



GEISTER®

The better way to operate™

Neuro and  
Spine Surgery



## Efficient surgery. Less invasive. Optimum results.

Minimally invasive approaches have advanced considerably over the past decade, anticipating that patients will experience reduced postoperative pain, improved physiologic muscle function, and more acceptable cosmetic results.

Our aim is to help develop technical innovations for evolving more patient friendly minimally invasive surgical procedures that yet can maintain or even exceed the long term results of proven conventional procedures.

In close cooperation with surgeons and industry partners we are therefore advancing our comprehensive product range for Neurosurgery, with a focus on less traumatic, minimally

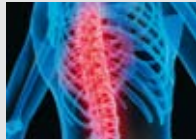
invasive procedures, to restore and maintain the function of the spine or to achieve the goal of total removal of tumors and vascular lesions.

This new catalogue illustrates products developed and selected in collaboration with key surgeons who have shared their trust in our many years of experience and profound expertise in the production of some of the highest quality surgical instruments available. We continue to invite your ideas for the development of new and even more refined instruments.

Thank you for choosing GEISTER®.



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Rongeurs





## An efficient cleaning concept!

Our new detachable Spinal IVD and Laminectomy Rongeurs meet the highest standard hygiene requirements for avoiding surgical site infections. While multiple-component instruments are usually difficult to process, our detachable rongeurs ensure easy handling, efficient cleaning and effective sterilization.

### The particular advantages are:

- excellent cutting properties
- lasting durability
- easy bone removal
- safe and easy detaching
- efficient cleaning and sterilization of the total instrument
- all parts stay together and thus cannot get lost
- easy and quick assembly

Minimally invasive spinal approaches have advanced considerably over the past decade, anticipating that patients will experience reduced postoperative pain, improved physiologic muscle function, and more acceptable cosmetic results. Whether a true percutaneous approach, through a tubular dilator retractor approach, or a muscle splitting approach is the method of choice, our special bayonet-shaped rongeurs with slim shafts will provide the surgeon with the visibility, the deep reach and the preferential instrument maneuverability required.





## Geister Spinal



Newly developed Geister Spinal IVD Rongeurs designed for easy detaching at the push of the gold button.

- the gold button indicates the detachability
- jaws are available in 2, 3 and 4 mm widths
- extremely firm construction of jaw
- shafts available in various lengths, straight, bayonet up, left or right designs
- working ends straight, 45° upwards or 45° downwards biting
- easy and safe detaching at the push of the gold button
- efficient cleaning and sterilization of the total instrument
- all parts stay together and thus cannot get lost





**Geister Spinal IVD Rongeurs, detachable**

jaw	straight	upwards	downwards	Length of shaft
2 mm	40-2620.16Z	40-2621.16Z	40-2622.16Z	15.5 cm
	40-2620.18Z	40-2621.18Z	40-2622.18Z	18.0 cm
3 mm	40-2625.16Z	40-2626.16Z	40-2627.16Z	15.5 cm
	40-2625.18Z	40-2626.18Z	40-2627.18Z	18.0 cm
4 mm	40-2630.16Z	40-2631.16Z	40-2632.16Z	15.5 cm
	40-2630.18Z	40-2631.18Z	40-2632.18Z	18.0 cm

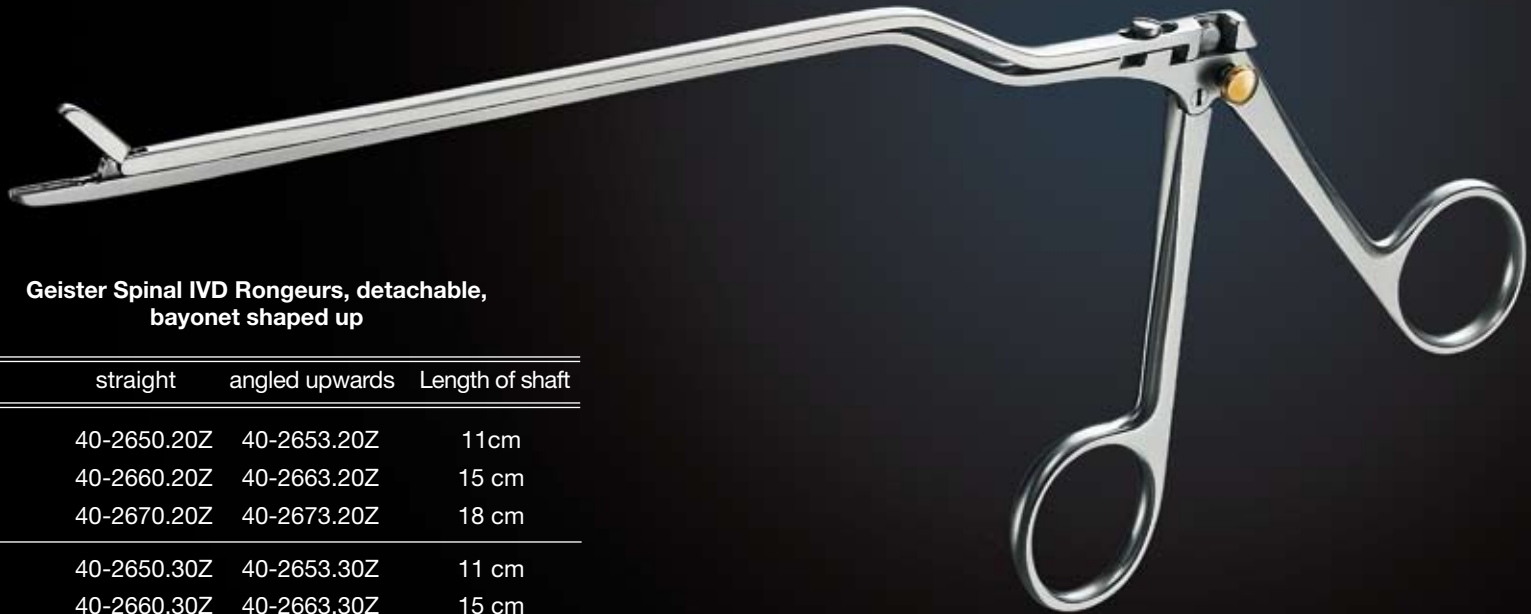


## Geister Spinal



**Geister Spinal IVD Rongeurs, detachable, bayonet shaped left and right**

jaw	straight		angled upwards		Length of shaft
	left	right	left	right	
2 mm	40-2651.20Z	40-2652.20Z	40-2654.20Z	40-2655.20Z	11 cm
	40-2661.20Z	40-2662.20Z	40-2664.20Z	40-2665.20Z	15 cm
	40-2671.20Z	40-2672.20Z	40-2674.20Z	40-2675.20Z	18 cm
3 mm	40-2651.30Z	40-2652.30Z	40-2654.30Z	40-2655.30Z	11 cm
	40-2661.30Z	40-2662.30Z	40-2664.30Z	40-2665.30Z	15 cm
	40-2671.30Z	40-2672.30Z	40-2674.30Z	40-2675.30Z	18 cm
4 mm	40-2651.40Z	40-2652.40Z	40-2654.40Z	40-2655.40Z	11 cm
	40-2661.40Z	40-2662.40Z	40-2664.40Z	40-2665.40Z	15 cm
	40-2671.40Z	40-2672.40Z	40-2674.40Z	40-2675.40Z	18 cm
5 mm	40-2651.50Z	40-2652.50Z	40-2654.50Z	40-2655.50Z	11 cm
	40-2661.50Z	40-2662.50Z	40-2664.50Z	40-2665.50Z	15 cm
	40-2671.50Z	40-2672.50Z	40-2674.50Z	40-2675.50Z	18 cm



**Geister Spinal IVD Rongeurs, detachable,  
bayonet shaped up**

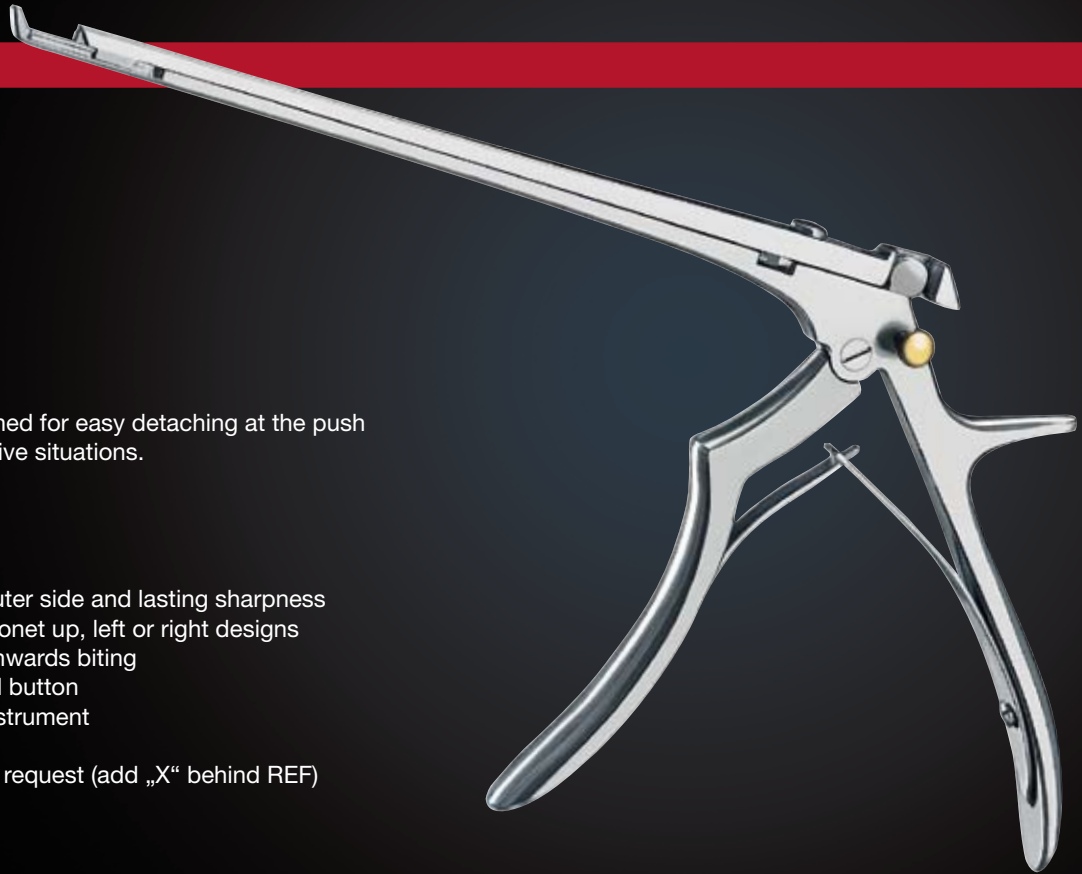
jaw	straight	angled upwards	Length of shaft
2 mm	40-2650.20Z	40-2653.20Z	11 cm
	40-2660.20Z	40-2663.20Z	15 cm
	40-2670.20Z	40-2673.20Z	18 cm
3 mm	40-2650.30Z	40-2653.30Z	11 cm
	40-2660.30Z	40-2663.30Z	15 cm
	40-2670.30Z	40-2673.30Z	18 cm
4 mm	40-2650.40Z	40-2653.40Z	11 cm
	40-2660.40Z	40-2663.40Z	15 cm
	40-2670.40Z	40-2673.40Z	18 cm
5 mm	40-2650.50Z	40-2653.50Z	11 cm
	40-2660.50Z	40-2663.50Z	15 cm
	40-2670.50Z	40-2673.50Z	18 cm

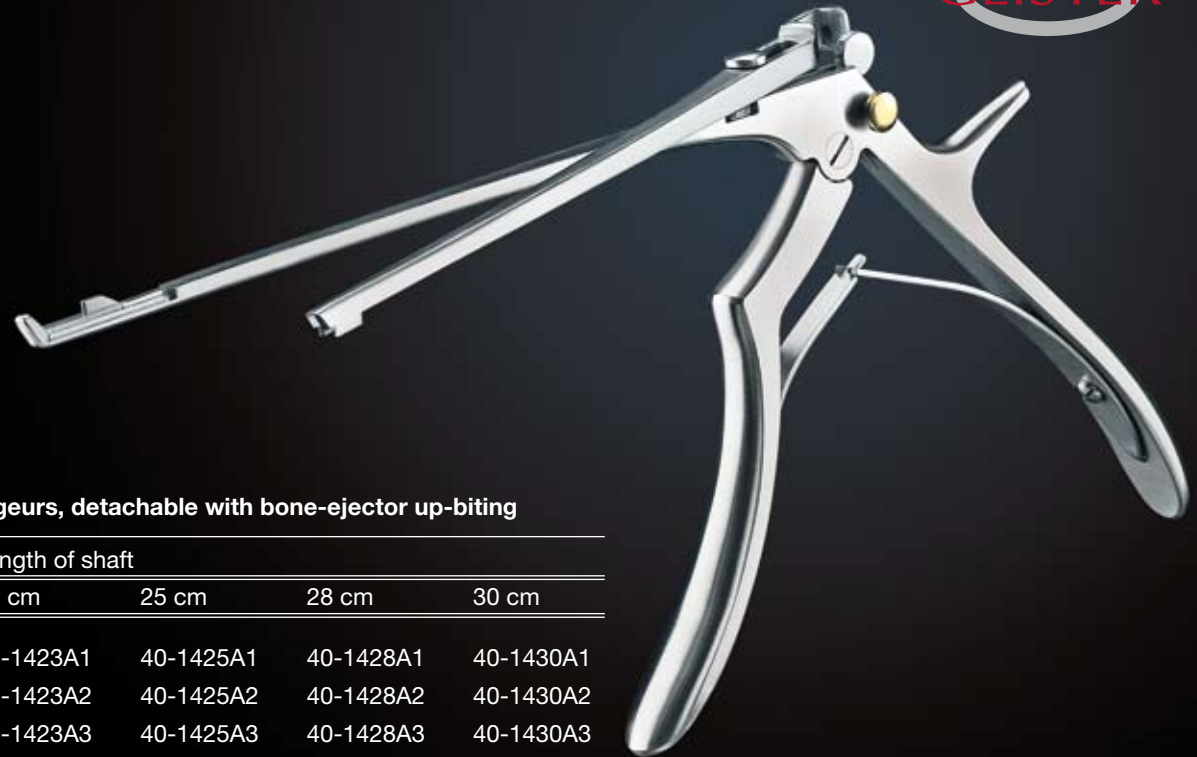


## Geister-Kerrison

Newly developed Geister-Kerrison Rongeurs designed for easy detaching at the push of the gold button and perfect function in all operative situations.

- the gold button indicates the detachability
- jaws are available in 1-5 mm widths
- ejector for easy bone removal
- strongly constructed jaws with guides on the outer side and lasting sharpness
- shafts available in various lengths, straight, bayonet up, left or right designs
- working ends 40° and 90° upwards or 40° downwards biting
- easy and safe detaching at the push of the gold button
- efficient cleaning and sterilization of the total instrument
- all parts stay together and thus cannot get lost
- extra thin footplate for cervical use available on request (add „X“ behind REF)





**Geister-Kerrison Laminectomy Rongeurs, detachable with bone-ejector up-biting**

jaw	Length of shaft					
	18 cm	20 cm	23 cm	25 cm	28 cm	30 cm
1 mm 90°	40-1418A1	40-1420A1	40-1423A1	40-1425A1	40-1428A1	40-1430A1
2 mm 90°	40-1418A2	40-1420A2	40-1423A2	40-1425A2	40-1428A2	40-1430A2
3 mm 90°	40-1418A3	40-1420A3	40-1423A3	40-1425A3	40-1428A3	40-1430A3
4 mm 90°	40-1418A4	40-1420A4	40-1423A4	40-1425A4	40-1428A4	40-1430A4
5 mm 90°	40-1418A5	40-1420A5	40-1423A5	40-1425A5	40-1428A5	40-1430A5
1 mm 40°	40-1418C1	40-1420C1	40-1423C1	40-1425C1	40-1428C1	40-1430C1
2 mm 40°	40-1418C2	40-1420C2	40-1423C2	40-1425C2	40-1428C2	40-1430C2
3 mm 40°	40-1418C3	40-1420C3	40-1423C3	40-1425C3	40-1428C3	40-1430C3
4 mm 40°	40-1418C4	40-1420C4	40-1423C4	40-1425C4	40-1428C4	40-1430C4
5 mm 40°	40-1418C5	40-1420C5	40-1423C5	40-1425C5	40-1428C5	40-1430C5



Geister-Kerrison



**Geister-Kerrison Laminectomy Rongeurs, detachable with bone-ejector down-biting**

jaw	Length of shaft					
	18 cm	20 cm	23 cm	25 cm	28 cm	30 cm
1 mm 40°	40-1418D1	40-1420D1	40-1423D1	40-1425D1	40-1428D1	40-1430D1
2 mm 40°	40-1418D2	40-1420D2	40-1423D2	40-1425D2	40-1428D2	40-1430D2
3 mm 40°	40-1418D3	40-1420D3	40-1423D3	40-1425D3	40-1428D3	40-1430D3
4 mm 40°	40-1418D4	40-1420D4	40-1423D4	40-1425D4	40-1428D4	40-1430D4
5 mm 40°	40-1418D5	40-1420D5	40-1423D5	40-1425D5	40-1428D5	40-1430D5



**Geister-Kerrison Foraminotomy Rongeurs,  
detachable with bone-ejector, curved**

jaw	Length of shaft	
	18 cm	20cm
1 mm 40°	40-2700.10Z	40-2702.10Z
2 mm 40°	40-2700.20Z	40-2702.20Z
3 mm 40°	40-2700.30Z	40-2702.30Z
4 mm 40°	40-2700.40Z	40-2702.40Z
5 mm 40°	40-2700.50Z	40-2702.50Z



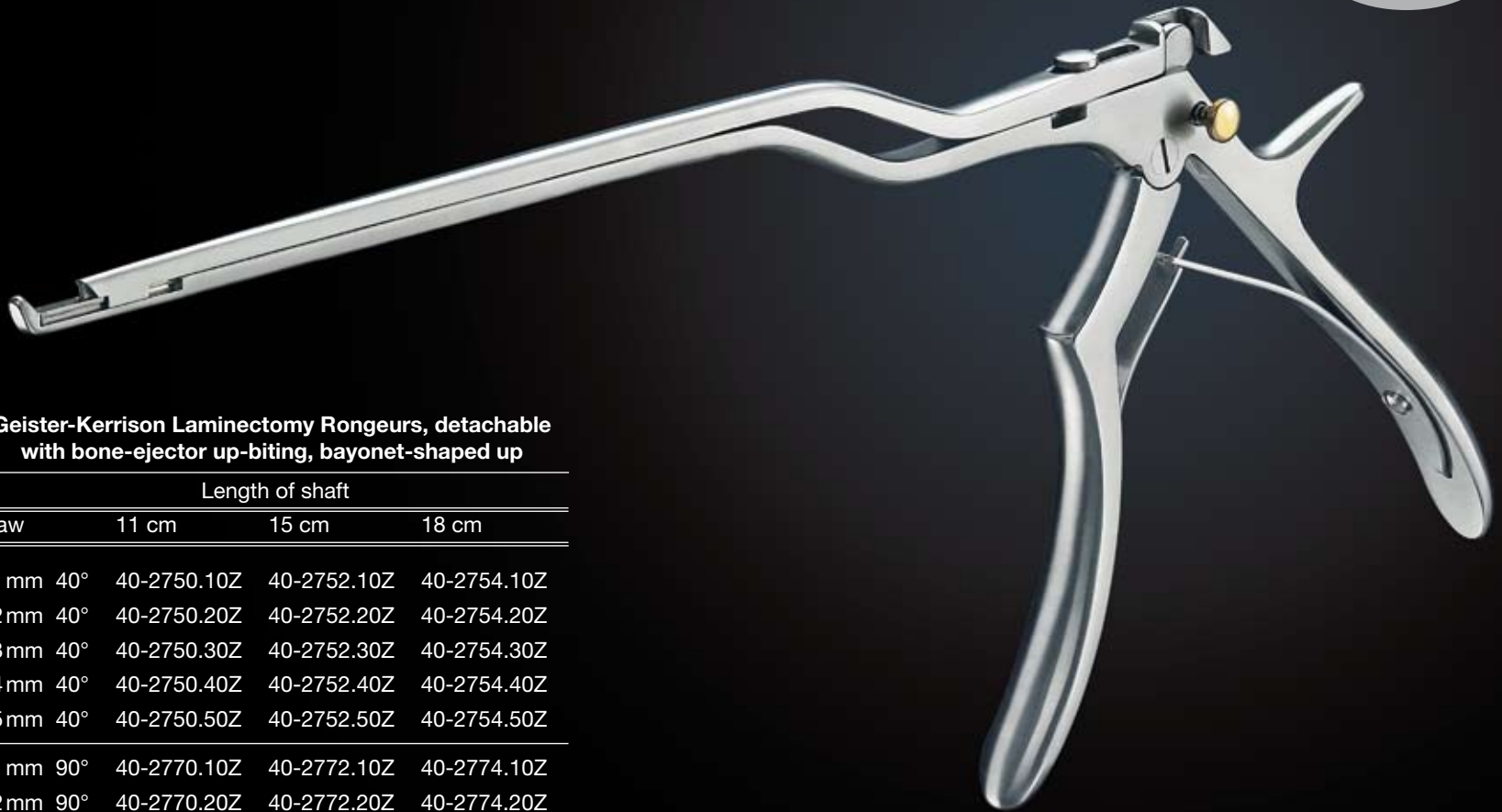
Geister-Kerrison



**Geister-Kerrison Laminectomy Rongeurs, detachable with  
bone-ejector up-biting, bayonet-shaped left and right**

Length of shaft

jaw	left			right		
	11 cm	15 cm	18 cm	11 cm	15 cm	18 cm
1 mm 40°	40-2710.10Z	40-2712.10Z	40-2714.10Z	40-2720.10Z	40-2722.10Z	40-2724.10Z
2 mm 40°	40-2710.20Z	40-2712.20Z	40-2714.20Z	40-2720.20Z	40-2722.20Z	40-2724.20Z
3 mm 40°	40-2710.30Z	40-2712.30Z	40-2714.30Z	40-2720.30Z	40-2722.30Z	40-2724.30Z
4 mm 40°	40-2710.40Z	40-2712.40Z	40-2714.40Z	40-2720.40Z	40-2722.40Z	40-2724.40Z
5 mm 40°	40-2710.50Z	40-2712.50Z	40-2714.50Z	40-2720.50Z	40-2722.50Z	40-2724.50Z
1 mm 90°	40-2730.10Z	40-2732.10Z	40-2734.10Z	40-2740.10Z	40-2742.10Z	40-2744.10Z
2 mm 90°	40-2730.20Z	40-2732.20Z	40-2734.20Z	40-2740.20Z	40-2742.20Z	40-2744.20Z
3 mm 90°	40-2730.30Z	40-2732.30Z	40-2734.30Z	40-2740.30Z	40-2742.30Z	40-2744.30Z
4 mm 90°	40-2730.40Z	40-2732.40Z	40-2734.40Z	40-2740.40Z	40-2742.40Z	40-2744.40Z
5 mm 90°	40-2730.50Z	40-2732.50Z	40-2734.50Z	40-2740.50Z	40-2742.50Z	40-2744.50Z



**Geister-Kerrison Laminectomy Rongeurs, detachable with bone-ejector up-biting, bayonet-shaped up**

jaw	Length of shaft		
	11 cm	15 cm	18 cm
1 mm 40°	40-2750.10Z	40-2752.10Z	40-2754.10Z
2 mm 40°	40-2750.20Z	40-2752.20Z	40-2754.20Z
3 mm 40°	40-2750.30Z	40-2752.30Z	40-2754.30Z
4 mm 40°	40-2750.40Z	40-2752.40Z	40-2754.40Z
5 mm 40°	40-2750.50Z	40-2752.50Z	40-2754.50Z
1 mm 90°	40-2770.10Z	40-2772.10Z	40-2774.10Z
2 mm 90°	40-2770.20Z	40-2772.20Z	40-2774.20Z
3 mm 90°	40-2770.30Z	40-2772.30Z	40-2774.30Z
4 mm 90°	40-2770.40Z	40-2772.40Z	40-2774.40Z
5 mm 90°	40-2770.50Z	40-2772.50Z	40-2774.50Z



## Disassembly Instructions

- Close the handle.
- Push the gold button and keep it pushed.
- Open the handle.
- The upper movable shaft is unlocked and can be slit to the left by a slide move upwards.

**Advice:** If the handle is closed again, the shaft remains swivelled out so that the instrument can be sterilised in open position.



## Demontage

- Griff schließen.
- Goldenen Knopf drücken und gedrückt halten.
- Griff wieder öffnen.
- Das obere Schiebeteil ist entriegelt und kann nach oben abgehoben und nach links ausgeschwenkt werden.

**Hinweis:** Durch nochmaliges Schließen des Griffes bleibt der Schaft ausgeschwenkt und das Instrument kann in offenem Zustand sterilisiert werden.

## Assembly Instructions

- Put back the upper jaw to an open position.
- Close the handle, push the gold button and keep it pushed.
- Open the handle and slide back the movable shaft on the instrument.
- Put the movable shaft in the groove of the jaw and push the shaft downwards.
- Close the handle and the instrument is locked.



## Montage

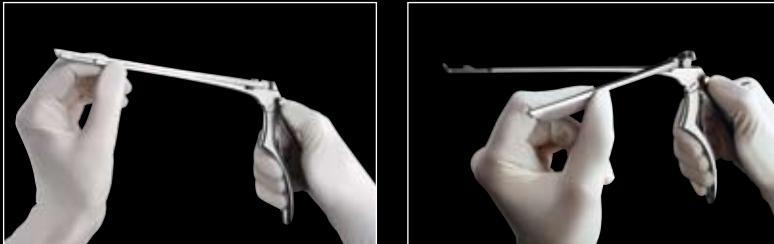
- Maul zurückstellen in offene Position.
- Griff schließen. Goldenen Knopf drücken und gedrückt halten.
- Griff öffnen und Schieber einschwenken.
- Schieber in die Maulkerbe einfädeln und Schieber nach unten drücken.
- Griff schließen – das Instrument ist verriegelt.



## Disassembly Instructions

- Close the handle.
- Push the gold button and keep it pushed.
- Open the handle.
- The upper movable shaft is unlocked and can be slit to the left by a slide move upwards.

**Advice:** If the handle is closed again, the shaft remains swivelled out so that the instrument can be sterilised in open position.



## Demontage

- Griff schließen.
- Goldenen Knopf drücken und gedrückt halten.
- Griff wieder öffnen.
- Das obere Schiebeteil ist entriegelt und kann nach oben abgehoben und nach links ausgeschwenkt werden.

**Hinweis:** Durch nochmaliges Schließen des Griffes bleibt der Schaft ausgeschwenkt und das Instrument kann in offenem Zustand sterilisiert werden.

## Assembly Instructions

- Close the handle.
- Push the gold button and keep it pushed.
- Open the handle and slide back the movable shaft on the instrument.
- Put the movable shaft in the lower guide in front and push the shaft downwards.
- Close the handle and the instrument is locked.



## Montage

- Griff schließen.
- Goldenen Knopf drücken und gedrückt halten.
- Griff öffnen und Schieber einschwenken.
- Schieber in die untere Führung einsetzen und Schieber nach unten drücken.
- Griff schließen – das Instrument ist verriegelt.



## Hygienic Lumbar and Cervical Kerrison Laminectomy Rongeurs



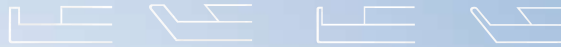
- Unique function and reliable design
- Detachable for improved cleaning capability and maximum hygiene and safety
- Avoids undesired trapping of tissue and debris
- All parts stay connected even when detached
- Large plastic trigger ensures that rongeur will not disengage during use and that gloves do not get caught in the trigger mechanism

- Ergonomic handle provides maximum comfort and control, and helps to reduce fatigue
- Available in varying lengths and bite sizes
- On request lumbar versions available with integrated bone ejector for immediate bone removal (order code „E“)
- Optionally with a black ceramic coating for a reduced friction and no glare

## Hygienic Lumbar and Cervical Kerrison Laminectomy Rongeurs



- stainless satin finish -



Model (stainless satin)	Working Length	Width	Lumbar (regular footplate)		Cervical (thin footplate)	
			90° up	40° up	90° up	40° up
180 mm	1 mm		40-1218A1	40-1218C1	40-1318A1	40-1318C1
	2 mm		40-1218A2	40-1218C2*	40-1318A2	40-1318C2
	3 mm		40-1218A3	40-1218C3*	40-1318A3	40-1318C3
	4 mm		40-1218A4	40-1218C4*	40-1318A4	40-1318C4
	5 mm		40-1218A5	40-1218C5*	40-1318A5	40-1318C5
	6 mm		40-1218A6	40-1218C6*	40-1318A6	40-1318C6
200 mm	1 mm		40-1220A1	40-1220C1	40-1320A1	40-1320C1
	2 mm		40-1220A2	40-1220C2*	40-1320A2	40-1320C2
	3 mm		40-1220A3	40-1220C3*	40-1320A3	40-1320C3
	4 mm		40-1220A4	40-1220C4*	40-1320A4	40-1320C4
	5 mm		40-1220A5	40-1220C5*	40-1320A5	40-1320C5
	6 mm		40-1220A6	40-1220C6*	40-1320A6	40-1320C6
230 mm	1 mm		40-1223A1	40-1223C1	40-1323A1	40-1323C1
	2 mm		40-1223A2	40-1223C2*	40-1323A2	40-1323C2
	3 mm		40-1223A3	40-1223C3*	40-1323A3	40-1323C3
	4 mm		40-1223A4	40-1223C4*	40-1323A4	40-1323C4
	5 mm		40-1223A5	40-1223C5*	40-1323A5	40-1323C5
	6 mm		40-1223A6	40-1223C6*	40-1323A6	40-1323C6

\*add „E“ behind catalog reference if desired with EJECTOR for immediate bone removal



## Hygienic Lumbar and Cervical Kerrison Laminectomy Rongeurs



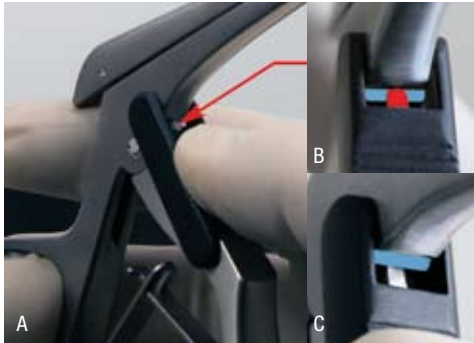
- black ceramic coating -



Model (black ceramic)	Working Length	Width	Lumbar (regular footplate)		Cervical (thin footplate)	
			90° up	40° up	90° up	40° up
180 mm	1 mm		40-1218A1K	40-1218C1K	40-1318A1K	40-1318C1K
	2 mm		40-1218A2K	40-1218C2K*	40-1318A2K	40-1318C2K
	3 mm		40-1218A3K	40-1218C3K*	40-1318A3K	40-1318C3K
	4 mm		40-1218A4K	40-1218C4K*	40-1318A4K	40-1318C4K
	5 mm		40-1218A5K	40-1218C5K*	40-1318A5K	40-1318C5K
	6 mm		40-1218A6K	40-1218C6K*	40-1318A6K	40-1318C6K
200 mm	1 mm		40-1220A1K	40-1220C1K	40-1320A1K	40-1320C1K
	2 mm		40-1220A2K	40-1220C2K*	40-1320A2K	40-1320C2K
	3 mm		40-1220A3K	40-1220C3K*	40-1320A3K	40-1320C3K
	4 mm		40-1220A4K	40-1220C4K*	40-1320A4K	40-1320C4K
	5 mm		40-1220A5K	40-1220C5K*	40-1320A5K	40-1320C5K
	6 mm		40-1220A6K	40-1220C6K*	40-1320A6K	40-1320C6K
230 mm	1 mm		40-1223A1K	40-1223C1K	40-1323A1K	40-1323C1K
	2 mm		40-1223A2K	40-1223C2K*	40-1323A2K	40-1323C2K
	3 mm		40-1223A3K	40-1223C3K*	40-1323A3K	40-1323C3K
	4 mm		40-1223A4K	40-1223C4K*	40-1323A4K	40-1323C4K
	5 mm		40-1223A5K	40-1223C5K*	40-1323A5K	40-1323C5K
	6 mm		40-1223A6K	40-1223C6K*	40-1323A6K	40-1323C6K

\*add „E“ behind catalog reference if desired with EJECTOR for immediate bone removal

## Hygienic Lumbar and Cervical Kerrison Laminectomy Rongeurs



1. Hold instrument as shown on picture (A) with the tip facing towards you and slightly press handle down. Observe the release nozzle marked in the picture (B) in red.
2. Press the black plastic trigger handle until the nozzle slips behind the bar, here marked in blue (C).
3. Release the handle slowly. The nozzle must always stay behind the bar. The upper shaft will now open up (D).
4. Instrument can now be thoroughly cleaned (E).

**Attention:** Do not press handle while cleaning as otherwise the nozzle will move out of the gap behind the bar (F). If this happens you must start with 1. and move it first back behind the bar (G) before reassembling!

