

Aesculap Neurosurgery

Main Catalog



Welcome!

We are delighted to present you our Aesculap main catalog for neurosurgery with our current product portfolio, including plenty of new products.

Aesculap was founded in 1867 by Gottfried Jetter, a cutler by trade. Over more than 140 years, the small workshop and forge for production of surgical instruments in Tuttlingen, Germany developed into a global operation enjoying international success. Today, Aesculap is one of the four divisions of the B. Braun Melsungen AG, Germany.



Gottfried Jetter (fourth from right) founds Aesculap in 1867



Aesculap Global Headquarter in Tuttlingen, Germany



Neurosurgery has always been an important field of activity for Aesculap. The close cooperation and open dialog with neurosurgeons all over the world is a central element of our corporate philosophy, "Sharing Expertise".

Neurosurgical instruments appeared even in the first-ever Aesculap catalogs of 1887. Among the milestones for Aesculap Neurosurgery were the electric power system for trepanation (1935), the YASARGIL® aneurysm clips (1968), the pneumatic drill (1969), the CranioFix® clamp system for bone flap fixation (1997), the programmable MIETHKE® gravitational valve proGAV® (2003) and the KAIRison® pneumatic bone punch (2008).

The words "Made by Aesculap" have gained worldwide recognition as a synonym for unrivaled quality and reliability. Each of our products is characterized by functionality and continuity. Through innovative new products and continuous development of existing products, we make sure that surgical interventions of the central nervous system are becoming ever safer and more efficient.

Still, we see ourselves not just as a manufacturer and supplier of products for the neurosurgical operating room. We see ourselves also as your everyday partner, supporting you with individual advice and service as well as training and updating opportunities through the global Aesculap Academy. Your success is our success. Therefore, our Aesculap representatives are there to meet and exceed your needs no matter where in the world you may find yourself needing to conduct neurosurgery. In fact you will find this level of service in more than 60 countries around the world today.

We are conscious of your and therefore our immense responsibility for the well-

being of the patient. And we are happy and proud that our products are helping to restore the quality of their lives. It is always a wonderful feeling to be of help in this endeavor, even if the contribution of our products is only a small one.

We look forward to joining you in shaping the future of neurosurgery. As a company we are large enough to be a world leader among the suppliers for neurosurgery. At the same time, we are small enough to be involved at the personal level with your specific requirements. This is our pride and obligation: to be there for you as a personal partner and in so doing, be there for your patient as well. We are happy to share our expertise with you!



Aesculap catalog published in 1887



KAIRison® pneumatic bone punch

Please find further information:

neuro@aesculap.info
<http://www.aesculap-neuro.com>

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Container

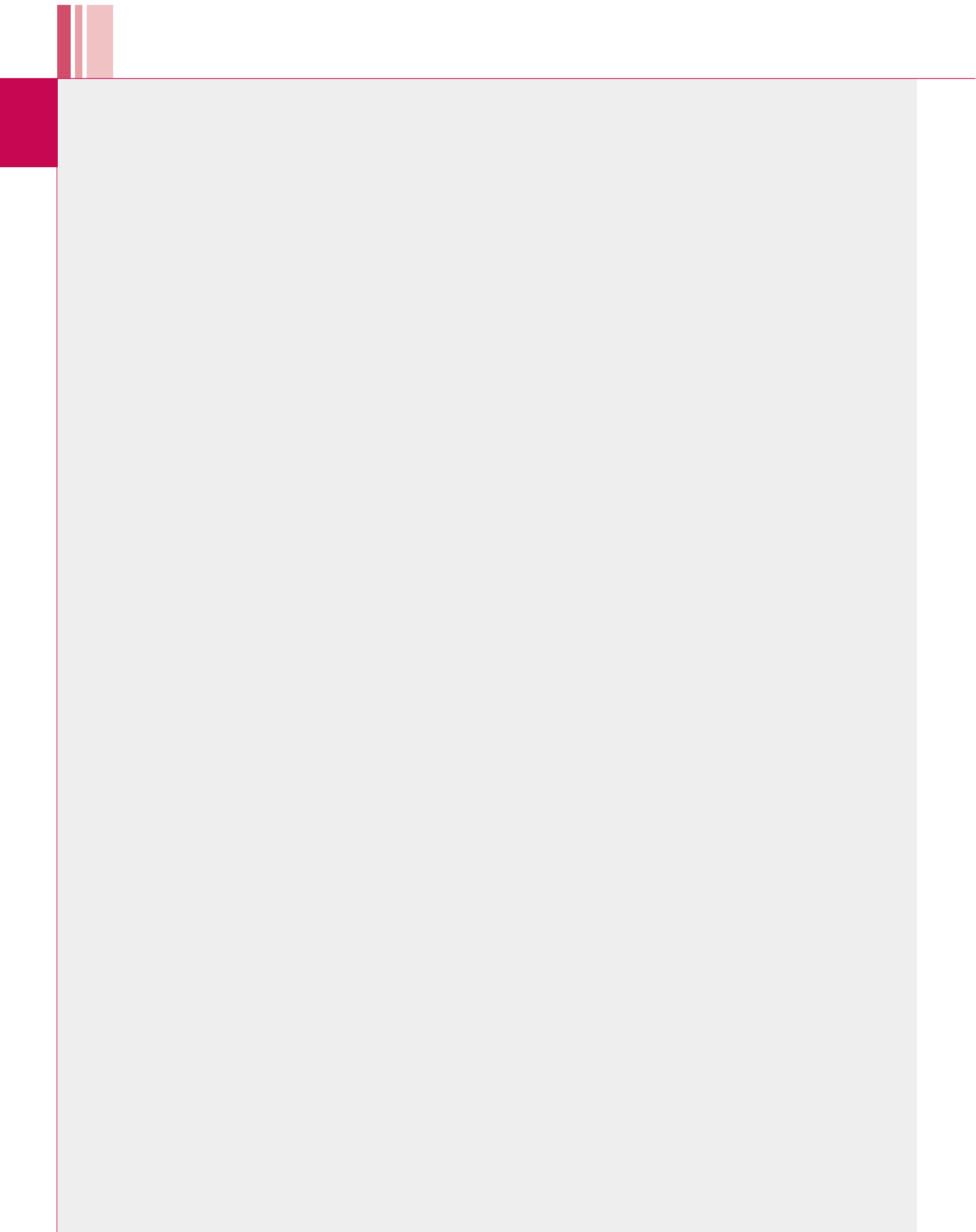
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Instruments



Instruments

Instruments

KAIRison Pneumatic Bone Punch

KAIRISON[®]



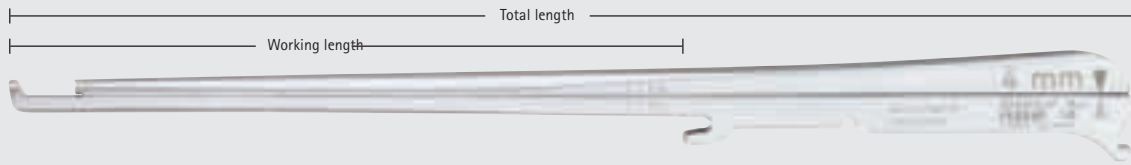
Pneumatic bone punch:

- easy to use
- ergonomic handle
- reduction of physical effort
- powerful, use of pressurized air
- suitable for right- or left-handed use
- simple shaft replacement
- different lengths and
- different widths available
- set up in just three easy steps
- safe and reliable



Instruments

KAIRison Pneumatic Bone Punch



Total length	Working length	Footplate	Width	Cat. No.	Ejector	Jaw opening
235 mm, 9 1/4"	140 mm, 5 1/2"	standard	2.0 mm	FK882R	✓	12 mm
	140 mm, 5 1/2"	standard	3.0 mm	FK883R	✓	12 mm
	140 mm, 5 1/2"	standard	4.0 mm	FK884R	✓	12 mm
	140 mm, 5 1/2"	standard	5.0 mm	FK885R	✓	12 mm
	140 mm, 5 1/2"	standard	6.0 mm	FK886R	✓	12 mm
285 mm, 11 1/4"	190 mm, 7 1/2"	standard	2.0 mm	FK892R	✓	12 mm
	190 mm, 7 1/2"	standard	3.0 mm	FK893R	✓	12 mm
	190 mm, 7 1/2"	standard	4.0 mm	FK894R	✓	12 mm
	190 mm, 7 1/2"	standard	5.0 mm	FK895R	✓	12 mm
	190 mm, 7 1/2"	standard	6.0 mm	FK896R	✓	12 mm

Width (mm)

2.0

3.0

4.0

5.0

6.0



FK899R

Pneumatic punch handle

FK898R

Pressure reducer

FK887R

Punch bracket for pressure reducer



FK888SU

Disposable tubes

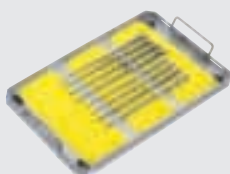
Sales unit:

PAK = Package of 10 tubes



FK881R

Storage rack for KAIRison handle and pressure reducer



FK891R

Storage rack for KAIRison shafts



GA466

Pneumatic hose (5 m) with Aesculap-Dräger connection

GA468

Pneumatic hose (5 m) with Aesculap-Schrader connection

Bone

MILLIMETERS

Instruments

KERRISON Bone Punches



Non detachable punches

- Proven cutting angle for best cutting quality and durability
- Thin footplate:
 - identified by golden distal end

Detachable punches

Intraoperatively

- Good cutting properties
- Long durability
- Easy removal of material

Postoperatively

- Easy disassembly and assembly
- Efficient cleaning and sterilization

Kerrison Noir®

Black

- Surface coating prevents irritating light reflections.

Hard

- The surface hardness, to improve the cutting characteristics and extend the service life.

Smooth

- The smooth Noir® surface ensures optimum gliding properties and enhances sticking resistance.

Detachable

- The Noir® bone punch can be taken apart easily, without any tools - for efficient reprocessing.



Instruments

KERRISON Bone Punches

Bone

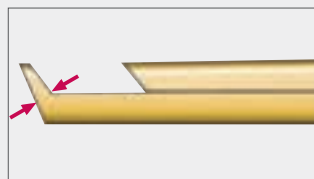
Please find further information on the internet:

www.aesculap-neuro.com

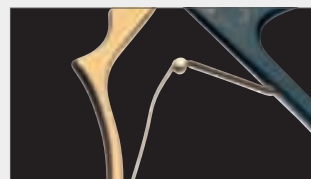
Complete product range:

- 90°/130° upwards/downwards cutting
- with regular/thin foot plate
- standard/wide jaw opening
- length:
 - 180 mm (7")
 - 200 mm (8")
 - 230 mm (9")
 - 280 mm (11")
- width of jaw: 1-6 mm
- half-sizes: 1.5 mm, 2.5 mm width

Features:



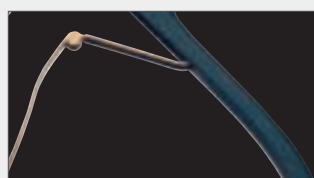
Kerrison punches with a **thin footplate** are marked with a golden distal end.



Kerrison Noir® punches with a **thin footplate** are marked with a golden inner handle.



The numerical code ensures a safe and easy assignment and assembly of the two bone punch components which belong together.



The **golden spring** stands for easy identification of detachable bone punches.



Ejector – for the easy removal of punched-out material.

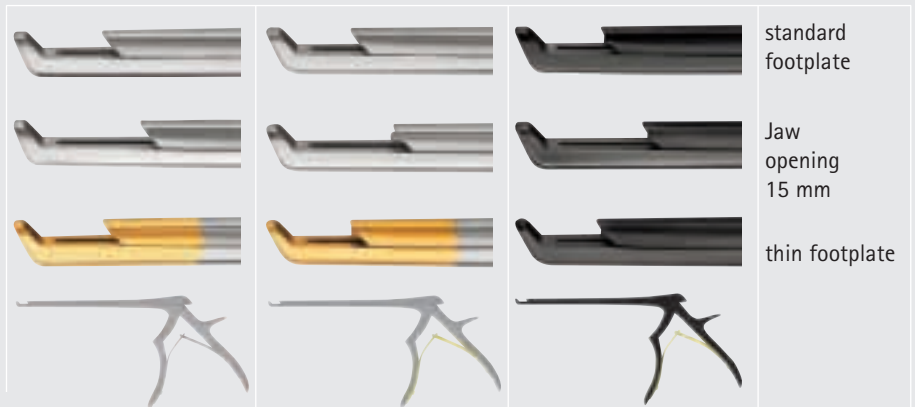


Large number for identification of jaw width a glance.

MILLIMETERS

Instruments

KERRISON Bone Punches



Jaw position 130°, upward opening

Shaft length	Width	Footplate	Non detachable, without ejector	Detachable	Ejector	NOIR®, detachable	Ejector	Jaw opening
180 mm, 7"	1.0 mm	standard	FF715R	FK900R	-	FK900B	-	8 mm
	1.5 mm	standard	FF638R	FK911R	-	FK911B	-	9 mm
	2.0 mm	standard	FF717R	FK901R	✓	FK901B	✓	9 mm
	2.5 mm	standard	FF639R	FK912R	✓	FK912B	✓	10 mm
	3.0 mm	standard	FF720R	FK902R	✓	FK902B	✓	10 mm
	4.0 mm	standard	FF724R	FK903R	✓	FK903B	✓	12 mm
	5.0 mm	standard	FF722R	FK904R	✓	FK904B	✓	12 mm
	6.0 mm	standard	FF726R	FK905R	✓	FK905B	✓	12 mm
	1.0 mm	thin	FF771R	FK906R	-	FK906B	-	8 mm
	1.5 mm	thin	FF645R	FK923R	-	FK923B	-	9 mm
	2.0 mm	thin	FF772R	FK907R	✓	FK907B	✓	9 mm
	2.5 mm	thin	FF646R	FK924R	✓	FK924B	✓	10 mm
	3.0 mm	thin	FF773R	FK908R	✓	FK908B	✓	10 mm
	4.0 mm	thin	FF769R	FK909R	✓	FK909B	✓	12 mm
	5.0 mm	thin	FF770R	FK910R	✓	FK910B	✓	12 mm
	1.5 mm	standard	FF647R	FK941R	-	FK941B	-	15 mm
	2.0 mm	standard	FF677R	FK971R	✓	FK971B	✓	15 mm
	2.5 mm	standard	FF648R	FK942R	✓	FK942B	✓	15 mm
	3.0 mm	standard	FF678R	FK972R	✓	FK972B	✓	15 mm
	4.0 mm	standard	FF679R	FK973R	✓	FK973B	✓	15 mm
	5.0 mm	standard	FF680R	FK974R	✓	FK974B	✓	15 mm
	6.0 mm	standard	FF681R	FK975R	✓	FK975B	✓	15 mm

Width (mm)

1.0

1.5

2.0

2.5

3.0

4.0

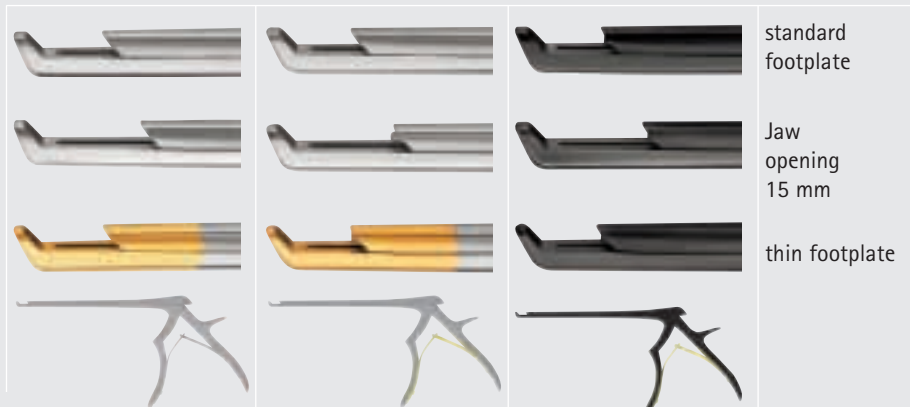
5.0

6.0



Instruments

KERRISON Bone Punches



Jaw position 130°, upward opening

Shaft length	Width	Footplate	Non detachable, without ejector	Detachable	Ejector	NOIR®, detachable	Ejector	Jaw opening
200 mm, 8"	1.5 mm	standard	FF649R	FK966R	-	FK966B	-	9 mm
	2.0 mm	standard	FF737R	FK913R	✓	FK913B	✓	9 mm
	2.5 mm	standard	FF657R	FK967R	✓	FK967B	✓	10 mm
	3.0 mm	standard	FF738R	FK914R	✓	FK914B	✓	10 mm
	4.0 mm	standard	FF727R	FK915R	✓	FK915B	✓	12 mm
	5.0 mm	standard	FF728R	FK916R	✓	FK916B	✓	12 mm
	6.0 mm	standard	FF729R	FK917R	✓	FK917B	✓	12 mm
	1.0 mm	thin	FF661R	FK961R	-	FK961B	-	8 mm
	1.5 mm	thin	FF658R	FK968R	-	FK968B	-	9 mm
	2.0 mm	thin	FF662R	FK962R	✓	FK962B	✓	9 mm
	2.5 mm	thin	FF659R	FK969R	✓	FK969B	✓	10 mm
	3.0 mm	thin	FF663R	FK963R	✓	FK963B	✓	10 mm
	4.0 mm	thin	FF664R	FK964R	✓	FK964B	✓	12 mm
	5.0 mm	thin	FF665R	FK965R	✓	FK965B	✓	12 mm
	2.0 mm	standard	FF660R	FK970R	✓	FK970B	✓	15 mm
	3.0 mm	standard	FF739R	FK982R	✓	FK982B	✓	15 mm
	4.0 mm	standard	FF745R	FK983R	✓	FK983B	✓	15 mm
	5.0 mm	standard	FF751R	FK984R	✓	FK984B	✓	15 mm
	6.0 mm	standard	FF753R	FK985R	✓	FK985B	✓	15 mm
230 mm, 9"	2.0 mm	standard	FF682R	FK919R	✓			9 mm
	3.0 mm	standard	FF683R	FK920R	✓			10 mm
	4.0 mm	standard	FF684R	FK921R	✓			12 mm
	5.0 mm	standard	FF685R	FK922R	✓			12 mm
	2.0 mm	thin	FF746R	FK925R	✓	FK925B	✓	9 mm
	3.0 mm	thin	FF747R	FK926R	✓	FK926B	✓	10 mm
	4.0 mm	thin	FF748R	FK927R	✓	FK927B	✓	12 mm
	5.0 mm	thin	FF749R	FK928R	✓	FK928B	✓	12 mm
280 mm, 11"	2.0 mm	thin	FF666R	FK976R	✓	FK976B	✓	9 mm
	3.0 mm	thin	FF667R	FK977R	✓	FK977B	✓	10 mm
	4.0 mm	thin	FF668R	FK978R	✓	FK978B	✓	12 mm
	5.0 mm	thin	FF669R	FK979R	✓	FK979B	✓	12 mm

Width (mm)

1.0

1.5

2.0

2.5

3.0

4.0

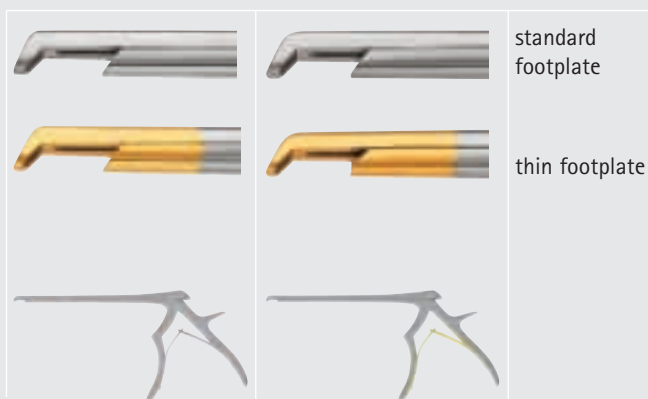
5.0

6.0

MILLIMETERS

Instruments

KERRISON Bone Punches



Jaw position 130°, downward opening

Shaft length	Width	Footplate	Non detachable, without ejector	Detachable	Ejector	Jaw opening
180 mm, 7"	1.0 mm	standard	FF711R	FK930R	-	8 mm
	2.0 mm	standard	FF712R	FK931R	✓	9 mm
	3.0 mm	standard	FF713R	FK932R	✓	10 mm
	4.0 mm	standard	FF714R	FK933R	✓	12 mm
	5.0 mm	standard	FF725R	FK934R	✓	12 mm
	1.0 mm	thin	FF781R	FK936R	-	8 mm
	2.0 mm	thin	FF782R	FK937R	✓	9 mm
	3.0 mm	thin	FF783R	FK938R	✓	10 mm
	4.0 mm	thin	FF784R	FK939R	✓	12 mm
	5.0 mm	thin	FF785R	FK940R	✓	12 mm
230 mm, 9"	2.0 mm	standard	FF692R	FK943R	✓	9 mm
	3.0 mm	standard	FF693R	FK944R	✓	10 mm
	4.0 mm	standard	FF694R	FK945R	✓	12 mm
	5.0 mm	standard	FF695R	FK946R	✓	12 mm

Width (mm)

1.0

2.0

3.0

4.0

5.0



Instruments

KERRISON Bone Punches

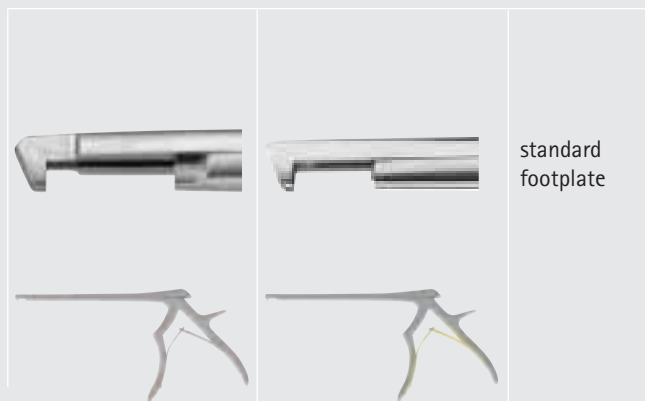


standard footplate

Jaw position 90°, upward opening

Shaft length	Width	Footplate	Non detachable, without ejector	Detachable	Ejector	NOIR®, detachable	Ejector	Jaw opening
180 mm, 7"	1.0 mm	standard	FF716R	FK948R	-	FK948B	-	8 mm
	2.0 mm	standard	FF718R	FK949R	✓	FK949B	✓	9 mm
	3.0 mm	standard	FF750R	FK950R	✓	FK950B	✓	10 mm
	4.0 mm	standard	FF752R	FK951R	✓	FK951B	✓	12 mm
	5.0 mm	standard	FF754R	FK952R	✓	FK952B	✓	12 mm
	6.0 mm	standard	FF755R	FK953R	✓	FK953B	✓	12 mm

Width (mm) 1.0 2.0 3.0 4.0 5.0 6.0



standard footplate

Jaw position 90°, downward opening

Shaft length	Width	Footplate	Non detachable, without ejector	Detachable	Ejector	Jaw opening
180 mm, 7"	1.0 mm	standard	FF741R	FK954R	-	8 mm
	2.0 mm	standard	FF719R	FK955R	✓	9 mm
	3.0 mm	standard	FF721R	FK956R	✓	10 mm
	4.0 mm	standard	FF742R	FK957R	✓	12 mm
	5.0 mm	standard	FF723R	FK958R	✓	12 mm
	6.0 mm	standard	FF743R	FK959R	✓	12 mm

