



SURTEX
INSTRUMENTS

Crafted to Excellence





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• INTRODUCTION TO THE CATALOGUE

Thank you for your interest in Surtex thoracic and cardiovascular instruments. We remain committed to providing the highest quality products and customer service.

In this special catalogue you will find a comprehensive range of neurology and spine surgery instruments, which have been developed following detailed consultation with leading neuro-spine surgeons. These instruments in conjunction with Surtex General Instruments provides complete solution for neurology and spine related surgeries.

We appreciate your patronage and look forward to a successful relationship with you.

• ABOUT SURTEX INSTRUMENTS

Surtex Instruments is a privately owned medical technology company dedicated to innovation and excellence in crafting of surgical instruments. The company started as a specialist in reconstructive surgery instruments and based on its success and innovative drive gradually expanded to cover a vast range of surgical instruments.

We now manufacture over 8,000 surgical instruments and offer innovative solutions in trauma, gynecology, cardiovascular, microsurgery and dental surgery. All our products are available to view online where you can download our entire range of catalogues or request a printed version.

WHY IS SURTEX FOCUSED ON INSTRUMENTS QUALITY?

Surgeons are highly talented and skilled individuals. They operate under significant time constraints and are required to make split second decisions while performing complex operations. At Surtex we understand that in such a scenario the surgeon requires tools that are not just fit for the purpose but are reliable, dependable and crafted by a company that has a track record for relentless pursuit for excellence in the making of surgical instruments.

• AFFORDABLE QUALITY

Surgical instruments represent a significant proportion of hospital's total assets. Hospitals and health centers are often required to minimize costs of surgical instruments without impacting quality or patient's health. Decision makers tend to respond via group purchasing contracts & multiple quotes to shop around for the lowest price. However this approach has significant drawbacks as numerous instrument companies have focused towards competing on price alone with a disregard towards instruments quality while claiming their instruments to be guaranteed and free of defect.

The outcome for the buyer being a perceived notion of a quality instrument, which is actually little more than a knock-off and delivers only poor value for money.

At **Surtex Instruments** our success has been based on helping customers navigate successfully through the instrument procurement process by identifying real value for money through fair comparison. We believe that quality should be affordable and you should not pay too much for over priced brands and neither should you pay too much for a low quality instrument.

• SURTEX QUALITY STANDARDS

In European Union medical devices are subject to a series of uniform laws and the EC directive places rigid demands on surgical instruments. Surtex Instruments is proud to claim that we have always surpassed the legal requirements to ensure that each instrument reaching the surgeons hand is indeed a testament to surgical craftsmanship.

We are **BS EN ISO 13485:2012/ISO 9001:2008 (SGS UK)** certified and **CE** approved to ensure compliance with the standards defined in line with medical devices directive **93/42/EEC**.



• LIFE TIME WARRANTY

We encourage our customers to calculate lifetime costs prior to making purchase decisions and investing in surgical instruments.

Surtex Instruments are guaranteed for life* against manufacturing defects of material and workmanship. This means we will repair or replace free of charge any surgical instrument that does not meet its functional requirements when used for its intended purpose and maintained properly.



*Conditions apply.



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OUR PRODUCT BRANDS



A new dimension in cutting and dissecting performance. Our class leading integral self-sharpening technology standard on all Surtex scissors enabling precise cutting with minimum force even after pro-longed use.



These Surtex premium scissors feature finely ground micro serrations along one blade of the scissor preventing tissue slippage. The ultra sharp edge of the other blade cuts through the tissue precisely and atraumatically.



Instruments with this symbol benefit from tungsten carbide (TC) inserts expertly bonded on the cutting edge of the instrument. This material is harder than stainless steel and enables the instruments to last up to 6 times longer than standard instruments.



A true craftsmanship masterpiece and surgeons favourite. These are the best scissors in our range and combine the features of SuperEdge™ & UltraCut™ into a perfect pair of scissors that is precise, durable and reliable.



The only choice when the perfect grip matters. Utilising Creep Feed technology individual teeth are grinded into hard wear resistant tungsten carbide (TC). The result is super sharp teeth with well-defined point and inserts with impeccable gripping properties and instruments that last up to 6 times longer.



These instruments have jaws, which are coated with diamond dust resulting in improved gripping enabling superior manipulation of sutures, needles and tissues.



Our specially designed high strength fibre grip handles resulting in lightweight instruments. These ergonomic handles provide the surgeon with excellent feel, better grip, reduced shock, and less hand fatigue.



Surtex ENT diagnostic and anaesthesia instruments featuring direct bulb illumination of xenon grade bulbs.



This range features distal fibre optic to carry light from xenon bulb allowing cold illumination on operating site in our ENT diagnostics and anaesthesia instruments.



Premium grade ENT diagnostics and anaesthesia instruments combining features of distal fibre optic technology and ultra bright LED illumination ensuring the best in clear vision of operating site.



CURRENT REFERENCE STANDARDS FOR SURTEX PRODUCTS

STANDARDS	CONTENTS OF THE STANDARD
BS EN ISO 9001:2008	Quality Management Systems certification standard.
BS EN ISO 13485:2003	Medical Devices – Quality Management Systems certification standard.
MDD 93/42/EEC, Annex II, Section 3.2	Medical Device Directive, 'EC Declaration of Conformity' (full quality assurance system).
MDD 93/42/EEC, Annex I	Essential Requirements for Medical Devices.
BS EN ISO 7153-1:2001 (BS 5194:Part 1:1991)	Surgical Instruments – Metallic materials part 1 - Stainless Steel
BS 5194:Part 2:1989	Specification for instruments with pivot joints (excluding cutting instruments)
BS 5194:Part 3:1985	Specification for Dissecting Forceps
BS 5194:Part 4:1985	Specification for scissors, shears, and other jointed cutting instruments
ISO 7151:1988	Surgical instruments – non-cutting, articulated instruments – general requirements & test methods
ISO 7740:2004	Scalpels with detachable blades - Fitting dimensions
ISO 7741:1986	Scissors and shears - General requirements and test methods
ISO 6508-1:2005 (DIN 50103-3:1995)	Specifies the method for Rockwell and Rockwell superficial hardness tests for metallic materials.
BS EN ISO 14971:2012	Medical Devices – Application of risk management to medical devices.
DIN 58298:2010-09	Medical instruments - Materials, finish and testing.
DIN 58299:1964-01	Serrations for surgical instruments; profile angles, groove distances.
DIN 58300:1982-02	Joints for surgical instruments.
HTM 2010	Recommendations for sterilization
AS/NZ 4187-2003	Cleaning, disinfecting & sterilising of re-usable surgical instruments

This information is available on the internet at
www.surtex-instruments.co.uk

INSTRUCTIONS FOR REPROCESSING OF REUSABLE SURGICAL INSTRUMENTS

The following instructions are for all reusable medical devices supplied by Surtex Instruments Ltd, unless stated otherwise with the packaging of the product. These instructions are intended for use only by persons with the required specialist knowledge and training.

Warnings

- Follow instructions and warnings as issued by the manufacturers of any decontaminants, disinfectants and cleaning agents. Wherever possible avoid use of mineral acids and harsh, abrasive agents.
- No part of the process shall exceed 140 °C.
- Some sensitive materials (e.g. Aluminium) are damaged by high alkaline solutions (pH>10).
- Devices with long, narrow cannula, hinges and blind holes require particular attention during cleaning.

Note: When reprocessing medical devices, always handle with care, wearing protective clothing, gloves and eye-wear in accordance with local health & safety procedures.

Limitations on Reprocessing

- Repeated processing has minimal effect on these instruments.
- End of life normally determined by wear and damage in use.
- Any specific limitations on the number of reprocessing cycles shall be made available with instrument.

From Point of Use

Whenever possible, do not allow blood, debris or bodily fluids to dry on instruments. For best results and to prolong the life of the medical device reprocess immediately after use. If they cannot be reprocessed immediately, use an enzymatic foam spray cleaner to help prevent soil from drying.

Preparation for Decontamination

- Process all the instruments as soon as it is reasonably practical following use.
- Disassemble only where intended, without the use of tools unless specifically provided by the manufacturer. Instructions for dis assembly are available with the device, where required.

Cleaning: Automated

- Use only either CE marked or validated washer-disinfector machines and low foaming, non-ionizing cleaning agents and detergents following the manufacturer's instructions for use, warnings, concentrations and recommended cycles.
- Load instruments carefully, with any box joints and hinges open and so that any fenestration in instruments can drain.
- Place heavy instruments with care in the bottom of containers, taking care not to overload wash baskets.
- Place instruments with concave surfaces facing down to prevent pooling of water.
- Where possible, use appropriate attachments to flush inside reamers and devices with lumens or cannula.
- Ensure that soft, high purity water which is controlled for bacterial endo-toxins is used in the final rinse stage.

Note: Automated cleaning may not be suitable for all lumens and cannula in which case clean manually with a water jet gun, if available, and an appropriate brush (and stilette if provided) that reaches the depth of the feature. After manually cleaning, pass all devices through an automatic cleaning cycle to achieve disinfection.

Note: These instruments have been validated using a washer-disinfector cycle validated to include two cold rinses at <35 °C, a detergent cycle and a rinse cycle both at >50°C, a disinfection cycle operating at a temperature of between 80 °C and 90 °C for a minimum holding time of 1 minute (actual holding time in excess of 2 minutes 50 seconds) and a 20 minute drying cycle. The detergent used was low foaming, non-ionizing spray wash detergent cleaner (max 12pH) and the rinse aid a neutral pH low foaming, non-ionic surfactant with isopropyl alcohol.

Cleaning: Manual

- Manual cleaning is not advised if an automatic washer-disinfector is available. If the equipment is not available, use the following process:-
1. Use a double sink system (wash/rinse) dedicated for instrument cleaning (not used for hand washing). Ensure that the water temperature does not exceed 35 of the re-processor to ensure that the reprocessing as actually performed using equipment, materials and personnel in the reprocessing facility achieve the desired result. This requires validation and routine monitoring of the process. Likewise any deviation by the re-processor from the instructions provided must be properly evaluated for effectiveness and potential adverse consequences.
 2. In the first sink, keeping the instrument submerged, with an autoclavable brush, apply CE marked cleaning solution to all surfaces until all soil has been removed. Pay particular attention to serrations, teeth, ratchets and hinges, always brushing away from the body and avoiding splashing. Ensure rongeurs and hinged instruments are thoroughly cleaned in both open and closed positions.
 3. In the second sink, rinse instruments thoroughly with soft, high purity water which is controlled for bacterial endotoxins, so that the water reaches all parts of the instrument, then carefully hand dry or use a drying cabinet.

Note: Manual Cleaning is NOT a disinfection process: When manual cleaning is used it may not be possible to disinfect the device prior to further handling.

Cleaning Inspection

- After cleaning visually inspect, visually inspect all surfaces, cannulations, ratchets, joints, holes and lumens for complete removal of soil and fluids. If ANY soil or fluid is still visible, return the instrument for repeat decontamination.

Maintenance

- Apply surgical grade lubricant to hinges, joints and moving parts as per the lubricant manufacturer's instructions.

Continued on next page



Inspection and Functional Testing

- Visually inspect and check: - all instruments for damage and wear; cutting edges are free from nicks and present a continuous edge; jaws and teeth align correctly; all articulated instruments have a smooth movement without excess play; locking mechanisms (such as ratchets) fasten securely and close easily; long, slender instruments are not distorted; any component parts fit and assemble correctly with mating components.
- Remove for repair and replacement any blunt, worn out, flaking, fractured or damaged instruments.

Note: If an instrument is returned to the manufacturer / supplier, the instrument must be decontaminated and sterilized and be accompanied with the relevant documented evidence.

Packaging

- All instruments to be packed following local protocol in accordance with ISO 11607-1 or AAMI/CSR technique.

Sterilization (USA)

- Autoclave should comply with the requirements of, and be validated and maintained in accordance with ANSI/AAMI ST79.
- Pre-Vacuum moist heat sterilization operating at temperature 132 °C bar for a minimum holding time of 4 minutes always following the instructions of the machine manufacturer.
- When sterilizing multiple instruments in one autoclave cycle, ensure that the sterilizer manufacturers stated maximum load is not exceeded.
- Ensure instruments are dry before sterilization.

Sterilization (Outside USA)

- Autoclave should comply with the requirements of, and be validated and maintained in accordance with EN 285, EN 13060, EN ISO 17665.
- Either CE marked or validated vacuum autoclave operating at 134-137 °C bar for a minimum holding time of 3 minutes always following the instructions of the machine manufacturer.
- When sterilizing multiple instruments in one autoclave cycle, ensure that the sterilizer manufacturers stated maximum load is not exceeded.

Storage

- Ensure instruments are dry before storage, and stored in dry, clean conditions at an ambient room temperature.

Additional Information

- Other forms of cleaning (i.e. ultrasonic) and sterilization (i.e. Low temperature steam and Formaldehyde, Ethylene Oxide and Gas Plasma) are available. However, always follow the instructions for use as issued by the manufacturer and always consult with them if in any doubt over the suitability of any process used.
- Cleaning and sterilizing guidelines are available in HTM 2030 and HTM 2010. Contact: The NHS Estates Stationers Office Publications Cent for details at www.tsonline.gov.uk. For further information contact: NHS Estates Information Center, Department of Health, 1 Trevelyan Square, Boar Lane, Leeds, LS1 6AE, UK or visit www.nhsestates.gov.uk.

Note: It is the responsibility of the re-processor to ensure that the reprocessing as actually performed using equipment, materials and personnel in the reprocessing facility achieve the desired result. This requires validation and routine monitoring of the process. Likewise any deviation by the re-processor from the instructions provided must be properly evaluated for effectiveness and potential adverse consequences.