5. For reassembling carefully push the upper shaft down into its fixation (H). Press the handle once with the other hand while still holding the upper shaft down. Instrument is then ready for use.

**Attention:** The reassembling process should work easily and smoothly. If it does not work, do not force or bend. Check and make sure the nozzle is in the gap.

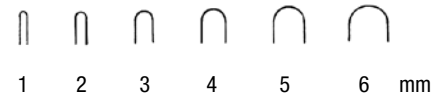


## Kerrison

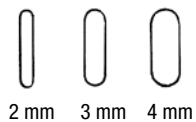


Footplate Working Length	Width	Regular			Thin (Cervical)		
		90° up	90° down	40° up	90° up	90° down	40° up
180 mm	1 mm	40-1018A1	40-1018B1	40-1018C1	40-1118A1	40-1118B1	40-1118C1
	2 mm	40-1018A2	40-1018B2	40-1018C2	40-1118A2	40-1118B2	40-1118C2
	3 mm	40-1018A3	40-1018B3	40-1018C3	40-1118A3	40-1118B3	40-1118C3
	4 mm	40-1018A4	40-1018B4	40-1018C4	40-1118A4	40-1118B4	40-1118C4
	5 mm	40-1018A5	40-1018B5	40-1018C5	40-1118A5	40-1118B5	40-1118C5
	6 mm	40-1018A6	40-1018B6	40-1018C6	40-1118A6	40-1118B6	40-1118C6
200 mm	1 mm	40-1020A1	40-1020B1	40-1020C1	40-1120A1	40-1120B1	40-1120C1
	2 mm	40-1020A2	40-1020B2	40-1020C2	40-1120A2	40-1120B2	40-1120C2
	3 mm	40-1020A3	40-1020B3	40-1020C3	40-1120A3	40-1120B3	40-1120C3
	4 mm	40-1020A4	40-1020B4	40-1020C4	40-1120A4	40-1120B4	40-1120C4
	5 mm	40-1020A5	40-1020B5	40-1020C5	40-1120A5	40-1120B5	40-1120C5
	6 mm	40-1020A6	40-1020B6	40-1020C6	40-1120A6	40-1120B6	40-1120C6
230 mm	1 mm	40-1023A1	40-1023B1	40-1023C1	40-1123A1	40-1123B1	40-1123C1
	2 mm	40-1023A2	40-1023B2	40-1023C2	40-1123A2	40-1123B2	40-1123C2
	3 mm	40-1023A3	40-1023B3	40-1023C3	40-1123A3	40-1123B3	40-1123C3
	4 mm	40-1023A4	40-1023B4	40-1023C4	40-1123A4	40-1123B4	40-1123C4
	5 mm	40-1023A5	40-1023B5	40-1023C5	40-1123A5	40-1123B5	40-1123C5
	6 mm	40-1023A6	40-1023B6	40-1023C6	40-1123A6	40-1123B6	40-1123C6
280 mm	1 mm	40-1028A1	40-1028B1	40-1028C1	40-1128A1	40-1128B1	40-1128C1
	2 mm	40-1028A2	40-1028B2	40-1028C2	40-1128A2	40-1128B2	40-1128C2
	3 mm	40-1028A3	40-1028B3	40-1028C3	40-1128A3	40-1128B3	40-1128C3
	4 mm	40-1028A4	40-1028B4	40-1028C4	40-1128A4	40-1128B4	40-1128C4
	5 mm	40-1028A5	40-1028B5	40-1028C5	40-1128A5	40-1128B5	40-1128C5
	6 mm	40-1028A6	40-1028B6	40-1028C6	40-1128A6	40-1128B6	40-1128C6

Not detachable.



## Ferris-Smith



### Working Length

180 mm  
180 mm  
180 mm

### Jaw Width x Length

2 x 10 mm  
3 x 10 mm  
4 x 10 mm

### straight

40-2500  
40-2510  
40-2520

### up

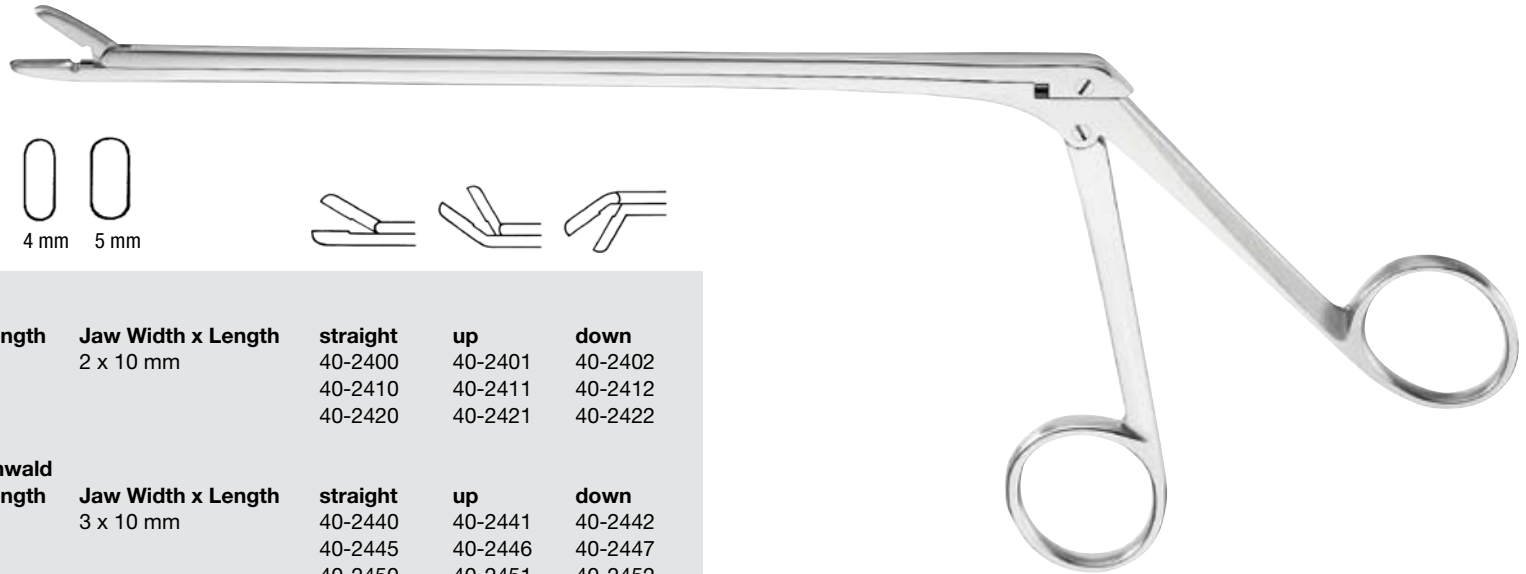
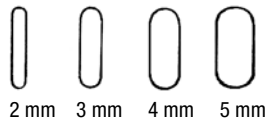
40-2501  
40-2511  
40-2521

### down

40-2502  
40-2512  
40-2522



## Intervertebral Disc Rongeurs

**Cushing**

Working Length	Jaw Width x Length	straight	up	down
135 mm	2 x 10 mm	40-2400	40-2401	40-2402
150 mm		40-2410	40-2411	40-2412
180 mm		40-2420	40-2421	40-2422

**Love-Gruenwald**

Working Length	Jaw Width x Length	straight	up	down
135 mm	3 x 10 mm	40-2440	40-2441	40-2442
150 mm		40-2445	40-2446	40-2447
180 mm		40-2450	40-2451	40-2452

**Spurling**

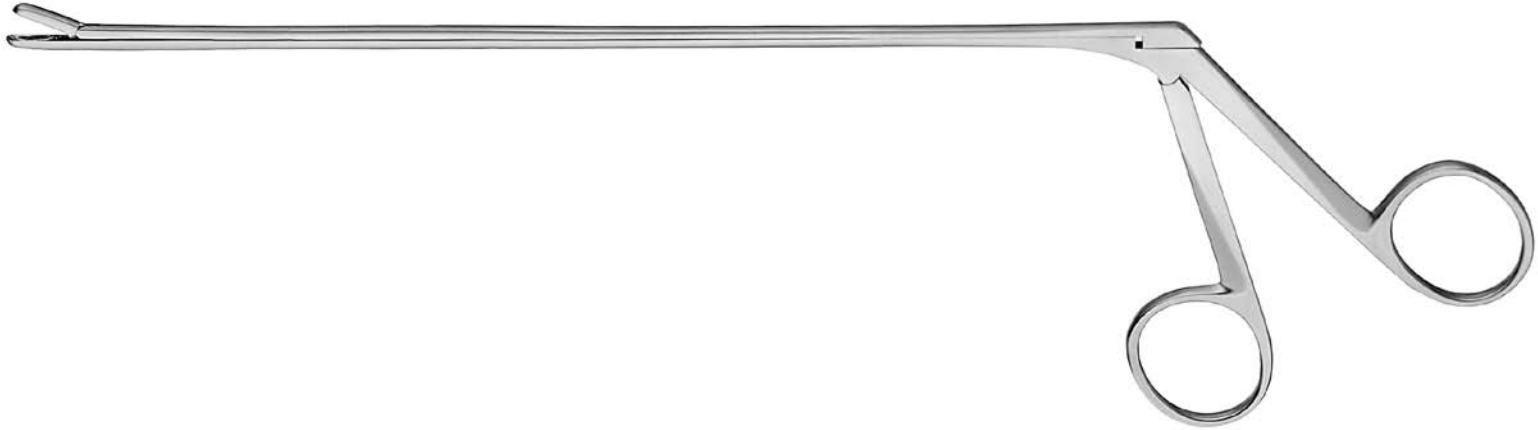
Working Length	Jaw Width x Length	straight	up	down
135 mm	4 x 10 mm	40-2460	40-2461	40-2462
150 mm		40-2465	40-2466	40-2467
180 mm		40-2470	40-2471	40-2472

**Gruenwald**

Working Length	Jaw Width x Length	straight	up	down
135 mm	5 x 10 mm	40-2480	40-2481	40-2482
150 mm		40-2485	40-2486	40-2487
180 mm		40-2490	40-2491	40-2492
250 mm		40-2495	40-2496	40-2497

## Decker

Micro Disc Rongeur



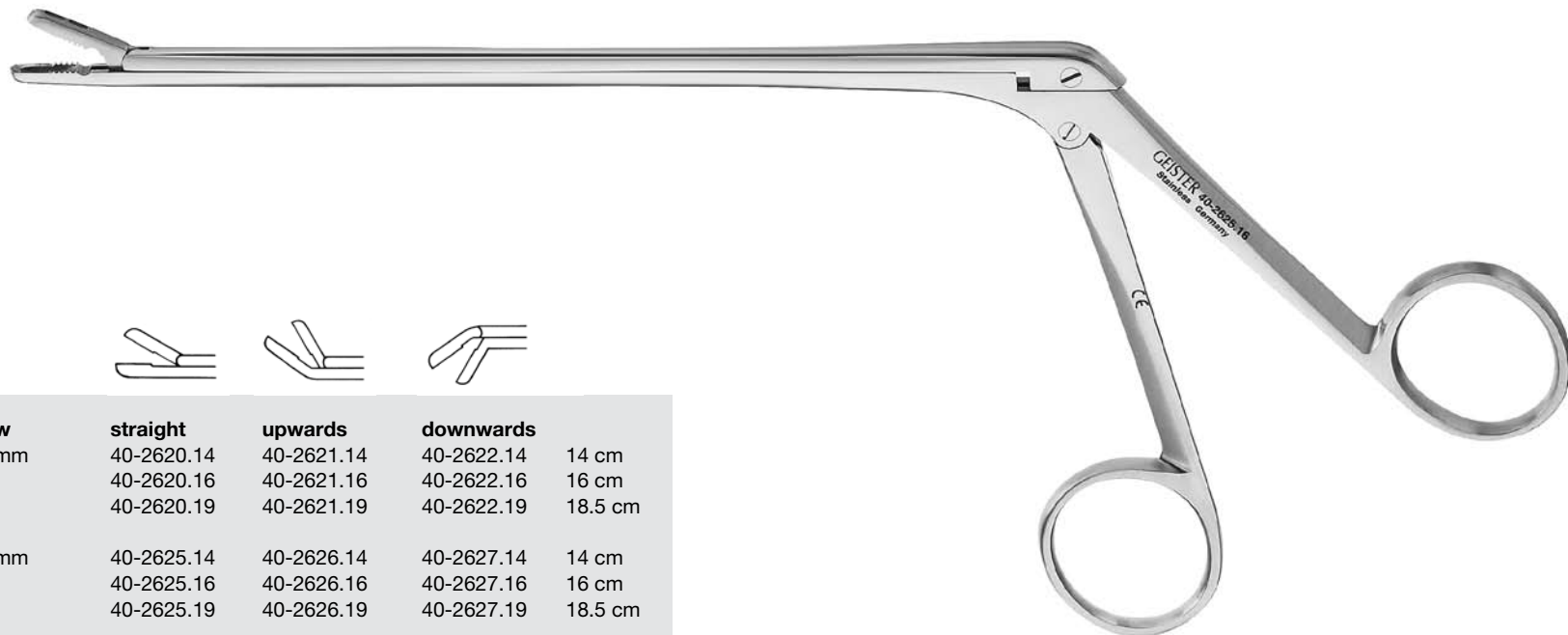
**Jaw Width x Length**  
2 x 6 mm

**straight cutting**  
41-0252 18.5 cm



**upwards cutting**  
41-0262 18.5 cm

## Caspar



jaw	straight	upwards	downwards	
2 mm	40-2620.14	40-2621.14	40-2622.14	14 cm
	40-2620.16	40-2621.16	40-2622.16	16 cm
	40-2620.19	40-2621.19	40-2622.19	18.5 cm
4 mm	40-2625.14	40-2626.14	40-2627.14	14 cm
	40-2625.16	40-2626.16	40-2627.16	16 cm
	40-2625.19	40-2626.19	40-2627.19	18.5 cm
4 mm	40-2630.14	40-2631.14	40-2632.14	14 cm
	40-2630.16	40-2631.16	40-2632.16	16 cm
	40-2630.19	40-2631.19	40-2632.19	18.5 cm

fenestrated jaw, serrated

## Caspar



– black ceramic coating –

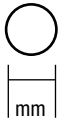
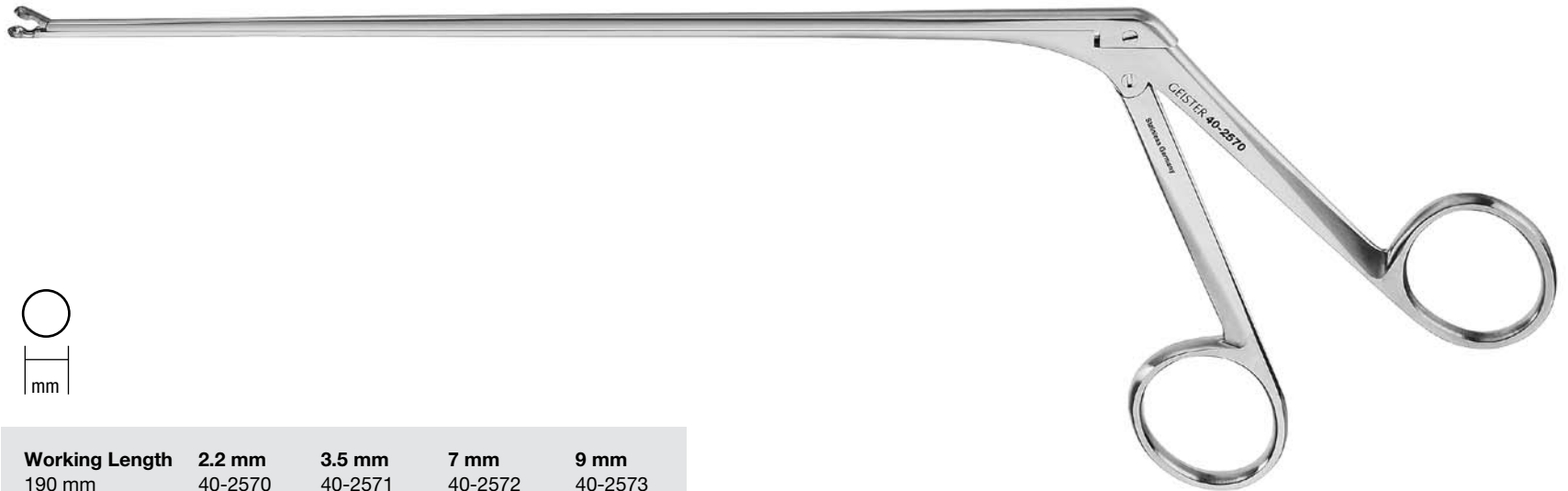


<b>jaw</b>	<b>straight</b>	<b>upwards</b>	<b>downwards</b>	
2 mm	40-3000.16K	40-3001.16K	40-3002.16K	16 cm
	40-3000.18K	40-3001.18K	40-3002.18K	18 cm
2.5 mm	40-3003.16K	40-3004.16K	40-3005.16K	16 cm
	40-3003.18K	40-3004.18K	40-3005.18K	18 cm
3 mm	40-3006.16K	40-3007.16K	40-3008.16K	16 cm
	40-3006.18K	40-3007.18K	40-3008.18K	18 cm
4 mm	40-3009.16K	40-3010.16K	40-3011.16K	16 cm
	40-3009.18K	40-3010.18K	40-3011.18K	18 cm
5 mm	40-3012.16K	40-3013.16K	40-3014.16K	16 cm
	40-3012.18K	40-3013.18K	40-3014.18K	18 cm

fenestrated jaw, serrated



## Oldberg



Working Length	2.2 mm	3.5 mm	7 mm	9 mm
190 mm	40-2570	40-2571	40-2572	40-2573
140 mm	40-2570.14	40-2571.14	40-2572.14	40-2573.14

## Wilde (Weil-Blakesley)

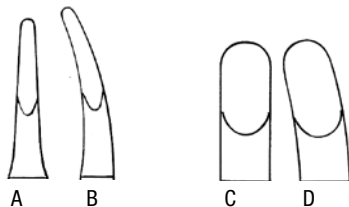


Working Length	Fig. 0	Fig. 1	Fig. 2	Fig. 3
140 mm	40-2560	40-2561	40-2562	40-2563
	2.5 mm	3.6 mm	4.2 mm	4.8 mm
not illustrated:				
45° angled up	40-2560.45	40-2561.45	40-2562.45	40-2563.45
90° angled up		40-2561.90	40-2562.90	
Working Length	Fig. 4	Fig. 5		
140 mm	40-2564	40-2565		
	5.3 mm	6.3 mm		
not illustrated:				
45° angled up	40-2564.45	40-2565.45		

Boehler



Luer-Stille

**Boehler**

	<b>A</b>	<b>B</b>
15 cm	2 mm	40-0098
15 cm	3 mm	40-0100
15 cm	4 mm	40-0102

**Luer-Stille**

	<b>C</b>	<b>D</b>
22 cm	10 mm	40-0150
		40-0151

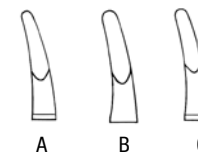
Beyer



Ruskin



Marquardt

**Beyer**

<b>A</b>	18 cm	3 mm	40-0104
	18 cm	4 mm	40-0105

**Ruskin**

<b>B</b>	19 cm	4 mm	40-0115
	19 cm	5 mm	40-0116
	19 cm	6 mm	40-0117

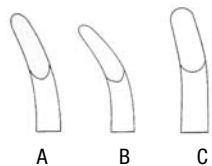
**Marquardt**

<b>C</b>	20 cm	3 mm	40-0190
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Zaufal-Jansen

Mayfield

Röttgen-Ruskin

**Zaufal-Jansen****A**

18 cm    5 mm    40-0195

**Mayfield****B**

18 cm    3 mm    40-0193

18 cm    4 mm    40-0194

**Röttgen-Ruskin****C**

24 cm    5 mm    40-0116.24

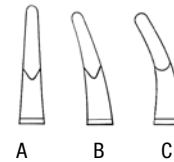
24 cm    6 mm    40-0117.24



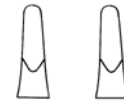
Smith-Peterson



Leksell



A B C



D, slight bent/strong bent

**Smith-Peterson**

		<b>A</b>	<b>B</b>	<b>C</b>
19 cm	3 mm	40-0180	40-0181	40-0182
23 cm	3 mm	40-0185	40-0186	40-0187
23 cm	4 mm	40-0185.40	40-0186.40	40-0187.40

**Leksell**

<b>D</b>		<b>slight bent</b>	<b>strong bent</b>
23 cm	3 mm	40-0124	
23 cm	5 mm	40-0126	40-0128
23 cm	8 mm	40-0125	40-0127

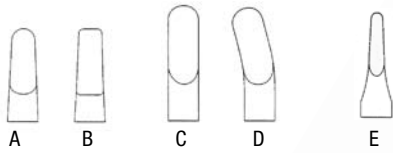


## Bone Biting Rongeurs

### Stille

### Stille- Ruskin

### Echlin



#### Stille

23 cm	6 mm	<b>A</b>	<b>B</b>
		40-0130	40-0135

#### Stille-Ruskin

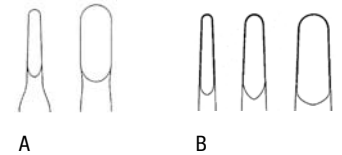
24 cm	6 mm	<b>C</b>	<b>D</b>
24 cm	8 mm	40-0119	40-0120
		40-0121	40-0122

#### Echlin

23 cm	2 mm	<b>E</b>
23 cm	3 mm	40-0140
23 cm	4 mm	40-0141
		40-0142



Dale

Sypert  
(Mega-Luer)

A

B

**Dale**

<b>A</b>		
35 cm	3 mm	40-0155
35 cm	8 mm	40-0155.08

**Sypert**

<b>B</b>		
35 cm	3 mm	40-0165
35 cm	5 mm	40-0166
35 cm	8 mm	40-0167

**Luer-Friedmann****Stellbrink**

**Luer-Friedmann**  
14.5 cm 40-0020

**Stellbrink**  
17 cm 40-0035

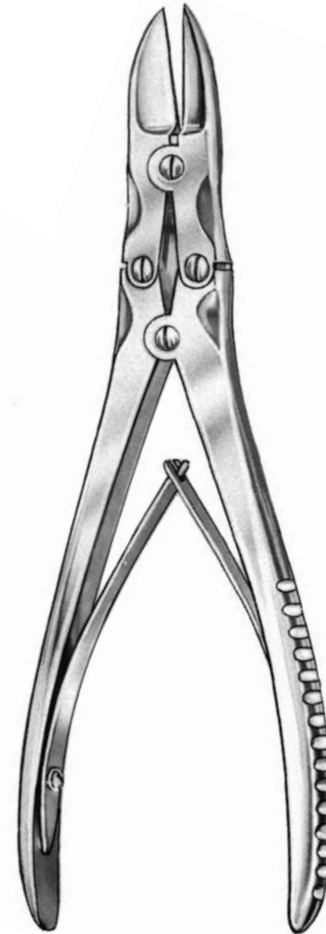
**Liston****De Vilbiss**  
Skull Forceps**Liston, angled**

24 cm	40-0207
27 cm	40-0208

**De Vilbiss**

20.5 cm	40-0199
---------	---------

<b>Spare Blade</b>	40-0199.EK
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**Boehler****Mc Indoe****Ruskin-Liston****Boehler**  
**straight**

15 cm 40-0200

**curved**

15 cm 40-0201

**Mc Indoe**

18 cm 40-0205

**Ruskin-Liston****straight**

19 cm 40-0210

**curved**

19 cm 40-0211

Midi Cutter



18 cm

Midi Cutter



20 cm

Maxi Cutter

**Midi Cutter**

Length	Wire max.	Art.-No.
18 cm	1.5 mm	24-0906
20 cm	1.5 mm	24-0905

**Maxi Cutter**

Length	Wire max.	Art.-No.
18 cm	1.7 mm	24-0910
22 cm	2.5 mm	24-0920



24-0930

**Power Cutter**

Length	Wire max.	Art.-No.
24 cm	3.5 mm	24-0940
57 cm	6.5 mm	24-0930



24-0940

# Retractors





## SpineControl™ Retractor System



29-3001



29-3109



29-3100



29-3011

### SPINEControl™ Transverse Retractor hinged

29-3001	Stainless Steel, 65 mm regular spread	●
29-3001L	Stainless Steel, 110 mm wide spread	●
29-3001.PK	PEEK/Stainless Steel, 60 mm spread	●



### SPINEControl™ Transverse Retractor double-hinged

29-3109	Stainless Steel, 65 mm spread	●
29-3109.PK	PEEK/Stainless Steel, 65 mm spread	●



### SPINEControl™ Longitudinal Retractor double-hinged, ring handle, 20.5 cm

29-3100	Stainless Steel, 85 mm spread	●
29-3100.PK	PEEK/Stainless Steel, 70 mm spread	●



### SPINEControl™ Specula Retractor single-hinged, 11.5 cm

29-3011	Stainless Steel, 70mm regular spread	●
29-3011.PK	PEEK/Stainless Steel, 70 mm spread	●





●  
**Medial Toothed Blades  
Stainless Steel**

29-3002.35 – 23 x 35 mm  
29-3002.40 – 23 x 40 mm  
29-3002.45 – 23 x 45 mm  
29-3002.50 – 23 x 50 mm  
29-3002.55 – 23 x 55 mm  
29-3002.60 – 23 x 60 mm  
29-3002.65 – 23 x 65 mm  
29-3002.70 – 23 x 70 mm



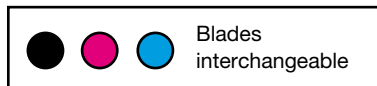
●  
**Small Lateral Blades  
Stainless Steel**

29-3004.40 – 15 x 40 mm  
29-3004.45 – 15 x 45 mm  
29-3004.50 – 15 x 50 mm  
29-3004.55 – 15 x 55 mm  
29-3004.60 – 15 x 60 mm



●  
**Lateral Serrated Blades  
Stainless Steel**

29-3003.40 – 23 x 40 mm  
29-3003.45 – 23 x 45 mm  
29-3003.50 – 23 x 50 mm  
29-3003.55 – 23 x 55 mm  
29-3003.60 – 23 x 60 mm  
29-3003.65 – 23 x 65 mm  
29-3003.70 – 23 x 70 mm



●  
**Cervical Blades  
Stainless Steel –  
fenestrated**

29-3014.50 – 25 x 50 mm  
29-3014.60 – 25 x 60 mm



●  
**Blunt Blades  
Stainless Steel**

29-3012.35 – 23 x 35 mm  
29-3012.40 – 23 x 40 mm  
29-3012.45 – 23 x 45 mm  
29-3012.50 – 23 x 50 mm  
29-3012.55 – 23 x 55 mm  
29-3012.60 – 23 x 60 mm  
29-3012.65 – 23 x 65 mm  
29-3012.70 – 23 x 70 mm  
29-3012.75 – 23 x 75 mm



●  
**Medial Toothed Blades  
Aluminium – rotatating**

29-3114.40 – 23 x 40 mm  
29-3114.45 – 23 x 45 mm  
29-3114.50 – 23 x 50 mm  
29-3114.55 – 23 x 55 mm  
29-3114.60 – 23 x 60 mm



●  
**Lateral Serrated Blades  
Aluminium – rotatating**

29-3112.40 – 23 x 40 mm  
29-3112.45 – 23 x 45 mm  
29-3112.50 – 23 x 50 mm  
29-3112.55 – 23 x 55 mm  
29-3112.60 – 23 x 60 mm



●  
**Blunt Blades  
Aluminium – rotatating**

29-3110.45 – 23 x 45 mm  
29-3110.50 – 23 x 50 mm  
29-3110.55 – 23 x 55 mm  
29-3110.60 – 23 x 60 mm  
29-3110.65 – 23 x 65 mm



## SpineControl™ Retractor System (Titanium)



29-3001.TI

**SPINEControl™**  
**Transverse Retractor hinged**  
 29-3001.TI  
 Titanium, 65 mm spread



29-3011.TI

**SPINEControl™**  
**Specula Retractor**  
 single-hinged, 11.5 cm  
 29-3011.TI  
 Titanium, 70 mm spread



29-3013.TI

**SPINEControl™ Longitudinal**  
**Retractor single-hinged,**  
 ring handle, 17.5 cm  
 29-3013.TI  
 Titanium, 70mm spread



10-8000

**SPINEControl™**  
**Blade Changing Forceps**  
 10-8000  
 11.5 cm (not suitable  
 for quick connect blades)





**Medial Toothed Blades  
Titanium**

29-3005.40 – 20 x 40 mm  
 29-3005.45 – 20 x 45 mm  
 29-3005.50 – 20 x 50 mm  
 29-3005.55 – 20 x 55 mm  
 29-3005.60 – 20 x 60 mm  
 29-3005.65 – 20 x 65 mm  
 29-3005.70 – 20 x 70 mm  
 29-3005.75 – 20 x 75 mm



**Lateral Serrated Blades  
Titanium**

29-3006.25 – 20 x 25 mm  
 29-3006.30 – 20 x 30 mm  
 29-3006.35 – 20 x 35 mm  
 29-3006.40 – 20 x 40 mm  
 29-3006.45 – 20 x 45 mm  
 29-3006.50 – 20 x 50 mm  
 29-3006.55 – 20 x 55 mm  
 29-3006.60 – 20 x 60 mm  
 29-3006.65 – 20 x 65 mm  
 29-3006.70 – 20 x 70 mm  
 29-3006.75 – 20 x 75 mm



**Blunt Blades  
Titanium**

29-3015.30 – 20 x 30 mm  
 29-3015.35 – 20 x 35 mm  
 29-3015.40 – 20 x 40 mm  
 29-3015.45 – 20 x 45 mm  
 29-3015.50 – 20 x 50 mm  
 29-3015.55 – 20 x 55 mm  
 29-3015.60 – 20 x 60 mm  
 29-3015.65 – 20 x 65 mm  
 29-3015.70 – 20 x 70 mm  
 29-3015.75 – 20 x 75 mm



**Medial Toothed Blades  
Titanium – fenestrated**

29-3016.35 – 20 x 35 mm  
 29-3016.40 – 20 x 40 mm  
 29-3016.45 – 20 x 45 mm  
 29-3016.50 – 20 x 50 mm  
 29-3016.55 – 20 x 55 mm  
 29-3016.60 – 20 x 60 mm  
 29-3016.65 – 20 x 65 mm  
 29-3016.70 – 20 x 70 mm



**Lateral Serrated Blades  
Titanium – fenestrated**

29-3017.25 – 20 x 25 mm  
 29-3017.30 – 20 x 30 mm  
 29-3017.35 – 20 x 35 mm  
 29-3017.40 – 20 x 40 mm  
 29-3017.45 – 20 x 45 mm  
 29-3017.50 – 20 x 50 mm  
 29-3017.55 – 20 x 55 mm  
 29-3017.60 – 20 x 60 mm  
 29-3017.65 – 20 x 65 mm  
 29-3017.70 – 20 x 70 mm



**Blunt Blades  
Titanium – fenestrated**

29-3018.35 – 20 x 35 mm  
 29-3018.40 – 20 x 40 mm  
 29-3018.45 – 20 x 45 mm  
 29-3018.50 – 20 x 50 mm  
 29-3018.55 – 20 x 55 mm  
 29-3018.60 – 20 x 60 mm  
 29-3018.65 – 20 x 65 mm  
 29-3018.70 – 20 x 70 mm  
 29-3018.75 – 20 x 75 mm



## SpineControl™ Retractor System (PEEK)



29-3001.PK



29-3109.PK



29-3013.PK



29-3100.PK

**SPINEControl™ Transverse Retractor hinged**  
29-3001.PK PEEK / Stainless Steel, 60mm spread



**SPINEControl™ Transverse Retractor double-hinged**  
29-3109.PK PEEK/Stainless Steel, 65 mm spread



**SPINEControl™ Longitudinal Retractor single-hinged, ring handle, 17.5 cm**  
29-3013.PK PEEK/Stainless Steel, 70 mm spread



**SPINEControl™ Longitudinal Retractor double-hinged, ring handle, 20.5 cm**  
29-3100.PK PEEK/Stainless Steel, 70 mm spread





●

**Small Lateral Serrated  
Blades PEEK**

29-3029.40 – 12 x 40 mm  
29-3029.45 – 12 x 45 mm  
29-3029.50 – 12 x 50 mm  
29-3029.55 – 12 x 55 mm  
29-3029.60 – 12 x 60 mm  
29-3029.65 – 12 x 65 mm  
29-3029.75 – 12 x 75 mm



●

**Lateral Serrated Blades  
PEEK**

29-3030.40 – 23 x 40 mm  
29-3030.45 – 23 x 45 mm  
29-3030.50 – 23 x 50 mm  
29-3030.55 – 23 x 55 mm  
29-3030.60 – 23 x 60 mm  
29-3030.65 – 23 x 65 mm  
29-3030.75 – 23 x 75 mm



