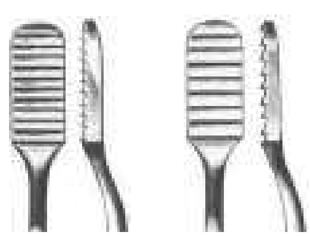
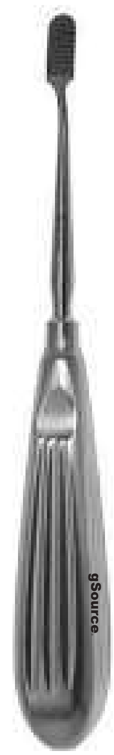

gS 62.1710 6 1/4"

Joseph Rasp
8mm fine cross serrated
straight

gS 62.1665 7"

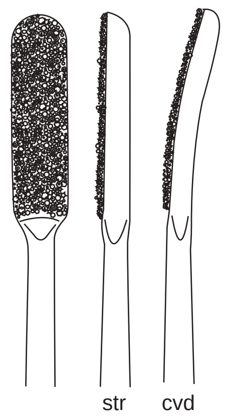
Maltz Rasp
9mm coarse plain serrated
straight downward cutting

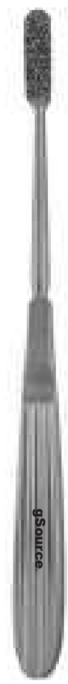



fine serr coarse serr

gS 62.1720 fine serrated
gS 62.1730 coarse serrated

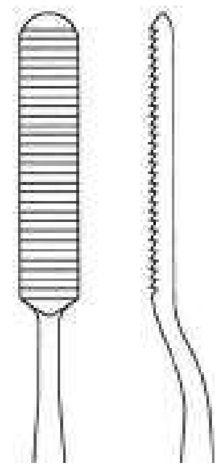
Lewis Rasp
7 1/2", 8mm
straight

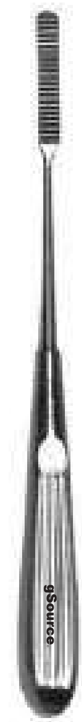




gS 61.6725 str
gS 61.6726 cvd

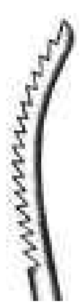
Diamond Nose Rasp
7 1/2"
7mm

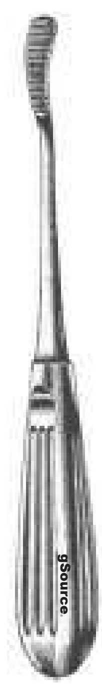




gS 62.1660 8"

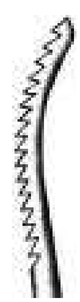
Cottle Rasp
7mm plain serrated
straight downward cutting

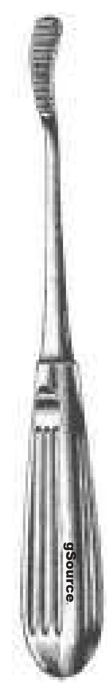




gS 62.1500 8"

Aufricht Rasp
9mm coarse serrated
curved up forward cutting



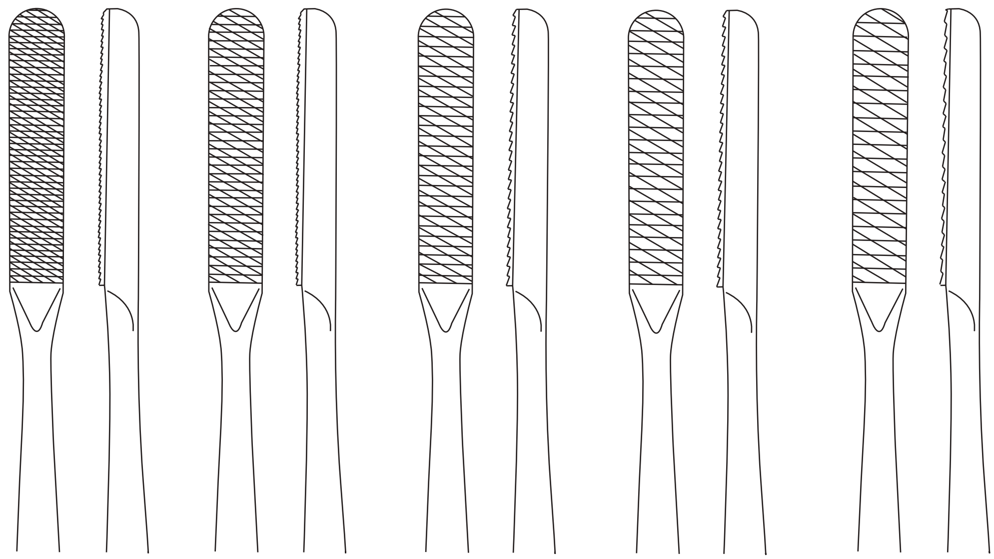


gS 62.1520 8"

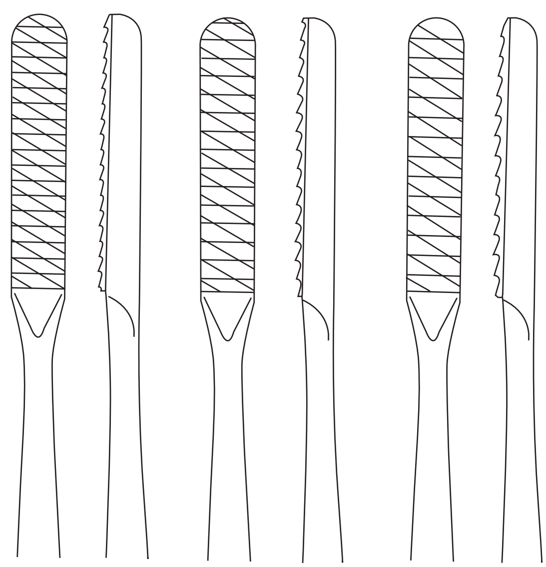
Aufricht Rasp
9mm coarse serrated
curved up downward cutting

61-62/8 - bone files and rasps

TC = Tungsten Carbide



gS 61.6841 gS 61.6842 gS 61.6843 gS 61.6844 gS 61.6845

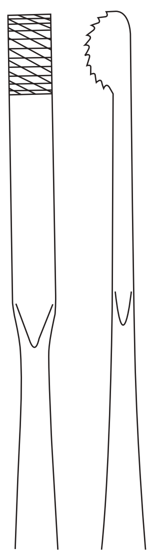


gS 61.6846 gS 61.6847 gS 61.6848

	#
gS 61.6841	1 very fine
gS 61.6842	2 fine
gS 61.6843	3 fine
gS 61.6844	4 coarse
gS 61.6845	5 coarse
gS 61.6846	6 coarse
gS 61.6847	7 coarse
gS 61.6848	8 very coarse

Rasp
8 1/2" TC
7mm downward cutting serrated

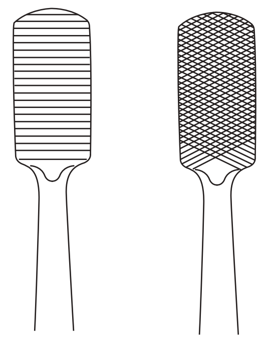
TC = Tungsten Carbide



Useful for bone contouring in nasal reconstructive procedures.

gS 61.6855 8 1/2" TC

Glabella Rasp
5.5mm straight
downward cutting, serrated



plain serrated

cross serrated

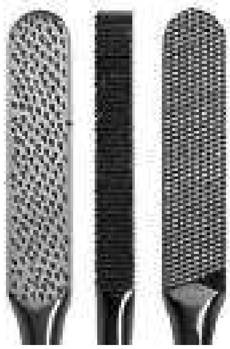
Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures. Double handed grip provides maximum control.

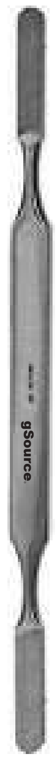
One side of rasp is plain serrated and other side is cross serrated.

gS 62.9910 17"

gRasp, Double Handed
10mm plain and cross serrated
straight, 9" plastic handle, black

61-62/10 - bone files and rasps

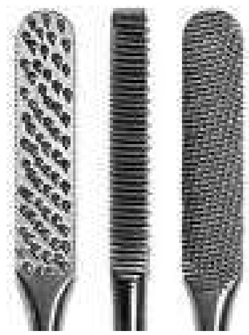


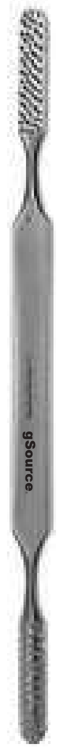


Four sided rasp with convex and flat blades.

gS 62.7548 8 1/2"

Fomon Rasp
8mm fine serrated
straight

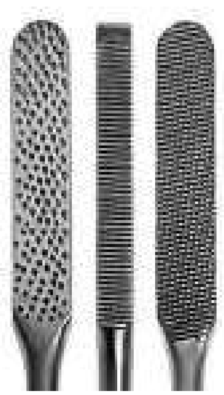


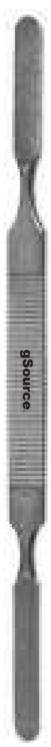


Four sided rasp with convex and flat blades.

gS 62.7550 8 1/2"

Fomon Rasp
8mm coarse serrated
straight

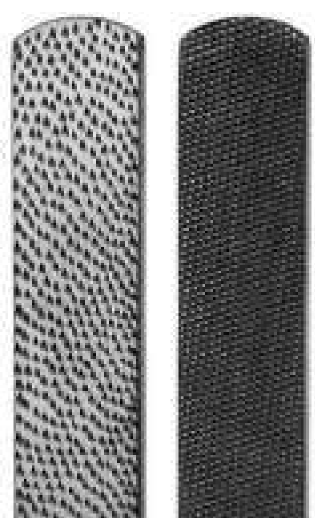


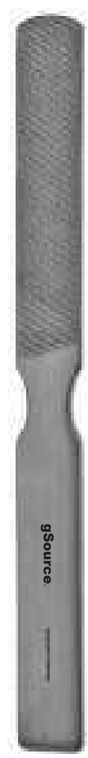


Four sided rasp with convex and flat blades.

gS 62.7680 8 1/2"

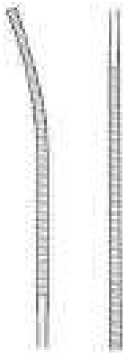
Kleinert Kutz Rasp
8mm fine and coarse serrated
straight, serrated handle





gS 62.7720 8 1/2"

Bone File Rasp
18mm fine and coarse serrated
straight

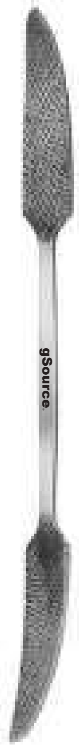


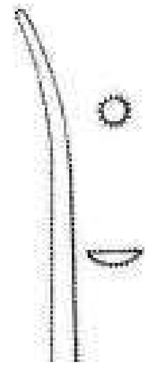
tip detail
not to scale

One end curves up, one end curves sideways.

gS 62.7540 10 1/2"

Putti Bone Rasp
18mm flat blades tapers to 4mm



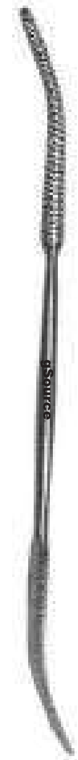


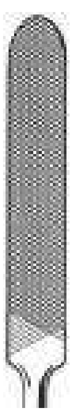
tip detail
not to scale

One round 10mm blade tapers to 4mm. One half round 15mm blade tapers to 5mm.

gS 62.7520 12"

Putti Bone Rasp
one round, one half-round blade



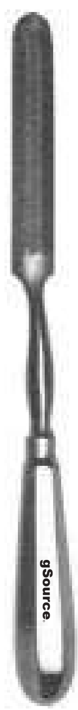


tip detail
not to scale

Half round blade with fine serrations.

gS 62.7500 9 1/2"

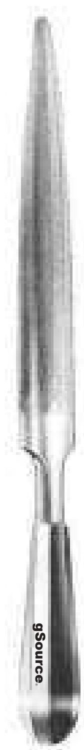
Bone File
15mm fine serrated bayonet handle



Convex and flat blade.

gS 62.8050 11"

Bone File
23mm blade tapers to 6mm



did you know… ?

Rhinoplasty describes an array of operative techniques that can be used to alter the aesthetic and functional properties of the nose. Surgical access to the nose can be gained via incisions placed inside the nose (endonasal approaches) or via incisions placed inside the nose combined with incisions placed outside the nostrils (external approach), usually on the columella, the strip of skin running from the tip of the nose to the upper lip which separates the nostrils.

War related injuries were a driving force behind most plastic surgery developments during the late 1800's and early 1900's. World War I catapulted plastic surgery into a new and higher realm. Previously physicians did not treat so many and such extensive facial and head injuries. Shattered jaws, blown-off noses and lips, and gaping skull wounds caused by modern weapons required innovative restorative procedures. Some of the best medical talent in Britain, France, Germany, Russia, Austria, and Hungary devoted themselves to restoring the faces of those injured during and after World War I. In the United States, plastic surgeons like Varaztad Kazanjian of Boston, and Vilray Blair of St. Louis served many in need during those years.

The first published account of a modern endonasal rhinoplasty can be traced to an American otolaryngologist, John Orlando Roe. His original article published in 1887 was titled "The deformity termed 'pug-nose' and its correction, by a simple operation" and described the treatment of saddle nose deformities. In 1892, Robert F. Weir, another American surgeon, also published his techniques for correcting the saddled nose.

In 1898, Jacques Joseph, an orthopedic surgeon by training, presented his concepts of nasal surgery to the Medical Society of Berlin. Many aspiring rhinoplasty surgeons traveled to Germany to watch Dr. Joseph perform his rhinoplasties. His general reputation as the father of modern rhinoplasty is supported by his influence in shaping many rhinoplasty concepts and techniques. Dr. Joseph was well-known for developing and teaching the endonasal rhinoplasty procedure. His rhinoplasties were so popular, among Berliners he was known as "Nasen-Joseph" (Nose-Joseph) or "Noseph". Many of the basic rhinoplasty maneuvers remain essentially the same today as when Dr. Joseph first described them. Dr. Joseph's concepts and techniques were further disseminated, especially in the United States, by surgeons such as Gustav Aufricht, Joseph Safian, and Samuel Fomon. Samuel Fomon disseminated Dr. Joseph's techniques in the United States in the 1950's and helped educate many early modern rhinoplasty surgeons, such as Maurice Cottle of Chicago and Irving Goldman of New York.

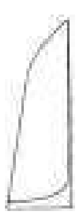
Born in Königsberg, Prussia in 1865, Dr. Joseph was a student of medicine at the Friedrich Wilhelm University in Berlin from 1885 to 1889. In 1892 he joined the staff of the Berlin University Clinic for Orthopaedic Surgery. In 1904, he published his first report on the simultaneous, intranasal correction of a hump nose with the correction of the front nasal septum. In 1916, he was appointed head of the newly founded Department of Facial Plastic Surgery at the Ear, Nose and Throat Clinic at the Charité by the Prussian Ministry of Education and Cultural Affairs. In 1928 and 1929 the first two sections of his book on 'Nasal plastic surgery' were published and in 1931 he published his most notable work 'Nasenplastik und Sonstige Gesichtsplastik Nebst Mammaplastik' which revolutionized the surgical approach to aesthetic deformities of the nose. This book is considered a milestone in plastic surgery. He passed away in 1934.

The Joseph Rasp, gS 62.1710, is shown on page 6 in this section. The Aufricht Rasps, gS 62.1500 and gS 62.1520 are shown on page 7, along with the Cottle Rasp, gS 62.1660. The Fomon Rasps are shown on page 10, gS 62.7550 and 62.7548.


6 3/4"

gS 63.4811 6"
gS 63.4812 6 3/4"

Cleveland Bone Cutting Forceps
angled
delicate



gS 63.4801 6"

Littauer Bone Cutting Forceps
straight

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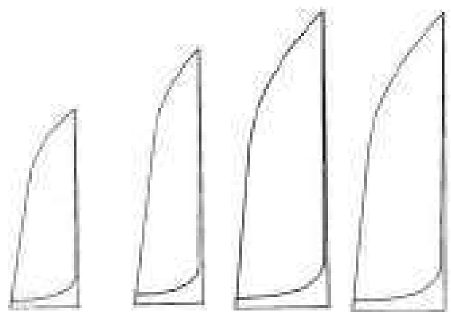
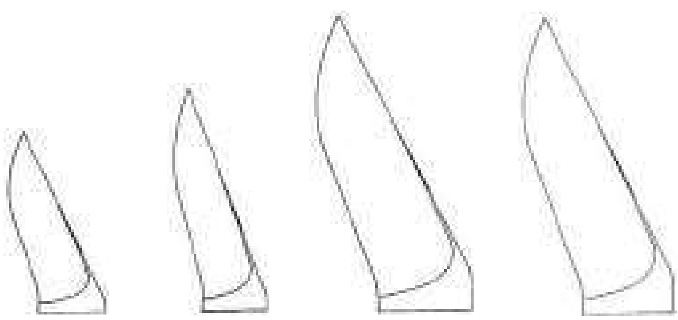
gSource®



5 1/2" 6 3/4" 7 1/2" 8 1/2"

gS 63.4980 5 1/2"
gS 63.4981 6 3/4"
gS 63.4982 7 1/2"
gS 63.4983 8 1/2"

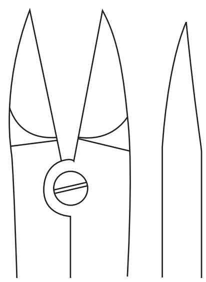
Liston Bone Cutting Forceps
straight



5 1/2" 6 3/4" 7 1/2" 8 1/2"

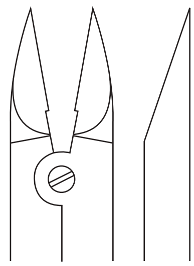
gS 63.5100 5 1/2"
gS 63.5101 6 3/4"
gS 63.5102 7 1/2"
gS 63.5103 8 1/2"

Liston Bone Cutting Forceps
angled



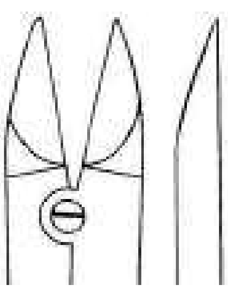
gS 63.4821 5 3/4"

Boehler Bone Cutting Forceps
curved, delicate jaw



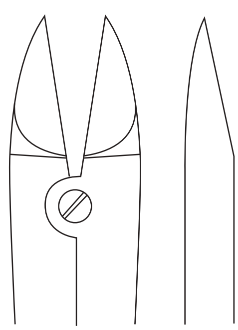
gS 63.6560 5 3/4"

Ruskin Liston Bone Cutting Forceps
straight, delicate jaw



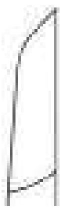
gS 63.6570 6"

Ruskin Liston Bone Cutting Forceps
(Kleinert-Kutz) straight



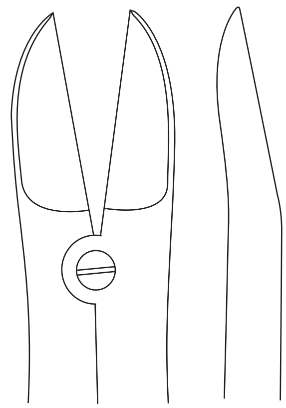
gS 63.6580 6"

Ruskin Liston Bone Cutting Forceps
angled



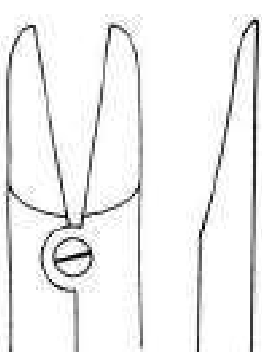
gS 63.6380 7 1/2"

Ruskin Liston Bone Cutting Forceps
straight



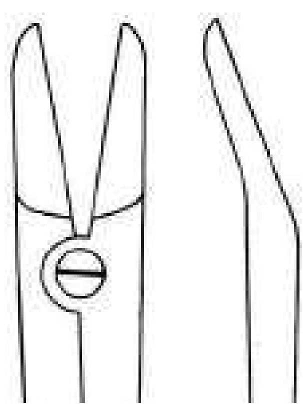
gS 63.6420 7 1/4"

Ruskin Liston Bone Cutting Forceps
angled on flat



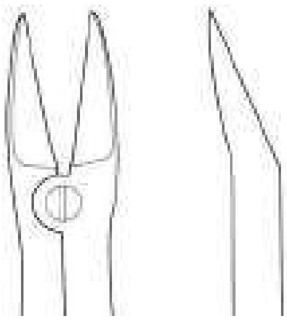
gS 63.4831 6 3/4"

Ruskin-Rowland Bone Cutting Forceps
straight, delicate jaw



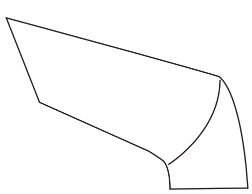
gS 63.4832 7 1/4"

Ruskin-Rowland Bone Cutting Forceps
angled, delicate jaw



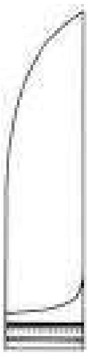
gS 63.6460 7"

McIndoe Bone Cutting Forceps
angled, very delicate jaw



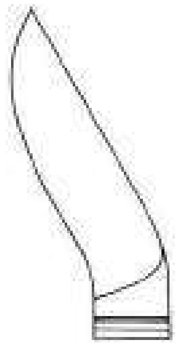
gS 63.4740 10"

Stille-Horsley Bone Cutting Forceps
angled



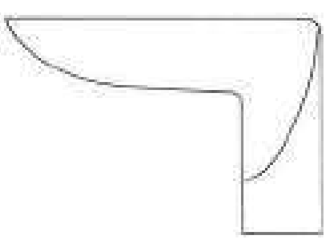
gS 63.4660 11"

Stille-Liston Bone Cutting Forceps
straight



gS 63.4700 11"

Stille-Liston Bone Cutting Forceps
angled on flat

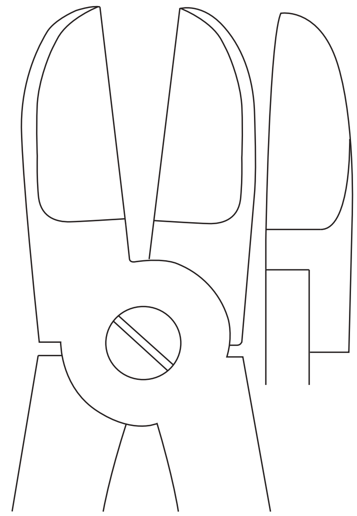


gS 63.4661 10 1/2"

Stille-Liston Bone Cutting Forceps
90° angled jaw

gS 64.4890 13"

Roos First Rib Shears
right angled jaw
with hook

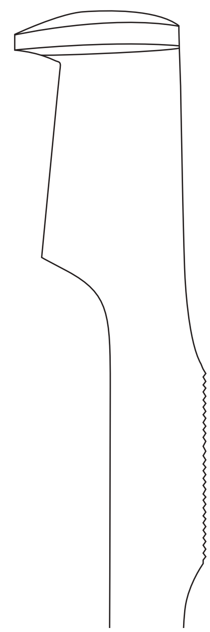


gS 64.5000 13 1/2"

Bethune Rib Shears
S-shaped handles

gS 64.5100 9 1/2"

Giertz-Stille Rib Shears



gS 64.8024 9 1/2"

Lebsche Sternum Chisel
T-handle

64/2 - rib shears

did you know… ?

The Bethune Rib Shears, as shown on page 1 in this section, were designed by Dr. Norman Bethune, a Canadian thoracic surgeon. He provided medical services to the poor in Canada, to the Republicans in the Spanish Civil War, and to the Chinese during their invasion by Japan.

Dr. Bethune was born in Gravenhurst, Ontario in 1890. He left medical school at the University of Toronto in 1914 to enlist in the Canadian Army. Wounded in action in France in 1915, he went back to the university to complete his medical studies. After graduation he joined the Royal Navy and then the Canadian Air Force. During the early 1920's, he pursued postgraduate studies in medicine in London and Edinburgh, where he was elected a Fellow of the Royal College of Surgeons in 1922. In 1924 he opened a private medical practice in Detroit, Michigan. Two years later he contracted tuberculosis (TB) in both lungs, and sought treatment at the Trudeau Sanatorium in Saranac Lake, New York. In the 1920's the established treatment for TB was total bed rest in a sanatorium. There he learned of a radical new treatment for TB called pneumothorax, which involved artificially collapsing the tubercular (diseased) lung, thus allowing it to rest and heal itself. The physicians at Trudeau thought this procedure was too new and risky, but Dr. Bethune insisted and eventually persuaded his reluctant doctors to perform the potentially fatal operation. Its success and his rapid recovery inspired him to give up private practice and join the medical search for a cure of the disease.

In 1928 he became the first assistant of Dr. Edward Archibald, the Canadian pioneer in thoracic surgery at McGill University in Montreal, Quebec. Over the next eight years, Dr. Bethune's invention of numerous operating instruments, his writings in medical journals, and his daring surgical techniques raised him to prominence in the international medical community. In the early 1930's, as the Depression deepened in Montreal, Dr. Bethune became more conscious of the relationship between social and economic conditions and the incidence of tuberculosis. Through his concern for the welfare of those who were unable to afford medical treatment, he opened a free clinic. In 1935 he attended the International Physiological Congress in Moscow. His purpose was to examine the system of socialized medicine in operation in the U.S.S.R. Upon returning to Canada, he organized a campaign to promote the introduction of a state medical care system. His open and persistent advocacy of his views alienated him from many of his professional colleagues and in 1936 he joined the Communist Party. Shortly after the outbreak of the Spanish Civil War in 1936, he resigned his hospital position and offered his services to the Spanish Republican government. Dr. Bethune accepted an invitation from the Committee to Aid Spanish Democracy to head the Canadian Medical Unit in Madrid. He joined the Mackenzie-Papineau Battalion which was composed of Canadian communists and other leftists. Following a tour, he found a frequent cause of death on the battlefield was from medical shock brought on by loss of blood. Dr. Bethune conceived the idea of administering blood transfusions on the spot and developed the world's first mobile medical unit. The unit contained dressings for 500 wounds, and enough supplies and medicine for 100 operations. He organized a service to collect blood from donors and deliver the bottled blood in refrigerated trucks to the wounded at the front which saved many lives.

Dr. Bethune returned to Canada in 1937 after feeling that he could no longer function within the bureaucracy organized by the military medical forces in Republican Spain. He then set off on a North American tour to raise money for the blood transfusion service. During the tour, Japanese forces escalated an earlier invasion of China. This prompted Dr. Bethune to travel to Yan'an in the Shanbei region of Shaanxi province in China where he joined the Chinese Communists led by Mao Zedong in their struggle against the Japanese invaders. In the mountainous area west of Beijing he put together a medical field service and constructed makeshift hospitals throughout the region, wrote textbooks on elementary medicine and surgery, and began training young Chinese in medical techniques. He led his mobile medical unit through the Wu Tai mountains of Shaanxi province and across the Hebei plains to inspect personnel, revamp hospitals, and treat the wounded. During much of the time Dr. Bethune's unit was behind Japanese lines. They were frequently called to battles and sometimes needed to set up their operating theater within three miles of where the firing was taking place. During an operation in the field, he nicked his finger. Because there were no surgical gloves, the wound became infected, quickly leading to blood poisoning and his death in 1939.

During the time of the Cultural Revolution (1966-1976) the Chinese Communist leadership used Dr. Bethune as a symbol of selflessness, dedication, and responsibility -- characteristics that they wanted the Chinese people to adopt. They published hundreds of millions of copies of an essay written by Mao Zedong called "In Memory of Norman Bethune". Everyone was expected to read it, and many committed it to memory. Since the 1960's through books, movies, and study in the schools, Dr. Bethune became a national hero in China. In 1972 in Canada, the federal government declared him "a Canadian of national historical significance". A portion of the home in which he was born was converted into a museum and opened in 1976 as the Bethune Memorial Home.

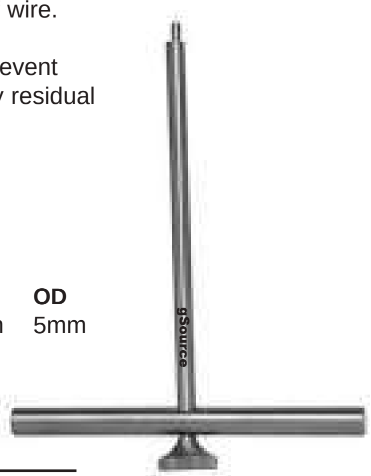
ID = Inside Diameter
OD = Outside Diameter

Cutter removes a tiny cylinder of bone around tip of wire.

Obturator helps to prevent potential blockage by residual tissue.

	ID	OD
gS 65.3380	3mm	5mm

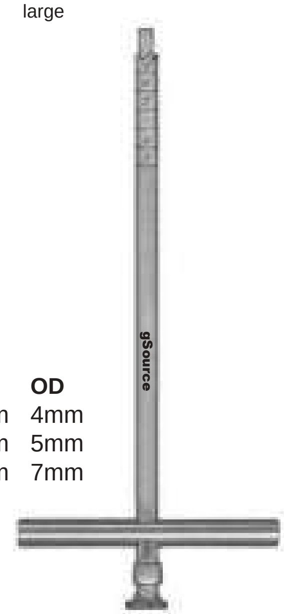
Bone Plug Cutter
4 1/2"



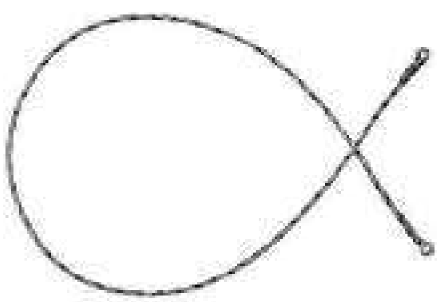
Designed for bone biopsy. Can also be used to help remove broken bone screws and buried K-wire.

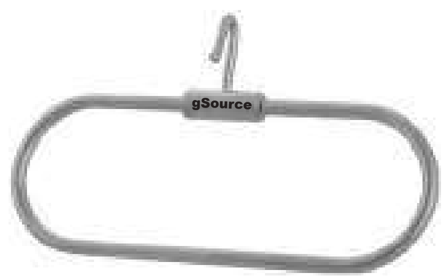
		ID	OD
gS 65.3390	small	3mm	4mm
gS 65.3392	medium	4mm	5mm
gS 65.3394	large	6mm	7mm

Michele Trephine
7"



Gigli chain saws are intended for single use only due to flesh and bone which can become embedded in the chain saw.


gS 65.7120



gS 65.7175

gS 65.7120	chain saw 9" [23cm]
gS 65.7130	chain saw 12" [30cm]
gS 65.7135	chain saw 16" [40cm]
gS 65.7140	chain saw 20" [50cm]
gS 65.7150	chain saw 28" [70cm]
gS 65.7170	T-handle 2 1/2"
gS 65.7175	loop style handle 3 1/2"

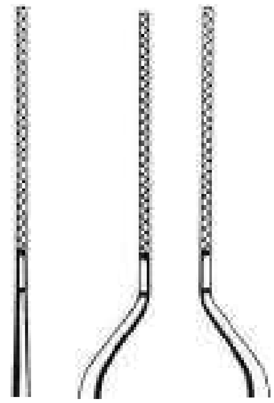
Gigli Saw Blades and Handles


gS 65.7170

65/2 - trephines - bone saws

gS 65.7213 13"

Poppen Gigli Saw Guide

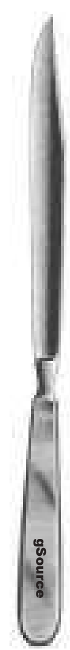


gS 65.3610 straight
gS 65.3620 bayonet left
gS 65.3630 bayonet right

Joseph Bone Saw
7"

gS 65.7010 9"

Langenbeck Metacarpal Saw



gS 65.8120 6 3/4" blade
gS 65.8125 8" blade

Liston Amputation Knife

gS 65.7440 11 1/2"

Charriere Amputation Saw
chrome ring handle
8" stainless steel blade

gS 65.7431 13"

Satterlee Amputation Saw
chrome ring handle
10" stainless steel blade

gS 65.7450 14" handle & 2 blades
gS 65.7452 10mm blade only
gS 65.7454 14mm blade only

Charriere Amputation Saw
chrome ring handle
stainless steel blades

gS 65.8100 12"

Percy Amputation Shield

did you know… ?

The Liston Amputation Knife, as shown on page 65/2, is a type of knife used in surgical amputation, the intentional removal of a limb or body part. It is performed to remove diseased tissue, malignant tumors, or as a result of severe trauma to a body part, such as an arm, leg, hand, foot, finger or toe.

The knife was named after Robert Liston, a Scottish surgeon noted for his skill and speed. In an era prior to anesthetics, having these skills made a difference in terms of a patient’s pain and survival. He is said to have been able to perform removal of a limb in an amputation in 28 seconds.

Born in 1794 in Scotland, he attended medical school at Edinburgh University. He became a surgeon at the Royal Infirmary and a lecturer at the University in 1818. He earned a reputation not only in Scotland, but in Europe and America as a daring and successful surgeon. It is said that "the gleam of his knife was followed so instantaneously by the sounds of sawing as to make the two actions appear almost simultaneous". In 1835, he became professor of clinical surgery at University College, London. In 1846 he used an anesthetic in a public operation in London in 1846, the first time this had been done. He passed away in 1847.

The Gigli Saw, as shown on page 65/1, is named for Leonardo Gigli, a nineteenth-century Italian physician who used it while performing surgery. It is a flexible wire saw used by surgeons for bone cutting, mainly during amputations where bones have to be cut smoothly at the level of amputation. It consists of long thin tempered steel blades arranged in an oval shape, with finger rings at either end. Gigli saws were also known to be kept hidden in the clothing of British secret agents during World War II who used them as an escape device when needed.

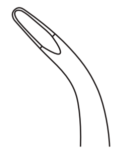
Born in Florence in 1863, Dr. Gigli also received his degree in medicine and surgery in Florence in 1889. He worked in Florence as an assistant to the professor of clinical pediatric surgery, and then as an assistant in obstetrics and gynecology under Professor Domenico Chiara. After Professor Chiara’s death in 1891, Dr. Gigli left Italy and went to Paris to work under Étienne Stéphane Tarnier, an obstetrician. He then went to London and Wroclaw, Poland, where he worked under Professor Henry Fritsch from 1892 to 1893. While in Wroclaw he was able to attend surgery with Jan Mikulicz-Radecki. During this successful and rewarding period, Dr. Gigli proposed the lateralized pubiotomy (Gigli's operation) for safe delivery of a fetus in cases of maternal pelvic deformities. Inspired by the sight of a jagged knife, he conceived his wire saw to simplify the procedure. In 1894 he successfully tested a modified saw type with a whalebone guide for the preparation of osteoplastic cranial flaps.

He returned to Florence in 1894 to work at the Hospital of Santa Maria Nuova, and continued as a proponent of the lateral pubiotomy using the wire saw, although he did not receive the support of his colleagues in Italy. He described the use of his saw for cutting other bones, except the skull, in 1897. Professor Alfred Obalinski of Kraków also described its use for craniotomy during the same year. In 1899 Dr. Gigli became director of the Santa Maria Nuovo Hospital. He resigned in 1901 and worked in private practice until he passed away in 1908.


slight curve full curve

gS 66.3520 slight curve
gS 66.3530 full curve

Stellbrink Rongeur
6 3/4" delicate jaws
2mm bite


2mm

gS 66.3528 6 3/4"

Stellbrink Rongeur
delicate jaws
full curve 2mm bite

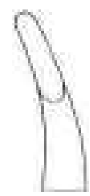
Delicate jaws for soft tissue
and cancellous bone only.


straight slight curve 90°

gS 66.3602 straight
gS 66.3604 slight curve
gS 66.3606 90°

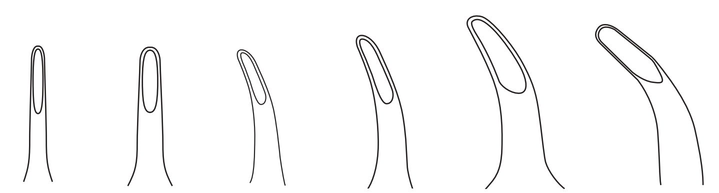
Friedman Rongeur Micro
5 1/2"
1.7mm bite

66/2 - single action bone rongeurs



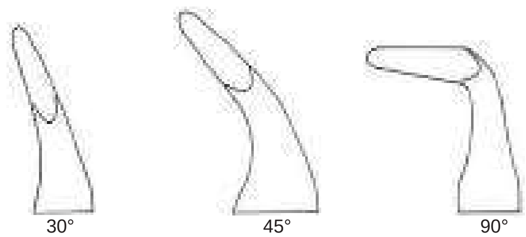
gS 66.3610 4 3/4"

Friedman Rongeur
curved
3mm bite



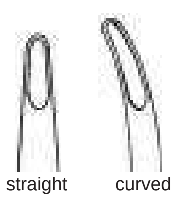
		bite
gS 66.3630	straight	2mm
gS 66.3619	straight	3mm
gS 66.3616	slight curve	2mm
gS 66.3617	slight curve	3mm
gS 66.3620	slight curve	4mm
gS 66.3621	full curve	3mm

Friedman Rongeur
5 1/2"



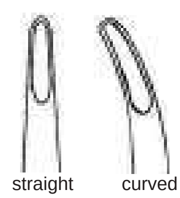
gS 66.3660 30°
gS 66.3670 45°
gS 66.3680 90°

Blumenthal Rongeur
6"
3mm bite



gS 66.3580 straight
gS 66.3600 curved

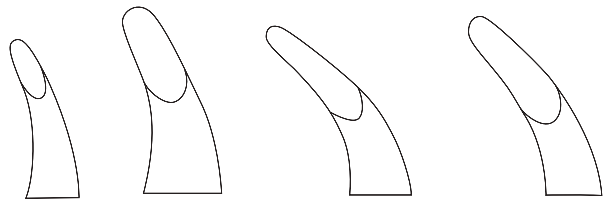
Lempert Rongeur
6"
3mm bite



gS 66.3540 straight
gS 66.3560 curved

Lempert Rongeur
7 1/2"
3mm bite

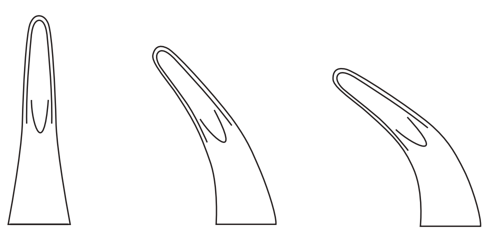
66/4 - single action bone rongeurs



3mm curved | 5mm curved | 3mm full curve | 4mm full curve

		bite
gS 66.3771	curved	3mm
gS 66.3765	curved	5mm
gS 66.3772	full curve	3 mm
gS 66.3773	full curve	4mm

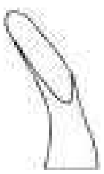
Luer Rongeur
6"



straight | slight curve | full curve

gS 66.3691	straight
gS 66.3692	slight curve
gS 66.3693	full curve

Luer Rongeur
6 1/2"
3mm bite



3mm

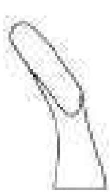
gS 66.3404 5 1/2"

Cleveland Rongeur
curved
3mm bite

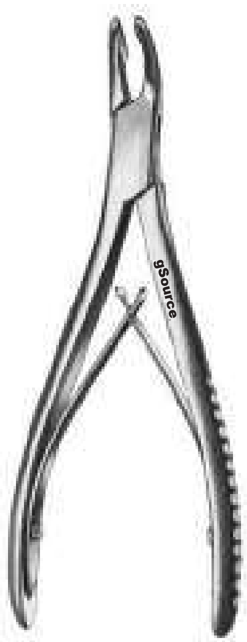
4mm

gS 66.3760 6 1/4"

Mead Rongeur
curved
4mm bite

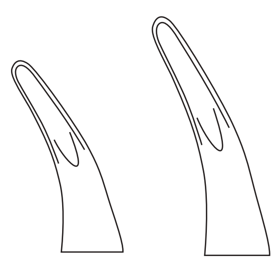


4mm



gS 66.3414 6 3/4"

Cleveland Rongeur
curved
4mm bite

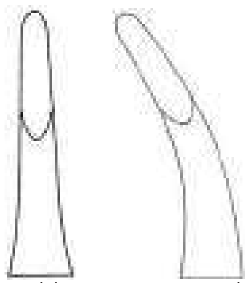


3mm 4mm

	bite
gS 66.3703	3mm
gS 66.3704	4mm

Reiner Rongeur
7"
curved

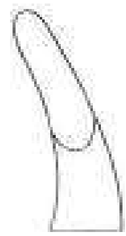
66/6 - single action bone rongeurs



straight curved

gS 66.3531 straight
gS 66.3532 curved

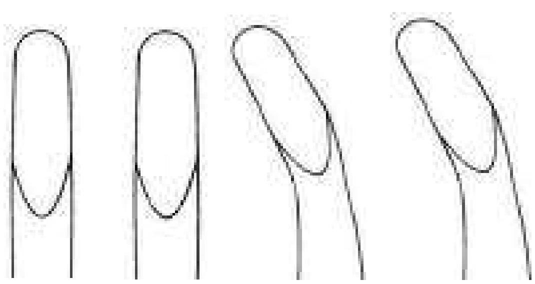
Jansen Rongeur
7"
4mm bite



5mm

gS 66.3850 7 1/4"

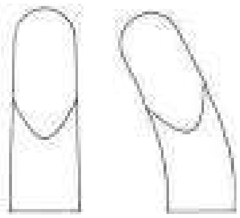
Hartmann Rongeur
curved
5mm bite



7mm straight | 8mm straight | 7mm curved | 8mm curved

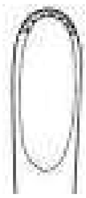
		bite
gS 66.4020	straight	7mm
gS 66.4028	straight	8mm
gS 66.4060	curved	7mm
gS 66.4068	curved	8mm

Adson Rongeur
8"



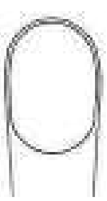
gS 66.3780 straight
gS 66.3840 curved

Luer Rongeur
6 3/4"
8mm bite



gS 66.4040 8"

Rat Tooth Rongeur
straight
8mm bite with teeth



gS 66.3880 7 1/4"

Luer Rongeur
straight
11mm bite

did you know… ?

Rongeurs are also called bone biters or bone nibblers, as their main function is to cut or remove small pieces of tissue or bone. Their hollowed, cup like, sharp working ends are similar to a curette. They are available in varying sizes and styles, in straight or curved patterns, with a single-action or double-action joint. Selection of size and style is related to the size and type of bone, as certain rongeurs are designed for use on soft tissue and cancellous bone only.

Popular types include Beyer (page 8), Ruskin (pages 9-11), and Leksell (pages 11-12). Double-action models, such as the Ruskin and Leksell, provide the surgeon with much more power, causing less hand fatigue.

Because bone is living tissue, it is important that these instruments be properly maintained, as jagged cutting surfaces could damage the bone and delay proper healing.

66/8 - double action bone rongeurs

2mm

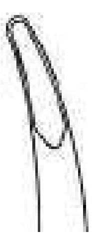
gS 66.6600 6"

Kleinert-Kutz Rongeur
slightly curved
2mm bite

3mm

gS 66.6580 6"

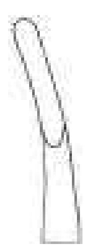
Kleinert-Kutz Rongeur
fully curved
3mm bite



3mm

gS 66.6620 6"

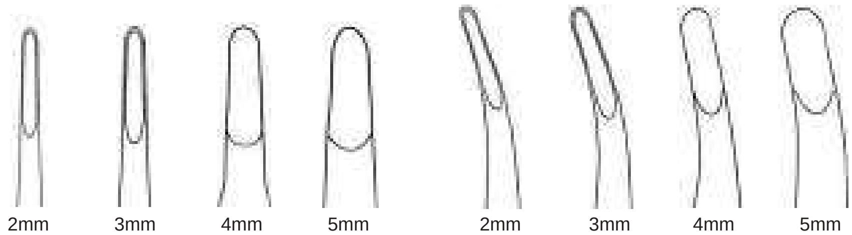
Kleinert-Kutz Rongeur
curved
3mm bite



3mm

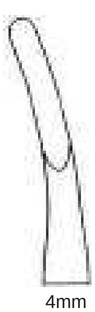
gS 66.6200 7"

Beyer Rongeur
curved
3mm bite



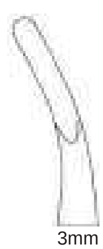
		bite
gS 66.6230	straight	2mm
gS 66.6250	straight	3mm
gS 66.6252	straight	4mm
gS 66.6253	straight	5mm
gS 66.6255	curved	2mm
gS 66.6256	curved	3mm
gS 66.6257	curved	4mm
gS 66.6258	curved	5mm

Ruskin Rongeur
(Boehler)
6"



gS 66.6220 7"

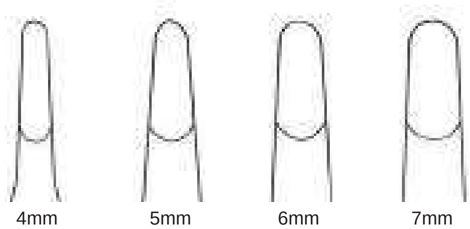
Zaufal-Jansen Rongeur
curved
4mm bite



gS 66.6573 7"

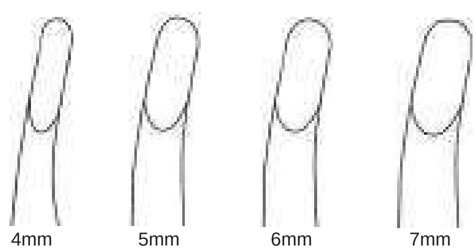
Mayfield Rongeur
curved
3mm bite

66/10 - double action bone rongeurs



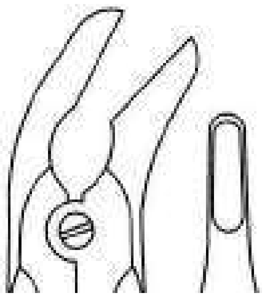
		bite
gS 66.6260	7 1/2"	4mm
gS 66.6265	7 1/2"	5mm
gS 66.6280	7 1/2"	6mm
gS 66.6267	7"	7mm

Ruskin Rongeur
straight



		bite
gS 66.6270	7 1/2"	4mm
gS 66.6275	7 1/2"	5mm
gS 66.6310	7 1/2"	6mm
gS 66.6277	7"	7mm
gS 66.6335	9"	5mm
gS 66.6336	9"	6mm
gS 66.6337	9"	7mm

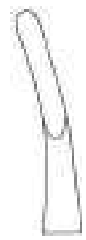
Ruskin Rongeur
curved



5mm

	bite
gS 66.6339	5mm
gS 66.6340	6mm

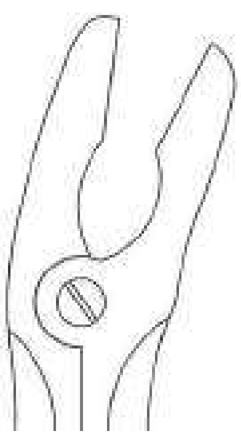
Ruskin Rongeur
7"
angled



3mm

gS 66.6344 8"

Marquardt Rongeur
slightly curved
3mm bite

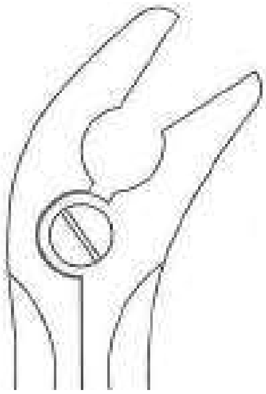


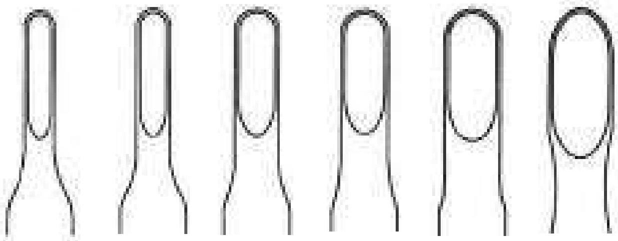
3mm 4mm 5mm 6mm 7mm 8mm

	bite
gS 66.5859	3mm
gS 66.5860	4mm
gS 66.5870	5mm
gS 66.5880	6mm
gS 66.5890	7mm
gS 66.5900	8mm

Leksell-Stille Rongeur
9 1/2"
slightly angled jaw

66/12 - double action bone rongeurs

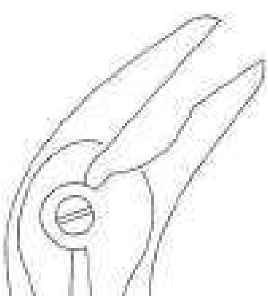




3mm 4mm 5mm 6mm 7mm 8mm

	bite
gS 66.5940	3mm
gS 66.5950	4mm
gS 66.5970	5mm
gS 66.5980	6mm
gS 66.5990	7mm
gS 66.5991	8mm

Leksell Rongeur
9 1/2"
strongly angled jaw



2mm 3mm 4mm

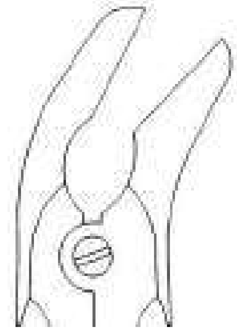
	bite
gS 66.5800	2mm
gS 66.5820	3mm
gS 66.5840	4mm

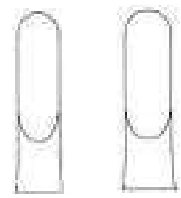
Echlin Duckbill Rongeur
9"
angled jaw

straight curved full curve

gS 66.5740 straight
gS 66.5760 curved
gS 66.5780 full curve

Smith Peterson Rongeur
9 1/2"
3mm bite

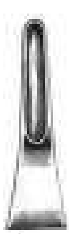




5mm 6mm

bite
gS 66.5715 5mm
gS 66.5720 6mm

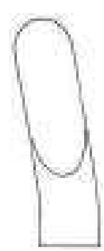
Stille-Luer Rongeur
9"
angled



3mm

gS 66.4960 14"

Dale Rongeur
curved
3mm bite

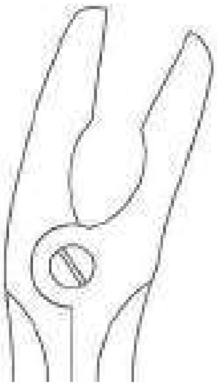


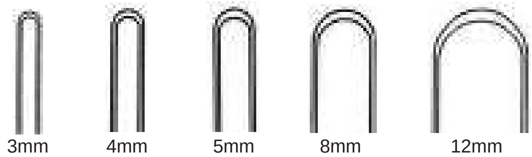
8mm

gS 66.6348 9 1/2"

Stille Ruskin Rongeur
curved
8mm bite

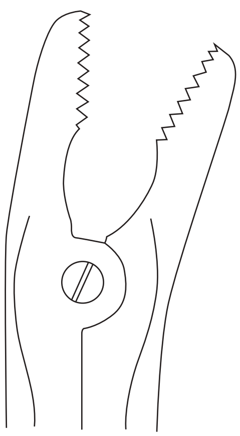
66/14 - double action bone rongeurs

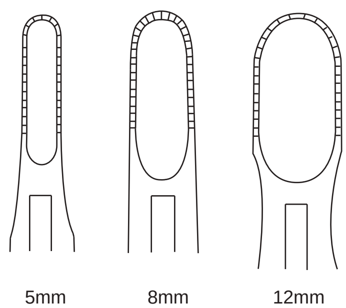




	bite
gS 66.4790	3mm
gS 66.4800	4mm
gS 66.4820	5mm
gS 66.4840	8mm
gS 66.4860	12mm

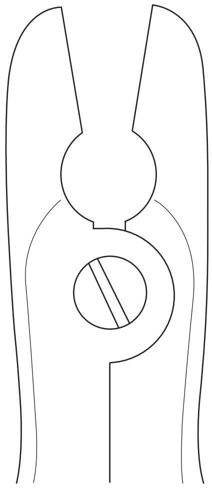
Sypert Rongeur
14 1/2"
without teeth

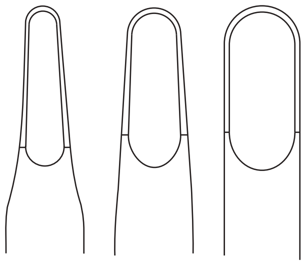




	bite
gS 66.4870	5mm
gS 66.4880	8mm
gS 66.4890	12mm

Sypert Rongeur
14 1/2"
with teeth

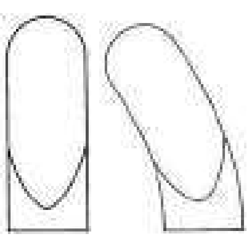




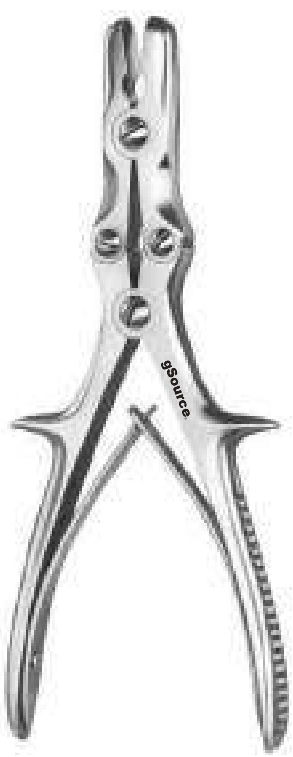
5mm 7mm 10mm

	bite
gS 66.6705	5mm
gS 66.6707	7mm
gS 66.6710	10mm

Ortho Rongeur
10"

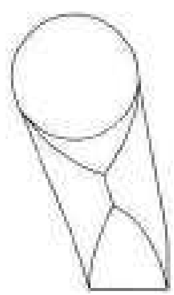


straight curved



gS 66.5580 straight
gS 66.5600 curved

Stille-Luer Rongeur
8 1/2"
10mm bite

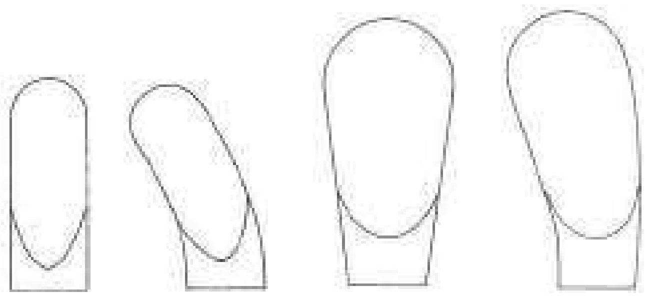


17mm

gS 66.6357 9"

Semb Rongeur
curved
round 17mm bite

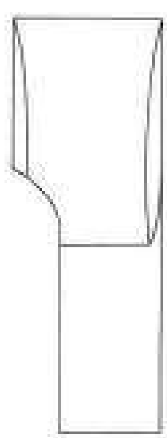
66/16 - double action bone rongeurs



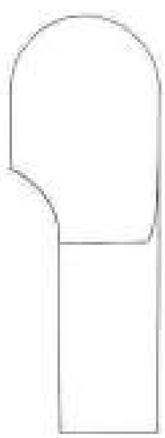
10mm straight | 10mm curved | 17mm straight | 17mm curved

			bite
gS 66.5611	9 1/2"	straight	17mm
gS 66.5612	9 1/2"	curved	17mm
gS 66.5620	10 1/2"	straight	10mm
gS 66.5640	10 1/2"	curved	10mm
gS 66.5651	10 1/2"	straight	17mm
gS 66.5652	10 1/2"	curved	17mm

Stille-Luer Rongeur



square

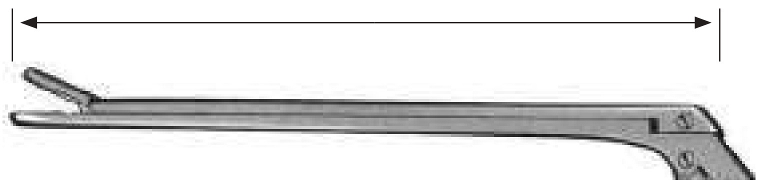


oval

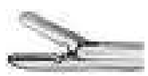
gS 66.6358	square
gS 66.6359	oval

Sauerbruch Rongeur
12"
20mm bite

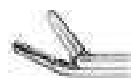
graspers and spinal rongeurs identification chart - 67-68/1



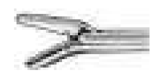
Shaft Length



straight



up



down

Jaw bite styles for rongeurs

Finger Ring Handle
handle height: 4"

Ferris-Smith-Kerrison Ring Handle
handle height: 5"

Ferris-Smith-Kerrison Handle
handle height: 5"

gSource spinal rongeurs and punches have bite size etched on handles.