CODE, PAGE & LOGO GUIDE

Company Name & Logo
Firmenname und Logo
Nombre y logotipo de la compañía
Nom et logo de l'entreprise
Nome e il logo

Operating Scissors
Straight, Sharp/Blunt

Catalog #	Size
SS-004-13 SC	13 cm (5")
SS-004-14 SC	14.5 cm (5 ¾")

Operating Scissors
Curved, Sharp/Blunt

Catalog #	Size
SS-005-11	12 cm (4 ¾")
SS-005-13	13 cm (5")
SS-005-14	14.5 cm (5 ¾")
SS-005-16	16.5 cm (6 ½")
SS-005-18	18.5 cm (7 ¼")
SS-005-20	20.5 cm (8")

Operating Scissors
Curved, Sharp/Blunt,

Catalog #	Size
SS-005-13 SC	13 cm (5")
SS-005-14 SC	14.5 cm (5 ¾")

Operating Scissors
Straight, Sharp/Sharp

Catalog #	Size
SS-006-11	12 cm (4 ¾")
SS-006-13	13 cm (5")
SS-006-14	14.5 cm (5 ¾")
SS-006-16	16.5 cm (6 ½")
SS-006-18	18.5 cm (7 ¼")
SS-006-20	20.5 cm (8")

Web: www.surtex-instruments.co.uk E-mail: sales@surtex-instruments.co.uk

Author /
Product Information
Autor /
Produktinformationen
Autor /
Información de producto
Auteur /
Information produit
Autore /
Informazioni sul prodotto

Operating Scissors
Chirurgische Scheren
Tijeras quirúrgicas
Ciseaux chirurgicaux
Forbici per chirurgia

SS

SCISSORS

Product Sub Group
Produkt-Untergruppe
Producto Sub Grupo
Produit Sous-groupe
Prodotto Sub Gruppo

Product Group
Produktgruppe
Grupo de productos
Groupe de produits
Gruppo prodotti

Product Picture & Profile
Produkt Bild und Profil
Cuadro del producto y Perfil
Image de produit et de profil
Immagine del prodotto e il profilo

SS-006-11

SS Product group of discipline

006 Consecutive number within the group or discipline

11 Size/shaped of the product

SS Artikelgruppe oder Disziplin

006 Laufende Nummer innerhalb der Gruppe oder Disziplin

11 Größe/Figur des Instruments

SS Grupo de artículos o especialidad

006 Número corrido dentro del grupo o especialidad

11 Tamaño/forma del instrumento

SS Groupe d'articles ou discipline

006 Numéro courant au sein du groupe ou de la discipline

11 taille/forme de l'instrument

SS Gruppo di articoli o, disciplina

006 Numero progressivo all'interno del gruppo o della disciplina

11 Dimensioni/forma dello strumento



TECHNICAL TERMS TRANSLATION TABLE

English	German	French	Italian	Spanish
Accessories	Zubehör	Accessoires	Accessori	Accesorios
Adjustable	Verstellbar	Réglable	Adeguabile	Ajustable
Adult size	Erwachsenergrösse	Taille adulte	Misura Adulto	Tamaño adulto
Angled	Gewinkelt	Coudé	Piegato	Acodado
Arm	Arm	Bras	Braccio	Braso
Articulation	Gelenkverbindung	Articulation	Articolazione	Articulación
Atrauma	Atraumatisch	Atraumatique	Atraumatico	Atraumático
Ball Type	Kugelende	Embout sphérique	Puntale A Palla	Punta con bola
Blade	Blatt, Valve	Valve	Valva	Valva
Blunt	Stumpf	Mousse	Smusso	Romo
Bone	Knochen	Os	Ossa	Hueso
Bone rongeur	Knochenzange	Gouge	Sgorbia	Gubia
Child size	Kindergrösse	Taille enfant	Misura Pediatrica	Tamaño niño
Circumflex	Zirkumflex	Circonflexe	Circonflesso	Circunflejo
Counterbalanced	Gegengewichtig	Contre poids	Contropeso	Contra peso
Curved	Gebogen	Courbe	Curvo	Curvo
Delicate	Empfindlich	Délicat	Delicato	Delicado
Depth	Tiefe	Profondeur	Profondità	Profundidad
Dissecting	Sezierung	Dissection	Dissezione	Dissección
Dissector	Dissektor	Dissecteur	Dissettore	Disector
External	Aussen Liegend	Externe	Esterno	Externo
Fine	Dünn, Fein	Fin	Fino	Fino
Fingerplate	Fingerplatte	Contrôle au doigt	Controllo Digitale	Control digital
Flat	Flach, Eben	Plat	Piatto	Plano
Forceps	Pinzette	Pince	Pinza	Pinza
Hand retractor	Handretractor	Valve à main	Divaricatore A Mano	Separador a mano
Handle	Griff, Stiel	Manche	Manico	Mango
Height	Höhe	Hauteur	Altezza	Altura
Hook	Haken	Crochet	Gancio	Gancho
Infant	Kleinkind	Nourisson	Bambino	Niño de pecho
Jaws	Kinnbacken	Mors	Morso	Boca
Knot pusher	Schlingengabel	Pousse noeud	Stringinodo	Empujador de nudo
Large	Gross	Grand	Grande	Alto
Left	Links	Gauche	Sinistro	A la Izquierda
Length	Länge	Longueur	Lunghezza	Longitud
Ligature	Unterbindung	Ligature	Ligatura	Ligatura
Lung	Lunge	Poumon	Polmone	Pulmón
Medium	Mittel	Moyen	Medio	Medio
Multipurpose	Mehrzweck	Multi-fonctions	Funzione Multipla	Multi-función
Needle holder	Nadelhalter	Porte aiguille	Portaghi	Porta agujas
Needle pulling	Nadelaufnehmer	À saisir les aiguilles	Pinza Stringi Ago	Para coger las agujas
Newborn	Neugeborenen	Nouveau né	Neonato	Recién nacido
On Flat	Flach	Sur le plat	Piatto En	En el plano
Opening	Öffnung	Ouverture	Apertura	Apertura
Pair	Paar	Paire	Paia	Pár
Prong	Zinke	Griffe	Denti	Dientes
Rack	Gestell	Crémaillère	Cremagliera	Cremallera
Raspatory	Schabeisen	Rugine	Raschiatoio	Raspador
Ratchet	Sperre	Crémaillère	Cremagliera	Cremallera
Retractor	Retraktor	Ecarteur	Divaricatore	Separador
Rib contractor	Rippenschliesser	Rapprocheur de côtes	Appaltatore DI Costole	Aproximador costal
Right	Rechts	Droite	Destra	A la derecha
Ring Handle	Ringgriff	A anneaux	Ad Anelli	Con anillos
Ring Tip	Ringspitze	Embout en anneau	Punta Ad Anelli	Punta con anillo
Rongeur	Knochenzange	Gouge	Sgorbia	Gubia
Round	Rund	Rond	Ton Do	Redondo
Scissors	Schere	Ciseaux	Forbici	Tijeras
Serrated	Gezähnt	Strié	Striato	Estriado
Shanks	Schenkel	Branches	Ramo	Mango
Sharp	Scharf	Acéré	Acute	Acerado
Small	Klein	Petit	Piccolo	Pequeño
Smooth	glatt	Lisse	Liscio	Liso
Spatula	Spatel	Spatule	Spatula	Espátula
Straight	Gerade	Droit	Dritto	Recto
Suction tube	Saugrohr	Canule d'aspiration	Canula DI Aspirazione	Cánula de aspiración
Suture passer	Suture passer	Tire-Fil	Passa-fili	Pasa-hilo
Teeth	Zähne	Dents	Denti	Dientes
Thermic purge	Thermische	Purgeur	Purgatore	Purgador
Thin	Dünn	Etroit	Ristretto	Estrecho
Thread	Faden, Zwirn	Torsade	Filo	Hilo
Tip	Spitze	Bout	Estremità	Punta
Tissue seizing	Gewebegrasse	Préhension	Presca	Presión
Twister	Dreher	Pince à torsader	Cerchiatura	Pinza para retorcer
Tying forceps	Binden	Dissection	Dissezione	Dissección
Vessel	Gefäß	Vaisseau	Vaso	Vaso
Width	Breite / Weite	Largeur	Larghezza	Anchura
Wire Cutter	Drahtschneider	Coupe-Fils	Taglia Cavo	Alicate para cortar alambre
With / Without	Mit / Ohne	Avec / Sans	Con / Senza	Con / Sin

MEASUREMENTS, STANDARDS, AND CONVERSIONS

Millimeter Equivalents

MM = INCHES	MM = INCHES	MM = INCHES
.1 = .00384	29.0 = 1.14173	65.0 = 2.55905
.2 = .00787	30.0 = 1.18110	66.0 = 2.59842
.3 = .01181	31.0 = 1.22047	67.0 = 2.63779
.4 = .01575	32.0 = 1.25984	68.0 = 2.67716
.5 = .01968	33.0 = 1.29921	69.0 = 2.71653
.6 = .02362	34.0 = 1.33858	70.0 = 2.75590
.7 = .02756	35.0 = 1.37795	71.0 = 2.79527
.8 = .03149	36.0 = 1.41732	72.0 = 2.83464
.9 = .03543	37.0 = 1.45669	73.0 = 2.87401
1.0 = .03937	38.0 = 1.49606	74.0 = 2.91338
2.0 = .07874	38.1 = 1.5 in	75.0 = 2.95275
3.0 = .11811	39.0 = 1.53543	76.0 = 2.99212
4.0 = .15748	40.0 = 1.57480	76.2 = 3.0 in
5.0 = .19685	41.0 = 1.61417	77.0 = 3.03149
6.0 = .23622	42.0 = 1.65354	78.0 = 3.07056
7.0 = .27559	43.0 = 1.69291	79.0 = 3.11023
8.0 = .31496	44.0 = 1.73228	80.0 = 3.14960
9.0 = .35433	45.0 = 1.77165	81.0 = 3.18897
10.0 = .39370	46.0 = 1.81102	82.0 = 3.22834
11.0 = .43307	47.0 = 1.85039	83.0 = 3.26771
12.0 = .47244	48.0 = 1.88976	84.0 = 3.30708
12.7 = .5 in	49.0 = 1.92913	85.0 = 3.34645
13.0 = .51181	50.0 = 1.96350	86.0 = 3.38582
14.0 = .55118	50.8 = 2.0 in	87.0 = 3.42519
15.0 = .59055	51.0 = 2.00787	88.0 = 3.46456
16.0 = .62992	52.0 = 2.04724	88.9 = 3.5 in
17.0 = .66929	53.0 = 2.08661	89.0 = 3.50393
18.0 = .70866	54.0 = 2.12598	90.0 = 3.54330
19.0 = .74803	55.0 = 2.16535	91.0 = 3.58267
20.0 = .78740	56.0 = 2.20472	92.0 = 3.62204
21.0 = .82677	57.0 = 2.24409	93.0 = 3.66141
22.0 = .86614	58.0 = 2.28346	94.0 = 3.70078
23.0 = .90551	59.0 = 2.32283	95.0 = 3.74015
24.0 = .94488	60.0 = 2.36220	96.0 = 3.77952
25.0 = .98425	61.0 = 2.40157	97.0 = 3.81889
25.4 = 1.0 in	62.0 = 2.44094	98.0 = 3.85826
26.0 = 1.02362	63.0 = 2.48031	99.0 = 3.89763
27.0 = 1.06299	63.5 = 2.5 in	100.0 = 3.93700
28.0 = 1.10236	64.0 = 2.51968	101.6 = 4.0 in

Needle Tubing Equivalents

SIZE GAUGE NO.	APPROX. O.D.	
	MM	INCHES
26	0.4	.018
24	0.5	.022
22	0.7	.028
20	0.9	.035
18	1.3	.053
16	1.6	.065
14	2.1	.083
12	2.8	.109
10	3.4	.134
8	4.2	.165
6	5.1	.203

Suction Tubing Equivalents

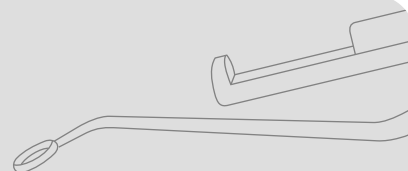
SIZE FRENCH GAUGE NO.	APPROX. O.D.	
	MM	INCHES
3	1.0	.039
4	1.3	.053
5	1.7	.066
6	2.0	.079
7	2.3	.092
8	2.7	.105
9	3.0	.118
10	3.3	.131
11	3.7	.144
12	4.0	.158
13	4.3	.170
14	4.7	.184
15	5.0	.197
16	5.3	.210



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Neurochirurgia



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NS

NEUROSURGERY

Neurosurgery deals with the diagnosis and treatment of pathological processes, which affect the nervous system. It includes the operative, non-operative, intensive care management and rehabilitation of patients with disorders affecting the brain and skull, spine and nervous system.

Perfection is in high demand in this discipline and requires talent, expertise and precision instrument manufacturing. At Surtex we support the skilled hands of the surgeon with high quality instruments for perfect surgical work.

Our neurosurgery instruments include but are not limited to the following Special Micro- Neurosurgical Instruments, special microsurgical tube-shaft Instruments, head-cranio instruments and holding systems, pituitary instruments, self-retaining retractors, spine instruments, kerrison punches and laminectomy rongeurs, vessel and bulldog clamps, vessel clips, general surgical instruments, neuro-orthopedic instruments and headrest systems to fix the patient's head and flexible Leyla retractor systems.