Width (mm) 1.0 2.0 3.0 4.0 5.0 6.0



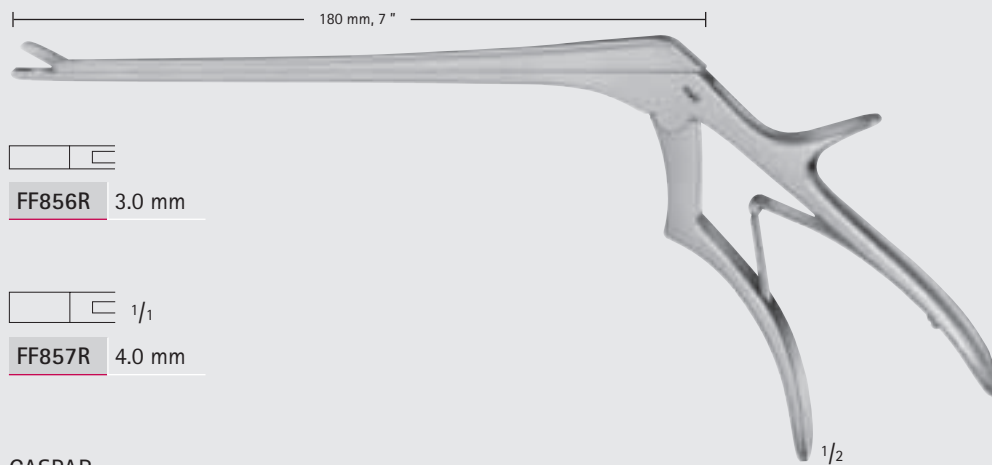
Bone

MILLIMETERS

Instruments

Rongeurs

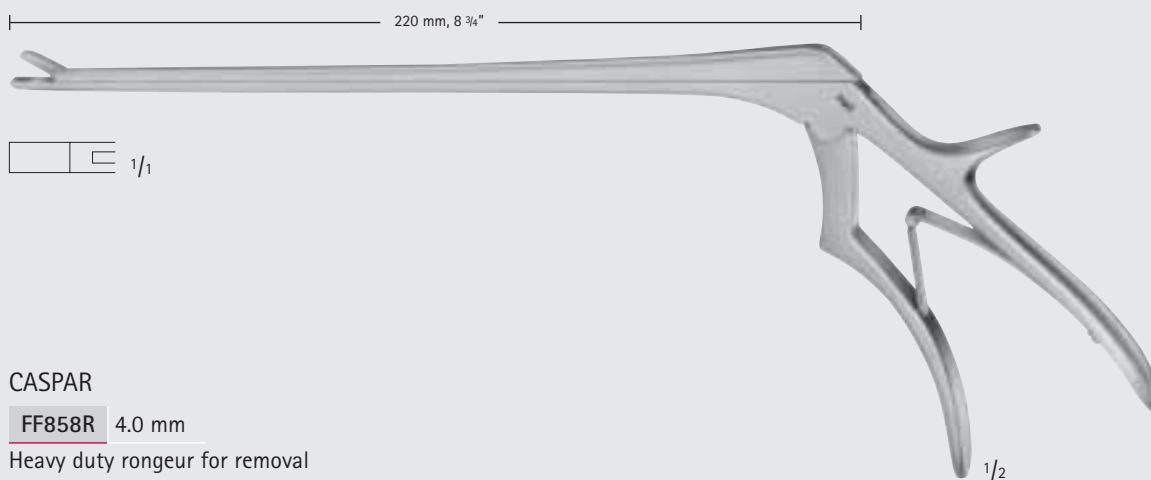
Bone



CASPAR

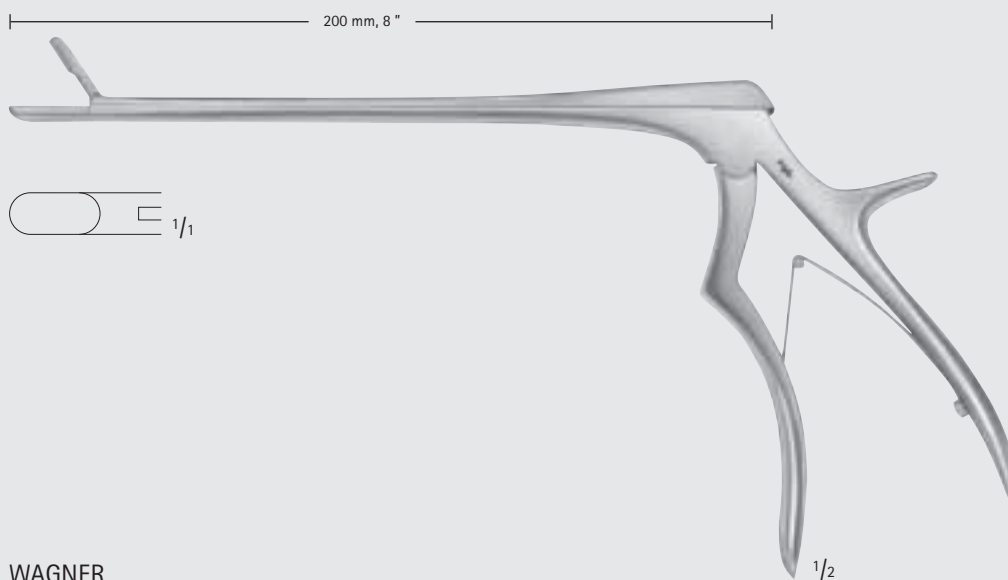
FF856R-FF857R

Heavy duty rongeurs for removal of hard disc pathology



CASPAR

Heavy duty rongeur for removal of hard disc pathology

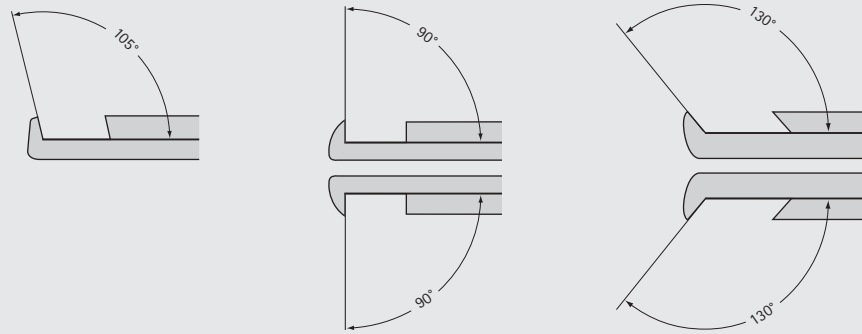


WAGNER

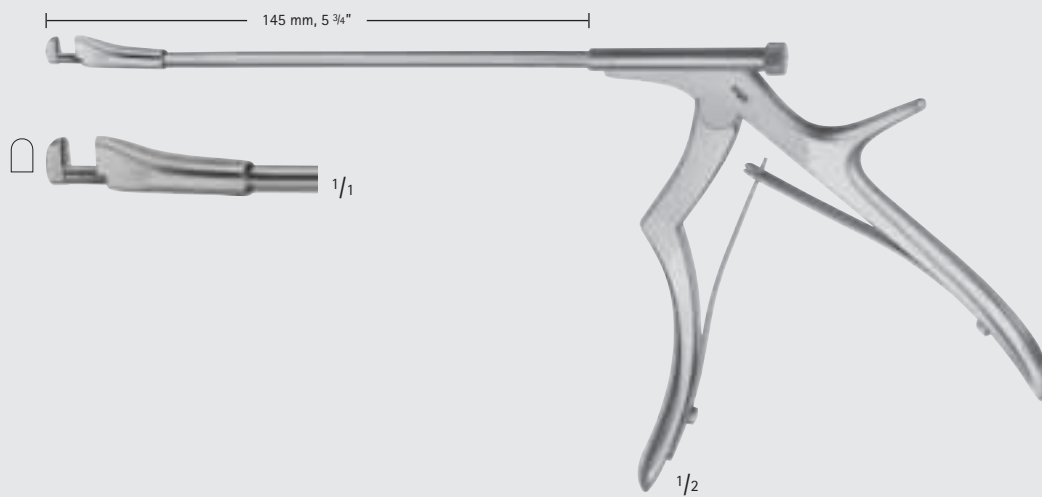


Instruments Punches

Angled positions for punches



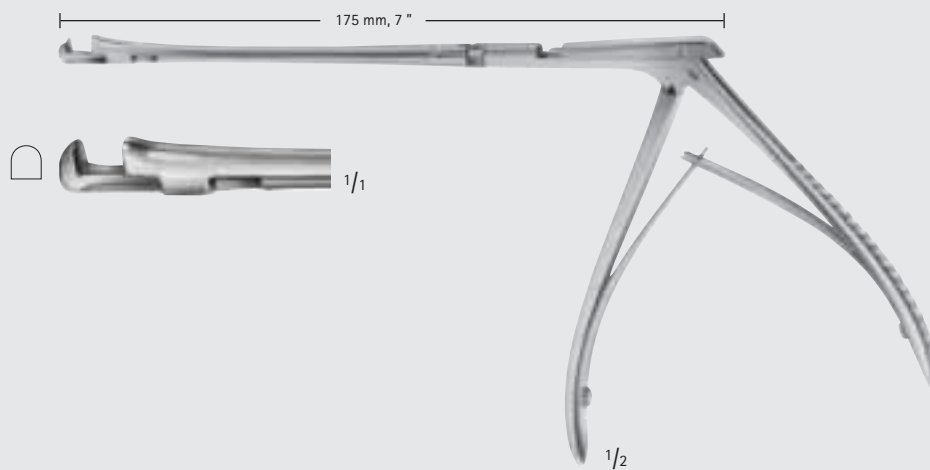
90° upwards cutting
rotates 360°



KOFLER

OK737R 3.0 mm

90° upwards cutting
rotates 360°



HAJEK-KOFLER

OK745R 4.0 mm

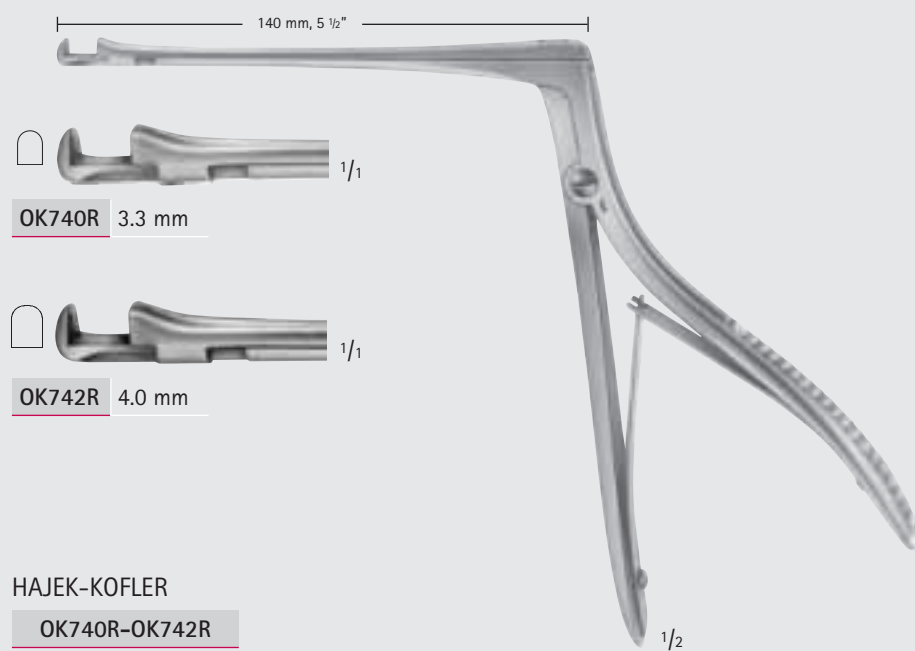
Bone

MILLIMETERS

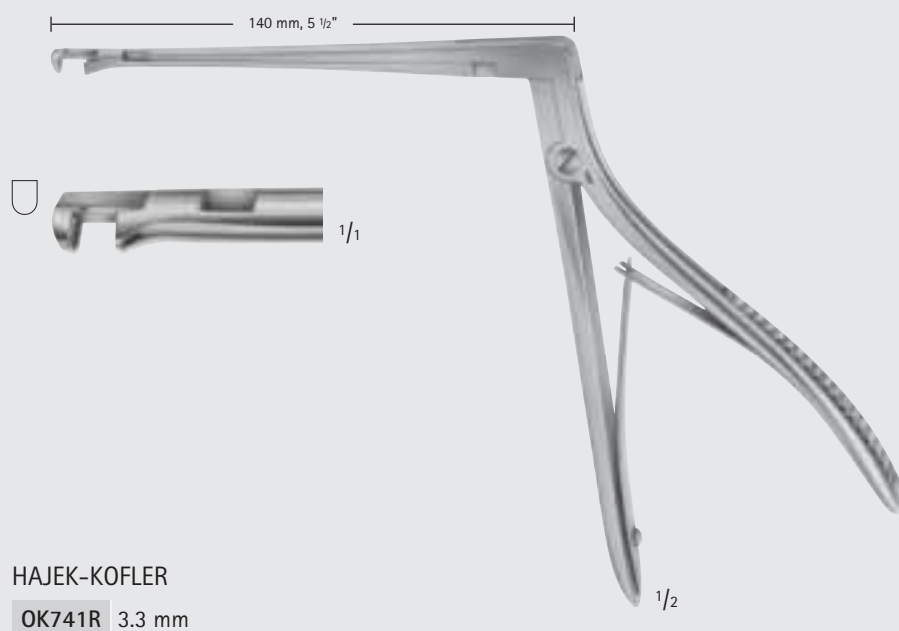
Instruments

Punches

90° upwards cutting



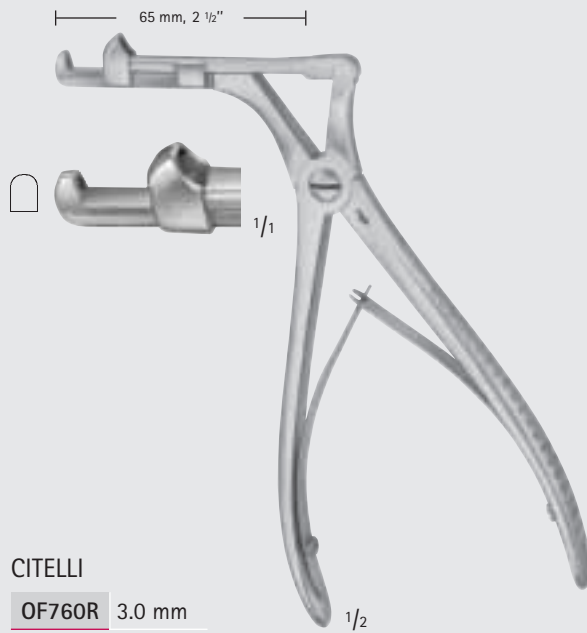
90° downwards cutting



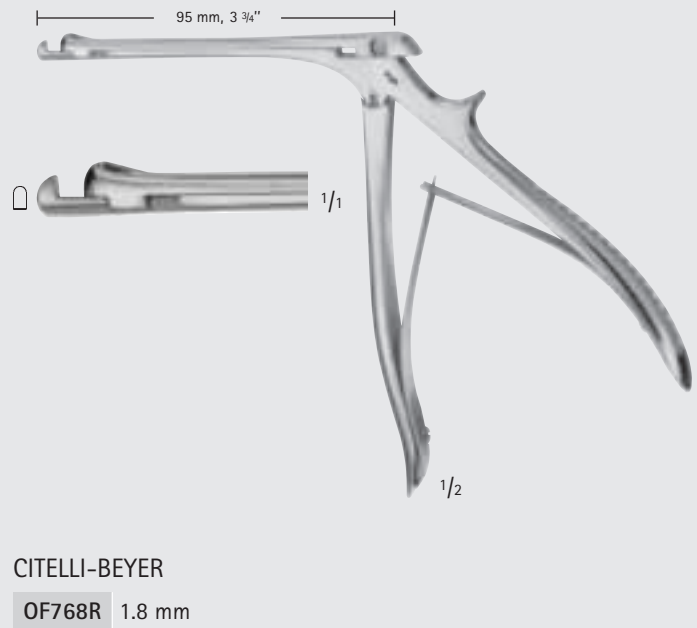


Instruments Punches

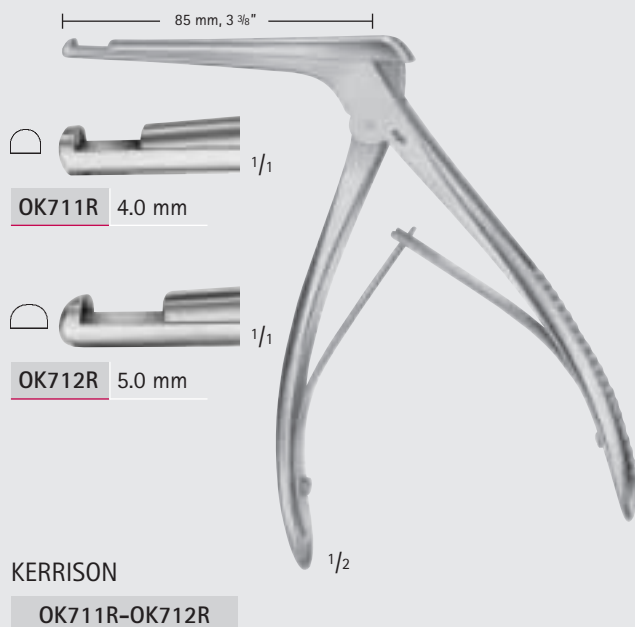
90° upwards cutting



90° upwards cutting



90° upwards cutting



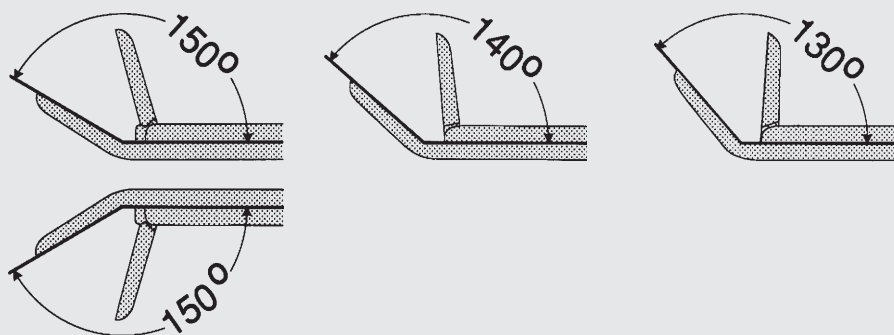
Bone

MILLIMETERS

Instruments

Rongeurs

Angled positions for rongeurs



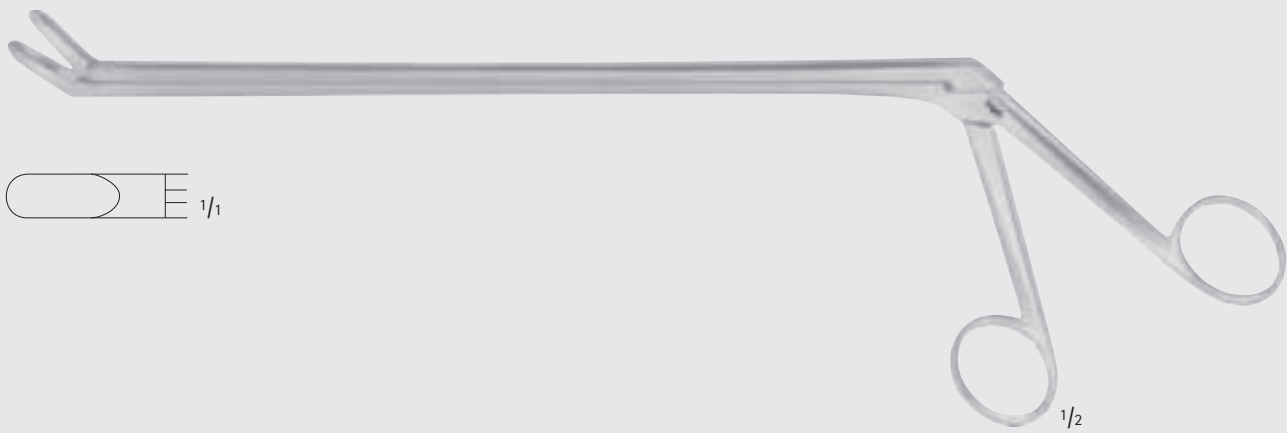


Instruments Rongeurs

Bone

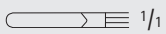
150°

260 mm, 10 1/4"



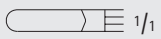
SYPERT

FG057R 5.5 mm



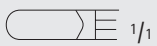
CUSHING

FF803R 2 x 10 mm



LOVE-GRUENWALD

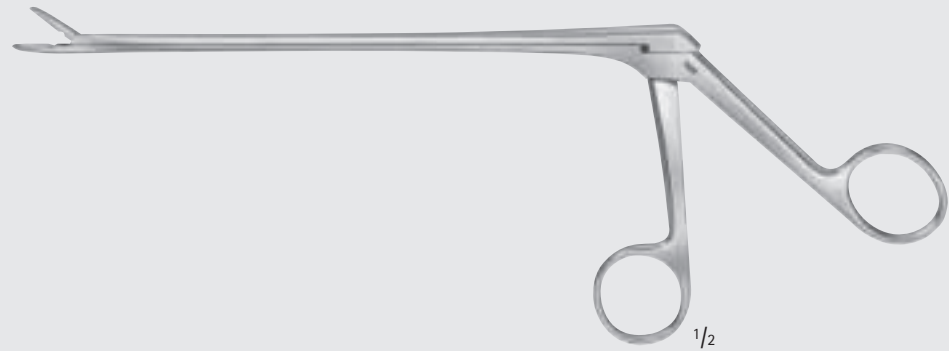
FF805R 3 x 10 mm



SPURLING

FF807R 4 x 10 mm

180 mm, 7"



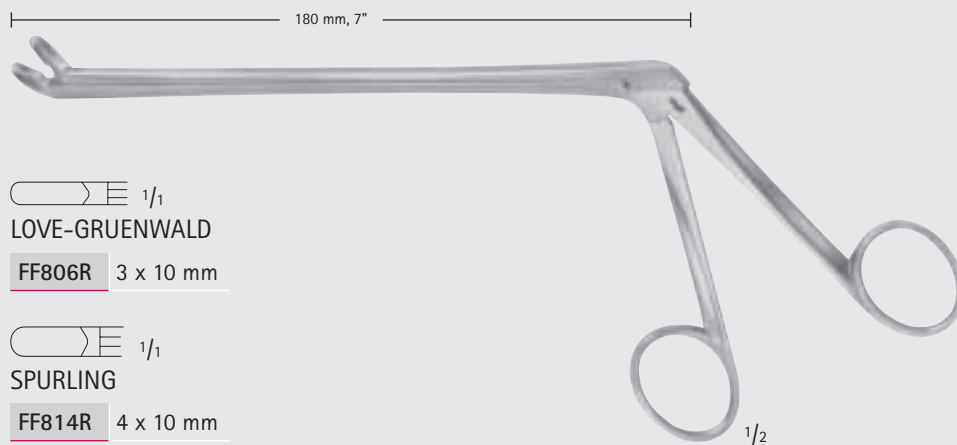
FF803R-FF807R

MILLIMETERS

Instruments

Rongeurs

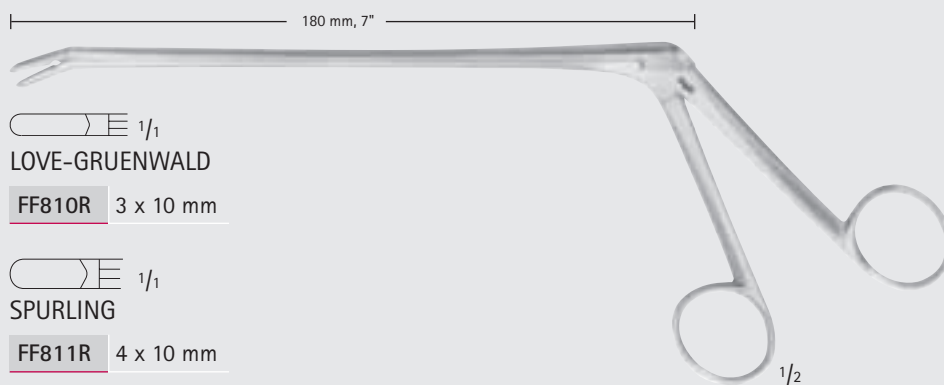
150°



FF806R-FF814R

150°

upper part of jaw movable

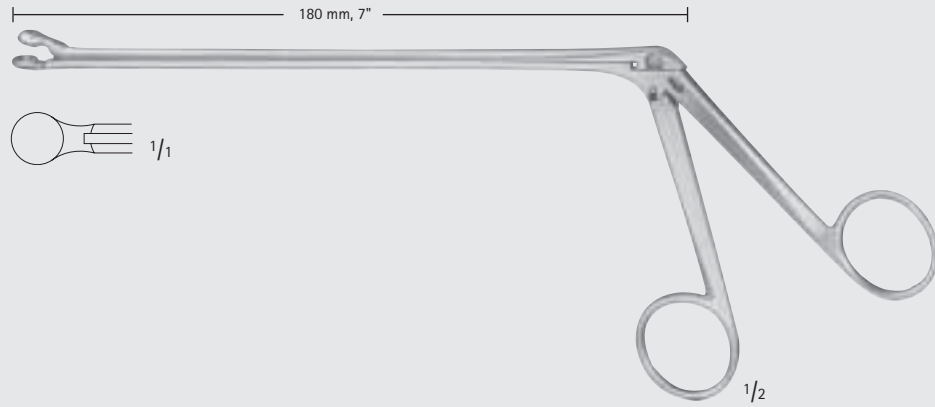


FF810R-FF811R



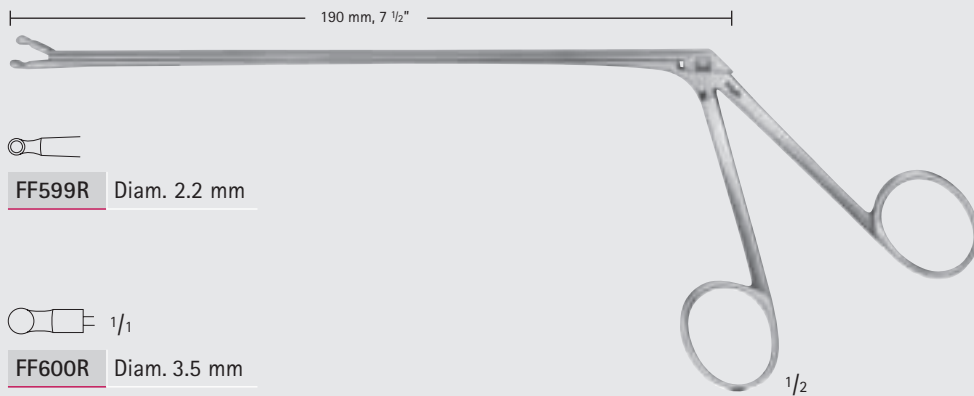
Instruments Rongeurs

Bone



OLDBERG

FF605R Diam. 7.0 mm



FF599R Diam. 2.2 mm



FF600R Diam. 3.5 mm

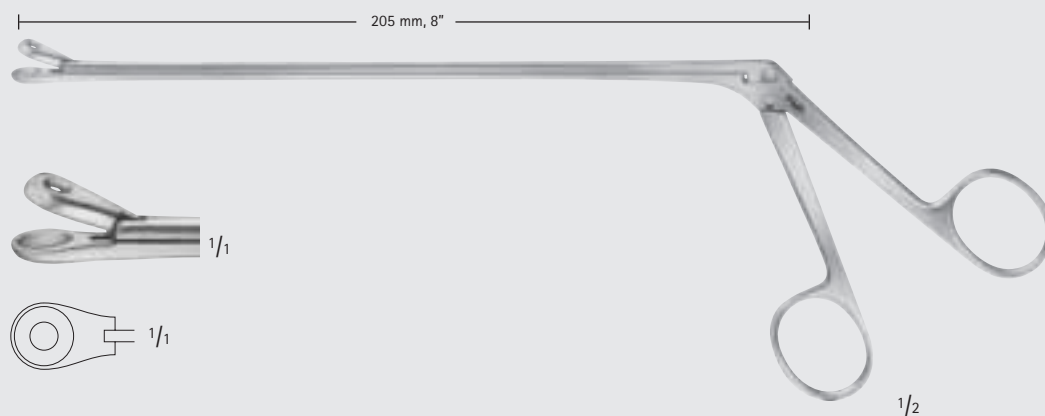
YASARGIL

FF599R-FF600R

MILLIMETERS

Instruments

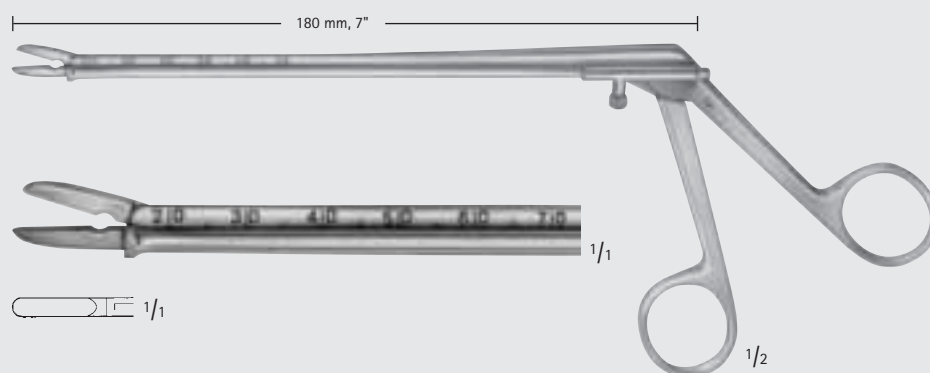
Rongeurs



LANDOLT

FF345R Diam. 9.0 mm

Tumor grasping forceps, blunt



KRÄMER

FF820R 2.5 x 10 mm

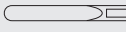
Rongeur with depth guard


Bone

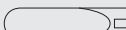
INCHES

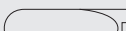


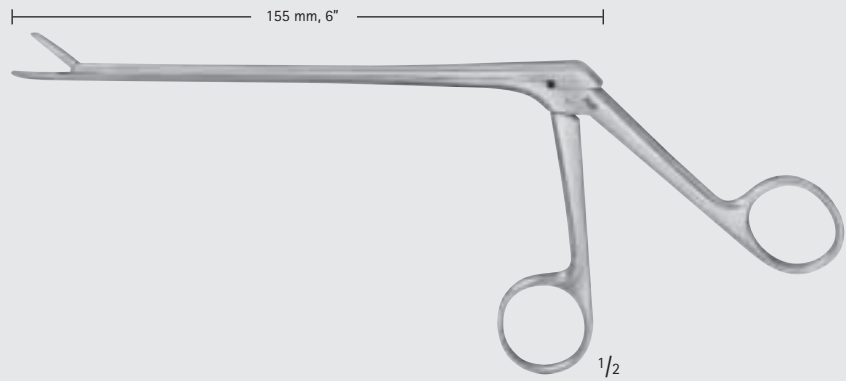
Instruments Rongeurs

 1/1
FF832R 2.0 mm

 1/1
FF833R 3.0 mm

 1/1
FF834R 4.0 mm


 1/1
FF835R 5.0 mm

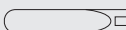



CASPAR

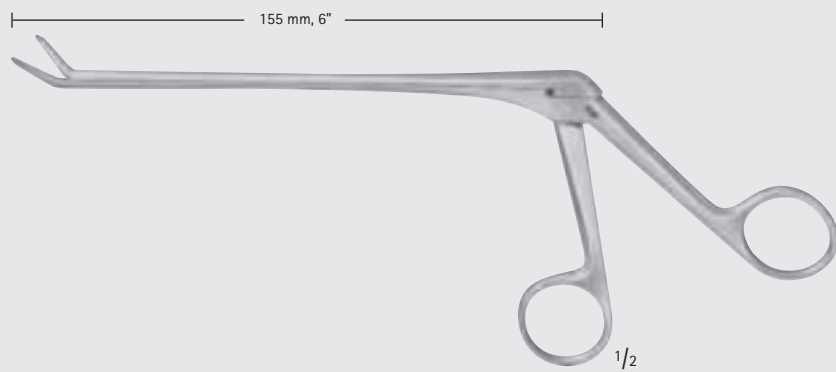
FF832R-FF835R

150°

 1/1
FF842R 2.0 mm

 1/1
FF843R 3.0 mm

 1/1
FF844R 4.0 mm




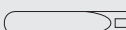
CASPAR


FF842R-FF844R

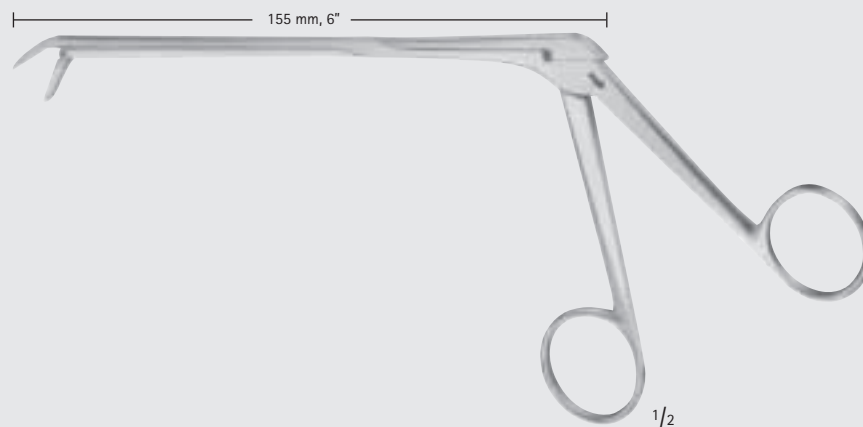
150°

lower part of jaw movable

 1/1
FF852R 2.0 mm

 1/1
FF853R 3.0 mm

 1/1
FF854R 4.0 mm



CASPAR

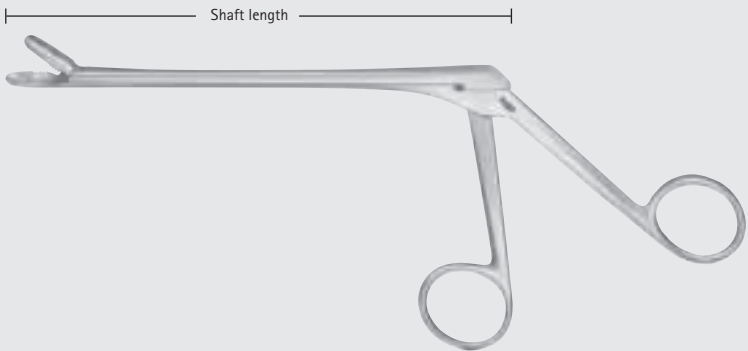
FF852R-FF854R

Bone

MILLIMETERS






Instruments

Rongeurs

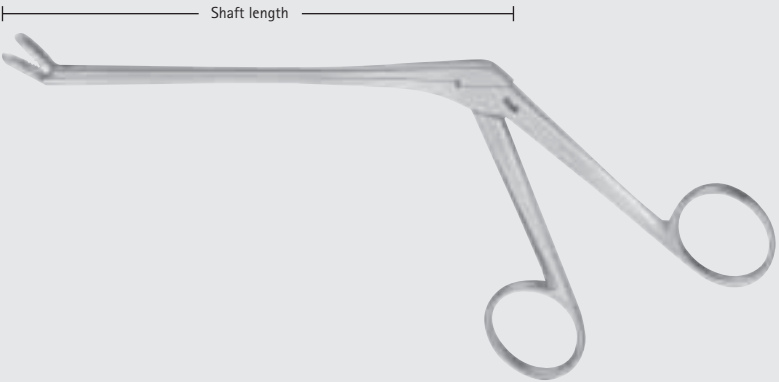


CASPAR

FF502R-FF566R




	Jaw size				
Shaft length	 2 x 12 mm	 3 x 12 mm	 4 x 14 mm	 5 x 14 mm	 6 x 16 mm
140 mm, 5 1/2"	FF502R	FF503R	FF504R		
160 mm, 6 1/4"	FF532R	FF533R	FF534R	FF535R	FF536R
185 mm, 7 1/4"	FF562R	FF563R	FF564R	FF565R	FF566R

150°



CASPAR

FF513R-FF575R

	Jaw size		
Shaft length	 3 x 12 mm	 4 x 14 mm	 5 x 14 mm
140 mm, 5 1/2"	FF513R	FF514R	
160 mm, 6 1/4"	FF543R	FF544R	FF545R
185 mm, 7 1/4"	FF573R	FF574R	FF575R

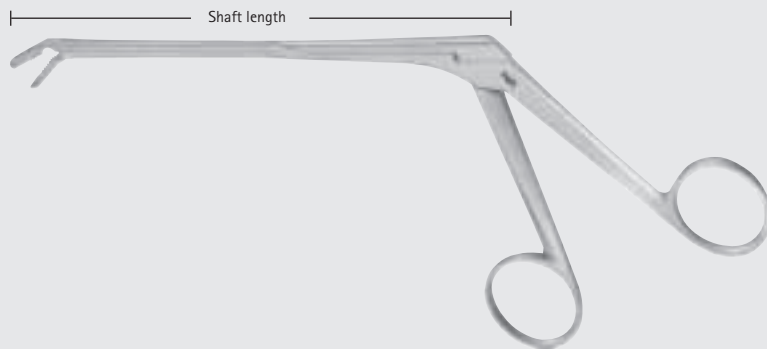


Instruments

Rongeurs



150°

lower part of jaw movable



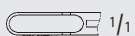
CASPAR

FF523R-FF584R

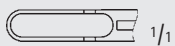
Shaft length	Jaw size	
	 3 x 12 mm	 4 x 14 mm
140 mm, 5 1/2"	FF523R	FF524R
160 mm, 6 1/4"	FF553R	FF554R
185 mm, 7 1/4"	FF583R	FF584R

150°

140 mm, 5 1/2"