Handle styles

Refer to Sections 69-72 for gSource spinal punches.

Please inquire about the availability of any size and style not shown in this section.

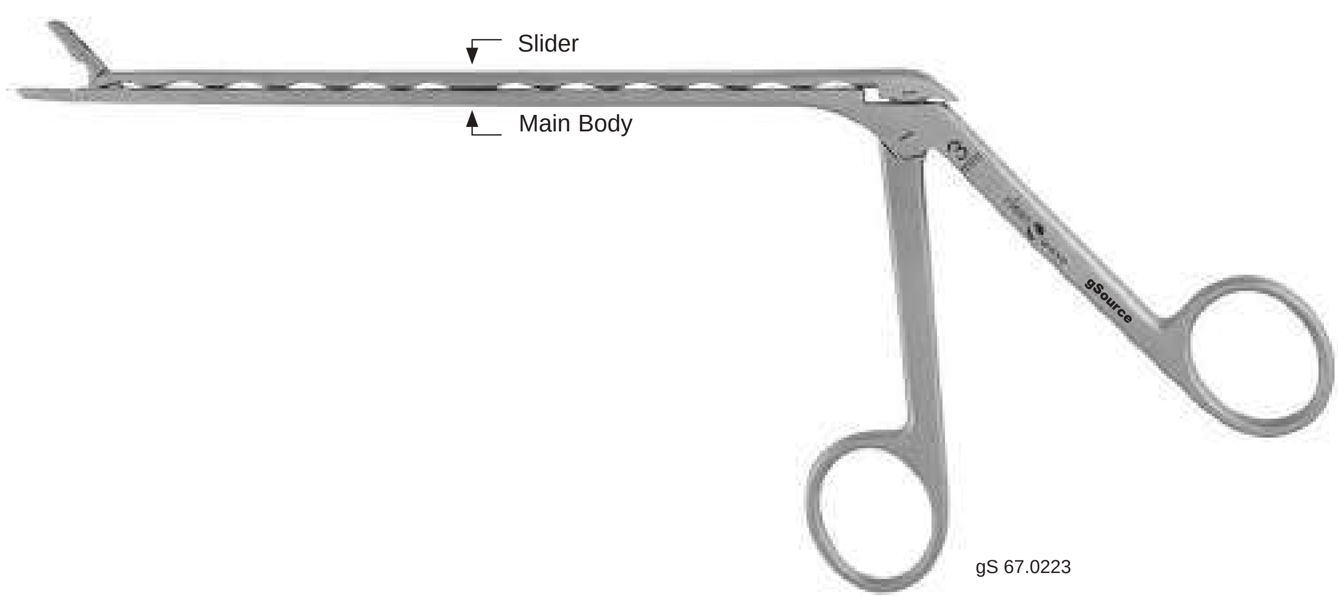
67-68/2 - clean wave spinal rongeurs

Catch a new wave to easy cleaning.

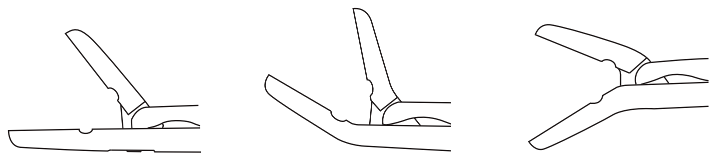
In most spinal rongeurs, tissue and debris can collect and remain trapped between the main body and slider. This build-up can impede the smooth function of the instrument and prevent proper sterilization as a result of not being completely cleaned prior to sterilization.

The Clean Wave spinal rongeurs have a slider with a wavelike shaped design which allows cleaning utensils to easily reach through the recesses and openings between the slider and the main body for cleaning prior to sterilization.

- Wavelike shape also helps to reduce friction between the slider and main body, providing a smooth function.
- Straight, up or down bite styles.
- Caspar, Cushing, Love-Gruenwald and Spurling patterns available. See pages 3-4.
- Made from German stainless steel.
- Satin finish helps to reduce glare.



gS 67.0223

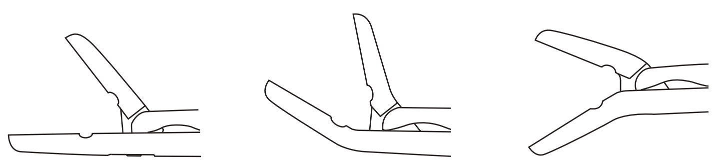


straight up down

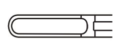
2x10mm

gS 67.8300 straight
gS 67.8320 up
gS 67.8340 down

Clean Wave Cushing Rongeur
7" shaft, 2x10mm bite
finger ring handle



straight up down

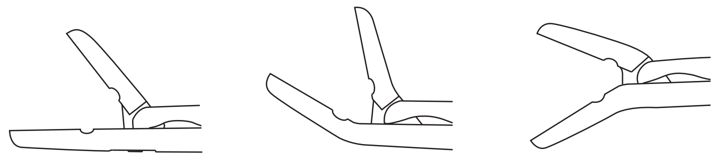


3x10mm

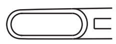
gS 67.8800 straight
gS 67.8820 up
gS 67.8840 down

Clean Wave Love Gruenwald Rongeur
7" shaft, 3x10mm bite
finger ring handle

67-68/4 - clean wave spinal rongeurs



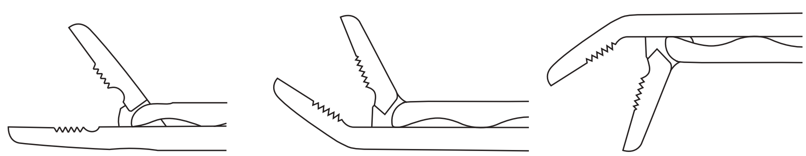
straight up down



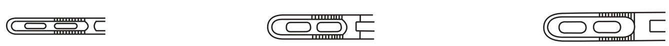
4x10mm

gS 67.9400 straight
gS 67.9420 up
gS 67.9440 down

Clean Wave Spurling Rongeur
7" shaft, 4x10mm bite
finger ring handle



straight up down



2x12mm 3x12mm 4x14mm

bite	straight	up	down
2x12mm	**gS 67.0222**	**gS 67.0242**	**gS 67.0232**
3x12mm	**gS 67.0223**	**gS 67.0243**	**gS 67.0233**
4x14mm	**gS 67.0224**	**gS 67.0244**	**gS 67.0234**

Clean Wave Casper IVD Rongeur
7 1/4" shaft, fenestrated cups, serrated side jaw
finger ring handle

2x3mm

2x6mm

	bite
gS 68.9543	2x3mm
gS 68.9545	2x6mm

Selverstone Rongeur
6" shaft, straight
finger ring handle

2x6mm

gS 68.9571 5 1/2" shaft

Peapod Rongeur
2x6mm bite, up
finger ring handle

67-68/6 - ivd rongeurs


straight


up


down


2x6mm

gS 68.9575 straight
gS 68.9576 up
gS 68.9577 down

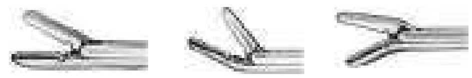
Decker Rongeur
6" shaft, 2x6mm bite
finger ring handle with opening latch


3x8mm


4x8mm

	bite
gS 68.9553	3x8mm
gS 68.9554	4x8mm

Takahashi IVD Rongeur
5" shaft, straight
finger ring handle



straight up down

2x10mm

shaft	straight	up	down
5"	**gS 68.8100**	**gS 68.8120**	**gS 68.8140**
6"	**gS 68.8210**	**gS 68.8230**	**gS 68.8240**
7"	**gS 68.8300**	**gS 68.8320**	**gS 68.8340**
8"	**gS 68.8402**	**gS 68.8404**	**gS 68.8406**
9"	**gS 68.8525**	**gS 68.8527**	**gS 68.8529**
10"	**gS 68.8602**	**gS 68.8604**	**gS 68.8606**
12"	**gS 68.8535**	**gS 68.8537**	**gS 68.8539**

Cushing Rongeur
2x10mm bite
finger ring handle

straight up down

3x10mm

shaft	straight	up	down
5"	**gS 68.8610**	**gS 68.8620**	**gS 68.8640**
6"	**gS 68.8702**	**gS 68.8704**	**gS 68.8706**
7"	**gS 68.8800**	**gS 68.8820**	**gS 68.8840**
8"	**gS 68.8900**	**gS 68.8901**	**gS 68.8903**
9"	**gS 68.8912**	**gS 68.8914**	**gS 68.8916**
10"	**gS 68.8922**	**gS 68.8924**	**gS 68.8926**
12"	**gS 68.8932**	**gS 68.8934**	**gS 68.8936**

Love Gruenwald Rongeur
3x10mm bite
finger ring handle

67-68/8 - ivd rongeurs


straight


up

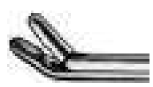

down

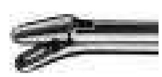

4x10mm

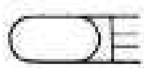
shaft	straight	up	down
5"	**gS 68.9000**	**gS 68.9020**	**gS 68.9040**
6"	**gS 68.9202**	**gS 68.9204**	**gS 68.9206**
7"	**gS 68.9400**	**gS 68.9420**	**gS 68.9440**
8"	**gS 68.9502**	**gS 68.9504**	**gS 68.9506**
9"	**gS 68.9512**	**gS 68.9514**	**gS 68.9516**
10"	**gS 68.9522**	**gS 68.9524**	**gS 68.9526**
12"	**gS 68.9532**	**gS 68.9534**	**gS 68.9536**

Spurling Rongeur
4x10mm bite
finger ring handle


straight

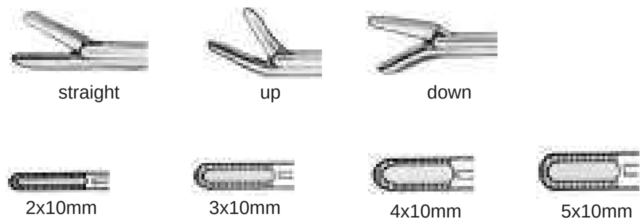

up


down


6x10mm

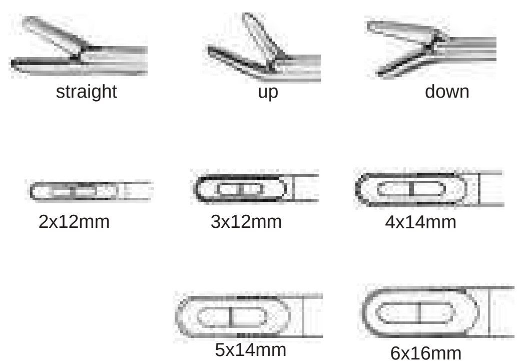
gS 68.8052 straight
gS 68.8054 up
gS 68.8056 down

Cloward Rongeur
6" shaft, 6x10mm bite
finger ring handle



6" shaft bite	straight	up	down
2x10mm	**gS 68.8000**	**gS 68.8029**	**gS 68.8034**
3x10mm	**gS 68.8020**	**gS 68.8030**	**gS 68.8035**
4x10mm	**gS 68.8040**	**gS 68.8031**	**gS 68.8036**
5x10mm	**gS 68.8050**	**gS 68.8032**	**gS 68.8037**
7" shaft bite			
2x10mm	**gS 68.7702**	**gS 68.7732**	**gS 68.7762**
3x10mm	**gS 68.7703**	**gS 68.7733**	**gS 68.7763**
4x10mm	**gS 68.7704**	**gS 68.7734**	**gS 68.7764**
5x10mm	**gS 68.7705**	**gS 68.7735**	**gS 68.7765**
9" shaft bite			
2x10mm	**gS 68.7892**	**gS 68.7929**	**gS 68.7959**
3x10mm	**gS 68.7900**	**gS 68.7930**	**gS 68.7960**
4x10mm	**gS 68.7904**	**gS 68.7934**	**gS 68.7964**
5x10mm	**gS 68.7905**	**gS 68.7935**	**gS 68.7965**

Schlesinger IVD Rongeur
serrated jaws
finger ring handle



6" shaft bite	straight	up	down
2x12mm	**gS 68.0202**	**gS 68.0212**	—
3x12mm	**gS 68.0203**	**gS 68.0213**	—
4x14mm	**gS 68.0204**	**gS 68.0214**	—
5x14mm	**gS 68.0205**	**gS 68.0215**	—
6x16mm	**gS 68.0206**	**gS 68.0216**	—
7" shaft bite			
2x12mm	**gS 68.0222**	**gS 68.0242**	—
3x12mm	**gS 68.0223**	**gS 68.0243**	**gS 68.0233**
4x14mm	**gS 68.0224**	**gS 68.0244**	**gS 68.0234**
5x14mm	**gS 68.0225**	**gS 68.0245**	—
6x16mm	**gS 68.0226**	**gS 68.0246**	—

Caspar IVD Rongeur
fenestrated cup, serrated jaws
finger ring handle

67-68

67-68/10 - ivd rongeurs

6mm

gS 68.9560 7" shaft

Oldberg Rongeur
round 6mm bite, straight
finger ring handle

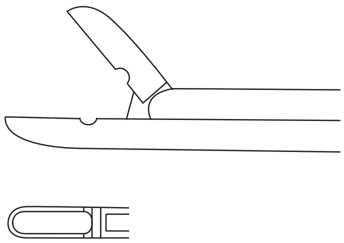
straight up down

2x10mm 3x10mm 4x10mm 5x10mm 6x12mm

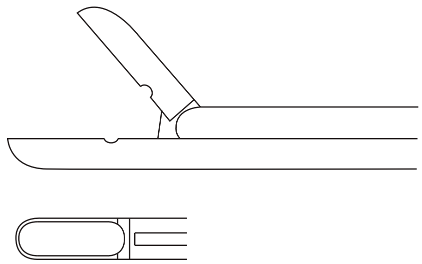
bite	straight	up	down
2x10mm	**gS 68.9580**	**gS 68.9600**	**gS 68.9620**
3x10mm	**gS 68.9640**	**gS 68.9660**	**gS 68.9680**
4x10mm	**gS 68.9700**	**gS 68.9720**	**gS 68.9725**
5x10mm	**gS 68.9726**	**gS 68.9727**	**gS 68.9728**
6x12mm	**gS 68.9780**	**gS 68.9730**	**gS 68.9750**

Ferris Smith Rongeur
7" shaft
Ferris-Smith-Kerrison ring handle

Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures.



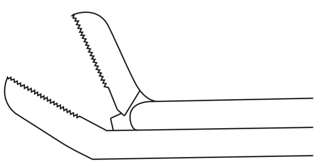
4mm



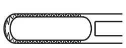
6mm

	bite
gS 68.9824	4mm
gS 68.9826	6mm

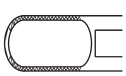
gRongeur, Disc
13" shaft, straight
Ferris-Smith-Kerrison handle



3mm



4mm



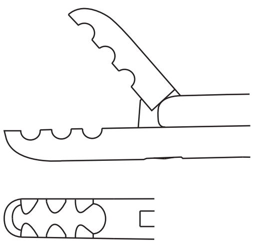
8mm

	bite
gS 68.9843	3mm
gS 68.9844	4mm
gS 68.9848	8mm

gRongeur, Disc
13" shaft, up, serrated jaws
Ferris-Smith-Kerrison handle

67-68/12 - graspers rongeurs

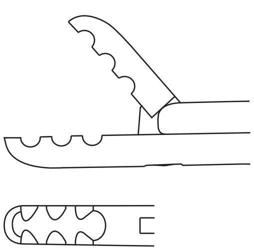
Grooved jaw and adjustable locking ratchet help to provide a fixed hold on grasped tissue.



5mm

gS 68.9805 9" shaft

gGrasper Rongeur
5mm bite, straight, grooved jaw, ratchet
Ferris-Smith-Kerrison ring handle

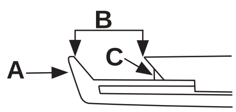


5mm

gS 68.9815 9" shaft

gGrasper Rongeur
5mm bite, straight, grooved jaw
Ferris-Smith-Kerrison ring handle

Easy2Clean Kerrison Punch identification chart - 69/1

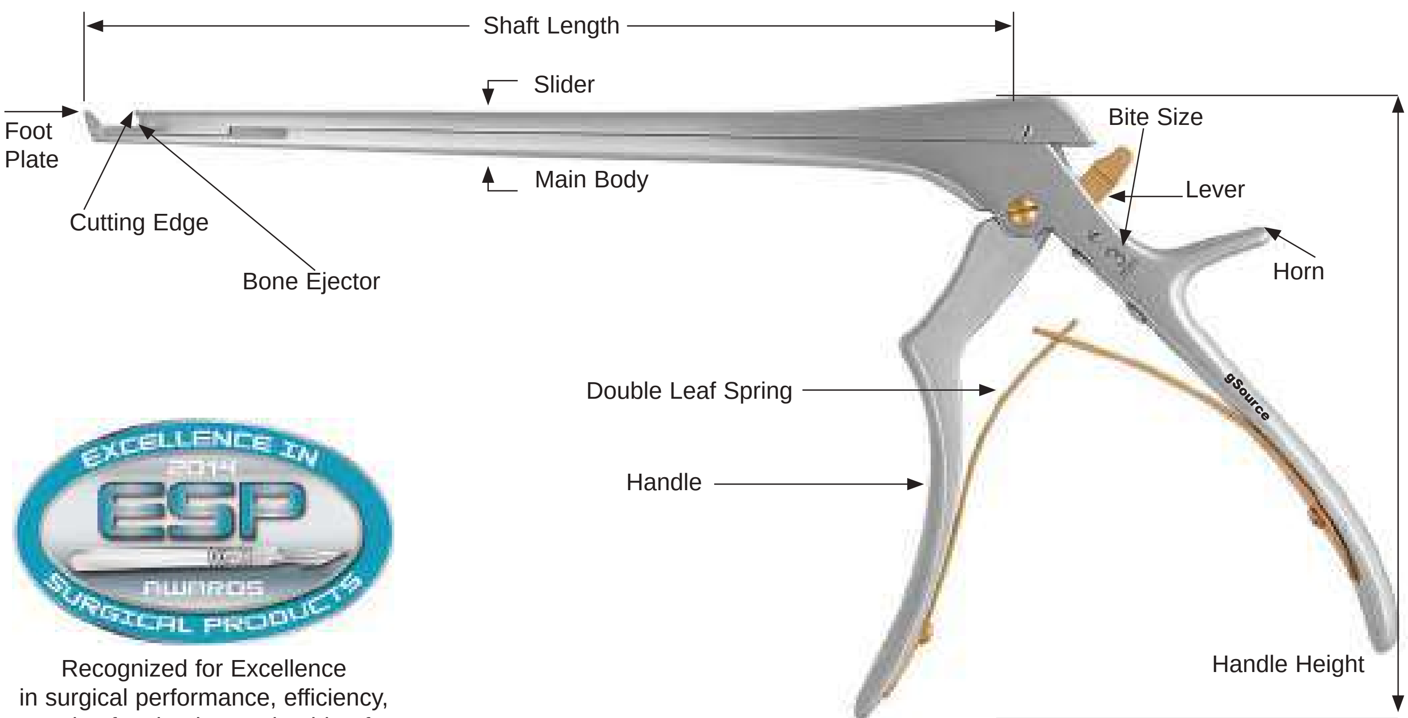


40° Forward Bite
Thin Foot Plate

A - Foot Plate
Foot plate options are:
— Regular: foot plate has a greater thickness useful for lumbar procedures.
— Thin: foot plate has a reduced thickness useful for cervical and thoracic procedures.

B - Bite Opening
Size of the bite opening is the distance between the cutting edge and the foot plate when in the open position. A wider opening allows surgeon to excise more bone.

C - Bone Ejector
Easy2Clean Kerrison Punch 2mm-6mm bite sizes have a bone ejector incorporated into their design. The bone ejector helps to remove any material (bone, tissue, etc.) caught within the bite opening.



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in surgical performance, efficiency,
and safety by the readership of
Surgical Products.

69/2 - Easy2Clean Kerrison Punch

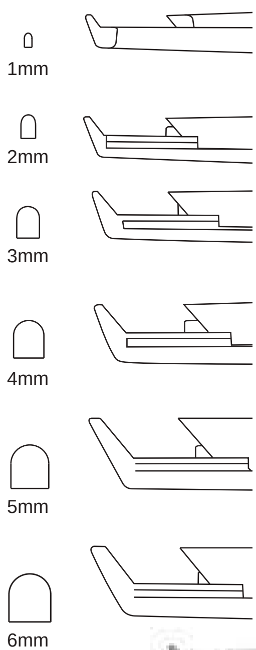
Opens for easy and complete cleaning.

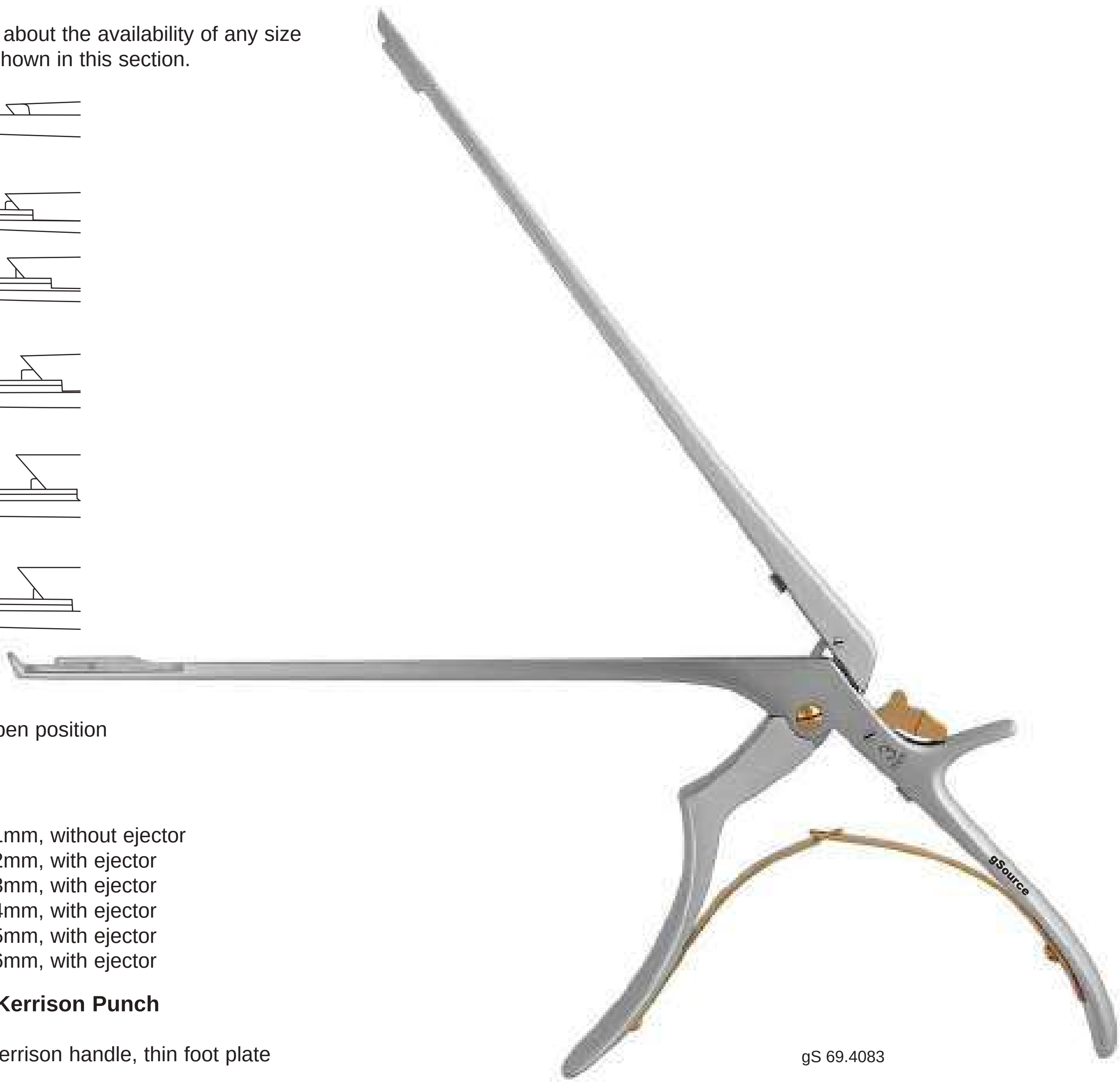
In most spinal punches, tissue and debris can collect and remain trapped between the main body and slider. This build-up can impede the smooth function of the instrument and prevent proper sterilization as a result of not being completely cleaned prior to sterilization.

The Easy2Clean Kerrison Punch has a hinged slider that opens in order to allow access for easy and complete cleaning inside the main body.

- Punch remains in one piece when opened so there are no loose instrument components.
- Forward angled foot plate provides precise and controlled cutting action.
- Features a thin foot plate design.
- Bone ejector is incorporated into the design of 2mm-6mm bite sizes.
- Made from German stainless steel.
- Satin finish helps to reduce glare.

Please inquire about the availability of any size and style not shown in this section.





Shown in open position

gS 69.4083

gS 69.4081 1mm, without ejector
gS 69.4082 2mm, with ejector
gS 69.4083 3mm, with ejector
gS 69.4084 4mm, with ejector
gS 69.4085 5mm, with ejector
gS 69.4086 6mm, with ejector

Easy2Clean Kerrison Punch
8" forward
Ferris-Smith-Kerrison handle, thin foot plate

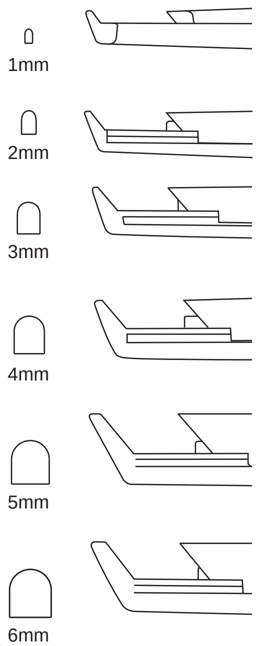
Easy2Clean Kerrison Punch - 69/3

Opens for easy and complete cleaning.

In most spinal punches, tissue and debris can collect and remain trapped between the main body and slider. This build-up can impede the smooth function of the instrument and prevent proper sterilization as a result of not being completely cleaned prior to sterilization.

The Easy2Clean Kerrison Punch has a hinged slider that opens in order to allow access for easy and complete cleaning inside the main body.

- Punch remains in one piece when opened so there are no loose instrument components.
- Forward angled foot plate provides precise and controlled cutting action.
- Features a thin foot plate design.
- Bone ejector is incorporated into the design of 2mm-6mm bite sizes.
- Made from German stainless steel.
- TiAIN ceramic coating helps to provide improved strength, increased cutting edge hardness, reduced glare and a smooth action.



Shown in open position

gS 69.8081 1mm, without ejector
gS 69.8082 2mm, with ejector
gS 69.8083 3mm, with ejector
gS 69.8084 4mm, with ejector
gS 69.8085 5mm, with ejector
gS 69.8086 6mm, with ejector

Easy2Clean Kerrison Punch
8" forward
TiAIN, black matte finish
Ferris-Smith-Kerrison handle, thin foot plate

gS 69.8081

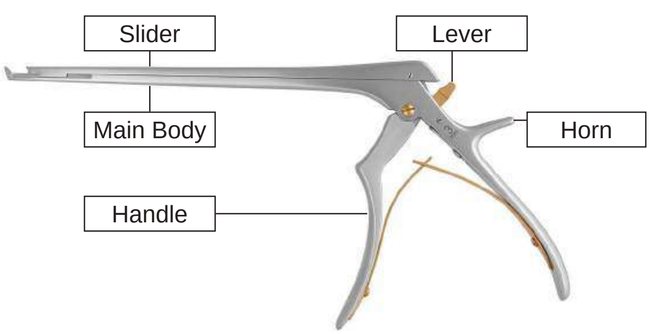
69/4 - Easy2Clean Kerrison Punch

To open:

1) Squeeze handle together and hold.
2) While holding handle together, push down on the lever toward the handle horn.

3) Release hold on handle.
4) Pull back slider and lift to open.

Indentification of components:



Shown in closed position

To close:

1) Align and engage slider in grooves on main body.

2) Squeeze handle together and hold.
3) While holding handle together, push lever up to its original position.

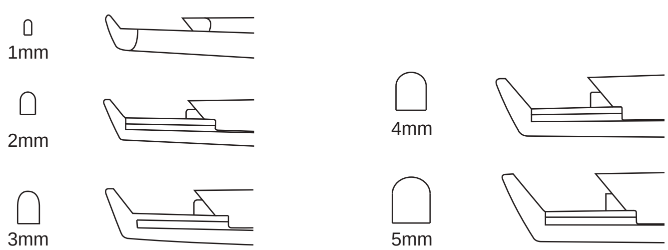
4) Release hold on handle.
5) Check instrument funtion to ensure slider is engaged properly.

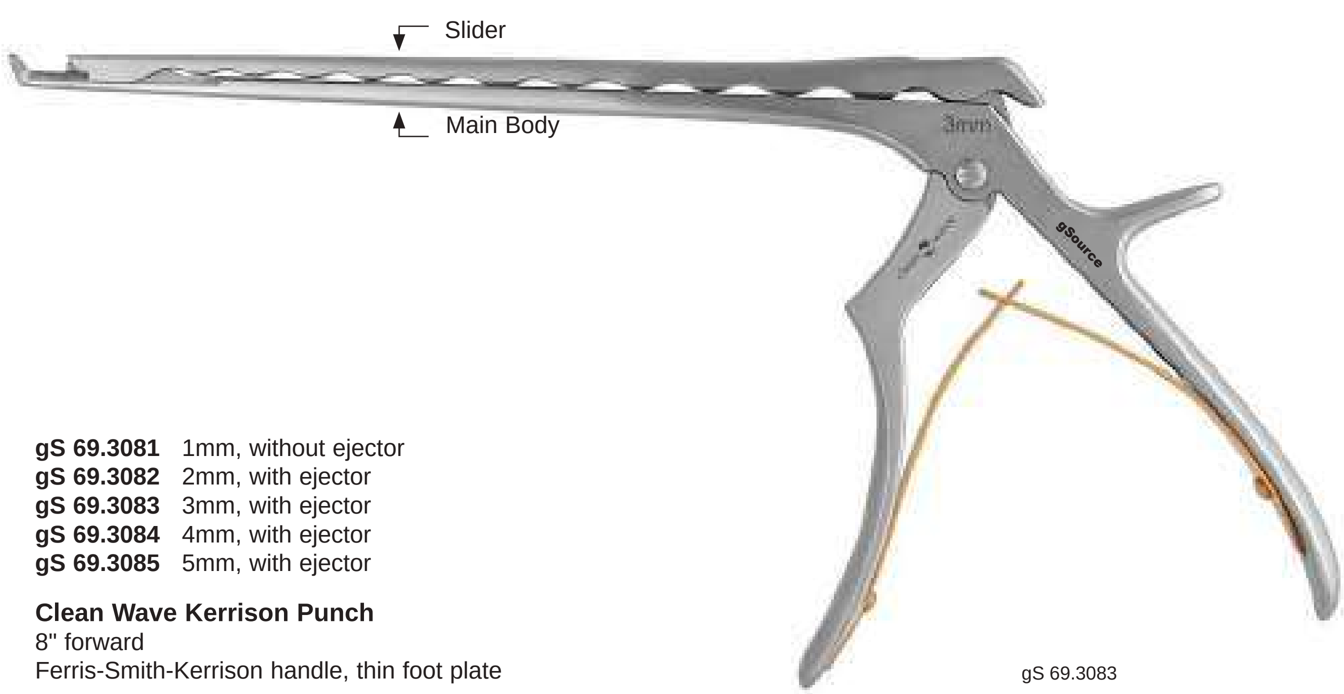
Catch a new wave to easy cleaning.

In most spinal punches, tissue and debris can collect and remain trapped between the main body and slider. This build-up can impede the smooth function of the instrument and prevent proper sterilization as a result of not being completely cleaned prior to sterilization.

The Clean Wave Kerrison Punch has a slider with a wavelike shaped design which allows cleaning utensils to easily reach through the recesses and openings between the slider and main body for cleaning prior to sterilization.

- Wavelike shape also helps to reduce friction between the slider and main body, providing a smooth function.
- Forward angled foot plate provides precise and controlled cutting action.
- Features a thin foot plate design.
- Bone ejector is incorporated into the design of 2mm-5mm bite sizes.
- Made from German stainless steel.
- Satin finish helps to reduce glare.





gS 69.3081 1mm, without ejector
gS 69.3082 2mm, with ejector
gS 69.3083 3mm, with ejector
gS 69.3084 4mm, with ejector
gS 69.3085 5mm, with ejector

Clean Wave Kerrison Punch
8" forward
Ferris-Smith-Kerrison handle, thin foot plate

gS 69.3083

did you know… ?

Critical items, such as surgical instruments, are associated with a high risk for infection if they are contaminated with any microorganism. Objects that enter tissue or the vascular system must be sterile because any microbial contamination could transmit disease. Meticulous cleaning must precede any sterilization or high-level disinfection. Failure to perform good cleaning can result in sterilization or disinfection failure, and outbreaks of infection can occur. An instrument must be completely cleaned in order to be sterilized properly.

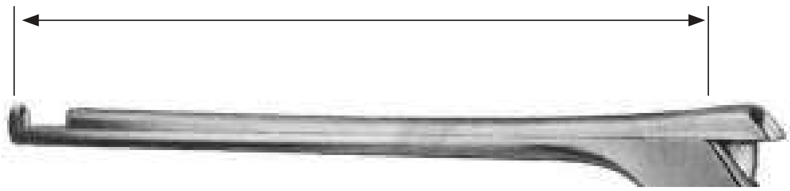
"Cleaning" is the removal of foreign material (e.g., soil, and organic material) from objects and is normally accomplished using water with detergents or enzymatic products. Thorough cleaning is required before high-level disinfection and sterilization because inorganic and organic materials that remain on the surfaces of instruments interfere with the effectiveness of these processes. Also, if soiled materials dry or bake onto the instruments during autoclaving, the removal process becomes more difficult and the disinfection or sterilization process less effective or even ineffective. Surgical instruments should be presoaked or rinsed to prevent drying of blood and to soften or remove blood from the instruments.

Surgical instruments with multiple components must be disassembled and equipment such as endoscopes that have crevices, joints, and channels are more difficult to clean than flat-surface equipment. Cleaning is done manually in use areas without mechanical units (ultrasonic cleaners or washer-disinfectors) or for fragile or difficult-to-clean instruments. With manual cleaning, the two essential components are friction (rubbing/scrubbing the soiled area with a brush) and fluidics (fluids under pressure), used to remove soil and debris from internal channels after brushing and when the design does not allow passage of a brush through a channel. When a washer-disinfector is used, care should be taken in loading instruments: hinged instruments should be opened fully to allow adequate contact with the detergent solution; stacking of instruments in washers should be avoided; and instruments should be disassembled as much as possible.

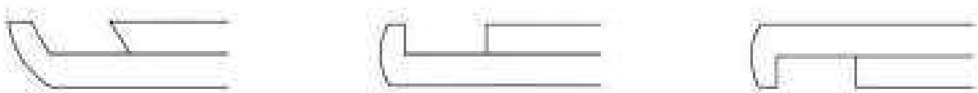
The issue with a standard spinal punch is that tissue and debris can collect and remain "trapped" inside the shaft between the "main body" and "slider". This build-up can impede the smooth function and prevent proper sterilization if not completely cleaned. The instrument can also be damaged if it is scraped or struck against another object in an effort to dislodge any debris. The build-up and debris that is not completely cleaned and removed prior to disinfection and sterilization is not only unsanitary it can cause infection. The bioburden, or number of microorganisms on a contaminated item, that collects inside the shaft can form a "hard shell" which protects the microorganisms from sterilization. The bioburden can transmit infectious disease and sterilized bioburden can act as a pyrogen, or fever inducing substance. Bioburden increases risk factors for surgical site infection.

The Easy2Clean Kerrison Punch, as shown on pages 1-4 in this section, was designed to be cleaned. With a slider that opens in order to allow for easy and complete cleaning, it remains in one piece when opened for ease of reassembly, eliminating the possibility of losing or switching parts.

The Clean Wave Kerrison Punch, as shown on page 5 in this section, was also designed to be cleaned. With a wavelike shaped slider, it allows cleaning utensils to easily reach through the recesses and openings between the main body and slider for cleaning prior to sterilization.

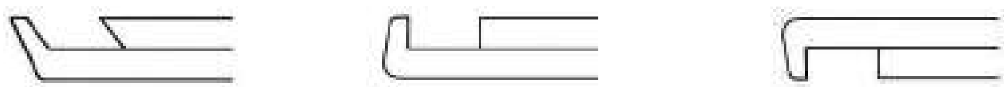


Shaft Length



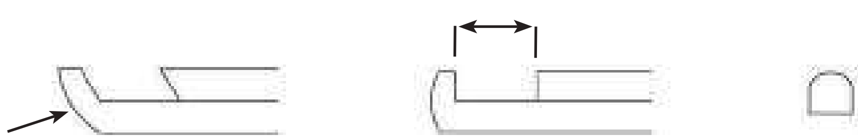
forward up down

Regular foot plate bite styles



forward up down

Thin foot plate bite styles



foot plate bite opening bite

Features

Refer to Section 67-68 for gSource spinal rongeurs.

Please inquire about the availability of any size and style not shown in this section.

70/2 - spinal punches identification chart

Kerrison Handle
handle height: 6"

Love-Kerrison Standard Handle
handle height: 6"

Love-Kerrison Handle
handle height: 6"

gSource spinal rongeurs and punches have bite size etched on handles.

Handle styles

Ferris-Smith-Kerrison Handle
handle height: 5"

Ferris-Smith-Kerrison Ring Handle
handle height: 5"

Wider grip improves comfort and control.

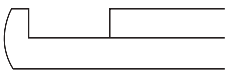
Biocompatible silicone coated stainless steel handle helps to prevent slippage and provide a secure and comfortable grip.

Ferris-Smith-Kerrison Handle
silicone coated stainless steel
handle height: 5"

gSource spinal rongeurs and punches have bite size etched on handles.

Handle styles

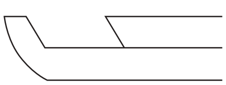
70/4 - punches with regular foot plate



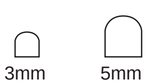
up

	bite
gS 70.5213	2mm
gS 70.5215	3mm
gS 70.5217	4mm
gS 70.5219	5mm
gS 70.5221	6mm

Kerrison Mastoid Punch
3 1/2" shaft, up
Kerrison handle, regular footplate



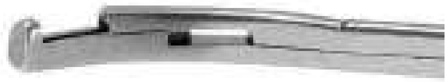
forward



	bite
gS 70.9230	3mm
gS 70.9240	5mm

Ferris Smith Punch
8" shaft, forward
Ferris-Smith-Kerrison ring handle, regular footplate

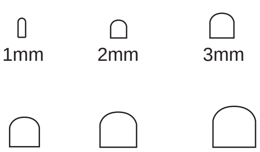
3mm

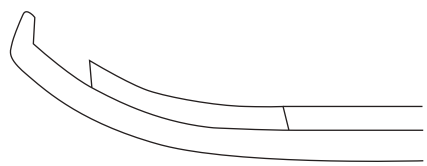


up, curved left

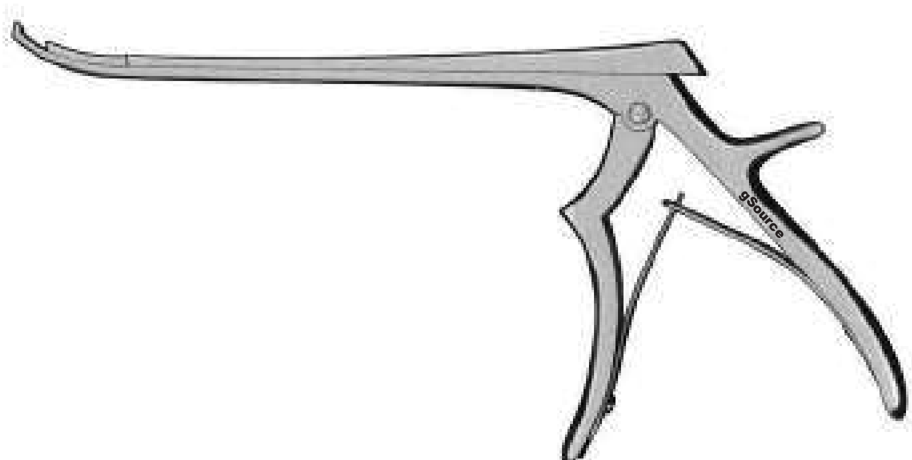
	curved
gS 70.1530	left
gS 70.1630	right

Foraminotomy Punch
8" shaft, 3mm bite, up
Ferris-Smith-Kerrison handle, regular foot plate





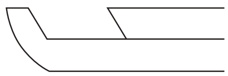
Upward curved shaft and forward angled foot plate make the underside of the foramen accessible.
Hinge in upper shaft enables smooth cutting function.



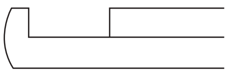
bite	8" shaft	12" shaft
1mm	**gS 70.1290**	**gS 70.2001**
2mm	**gS 70.1300**	**gS 70.2002**
3mm	**gS 70.1330**	**gS 70.2003**
4mm	**gS 70.1340**	**gS 70.2004**
5mm	**gS 70.1350**	**gS 70.2005**
6mm	**gS 70.1360**	**gS 70.2006**

Foraminotomy Punch
strong curved forward
Ferris-Smith-Kerrison handle, regular foot plate

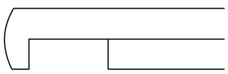
70/6 - punches with regular foot plate



forward



up



down

1mm 2mm 3mm 4mm 5mm 6mm

7" shaft

bite	forward	up	down
1mm	**gS 70.5711**	**gS 70.5721**	**gS 70.5701**
2mm	**gS 70.5712**	**gS 70.5722**	**gS 70.5702**
3mm	**gS 70.5713**	**gS 70.5723**	**gS 70.5703**
4mm	**gS 70.5714**	**gS 70.5724**	**gS 70.5704**
5mm	**gS 70.5715**	**gS 70.5725**	**gS 70.5705**
6mm	**gS 70.5716**	**gS 70.5726**	**gS 70.5706**

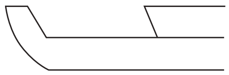
8" shaft

bite			
1mm	**gS 70.5811**	**gS 70.5821**	**gS 70.5801**
2mm	**gS 70.5812**	**gS 70.5822**	**gS 70.5802**
3mm	**gS 70.5813**	**gS 70.5823**	**gS 70.5803**
4mm	**gS 70.5814**	**gS 70.5824**	**gS 70.5804**
5mm	**gS 70.5815**	**gS 70.5825**	**gS 70.5805**
6mm	**gS 70.5816**	**gS 70.5826**	**gS 70.5806**

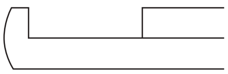
12" shaft

bite			
1mm	**gS 70.9121**	—	—
2mm	**gS 70.9122**	—	—
3mm	**gS 70.9123**	—	—
4mm	**gS 70.9124**	—	—
5mm	**gS 70.9125**	—	—
6mm	**gS 70.9126**	—	—

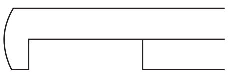
Spurling Kerrison Punch
Ferris-Smith-Kerrison handle
regular foot plate



forward



up



down

15mm bite opening

2mm 3mm 4mm 5mm 6mm

8" shaft

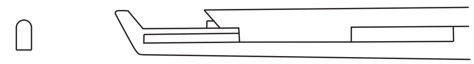
bite	forward	up	down
2mm	**gS 70.7812**	**gS 70.7822**	**gS 70.7802**
3mm	**gS 70.7813**	**gS 70.7823**	**gS 70.7803**
4mm	**gS 70.7814**	**gS 70.7824**	**gS 70.7804**
5mm	**gS 70.7815**	**gS 70.7825**	**gS 70.7805**
6mm	**gS 70.7816**	**gS 70.7826**	**gS 70.7806**

12" shaft

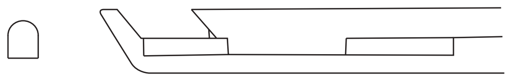
bite			
2mm	**gS 70.8122**	—	—
3mm	**gS 70.8123**	—	—
4mm	**gS 70.8124**	—	—
5mm	**gS 70.8125**	—	—
6mm	**gS 70.8126**	—	—

Love Kerrison Punch
Love-Kerrison handle
regular foot plate

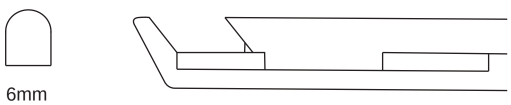
70/8 - punches with regular foot plate



2mm



4mm



6mm

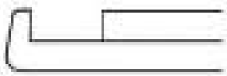
Useful in facilitating a discectomy in anterior lumbar fusion and non-fusion procedures.

	bite
gS 70.6302	2mm
gS 70.6304	4mm
gS 70.6306	6mm

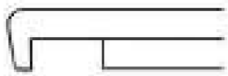
gPunch, Spurling Kerrison
13" shaft, forward, with bone ejector
Ferris-Smith-Kerrison handle, regular foot plate

punches with thin foot plate - 71/1

forward



up



down

1mm 2mm 3mm 4mm 5mm 6mm

7" shaft

bite	forward	up	down
1mm	**gS 71.5711**	**gS 71.5721**	**gS 71.5701**
2mm	**gS 71.5712**	**gS 71.5722**	**gS 71.5702**
3mm	**gS 71.5713**	**gS 71.5723**	**gS 71.5703**
4mm	**gS 71.5714**	**gS 71.5724**	**gS 71.5704**
5mm	**gS 71.5715**	**gS 71.5725**	**gS 71.5705**
6mm	**gS 71.5716**	**gS 71.5726**	**gS 71.5706**

8" shaft

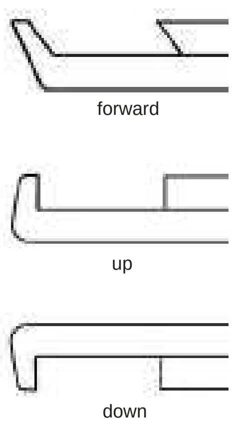
bite			
1mm	**gS 71.5811**	**gS 71.5821**	**gS 71.5801**
2mm	**gS 71.5812**	**gS 71.5822**	**gS 71.5802**
3mm	**gS 71.5813**	**gS 71.5823**	**gS 71.5803**
4mm	**gS 71.5814**	**gS 71.5824**	**gS 71.5804**
5mm	**gS 71.5815**	**gS 71.5825**	**gS 71.5805**
6mm	**gS 71.5816**	**gS 71.5826**	**gS 71.5806**

12" shaft

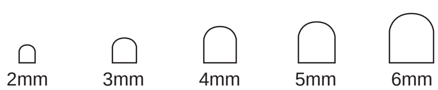
bite			
1mm	**gS 71.5951**	—	—
2mm	**gS 71.5952**	—	—
3mm	**gS 71.5953**	—	—
4mm	**gS 71.5954**	—	—
5mm	**gS 71.5955**	—	—
6mm	**gS 71.5956**	—	—

Spurling Kerrison Punch
Ferris-Smith-Kerrison handle
thin foot plate

71/2 - punches with thin foot plate



15mm bite opening



8" shaft

bite	forward	up	down
2mm	**gS 71.7812**	**gS 71.7822**	**gS 71.7802**
3mm	**gS 71.7813**	**gS 71.7823**	**gS 71.7803**
4mm	**gS 71.7814**	**gS 71.7824**	**gS 71.7804**
5mm	**gS 71.7815**	**gS 71.7825**	**gS 71.7805**
6mm	**gS 71.7816**	**gS 71.7826**	**gS 71.7806**

12" shaft

bite			
2mm	**gS 71.7952**	—	—
3mm	**gS 71.7953**	—	—
4mm	**gS 71.7954**	—	—
5mm	**gS 71.7955**	—	—
6mm	**gS 71.7956**	—	—

Love Kerrison Punch
Love-Kerrison handle
thin foot plate

Get a sure grip!