Neurochirurgie

Neurocirugía

Neurochirurgie

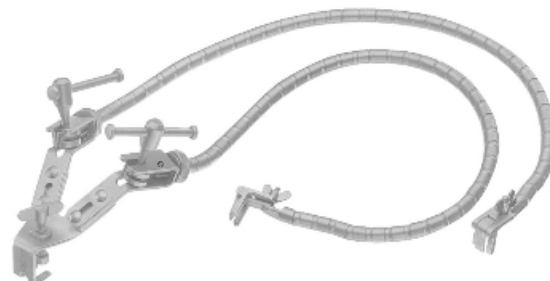
Neurochirurgia



Self-Retaining Brain Retractor
Selbsthaltender Hirnretractor
Separador cerebral autostático
Retracteur cérébrale autostatique
Retratore celebrale autostatico

Yasargil (Leyla) Brain Retractor Single Arm Complete

Catalog #	Size
NS-010-01	Standard



Yasargil (Leyla) Brain Double Retractor Arm Complete

Catalog #	Size
NS-010-02	Standard



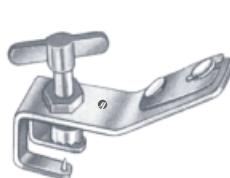
Yasargil (Leyla) Flexible Arm

Catalog #	Size
NS-010-10	Standard



Yasargil (Leyla) Flexible Base

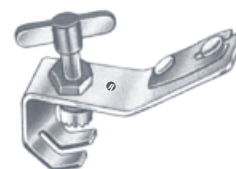
Catalog #	Size
NS-010-21	Standard
NS-010-22	Standard
NS-010-30	Standard



NS-010-21



NS-010-22



NS-010-30

Yasargil (Leyla) Support for Round Spatulas

Catalog #	Size
NS-010-40	Standard

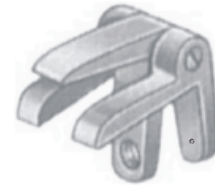




Self-Retaining Brain Retractor
Selbsthaltender Hirnretractor
Separador cerebral autostático
Retracteur cérébrale autostatique
Retratore celebrale autostatico

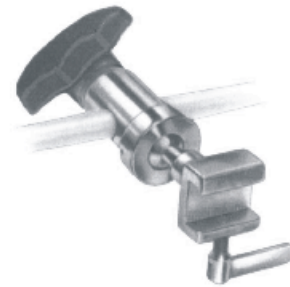
Yasargil (Leyla) Support for Flat Spatulas

Catalog #	Size
NS-010-45	Standard



Yasargil (Leyla) Ball and Socket Joint

Catalog #	Size
NS-012-09	9 x 32 mm
NS-012-10	10 x 25 mm



Yasargil (Leyla) Holding Rod

Catalog #	Size
NS-012-20	Standard



Yasargil (Leyla) Coupling Head

Catalog #	Size
NS-012-25	Standard
NS-012-40	Standard



NS-012-25



NS-012-40

Caspar Vertebral Distractor
Right

Catalog #	Size
NS-020-01	Standard





Vertebral Distractor
Wirbel distractor
Vertebrales distractor
Vertébrale distracteur
Vertebrale distrattore

Caspar Drill Guide Right

Catalog #	Size
NS-020-02	Standard



Caspar Vertebral Distractor Left

Catalog #	Size
NS-022-01	Standard



Caspar Drill Guide Left

Catalog #	Size
NS-022-02	Standard



Caspar Twist Drill

Catalog #	Size
NS-024-00	14.5 cm (5 1/2")



Caspar Distraction Screw

Catalog #	Working End
NS-026-14	14 mm
NS-026-16	16 mm
NS-026-18	18 mm





Discectomy Retractor
Muskelspreizer
Separadores para Músculos
Ecarteurs Musculaire
Divaricatori Muscolari

Casper Screw Driver



Catalog #	Size
NS-028-20	20 cm (8")

Meyerding Hemi-Laminectomy Retractor



Catalog #	Size, Blade Size
NS-030-44	20 cm (8"), 44 x 25 mm
NS-030-54	20 cm (8"), 54 x 25 mm
NS-030-60	20 cm (8"), 60 x 25 mm

Markham-Meyerding Hemi-Laminectomy Retractor Right Solid Blade



Catalog #	Size, Blade Size
NS-033-40	19 cm (7 1/2"), 40 x 25 mm
NS-033-50	19 cm (7 1/2"), 50 x 25 mm
NS-033-60	19 cm (7 1/2"), 60 x 25 mm

Markham-Meyerding Hemi-Laminectomy Retractor Left Solid Blade



Catalog #	Size, Blade Size
NS-035-40	19 cm (7 1/2"), 40 x 25 mm
NS-035-50	19 cm (7 1/2"), 50 x 25 mm
NS-035-60	19 cm (7 1/2"), 60 x 25 mm



Skull Traction Tongs
Schädelhalter
Estríbos de tracción craneal
Pinces de traction crânienne
Pinze per trazione craniale

Gigli Wire Saw

Catalog #	Size
NS-050-30	30 cm (11 3/4")
NS-050-40	40 cm (11 3/4")
NS-050-50	50 cm (11 3/4")
NS-050-60	60 cm (11 3/4")
NS-050-70	70 cm (11 3/4")



Gigli Wire Saw Handle

Catalog #	Size
NS-055-00	Standard



De Martel Wire Saw Guide

Catalog #	Size
NS-058-00	33 cm (13")



Crutchfield Skull Traction Tongs Small Pattern

Catalog #	Size
NS-061-01	Standard



Crutchfield Skull Traction Tongs Medium Pattern

Catalog #	Size
NS-061-02	Standard





Wrench



Catalog #	Size
NS-075-02	Standard

Crutchfield Drill Point



Catalog #	Size, Diameter
NS-065-35	7 cm (2 ¾"), Ø 3.5 mm
NS-065-50	7 cm (2 ¾"), Ø 5.0 mm

Skull Traction Tongs Large Pattern



Catalog #	Size
NS-071-00	Standard

Spare Pin



Catalog #	Size
NS-075-01	Standard

Adson Drill Guide & Dura Protector



Catalog #	Size
NS-081-15	15 cm, (6")



Cranial Rongeurs
Schädelzangen
Pinzas sacabocados craneales
Pinces emporte-pièces crâniennes
Pinze per craniectomia

Bacon Cranial Rongeur

Catalog #	Size
NS-083-21	21 cm, (8 1/4")



Adson Cranial Rongeur Straight

Catalog #	Size
NS-086-20	20 cm, (8")



Adson Cranial Rongeur Curved

Catalog #	Size
NS-087-20	20 cm, (8")



Dahlgren Cranial Rongeur

Catalog #	Size
NS-091-20	20 cm (8")



De Vilbiss Cranial Rongeur

Catalog #	Size
NS-093-21	20.5 cm (8")



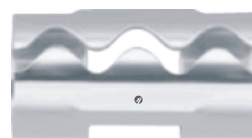
Clips and Applying Forceps
Clips und Anlegezangen
Grapas y pinzas aplicadoras
Clips et pinces pour appliquer
Agrafes e pinze per applicare

NS
NEUROSURGERY
Cone Cranial Punch

Catalog #	Size
NS-095-22	22.5 cm (8 ¾")


Raney Scalp Clip

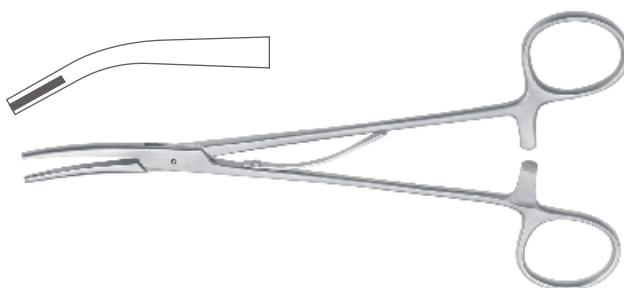
Catalog #	Size
NS-100-00	Standard


Raney Applying - Removal Forcep

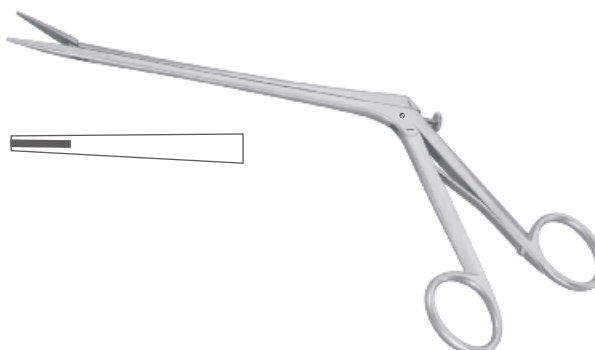
Catalog #	Size
NS-102-00	15.5 cm (6")


McKenzie Clip Applying Forcep

Catalog #	Size
NS-112-19	18.5 cm (7 ¼")


Olivecrona-Toennis Clip Applying Forcep

Catalog #	Size, Shaft Length
NS-115-14	N/A, 140 mm





Dura Dissectors
Duradissektoren
Disecadores para duramadre
Dissecteurs à dure-mère
Dissettori per la dura-madre

Silver Brain Clip
Pack of 100



Catalog #	Size
NS-118-00	Standard

Yasargil Galea Hook



Catalog #	Size
NS-120-01	Standard
NS-120-02	Standard



Davis Dura Dissector



Catalog #	Size
NS-151-21	21.5 cm (8 ½")



Davis Dura Dissector



Catalog #	Size
NS-153-24	24.5 cm (9 ¾")

Frazier Dura Dissector



Catalog #	Size
NS-155-01	15 cm (6")



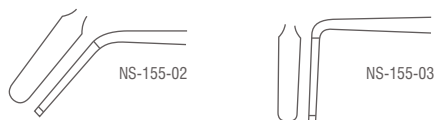


Dura Dissectors
Duradisektoren
Disecadores para duramadre
Dissecteurs à dure-mère
Dissettori per la dura-madre

NS

NEUROSURGERY

Hoen Dura Dissector



Catalog #	Size
NS-155-02	15 cm (6")
NS-155-03	15 cm (6")



Love-Adson Dura Dissector

Catalog #	Size
NS-157-16	16 cm (6 1/2")



Toennis Dura Dissector



Catalog #	Size
NS-159-26	26 cm (10 1/4")



Olivecrona Dura Dissector



Catalog #	Size
NS-161-01	24 cm (9 1/2")



Olivecrona Dura Dissector



Catalog #	Size
NS-161-02	18 cm (7")





Dura Dissectors
Duradissectoren
Disecadores para duramadre
Dissecteurs à dure-mère
Dissettori per la dura-madre

Olivecrona Dura Dissector

Catalog #	Size
NS-161-03	24 cm (9 1/2")



Olivecrona Dura Dissector

Catalog #	Size
NS-161-04	20 cm (8")



Sachs Dura Dissector Sharp

Catalog #	Size
NS-163-21	20 cm (8")



Milligan Dura Dissector

Catalog #	Size
NS-165-21	21.5 cm (8 1/2")



Dura Dissector

Catalog #	Size
NS-167-22	22 cm (8 3/4")



Dura Dissectors
Duradissectoren
Disecadores para duramadre
Dissecteurs à dure-mère
Dissettori per la dura-madre

Penfield Dura Dissector

Catalog #	Size, Profile
NS-171-01	17.5 cm (7"), Fig. 1



Penfield Dura Dissector

Catalog #	Size, Profile
NS-171-02	19.5 cm (7 3/4"), Fig. 2



Penfield Dura Dissector

Catalog #	Size, Profile
NS-171-03	19.5 cm (7 3/4"), Fig. 3



Penfield Dura Dissector

Catalog #	Size, Profile
NS-171-04	20.5 cm (8"), Fig. 4



Penfield Dura Dissector

Catalog #	Size, Profile
NS-171-05	18 cm (7"), Fig. 5



NS

NEUROSURGERY



Nerve Root Retractors
Nervwurzelhaken
Separadores para la raíz de nervio
Retracteurs pour racines nerveuses
Uncini per le radici dei nervi

Horsley Dura Elevator

Catalog #	Size
NS-181-20	20 cm (8")



Sachs Dura Elevator

Catalog #	Size
NS-183-21	21 cm (8 1/4")



Love Nerve Root Retractor Straight

Catalog #	Size
NS-190-21	21.5 cm (8 1/2")



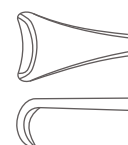
Love Nerve Root Retractor Angled 45°

Catalog #	Size
NS-191-18	17.5 cm (7")



Love Nerve Root Retractor Angled 90°

Catalog #	Size
NS-193-11	11 cm (4 1/4")



Nerve Root Retractors
Nervwurzelhaken
Separadores para la raíz de nervio
Retracteurs pour racines nerveuses
Uncini per le radici die nervi

NS
NEUROSURGERY
Love Nerve Root Retractor


Catalog #	Size
NS-195-21	22 cm (8 ¾")

Hess Nerve Root Retractor


Catalog #	Size, Width
NS-197-03	17.5 cm (7"), 3 mm
NS-197-05	17.5 cm (7"), 5 mm
NS-197-07	17.5 cm (7"), 7 mm

Scoville Nerve Root Retractor


Catalog #	Size
NS-200-23	23.5 cm (9 ¼")

Holsher Nerve Root Retractor


Catalog #	Size
NS-201-24	23.5 cm (9 ¼")

Scoville Nerve Root Retractor


Catalog #	Size
NS-203-19	16.5 cm (6 ½")



Brain Spatulas
Hirnspatel
Espátulas cerebrales
Spatules cérébrales
Spatole cerebrali

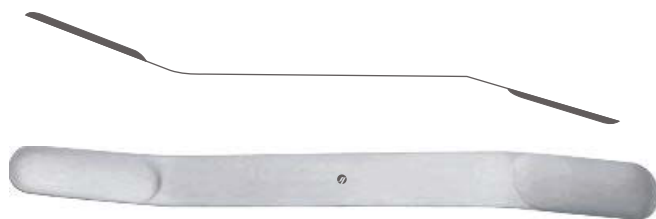
Cushing Brain Spatulas

Catalog #	Size, Blade Size
NS-210-07	18 cm (7"), 7 + 9 mm
NS-210-11	18 cm (7"), 11 + 13 mm
NS-210-15	18 cm (7"), 15 + 18 mm
NS-210-18	18 cm (7"), 18 + 22 mm



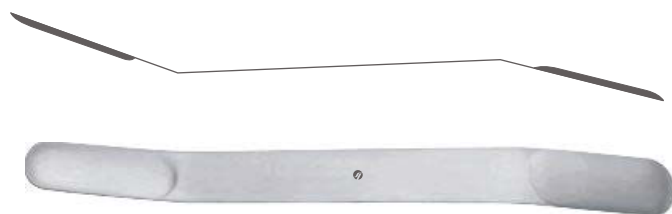
Olivecrona Brain Spatulas Concave

Catalog #	Size, Blade Size
NS-213-07	18 cm (7"), 7 + 9 mm
NS-213-11	18 cm (7"), 11 + 13 mm
NS-213-15	18 cm (7"), 15 + 18 mm
NS-213-18	18 cm (7"), 18 + 22 mm



Olivecrona Brain Spatulas Convex

Catalog #	Size, Blade Size
NS-215-07	18 cm (7"), 7 + 9 mm
NS-215-11	18 cm (7"), 11 + 13 mm
NS-215-15	18 cm (7"), 15 + 18 mm
NS-215-18	18 cm (7"), 18 + 22 mm





Brain Spatulas, Nerve Hooks
Hirnspatel, Nervhaken
Espátulas cerebrales, Ganchos para nervios
Spatules cérébrales, Crochets à nerfs
Spatole cerebrali, Uncini per nervi

Heifetz Brain Spatulas

Catalog #	Size, Blade Size
NS-218-07	20 cm (8"), 7 + 8 mm
NS-218-10	20 cm (8"), 10 + 11 mm
NS-218-13	20 cm (8"), 13 + 14 mm
NS-218-15	20 cm (8"), 15 + 17 mm
NS-218-19	20 cm (8"), 19 + 20 mm
NS-218-22	20 cm (8"), 22 + 22 mm



Heifetz Brain Spatulas Round Handle

Catalog #	Size, Blade Size
NS-221-08	20 cm (8"), 8 mm
NS-221-11	20 cm (8"), 11 mm
NS-221-14	20 cm (8"), 14 mm
NS-221-17	20 cm (8"), 17 mm
NS-221-20	20 cm (8"), 20 mm