FF777R 3,0 mm



FF778R 4,0 mm



CUSHING

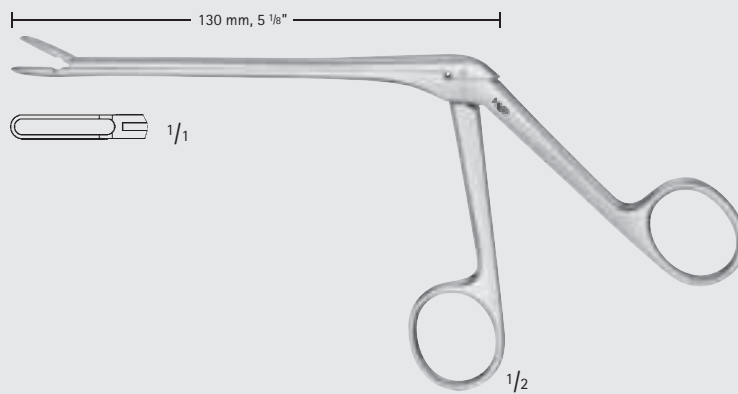
FF777R-FF778R

Bone

MILLIMETERS

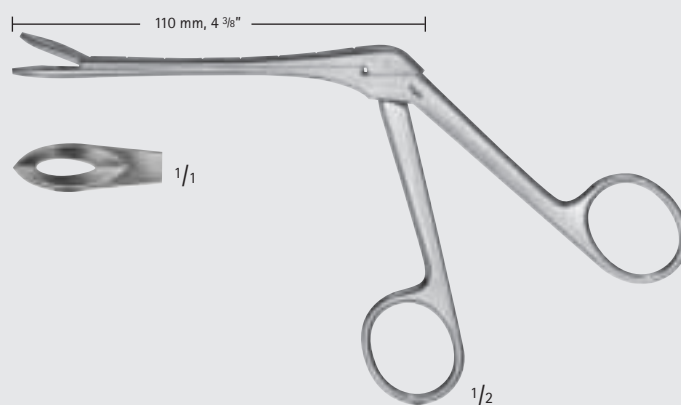
Instruments

Rongeurs



PENNYBACKER

FF779R 3.0 mm



HENCKEL-TILLEY

OK503R 6.5 mm

Shaft graduated in cm

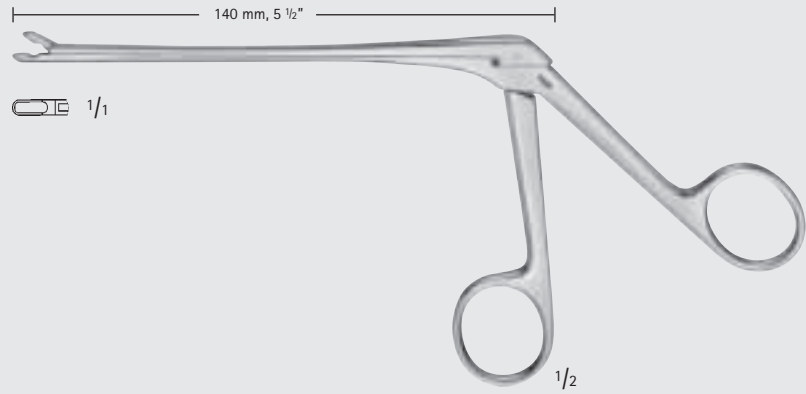
Bone

INCHES



Instruments Rongeurs

Bone



BECK

FF765R 2.0 mm



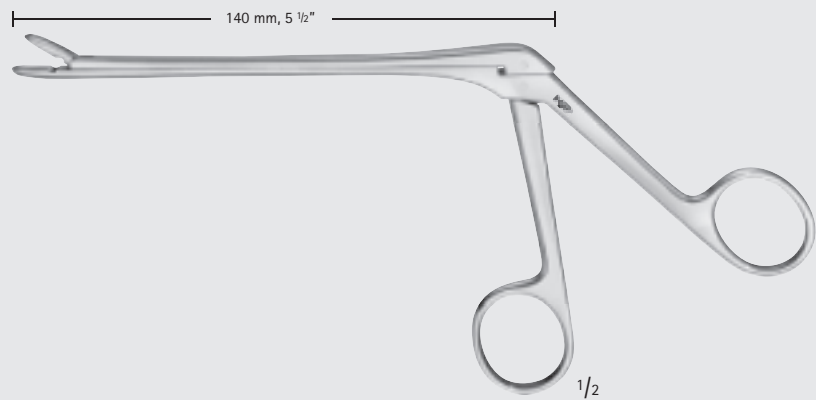
FF766R 4.0 mm



FF767R 5.0 mm



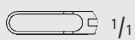
FF768R 6.0 mm



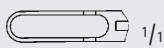
CUSHING

FF766R-FF768R

150°



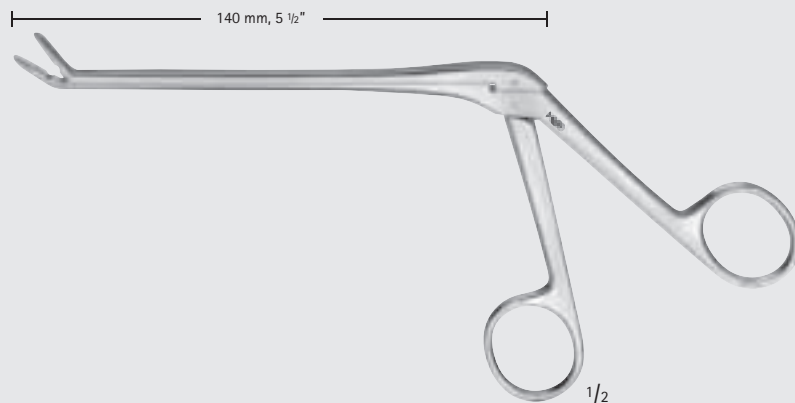
FF774R 3.0 mm



FF775R 4.0 mm



FF776R 5.0 mm



CUSHING

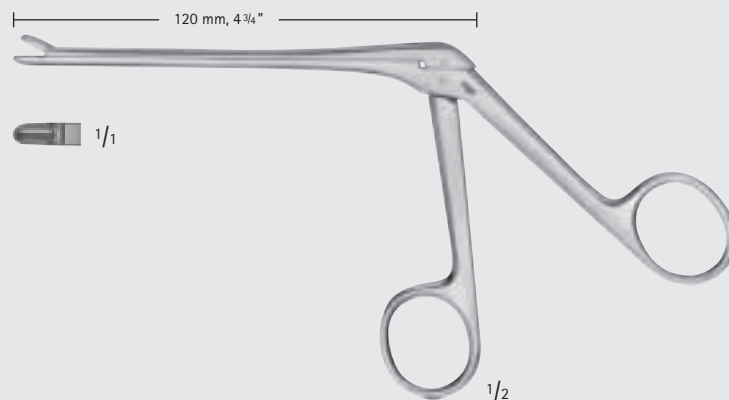
FF774R-FF776R

MILLIMETERS

Instruments

Rongeurs

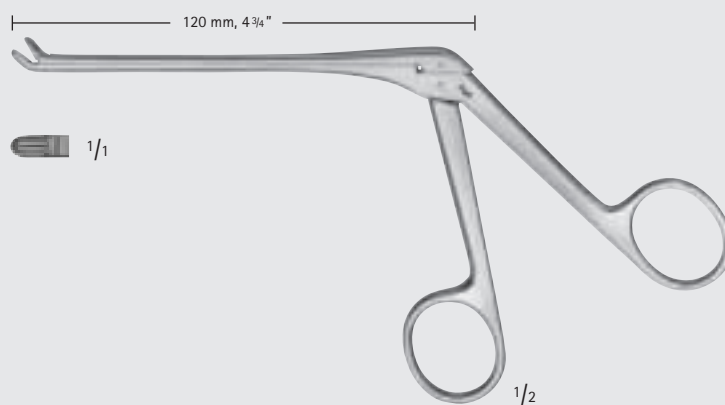
Bone



ST. BARTS

OK536R 3,0 mm

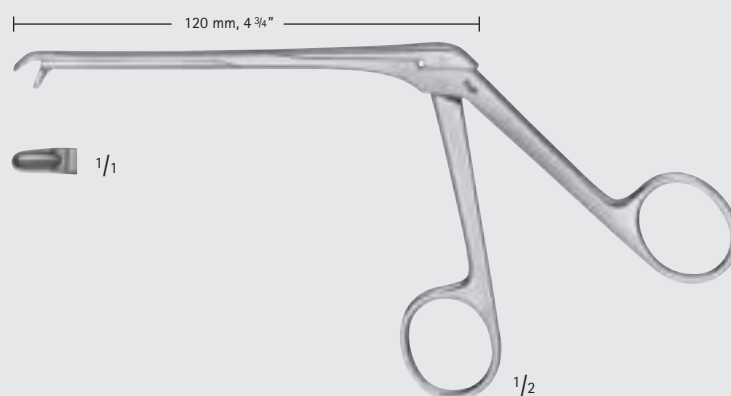
140°



ST. BARTS

OK537R 3,0 mm

140°



ST. BARTS

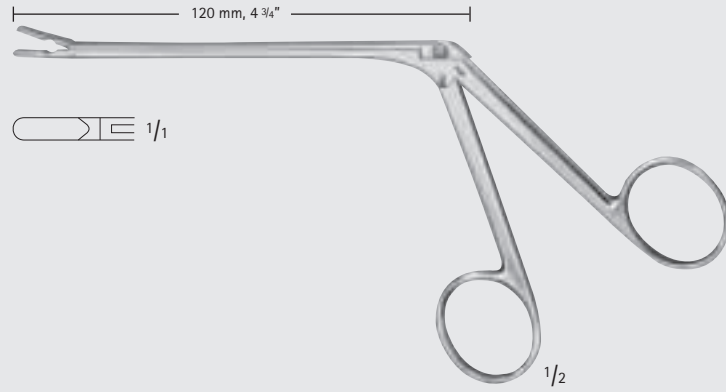
OK538R 3,0 mm

INCHES



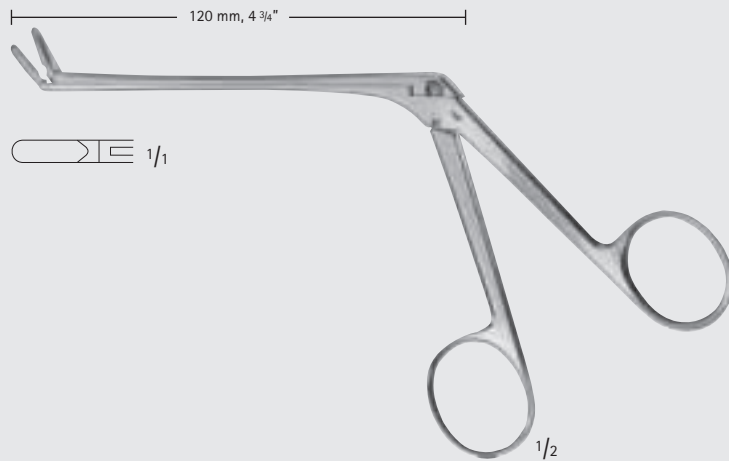
Instruments Rongeurs

Bone




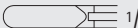
TAKAHASHI
OK525R 3,0 mm


130°

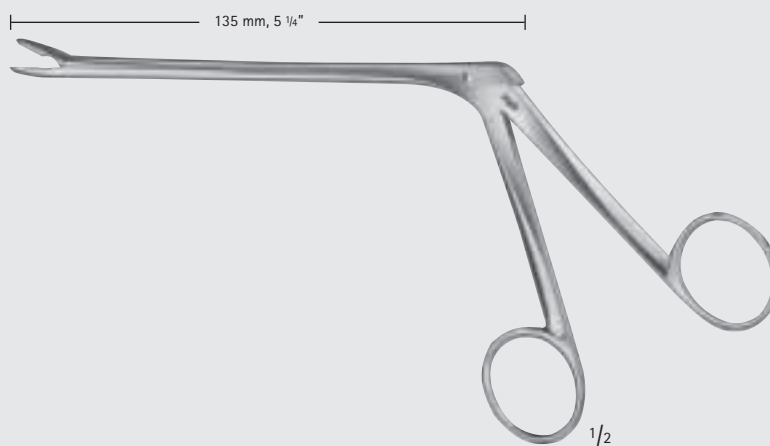


TAKAHASHI
OK526R 3,0 mm

 1/1
LOVE-GRUENWALD
FF799R 2 x 10 mm

 1/1
LOVE-GRUENWALD
FF800R 3 x 10 mm

 1/1
SPURLING
FF801R 4 x 10 mm




FF799R-FF801R

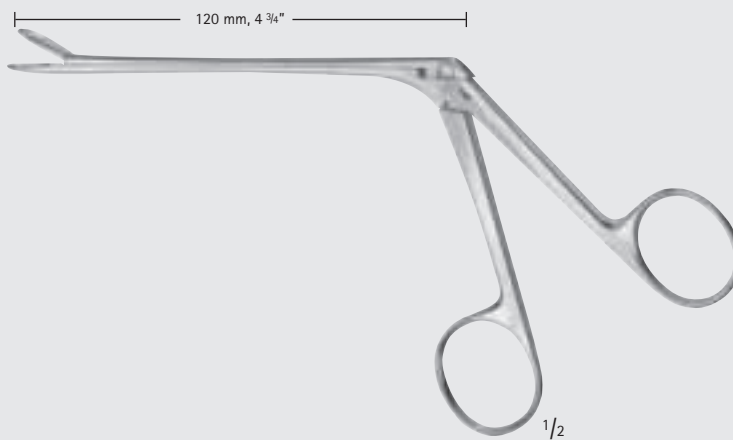
MILLIMETERS

Instruments

Rongeurs

Bone

	1/1
OK505R	3.0 mm
	1/1
OK506R	3.6 mm
	1/1
OK507R	4.2 mm
	1/1
OK508R	4.8 mm
	1/1
OK509R	5.6 mm

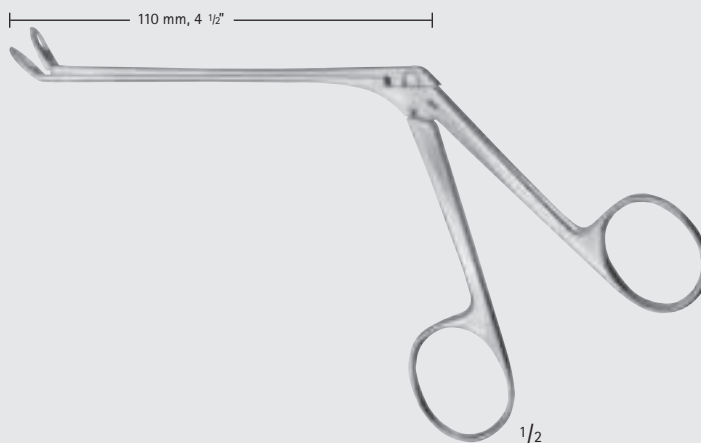


WEIL-BLAKESLEY

OK505R-OK509R

140°

	1/1
OK520R	3.6 mm
	1/1
OK521R	4.2 mm
	1/1
OK522R	4.8 mm



WEIL-BLAKESLEY

OK520R-OK522R



Instruments

Bone Rongeurs

Bone

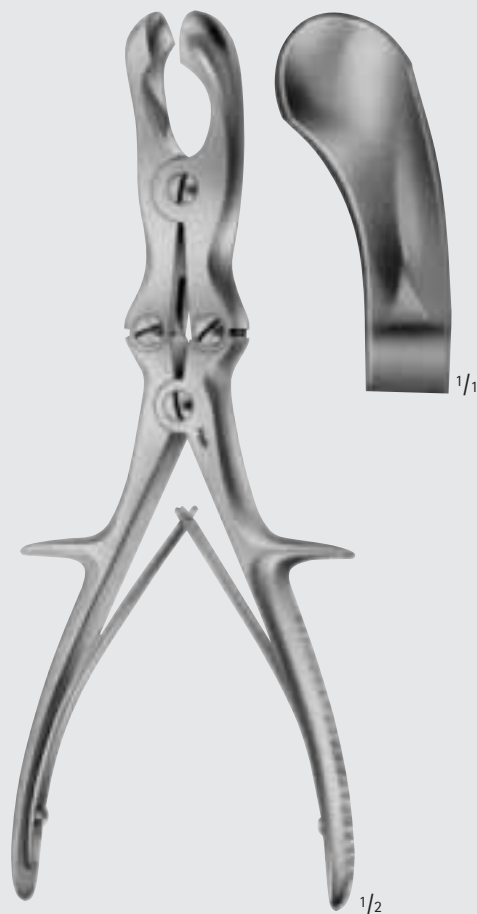
MILLIMETERS



LUER-STILLE

F0566R

270 mm, 10 $\frac{3}{4}$ "



SEMB

F0555R

240 mm, 9 $\frac{1}{2}$ "

Instruments

Bone Rongeurs

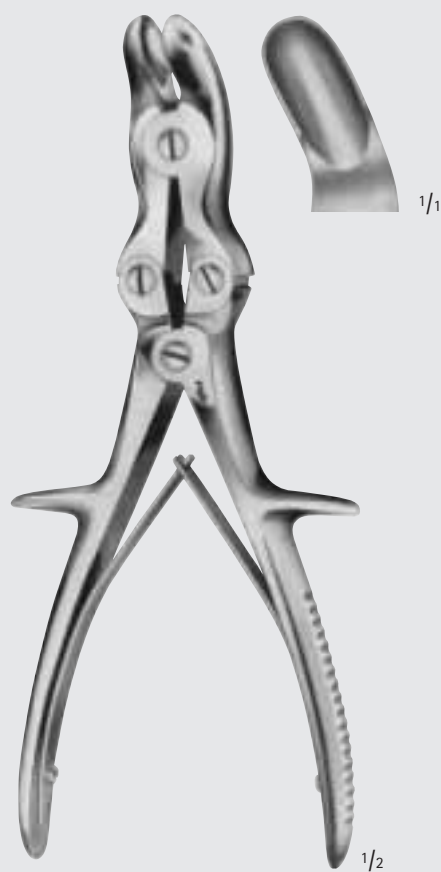
Bone



LUER-STILLE

FO550R

225 mm, 9"



LUER-STILLE

FO551R

225 mm, 9"



SYPERT

FG052R

360 mm, 14 1/2"



Instruments

Bone Rongeurs

Bone

MILLIMETERS



STILLE
F0530R
230 mm, 9"



LEKSELL-STILLE
F0532R
240 mm, 9 1/2"



STILLE-RUSKIN
F0534R
240 mm, 9 1/2"

Instruments

Bone Rongeurs

Bone



FO526R



FO527R

1/1



1/2

LEKSELL

FO526R-FO527R

245 mm, 9 3/4"



FO522R



FO523R

1/1



1/2

ECHLIN

FO522R-FO523R

230 mm, 9"



1/1



1/2

FRYKHOLM

FO525R

240 mm, 9 1/2"

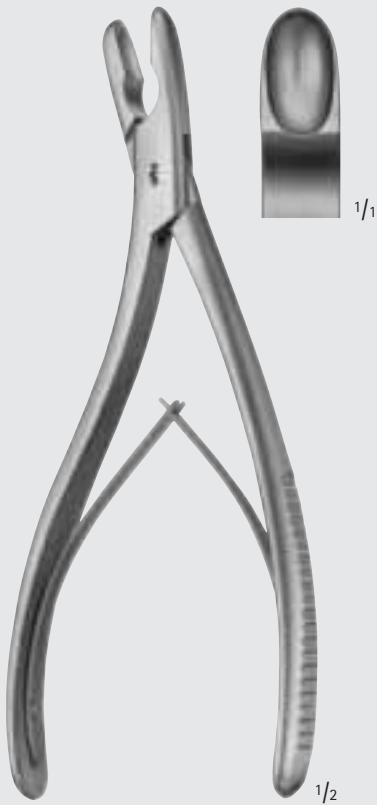


Instruments

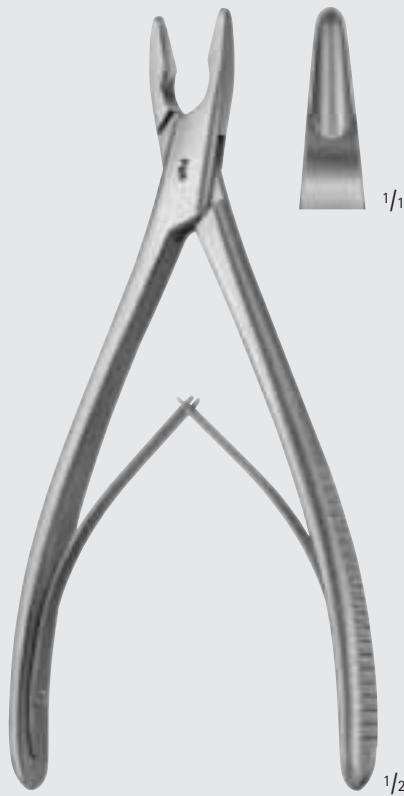
Bone Rongeurs

Bone

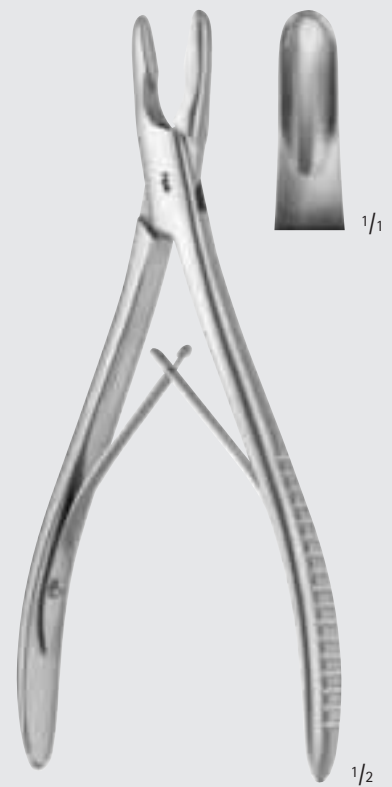
MILLIMETERS



NORTHFIELD
FO474R
210 mm, 8 1/4"



PENNYBACKER
FO475R
205 mm, 8"

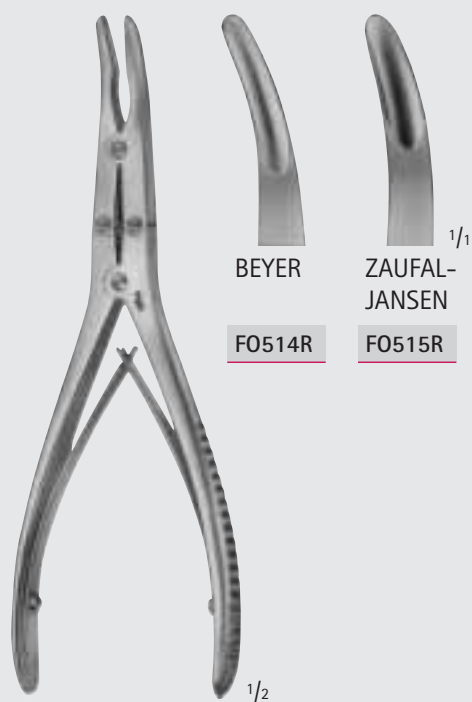
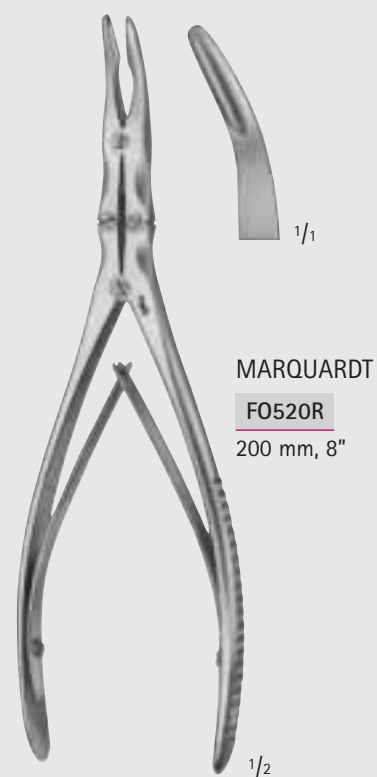
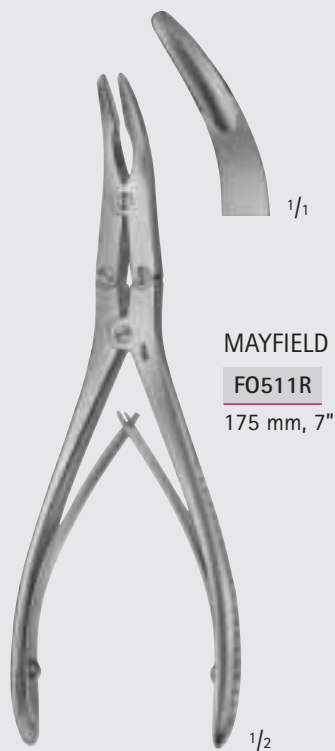


ADSON
MD615
200 mm, 8"

Instruments

Bone Rongeurs

Bone





Instruments

Bone Rongeurs

Bone



FO460R

FO461R

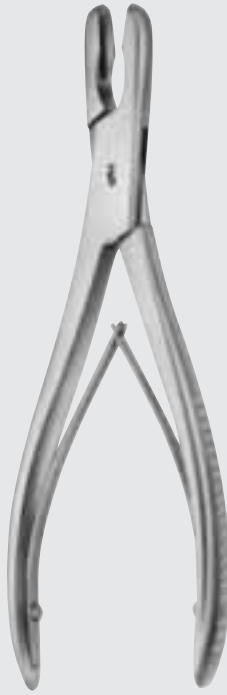
1/1

1/2

LUER

FO460R-FO461R

175 mm, 7"



1/1

1/2

LUER

FO462R

180 mm, 7"



1/1

1/2

LUER

FO463R

180 mm, 7"



1/1

1/2

OLIVECRONA

FO470R

205 mm, 8"



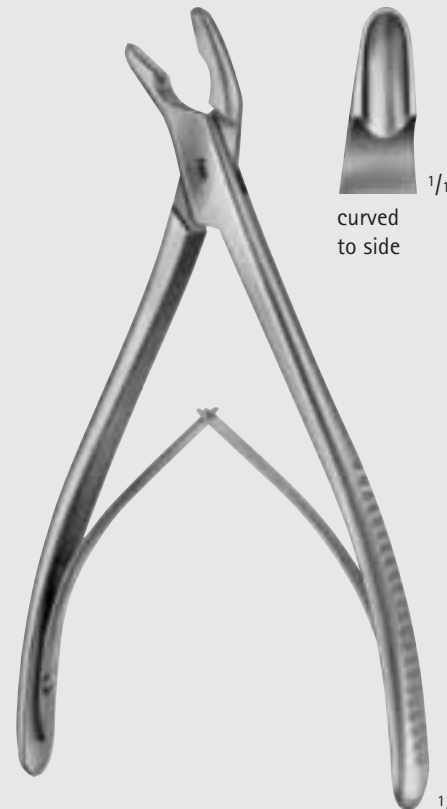
1/1

1/2

GULEKE

FO472R

205 mm, 8"



1/1

curved
to side

1/2

TROTTER

FO467R

205 mm, 8"



MILLIMETERS

Instruments

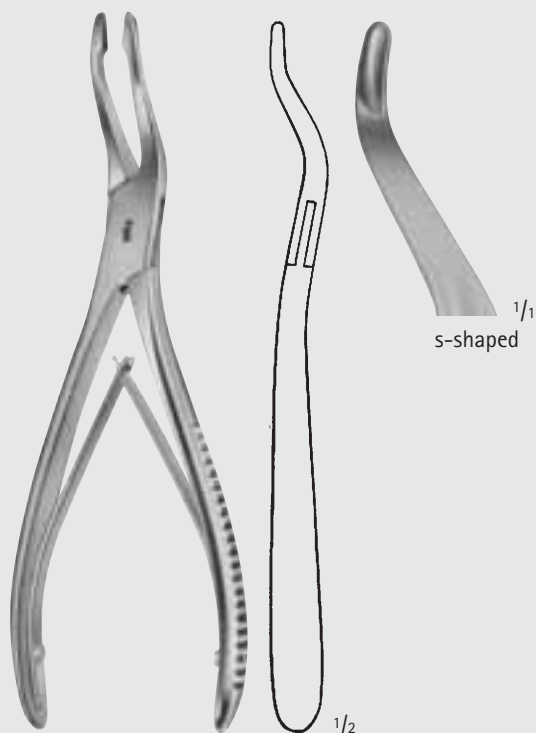
Bone Rongeurs



ALEXANDER

FO440R

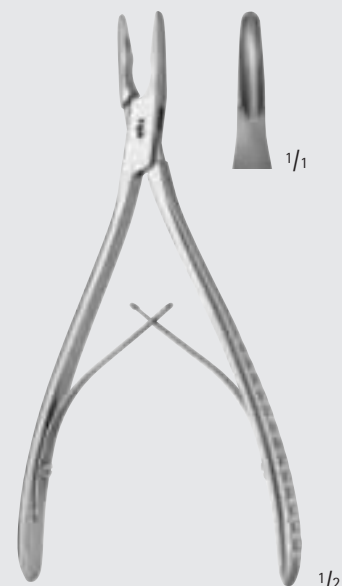
140 mm, 5 1/2"



JANSEN

FO442R

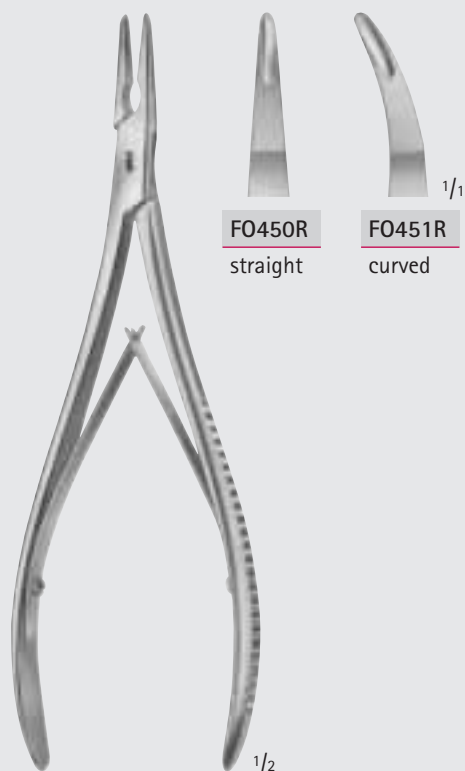
190 mm, 7 1/2"



LEMPERT

MD617

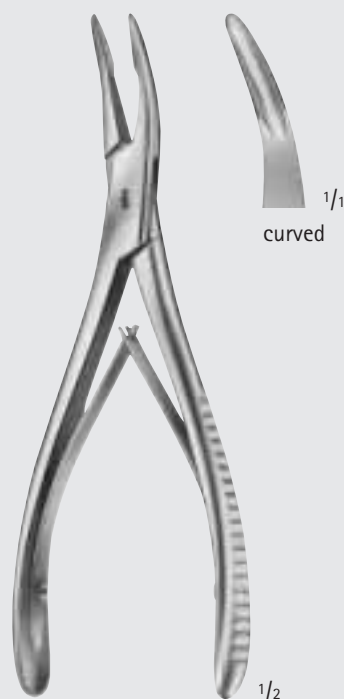
155 mm, 6"



LEMPERT

FO450R-FO451R

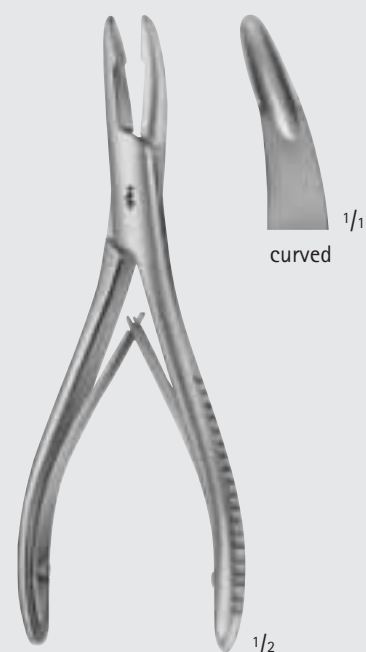
200 mm, 8"



BEYER

FO453R

180 mm, 7"



MEAD

FO455R

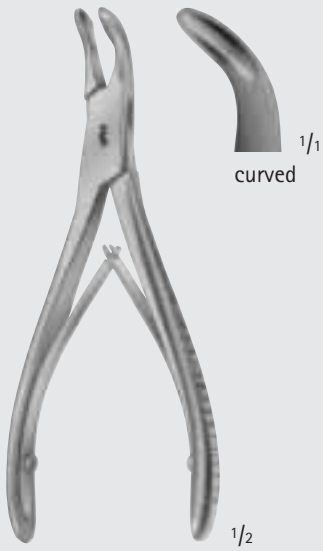
165 mm, 6 1/2"