●

**Blunt Blades  
PEEK**

29-3033.40 – 23 x 40 mm  
29-3033.45 – 23 x 45 mm  
29-3033.50 – 23 x 50 mm  
29-3033.55 – 23 x 55 mm  
29-3033.60 – 23 x 60 mm  
29-3033.65 – 23 x 65 mm  
29-3033.75 – 23 x 75 mm



●

**Medial Toothed Blades  
PEEK**

29-3032.40 – 23 x 40 mm  
29-3032.45 – 23 x 45 mm  
29-3032.50 – 23 x 50 mm  
29-3032.55 – 23 x 55 mm  
29-3032.60 – 23 x 60 mm  
29-3032.65 – 23 x 65 mm  
29-3032.75 – 23 x 75 mm



●

**Lateral Serrated Blades  
PEEK – rotatating**

29-3031.40 – 23 x 40 mm  
29-3031.45 – 23 x 45 mm  
29-3031.50 – 23 x 50 mm  
29-3031.55 – 23 x 55 mm  
29-3031.60 – 23 x 60 mm  
29-3031.65 – 23 x 65 mm  
29-3031.75 – 23 x 75 mm



●

**Blunt Blades  
PEEK – rotatating**

29-3034.40 – 23 x 40 mm  
29-3034.45 – 23 x 45 mm  
29-3034.50 – 23 x 50 mm  
29-3034.55 – 23 x 55 mm  
29-3034.60 – 23 x 60 mm  
29-3034.65 – 23 x 65 mm  
29-3034.75 – 23 x 75 mm



## SpineControl™ Retractor System (quick connect)



**SPINEControl™ Transverse Retractor double-hinged, quick connect**  
29-3610      Stainless Steel, 72 mm spread, side-loading



**SPINEControl™ Longitudinal Retractor double-hinged, ring handle, quick connect, 18.5 cm**  
29-3612      Stainless Steel, 75 mm spread, side-loading



**SPINEControl™ Specula Retractor single-hinged, quick connect, 11.5 cm**  
29-3614      Stainless Steel, 70 mm spread, side-loading



**SPINEControl™ Quick Connect Blade Positioner Handle**  
29-3615      21 cm, for quick connect blades only





**Medial Toothed Blades  
Stainless Steel**

– quick connect –

29-3616.40 – 23 x 40 mm  
29-3616.45 – 23 x 45 mm  
29-3616.50 – 23 x 50 mm  
29-3616.55 – 23 x 55 mm  
29-3616.60 – 23 x 60 mm



**Lateral Serrated Blades  
Stainless Steel**

– quick connect –

29-3617.40 – 23 x 40 mm  
29-3617.45 – 23 x 45 mm  
29-3617.50 – 23 x 50 mm  
29-3617.55 – 23 x 55 mm  
29-3617.60 – 23 x 60 mm



**Blunt Blades  
Stainless Steel**

– quick connect –

29-3618.45 – 23 x 45 mm  
29-3618.50 – 23 x 50 mm  
29-3618.55 – 23 x 55 mm  
29-3618.60 – 23 x 60 mm  
29-3618.65 – 23 x 65 mm



**Medial Toothed Blades  
Titanium**

– quick connect –

29-3619.40 – 20 x 40 mm  
29-3619.45 – 20 x 45 mm  
29-3619.50 – 20 x 50 mm  
29-3619.55 – 20 x 55 mm  
29-3619.60 – 20 x 60 mm



**Lateral Serrated Blades  
Titanium**

– quick connect –

29-3620.40 – 20 x 40 mm  
29-3620.45 – 20 x 45 mm  
29-3620.50 – 20 x 50 mm  
29-3620.55 – 20 x 55 mm  
29-3620.60 – 20 x 60 mm



**Blunt Blades  
Titanium**

– quick connect –

29-3621.45 – 20 x 45 mm  
29-3621.50 – 20 x 50 mm  
29-3621.55 – 20 x 55 mm  
29-3621.60 – 20 x 60 mm  
29-3621.65 – 20 x 65 mm



#### 29-3000 Caspar Cervical Spine Retractor

stainless steel, complete set for transverse retraction, 65 mm spread, adjustable, with 5 medial and 5 lateral stainless steel blades 40/45/50/55/60 mm



#### 29-3000.TI Caspar Cervical Spine Retractor

titanium, complete set for transverse retraction, 65 mm spread, adjustable, with 5 medial and 5 lateral titanium blades 40/45/50/55/60 mm





Lateral

Paraspinal

**Caspar Microdiscectomy Retractor**  
for microsurgical treatment of herniated lumbar discs  
stainless steel, 45 mm spread

**29-3520** Frame only, hinged, ends black,  
**29-3520K** Frame only, hinged, completely black

**Lateral Blades**

29-3522 – 35 mm  
29-3524 – 40 mm  
29-3526 – 45 mm  
29-3528 – 50 mm  
29-3530 – 55 mm  
29-3532 – 60 mm  
29-3534 – 65 mm  
29-3538 – 75 mm  
29-3542 – 85 mm

**Paraspinal Blades**

29-3521 – 40 mm  
29-3523 – 45 mm  
29-3525 – 50 mm  
29-3527 – 55 mm  
29-3529 – 60 mm  
29-3531 – 65 mm  
29-3533 – 70 mm

**Lumbar Speculum fenestrated**

29-3500 – 40 mm  
29-3502 – 45 mm  
29-3504 – 50 mm  
29-3506 – 55 mm  
29-3508 – 60 mm  
29-3510 – 65 mm  
29-3511 – 70 mm  
29-3512 – 75 mm  
29-3513 – 80 mm  
29-3514 – 85 mm



29-3702

**McCulloch Lumbar Spine Retractor for Microdiscectomy,  
black silicone bead**

29-3702 – Frame only, 68 mm spread, hinged  
29-3701 – Frame only, 68 mm spread, rigid  
29-3700 – Frame only, 90 mm spread, rigid

**McCulloch Lumbar Spine Retractor Tray**

29-3720 – Tray 265x265 mm for Container (not illustrated)



**McCulloch 4-teeth  
Narrow Muscle Blades**

29-3705.30 – 20 x 30 mm  
29-3705.40 – 20 x 40 mm  
29-3705.50 – 20 x 50 mm  
29-3705.60 – 20 x 60 mm  
29-3705.70 – 20 x 70 mm  
29-3705.80 – 20 x 80 mm



**McCulloch 2-teeth  
Thin Muscle Blades**

29-3710.30 – 17 x 30 mm  
29-3710.40 – 17 x 40 mm  
29-3710.50 – 17 x 50 mm  
29-3710.60 – 17 x 60 mm  
29-3710.70 – 17 x 70 mm  
29-3710.80 – 17 x 80 mm  
29-3710.90 – 17 x 90 mm



**McCulloch  
Toothed Hook Blades**

29-3708.20 – 20 mm  
29-3708.30 – 30 mm  
29-3708.40 – 40 mm  
29-3708.50 – 50 mm  
29-3708.60 – 60 mm  
29-3708.70 – 70 mm  
29-3708.80 – 80 mm



**McCulloch 6-teeth  
Wide Muscle Blades**

29-3706.30 – 27 x 30 mm  
29-3706.40 – 27 x 40 mm  
29-3706.50 – 27 x 50 mm  
29-3706.60 – 27 x 60 mm  
29-3706.70 – 27 x 70 mm  
29-3706.80 – 27 x 80 mm



**McCulloch  
Hook Blades**

29-3707.20 – 20 mm  
29-3707.30 – 30 mm  
29-3707.40 – 40 mm  
29-3707.50 – 50 mm  
29-3707.60 – 60 mm  
29-3707.70 – 70 mm  
29-3707.80 – 80 mm



**McCulloch 2-teeth  
Cervical Blades**

29-3709.50 – 20 x 50 mm  
29-3709.60 – 20 x 60 mm  
29-3709.70 – 20 x 70 mm

## Vertebral Column Retractor System

**29-3550 Caspar Vertebral Column Retractor**

for Laminectomy and Hemilaminectomy (Lumbar, Thoracic, Cervical), stainless steel, complete set, 145 mm spread, 125 mm arms, consisting of:

29-3550.SP, 29-3550.DR, 29-3552, 29-3381, 29-3382, 29-3383, 29-3384, 29-3385

**29-3550.SP - Frame only, 145mm spread, hinged**  
includes 29-3550.DR – Screw Driver for spreading bar



29-3552 – 38 mm  
29-3551 – 58 mm



29-3380 – 22 x 32 mm  
29-3381 – 22 x 37 mm  
29-3382 – 22 x 43 mm  
29-3383 – 22 x 47 mm  
29-3384 – 22 x 52 mm  
29-3385 – 22 x 57 mm  
29-3386 – 22 x 62 mm  
29-3387 – 22 x 67 mm



29-3360 – 37 x 32 mm  
29-3361 – 37 x 37 mm  
29-3362 – 37 x 43 mm  
29-3363 – 37 x 47 mm  
29-3364 – 37 x 52 mm  
29-3365 – 37 x 57 mm  
29-3366 – 37 x 62 mm  
29-3367 – 37 x 67 mm



29-3370 – 52 x 32 mm  
29-3371 – 52 x 37 mm  
29-3372 – 52 x 43 mm  
29-3373 – 52 x 47 mm  
29-3374 – 52 x 52 mm  
29-3375 – 52 x 57 mm  
29-3376 – 52 x 62 mm  
29-3377 – 52 x 67 mm



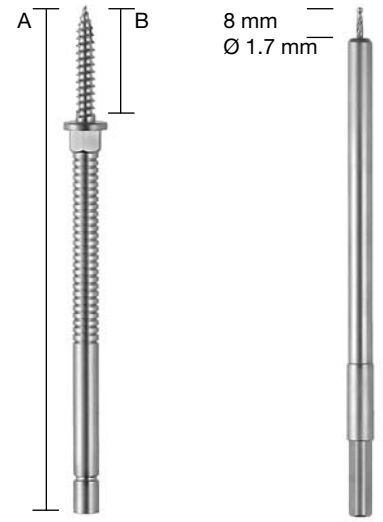
Vertebral Body Distractor for Anterior Cervical Fusion



Caspar

29-3131 Distractor only for use in surgical procedures from the left approach for C5 through T1 (T2) and from the right approach for the upper cervical spine

29-3131L Distractor as above but with elongated toothed bar for multilevel (more than 2) distraction



29-3132  
Drill Guide

29-3135  
Screw Driver

Distraction Pin	A/B	
29-3134.12	66/12mm	
29-3134.14	68/14 mm	
29-3134.16	70/16 mm	
29-3134.18	72/18 mm	
		29-3133 Twist Drill



**Caspar**

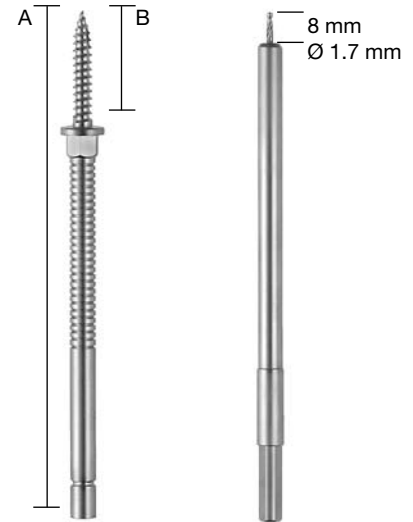
29-3141 Distractor only for use in surgical procedures from the right approach for C5 through T1 (T2) and from the left approach for the upper cervical spine

29-3141L Distractor as above but with elongated toothed bar for multilevel (more than 2) distraction



29-3142  
Drill Guide

29-3135  
Screw Driver



Distraction Pin	A/B	
29-3134.12	66/12mm	
29-3134.14	68/14 mm	
29-3134.16	70/16 mm	29-3133
29-3134.18	72/18 mm	Twist Drill



### Cloward-type

Vertebra Spreaders

29-3200 13 cm, 18 mm spread



**one pointed tip**

29-3201 7 cm arm, 80 mm spread



**three pointed tips**

29-3202 8.5 cm arm, 70 mm spread

29-3203 10 cm arm, 70 mm spread

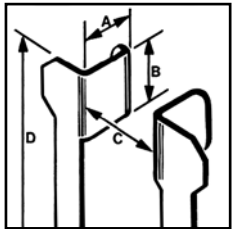
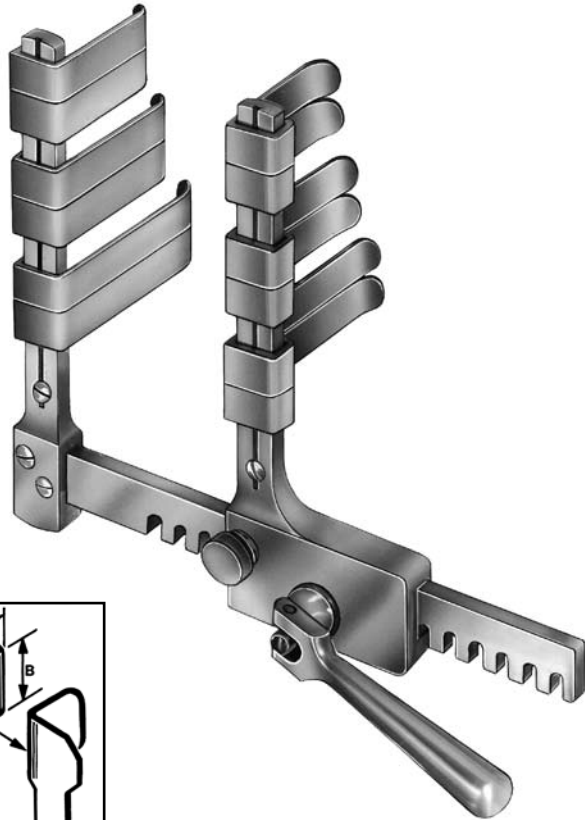


### Inge

Lamina Spreaders

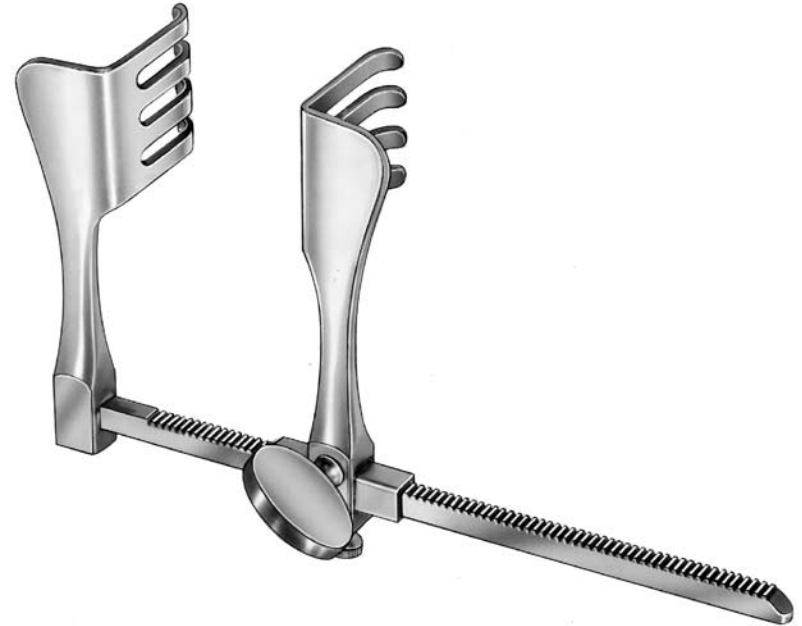
29-3210 16.5 cm

29-3212 27 cm



with 3 x 2 pairs of movable blunt blades

	A	B	C	D
29-3400	40 mm	12 mm	110 mm	132 mm
	50 mm	12 mm		
	65 mm	12 mm		

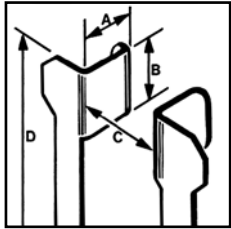


### Badgley

	A	B	C	D
29-3410	48 mm	45 mm	170 mm	110 mm



Optional blades

**3-prongs, 35 mm wide:**

29-3163.50	50 mm	35 mm
29-3163.60	60 mm	35 mm
29-3163.75	75 mm	35 mm

**4-prongs, 50 mm wide:**

29-3164.50	50 mm	50 mm
29-3164.60	60 mm	50 mm
29-3165.75	75 mm	50 mm

**Toothed, 35 mm wide:**

29-3165.50	50 mm	35 mm
29-3165.60	60 mm	35 mm
29-3165.75	75 mm	35 mm

**Toothed, 50 mm wide:**

29-3166.50	50 mm	50 mm
29-3166.60	60 mm	50 mm
29-3166.75	75 mm	50 mm

**Hook-shaped, blunt:**

29-3162.51	50 mm
29-3162.61	60 mm
29-3162.76	75 mm

## Scoville-Haverfield

	A	B	C	D
<b>29-3160</b>	50 mm	35 mm	140 mm	140 mm
	50 mm	D = 5 mm		
with 1 each blade 29-3165.50 and 29-3162.51				

**Frame only, hinged:**

<b>29-3161</b>	-	-	140 mm	140 mm
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## Williams

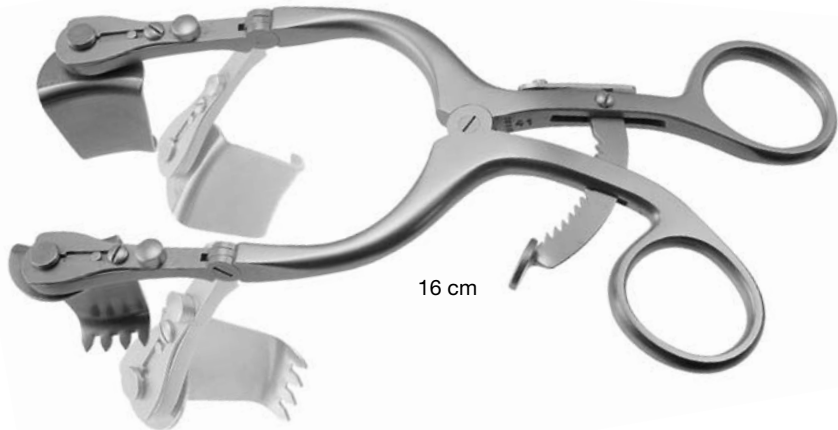
for microsurgical treatment of herniated discs, 17 cm

<b>w = 10 mm</b>		<b>w = 20 mm</b>	
29-3250L	10 x 50 mm	29-3251L	20 x 50 mm
29-3252L	10 x 60 mm	29-3253L	20 x 60 mm
29-3254L	10 x 70 mm	29-3255L	20 x 70 mm

<b>w = 10 mm</b>		<b>w = 20 mm</b>	
29-3250R	10 x 50 mm	29-3251R	20 x 50 mm
29-3252R	10 x 60 mm	29-3253R	20 x 60 mm
29-3254R	10 x 70 mm	29-3255R	20 x 70 mm



25 cm



16 cm

## Cloward-type

with slide lock

30-0550 Cervical Retractor Set with slide-lock complete with 14 blades, 25 cm  
30-0552.25 – 30-0553.55

30-0560 Cervical Retractor Set with slide-lock complete with 14 blades, 16 cm  
30-0552.25 – 30-0553.55

30-0551 Retractor Body only (without blades), 25 cm

30-0561 Retractor Body only (without blades), 16 cm

– Exchangeable blades –



30-0552.25	25 mm blunt
30-0552.30	30 mm blunt
30-0552.35	35 mm blunt
30-0552.40	40 mm blunt
30-0552.45	45 mm blunt
30-0552.50	50 mm blunt
30-0552.55	55 mm blunt



30-0553.25	25 mm serrated
30-0553.30	30 mm serrated
30-0553.35	35 mm serrated
30-0553.40	40 mm serrated
30-0553.45	45 mm serrated
30-0553.50	50 mm serrated
30-0553.55	55 mm serrated



## Cloward-type

with ball snap closure, 25.5 cm

29-3120 Cervical Retractor complete consisting of 29-3121, 29-3121.40, 29-3121.45, 29-3121.50, 29-3121.55, 29-3121.60

29-3121 Retractor Body 25.5 cm, 110 mm spread (without blades)

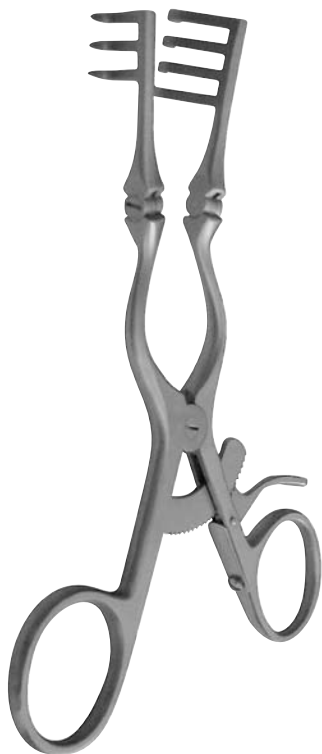
### Exchangeable blades



29-3121.40	15 x 40 mm, serrated
29-3121.45	15 x 45 mm, serrated
29-3121.50	15 x 50 mm, serrated
29-3121.55	15 x 55 mm, serrated
29-3121.60	15 x 60 mm, serrated



29-3122.40	15 x 40 mm, blunt
29-3122.45	15 x 45 mm, blunt
29-3122.50	15 x 50 mm, blunt
29-3122.55	15 x 55 mm, blunt
29-3122.60	15 x 60 mm, blunt



## Cone

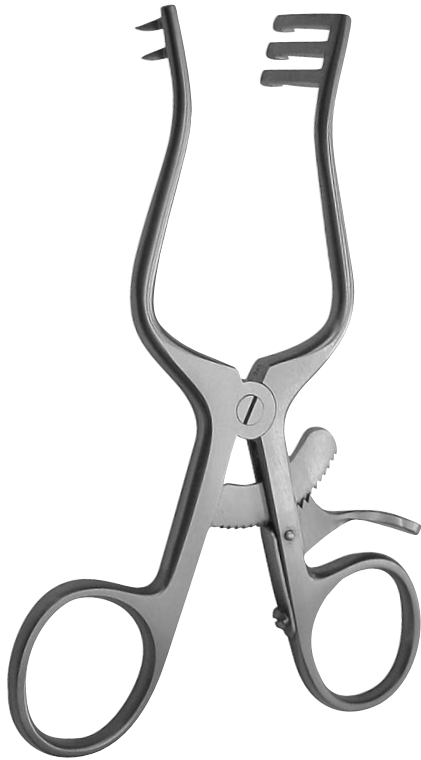
30-0640	14 cm, 18 mm	3 x 4 prongs sharp
30-0642	16 cm, 18 mm	3 x 4 prongs sharp
30-0644	20 cm, 20 mm	3 x 4 prongs sharp
30-0648	24 cm, 27 mm	3 x 4 prongs sharp
30-0641	14 cm, 18 mm	3 x 4 prongs blunt
30-0643	16 cm, 18 mm	3 x 4 prongs blunt
30-0645	20 cm, 20 mm	3 x 4 prongs blunt
30-0649	24 cm, 27 mm	3 x 4 prongs blunt

## Markham-Meyerding

Hemilaminectomy Retractor

30-0631 18 cm, 60 x 25 mm left

30-0630 18 cm, 60 x 25 mm right



### Mini-Weitlaner

30-0590	11 cm, 16 mm	2 x 3 prongs sharp
30-0592	11 cm, 16 mm	3 x 3 prongs blunt



### Weitlaner

30-0600	13 cm, 18 mm	3 x 4 prongs sharp
30-0605	16 cm, 18 mm	3 x 4 prongs sharp
30-0610	20 cm, 21 mm	3 x 4 prongs sharp
30-0615	25 cm, 27 mm	3 x 4 prongs sharp
30-0602	13 cm, 18 mm	3 x 4 prongs blunt
30-0607	16 cm, 18 mm	3 x 4 prongs blunt
30-0612	20 cm, 21 mm	3 x 4 prongs blunt
30-0617	25 cm, 27 mm	3 x 4 prongs blunt



### Anderson-Adson

Cerebellar Retractor

30-0635	20 cm	4 x 4 prongs sharp
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### Weitlaner

30-0620	26 cm, 27 mm	5 x 6 prongs sharp
30-0622	26 cm, 27 mm	5 x 6 prongs blunt



### Hemilaminectomy

30-0760	29 cm, 42 mm	6 x 6 prongs sharp
30-0761	29 cm, 42 mm	6 x 6 prongs blunt



**Right blade 42 mm, left blade 22 mm deep**

30-0762	29 cm, 22/42 mm	6 x 6 prongs sharp
30-0763	29 cm, 22/42 mm	6 x 6 prongs blunt

**Right blade 22 mm, left blade 42 mm deep**

30-0764	29 cm, 22/42 mm	6 x 6 prongs sharp
30-0765	29 cm, 22/42 mm	6 x 6 prongs blunt



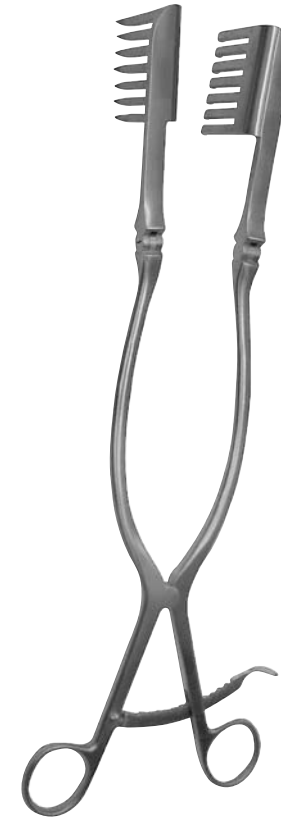
### Scalp Contour

30-0770	14 cm, 18 mm	1 x 1 prongs blunt
30-0772	14 cm, 18 mm	3 x 3 prongs blunt
30-0774	14 cm, 18 mm	3 x 4 prongs sharp
30-0775	14 cm, 18 mm	3 x 4 prongs blunt



### Beckmann-Adson

30-0665	31 cm, 25 mm	4 x 4 prongs sharp
30-0667	31 cm, 37 mm	4 x 4 prongs sharp
30-0670	31 cm, 48 mm	4 x 4 prongs sharp
30-0666	31 cm, 25 mm	4 x 4 prongs blunt
30-0668	31 cm, 37 mm	4 x 4 prongs blunt
30-0671	31 cm, 48 mm	4 x 4 prongs blunt



### Beckmann-Eaton

30-0662	32 cm, 50 mm	7 x 7 prongs sharp
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### Miskimon

30-0820	22 cm, 35 mm	7 x 7 prongs sharp
30-0822	22 cm, 35 mm	7 x 7 prongs blunt



### Adson

30-0651	19 cm, 23 mm	4 x 4 prongs sharp
30-0652	19 cm, 23 mm	4 x 4 prongs blunt



30-0653	19 cm, 23 mm	4 x 4 prongs sharp
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**Norfolk & Norwich**  
Hemilaminectomy Retractor

30-0636    22 cm, 50 mm    4 x 5 prongs blunt

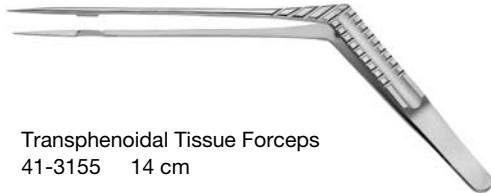


**Gelpi**  
Skin Retractor

30-0791    17.5 cm



## Transphenoidal Hypophysectomy Speculas



Transphenoidal Tissue Forceps  
41-3155 14 cm



Spreader for specula  
29-4220 21 cm



Screwdriver  
29-4215



Spreader for specula  
29-4221



### Cushing-Landolt

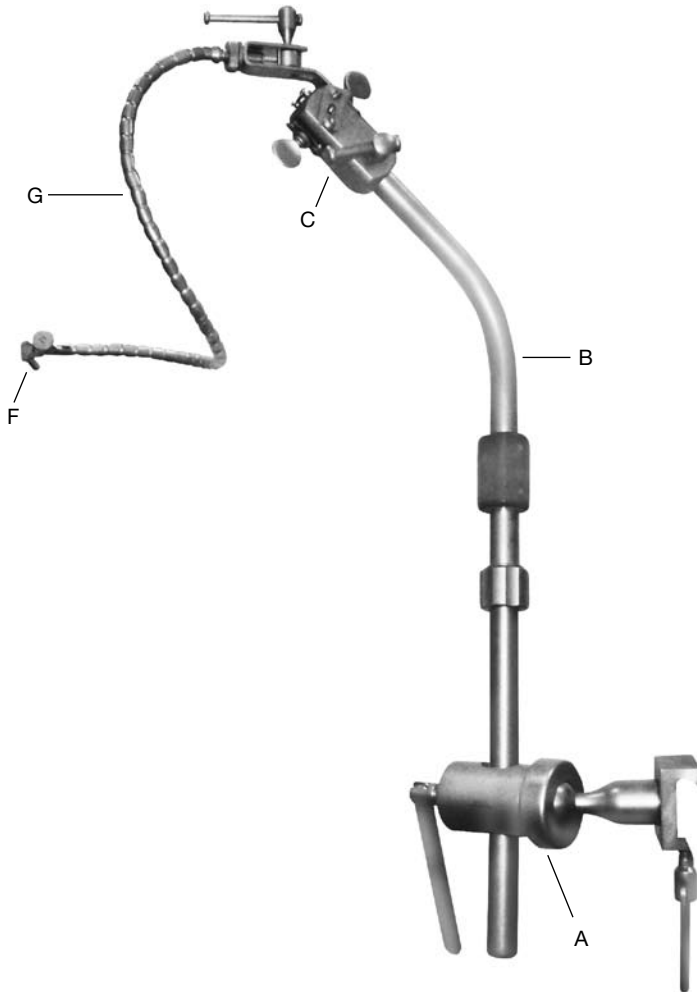
29-4200	70 x 15 mm
29-4201	90 x 15 mm
29-4202	110 x 15 mm



### Papavero-Caspar

(including screwdriver 29-4215)

29-4211	80 x 11 mm
29-4212	90 x 13 mm
29-4213	100 x 15 mm



#### For three dimensional fixation of spatulas

- A** 41-7080 Ball- and Socket Joint, for fixing holding rod 41-7083 to pole of operating table 10 x 25 mm.
- B** 41-7083 Holding Rod, for fixation in ball- and socket joint 41-7080 or 41-7081 and to take coupling head 41-7084 or 41-7085.
- C** 41-7084 Coupling Head, to take 1 – 5 flexible arms 41-7105.
- D** 41-7085 Turnable Coupling Head, can be fixed in any position, to take 1 flexible arm 41-7105. If necessary, several coupling heads 41-7085 can be attached.
- 41-7090 Fixation Base, for skull mounting, holding 1 flexible arm 41-7105.  
 41-7091 Fixation Base, for skull mounting, holding 2 flexible arms 41-7105.  
 41-7092 Fixation Base, for mounting two bars up to 16 mm diameter, holding 1 flexible arm 41-7105.
- E** 41-7095 Support only, for flat spatulas, fixing to flexible arm 41-7105.
- F** 41-7096 Support only, for brain spatulas with round shaft up to 5.5 mm, fixing to flexible arm 41-7105.
- G** 41-7105 Flexible Arm only, for attaching coupling base 41-7184, 41-7085 or 41-7086.
- H** Heifetz Brain Spatula, round shaft, 15.5 cm: 41-7120 (8 mm), 41-7122 (11 mm), 41-7124 (14 mm), 41-7126 (17 mm)
- I** Heifetz Brain Spatula, 20 cm: 41-7130 (7 + 8 mm), 41-7131 (10 + 11 mm), 41-7132 (13 + 14 mm), 41-7133 (16 + 17 mm), 41-7134 (19 + 20 mm), 41-7135 (22 + 25 mm)



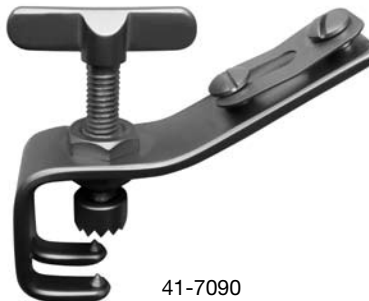
**A** 41-7080 Ball- and Socket Joint, for fixing holding rod 41-7083 to pole of operating table 10 x 25 mm.



**B** 41-7083 Holding Rod, for fixation in ball- and socket joint 41-7080 or 41-7081 and to take coupling head 41-7084 or 41-7085.



**C** 41-7084 Coupling Head, to take 1 – 5 flexible arms 41-7105.



41-7090



41-7091



41-7092

- D** 41-7085 Turnable Coupling Head, can be fixed in any position, to take 1 flexible arm 41-7105. If necessary, several coupling heads 41-7085 can be attached. (not illustrated)
- 41-7090 Fixation Base, for skull mounting, holding 1 flexible arm 41-7105.
- 41-7091 Fixation Base, for skull mounting, holding 2 flexible arms 41-7105.
- 41-7092 Fixation Base, for mounting two bars up to 16 mm diameter. holding 1 flexible arm 41-7105.