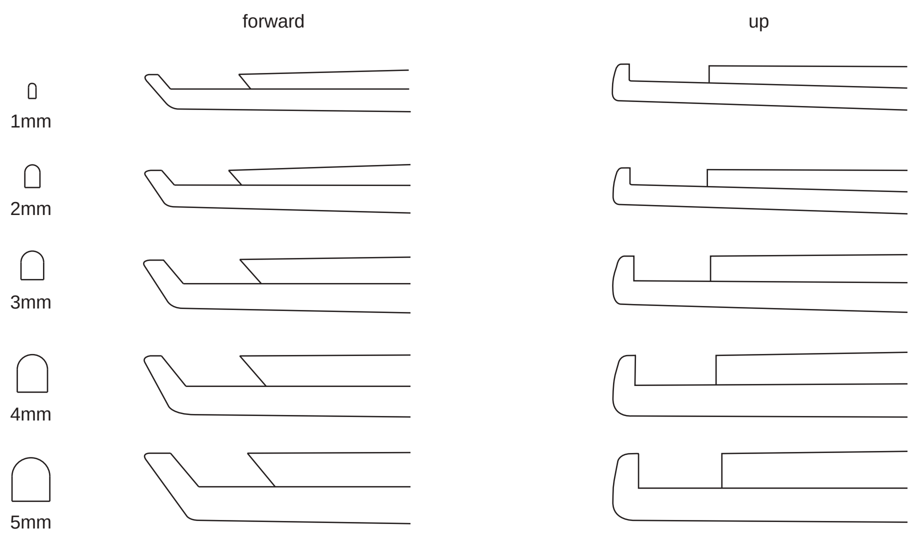
- Biocompatible silicone coated stainless steel handles help to prevent slippage and provide a secure and comfortable grip.
- Made from German stainless steel with silicone coated handles.
- Colored handles provide easy bite size recognition.
- Available in five standard colors according to bite size (red, blue, lavender, turquoise, green).
- Silicone has excellent resistance to alkaline, saline and acidic solutions.
- Non-fading vibrant colors withstand repeated autoclaving.
- Forward and up bite styles available from stock.
- Quality verified and guaranteed by gSource.

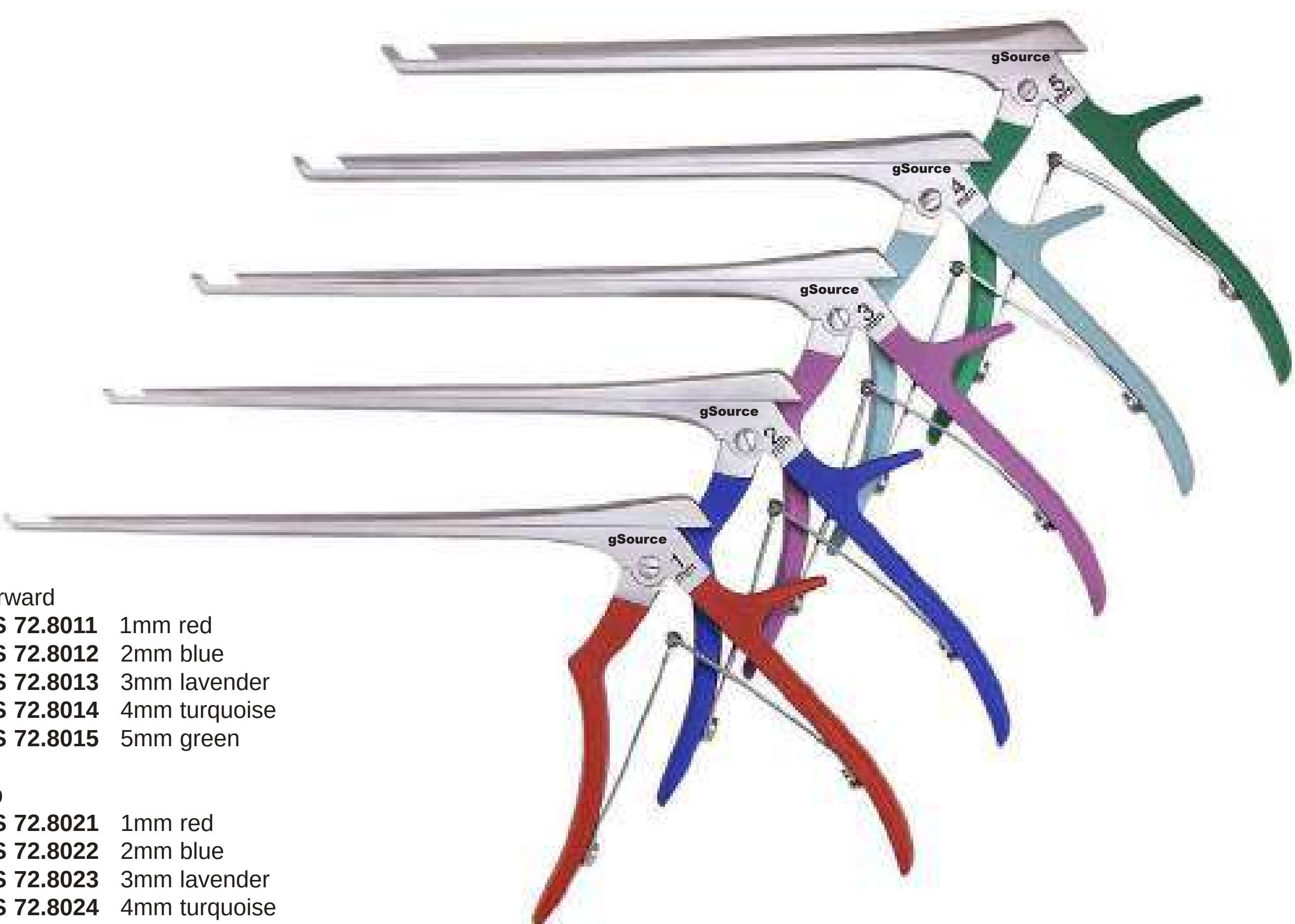
Custom options:

- Color of silicone coated handle
- Shaft length
- Down bite style

gS 72.8015 is shown.

72/2 - gPunch with silicone coated handle

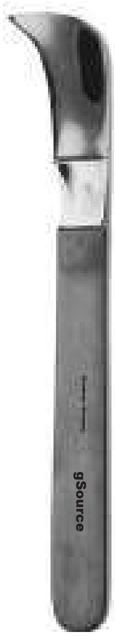




forward
gS 72.8011 1mm red
gS 72.8012 2mm blue
gS 72.8013 3mm lavender
gS 72.8014 4mm turquoise
gS 72.8015 5mm green

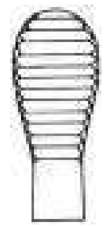
up
gS 72.8021 1mm red
gS 72.8022 2mm blue
gS 72.8023 3mm lavender
gS 72.8024 4mm turquoise
gS 72.8025 5mm green

gPunch, Silicone Coated Handle
8" shaft
Ferris-Smith-Kerrison handle
regular foot plate



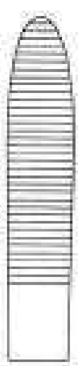
gS 73.2270 7"

Reiner Plaster Knife



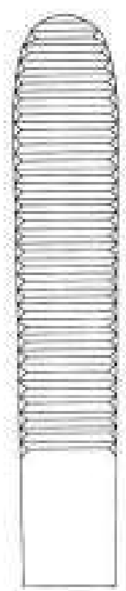
gS 73.2810 7"

Pediatric Cast Breaker



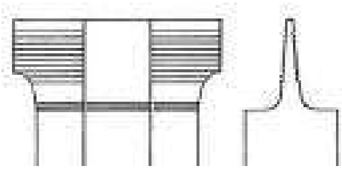
gS 73.2838 7"

Wolff Plaster Cast Breaker



gS 73.2840 9 1/2"

Wolff Plaster Cast Breaker



gS 73.2330 9"

Walton Cast Spreader
serrated outside blades

gS 73.2380 11"

Hennig Plaster Spreader
serrated outside blades

gS 73.2382 12"

Beeson Cast Spreader
serrated outside blades

did you know… ?

After a bone is broken it needs rest and support to heal properly. Orthopedic doctors use casts to support and protect injured bones. Plaster casts are most often used when a fracture reduction (repositioning of the bone) is performed. The reason plaster is used after repositioning the bone is that plaster can be well molded to the patient, and therefore it can support the bone more precisely. When a bone was out of position, and is manipulated back into position, plaster may be used to help hold the bone in the proper position.

Plaster spreaders are a reverse pincer device with flat blades that are fitted down into a cut made in a plaster cast that is about to be removed. Opening the handles forces the plaster apart.

The Walton Cast Spreader, gS 73.2330 shown on this page, is our most popular casting instrument.

gS 74.1000 3 1/2" str

Castroviejo Caliper
graduated from 0 to 20mm

gS 74.1010 3 1/2" cvd

Castroviejo Caliper
graduated from 0 to 20mm

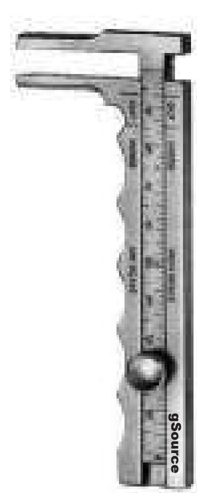
gS 74.1040 6 1/2" str

Castroviejo Caliper
graduated from 0 to 40mm

measures inside
and outside

gS 74.4140 4 1/2"

Townley Caliper
inch and mm graduations
measures up to 4" [100mm]



gS 74.4160   8 1/2"

Caliper
inch and mm graduations
measures up to 6" [150mm]

90mm long delicate blades

gS 74.4148   9"

Neuro Caliper
inch and mm graduations
measures up to 5" [127mm]

Used to measure angles, particularly the range of motion for finger joints.

gS 74.2015   6"

Goniometer (Polk Finger)
inch and cm graduations

Used to measure angles, particularly the range of motion for joints such as the hip, knee, elbow or shoulder.

gS 74.2109   9 1/2"

Moeltgen Goniometer
measures 0-180 degrees

Used to measure angles, particularly the range of motion for joints such as the hip, knee, elbow or shoulder.

gS 74.2180 8"
gS 74.2190 11 1/2"

gGoniometer
measures 0-180 degrees

gS 74.5070 7 1/2" outside

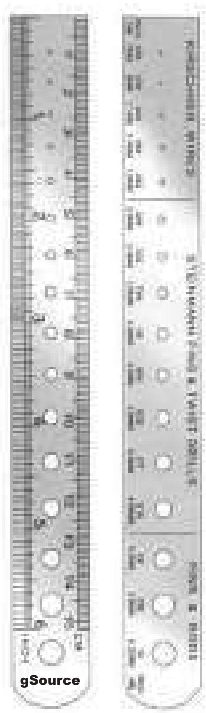
Bone Compass
maximum opening 140mm

gS 74.5071 7" inside

Bone Compass
maximum opening 140mm

gS 74.5100 8"

Bone Compass
maximum opening 110mm

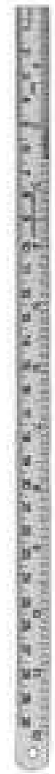


Indispensable tool for measuring k-wires, steinmann pins, rods, and drill bits.

Gauges from diameter 0.7mm to 6.35mm [.028" to 1/4"]

gS 74.7800 6 1/2"

K-Wire Ruler and Pin Gauge



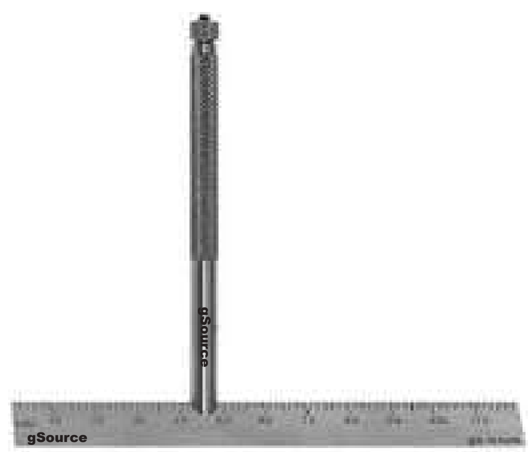
gS 74.7920 6"
gS 74.7940 8"
gS 74.7980 12"
gS 74.8000 20"

Ruler Flexible
inch/mm graduations

gS 74.8400 20 1/2"

X-Ray Ruler
mm graduations

Designed to measure the femoral head/neck length.
Useful in minimally invasive surgery.

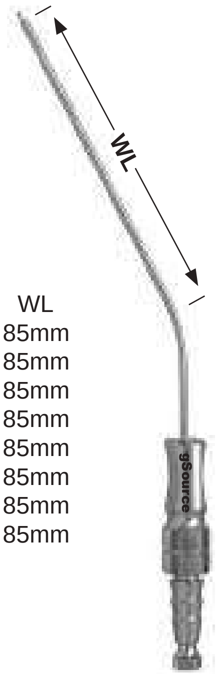


gS 74.5200 handle 4" knurled
gS 74.5210 ruler 40mm [1 1/2"]
gS 74.5220 ruler 80mm [3"]
gS 74.5230 ruler 120mm [4 3/4"]

Ruler Handle
stainless steel
mm and inch graduations

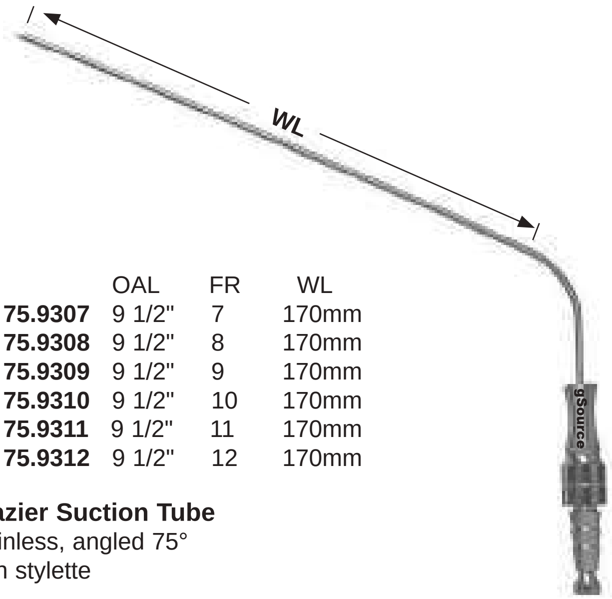
OAL = Overall Length
WL = Working Length
FR = French gauge

See page 75-76/3 for standard French gauge (FR) illustrations.



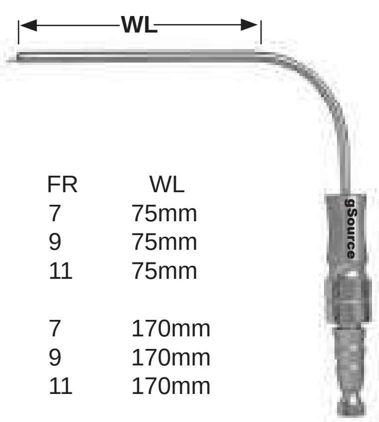
	OAL	FR	WL
gS 75.9230	7"	6	85mm
gS 75.9240	7"	7	85mm
gS 75.9250	7"	8	85mm
gS 75.9255	7"	9	85mm
gS 75.9260	7"	10	85mm
gS 75.9282	7"	11	85mm
gS 75.9300	7"	12	85mm
gS 75.9302	7"	14	85mm

Frazier Suction Tube
stainless, angled 30°
with stylette



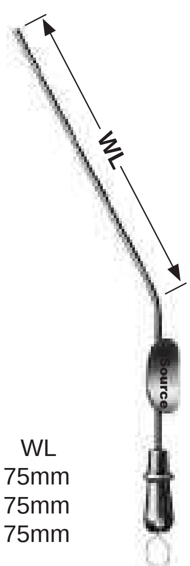
	OAL	FR	WL
gS 75.9307	9 1/2"	7	170mm
gS 75.9308	9 1/2"	8	170mm
gS 75.9309	9 1/2"	9	170mm
gS 75.9310	9 1/2"	10	170mm
gS 75.9311	9 1/2"	11	170mm
gS 75.9312	9 1/2"	12	170mm

Frazier Suction Tube
stainless, angled 75°
with stylette



	OAL	FR	WL
gS 75.9313	6"	7	75mm
gS 75.9314	6"	9	75mm
gS 75.9315	6"	11	75mm
gS 75.9316	9"	7	170mm
gS 75.9317	9"	9	170mm
gS 75.9318	9"	11	170mm

Frazier Suction Tube
stainless, angled 90°
with stylette



	OAL	FR	WL
gS 75.9320	5 1/2"	3	75mm
gS 75.9340	5 1/2"	5	75mm
gS 75.9360	5 1/2"	7	75mm

Baron Suction Tube
stainless, angled 30°
with stylette

75-76/2 - suction tubes

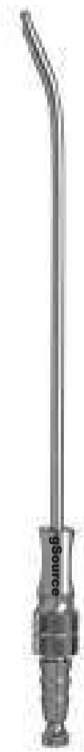
OAL = Overall Length
WL = Working Length
FR = French gauge
SWG = Standard Wire Gauge

See page 75-76/3 for standard French gauge (FR) illustrations.

See page 75-76/4 for SWG dimensions.

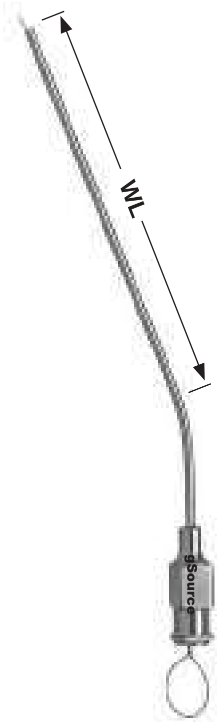
	OAL	FR
gS 75.9401	8 1/2"	12
gS 75.9402	8 1/2"	15

Adson Suction Tube
stainless, angled 20°
with stylette



	OAL	SWG	WL
gS 76.2614	4"	14	60mm
gS 76.2615	4"	15	60mm
gS 76.2616	4"	16	60mm
gS 76.2617	4"	17	60mm
gS 76.2618	4"	18	60mm
gS 76.2619	4"	19	60mm
gS 76.2620	4"	20	60mm
gS 76.2622	4"	22	60mm
gS 76.2624	4"	24	60mm
gS 76.2626	4"	26	60mm

Rosen Suction Tube
stainless, angled 30°
with stylette



	OAL	FR
gS 76.0990	8" angled pediatric	17
gS 76.1000	10" angled	24
gS 76.1002	9" straight	30

Poole Suction Tube
stainless

	OAL	FR
gS 75.3124	9 1/2"	12

Andrews-Pynchon Suction Tube
stainless, curved

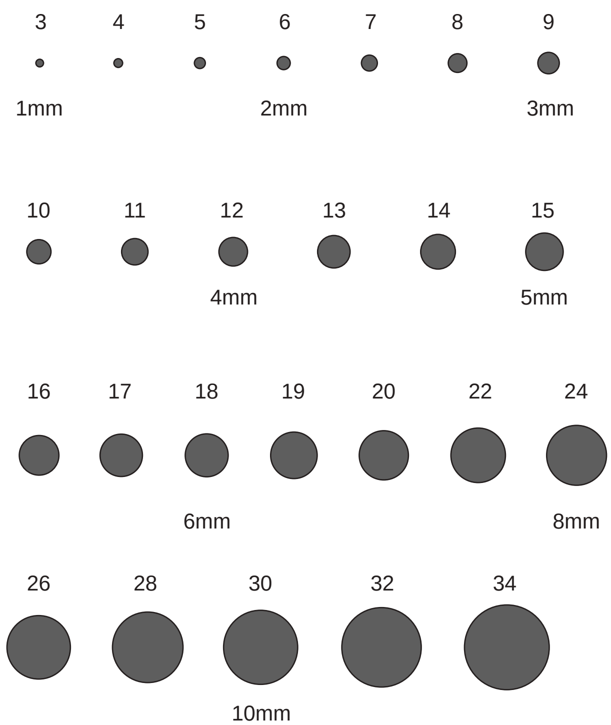
OAL = Overall Length

	OAL
gS 75.3250	8 1/2"

Yankauer Suction Tube
stainless, pediatric
double angled

	OAL
gS 75.3280	11"

Yankauer Suction Tube
stainless
double angled



French Gauge Illustrations

French Gauge Scale

FR	mm	inch
3	1.0	.039
4	1.3	.053
5	1.7	.066
6	2.0	.079
7	2.3	.092
8	2.7	.105
9	3.0	.118
10	3.3	.131
11	3.7	.144
12	4.0	.158
13	4.3	.170
14	4.7	.184
15	5.0	.197
16	5.3	.210
17	5.7	.223
18	6.0	.236
19	6.3	.249
20	6.7	.263
22	7.3	.288
24	8.0	.315
26	8.7	.341
28	9.3	.367
30	10.0	.393
32	10.7	.419
34	11.3	.445

The French Gauge System is commonly used to define the outside diameter of cylindrical medical instruments such as suction tubes. The millimeter diameter can be determined by dividing the French (FR) size by 3.

The system was developed by Joseph-Frédéric-Benoit Charrière, a 19th century Parisian maker of surgical instruments.

SWG is the British Standard Wire Gauge, also known as Imperial Wire Gauge or British Standard Gauge.

Wire gauge is a standard for wire diameters. Each gauge has a number that represents a specific diameter of wire.

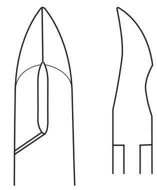
Wire gauge is measured by a device, also known as a gauge, that usually is a round circle with numbers and holes into which wires are fitted to determine their diameter.

SWG	inch	mm	SWG	inch	mm
7/0	.500	12.70	22	.0280	0.71
6/0	.464	11.79	23	.0240	0.61
5/0	.432	10.97	24	.0220	0.56
4/0	.400	10.16	25	.0200	0.51
3/0	.372	9.45	26	.0180	0.46
2/0	.348	8.84	27	.0164	0.42
1/0	.324	8.24	28	.0148	0.38
1	.300	7.62	29	.0136	0.35
2	.276	7.01	30	.0124	0.32
3	.252	6.40	31	.0116	0.30
4	.232	5.89	32	.0108	0.27
5	.212	5.39	33	.0100	0.25
6	.192	4.88	34	.0092	0.23
7	.176	4.47	35	.0084	0.21
8	.160	4.06	36	.0076	0.19
9	.144	3.66	37	.0068	0.17
10	.128	3.25	38	.0060	0.15
11	.116	2.95	39	.0052	0.13
12	.104	2.64	40	.0048	0.12
13	.092	2.34	41	.0044	0.11
14	.080	2.03	42	.0040	0.10
15	.072	1.83	43	.0036	0.09
16	.064	1.63	44	.0032	0.08
17	.056	1.42	45	.0028	0.07
18	.048	1.22	46	.0024	0.06
19	.040	1.02	47	.0020	0.05
20	.036	0.91	48	.0016	0.04
21	.032	0.81	49	.0012	0.03
			50	.0010	0.02

British Standard Wire Gauge (SWG) Dimensions

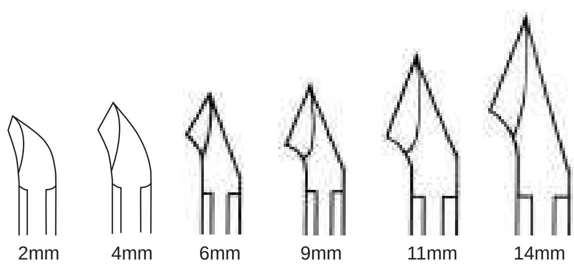
gS 77.3708 3"
gS 77.3710 4"

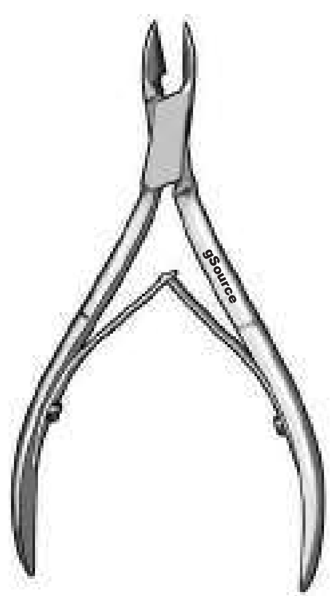
Cuticle Nipper
6mm
ring handle



gS 77.5600 5 1/2"

Hangnail Nipper
curved concave jaw
smooth handles





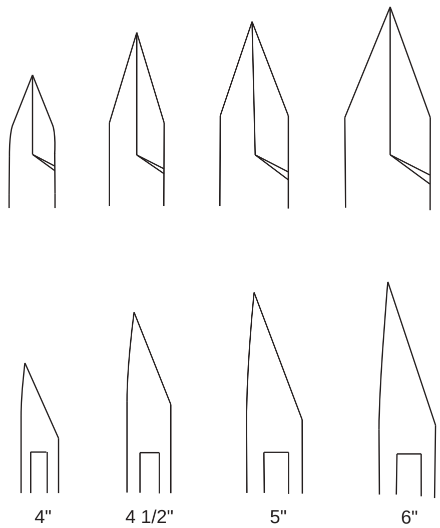
gS 77.3880	4"	2mm
gS 77.3890	4"	4mm
gS 77.3900	4"	6mm
gS 77.3910	4"	9mm
gS 77.3920	4 1/2"	11mm
gS 77.3940	5"	14mm

Tissue Nipper
smooth handles

77/2 - nail splitters

Tapered jaw nail splitters have fine pointed tips for splitting thin nails only. If used as a nail nipper, delicate tips can become damaged.

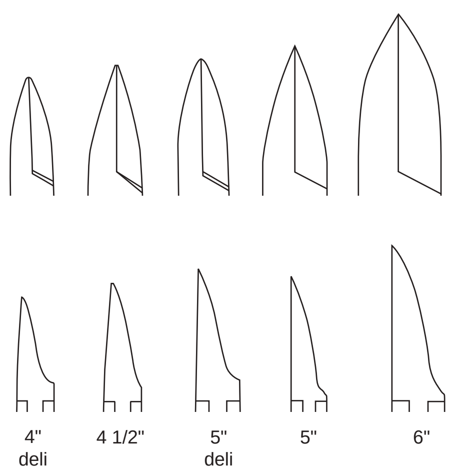
Tips can also be blunted upon request. Please contact gSource Customer Service for more information.



gS 77.4410 4"
gS 77.4420 4 1/2"
gS 77.4430 5"
gS 77.4440 6"

Nail Splitter
tapered jaw
grooved handles

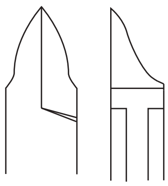
Tapered jaw nail splitters have fine pointed tips for splitting thin nails only. If used as a nail nipper, delicate tips can become damaged.



tapered jaw
gS 77.6001 4" delicate
gS 77.6003 4 1/2"
gS 77.6005 5" delicate
gS 77.6007 5"

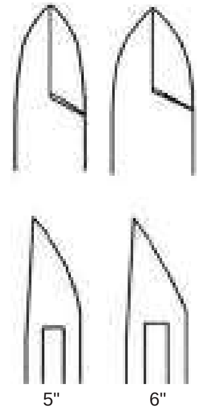
regular jaw
gS 77.6010 6"

Nail Splitter
thin line
smooth handles



gS 77.5040 4 3/4"

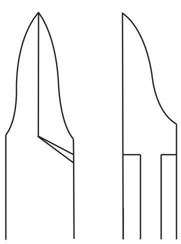
Short Jaw Nail Splitter
delicate
grooved handles



Short jaw design for cutting thick nails.

gS 77.5010 5"
gS 77.5020 6"

Short Jaw Nail Splitter
grooved handles

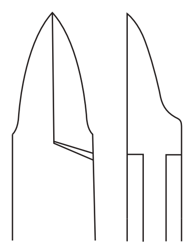


For splitting thin nails only. Fine tips can become damaged if used as a nail nipper.

Compact design provides increased cutting power and helps to reduce hand fatigue.

gS 77.5050 5"

Long Jaw Nail Splitter
extra fine tip
grooved handles



For splitting thin nails only. Fine tips can become damaged if used as a nail nipper.

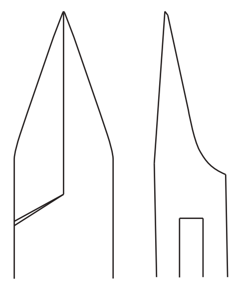
Compact design provides increased cutting power and helps to reduce hand fatigue.

gS 77.5055 5 1/2"

Compact Jaw Nail Splitter
fine tip
grooved handles

77/4 - nail splitters

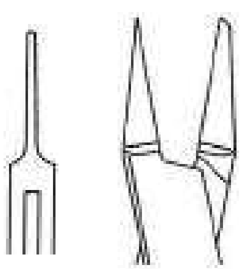
Tapered jaw nail splitters have fine pointed tips for splitting thin nails only. If used as a nail nipper, delicate tips can become damaged.



gS 77.6105 5 1/2"

gNail Splitter
tapered jaw
smooth handles

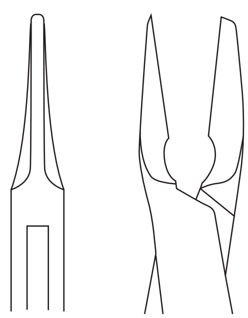
Delicate anvil design slides under nail easily.



gS 77.4480 5"

Ingrown Nail Splitter
English Anvil
smooth handles

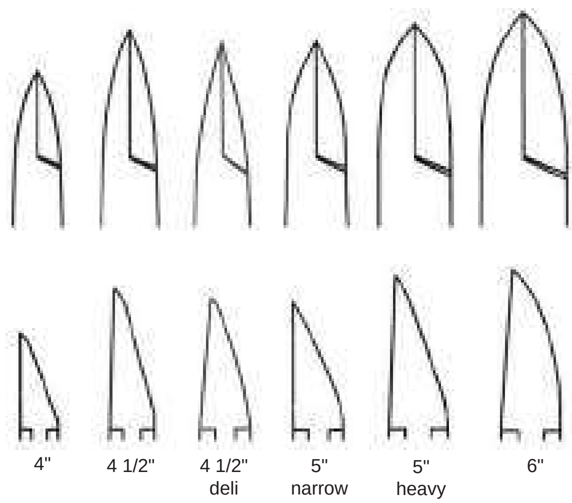
Longer anvil design slides under nail easily.



gS 77.4485 5"

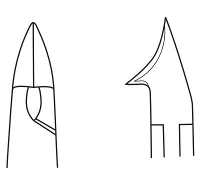
Ingrown Nail Splitter
English Anvil
tapered anvil jaw
smooth handles

smooth handles
gS 77.4202 4"
gS 77.4222 4 1/2"
gS 77.5482 4 1/2" delicate
gS 77.4270 5" narrow
gS 77.4262 5" heavy
gS 77.4402 6"



grooved handles
gS 77.4200 4"
gS 77.4220 4 1/2"
gS 77.5480 4 1/2" delicate
gS 77.4260 5" heavy
gS 77.4400 6"

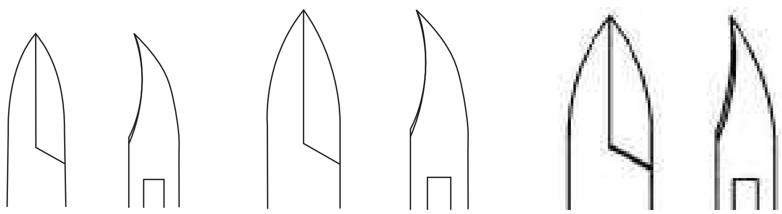
Nail Nipper
regular jaw



gS 77.5340 4"

Nail Nipper
concave, delicate jaw
smooth handles

77/6 - nail nippers

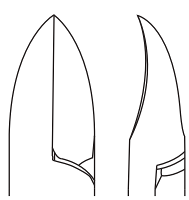


4 1/2" 5" 6"

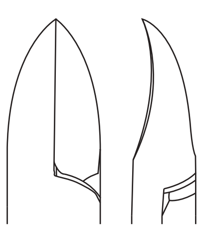
smooth handles
gS 77.5146 4 1/2"
gS 77.5152 5"
gS 77.5182 6"

grooved handles
gS 77.5145 4 1/2"
gS 77.5150 5"
gS 77.5180 6"

Nail Nipper
concave narrow jaw



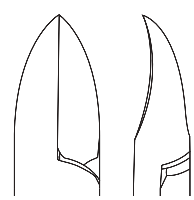
4 1/2"



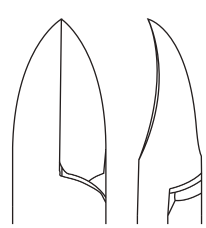
5 1/4"

gS 77.5110 4 1/2"
gS 77.5120 5 1/4"

Nail Nipper
concave, barrel spring
stainless, grooved handles



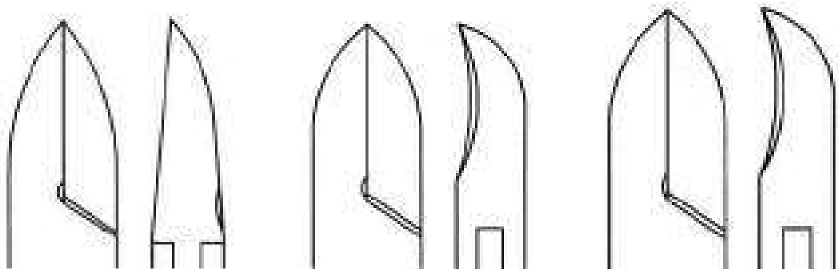
4 1/2"



5 1/4"

gS 77.5130 4 1/2"
gS 77.5140 5 1/4"

Nail Nipper
concave, leaf spring
stainless, grooved handles

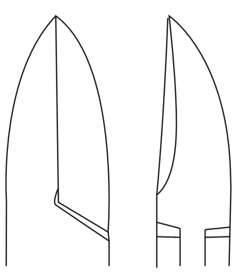


straight concave concave super size

smooth handles
gS 77.5300 5 1/2" concave

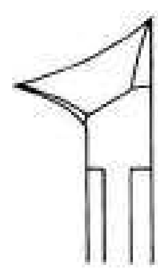
grooved handles
gS 77.5320 5 1/2" straight
gS 77.5301 5 1/2" concave
gS 77.5325 6 1/2" concave, super size

Nail Nipper
heavy jaw



gS 77.5305 5 1/2"

Nail Nipper
beveled, heavy jaw
grooved handles



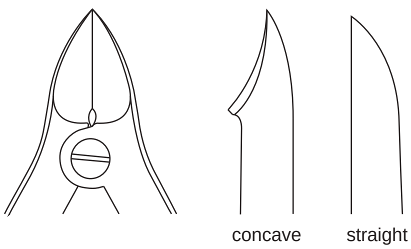
gS 77.5400 5 1/2"

Nail Nipper
angled concave jaw
knurled handles

77/8 - nail nippers

DA = Double Action

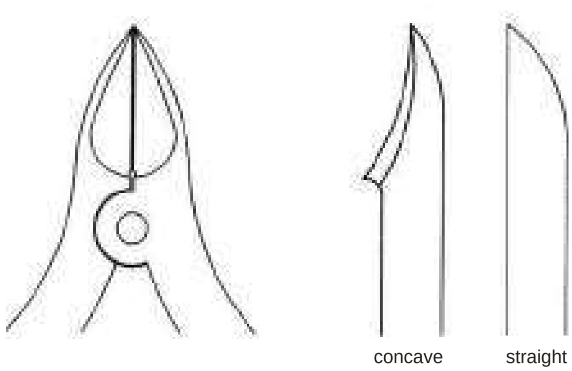
Useful for Mycotic and Onychauxis nails.
Double action design helps prevent hand fatigue.



gS 77.5440 concave
gS 77.5442 straight

Mycotic Nail Nipper DA
4 3/4"
barrel spring, grooved handles

Useful for Mycotic and Onychauxis nails.
Double action design helps prevent hand fatigue.

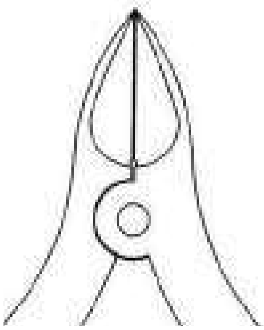


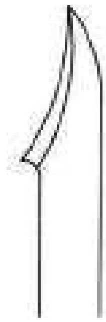
gS 77.5460 concave
gS 77.5462 straight

Mycotic Nail Nipper DA
6"
barrel spring, grooved handles

DA = Double Action

Useful for Mycotic and Onychauxis nails.
Double action design helps prevent hand fatigue.



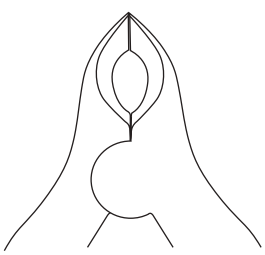


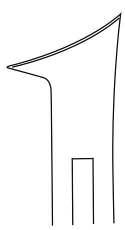
concave

gS 77.5470 6"

Mycotic Nail Nipper DA
concave
leaf spring, knurled handles

Useful for Mycotic and Onychauxis nails.
Double action design helps prevent hand fatigue.





gS 77.5464 6"

Mycotic Nail Nipper DA
angled concave
barrel spring, grooved handles

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did you know… ?

The following replacement springs for gSource nippers and splitters are available from stock.

Replacement Barrel Springs (each)

gS 10.1504
gS 10.1505
gS 10.1529

Replacement Leaf Springs (pair)

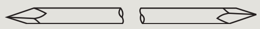
gS 10.1502	gS 10.1526
gS 10.1503	gS 10.1527
gS 10.1506	gS 10.1528
gS 10.1525	

gS Nail Nipper or Splitter	gS Replacement Spring Needed	gS Nail Nipper or Splitter	gS Replacement Spring Needed
gS 77.3880	gS 10.1525	gS 77.5140	gS 10.1525
gS 77.3890	gS 10.1525	gS 77.5145	gS 10.1525
gS 77.3900	gS 10.1525	gS 77.5146	gS 10.1525
gS 77.3910	gS 10.1525	gS 77.5150	gS 10.1525
gS 77.3920	gS 10.1525	gS 77.5152	gS 10.1525
gS 77.3940	gS 10.1525	gS 77.5180	gS 10.1525
gS 77.4200	gS 10.1525	gS 77.5182	gS 10.1525
gS 77.4202	gS 10.1525	gS 77.5300	gS 10.1525
gS 77.4220	gS 10.1525	gS 77.5301	gS 10.1525
gS 77.4222	gS 10.1525	gS 77.5305	gS 10.1525
gS 77.4260	gS 10.1525	gS 77.5320	gS 10.1525
gS 77.4262	gS 10.1525	gS 77.5325	gS 10.1525
gS 77.4270	gS 10.1528	gS 77.5340	gS 10.1502
gS 77.4400	gS 10.1525	gS 77.5400	gS 10.1525
gS 77.4402	gS 10.1525	gS 77.5440	gS 10.1504
gS 77.4410	gS 10.1525	gS 77.5442	gS 10.1504
gS 77.4420	gS 10.1525	gS 77.5460	gS 10.1505
gS 77.4430	gS 10.1525	gS 77.5462	gS 10.1505
gS 77.4440	gS 10.1525	gS 77.5464	gS 10.1505
gS 77.4480	gS 10.1526	gS 77.5470	gS 10.1527
gS 77.4485	gS 10.1525	gS 77.5480	gS 10.1525
gS 77.5010	gS 10.1525	gS 77.5482	gS 10.1525
gS 77.5020	gS 10.1525	gS 77.5600	gS 10.1503
gS 77.5040	gS 10.1525	gS 77.6001	gS 10.1502
gS 77.5050	gS 10.1525	gS 77.6003	gS 10.1506
gS 77.5055	gS 10.1525	gS 77.6005	gS 10.1502
gS 77.5110	gS 10.1529	gS 77.6007	gS 10.1526
gS 77.5120	gS 10.1529	gS 77.6010	gS 10.1525
gS 77.5130	gS 10.1525	gS 77.6105	gS 10.1525

Please contact gSource Customer Service for availability of replacement springs for gSource nipper and splitter part numbers not listed above.

Double Trocar

Smooth



diameter		4"	5"	6"	9"	12"
0.7mm	[.028"]	**gS 78.2000**	**gS 78.2050**	**gS 78.1210**	**gS 78.2105**	**gS 78.2200**
0.9mm	[.035"]	**gS 78.2010**	**gS 78.2060**	**gS 78.1220**	**gS 78.2110**	**gS 78.2210**
1.1mm	[.045"]	**gS 78.2020**	**gS 78.2070**	**gS 78.1230**	**gS 78.2120**	**gS 78.2220**
1.4mm	[.054"]	**gS 78.2040**	**gS 78.2080**	**gS 78.1240**	**gS 78.2140**	**gS 78.2240**
1.6mm	[.062"]	**gS 78.2030**	**gS 78.2090**	**gS 78.1250**	**gS 78.2130**	**gS 78.2230**

Full Thread

diameter		4"	5"	6"	9"	12"
1.6mm	[.062"]	**gS 78.4210**	**gS 78.4220**	**gS 78.4230**	**gS 78.4030**	**gS 78.4035**

Single Trocar

Smooth / Round End

diameter		4"	5"	6"	9"	12"
0.7mm	[.028"]	**gS 78.2300**	**gS 78.2700**	**gS 78.2800**	**gS 78.2500**	**gS 78.2600**
0.9mm	[.035"]	**gS 78.2310**	**gS 78.2710**	**gS 78.2810**	**gS 78.2510**	**gS 78.2610**
1.1mm	[.045"]	**gS 78.2320**	**gS 78.2720**	**gS 78.2820**	**gS 78.2520**	**gS 78.2620**
1.4mm	[.054"]	**gS 78.2330**	**gS 78.2740**	**gS 78.2840**	**gS 78.2540**	**gS 78.2640**
1.6mm	[.062"]	**gS 78.2340**	**gS 78.2750**	**gS 78.2850**	**gS 78.2530**	**gS 78.2630**

Partial Thread 25mm / Round End

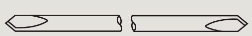
diameter		4"	5"	6"	9"	12"
1.6mm	[.062"]	**gS 78.9110**	**gS 78.9112**	**gS 78.9114**	**gS 78.9116**	**gS 78.9118**

Full Thread / Round End

diameter		4"	5"	6"	9"	12"
1.6mm	[.062"]	**gS 78.4080**	**gS 78.4085**	**gS 78.4090**	**gS 78.4100**	**gS 78.4110**

Double Diamond

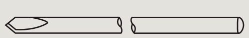
Smooth



diameter		4"	5"	6"	9"	12"
0.7mm	[.028"]	**gS 78.3000**	**gS 78.3050**	**gS 78.1300**	**gS 78.3100**	**gS 78.3200**
0.9mm	[.035"]	**gS 78.3010**	**gS 78.3060**	**gS 78.1310**	**gS 78.3110**	**gS 78.3210**
1.1mm	[.045"]	**gS 78.3020**	**gS 78.3070**	**gS 78.1320**	**gS 78.3120**	**gS 78.3220**
1.4mm	[.054"]	**gS 78.3030**	**gS 78.3080**	**gS 78.1340**	**gS 78.3140**	**gS 78.3230**
1.6mm	[.062"]	**gS 78.3040**	**gS 78.3090**	**gS 78.1330**	**gS 78.3130**	**gS 78.3240**

Single Diamond

Smooth / Round End



diameter		4"	5"	6"	9"	12"
0.7mm	[.028"]	**gS 78.3300**	**gS 78.3341**	**gS 78.3350**	**gS 78.3400**	**gS 78.3500**
0.9mm	[.035"]	**gS 78.3310**	**gS 78.3342**	**gS 78.3360**	**gS 78.3410**	**gS 78.3510**
1.1mm	[.045"]	**gS 78.3320**	**gS 78.3344**	**gS 78.3370**	**gS 78.3420**	**gS 78.3520**
1.4mm	[.054"]	**gS 78.3330**	**gS 78.3346**	**gS 78.3380**	**gS 78.3440**	**gS 78.3525**
1.6mm	[.062"]	**gS 78.3340**	**gS 78.3348**	**gS 78.3390**	**gS 78.3430**	**gS 78.3530**

An internal fixation device, such as the K-wires, Steinmann Pins and cerclage wires shown in this section, must never be reused. They are intended for single use only.

Stainless Steel Kirschner Wires
6 wires per package
non-sterile

Precision ground from certified implant stainless steel.
Smooth tapered points are expertly machined for easier penetration.
Please inquire about the availability of any size and style not shown on this page.

gSource®

78-79/2 - stainless steel steinmann pins

Double Trocar		Smooth		Full Thread
diameter		9"	12"	9"
2.0mm	[.079"]	**gS 78.5500**	**gS 78.5720**	**gS 78.8500**
2.4mm	[.094"]	**gS 78.5530**	**gS 78.5724**	**gS 78.8530**
2.8mm	[.110"]	**gS 78.5560**		**gS 78.8560**
3.2mm	[.126"]	**gS 78.5590**		**gS 78.8590**
3.5mm	[.138"]	**gS 78.5620**		**gS 78.8620**
4.0mm	[.157"]	**gS 78.5650**		**gS 78.8650**
4.5mm	[.177"]	**gS 78.5680**		**gS 78.8680**
6.35mm	[.250"]	**gS 78.5698**		

Single Trocar / Round End		Smooth		Threaded
diameter		9"	12"	9"
2.0mm	[.079"]	**gS 78.6100**	**gS 78.5820**	**gS 78.8700**
2.4mm	[.094"]	**gS 78.6130**	**gS 78.5824**	**gS 78.8730**
2.8mm	[.110"]	**gS 78.6160**		**gS 78.8760**
3.2mm	[.126"]	**gS 78.6190**		**gS 78.8780**
3.5mm	[.138"]	**gS 78.6220**		**gS 78.8820**
4.0mm	[.157"]	**gS 78.6250**		**gS 78.8850**
4.5mm	[.177"]	**gS 78.6280**		**gS 78.8880**
6.35mm	[.250"]	**gS 78.6288**		

Double Diamond		Smooth	Full Thread
diameter		9"	9"
2.0mm	[.079"]	**gS 78.7000**	**gS 78.8300**
2.4mm	[.094"]	**gS 78.7030**	**gS 78.8330**
2.8mm	[.110"]	**gS 78.7060**	**gS 78.8360**
3.2mm	[.126"]	**gS 78.7090**	**gS 78.8390**
3.5mm	[.138"]	**gS 78.7120**	**gS 78.8420**
4.0mm	[.157"]	**gS 78.7150**	**gS 78.8450**
4.5mm	[.177"]	**gS 78.7180**	**gS 78.8480**

Single Diamond / Round End		Smooth	Threaded
diameter		9"	9"
2.0mm	[.079"]	**gS 78.7780**	**gS 78.8000**
2.4mm	[.094"]	**gS 78.7630**	**gS 78.8030**
2.8mm	[.110"]	**gS 78.7660**	**gS 78.8060**
3.2mm	[.126"]	**gS 78.7690**	**gS 78.8090**
3.5mm	[.138"]	**gS 78.7720**	**gS 78.8120**
4.0mm	[.157"]	**gS 78.7750**	**gS 78.8150**
4.5mm	[.177"]	**gS 78.7782**	**gS 78.8180**

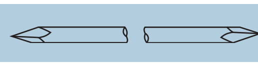
An internal fixation device, such as the K-wires, Steinmann Pins and cerclage wires shown in this section, must never be reused. They are intended for single use only.

Stainless Steel Steinmann Pins
6 wires per package
non-sterile

Precision ground from certified implant stainless steel.
Smooth tapered points are expertly machined for easier penetration.
Please inquire about the availability of any size and style not shown on this page.

titanium k-wires and stainless steel cerclage wires - 78-79/3

Double Trocar **Smooth**



diameter		4"	6"
0.6mm	[.024"]	**gS 79.2106**	**gS 79.2306**
1.0mm	[.039"]	**gS 79.2110**	**gS 79.2310**
1.2mm	[.047"]	**gS 79.2112**	**gS 79.2312**
1.5mm	[.059"]	**gS 79.2115**	**gS 79.2315**
1.6mm	[.062"]	**gS 79.2116**	**gS 79.2316**
1.8mm	[.070"]	**gS 79.2118**	**gS 79.2318**

- Titanium K-wires are lightweight and have a high tensile strength especially useful under repeated load stresses and capable of withstanding strain during internal fixation.
- Titanium is non-magnetic, biocompatible, and corrosion resistant.

An internal fixation device, such as the K-wires, Steinmann Pins and cerclage wires shown in this section, must never be reused. They are intended for single use only.

Titanium Kirschner Wires
1 wire per package
non-sterile

Precision ground from certified implant titanium.
Smooth tapered points are expertly machined for easier penetration.
Please inquire about the availability of any size and style not shown on this page.

	diameter	gauge
gS 79.2002	0.2mm	36
gS 79.2003	0.3mm	30
gS 79.2004	0.4mm	27
gS 79.2005	0.5mm	25
gS 79.2006	0.6mm	23
gS 79.2007	0.7mm	22
gS 79.2008	0.8mm	21
gS 79.2009	0.9mm	20
gS 79.2010	1.0mm	19
gS 79.2012	1.2mm	18
gS 79.2015	1.5mm	17

Stainless Steel Cerclage Wires
1 roll per package
10 meters in length
non-sterile

An internal fixation device, such as the K-wires, Steinmann Pins and cerclage wires shown in this section, must never be reused. They are intended for single use only.

did you know… ?

Since their introduction, Kirschner wires (also known as K-wires) have been used extensively throughout the body to help reduce and stabilize fractures, osteotomies, and fusions. They are considered a versatile tool in the hands of orthopedic and plastic surgeons. gSource provides surgeons with a wide selection of K-wires in various styles and sizes, as shown on pages 1 and 3 in this section.

In 1908, Swiss surgeon Fritz Steinmann improved the technique of reducing fractures by directing the realigning force directly onto the bone. Dr. Steinmann initially used a perforating pin with a sharp tip to pierce the skin on both sides as it went in and out to transfix the bone in the transverse axis. Due to the problem of infection when the pin was removed, he suggested two pins be inserted into the bone from both sides only piercing the skin once.

German surgeon Rudolf Klapp introduced the use of a thin, flexible wire for treatment of lower extremity fractures using traction. He burred a hole into the calcaneum and inserted the wire through it. To avoid direct surface-skin-bone contact, the wire was directed towards the plantar surface and penetrated the skin in the area through separate incisions.

When German surgeon Martin Kirschner became aware of these techniques and developments, he contributed to the technique of applying traction directly to the bone and published his first series of cases in 1909. Dr. Kirschner combined the advantages of wire and pin extension techniques. He inserted a thin wire directly into the bone, minimizing the size of the skin wounds and damage to the bone, and designed the wire to be rigid enough in order to avoid transverse wire movement.

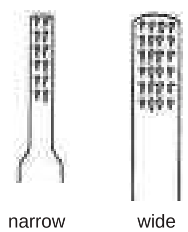
Although Dr. Kirschner developed the wire technique, he used it exclusively for traction treatment. The first paper suggesting the use of the Kirschner wires for fracture fixation was published by Otto Loewe in 1932. In the same year, Rene Sommer described percutaneous wires to fix fractures with different patterns (transverse, oblique, complex), as well as dislocations of the acromio-clavicular joint. The ability to facilitate implant removal, avoid excessive dissection, and avoid strangulation of bone as in cerclage wiring were the main advantages of this technique according to Dr. Loewe.

Dr. Kirschner was born in 1870 in Breslau (now Wroclaw, Poland). He attended the universities of Frieburg, Strasbourg (in France), Zurich and Munich, graduating in 1904. He went to Berlin for postgraduate studies under Rudolf von Renvers. Between 1908 and 1910 he was at the university surgical clinic in Greifswald under Erwin Payr, then went to Königsberg to work with Dr. Payr and Paul Leopold Friedrich. Three years later he started work in Leipzig (Germany). He first experienced war surgery during a Red Cross expedition to Sofia and Adrianopel in 1912-1913. Later he worked as a surgeon on the Western Front in the First World War during 1914-1915. He was appointed professor of surgery at Königsberg in 1916. From 1927 to 1934 he was head of the department of surgery in Tübingen (Germany) and in 1934 he was elected President of the German Society of Surgery. He passed away in 1942.

His scientific research and academic interests addressed topics covered by several specialties such as general surgery, orthopedic surgery, neurosurgery, urology, anesthesiology and even plastic surgery. In orthopedics, he remains renowned for skeletal tractions, bone elongations, and invention of thin wire. He described tourniquet application. In 1924, he performed the first successful pulmonary artery embolectomy. His skills contributed significantly to cancer surgery of the stomach, colon and rectum. He was able to mobilize the stomach without vascular compromise in order to use for esophagoplasty (plastic surgery for the repair or reconstruction of the esophagus). He modified the Bassini technique for inguinal hernia repair in order to reduce the recurrence rate. He also modified the technique of craniotomy that was used at the time and contributed to neurosurgery with his proposals for the treatment of cortical epilepsy. His impact on plastic surgery was comparably important as he modified the Langenbeck technique for cleft palate repair. He published several articles on wound healing and infection, and changed the current techniques of anesthesiology in 1931 when he presented a technique of spinal anesthesia which was individually adjustable in dosage and level of anesthesia.

gSource K-Wire and Pin Dispensers on pages 1-2 in Section 98-99 are handy containers for storing and dispensing K-Wires and Steinmann Pins.