Instruments

Bone Rongeurs

Bone



FO410R

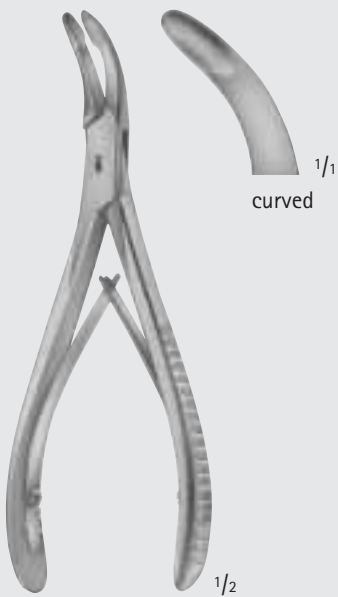
140 mm, 5 1/2"



LUER

FO411R

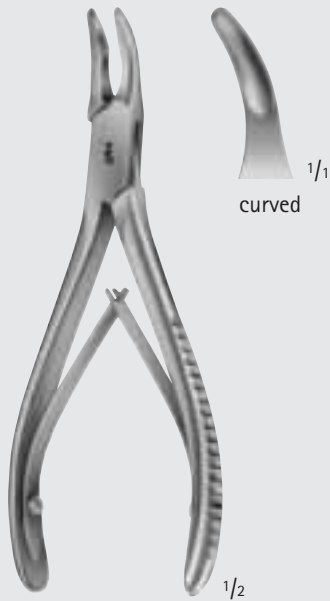
150 mm, 6"



LUER

FO412R

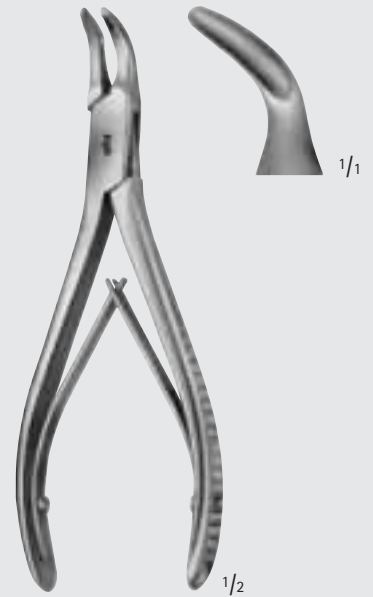
155 mm, 6"



BLUMENTHAL

FO415R

155 mm, 6"



BLUMENTHAL

FO416R

150 mm, 6"

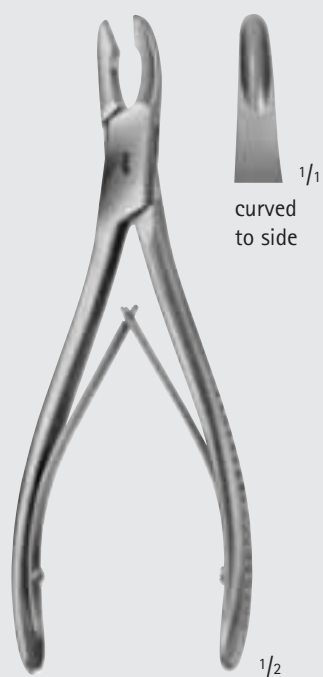


MILLIMETERS

Instruments

Bone Rongeurs

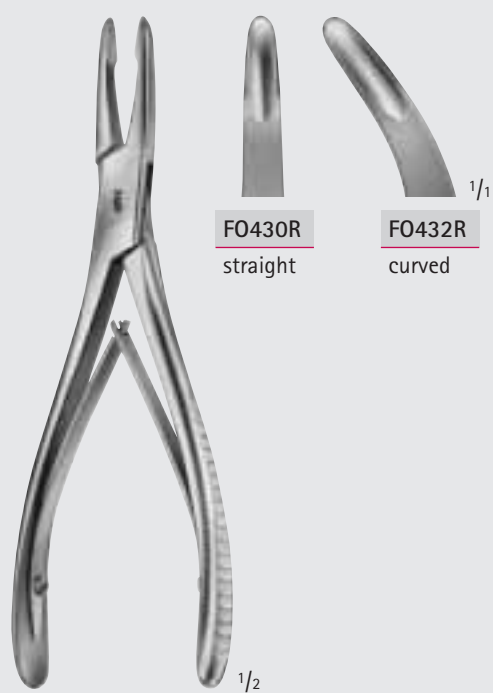
Bone



HAKANSSON

FO428R

170 mm, 6 ³/₄"



JANSEN

FO430R-FO432R

175 mm, 7"



BANE-HARTMANN

FO457R

175 mm, 7"



Instruments

Bone Rongeurs



FO599R

fine rongeur
width of jaw 2.0 mm
130 mm, 5 1/8"



STELLBRINK

FO399R

fine rongeur
175 mm, 7"



STELLBRINK

FO400R

fine rongeur
170 mm, 6 3/4"

Bone

MILLIMETERS

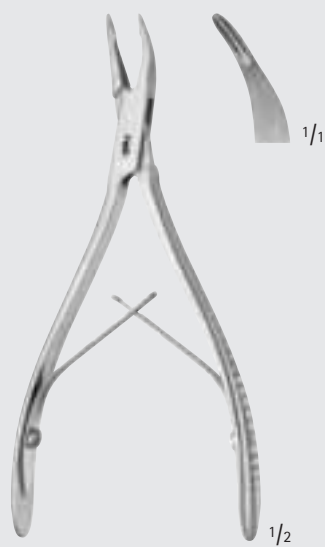
Instruments

Bone Rongeurs

Bone



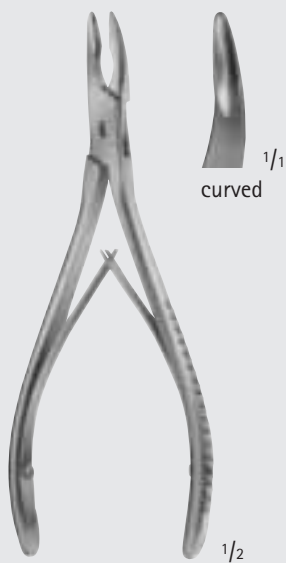
FRIEDMANN
FO406R
140 mm, 5 1/2"



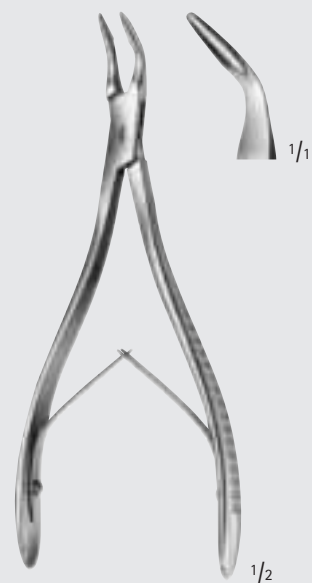
FRIEDMANN
FO407R
140 mm, 5 1/2"



SCHWARZ
FO408R
145 mm, 5 3/4"



LUER-FRIEDMANN
FO409R
145 mm, 5 3/4"



FO413R
150 mm, 6"



Instruments

Hand Drill



HUDSON DOWNS

FF052R

Brace



HUDSON DOWNS

FF053R

Extension piece



HUDSON DOWNS

FF031R

Diam.
10 mm



HUDSON DOWNS

FF032R

Diam.
12 mm



HUDSON DOWNS

FF033R

Diam.
15 mm



HUDSON DOWNS (LEWIS)

FF034R

Diam.
10 mm



HUDSON DOWNS (LEWIS)

FF035R

Diam.
12 mm



HUDSON DOWNS (LEWIS)

FF036R

Diam.
15 mm

Perforators and burrs on this page fit FF052R and FF053R.
Attention: Does not fit onto the hand drill HUDSON on page 40 and 41.



HUDSON DOWNS

FF037R

Diam.
11 mm



HUDSON DOWNS

FF038R

Diam.
13 mm



HUDSON DOWNS

FF039R

Diam.
16 mm



HUDSON DOWNS

FF040R

Diam.
11 mm



HUDSON DOWNS

FF041R

Diam.
13 mm



HUDSON DOWNS

FF042R

Diam.
16 mm



HUDSON DOWNS

FF043R

Diam.
19 mm



HUDSON DOWNS

FF044R

Diam.
22 mm



MC KENZIE

FF048R

Diam.
16 mm



MC KENZIE

FF047R

Diam.
16 mm

Bone

MILLIMETERS

Instruments

Hand Drill

Bone



FF057R

Extension piece only

FF056R

Brace only

Perforators and burrs on this page fit onto FF056R and FF057R.

Attention: Does not fit onto the hand drill HUDSON-DOWNS on page 39.



HUDSON

FF061R

Diam.
9 mm



HUDSON

FF062R

Diam.
14 mm



HUDSON

FF063R

Diam.
16 mm



HUDSON

FF064R

Diam.
22 mm



ADSON

FF065R

Diam.
15 mm



MC KENZIE

FF066R

Diam.
13 mm



CUSHING

FF067R

Diam.
14 mm



FF068R

Diam.
2 mm



Instruments

Hand Drill



HUDSON

FF058R

Hand drill



HUDSON

FF059R

Extension piece only

Perforators and burrs on this page fit onto FF058R and FF059R.
Attention: Does not fit onto the hand drill HUDSON-DOWNS on page 39.



HUDSON

FF061R

Diam.
9 mm



HUDSON

FF062R

Diam.
14 mm



HUDSON

FF063R

Diam.
16 mm



HUDSON

FF064R

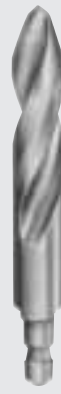
Diam.
22 mm



ADSON

FF065R

Diam.
15 mm



MC KENZIE

FF066R

Diam.
13 mm



CUSHING

FF067R

Diam.
14 mm



HUDSON

FF068R

Diam.
2 mm

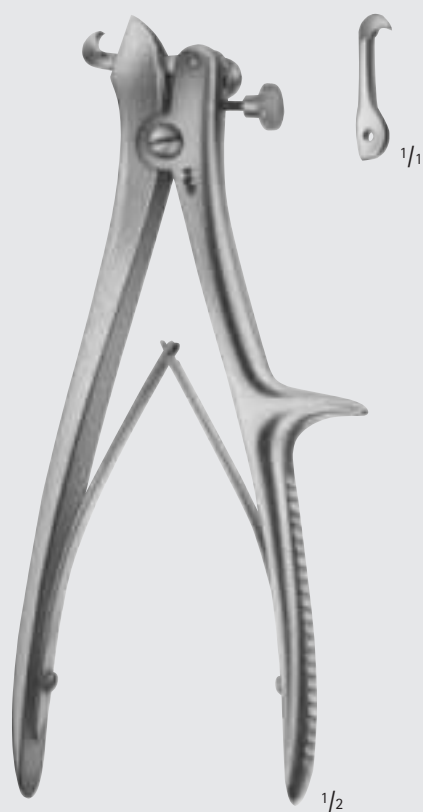
Bone

MILLIMETERS

Instruments

Skull Punch, Burrhole Protection Forceps

Bone



DAHLGREN

FF113R

Skull punch
with 2 extra hooks
210 mm, 8 1/4"



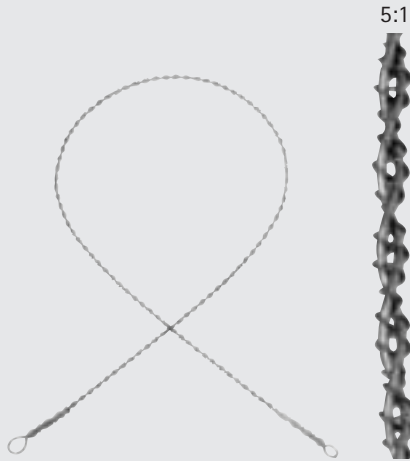
FF050R

Burrhole protection forceps
205 mm, 8"



Instruments

Wire Saws

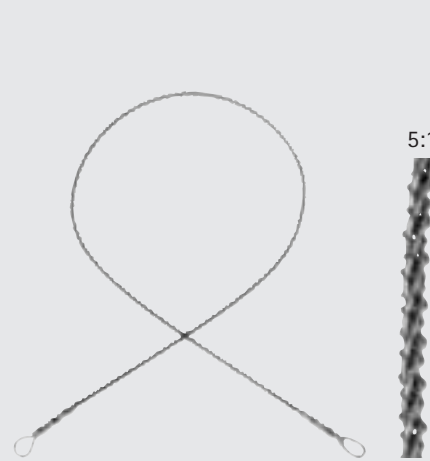


OLIVECRONA

	Diam.	Length	
FH403	1.5 mm	300 mm	12"
FH404	1.3 mm	400 mm	16"
FH405	1.2 mm	500 mm	20"
FH407	1.2 mm	700 mm	28"

Sales unit:

PAK = Package of 5 pieces



GIGLI

	Diam.	Length	
FH413	1.4 mm	300 mm	12"
FH414	1.4 mm	400 mm	16"
FH415	1.4 mm	500 mm	20"

fine, 6 wires twisted

Sales unit:

PAK = Package of 5 pieces

FH430R

coarse, 4 wires twisted

500 mm, 20"

Sales unit:

PAK = Package of 5 pieces



GIGLI

FH480R

Handle for wire saws

Bone

MILLIMETERS

Instruments

Conductors

Bone



1/2

LEBSCHÉ

FF133C

Conductor for GIGLI and OLIVECRONA wire saws, malleable
250 mm, 10"



1/2

DE MARTEL

FF130R

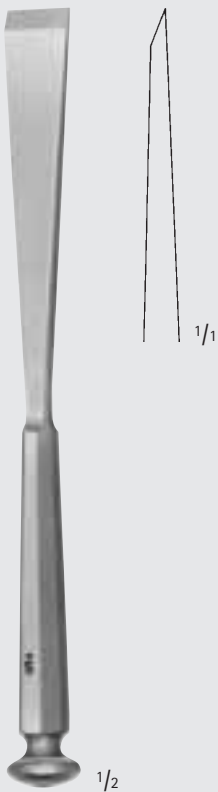
Conductor for GIGLI and OLIVECRONA wire saws, flexible
350 mm, 14"



Instruments

Chisels and Gouges

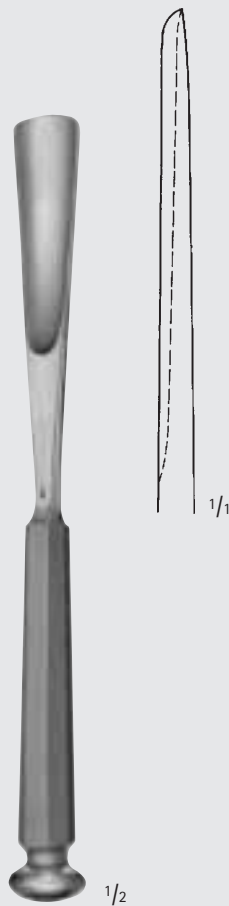
Bone



STILLÉ

FL503R	10 mm
FL504R	12 mm
FL505R	15 mm
FL506R	20 mm
FL507R	25 mm

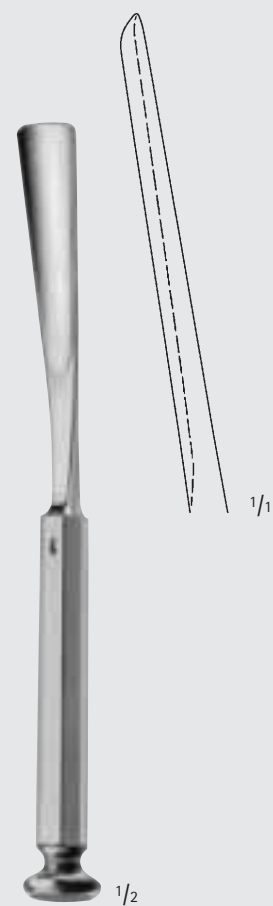
Chisels
205 mm, 8"



STILLÉ

FL573R	10 mm
FL574R	12 mm
FL575R	15 mm
FL576R	20 mm
FL577R	25 mm

Gouges
205 mm, 8"



WALTER

FL583R	10 mm
FL585R	15 mm

Gouges for taking grafts
from the ribs
205 mm, 8"

MILLIMETERS

Instruments

Osteotomes

Bone



STILLE

FL512R	8 mm
FL513R	10 mm
FL514R	12 mm
FL515R	15 mm
FL516R	20 mm
FL517R	25 mm

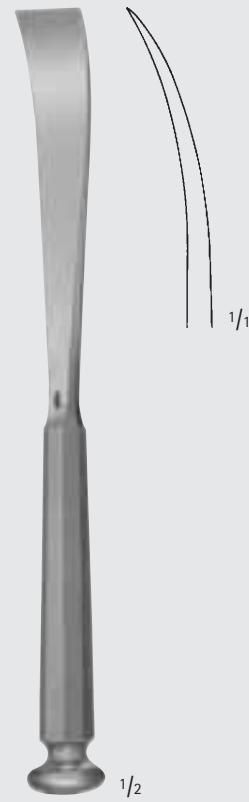
Osteotomes
205 mm, 8"



STILLE

FL523R	10 mm
FL524R	12 mm
FL525R	15 mm
FL526R	20 mm
FL527R	25 mm

Osteotomes
205 mm, 8"



STILLE

FL553R	10 mm
FL554R	12 mm
FL555R	15 mm
FL556R	20 mm
FL557R	25 mm

Osteotomes, curved
205 mm, 8"



Instruments

Osteotomes

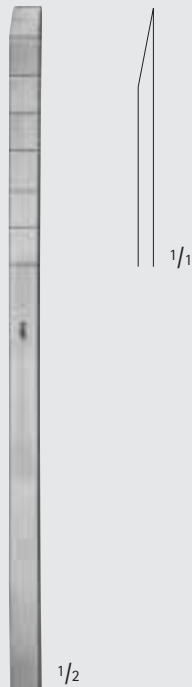
Bone



COTTLE

OL294R	4 mm
OL296R	6 mm
OL298R	8 mm
OL299R	10 mm
OL300R	12 mm

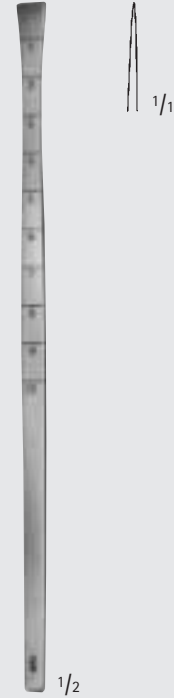
Osteotomes with depth markings
180 mm, 7"



COTTLE

OL301R	4 mm
OL302R	7 mm
OL303R	9 mm
OL304R	12 mm

Chisel-Osteotomes with depth markings
180 mm, 7"



COTTLE

OL307R	8 mm
--------	------

Fishtail chisel, with protected ends
180 mm, 7"



MILLIMETERS

Instruments

Osteotomes

Bone



MB657R-MB662R



MB663R-MB669R



1/2

SMITH-PETERSEN

MB657R	7 mm
MB658R	11 mm
MB659R	14 mm
MB660R	17 mm
MB661R	19 mm
MB662R	25 mm
MB663R	6 mm
MB664R	9,5 mm
MB665R	13 mm
MB666R	16 mm
MB667R	19 mm
MB668R	25 mm
MB669R	32 mm

205 mm, 8 1/8"



MB675R-MB684R



MB685R-MB694R



1/2

HIBBS

MB675R	6 mm
MB676R	10 mm
MB677R	13 mm
MB678R	16 mm
MB679R	19 mm
MB680R	22 mm
MB681R	25 mm
MB682R	28 mm
MB683R	32 mm
MB684R	38 mm
MB685R	6 mm
MB686R	10 mm
MB687R	13 mm
MB688R	16 mm
MB689R	19 mm
MB690R	22 mm
MB691R	25 mm
MB692R	28 mm
MB693R	32 mm
MB694R	38 mm

240 mm, 9 1/2"



Instruments Osteotomes

Bone

MILLIMETERS



LAMBOTTE

FL650R	4 mm
FL651R	8 mm
FL652R	10 mm
FL653R	13 mm
FL654R	15 mm
FL655R	18 mm
FL656R	20 mm
FL658R	25 mm
FL659R	30 mm
FL660R	38 mm
FL661R	44 mm
FL662R	50 mm

245 mm, 9 ³/₄"

¹/₂



LAMBOTTE

FL781R	8 mm
FL783R	13 mm
FL785R	18 mm
FL788R	25 mm
FL789R	30 mm
FL790R	38 mm

curved
245 mm, 9 ³/₄"

¹/₂



OBWEGESER

DO720R	11 mm
--------	-------

curved
235 mm, 9 ¹/₄"

¹/₂



NIEDERDELLMANN

DO728R	8 mm
DO730R	10 mm

curved
250 mm, 10"

¹/₂

Instruments

Raspatories with PEEK-Handle

Bone



FK318R

190 mm, 7 1/2"



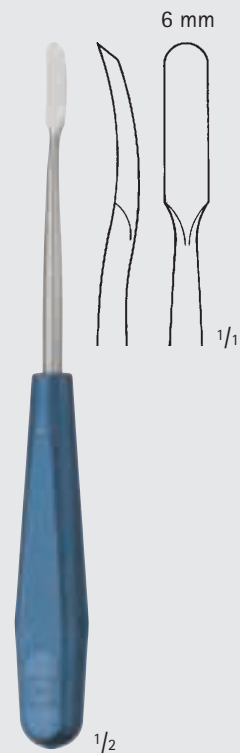
FK317R

185 mm, 7 1/4"



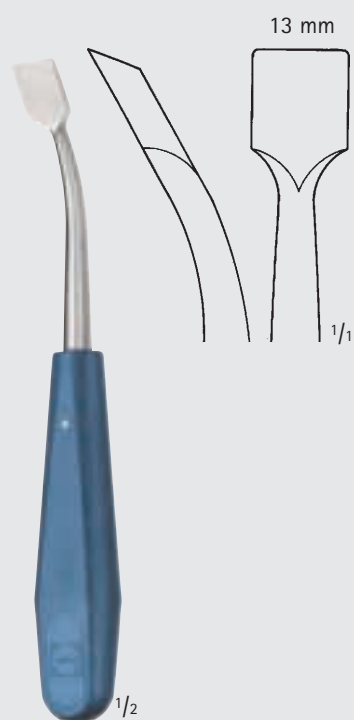
FK319R

190 mm, 7 1/2"



FK321R

190 mm, 7 1/2"



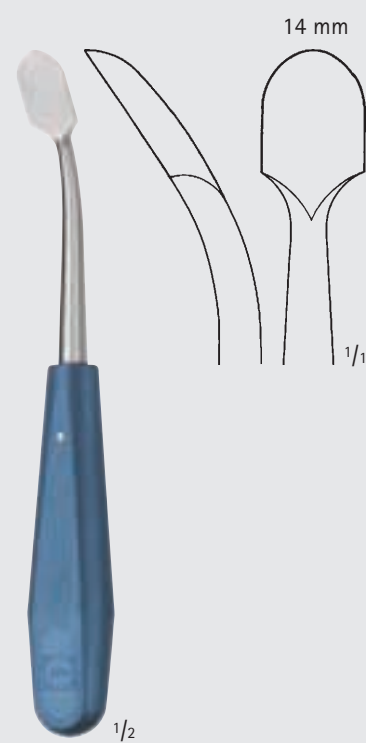
FK323R

175 mm, 7"



FK324R

190 mm, 7 1/2"



FK325R

180 mm, 7"



Instruments

Osteotomes and Gouges

Bone



LEXER

FL401R	5 mm
FL402R	7 mm
FL403R	10 mm
FL405R	15 mm
FL406R	20 mm
FL407R	25 mm
FL408R	30 mm

Osteotomes
220 mm, 8 3/4"



LEXER

FL411R	5 mm
FL412R	7 mm
FL413R	10 mm
FL415R	15 mm
FL416R	20 mm
FL417R	25 mm
FL418R	30 mm

Gouges
220 mm, 8 3/4"



FL437R	6 mm
FL438R	8 mm
FL439R	11 mm
FL440R	16 mm

Lamina gouge, cranked
235 mm, 9 1/4"



ZIELKE

FL701R	5.5 mm
FL702R	9.0 mm

Gouges for scoliosis operations
230 mm, 9"

MILLIMETERS

Instruments

Mallets

Weights refer to the heads of the mallets

Bone



diam. 22 mm

DF112R 80 g
165 mm, 6 1/2"

1/2



diam. 22 mm

DF114R 155 g
190 mm, 7 1/2"

1/2



diam. 27 mm

HAJEK
FLO44R 135 g
220 mm, 8 3/4"

1/2



Instruments

Mallets

Weights refer to the heads of the mallets



diam. 20 mm

MEAD

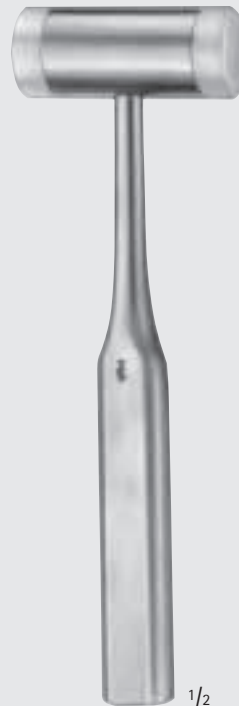
FL035R 180 g

with interchangeable plastic discs
190 mm, 7 1/2"

FL034

Pair of spare discs

1/2



diam. 25 mm

FL036R 135 g

with interchangeable plastic discs
185 mm, 7 1/4"

FL037

Pair of spare discs

1/2



diam. 30 mm

COTTLE

FL038R 235 g

1 side flat, 1 side convex
185 mm, 7 1/4"

1/2



diam. 25 mm

FL039R 130 g

with one smooth and one rough surface
185 mm, 7 1/4"

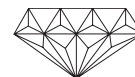
1/2

Bone

MILLIMETERS

Instruments

DUROGRIP® Rasps, Double-Ended



DUROGRIP® double-ended rasps with carbide inserts

- Identification: gold-plated handle
- Profile in 10 different fine graduations
- Sharp rasp profile allows progressive removal of cortical bone tissue
- Carbide inserts guarantee permanent sharpness and long life span
- Handy in use

7 mm



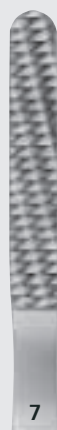
1



3



5



7



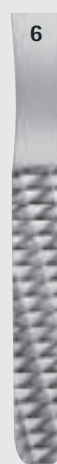
9



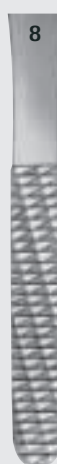
2



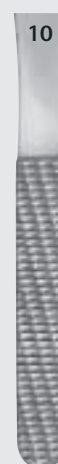
4



6



8



10

1/1



1/1

OL421R-OL429R

205 mm, 8"

OL421R

Teeth 12/14

OL423R

16/20

OL425R

24/30

OL427R

36/44

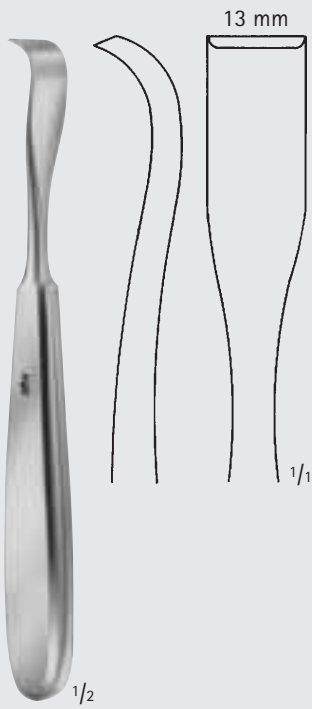
OL429R

52/62



Instruments Raspatories

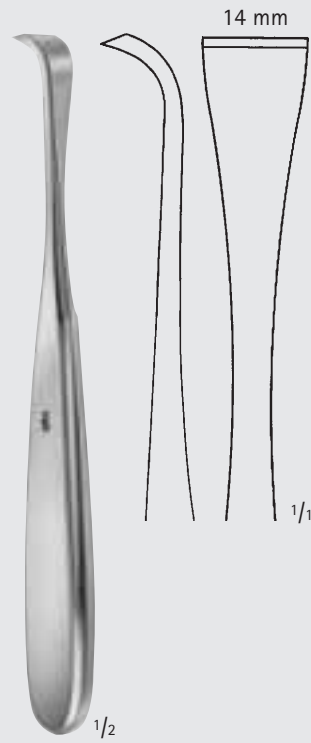
Bone



SCHNEIDER

FK365R

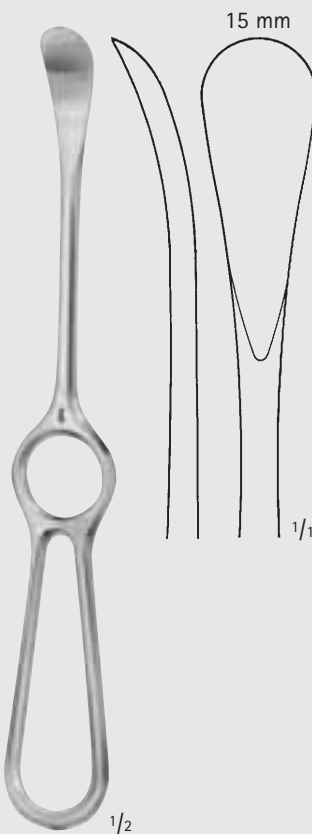
175 mm, 7"



SCHNEIDER-SAUERBRUCH

FK366R

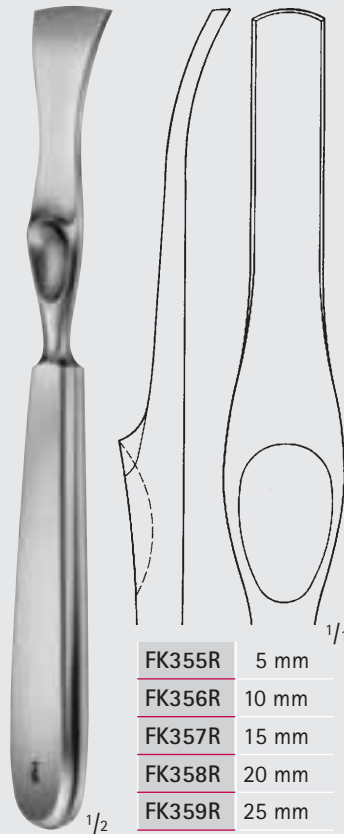
190 mm, 7 1/2"



SEDILLOT

FK351R

215 mm, 8 1/2"



LAMBOTTE

FK355R-FK359R

215 mm, 8 1/2"



MITCHELL

FK336R

210 mm, 8 1/4"

MILLIMETERS

Instruments
Raspatories

Bone



1/2

COBB

FK146R-FK157R

280 mm, 11"