**E** 41-7095 Support only, for flat spatulas, fixing to flexible arm 41-7105.



**F** 41-7096 Support only, for brain spatulas with round shaft up to 5.5 mm, fixing to flexible arm 41-7105.



**G** 41-7105 Flexible Arm only, for attaching coupling base 41-7184, 41-7085 or 41-7086.



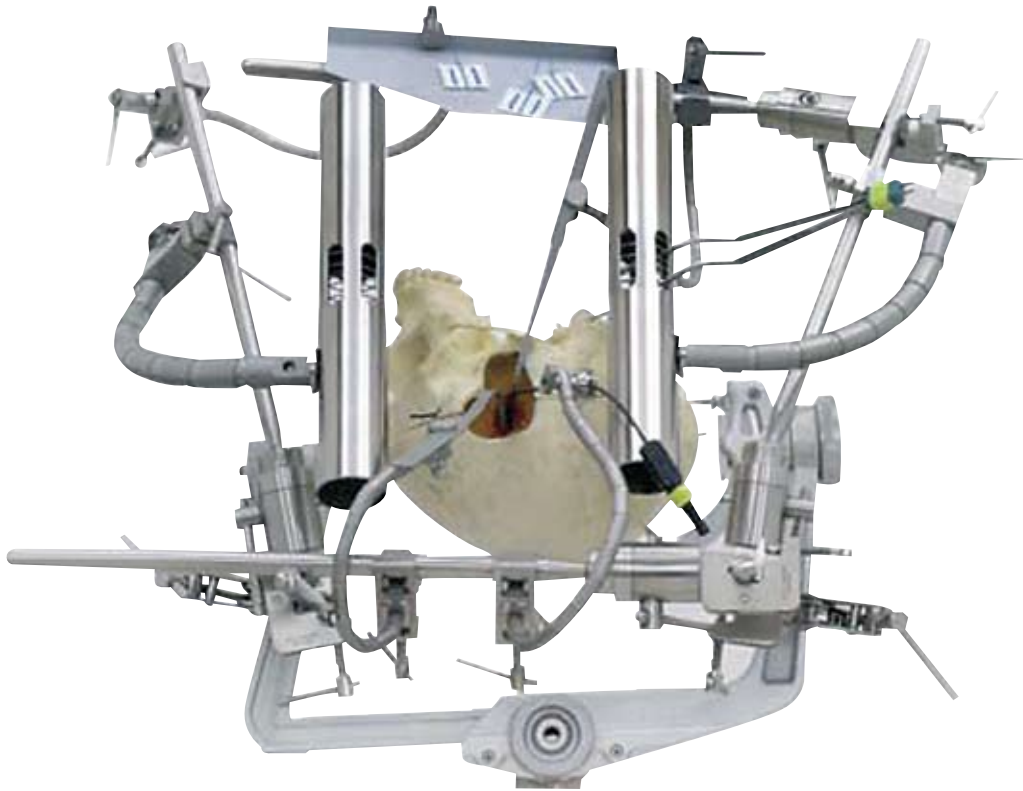
41-7122 (11 mm)

**H** Heifetz Brain Spatula, round shaft, 15.5 cm: 41-7120 (8 mm), 41-7122 (11 mm), 41-7124 (14 mm), 41-7126 (17 mm)



41-7130 (10 + 11 mm)

**I** Heifetz Brain Spatula, 20 cm: 41-7130 (7 + 8 mm), 41-7131 (10 + 11 mm), 41-7132 (13 + 14 mm), 41-7133 (16 + 17 mm), 41-7134 (19 + 20 mm), 41-7135 (22 + 25 mm)



#### **41-7200 Neurosurgery Head Retractor and Hand Stabilisation System (Stainless Steel)**

consisting of:

41-7211	Floating Secondary Bar 30cm (4x)
41-7204	Long Retractor Arm 24cm (4x)
41-7205	Primary Bar 15cm (2x)
41-7202	Handrest 25cm (2x)
41-7199	Container
41-7220	Pattie Tray Aluminium
41-7215	Tapered Blade 4-16mm
41-7216	Tapered Blade 2.4-9.5mm
41-7217	Tapered Blade 3.2-12.7mm
41-7218	Tapered Blade 6.4-19mm
41-7219	Tapered Blade 1.6-6.4mm

- All components in surgical grade stainless steel or titanium, pattie tray made of surgical grade aluminium
- Ergonomic handrests reduce fatigue and tremor
- Highly adjustable flexible arms securely hold and position retractor blades
- Quick and easy set-up for most microsurgical procedures

Optionally also available in titanium:

**41-7200.TI** Neurosurgery Head Retractor and Hand Stabilisation System (Titanium)

## Neurosurgery Head Retractor and Hand Stabilisation System

**Optional accessories (to be ordered separately):**

- 41-7203 Short Retractor Arm 16.5cm
- 41-7207 Short Coupler
- 41-7208S Instrument Holder, small <3.2mm
- 41-7208M Instrument Holder, medium <8mm
- 41-7208L Instrument Holder, large <25mm
- 41-7208X Instrument Holder, extra-large <50mm
- 41-7209 Maxi-Vise Adapter
- 41-7212 Secondary Bar 30cm, rigid



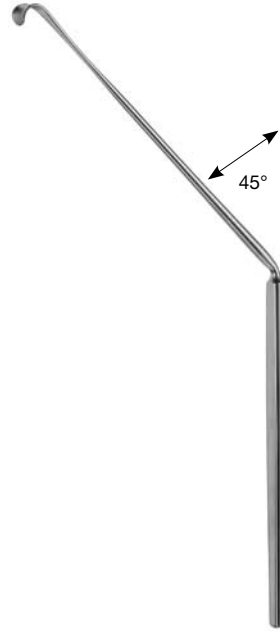
### Obwegeser

Soft Tissue Retractor  
30-0215 16 x 80 mm



### Hess

Nerve Root Retractor  
30-0265 17.5 cm 3 mm  
30-0266 17.5 cm 5 mm  
30-0267 17.5 cm 7 mm



### Love

Nerve Root Retractor  
30-0260 19 cm 0°  
30-0261 19 cm 45°  
30-0262 19 cm 90°



### Caspar

Nerve Root Retractor  
41-6020 24.5 cm 6 mm  
41-6022 24.5 cm 8 mm  
41-6024 24.5 cm 10 mm



Langenbeck



30-0009  
21 cm, 20 x 7 mm  
# 0



30-0010  
21 cm, 30 x 11 mm  
# 1



30-0011  
21 cm, 30 x 14 mm  
# 2



30-0012  
21 cm, 30 x 16 mm  
# 3



30-0013  
21 cm, 33 x 14 mm  
# 4



30-0014  
21 cm, 40 x 11 mm  
# 5



30-0015  
21 cm, 42 x 13 mm  
# 6



30-0016  
21 cm, 50 x 11 mm  
# 7



30-0019  
21.5 cm, 25 x 6 mm  
# 1



30-0020  
21.5 cm, 25 x 8 mm  
# 2



30-0021  
21.5 cm, 35 x 8 mm  
# 3



30-0022  
21.5 cm, 35 x 11 mm  
# 4



30-0023  
21.5 cm, 35 x 15 mm  
# 5



30-0024  
21.5 cm, 40 x 11 mm  
# 6



30-0025  
21.5 cm, 55 x 11 mm  
# 7



30-0026  
21.5 cm, 70 x 14 mm  
# 8

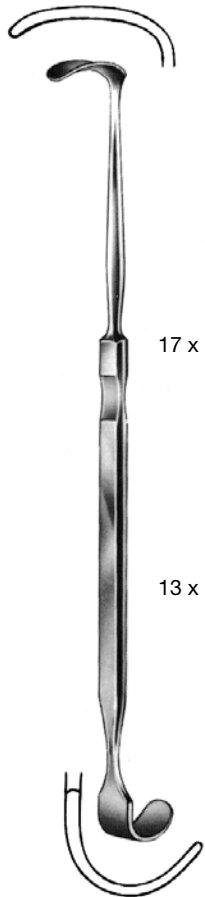


30-0027  
21.5 cm, 80 x 12 mm  
# 9



30-0028  
21.5 cm, 80 x 16 mm  
# 10

Kocher-Langenbeck



17 x 8 mm

13 x 10 mm

**Lukens**

30-0190  
17 cm



8 x 9 mm

13 x 10 mm

**Jackson**

30-0191  
17 cm

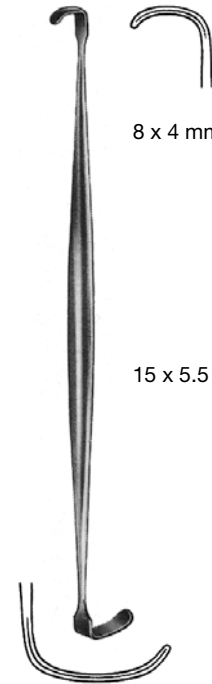


12 x 12 mm

21 x 6 mm

**Cope**

30-0192  
18 cm



8 x 4 mm

15 x 5.5 mm



















**Ragnell-Davis**

30-0170  
14 cm

## Hand-held Retractors




Volkmann

		9 x 8 mm	9 x 13 mm	9 x 19 mm	9 x 29 mm	9 x 40 mm
sharp						
	30-1510 21.5 cm	30-1511 21.5 cm	30-1512 21.5 cm	30-1513 21.5 cm	30-1514 21.5 cm	30-1515 21.5 cm
blunt						
	30-1530 21.5 cm	30-1531 21.5 cm	30-1532 21.5 cm	30-1533 21.5 cm	30-1534 21.5 cm	30-1535 21.5 cm
semi-blunt						
	30-1520 21.5 cm	30-1521 21.5 cm	30-1522 21.5 cm	30-1523 21.5 cm	30-1524 21.5 cm	30-1525 21.5 cm



Kocher

		15 x 10 mm	15 x 15 mm	15 x 20 mm	15 x 30 mm	15 x 40 mm
sharp						
		30-1540 21.5 cm	30-1541 21.5 cm	30-1542 21.5 cm	30-1543 21.5 cm	30-1544 21.5 cm
blunt						
		30-1560 21.5 cm	30-1561 21.5 cm	30-1562 21.5 cm	30-1563 21.5 cm	30-1564 21.5 cm
semi-blunt						
		30-1550 21.5 cm	30-1551 21.5 cm	30-1552 21.5 cm	30-1553 21.5 cm	30-1554 21.5 cm



## Conic Spatulas with Memory

The tips of our nitinol brain spatulas can at normal OR temperatures be individually deformed with soft pressure to the surgeon's needs and thus are very useful for intracranial brain tissue retraction. Due to the special characteristics of the shape memory metal the 20cm long spatulas with two conical ends will regain their initial straight shape with each autoclaving cycle.



6 mm / 2 mm	41-7310
8 mm / 2 mm	41-7311
10 mm / 2 mm	41-7312
10 mm / 5 mm	41-7313



# Micro Hand Instruments

**Rhoton-type**

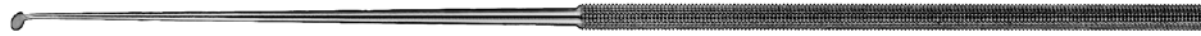
**Set with container**  
Titanium 41-6310  
Stainless 41-6030



41-6049 Container (without content)



# Rhoton-type



19 cm



	blade 1.0 mm Dissectors	blade 2.0 mm	blade 3.0 mm	curved Elevators	angled	small Spatula Dissectors	medium	large	semi-sharp 90° Hooks	blunt
Titanium	41-6290	41-6291	41-6292	41-6293	41-6294	41-6295	41-6296	41-6297	41-6298	41-6299
Stainless	41-6031	41-6032	41-6033	41-6034	41-6035	41-6036	41-6037	41-6038	41-6039	41-6040



	semi-sharp 45° Hook	straight Needle	straight Curettes	angled	3 mm, 90° Ball Dissectors	0° straight	5 mm, 90°	4 mm, 40°	8 mm, 40°
Titanium	41-6300	41-6301	41-6302	41-6303	41-6304	41-6305	41-6306	41-6307	41-6308
Stainless	41-6041	41-6042	41-6043	41-6044	41-6045	41-6046	41-6047	41-6048	41-6048L



## Fairgrip™ Cranial Shaft Instruments

The Fairgrip™ Cranial Shaft Instruments have been specially designed for a keyhole or small anatomical access in neurosurgery, in particular for intracranial surgery, such as tumor surgery, or skull base surgery, such as hypophysectomy and others.

Without compromising microscope vision, the bayonet design and the unique “golfball”-style knurling allows to reach deep into narrow locations with a secure but relaxed grip and with highly precise fingertip control. Perfect balance and ergonomic design in combination with multi-directionally adjustable tip inserts minimizes fatigue and largely avoids physiological tremor. A wide selection of tip inserts are available in 16cm or 21cm versions.



### Handle

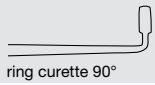

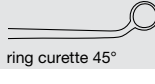


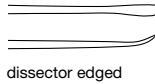
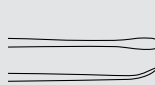
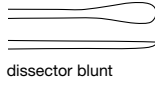
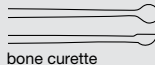
11 cm bayonet	41-1100
10.5 cm straight	41-1102

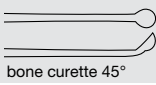
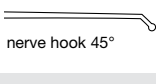
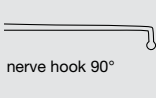
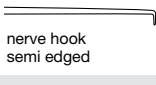
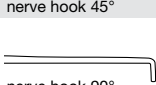
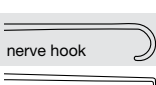
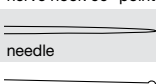
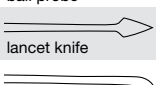
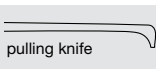

### Sterilization Tray for 160 mm

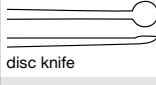
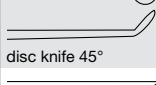
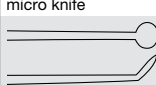
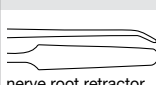
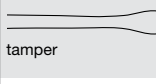
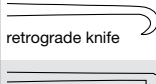
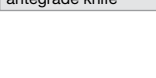
210 x 180 mm	41-1260
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### Sterilization Tray for 210 mm

210 x 230 mm	41-1261
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	Inserts Ø 3 mm	160 mm	210 mm
	2 mm	41-1110	41-1200
	4 mm	41-1111	41-1201
	6 mm	41-1112	41-1202
	2 mm	41-1113	41-1203
	4 mm	41-1114	41-1204
	6 mm	41-1115	41-1205
	2 mm	41-1116	41-1206
	4 mm	41-1117	41-1207
	6 mm	41-1118	41-1208
	2 mm	41-1146	41-1233
	4 mm	41-1147	41-1234
	6 mm	41-1148	41-1235
	2 mm	41-1149	41-1236
	4 mm	41-1150	41-1237
	6 mm	41-1151	41-1238
	1 mm	41-1120	41-1209
	2 mm	41-1121	41-1210
	3 mm	41-1122	41-1211
	1 mm	41-1123	41-1212
	1.5 mm	41-1128	41-1217
	2 mm	41-1124	41-1213
	3 mm	41-1125	41-1214
	4 mm	41-1126	41-1215
	4 mm	41-1127	41-1216
	2 mm	41-1129	41-1218
	3 mm	41-1130	41-1219
	3 mm	41-1130	41-1219
	4 mm	41-1131	41-1220

	Inserts Ø 3 mm	160 mm	210 mm
	2 mm	41-1132	41-1221
	3 mm	41-1133	41-1222
	4 mm	41-1134	41-1223
	1 x 2 mm	41-1165	41-1250
	1 x 4 mm	41-1166	41-1251
	1 x 2 mm	41-1137	41-1224
	1 x 3 mm	41-1138	41-1225
	1 x 4 mm	41-1142	41-1229
	1 x 5 mm	41-1140	41-1227
	1 x 8 mm	41-1141	41-1228
	0.4 x 2 mm	41-1143	41-1230
	0.4 x 3 mm	41-1144	41-1231
	1 x 3 mm	41-1153	41-1252
	1 x 3 mm	41-1145	41-1232
	1 x 5 mm	41-1154	41-1239
	1 x 8 mm	41-1155	41-1240
	1 x 5 mm	41-1156	41-1241
	3 mm	41-1161	41-1246
		41-1160	41-1245
	1 mm	41-1157	41-1242
		41-1158	41-1243
		41-1159	41-1244
	3,5 mm	41-1139	41-1226

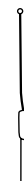
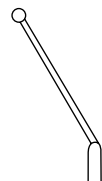
	Inserts Ø 3 mm	160 mm	210 mm
	4 mm	41-1162	41-1247
	2 mm	41-1163	41-1248
	4 mm	41-1164	41-1249
		41-1167	-
	2 mm	41-1168	-
	4 mm	41-1169	-
	3 mm	41-1135	-
	5 mm	41-1136	-
	2 mm	41-1172	-
	4 mm	41-1173	-
	6 mm	41-1174	-
	4 mm	41-1175	-
	5 mm	41-1176	-
	4.5 mm	41-1177	-



<b>Handle with chuck</b> 41-6159 18.5 cm, 10.5 cm	<b>Vessel Knife Tip</b> 41-6151 18.5 cm, 9.5 cm	<b>Vessel Hook Tip</b> 41-6156 18.5 cm, 8.5 cm
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<b>Tissue Pick</b> 41-6268 18.5 cm, 1.0 mm	41-6269 18.5 cm, 1.8 mm
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<b>Vessel Spreader</b> 41-6270 16 cm	<b>Vessel Dilators</b> 41-6271 12.5 cm	41-6272 12.5 cm	41-6273 12.5 cm	<b>Probes with ball</b> 41-6275 18.5 cm	41-6277 18.5 cm
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<b>Blade Holders</b>	<b>for scalpel blades</b>	<b>for micro blades</b>	– blades see page 167 –
	41-6019 21 cm	41-6012 21 cm	
		41-6014 25 cm	

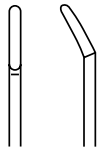


<b>Exploration Hooks, 24.5 cm</b>				<b>Insulated Hooks, 24.5 cm</b>			
41-6070	41-6072	41-6074	41-6076	41-6071	41-6073	41-6075	41-6077

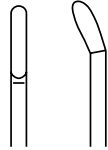


<b>Ligature Hooks, 18.5 cm</b>				<b>Nerve Hooks, 18.5 cm</b>		<b>Vessel Hooks, 18.5 cm</b>	
41-6080	41-6081	41-6082	41-6083	41-6090	41-6091	41-6092	41-6093

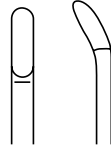
# Tumor Knives



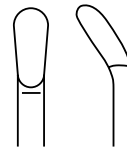
**1.0 mm**  
41-6170 20 cm  
41-6180 23 cm



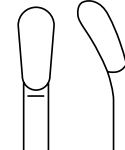
**1.5 mm**  
41-6171 20 cm  
41-6181 23 cm



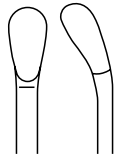
**2.0 mm**  
41-6172 20 cm  
41-6182 23 cm



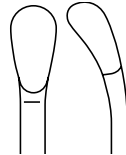
**2.5 mm**  
41-6173 20 cm  
41-6183 23 cm



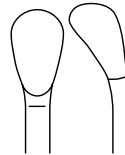
**3.0 mm**  
41-6174 20 cm  
41-6184 23 cm



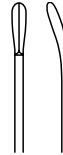
**3.5 mm**  
41-6175 20 cm  
41-6185 23 cm



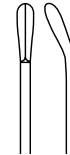
**4.0 mm**  
41-6176 20 cm  
41-6186 23 cm



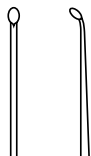
**5.0 mm**  
41-6177 20 cm  
41-6187 23 cm



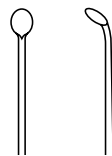
**1.8 mm**  
41-6200 23 cm  
Lancet type



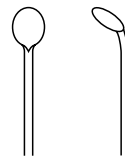
**2.5 mm**  
41-6201 23 cm  
Lancet type



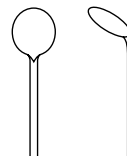
**1.5 mm**  
41-6190 20 cm  
41-6195 23 cm



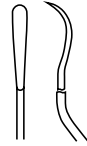
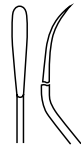
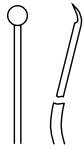
**3.0 mm**  
41-6191 20 cm  
41-6196 23 cm



**4.5 mm**  
41-6192 20 cm  
41-6197 23 cm



**6.0 mm**  
41-6193 20 cm  
41-6198 23 cm



**Raspatories**

41-6110  
23 cm

41-6111  
18.5 cm

41-6112  
18.5 cm

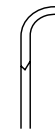
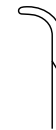
41-6113  
18.5 cm

**Sharp Scoop**

41-6127  
18.5 cm

**Suture Pusher**

41-6265  
23 cm



**Vessel Knives, 18.5 cm**

up  
41-6160

down  
41-6161

up  
41-6162

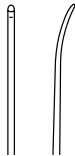
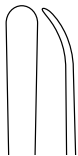
down  
41-6163

up  
41-6164

down  
41-6165

up  
41-6166

down  
41-6167



**Dissectors, blunt**

4.5 mm  
41-6230  
23 cm

2.0 mm  
41-6232  
23 cm

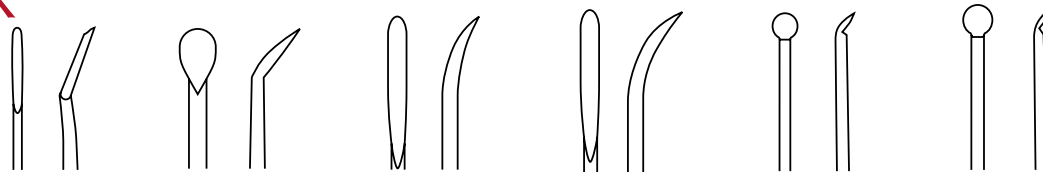
1.0 mm  
41-6234  
21 cm

1.0 mm  
41-6236  
21 cm

2.0 mm  
41-6238  
23 cm

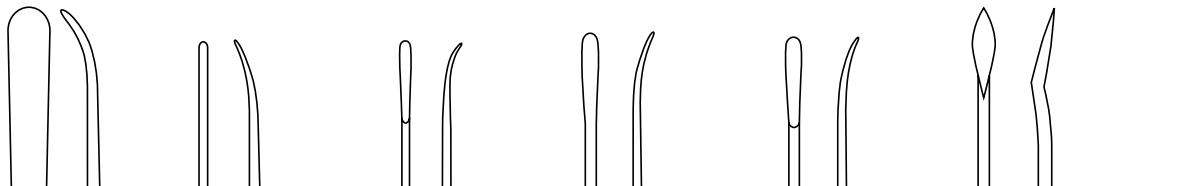
2.0 mm  
41-6240  
23 cm

Micro Hand Instruments



**Raspatories**

41-6100 18.5 cm	41-6101 18.5 cm	41-6102 18.5 cm	41-6103 18.5 cm	41-6104 21 cm	41-6105 23 cm
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**Dissectors**

<b>4.5 mm</b> 41-6210 23 cm	<b>1.0 mm</b> 41-6212 20 cm	41-6214 23 cm	41-6216 23 cm	41-6218 23 cm	<b>sharp</b> 41-6224 18.5 cm	<b>Vessel Knife</b> 41-6145 18.5 cm
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**Vessel Hooks**

<b>sharp</b>	<b>blunt</b>	<b>sharp</b>	<b>sharp</b>
		90° curved	90° angled
41-6140 23 cm	41-6141 23 cm	41-6142 18.5 cm	41-6143 18.5 cm, 90°

**Sharp Scoops**

41-6120 23 cm	41-6121 23 cm
------------------	------------------

**Suture Pusher**

41-6260 18.5 cm
--------------------

**Tumor Forks**

41-6250 41-6251 41-6252 41-6253	3 mm 4 mm 5 mm 8 mm
--	------------------------------

**Long Dissector**  
**3 mm blunt**

41-6220 41-6222	18.5 cm 21.5 cm
--------------------	--------------------



## Instruments for Transsphenoidal Hypophysectomy

**Hardy Dissectors**

24.5 cm 41-8030  
blunt right

41-8031  
blunt left

41-8034  
sharp right

41-8035  
sharp left

**Hardy-Fahlbusch (small-tip)**

41-8039  
sharp

**Hardy Dissectors**

24.5 cm 41-8032  
blunt right

41-8033  
blunt left

41-8036  
sharp right

41-8037  
sharp left

**Hardy-Fahlbusch (small-tip)**

41-8040  
sharp

**Landolt Malleable Dissectors**

26 cm 41-8050 41-8051  
blunt right blunt left

**Landolt Malleable Dissectors**

26 cm 41-8052 41-8053  
blunt right blunt left



Instruments for Transsphenoidal Hypophysectomy



**Landolt**



**Curettes (malleable)**

26 cm  
41-8054

26 cm  
41-8055

**Blunt Hook (malleable)**

26 cm  
41-8056

**Hosobuchi**



**Fork Spatula**

26 cm, rigid  
41-8057

**Landolt-Reulen**



**Raspatories (rigid)**

26 cm, 2.2 mm  
41-8072

**Curette (rigid)**

26 cm, 3.2 mm  
41-8073

26 cm, 2.5 mm  
41-8074

**Landolt-Reulen**



**Blunt Hook**

26 cm, rigid, 1.7 mm  
41-8075



**Dissector**

26 cm, rigid, 2 mm  
41-8076

**Fahlbusch**



**Scoop**

26 cm, malleable  
41-8070



**Curette**

26 cm, malleable, 2.5 mm  
41-8071

**Hardy Implant Fork**

24.5 cm  
41-8038

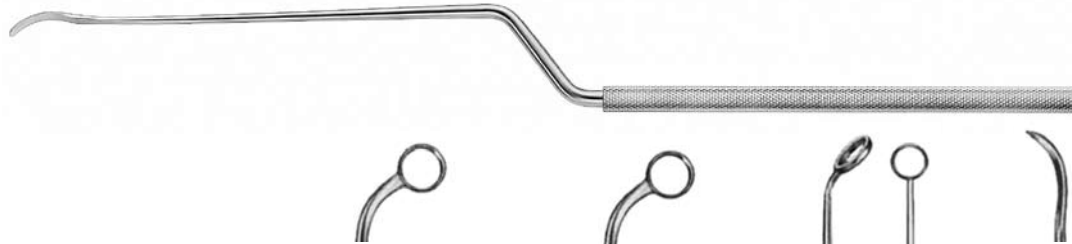
Instruments for Transsphenoidal Hypophysectomy