Brain Spatulas Malleable

Catalog #	Size
NS-224-12	20 cm (8"), 12 mm
NS-224-17	20 cm (8"), 17 mm



Smithwick Nerve Hook

Catalog #	Size
NS-231-17	17 cm (6 3/4")





Nerve Hooks
Nervhaken
Ganchos para nervios
Crochets à nerfs
Uncini per nervi

Smithwick Nerve Hook



Catalog #	Size
NS-233-21	21 cm (8 1/4")

Adson Dura Hook



Catalog #	Size, Profile
NS-234-20	20 cm (8"), Sharp
NS-235-20	20 cm (8"), Curved

Graham Dura Hook

Blunt



Catalog #	Size
NS-237-16	16.5 cm (6 1/2")

Sachs Dura Hook

Sharp



Catalog #	Size
NS-239-18	18 cm (7")

Frazier Dura Hook

Sharp



Catalog #	Size
NS-241-18	18 cm (7")

Nerve Hooks, Dura Knives
Nervhaken, Duramesser
Ganchos para nervios, Bisturís para duramadre
Crochets à nerfs, Bistouries pour duremère
Uncini per nervi, Bisturi per duramadre

NS
NEUROSURGERY
Hoen Nerve Retractor


Catalog #	Size
NS-245-22	22 cm (8 ¾")

Dandy Nerve Retractor


NS-251-01



NS-251-02



NS-251-03

Catalog #	Size
NS-251-01	20 cm (8")
NS-251-02	20 cm (8")
NS-251-03	20 cm (8")

Smithwick Nerve Retractor


Catalog #	Size
NS-253-29	29 cm (11 ½")

Toennis Nerve Retractor


Catalog #	Size
NS-261-15	15 cm (6")

Toennis Brain Knife


Catalog #	Size
NS-280-18	18 cm (7")



Dura Knives, Laminectomy Punches
Duramesser, Laminektomiestanzen
Bisturís para duramadre, Pinzas cortantes para laminectomía
Bistouries pour duremère, Pincas emporte-pièces à laminectomie
Bisturi per duramadre, Pinze taglianti per laminectomia

Halle Brain Knife



Catalog #	Size
NS-282-20	20 cm (8")

Ferris-Smith Kerrison Rongeur Up Cutting



Catalog #	Size, Bite Size
NS-300-01	15 cm (6"), 1 mm
NS-300-02	15 cm (6"), 2 mm
NS-300-03	15 cm (6"), 3 mm
NS-300-04	15 cm (6"), 4 mm
NS-300-05	15 cm (6"), 5 mm

Ferris-Smith Kerrison Rongeur Down Cutting



Catalog #	Size, Bite Size
NS-301-01	15 cm (6"), 1 mm
NS-301-02	15 cm (6"), 2 mm
NS-301-03	15 cm (6"), 3 mm
NS-301-04	15 cm (6"), 4 mm
NS-301-05	15 cm (6"), 5 mm

Ferris-Smith Kerrison Rongeur 40° Forward Up Cutting



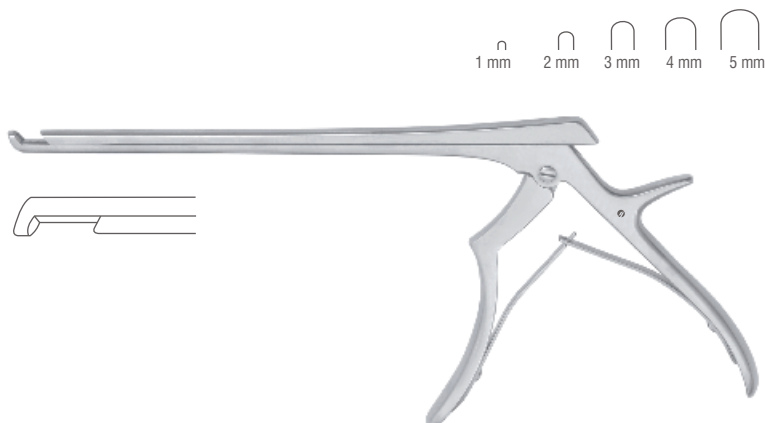
Catalog #	Size, Bite Size
NS-302-01	15 cm (6"), 1 mm
NS-302-02	15 cm (6"), 2 mm
NS-302-03	15 cm (6"), 3 mm
NS-302-04	15 cm (6"), 4 mm
NS-302-05	15 cm (6"), 5 mm



Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pinces emporte-pièces à laminectomie
Pinze taglianti per laminectomia

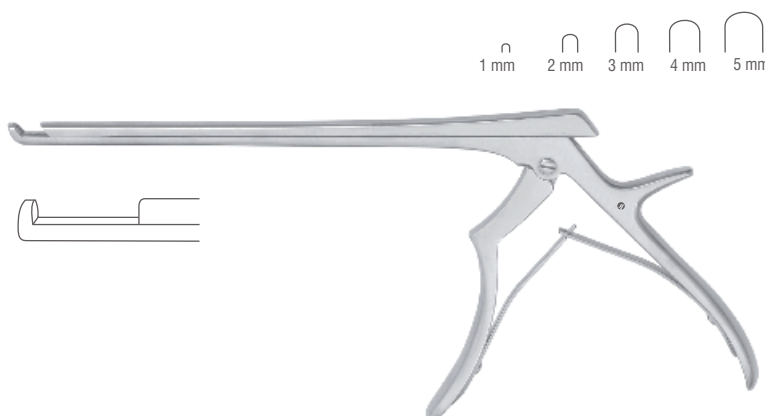
Ferris-Smith Kerrison Rongeur
40° Forward Down Cutting

Catalog #	Size, Bite Size
NS-303-01	15 cm (6"), 1 mm
NS-303-02	15 cm (6"), 2 mm
NS-303-03	15 cm (6"), 3 mm
NS-303-04	15 cm (6"), 4 mm
NS-303-05	15 cm (6"), 5 mm



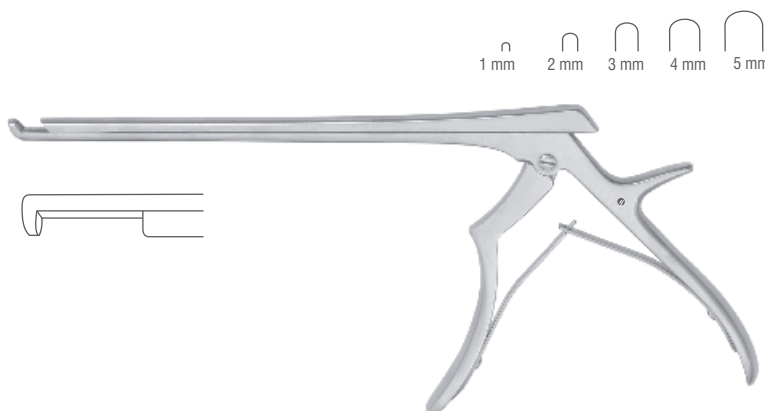
Ferris-Smith Kerrison Rongeur
Up Cutting

Catalog #	Size, Bite Size
NS-304-01	18 cm (7"), 1 mm
NS-304-02	18 cm (7"), 2 mm
NS-304-03	18 cm (7"), 3 mm
NS-304-04	18 cm (7"), 4 mm
NS-304-05	18 cm (7"), 5 mm



Ferris-Smith Kerrison Rongeur
Down Cutting

Catalog #	Size, Bite Size
NS-305-01	18 cm (7"), 1 mm
NS-305-02	18 cm (7"), 2 mm
NS-305-03	18 cm (7"), 3 mm
NS-305-04	18 cm (7"), 4 mm
NS-305-05	18 cm (7"), 5 mm





Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pinces emporte-pièces à laminectomie
Pinze taglienti per laminectomia

Ferris-Smith Kerrison Rongeur
40° Forward Up Cutting



Catalog #	Size, Bite Size
NS-306-01	18 cm (7"), 1 mm
NS-306-02	18 cm (7"), 2 mm
NS-306-03	18 cm (7"), 3 mm
NS-306-04	18 cm (7"), 4 mm
NS-306-05	18 cm (7"), 5 mm



Ferris-Smith Kerrison Rongeur
40° Forward Down Cutting



Catalog #	Size, Bite Size
NS-307-01	18 cm (7"), 1 mm
NS-307-02	18 cm (7"), 2 mm
NS-307-03	18 cm (7"), 3 mm
NS-307-04	18 cm (7"), 4 mm
NS-307-05	18 cm (7"), 5 mm



Ferris-Smith Kerrison Rongeur
Up Cutting



Catalog #	Size, Bite Size
NS-308-01	20 cm (8"), 1 mm
NS-308-02	20 cm (8"), 2 mm
NS-308-03	20 cm (8"), 3 mm
NS-308-04	20 cm (8"), 4 mm
NS-308-05	20 cm (8"), 5 mm

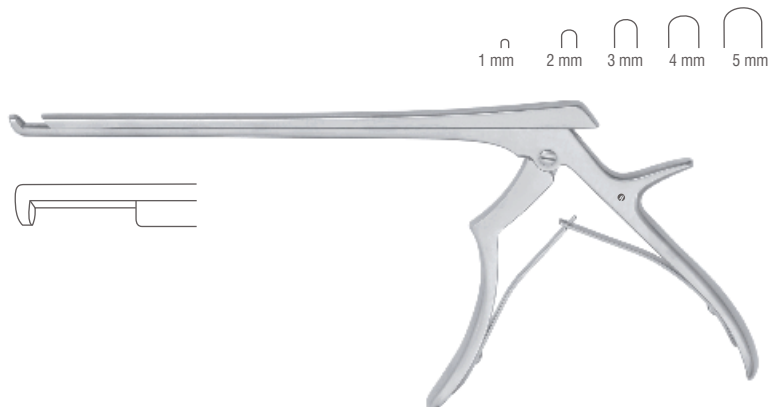




Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pincers emporte-pièces à laminectomie
Pinze taglianti per laminectomia

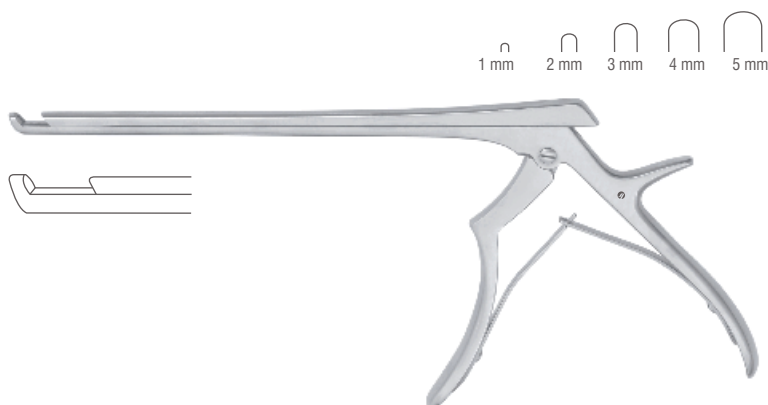
Ferris-Smith Kerrison Rongeur
Down Cutting

Catalog #	Size, Bite Size
NS-309-01	20 cm (8"), 1 mm
NS-309-02	20 cm (8"), 2 mm
NS-309-03	20 cm (8"), 3 mm
NS-309-04	20 cm (8"), 4 mm
NS-309-05	20 cm (8"), 5 mm



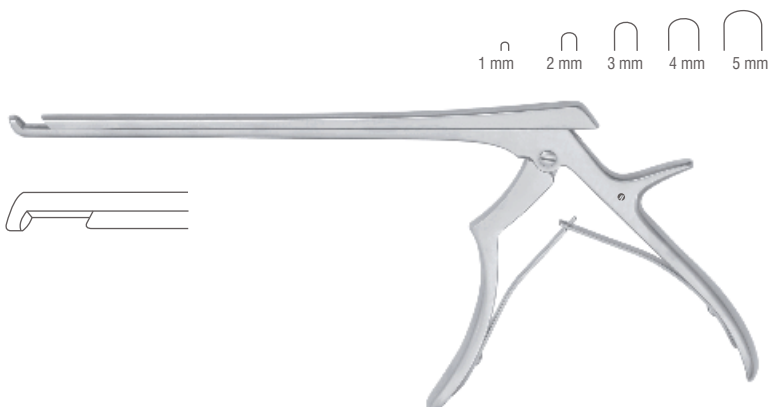
Ferris-Smith Kerrison Rongeur
40° Forward Up Cutting

Catalog #	Size, Bite Size
NS-310-01	20 cm (8"), 1 mm
NS-310-02	20 cm (8"), 2 mm
NS-310-03	20 cm (8"), 3 mm
NS-310-04	20 cm (8"), 4 mm
NS-310-05	20 cm (8"), 5 mm



Ferris-Smith Kerrison Rongeur
40° Forward Down Cutting

Catalog #	Size, Bite Size
NS-311-01	20 cm (8"), 1 mm
NS-311-02	20 cm (8"), 2 mm
NS-311-03	20 cm (8"), 3 mm
NS-311-04	20 cm (8"), 4 mm
NS-311-05	20 cm (8"), 5 mm





Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pincas emporte-pièces à laminectomie
Pinze taglienti per laminectomia

Ferris-Smith Kerrison Rongeur
Detachable Model, Up Cutting

Catalog #	Size, Bite Size
NS-320-01	18 cm (7"), 1 mm
NS-320-02	18 cm (7"), 2 mm
NS-320-03	18 cm (7"), 3 mm
NS-320-04	18 cm (7"), 4 mm
NS-320-05	18 cm (7"), 5 mm



Ferris-Smith Kerrison Rongeur
Detachable Model, Down Cutting

Catalog #	Size, Bite Size
NS-321-01	18 cm (7"), 1 mm
NS-321-02	18 cm (7"), 2 mm
NS-321-03	18 cm (7"), 3 mm
NS-321-04	18 cm (7"), 4 mm
NS-321-05	18 cm (7"), 5 mm



Ferris-Smith Kerrison Rongeur
Detachable Model, 40° Forward Up Cutting

Catalog #	Size, Bite Size
NS-322-01	18 cm (7"), 1 mm
NS-322-02	18 cm (7"), 2 mm
NS-322-03	18 cm (7"), 3 mm
NS-322-04	18 cm (7"), 4 mm
NS-322-05	18 cm (7"), 5 mm



Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pinces emporte-pièces à laminectomie
Pinze taglianti per laminectomia