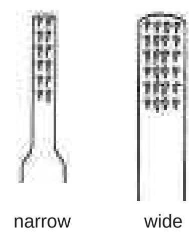
gRacks for 4" and 6" K-Wires and 9" K-Wires and Steinmann Pins on pages 5-6 in Section 98-99 are convenient for organization and storage of various diameter sizes.



Alligator teeth on jaws
provide a secure grip
for nail removal.

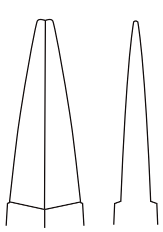
gS 81.8510 narrow
gS 81.8520 wide

Platypus Nail Pulling Forceps
5 1/2"



gS 81.8530 narrow
gS 81.8540 wide

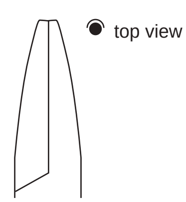
Platypus Nail Pulling Forceps
5 1/2", leaf spring



For cerclage wire.

gS 81.3360 5 1/2"

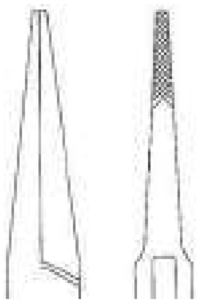
Round Nose Pliers
smooth 1mm tip
delicate



For cerclage wire.

gS 81.3370 5 1/2"

Needle Nose Pliers
one round 2mm tip
delicate



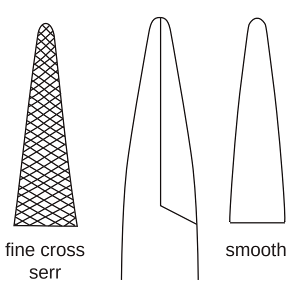
For cerclage wire.

gS 81.3480 6"

Flat Nose Pliers
delicate jaw tapers to 2mm

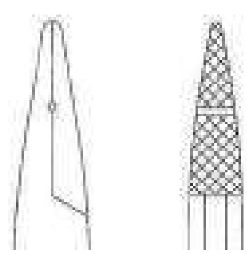
gS 81.3460 5 1/2"

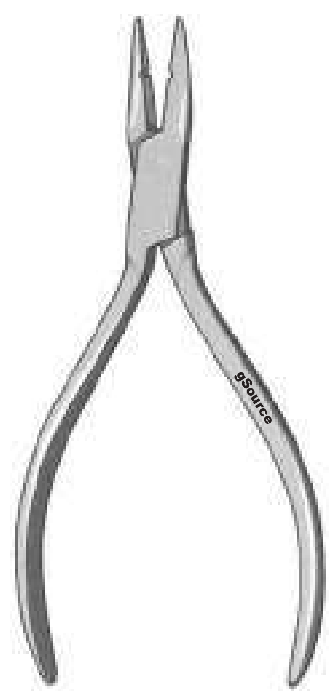
Flat Nose Pliers
serrated jaw 5mm tip



gS 81.3220 fine cross serrations
gS 81.3225 smooth

Needle Nose Pliers
5 1/2"
tapers to 2mm tip



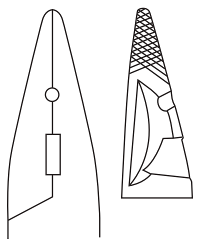


For cerclage wire.

gS 81.3214 5 1/4"

Needle Nose Pliers
delicate with wire groove
tapers to 2mm tip

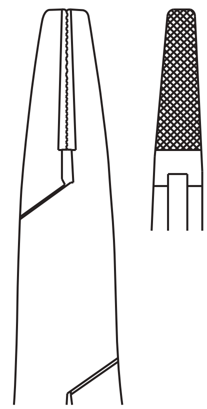
TC = Tungsten Carbide



For cerclage wire.
max cap 17 gauge [1.5mm]

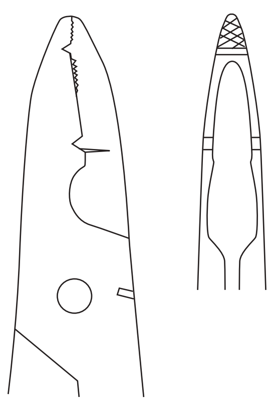
gS 81.3290 5 1/2"

Cerclage Pliers with Cutter
side groove and cutting edge



gS 81.3330 6 1/2"

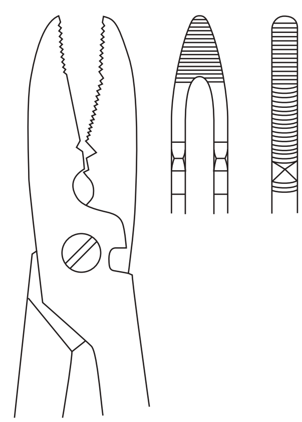
Universal Bending Pliers
TC serrated jaw
tapers to 3.5mm at tip



For cerclage wire.
max cap 20 gauge [0.9mm]

gS 81.3315 6"

Wire Bending Pliers with Cutter
notched, serrated jaw



max cap 1.6mm [.062"]

gS 81.3320 6"

Wire Bending Pliers with TC Cutter
notched, serrated, slotted jaw

81/4 - pliers

3 functions in 1 versatile instrument.

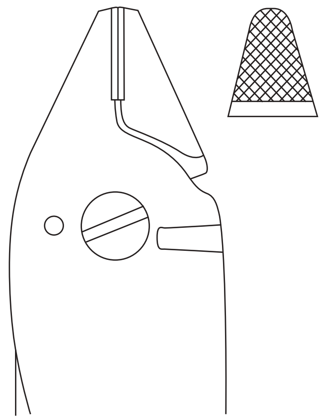
1) Shears wires with ease and provides a clean cut without burns or sharp edges.

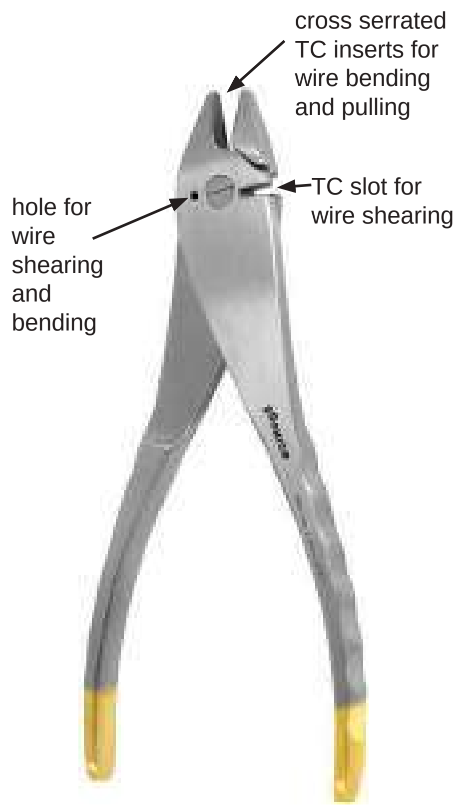
2) Bends wires quickly and easily.

3) Cross serrated TC (tungsten carbide) inserts ensure a secure grip on wires for pulling.

Features:

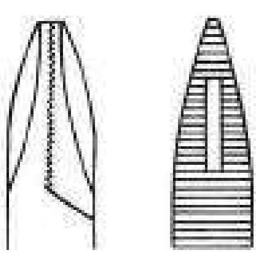
- TC in jaws and cutter.
- Grooved handles are ergonomically designed for a comfortable and secure grip.
- Made from German stainless steel.





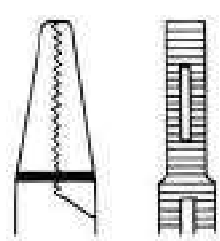
gS 81.3380 8"

Wire Bending Pliers with Cutter
TC jaw and cutter
max cap 2.0mm [.079"]



gS 81.3450 5 1/2"

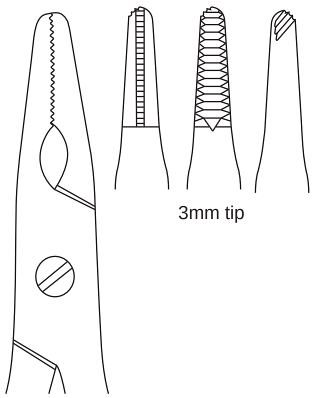
Needle Nose Pliers
serrated jaw 2mm tip



gS 81.3462 5 1/2"

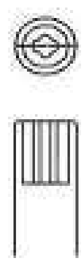
Flat Nose Pliers
serrated jaw 5mm tip

TC = Tungsten Carbide



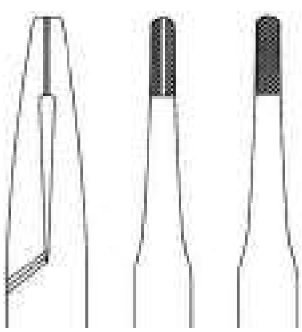
gS 81.3540 5" 3mm tip
gS 81.3542 7" 4mm tip

Pin Extraction Pliers
with excavating tip and
screw lock



gS 81.3546 7 1/2"

Screw and Pin Removing Pliers
with speedlock and TC inserts for
3.0/4.5 screws/pins

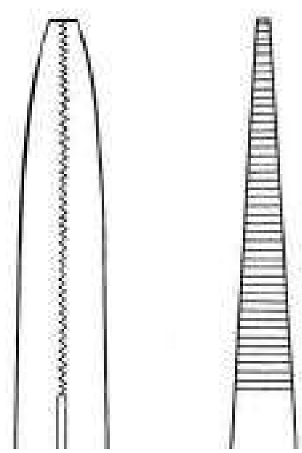


Non-TC side TC side

One side has TC insert.
Grooved non-TC side
helps grip small pins.

gS 81.6780 5 1/2"

Pin Puller
TC insert
tapers to 3mm at tip



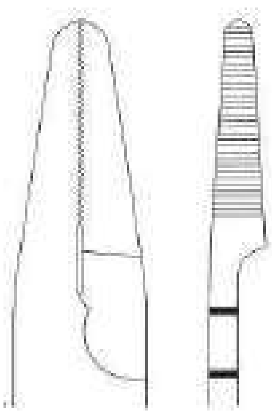
Long delicate needle nose
jaws for hard-to-reach sites.

gS 81.3610 7"

Long Jaw Pliers
2" long delicate jaw
tapers to 2mm at tip

81/6 - pliers

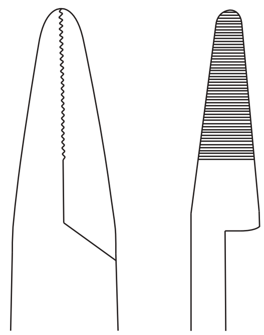
TC = Tungsten Carbide



For cerclage wire.
max cap 17 gauge [1.5mm]

gS 81.3490 6 1/2"

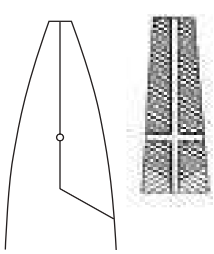
Flat Nose Pliers with Cutter
tapers to 3.5mm at tip



Heavy jaws for
pulling wires and pins.

gS 81.3530 7 1/2"

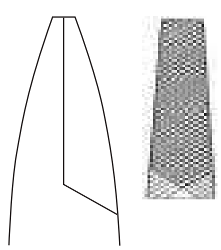
Narrow Nose Pliers
tapers to 3.5mm at tip



Grooves for pulling
wires.

gS 81.3464 7"

Flat Nose Pliers
with grooves

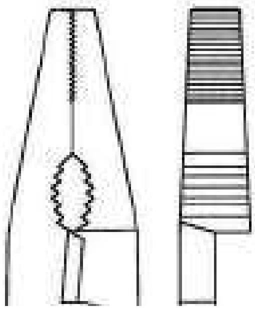


Flat jaws with cross serrated
surface for pulling wires.

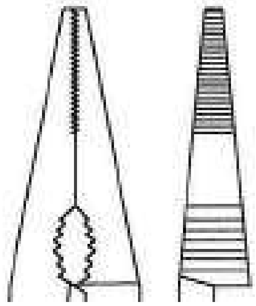
gS 81.3466 7"

Flat Nose Pliers
serrated jaws

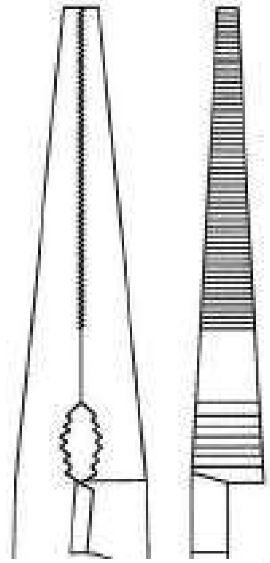
TC = Tungsten Carbide
PEEK = Polyether Ether Ketone



6 1/2"



7"

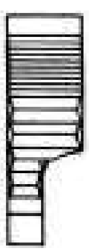


8"

- Combination pliers and wire cutter.
- Precision serrated jaws produce firm and secure gripping action.
- TC welded jaws cut all sizes of cerclage wire and k-wire up to 1.1mm [.045"].
- Heavy duty spring for strong return.

gS 81.3716 6 1/2" square 7mm jaw
gS 81.3717 7" tapers to 2mm at tip
gS 81.3720 8" needle nose 2" long jaw tapers to 2mm at tip

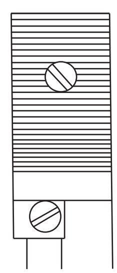
Universal Pliers
TC serrated jaws with spring and cutting edge
1.1mm [.045"] max cap



All purpose pliers for wires, pins, screws, and rods.

gS 81.3620 8"

Slip Joint Pliers
heavy duty
2" max opening



Replaceable PEEK inserts on jaws helps to eliminate metal-to-metal contact.

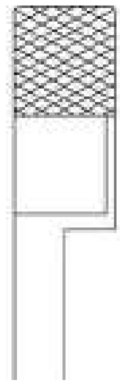
Helps to grasp an implant or other delicate materials and devices, without scratching or imparing their surface.

gS 81.3630 8"

gPliers, Slip Joint
with PEEK inserts
2" max opening

81/8 - pliers/locking pliers

TC = Tungsten Carbide



Heavy duty pliers for
wires, pins, screws, and rods.

gS 81.7060 8 1/2"

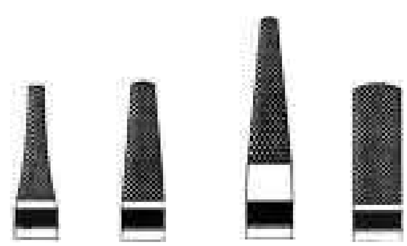
Lineman Pliers
heavy duty with cutting edge
max cap 1.6mm [.062"]

Double action power combined with TC inserts makes these pliers ideal for heavy use.

TC inserts are harder and longer lasting than regular stainless steel.

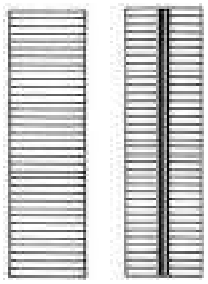
Pliers with 2mm jaws can be used to remove up to 1.6mm [.062"] k-wires from hard-to-reach areas.

Pliers with 3mm and 6mm jaws can be used to grasp all sizes of wires and pins.



gS 81.6720 2mm delicate jaw
gS 81.6730 3mm jaw
gS 81.6733 2mm long jaw
gS 81.6740 6mm jaw

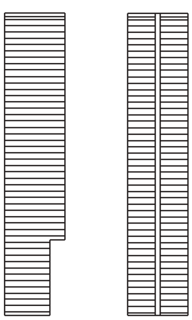
Double Action Wire Extraction Pliers
7"
TC inserts

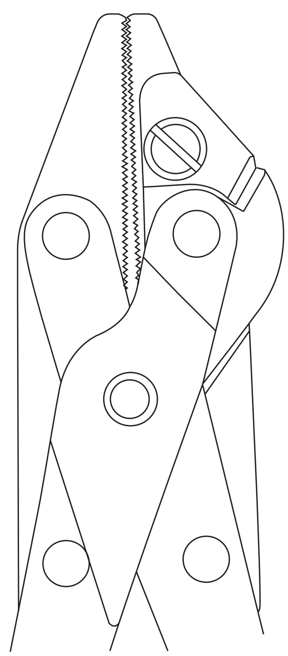


Parallel jaws with one grooved side provides extraordinary gripping power.

gS 81.7040 7 1/4"

Parallel Pliers
10mm jaw





Parallel jaws with one grooved side provides extraordinary gripping power.

Side cutting jaws for k-wire up to 1.6mm [.062"]. Angle makes cutting easier.

gS 81.7050 7 1/4"

Parallel Pliers with Cutter
max cap 1.6mm [.062"]
10mm jaw

81/10 - locking pliers

- Heavy duty locking jaws.
- Crafted from German stainless steel.
- Reinforced side construction reduces play in jaws.
- Size of jaw opening is controlled by adjustment screw.
- Self-locking lever with one-handed release.

gS 81.7070 7" small
gS 81.7080 8" medium
gS 81.7095 9 1/2" large

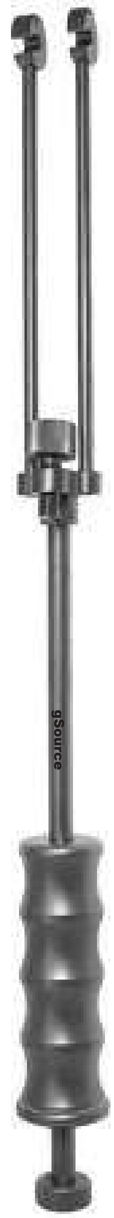
Locking Pliers

- Heavy duty locking jaws.
- Long jaw for those hard-to-reach places.
- Crafted from German stainless steel.
- Reinforced side construction reduces play in jaws.
- Size of jaw opening is controlled by adjustment screw.
- Self-locking lever with one-handed release.
- One v-groove jaw helps hold pins securely.

gS 81.7108 8 1/2" small
gS 81.7110 10" medium
gS 81.7112 12" large

Needle Nose Locking Pliers

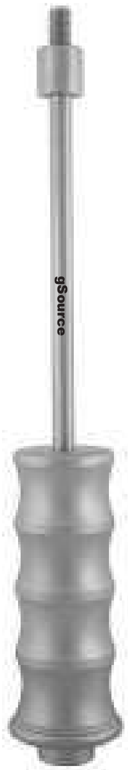
81/12 - locking pliers

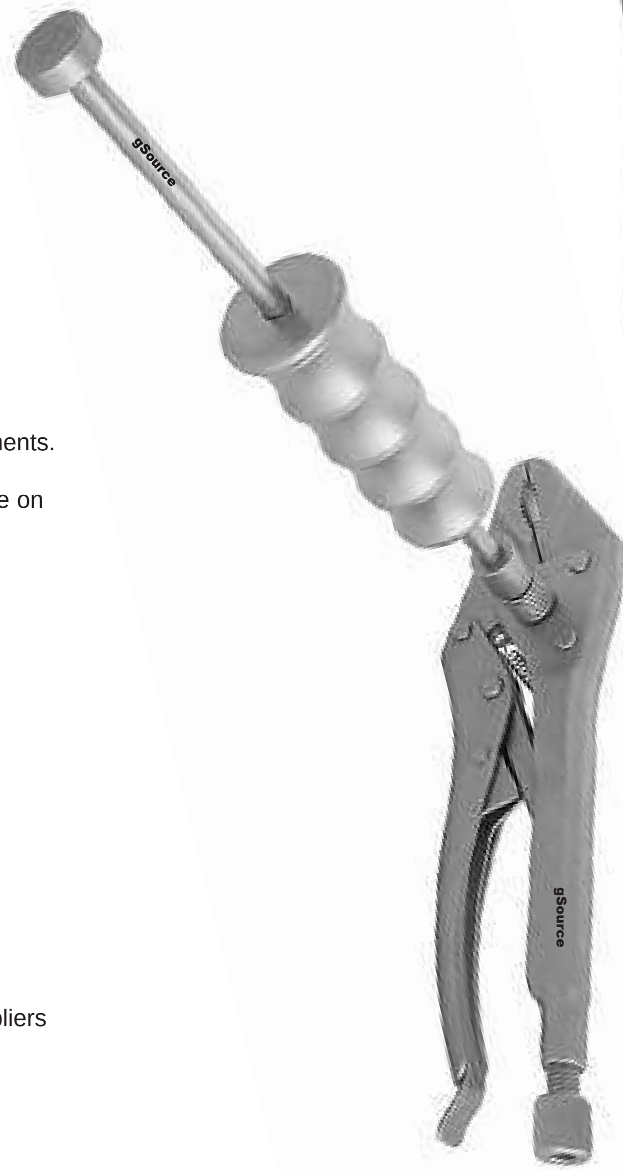


- Implants are removed more effectively with well-engineered slaphammer attachments.
- Force is applied directly in line with jaws providing more control during implant removal.
- Stable three point contact reduces the possibility of twisting or turning.
- Interchangeable slaphammer can be used with two different pliers.
- German stainless steel.

	small pliers
gS 81.7138	7" regular jaw
gS 81.7144	8 1/2" needle nose jaw
	medium pliers
gS 81.7140	8" regular jaw
gS 81.7145	10" needle nose jaw
	large pliers
gS 81.7142	9 1/2" regular jaw
gS 81.7146	12" needle nose jaw
	slaphammers
gS 81.7128	400gr for small pliers
gS 81.7130	400gr for medium pliers
gS 81.7132	700gr for large pliers

Locking Pliers with Slaphammers





- Implants are removed more effectively with well-engineered slaphammer attachments.
- Versatile slaphammer can be attached to handle end of pliers as well as to the hinge on either side of the pliers.
- German stainless steel.

	small pliers
gS 81.7154	7" regular jaw
gS 81.7160	8 1/2" needle nose jaw
	medium pliers
gS 81.7156	8" regular jaw
gS 81.7162	10" needle nose jaw
	large pliers
gS 81.7158	9 1/2" regular jaw
gS 81.7164	12" needle nose jaw
	slaphammers
gS 81.7150	400gr for small and medium pliers
gS 81.7152	700gr for large pliers

Locking Pliers with Slaphammers
end and side connect

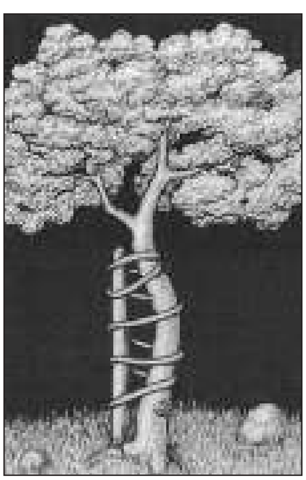
did you know… ?

The Greek roots of the word "orthopaedics" are *ortho* (straight) and *pais* (child). Early orthopaedists often used braces or other forms of treatment to help children suffering from spine and limb deformities in an effort to make the child "straight".

The history of Orthopedics as a discipline began in the 18th century, marked by the publication of a monograph by French physician Nicolas Andry, Dean of the Faculty of Medicine of the College de France (Paris, 1741) entitled: “L'Orthopedie, ou l'art de prevenir et de corriger dans les enfans, les differmites du corp”. This title translates to: “Orthopaedia: or the Art of Correcting and Preventing Deformities in Children”.

Dr. Andry was 83 years old at the time his work was published. He was interested in matters of the bones as he encountered many children with bone and limb deformities. At the time, these were common childhood conditions due to a wide array of public health crises ranging from congenital syphilis to rickets. This inspired him to spend years working to correct and prevent these problems in children because he recognized that the malleable nature of a child’s skeletal system offered physicians a unique opportunity for early intervention.

His published work was also the source of one of the most famous and recognizable symbols within medicine, drawn by Dr. Andry’s collaborator and illustrator, Antoine Humblot. The picture of a crooked trunk of a tree tied to a stake, allowing it to resume normal growth once again, became a visual metaphor for the treatment of skeletal injuries and deformities. An important basic orthopedic principle is depicted by the drawing of the tree: bone is not an inert material, but a dynamic structure that responds to stimuli.



Bones may become deformed for many reasons. These include congenital (from birth), developmental (from abnormal growth during childhood), and posttraumatic (from healing in a deformed position after a fracture). Bones may be deformed in four ways: angulation (a bend in the bone), rotation or torsion (a twist in the bone), translation or displacement (a shift in the position of the bone after a fracture or osteotomy), or limb length discrepancy (a difference in the length of a bone compared with the other side).

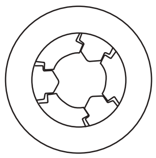
Osteogenesis imperfecta (OI) literally means “imperfectly formed bone”. People with osteogenesis imperfecta have a genetic defect that impairs the body's ability to make strong bones. One of the genes that tells the body how to make a specific protein does not function. This protein (type I collagen) is a major component of the connective tissues in bones. Type I collagen is also important in forming ligaments, teeth, and the white outer tissue of the eyeballs (sclera). As a result of the defective gene, not enough type I collagen is produced, or the collagen that is produced is of poor quality. In either case, the result is fragile bones that break easily but can heal at a normal rate. There are several types of osteogenesis imperfecta and they vary in severity and characteristics:

Type I is the most common and mildest form. While the structure of the collagen is normal, there is less collagen than there should be. There is little or no bone deformity, although the bones are fragile and easily broken. Teeth are prone to cavities and cracking. The whites of the eyes may have a blue, purple, or gray tint.

Type II is the most severe form. The collagen does not form properly. Bones may break even while the fetus is in the womb. Many infants with type II do not survive.

Type III also has improperly formed collagen and often severe bone deformities, plus additional complications. The infant is often born with fractures. The whites of the eyes may be white, blue, purple, or gray. People with type III are generally shorter than average and may have spinal deformities, respiratory complications, and brittle teeth.

Type IV is moderately severe, with improperly formed collagen. Bones fracture easily, but the whites of the eyes are normal. Some people with type IV may be shorter than average and may have brittle teeth. Bone deformities are mild to moderate.

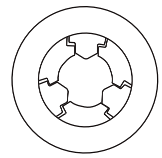


Keyless chuck for insertion and removal of steinmann pins.

Cannulation max cap: 6.0mm
Chuck max cap: 6.1mm

gS 82.0020 5" reverse lock

Universal Chuck
cannulated



Keyless chuck for insertion and removal of steinmann pins.

Cannulation max cap: 5.0mm
Chuck max cap: 6.1mm

gS 82.0030 5 1/4"

Universal Chuck
cannulated

Chuck for insertion and removal of steinmann pins includes separate chuck key.

Cannulation max cap: 5.0mm
Chuck max cap: 7.0mm

gS 82.4740 4" chuck with key
gS 82.4741 key only

Steinmann Pin Chuck
cannulated, with key

key

Chuck for insertion and
removal of steinmann pins
includes separate chuck key.

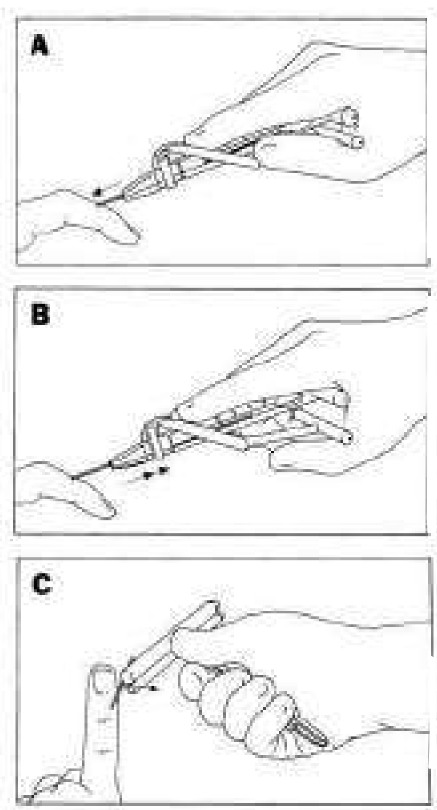
Cannulation max cap: 4.0mm
Chuck max cap: 7.0mm

Biocompatible silicone handle
helps to prevent slippage
and provide a secure grip.

gS 82.4731	black
gS 82.4732	blue
gS 82.4733	red
gS 82.4734	green
gS 82.4735	yellow
gS 82.4736	orange
gS 82.4737	grey


key

gSilicone Steinmann Pin Chuck
4", cannulated, with key
silicone handle, green



Drive, bend and pull k-wire
with one instrument.
- one-handed operation
- depth gauge
- keyless operation
- for wires 0.7mm [.028"] to 1.6mm [.062"]

gS 82.0100 5 1/2"

Vickers Manual K-Wire Driver

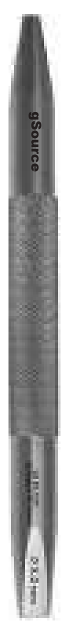
OD = Outside Diameter

gS 82.0050 4 3/4"

Manual Pin Driver
for max OD 3.0mm [.118"] pins
knurled handle

gS 82.0240 5 1/2"

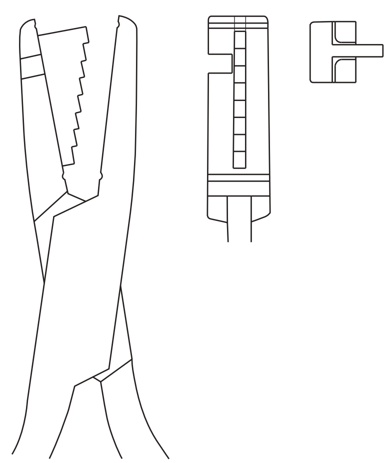
Pin Puller
grips, holds and pulls
OD 3.2mm [.126"] pins



Bending aid for pins and wires.

gS 82.4760 6"

Wire and Pin Bender
max cap 3.2mm [.126"]



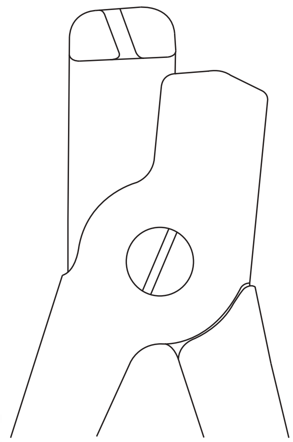
gS 82.1050 5 1/2"

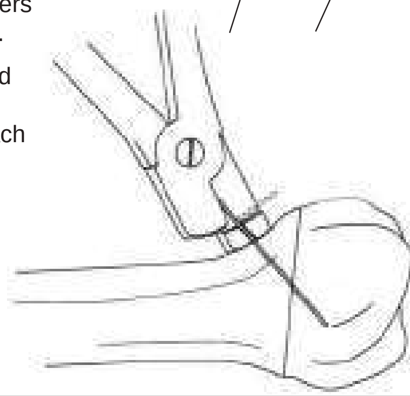
Seven Step Wire Bender
max cap 1.1mm [.045"] wire or
19 gauge [1.0mm] cerclage wire

82/4 - wire and plate management

Stabilize and bend k-wire at the same time with one instrument.
- one-handed operation
- bends wire close to the bone

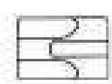
To bend wire:
1. After inserting a k-wire in the bone, cut the wire leaving a piece of 1/2" to 3/4" in length.
2. Insert the piece of k-wire into the angled slot on working end of bender and position bender as close to the bone as possible.
3. Press handle together to bend the k-wire. Wire diameter 1.6mm [.062"] will bend 90 degrees while smaller diameters will bend slightly less than 90 degrees.
4. For flush bending of 1.1mm [.045"] and 1.6mm [.062"] k-wire, the two angled cannulations at the proximal end of each handle are useful.





gS 82.2016 7 1/2"

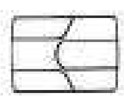
Gratloch Wire Bender
max cap 1.6mm [.062"]

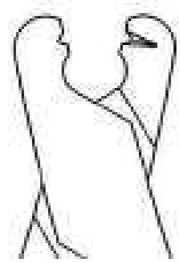


Bends k-wire up to 1.1mm [.045"] to 90° angle.

gS 82.1014 5"

K-Wire and Plate Bender
max cap 1.1mm [.045"]

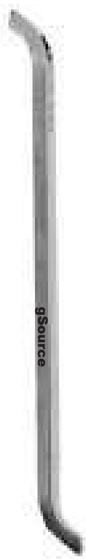




Bends k-wire up to 1.6mm [.062"] to 90° angle.

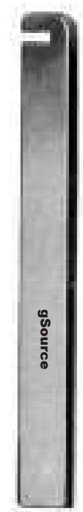
gS 82.1020 5 1/2"

K-Wire and Plate Bender
max cap 1.6mm [.062"]



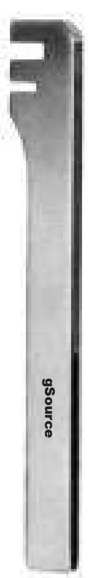
gS 82.4755 4 1/2"

Wire Bending Iron
for 0.8mm [.031"] to
1.2mm [.050"] wires



gS 82.0172 4 3/4"

Mini Plate Bending Iron
for 1.5mm/2.0mm plates



Used in pairs with
gS 82.0176.

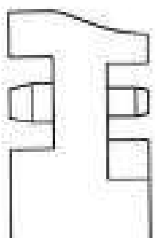
gS 82.0174 5 1/2"

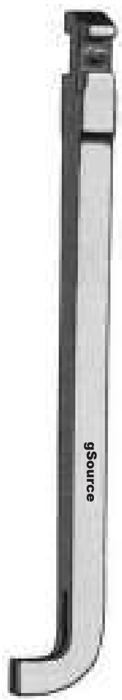
Small Plate Bending Iron
for 2.7mm/3.5mm plates

Used in pairs with
gS 82.0174.

gS 82.0176 5 1/2"

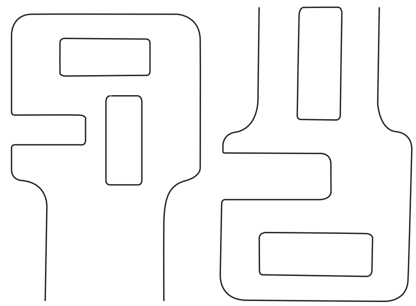
Small Plate Bending Iron
for 3.5mm/2.7mm plates





gS 82.0182 7 3/4"

Plate Bending Iron
for 3.5mm/4.5mm plates



gS 82.0183 6 3/4"

Plate Bending Iron
for 4.0mm/5.0mm plates

gS 82.0184 7"

Plate Bender
double ended (Lane)
for 4.5mm/5.0mm plates

Handle holes accept:
3.5mm, 5.0mm, 6.5mm
and 8.0mm rods.

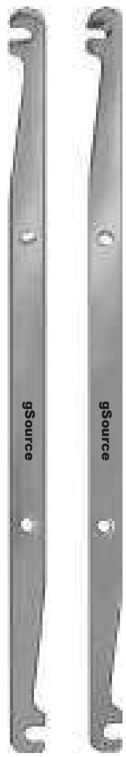
gS 82.0180 9 1/2"

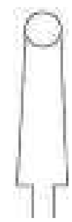
Standard Plate/Rod Bending Iron
for 5.0mm/7.0mm plates

for 4.76mm [.188"] rods
gS 82.7710 right
gS 82.7712 left

for 6.35mm [.250"] rods
gS 82.7720 right
gS 82.7722 left

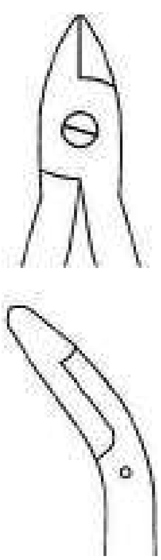
In Situ Rod Bender
13"
used in pairs





gS 82.0970 5"

Mini Plate Bending Pliers
for 1.5mm and 2.0mm plates



gS 82.0980 5 1/2"

Plate Bending Pliers
for 2.0mm plates

gS 82.0296 8"

Plate Bending Pliers
for 1.6mm plates

gS 82.0315 8 1/2"

Plate Bending Pliers
for 1.6mm plates

gS 82.0298 9 1/2"

Plate Bending Pliers
for 2.8mm plates

gS 82.0303

gS 82.0304

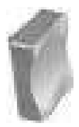
Includes two anvils
for narrow and
wide plates.

gS 82.0302 10"
gS 82.0303 wide anvil only
gS 82.0304 narrow anvil only

Plate Bending Pliers
for straight plates

gS 82.0300 10"

Plate Bending Pliers
for reconstruction plates
max cap 12mm x 2.5mm



gS 82.0292

Includes anvil.

gS 82.0290 16"
gS 82.0292 anvil only

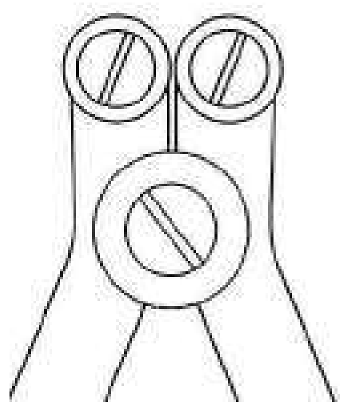
Plate Bending Press
table top
for plates up to 4.5mm [.177"]

gS 82.0282

Includes anvil.

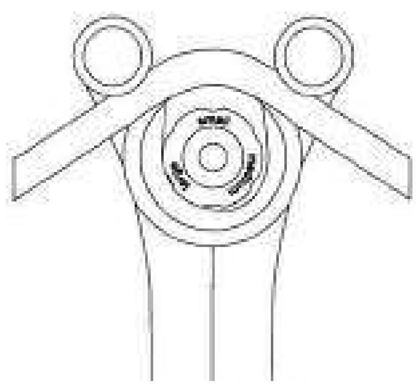
gS 82.0280 12"
gS 82.0282 anvil only

Plate Bending Press
table top
for plates up to 2.5mm [.098"]



gS 82.7630 7 1/2"

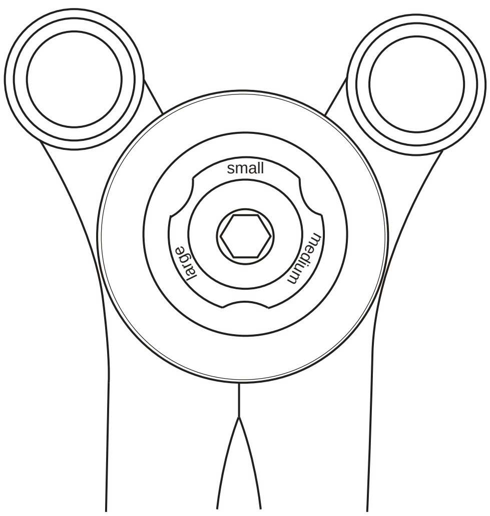
Rod Bender
one-handed bender
for 3mm [.118"] and 4mm [.156"] rods

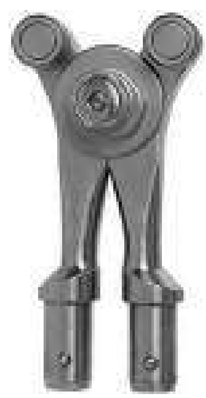


- Bends rods up to 7mm [.276"] to three different angles.
- Separate reduction ring not required.
- Adjustable center cam is spring loaded.

gS 82.7640 11"

Universal Rod Bender
for rods up to 7mm [.276"]

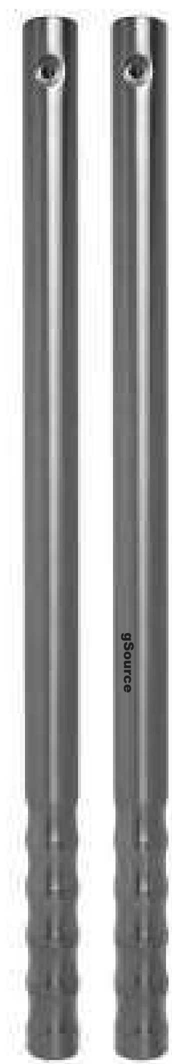




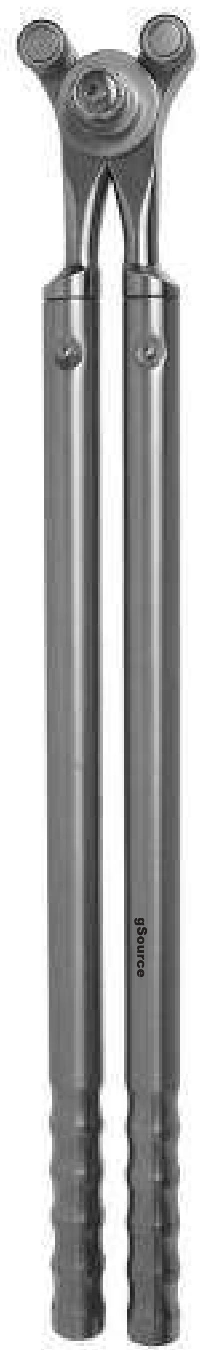
- Bends rods up to 6mm with three different cam settings.
- Separate reduction ring not required.
- Adjustable center cam is spring loaded.

gS 82.7690 19"

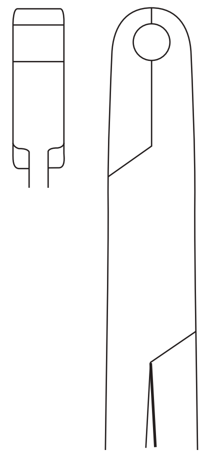
gRod Bender, Universal
for rods up to 6mm [.236"]
with 15 1/2" detachable handles



detached



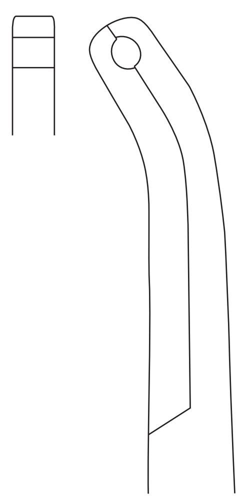
attached



gS 82.7745

	for rods
gS 82.7740	4.0mm [.157"]
gS 82.7745	4.76mm [.187"]
gS 82.7750	5.5mm [.217"]
gS 82.7760	6.35mm [.25"]

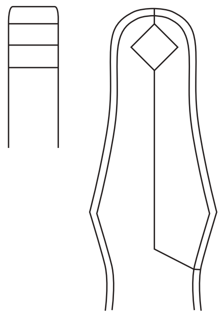
Rod Holder
7 1/4"
straight



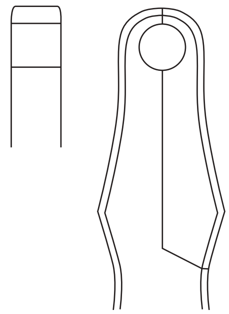
gS 82.7840

	for rods
gS 82.7840	4.0mm [.157"]
gS 82.7845	4.5mm [.177"]
gS 82.7850	5.0mm [.197"]
gS 82.7855	5.5mm [.217"]
gS 82.7860	6.35mm [.25"]

Rod Holder
8 1/2"
curved



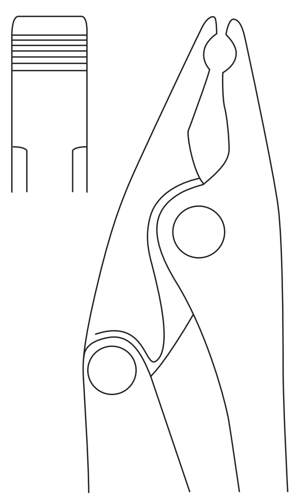
gS 82.7950



gS 82.7960

	for rods
gS 82.7950	5.5mm [.217"], with prism
gS 82.7955	5.5mm [.217"]
gS 82.7960	6.35mm [.25"]

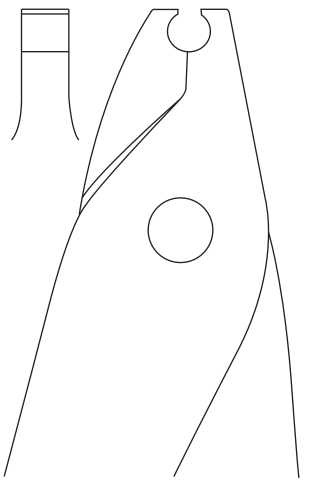
Rod Holder
10"
straight



gS 82.7555

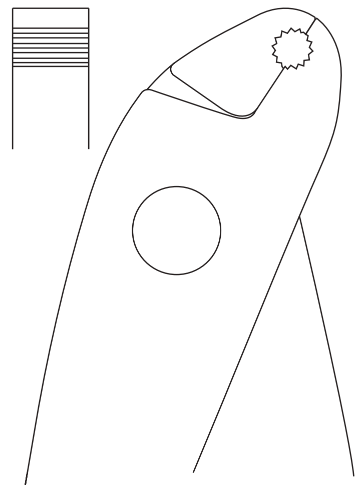
	for rods
gS 82.7551	4.5mm [.177"]
gS 82.7552	4.75mm [.187"]
gS 82.7553	5.0mm [.197"]
gS 82.7555	5.5mm [.217"]
gS 82.7556	6.0mm [.236"]
gS 82.7557	6.35mm [.25"]
gS 82.7558	6.55mm [.258"]

Rod Gripper
8 1/2"
adjustable



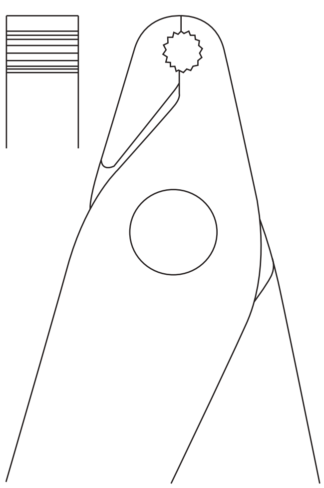
gS 82.7982 for 5.5mm [.217"] rods

Rod Holder
11"
straight narrow nose

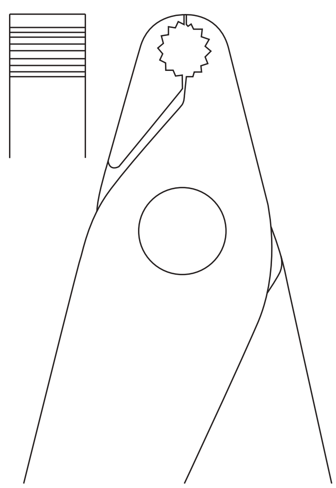


gS 82.7995 for 4.75mm [.187"] rods

Rod Holder
11"
angled nose



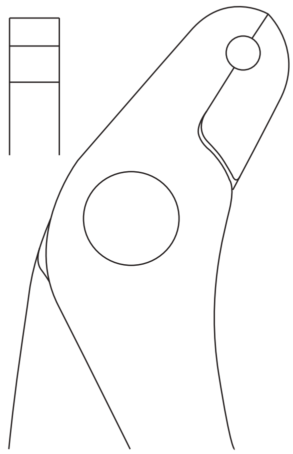
gS 82.7985

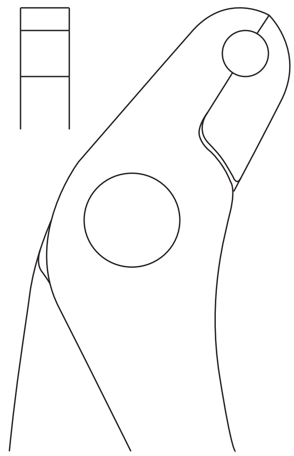


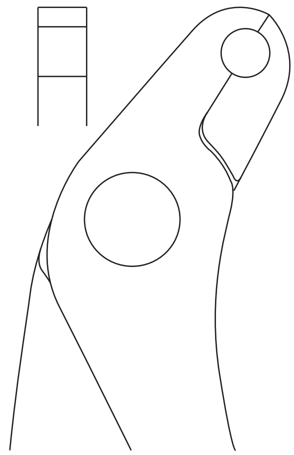
gS 82.7987

	for rods
gS 82.7985	4.75mm [.187"]
gS 82.7987	6.35mm [.25"]

Rod Holder
11"
straight nose

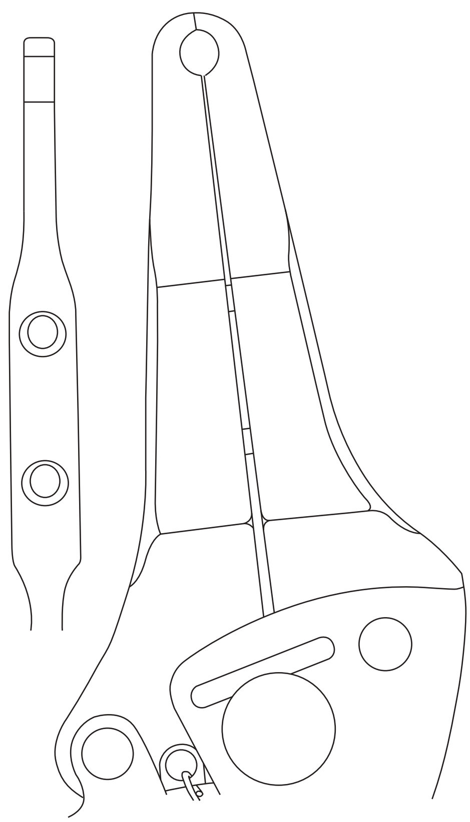

gS 82.7991


gS 82.7992


gS 82.7993

	for rods
gS 82.7991	4.75mm [.187"]
gS 82.7992	5.5mm [.217"]
gS 82.7993	6.35mm [.25"]

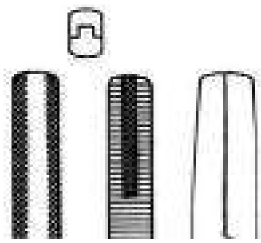
Rod Holder
11"
angled narrow nose



gS 82.7970 10"

Locking Rod Holder
for 5.5mm [.217"] rods

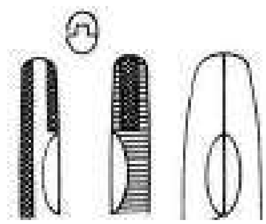
TC = Tungsten Carbide

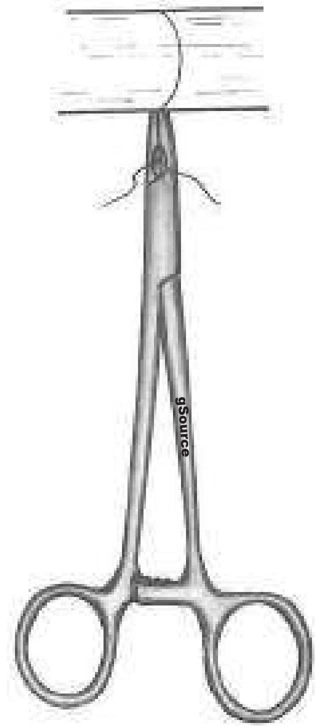


gS 82.4220 6 1/2"

Wire Pulling Fcps
one grooved jaw

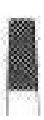
Side jaw fenestration
for twisting cerclage wire.





gS 82.4225 6 1/4"

Wire Twister and Tightener
side fenestration



4mm

For twisting
cerclage wire.

gS 82.4230 6"
gS 82.4231 7 1/4"
gS 82.4232 8"

Wire Twisting Forceps
TC inserts
4mm serrated square tip

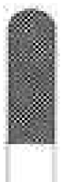
3mm

For twisting
cerclage wire.

gS 82.4235 6"
gS 82.4236 7 1/4"
gS 82.4237 8"

Wire Twisting Forceps
TC inserts
3mm serrated rounded tip

TC = Tungsten Carbide



6mm

For twisting
cerclage wire.

gS 82.4240 7 1/2"

Wire Twisting Forceps
TC inserts 6mm serrated
rounded tip

3mm

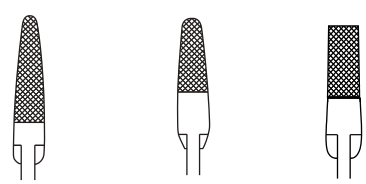
For twisting
cerclage wire.

gS 82.4250 6"

Wire Twisting Forceps
3mm smooth rounded tip

How to use:

1. Wrap wire around bone and position ends next to each other.
2. Grasp both ends of wire with jaws.
3. Engage the ratchet to enforce solid clamping.
4. Stabilize wiring site.
5. Pull back on center ring repeatedly until wire has reached desired tension.
6. Disengage ratchet.