10 mm



FK146R

13 mm



FK147R

19 mm



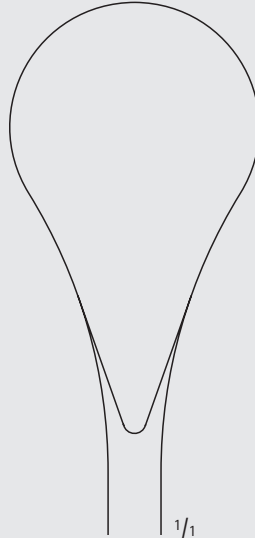
FK148R

26 mm



FK149R

32 mm

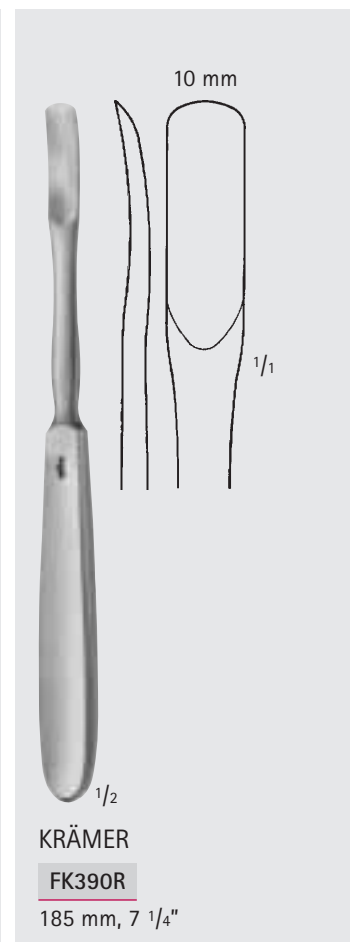
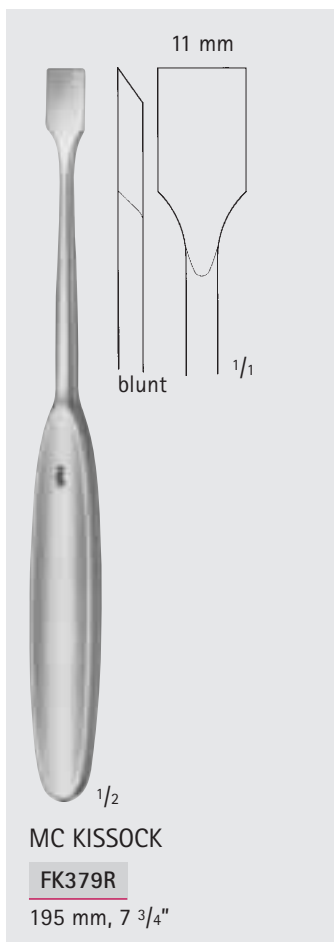
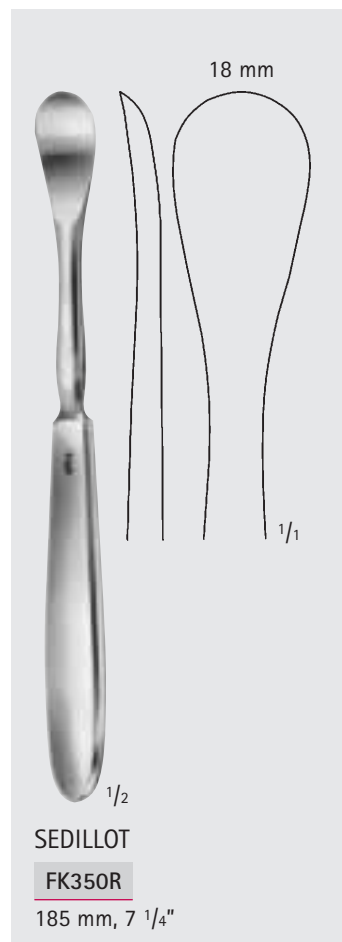
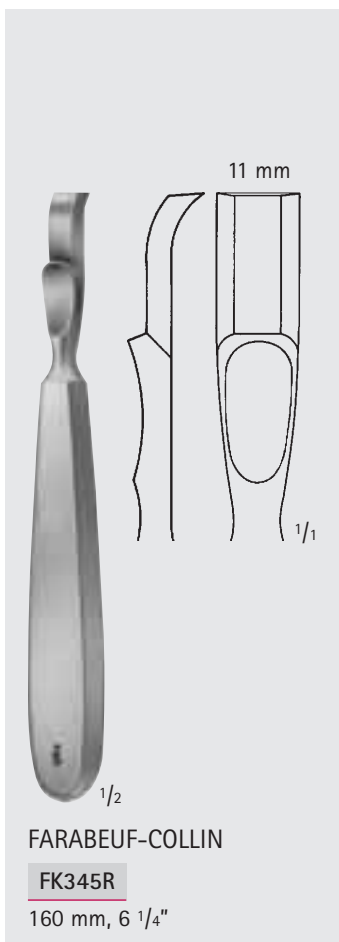
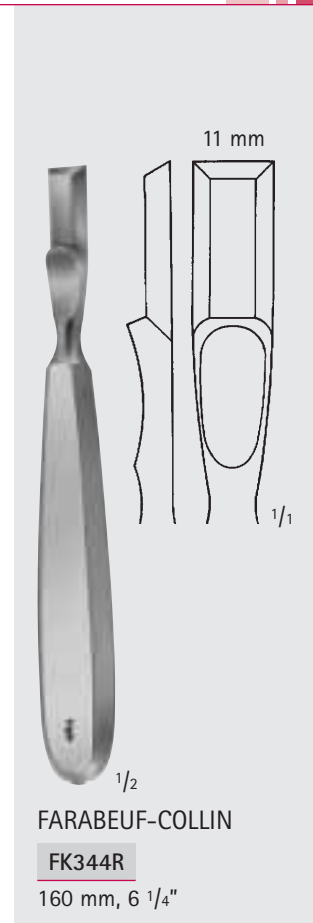
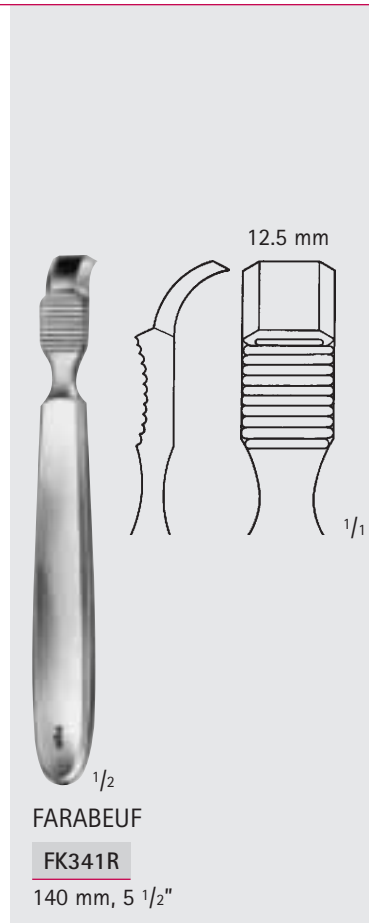
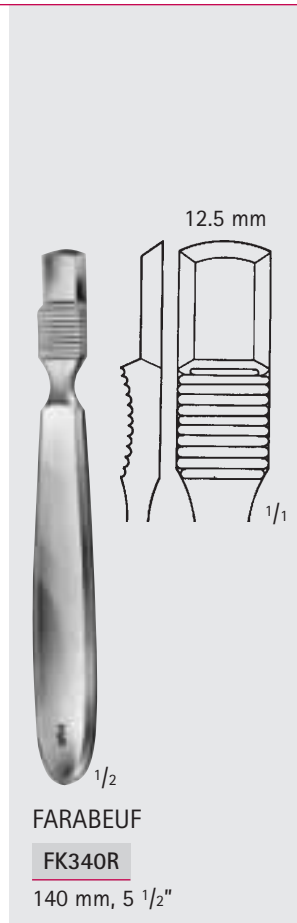
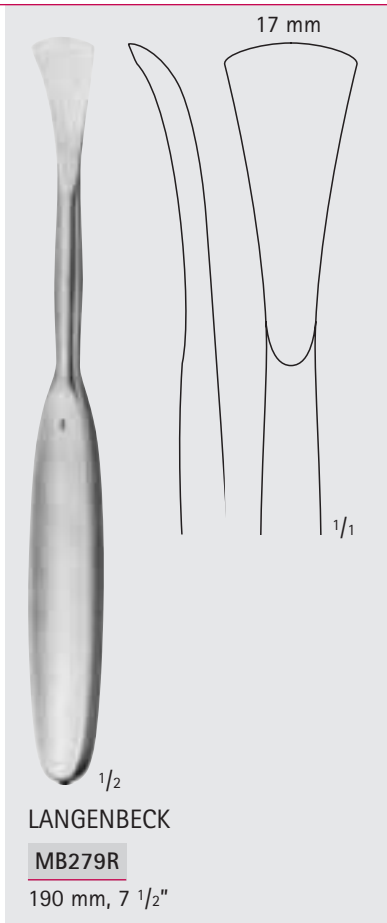


FK157R

1/1



Instruments Raspatories

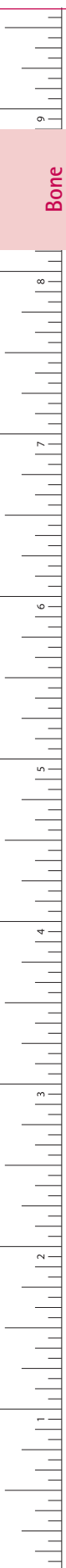


Bone

MILLIMETERS

Instruments

Periosteal Elevators



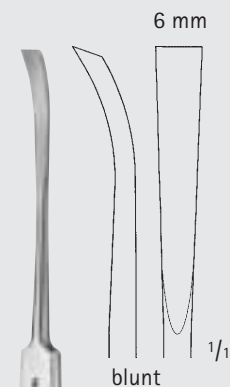
Bone



KRÄMER

FK391R

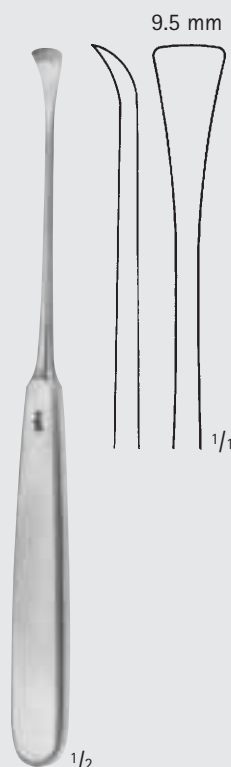
190 mm, 7 1/2"



PENNYBACKER

FK378R

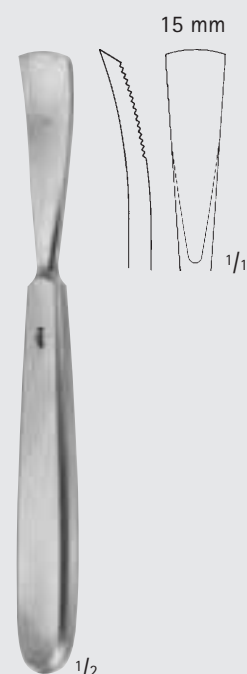
165 mm, 6 1/2"



BÜCHS

D0518R

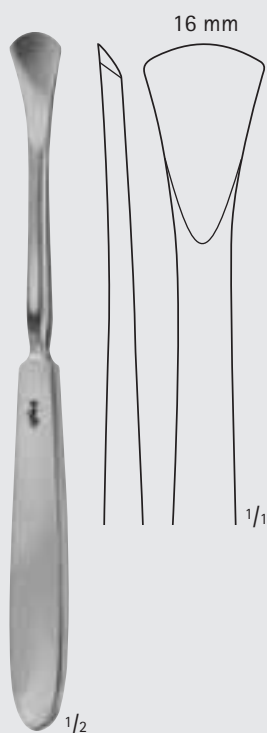
190 mm, 7 1/2"



JANSEN

FK362R

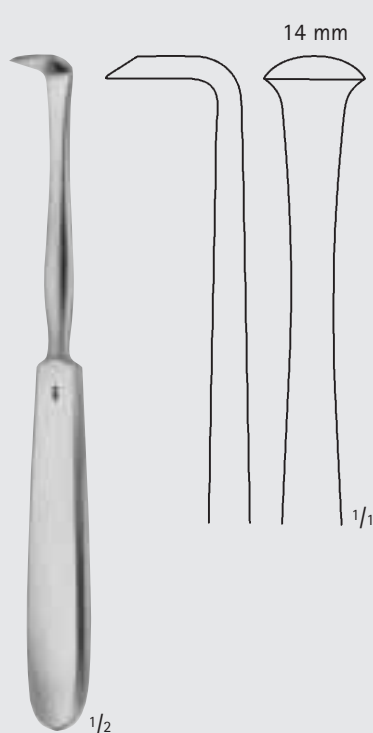
165 mm, 6 1/2"



LANGENBECK

FK360R

190 mm, 7 1/2"



LANGENBECK

FK361R

180 mm, 7"



KEY

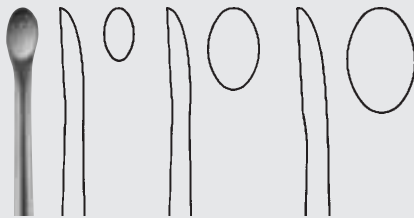
FK410R-FK414R

	Width	Length	
FK410R	6.4 mm	180 mm	7"
FK411R	9.5 mm	190 mm	7 1/2"
FK412R	12.7 mm	190 mm	7 1/2"
FK413R	19 mm	200 mm	8"
FK414R	25.4 mm	210 mm	8 1/4"



Instruments

Periosteal Elevators



FK530R

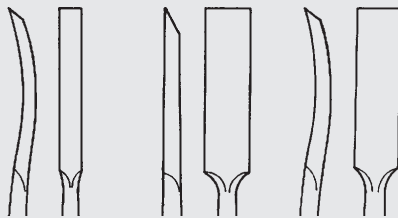
4 mm

FK532R

7 mm

FK534R

9 mm



FK541R

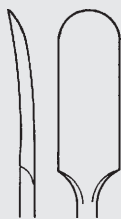
3 mm

FK542R

6 mm

FK543R

6 mm



FK552R

8 mm



FK562R

6 mm

90°



MANNERFELT MODIF.

FK530R-FK562R

155 mm, 6"

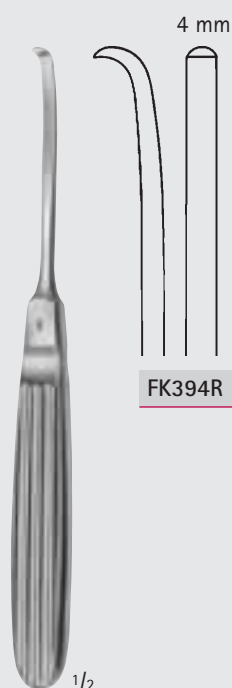
Bone

MILLIMETERS

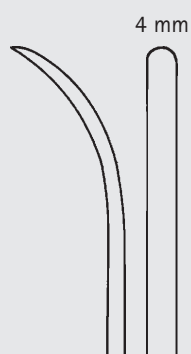
Instruments

Periosteal Elevators

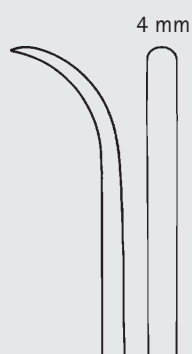
Bone



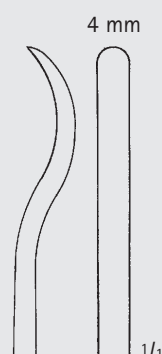
FK394R



FK395R



FK396R

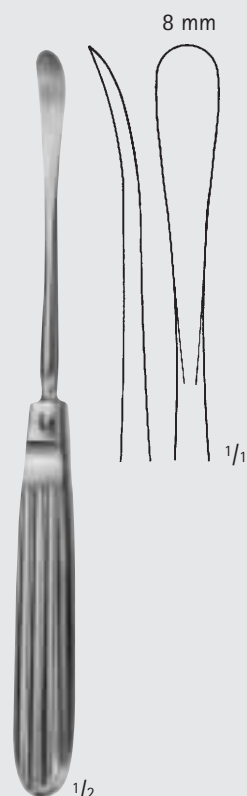


FK397R

MÜHLING

FK394R-FK397R

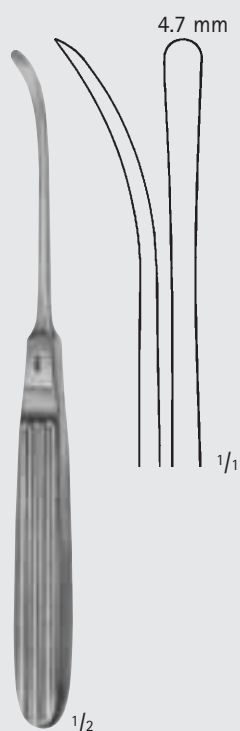
170 mm, 6 3/4"



COTTLE

OL157R

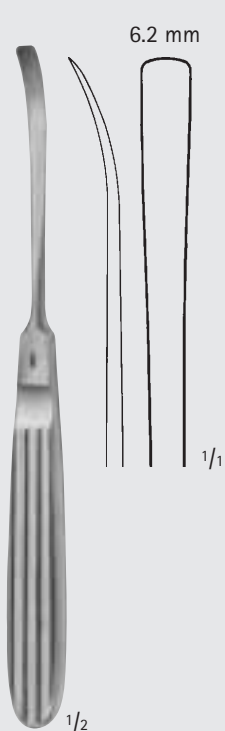
195 mm, 7 3/4"



LANDOLT

FK314R

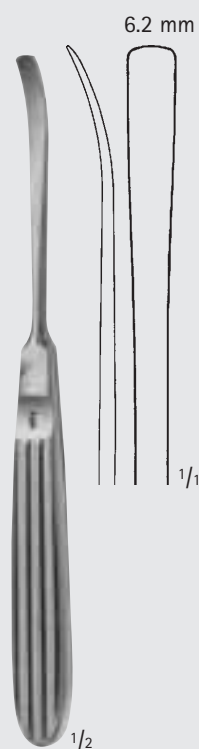
175 mm, 7"



CASPAR

FK328R

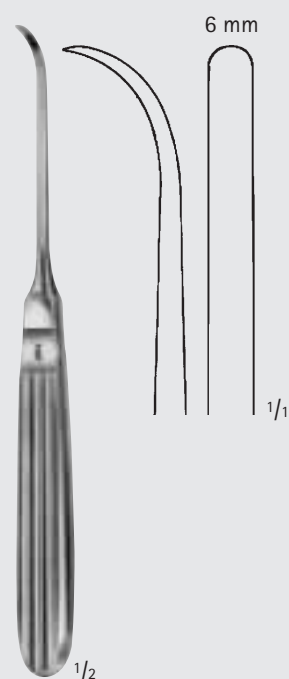
180 mm, 7"



CASPAR

FK329R

180 mm, 7"



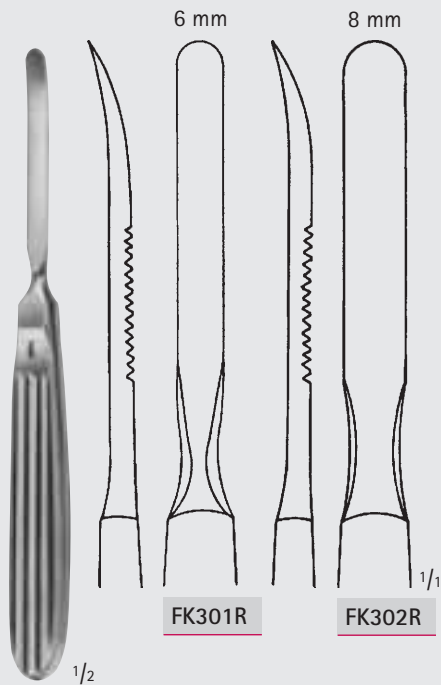
D0523R

170 mm, 6 3/4"



Instruments

Periosteal Elevators

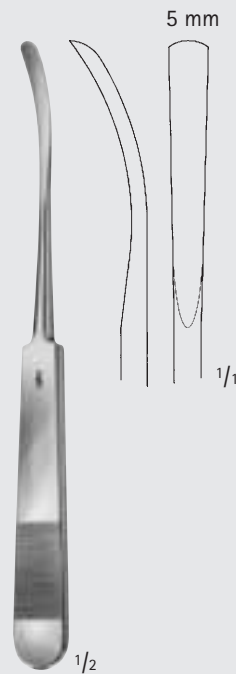


FK301R

FK302R

FK301R-FK302R

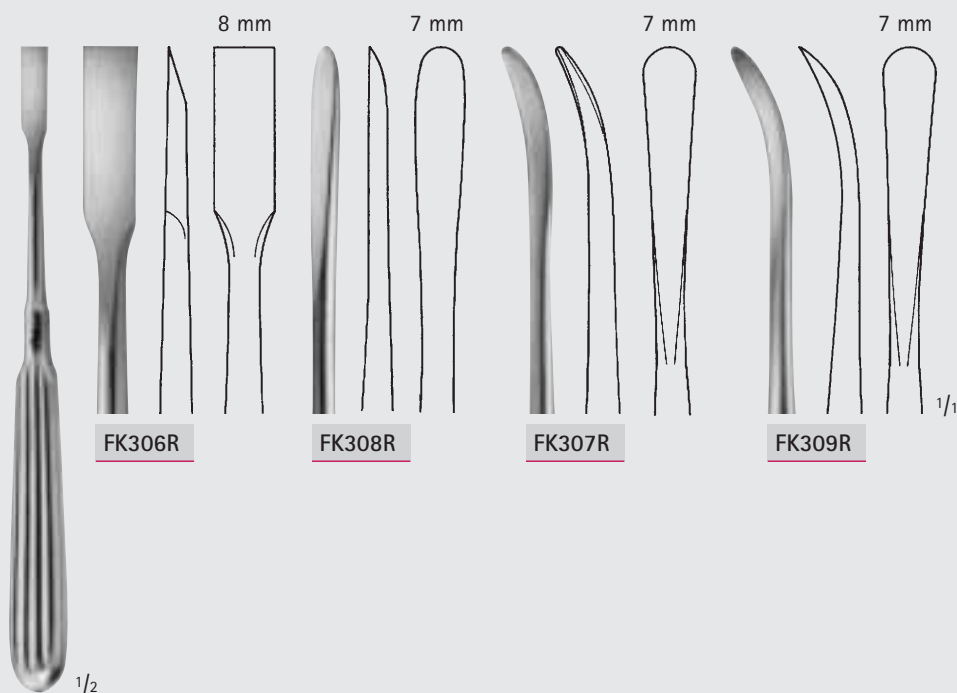
165 mm, 6 1/2"



ADSON

FK299R

165 mm, 6 1/2"



FK306R

FK308R

FK307R

FK309R

ADSON

FK306R-FK309R

170 mm, 6 3/4"

Bone

MILLIMETERS

Instruments

Periosteal Elevators

Bone



MEAD

D0520R

sharp/sharp
165 mm, 6 1/2"



MOLT

D0543R

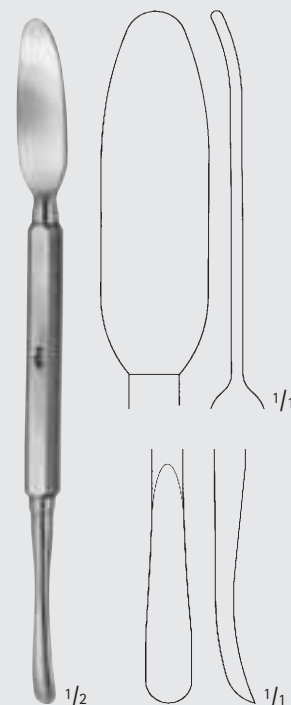
sharp/sharp
180 mm, 7"



SYME

D0547R

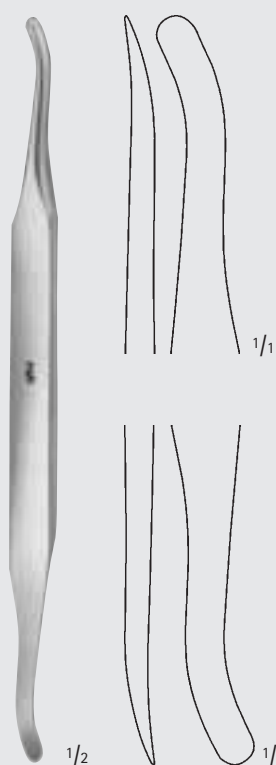
sharp
185 mm, 7 1/4"



ROBERTS

D0548R

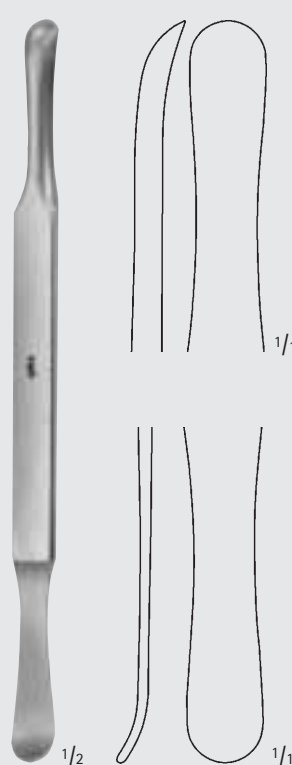
blunt
185 mm, 7 1/4"



SELDIN

D0552R

195 mm, 7 3/4"



SELDIN

D0553R

195 mm, 7 3/4"

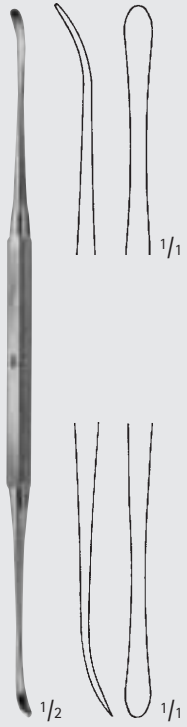


Instruments

Periosteal Elevators

Bone

MILLIMETERS

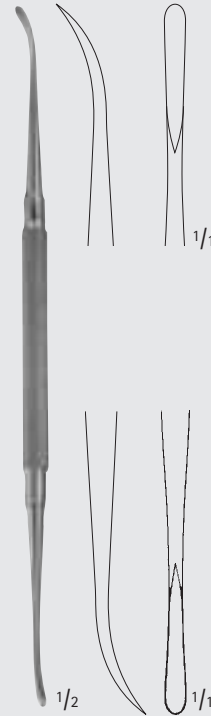


FREER

OL165R

sharp/blunt

185 mm, 7 1/4"

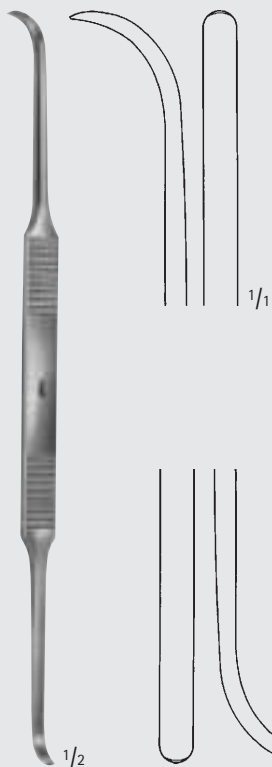


FREER-YASARGIL

OL166R

sharp/sharp

185 mm, 7 1/4"

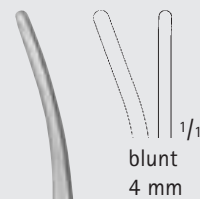


COTTLE

OL155R

sharp/sharp

200 mm, 8"



blunt
4 mm

semi-sharp
5 mm

HILL

OL179R

semi-sharp/blunt

220 mm, 8 3/4"

Instruments

Periosteal Elevators

Bone

4 mm

1/1

FREER

OL162R

sharp

190 mm, 7 1/2"

4 mm

1/1

FREER

OL163R

blunt

190 mm, 7 1/2"

6.3 mm

1/1

LEMPERT

OG164R

Raspatory, semi-sharp

185 mm, 7 1/4"

3.2 mm

1/1

LEMPERT

OG165R

Raspatory, blunt

165 mm, 6 1/2"