**Hardy Curettes**

26 cm, ø 4 mm  
Curettes (malleable)  
41-8041

26 cm, ø 6 mm  
41-8042



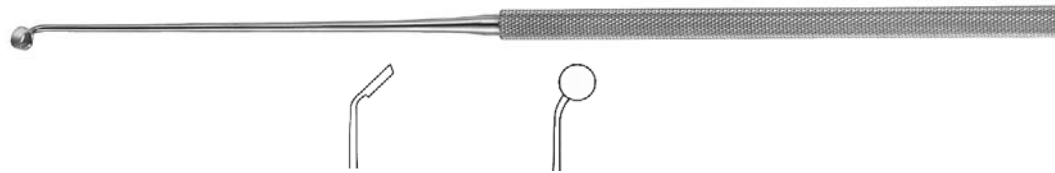
**Nicola Curettes/Raspatory**

21.5 cm, ø 6.5 mm  
cutting right  
Curettes (malleable)  
41-8020

21.5 cm, ø 6.5 mm  
cutting left  
41-8021

21.5 cm, ø 6.5 mm  
41-8022

21.5 cm  
Raspatory  
41-8021



**Ray Pituitary Curette**

18 cm, ø 4 mm  
horizontal 45°  
41-8010

18 cm, ø 4 mm  
vertical 45°  
41-8011



### Smithwick

30-0310 30-0311  
17 cm 21 cm



### Smithwick

30-0270  
29 cm



### Hoehn

30-0275  
22 cm/11 mm



### Dandy

30-0280  
20 cm/4 mm



### Dandy

30-0281  
20 cm/4 mm



### Dandy

30-0282  
20 cm/4 mm



Ligature Needle

**Adson**  
30-0283  
23 cm



**Graham**  
30-0284  
16.5 cm



sharp

**Sachs**  
30-0285  
18.5 cm



**Crile**  
30-0299  
14.5 cm



**Crile**  
30-0300  
20 cm/7 mm



4 mm



6 mm

**Cushing**

30-0304 30-0305  
19 cm/4 mm 19 cm/6 mm

30-0306 30-0307  
28 cm/4 mm 28 cm/6 mm



### Blalock

30-0301  
24 cm



### PBI

41-1053  
19 cm



with ball

### PBI

41-1015  
19 cm



sharp

### Adson

30-0315  
20 cm/7 mm



blunt

### Adson

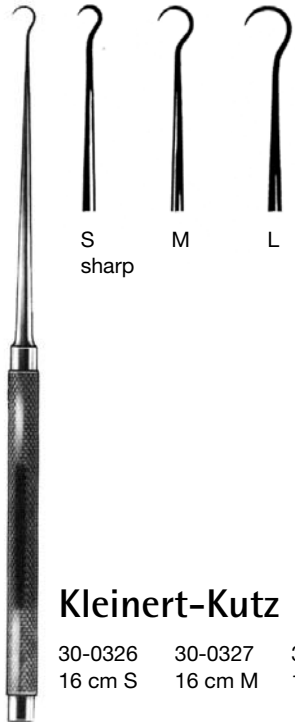
30-0316  
20 cm/7 mm



sharp

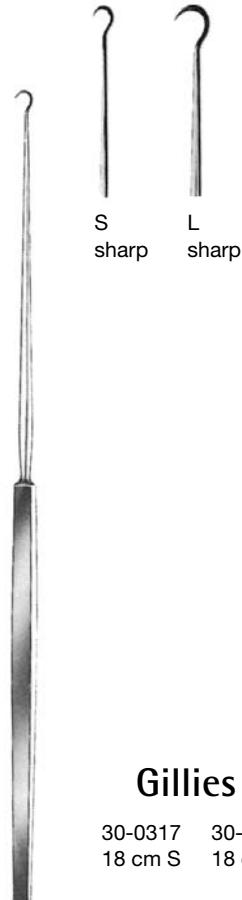
### Sachs

30-0312  
21 cm



**Kleinert-Kutz**

30-0326 30-0327 30-0328  
16 cm S 16 cm M 16 cm L



**Gillies**

30-0317 30-0318  
18 cm S 18 cm L



**Frazier**

30-0320  
13 cm



**Hartmann**

30-0314  
16 cm



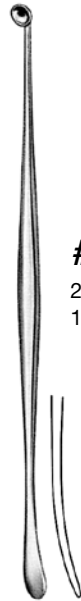
**Kilner**

30-0313  
15 cm



**Watson-Cheyne**

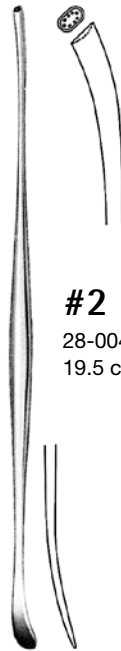
28-0030  
18 cm



**#1**

28-0041  
17.5 cm

**Penfield**



**#2**

28-0042  
19.5 cm



**#3**

28-0043  
19.5 cm



**#4**

28-0044  
20.5 cm



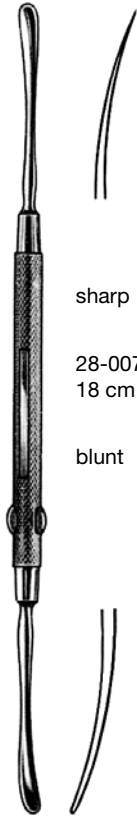
**#5**

28-0045  
29 cm



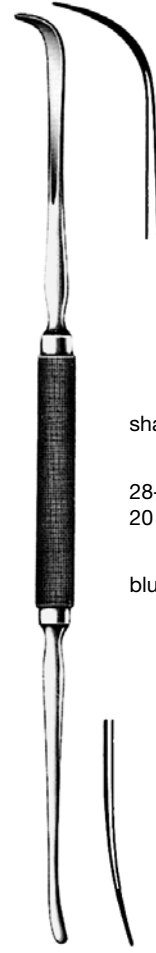
small  
28-0035  
24 cm  
  
wide  
28-0036  
24 cm

Toennis



sharp  
  
28-0071  
18 cm  
  
blunt

Freer



sharp  
  
28-0072  
20 cm  
  
blunt



28-0010  
24.5 cm

Davis



small  
28-0080  
18.5 cm  
28-0082  
24 cm  
  
wide  
28-0084  
19.5 cm  
28-0086  
24 cm

Olivecrona



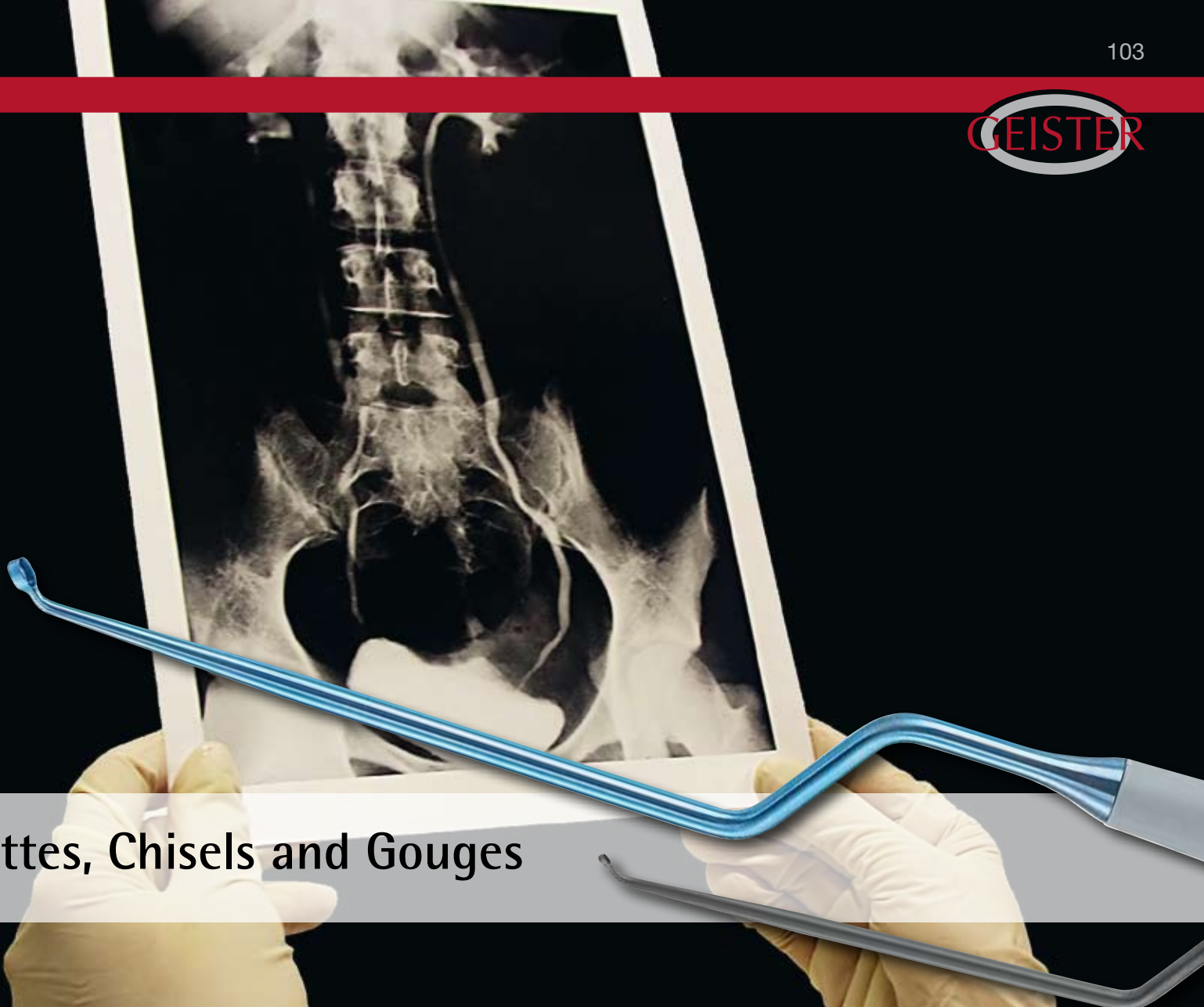
28-0020  
18 cm

**Mc Donald**  
Dissector



28-0180  
16.5 cm, 17 mm/5 mm

**Dorsey**  
Dura Separator

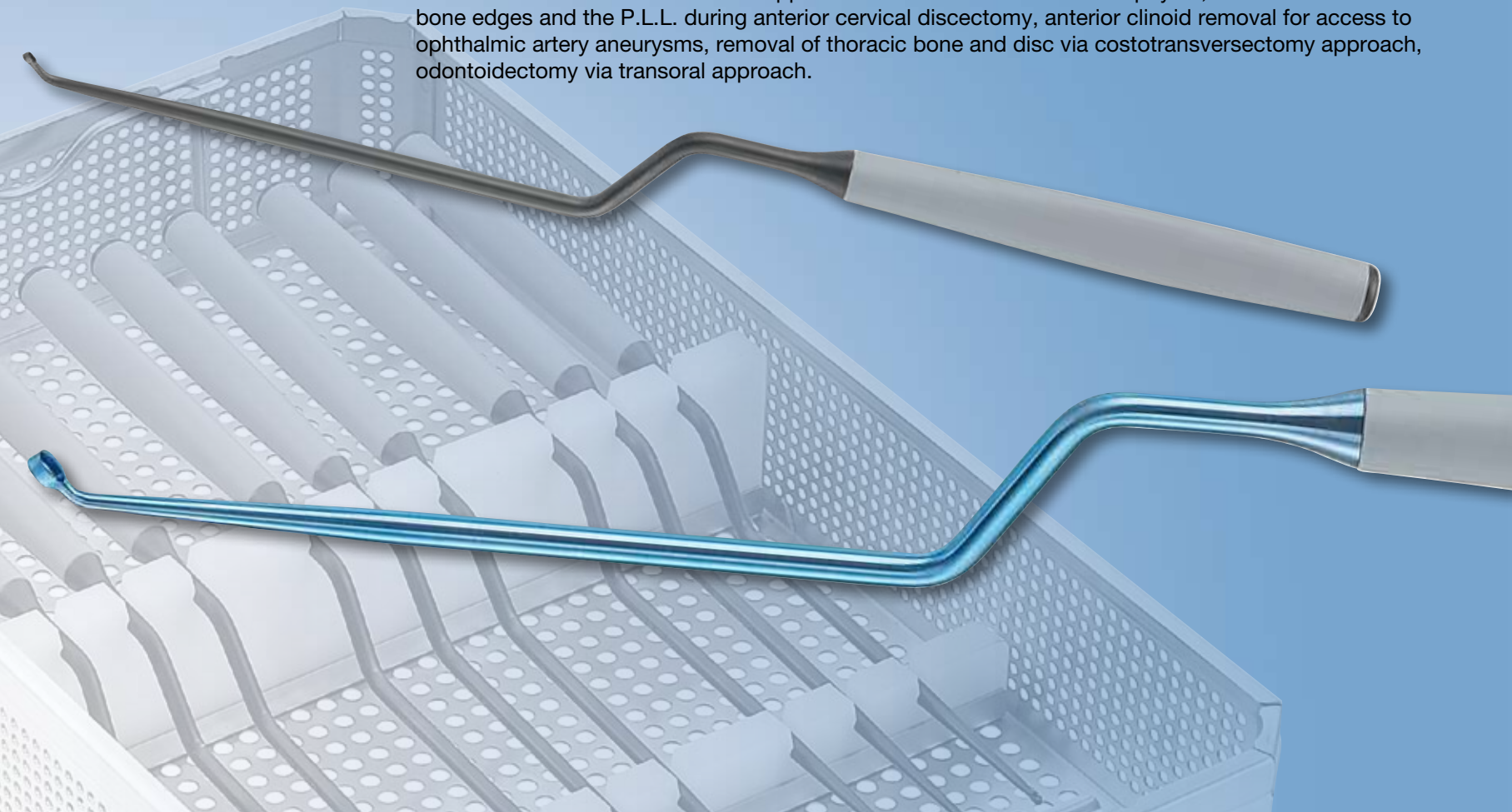


## Curettes, Chisels and Gouges



## TriCuret™ Spinal Currettes

A unique trio of materials with Radel® R PPSU (polyphosphensulfone) handles, over-moulded with grey silicone rubber and with a choice of a black ceramic coated stainless steel or non-magnetic titanium working end for micro osseous dissection, microsurgical removal of bony, calcified or other firm tissues. Possible clinical applications include removal of osteophytes, bone edges and the P.L.L. during anterior cervical discectomy, anterior clinoid removal for access to ophthalmic artery aneurysms, removal of thoracic bone and disc via costotransversectomy approach, odontoidectomy via transoral approach.





- Innovative design
- Maximum comfort and superb grip
- Approx. 40gm lighter than conventional currettes
- Bayonet shaped design with straight, angled forward or backwards tips
- Withstands even most demanding sterilization environments



Stainless Steel Titanium



**2 mm**  
40-4000  
40-4000.TI



**3 mm**  
40-4001  
40-4001.TI



**4 mm**  
40-4002  
40-4002.TI



**2 mm**  
40-4020  
40-4020.TI



**3 mm**  
40-4021  
40-4021.TI



**4 mm**  
40-4022  
40-4022.TI



**2 mm**  
40-4010  
40-4010.TI



**3 mm**  
40-4011  
40-4011.TI



**4 mm**  
40-4012  
40-4012.TI



**40-4030 Sterilization Tray** (stainless steel) for up to 9 TriCuret™ currettes (stainless steel/titanium), with handle, stackable, 405 mm x 253 mm x 70mm (without content)



## Fairgrip™ Bayonet Style Curette

### Fairgrip™

Get in touch with FAIRGRIP™ !

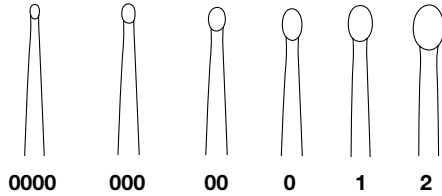
Unmatched feel and control are brought from the fairway to your OR. The FAIRGRIP™ ergonomic instrument handles with a new dimple knurling similar to the design of golfballs offer a completely new experience of precision, sensitivity and control and help to reduce fatigue.

- Specifically designed for microdissectomy procedures
- Ergonomic Fairgrip™ golfball handle design with round corners for easy rotation and flat sides for controlled torque
- Increased field visualization
- Stable and controlled power leverage
- Great precision and maximum control
- Multiple tip geometries available





**Curette Dimension Chart (Actual Size Shown)**



**40-7700 Cervical Set (small anatomy)**

	40-7701	21 cm, 0, 3 x 5 mm
	40-7702	21 cm, 00, 2.5 x 4 mm
	40-7703	21 cm, 000, 2 x 3.3 mm
	40-7704	21 cm, 0000, 1.7 x 3 mm
	40-7706	21 cm, 0, 3 x 5 mm
	40-7707	21 cm, 00, 2.5 x 4 mm
	40-7708	21 cm, 000, 2 x 3.3 mm
	40-7709	21 cm, 0000, 1.7 x 3 mm
	40-7711	21 cm, 0, 3 x 5 mm
	40-7712	21 cm, 00, 2.5 x 4 mm
	40-7713	21 cm, 000, 2 x 3.3 mm
	40-7714	21 cm, 0000, 1.7 x 3 mm
	40-7716	21 cm, 0, 3 x 5 mm
	40-7717	21 cm, 00, 2.5 x 4 mm
	40-7718	21 cm, 000, 2 x 3.3 mm
	40-7719	21 cm, 0000, 1.7 x 3 mm
	40-7721	21 cm, Micro Nerve Hook
	40-7722	21 cm, Ultra Micro Nerve Hook
	40-7723	21 cm, Bone Waxer

**40-7760 Lumbar Long Set (larger anatomy)**

	40-7761	24 cm, 0
	40-7762	24 cm, 1
	40-7763	24 cm, 2
	40-7764	24 cm, 0
	40-7765	24 cm, 1
	40-7766	24 cm, 2
	40-7767	24 cm, 0
	40-7768	24 cm, 1
	40-7769	24 cm, 2
	40-7770	24 cm, 0
	40-7771	24 cm, 1
	40-7772	24 cm, 2
	40-7773	24 cm, 0
	40-7774	24 cm, 1
	40-7775	24 cm, 2
		40-7776
40-7777		24 cm, 1
40-7778		24 cm, 2
	40-7779	24 cm, Penfield #1
	40-7780	24 cm, Penfield #2
	40-7781	24 cm, Nerve Hook
	40-7782	24 cm, Penfield #4
	40-7793	24 cm, Bone Waxer
	40-7794	24 cm, Spine Probe

**40-7798** Sterilization Tray for 12 Currettes 21 cm  
**40-7799** Sterilization Tray for 12 Long Currettes 24 cm

**40-7730 Cervical Long Set (small anatomy)**

	40-7731	24 cm, 0, 3 x 5 mm
	40-7732	24 cm, 00, 2.5 x 4 mm
	40-7733	24 cm, 000, 2 x 3.3 mm
	40-7734	24 cm, 0000, 1.7 x 3 mm
	40-7736	24 cm, 0, 3 x 5 mm
	40-7737	24 cm, 00, 2.5 x 4 mm
	40-7738	24 cm, 000, 2 x 3.3 mm
	40-7739	24 cm, 0000, 1.7 x 3 mm
	40-7741	24 cm, 0, 3 x 5 mm
	40-7742	24 cm, 00, 2.5 x 4 mm
	40-7743	24 cm, 000, 2 x 3.3 mm
	40-7744	24 cm, 0000, 1.7 x 3 mm
	40-7746	24 cm, 0, 3 x 5 mm
	40-7747	24 cm, 00, 2.5 x 4 mm
	40-7748	24 cm, 000, 2 x 3.3 mm
	40-7749	24 cm, 0000, 1.7 x 3 mm
	40-7751	24 cm, Micro Nerve Hook
	40-7752	24 cm, Ultra Micro Nerve Hook
	40-7753	24 cm, Bone Waxer



### Epstein

40-2470	20 cm,	2.0 mm,	Fig. 000
40-2471	20 cm,	2.5 mm,	Fig. 00
40-2472	20 cm,	3.0 mm,	Fig. 0



### Volkmann

with hard-pressed handle

40-7450	27 mm,	4.4 mm,	Fig. 00
40-7451	27 mm,	6.8 mm,	Fig. 1
40-7452	27 mm,	8.5 mm,	Fig. 2
40-7453	27 mm,	10.0 mm,	Fig. 3



### Bruns

40-4462	17 cm,	2.6 mm,	Fig. 0000
40-4464	17 cm,	3.3 mm,	Fig. 000
40-4466	17 cm,	4.8 mm,	Fig. 00
40-4468	17 cm,	5.8 mm,	Fig. 0
40-4470	17 cm,	7.3 mm,	Fig. 1
40-4472	17 cm,	8.3 mm,	Fig. 2
40-4474	17 cm,	10.2 mm,	Fig. 3
40-4476	17 cm,	11.8 mm,	Fig. 4
40-4478	17 cm,	12.8 mm,	Fig. 5
40-4480	17 cm,	14.0 mm,	Fig. 6

## Hibbs-Spratt (Bruns)



### straight

40-4280	23 cm,	2.2 mm,	Fig. 00000
40-4281	23 cm,	2.5 mm,	Fig. 0000
40-4282	23 cm,	2.8 mm,	Fig. 000
40-4283	23 cm,	3.3 mm,	Fig. 00
40-4284	23 cm,	3.7 mm,	Fig. 0
40-4285	23 cm,	4.3 mm,	Fig. 1
40-4286	23 cm,	4.8 mm,	Fig. 2
40-4287	23 cm,	5.6 mm,	Fig. 3
40-4288	23 cm,	6.1 mm,	Fig. 4
40-4289	23 cm,	6.7 mm,	Fig. 5
40-4290	23 cm,	8.7 mm,	Fig. 6
40-4291	23 cm,	11 mm,	Fig. 7



### forward angled

40-4300	23 cm,	2.2 mm,	Fig. 00000
40-4301	23 cm,	2.5 mm,	Fig. 0000
40-4302	23 cm,	2.8 mm,	Fig. 000
40-4303	23 cm,	3.3 mm,	Fig. 00
40-4304	23 cm,	3.7 mm,	Fig. 0
40-4305	23 cm,	4.3 mm,	Fig. 1
40-4306	23 cm,	4.8 mm,	Fig. 2
40-4307	23 cm,	5.6 mm,	Fig. 3
40-4308	23 cm,	6.1 mm,	Fig. 4
40-4309	23 cm,	6.7 mm,	Fig. 5
40-4310	23 cm,	8.7 mm,	Fig. 6



### reverse angled

40-4320	23 cm,	2.2 mm,	Fig. 00000
40-4321	23 cm,	2.5 mm,	Fig. 0000
40-4322	23 cm,	2.8 mm,	Fig. 000
40-4323	23 cm,	3.3 mm,	Fig. 00
40-4324	23 cm,	3.7 mm,	Fig. 0
40-4325	23 cm,	4.3 mm,	Fig. 1
40-4326	23 cm,	4.8 mm,	Fig. 2
40-4327	23 cm,	5.6 mm,	Fig. 3
40-4328	23 cm,	6.1 mm,	Fig. 4
40-4329	23 cm,	6.7 mm,	Fig. 5
40-4330	23 cm,	8.7 mm,	Fig. 6



### Cobb straight

40-9030	27 cm,	3.25 mm,	Fig. 00
40-9031	27 cm,	4.0 mm,	Fig. 0
40-9032	27 cm,	5.0 mm,	Fig. 1
40-9033	27 cm,	6.0 mm,	Fig. 2
40-9034	27 cm,	7.5 mm,	Fig. 3
40-9035	27 cm,	9.0 mm,	Fig. 4
40-9036	27 cm,	11.5 mm,	Fig. 5
40-9037	27 cm,	13.0 mm,	Fig. 6



### Cobb forward angled

40-9040	27 cm,	3.25 mm,	Fig. 00
40-9041	27 cm,	4.0 mm,	Fig. 0
40-9042	27 cm,	5.0 mm,	Fig. 1
40-9043	27 cm,	6.0 mm,	Fig. 2
40-9044	27 cm,	7.5 mm,	Fig. 3
40-9045	27 cm,	9.0 mm,	Fig. 4
40-9046	27 cm,	11.5 mm,	Fig. 5
40-9047	27 cm,	13.0 mm,	Fig. 6



### Cobb reverse angled

40-9050	27 cm,	3.25 mm,	Fig. 00
40-9051	27 cm,	4.0 mm,	Fig. 0
40-9052	27 cm,	5.0 mm,	Fig. 1
40-9053	27 cm,	6.0 mm,	Fig. 2
40-9054	27 cm,	7.5 mm,	Fig. 3
40-9055	27 cm,	9.0 mm,	Fig. 4
40-9056	27 cm,	11.5 mm,	Fig. 5
40-9057	27 cm,	13.0 mm,	Fig. 6



### Key

40-8510 19 cm, 6 mm  
40-8512 19 cm, 12 mm  
40-8514 19 cm, 19 mm  
40-8516 19 cm, 25 mm



### Langenbeck

40-8280 20 cm, 8 mm



### Langenbeck

40-8285 20 cm, 18 mm



### Cushing Little Joker

40-8281 19 cm, 6 mm



**Cushing**

40-8290  
19 cm, 15 mm



**Cushing**

40-8291  
19 cm, 15 mm



hard-pressed handle  
40-8613  
19 cm, 6 mm



**Adson**

40-8390  
17 cm, 8 mm

40-8391  
17 cm, 6 mm



**Adson**  
Raspatory  
40-8392  
17 cm, 6 mm



**Adson**  
Raspatory  
40-8393  
17 cm, 8 mm



**Adson**  
Raspatory  
40-8391  
17 cm, 6 mm



**Cobb**  
Elevator  
41-9001 28 cm, 8 mm  
41-9003 28 cm, 10 mm  
41-9005 28 cm, 13 mm  
41-9006 28 cm, 19 mm  
41-9007 28 cm, 25 mm  
41-9008 28 cm, 32 mm

**Cobb**40-8070  
28 cm, 7 mm**Cobb**40-8071  
28 cm, 7 mm**Cobb**40-8072  
28 cm, 7 mm**Cobb**40-8073  
28 cm, 7 mm



### Smith-Peterson

straight

40-8080	20 cm,	6 mm
40-8081	20 cm,	9 mm
40-8082	20 cm,	13 mm
40-8083	20 cm,	16 mm
40-8084	20 cm,	19 mm
40-8085	20 cm,	25 mm
40-8086	20 cm,	32 mm



curved

40-8090	20 cm,	6 mm
40-8091	20 cm,	9 mm
40-8092	20 cm,	13 mm
40-8093	20 cm,	16 mm
40-8094	20 cm,	19 mm
40-8095	20 cm,	25 mm
40-8096	20 cm,	32 mm



### Lexer

40-8459	22 cm,	5 mm
40-8460	22 cm,	7 mm
40-8461	22 cm,	10 mm
40-8462	22 cm,	15 mm
40-8463	22 cm,	20 mm
40-8464	22 cm,	25 mm
40-8465	22 cm,	30 mm



### Mini-Lexer

40-8495	18 cm,	4 mm
40-8496	18 cm,	6 mm
40-8497	18 cm,	8 mm
40-8498	18 cm,	10 mm
40-8499	18 cm,	12 mm



### Lexer

40-8449	22 cm,	5 mm
40-8450	22 cm,	7 mm
40-8451	22 cm,	10 mm
40-8452	22 cm,	15 mm
40-8453	22 cm,	20 mm
40-8454	22 cm,	25 mm
40-8455	22 cm,	30 mm



### Mini-Lexer

40-8490	18 cm,	4 mm
40-8491	18 cm,	6 mm
40-8492	18 cm,	8 mm
40-8493	18 cm,	10 mm
40-8494	18 cm,	12 mm



### Cottle

40-8220	18.5 cm,	4 mm
40-8221	18.5 cm,	7 mm
40-8222	18.5 cm,	9 mm
40-8223	18.5 cm,	12 mm



## Lambotte

straight

40-8150	25 cm,	4 mm
40-8151	25 cm,	6 mm
40-8152	25 cm,	8 mm
40-8153	25 cm,	10 mm
40-8154	25 cm,	13 mm
40-8155	25 cm,	16 mm
40-8156	25 cm,	18 mm
40-8157	25 cm,	20 mm
40-8158	25 cm,	25 mm
40-8159	25 cm,	30 mm
40-8160	25 cm,	38 mm
40-8161	25 cm,	44 mm
40-8162	25 cm,	50 mm



curved

40-8171	25 cm,	8 mm
40-8173	25 cm,	13 mm
40-8175	25 cm,	18 mm
40-8178	25 cm,	25 mm
40-8179	25 cm,	30 mm
40-8180	25 cm,	38 mm



## Mini-Lambotte

straight

40-8420	12.5 cm,	2 mm
40-8421	12.5 cm,	3 mm
40-8422	12.5 cm,	4 mm
40-8423	12.5 cm,	6 mm
40-8424	12.5 cm,	8 mm
40-8425	12.5 cm,	10 mm
40-8426	12.5 cm,	12 mm
40-8427	12.5 cm,	15 mm



### Cottle

40-8910  
18.5 cm, 30 mm, 240 gr.



hard-pressed

40-8960  
24 cm, 35 mm, 200 gr.

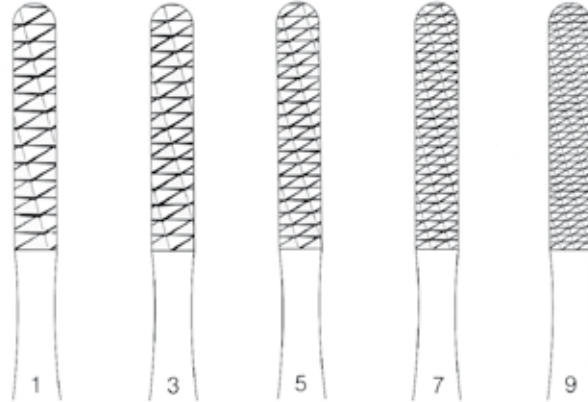


hard-pressed

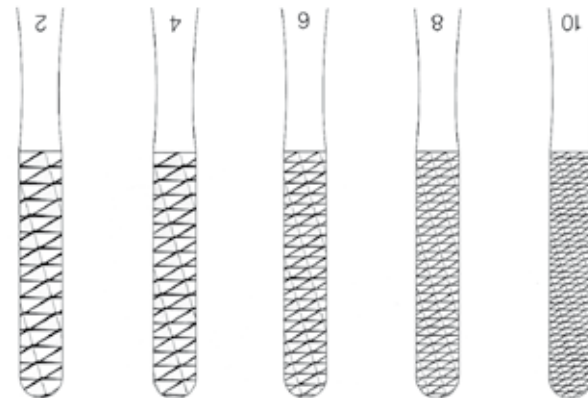
40-8965  
21 cm, 30 mm, 125 gr.



**Rees**  
20 cm

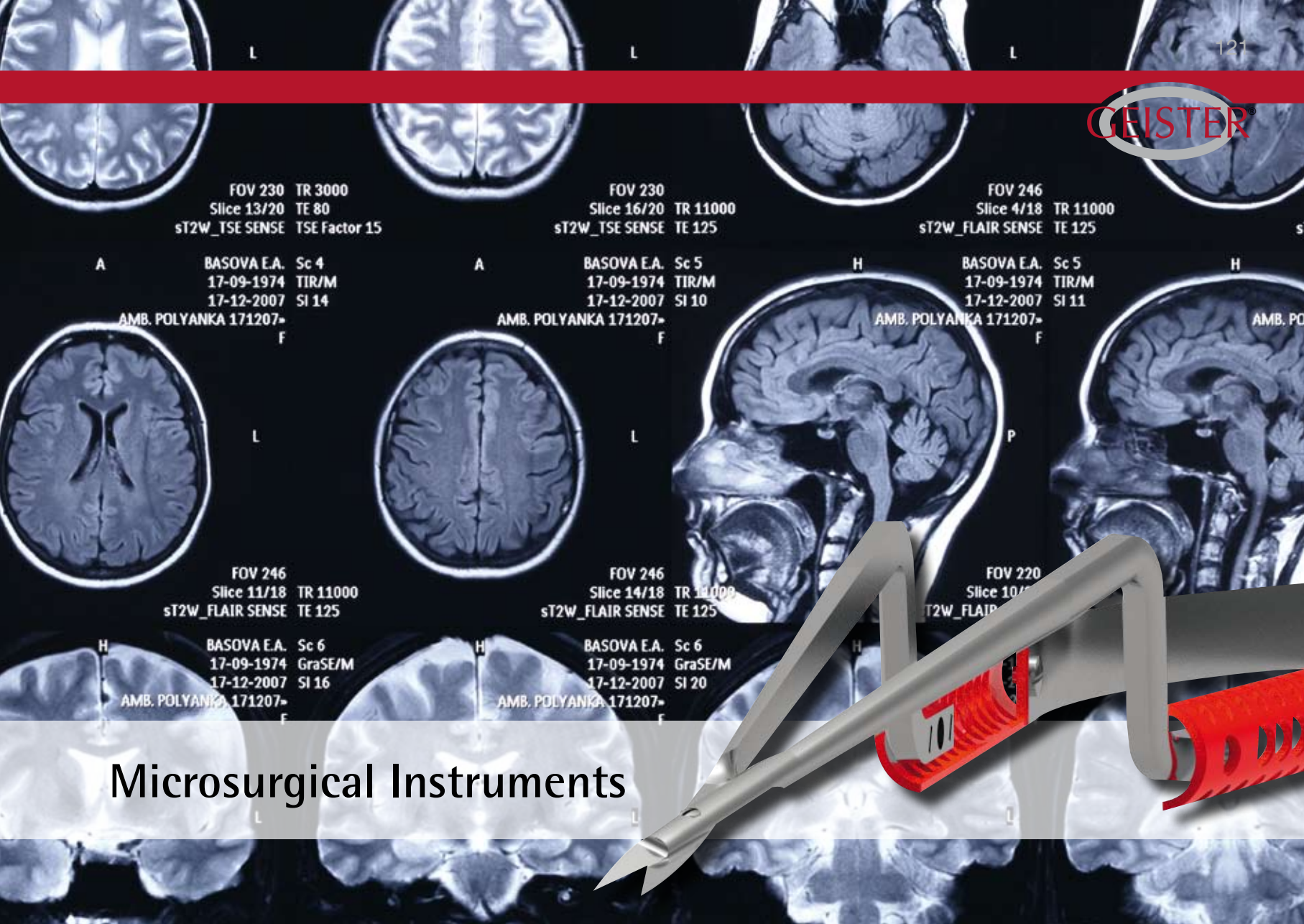


14-1010    14-1015    14-1020    14-1025    14-1030



Tungsten Carbide





FOV 230 TR 3000  
Slice 13/20 TE 80  
sT2W\_TSE SENSE TSE Factor 15

FOV 230  
Slice 16/20 TR 11000  
sT2W\_TSE SENSE TE 125

FOV 246  
Slice 4/18 TR 11000  
sT2W\_FLAIR SENSE TE 125

BASOVA E.A. Sc 4  
17-09-1974 TIR/M  
17-12-2007 SI 14  
AMB. POLYANKA 171207-

BASOVA E.A. Sc 5  
17-09-1974 TIR/M  
17-12-2007 SI 10  
AMB. POLYANKA 171207-

BASOVA E.A. Sc 5  
17-09-1974 TIR/M  
17-12-2007 SI 11  
AMB. POLYANKA 171207-

FOV 246  
Slice 11/18 TR 11000  
sT2W\_FLAIR SENSE TE 125

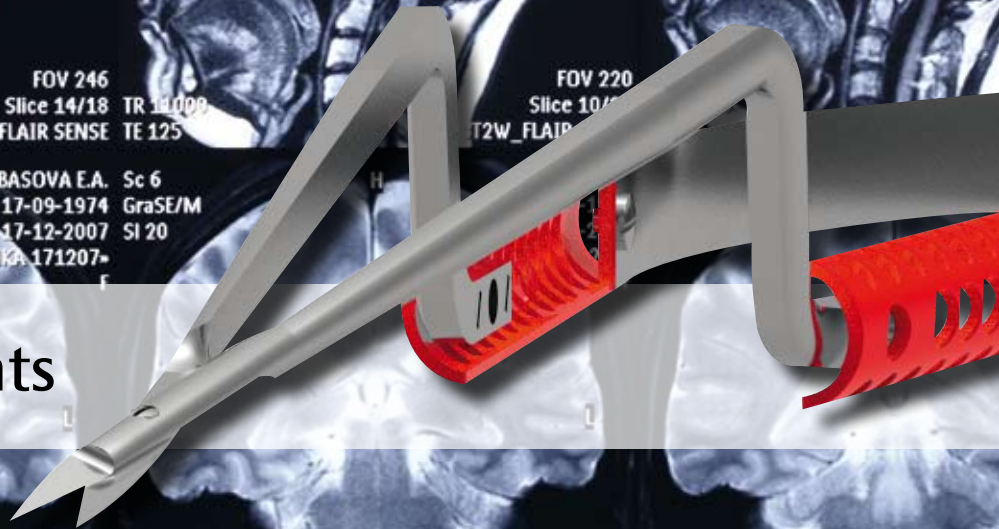
FOV 246  
Slice 14/18 TR 11000  
sT2W\_FLAIR SENSE TE 125

FOV 220  
Slice 10/18 TR 11000  
sT2W\_FLAIR SENSE TE 125

BASOVA E.A. Sc 6  
17-09-1974 GraSE/M  
17-12-2007 SI 16  
AMB. POLYANKA 171207-

BASOVA E.A. Sc 6  
17-09-1974 GraSE/M  
17-12-2007 SI 20  
AMB. POLYANKA 171207-

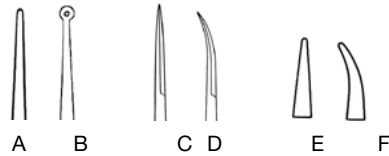
# Microsurgical Instruments





## Bayonet Micro Instruments

### Rhoton-type Micro Forceps



#### Rhoton-type, Bayonet Micro Forceps

	A	B
<b>Length</b>		<b>Ring Tip</b>
23 cm	10-3390	10-3392
23 cm	10-4390	10-4392 (Titanium)

#### Rhoton-type, Bayonet Scissors

	C	D
<b>Length</b>		
21 cm	03-1400	03-1401
23 cm	03-1410	03-1411
21 cm	03-4100	03-4101 (Titanium)
23 cm	03-4105	03-4106 (Titanium)

#### Rhoton-type, Bayonet Needle Holders

	E	F
<b>Length</b>		
21 cm	03-0400	03-0401
23 cm	03-0410	03-0411
21 cm	03-4400	03-4401 (Titanium)
23 cm	03-4410	03-4411 (Titanium)

#### without ratchet (not illustrated)

21 cm	03-0402	03-0403
23 cm	03-0412	03-0413
21 cm	03-4402	03-4403 (Titanium)
23 cm	03-4412	03-4413 (Titanium)

### Rhoton-type Scissors



### Rhoton-type Needle Holders

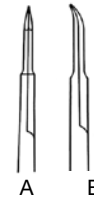




**Yasargil**  
Scissors



**Yasargil**  
Needle Holders

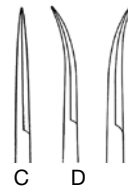


**Yasargil-Vannas, Bayonet Scissors**

	A	B
<b>Length</b>		
22.5 cm	41-4120	41-4121

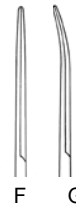
**Yasargil, Bayonet Scissors**

	C	D	E
<b>Length</b>			
16.5 cm	41-4100	41-4101	
20.0 cm	41-4105	41-4106	41-4107
22.5 cm	41-4115	41-4116	
24.5 cm		41-4126	
toothed blade			
22.5 cm	41-4114		