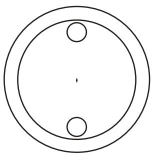


gS 82.4260 gS 82.4263 gS 82.4264

gS 82.4260 6 1/4" rounded long tip, 3mm
gS 82.4263 6" rounded short tip, 3mm
gS 82.4264 6" square short tip, 4mm

Corwin Wire Twister
TC inserts serrated
for cerclage wire

DA = Double Action
TC = Tungsten Carbide

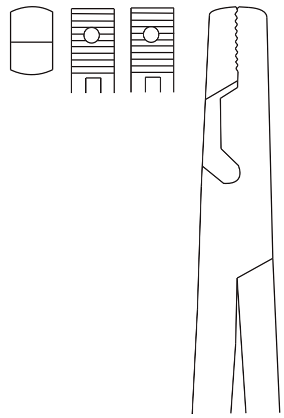


For twisting cerclage wire.

Biocompatible silicone handle helps to prevent slippage and provide a secure grip.

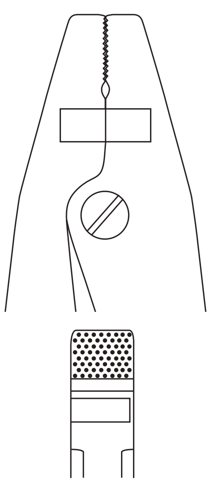
gS 82.4200 6 1/2"

gWire Twister
max cap 17 gauge [1.5mm]
silicone handle, green



gS 82.4255 6 1/2"

Wire Twister/Shear Cutter
serrated, with hole
max cut 14 gauge [2.0mm] cerclage wire



gS 82.4270 9"

Wire Cutter and Twister DA
8mm serrated jaw, TC inserts
max cap 1.6mm [.062"]

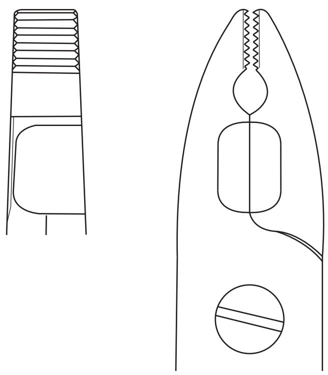
Save time. Quickly twist and cut cerclage wire with control and ease.

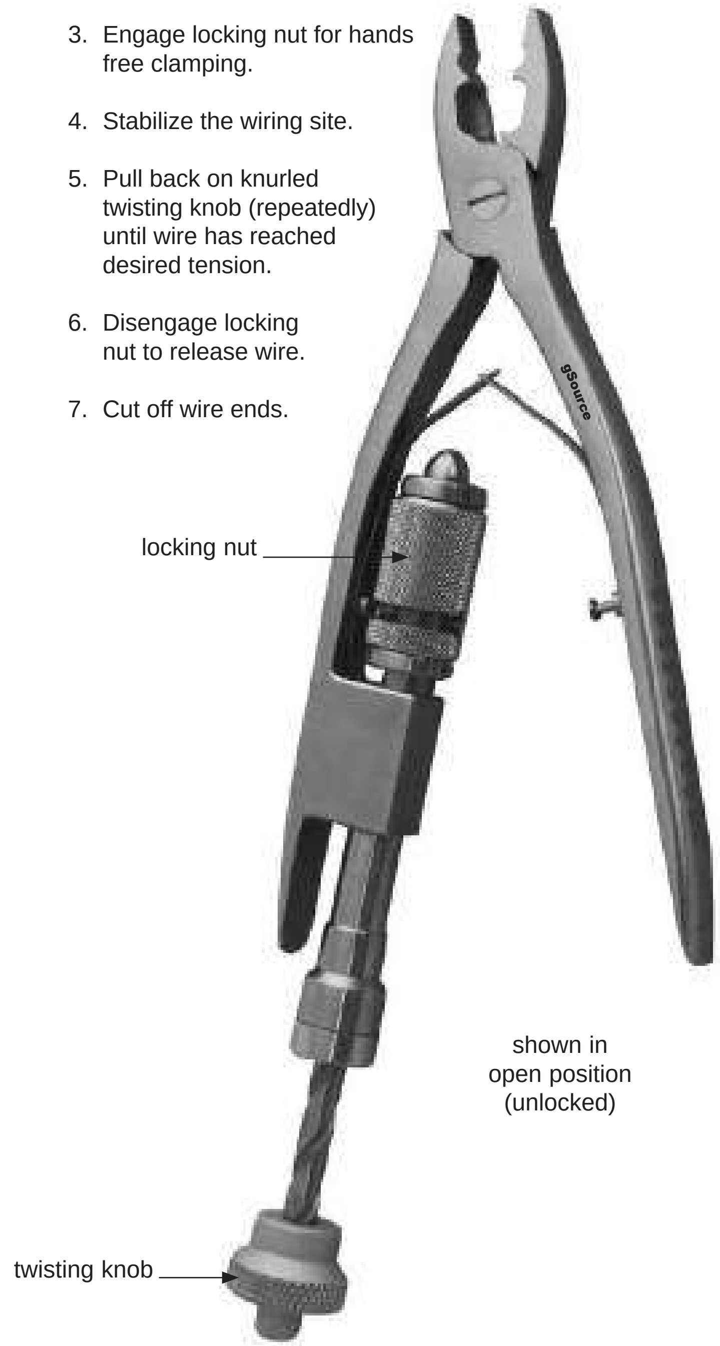
The gSource Wire Cutter and Twister is designed to provide exceptional holding, twisting and cutting ability.

- Twists and cuts cerclage wire from 21 gauge [0.8mm] up to 18 gauge [1.2mm].
- Uniformly twists cerclage wire.
- Knurled locking nut turns to unlock and release the handle so wire can be cut before twisting.
- Serrated 8mm jaws are designed to tightly hold wire when closed and in locked position.
- Knurled twisting knob on end helps to provide a secure grip as repeated pulling action is required until wire has reached desired tension.
- Grooved handles provide a secure grip when cutting or clamping.

How to use:

1. Wrap wire around bone using a gSource wire guide or passer and position wire ends next to each other.
2. Disengage knurled locking nut and grasp both ends of wire with jaw.
3. Engage locking nut for hands free clamping.
4. Stabilize the wiring site.
5. Pull back on knurled twisting knob (repeatedly) until wire has reached desired tension.
6. Disengage locking nut to release wire.
7. Cut off wire ends.





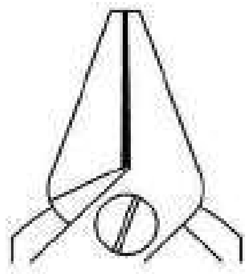
shown in
open position
(unlocked)

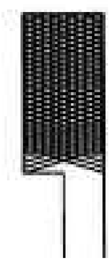
gS 82.4275 10"

Wire Cutter and Twister
8mm serrated jaw
max cap 18 gauge [1.2mm] cerclage wire

Twist cerclage wire quickly, smoothly and evenly.

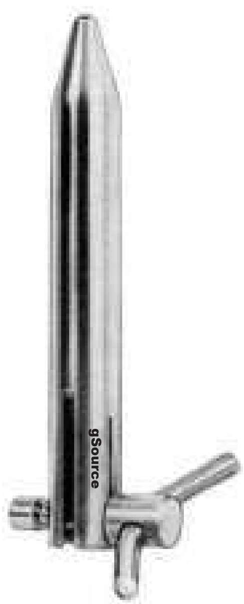
1. Wrap wire around bone and bring wire ends together.
2. Place wire ends in jaw.
3. Engage ratchet and clamp wire firmly.
4. Stabilize site.
5. Pull back on t-handle until desired tension is reached.
6. Release jaw by disengaging ratchet.





gS 82.4790 11"

Jet Wire Twister
10mm serrated jaw
max cap 17 gauge [1.5mm] cerclage wire



gS 82.4100 4 3/4"

Wire Tightener
max cap 18 gauge [1.2mm]
cerclage wire

Double wire tightener.

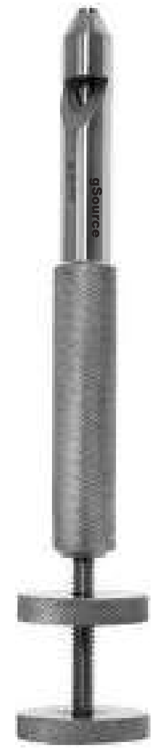
gS 82.4150 9 1/2"

Wire Tightener
two turning screws, phenolic handle
max cap 18 gauge [1.2mm] cerclage wire

How to use:

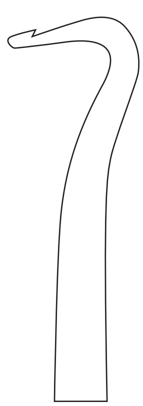
1. Loosen both knobs by turning counterclockwise until center pin disappears from view.
2. Pass wire around bone and feed both ends into center hole at the tip.
3. Use Wire Pulling Forceps to pull ends through and hold wire tight while pushing the instrument close to the bone.
4. Turn lower (distal) knob clockwise to lock wire in place. Then turn upper (proximal) knob clockwise to pull the remaining slack from the wire.
5. Balance instrument in one hand and rotate it with the other hand until resistance is felt. Then hold tightener shaft tight and turn lower (distal) knob clockwise until wire is cut.

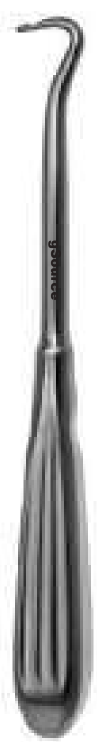
Note: Hold instrument straight (do not tilt) while tightening.



gS 82.4750 8 1/2"

Loute Wire Tightener
max cap 17 gauge [1.5mm] cerclage wire





gS 82.4918 7 1/4"

Ligature Carrier (Bankart)
curved with crochet hook

gS 82.4930 7"
gS 82.4940 9"

Suture Passer
curved with crochet hook
phenolic handle

gS 82.4941 7"
gS 82.4942 9"

Suture Passer
curved with suture hole
phenolic handle

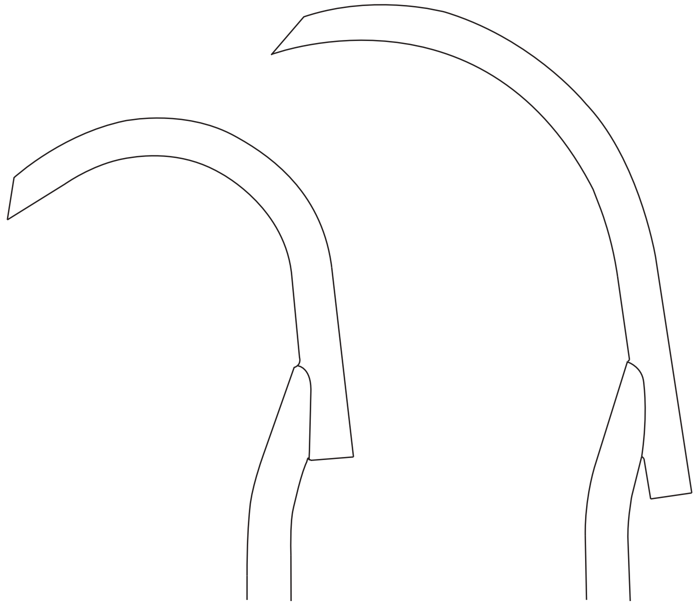
gS 82.4960 right blunt
gS 82.4962 left blunt
gS 82.4964 right sharp
gS 82.4966 left sharp

Deschamps Ligature Carrier
8"
with suture hole

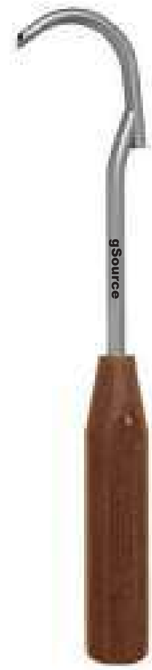
gS 82.4800 10 1/2" 30mm
gS 82.4820 11 1/2" 47mm
gS 82.4840 12 1/2" 64mm

Demel Wire Guide
max cap 17 gauge [1.5mm] cerclage wire

OD = Outside Diameter

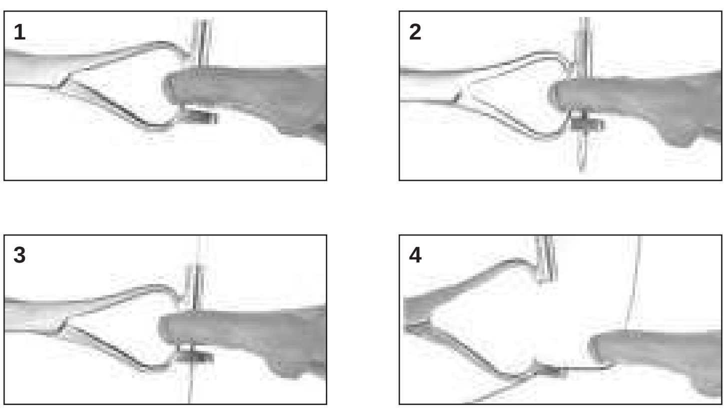


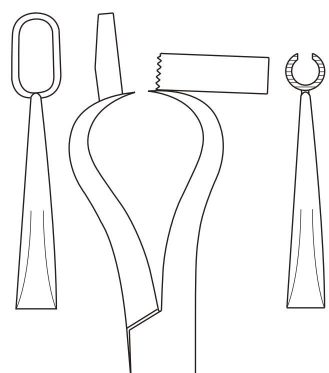
gS 82.4870 gS 82.4890

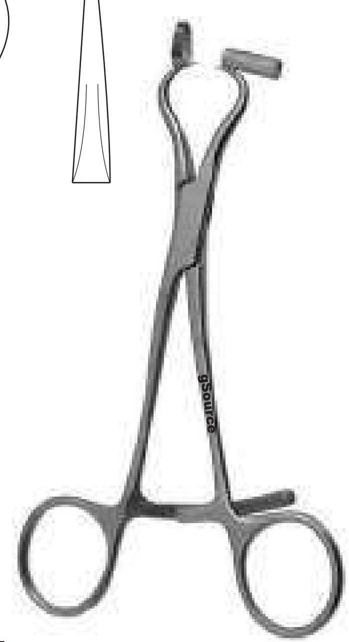


gS 82.4870 8 1/2" 45mm
gS 82.4890 9 1/2" 70mm

Wire Passer
max cap 11 gauge [3.0mm] cerclage wire
phenolic handle







1-2. Serrated end of drill guide helps with fixation of drill hole positioning and provides soft tissue protection during drilling.
3. Drill guide also helps to guide cerclage wire through the hole and into the fenestrated loop on the other side.
4. After wire passes through fenestrated loop, forceps are opened and wire can be easily pulled up from other side.

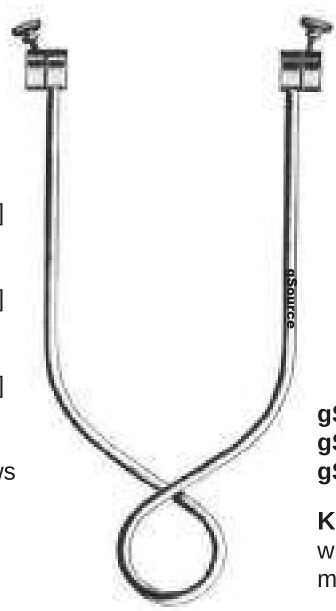
gS 82.4970 6"

gWire Passer and Retriever Forceps
with drill guide for max OD 3.0mm drill bit
max cap 17 gauge [1.5mm] cerclage wire

length x width

gS 82.4278	9 x 7.5cm max 2.4mm [.094"] wire, 5"
gS 82.4280	16 x 9cm max 3.2mm [.126"] wire, 7"
gS 82.4281	21 x 15cm max 4.0mm [.157"] wire, 9"
gS 82.4282	replacement screws

Boehler Wire and Pin Tractor



gS 82.4302	5 3/4"
gS 82.4304	7 1/2"
gS 82.4306	9 1/2"

Kirschner Bow
with three hooks
max cap 2.0mm [.079"]

did you know… ?

There are many types of fractures, but the main categories are:

- Complete: the bone snaps into two or more parts.
- Incomplete: the bone cracks but does not break all the way through.
- Compound: also called an open fracture, the bone breaks through the skin. It may then recede back into the wound, so it is no longer visible through the skin.
- Simple: also called a closed fracture, the bone breaks but there is no open wound in the skin.

Simple fractures include:

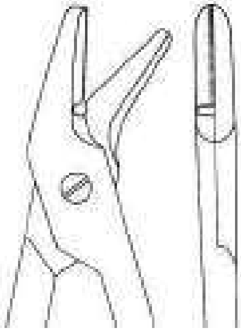
- Greenstick: an incomplete fracture in which the bone is bent. This type of fracture occurs most often in children.
- Transverse: a fracture at a right angle to the bone's axis.
- Oblique: a fracture in which the break is at an angle to the bone's axis.
- Comminuted: a fracture in which the bone fragments into several pieces.
- Impacted: a fracture whose ends are driven into each other. This commonly occurs with arm fractures in children and is sometimes known as a buckle fracture.

gSource cerclage wire, as shown in Section 78-79, is stainless steel in the form of a very flexible wire in the shape of a ring or loop, for the purpose of stabilizing fragments in a fractured bone, especially useful for transverse irregular or short oblique fractures. Many of the wire management instruments shown in this section, such as wire tighteners and twisters, were designed to be used with cerclage wire.

Cerclage is an orthopedic procedure in which the ends of an oblique bone fracture or the chips of a broken patella (the small bone in front of the knee) are bound together with a wire loop or a metal band to hold them in position until healed. In a comminuted fracture of the patella, the fragments tend to be pulled apart by the normal knee forces unless held together by one or more cerclage wires. The ruptured patellar tendon may also require cerclage wires to pull it back into the patella.

When a bone is shattered, the pieces are often impossible to plate and cerclage wires may be useful in uniting the fragments again. Cerclage wires may also be used in an osteotomy, a surgical procedure to realign or remove a segment of bone. Most often, an osteotomy is performed to realign a deformed bone. The bone is cut with surgical instruments, realigned, and allowed to heal in its new position.

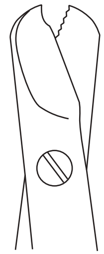
TC = Tungsten Carbide



Notch in jaw for cutting wire.

gS 83.2980 for cercilage wire max cap 19 gauge [1.1mm]
gS 83.3000 TC inserts for K-wire max cap 0.7mm [.028"]

Wire Cutting Scissors
4 3/4" angled with one serrated blade and notch



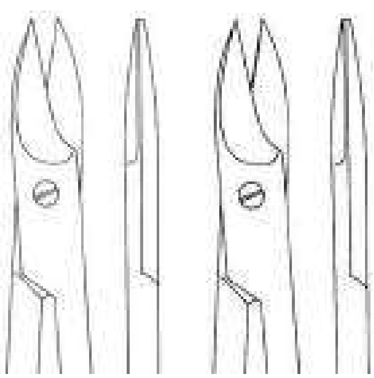
Serrated jaw with notch for cutting K-wire up to 0.9mm [.035"] or cerclage wire up to 20 gauge [0.9mm].

gS 83.4016 6 1/4"

Wire Cutting Scissors
TC inserts

smooth blades
gS 83.2680 4" str
gS 83.2945 4 3/4" str
gS 83.2920 4" cvd

one serrated blade
gS 83.2700 4" str
gS 83.2950 4 3/4" str
gS 83.2940 4" cvd

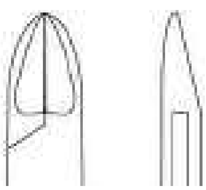


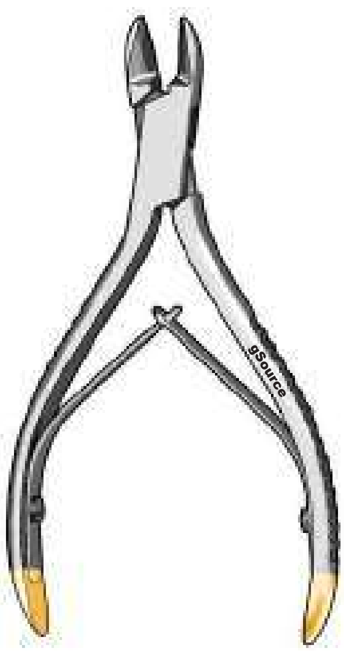
4" smooth 4" serrated

Wire Cutting Scissors
(crown and collar)
for cerclage wire, max cap 21 gauge [0.8mm]

83/2 - wire cutters

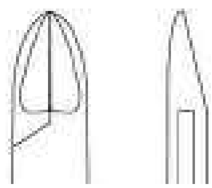
TC = Tungsten Carbide





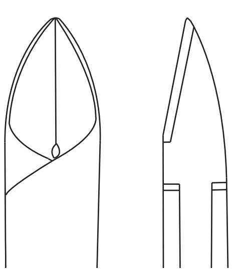
gS 83.7220 5"

Wire Side Cutter
TC inserts
max cap 0.7mm [.028"]



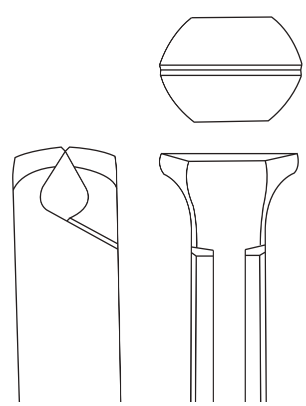
gS 83.7221 5"

Wire Side Cutter
TC inserts
max cap 0.7mm [.028"]



gS 83.7222 6"

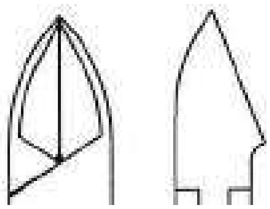
Wire Side Cutter
TC inserts
max cap 1.0mm [.040"]



gS 83.7440 5 1/2"

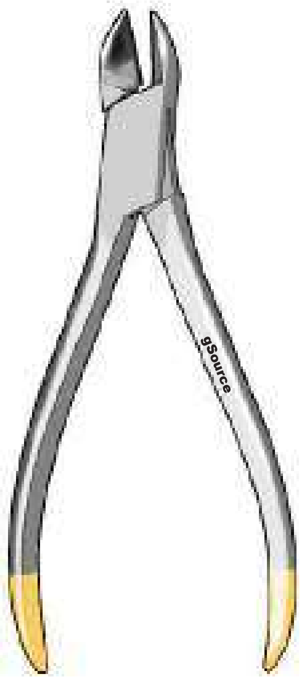
Wire End Cutter
TC inserts
max cap 1.0mm [.040"]

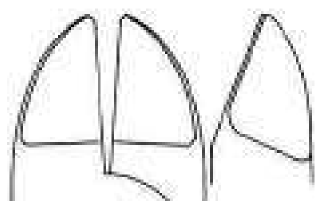
DA = Double Action
TC = Tungsten Carbide



gS 83.7223 6"

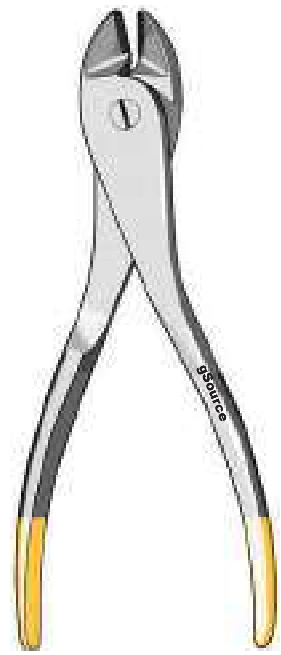
Wire Side Cutter
TC inserts
max cap 1.1mm [.045"]

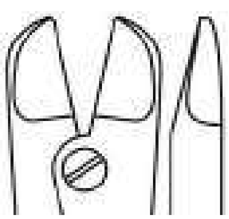




gS 83.7226 7"

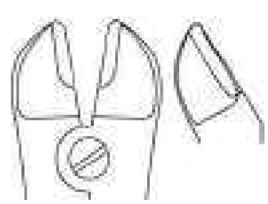
Wire Side Cutter
TC inserts
max cap 1.6mm [.062"]





gS 83.7228 6 1/2"

Wire Side Cutter DA Angled
TC inserts
max cap 1.6mm [.062"]

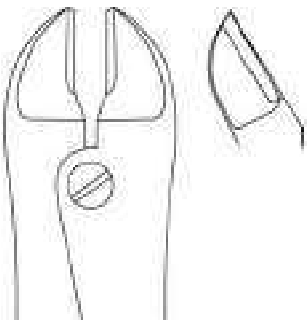


gS 83.7230 7"

Wire Side Cutter DA Angled
TC inserts
max cap 1.6mm [.062"]

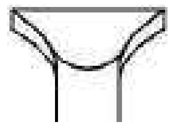
83/4 - wire cutters

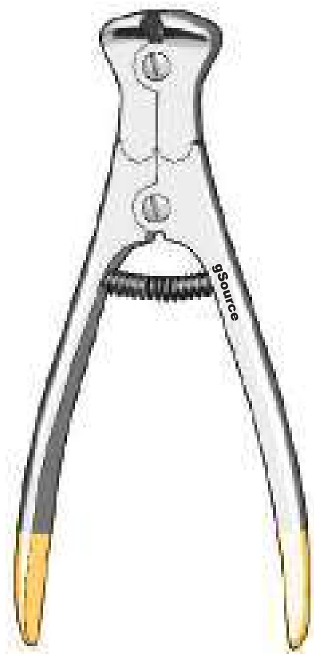
DA = Double Action
TC = Tungsten Carbide



gS 83.7232 7" heavy

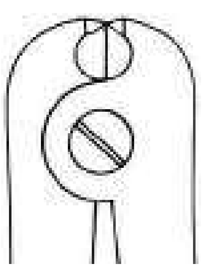
Wire Side Cutter DA Angled
TC inserts
max cap 1.6mm [.062"]





gS 83.7512 6"

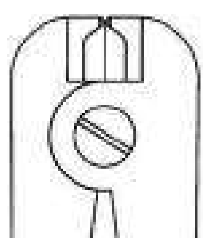
Wire End Cutter DA
TC inserts
max cap 1.6mm [.062"]



End and side cutting jaws.

gS 83.7260 7"

Wire End and Side Cutter DA
TC inserts
max cap 1.6mm [.062"]



End and side cutting jaws modified to cut closer to the bone than regular cutters.

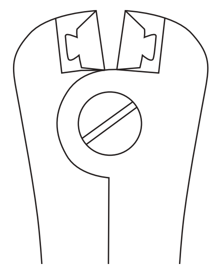
gS 83.7310 7"

Wire End and Side Flush Cutter DA
TC inserts
max 1.6mm [.062"]

DA = Double Action
TC = Tungsten Carbide

Designed with safety and ease in mind.

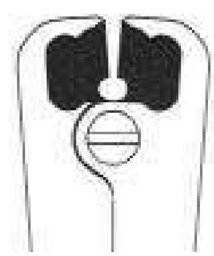
The gSource Flush End and Side Wire Cutter with tungsten carbide and silicone inserts can help prevent a cut piece of wire from being projected into the air or falling into the wound site.



- Silicone inserts are designed to hold the remnant piece of wire for safe disposal after cutting.
- Improved design of tungsten carbide (TC) jaws cuts wire flush to the bone.
- Maximum leverage is achieved with the combined double action and leaf spring design. Provides a smooth and easy cutting action.
- End and side cutting jaws.
- Grooved handles provide a secure grip.
- Silicone inserts are suitable for use in manufacturing of medical devices. They are autoclavable and replaceable.

gS 83.8450 7"
gS 83.8451 replacement silicone inserts (pair)

Wire End and Side Flush Cutter with Silicone Inserts DA
TC inserts
max cap 1.6mm [.062"]



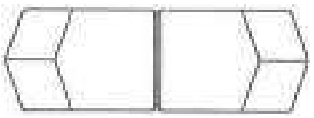
- Silicone inserts are designed to hold the remnant piece of wire for safe disposal after cutting.
- Double action provides smooth cutting action.
- End and side cutting jaws.
- Grooved handles provide a secure grip.
- Silicone inserts are suitable for use in manufacturing of medical devices. They are autoclavable and replaceable.

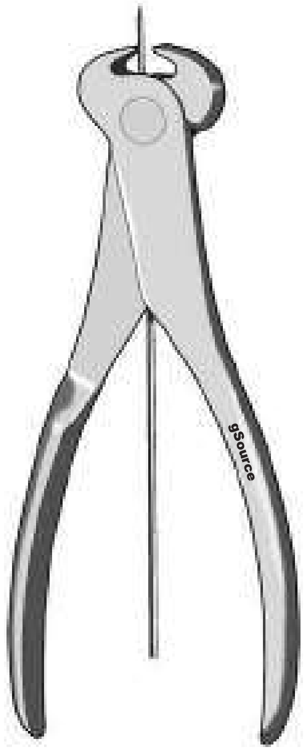
gS 83.8400 7"
gS 83.8401 replacement silicone inserts (pair)

Wire End and Side Cutter with Silicone Inserts DA
max cap 1.6mm [.062"]

83/6 - pin and wire cutters

DA = Double Action
TC = Tungsten Carbide





Slide cutter over wire to cut. Remnant piece is held securely inside the cannulated channel for fast and easy removal.

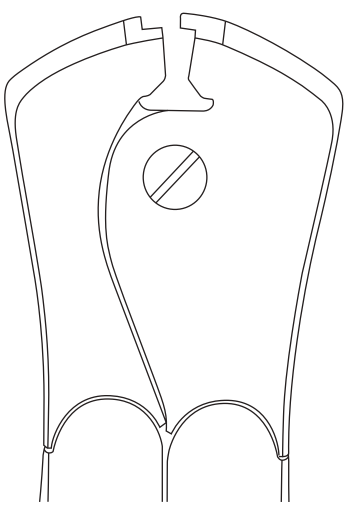
gS 83.7470 7 1/2"

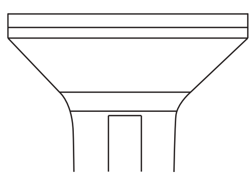
Cannulated Wire End Cutter
max cap 1.6mm [.062"]

Can be disassembled for thorough cleaning.

gS 83.7510 6 1/2"

Diamond Pin End Cutter
max cap 2.0mm [.079"]





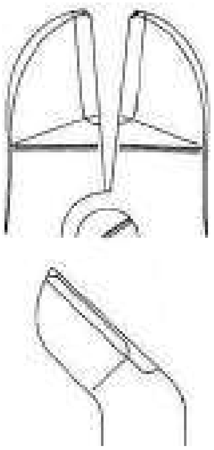
Stepped TC insert design holds the remnant piece of wire for safe disposal and shearing.

Designed with safety and ease in mind.

gS 83.7513 8 1/2"

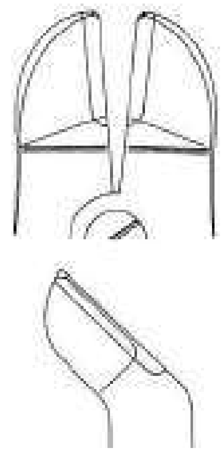
Wire End Cutter and Holder DA
TC inserts
max cap 1.6mm [.062"]

DA = Double Action
TC = Tungsten Carbide



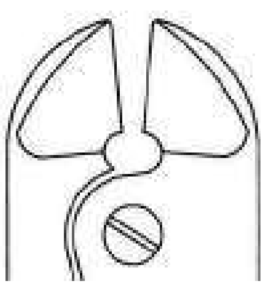
gS 83.7240 9"

Wire Side Cutter DA Angled
TC inserts
max cap 2.4mm [.079"]



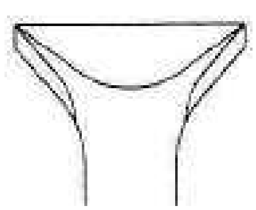
gS 83.7236 9 1/2"

Wire Side Cutter DA Angled
TC inserts
max cap 2.4mm [.079"]



gS 83.7250 9"

Wire Side Cutter DA
TC inserts
max cap 2.4mm [.079"]



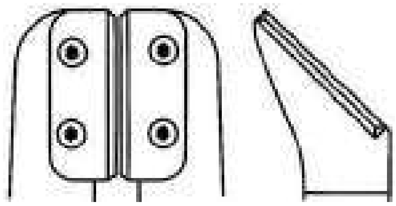
gS 83.7514 8 1/2"

Pin End Cutter DA
TC inserts
max cap 2.8mm [.110"]

83/8 - pin and wire cutters

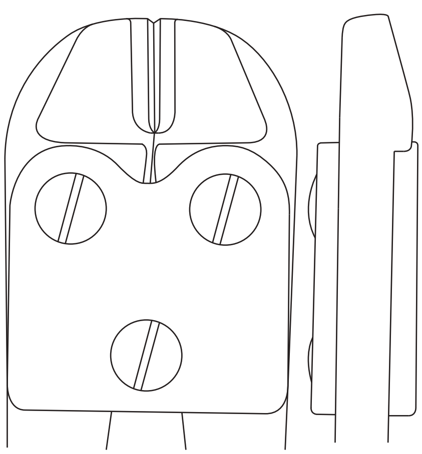
DA = Double Action
TC = Tungsten Carbide

- Strong, lightweight design requires less strength than regular double action cutters.
- Titanium Nitride (TiN) coated TC inserts are harder and last longer than uncoated TC.
- Angled cutting edge.
- Silicone inserts hold remnant wire securely, helps prevent flying pieces.



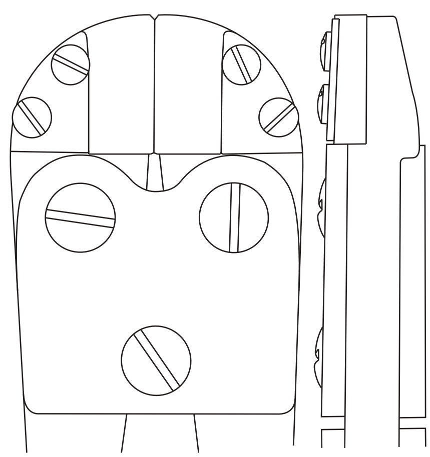
gS 83.7900 9"
gS 83.7901 TC insert replacement kit includes: inserts (2), screws (4) and wrench (1)
gS 83.7902 silicone insert replacement kit includes: inserts (2), screws (2) and screwdriver (1)

Hercules Pin Side Cutter with Silicone Inserts DA Angled
TiN coated TC inserts
max cap 3.0mm [.118"]



gS 83.8880 9"

gPin Side Cutter DA Angled
TC inserts
max cap 2.8mm [.110"]

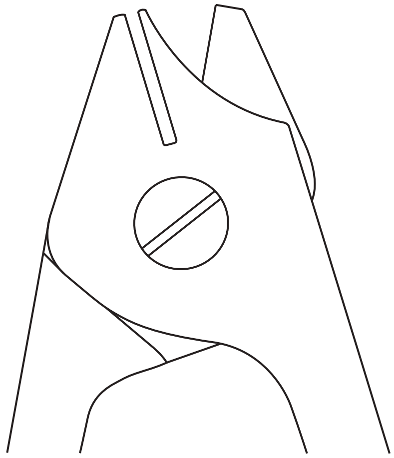


Silicone inserts are designed to hold the remmant piece of wire for safe disposal after cutting.

gS 83.8882 9"

gPin Side Cutter DA Angled
TC and silicone inserts
max cap 2.8mm [.110"]

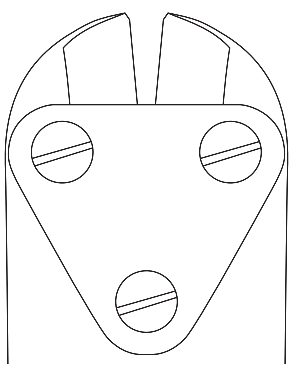
DA = Double Action



For mini plates.

gS 83.8800 9"

Plate Side Cutter
max cap 1.0mm [.040"]



Double action delivers power to the cutter.

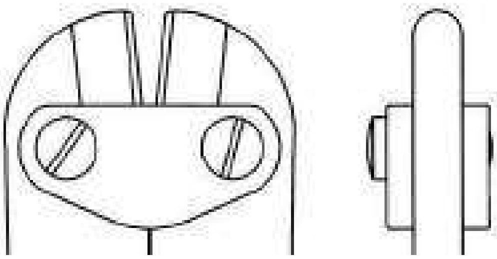
Side cutting jaws for mini plates.

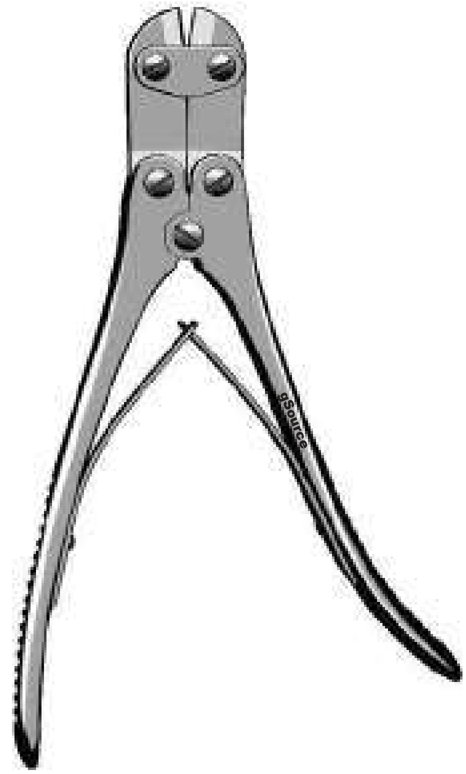
gS 83.8900 9"

Plate Side Cutter DA
max cap 1.0mm [.040"]

83/10 - pin cutters and pin shears

DA = Double Action





Double action delivers
power to this versatile cutter.

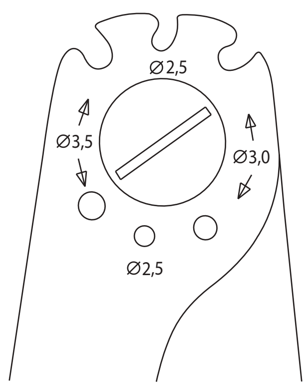
Side cutting jaws for pins.

gS 83.9000 9 1/2"

Pin Side Cutter DA
max cap 3.2mm [.126"]

Shear 3 different pin diameters with 1 instrument.

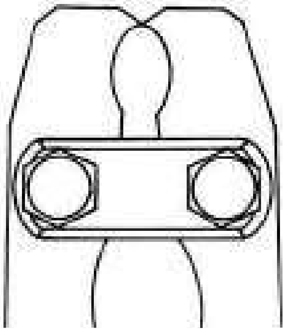
- Shears 2.5mm [.098"] 3.0mm [.118"] and 3.5mm [.138"] diameter pins with ease and provides a clean cut without burrs or sharp edges.
- Grooved handles are ergonomically designed for a comfortable and secure grip.
- Double action design allows for ease in cutting.

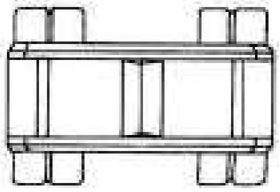


gS 83.9135 11 1/2"

Pin Shears DA
for 2.5mm [.098"], 3.0mm [.118"], 3.5mm [.138"] pins

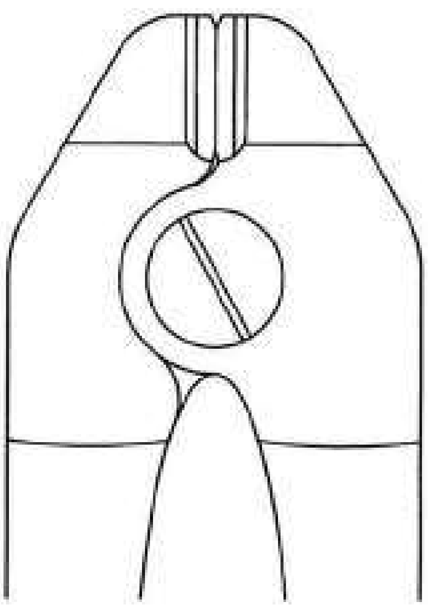
DA = Double Action

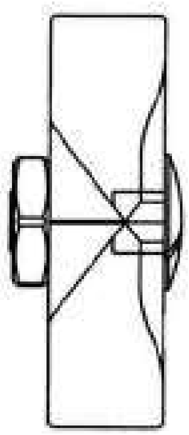




gS 83.7320 10"

Pin End Cutter DA
max cap 3.0mm [.118"]



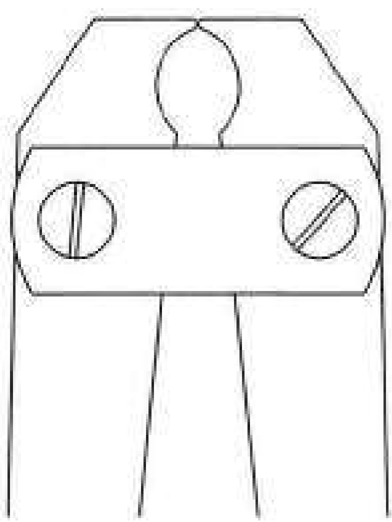


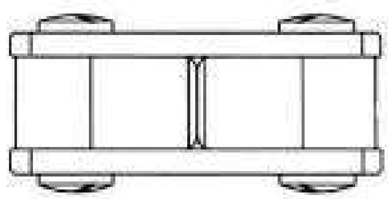
Large heavy duty cutter with specially hardened jaws for cutting titanium and stainless steel rods.

gS 83.9200 15"

Pin Side Cutter DA
max cap 4.0mm [.157"]

DA = Double Action

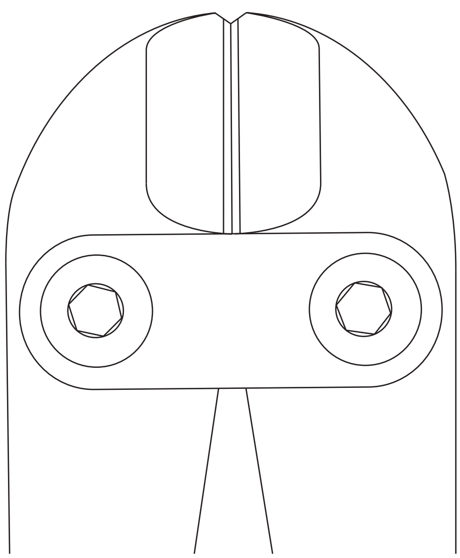




gS 83.7330 15"
gS 83.7331 replacement jaws

Pin End Cutter DA
max cap 4.5mm [.177"]

DA = Double Action



- Cuts rods up to 6.35mm [.250"].
- Specially hardened jaws.
- Grooved handles for non-slip grip.
- Handle stop prevents jaw overload.
- Not to be used inside patient.
- Weight: 3.6 lbs.

gS 83.7261 21"
gS 83.7262 replacement jaws

Large Pin Side Cutter DA
max cap 6.35mm [.25"]

83/14 - pin cutters

DA = Double Action

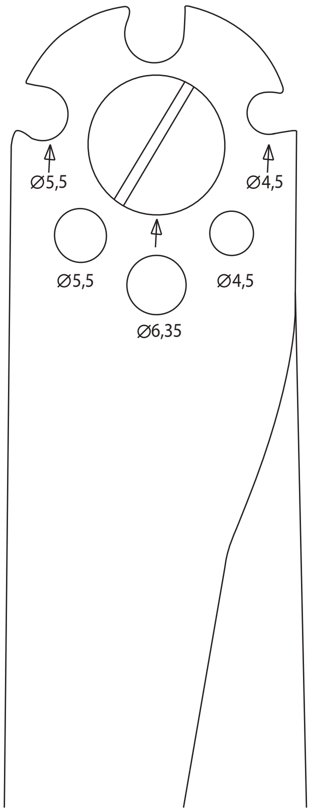
Detachable handles save space during autoclaving
and storage. Overall length reduces from 22 1/2" to 15 1/2".

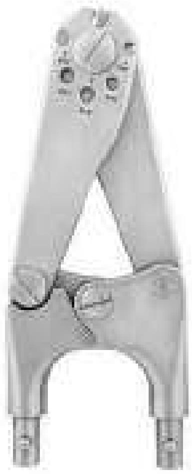
- Jaws made from hardest stainless steel for maximum durability.
- Grooved handles for non-slip grip.
- Cuts rods up to 6.35mm [.250"].
- Handle stop prevents jaw overload.
- Not to be used inside patient.
- Weight: 4.8 lbs.

gS 83.7270 22 1/2"

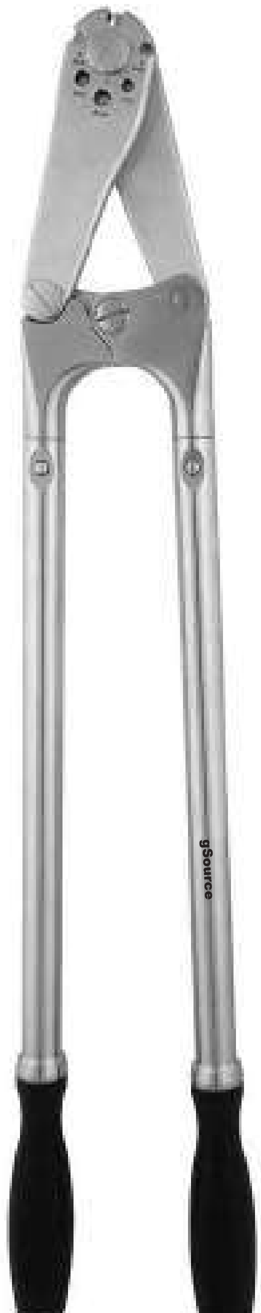
Large Pin Side Cutter DA
with detachable handles
max cap 6.35mm [.25"]

Recognized for Excellence
in surgical performance, efficiency,
and safety by the readership of
Surgical Products.

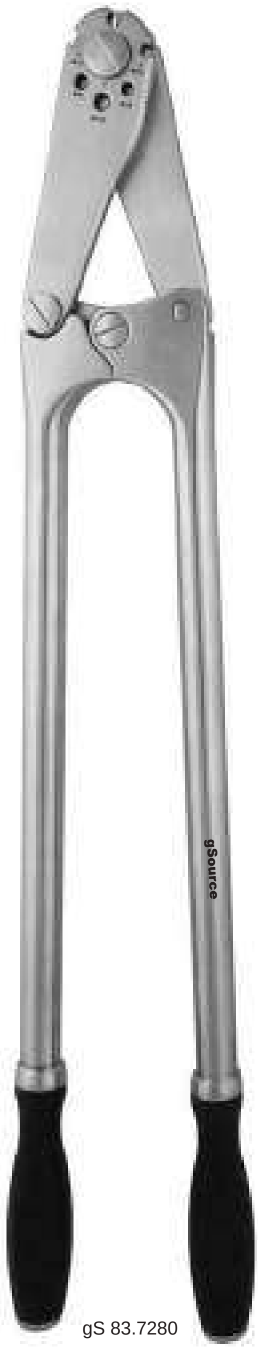




gS 83.7290
detached



gS 83.7290



gS 83.7280

The gSilicone Rod Shears easily shears 4.5mm [.177"], 5.5mm [.217"] and 6.35mm [.250"] diameter pins and rods.

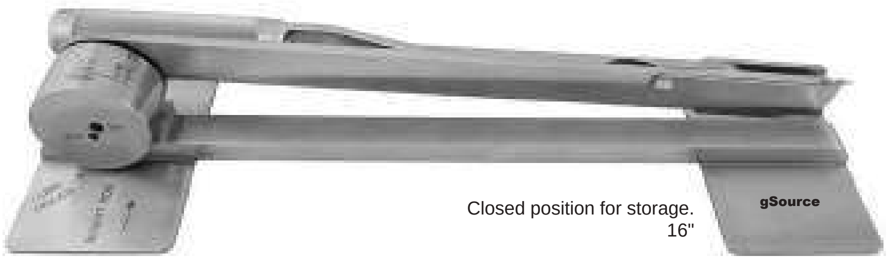
- Rods are sheared, leaving a smooth and clean surface rather than a sharp, jagged, burr-like surface common when using a standard pinching-type rod cutter.
- Available with and without detachable handles.
- Double action design allows for ease in cutting.
- Note: Instrument is not designed to be used inside the patient's body.

gS 83.7280 without detachable handles
gS 83.7290 with detachable handles

gSilicone Rod Shears
22" with silicone handles, black
for 4.5mm [.177"], 5.5mm [.217"] and 6.35mm [.25"] rods

83/16 - rod shears and cable cutter

- Provides sturdy and accurate shearing of rods.
- Rods are sheared, leaving a smooth and clean surface rather than a sharp, jagged, burr-like surface common when using a standard pinching-type rod cutter.
- Locking, collapsible handle extends to provide increased leverage for cutting.
- Collapsible handle allows for smaller footprint when stored.
- Rod diameter holes are clearly marked.



Closed position for storage.
16"

Handle extended during cutting action.
27"

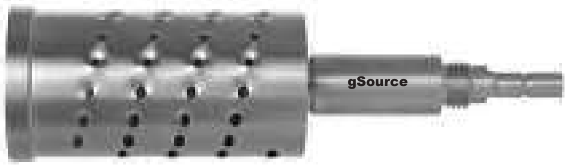
gS 83.9905 16"

Table Top Rod Shears
for 5.0mm [.197"] and 6.35mm [.25"] rods

- Cuts cables cleanly and completely.
- Angled tungsten carbide jaws cut all cable strands with one clean cut.
- Handle design provides comfort and control.
- Small jaw allows surgeon to get close to the bone.
- Ball spring provides a smooth and strong return.

gS 83.9950 7"

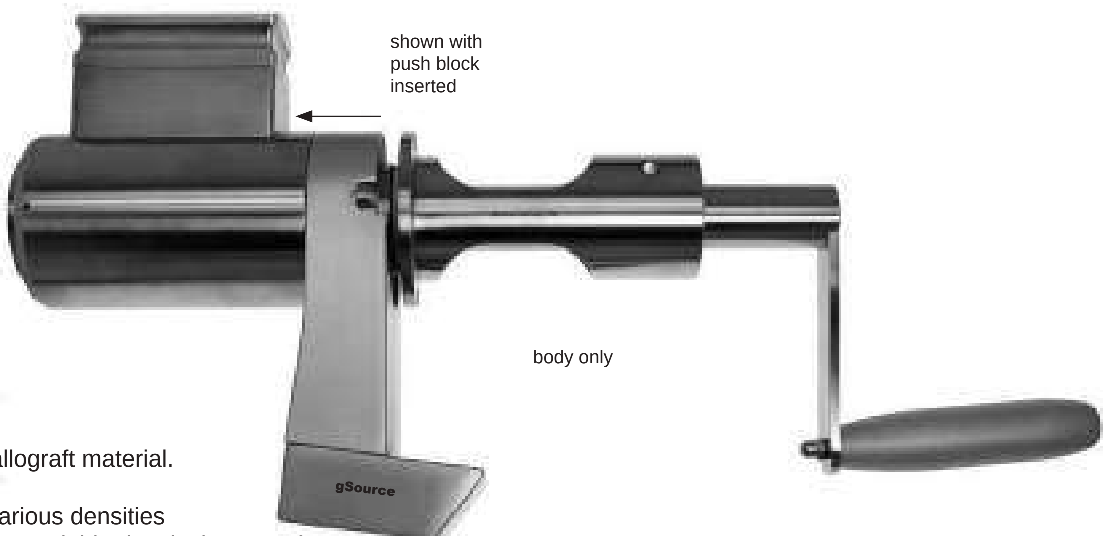
Cable Cutter
max cap 2.0mm [.079"] cable



cutting drum

table clamp

shown with
push block
inserted



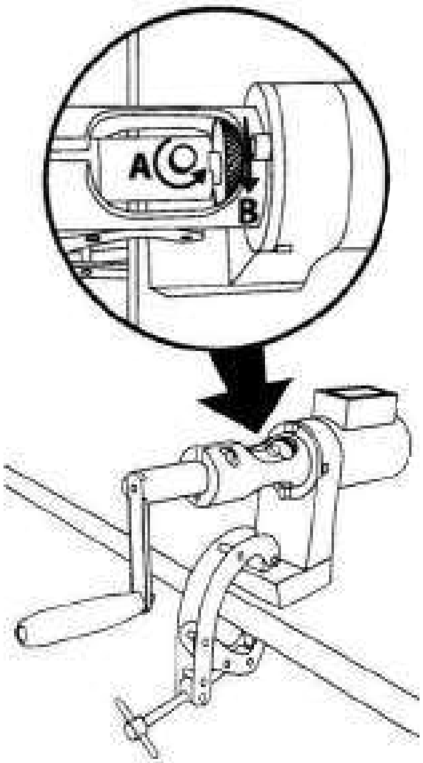
body only

Used to produce allograft material.