NS
NEUROSURGERY

Ferris-Smith Kerrison Rongeur
Detachable Model, 40° Forward Down Cutting

Catalog #	Size, Bite Size
NS-323-01	18 cm (7"), 1 mm
NS-323-02	18 cm (7"), 2 mm
NS-323-03	18 cm (7"), 3 mm
NS-323-04	18 cm (7"), 4 mm
NS-323-05	18 cm (7"), 5 mm



Ferris-Smith Kerrison Rongeur
Detachable Model, Up Cutting

Catalog #	Size, Bite Size
NS-324-01	20 cm (8"), 1 mm
NS-324-02	20 cm (8"), 2 mm
NS-324-03	20 cm (8"), 3 mm
NS-324-04	20 cm (8"), 4 mm
NS-324-05	20 cm (8"), 5 mm



Ferris-Smith Kerrison Rongeur
Detachable Model, Down Cutting

Catalog #	Size, Bite Size
NS-325-01	20 cm (8"), 1 mm
NS-325-02	20 cm (8"), 2 mm
NS-325-03	20 cm (8"), 3 mm
NS-325-04	20 cm (8"), 4 mm
NS-325-05	20 cm (8"), 5 mm





Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pinces emporte-pièces à laminectomie
Pinze taglienti per laminectomia

Ferris-Smith Kerrison Rongeur
Detachable Model, 40° Up Cutting

Catalog #	Size, Bite Size
NS-326-01	20 cm (8"), 1 mm
NS-326-02	20 cm (8"), 2 mm
NS-326-03	20 cm (8"), 3 mm
NS-326-04	20 cm (8"), 4 mm
NS-326-05	20 cm (8"), 5 mm



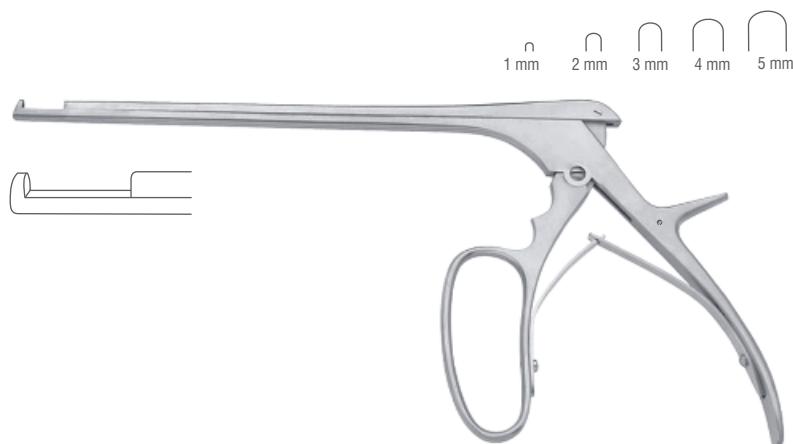
Ferris-Smith Kerrison Rongeur
Detachable Model, 40° Down Cutting

Catalog #	Size, Bite Size
NS-327-01	20 cm (8"), 1 mm
NS-327-02	20 cm (8"), 2 mm
NS-327-03	20 cm (8"), 3 mm
NS-327-04	20 cm (8"), 4 mm
NS-327-05	20 cm (8"), 5 mm



Ferris-Smith Kerrison Rongeur
Up Cutting

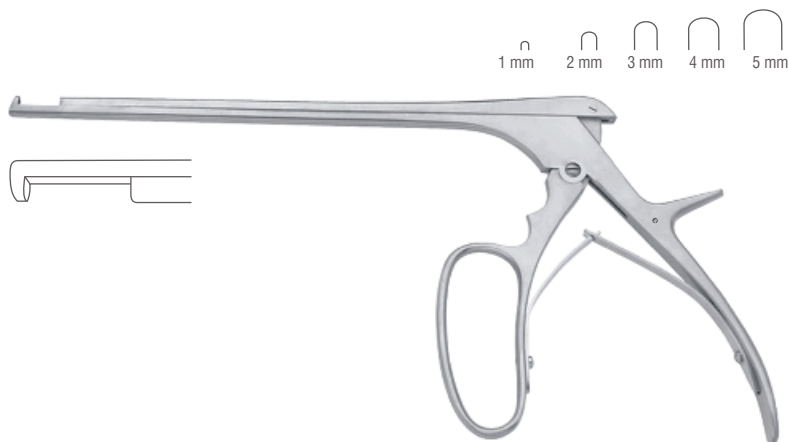
Catalog #	Size, Bite Size
NS-330-01	18 cm (7"), 1 mm
NS-330-02	18 cm (7"), 2 mm
NS-330-03	18 cm (7"), 3 mm
NS-330-04	18 cm (7"), 4 mm
NS-330-05	18 cm (7"), 5 mm



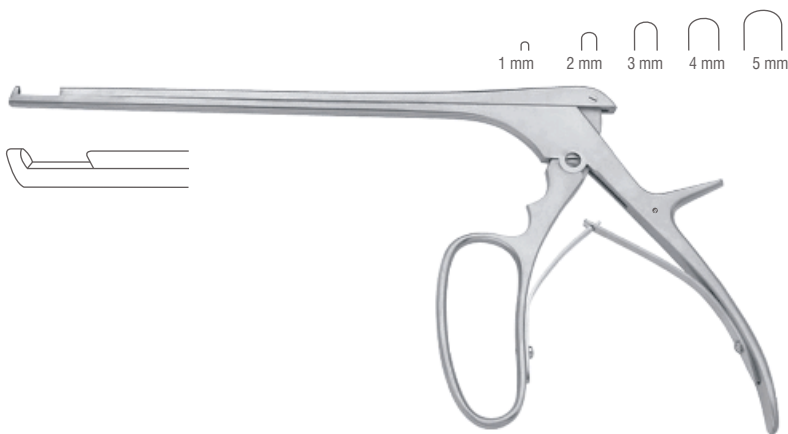
Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pincas emporte-pièces à laminectomie
Pinze taglianti per laminectomia

NS
NEUROSURGERY
Ferris-Smith Kerrison Rongeur
Down Cutting

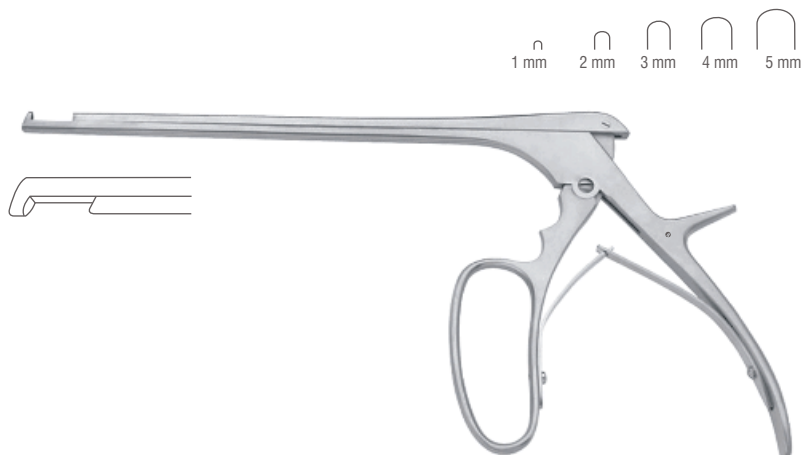
Catalog #	Size, Bite Size
NS-331-01	18 cm (7"), 1 mm
NS-331-02	18 cm (7"), 2 mm
NS-331-03	18 cm (7"), 3 mm
NS-331-04	18 cm (7"), 4 mm
NS-331-05	18 cm (7"), 5 mm


Ferris-Smith Kerrison Rongeur
40° Forward Up Cutting

Catalog #	Size, Bite Size
NS-332-01	18 cm (7"), 1 mm
NS-332-02	18 cm (7"), 2 mm
NS-332-03	18 cm (7"), 3 mm
NS-332-04	18 cm (7"), 4 mm
NS-332-05	18 cm (7"), 5 mm


Ferris-Smith Kerrison Rongeur
40° Forward Down Cutting

Catalog #	Size, Bite Size
NS-333-01	18 cm (7"), 1 mm
NS-333-02	18 cm (7"), 2 mm
NS-333-03	18 cm (7"), 3 mm
NS-333-04	18 cm (7"), 4 mm
NS-333-05	18 cm (7"), 5 mm

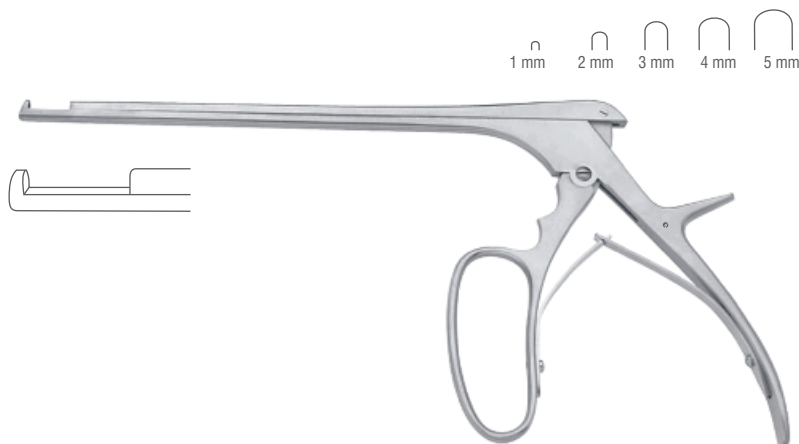




Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pincas emporte-pièces à laminectomie
Pinze taglienti per laminectomia

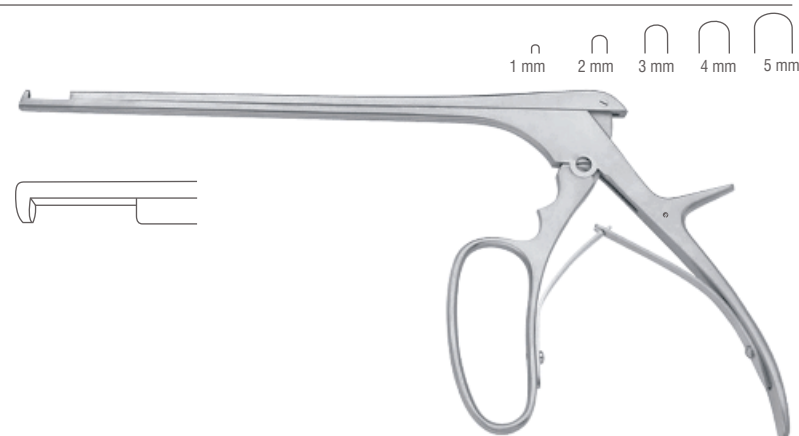
Ferris-Smith Kerrison Rongeur
Up Cutting

Catalog #	Size, Bite Size
NS-334-01	20 cm (8"), 1 mm
NS-334-02	20 cm (8"), 2 mm
NS-334-03	20 cm (8"), 3 mm
NS-334-04	20 cm (8"), 4 mm
NS-334-05	20 cm (8"), 5 mm



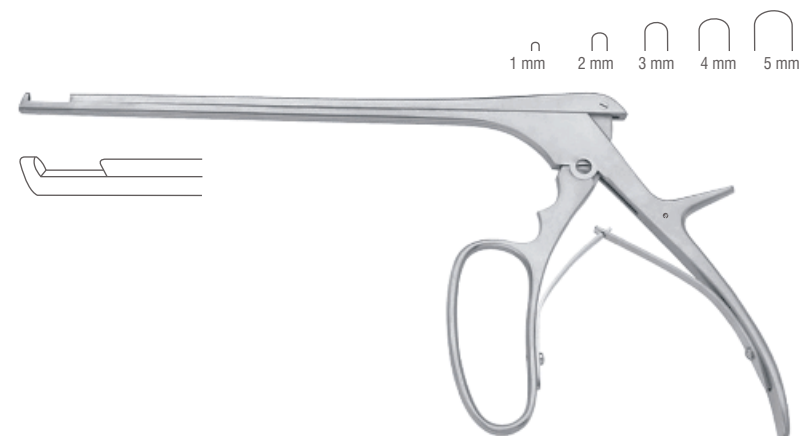
Ferris-Smith Kerrison Rongeur
Down Cutting

Catalog #	Size, Bite Size
NS-335-01	20 cm (8"), 1 mm
NS-335-02	20 cm (8"), 2 mm
NS-335-03	20 cm (8"), 3 mm
NS-335-04	20 cm (8"), 4 mm
NS-335-05	20 cm (8"), 5 mm



Ferris-Smith Kerrison Rongeur
40° Forward Up Cutting

Catalog #	Size, Bite Size
NS-336-01	20 cm (8"), 1 mm
NS-336-02	20 cm (8"), 2 mm
NS-336-03	20 cm (8"), 3 mm
NS-336-04	20 cm (8"), 4 mm
NS-336-05	20 cm (8"), 5 mm





Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pinces emporte-pièces à laminectomie
Pinze taglianti per laminectomia

NS

NEUROSURGERY

Ferris-Smith Kerrison Rongeur
40° Forward Down Cutting

Catalog #	Size, Bite Size
NS-337-01	20 cm (8"), 1 mm
NS-337-02	20 cm (8"), 2 mm
NS-337-03	20 cm (8"), 3 mm
NS-337-04	20 cm (8"), 4 mm
NS-337-05	20 cm (8"), 5 mm



Cushing Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-400-01	13 cm (5"), 2 x 10 mm, Straight
NS-400-02	13 cm (5"), 2 x 10 mm, Up
NS-400-03	13 cm (5"), 2 x 10 mm, Down



Cushing Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-401-01	15 cm (6"), 2 x 10 mm, Straight
NS-401-02	15 cm (6"), 2 x 10 mm, Up
NS-401-03	15 cm (6"), 2 x 10 mm, Down



Cushing Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-402-01	18 cm (7"), 2 x 10 mm, Straight
NS-402-02	18 cm (7"), 2 x 10 mm, Up
NS-402-03	18 cm (7"), 2 x 10 mm, Down





Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pinces emporte-pièces à laminectomie
Pinze taglienti per laminectomia

Cushing Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-403-01	20 cm (8"), 2 x 10 mm, Straight
NS-403-02	20 cm (8"), 2 x 10 mm, Up
NS-403-03	20 cm (8"), 2 x 10 mm, Down



Love-Gruenwald Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-404-01	13 cm (5"), 3 x 10 mm, Straight
NS-404-02	13 cm (5"), 3 x 10 mm, Up
NS-404-03	13 cm (5"), 3 x 10 mm, Down



Love-Gruenwald Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-405-01	15 cm (6"), 3 x 10 mm, Straight
NS-405-02	15 cm (6"), 3 x 10 mm, up
NS-405-03	15 cm (6"), 3 x 10 mm, Down