**Yasargil, Bayonet Dissection Scissors**

	F	G
<b>Length</b>		
20.0 cm	41-4110	41-4111
22.5 cm	41-4130	41-4131



**Yasargil, Bayonet Needle Holders**

	H	J
<b>Length</b>		
16.5 cm		41-2120
20.0 cm	41-2111	41-2121
22.5 cm	41-2112	41-2122
24.5 cm		41-2123



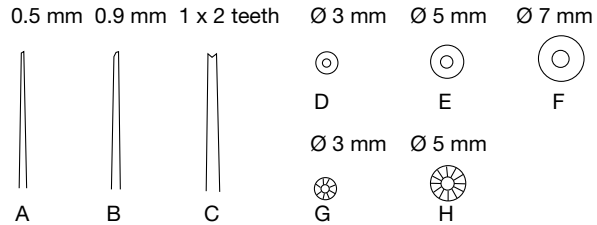


Bayonet Micro Tissue Forceps

Yasargil

Yasargil

Spoon-shaped jaws  
Flat jaws, serrated



Yasargil			
Length	A	B	C
16 cm	41-3100	41-3101	
18 cm	41-3103	41-3104	41-3105
20 cm	41-3106	41-3107	
22 cm	41-3110	41-3111	
24 cm	41-3113	41-3114	

Yasargil Spoon-shaped jaws			
Length	D	E	F
22 cm	41-3120	41-3121	41-3122

Yasargil Flat jaws, serrated			
Length	G	H	
22 cm	41-3125	41-3126	



## Yasargil

Spoon-shaped jaws, reserve



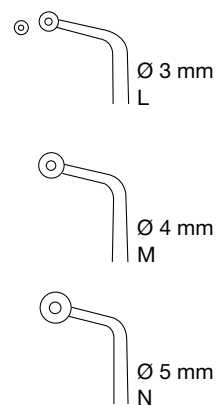
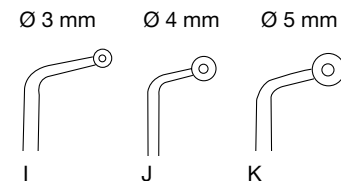
## Yasargil

Spoon-shaped jaws, forward



## Heifetz

Curette jaws, toothed



### Yasargil Spoon-shaped jaws, forward

Length	I	J	K
23 cm	41-3140	41-3141	41-3142

### Yasargil Spoon-shaped jaws, reserve

Length	L	M	N
23 cm	41-3145	41-3146	41-3147

### Heifetz Curette-jaws serrated

Length	Ø 3 mm	Ø 5 mm
22 cm	41-3135	41-3136

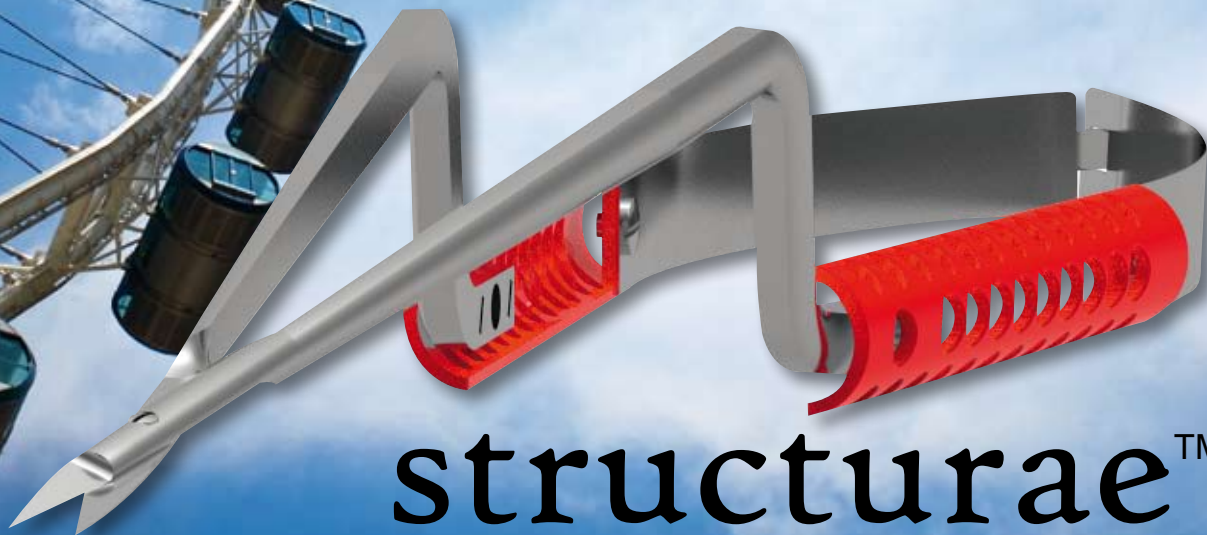
- Totally new look and feel
- Lasting stainless steel framework structure
- Innovative modular construction
- Ergonomic round shell handles with perforations
- Ultra-lightweight, approx. 20% lighter than titanium instruments
- Excellent haptic and unmatched precise control
- Easy cleaning and maintenance
- Optional choice of nylon color coding or surface traction coating of handle

**Optional nylon color coding:**

black handle	blue handle	lilac handle	red handle	white handle	yellow handle
XX-XXXX/N	XX-XXXX/B	XX-XXXX/P	XX-XXXX/R	XX-XXXX/W	XX-XXXX/Y

**Optional surface traction coating:**

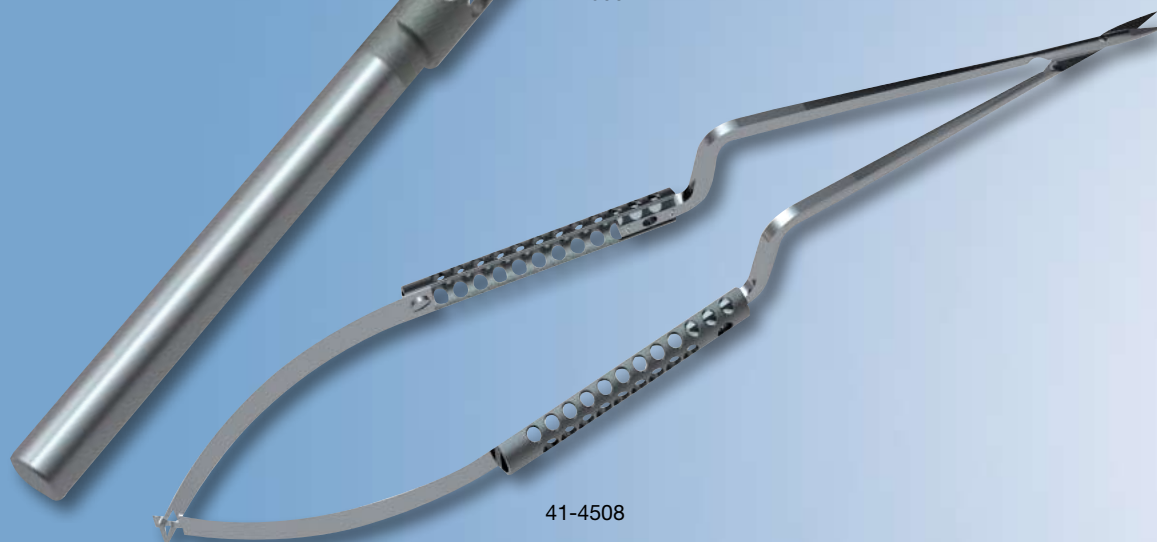
41-XXXX/T traction handle



structurae™



41-4500



41-4508

**Structurae™ One Finger-Micro Scissors,  
ultra-lightweight**

41-4500	17 cm straight
41-4501	17 cm curved
41-4502	20 cm straight
41-4503	20 cm curved

**Structurae™ One Finger-Micro Needle Holders,  
ultra-lightweight**

41-2200	17 cm straight
41-2201	17 cm curved
41-2202	20 cm straight
41-2203	20 cm curved

**Structurae™ Bayonet Micro-Scissors,  
ultra-lightweight**

41-4506	20 cm straight
41-4507	20 cm curved
41-4508	22 cm straight
41-4509	22 cm curved
41-4510	24 cm straight
41-4511	24 cm straight
41-4515	27 cm curved
41-4516	27 cm curved

**Structurae™ Bayonet Micro-Needle Holder,  
ultra-lightweight**

41-2205	20 cm straight
41-2206	20 cm curved
41-2207	22 cm straight
41-2208	22 cm curved
41-2210	24 cm straight
41-2211	24 cm curved


**Structurae™ Micro Tissue Forceps,  
ultra-lightweight**

41-3200	0.8 mm 18 cm straight
41-3201	0.4 mm 18 cm straight
41-3202	0.2 mm 18 cm straight
41-3205	1 x 2 t. 0.8 mm 18 cm straight
41-3206	1 x 2 t. 0.8 mm 18 cm curved
41-3207	1 x 2 t. 1.2 mm 18 cm straight

**Structurae™ Bayonet Micro Tissue Forceps,  
ultra-lightweight**

41-3208	0.8 mm 20 cm
41-3209	0.4 mm 20 cm
41-3210	0.8 mm 22 cm
41-3211	0.4 mm 22 cm
41-3215	0.8 mm 24 cm
41-3216	0.4 mm 24 cm

**Structurae™ Bayonet Tumour Grasping Forceps,  
ultra-lightweight**

41-3228	2.5 mm 21 cm
41-3229	3.5 mm 21 cm
41-3230	2.5 mm 24 cm
41-3231	3.5 mm 24 cm
41-3240	2.5 mm 21 cm
41-3241	3.5 mm 21 cm
41-3245	2.5 mm 24 cm
41-3246	3.5 mm 24 cm

**Structurae™ Hepp-Scheidel Needle Holder,  
ultra-lightweight**

03-3300	18 cm 1.2 mm straight
03-3300.02	18 cm 0.2 mm straight
03-3300.04	18 cm 0.4 mm straight
03-3300.08	18 cm 0.8 mm straight



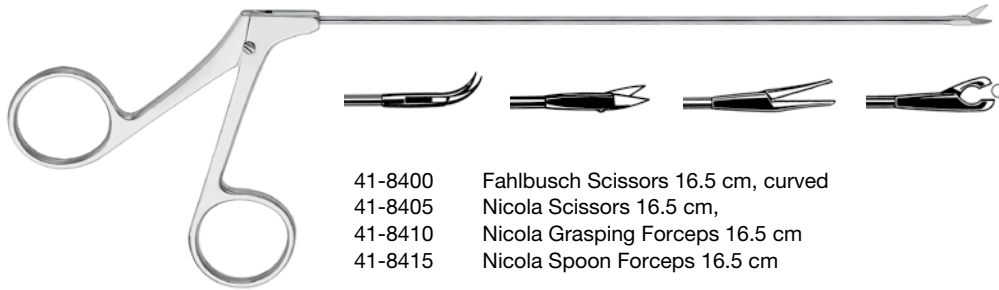
03-3300/R

41-3201



# Nicola (Fahlbusch)

Micro Instruments

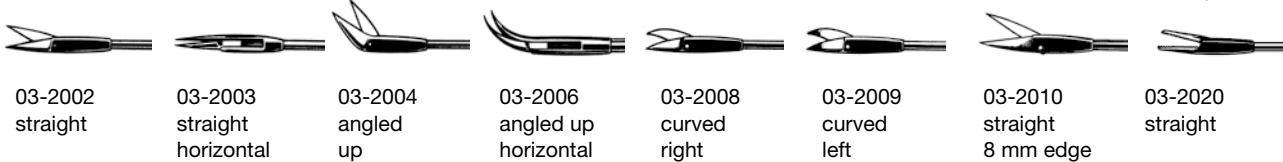


- 41-8400 Fahlbusch Scissors 16.5 cm, curved
- 41-8405 Nicola Scissors 16.5 cm,
- 41-8410 Nicola Grasping Forceps 16.5 cm
- 41-8415 Nicola Spoon Forceps 16.5 cm

## Micro Instruments

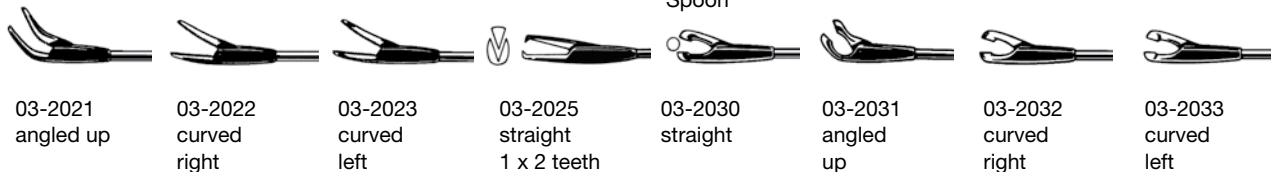
with squeeze handle, angled shaft

### Scissors



- |                     |                                   |                         |                                    |                            |                           |                                  |                     |         |
|---------------------|-----------------------------------|-------------------------|------------------------------------|----------------------------|---------------------------|----------------------------------|---------------------|---------|
| 03-2002<br>straight | 03-2003<br>straight<br>horizontal | 03-2004<br>angled<br>up | 03-2006<br>angled up<br>horizontal | 03-2008<br>curved<br>right | 03-2009<br>curved<br>left | 03-2010<br>straight<br>8 mm edge | 03-2020<br>straight | 18.5 cm |
|---------------------|-----------------------------------|-------------------------|------------------------------------|----------------------------|---------------------------|----------------------------------|---------------------|---------|

### Forceps

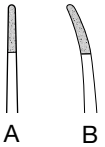


- |                      |                            |                           |                                    |                     |                         |                            |                           |         |
|----------------------|----------------------------|---------------------------|------------------------------------|---------------------|-------------------------|----------------------------|---------------------------|---------|
| 03-2021<br>angled up | 03-2022<br>curved<br>right | 03-2023<br>curved<br>left | 03-2025<br>straight<br>1 x 2 teeth | 03-2030<br>straight | 03-2031<br>angled<br>up | 03-2032<br>curved<br>right | 03-2033<br>curved<br>left | 18.5 cm |
|----------------------|----------------------------|---------------------------|------------------------------------|---------------------|-------------------------|----------------------------|---------------------------|---------|





## Micro Tying Forceps



**SAPPHIRE™**  
Enhanced Needle Grip Surface

with platform

Fig.	Length mm/"	Jaw mm	Art.-No.
A	150/6	0.4 x 6	10-3550
B	150/6	0.4 x 6	10-3555
A	180/7	0.4 x 6	10-3560
B	180/7	0.4 x 6	10-3565
A	210/8¼	0.4 x 6	10-3570
B	210/8¼	0.4 x 6	10-3575
A	210/8¼	0.8 x 6	10-3571
A	230/9	0.4 x 6	10-3580
B	230/9	0.4 x 6	10-3585
A	250/10	0.4 x 6	10-3590
B	250/10	0.4 x 6	10-3595



For additional micro instruments see special catalog  
Micro instruments – Like diamonds in your hands!

A close-up photograph of a hand in a white surgical glove holding a pair of curved surgical forceps. The forceps are metallic and have a locking mechanism. In the foreground, another pair of straight surgical forceps is visible, also metallic. The background is blurred, showing a person in a white surgical cap and mask, suggesting an operating room environment.

## Forceps and Clamps



## Bipolar Tissue Forceps



Euro-plug  
(flat) standard



US-plug (2-pin) optional  
Add „.US“ behind catalog no.

### Bipolar Tissue Forceps

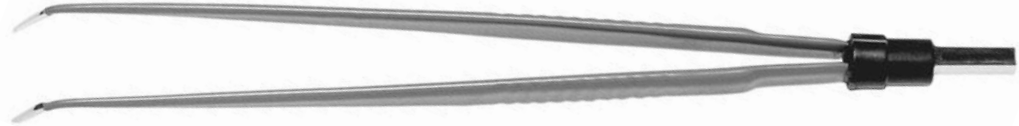
#### with flat Euro-plug, angled tip

10-7025	15cm angled	tip 2.0mm
10-7024	15cm angled	tip 1.0mm
10-7026	15cm angled	tip 0.3mm
10-7035	18cm angled	tip 2.0mm
10-7034	18cm angled	tip 1.0mm
10-7036	18cm angled	tip 0.3mm
10-7045	20cm angled	tip 2.0mm
10-7044	20cm angled	tip 1.0mm
10-7046	20cm angled	tip 0.3mm
10-7055	22cm angled	tip 2.0mm
10-7054	22cm angled	tip 1.0mm
10-7056	22cm angled	tip 0.3mm

### Bipolar Tissue Forceps

#### with flat Euro-plug, straight tip

10-7021	15cm	tip 2.0mm
10-7020	15cm	tip 1.0mm
10-7022	15cm	tip 0.3mm
10-7031	18cm	tip 2.0mm
10-7030	18cm	tip 1.0mm
10-7032	18cm	tip 0.3mm
10-7041	20cm	tip 2.0mm
10-7040	20cm	tip 1.0mm
10-7042	20cm	tip 0.3mm
10-7051	22cm	tip 2.0mm
10-7050	22cm	tip 1.0mm
10-7052	22cm	tip 0.3mm
10-7061	24cm	tip 2.0mm
10-7060	24cm	tip 1.0mm
10-7062	24cm	tip 0.3mm



10-7034



10-7030

Forceps for connection to the bipolar output of electro-surgical generators. Sterilisable up to 280°F/137°C.



10-7034



10-7030



10-7012



**Bipolar ENT Tissue Forceps with flat Euro-plug, knee-bent, 17cm, straight tip**

10-7201	tip 2.0 mm
10-7200	tip 1.0 mm
10-7202	tip 0.3 mm

**Bipolar Bayonet Tissue Forceps with flat Euro-plug, straight tip**

10-7114	18 cm bayonet	tip 2.0 mm
10-7110	18 cm bayonet	tip 1.0 mm
10-7111	18 cm bayonet	tip 0.3 mm
10-7124	20 cm bayonet	tip 2.0 mm
10-7120	20 cm bayonet	tip 1.0 mm
10-7121	20 cm bayonet	tip 0.3 mm
10-7134	22 cm bayonet	tip 2.0 mm
10-7130	22 cm bayonet	tip 1.0 mm
10-7131	22 cm bayonet	tip 0.3 mm
10-7144	24 cm bayonet	tip 2.0 mm
10-7140	24 cm bayonet	tip 1.0 mm
10-7141	24 cm bayonet	tip 0.3 mm

**Bipolar Jeweler's Forceps with flat Euro-plug, straight tip**

10-7001	7 cm straight	tip 0.25 mm
10-7000	7 cm straight	tip 0.45 mm
10-7003	7 cm angled	tip 0.25 mm
10-7002	7 cm angled	tip 0.45 mm
10-7012	11 cm straight	tip 0.25 mm
10-7010	11 cm straight	tip 0.60 mm
10-7016	11 cm angled	tip 0.25 mm
10-7014	11 cm angled	tip 0.60 mm



## Bipolar Forceps

Euro-plug  
(flat) standardUS-plug (2-pin) optional  
Add „US“ behind catalog no.**A, straight**

Length	Pointed 0.5 mm tip	Blunt 1.0 mm tip	Blunt 2.0 mm tip	Material
180 mm	10-7380	10-7381	10-7382	Titanium
200 mm	10-7390	10-7391	10-7392	Titanium

**B, bayonet**

Length	Pointed 0.5 mm tip	Blunt 1.0 mm tip	Blunt 1,5 mm tip	Material
160 mm	10-7300	10-7301	10-7302	Titanium
180 mm	10-7310	10-7311	10-7312	Titanium
200 mm	10-7320	10-7321	10-7322	Titanium
220 mm	10-7330	10-7331	10-7332	Titanium
240 mm	10-7340	10-7341	10-7342	Titanium
jaw angled (not illustrated)				
220 mm	10-7335	10-7336		Titanium

**C, straight**

Length	Pointed 0.5 mm tip	Blunt 1.0 mm tip	Blunt 2.0 mm tip	Stainless Steel
180 mm	10-7480	10-7481	10-7482	with irrigation
200 mm	10-7490	10-7491	10-7492	with irrigation
220 mm	10-7500	10-7501	10-7502	with irrigation

**D, bayonet**

Length	Pointed 0.5 mm tip	Blunt 1.0 mm tip	Blunt 1,5 mm tip	Stainless Steel
180 mm	10-7410	10-7411	10-7412	with irrigation
200 mm	10-7420	10-7421	10-7422	with irrigation
220 mm	10-7430	10-7431	10-7432	with irrigation
240 mm	10-7440	10-7441	10-7442	with irrigation

Additional bipolar forceps and electrosurgical units see catalog „Electrosurgery“



A, straight



B, bayonet



C, straight

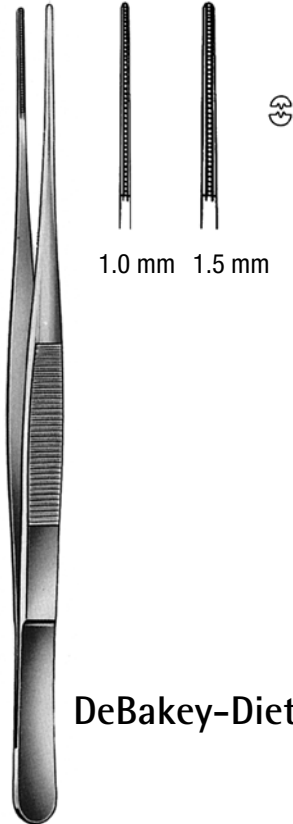


D, bayonet

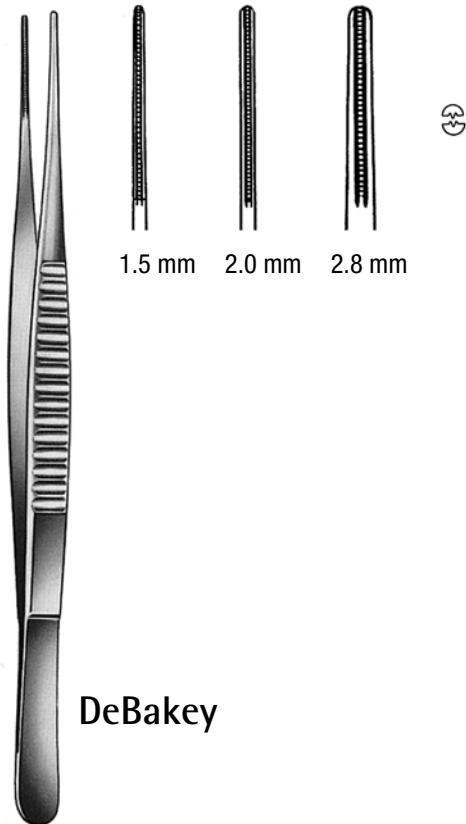
Forceps for connection to the bipolar output of electrosurgical generators. Sterilisable up to 280°F/137°C.



DeBakey-Light



DeBakey-Diethrich



DeBakey

<b>DeBakey-Light</b>		
Length	jaw	Art.-No.
15.0 cm	1.0 mm	10-0050
19.5 cm	1.0 mm	10-0052
24.0 cm	1.0 mm	10-0054

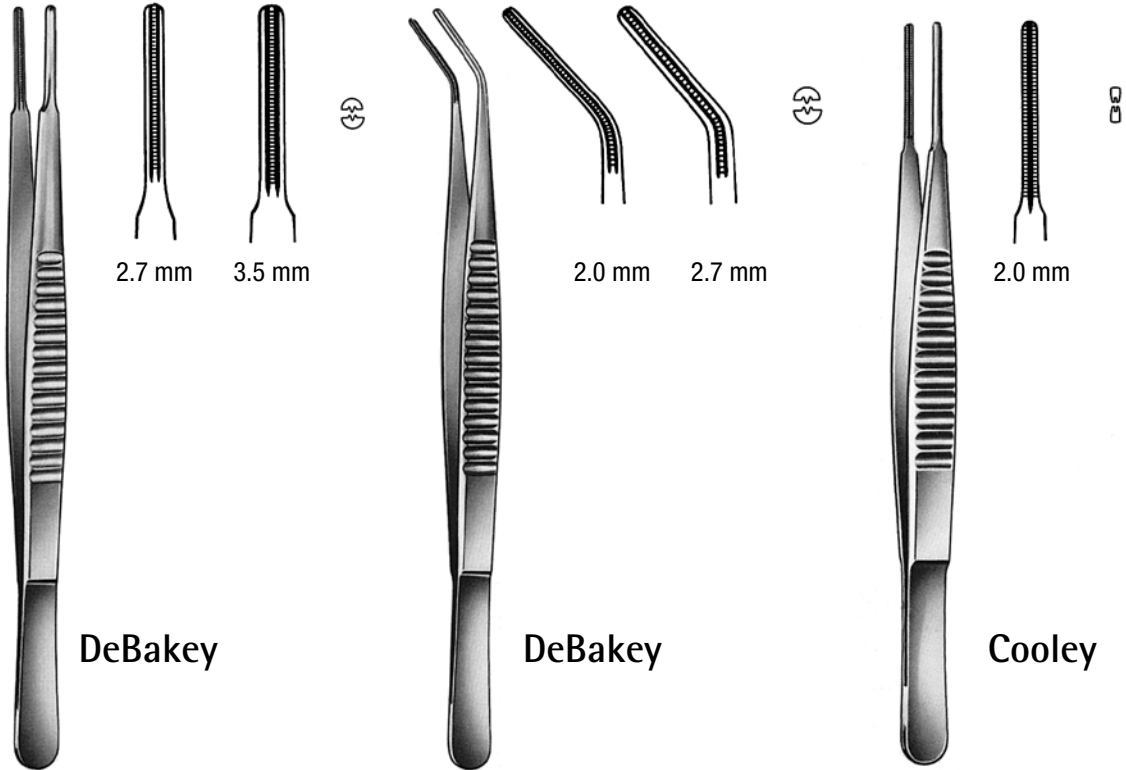
<b>DeBakey-Diethrich</b>		
Length	jaw	Art.-No.
15.0 cm	1.0 mm	10-0096
19.5 cm	1.0 mm	10-0097
24.0 cm	1.0 mm	10-0098
15.0 cm	1.5 mm	10-0100
19.5 cm	1.5 mm	10-0102
24.0 cm	1.5 mm	10-0104

<b>DeBakey</b>		
Length	jaw	Art.-No.
15.0 cm	1.5 mm	10-0106
19.5 cm	1.5 mm	10-0107
24.0 cm	1.5 mm	10-0108
30.0 cm	1.5 mm	10-0109
15.0 cm	2.0 mm	10-0110
19.5 cm	2.0 mm	10-0112
24.0 cm	2.0 mm	10-0114
30.0 cm	2.0 mm	10-0116
38.0 cm	2.0 mm	10-0118
15.0 cm	2.8 mm	10-0121
19.5 cm	2.8 mm	10-0123
24.0 cm	2.8 mm	10-0125
30.0 cm	2.8 mm	10-0127
38.0 cm	2.8 mm	10-0129

DeBakey		
Length	jaw	Art.-No.
15.0 cm	2.7 mm	10-0120
19.5 cm	2.7 mm	10-0122
24.0 cm	2.7 mm	10-0124
30.0 cm	2.7 mm	10-0126
38.0 cm	2.7 mm	10-0128
15.0 cm	3.5 mm	10-0130
19.5 cm	3.5 mm	10-0132
24.0 cm	3.5 mm	10-0134
30.0 cm	3.5 mm	10-0136
38.0 cm	3.5 mm	10-0138

DeBakey		
Length	jaw	Art.-No.
15.0 cm	2.0 mm	10-0140
19.5 cm	2.0 mm	10-0142
24.0 cm	2.0 mm	10-0144
30.0 cm	2.0 mm	10-0146
15.0 cm	2.7 mm	10-0141
19.5 cm	2.7 mm	10-0143
24.0 cm	2.7 mm	10-0145
30.0 cm	2.7 mm	10-0148

Cooley		
Length	jaw	Art.-No.
15.0 cm	2.0 mm	10-0180
19.5 cm	2.0 mm	10-0182
24.0 cm	2.0 mm	10-0184



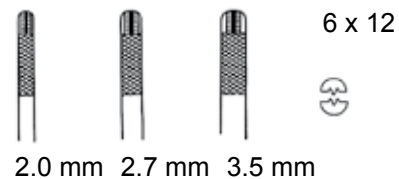
DeBakey

DeBakey

Cooley



Chitwood-DeBakey TC



Chitwood-DeBakey TC

**Chitwood-DeBakey TC**

Length	jaw	Art.-No.
15.0 cm	1.5 mm	10-0600
19.5 cm	1.5 mm	10-0602
24.0 cm	1.5 mm	10-0604

**Chitwood-DeBakey TC**

Length	jaw	Art.-No.
15.0 cm	2.0 mm	10-0620
19.5 cm	2.0 mm	10-0622
24.0 cm	2.0 mm	10-0624
15.0 cm	2.7 mm	10-0630
19.5 cm	2.7 mm	10-0632
24.0 cm	2.7 mm	10-0634
15.0 cm	3.5 mm	10-0640
19.5 cm	3.5 mm	10-0642
24.0 cm	3.5 mm	10-0644

**Adson TC**

Smooth

Length	Art.-No.
12.0 cm	10-0501

**Standard**

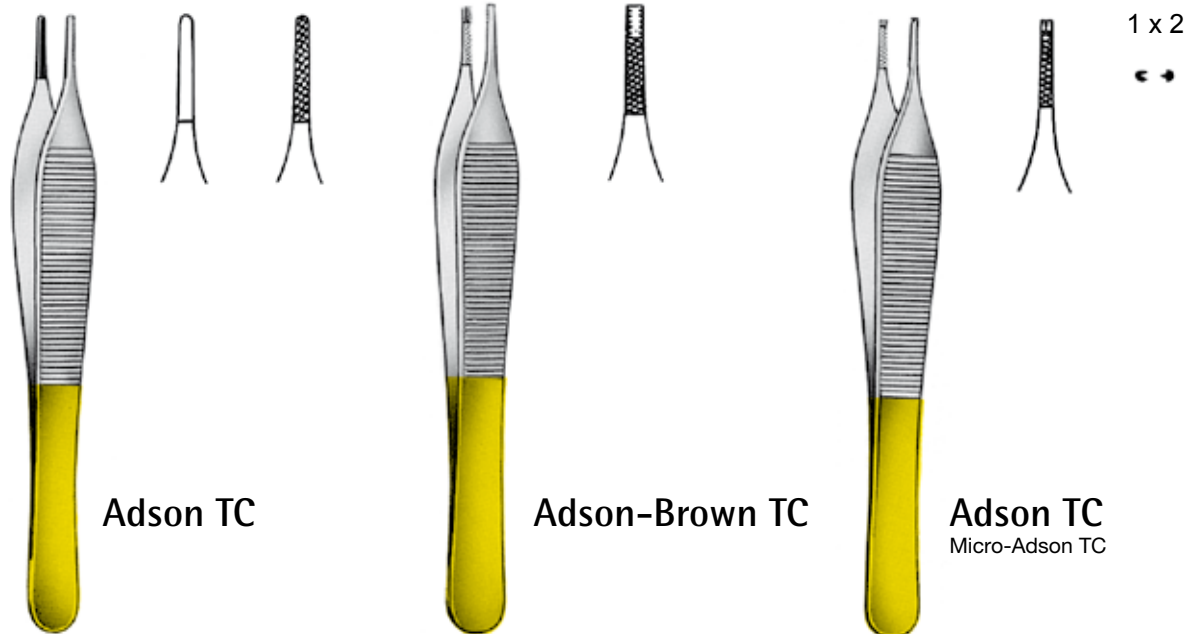
Length	Art.-No.
12.0 cm	10-0500
15.0 cm	10-0502

**Adson-Brown TC**

Length	Art.-No.
12.0 cm	10-0504
15.0 cm	10-0505

**Adson TC-Micro-Adson TC**

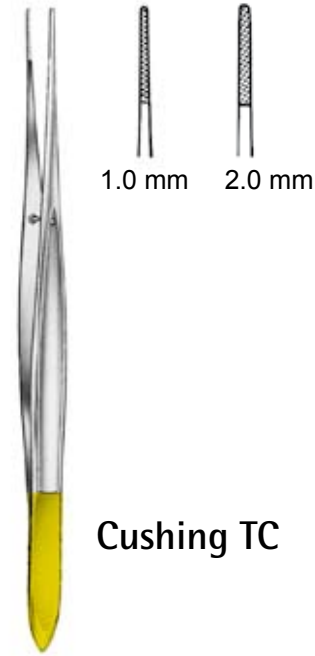
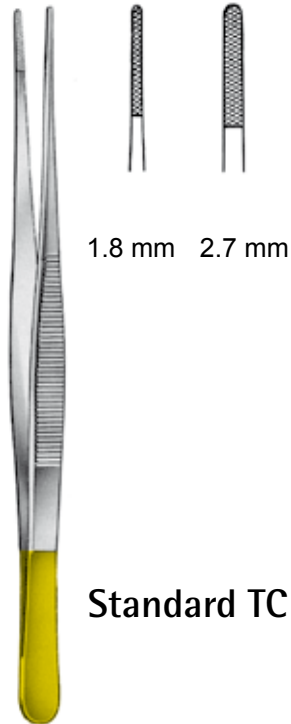
Length	jaw	Art.-No.
12.0 cm	1.7 mm	10-0550
12.0 cm	1.0 mm	10-0551
15.0 cm	1.7 mm	10-0552
15.0 cm	1.0 mm	10-0553