- Grinds bone of various densities
- 3 cutting drums for variable density bone graft
- Attaches securely with table clamp
- Fully autoclavable and easy to dismantle for cleaning
- When push block is removed, top opening on gS 84.1000 is 2 5/8" x 1 3/16"

gS 84.1000 body only with handle, push block and lock nut for cutting drum, 6 1/2"
gS 84.1020 table clamp
gS 84.1021 safety screw, M4x11, knurled
gS 84.1022 hex screw, M4x5, 2.0mm
gS 84.1032 cutting drum with 3.0mm holes
gS 84.1042 cutting drum with 4.0mm holes
gS 84.1052 cutting drum with 5.0mm holes

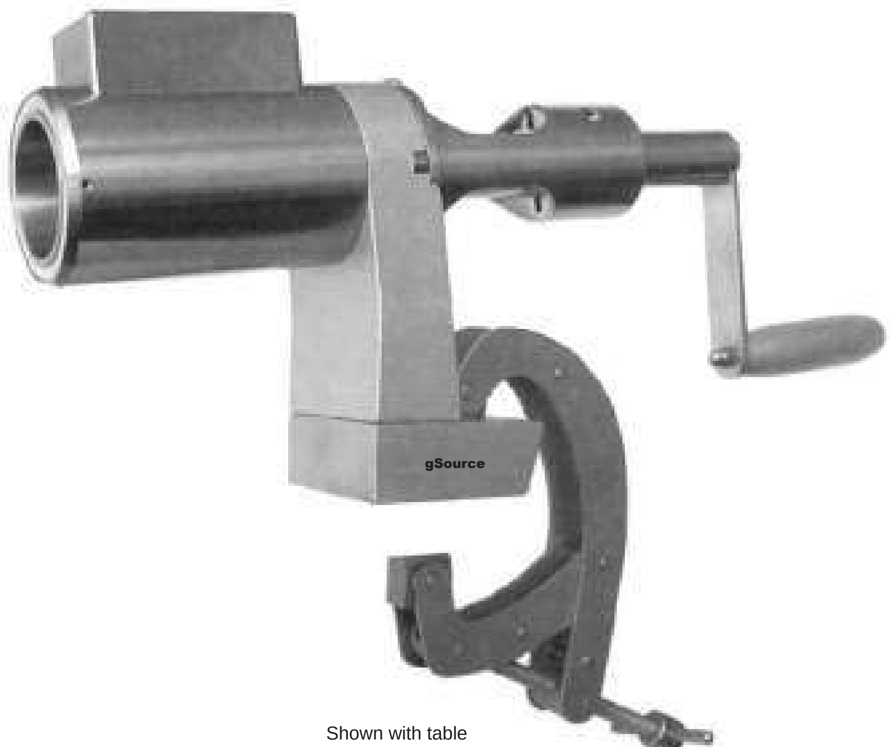
Bone Mill



To remove cutting drum:

A) Small knob turns
counter-clockwise.

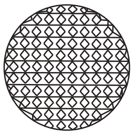
B) Lock nut turns
clockwise.



Shown with table clamp attached and push block removed

Bone Mill

gSource®



gS 84.2000 7"

Bone Mill, Hand-held
titanium alloy milling teeth

did you know… ?

Bone grafting is a surgical procedure that replaces missing bone in order to repair bone fractures that are extremely complex, pose a significant health risk to the patient, or fail to heal properly.

Bone grafting is possible because bone tissue, unlike most other tissues, has the ability to regenerate completely if provided the space into which to grow. As native bone grows, it will generally replace the graft material completely, resulting in a fully integrated region of new bone. The biological mechanisms that provide a rationale for bone grafting are osteoconduction, osteoinduction and osteogenesis.

Osteoconduction occurs when the bone graft material serves as a scaffold, or temporary structure, for new bone growth that is perpetuated by the native bone. Osteoblasts from the margin of the defect that is being grafted, utilize the bone graft material as a framework upon which to spread and generate new bone. Osteoblasts are cells that secrete the matrix for bone formation. In the process of bone formation, osteoblasts function in groups of connected cells and produce a calcium and phosphate-based mineral, hydroxylapatite, that is deposited into the organic matrix forming a strong and dense mineralized tissue.

Osteoinduction involves the stimulation of osteoprogenitor cells to differentiate into osteoblasts that then begin new bone formation. The most widely studied type of osteoinductive cell mediators are bone morphogenetic proteins (BMPs). A bone graft material that is osteoconductive and osteoinductive will not only serve as a scaffold for currently existing osteoblasts but will also trigger the formation of new osteoblasts, theoretically promoting faster integration of the graft.

Osteogenesis occurs when osteoblasts originating from the bone graft material contribute to new bone growth along with bone growth generated via the other two mechanisms.

Autologous (or autogenous) bone grafting involves utilizing bone obtained from the same individual receiving the graft. Bone can be harvested from non-essential bones, such as from the iliac crest, or more commonly in oral and maxillofacial surgery, from the mandibular symphysis (chin area) or anterior mandibular ramus (the coronoid process).

Allograft bone, like autogenous bone, is derived from humans. The difference is that allograft is harvested from an individual other than the one receiving the graft. Allograft bone can be taken from cadavers who have donated their bone in order that it be used for living people who are in need of it. It is typically sourced from a bone bank. Bone banks also supply allograft bone sourced from living human bone donors (usually hospital inpatients) who are undergoing elective total hip arthroplasty. There are three types of bone allograft: fresh or fresh-frozen bone, freeze-dried bone allograft (FDBA), and demineralized freeze-dried bone allograft (DFDBA).

gS 86.2545 4 1/2" for 3.2mm drill bit
gS 86.2550 5 1/2" with protective sleeve for 4.5mm tap

Tap Sleeve
serrated end

gS 86.2545

gS 86.2550

gS 86.2558 4 1/2" 40mm guide for 3.2mm drill bit
for round hole and semi-tubular plates

gS 86.2560 5" 60mm guide for 3.2mm drill bit
for round hole plates

Drill Sleeve

gS 86.2558

Used with drills and taps to place accurate holes and protect tissue. Serrated ends of both sleeves allow precise placement and help prevent slipping off bone.

	Drill Bits	Tap for Cortical Screws
gS 86.2500	1.1mm and 1.5mm	1.5mm
gS 86.2502	1.5mm and 2.0mm	2.0mm
gS 86.2503	2.0mm and 2.7mm	2.7mm

Double Drill Sleeve

gS 86.2500
4 3/4"

gS 86.2502
4 3/4"

gS 86.2503
5"

	Drill Bits	Tap for Cortical Screws	Tap for Cancellous Screws
gS 86.2504	2.5mm and 3.5mm	3.5mm	4.0mm
gS 86.2505	3.2mm and 4.5mm	4.5mm	4.5mm (malleolar)
gS 86.2506	3.2mm	6.5mm	6.5mm

Double Drill Sleeve

gS 86.2504
4 3/4"

gS 86.2505
7"

gS 86.2506
6 1/2"

Drill guides are color coded
green = neutral
gold = load

	Drill Bits	Screws
gS 86.2580	1.5mm	2.0mm cortical
gS 86.2582	2.0mm	2.7mm cortical
gS 86.2584	2.5mm	3.5mm cortical
gS 86.2586	3.2mm	4.5mm cortical/malleolar

Double Drill Guide
with neutral and load end

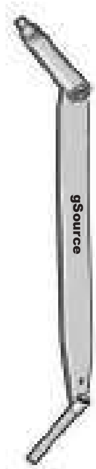
gS 86.2580 4 1/2" gS 86.2582 5 1/4" gS 86.2584 6" gS 86.2586 6 1/2"

Drill guides are color coded
green = neutral
gold = load

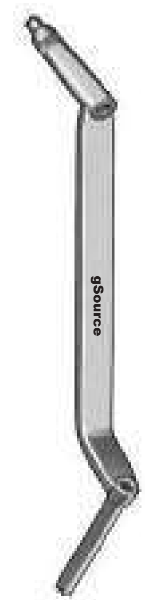
gS 86.2635 6" gS 86.2645 6 1/2"

	Drill Bits	Cortical Screws
gS 86.2635	2.5mm	3.5mm
gS 86.2645	3.2mm	4.5mm

Double Drill Guide
dual compression
with neutral and load end



gS 86.2720
5 1/4"
gS 86.2735
5 1/2"



gS 86.2745
7"

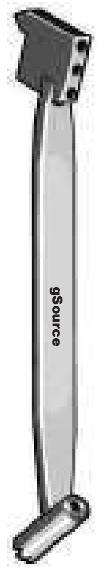
	Drill Bits	Cortical Screws
gS 86.2720	2.0mm	2.7mm
gS 86.2735	2.5mm	3.5mm
gS 86.2745	3.2mm	4.5mm

Universal Drill Guide

With 3 holes and 1 hole for parallel drill bit and K-Wire placement.

gS 86.2507 4 1/2"

Parallel Drill Guide and Sleeve
for 2.0mm drill bit
and 2.7mm cortical screws



gS 86.2510
1 1/2"

gS 86.2515
3 1/8"

	Drill Bit	Screws
gS 86.2510	2.5mm	3.5mm
gS 86.2515	3.2mm	4.5mm

Insert Drill Sleeve
serrated tips

gS 86.2945 6"

Pointed Drill Guide
for 4.5mm cortical screws

	Drill Bit
gS 86.2675	3.3/3.3mm
gS 86.2685	3.8/3.8mm

Double Drill Guide
7 1/2"

gS 86.2675

gS 86.2685

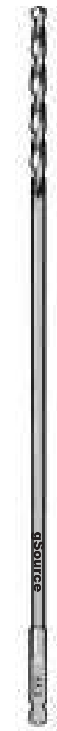
FL = Flute Length
OAL = Overall :Length
OD = Outside Diameter
SQC = Small Quick Coupling
TiN = Titanium Nitride

	OD	OAL	FL	
gS 86.8211	1.1mm*	60mm	13mm	
gS 86.8215	1.5mm*	85mm	18mm	
gS 86.8216	1.5mm	110mm	18mm	
gS 86.8220	2.0mm*	100mm	22mm	
gS 86.8221	2.0mm	125mm	22mm	
gS 86.8222	2.2mm*	110mm	32mm	
gS 86.8224	2.5mm	110mm	30mm	TiN coated
gS 86.8226	2.5mm*	110mm	32mm	
gS 86.8225	2.5mm	180mm	32mm	
gS 86.8227	2.7mm	100mm	29mm	
gS 86.8228	2.7mm*	125mm	29mm	
gS 86.8232	3.2mm	145mm	48mm	
gS 86.8233	3.2mm	195mm	50mm	
gS 86.8235	3.5mm*	110mm	42mm	
gS 86.8236	3.5mm	195mm	50mm	
gS 86.8240	4.0mm	195mm	40mm	
gS 86.8245	4.5mm	145mm	50mm	
gS 86.8246	4.5mm	195mm	50mm	

*Fits in gS 98.8178 gRack, SQC Twist Drill – see page 98-99/7.

- Drill bits with quick coupling ends
- Designed to fit quick coupling handles gS 86.0040, gS 86.0045, gS 86.0050 and power adaptor gS 86.1002

SQC Drill Bits

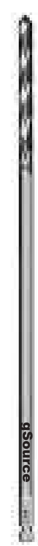


gS 86.8225

- Drill bits with quick coupling ends
- Designed to fit quick coupling handles gS 86.0040, gS 86.0045 gS 86.0050 and power adaptor gS 86.1002
- gS 86.8725 and gS 86.8732 have calibration lines.
- gS 86.8765 does not have calibration lines.

	OD	OAL	FL
gS 86.8725	2.5mm	230mm	30mm
gS 86.8732	3.2mm	230mm	30mm
gS 86.8765	4.5mm	195mm	45mm

SQC Drill Bits
3 fluted



gS 86.8765

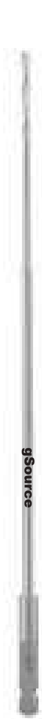
gS 86.8725
gS 86.8732

FL = Flute Length
ID = Inside Diameter
OAL = Overall Length
OD = Outside Diameter
SQC = Small Quick Coupling

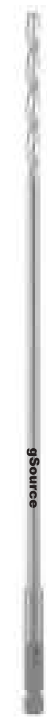
gS 86.8945
4 flutes

	OAL	FL	OD	Max ID	# Flutes
gS 86.8827	6"	20mm	2.0mm	1.00mm	3
gS 86.8832	6 1/2"	40mm	3.2mm	1.75mm	4
gS 86.8835	6"	35mm	3.5mm	1.30mm	4
gS 86.8845	6 1/2"	45mm	4.5mm	1.75mm	4
gS 86.8945	9"	40mm	4.5mm	2.05mm	4

SQC Drill Bits
cannulated



gS 86.8827
3 fluted



gS 86.8832
4 fluted

*Fits in gS 98.8127 Twist Drill Rack - see page 98-99/8.

	OD	OAL	FL
gS 86.8410	1.0mm	55mm	26mm
gS 86.8412	1.0mm	127mm	20mm
gS 86.8415	1.5mm*	127mm	17mm
gS 86.8420	2.0mm*	127mm	23mm
gS 86.8424	2.4mm	127mm	22mm
gS 86.8425	2.5mm*	127mm	22mm
gS 86.8427	2.7mm*	127mm	30mm
gS 86.8432	3.2mm*	127mm	42mm
gS 86.8435	3.5mm*	127mm	42mm
gS 86.8440	4.0mm*	127mm	45mm
gS 86.8445	4.5mm*	127mm	34mm
gS 86.8448	4.7mm*	127mm	34mm
gS 86.8450	5.0mm*	127mm	42mm
gS 86.8460	6.0mm	127mm	37mm
gS 86.8532	3.2mm	180mm	70mm
gS 86.8535	3.5mm	180mm	70mm
gS 86.8545	4.5mm	180mm	70mm
gS 86.8560	6.0mm	180mm	70mm

Twist Drill Bits
round end
for power drills

gS 86.8645

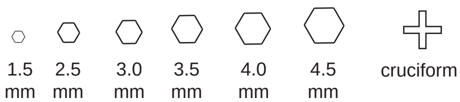
	OD	Max ID	FL
gS 86.8620	2.0mm	1.2mm	25mm
gS 86.8627	2.7mm	1.3mm	25mm
gS 86.8635	3.5mm	1.8mm	35mm
gS 86.8640	4.0mm	2.0mm	35mm
gS 86.8645	4.5mm	2.1mm	40mm

gDrill Bits, Twist
5", cannulated
4 fluted, round end
for power drills

86-87

MQC = Mini Quick Coupling
QC = Quick Connect
SQC = Small Quick Coupling

*Fits gS 98.4050 gRack, Screwdriver Bits SQC - see page 98-99/7.



	Length	Style	QC style	Holding Sleeve
gS 86.1502	2"	1.5mm Hex	MQC	gS 86.4371
gS 86.1504	2 1/2"	cruciform	MQC	gS 86.4371
gS 86.1915	3 1/2"	1.5mm Hex*	SQC	none
gS 86.1505	4"	1.5mm Hex	SQC	gS 86.4373
gS 86.1925	3 1/2"	2.5mm Hex*	SQC	none
gS 86.1506	4"	2.5mm Hex	SQC	gS 86.4373
gS 86.1510	5 1/2"	2.5mm Hex	SQC	gS 86.4375
gS 86.1515	6 1/2"	2.5mm Hex	SQC	gS 86.4375
gS 86.1930	3 1/2"	3.0mm Hex	SQC	none
gS 86.1935	3 1/2"	3.5mm Hex*	SQC	gS 86.4373
gS 86.1519	4"	3.5mm Hex	SQC	none
gS 86.1521	6 1/2"	3.5mm Hex	SQC	gS 86.4380
gS 86.1940	3 1/2"	4.0mm Hex*	SQC	none
gS 86.1945	3 1/2"	4.5mm Hex	SQC	none

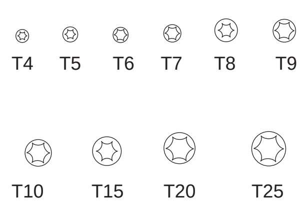
gS 86.1504 | gS 86.1505 gS 86.1506 | gS 86.1935 | gS 86.1510 gS 86.1515 with notch | gS 86.1519 | gS 86.1521 with notch

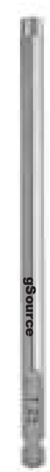
Screwdriver Bits
holding sleeve not included

- Design helps provide a uniform distribution of torque force which can lessen the chance of high stress to the working end of the bit and the screw head.
- Star shape profile has less of a surface-to-surface gap between the bit and the screw in comparison with hex profile. This results in a better force closure.
- No holding sleeve required.

*Fits gS 98.4050 gRack, Screwdriver Bits SQC - see page 98-99/7.

	Size
gS 86.1604	T4*
gS 86.1605	T5
gS 86.1606	T6
gS 86.1607	T7
gS 86.1608	T8*
gS 86.1609	T9
gS 86.1610	T10
gS 86.1715	T15*
gS 86.1720	T20
gS 86.1725	T25*





Star Screwdriver Bits
3 1/2"
SQC

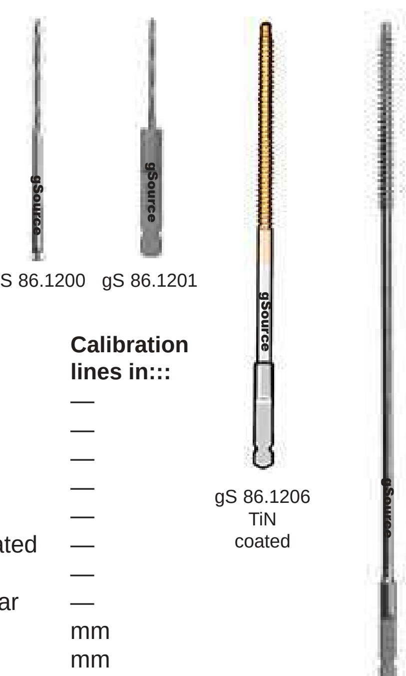
86-87/8 - instruments for fracture management

MQC = Mini Quick Coupling
OAL = Overall Length
OD = Outside Diameter
QC = Quick Connect
SQC = Small Quick Coupling
TiN = Titanium Nitride

gS 86.1004 gS 86.1006 gS 86.1010 gS 86.1020

	OAL	QC Handle	Pilot OD	Screw Size
gS 86.1004	2 1/4"	MQC	1.1mm	1.5, 2.0mm
gS 86.1006	2 3/4"	SQC	2.0mm	2.7, 3.5, 4.0mm
gS 86.1010	4 1/2"	SQC	3.2mm	4.5mm malleolar
gS 86.1020	7"	T-Handle	4.3mm	4.5, 6.5mm

Countersinks



gS 86.1200 gS 86.1201

gS 86.1206 TiN coated

gS 86.1216

	OAL	Diameter	Pitch	QC Style	Screws	Calibration lines in:::
gS 86.1200	2"	1.5mm	0.5mm	MQC	cortical	—
gS 86.1201	2"	1.5mm	0.6mm	SQC	cortical	—
gS 86.1202	2 1/4"	2.0mm	0.6mm	MQC	cortical	—
gS 86.1203	2 1/4"	2.0mm	0.6mm	SQC	cortical	—
gS 86.1204	4"	2.7mm	1.0mm	SQC	cortical	—
gS 86.1206	4 1/4"	3.5mm	1.25mm	SQC	cortical TiN coated	—
gS 86.1208	4 1/4"	3.5mm	1.75mm	SQC	cancellous	—
gS 86.1212	5"	4.5mm	2.0mm	SQC	cortical, malleolar	—
gS 86.1209	7"	3.5mm	1.25mm	SQC	cortical	mm
gS 86.1216	7"	4.5mm	1.80mm	SQC	cortical	mm
gS 86.1220	8"	6.5mm	2.70mm	SQC	cancellous	mm

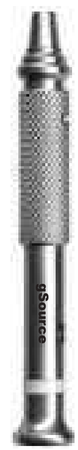
Taps

ID = Inside Diameter
MQC = Mini Quick Coupling
OAL = Overall Length
QC = Quick Connect
SQC = Small Quick Coupling

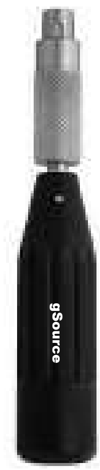
*Fits gS 98.4050 gRack, Screwdriver Bits SQC - see page 98-99/7.

	OAL	QC Style
gS 86.0035	4 1/4"	MQC
gS 86.0040	4 1/2"*	SQC, plastic handle, black
gS 86.0050	4 1/2"*	SQC, plastic handle, black cannulated, max ID 2.4mm
gS 86.0045	3 1/2"	SQC T-Handle

Quick Coupling Handles



gS 86.0035



gS 86.0040
gS 86.0050

gS 86.0045

single slot

cruciform

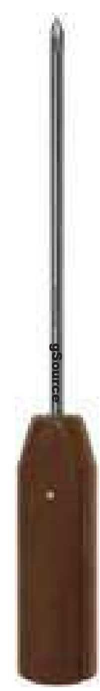
phillips

	OAL	Working End
gS 86.4550	6 3/4"	single slot
gS 86.4540	10"	single slot
gS 86.4420	7 1/2"	cruciform
gS 86.4560	10"	cruciform
gS 86.4580	10"	phillips

Screwdrivers
with phenolic handle

gS 86.4550

gS 86.4560



gS 86.4580

86-87/10 - instruments for fracture management

OAL = Overall Length

1.5mm 2.5mm

	OAL	Hex	Holding Sleeve
gS 86.4395	7 3/4"	1.5mm	gS 86.4371
gS 86.4400	7 3/4"	2.5mm	gS 86.4373
gS 86.4490	8 1/2"	2.5mm	gS 86.4375, gS 86.4373
gS 86.4500	10"	2.5mm	none
gS 86.4585	10 1/2"	2.5mm	gS 86.4375, gS 86.4373

Hexagonal Screwdrivers

gS 86.4395 plastic handle black

gS 86.4400 plastic handle black

gS 86.4490 with notch plastic handle black

gS 86.4500 phenolic handle

gS 86.4585 with notch phenolic handle

3.5mm 4.0mm

	OAL	Hex	Holding Sleeve
gS 86.4520	10"	3.5mm	none
gS 86.4590	10"	3.5mm	gS 86.4380
gS 86.4595	12"	3.5mm	gS 86.4380
gS 86.4530	10"	4.0mm	gS 86.4380

Hexagonal Screwdrivers

gS 86.4520 plastic handle black

gS 86.4590 with notch plastic handle black

gS 86.4595 with notch plastic handle black

gS 86.4530 with notch phenolic handle

ID = Inside Diameter
OAL = Overall Length

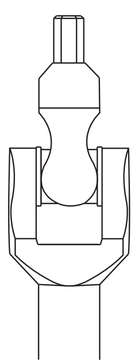

2.5mm

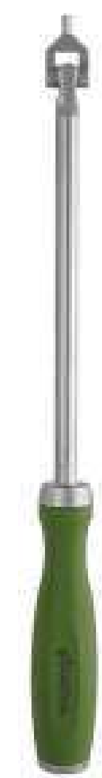

3.5mm

gS 86.4410

	OAL	Hex	Max ID	Holding Sleeve
gS 86.4410	7 3/4"	2.5mm	1.35mm	gS 86.4375, gS 86.4373
gS 86.4495	8 3/4"	3.5mm	1.75mm	none

Hexagonal Screwdrivers
cannulated, with notch
phenolic handle



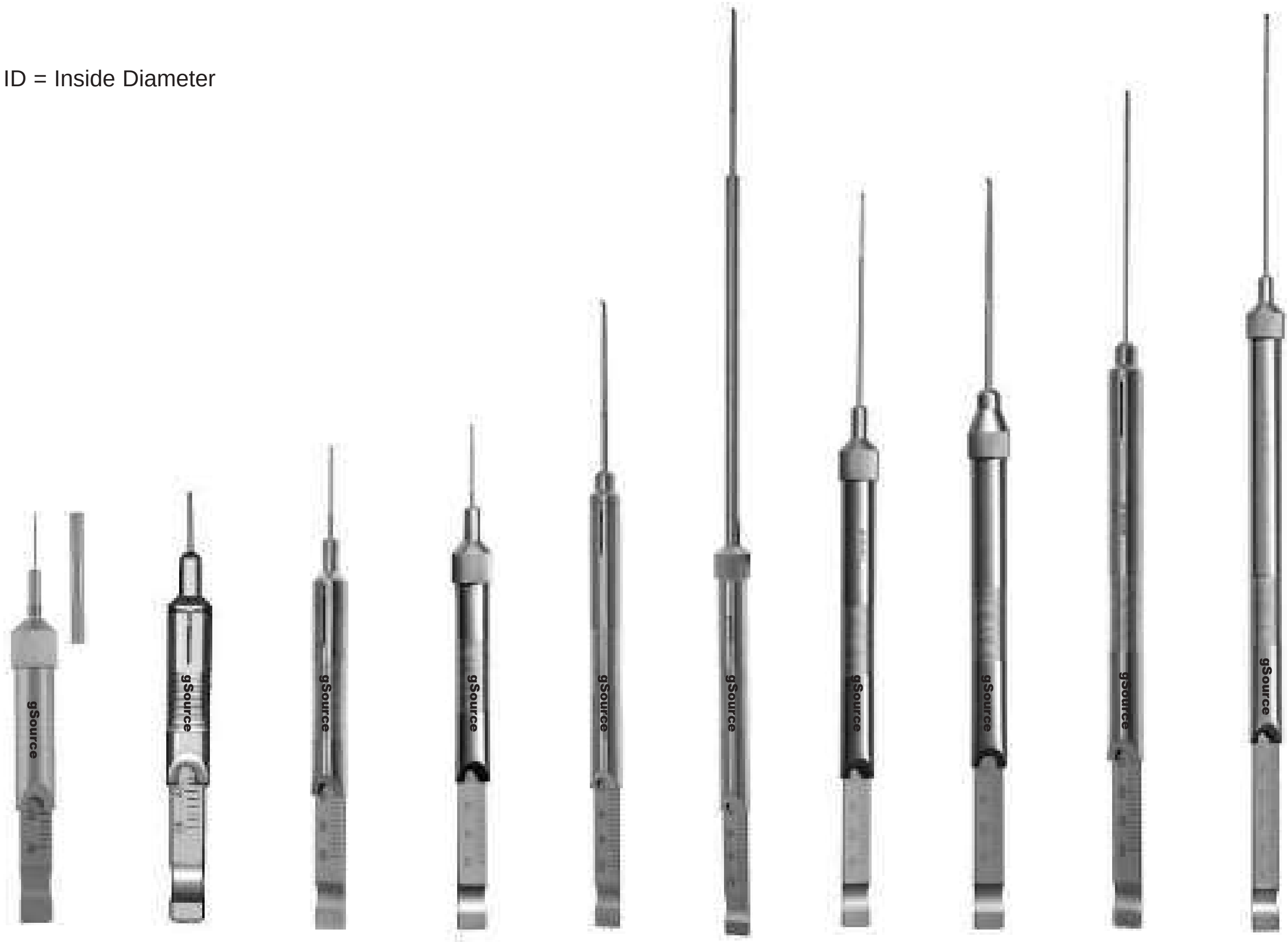


gS 86.9914 10"

gSilicone Cardan Joint Hexagonal Screwdriver
3.5mm hex
silicone handle, green

86-87/12 - instruments for fracture management

ID = Inside Diameter



gS 86.2330 delicate with probe sleeve 4 3/4" | gS 86.2405 4 3/4" | gS 86.2410 6 1/2" | gS 86.2413 7" | gS 86.2415 9 1/2" | gS 86.2430 15 1/2" | gS 86.2417 10 1/2" | gS 86.2418 10 1/2" | gS 86.2420 11 1/2" | gS 86.2425 13 1/2"

	Measures up to	Minimum ID of drill hole*	Cap type
gS 86.2330	30mm	1.10mm	screw on
gS 86.2405	30mm	1.50mm	snap on
gS 86.2410	50mm	2.20mm	snap on
gS 86.2413	60mm	2.10mm	screw on
gS 86.2415	100mm	3.20mm	snap on
gS 86.2430	100mm	3.30mm	screw on
gS 86.2417	110mm	2.20mm	screw on
gS 86.2418	110mm	3.30mm	screw on
gS 86.2420	120mm	2.50mm	snap on
gS 86.2425	150mm	2.40mm	screw on

*Minimum ID of drill hole needed for use with depth gauge.

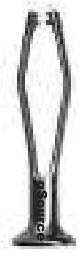
Depth Gauges
disassemble for cleaning

OD = Outside Diameter
SQC = Small Quick Coupling

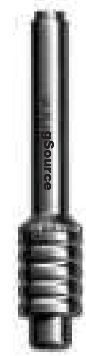
gS 86.4371 1 1/2" for OD 3.5mm shafts
gS 86.4373 2" for OD 5.0mm shafts
gS 86.4375 3" for OD 5.0mm shafts with notch
gS 86.4380 5" for OD 7.0mm shafts with notch

Screw Holding Sleeves

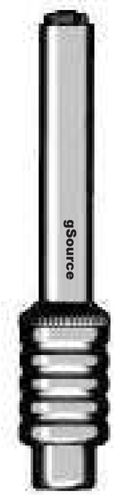
gS 86.4371



gS 86.4373



gS 86.4375

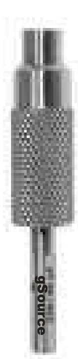


gS 86.4380

Converts SQC end to round end with three flat sides for power drills.

gS 86.1002

Power Drill Adaptor
2 1/2"



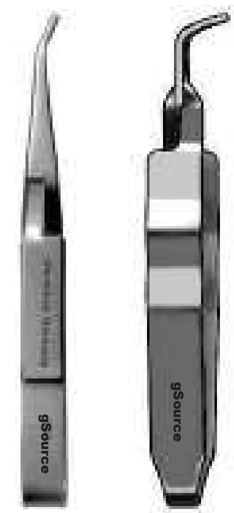
Useful for compression and distraction modes.

Used in conjunction with plates to close larger fracture or osteotomy gaps.

gS 86.7220 3 1/2" span 20mm

Tension Device
articulated

OD = Outside Diameter

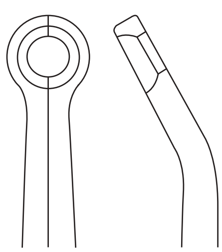


gS 86.6104   gS 86.6108
gS 86.6110

For picking up screw from
screw rack.

	OD Screw Shaft
gS 86.6104	1.2mm
gS 86.6108	1.5mm-2.7mm
gS 86.6110	3.5mm-6.5mm

Screw Holding Forceps
3 1/2"



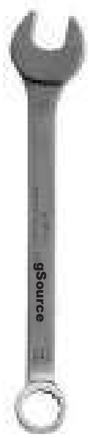
gS 86.6155   7 1/2"

Screw Holding Forceps
angled, for OD 5.5mm
shaft bone screw

SQC = Small Quick Coupling
TiN = Titanium Nitride

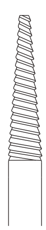
gS 87.0012 5 1/2"

Combination Wrench
11mm



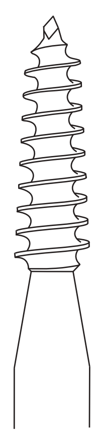
gS 87.0014 7"

Socket Wrench
11mm
Cardan joint



gS 87.0200 8"

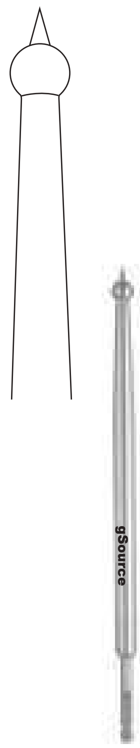
gExtractor, Screw
SQC, counter clockwise thread
TiN coated tip



gS 87.4080 8 1/2"

gExtractor, Femoral Head
with T-handle

SQC = Small Quick Coupling



Useful for pushing bone fragments into place.

Designed to fit with SQC handles gS 86.0040, gS 86.0045, gS 86.0050 and Spiked Disc gS 87.0022.

gS 87.2006 6 1/2"

Ball Spike SQC
sharp point
straight

Useful for pushing bone fragments into place.

Designed to fit with Spiked Disc gS 87.0022.

gS 87.0020 12"

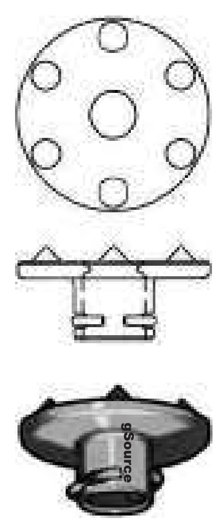
Ball Spike
sharp point
straight, phenolic handle

Attaches to the ball tip end of Ball Spikes gS 87.0020 and gS 87.2006 shown on this page.

Also attaches to the ball tip end of Pelvic Reduction Forceps gS 47.6190, gS 47.6192, gS 47.6196, gS 47.6200, gS 47.6204, gS 47.6208, gS 47.6300 and gS 47.6301 shown in Section 46-47 on pages 22-25.

Helps to disperse the force of the ball spike by providing a greater contact area, thereby reducing the risk of penetrating thin bone.

The disc swivels on the ball tip and the points help to reduce slippage and allow for improved alignment onto bone surface.



gS 87.0022 25mm

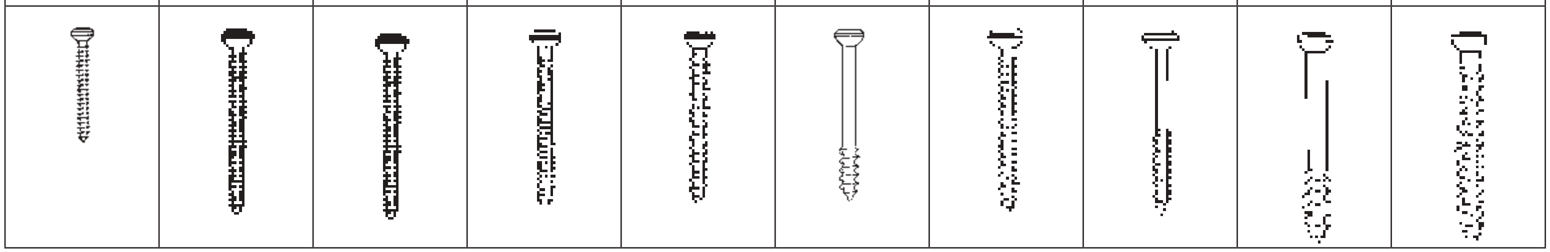
Spiked Disc
6 sharp points

gSource®

Guide to Fracture Management Instruments

Type of Screw

	Cortical	Cortical	Cortical	Cortical fine thread	Cancellous coarse thread	Cancellous	Cortical	Malleolar	Cancellous	Cancellous
diameter	1.5mm	2.0mm	2.7mm	3.5mm	3.5mm	4.0mm	4.5mm	4.5mm	6.5mm	6.5mm



Drill Bit for Gliding Hole

	gS 86.8215	**gS 86.8220**	**gS 86.8227**	**gS 86.8235**	**gS 86.8235**	**-**	**gS 86.8425**	**-**	**gS 86.8425**	**gS 86.8426**
diameter	1.5mm	2.0mm	2.7mm	3.5mm	3.5mm	None	4.5mm	None	4.5mm	For Shaft in Hard Bone 4.5mm

Drill Bit for Threaded Hole

	gS 86.8211	**gS 86.8215**	**gS 86.8220**	**gS 86.8226**	**gS 86.8220 or gS 86.8226**	**gS 86.8220 or gS 86.8226**	**gS 86.8232**	**gS 86.8232**	**gS 86.8232**	**gS 86.8232**
diameter	1.1mm	1.5mm	2.0mm	2.5mm	2.0mm or 2.5mm	2.0mm or 2.5mm	3.2mm	3.2mm	3.2mm	3.2mm

Tap

	gS 86.1200	**gS 86.1202**	**gS 86.1204**	**gS 86.1206**	**gS 86.1208**	**gS 86.1208**	**gS 86.1208**	**gS 86.1212**	**gS 86.1220**	**gS 86.1220**
diameter	1.5mm	2.0mm	2.7mm	fine thread 3.5mm	coarse thread 3.5mm	3.5mm	4.5mm	4.5mm	6.5mm	6.5mm

Countersink

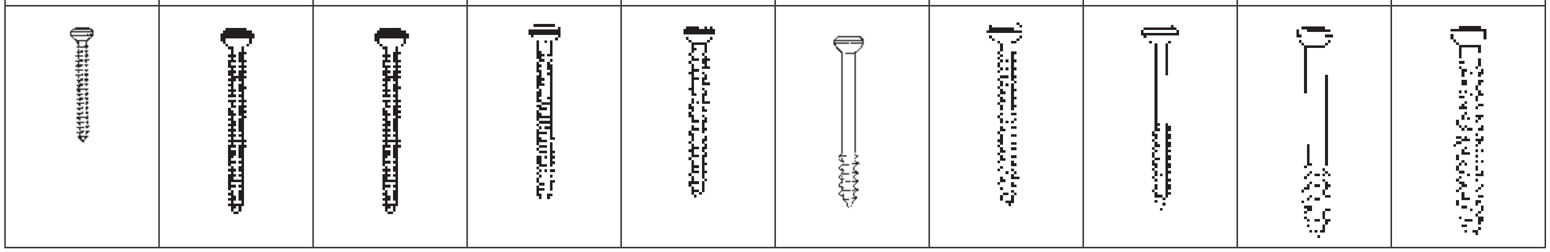
	gS 86.1004	**gS 86.1004**	**gS 86.1006**	**gS 86.1006**	**gS 86.1006**	**gS 86.1006**	**gS 86.1020**	**gS 86.1010**	**gS 86.1020**	**gS 86.1020**
diameter	1.1mm	1.1mm	2.0mm	2.0mm	2.0mm	2.0mm	4.5mm	3.2mm	4.5mm	4.5mm

gSource®

Guide to Fracture Management Instruments

Type of Screw

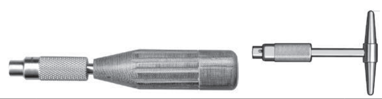
	Cortical	Cortical	Cortical	Cortical fine thread	Cancellous coarse thread	Cancellous	Cortical	Malleolar	Cancellous	Cancellous
diameter	1.5mm	2.0mm	2.7mm	3.5mm	3.5mm	4.0mm	4.5mm	4.5mm	6.5mm	6.5mm



Depth Gauge

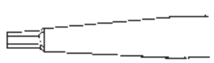
	gS 86.2330 gS 86.2405	gS 86.2330 gS 86.2405	gS 86.2410	gS 86.2410	gS 86.2410	gS 86.2410	gS 86.2415	gS 86.2415	gS 86.2415	gS 86.2415
scale	30mm	30mm	50mm	50mm	50mm	50mm	100mm	100mm	100mm	100mm

Quick Coupling Handle



gS 86.0035	gS 86.0035	gS 86.0040 gS 86.0045	gS 86.0040 gS 86.0045 gS 86.0050	gS 86.0040 gS 86.0045 gS 86.0050	gS 86.0040 gS 86.0045 gS 86.0050	gS 86.0040 gS 86.0045 gS 86.0050	gS 86.0040 gS 86.0045 gS 86.0050	gS 86.0040 gS 86.0045 gS 86.0050	gS 86.0040 gS 86.0045 gS 86.0050

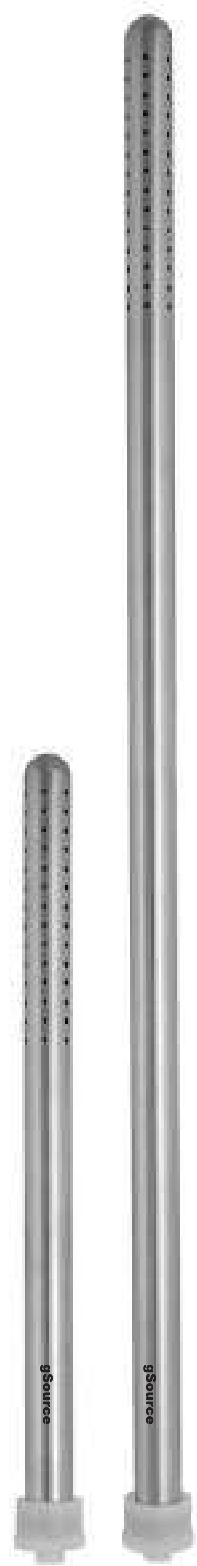
Screwdrivers



gS 86.1502 gS 86.1504	gS 86.1502 gS 86.1504	gS 86.1506 gS 86.4400 gS 86.4410 gS 86.4500 gS 86.4580	gS 86.1506 gS 86.4400 gS 86.4410 gS 86.4500 gS 86.4580	gS 86.1506 gS 86.4400 gS 86.4410 gS 86.4500 gS 86.4580	gS 86.1506 gS 86.4400 gS 86.4410 gS 86.4500 gS 86.4580	gS 86.1519 gS 86.4495 gS 86.4520 gS 86.4590 gS 86.4595	gS 86.1519 gS 86.4495 gS 86.4520 gS 86.4590 gS 86.4595	gS 86.1519 gS 86.4495 gS 86.4520 gS 86.4590 gS 86.4595	gS 86.1519 gS 86.4495 gS 86.4520 gS 86.4590 gS 86.4595

Driver Type	1.5mm Hex Cruciform	1.5mm Hex Cruciform	2.5mm Hex	2.5mm Hex	2.5mm Hex	2.5mm Hex	3.5mm Hex	3.5mm Hex	3.5mm Hex	3.5mm Hex

OAL = Overall Length
OD = Outside Diameter
QTY = Quantity



- Handy container to store and dispense K-wires and Steinmann pins.
- Each dispenser is clearly marked with the inch/mm OD of the wires/pins held for quick identification.
- Dispenser is perforated at one end.
- Conical shaped end dispenses one wire at a time.
- It is recommended to load blunt end first.
- Will only dispense smooth (unthreaded) wires and pins.

Dispensers store and dispense smooth (unthreaded) wires and pins only.

	OAL Dispenser	OAL Wire/Pin Stored	OD Wire/Pin Stored	Max Qty Stored - Not Dispensed	Max Qty Stored - Dispensed
gS 98.2002	6 3/4"	4", 5", and 6"	0.7mm [.028"]	120	24
gS 98.2003	6 3/4"	4", 5", and 6"	0.9mm [.035"]	78	18
gS 98.2005	6 3/4"	4", 5", and 6"	1.1mm [.045"]	54	18
gS 98.2007	6 3/4"	4", 5", and 6"	1.4mm [.054"]	30	18
gS 98.2009	6 3/4"	4", 5", and 6"	1.6mm [.062"]	24	18
gS 98.2011	13"	9" and 12"	0.9mm [.035"]	78	30
gS 98.2013	13"	9" and 12"	1.1mm [.045"]	54	24
gS 98.2015	13"	9" and 12"	1.4mm [.054"]	30	18
gS 98.2017	13"	9" and 12"	1.6mm [.062"]	24	18
gS 98.2019	13"	9" and 12"	2.0mm [.079"]	12	6
gS 98.2021	13"	9" and 12"	2.4mm [.094"]	12	6

gS 98.2018 replacement cap only, plastic, white

K-Wire and Pin Dispenser
stainless steel
plastic cap, white

98-99/2 - containers

OAL = Overall Length
OD = Outside Diameter
QTY = Quantity

- Store and dispense four different wire diameters from one dispenser.
- Wires are dispensed one at a time.
- Can be closed when not in use.
- Chambers are clearly marked with mm/inch OD of the wires/pins held.
- Will only dispense smooth (unthreaded) wires and pins.

Dispensers store and dispense smooth (unthreaded) wires and pins only.

	OAL Dispenser	OAL Wire/Pin Stored	OD Wire/Pin Stored	Max Qty Stored - Not Dispensed	Max Qty Stored - Dispensed
gS 98.5210	5 1/2"	4"	0.9mm [.035"]	60	18
			1.1mm [.045"]	30	12
			1.4mm [.054"]	24	12
			1.6mm [.062"]	18	6
gS 98.5230	7 1/2"	6"	0.9mm [.035"]	60	18
			1.1mm [.045"]	30	12
			1.4mm [.054"]	24	12
			1.6mm [.062"]	18	6
gS 98.5240	10 1/2"	9"	0.9mm [.035"]	60	18
			1.1mm [.045"]	30	12
			1.4mm [.054"]	24	12
			1.6mm [.062"]	18	6
gS 98.5245	10 1/2"	9"	1.6mm [.062"]	18	6
			2.0mm [.079"]	12	6
			2.0mm [.079"]	12	6
			2.4mm [.094"]	6	6
gS 98.5250	13 1/2"	12"	0.9mm [.035"]	60	18
			1.1mm [.045"]	30	12
			1.4mm [.054"]	24	12
			1.6mm [.062"]	18	6
gS 98.5260	13 1/2"	12"	1.6mm [.062"]	18	6
			2.0mm [.079"]	6	6
			2.0mm [.079"]	6	6
			2.4mm [.094"]	8	5

gS 98.5210 gS 98.5240 gS 98.5260

gS 98.5206 replacement cap only, plastic, white, screw on style

Four Chambered K-Wire and Pin Dispenser
stainless steel
plastic screw on cap, white

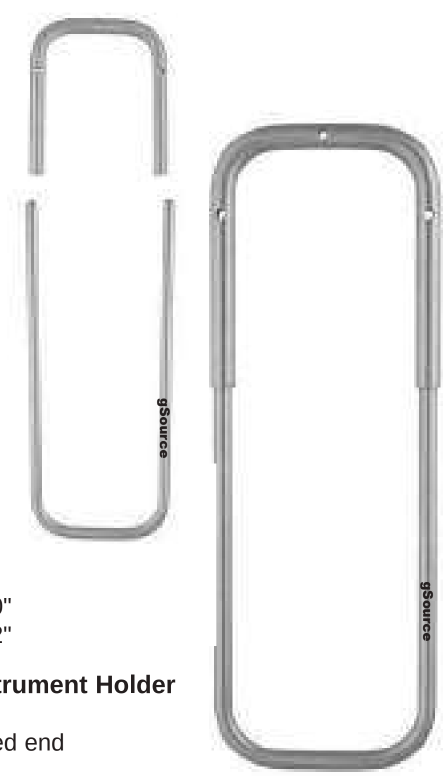
- Instrument stringer holds finger ring handle instruments securely ensuring instruments stay open during sterilization.
- Locking ball closure keeps cross bar in place.
- Stay-closed design prevents accidental opening.
- Expertly hand finished to eliminate any sharp edges.
- Made from German stainless steel.
- To open or close: squeeze side bars together, then fold back cross bar.

	2 1/2" wide		3 1/2" wide
gS 98.2104	4"		
gS 98.2106	6"	**gS 98.2206**	6"
gS 98.2108	8"	**gS 98.2208**	8"
gS 98.2110	10"		
gS 98.2112	12"		
gS 98.2114	14"		

Instrument Stringer
with lock

gS 98.2308	8"
gS 98.2310	10"
gS 98.2312	12"
gS 98.2314	14"
gS 98.2316	16"
gS 98.2318	18"

Instrument Stringer
2 3/4" wide
U-shaped, open end



gS 98.2406	6"
gS 98.2408	8"
gS 98.2410	10"
gS 98.2412	12"

Weinstein Instrument Holder
2 3/4" wide
U-shaped, closed end

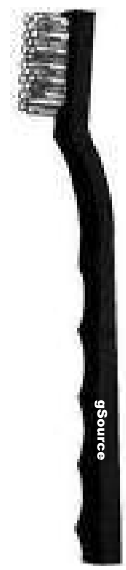
OD = Outside Diameter

gS 98.2515 6"
gS 98.2530 12"

Forceps Instrument Holder

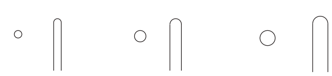
	bristles
gS 99.0100	steel
gS 99.0102	nylon

Instrument Cleaning Brush
7"
plastic handle, black



gS 99.0104 7"

Instrument Cleaning Brush
nylon/steel bristles
plastic handle, black

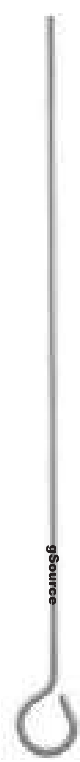


1.1mm 1.6mm 2.5mm

Useful for cleaning all cannulated instruments intraoperatively to prevent accumulation of debris in the cannulation.

	OD
gS 99.1011	1.1mm
gS 99.1016	1.6mm
gS 99.1025	2.5mm

Cleaning Stylet
8 1/2"
ring handle



	K-Wires 4" - diameters					K-Wires 6" - diameters				
	0.7mm [.028"]	0.9mm [.035"]	1.1mm [.045"]	1.4mm [.054"]	1.6mm [.062"]	0.7mm [.028"]	0.9mm [.035"]	1.1mm [.045"]	1.4mm [.054"]	1.6mm [.062"]
Double Trocar-Smooth	78.2000	78.2010	78.2020	78.2040	78.2030	78.1210	78.1220	78.1230	78.1240	78.1250
Double Trocar-Full Thread					78.4210					78.4230
Single Trocar-Smooth	78.2300	78.2310	78.2320	78.2330	78.2340	78.2800	78.2810	78.2820	78.2840	78.2850
Single Trocar-Partial Thread 25mm					78.9110					78.9114
Single Trocar-Full Thread					78.4080					78.4090
Double Diamond-Smooth	78.3000	78.3010	78.3020	78.3030	78.3040	78.1300	78.1310	78.1320	78.1340	78.1330
Single Diamond-Smooth	78.3300	78.3310	78.3320	78.3330	78.3340	78.3350	78.3360	78.3370	78.3380	78.3390

Closed position for storage.
8 3/4" x 5 1/2" x 1 1/2"

gSource K-Wires are sold separately in non-sterile packages of 6 each. They are precision ground from certified implant stainless steel and have smooth tapered points which are expertly machined for easier penetration.

See above chart for quick reference or Section 78-79 pages 1-2 in this catalog. Please inquire about the availability of any size and style not shown.

Rack folds to close for convenient storage. When opened, it converts to a table top stand for use in the operating room.

Open position as a table top stand.
Loaded

gS 98.5404 8 3/4"
anodized aluminum

gRack, K-Wire
stores 4" and 6" k-wires, 6 each (sold separately)
0.7mm to 1.6mm [.028" to .062"]

98-99/6 - containers

	K-Wires 9" - diameters					Steinmann Pins 9" - diameters						
	0.7mm [.028"]	0.9mm [.035"]	1.1mm [.045"]	1.4mm [.054"]	1.6mm [.062"]	2.0mm [5/64"]	2.4mm [3/32"]	2.8mm [7/64"]	3.2mm [1/8"]	3.5mm [9/64"]	4.0mm [5/32"]	4.5mm [.177"]
Double Trocar-Smooth	78.2105	78.2110	78.2120	78.2140	78.2130	78.5500	78.5530	78.5560	78.5590	78.5620	78.5650	78.5680
Double Trocar-Full Thread					78.4030	78.8500	78.8530	78.8560	78.8590	78.8620	78.8650	78.8680
Single Trocar-Smooth	78.2500	78.2510	78.2520	78.2540	78.2530	78.6100	78.6130	78.6160	78.6190	78.6220	78.6250	78.6280
Single Trocar-Threaded					78.9116	78.8700	78.8730	78.8760	78.8780	78.8820	78.8850	78.8880
Double Diamond-Smooth	78.3100	78.3110	78.3120	78.3140	78.3130	78.7000	78.7030	78.7060	78.7090	78.7120	78.7150	78.7180
Double Diamond-Full Thread						78.8300	78.8330	78.8360	78.8390	78.8420	78.8450	78.8480
Single Diamond-Smooth	78.3400	78.3410	78.3420	78.3440	78.3430	78.7780	78.7630	78.7660	78.7690	78.7720	78.7750	78.7782
Single Diamond-Threaded						78.8000	78.8030	78.8060	78.8090	78.8120	78.8150	78.8180

gSource K-Wires are sold separately in non-sterile packages of 6 each. They are precision ground from certified implant stainless steel and have smooth tapered points which are expertly machined for easier penetration.

See above chart for quick reference or Section 78-79 pages 1-2 in this catalog. Please inquire about the availability of any size and style not shown.

Rack folds to close for convenient storage. When opened, it converts to a table top stand for use in the operating room.

Closed position for storage.
12 1/2" x 5 1/2" x 1 1/2"

Open position as a table top stand. Loaded

gS 98.5409 12 1/2"
anodized aluminum

gRack, K-Wire and Pin
stores 9" k-wires and pins, 6 each (sold separately)
0.7mm to 4.5mm [.028" to .177"]

OAL = Overall Length
OD = Outside Diameter
SQC = Small Quick Coupling

Rack folds to close for convenient storage. When opened, it converts to a table top stand for use in the operating room.