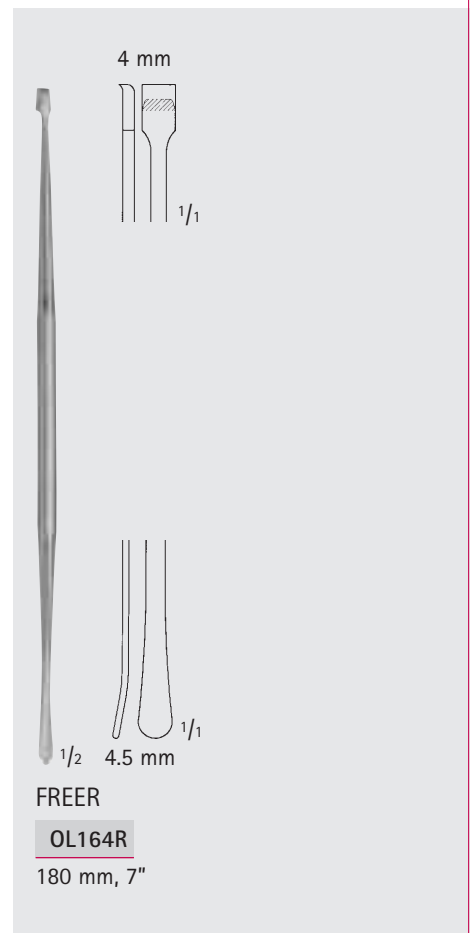
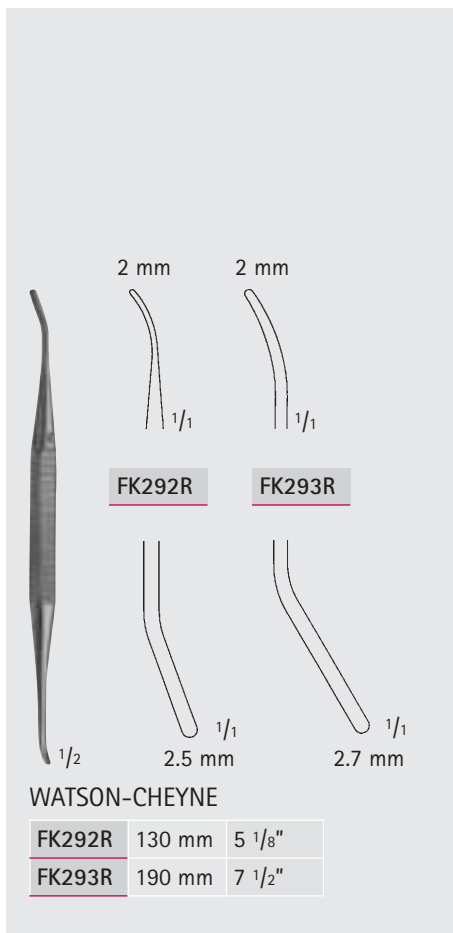
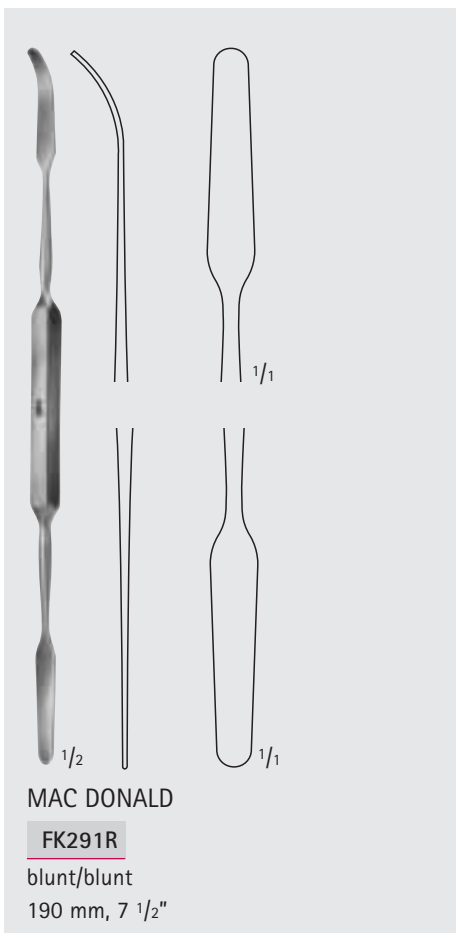
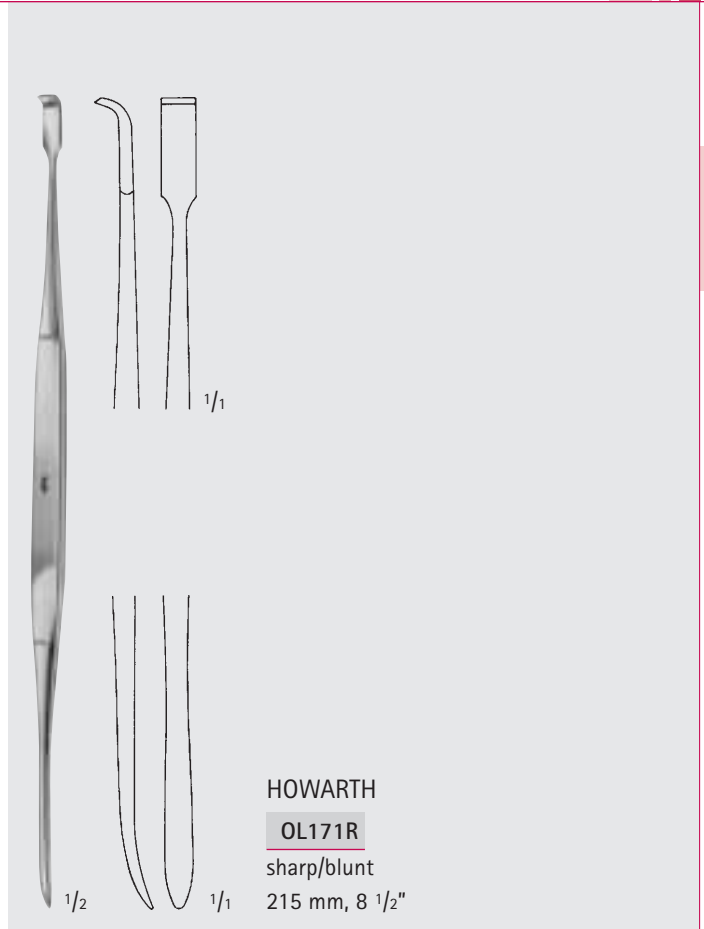
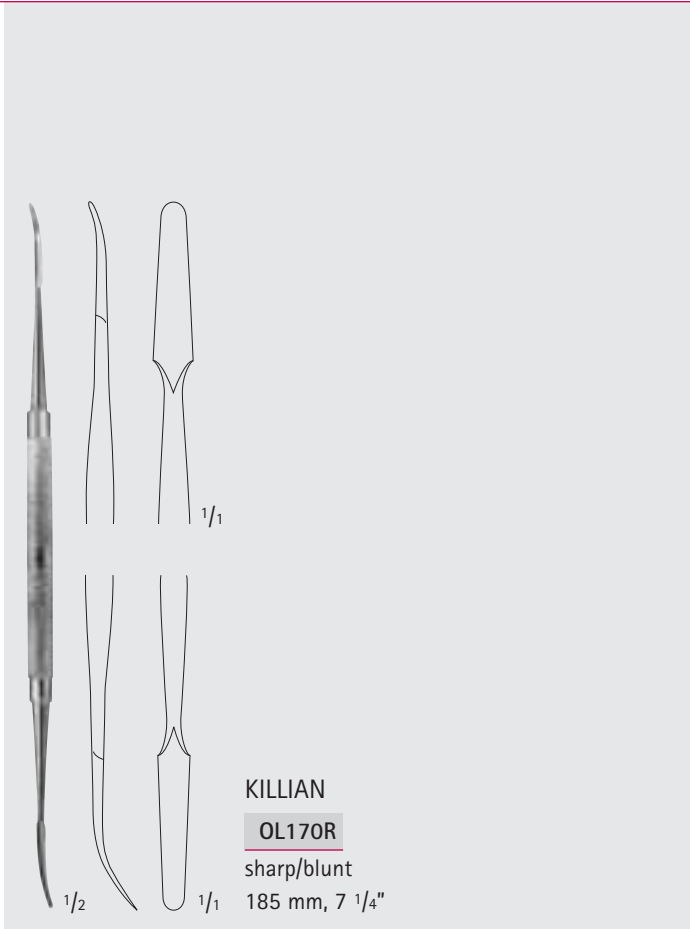


Instruments

Periosteal Elevators

Bone

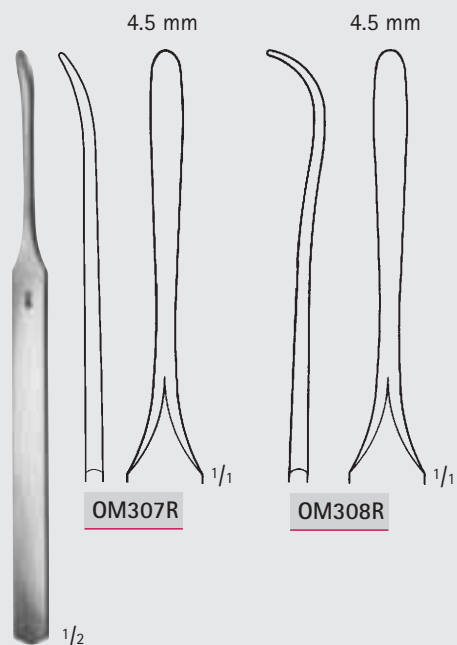
MILLIMETERS



Instruments

Periosteal Elevators and Bone Levers

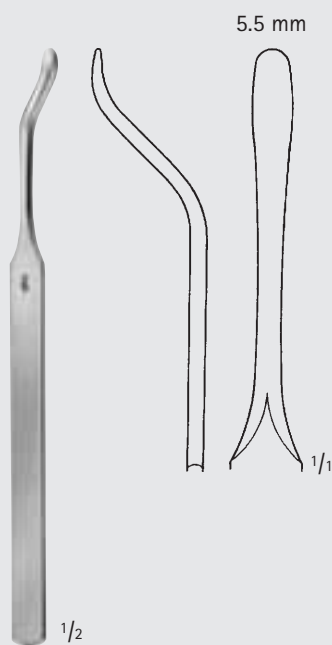
Bone



KÖNIG

OM307R-OM308R

155 mm, 6"



FK110R

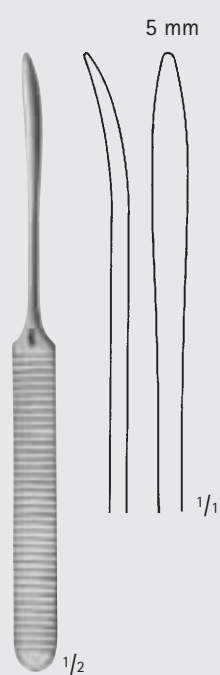
155 mm, 6"



CAIRNS

FK141R

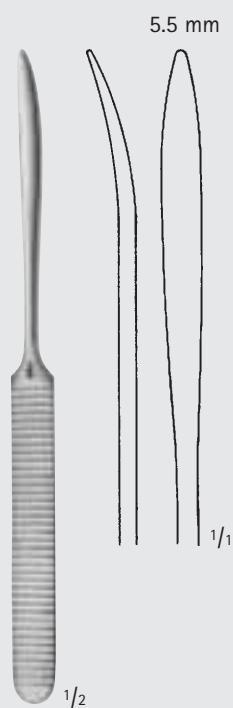
175 mm, 7"



WILLIGER

FK120R

165 mm, 6 1/2"



WILLIGER

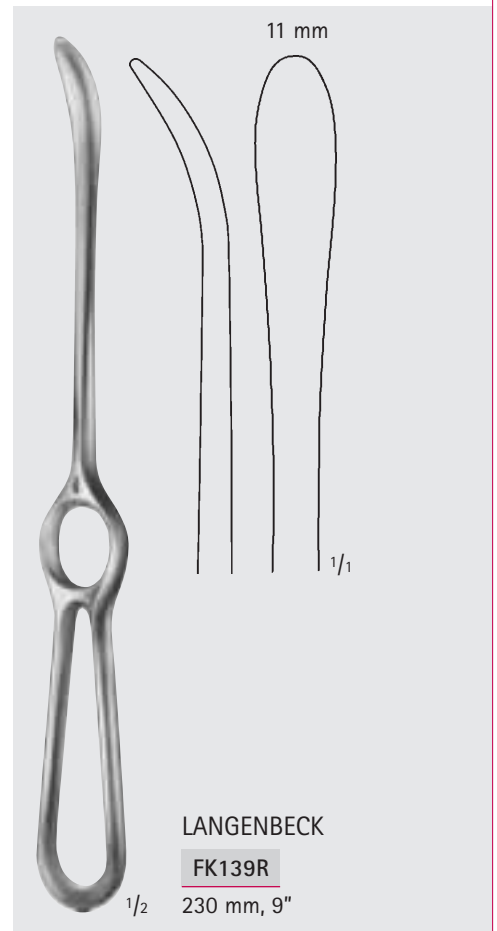
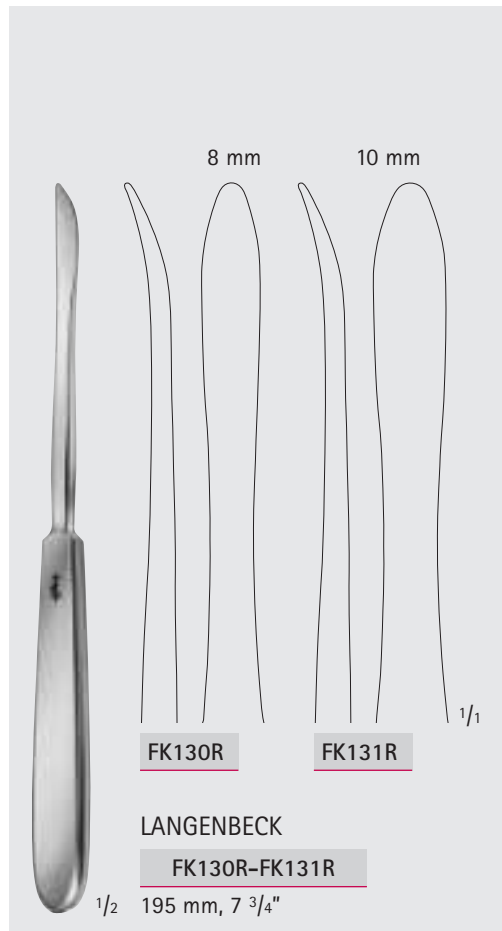
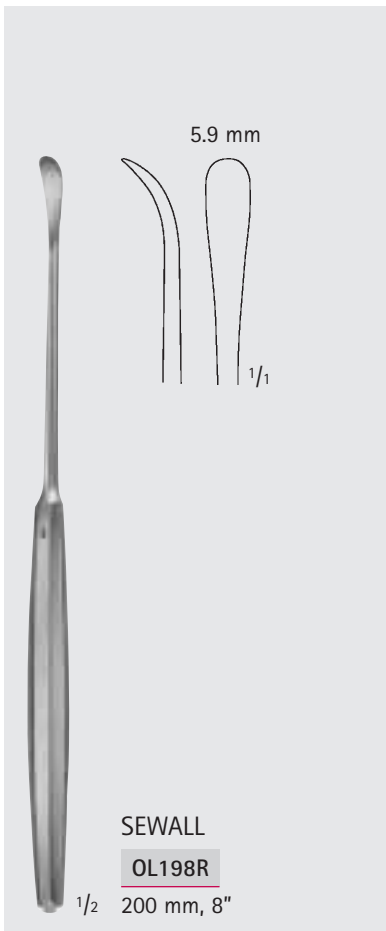
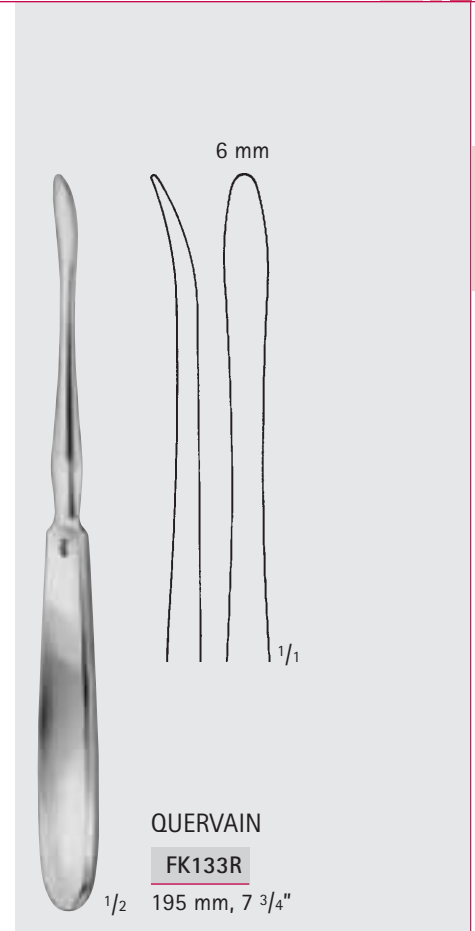
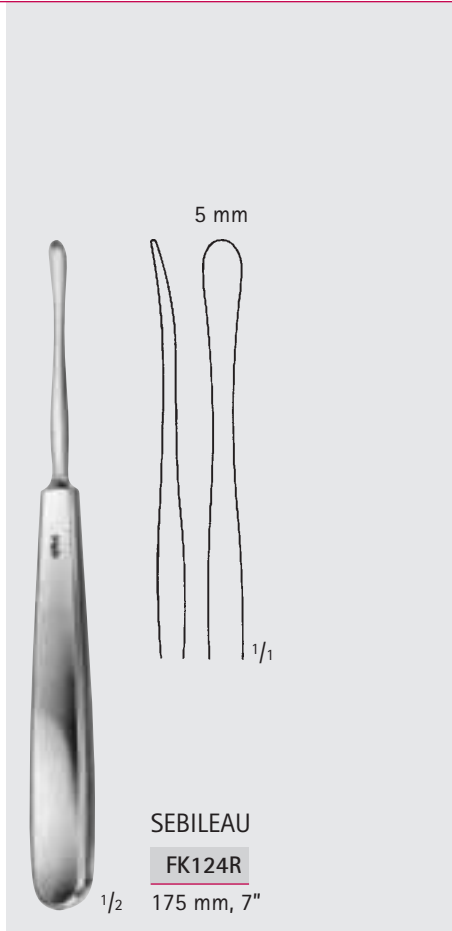
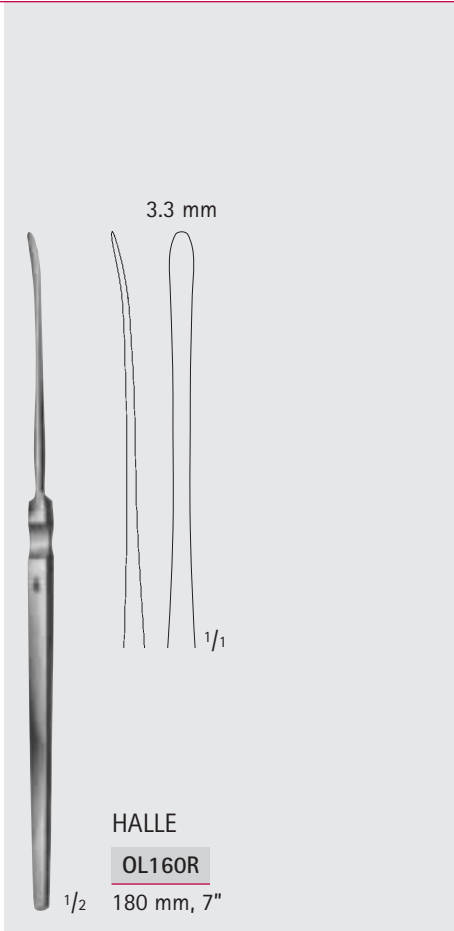
FK121R

170 mm, 6 3/4"

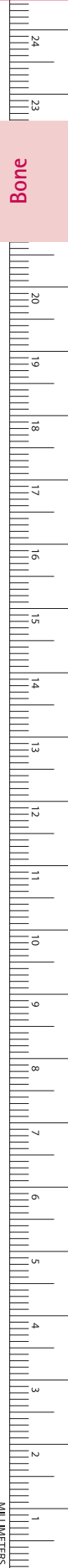


Instruments

Periosteal Elevators and Bone Levers



Bone

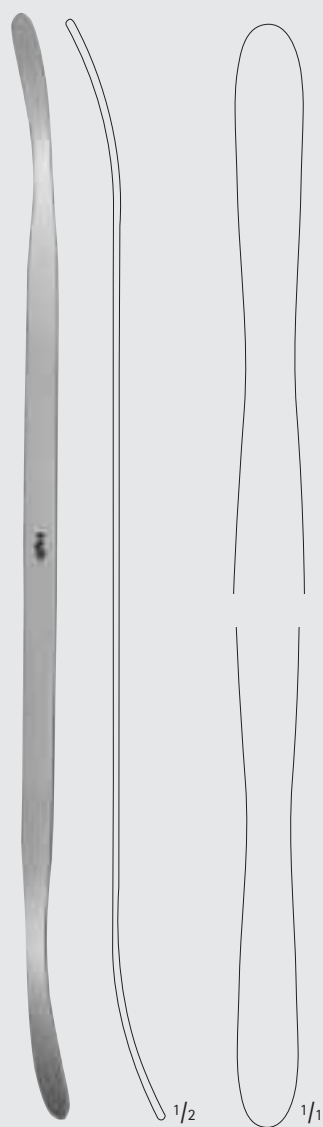


MILLIMETERS

Instruments

Dissectors

Bone



PENFIELD

FF295R

double-ended, slightly curved
290 mm, 11 1/2"



YASARGIL

FF326R 4 mm

with flexible shaft
for children
195 mm, 7 3/4"



YASARGIL

FF327R 7 mm

with flexible shaft
for adults
195 mm, 7 3/4"

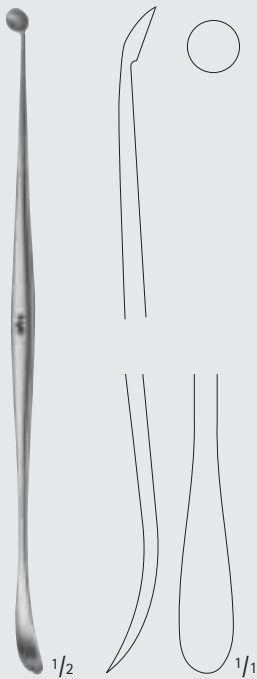


Instruments

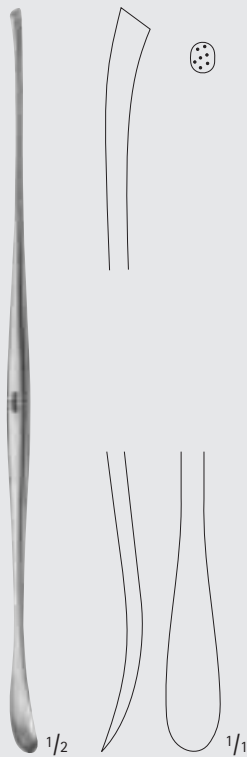
Dissectors

Bone

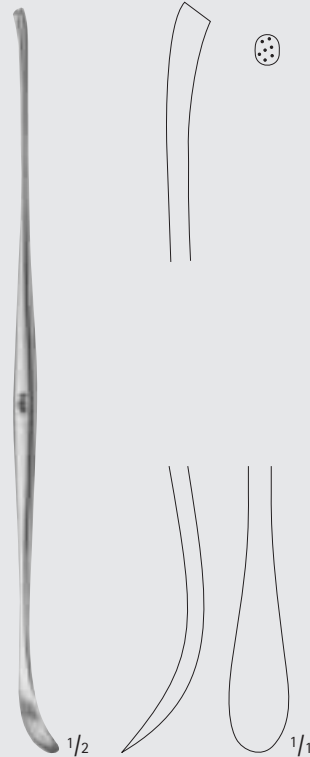
MILLIMETERS



PENFIELD
FF291R
double-ended
175 mm, 7"



PENFIELD
FF292R
double-ended
195 mm, 7 3/4"



PENFIELD
FF293R
double-ended
195 mm, 7 3/4"



PENFIELD
FF294R
slightly curved
205 mm, 8"

Instruments

Raspatories, Dissectors, Osteophyte Chisel

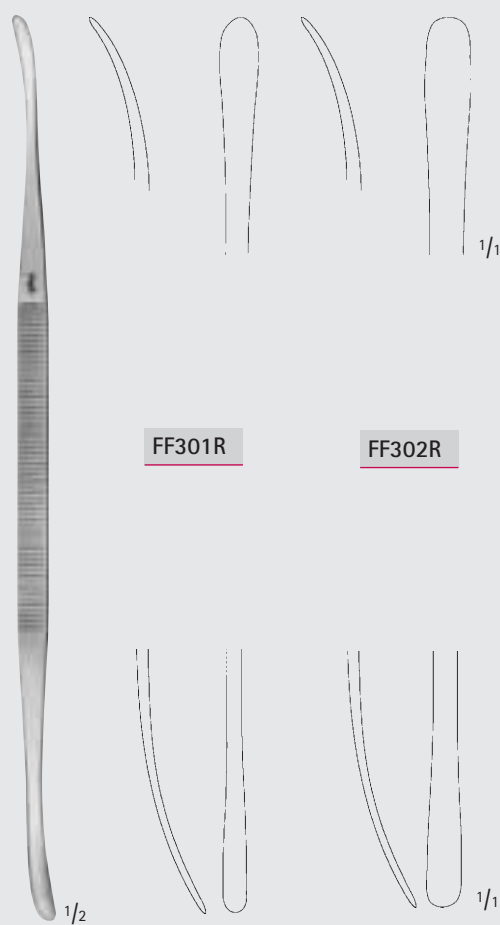
Bone



DAVIS

FF300R

245 mm, 9 3/4"



FF301R

FF302R

TÖNNIS

FF301R-FF302R

blunt/blunt

240 mm, 9 1/2"



ALLEN

FF346R

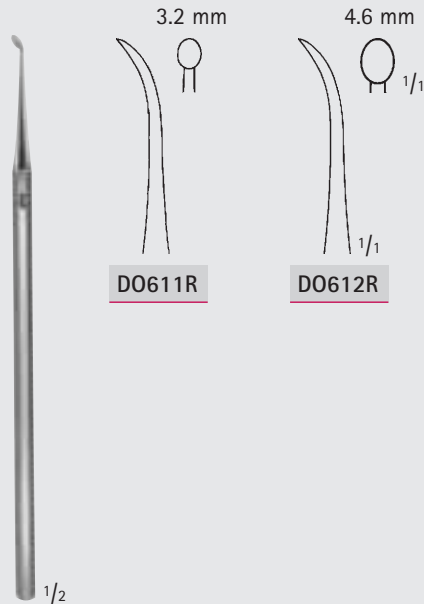
Osteophyte chisel and scraper

230 mm, 9"



Instruments

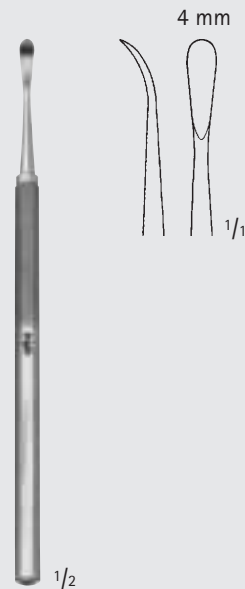
Periosteal Elevators



PARTSCH

DO611R-DO612R

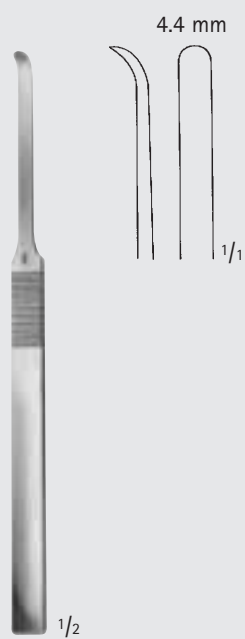
150 mm, 6"



PARTSCH MOD. LANGE

DO642R

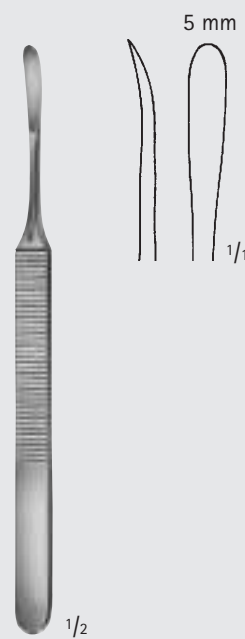
145 mm, 5 3/4"



MC KENTY

OL192R

155 mm, 6"



KÖNIG

OM309R

155 mm, 6"

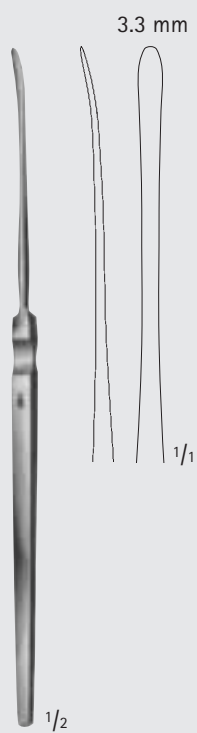
Bone

MILLIMETERS

Instruments

Raspatories, Dissectors

Bone



HALLE
OL160R
blunt
180 mm, 7"



FREER
OL163R
blunt
190 mm, 7 1/2"

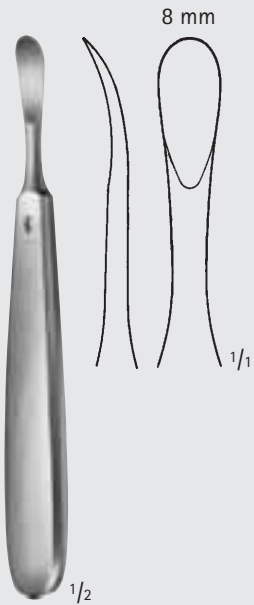


FREER
OL162R
190 mm, 7 1/2"



Instruments

Periosteal Elevators



TRELAT

OM311R

150 mm, 6"

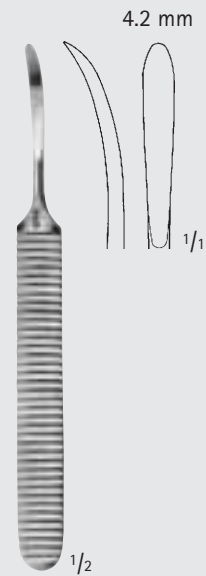


OM314R

OM315R

OM314R-OM315R

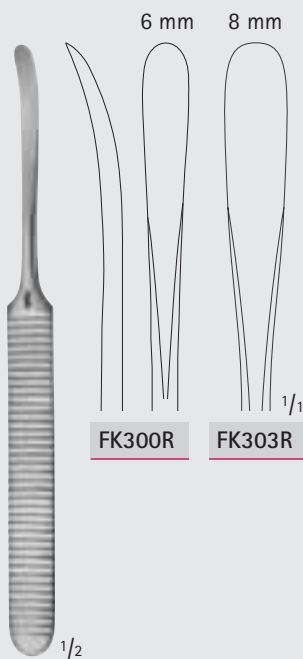
140 mm, 5 1/2"



WILLIGER

DO510R

140 mm, 5 1/2"



FK300R

FK303R

WILLIGER

FK300R-FK303R

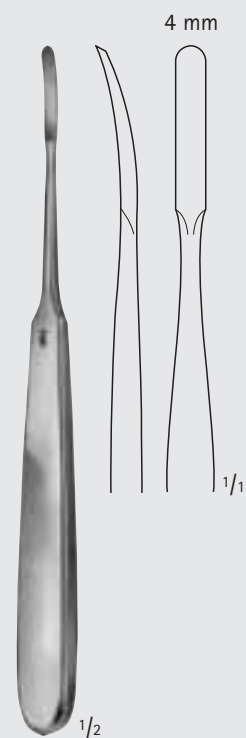
160 mm, 6 1/4"



WARD

DO546R

170 mm, 6 3/4"



JOSEPH

FK310R

180 mm, 7"

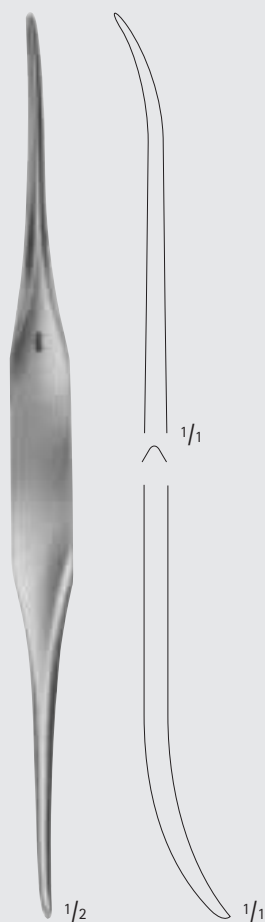
Bone

MILLIMETERS

Instruments

Grooved Dissectors

Bone



TÖNNIS

FF308R

Grooved dissector
240 mm, 9 1/2"



SWEDISH

FF347R 180 mm, 7"

light pattern

FF348R 200 mm, 8"

heavy pattern



PENNYBACKER

FF349R

Probe dissector
230 mm, 9"




Instruments

Bone Curettes

Bone



MILLIMETERS




3.6 mm
Fig. 000
FK688R

4.4 mm
Fig. 00
FK689R

5.2 mm
Fig. 0 $\frac{1}{1}$
FK690R

SIMON
FK688R-FK690R
235 mm, 9 $\frac{1}{4}$ "

$\frac{1}{2}$




3.6 mm
Fig. 000
FK773R

4.4 mm
Fig. 00
FK774R

5.2 mm
Fig. 0 $\frac{1}{1}$
FK775R

CASPAR
FK773R-FK775R
220 mm, 8 $\frac{3}{4}$ "

$\frac{1}{2}$



3.6 mm
Fig. 000
FK783R

4.4 mm
Fig. 00
FK784R

5.2 mm
Fig. 0 $\frac{1}{1}$
FK785R

CASPAR
FK783R-FK785R
220 mm, 8 $\frac{3}{4}$ "

$\frac{1}{2}$



4 mm
FK834R

5 mm
FK835R

6 mm
FK836R

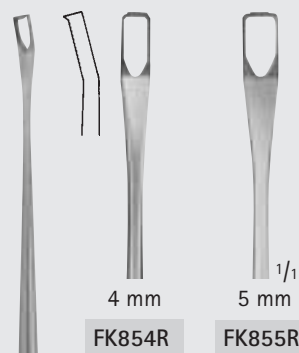
CASPAR
FK834R-FK836R
toothed
220 mm, 8 $\frac{3}{4}$ "

$\frac{1}{2}$

Instruments

Curettes

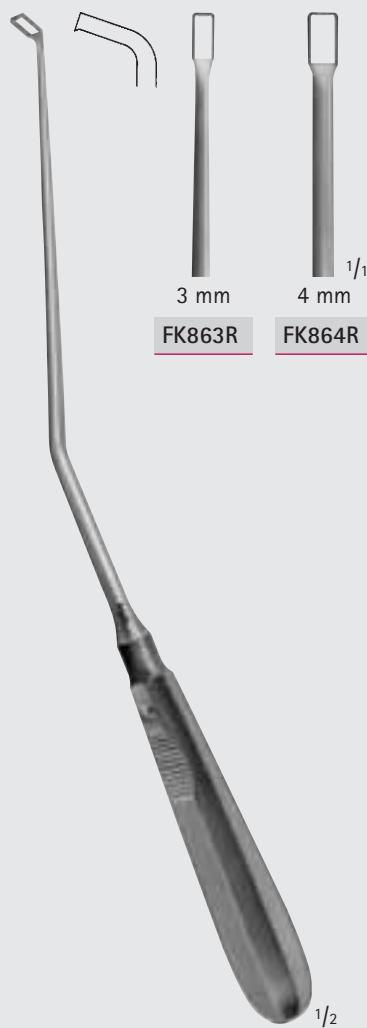
Bone



CASPAR

FK854R-FK855R

toothed
250 mm, 10"