Adson TC

Adson-Brown TC

Adson TC  
Micro-Adson TC

**Standard TC**

Length	jaw	Art.-No.
14.5 cm	1.8 mm	10-0530
16.0 cm	1.8 mm	10-0532
18.0 cm	1.8 mm	10-0534
20.0 cm	1.8 mm	10-0535
23.0 cm	1.8 mm	10-0536
25.0 cm	1.8 mm	10-0537
14.5 cm	2.7 mm	10-0540
16.0 cm	2.7 mm	10-0541
18.0 cm	2.7 mm	10-0542
20.0 cm	2.7 mm	10-0543
23.0 cm	2.7 mm	10-0544

**Potts-Smith TC  
With dissector**

Length	jaw	Art.-No.
16.0 cm	1.8 mm	10-0526
21.0 cm	1.8 mm	10-0527
23.0 cm	1.8 mm	10-0528
25.0 cm	1.8 mm	10-0529

**Cushing TC  
Straight**

Length	jaw	Art.-No.
18.0 cm	1.0 mm	10-0513
18.0 cm	2.0 mm	10-0510
<b>Angled</b>		
18.0 cm	2.0 mm	10-0512

**Oehler TC****A**

Length	Art.-No.
14.5 cm	10-0560
16.0 cm	10-0561
18.0 cm	10-0562
20.0 cm	10-0563
25.0 cm	10-0564

**B**

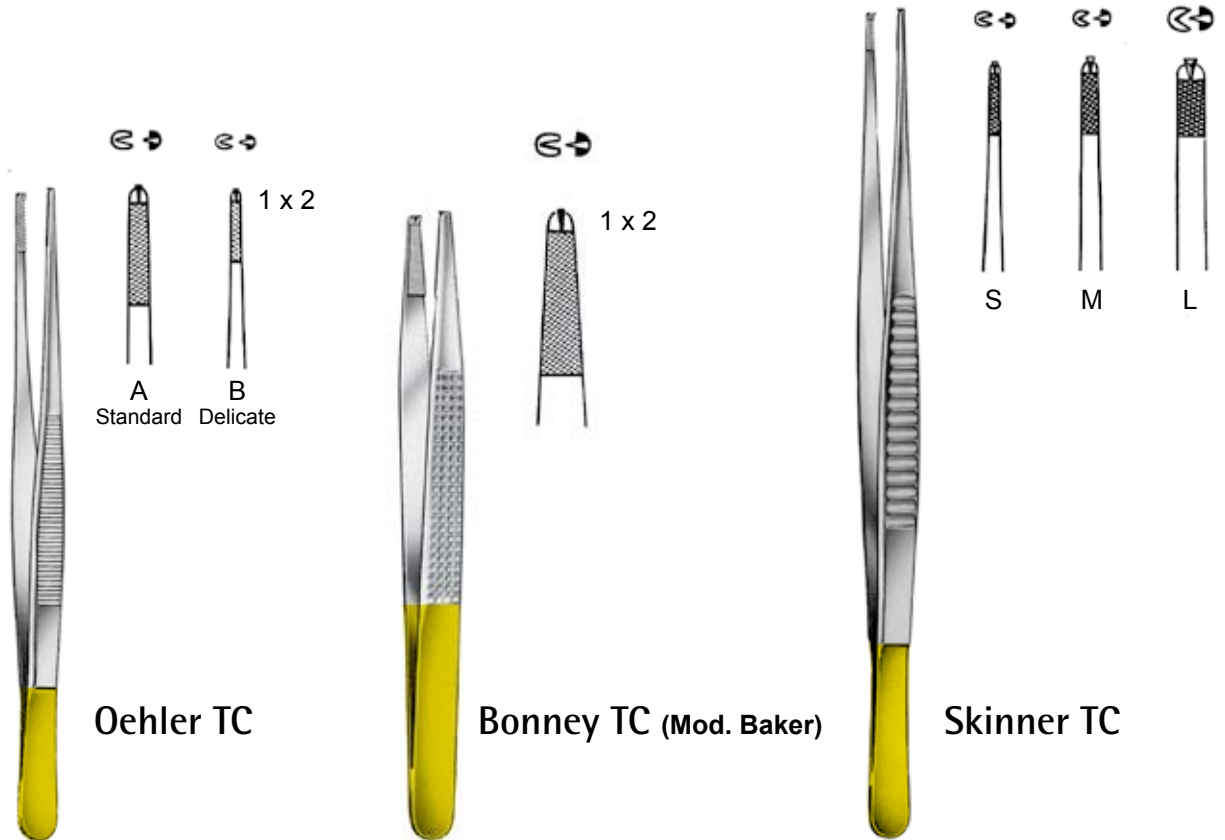
Length	Art.-No.
14.5 cm	10-0565
16.0 cm	10-0566
18.0 cm	10-0567
20.0 cm	10-0568
25.0 cm	10-0569

**Bonney TC (Mod. Baker)**

Length	Art.-No.
17.0 cm	10-0585

**Skinner TC**

Length	Size	Art.-No.
23.0 cm	S	10-0580
23.0 cm	M	10-0581
23.0 cm	L	10-0582



Oehler TC

Bonney TC (Mod. Baker)

Skinner TC



10-3203 12 cm  
10-3204 13.5 cm



10-3213 18 cm



10-3205 11 cm



with 10° angled dilation tips  
10-3200 11 cm

Also available with Sapphire™-jaws  
on request (add ".AS" behind the article no.)

## Micro Jeweller's

extra precisely matching jaws  
with ultra-delicate 0,3 mm tips



**Jeweller's**  
No. 3  
10-3103 11.5 cm



No. 4  
10-3104 11.5 cm



No. 5  
10-3105 11.5 cm



No. 7  
10-3107 11.5 cm


**Adson-Brown**

10-1835 12.0 cm


**Adson 1 x 2**

10-1832 12 cm

10-1838 15 cm


**Adson 1 x 2**

serrated

10-1831 12 cm

10-1837 15 cm


**Micro-Adson 1 x 2**

10-1833 12 cm

10-1839 15 cm



1 x 2



2 x 3

**Standard 1 x 2**

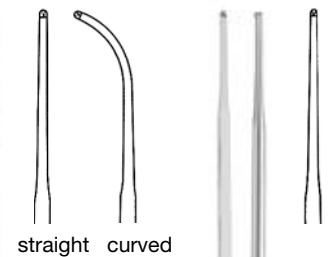
Length	delicate	slender	regular	2 x 3 wide
11.5 cm	10-2130	10-2122	10-2102	
13.0 cm	10-2131	10-2124	10-2104	10-2140
14.5 cm	10-2132	10-2126	10-2106	10-2142
16.0 cm		10-2128	10-2108	10-2144
18.0 cm			10-2110	10-2146
20.0 cm			10-2112	10-2148
23.0 cm			10-2114	
25.0 cm			10-2116	
30.0 cm			10-2118	

**Gerald 1 x 2**

10-2200	18 cm, straight
10-2201	18 cm, curved
10-1551	24 cm, straight

**Gerald Bayonet 1 x 2**

10-2202	18 cm
---------	-------



Standard 1 x 2



Gerald 1 x 2



Gerald Bayonet 1 x 2

**Adson**

10-1740 12 cm  
10-1742 15 cm

**Micro-Adson**

10-1741 12 cm  
10-1743 15 cm

**Cushing**

10-1910 17.5 cm, straight  
10-1911 17.5 cm, curved  
10-1910.TI Titanium, straight

**Semken**

10-1880	13.0 cm, straight
10-1881	13.0 cm, curved
10-1882	14.5 cm, straight
10-1883	14.5 cm, curved

**Gerald**

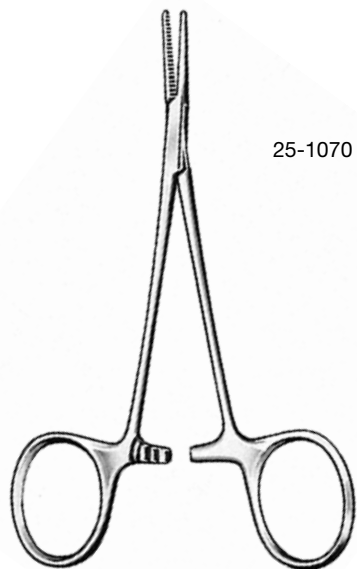
10-1900	18.0 cm, straight
10-1901	18.0 cm, curved
10-1550	24.0 cm, straight

**Gerald Bayonet**

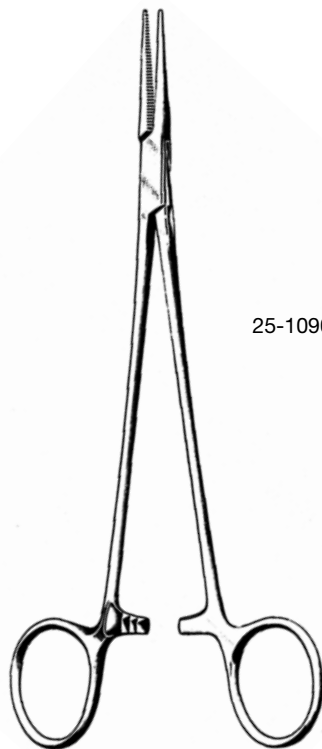
10-1902	18.0 cm, straight
---------	-------------------

**Semken****Gerald****Gerald  
Bayonet**

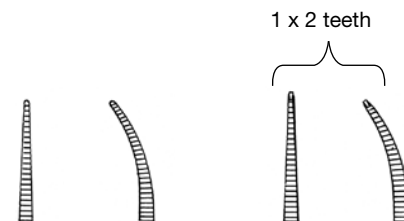
## Halstead-Mosquito



25-1070



25-1090



25-1070  
12 cm

25-1071  
12 cm

25-1075  
12 cm

25-1076  
12 cm

Titanium  
25-1070.TI

25-1071.TI

25-1075.TI

25-1076.TI

25-1090  
20 cm

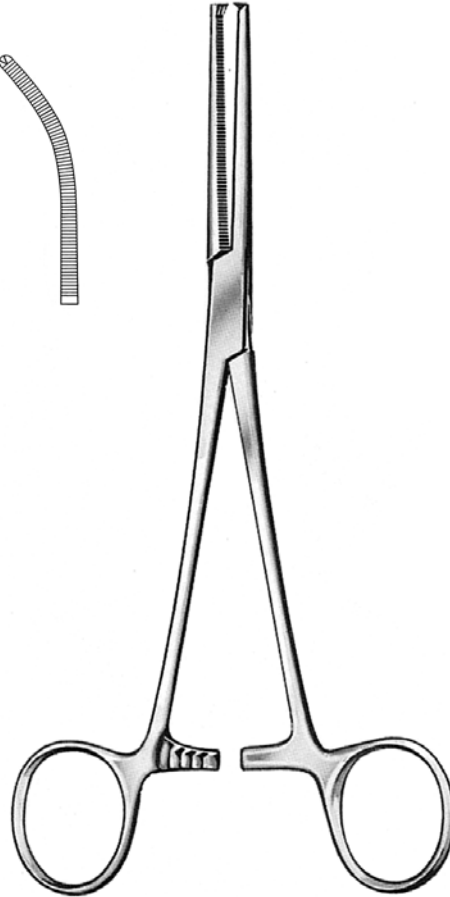
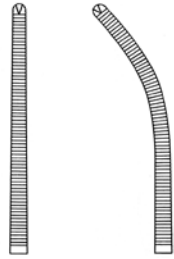
25-1091  
20 cm

25-1092  
20 cm

25-1093  
20 cm

## Ochsner (Kocher)

1 x 2 teeth



## Baby-Mixer



### Ochsner (Kocher) straight

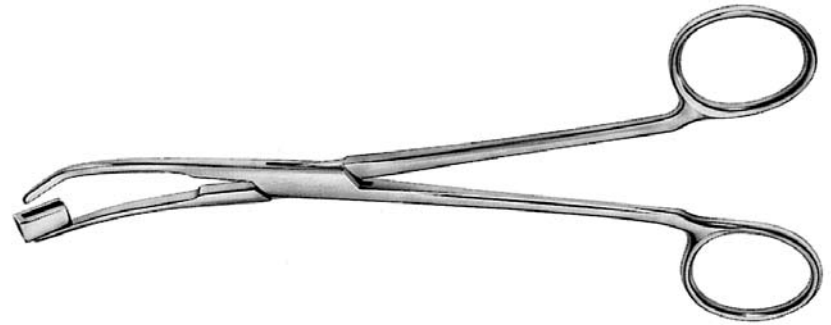
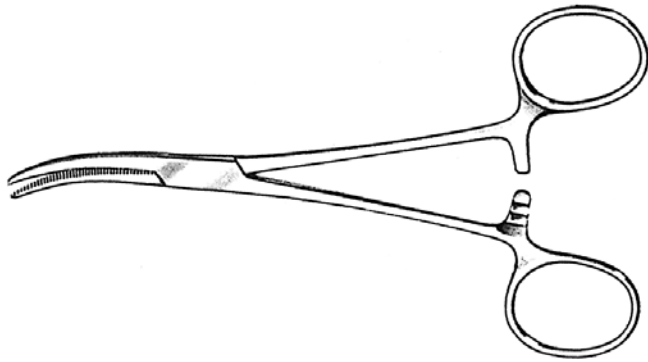
14 cm	25-1140
16 cm	25-1141
18 cm	25-1142
20 cm	25-1143
22 cm	25-1144
24 cm	25-1145
26 cm	25-1146
30 cm	25-1147

### curved

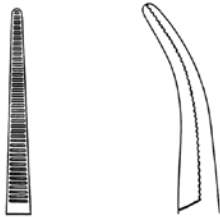
14 cm	25-1150
16 cm	25-1151
18 cm	25-1152
20 cm	25-1153
22 cm	25-1154
24 cm	25-1155
26 cm	25-1156
30 cm	25-1157

### Baby-Mixer

18 cm	25-1363
-------	---------



20-0505



**Dandy**

Hemostatic Forceps

25-1097 14 cm  
25-1097.MZ 14 cm 1 x 2 teeth



**Schwartz**

Bulldogs and Applying Forceps

20-0500 0° 20-0501 25° 20-0502 45°



Temporary Vessel Clamps

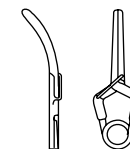
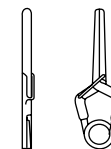
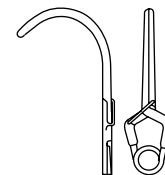
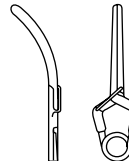
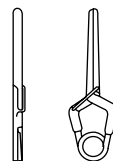
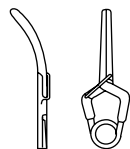
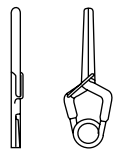


## Temporary Vessel Clamps



## Yasargil Standard

Applying Forceps  
41-5500



Stainless Steel  
Titanium  
max. opening  
Force

41-5012  
41-5012.TI  
7.0 mm  
180 gsm

41-5014  
41-5014.TI  
6.8 mm  
180 gsm

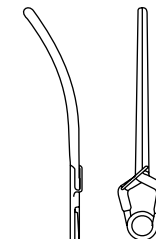
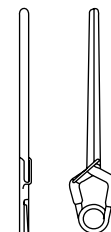
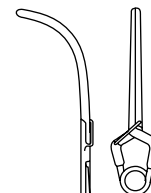
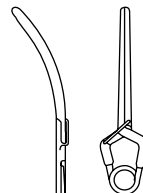
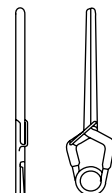
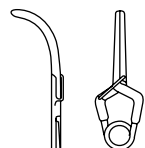
41-5022  
41-5022.TI  
7.8 mm  
180 gsm

41-5024  
41-5024.TI  
7.5 mm  
180 gsm

41-5054  
41-5054.TI  
6.2 mm  
180 gsm

41-5112  
41-5112.TI  
7.0 mm  
70 gms

41-5114  
41-5114.TI  
6.8 mm  
70 gms



Stainless Steel  
Titanium  
max. opening  
Force

41-5116  
41-5116.TI  
6.1 mm  
70 gms

41-5128  
41-5128.TI  
9.2 mm  
70 gms

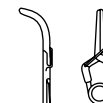
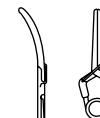
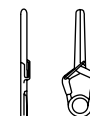
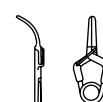
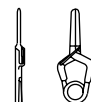
41-5130  
41-5130.TI  
8.7 mm  
70 gms

41-5132  
41-5132.TI  
7.4 mm  
70 gms

41-5134  
41-5134.TI  
11.4 mm  
90 gms

41-5136  
41-5136.TI  
11.0 mm  
90 gms

## Mini



Stainless Steel  
Titanium  
max. opening  
Force

41-5300  
41-5300.TI  
3.3 mm  
50 gms

41-5306  
41-5306.TI  
4.0 mm  
50 gms

41-5308  
41-5308.TI  
3.8 mm  
50 gms

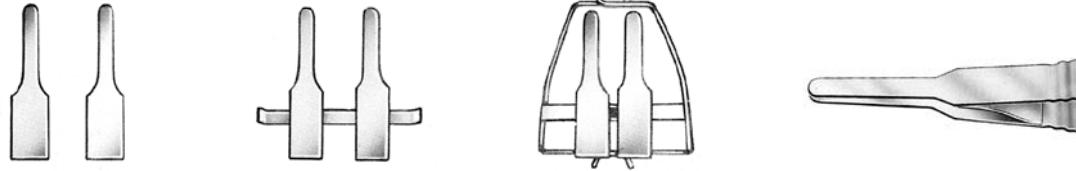
41-5320  
41-5320.TI  
4.6 mm  
70 gms

41-5322  
41-5322.TI  
4.4 mm  
70 gms

41-5324  
41-5324.TI  
4.0 mm  
70 gms



## Micro Vascular Clamps



Plain Fig.	Single Clamps (pair)		Approximator without frame, movable		Approximator with frame, movable		Vessel Size	Length
	A	V	A	V	A	V		
1	75-0397	75-0396	75-0415	75-0414	75-0409	75-0408	0.4 – 1.0 mm	8 mm
2	75-0399	75-0398	75-0417	75-0416	75-0411	75-0410	0.6 – 1.5 mm	11 mm
3	75-0401	75-0400	75-0419	75-0418	75-0413	75-0412	1.0 – 2.2 mm	17 mm
4	75-0325		75-0326				1.5 – 3.5 mm	24 mm
5	75-0286		75-0287				2.0 – 5.0 mm	36 mm
<b>Black</b>								
1	75-0461	75-0462	75-0479	75-0480	75-0473	75-0474	0.4 – 1.0 mm	8 mm
2	75-0463	75-0464	75-0481	75-0482	75-0475	75-0476	0.6 – 1.5 mm	11 mm
3	75-0465	75-0466	75-0483	75-0484	75-0477	75-0478	1.0 – 2.2 mm	17 mm
4		75-0329		75-0330			1.5 – 3.5 mm	24 mm
5		75-0327		75-0328			2.0 – 5.0 mm	36 mm
<b>Applying Forceps</b>	Fig. 1-2	75-0071 with catch		75-0072 without catch				
	Fig. 3-4	75-0073 with catch		75-0074 without catch				

A = for arteries, V = for veins



### Biemer

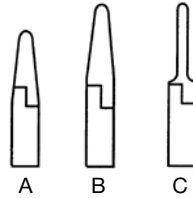


Fig.	Jaw opening mm	Jaw length mm	Closing force g	Vessel Size mm	Art.-No.
A	4.0	6.0	30 – 40	0.5 – 2.0	41-5600
B	5.0	9.0	30 – 40	0.5 – 2.0	41-5602
C	5.0	9.0	20 – 25	0.5 – 2.0	41-5604
<b>Applying Forceps</b>		Fig. A	41-5610 without catch, 14 cm / 5 1/2"		
		Fig. B, C	41-5612 with catch, 14 cm / 5 1/2"		

### Mehdorn

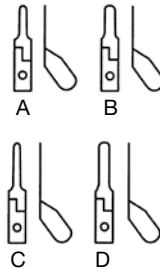


Fig.	Jaw length mm	Closing force g	Vessel Size mm	Art.-No.
A	4.0 x 1.0	10 – 15	0.5 – 1.5	41-5665
B	4.0 x 1.0	15 – 20	0.5 – 1.5	41-5666
C	6.0 x 1.4	10 – 15	0.5 – 1.5	41-5667
D	6.0 x 1.4	15 – 20	0.5 – 1.5	41-5668
<b>Applying Forceps</b>		Fig. A – D	41-5669 without catch, 15 cm / 6"	
		The position of the clip in the Applying Forceps can be varied.		

### Biemer-Mueller

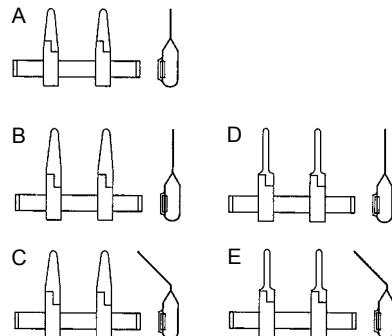
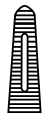


Fig.	Jaw opening mm	Jaw length mm	Closing force g	Vessel Size mm	Art.-No.
A	3.0	4.5	30 – 40	0.5 – 2.0	41-5605
B	5.0	9.0	30 – 40	0.5 – 2.0	41-5606
C	5.0	9.0	30 – 40	0.5 – 2.0	41-5607
D	5.0	9.0	30 – 40	0.5 – 2.0	41-5608
E	5.0	9.0	30 – 40	0.5 – 2.0	41-5609
<b>Applying Forceps</b>		Fig. A	41-5610 without catch, 14 cm / 5 1/2"		
		Fig. B – E	41-5612 with catch, 14 cm / 5 1/2"		



### Adson

Dural Needle Holder  
with perforated jaw

24-8160 18 cm



### Raney

Dural Clip Applying  
and Removing Forceps

41-7995 18 cm  
41-7991 10 ea Clips (stainless)

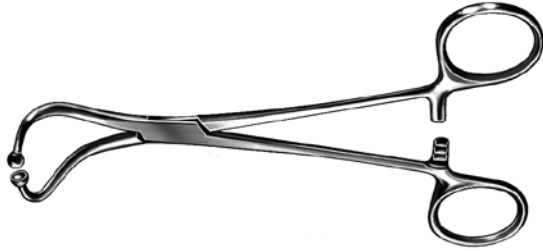


### Yasargil

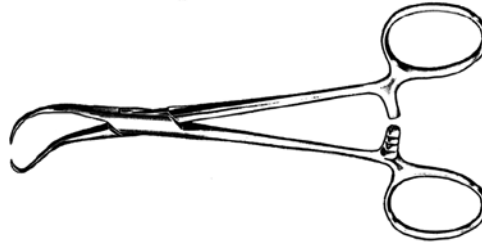
Galea Hook

41-7850 31 cm, 7 mm  
41-7852 41 cm, 9 mm

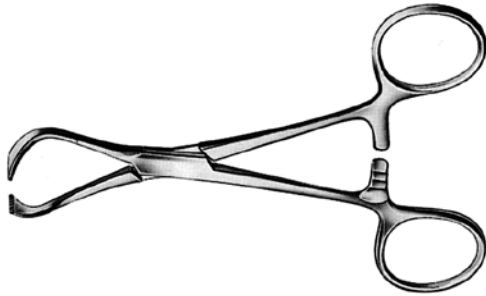
Ball + Socket



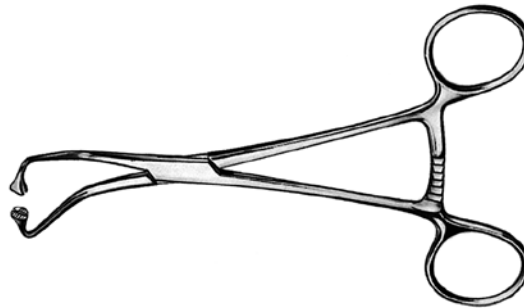
Backhaus



Lorna



Peers



<b>Length</b>	<b>Ball + Socket</b>	<b>Backhaus</b>
8.0 cm		25-0060
11.0 cm	25-0082	25-0061
13.0 cm	25-0083	25-0062
15.0 cm	25-0085	25-0063
<b>Length</b>	<b>Lorna</b>	<b>Peers</b>
10.0 cm	25-0070	
13.0 cm	25-0071	
14.5 cm		25-0050

**Ulrich****Ulrich**

**straight**  
25-9030  
22 cm

**curved**  
25-9035  
22 cm

25-9031  
25 cm

25-9036  
25 cm

25-9032  
27 cm

25-9037  
27 cm



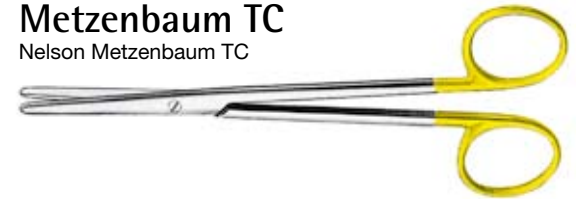
**Scissors**



Metzenbaum TC				Nelson Metzenbaum TC			
<b>straight</b>							
26-0100	26-0102	26-0104	26-0106	26-0108	26-0110	26-0112	
14 cm	18 cm	20 cm	23 cm	25 cm	28 cm	30 cm	
<b>curved</b>							
26-0101	26-0103	26-0105	26-0107	26-0109	26-0111	26-0113	26-0115
14 cm	18 cm	20 cm	23 cm	25 cm	28 cm	30 cm	38 cm
<b>Metzenbaum Fino TC (delicate)</b>							
<b>straight</b>							
26-0120	26-0122	26-0124	26-0126				
14 cm	18 cm	20 cm	23 cm				
<b>curved</b>							
26-0121	26-0123	26-0125	26-0127	26-0129	26-0131		
14 cm	18 cm	20 cm	23 cm	26 cm	28 cm		

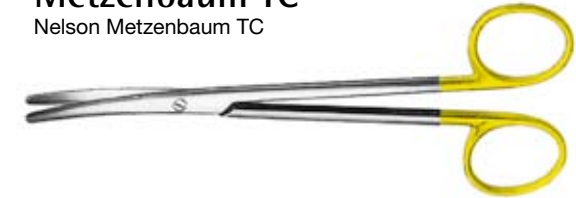
## Metzenbaum TC

Nelson Metzenbaum TC

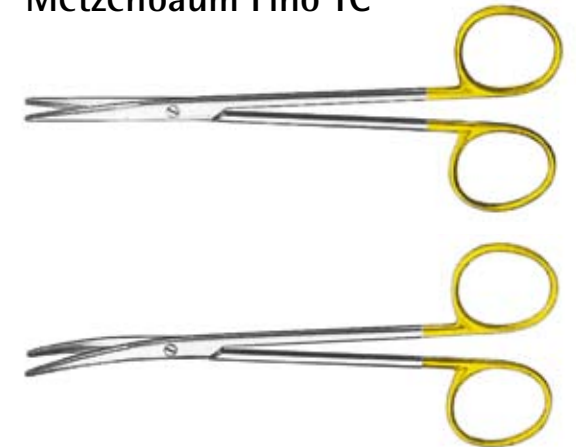


## Metzenbaum TC

Nelson Metzenbaum TC

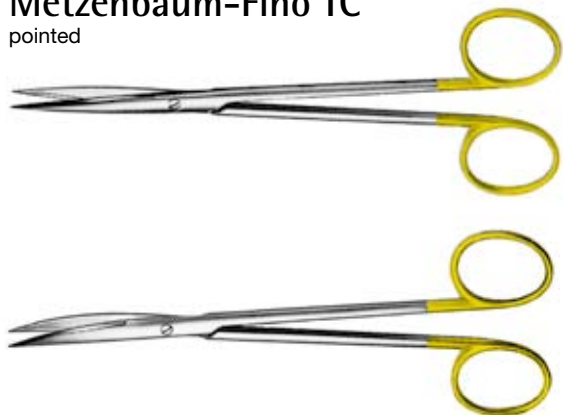


## Metzenbaum Fino TC



## Metzenbaum-Fino TC

pointed



## Standard TC



### Metzenbaum-Fino TC pointed

#### straight

26-0180	26-0182	26-0184	26-0186
14 cm	18 cm	20 cm	23 cm

#### curved

26-0181	26-0183	26-0185	26-0187
14 cm	18 cm	20 cm	23 cm

### Standard TC

#### straight

26-0010	26-0011	26-0012
14.5 cm	14.5 cm	14.5 cm

#### curved

26-0013	26-0014	26-0015
14.5 cm	14.5 cm	14.5 cm

**Mayo TC****straight**

26-0020	26-0022	26-0025
14 cm	17 cm	23 cm

**curved**

26-0021	26-0023	26-0026
14 cm	17 cm	23 cm

**Mayo-Lexer TC****straight**

26-0040	26-0042
16 cm	21 cm

**curved**

26-0041	26-0043
16 cm	21 cm





Toennis-Adson TC



Ligature TC

Designed for cutting of suture materials.  
Wave-cut prevents slipping out.

#### Toennis-Adson TC

fino

26-0118 17.5 cm

26-0118.23 23.0 cm

superfino

26-0116 17.5 cm

#### Ligature TC

y-shanks

26-0500 17.5 cm

26-0501 23.0 cm

26-0502 25.0 cm

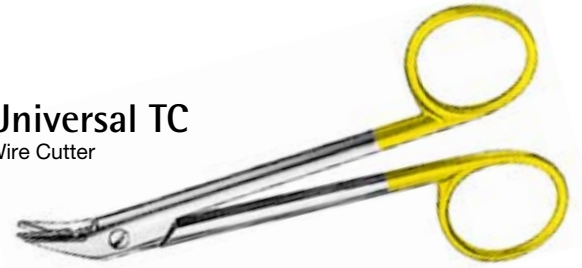
#### Ligature TC straight shanks

26-0500G 17.5 cm

26-0501G 23.0 cm

26-0502G 25.0 cm

Iris TC


 Universal TC  
 Wire Cutter
**Iris TC**

straight	curved
26-0150	26-0151
11 cm	11 cm

**Strabismus TC**

straight	curved
26-0155	26-0156
11 cm	11 cm

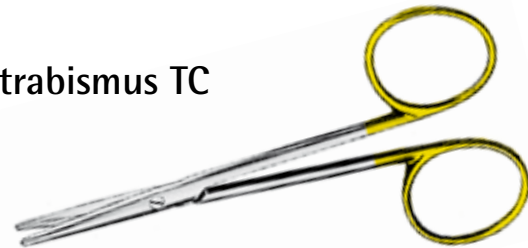
**Wire Cutter Universal TC**

26-0140
12 cm

**Goldmann-Fox TC**

straight	curved
26-0160	26-0161
13 cm	13 cm

Strabismus TC

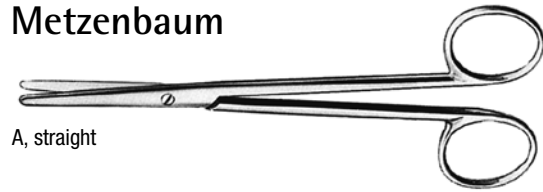


Goldmann-Fox TC





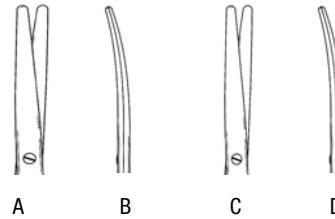
**Metzenbaum**



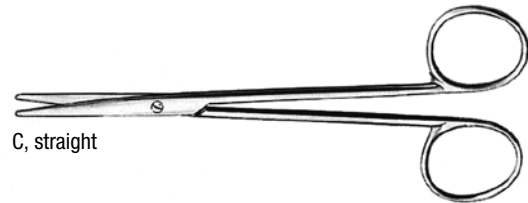
A, straight



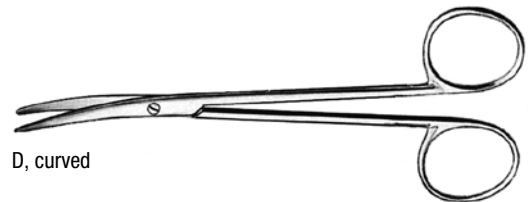
B, curved



**Metzenbaum Fino**



C, straight



D, curved

<b>Metzenbaum</b>						
<b>A, straight</b>						
26-6190	26-6191	26-6192	26-6193	26-6194	26-6195	26-6196
14 cm	18 cm	20 cm	23 cm	25 cm	28 cm	30 cm
<b>B, curved</b>						
26-6200	26-6201	26-6202	26-6203	26-6204	26-6205	26-6206
14 cm	18 cm	20 cm	23 cm	25 cm	28 cm	30 cm
<b>Metzenbaum Fino (delicate)</b>						
<b>C, straight</b>						
26-6208	26-6210	26-6211	26-6212	26-6213	26-6214	
14 cm	18 cm	20 cm	23 cm	25 cm	28 cm	
<b>D, curved</b>						
26-6209	26-6215	26-6216	26-6217	26-6218	26-6219	
14 cm	18 cm	20 cm	23 cm	25 cm	28 cm	
Also available with Supercut on request (add "Se" behind the article no.)						