Rack stores 1 each of the following gSource part numbers:

SQC Handle		OAL
gS 86.0040 black plastic and stainless steel		4 1/2"

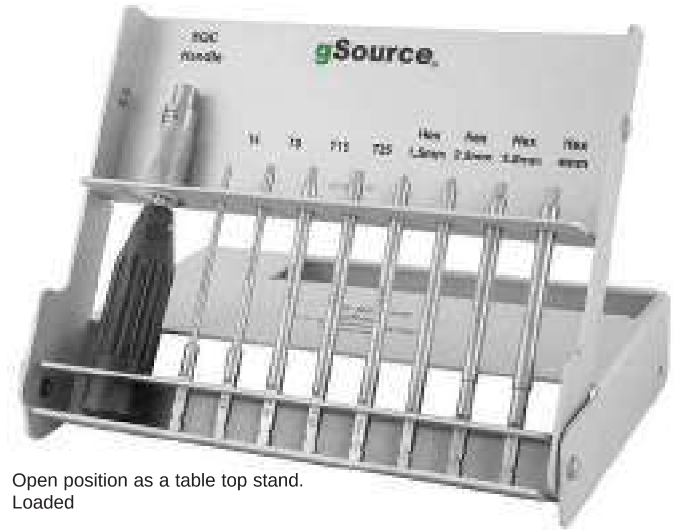
SQC Star Bits	Size	OAL
gS 86.1604	T4	3 1/2"
gS 86.1608	T8	3 1/2"
gS 86.1715	T15	3 1/2"
gS 86.1725	T25	3 1/2"

SQC Hex Bits	Size	OAL
gS 86.1915	1.5mm	3 1/2"
gS 86.1925	2.5mm	3 1/2"
gS 86.1935	3.5mm	3 1/2"
gS 86.1940	4.0mm	3 1/2"

gS 98.4050 5 3/4"
anodized aluminum

gRack, Screwdriver Bits SQC
stores 4 SQC star bits, 4 SQC hex bits, 1 SQC handle
1 each (sold separately)

Closed position for storage.
5 3/4" x 7 1/4" x 1 1/4"
Empty



Open position as a table top stand.
Loaded

Rack folds to close for convenient storage. When opened, it converts to a table top stand for use in the operating room.

Drill bit diameter and reorder numbers are marked inside rack for easy identification.

Rack stores 1 each of the following gSource part numbers:

	OD	OAL
gS 86.8211	1.1mm	60mm
gS 86.8215	1.5mm	85mm
gS 86.8220	2.0mm	100mm
gS 86.8222	2.2mm	110mm
gS 86.8226	2.5mm	110mm
gS 86.8228	2.7mm	125mm
gS 86.8235	3.5mm	110mm

gS 98.8178 7"
stainless steel

gRack, SQC Twist Drill
stores 7 SQC twist drills, 1 each (sold separately)
1.1mm to 3.5mm [.045" to .138"]

Closed position for storage.
7" x 4 1/4" x 3/4"
Empty

Open position as a table top stand.
Loaded

OAL = Overall Length
OD = Outside Diameter

Twist Drill rack folds to close for convenient storage. When opened, it converts to table top stand for use in the operating room.

Drill bit diameter and reorder numbers are marked inside rack for easy identification.

Closed position for storage.
6 3/4" x 4 1/4" x 3/4"
Empty

Open position as a table top stand.
Loaded

Rack stores the following gSource part numbers:

	OD	OAL	Max Stored
gS 86.8415	1.5mm	127mm	2
gS 86.8420	2.0mm	127mm	2
gS 86.8425	2.5mm	127mm	2
gS 86.8427	2.7mm	127mm	1
gS 86.8432	3.2mm	127mm	1
gS 86.8435	3.5mm	127mm	1
gS 86.8440	4.0mm	127mm	1
gS 86.8445	4.5mm	127mm	1
gS 86.8448	4.7mm	127mm	1
gS 86.8450	5.0mm	127mm	1

gS 98.8127 6 3/4"
stainless steel

Twist Drill Rack
stores 13 drill bits with round end
(sold separately)

Nylon coated brackets help avoid metal-to-metal contact.

Side arms stay locked to prevent curettes from falling out.

Rack stores any 12 of the following gSource part numbers:

#	cup width	straight	angled
5/0	2.2mm	**gS 51.6110**	**gS 51.6400**
4/0	2.5mm	**gS 51.6120**	**gS 51.6401**
3/0	2.8mm	**gS 51.6130**	**gS 51.6402**
2/0	3.3mm	**gS 51.6150**	**gS 51.6403**
0	3.7mm	**gS 51.6170**	**gS 51.6404**
1	4.3mm	**gS 51.6190**	**gS 51.6410**
2	4.8mm	**gS 51.6210**	**gS 51.6420**
3	5.6mm	**gS 51.6230**	**gS 51.6430**
4	6.1mm	**gS 51.6250**	**gS 51.6440**
5	6.7mm	**gS 51.6290**	**gS 51.6450**
6	8.8mm	**gS 51.6310**	**gS 51.6460**

gS 98.6020 10"
anodized aluminum, stainless steel latches

gRack, Brun Curettes
stores 12 7" Brun curettes, (sold separately)
#5/0 to #6 [2.2mm to 8.8mm]

Closed position
for storage.
10" x 8" x 2 3/4"
Empty

Open position
as a table top
stand.
Loaded

Nylon coated brackets help avoid metal-to-metal contact.

Side arms stay locked to prevent osteotomes from falling out.

Rack stores 2 each of the following tip widths:

tip width		straight	curved
1/4"	[6mm]	**gS 52.4040**	**gS 52.4280**
1/2"	[13mm]	**gS 52.4060**	**gS 52.4290**
3/4"	[19mm]	**gS 52.4100**	**gS 52.4300**
1"	[25mm]	**gS 52.4140**	**gS 52.4310**
1 1/4"	[32mm]	**gS 52.4180**	**gS 52.4320**
1 1/2"	[38mm]	**gS 52.4220**	**gS 52.4330**

gS 98.6040 12"
anodized aluminum, stainless steel latches

gRack, Lambotte Osteotomes
stores 12 9" Lambotte osteotomes (sold separately)
6mm to 38mm [1/4" to 1 1/2"]

Closed position
for storage.
12" x 6" x 3 1/2"
Empty

Open position
as a table top
stand.
Loaded

did you know… ?

Instrument care and cleaning recommendations can be found in Section 100 of this catalog or on the gSource website at www.gSource.com.

gS 98.1000 7 3/4" x 4" x 1"
[200mm] x [100mm] x [25mm]

Instrument Case, Small
with silicone mat
(instruments sold separately)

metric - metric conversions

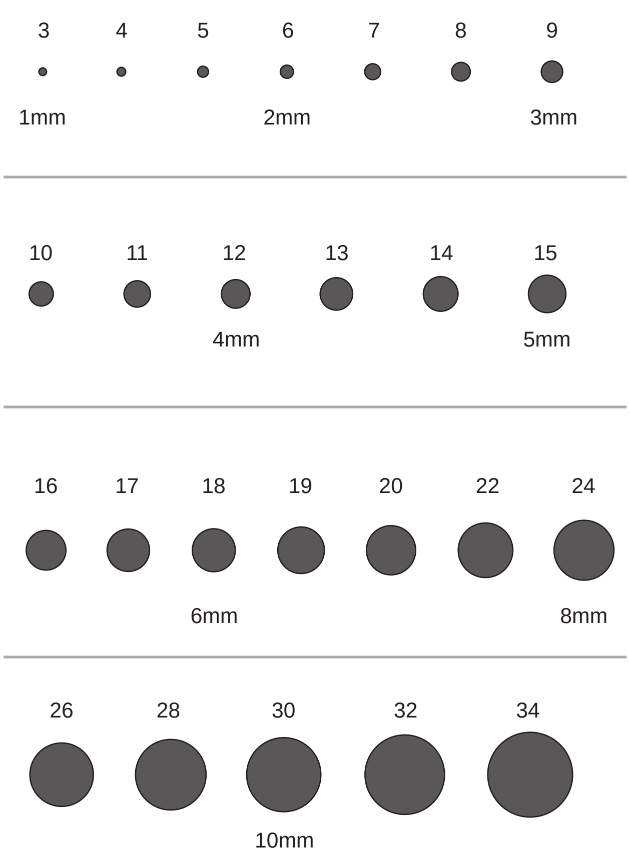
to convert	to	multiply by
millimeters (mm)	centimeters (cm)	0.1
millimeters (mm)	meters (m)	0.001
centimeters (cm)	millimeters (mm)	10
centimeters (cm)	meters (m)	0.01
meters (m)	millimeters (mm)	1,000
meters (m)	centimeters (cm)	100
grams (g)	kilograms (kg)	0.001
kilograms (kg)	grams (g)	1,000

english - metric conversions

to convert	to	multiply by
inches	millimeters (mm)	25.4
inches	centimeters (cm)	2.54
millimeters (mm)	inches	0.0394
centimeters (cm)	inches	0.394
ounces (oz)	grams (g)	28.3
pounds (lbs)	kilograms (kg)	0.454
grams (g)	ounces (oz)	0.035
kilograms (kg)	pounds (lbs)	2.20

fractions to millimeters

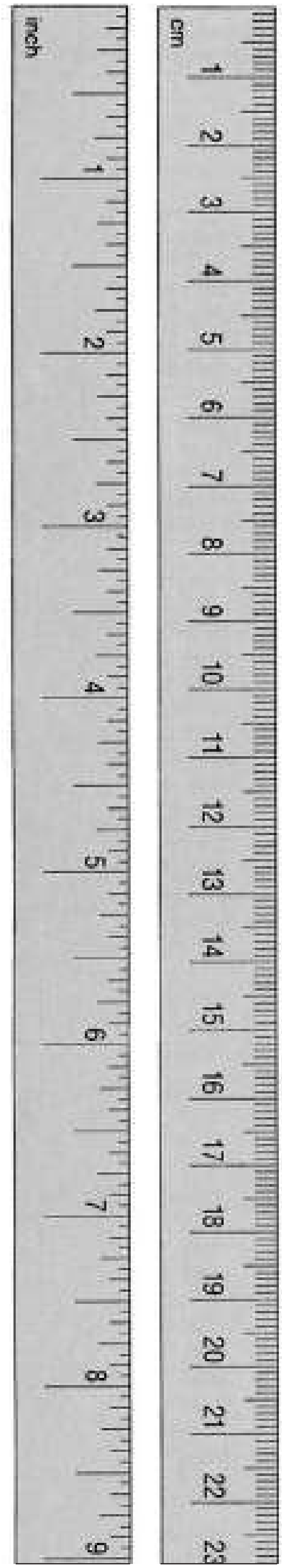
inch	millimeters
1/16	1.59
1/8	3.18
3/16	4.74
1/4	6.35
5/16	7.94
3/8	9.53
7/16	11.11
1/2	12.70
9/16	14.29
5/8	15.88
11/16	17.46
3/4	19.05
13/16	20.64
7/8	22.23
15/16	23.81
1	25.40



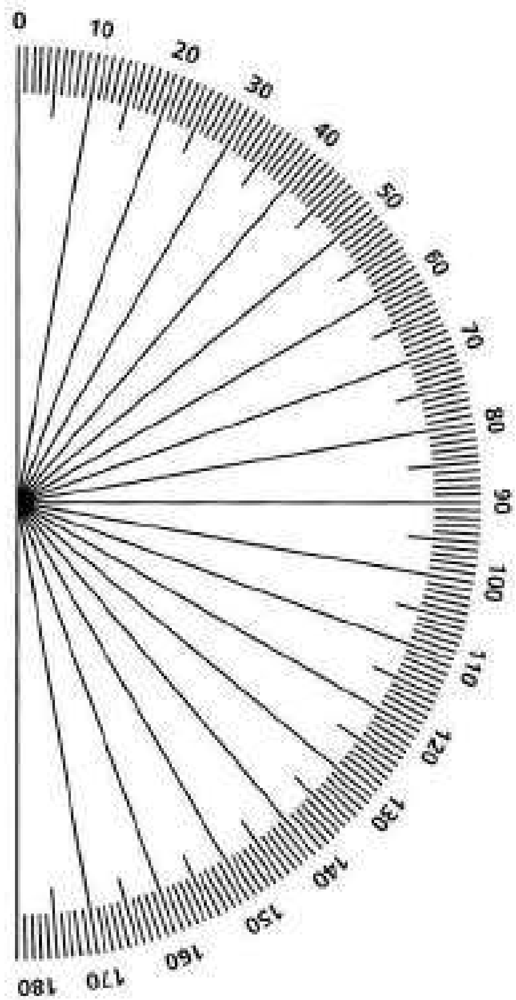
french scale fr/mm

measures outside diameter

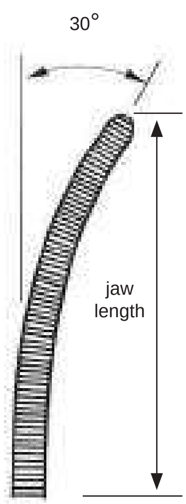
3 fr	1.0mm
4 fr	1.3mm
5 fr	1.7mm
6 fr	2.0mm
7 fr	2.3mm
8 fr	2.7mm
9 fr	3.0mm
10 fr	3.3mm
11 fr	3.7mm
12 fr	4.0mm
13 fr	4.3mm
14 fr	4.7mm
15 fr	5.0mm
16 fr	5.3mm
17 fr	5.7mm
18 fr	6.0mm
19 fr	6.3mm
20 fr	6.7mm
22 fr	7.3mm
24 fr	8.0mm
26 fr	8.7mm
28 fr	9.3mm
30 fr	10.0mm
32 fr	10.7mm
34 fr	11.3mm



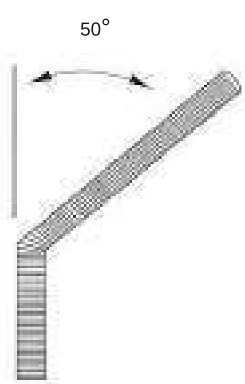
100/2 - conversion charts



Jaw curvature and jaw angles are measured in degrees. Use the angle chart to determine degree of curvature.



jaw curve



jaw angle

temperature scale

Fahrenheit (°F) to Centigrade (°C)

°F	°C
500	260
428	220
392	200
374	190
356	180
338	170
320	160
302	150
284	140
266	130
248	120
239	115
230	110
221	105
212	100
203	95
194	90
185	85
176	80
167	75
158	70
149	65
140	60
131	55
122	50
113	45
104	40
95	35
86	30
77	25
68	20
59	15
50	10
41	5
32	0
23	-5
14	-10
5	-15
0	-17
-4	-20
-13	-25
-22	-30
-40	-40

Proper care and maintenance will greatly prolong the life of your instruments.

Newly purchased instruments must be cleaned, lubricated and autoclaved before use.

Proper use

Instruments are designed for a particular purpose and should be used only for that purpose. Even the strongest instrument can be damaged when used inappropriately, such as when scissors are used to cut wire.

Water and Stainless Steel

Regular tap water contains minerals that can cause discoloration and staining. We recommend using distilled water for cleaning, disinfecting, sterilizing and rinsing. To avoid staining, use a cleaning solution with a pH near neutral (7). Instruments should be placed in distilled water immediately after use. They should never be placed in saline solution, as it may cause corrosion and eventually irreversible damage to the instrument.

Manual Cleaning

When handling instruments, be careful not to damage fine tips and mechanisms. If instruments have been exposed to blood, tissue, saline or other foreign matter, they must be rinsed in warm water before these substances are allowed to dry. Failure to do so may cause rusting. After rinsing, immerse them in a cleaning and disinfecting solution.

Because many compounds, including certain chemicals, are highly corrosive to stainless steel, rinse and dry instruments immediately if they come into contact with any potentially harmful substances.

If no ultrasonic cleaner is available, clean the instrument very carefully. Pay particular attention when cleaning box locks, serrations, hinges and other hard-to-reach areas. Use nylon (not steel) brushes and warm (not hot) cleaning solutions. Follow the manufacturer's instructions for the preparation of the cleaning solutions. Change these solutions daily.

Ultrasonic Cleaning

Ultrasonic cleaning is the most effective and efficient way to clean instruments. To maximize its effectiveness, instruments should be cleaned of all visible debris before they are placed in an ultrasonic cleaner.

When using ultrasonic cleaners:

- Do not mix dissimilar metals, e.g., chrome and stainless, in the same cycle.
- Use only designated cleaners. Open all instruments so ratchets and box locks are accessible.
- Whenever possible, disassemble instruments for optimal cleaning.
- Avoid piling instruments on top of each other.
- Remove and rinse off instruments immediately after the cycle is finished.
- Allow instruments to air-dry.
- Lubricate all moving parts after cleaning and before sterilization.
- Use only lubricants specifically designed for surgical instruments.
- Change the ultrasonic cleaning solution daily.

Instrument Checkup

The best time to review the condition of instruments is after they have been cleaned, lubricated and before sterilization. Check for:

Function

"Sharps" must cut cleanly (resharpen if needed) and close properly. Check for burrs along the cutting edges. Needle holders and clamps must engage properly and meet correctly at the tips.

Surface

Inspect surfaces for any sign of staining, cracking or other irregularities. Common sources of staining are:

- Inadequate cleaning.
- Mixing dissimilar metals.
- Impurities in the water.
- Unsuitable or improper preparation and usage of cleaning and disinfecting agents.
- Noncompliance with operating procedures of cleaning and sterilizing equipment.

Lubrication and Autoclaving

All instruments must be properly cleaned before autoclaving. Moving parts, such as box locks and hinges, should be well lubricated. Be sure to use surgical lubricants and not industrial oils.

Always sterilize instruments in the open, unlocked position.

We recommend that instruments be wrapped in cloth and then placed in the container, or that a cloth be put on the bottom of the pan to absorb moisture.

The cloth should be pH(7) neutral and free of detergent residues.

Finally, avoid sudden cooling. Instruments should be allowed to air-dry.

Cold Sterilizing or Disinfecting

Prolonged immersion in disinfecting or sterilizing solution can damage surgical instruments. Do not soak instruments for longer than 20 minutes. To render the instruments sterile and ready for use, we recommend using an autoclave.

Avoid BAC

Instruments with tungsten carbide inserts, such as wire cutters, needle holders and TC scissors, should never be immersed in sterilizing solutions containing benzyl ammonium chloride (BAC). BAC will soften and dissolve the tungsten carbide. Never use bleach as it will cause severe pitting.

Storage

Once instruments are thoroughly dry, store them in a clean, dry environment. Never put them in areas where chemicals may emit corrosive vapors or where temperature and moisture variations could cause condensation on the instruments.

Instrument Care Checklist

1. Rinse and soak soiled instruments immediately after use. Thoroughly clean before autoclaving.
2. Clean, autoclave and sterilize instruments in an open position.
3. Do not stack or entangle instruments.
4. Follow the manufacturer's recommendations when using equipment and cleaning solutions.
5. Keep instruments properly lubricated.
6. Inspect instruments regularly.
7. Have instruments repaired if needed to increase longevity and maintain proper function.
8. Use tip protectors to protect sharp or delicate working ends.

Surgical Instruments

Visually inspect the instrument surface. The surface should be clean, smooth and free from crevices, rough spots and grinding marks, as these could provide an opportunity for corrosion and also harbor bacteria. Carefully examine the tips of the instrument, blades, handles, box locks, alignment, and working end or tip.

Tungsten Carbide Instruments

Tungsten carbide inserts should not have any gaps or holes in the solder that could collect surgical debris that might lead to corrosion and pitting. The insert seam should be almost invisible.

Ratcheted Instruments

Ratchets should be beveled so there are no sharp edges. They should be smooth and clean. The ratchets should lock and unlock easily without excessive force.

Scissors

- To test the sharpness and proper alignment of scissors, cut a latex glove or rubber dam from the mid-point of the scissors blades to the distal end. The scissors should cleanly cut the latex without "chewing" it between the scissors blades.
- Hold the scissors up to the light, and while closing the scissors, confirm that the blades contact only at one point on the lead cutting edge of the scissors. This test confirms correct alignment of the blades and that a proper helix curve exists on the opposing blades (this places the control of the scissors in the surgeon's hand).
- Open the scissors. Holding onto the bottom ring of the scissors, drop the top ring. The distal tips of the blades should remain 1/2 to 1/3 open. If the blade closes completely, the scissors are too loose. If it closes less than halfway, the scissors are too tight.
- Lay the scissors flat on a table. Look from the rings toward the tip. If the left shank is higher, then the scissors are too loose. If the right shank is higher, then the scissors are too tight.

Needle Holders

- When the tips touch, the ratchet should just touch on the first tooth. If the ratchet does not touch, excessive pressure will be placed upon the jaws when grasping a suture needle. This condition could lead to metal fatigue and stress crack failure.
- Hold the needle holder up to the light. You should be able to see light through the serrations, with the jaws touching at the distal tip. When the jaws are fully closed, you should not be able to see light through the serrations.
- Close the jaws on a piece of aluminum foil. You should see an even mesh pattern with no gaps or pinholes.
- Place an appropriate size needle in the jaws of the needle holder and close on the second ratchet tooth. It should not twist, turn, or slip under pressure.

Hemostats and Clamps

- Close a standard hemostat clamp. The tips of the jaws should touch on the first ratchet tooth. In addition, the jaws should close gradually, in thirds, as the clamp is being ratcheted down.
- Clamps need more ratchet teeth than other instruments in order to allow the surgeon precise controlled occlusion. A properly adjusted clamp should have the distal tips touching when the instrument is closed to the middle ratchet.
- The instrument should have a flexible feel to it when being locked and unlocked. Hold onto the top ring handle and drop the bottom ring. The handle should not swing freely, but move with minimal effort.
- It is important to check the box lock and verify that there is no "play" in the box lock. This is especially critical on long clamps because a little movement in the box lock becomes significantly more movement at the tip of the jaw. This could lead to improper meshing of the teeth and potential tearing of delicate vessels because of the movement in the alignment of the jaws.

Spinal Punches and Rongeurs

- A properly sharpened rongeur should cut a business card cleanly or leave an even indentation. Due to the variety of business cards and the materials used in making them, the thickness may vary. When using a thick business card, a clean cut may not be achieved and an even indentation will indicate a sharp instrument.
- Intervertebral disc rongeurs should grasp a human hair firmly and cut it cleanly. The jaws should meet precisely and should always be sharpened from the inside of the jaws (not ground or filed from outside) to maintain proper cutting alignment.
- Squeeze the spinal punch handle closed. The action should be smooth with no grinding or catching. When closed, the moving shaft (slider) should touch the foot plate, not traveling too far, causing stress to the foot plate.

100/6 - inspection & measurement guidelines

- The handle should spring back quickly when released. If the handle does not spring back, check to make sure the spinal punch has been properly cleaned and lubricated.
- Hold the spinal punch up to the light in the closed position. The jaws of the instrument should meet precisely to assure proper function (no light should shine through the jaws).
- Double action rongeurs should be free of play in the shanks and jaws.

Curettes

- The cup profile should be flat across the top without nicks or gouges.
- A properly sharpened curette when scraped against a piece of plastic, should plane off “ribbons” of plastic.

Measurement Guidelines

To measure the total length of an instrument, start at the bottom of the instrument and measure to the farthest tip in a straight line. See Figure A.

For curved and angled instruments, the distance of a perpendicular line drawn from the bottom of the instrument to the farthest point will determine the overall instrument length. See Figure B.

The jaw length of a clamp is the distance of a perpendicular line drawn from the beginning of the jaw to the tip of the working end. See Figure C.

Common jaw surfaces on hemostats and clamps are shown in Figure D.

Figure A

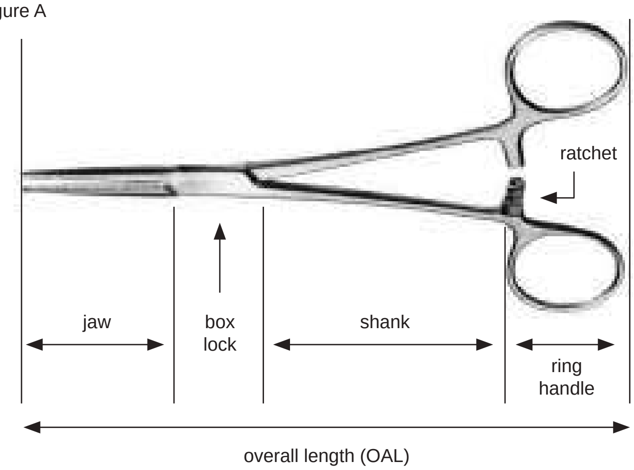


Figure B

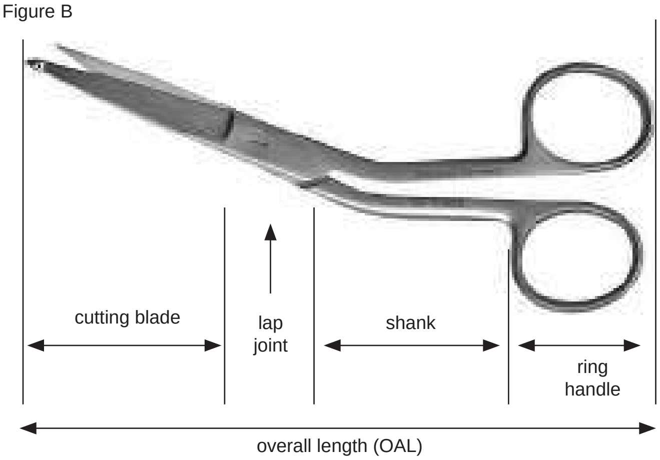


Figure C
Jaw Length

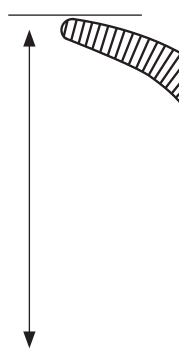
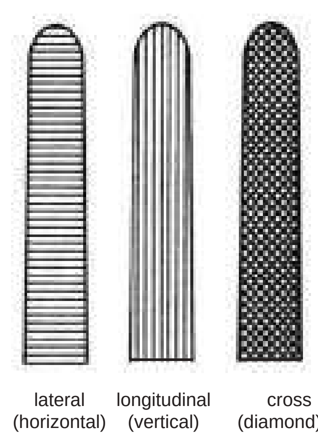


Figure D
Common Jaw Surfaces



set name	page
amputation	2
bone – graft	2
bone – holding, large	3
bone – holding, small	3
bone – large	4
bone – small	4
forefoot	5
fragment – large	8
fragment – mini	6
fragment – small	7
hand	9
hip – basic, total	10
joint – basic, total	11
joint – ortho, small	12-13
knee	14
orthopedic – major	15-16
orthopedic – minor	17-18
pelvic	19
pin removal	18
podiatry – basic	20
podiatry – nail pack	20
shoulder	21
spine – anterior lumbar	22

Amputation

part number	qty	description
gS 12.1600	2	Scalpel Handle #4 standard 5 1/4"
gS 36.3660	2	Volkmann Retractor 8 1/2" 6 prongs sharp
gS 43.3660	1	Key Elevator 8 1/2" width 1"
gS 45.4340	1	Volkmann Bone Hook 8" sharp 25mm
gS 52.4650	1	Hibbs Osteotome 9 1/2" straight 1" [25mm]
gS 62.7540	1	Putti Bone Rasp double ended 10 1/2" 18mm flat tapered to 4mm
gS 63.4740	1	Stille-Horsley Forceps 10" angled double action
gS 63.4982	1	Liston Bone Forceps 7 1/2" straight
gS 65.7130	3	Gigli Saw Blade 12" [30cm]
gS 65.7140	3	Gigli Saw Blade 20" [50cm]
gS 65.7170	2	Gigli Saw Handle 2 1/2"
gS 65.7431	1	Satterlee Bone Saw 13" with 10" blade stainless ring handle chrome
gS 65.8120	1	Liston Amputation Knife 6 3/4" blade
gS 66.5580	1	Stille-Luer Rongeur 8 1/2" straight 10mm double action
gS 75.3280	1	Yankauer Suction Tube 11" double angled stainless
gS 75.9340	1	Baron Suction Tube 5 1/2" 5 french 30 degrees working length 75mm

Bone – Graft

part number	qty	description
gS 36.5580	2	Taylor Spinal Retractor 7 1/2" x 3" pointed
gS 40.1010	1	Caspar Distractor Right body 2 1/2" spread
gS 40.1012	1	Caspar Distractor Right body 3 1/4" spread long bar
gS 40.1016	1	Caspar Distractor Right Drill Guide
gS 40.1020	1	Caspar Distractor Left body 2 1/2" spread
gS 40.1022	1	Caspar Distractor Left body 3 1/4" spread long bar
gS 40.1026	1	Caspar Distractor Left Drill Guide
gS 40.1030	1	Caspar Bone Graft Holder and Impactor 8 1/4"
gS 40.1035	1	Screwdriver 8" for Distraction Screws
gS 40.1040	1	Twist Drill 5 3/4" for 1.7mm distraction screws 8mm depth
gS 40.1052	1	Distraction Screws 12mm
gS 40.1054	1	Distraction Screws 14mm
gS 40.1056	1	Distraction Screws 16mm
gS 40.1058	1	Distraction Screws 18mm
gS 43.4220	2	Cushing Elevator 7 1/2" curved 15mm sharp
gS 43.4400	2	Cobb Elevator 9 1/2" hex handle 1/2"
gS 46.2300	2	Lewin Bone Forceps 7"
gS 52.4040	1	Lambotte Osteotome 9" straight 1/4"
gS 52.4060	1	Lambotte Osteotome 9" straight 1/2"
gS 52.4100	1	Lambotte Osteotome 9" straight 3/4"
gS 52.4140	1	Lambotte Osteotome 9" straight 1"
gS 52.4220	1	Lambotte Osteotome 9" straight 1 1/2"
gS 52.4280	1	Lambotte Osteotome 9" curved 1/4"
gS 52.4290	2	Lambotte Osteotome 9" curved 1/2"
gS 52.4300	1	Lambotte Osteotome 9" curved 3/4"
gS 56.4870	2	Hibbs Gouge 9" straight 1/4"
gS 56.5020	2	Hibbs Gouge 9" curved 1/4"
gS 60.9990	1	Bone Tamp 6 1/2" 10mm cross-serrated end

Bone – Holding, Small

part number	qty	description
gS 46.1620	2	Kern Bone Forceps 5 1/2" with ratchet
gS 46.1640	2	Kern Bone Forceps 9 1/2" with ratchet
gS 46.1900	1	Verbrugge Forceps 6" self-centering speedlock
gS 46.1920	1	Verbrugge Forceps 7 1/2" self-centering
gS 46.2210	1	Verbrugge Forceps 7" with ratchet
gS 46.2280	1	Bone Reduction Forceps 6" small curved
gS 46.2300	2	Lewin Bone Forceps 7"
gS 46.2340	1	Bone Reduction Forceps 8" long ratchet
gS 46.2407	1	Bone Holding Forceps 7" with speedlock
gS 46.2520	2	Lowman Bone Clamp 5" 1x2
gS 46.2540	2	Lowman Bone Clamp 7 1/4" 1x2
gS 46.4000	1	Bone Reduction Forceps 5"

Bone – Holding, Large

part number	qty	description
gS 46.1815	2	Lane Bone Forceps 13" light with ratchet
gS 46.1940	1	Verbrugge Forceps 9 1/2" self-centering
gS 46.1960	1	Verbrugge Forceps 10" self-centering
gS 46.1980	1	Verbrugge Forceps 11" self-centering
gS 46.2120	1	Ulrich Bone Forceps straight 9 1/2"
gS 46.2220	1	Verbrugge Forceps 10" with ratchet
gS 46.2240	1	Verbrugge Forceps 10 1/2" with long ratchet
gS 46.2260	1	Verbrugge Forceps 11" with long ratchet
gS 46.2300	2	Lewin Bone Forceps 7"
gS 46.2409	1	Bone Holding Forceps 9" with speedlock
gS 46.2560	2	Lowman Bone Clamp 8" 1x2
gS 46.4685	2	Lambert-Lowman Bone Clamp 8" 2x2 jaws 2 1/2" cap

Bone – Small

part number	qty	description
gS 36.9300	2	Hohmann Retractor Mini 6 1/2" 6mm
gS 36.9320	2	Hohmann Retractor Mini 6 1/2" 8mm
gS 36.9365	2	Hohmann Retractor 8 1/2" x 8mm rounded end 2 holes
gS 36.9382	2	Hohmann Retractor 9 1/2" x 18mm round end 2 holes
gS 43.3060	1	Periosteal Elevator 7 1/4" curved 3mm straight sharp edge phenolic handle
gS 43.3070	1	Periosteal Elevator 7 1/4" curved 6mm straight sharp edge phenolic handle
gS 45.4420	1	Bone Hook 9" small 10mm sharp
gS 46.1900	1	Verbrugge Forceps 6" self-centering speedlock
gS 46.1920	1	Verbrugge Forceps 7 1/2" self-centering speedlock
gS 46.2280	1	Bone Reduction Forceps 6" small curved
gS 63.5100	1	Liston Bone Forceps 5 1/2" angled
gS 66.6256	1	Ruskin Rongeur 6" curved 3mm double action
gS 66.6270	1	Ruskin Rongeur 7 1/2" curved 4mm double action
gS 74.7920	1	Ruler Flexible 6" inch/mm graduations

Bone – Large

part number	qty	description
gS 36.9365	2	Hohmann Retractor 8 1/2" x 8mm rounded end 2 holes
gS 36.9382	2	Hohmann Retractor 9 1/2" x 18mm round end 2 holes
gS 36.9482	2	Hohmann Retractor 10 1/2" x 22mm rounded end 3 holes
gS 36.9505	2	Hohmann Retractor 10 1/2" x 70mm round end 2 holes
gS 36.9800	1	Bennett Retractor 10" x 1 3/4"
gS 36.9840	1	Bennett Retractor 10" x 2 1/2"
gS 36.9920	2	Murphy Bone Skid 12"
gS 37.3040	2	Blount Retractor 10 1/2" 2 prongs 44mm
gS 43.3120	1	Periosteal Elevator 7 1/4" curved 6mm sharp edge phenolic handle
gS 43.3140	1	Periosteal Elevator 7 1/4" angled 14mm curved sharp edge phenolic handle
gS 43.3150	1	Periosteal Elevator 7 1/4" straight 13mm straight sharp edge phenolic handle
gS 45.4430	1	Bone Hook 9" medium 19mm sharp
gS 45.4440	1	Bone Hook 9" large 25mm sharp
gS 46.1940	1	Verbrugge Forceps 9 1/2" self-centering
gS 46.1960	1	Verbrugge Forceps 10" self-centering
gS 46.1980	1	Verbrugge Forceps 11" self-centering
gS 46.2407	1	Bone Holding Forceps 7" with speedlock
gS 46.2409	1	Bone Holding Forceps 9" with speedlock
gS 52.0101	1	Interchangeable Key 3 1/4" 3.0mm hex
gS 52.0105	1	Interchangeable Chisel Blade 5mm straight
gS 52.0106	1	Interchangeable Chisel Blade 10mm straight
gS 52.0107	1	Interchangeable Chisel Blade 16mm straight
gS 52.0108	1	Interchangeable Chisel Blade 25mm straight
gS 52.0110	1	Interchangeable Osteotome Blade 5mm straight
gS 52.0111	1	Interchangeable Osteotome Blade 10mm straight
gS 52.0112	1	Interchangeable Osteotome Blade 16mm straight
gS 52.0113	1	Interchangeable Osteotome Blade 25mm straight
gS 52.0160	1	Interchangeable Gouge Blade 60mm radius
gS 63.4660	1	Stille-Liston Forceps 11" straight double action
gS 63.6380	1	Ruskin Liston Forceps 7 1/2" straight double action
gS 66.5580	1	Stille-Luer Rongeur 8 1/2" straight 10mm double action
gS 66.6200	1	Beyer Rongeur 7" curved 3mm double action
gS 66.6270	1	Ruskin Rongeur 7 1/2" curved 4mm double action
gS 74.7940	1	Ruler Flexible 8" inch/mm graduations

Forefoot

part number	qty	description
gS 12.1580	3	Scalpel Handle #3 standard 5"
gS 13.3580	1	Mayo Scissors 5 1/2" curved beveled
gS 13.4023	1	Operating Scissors 5 1/2" straight blunt/blunt
gS 13.5620	1	Metzenbaum Scissors 5 3/4" curved
gS 17.1630	1	Adson Forceps 4 3/4" serrated 1x2 teeth 1.3mm
gS 17.1929	2	Adson Brown Forceps 4 3/4" 9x9 teeth
gS 17.2120	2	Allis Tissue Forceps 6" 4x5 teeth
gS 17.5060	1	Kocher Forceps 5 1/2" straight serrated 1x2 teeth
gS 19.1600	1	Adson Dressing Forceps 4 3/4" serrated delicate
gS 20.4660	1	Foerster Forceps 7" straight serrated
gS 20.5620	4	Backhaus Towel Forceps 5 1/4"
gS 21.2700	1	Crile-Wood Needle Holder 6" serrated
gS 21.3780	1	Mayo Hegar Needle Holder 7" serrated
gS 22.2560	4	Mosquito Forceps 5" straight (Halsted)
gS 22.2580	8	Mosquito Forceps 5" curved (Halsted)
gS 22.2660	1	Kelly Forceps 5 1/2" straight
gS 22.2680	1	Kelly Forceps 5 1/2" curved
gS 22.2760	1	Crile Forceps 5 1/2" straight
gS 22.2780	1	Crile Forceps 5 1/2" curved
gS 25.1880	2	Joseph Hook 6 1/4" 1 prong sharp
gS 25.1920	2	Joseph Hook 6 1/4" 2 prongs sharp 5mm
gS 34.1845	2	Senn Retractor 6 1/4" 3 prongs sharp
gS 34.1940	2	Ragnell Retractor 5 3/4" double ended
gS 36.9320	2	Hohmann Retractor Mini 6 1/2" 8mm
gS 38.5170	1	Self Retaining Retractor 4" sharp
gS 38.5300	2	Schink Retractor 4 1/2"
gS 38.5920	1	Weitlaner Retractor 4 1/2" sharp 2x3
gS 42.1760	1	Sayre Elevator 6 1/2" 5mm/9mm blunt/blunt
gS 42.7140	1	Freer Elevator 7 1/2" double ended 5mm sharp/blunt
gS 43.3580	1	Key Elevator 7" width 1/4"
gS 43.3620	1	Key Elevator 7 1/2" width 1/2"
gS 46.8870	1	Locke Phalangeal Forceps 6"
gS 52.0400	1	Long Bevel Osteotome 7" straight 10mm calibrated
gS 52.0460	1	Long Bevel Osteotome 7" straight 20mm calibrated
gS 52.0500	1	Long Bevel Osteotome 7" straight 25mm calibrated
gS 52.0700	1	Long Bevel Osteotome 7" curved 5mm calibrated
gS 52.0750	1	Long Bevel Osteotome 7" curved 10mm calibrated
gS 59.7600	1	Lucae Mallet 8" 8oz [227g] head s/s convex/flat Ø 25mm s/s handle
gS 61.6380	1	Nail Rasp #93 double ended 6 3/4" 2mm angled up/down
gS 61.6440	1	Bone File #12A double ended 7" 5mm straight plain/cross serrations
gS 61.6477	1	Bone Rasp double ended 8 1/2" 13mm straight fine/coarse serrations
gS 62.1710	1	Joseph Rasp 6 1/4" 8mm straight fine cross serrations
gS 63.6570	1	Ruskin Liston Forceps 6" straight double action
gS 65.3380	1	Plug Cutter 4 1/2" with obturator 3mm/5mm
gS 66.3660	1	Blumenthal Rongeur 6" 30 degrees 3mm single action
gS 66.6200	1	Beyer Rongeur 7" curved 3mm double action
gS 74.7980	1	Ruler Flexible 12" inch/mm graduations
gS 81.6720	1	Wire Extraction Pliers 7" double action 2mm TC
gS 82.0100	1	Vickers Manual K-Wire Driver 5 1/2"
gS 83.2980	1	Wire Cutting Scissors 4 3/4" angled with notch
gS 83.7310	1	Flush Front & Side Wire Cutter double action 7" TC max cap 1.6mm [.062"]
gS 98.5210	1	Four Chambered K-Wire Dispenser for 4" wires 0.9-1.6mm diameter
gS 99.0100	1	Steel brush with Plastic handle

Fragment – Mini

part number	qty	description
gS 11.9500	1	Sharp Hook 6"
gS 36.9300	1	Hohmann Retractor Mini 6 1/2" 6mm
gS 36.9320	1	Hohmann Retractor Mini 6 1/2" 8mm
gS 43.3060	1	Periosteal Elevator 7 1/4" curved 3mm straight sharp edge phenolic handle
gS 46.2190	1	Stagbeetle Forceps 4 3/4"
gS 46.2330	1	Bone Reduction Forceps 5" curved 10mm serrated with pointed tips
gS 46.2350	1	Bone Reduction Forceps 5" curved 15mm serrated with pointed tips
gS 81.3214	1	Needle Nose Pliers 5 1/4" delicate with guide
gS 82.0172	1	Mini Bending Iron 4 3/4" for 1.5mm/2.0mm plates
gS 82.0174	1	Small Bending Iron 5 1/2" for 2.7mm/3.5mm plates
gS 82.0176	1	Small Bending Iron 5 1/2" for 3.5mm/2.7mm plates
gS 82.0980	2	Plate Bending Pliers 5 1/2" max 2.0mm plates
gS 83.7230	1	Wire Cutter double action 7" angled TC max cap 1.6mm [.062"]
gS 83.9000	1	Plate/Pin Cutter double action 9 1/2", max cap 3.2mm [.126"]
gS 86.0035	1	Handle 4 1/4" MQC (mini quick coupling)
gS 86.0040	1	Handle 4 1/2" SQC (small quick coupling)
gS 86.1004	1	Countersink 2 1/4" 1.5/2.0mm MQC (mini quick coupling) 1.1mm tip
gS 86.1006	1	Countersink 2 3/4" 2.7/3.5/4.0mm SQC (small quick coupling) 2.0mm tip
gS 86.1200	2	Tap 2" 1.5mm MQC (mini quick coupling) 0.5mm pitch
gS 86.1202	2	Tap 2 1/4" 2.0mm MQC (mini quick coupling) 0.6mm pitch
gS 86.1204	2	Tap 4" 2.7mm SQC (small quick coupling) 1.0mm pitch
gS 86.1502	1	Screwdriver Bit hex 2" 1.5mm MQC (mini quick coupling)
gS 86.1506	1	Screwdriver Bit hex 4" 2.5mm SQC (small quick coupling)
gS 86.2405	1	Depth Gauge 4 3/4" 30mm
gS 86.2410	1	Depth Gauge 6 1/2" 50mm
gS 86.2500	1	Drill Sleeve Double 4 3/4" 1.1/1.5mm
gS 86.2502	1	Drill Sleeve Double 4 3/4" 2.0/1.5mm
gS 86.2503	1	Drill Sleeve Double 5" 2.7/2.0mm
gS 86.4371	1	Holding Sleeve 1 1/2" for mini cruciform and hex shafts
gS 86.4373	1	Holding Sleeve 2" Split for small hex driver
gS 86.4490	1	Screwdriver 8 1/2" hex 2.5mm with notch black plastic handle
gS 86.6108	1	Screw Holding Forceps 3 1/2" for 1.5mm - 2.7mm
gS 86.8211	2	Drill Bit SQC (small quick coupling) 1.1mm 60/13mm
gS 86.8215	2	Drill Bit SQC (small quick coupling) 1.5mm 85/18mm
gS 86.8220	2	Drill Bit SQC (small quick coupling) 2.0mm 100/22mm
gS 86.8227	2	Drill Bit SQC (small quick coupling) 2.7mm 100/29mm

optional

gS 36.9270	1	Hohmann Retractor 6" 15mm
gS 43.3120	1	Periosteal Elevator 7 1/4" curved 6mm sharp edge phenolic handle
gS 46.2370	1	Bone Reduction Forceps 5" curved stepped pointed
gS 46.2390	1	Plate and Bone Holding Forceps 5" with footplate
gS 46.2395	1	Plate Holding Forceps 5 1/2" curved
gS 82.2016	1	Gratloch Wire Bender 7 1/2" max cap 1.6mm [.062"]
gS 86.1504	1	Screwdriver Bit cruciform 2 1/2" MQC (mini quick coupling)

Instruments for mini fragment fixation
1.5mm, 2.0mm and 2.7mm screws

Fragment – Small

part number	qty	description
gS 11.9500	1	Sharp Hook 6"
gS 36.9270	2	Hohmann Retractor 6" 15mm
gS 36.9320	2	Hohmann Retractor Mini 6 1/2" 8mm
gS 43.3120	1	Periosteal Elevator 7 1/4" curved 6mm sharp edge phenolic handle
gS 46.1920	1	Verbrugge Forceps 7 1/2" [19cm] self-centering
gS 46.2280	1	Bone Reduction Forceps 6" small curved
gS 46.2330	1	Bone Reduction Forceps 5" curved 10mm serrated with pointed tips
gS 46.2350	1	Bone Reduction Forceps 5" curved 15mm serrated with pointed tips
gS 81.3214	1	Needle Nose Pliers 5 1/4" delicate with guide
gS 82.0174	1	Small Bending Iron 5 1/2" for 2.7mm/3.5mm plates
gS 82.0176	1	Small Bending Iron 5 1/2" for 3.5mm/2.7mm plates
gS 82.0182	2	Bending Iron 7 3/4" for 3.5mm/4.5mm plates
gS 82.4760	1	Wire and Pin Bender 6" max cap 3.2mm [.126"]
gS 86.0045	1	T-Handle 3 1/2" for small/large screw sets SQC (small quick coupling)
gS 86.1002	1	Adaptor 2 1/2" for power drill SQC (small quick coupling)
gS 86.1006	1	Countersink 2 3/4" 2.7/3.5/4.0mm SQC (small quick coupling) 2.0mm tip
gS 86.1206	2	Tap 4 1/4" 3.5mm SQC (small quick coupling) 1.25mm pitch TiN coated
gS 86.1208	2	Tap 4 1/4" 3.5mm SQC (small quick coupling) 1.75mm pitch
gS 86.1510	1	Screwdriver Bit hex 5 1/2" 2.5mm SQC (small quick coupling) with notch
gS 86.2410	1	Depth Gauge 50mm
gS 86.2504	1	Drill Sleeve Double 5" 2.5/3.5mm
gS 86.2507	1	Drill Guide/Sleeve 4 1/2" Parallel 3:1 2.7mm screw/2.0mm drill bit
gS 86.2510	1	Insert Drill Sleeve 1 1/2" 3.5mm screw/2.5mm drill bit
gS 86.2584	1	Drill Guide 6" Neutral/Load 3.5mm screw/2.5mm drill bit
gS 86.2735	1	Universal Drill Guide 5 1/2" 3.5mm screw/2.5mm drill bit
gS 86.4375	1	Holding Sleeve 3" for small hex driver
gS 86.4490	1	Screwdriver 8 1/2" hex 2.5mm with notch black plastic handle
gS 86.6110	1	Screw Holding Forceps 3 1/2" for 3.5mm - 6.5mm
gS 86.8226	2	Drill Bit SQC (small quick coupling) 2.5mm 110/32mm
gS 86.8235	2	Drill Bit SQC (small quick coupling) 3.5mm 110/42mm

optional

gS 36.9300	1	Hohmann Retractor Mini 6 1/2" 6mm
gS 46.1900	1	Verbrugge Forceps 6" [15cm] self-centering speedlock
gS 46.2370	1	Bone Reduction Forceps 5" curved stepped pointed
gS 82.0315	1	Plate Bending Pliers 8 1/2" for 1.6mm plates
gS 82.2016	1	Gratloch Wire Bender 7 1/2" max cap 1.6mm [.062"]
gS 83.7240	1	Wire Cutter double action 9" angled TC max cap 2.4mm [.079"]
gS 83.7320	1	Pin Cutter double action 10" end cut max cap 3.0mm [.118"]
gS 86.0040	1	Handle 4 1/2" SQC (small quick coupling)
gS 86.1506	1	Screwdriver Bit hex 4" 2.5mm SQC (small quick coupling)
gS 86.4373	1	Holding Sleeve 2" Split for small hex driver

Instruments for small fragment fixation
3.5mm and 4.0mm screws

Fragment – Large

part number	qty	description
gS 11.9500	1	Sharp Hook 6"
gS 46.1940	1	Verbrugge Forceps 9 1/2" [24cm] self-centering
gS 46.1980	1	Verbrugge Forceps 11" [28cm] self-centering
gS 46.2340	1	Bone Reduction Forceps 8" long ratchet
gS 46.2409	2	Bone Holding Forceps 9" with speedlock
gS 86.0045	1	T-Handle 3 1/2" for small/large screw sets SQC (small quick coupling)
gS 86.1020	1	Countersink 7" 4.5/6.5mm T-handle 4.3mm tip
gS 86.1212	3	Tap 5" 4.5mm SQC (small quick coupling) 2.0mm pitch
gS 86.1220	1	Tap 8" 6.5mm SQC (small quick coupling) calibrated mm 2.7mm pitch
gS 86.1521	1	Screwdriver Bit hex 6 1/2" 3.5mm SQC (small quick coupling)
gS 86.2420	1	Depth Gauge 11 1/2" 120mm
gS 86.2505	1	Drill Sleeve Double 7" 4.5/3.2mm
gS 86.2506	1	Drill Sleeve Double 6 1/2" 6.5/3.2mm
gS 86.2515	1	Insert Drill Sleeve 3 1/8" 4.5mm screw/3.2mm drill bit
gS 86.2586	1	Drill Guide 6 1/2" Neutral/Load 4.5mm screw/3.2mm drill bit
gS 86.2745	1	Universal Drill Guide 7" 4.5mm screw/3.2mm drill bit
gS 86.4380	1	Holding Sleeve 5" for large hex driver
gS 86.4590	1	Screwdriver 10" hex 3.5mm with notch black plastic handle
gS 86.6110	1	Screw Holding Forceps 3 1/2" for 3.5mm - 6.5mm
gS 86.7220	1	Tension Device 3 1/2" span 20mm articulated
gS 86.8220	2	Drill Bit SQC (small quick coupling) 2.0mm 100/22mm
gS 86.8232	3	Drill Bit SQC (small quick coupling) 3.2mm 145/48mm
gS 86.8245	2	Drill Bit SQC (small quick coupling) 4.5mm 145/50mm
gS 87.0012	1	Combination Wrench 5 1/2" 11mm
gS 87.0014	1	Socket Wrench 7" 11mm stainless

optional

gS 46.1960	1	Verbrugge Forceps 10" [26cm] self-centering
gS 46.2370	1	Bone Reduction Forceps 5" curved stepped pointed
gS 46.2407	1	Bone Holding Forceps 7" with speedlock
gS 86.1519	1	Screwdriver Bit hex 4" 3.5mm SQC (small quick coupling)
gS 86.2415	1	Depth Gauge 9 1/2" 100mm