Love-Gruenwald Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-406-01	18 cm (7"), 3 x 10 mm, Straight
NS-406-02	18 cm (7"), 3 x 10 mm, Up
NS-406-03	18 cm (7"), 3 x 10 mm, Down



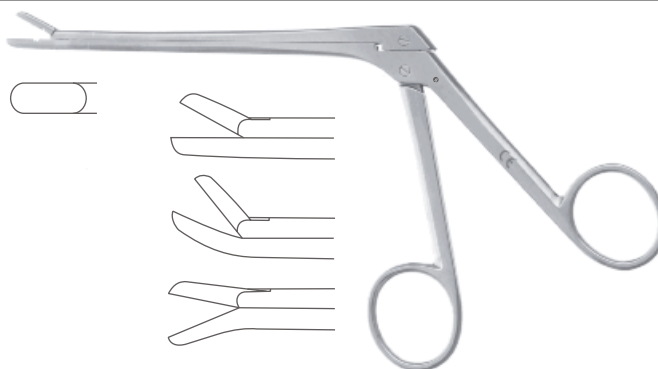
Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pincas emporte-pièces à laminectomie
Pinze taglianti per laminectomia

NS
NEUROSURGERY
Love-Gruenwald Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-407-01	20 cm (8"), 3 x 10 mm, Straight
NS-407-02	20 cm (8"), 3 x 10 mm, Up
NS-407-03	20 cm (8"), 3 x 10 mm, Down


Spurling Laminectomy Rongeur

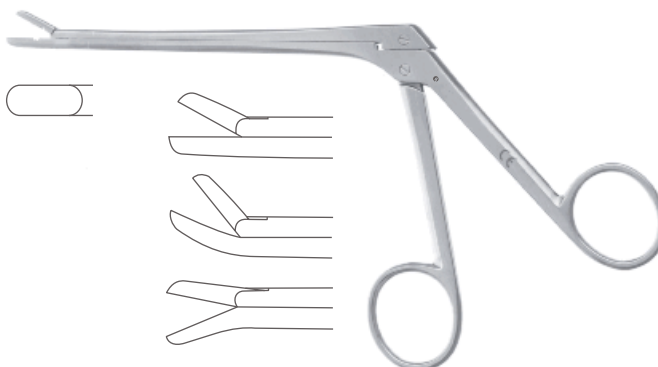
Catalog #	Size, Bite Size, Profile
NS-408-01	13 cm (5"), 4 x 10 mm, Straight
NS-408-02	13 cm (5"), 4 x 10 mm, Up
NS-408-03	13 cm (5"), 4 x 10 mm, Down


Spurling Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-409-01	15 cm (6"), 4 x 10 mm, Straight
NS-409-02	15 cm (6"), 4 x 10 mm, Up
NS-409-03	15 cm (6"), 4 x 10 mm, Down


Spurling Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-410-01	18 cm (7"), 4 x 10 mm, Straight
NS-410-02	18 cm (7"), 4 x 10 mm, up
NS-410-03	18 cm (7"), 4 x 10 mm, Down





Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pincers emporte-pièces à laminectomie
Pinze taglienti per laminectomia

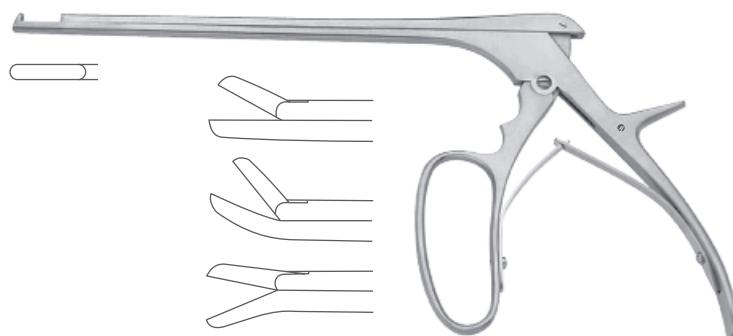
Spurling Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-411-01	20 cm (8"), 4 x 10 mm, Straight
NS-411-02	20 cm (8"), 4 x 10 mm, Up
NS-411-03	20 cm (8"), 4 x 10 mm, Down



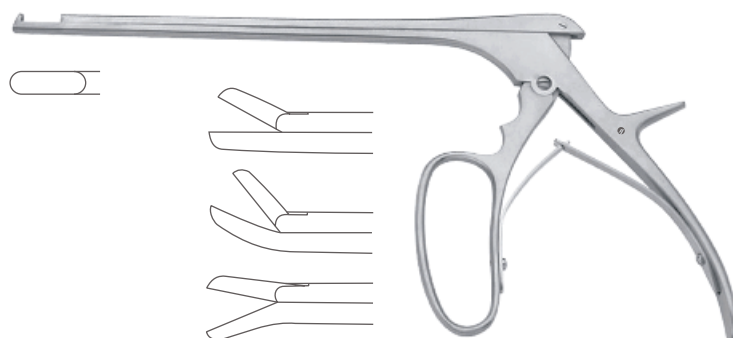
Ferris-Smith Laminectomy Rongeur Straight

Catalog #	Size, Bite Size, Profile
NS-430-01	15.5 cm (6"), 2 mm, Straight
NS-430-02	15.5 cm (6"), 2 mm, Up
NS-430-03	15.5 cm (6"), 2 mm, Down



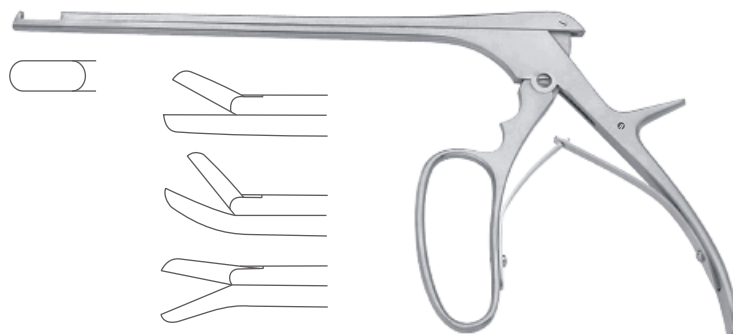
Ferris-Smith Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-431-01	18 cm (7"), 3 mm, Straight
NS-431-02	18 cm (7"), 3 mm, Up
NS-431-03	18 cm (7"), 3 mm, Down



Ferris-Smith Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-432-01	18 cm (7"), 4 mm, Straight
NS-432-02	18 cm (7"), 4 mm, Up
NS-432-03	18 cm (7"), 4 mm, Down

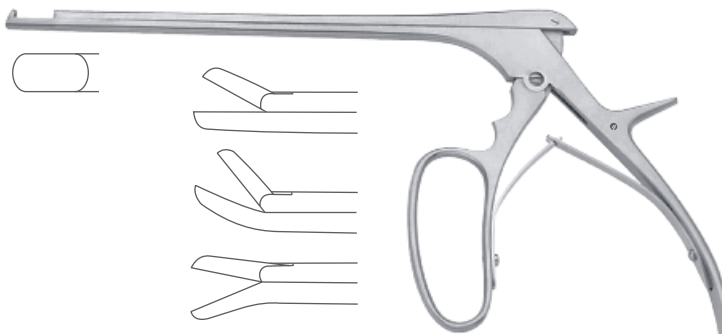




Laminectomy Punches
Laminektomiestanzen
Pinzas cortantes para laminectomía
Pincas emporte-pièces à laminectomie
Pinze taglianti per laminectomia

Ferris-Smith Laminectomy Rongeur

Catalog #	Size, Bite Size, Profile
NS-433-01	18 cm (7"), 5 mm, Straight
NS-433-02	18 cm (7"), 5 mm, Up
NS-433-03	18 cm (7"), 5 mm, Down



Laminectomy Rongeur

Fenestrated and Serrated Jaws

Catalog #	Size, Bite Size, Profile
NS-440-01	18 cm (7"), 2 x 12 mm, Straight
NS-440-02	18 cm (7"), 2 x 12 mm, Up
NS-440-03	18 cm (7"), 2 x 12 mm, Down



Laminectomy Rongeur

Fenestrated and Serrated Jaws

Catalog #	Size, Bite Size, Profile
NS-441-01	18 cm (7"), 3 x 12 mm, Straight
NS-441-02	18 cm (7"), 3 x 12 mm, Up
NS-441-03	18 cm (7"), 3 x 12 mm, Down



Laminectomy Rongeur

Straight, Fenestrated and Serrated Jaws

Catalog #	Size, Bite Size, Profile
NS-442-01	18 cm (7"), 4 x 14 mm, Straight
NS-442-02	18 cm (7"), 4 x 14 mm, Up
NS-442-03	18 cm (7"), 4 x 14 mm, Down





Laminectomy Punches, Micro Neuro Instruments
Laminektomiestanzen, Mikro Neuro Instrumente
Pinzas cortantes para laminectomia, Micro Neuro Instrumentos
Pinces emporte-pièces à laminectomie, Micro Neuro Instruments
Pinze taglianti per laminectomia, Micro Neuro Strumenti

Laminectomy Rongeur
Fenestrated and Serrated Jaws

Catalog #	Size, Bite Size, Profile
NS-443-01	18 cm (7"), 5 x 14 mm, Straight
NS-443-02	18 cm (7"), 5 x 14 mm, Up
NS-443-03	18 cm (7"), 5 x 14 mm, Down



Laminectomy Rongeur
Fenestrated and Serrated Jaws

Catalog #	Size, Bite Size, Profile
NS-444-01	18 cm (7"), 6 x 14 mm, Straight
NS-444-02	18 cm (7"), 6 x 14 mm, Up
NS-444-03	18 cm (7"), 6 x 14 mm, Down



Schlesinger Laminectomy Rongeur
Serrated Jaws

Catalog #	Size, Bite Size
NS-451-02	13 cm (5"), 2 x 10 mm
NS-451-03	13 cm (5"), 3 x 10 mm
NS-451-04	13 cm (5"), 4 x 10 mm



Yasargil Tumor Grasping Forcep

Catalog #	Size, Bite Size
NS-461-35	20 cm (8"), Ø 3.5 mm



Oldberg Tumor Grasping Forcep

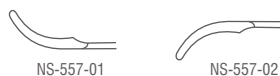

Catalog #	Size, Bite Size
NS-463-60	18 cm (7"), Ø 6.5 mm

Jacobson Micro Knife
Straight


Catalog #	Size
NS-550-18	18.5 cm (7 1/4")

Koos Micro Knife
Bayonet Shaped


Catalog #	Size, Bite Size
NS-555-01	18.5 cm (7 1/4")
NS-555-02	18.5 cm (7 1/4")
NS-555-03	18.5 cm (7 1/4")
NS-555-04	18.5 cm (7 1/4")


Koos Micro Knife
Bayonet Shaped


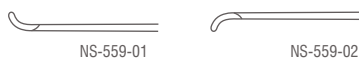
Catalog #	Size
NS-557-01	18.5 cm (7 1/4")
NS-557-02	18.5 cm (7 1/4")





Micro Neuro Instruments
Mikro Neuro Instrumente
Micro Neuro Instrumentos
Micro Neuro Instruments
Micro Neuro Strumenti

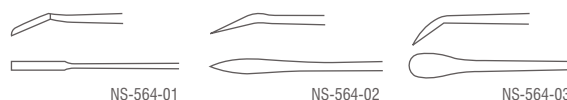
Yasargil Micro Knife
Bayonet Shaped



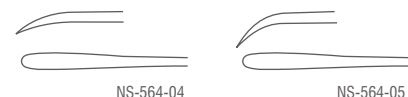
Catalog #	Size
NS-559-01	18.5 cm (7 1/4")
NS-559-02	18.5 cm (7 1/4")



Yasargil Micro Respiratory
Straight



Catalog #	Size
NS-564-01	18.5 cm (7 1/4")
NS-564-02	18.5 cm (7 1/4")
NS-564-03	18.5 cm (7 1/4")
NS-564-04	18.5 cm (7 1/4")
NS-564-05	18.5 cm (7 1/4")



Yasargil Micro Respiratory
Bayonet Shaped



Catalog #	Size
NS-565-01	18.5 cm (7 1/4")
NS-565-02	18.5 cm (7 1/4")
NS-565-03	18.5 cm (7 1/4")



Yasargil Micro Curette
Bayonet Shaped

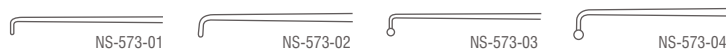


Catalog #	Size
NS-567-18	18.5 cm (7 1/4")



Micro Nerve & Vessel Hook


Catalog #	Size, Tip Length
NS-571-01	18.5 cm (7 1/4"), 3.0 mm
NS-571-02	18.5 cm (7 1/4"), 5.0 mm

Krayenbuhl Micro Nerve & Vessel Hook


Catalog #	Size, Profile
NS-573-01	18.5 cm (7 1/4"), Fig. 1
NS-573-02	18.5 cm (7 1/4"), Fig. 2
NS-573-03	18.5 cm (7 1/4"), Fig. 3
NS-573-04	18.5 cm (7 1/4"), Fig. 4


Yasargil Ligature Guide


Catalog #	Size, Profile
NS-575-01	18.5 cm (7 1/4"), Fig. 1
NS-575-02	18.5 cm (7 1/4"), Fig. 2
NS-575-03	18.5 cm (7 1/4"), Fig. 3
NS-575-04	18.5 cm (7 1/4"), Fig. 4

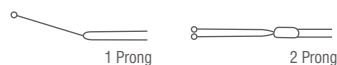

Micro Vessel Dilator


Catalog #	Size, Diameter, Profile
NS-577-01	12.5 cm (5"), Ø 0.5 mm, Fig. 1
NS-577-02	12.5 cm (5"), Ø 1.0 mm, Fig. 2
NS-577-03	12.5 cm (5"), Ø 1.5 mm, Fig. 3



Micro Neuro Instruments
Mikro Neuro Instrumente
Micro Neuro Instrumentos
Micro Neuro Instruments
Micro Neuro Strumenti

Jacobson Micro Vessel Probe



Catalog #	Size, Profile
NS-579-01	18.5 cm (7 1/4"), 1 Prong
NS-579-02	18.5 cm (7 1/4"), 2 Prong



Jacobson Micro Suture Pusher



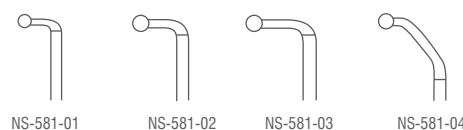
Catalog #	Size
NS-579-03	18.5 cm (7 1/4")