CASPAR

FK863R-FK864R

toothed
270 mm, 10 $\frac{3}{4}$ "



Instruments

Bone Curettes

Bone



$\frac{1}{2}$

BRUNS

MB872R-MB880R

230 mm, 9"

2.0 mm



Fig. 000

MB872R

2.5 mm



Fig. 00

MB873R

3.3 mm



Fig. 0

MB874R

3.8 mm



Fig. 1

MB875R

4.8 mm



Fig. 2

MB876R

5.3 mm



Fig. 3

MB877R

6.0 mm



Fig. 4

MB878R

6.7 mm



Fig. 5

MB879R

7.3 mm



Fig. 6

MB880R

$\frac{1}{1}$

MILLIMETERS

Instruments

Bone Currettes

Bone



MARTINI

FK801R

140 mm, 5 1/2"



WILLIGER

FK814R

145 mm, 5 3/4"



FK850R

210 mm, 8 1/4"



VOLKMANN

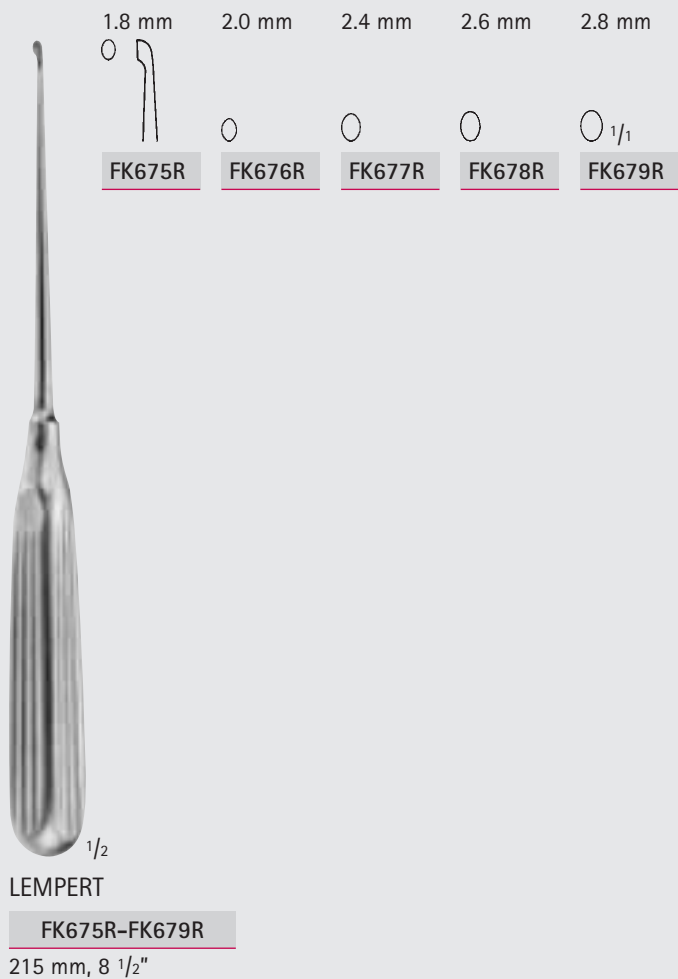
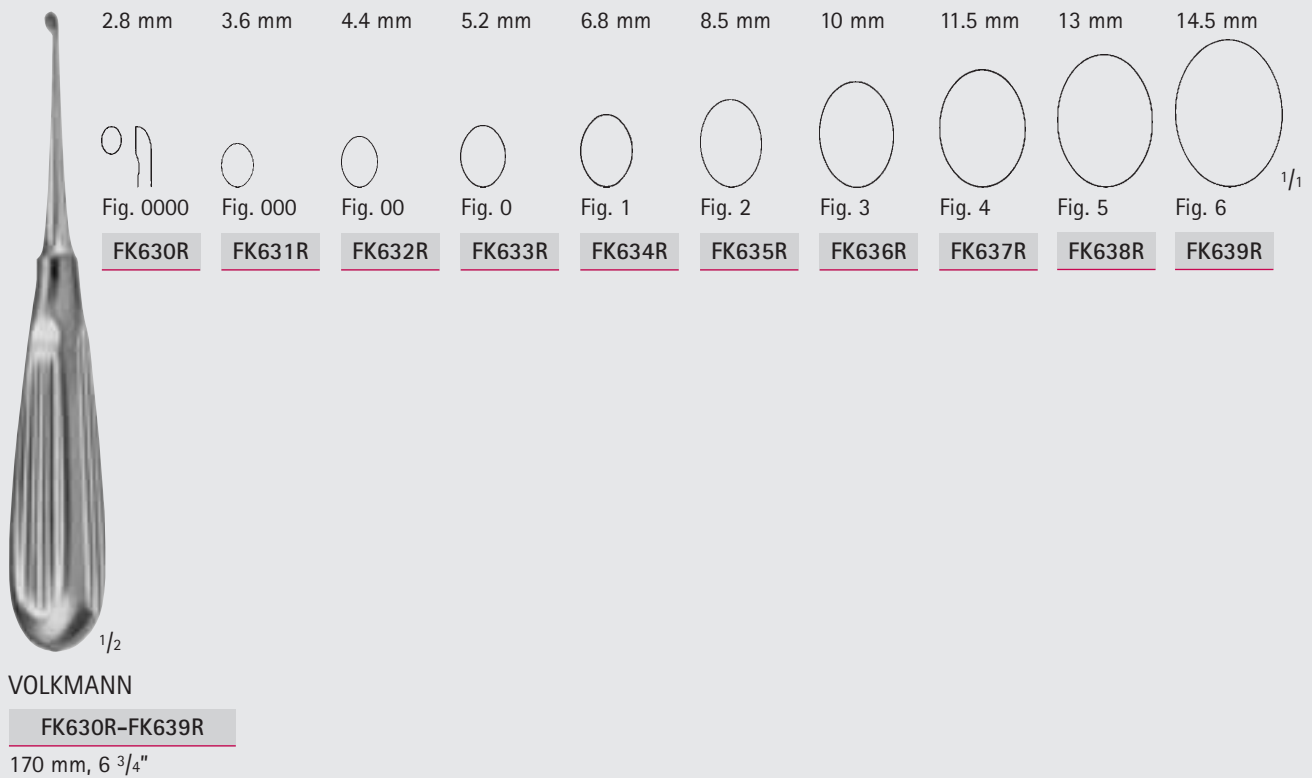
FK842R

170 mm, 6 3/4"



Instruments

Bone Curettes



Bone

MILLIMETERS

Instruments

Bone Curettes

Bone

malleable

4.4 mm



Fig. 00

FK684R

5.2 mm



Fig. 0

FK685R

6.8 mm



Fig. 1

FK686R



$\frac{1}{2}$

HALLE

FK684R-FK686R

215 mm, 8 $\frac{1}{2}$ "

2.8 mm



Fig. 0000

FK662R

3.6 mm



Fig. 000

FK663R

4.4 mm



Fig. 00

FK664R

5.2 mm



Fig. 0

FK665R



$\frac{1}{2}$

DAUBENSPECK

FK662R-FK665R

200 mm, 8"



Instruments

Bone Curettes

Bone



MILLIMETERS

3.6 mm



Fig. 000

FK702R

4.4 mm



Fig. 00

FK703R

5.2 mm



Fig. 0

FK704R

6.8 mm



Fig. 1

FK705R

$\frac{1}{2}$

FK702R-FK705R

250 mm, 10"

3.6 mm



Fig. 000

FK712R

4.4 mm



Fig. 00

FK713R

5.2 mm



Fig. 0

FK714R

6.8 mm

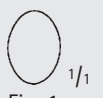


Fig. 1

FK715R

$\frac{1}{2}$

FK712R-FK715R

250 mm, 10"

3 mm



FK723R

4 mm



FK724R

5 mm



FK725R

$\frac{1}{2}$

BUSHE

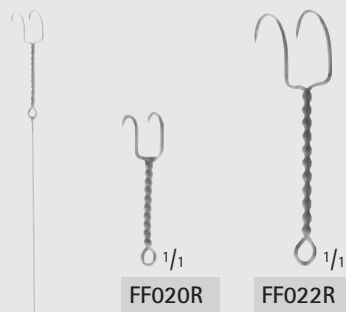
FK723R-FK725R

250 mm, 10"

Instruments

Galea Hooks

Bone



YASARGIL

FF020R-FF022R

Spring hook for galea fixation with bulldog clamp, to be fastened to covering drape



Instruments



For further details see
brochure No. C61202, C61302, C61402



For further details see
brochure No. C24302

Bone

MILLIMETERS

Instruments

Brain Spatulas

Silicone brain spatula

- Malleable metal spatula with elastic silicone coating
- Best possible, even transmission and distribution of the retraction strengths onto the entire spatula surface
- Prevention of high local pressure at the edges of the spatula
- For single use
- Individually sterile packed



2/3

	Width (mm)	Length
FF480R	6	200 mm, 8"
FF482R	7.5	200 mm, 8"
FF484R	10	200 mm, 8"
FF486R	12.5	200 mm, 8"
FF488R	15	200 mm, 8"

Brain spatulas with silicone coating, malleable

Sales unit:

PAK = Package of 10 pieces

Coated brain spatula

- Flexible metal spatula
- Conically tapered
- Smooth surface
- Atraumatic rounded edges
- Black NOIR® surface coating to avoid light reflections
- Reusable
- Easy to reprocess



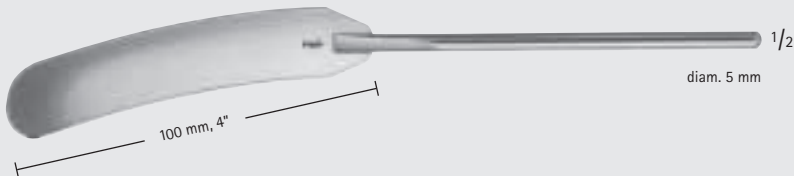
	Size	Length
FF456B	S = 8 x 4 mm	200 mm, 8"
FF457B	M = 13 x 6 mm	200 mm, 8"
FF458B	L = 17 x 9 mm	200 mm, 8"
FF459B	XL = 21 x 11 mm	200 mm, 8"

NOIR® Brain spatulas



Instruments

Brain Spatulas with Round Shaft



	Width (mm)	Length
FF231R	14	200 mm, 8"
FF232R	17	200 mm, 8"
FF233R	20	200 mm, 8"

malleable



HEIFETZ

	Width (mm)	Length
FF256R	8	155 mm, 6"
FF257R	11	155 mm, 6"
FF258R	14	155 mm, 6"
FF259R	17	155 mm, 6"

malleable

Instruments

Brain Spatulas, Flat

AACHEN pattern

	Width (mm)	Length
FF441R	7 + 8	200 mm, 8"
FF442R	10 + 11	200 mm, 8"
FF443R	13 + 14	200 mm, 8"
FF444R	16 + 17	200 mm, 8"
FF445R	19 + 20	200 mm, 8"
FF446R	22 + 25	200 mm, 8"

malleable

	Width (mm)	Length
BT751R	12	200 mm, 8"
BT752R	17	200 mm, 8"
BT755R	25	250 mm, 10"

malleable

	Width (mm)	Length
FF201R	9	200 mm, 8"
FF202R	12	200 mm, 8"
FF222R	12	250 mm, 10"

malleable

	Width (mm)	Length
FF211R	7 + 9	180 mm, 7"
FF212R	11 + 13	180 mm, 7"
FF213R	15 + 18	180 mm, 7"
FF214R	18 + 22	180 mm, 7"

malleable

OLIVECRONA

	Width (mm)	Length
FF216R	7 + 9	180 mm, 7"
FF217R	11 + 13	180 mm, 7"
FF218R	15 + 18	180 mm, 7"
FF219R	18 + 22	180 mm, 7"

flexible



Instruments

Accessories for LEYLA Self-Retaining Retractor, for Skull Mounting

YASARGIL LEYLA Retractor

The mechanical support for brain spatulas used during skull operations

- self-retaining, no assistant needed
- uniform holding, no pressure irritation at long operations
- up to 5 flexible arms can simultaneously be attached, no obstruction of direct vision
- no restriction of the operating area, important when using a microscope

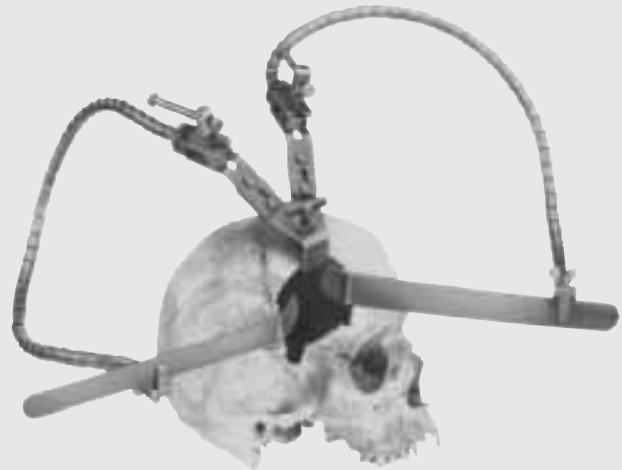


YASARGIL

FF260R

Self-retaining brain retractor,
with 1 flexible arm, complete,
consisting of:

- FF267R Fixation base for 1 flexible arm
- FF270R Flexible arm only
- FF273R Support for flat brain spatulas



YASARGIL

FF262R

Self-retaining brain retractor,
with 2 flexible arms, complete,
consisting of:

- FF268R Fixation base for 2 flexible arms
- FF270R 2 Flexible arms only
- FF273R 2 Support for flat brain spatulas



FF267R

Fixation base,
for skull mounting
holding 1 flexible arm FF270R



FF268R

Fixation base,
for skull mounting
holding 2 flexible arms FF270R



FF266R

Fixation base,
for mounting to bars up to 16 mm diam.,
holding 1 flexible arm FF270R

Instruments

Accessories for LEYLA Self-Retaining Retractor



FF273R or FF274R necessary

YASARGIL

FF270R

Flexible arm only,
for attaching coupling heads FF282R, FF283R and FF284R and for fixation
bases FF266R, FF267R and FF268R

■ Spare part: FF270804 Wire cable, only



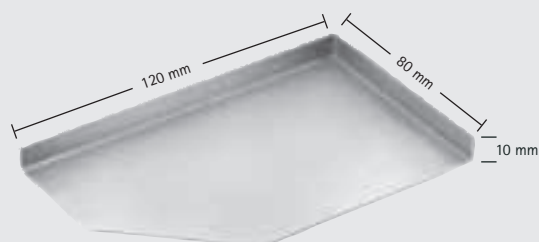
FF273R

Support only,
for flat brain spatulas,
fixing to flexible arm FF270R



FF274R

Support only,
for brain spatulas with round shaft up to 5.5 mm diam.,
fixing to flexible arm FF270R



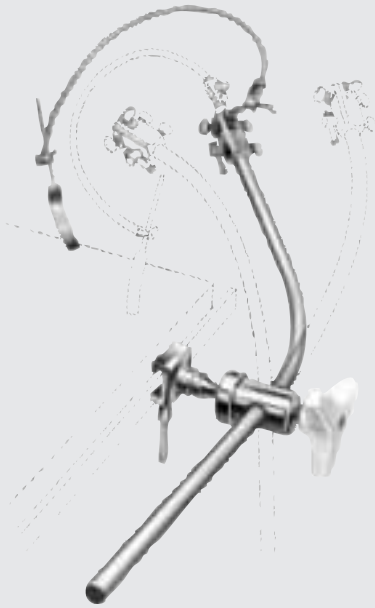
FF180R

Tray for patties,
can be fixed to the flexible arm FF270R and FF273R

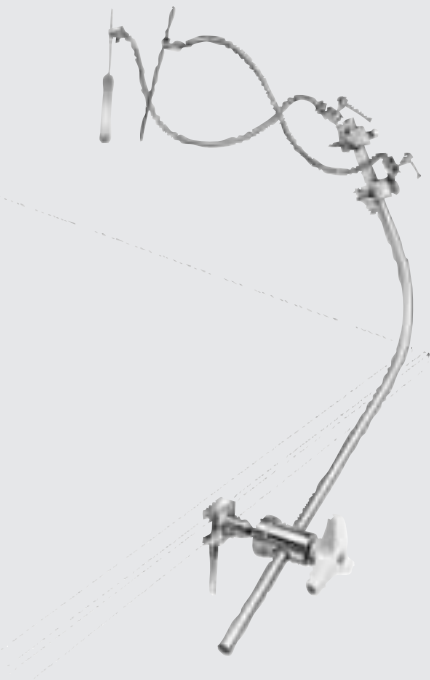


Instruments

Accessories for LEYLA Self-Retaining Retractor, Fixation to Operating Table



FF280R	Ball-and socket joint
FF285R	Holding rod
FF282R	Coupling head
FF270R	Flexible arm
FF274R	Support for brain spatulas with round shaft



FF280R	Ball-and socket joint
FF285R	Holding rod
FF283R	2 Coupling heads
FF270R	Flexible arm
FF273R	Support for flat brain spatulas
FF274R	Support for brain spatulas with round shaft

Retractors

MILLIMETERS

Instruments

Accessories for LEYLA Self-Retaining Retractor, Fixation to Operating Table



FF280R

Ball- and socket joint
for fixing holding rod FF285R to pole of operating table
10 x 25 mm

FF286R

Ball- and socket joint
for fixing holding rod FF285R to pole of operating table
max. 9 x 32 mm



FF285R

Holding rod
for fixation in ball- and socket joint FF280R
and to take coupling head FF282R, FF283R
oder FF284R



FF282R

Coupling head
to take 1-5 flexible arms FF270R



FF283R

Coupling head, rotatable,
can be fixed in any position,
to take 1 flexible arm FF270R,
if necessary, several coupling heads FF283R can be attached



FF284R

Coupling head,
equal to FF283R, but laterally open,
can be fixed subsequently at any position
on the holding rod



Instruments

Combined Retractor and Handrest System - Basic Unit



GILSBACH

FF150R

Basic unit,
consisting of:

- FF152R Insulated holding rod
- FF153R Semi-circular basic bar, for flexible arms
- FF154R Frame for Galea hook

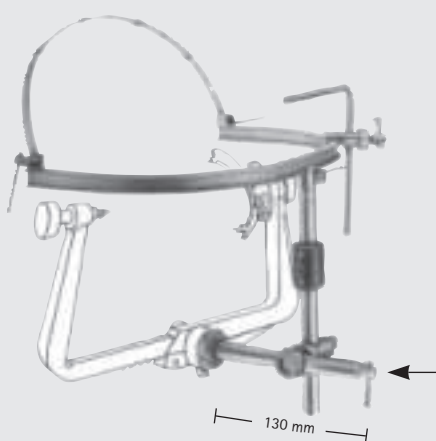
Instruments

Accessories for Combined Retractor and Handrest System



FF151R

Socket,
to attach the unit to lateral supporting arm



FF190R

Holding device, complete,
to attach the unit to the MAYFIELD head holder,
consisting of:
FF191R Holding rod, to be fixed MAYFIELD head holder
FF193R Connection piece, to be mounted to holding rod FF152R



FF193R

Connection piece,
to attach the unit to holding rod FF285R

FF285R

Holding rod

FF280R

Ball- and socket joint
for fixing holding rod FF285R to pole of operating table
10 x 25 mm

FF286R

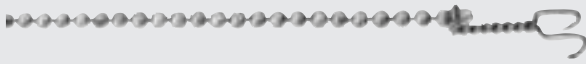
Ball- and socket joint
for fixing holding rod FF285R to pole of operating table
max. 9 x 32 mm





Instruments

Accessories for Combined Retractor and Handrest System



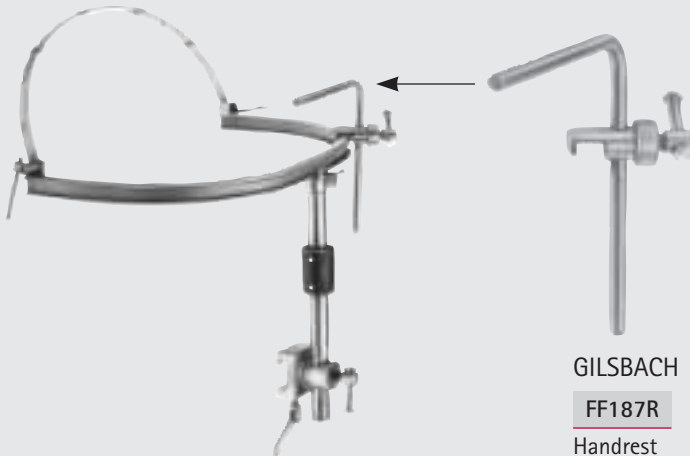
FF155R

Galea hook with ball chain,
can be fixed to frame FF154R



FF156R

Galea hook with ball chain and spiral spring,
can be fixed to frame FF154R



GILSBACH

FF187R

Handrest
adjustable in height, pivoting
fit for sliding on the
semi-circular basic bar FF153R

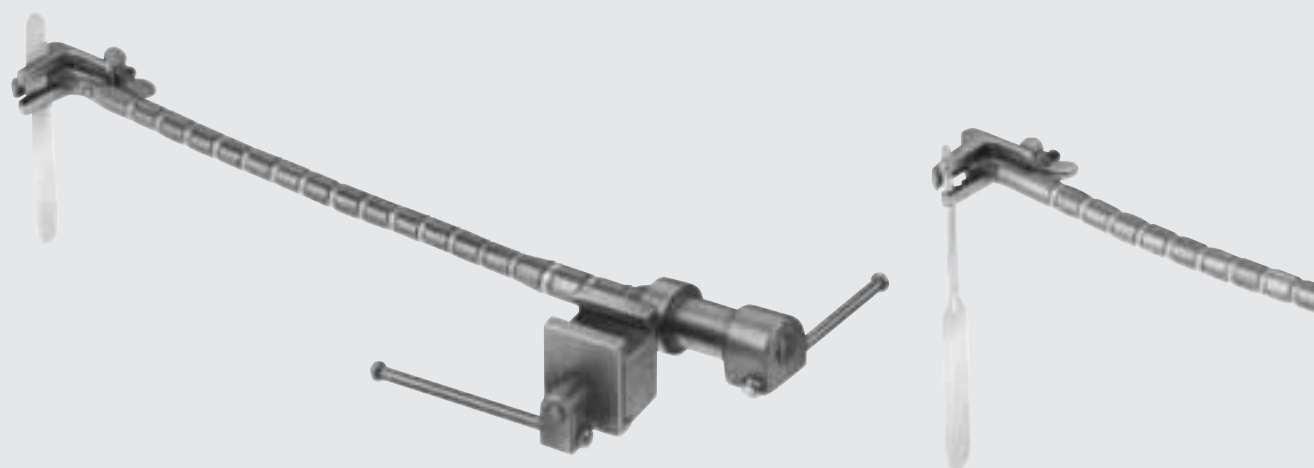


FF185R

Tubular forceps holder
fit for sliding on the
semi-circular basic bar FF153R

Instruments

Accessories for Combined Retractor and Handrest System



	Length
FF161R	200 mm, 6"
FF163R	200 mm, 8"
FF165R	250 mm, 10"

Flexible arm only



FF273R

Support only,
for flat brain spatulas, fixing to flexible arms
FF161R, FF163R, FF165R



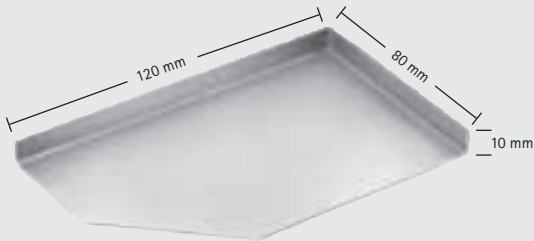
FF274R

Support only,
for brain spatulas with round shaft up to 5.5 mm diam.,
fixing to flexible arms FF161R, FF163R, FF165R



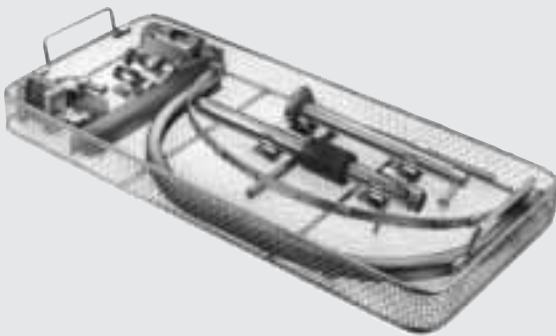
Instruments

Accessories for Combined Retractor and Handrest System



FF180R

Tray for patties,
can be fixed to the flexible arms FF161R, FF163R,
FF165R together with FF273R

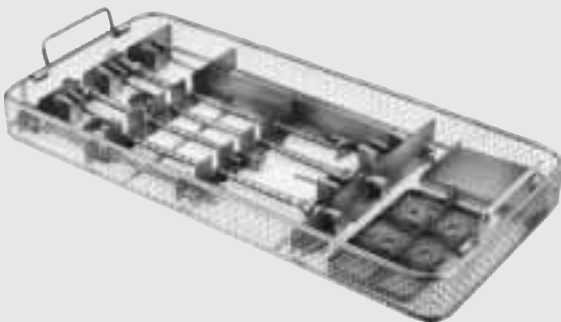


FF148R

Storage rack for basic unit
(without instruments)

TE584

Packing stencil for FF148R (not sterilizable)



FF149R

Storage rack for flexible arms etc.
(without instruments)

TE585

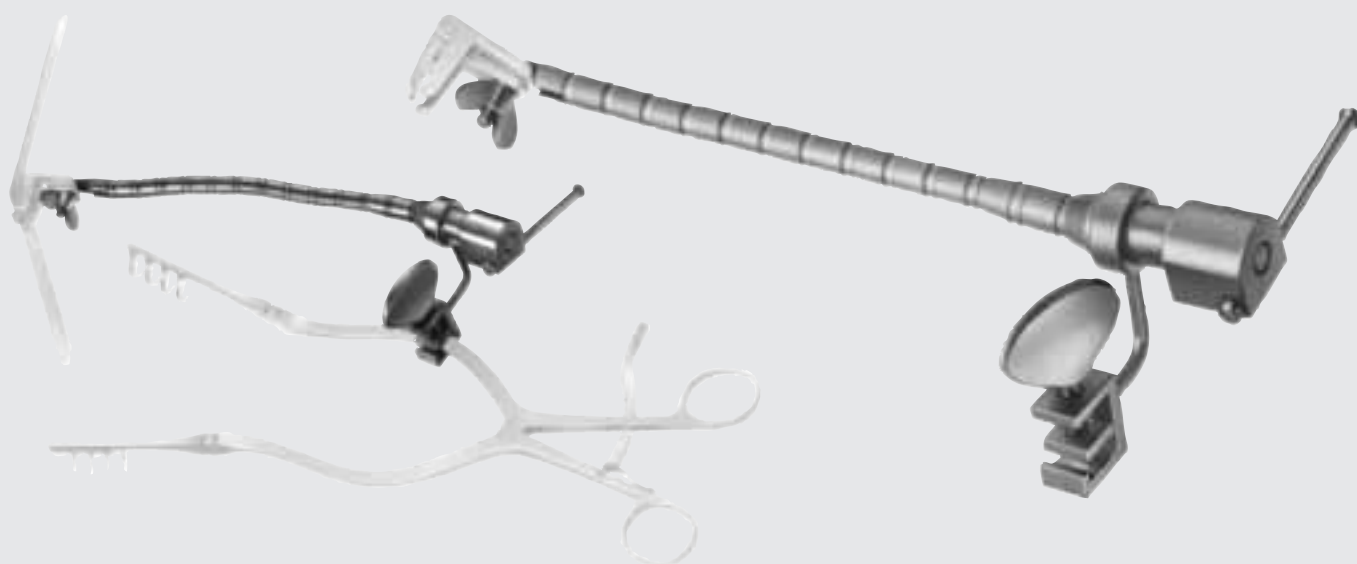
Packing stencil for FF149R (not sterilizable)

Instruments

Retractor

Advantages:

- Unique fixation clamp allows unlimited positioning of the retractor arm along the body of the selected self-retaining retractor
- Attaches to virtually all self-retaining retractors
- Two retractor blade supports are available, allowing the use of both flat and round shaft retractor blades
- Provides improved exposure on Posterior Fossa Craniotomies
- Excellent for nerve root retraction during laminectomy procedures



NEW JERSEY

Self-retaining retractors see page 101-115, 117.

FF431R

Flexible arm, only without support for brain spatulas



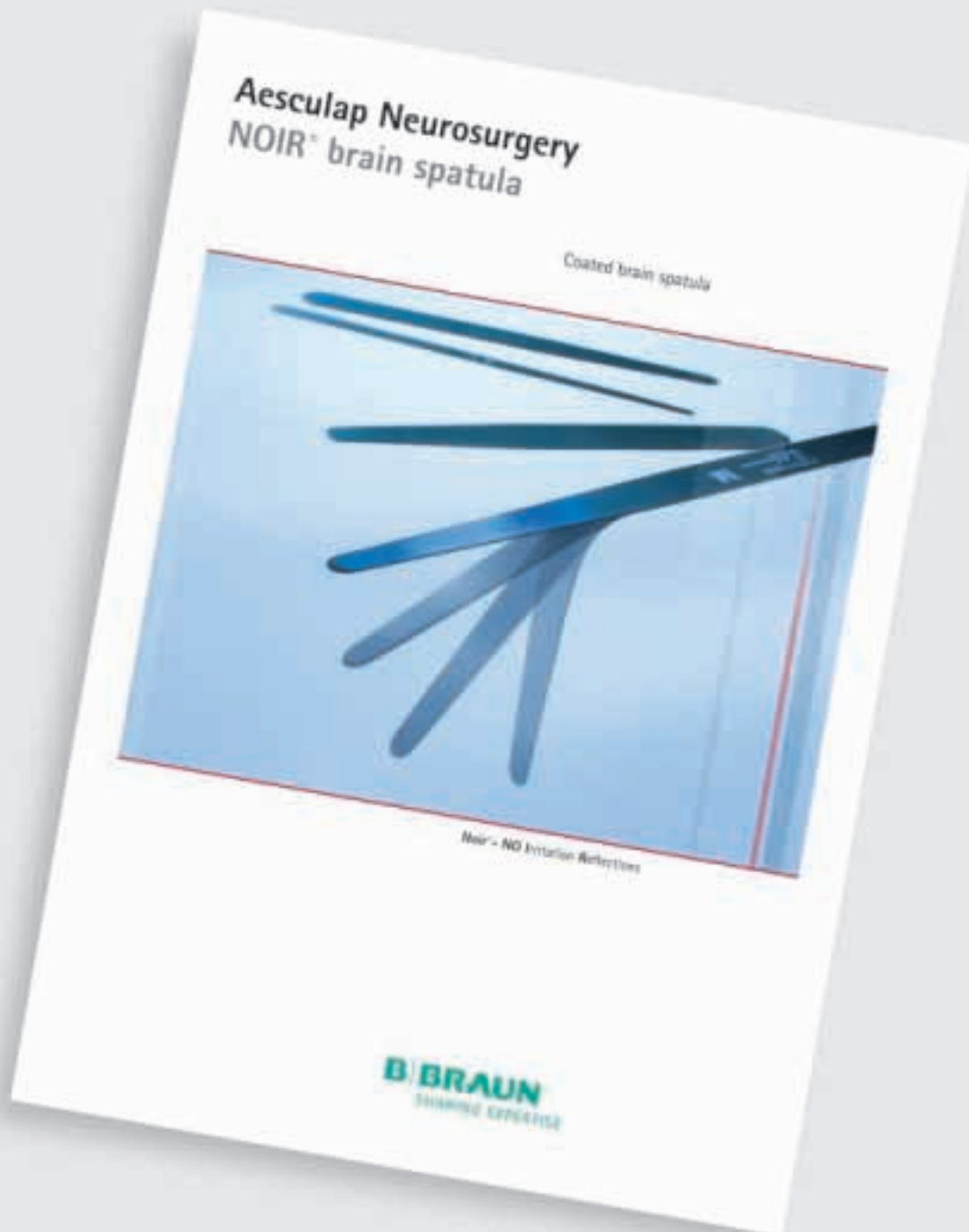
FF273R

Support only,
for flat brain spatulas,
fixing to flexible arm FF431R



FF274R

Support only,
for brain spatulas with round shaft up to 5.5 mm diam.,
fixing to flexible arm FF431R



For further details see
brochure No. C61602



MILLIMETERS

Instruments

Self-Retaining Retractors

Retractors



BOSE

FA001R

60 mm, 2 $\frac{3}{8}$ "



FINSEN

BV001R

50 mm, 2"



FINSEN

BV002R

70 mm, 2 $\frac{3}{4}$ "



FINSEN MODIF.