## Mayo

### Mayo

#### straight

26-6100	26-6102	26-6104	26-6106	26-6108
14.5 cm	15.5 cm	17 cm	21 cm	23 cm

#### curved

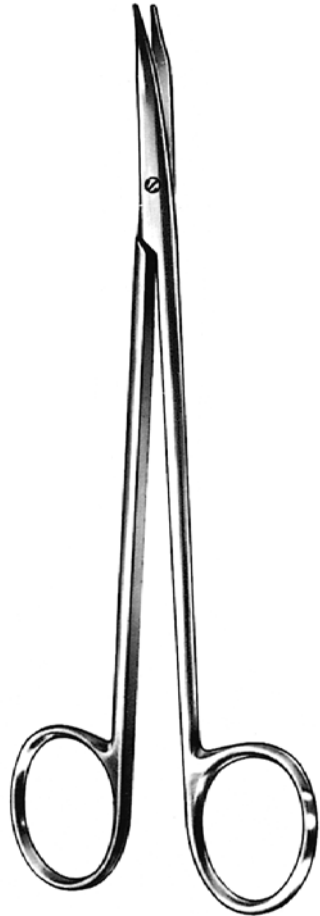
26-6110	26-6112	26-6114	26-6116	26-6118
14.5 cm	15.5 cm	17 cm	21 cm	23 cm





**Reynolds**

Jameson (delicate tip)  
curved



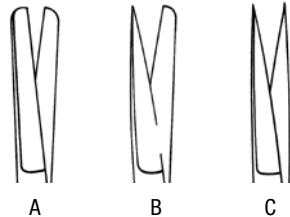
**Ragnell-Kilner**

curved



**Standard**

straight, curved



**Reynolds, curved  
regular tip**

26-6250	26-6252	26-6254	26-6256	26-6258
13.5 cm	15 cm	18 cm	20 cm	23 cm

**Jameson, curved  
delicate tip**

26-6239	26-6255
15 cm	18 cm

**Ragnell-Kilner, curved**

26-6170	26-6172	26-6174	26-6176
12.5 cm	15 cm	18 cm	20 cm

**Standard, straight**

	10.5 cm	11.5 cm	13.0 cm	14.5 cm	15.5 cm	16.5 cm	17.5 cm	18.5 cm	20.0 cm
A	26-6020	26-6022	26-6024	26-6026	26-6028	26-6030	26-6032	26-6034	26-6036
B	26-6040	26-6042	26-6044	26-6046	26-6048	26-6050	26-6052	26-6054	26-6056
C	26-6060	26-6062	26-6064	26-6066	26-6068	26-6070	26-6072	26-6074	26-6076

**Standard, curved**

	10.5 cm	11.5 cm	13.0 cm	14.5 cm	15.5 cm	16.5 cm	17.5 cm	18.5 cm	20.0 cm
A	26-6021	26-6023	26-6025	26-6027	26-6029	26-6031	26-6033	26-6035	26-6037
B	26-6041	26-6043	26-6045	26-6047	26-6049	26-6051	26-6053	26-6055	26-6057
C	26-6061	26-6063	26-6065	26-6067	26-6069	26-6071	26-6073	26-6075	26-6077

Also available with Supercut on request (add "Se" behind the article no.)

**Deaver**

26-6875



26-6876

**sharp/blunt**

26-6875 14.5 cm straight

26-6876 14.5 cm curved

**sharp/sharp (not illustrated)**

26-6873 14.5 cm straight

26-6874 14.5 cm curved

**Schmieden-Taylor****Frazier****Strully****Strully  
with ball****Schmieden-Taylor**

26-4210 15.5 cm

**Frazier**

26-4199 17 cm

**Strully**

26-4200 20 cm

**Strully with ball**

26-4201 20 cm



Scalpel Holders and Blade Breakers



short  
16-0003  
long  
16-0023



16-0013  
with scala



long  
16-0007  
short  
16-0017



15.5 cm  
16-0033  
  
10.5 cm  
16-0033.10



18 cm  
03-0285



**for scalpel blades**  
41-6019 21 cm  
  
**for micro blades**  
41-6012 21 cm  
41-6014 25 cm





**Gigli**

Wire Saw Handle  
26-9109



**Gigli**

Wire Saw  
26-9110 30 cm / 12"  
26-9111 40 cm / 16"  
26-9112 50 cm / 20"  
26-9113 60 cm / 24"  
26-9114 70 cm / 28"



**Gigli**

Introducer Guide  
26-9105



Micro Blades



**61** 16-2061  
**62** 16-2062  
**65** 16-2065  
**67** 16-2067

Scalpel Blades



**10** 16-2010  
**11** 16-2011  
**12** 16-2012  
**12D** 16-2012.D  
**13** 16-2013  
**15** 16-2015

pack of 10, sterile

pack of 100, sterile



**Toennis**

Dura Knife  
16-1005 19 cm

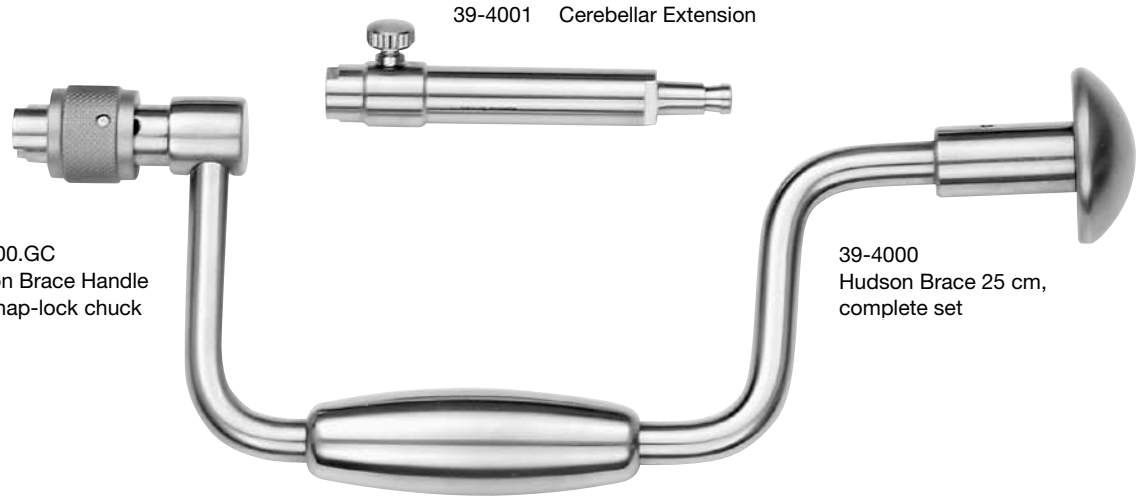


**Redon Needle**

Ch. 8 18-9800.08  
Ch. 10 18-9800.10  
Ch. 12 18-9800.12  
Ch. 14 18-9800.14  
Ch. 16 18-9800.16  
Ch. 18 18-9800.18



Drills and Burs



39-4000.GC  
Hudson Brace Handle  
with snap-lock chuck

39-4001 Cerebellar Extension

39-4000  
Hudson Brace 25 cm,  
complete set



**Hudson**

Cranial Drill/Trepan

- 39-4009 Adson Drill, 2 mm
- 39-4018 Mc Kenzie Perforator Drill, 13 mm
- 39-4019 D'Errico Enlarging Burr, 17 mm



- |         |         |         |         |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 39-4005 | 39-4017 | 39-4016 | 39-4004 | 39-4015 | 39-4012 | 39-4011 | 39-4010 | 39-4003 | 39-4002 |
| Hudson  | Cushing | Cushing | Hudson  | Cushing | Cushing | Cushing | Cushing | Hudson  | Hudson  |
| 22 mm   | 20 mm   | 15 mm   | 16 mm   | 10 mm   | 14 mm   | 13 mm   | 10 mm   | 14 mm   | 9 mm    |

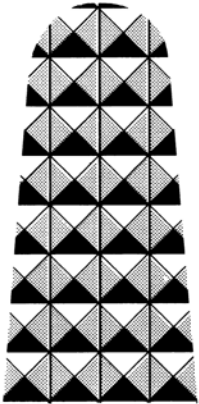


**Needle Holders**



## TC-Insert Styles

Serration pitch

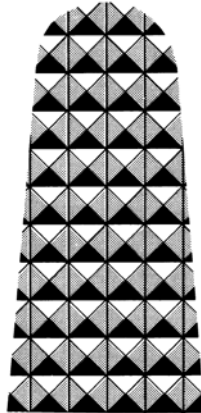


### (C) Coarse

1500 teeth PSI  
0.65 mm

2 – 0 and larger

For powerful needle holder patterns and wire twisters. Maximum holding capabilities for heavy needles or wire.

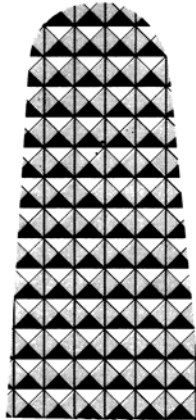


### (N) Standard

2600 teeth PSI  
0.5 mm

3 – 0 and larger

Used in standard needle holder patterns like Mayo-Hegar, Mathieu, Bozemann, Needle holders a.o.

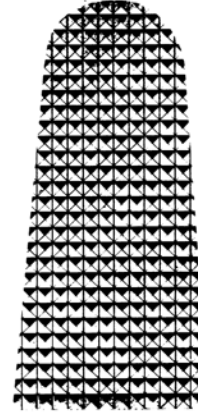


### (F) Fine

4000 teeth PSI  
0.4 mm

4 – 0 to 6 – 0

For delicate needle holders, such as Crile-Wood, DeBakey o.a. Will hold suture effectively when instrument tying is desired.

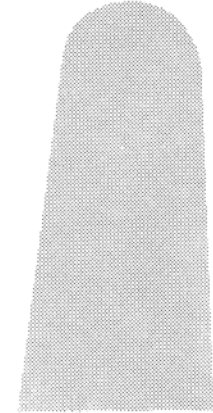


### (M) Micro

16000 teeth PSI  
0.2 – 0.3 mm

7 – 0 and smaller

For micro needle holders, such as Castroviejo, Micro-Vascular, Mini-Ryder o.a. For holding delicate needles and sutures with minimal to no damage to needle or suture.



### (S) Smooth

0 teeth PSI

7 – 0 and smaller

Used in needle holders for plastic or microsurgery for holding smallest sutures without damage. Limited holding ability through smooth surface, however.



**Mayo-Hegar** 2.5 mm



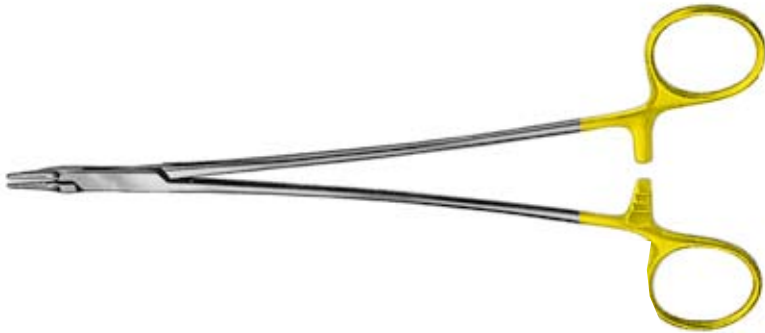
24-0129	24-0130	24-0131	24-0132	24-0133	24-0134	24-0135
14 cm	16 cm	18 cm	20 cm	24 cm	26 cm	30 cm



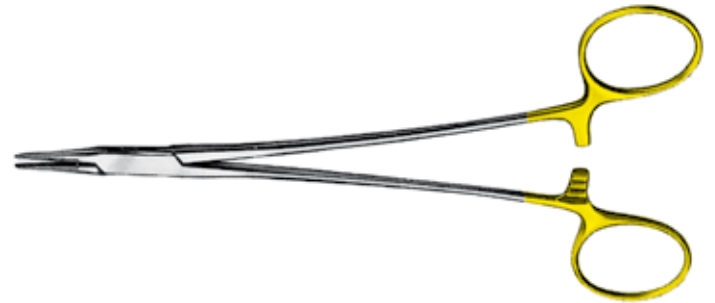
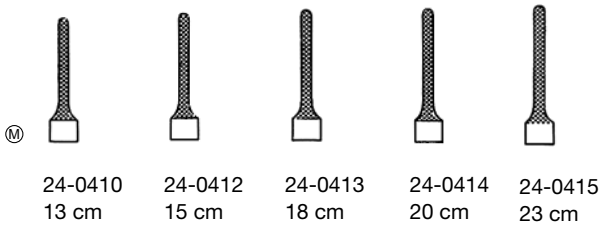
**Crile-Wood** 2.0 mm



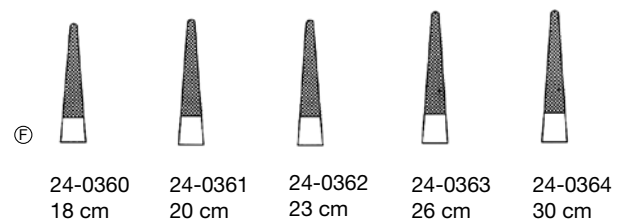
24-0310	24-0311	24-0312	24-0313	24-0314	24-0315
15 cm	18 cm	20 cm	23 cm	26 cm	30 cm

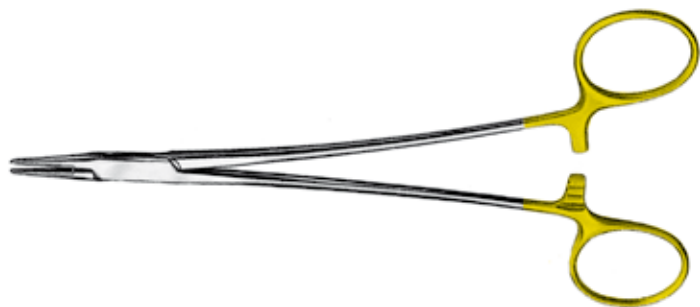


**Mini-Ryder** 1.2 mm

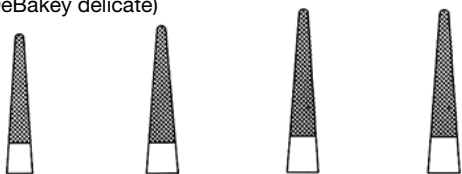


**DeBakey** 1.5 mm

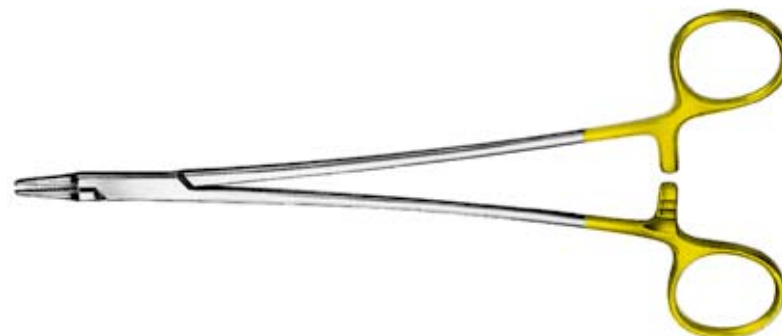




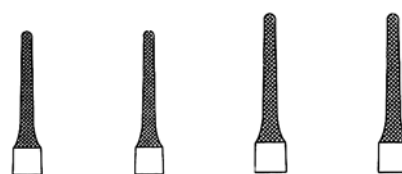
**Micro-Vascular** 1.2 mm  
(DeBakey delicate)



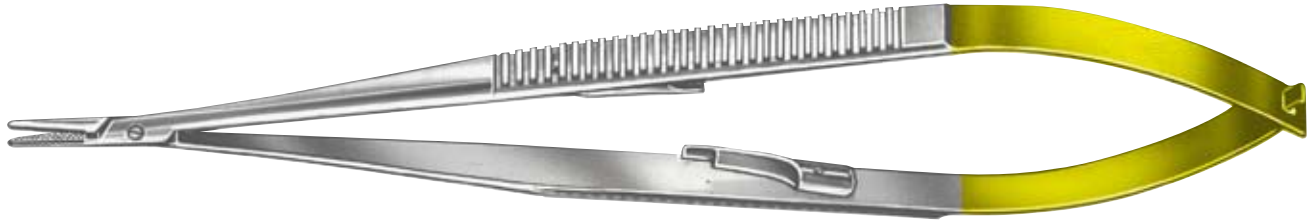
24-0350 14 cm  
24-0351 18 cm  
24-0352 20 cm  
24-0353 23 cm



**Ryder** 1.9 mm  
(Intracardiac)



24-0322 18 cm  
24-0323 20 cm  
24-0324 23 cm  
24-0325 26 cm



## Castroviejo 1.2 mm



24-0200  
 ⓘ 14 cm

24-0201  
 14 cm

Ⓜ

24-0220  
 14 cm

24-0221  
 14 cm

24-0204  
 ⓘ 18 cm

24-0205  
 18 cm

Ⓜ

24-0224  
 18 cm

24-0225  
 18 cm

24-0208  
 ⓘ 21 cm

24-0209  
 21 cm

Ⓜ

24-0228  
 21 cm

24-0229  
 21 cm



**Castroviejo/Hepp-Scheidel** 1.2 mm



24-0250  
13 cm

Ⓢ



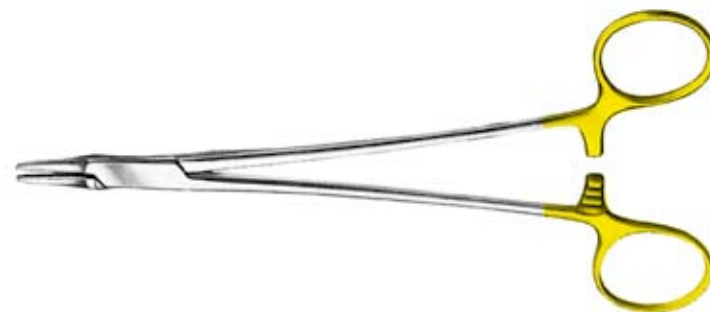
24-0252  
13 cm

Ⓜ



03-0270  
18 cm

Ⓜ



**French-Eye** 2.1 mm



24-0341  
16 cm

Ⓕ



24-0342  
18 cm



24-0343  
20 cm



24-0344  
24 cm



24-0345  
26 cm



**Neurosurgical** 1.7 mm  
(French Eye delicate)



Ⓕ 24-0346  
13 cm



Ⓒ 24-0348  
13 cm



Ⓕ 24-0347  
15 cm



Ⓒ 24-0349  
15 cm



**Diethrich Ryder** 1.2 mm



Ⓜ 24-0420  
16 cm



24-0421  
18 cm



24-0422  
20 cm



24-0423  
23 cm



24-0424  
26 cm



**Mathieu 2.4 mm**



24-0040  
 Ⓝ 14 cm



24-0041  
 Ⓝ 17 cm



24-0042  
 Ⓝ 20 cm



**Mathieu 2.9 mm**



24-0046  
 Ⓢ 17 cm



24-0047  
 Ⓜ 20 cm



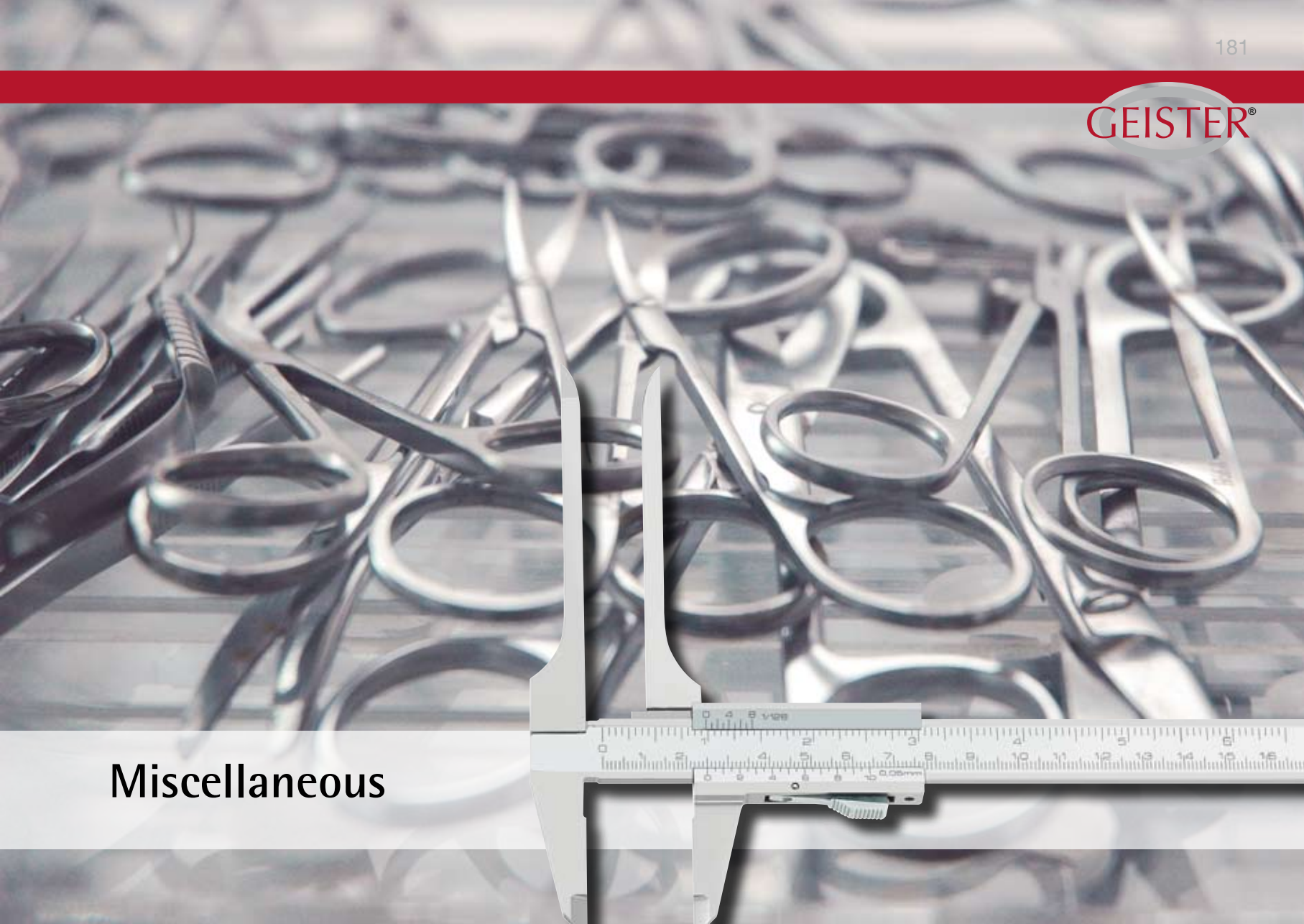
24-0048  
 Ⓜ 23 cm



Zweifel 2.9 mm



24-0050  
20 cm



Miscellaneous



## Suction Tubes and Cannulas

**Yasargil**

18-1002 13 cm, 1.5 mm  
 18-1004 15 cm, 1.5 mm  
 18-1006 18 cm, 1.5 mm  
 18-1008 22 cm, 1.5 mm

18-1012 13 cm, 2.0 mm  
 18-1014 15 cm, 2.0 mm  
 18-1016 18 cm, 2.0 mm  
 18-1018 22 cm, 2.0 mm

18-1022 13 cm, 2.5 mm  
 18-1024 15 cm, 2.5 mm  
 18-1026 18 cm, 2.5 mm  
 18-1028 22 cm, 2.5 mm

18-1032 13 cm, 3.5 mm  
 18-1034 15 cm, 3.5 mm  
 18-1036 18 cm, 3.5 mm  
 18-1038 22 cm, 3.5 mm  
 18-1046 18 cm, 4.5 mm

**Jefferson**

18-0500 100 mm

**Heparin**

18-0099 L = 45 mm Ø 2.0 mm  
 18-0100 L = 45 mm Ø 3.0 mm  
 18-0102 L = 55 mm Ø 3.7 mm  
 18-0104 L = 160 mm Ø 5.0 mm



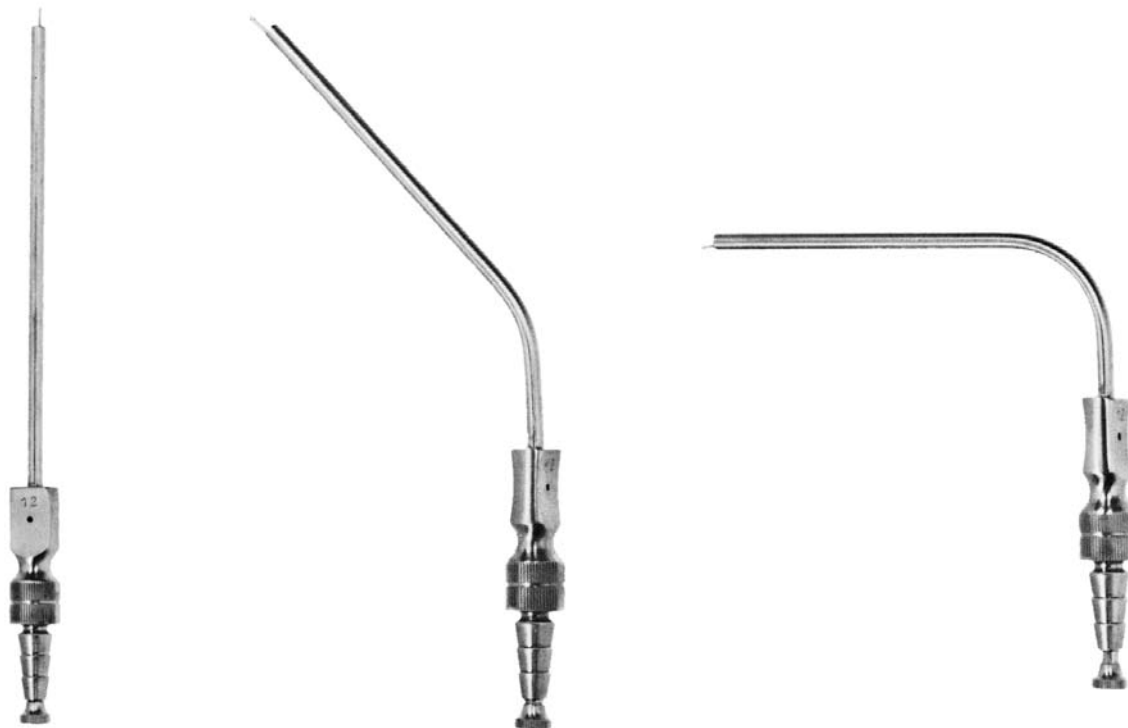
**Yasargil**  
Suction Tube



**Jefferson**  
Ventricular Cannula



**Heparin**  
Flushing Needle



## Frazier

### Suction Tube

18-4020 17 cm, Ø 2.0 mm  
 18-4021 17 cm, Ø 2.7 mm  
 18-4022 17 cm, Ø 3.3 mm  
 18-4023 17 cm, Ø 4.0 mm

18-4040 17 cm, Ø 2.0 mm  
 18-4041 17 cm, Ø 2.7 mm  
 18-4042 17 cm, Ø 3.3 mm  
 18-4043 17 cm, Ø 4.0 mm  
 18-4044 17 cm, Ø 5.0 mm

18-4060 17 cm, Ø 2.0 mm  
 18-4061 17 cm, Ø 2.7 mm  
 18-4062 17 cm, Ø 3.3 mm  
 18-4063 17 cm, Ø 4.0 mm



## Neuro-Caliper



### Neuro-Caliper

20 cm      16.5 cm scale      05-0555

### Solution Bowl

Height	Ø	Capacity	Art.-No.
cm / ''	cm / ''	l	
3.5 / 1 <sup>1</sup> / <sub>4</sub>	8.0 / 3	0.1	77-9095
5.5 / 2	9.0 / 3 <sup>1</sup> / <sub>2</sub>	0.2	77-9096
6.5 / 2 <sup>1</sup> / <sub>4</sub>	10.0 / 4	0.3	77-9097
7.0 / 2 <sup>1</sup> / <sub>2</sub>	12.0 / 4 <sup>1</sup> / <sub>2</sub>	0.4	77-9098



Solution Bowl

05-0555



Container System Dimensions mm	Art.-No. base perforated	Art.-No. base not perforated
600 x 290 x 250	77-1000	77-1020
600 x 290 x 170	77-1002	77-1022
600 x 290 x 130	77-1004	77-1024
600 x 290 x 100	77-1006	77-1026
300 x 290 x 250	77-1008	77-1028
300 x 290 x 170	77-1010	77-1030
300 x 290 x 130	77-1012	77-1032
300 x 290 x 100	77-1014	77-1034
300 x 165 x 100	77-1015	77-1035
300 x 165 x 60	77-1017	77-1037

**Wire-mesh trays with handles**

240 x 258 x 50 mm	77-1102
480 x 258 x 50	77-1100

For further information see special catalog  
"Sterilization containers"





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## Conversion scale

To Convert From	To	Multiply By
Ounces (AVDP.)	Grams	28.349
Ounces (APOTH.)	Grams	31.103
Grains	Grams	0.065
Pounds (AVDP.)	Kilograms	0.454
Inches	Centimeters	2.54
Feet	Meters	0.305
Yards	Meters	0.914
Ounces (U.S. Fluid)	Cubic Centimeters	29.574
Ounces (British Fluid)	Cubic Centimeters	28.414
Quarts (U.S. Fluid)	Liters	0.946
Cubic Inches	Cubic Centimeters	16.387
Grams	Grains	15.432
Grams	Ounces (AVDP.)	0.035
Grams	Ounces (APOTH.)	0.032
Kilograms	Pounds (AVDP.)	2.205
Millimeters	Inches	0.039
Centimeters	Inches	0.394
Meters	Feet	3.281
Cubic Centimeters	Cubic Inches	0.061
Cubic Centimeters (Fluid)	Ounces (U.S. Fluid)	0.034
Liters	Quarts (U.S. Fluid)	1.057

## Comparative scales or gauges

For Measuring the Diameter of Catheters, Sounds and Bougies

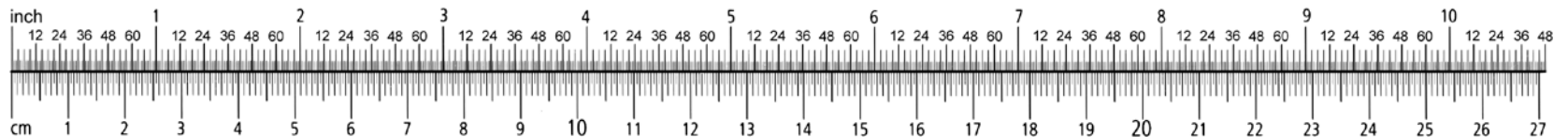
Diameters in				Diameters in			
Millimeters	American	French	English	Millimeters	American	French	English
1-3	–	1	–	7	14	21	–
1-2	1	–	–	7 1-3	–	22	12
2-3	–	2	–	7 1-2	15	–	–
1	2	3	–	7 2-3	–	23	13
1 1-3	–	4	–	8	16	24	–
1 1-2	3	–	–	8 1-3	–	25	14
1 2-3	–	5	–	8 1-2	17	–	–
2	4	6	–	8 2-3	–	26	15
2 1-63	–	7	1	9	18	27	16
2 1-2	5	–	–	9 1-3	–	28	17
2 2-3	–	8	2	9 1-2	19	–	–
3	6	9	3	9 2-3	–	29	–
3 1-3	–	10	–	10	20	30	18
3 1-2	7	–	–	10 1-3	–	31	19
3 2-3	–	11	4	10 1-2	21	–	–
4	8	12	5	10 2-3	–	32	20
4 1-3	–	13	–	11	22	33	21
4 1-2	9	–	–	11 1-3	–	34	22
4 2-3	–	14	–	11 1-2	23	–	–
5	10	15	6	11 2-3	–	35	23
5 1-3	–	16	7	12	24	36	24
5 1-2	11	–	–	12 1-3	–	37	25
5 2-3	–	17	8	12 1-2	25	–	–
6	12	18	9	12 2-3	–	38	26
6 1-3	–	19	10	13	26	39	27
6 1-2	13	–	–	13 1-3	–	40	28
6 2-3	–	20	11				



## Popular Instrument lengths approximate conversion

Inches	Centimeters (rounded)
1	2.5 cm
1 1/4	3 cm
1 1/2	4 cm
1 3/4	4.5 cm
2	5 cm
2 1/4	5.5 cm
2 1/2	6.5 cm
2 3/4	7 cm
3	7.5 cm
3 1/2	9 cm
4	10 cm
4 1/2	11.5 cm
4 3/4	12 cm
5	12.5 cm
5 1/2	14 cm
5 3/4	14.5 cm

Inches	Centimeters (rounded)
6	15 cm
6 1/2	16.5 cm
6 3/4	17 cm
7	18 cm
7 1/4	18.5 cm
7 1/2	19 cm
7 3/4	19.5 cm
8	20.5 cm
8 1/2	21.5 cm
8 3/4	22 cm
9	23 cm
9 1/2	24 cm
10	25.5 cm
10 1/2	26.5 cm
11	28 cm
11 1/2	29 cm
12	30.5 cm





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