Caspar Exploration Hook



Catalog #	Size, Profile
NS-581-01	24.5 cm, (9 1/2"), Fig. 1
NS-581-02	24.5 cm, (9 1/2"), Fig. 2
NS-581-03	24.5 cm, (9 1/2"), Fig. 3
NS-581-04	24.5 cm, (9 1/2"), Fig. 4



Rhoton Micro Dissector

Set of 15 Ref: NS-591-01 up to NS-591-15

Catalog #	Size
NS-590-00	Standard

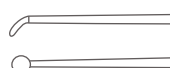




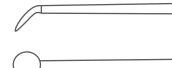
Rhoton Micro Dissector
Round Shaped



NS-591-01



NS-591-02

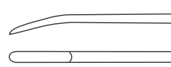


NS-591-03

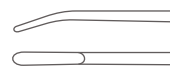
Catalog #	Size, Diameter
NS-591-01	18.5 cm (7 1/4"), Ø 1.0 mm
NS-591-02	18.5 cm (7 1/4"), Ø 2.0 mm
NS-591-03	18.5 cm (7 1/4"), Ø 3.0 mm



Rhoton Micro Dissector
Spatula Shaped



NS-591-04



NS-591-05



NS-591-06

Catalog #	Size, Tip Size
NS-591-04	18.5 cm (7 1/4"), 1.0 mm
NS-591-05	18.5 cm (7 1/4"), 1.5 mm
NS-591-06	18.5 cm (7 1/4"), 2.0 mm



Rhoton Micro Elevator



NS-591-07



NS-591-08

Catalog #	Size, Tip Size
NS-591-07	18.5 cm (7 1/4"), 1.2 mm
NS-591-08	18.5 cm (7 1/4"), 2.8 mm



Rhoton Micro Needle
Semi, Sharp

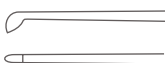


Catalog #	Size
NS-591-09	18.5 cm (7 1/4")



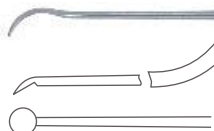
Micro Neuro Instruments
Mikro Neuro Instrumente
Micro Neuro Instrumentos
Micro Neuro Instruments
Micro Neuro Strumenti

Rhoton Micro Curette
Angled 45°



Catalog #	Size, Tip Size
NS-591-15	18.5 cm (7 1/4"), 1.0 x 2.0 mm

Yasargil Micro Elevator
Bayonet Shaped



Catalog #	Size
NS-607-24	24 cm (9 1/2")

Yasargil Micro Elevator
Bayonet Shaped



Catalog #	Size
NS-611-24	24 cm (9 1/2")

Rhoton Micro Hook
Angled 90°, Blunt



Catalog #	Size, Tip Size
NS-591-10	18.5 cm (7 1/4"), 2 mm

Rhoton Micro Hook
Angled 90°, Semi Sharp



Catalog #	Size, Tip Size
NS-591-11	18.5 cm (7 1/4"), 2 mm

Rhoton Micro Hook
Angled 45°, Semi Sharp



Catalog #	Size, Tip Size
NS-591-12	18.5 cm (7 1/4"), 3 mm

Rhoton Micro Hook
Angled 90°



Catalog #	Size
NS-591-13	18.5 cm (7 1/4")

Rhoton Micro Curette



Catalog #	Size, Tip Size
NS-591-14	18.5 cm (7 1/4"), 1.0 x 2.0 mm

Yasargil Micro Raspatory
Bayonet Shaped



Catalog #	Size
NS-613-24	24 cm (9 1/2")

Yasargil Micro Dissector
Bayonet Shaped



Catalog #	Size
NS-615-01	24 cm (9 1/2")
NS-615-02	24 cm (9 1/2")



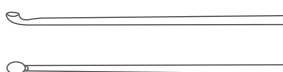
Micro Neuro Instruments
Mikro Neuro Instrumente
Micro Neuro Instrumentos
Micro Neuro Instruments
Micro Neuro Strumenti

Yasargil Micro Needle
Bayonet Shaped, Semi Sharp



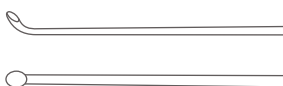
Catalog #	Size
NS-618-24	24 cm (9 1/2")

Yasargil Micro Curette
Straight



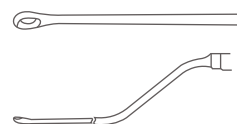
Catalog #	Size
NS-631-01	24 cm (9 1/2")

Yasargil Micro Curette
Angled



Catalog #	Size
NS-633-01	24 cm (9 1/2")

Yasargil Micro Curette
Bayonet Shaped



Catalog #	Size
NS-635-01	24 cm (9 1/2")

Hardy Micro Sickle Dissector
Bayonet Shaped, Blunt



Catalog #	Size
NS-651-01	24 cm (9 1/2")
NS-651-02	24 cm (9 1/2")

NS-651-01

NS-651-02

Hardy Micro Sickle Dissector
Bayonet Shaped, Sharp

Catalog #	Size
NS-651-03	24 cm (9 ½")
NS-651-04	24 cm (9 ½")


Hardy Implant Fork
Bayonet Shaped

Catalog #	Size
NS-655-24	24 cm (9 ½")


Hardy-Fahlbusch Micro Dissector
Bayonet Shaped Sharp

Catalog #	Size
NS-659-01	24 cm (9 ½")
NS-659-02	24 cm (9 ½")


Casper Micro Dissector
Set of 6 Ref: NS-671-10 up to NS-675-10

Catalog #	Size
NS-670-00	N/A


Casper Micro Dissector
Straight

Catalog #	Size, Tip Size
NS-671-10	24 cm (9 ½"), 1.0 mm
NS-671-45	24 cm (9 ½"), 4.5 mm

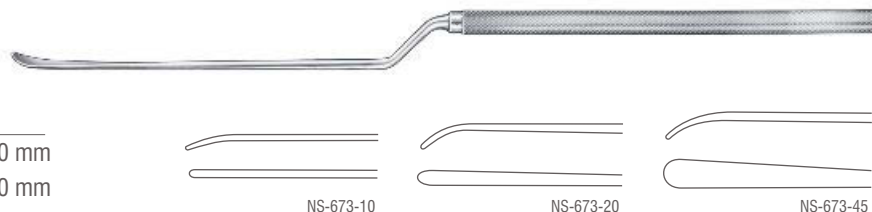




Micro Neuro Instruments
Mikro Neuro Instrumente
Micro Neuro Instrumentos
Micro Neuro Instruments
Micro Neuro Strumenti

Casper Micro Dissector
Bayonet Shaped, Curved Down

Catalog #	Size, Tip Size
NS-673-10	24 cm (9 1/2"), 1.0 mm
NS-673-20	24 cm (9 1/2"), 2.0 mm
NS-673-45	24 cm (9 1/2"), 4.5 mm



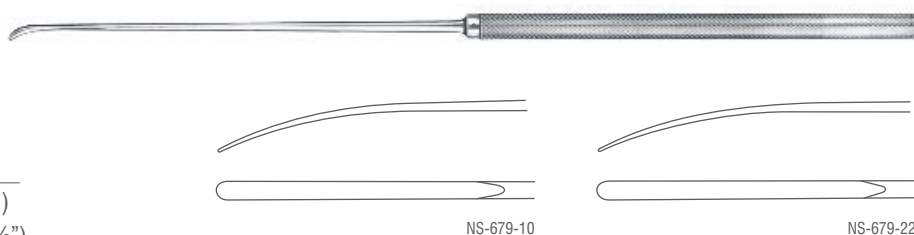
Casper Micro Dissector
Bayonet Shaped, Curved Up

Catalog #	Size, Tip Size
NS-675-10	24 cm (9 1/2"), 1.0 mm



Micro Dissector
Straight

Catalog #	Size
NS-679-19	19 cm (7 1/2")
NS-679-22	21.5 cm (8 1/2")



Ray Micro Curette
Angled 45°, Horizontal

Catalog #	Size, Diameter
NS-681-01	19 cm (7 1/2"), Ø 4.0 mm



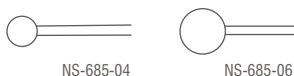
Ray Micro Curette
Angled 45°, Vertical

Catalog #	Size, Diameter
NS-681-02	19 cm (7 1/2"), Ø 4.0 mm



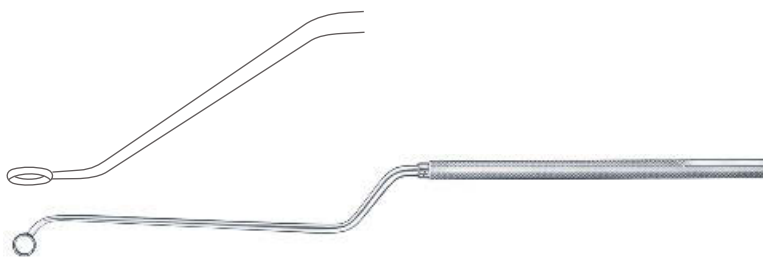


Hardy Micro Curette
Bayonet Shaped



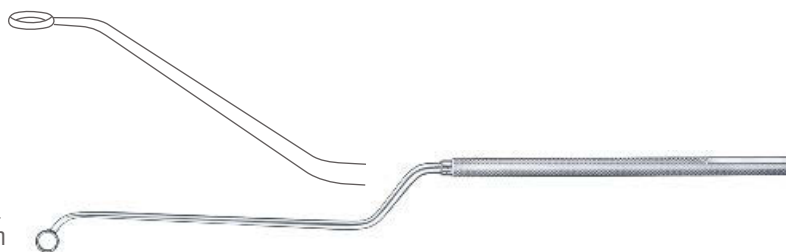
Catalog #	Size, Diameter
NS-685-04	26 cm (10 1/4"), Ø 4.0 mm
NS-685-06	26 cm (10 1/4"), Ø 6.0 mm

Nicola Micro Curette
Bayonet Shaped, Left



Catalog #	Size, Diameter
NS-689-01	21.5 cm (8 1/2"), Ø 6.5 mm

Nicola Micro Curette
Bayonet Shaped, Right



Catalog #	Size, Diameter
NS-689-02	21.5 cm (8 1/2"), Ø 6.5 mm

Nicola Micro Curette
Bayonet Shaped, Angled Up



Catalog #	Size, Diameter
NS-689-03	21.5 cm (8 1/2"), Ø 6.5 mm

Hosobuchi Fork Spatula
Bayonet Shaped, Rigid

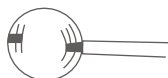


Catalog #	Size
NS-695-26	26 cm (10 1/4")



Micro Neuro Instruments
Mikro Neuro Instrumente
Micro Neuro Instrumentos
Micro Neuro Instruments
Micro Neuro Strumenti

Landolt Micro Curette
Bayonet Shaped, Malleable



Catalog #	Size
NS-697-26	26 cm (10 1/4")

Landolt Micro Curette
Bayonet Shaped, Blunt, Malleable



Catalog #	Size
NS-699-26	26 cm (10 1/4")

Landolt Micro Raspatory
Bayonet Shaped, Malleable



Catalog #	Size
NS-701-26	26 cm (10 1/4")

Landolt Micro Enucleator
Bayonet Shaped



Catalog #	Size
NS-703-01	26 cm (10 1/4")
NS-703-02	26 cm (10 1/4")

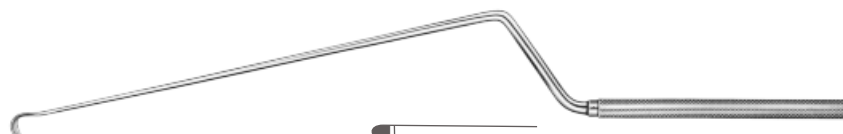


NS-703-01

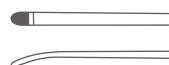


NS-703-02

Landolt-Reulen Micro Dissector
Bayonet Shaped, Rigid



Catalog #	Size, Tip Size
NS-711-26	26 cm (10 1/4"), 2.0 mm





Landolt-Reulen Micro Hook
Bayonet Shaped, Blunt, Rigid



Catalog #	Size, Tip Size
NS-713-26	26 cm (10 1/4"), 1.7 mm

Landolt-Reulen Micro Curette
Bayonet Shaped, Rigid



Catalog #	Size, Diameter
NS-715-26	26 cm (10 1/4"), Ø 2.5 mm

Landolt-Reulen Micro Raspatory
Bayonet Shaped, Rigid



Catalog #	Size, Tip Size
NS-717-22	26 cm (10 1/4"), 2.2 mm
NS-717-32	26 cm (10 1/4"), 2.2 mm



NS-717-22

NS-717-32

Fahlbusch Micro Curette
Bayonet Shaped, Malleable



Catalog #	Size, Diameter
NS-719-01	26 cm (10 1/4"), Ø 2.5 mm

Fahlbusch Micro Scoop
Bayonet Shaped, Malleable



Catalog #	Size
NS-719-02	26 cm (10 1/4")



Micro Neuro Instruments
Mikro Neuro Instrumente
Micro Neuro Instrumentos
Micro Neuro Instruments
Micro Neuro Strumenti

Cushing-Landolt Specula

Catalog #	Size, Blade Size
NS-751-01	Standard, 70 x 15 mm
NS-751-02	Standard, 90 x 15 mm
NS-751-03	Standard, 110 x 15 mm



Landolt Spcula

Catalog #	Size
NS-755-21	21.5 cm (8 1/2")



Mirror

Catalog #	Diameter
NS-790-06	Ø 6.0 mm
NS-790-08	Ø 8.0 mm
NS-790-10	Ø 10.0 mm
NS-790-12	Ø 12.0 mm



Mirror Handle Bayonet Shaped

Catalog #	Size
NS-792-00	15 cm (6")





TERMS & CONDITIONS

1. Definitions

Company means Surtex Instruments Ltd (registered in the United Kingdom under registration number 7035724).

Customer means the company, firm or organization who's Order for the Goods is accepted by the Company.

Contract means the Order accepted by the Company and incorporating these conditions.

Goods means the goods which the Company agrees to supply in accordance with these conditions and which are identified on the Order.

Order means the order for the purchase of the Goods submitted by the Customer.

- i. Any reference to a law is a reference to it as in force for the time being taking account of any amendment, extension, application or re-enactment and includes any subordinate legislation for the time being in force made under it.
- ii. Where a condition provides for a list of items following the word "including" or "includes", then such list is not to be interpreted as being an exhaustive list.