Instruments for large fragment fixation
4.5mm and 6.5mm screws

Hand

part number	qty	description
gS 11.1900	1	Lead Hand Adult 14" with tabs
gS 11.1920	1	Lead Hand Child 10" with tabs
gS 12.1580	2	Scalpel Handle #3 standard 5"
gS 13.3975	1	Mayo Scissors 6 3/4" straight TC
gS 15.9299	1	Utility Scissors 5 1/2" black plastic handle
gS 16.4820	1	Super-Cut Metzenbaum Scissors 5 1/2" curved
gS 16.4940	1	Super-Cut Metzenbaum Scissors 7" curved
gS 16.5440	1	Super-Cut Iris Scissors 4 1/2" straight
gS 16.5600	1	Super-Cut Iris Scissors 4 1/2" curved
gS 17.1640	1	Adson Forceps 4 3/4" 1x2 teeth delicate 0.9mm
gS 17.1929	1	Adson Brown Forceps 4 3/4" 9x9 teeth
gS 17.2050	2	Allis Tissue Forceps 4 3/4" 4x5 teeth
gS 17.3760	1	Tissue Forceps 6" 1x2 teeth
gS 17.5060	2	Kocher Forceps 5 1/2" straight serrated 1x2 teeth
gS 19.1620	1	Adson Dressing Forceps 4 3/4" serrated standard
gS 20.4860	2	Foerster Forceps 9 1/2" straight serrated
gS 20.5580	4	Backhaus Towel Forceps 3 1/2"
gS 21.1670	2	Halsey Needle Holder 5" serrated TC
gS 21.2740	1	Crile-Wood Needle Holder 6" serrated TC
gS 22.1812	2	Petit-Point Jacobson Mosquito Forceps 5" straight
gS 22.1813	2	Petit-Point Jacobson Mosquito Forceps 5" curved
gS 22.2560	2	Mosquito Forceps 5" straight (Halsted)
gS 22.2580	2	Mosquito Forceps 5" curved (Halsted)
gS 22.4180	2	Rochester Pean Forceps 16cm [6 1/4"] curved
gS 22.6560	1	Mixter Baby Forceps 7" curved part serrated
gS 22.6570	1	Mixter Forceps Petit-Point 5 1/4" full curved serrated
gS 25.1880	2	Joseph Hook 6 1/4" 1 prong sharp
gS 25.1920	2	Joseph Hook 6 1/4" 2 prongs sharp 5mm
gS 27.5290	1	Iris Forceps 4" straight 1x2
gS 34.1845	2	Senn Retractor 6 1/4" 3 prongs sharp
gS 34.2240	2	Meyerding Finger Retractor 7" #4
gS 36.9300	2	Hohmann Retractor Mini 6 1/2" 6mm
gS 38.5940	1	Weitlaner Retractor 4 1/2" blunt 2x3
gS 38.8760	1	Gelpi Retractor 3 1/2" sharp
gS 43.3010	1	Joseph Raspatory 6 3/4" slight curved 3mm sharp
gS 49.8400	1	Carroll Tendon Pulling Forceps 4 1/2" curved
gS 52.4355	1	Mini Lambotte Osteotome 5" straight 2mm
gS 52.4360	1	Mini Lambotte Osteotome 5" straight 4mm
gS 52.4380	1	Mini Lambotte Osteotome 5" straight 6mm
gS 52.4400	1	Mini Lambotte Osteotome 5" straight 8mm
gS 52.4420	1	Mini Lambotte Osteotome 5" straight 10mm
gS 52.4430	1	Mini Lambotte Osteotome 5" straight 14mm
gS 52.4440	1	Mini Lambotte Osteotome 5" straight 12mm
gS 59.7620	1	Nylon Mallet 7 1/2" 7oz [198g] head s/s Ø 25mm aluminum handle
gS 62.1500	1	Aufricht Rasp 8" 9mm curved upcutting serrations
gS 63.6570	1	Ruskin Liston Forceps 6" straight double action
gS 66.6600	1	Kleinert-Kutz Rongeur 6" slight curved 2mm double action
gS 74.1000	1	Castroviejo Caliper 3 1/2" straight 0-20mm
gS 74.7920	1	Ruler Flexible 6" inch/mm graduations
gS 75.9250	1	Frazier Suction Tube 7" 8 french 30 degrees 85mm working length
gS 83.7510	1	Diamond Pin Cutter 6 1/2" max cap 2.0mm [.079"]
gS 98.2108	1	Instrument Stringer with lock 8" x 2 1/2"

Hip – Basic, Total

part number	qty	description
gS 12.1600	2	Scalpel Handle #4 standard 5 1/4"
gS 12.1620	1	Scalpel Handle #7 length 6 1/2"
gS 16.3920	2	Super-Cut Mayo Scissors 6 3/4" straight
gS 16.3980	1	Super-Cut Mayo Scissors 6 3/4" curved
gS 16.4220	1	Super-Cut Mayo Scissors 9" curved
gS 16.4940	1	Super-Cut Metzenbaum Scissors 7" curved
gS 16.5020	1	Super-Cut Metzenbaum Scissors 8" curved
gS 17.1640	2	Adson Forceps 4 3/4" 1x2 teeth delicate 0.9mm
gS 17.2240	2	Allis Tissue Forceps 7 1/2" 5x6 teeth
gS 17.2960	2	Russian Tissue Forceps 8"
gS 17.3720	2	Tissue Forceps 5 1/2" 1x2 teeth
gS 17.4040	2	Tissue Forceps 5 1/2" 3x4 teeth
gS 17.5360	2	Rochester Ochsner Forceps 20cm [8"] straight 1x2
gS 20.4860	2	Foerster Forceps 9 1/2" straight serrated
gS 20.5580	6	Backhaus Towel Forceps 3 1/2"
gS 20.5620	2	Backhaus Towel Forceps 5 1/4"
gS 21.2750	2	Crile-Wood Needle Holder 7" serrated TC
gS 21.4140	2	Mayo Hegar Needle Holder 8" serrated TC
gS 22.2560	6	Mosquito Forceps 5" straight (Halsted)
gS 22.2880	6	Rankin-Crile Forceps 6 1/4" curved
gS 22.4380	2	Rochester Pean Forceps 20cm [8"] curved
gS 22.8460	4	Adson Forceps 7 1/4" curved
gS 36.1600	2	Hibbs Retractor 9 1/2" 1" x 3" sharp
gS 36.3120	1	Richardson Eastman Retractor 9 1/2" small
gS 36.3640	2	Volkmann Retractor 8 1/2" 4 prongs sharp
gS 36.3660	2	Volkmann Retractor 8 1/2" 6 prongs sharp
gS 36.9370	1	Hohmann Retractor 9 1/2" x 10mm rounded end 2 holes
gS 36.9482	1	Hohmann Retractor 10 1/2" x 22mm rounded end 3 holes
gS 36.9505	1	Hohmann Retr 10 1/2" x 70mm round end 2 holes
gS 38.6020	2	Weitlaner Retractor 6 1/2" sharp 3x4
gS 38.8800	1	Gelpi Retractor 5 1/2" sharp
gS 45.4430	1	Bone Hook 9" medium 19mm sharp
gS 45.4440	1	Bone Hook 9" large 25mm sharp
gS 52.4590	1	Hibbs Osteotome 9 1/2" straight 1/4" [6mm]
gS 52.4600	1	Hibbs Osteotome 9 1/2" straight 3/8" [10mm]
gS 52.4610	1	Hibbs Osteotome 9 1/2" straight 1/2" [13mm]
gS 59.7660	1	Ortho Mallet 11" 2lb 2oz [964g] head s/s Ø 35mm s/s handle
gS 62.7520	1	Putti Bone Rasp double ended 12" round tapered
gS 66.5600	1	Stille-Luer Rongeur 8 1/2" curved 10mm double action
gS 66.5720	1	Stille-Luer Rongeur 9" angular 6mm double action
gS 66.6200	1	Beyer Rongeur 7" curved 3mm double action
gS 74.7940	1	Ruler Flexible 8" inch/mm graduations
gS 75.3280	3	Yankauer Suction Tube 11" double angled stainless

Joint – Basic, Total

part number	qty	description
gS 12.1590	2	Scalpel Handle #3S mm/cm scale 5"
gS 12.1610	1	Scalpel Handle #3L long 8"
gS 13.3975	2	Mayo Scissors 6 3/4" straight TC
gS 13.3976	1	Mayo Scissors 6 3/4" curved TC
gS 13.7439	1	Metzenbaum Scissors 7" curved TC
gS 15.8040	1	Lister Bandage Scissors 7 1/4"
gS 17.1630	2	Adson Forceps 4 3/4" serrated 1x2 teeth 1.3mm
gS 17.1929	2	Adson Brown Forceps 4 3/4" 9x9 teeth
gS 17.2070	2	Allis Tissue Forceps 5 1/2" 4x5 teeth
gS 17.4302	2	Bonney Tissue Forceps 6 3/4" serrated 1x2 teeth
gS 17.5360	4	Rochester Ochsner Forceps 20cm [8"] straight 1x2
gS 19.1620	2	Adson Dressing Forceps 4 3/4" serrated standard
gS 20.4860	2	Foerster Forceps 9 1/2" straight serrated
gS 20.5620	12	Backhaus Towel Forceps 5 1/4"
gS 21.4140	4	Mayo Hegar Needle Holder 8" serrated TC
gS 22.2693	6	Coller Forceps 6 1/4" curved delicate
gS 22.2714	2	Gemini Forceps curved 9"
gS 22.4180	4	Rochester Pean Forceps 16cm [6 1/4"] curved
gS 22.4380	4	Rochester Pean Forceps 20cm [8"] curved
gS 36.3000	2	Richardson Retractor 9 1/2" 3/4" x 1" grip handle
gS 36.3660	2	Volkmann Retractor 8 1/2" 6 prongs sharp
gS 36.4720	2	US Army Navy Retractor 8 1/2" set of 2
gS 36.9480	2	Hohmann Retractor 10" x 22mm square end 2 holes
gS 36.9800	2	Bennett Retractor 10" x 1 3/4"
gS 43.3620	1	Key Elevator 7 1/2" width 1/2"
gS 43.3660	1	Key Elevator 8 1/2" width 1"
gS 51.6520	1	Brun Curette 9" hex handle straight oval #2/0
gS 51.6540	1	Brun Curette 9" hex handle straight oval #1
gS 51.6560	1	Brun Curette 9" hex handle straight oval #3
gS 59.7890	1	Heavy Mallet 10 1/2" 2lb 9oz [1,162g] head s/s Ø 45mm phenolic handle
gS 63.4660	1	Stille-Liston Forceps 11" straight double action
gS 66.5720	1	Stille-Luer Rongeur 9" angular 6mm double action
gS 81.6740	1	Wire Extraction Pliers 7" double action 6mm TC
gS 83.8400	1	Wire Cutter 7" with silicone inserts max cap 1.6mm [.062"]
gS 98.2112	1	Instrument Stringer with lock 12" x 2 1/2"

Joint – Ortho, Small

part number	qty	description
gS 12.1590	3	Scalpel Handle #3S mm/cm scale 5"
gS 12.1605	1	Scalpel Handle #3K Beaver-style 4"
gS 13.1842	1	Iris Scissors 4 1/2" straight TC
gS 13.1844	1	Iris Scissors 4 1/2" curved TC
gS 13.2644	1	Strabismus Scissors 4" curved TC
gS 13.2720	1	Stevens Tenotomy Scissors 4 1/4" curved blunt/blunt
gS 13.3012	1	Littler Scissors 4 3/4" fine curved point with hole for suture
gS 13.3975	1	Mayo Scissors 6 3/4" straight TC
gS 13.3976	1	Mayo Scissors 6 3/4" curved TC
gS 13.7433	1	Metzenbaum Scissors 5 3/4" curved TC
gS 13.7439	1	Metzenbaum Scissors 7" curved TC
gS 16.5960	1	Super-Cut Jamison (Stevens) Scissors 6 1/4" curved
gS 17.1660	2	Adson Forceps 4 3/4" 1x2 teeth 1.3mm
gS 17.1920	2	Adson Brown Forceps 4 3/4" 7x7 teeth
gS 17.2120	2	Allis Tissue Forceps 6" 4x5 teeth
gS 17.3760	2	Tissue Forceps 6" 1x2 teeth
gS 17.5160	2	Rochester Ochsner Forceps 16cm [6 1/4"] str 1x2
gS 19.1880	2	Dressing Forceps 6" serrated
gS 20.5580	4	Backhaus Towel Forceps 3 1/2"
gS 20.5620	2	Backhaus Towel Forceps 5 1/4"
gS 20.5680	4	Lorna Towel Forceps (Edna) 5 1/4"
gS 21.1714	1	Webster Needle Holder 4 3/4" serrated TC
gS 21.1940	1	Derf Needle Holder 4 3/4" serrated TC
gS 21.3640	2	Ryder Needle Holder 6" serrated 2mm TC
gS 21.4020	2	Mayo Hegar Needle Holder 6" serrated TC
gS 22.1730	2	Micro Hartmann Forceps 4" curved
gS 22.2580	2	Mosquito Forceps 5" curved (Halsted)
gS 22.2760	2	Crile Forceps 5 1/2" straight
gS 22.2780	2	Crile Forceps 5 1/2" curved
gS 22.4180	2	Rochester Pean Forceps 16cm [6 1/4"] curved
gS 22.6550	1	Mixter Baby Forceps 5" curved partially serrated
gS 22.6560	1	Mixter Baby Forceps 7" curved partially serrated
gS 25.1880	2	Joseph Hook 6 1/4" 1 prong sharp
gS 25.1910	2	Joseph Hook 6 1/4" 2 prongs sharp 2mm
gS 25.1920	2	Joseph Hook 6 1/4" 2 prongs sharp 5mm
gS 25.1930	2	Joseph Hook 6 1/4" 2 prongs sharp 7mm
gS 25.1940	2	Joseph Hook 6 1/4" 2 prongs sharp 10mm
gS 34.1760	2	Davis Retractor 6" double ended
gS 34.1845	2	Senn Retractor 6 1/4" 3 prongs sharp
gS 34.1855	2	Senn Retractor 6 1/4" 3 prongs blunt
gS 34.1940	2	Ragnell Retractor 5 3/4" double ended
gS 36.4720	2	US Army Navy Retractor 8 1/2" set of 2
gS 36.8518	1	Baby Ribbon Retractor 6" x 1/4" malleable
gS 36.8550	1	Baby Ribbon Retractor 7 1/2" x 1" malleable
gS 36.8561	1	Ribbon Retractor 8" x 3/8" malleable
gS 36.8563	1	Ribbon Retractor 8" x 1/2" malleable
gS 36.8564	1	Ribbon Retractor 8" x 5/8" malleable
gS 36.9270	2	Hohmann Retractor 6" 15mm
gS 36.9300	2	Hohmann Retractor Mini 6 1/2" 6mm
gS 38.5140	2	Alm Retractor 3" blunt
gS 38.5920	2	Weitlaner Retractor 4 1/2" sharp 2x3
gS 38.6020	2	Weitlaner Retractor 6 1/2" sharp 3x4
gS 40.3170	1	Inge Retractor 6 1/2" with teeth

continued on next page

Joint – Ortho, Small (continued)

part number	qty	description
gS 42.5980	1	Spatula and Packer 5 3/4" #91 double ended
gS 42.7140	1	Freer Elevator 7 1/2" double ended 5mm sharp/blunt
gS 42.7170	1	Woodson Dura Separator and Packer with groove 7" double ended 3mm blunt
gS 43.3575	1	Key Elevator 7" width 1/8"
gS 43.3580	1	Key Elevator 7" width 1/4"
gS 43.4220	1	Cushing Elevator 7 1/2" curved 15mm sharp
gS 45.4430	1	Bone Hook 9" medium 19mm sharp
gS 46.2280	1	Bone Reduction Forceps 6" small curved
gS 46.2342	1	Bone Reduction Forceps 8" speed lock
gS 46.2370	2	Bone Reduction Forceps 5" curved stepped pointed
gS 51.6130	1	Brun Curette 7" hollow handle straight oval #3/0
gS 51.6170	1	Brun Curette 7" hollow handle straight oval #0
gS 51.6210	1	Brun Curette 7" hollow handle straight oval #2
gS 52.4902	1	Converse Osteotome 7" straight 2mm
gS 52.4904	1	Converse Osteotome 7" straight 4mm
gS 52.4906	1	Converse Osteotome 7" straight 6mm
gS 52.4908	1	Converse Osteotome 7" straight 8mm
gS 52.4910	1	Converse Osteotome 7" straight 10mm
gS 52.4912	1	Converse Osteotome 7" straight 12mm
gS 56.1500	1	Alexander Gouge 7" straight 4mm
gS 56.1510	1	Alexander Gouge 7" straight 6mm
gS 56.1520	1	Alexander Gouge 7" straight 8mm
gS 59.7624	1	Ortho Short Mallet 7" 1lb 2oz [510g] head s/s Ø 30mm s/s handle
gS 62.1665	1	Maltz Rasp 7" 9mm straight downcutting serrations
gS 62.7540	1	Putti Bone Rasp double ended 10 1/2" 18mm flat taper to 4mm
gS 63.4980	1	Liston Bone Forceps 5 1/2" straight
gS 63.6380	1	Ruskin Liston Forceps 7 1/2" straight double action
gS 66.3772	1	Luer Rongeur 6" full curved 3mm single action
gS 66.5900	1	Leksell-Stille Rongeur 9 1/2" curved 8mm double action
gS 66.6620	1	Kleinert-Kutz Rongeur 6" curved 3mm double action
gS 74.7800	1	K-Wire Ruler and Pin Gauge 6"
gS 75.9310	1	Frazier Suction Tube 9 1/2" 10 french 75 degrees working length 170mm
gS 81.3610	1	Long Jaw Pliers 7"
gS 82.4235	1	Wire Twisting Forceps 6" TC 3mm rounded tip
gS 83.3000	1	Wire Cutting Scissors 4 3/4" angled with notch TC
gS 83.7226	1	Wire Cutter 7" TC max cap 1.6mm [.062"]
gS 83.7310	1	Flush Front & Side Wire Cutter double action 7" TC max cap 1.6mm [.062"]
gS 86.4373	1	Holding Sleeve 2" Split for small hex driver
gS 86.4400	1	Screwdriver 7 3/4" hex 2.5mm black plastic handle
gS 86.4520	1	Screwdriver 10" hex 3.5mm black plastic handle
gS 98.2114	1	Instrument Stringer with lock 14" x 2 1/2"

Knee

part number	qty	description
gS 12.1580	2	Scalpel Handle #3 standard 5"
gS 12.1600	1	Scalpel Handle #4 standard 5 1/4"
gS 12.1620	1	Scalpel Handle #7 length 6 1/2"
gS 16.3100	1	Super-Cut Lister Scissors 5 1/2"
gS 16.3920	2	Super-Cut Mayo Scissors 6 3/4" straight
gS 16.3980	1	Super-Cut Mayo Scissors 6 3/4" curved
gS 16.4940	1	Super-Cut Metzenbaum Scissors 7" curved
gS 17.1630	2	Adson Forceps 4 3/4" serrated 1x2 teeth 1.3mm
gS 17.2100	4	Allis Tissue Forceps 6" 3x4 teeth
gS 17.3720	2	Tissue Forceps 5 1/2" 1x2 teeth
gS 17.4040	2	Tissue Forceps 5 1/2" 3x4 teeth
gS 17.5080	2	Kocher Forceps 5 1/2" curved serrated 1x2 teeth
gS 17.5160	4	Rochester Ochsner Forceps 16cm [6 1/4"] straight 1x2
gS 20.5620	6	Backhaus Towel Forceps 5 1/4"
gS 21.2750	2	Crile-Wood Needle Holder 7" serrated TC
gS 22.2760	4	Crile Forceps 5 1/2" straight
gS 22.2860	4	Rankin-Crile Forceps 6 1/4" straight
gS 34.1845	2	Senn Retractor 6 1/4" 3 prongs sharp
gS 35.2980	1	Smillie Retractor "T" handle small angled 19x32mm
gS 36.3580	2	Volkmann Retractor 8 1/2" 2 prongs sharp
gS 36.3640	2	Volkmann Retractor 8 1/2" 4 prongs sharp
gS 36.4720	1	US Army Navy Retractor 8 1/2" set of 2
gS 37.3060	2	Blount Knee Retractor 7" 7mm blunt
gS 38.5980	2	Weitlaner Retractor 5 1/2" sharp 3x4
gS 42.7140	1	Freer Elevator 7 1/2" DE 5mm sharp/blunt
gS 43.3580	1	Key Elevator 7" width 1/4"
gS 43.3620	1	Key Elevator 7 1/2" width 1/2"
gS 43.4120	1	Adson Elevator 6 3/4" curved 7mm semi-sharp
gS 49.2018	1	Martin Cartilage Clamp 7 1/2" straight
gS 49.2220	1	Walton Cartilage Clamp 8" curved up
gS 49.8620	1	Smillie Knife 6 3/4" straight
gS 49.8660	1	Smillie Knife 6 3/4" curved left
gS 49.8700	1	Smillie Knife 6 3/4" curved right
gS 49.8800	1	Downing Cartilage Knife 10" concave edge with guards
gS 49.9280	1	Martin Cartilage Scissors 8" serrated blades
gS 62.7500	1	Bone File 9 1/2" 15mm fine serrated bayonet handle
gS 75.9250	1	Frazier Suction Tube 7" 8 french 30 degrees working length 85mm

Orthopedic – Major

part number	qty	description
gS 12.1590	2	Scalpel Handle #3S mm/cm scale 5"
gS 12.1600	1	Scalpel Handle #4 standard 5 1/4"
gS 16.3120	1	Super-Cut Lister Scissors 7 1/4"
gS 16.3200	1	Super-Cut Operating Scissors 5 1/2" straight sharp/blunt
gS 16.3920	1	Super-Cut Mayo Scissors 6 3/4" straight
gS 16.3980	1	Super-Cut Mayo Scissors 6 3/4" curved
gS 16.4940	1	Super-Cut Metzenbaum Scissors 7" curved
gS 16.5900	1	Super-Cut Stevens Tenotomy Scissors 4 1/2" curved
gS 17.1640	2	Adson Forceps 4 3/4" 1x2 teeth delicate 0.9mm
gS 17.1929	2	Adson Brown Forceps 4 3/4" 9x9 teeth
gS 17.2240	2	Allis Tissue Forceps 7 1/2" 5x6 teeth
gS 17.3720	2	Tissue Forceps 5 1/2" 1x2 teeth
gS 17.3760	2	Tissue Forceps 6" 1x2 teeth
gS 17.3800	2	Tissue Forceps 8" 1x2 teeth
gS 17.4040	2	Tissue Forceps 5 1/2" 3x4 teeth
gS 17.5260	4	Rochester Ochsner Forceps 18cm [7"] straight 1x2
gS 19.1840	2	Dressing Forceps 5 1/2" serrated
gS 19.1884	2	Dressing Forceps 8" serrated
gS 20.4860	6	Foerster Forceps 9 1/2" straight serrated
gS 20.5620	12	Backhaus Towel Forceps 5 1/4"
gS 21.2740	2	Crile-Wood Needle Holder 6" serrated TC
gS 21.2750	2	Crile-Wood Needle Holder 7" serrated TC
gS 21.4140	2	Mayo Hegar Needle Holder 8" serrated TC
gS 22.2560	12	Mosquito Forceps 5" straight (Halsted)
gS 22.2580	12	Mosquito Forceps 5" curved (Halsted)
gS 22.2660	12	Kelly Forceps 5 1/2" straight
gS 22.2680	6	Kelly Forceps 5 1/2" curved
gS 22.2860	6	Rankin-Crile Forceps 6 1/4" straight
gS 22.2880	6	Rankin-Crile Forceps 6 1/4" curved
gS 22.4180	2	Rochester Pean Forceps 16cm [6 1/4"] curved
gS 22.4280	2	Rochester Pean Forceps 18cm [7"] curved
gS 22.8460	2	Adson Forceps 7 1/4" curved
gS 25.1880	2	Joseph Hook 6 1/4" 1 prong sharp
gS 25.1920	2	Joseph Hook 6 1/4" 2 prongs sharp 5mm
gS 34.1855	2	Senn Retractor 6 1/4" 3 prongs blunt
gS 36.1600	2	Hibbs Retractor 9 1/2" 1" x 3" sharp
gS 36.1800	2	Israel Retractor 9 1/2" 4 prgs blunt
gS 36.3070	1	Richardson Retractor 9 1/2" 3/4" x 1" loop handle
gS 36.3072	1	Richardson Retractor 9 1/2" 1" x 1 1/4" loop handle
gS 36.3074	1	Richardson Retractor 9 1/2" 1 1/2" x 1 1/2" loop handle
gS 36.3076	1	Richardson Retractor 9 1/2" 3/4" x 2" loop handle
gS 36.3300	1	Deaver Retractor 10" x 1" hollow handle
gS 36.3320	1	Deaver Retractor 12" x 1" hollow handle
gS 36.3400	1	Deaver Retractor 12" x 2" hollow handle
gS 36.3580	2	Volkmann Retractor 8 1/2" 2 prongs sharp
gS 36.3640	2	Volkmann Retractor 8 1/2" 4 prongs sharp
gS 36.3660	2	Volkmann Retractor 8 1/2" 6 prongs sharp
gS 36.3740	2	Volkmann Retractor 8 1/2" 4 prongs blunt
gS 36.3760	2	Volkmann Retractor 8 1/2" 6 prongs blunt
gS 36.4720	2	US Army Navy Retractor 8 1/2" set of 2
gS 36.6210	2	Cushing Vein Retractor 9" 13mm fenestrated handle
gS 38.6020	2	Weitlaner Retractor 6 1/2" sharp 3x4
gS 38.8820	2	Gelpi Retractor 7 1/2" sharp

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Orthopedic – Major (continued)

part number	qty	description
gS 42.7140	1	Freer Elevator 7 1/2" double ended 5mm sharp/blunt
gS 43.3580	1	Key Elevator 7" width 1/4"
gS 43.3620	1	Key Elevator 7 1/2" width 1/2"
gS 45.4430	1	Bone Hook 9" medium 19mm sharp
gS 45.4440	1	Bone Hook 9" large 25mm sharp
gS 51.6650	1	Brun Curette 9" hollow handle straight oval #0
gS 51.6660	1	Brun Curette 9" hollow handle straight oval #1
gS 51.6670	1	Brun Curette 9" hollow handle straight oval #2
gS 51.6680	1	Brun Curette 9" hollow handle straight oval #3
gS 51.6690	1	Brun Curette 9" hollow handle straight oval #4
gS 52.5480	1	Smith Peterson Osteotome 8" straight 1/4" [6mm]
gS 52.5500	1	Smith Peterson Osteotome 8" straight 1/2" [13mm]
gS 52.5520	1	Smith Peterson Osteotome 8" straight 3/4" [19mm]
gS 52.5530	1	Smith Peterson Osteotome 8" straight 1" [25mm]
gS 52.5580	1	Smith Peterson Osteotome 8" curved 3/8" [10mm]
gS 52.5600	1	Smith Peterson Osteotome 8" curved 5/8" [16mm]
gS 52.5620	1	Smith Peterson Osteotome 8" curved 1" [25mm]
gS 56.5660	1	Smith Peterson Gouge 8" straight 1/4"
gS 56.5680	1	Smith Peterson Gouge 8" straight 1/2"
gS 56.5770	1	Smith Peterson Gouge 8" straight 3/4"
gS 56.5880	1	Smith Peterson Gouge 8" curved 3/8"
gS 56.5900	1	Smith Peterson Gouge 8" curved 5/8"
gS 56.5930	1	Smith Peterson Gouge 8" curved 1"
gS 59.7670	1	Ortho Heavy Mallet 10 1/2" 3lb 3oz [1,446g] head s/s Ø 50mm s/s handle
gS 63.6380	1	Ruskin Liston Forceps 7 1/2" straight double action
gS 66.6260	1	Ruskin Rongeur 7 1/2" straight 4mm double action
gS 74.7940	1	Ruler Flexible 8" inch/mm graduations
gS 75.9240	1	Frazier Suction Tube 7" 7 french 30 degrees working length 85mm
gS 75.9250	1	Frazier Suction Tube 7" 8 french 30 degrees working length 85mm
gS 75.9260	1	Frazier Suction Tube 7" 10 french 30 degrees working length 85mm
gS 83.2980	1	Wire Cutting Scissors 4 3/4" angled with notch

Orthopedic – Minor

part number	qty	description
gS 12.1580	2	Scalpel Handle #3 standard 5"
gS 12.1600	1	Scalpel Handle #4 standard 5 1/4"
gS 16.3100	1	Super-Cut Lister Scissors 5 1/2"
gS 16.3200	1	Super-Cut Operating Scissors 5 1/2" straight sharp/blunt
gS 16.3980	1	Super-Cut Mayo Scissors 6 3/4" curved
gS 16.4940	1	Super-Cut Metzenbaum Scissors 7" curved
gS 16.5900	1	Super-Cut Stevens Tenotomy Scissors 4 1/2" curved
gS 17.1640	2	Adson Forceps 4 3/4" 1x2 teeth delicate 0.9mm
gS 17.1929	2	Adson Brown Forceps 4 3/4" 9x9 teeth
gS 17.3720	2	Tissue Forceps 5 1/2" 1x2 teeth
gS 17.3760	2	Tissue Forceps 6" 1x2 teeth
gS 17.3800	2	Tissue Forceps 8" 1x2 teeth
gS 17.5160	2	Rochester Ochsner Forceps 16cm [6 1/4"] straight 1x2
gS 17.5260	2	Rochester Ochsner Forceps 18cm [7"] straight 1x2
gS 19.1840	2	Dressing Forceps 5 1/2" serrated
gS 19.1884	2	Dressing Forceps 8" serrated
gS 20.4860	6	Foerster Forceps 9 1/2" straight serrated
gS 20.5580	6	Backhaus Towel Forceps 3 1/2"
gS 20.5620	6	Backhaus Towel Forceps 5 1/4"
gS 21.2740	2	Crile-Wood Needle Holder 6" serrated TC
gS 21.4020	4	Mayo Hegar Needle Holder 6" serrated TC
gS 22.2560	6	Mosquito Forceps 5" straight (Halsted)
gS 22.2580	6	Mosquito Forceps 5" curved (Halsted)
gS 22.2660	6	Kelly Forceps 5 1/2" straight
gS 22.2680	12	Kelly Forceps 5 1/2" curved
gS 22.2880	2	Rankin-Crile Forceps 6 1/4" curved
gS 22.4180	6	Rochester Pean Forceps 16cm [6 1/4"] curved
gS 25.1880	2	Joseph Hook 6 1/4" 1 prong sharp
gS 25.1920	2	Joseph Hook 6 1/4" 2 prongs sharp 5mm
gS 34.1845	2	Senn Retractor 6 1/4" 3 prongs sharp
gS 34.2160	1	Meyerding Finger Retractor 7" #1
gS 34.2180	1	Meyerding Finger Retractor 7" #2
gS 34.2220	1	Meyerding Finger Retractor 7" #3
gS 34.2240	1	Meyerding Finger Retractor 7" #4
gS 34.2280	1	Meyerding Finger Retractor 7" #5
gS 34.2300	1	Meyerding Finger Retractor 7" #6
gS 36.3070	1	Richardson Retractor 9 1/2" 3/4" x 1" loop handle
gS 36.3072	1	Richardson Retractor 9 1/2" 1" x 1 1/4" loop handle
gS 36.3074	1	Richardson Retractor 9 1/2" 1 1/2" x 1 1/2" loop handle
gS 36.3076	1	Richardson Retractor 9 1/2" 3/4" x 2" loop handle
gS 36.3300	2	Deaver Retractor 10" x 1" hollow handle
gS 36.3580	1	Volkmann Retractor 8 1/2" 2 prongs sharp
gS 36.3620	1	Volkmann Retractor 8 1/2" 3 prongs sharp
gS 36.4720	2	US Army Navy Retractor 8 1/2" set of 2
gS 36.6210	2	Cushing Vein Retractor 9" 13mm fenestrated handle
gS 38.5160	1	Alm Retractor 4" blunt
gS 38.5980	2	Weitlaner Retractor 5 1/2" sharp 3x4
gS 38.8760	1	Gelpi Retractor 3 1/2" sharp
gS 38.8780	1	Gelpi Retractor 4 1/2" sharp angled delicate
gS 42.7140	1	Freer Elevator 7 1/2" double ended 5mm sharp/blunt
gS 51.6170	1	Brun Curette 7" hollow handle straight oval #0
gS 51.6190	1	Brun Curette 7" hollow handle straight oval #1
gS 51.6210	1	Brun Curette 7" hollow handle straight oval #2

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Orthopedic – Minor (continued)

part number	qty	description
gS 51.6230	1	Brun Curette 7" hollow handle straight oval #3
gS 52.5980	1	Hoke Osteotome 5 1/4" straight 3/16" [4mm]
gS 52.5990	1	Hoke Osteotome 5 1/4" straight 1/4" [6mm]
gS 52.6000	1	Hoke Osteotome 5 1/4" straight 5/16" [8mm]
gS 52.6010	1	Hoke Osteotome 5 1/4" straight 3/8" [10mm]
gS 52.6020	1	Hoke Osteotome 5 1/4" straight 1/2" [13mm]
gS 52.6030	1	Hoke Osteotome 5 1/4" straight 5/8" [16mm]
gS 59.7670	1	Ortho Heavy Mallet 10 1/2" 3lb 3oz [1,446g] head s/s Ø 50mm s/s handle
gS 66.6260	1	Ruskin Rongeur 7 1/2" straight 4mm double action
gS 74.7920	1	Ruler Flexible 6" inch/mm graduations
gS 75.9240	1	Frazier Suction Tube 7" 7 french 30 degrees working length 85mm
gS 75.9250	1	Frazier Suction Tube 7" 8 french 30 degrees working length 85mm
gS 75.9260	1	Frazier Suction Tube 7" 10 french 30 degrees working length 85mm
gS 83.2980	1	Wire Cutting Scissors 4 3/4" angled with notch

Pin Removal

part number	qty	description
gS 22.4160	2	Rochester Pean Forceps 16cm [6 1/4"] straight
gS 81.3214	1	Needle Nose Pliers 5 1/4" delicate with guide
gS 81.3464	1	Flat Nose Pliers 7" with end and side grooves
gS 81.3466	1	Flat Nose Pliers 7"
gS 81.3610	1	Long Jaw Pliers 7"
gS 82.4240	1	Wire Twisting Forceps 7 1/2" TC 6mm rounded tip
gS 83.7250	1	Side Cutter double action 9" TC max cap 2.4mm [.079"]

Pelvic

part number	qty	description
gS 37.2100	1	Pelvic Retractor 10 1/2" x 1" blunt
gS 45.4320	1	Bone Hook 8" sharp 20mm t-handle
gS 45.4346	1	Volkmann Bone Hook 8 1/2" sharp 20mm
gS 46.2340	1	Bone Reduction Forceps 8" long ratchet
gS 47.0919	1	Farabeuf Lambotte Forceps 7 1/2" adjustable jaw with ratchet
gS 47.1020	1	Farabeuf Lambotte Forceps 10" adjustable jaw with ratchet
gS 47.6190	1	Pelvic Reduction Forceps 7 3/4" angled short ball tips
gS 47.6192	1	Pelvic Reduction Forceps 9 1/2" angled long ball tips
gS 47.6196	1	Pelvic Reduction Forceps 10" straight long ball tips
gS 47.6200	1	Pelvic Reduction Forceps 16" straight long ball tips
gS 47.6204	1	Pelvic Reduction Forceps 16" asymmetric ball tips
gS 47.6208	1	Pelvic Reduction Forceps 16" 1x2 long ball tips
gS 47.6212	1	Pelvic Reduction Forceps 13 1/2" for screws
gS 82.0182	2	Bending Iron 7 3/4" for 3.5mm/4.5mm plates
gS 82.0300	1	Plate Bending Pliers 10" for reconstruction plates
gS 82.4740	1	Steinmann Pin Chuck key 4" cannulated max 5.0/7.0mm
gS 86.0045	1	T-Handle for small/large screw sets SQC (small quick coupling)
gS 86.1209	2	Tap 7" 3.5mm SQC (small quick coupling) calibrated mm
gS 86.1216	2	Tap 7" 4.5mm SQC (small quick coupling) calibrated mm
gS 86.1515	1	Screwdriver Bit hex 6 1/2" 2.5mm SQC (small quick coupling) with notch
gS 86.1521	1	Screwdriver Bit hex 6 1/2" 3.5mm SQC (small quick coupling)
gS 86.2420	1	Depth Gauge 11 1/2" 120mm
gS 86.4375	1	Holding Sleeve 3" for small hex driver
gS 86.4380	1	Holding Sleeve 5" for large hex driver
gS 86.4585	1	Screwdriver 10 1/2" hex 2.5mm with notch phenolic handle
gS 86.4595	1	Screwdriver 12" hex 3.5mm with notch black plastic handle
gS 86.6110	1	Screw Holding Forceps 3 1/2" for 3.5mm - 6.5mm
gS 86.8236	2	Drill Bit SQC (small quick coupling) 3.5mm 195/50mm
gS 86.8246	2	Drill Bit SQC (small quick coupling) 4.5mm 195/50mm
gS 86.8725	2	Drill Bit SQC (small quick coupling) 3 flute calibrated 2.5mm 230mm/30mm
gS 86.8732	2	Drill Bit SQC (small quick coupling) 3 flute calibrated 3.2mm 230mm/30mm
gS 86.8765	2	Drill Bit SQC (small quick coupling) 3 flute 4.5mm 195mm/45mm
gS 87.0020	1	Straight Ball Spike 12"
gS 87.0022	4	Spiked Disc 25mm diameter

Podiatry – Basic

part number	qty	description
gS 12.1580	1	Scalpel Handle #3 standard 5"
gS 13.4021	1	Operating Scissors 5 1/2" straight sharp/blunt
gS 13.4022	1	Operating Scissors 5 1/2" straight sharp/sharp
gS 15.1920	1	Spencer Stitch Scissors 5"
gS 15.1950	1	Stitch Scissors 4 1/2" angled delicate
gS 15.2200	1	Littauer Stitch Scissors 5 1/2"
gS 15.7920	1	Lister Bandage Scissors 5 1/2"
gS 15.9040	1	Knowles Bandage Scissors 5 1/2" straight one serrated blade
gS 17.1666	2	Adson Tissue Forceps 4 3/4" 1x2 teeth with fenestrated handles
gS 17.3720	1	Tissue Forceps 5 1/2" 1x2 teeth
gS 18.4660	1	Plain Splinter Forceps 4 1/2" straight serrations
gS 19.1620	2	Adson Dressing Forceps 4 3/4" serrations standard
gS 19.1840	2	Dressing Forceps 5 1/2" serrations
gS 20.5580	6	Backhaus Towel Forceps 3 1/2"
gS 21.1700	1	Webster Needle Holder 5" smooth TC
gS 21.5480	1	Olsen Hegar Needle Holder 5 1/2" serrated TC
gS 22.2560	3	Mosquito Forceps 5" straight (Halsted)
gS 22.2580	3	Mosquito Forceps 5" curved (Halsted)
gS 22.2760	3	Crile Forceps 5 1/2" straight
gS 22.2780	3	Crile Forceps 5 1/2" curved
gS 42.5980	1	Spatula and Packer 5 3/4" #91 double ended
gS 42.7140	1	Freer Elevator 7 1/2" double ended 5mm sharp/blunt
gS 50.4050	1	Ingrown Nail Shaver 5" single ended with fenestrated blade
gS 50.5080	1	Curette Excavator 5 1/2" double ended hole 1.5x2.0mm
gS 50.5920	1	Curette Excavator 5 1/2" double ended hole 1.5x2.5mm
gS 54.7500	1	Chisel Spade 5 1/4" curved edge
gS 62.1710	1	Joseph Rasp 6 1/4" 8mm straight fine cross serrations
gS 75.9230	2	Frazier Suction Tube 7" 6 french 30 degrees working length 85mm
gS 77.3910	1	Tissue Nipper 4" 9mm
gS 77.4480	1	Ingrown Nail Splitter 5" English Anvil
gS 81.8520	1	Platypus Nail Pulling Fcps 5 1/2" standard wide jaws
gS 83.3000	1	Wire Cutting Scissors 4 3/4" angled with notch TC

Podiatry – Nail Pack

part number	qty	description
gS 12.1580	1	Scalpel Handle #3 standard 5"
gS 13.4021	1	Operating Scissors 5 1/2" straight sharp/blunt
gS 17.1929	1	Adson Brown Forceps 4 3/4" 9x9 teeth
gS 21.2700	1	Crile-Wood Needle Holder 6" serrated
gS 22.2560	1	Mosquito Forceps 5" straight (Halsted)
gS 22.2580	1	Mosquito Forceps 5" curved (Halsted)
gS 22.2660	1	Kelly Forceps 5 1/2" straight
gS 42.6790	1	Locke Elevator narrow 4 1/2"
gS 42.6900	1	Locke Elevator wide 5"
gS 42.7140	1	Freer Elevator 7 1/2" double ended 5mm sharp/blunt
gS 50.5040	1	Curette Excavator #58 - 3 hole 2.5mm
gS 50.5570	1	Curette #4 McGlamry Bullneck 5" 4mm without hole
gS 61.6380	1	Nail Rasp #93 DE 6 3/4" 2mm angled up/down
gS 77.3940	1	Tissue Nipper 5" 14mm
gS 77.4260	1	Nail Splitter 5" heavy jaw
gS 77.4440	1	Nail Splitter 6" tapered jaw
gS 77.5480	1	Nail Splitter 4 1/2" delicate

Shoulder

part number	qty	description
gS 36.0000	1	Fukuda Style Retractor 7 1/2" 32x81mm
gS 36.0001	1	Fukuda Style Retractor 7 1/2" 38x81mm
gS 36.3072	1	Richardson Retractor 9 1/2" 1" x 1 1/4" loop handle
gS 36.3074	1	Richardson Retractor 9 1/2" 1 1/2" x 1 1/2" loop handle
gS 36.3076	1	Richardson Retractor 9 1/2" 3/4" x 2" loop handle
gS 36.9482	1	Hohmann Retractor 10 1/2" x 22mm rounded end 3 holes
gS 36.9731	1	Capsule Retractor 10" 3 prongs sharp 22mm
gS 36.9920	1	Murphy Bone Skid 12"
gS 38.8830	1	Gelpi Retractor 7 1/2" blunt
gS 40.3260	1	Lamina Spreader 10 1/2" flat blades with teeth
gS 40.5820	1	Adson Retractor 12 1/2" 4x5 blunt
gS 43.9020	1	Darrach Elevator 10" width 1/2"
gS 43.9030	1	Darrach Elevator 10" width 5/8"
gS 43.9040	1	Darrach Elevator 14" width 1"
gS 44.0130	1	Shoulder Percussion Awl 8 1/2" curved small
gS 44.0140	1	Shoulder Percussion Awl 8 1/2" curved medium
gS 44.0150	1	Shoulder Percussion Awl 8 1/2" curved large
gS 44.0160	1	Shoulder Penetrating Awl 9" curved phenolic handle
gS 45.4343	1	Volkmann Bone Hook 8 1/2" blunt 20mm
gS 46.4116	1	Glenoid Perforating Forceps 6 1/2" strong angle
gS 46.4117	1	Glenoid Perforating Forceps 6 1/2" slight angle
gS 51.5600	1	Cone Ring Curette 9" aluminum handle 35 degrees angled #3 8mm s/s
gS 56.0190	1	Shoulder Penetrating Gouge 8 1/2" 3mm
gS 82.4940	1	Suture Passer 9" curved with crochet hook phenolic handle
gS 82.4942	1	Suture Passer 9" curved with hole phenolic handle

Spine – Anterior Lumbar

part number	qty	description
gS 25.2030	1	gProbe Ball 12" ball outside diameter 2.6mm angled 90 degree knurled handle
gS 43.9920	1	gElevator Endplate Double Handed 17" straight plastic handle 9" black Ø 20mm sharp
gS 51.7706	1	gCurette Box Double Handed 17" straight plastic handle 9" black 6x10mm fenestration sharp/blunt
gS 51.7812	1	gCurette Double Handed 17" angled plastic handle 9" black oval 2.5mm
gS 51.7814	1	gCurette Double Handed 17" angled plastic handle 9" black oval 4.5mm
gS 51.7817	1	gCurette Double Handed 17" angled plastic handle 9" black oval 7.5mm
gS 51.7820	1	gCurette Double Handed 17" angled plastic handle 9" black oval 10.0mm
gS 51.7908	1	gCurette Teardrop Ring Double Handed 17" angled plastic handle 9" black 8.0mm fenestration sharp/sharp
gS 66.4840	1	Sypert Rongeur 14 1/2" 8mm double action
gS 68.9824	1	gRongeur Disc 13" straight 4mm
gS 68.9826	1	gRongeur Disc 13" straight 6mm
gS 68.9843	1	gRongeur Disc 13" up 3mm serrated jaws
gS 70.6302	1	gPunch Spurling Kerrison 13" forward 2mm ejector
gS 70.6304	1	gPunch Spurling Kerrison 13" forward 4mm ejector
gS 70.6306	1	gPunch Spurling Kerrison 13" forward 6mm ejector

optional

gS 43.9286	1	gDissector 10 1/2" slight curved knurled handle 6" 6mm blunt
gS 43.9817	1	gElevator Bone Double Handed 17" curved plastic handle 9" black 17mm sharp
gS 43.9925	1	gElevator Endplate Double Handed 17" straight plastic handle 9" black Ø 25mm sharp
gS 51.7710	1	gCurette Triangle Double Handed 17" straight plastic handle 9" black 10mm fenestration sharp/blunt
gS 51.7802	1	gCurette Double Handed 17" straight plastic handle 9" black oval 2.5mm
gS 51.7804	1	gCurette Double Handed 17" straight plastic handle 9" black oval 4.5mm
gS 51.7807	1	gCurette Double Handed 17" straight plastic handle 9" black oval 7.5mm
gS 51.7810	1	gCurette Double Handed 17" straight plastic handle 9" black oval 10.0mm
gS 53.7918	1	gOsteotome Double Handed 17" straight plastic handle 9" black 18mm
gS 53.7925	1	gOsteotome Double Handed 17" straight plastic handle 9" black 25mm
gS 62.9910	1	gRasp Double Handed 17" straight plastic handle 9" black 10mm plain and cross serrations
gS 68.9844	1	gRongeur Disc 13" up 4mm serrated jaws
gS 68.9848	1	gRongeur Disc 13" up 8mm serrated jaws

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gSource Verified Quality

Every gSource instrument must pass detailed Quality Assurance (QA) tests before it can be sold.

Instruments are tested for:
- Critical Dimensions
- Function
- Pattern Consistency
- Workmanship
- Material

We perform the following QA tests to ensure that every instrument we sell will perform its function during critical surgical procedures.

Surface inspection
All instruments are visually inspected for defects in material and surface finish. They must have a flawless satin finish and be free of excess lubricants and foreign substances.

Dimensions verified
Critical dimensions are measured with calipers, micrometers, or other specialty gauges and compared to technical drawings or gSource catalog descriptions. To ensure pattern consistency selected instruments are compared to inspection samples.

Our **gS** logo is a symbol for Verified Quality. This mark is proof of a lifetime guarantee.

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gS 51.7812	51	10
gS 51.7814	51	10
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gS 51.7820	51	10
gS 51.7908	51	15
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gS 52.0101	52-53	12
gS 52.0102	52-53	12
gS 52.0103	52-53	12
gS 52.0105	52-53	12
gS 52.0106	52-53	12
gS 52.0107	52-53	12
gS 52.0108	52-53	12
gS 52.0110	52-53	12
gS 52.0111	52-53	12
gS 52.0112	52-53	12
gS 52.0113	52-53	12
gS 52.0160	52-53	12
gS 52.0300	52-53	6
gS 52.0301	52-53	6
gS 52.0302	52-53	6
gS 52.0310	52-53	6
gS 52.0311	52-53	6
gS 52.0312	52-53	6
gS 52.0313	52-53	6
gS 52.0400	52-53	1
gS 52.0460	52-53	1
gS 52.0500	52-53	1
gS 52.0700	52-53	1
gS 52.0750	52-53	1
gS 52.1008	52-53	7
gS 52.1010	52-53	7
gS 52.1020	52-53	7
gS 52.1040	52-53	7
gS 52.1060	52-53	7
gS 52.1080	52-53	7
gS 52.1220	52-53	5
gS 52.1222	52-53	5
gS 52.1318	52-53	5
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gS 52.3760	52-53	4
gS 52.3780	52-53	4
gS 52.3800	52-53	4
gS 52.3840	52-53	7
gS 52.3860	52-53	7
gS 52.3880	52-53	7
gS 52.3903	52-53	2
gS 52.3904	52-53	2
gS 52.3905	52-53	2
gS 52.3906	52-53	2
gS 52.3907	52-53	2
gS 52.3908	52-53	2
gS 52.3910	52-53	2
gS 52.3912	52-53	2
gS 52.3916	52-53	2
gS 52.3919	52-53	2
gS 52.3922	52-53	2
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gS 52.4100	52-53	2
gS 52.4140	52-53	2
gS 52.4180	52-53	2
gS 52.4220	52-53	2
gS 52.4280	52-53	2
gS 52.4290	52-53	2
gS 52.4300	52-53	2
gS 52.4310	52-53	2
gS 52.4320	52-53	2
gS 52.4330	52-53	2
gS 52.4350	52-53	1
gS 52.4355	52-53	1
gS 52.4360	52-53	1
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gS 52.4420	52-53	1
gS 52.4430	52-53	1
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gS 52.4460	52-53	1
gS 52.4470	52-53	1
gS 52.4472	52-53	1
gS 52.4473	52-53	1
gS 52.4474	52-53	1
gS 52.4475	52-53	1
gS 52.4476	52-53	1
gS 52.4477	52-53	1
gS 52.4478	52-53	1
gS 52.4479	52-53	1
gS 52.4480	52-53	1
gS 52.4495	52-53	2
gS 52.4496	52-53	2
gS 52.4498	52-53	2

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gS 52.4508	52-53	2
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gS 52.4520	52-53	2
gS 52.4530	52-53	2
gS 52.4540	52-53	2
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gS 52.4560	52-53	2
gS 52.4590	52-53	8
gS 52.4600	52-53	8
gS 52.4610	52-53	8
gS 52.4620	52-53	8
gS 52.4630	52-53	8
gS 52.4640	52-53	8
gS 52.4650	52-53	8
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gS 52.4670	52-53	8
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gS 52.4790	52-53	8
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gS 52.4840	52-53	8
gS 52.4870	52-53	8
gS 52.4873	52-53	8
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gS 52.4906	52-53	5
gS 52.4908	52-53	5
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gS 52.4912	52-53	5
gS 52.5004	52-53	3
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gS 52.5013	52-53	3
gS 52.5015	52-53	3
gS 52.5016	52-53	3
gS 52.5018	52-53	3
gS 52.5020	52-53	3
gS 52.5025	52-53	3
gS 52.5030	52-53	3
gS 52.5038	52-53	3
gS 52.5044	52-53	3
gS 52.5050	52-53	3
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gS 52.5490	52-53	7
gS 52.5500	52-53	7
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gS 52.5580	52-53	7
gS 52.5590	52-53	7
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gS 52.5980	52-53	4
gS 52.5990	52-53	4
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gS 52.6010	52-53	4
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gS 53.0019	52-53	9
gS 53.4410	52-53	10
gS 53.4415	52-53	10
gS 53.4500	52-53	9
gS 53.4510	52-53	9
gS 53.4520	52-53	9
gS 53.4530	52-53	9
gS 53.4540	52-53	9
gS 53.4550	52-53	9
gS 53.4560	52-53	9
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gS 53.4580	52-53	9
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gS 53.4610	52-53	9
gS 53.4620	52-53	9
gS 53.4630	52-53	9
gS 53.4715	52-53	10
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gS 54.1092	54	2
gS 54.1094	54	2
gS 54.1100	54	5
gS 54.1120	54	5
gS 54.1140	54	5
gS 54.1160	54	5
gS 54.1400	54	4
gS 54.1410	54	4
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gS 54.1810	54	5
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gS 54.3480	54	4
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gS 54.3900	54	3
gS 54.3910	54	3
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gS 54.6290	54	1
gS 54.6570	54	1
gS 54.6600	54	1
gS 54.6620	54	1
gS 54.6680	54	1
gS 54.7500	54	1
56		
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gS 56.0006	56	1
gS 56.0007	56	1
gS 56.0104	56	2
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gS 56.0108	56	2
gS 56.0110	56	2
gS 56.0112	56	2
gS 56.0190	56	3
gS 56.1009	56	4
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gS 56.1320	56	5
gS 56.1340	56	5
gS 56.1360	56	5
gS 56.1500	56	2
gS 56.1510	56	2
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gS 56.3930	56	1
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gS 56.5020	56	4
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gS 56.5972	56	5
gS 56.5980	56	5
gS 56.5982	56	5
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gS 56.6012	56	6
gS 56.6014	56	6
gS 56.6016	56	6
gS 56.6018	56	6
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gS 59.7014	59	1
gS 59.7018	59	1
gS 59.7120	59	1
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gS 59.7571	59	5
gS 59.7580	59	9
gS 59.7590	59	2
gS 59.7595	59	2
gS 59.7600	59	2
gS 59.7605	59	5
gS 59.7610	59	5
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gS 59.7650	59	9
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gS 59.7873	59	6
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gS 59.7879	59	8
gS 59.7880	59	10
gS 59.7885	59	9
gS 59.7890	59	12
gS 59.7910	59	10
gS 59.8600	59	4
gS 59.8660	59	6
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gS 59.8710	59	7
gS 59.8711	59	7
gS 59.8712	59	7
gS 59.8800	59	4
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gS 60.8530	60	3
gS 60.8540	60	3
gS 60.8743	60	4
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gS 60.9940	60	1
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gS 60.9960	60	1
gS 60.9970	60	1
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gS 60.9990	60	1
61		
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gS 61.6455	61-62	2
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gS 61.6511	61-62	4
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gS 62.1665	61-62	6
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gS 62.6400	61-62	2
gS 62.7500	61-62	11
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gS 62.7550	61-62	10
gS 62.7680	61-62	10
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gS 63.5102	63	2
gS 63.5103	63	2
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gS 63.6570	63	3
gS 63.6580	63	3
64		
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65		
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