2. Incorporation of Conditions

- i. These conditions shall apply to the Contract to the exclusion of all other terms and conditions, including any terms and conditions which the Customer may purport to apply under any order (including the Order), confirmation of order or similar document or in any correspondence.
- ii. No variation to these conditions shall be binding unless agreed in writing by an authorized representative of the Company.
- iii. The Contract constitutes the entire understanding between the Company and the Customer with respect to the Goods and supersedes all previous agreements and understandings between the parties. The Customer acknowledges that it has not relied upon any statement made orally or in writing by the Company, its employees or agents to the Customer, which are not expressly incorporated into the contract.

3. Ordering

- i. Each order (whether submitted by telephone, fax, post, email or electronic ordering system) shall be deemed to be an offer by the Customer to purchase the Goods pursuant to these conditions. The Company may, at its complete discretion, refuse to accept any Order.
- ii. The Customer shall be responsible to the Company for ensuring the accuracy of the terms of any Order (including the description of the Goods ordered).

Samples and Free of Charge Goods

- iii. For the avoidance of doubt, where no order is placed and the Company provides Samples, to familiarize the Customer with the goods, as part of a sampling program or where the Company provides Free of Charge Goods to the Customer as part of a clinical trial or compassionate use program these conditions shall, to the extent applicable, apply to such Samples and Free of Charge Goods.

4. Price and Payments

- i. Subject to the condition 4.5, unless and otherwise agreed by the Company in writing, the price of the Goods shall be the price listed in the Company's published price list current at the date of the Company's acceptance of the Order. Subject to the condition 4.4, any price may be altered from time to time by the Company on giving not less than thirty days notice to the Customer.
- ii. Standard delivery shall be in accordance with the condition 6.1 or as stated on the Pro Forma offer whichever is greater. If the Customer requires delivery within an alternative time period, the Customer shall contact the Company's customer Support Centre to agree an alternative time period, which will be charged at an additional cost to the Customer. All delivery times are subject to the Goods being in stock at the time of the Company's acceptance of the Order.
- iii. The price is exclusive of VAT and all other applicable taxes and duties, which the Customer shall be additionally liable to pay the Company.
- iv. The Company reserves the right, by giving notice to the Customer at any time before delivery, to increase the price of the Goods to reflect any increase in the cost of the Company which is due to any factor beyond the reasonable control of the Company.
- v. The Customer shall pay the price within ten days of the date of the Company's invoice (the "Due Date"). In the case of payment other than by cash, payment shall only be deemed to have been made on receipt of cleared funds. The time of payment of the price shall be of the essence.
- vi. If the Customer fails to make payment on the due date then the Company shall be entitled to charge the Customer interest (both before and after judgment) on the amount unpaid, in accordance with the Late Payment of Commercial Debts (Interest) Act 1998.
- vii. The Customer shall not in any circumstances or for any reason whatsoever be entitled to make any deduction or withhold any sum from the price by way of set-off or otherwise.
- viii. All payments payable to the Company under the Contract shall become due immediately on its termination, despite any other provision.

5. The Goods

- i. The quantity and description of the Goods shall be as set out in the Order.
- ii. The Goods shall be supplied in accordance with the description in the Order. The Company may from time to time make changes to the specification(s) of the Goods, which are required to comply with any applicable safety or statutory requirements or which do not materially affect the quality or fitness for purpose of the Goods.
- iii. The specifications and designs of the Goods (including the copyright, design right and other intellectual property in them) shall as between the parties be and remain the property of the Company.
- iv. The Customer undertakes not to use any trademarks or trade names applied by the Company to the Goods, nor do or permit anything to be done where by the good will or reputation of such trademarks or trade names may be prejudiced or damaged.
- v. All samples must be clearly identified as such, and the Customer must not sell any Samples to any third party.

6. Delivery

- i. Subject to the conditions 4.2 and 6.2, delivery of the Goods shall be made to the delivery address specified in the Order normally within 30 days or as stated on the Pro Forma Invoice whichever is greater after the date of the Company's acceptance of the Order.
- ii. The Company reserves the right to withhold delivery of any Goods if any sum due to the Company under any contract with the Customer is overdue or if, in the reasonable opinion of the Company, the financial standing of the customer has been impaired for any other reason.
- iii. Time of delivery shall not be of the essence and, subject to condition 8.6; the Company shall not be liable for any loss or damage whatever due to any failure by the Company to deliver the Goods (or any of them) promptly or at all.

- iv. The Company may deliver the Goods by separate installments. Each separate installment shall be invoiced and paid for in accordance with the provisions of the Contract. Each installment shall be a separate Contract and no cancellation or termination of anyone Contract relating to an installment shall entitle the Customer to repudiate or cancel any other Contractor installment.
- v. The Customer shall take delivery of the Goods promptly whenever they are tendered for delivery (which shall include signing the relevant delivery note). If, for any reason, the Customer fails to take such delivery of the Goods or otherwise causes or requests a delay in delivery:
 - a. The Goods shall be deemed to have been delivered;
 - b. Risk in Goods shall pass to the Customer; and
 - c. The Company shall be entitled to store or arrange for the storage of the Goods until actual delivery, and charge the Customer for the reasonable costs (including insurance) of such storage and any additional charges incurred in delivering the Goods at a later date.
- vi. The Customer shall ensure that adequate and safe facilities and procedures exist at the Customer's premises for the delivery of the Goods.
- vii. The Customer shall immediately notify the Company's Customer Support Centre if the Goods are not received within 30 days of receipt of the invoice.

Acceptance of the Goods

- viii. Subject to condition 6.9, the Customer shall be deemed to have accepted the Goods seven days after the date of delivery to the Customer. After acceptance, the Customer shall not be entitled to reject Goods which are not in accordance with the terms of the Contract and the Company shall have no liability whatsoever to the customer in respect of the Goods.
- ix. The Customer must notify to the Company's Customer Support Centre any alleged defect, shortage in quantity, damage, loss or failure to comply with description within seven days of receipt and hold the Goods for inspection by the Company.

Return of the Goods

- x. Any requests to return Goods must be made to the Company's Customer Support Centre within seven days after the date of delivery of the Goods to the Customer. Goods which have specialist storage requirements or short expiry dates will not be accepted for return.
- xi. If the company agrees to accept any Goods for return, the Company will issue a "return reference number" and the Customer shall be liable to pay a handling charge of 20% of the price. No return will be accepted after 15 days. Custom-made, made to order, color-coded, etched, and specially sourced instruments are non-returnable. Instruments that have been used/sterilized are also non-returnable. All products being returned should be sent in their original unopened packaging. All Goods must be returned to the Company carriage-paid. The Customer must provide the Company with proof of carriage. For the avoidance of doubt, the Goods shall be at the Customer's risk until return delivery is accepted by the Company.
- xii. Goods returned without the prior written approval of the Company may be returned to the Customer at the absolute discretion of the Company.

Recall of the Goods

- xiii. In the event that any Goods are subject to be called by the Company, the Customer shall provide to the Company as much information as is reasonably possible regarding the whereabouts of the Goods.

7. Title and Risk

- i. The Goods shall be at the Customer's risk at the time of delivery, unless the parties have agreed in writing that the Goods are to be collected from the Company's premises, in which case, the Goods shall be at the Customer's risk when the Company notifies the Customer that the Goods are available for collection.
- ii. Property in the Goods shall not pass from the Company until:
 - a. The Customer has paid the price in full; and
 - b. No other sums whatsoever are due from the Customer to the Company.
- iii. Until property in the Goods passes to the Customer in accordance with the condition 7.2, the Customer shall:
 - a. Hold the Goods on a fiduciary basis as bailed for the Company;
 - b. Store the Goods separately from all other goods in its possession and mark them in such a way that they are clearly identified as the Company's property; and
 - b. Maintain the Goods in satisfactory condition and keep them insured on the Company's behalf for their full price.
- iv. The Customer may sell at full market value or use the Goods only in the ordinary course of the Customer's business. Any such sale or dealing shall be a sale or use of the Company's property on the Customer's own behalf and the Customer shall deal as principal when making such sales or dealings. Until property in the Goods passes from the Company, the proceeds of sale or otherwise of the Goods, to the full extent of the price of the Goods, shall be held in trust for the Company and shall not be mixed with other money or paid in to any over drawn bank account and shall be at all material times identified as the Company's money.
- v. The Company shall be entitled to recover the price notwithstanding that property in any of the Goods has not passed from the Company.
- vi. Until such time as property in the Goods passes from the Company, if the Customer:
 - a. Enters into liquidation or has a winding up order made against it or has an administrator, receiver or manager appointed in respect of its assets; or
 - b. Fail to make payment in accordance with these conditions, the Customer shall upon request deliver up to the Company such of the Goods as have not ceased to be in existence or resold. If the Customer fails to do so, the Company may enter upon any premises owned, occupied or controlled by the Customer where the Goods are situated and repossess the Goods.
- vii. The Customer shall not pledge or in any way charge by way of security for any indebtedness, any of the Goods which are the property of the Company. If the Customer does so, all sums whatever owing by the Customer to the Company shall forth with become due and payable.
- viii. On termination of the Contract, howsoever caused, the Company's rights contained in this condition 7 shall remain in effect.

8. Warranties and Liability

- i. Subject as expressly provided in the Contract, all warranties, conditions or other terms implied by statute or common law are excluded to the fullest extent permitted by law.
- ii. Subject as expressly provided in the Contract, all terms and conditions, warranties and representations (whether implied or made expressly) whether by the Company, its servants or agents or otherwise relating to the quality and/or fitness for the purposes of the Goods are excluded to the fullest extent permitted by the law.
- iii. The Company shall be under no liability in respect of any damage arising from fair wear and tear, fire or accident, will full damage, negligence, abnormal working conditions, failure to follow the Company's instructions. Misuse [or unauthorized installation, alteration or repair] of the Goods. The Customer must pass the Company's instructions on to any purchasers or potential users of the Goods.



- iv. The Customer shall indemnify the Company for any losses incurred by the Company in respect of any claim brought for:
 - a. Use of Goods by the Customer in breach of section 6 of the Health and Safety at Work Act etc 1974 or any other relevant safety legislation; or
 - b. Infringement of any patent, copyright or other third party intellectual rights relating to the Goods by the customer.
- v. The Company shall not be liable to the Customer for any indirect or consequential losses (including indirect loss of profit, loss of use, loss of production, loss of business, loss of business opportunity, loss of business revenue and loss of good will) arising under or in connection with the Contract.
- vi. Subject to the condition 8.8, when any valid claim in respect of the Goods is notified to the Company in accordance with these conditions, the Company shall be entitled to repair or replace the Goods (or the part in question) or, at the Company's sole discretion, refund to the Customer the price of the Goods (or proportionate part of the price), and the Company shall have no further liability to the Customer.
- vii. Subject to the condition 8.8, the entire liability of the Company arising under or in connection with the performance of the Contract howsoever arising shall not exceed £5,000,000 (in line with the NHS Purchasing and Supply Agency conditions of contract for the purchase of goods).
- viii. Nothing in these conditions shall exclude or limit the liability of the Company for death or personal injury caused by the Company's negligence, fraud or fraudulent misrepresentation, or any other matter in relation to which it would be illegal for the Company to exclude or attempt to exclude its liability.

9. Force Majeure

- i. The Company shall not be responsible for any failure to fulfill its obligations under these conditions and/or in relation to the Goods if such failure is caused by an event which is beyond its reasonable control including acts of God, war, armed conflict, acts of terrorism, riot, strikes, industrial action (including action involving the Company's employees), fire, flood, any natural disaster, any defaults by the Company's suppliers or subcontractors, difficulties obtaining workmen or materials, and breakdown of machinery.
- ii. If such event continues for more than one month, the Company may terminate the Contract without liability.

10. Assignment

- i. The Company may assign the Contractor any part of it to any company, firm or organization.
- ii. The Customer shall not be entitled to assign the Contractor any part of it without the prior written consent of the Company (such consent not to be unreasonably withheld or delayed).

11. Export

- i. Where the Customer intends to export the Goods from the United Kingdom, the Customer shall be responsible for obtaining all necessary licenses and complying with all applicable legislation and regulations governing the export of the Goods from the United Kingdom and the importation of the Goods into the country of destination and shall be responsible for the payment of all duties on the Goods.

12. Miscellaneous

- i. All communications between the parties about the Contract shall be in writing and delivered by pre-paid first class post or by hand to the party's registered office, principal place of business or such other address as may at the relevant time have been notified pursuant to this provision to the party giving notice. In the absence of evidence of earlier receipt, any notices shall be deemed to be duly served:
 - a. If sent by first class post, two working days after posting; or
 - b. If delivered personally, when left at the relevant address.
- ii. Save as required to be disclosed by law:
 - a. Where the Customer is an NHS body, both parties, their employees and agents shall at all times keep confidential and secret and shall not disclose to any person the price or specification relating to the Goods (unless otherwise published); or
 - b. Where the Customer is not an NHS body, both parties, their employees and agents shall at all times keep confidential and secret and shall not disclose to any person any information, materials or documents acquired in connection with the Contract which concerns the other party, its employees or business, Unless otherwise disclosed other than due to a failure of the relevant party to comply with the Contract. On termination of the Contract, howsoever caused, the parties' obligations contained in this condition 12.2 shall remain in effect.
- iii. Neither party, its employees or agents shall offer, give or agree to give to any person any gift or consideration of any kind as an inducement or reward for doing or for bearing to do, or for having done or for borne to do, any action in relation to the obtaining or execution of any contract with the other party.
- iv. Each right or remedy of the Company under these conditions is without prejudice to any other right or remedy of the Company.
- v. On termination of the Contract, howsoever caused, all obligations which are expressed to remain in effect shall survive termination of the Contract, together with such conditions the survival of which is implied or is necessary for the interpretation or enforcement of the Contract.
- vi. A person who is not a party to the Contract shall have no rights pursuant to the Contracts (Rights of Third Parties) Act 1999 to enforce any terms of such contract.
- vii. If any provision of the Contract is held to be wholly or partly illegal, invalid, void, voidable, unenforceable or unreasonable it shall. To the extent of such illegality, invalidity, voidness, voidability, unenforceability or unreasonableness, be deemed to be severable and the remaining provisions of the Contract and the remainder of the provision shall continue in full force and effect.
- viii. No waiver or forbearance by the Company (whether express or implied) in enforcing any of its rights under these conditions shall prejudice its right to do so in the future.
- ix. These conditions are subject to the law of England and Wales. All disputes arising in relation to these conditions or the Contract shall be subject to the exclusive jurisdiction of the courts of England and Wales.



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