BV003R

75 mm, 3"



FINSEN

BV005R

70 mm, 2 $\frac{3}{4}$ "



BV006R

45 mm, 1 $\frac{3}{4}$ "



BV007R

55 mm, 2 $\frac{1}{8}$ "



Instruments

Self-Retaining Retractors

Retractors



$\frac{1}{2}$

PARSONNET

BV014R

50 mm, 2"



$\frac{1}{1}$

$\frac{1}{2}$

BV008R

blunt

100 mm, 4"



$\frac{1}{1}$

$\frac{1}{2}$

BV015R

sharp

100 mm, 4"



$\frac{1}{2}$

ALM

BV010R-BV011R



BV010R

70 mm

2 $\frac{3}{4}$ "

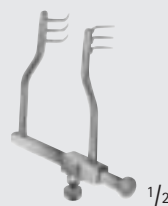
BV011R

100 mm

4"



$\frac{1}{1}$



$\frac{1}{2}$

LOGAN
MODIF. REILL

BV013R

50 mm, 2"

MILLIMETERS

Instruments

Self-Retaining Retractors, Lid Retractors

Retractors



1/1



1/2

ALLPORT

BV028R

95 mm, 3 3/4"



1/1



1/2

JANSEN

BV030R

100 mm, 4"



1/1



1/2

JANSEN

BV032R

100 mm, 4"



1/1



1/2

JANSEN

BV033R

100 mm, 4"



1/1



1/2

BARRAQUER

OA200R

45 mm, 1 3/4"



1/1



1/2

SAUER

OA218R

35 mm, 1 3/8"



1/1



1/2

LANCASTER

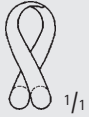
OA225R

80 mm, 3 1/8"



Instruments

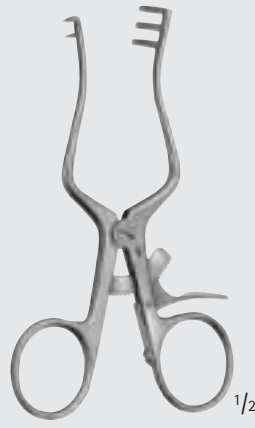
Self-Retaining Retractors



WEITLANER

BV070R

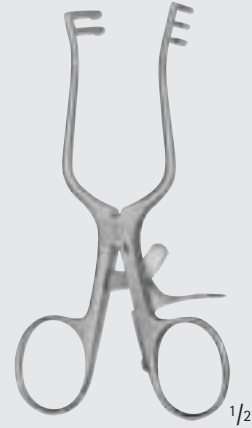
sharp
110 mm, 4 $\frac{3}{8}$ "



WEITLANER

BV066R

semi-sharp
110 mm, 4 $\frac{3}{8}$ "



WEITLANER

BV073R

blunt
110 mm, 4 $\frac{3}{8}$ "



WEITLANER

BV071R

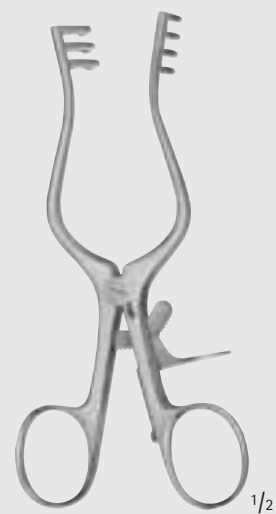
sharp
130 mm, 5 $\frac{1}{8}$ "



WEITLANER

BV067R

semi-sharp
130 mm, 5 $\frac{1}{8}$ "



WEITLANER

BV074R

blunt
130 mm, 5 $\frac{1}{8}$ "

Retractors

MILLIMETERS

Instruments

Self-Retaining Retractors



WEITLANER

BV101R

sharp

130 mm, 5 1/8"

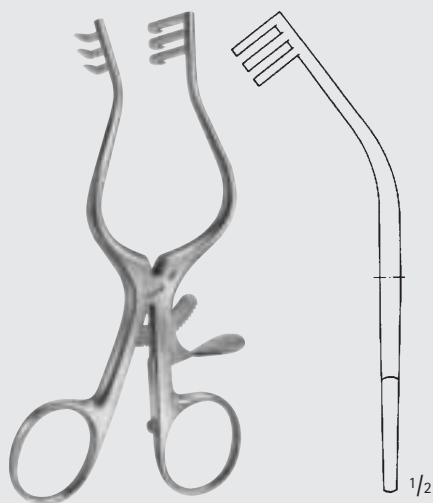


WEITLANER

BV104R

blunt

130 mm, 5 1/8"

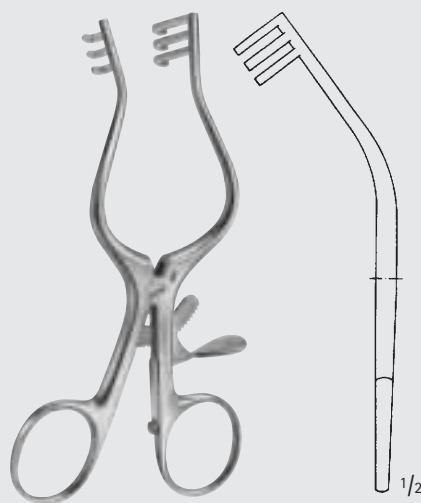


WULLSTEIN

BV076R

sharp

130 mm, 5 1/8"



WULLSTEIN

BV077R

blunt

130 mm, 5 1/8"



Instruments

Self-Retaining Retractors

Retractors

MILLIMETERS



WEITLANER

BV072R

sharp

165 mm, 6 1/2"

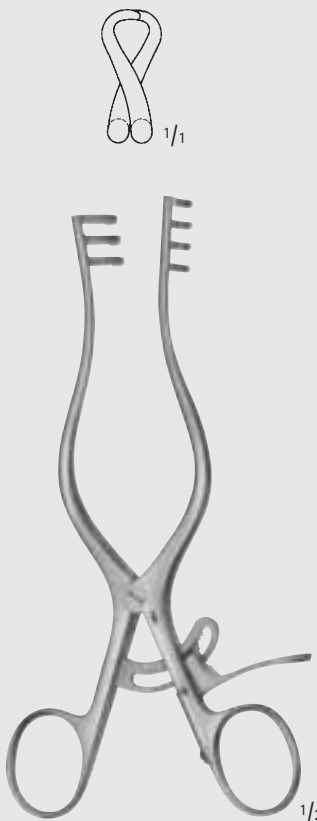


WEITLANER

BV068R

semi-sharp

165 mm, 6 1/2"

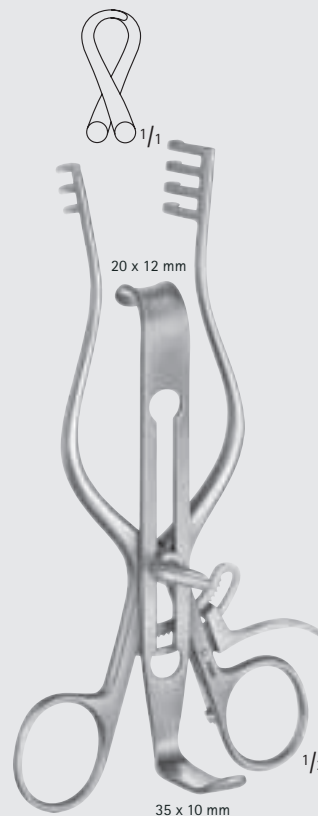


WEITLANER

BV075R

blunt

165 mm, 6 1/2"



ALLENBERG

BV097R

Carotid retractor complete,
consisting of:

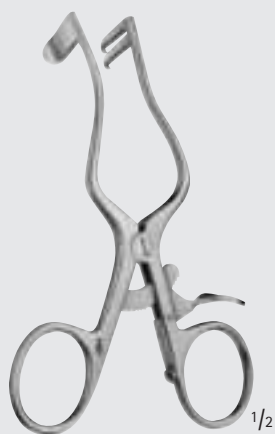
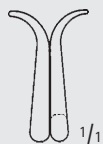
BV098R Retractor only, blunt

BV099R Center blade only,
120 mm, 4 3/4"

170 mm, 6 3/4"

Instruments

Self-Retaining Retractors

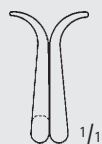


PLESTER

BV090R

blunt

110 mm, 4 $\frac{3}{8}$ "

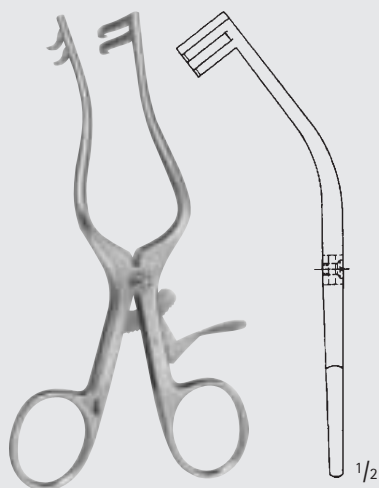


PLESTER

BV091R

blunt

110 mm, 4 $\frac{3}{8}$ "

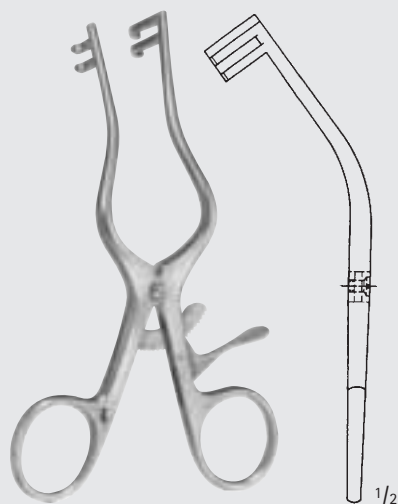


PLESTER

BV078R

sharp

130 mm, 5 $\frac{1}{8}$ "



PLESTER

BV079R

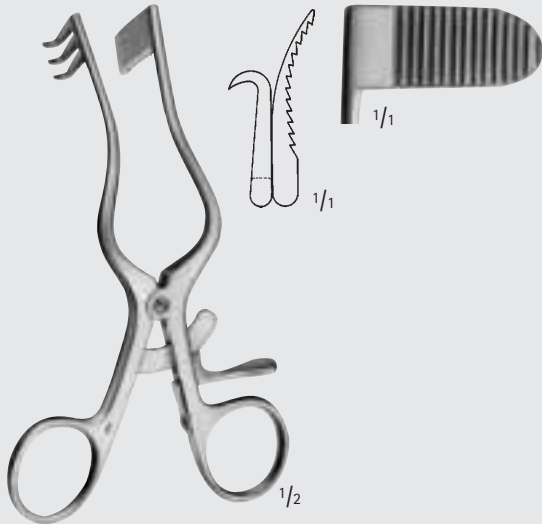
blunt

130 mm, 5 $\frac{1}{8}$ "



Instruments

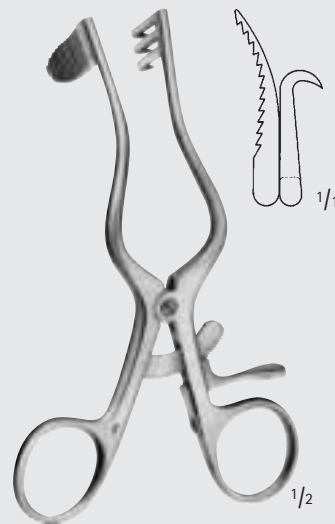
Self-Retaining Retractors



PERKINS

OK794R

130 mm, 5 1/8"



PERKINS

OK795R

130 mm, 5 1/8"



RNTNE HOSPITAL

BV084R

sharp
165 mm, 6 1/2"



ADSON-BABY

BV085R 140 mm, 5 1/2"

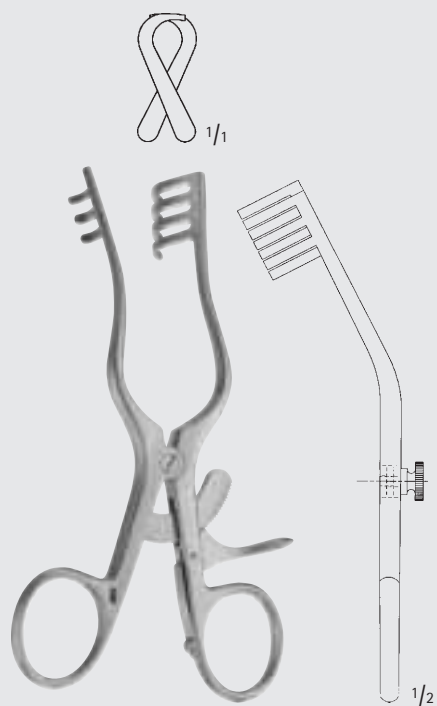
BV094R 165 mm, 6 1/2"
semi-sharp

Retractors

MILLIMETERS

Instruments

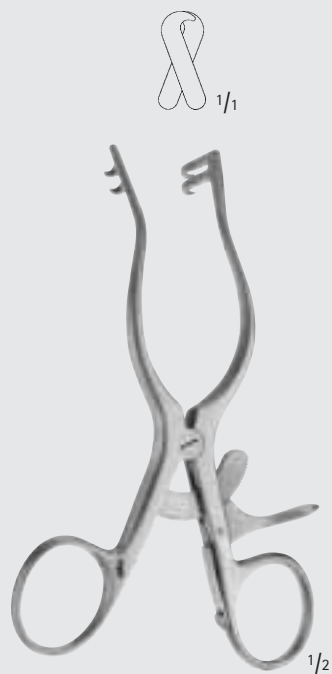
Self-Retaining Retractors



JEFFERSON

BV092R

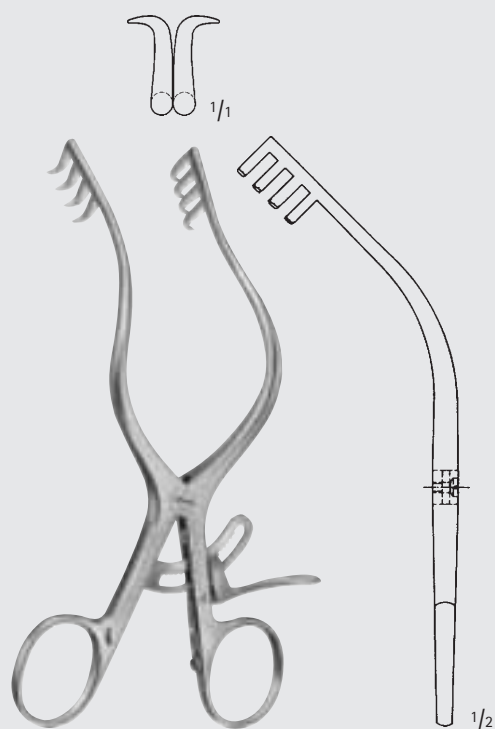
curved, blunt
140 mm, 5 1/2"



MOLLISON

BV093R

sharp
140 mm, 5 1/2"



MOLLISON

BV088R

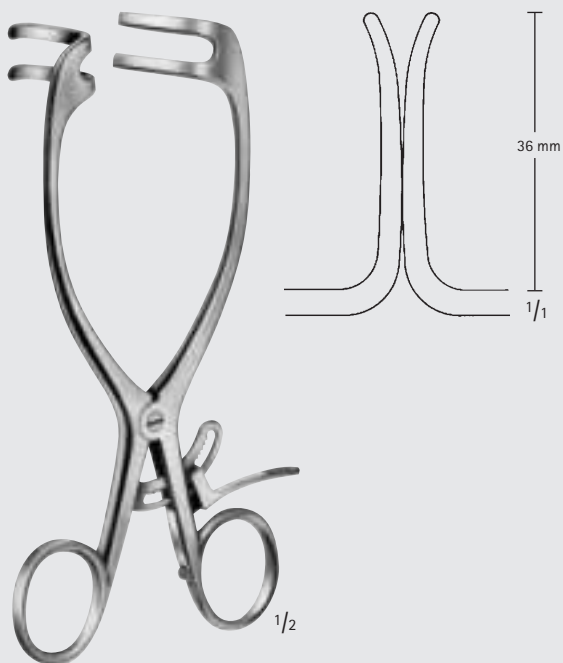
sharp
155 mm, 6"



Instruments

Self-Retaining Retractors

Retractors



MAYO-ADAMS

BV112R

165 mm, 6 1/2"



HENDERSON

BV113R

sharp
180 mm, 7"



Instruments

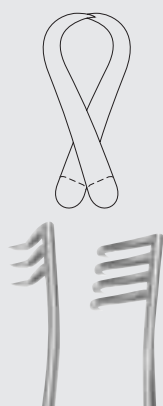
Self-Retaining Retractors

Retractors



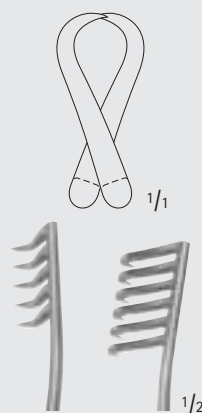
BV200R

sharp
195 mm, 7 ³/₄"



BV206R

sharp
240 mm, 9 ¹/₂"



BV208R

sharp
255 mm, 10"



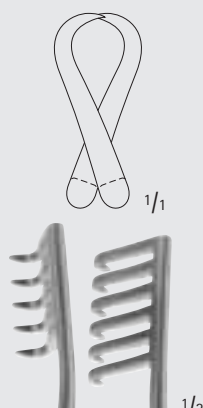
BV199R

semi-sharp
195 mm, 7 ³/₄"



BV203R

semi-sharp
240 mm, 9 ¹/₂"



BV205R

semi-sharp
255 mm, 10"



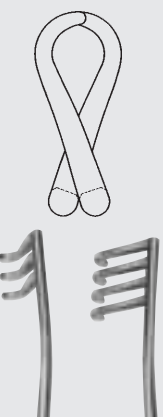
WEITLANER

BV199R-BV209R



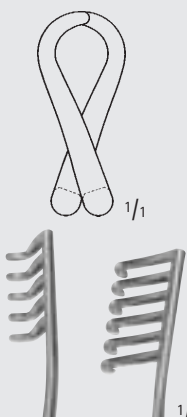
BV201R

blunt
195 mm, 7 ³/₄"



BV207R

blunt
240 mm, 9 ¹/₂"



BV209R

blunt
255 mm, 10"



Instruments

Self-Retaining Retractors

Retractors



1/1



1/2

IRWIN

BV247R

sharp
175 mm, 7"



1/1



1/2

TRAVERS

BV249R

blunt
215 mm, 8 1/2"

MILLIMETERS

Instruments

Self-Retaining Laminectomy Retractors

Retractors



ANDERSON-ADSON

BV250R

sharp
190 mm, 7 1/2"



NORFOLK AND NORWICH

BV248R

blunt
220 mm, 8 3/4"



ADSON

BV252R

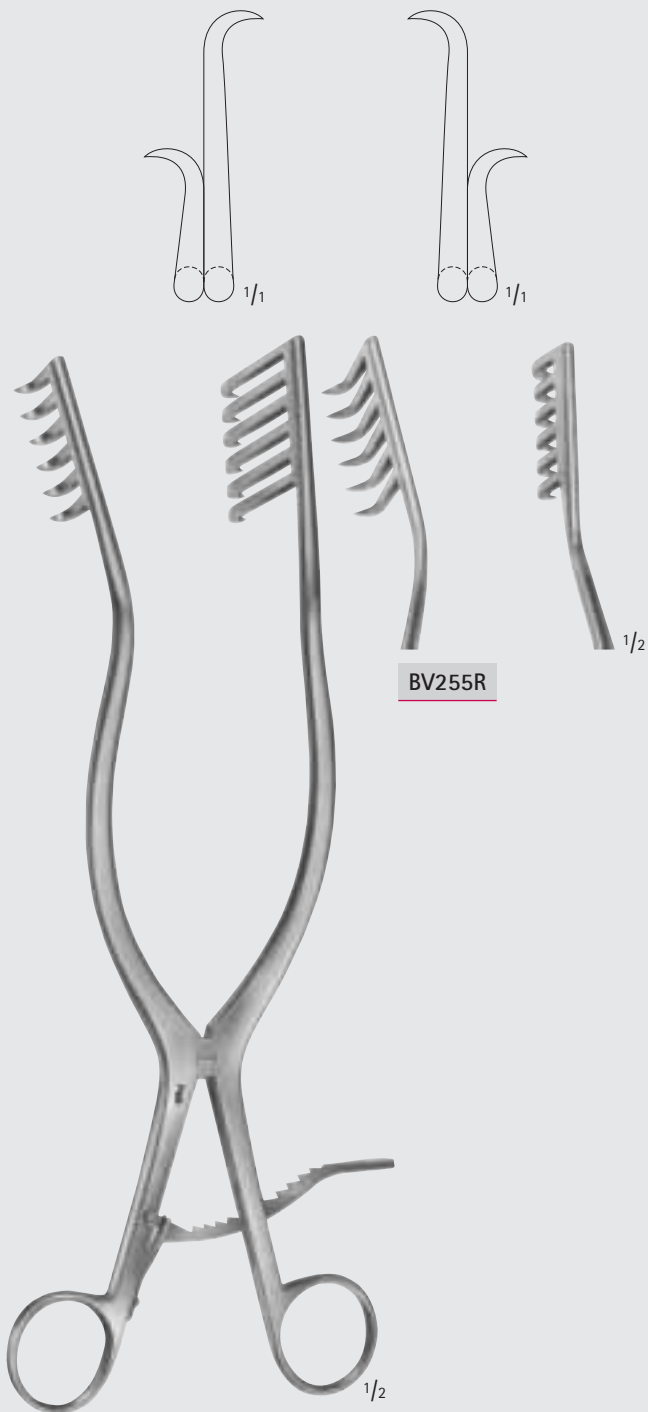
sharp
265 mm, 10 1/2"



Instruments

Self-Retaining Laminectomy Retractors

Retractors



BV254R-BV255R

Hemi-laminectomy retractor
sharp
280 mm, 11"



CONE

BV260R

sharp
265 mm, 10 1/2"

MILLIMETERS

Instruments

Self-Retaining Laminectomy Retractors

Retractors



BECKMANN-ADSON

BV271R semi-sharp

BV272R sharp

310 mm, 12¹/₄"



HARVEY-JACKSON

BV258R

sharp

280 mm, 11"



Instruments

Self-Retaining Laminectomy Retractors



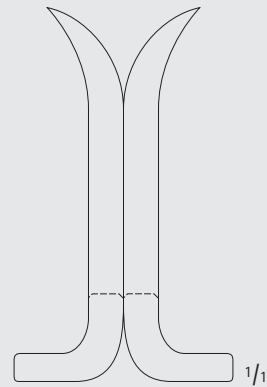
1/1



ADSON

BV273R

semi-sharp
320 mm, 12 3/4"



1/1



BECKMANN-EATON

BV276R

sharp
320 mm, 12 3/4"

Retractors

MILLIMETERS

Instruments

Special Retractor

Retractors



JACKSON-BURROWS

BV993R

blunt

185 mm, 7 1/4"

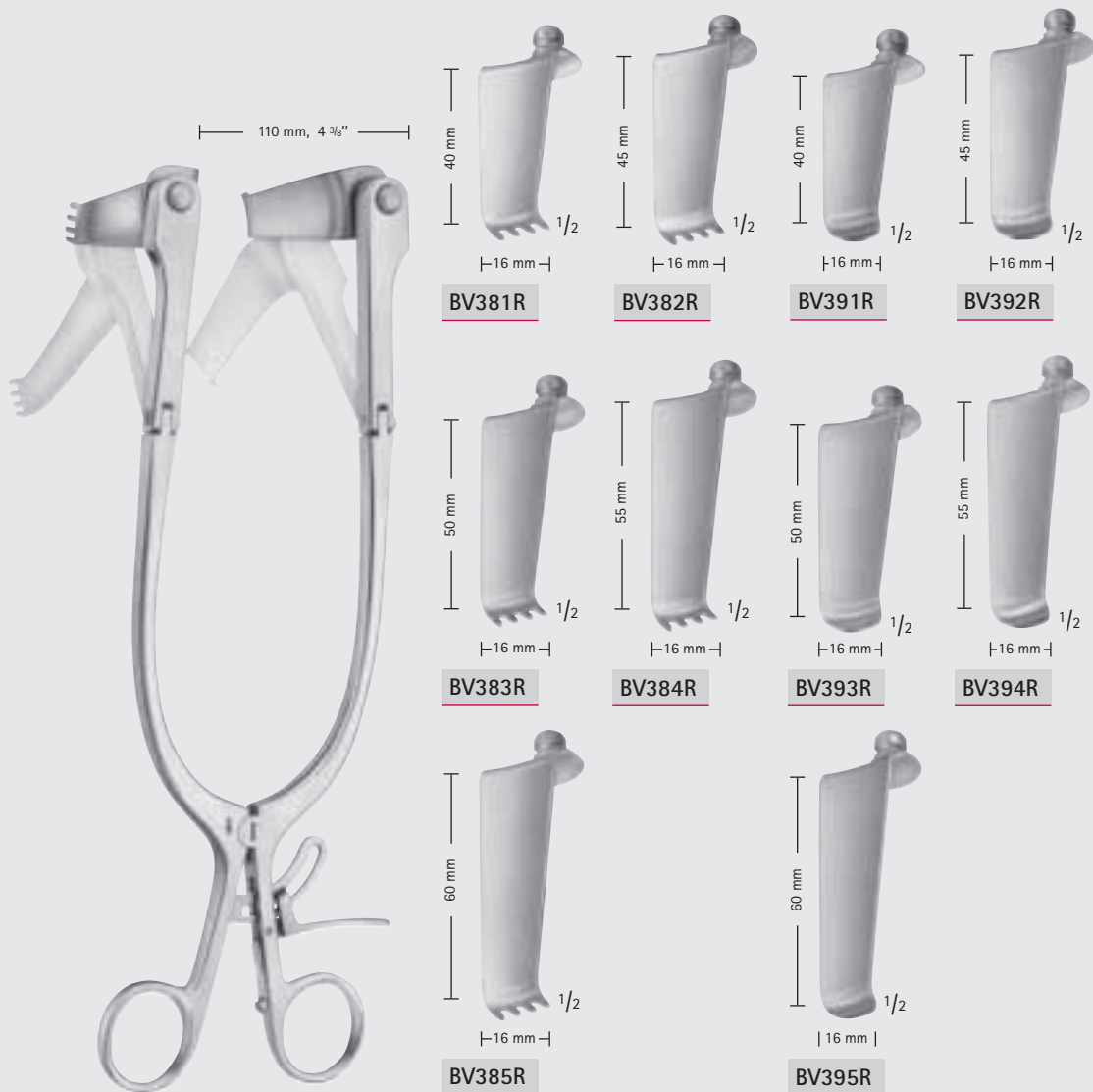


Instruments

Retractors for Cervical Spine



BALL SNAP CLOSURE WITH TORSION LOCK



CLOWARD MODIF.

BV380R

Retractor complete,
consisting of:

- BV379R Spreader only
 - BV381R Blade
 - BV382R Blade
 - BV383R Blade
 - BV384R Blade
 - BV385R Blade
- 250 mm, 10"

BV381R-BV395R

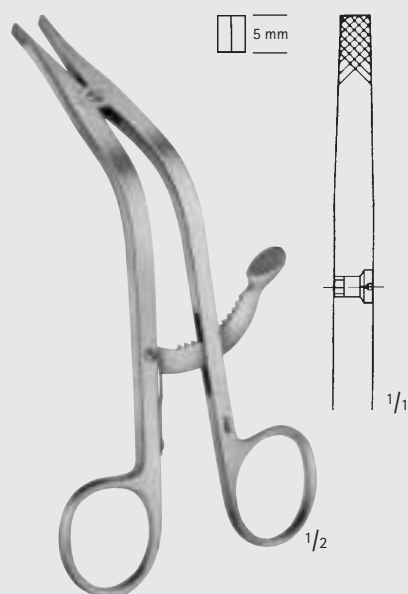
Blades only for BV379R

Retractors

MILLIMETERS

Instruments

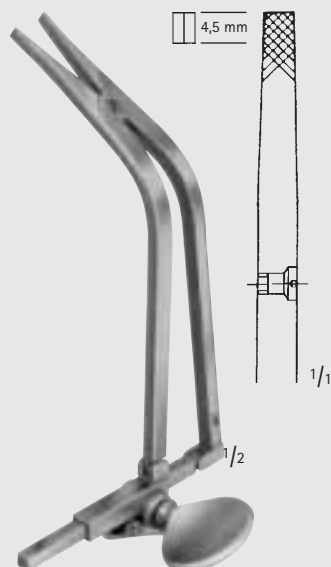
Lamina Spreaders



CLOWARD

BV296R

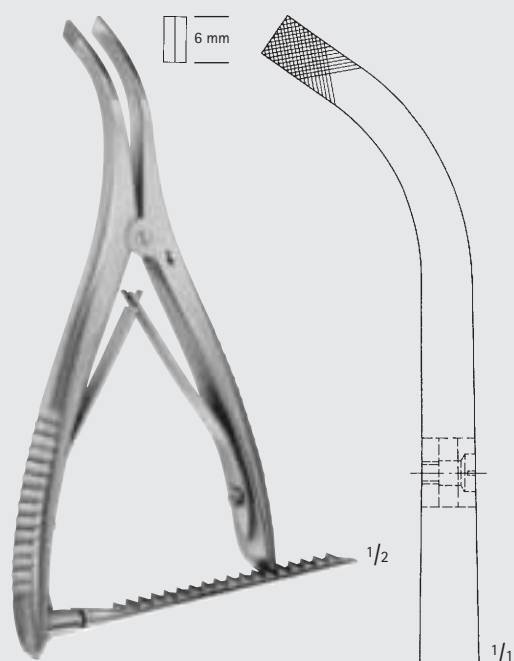
155 mm, 6"



CLOWARD

BV299R

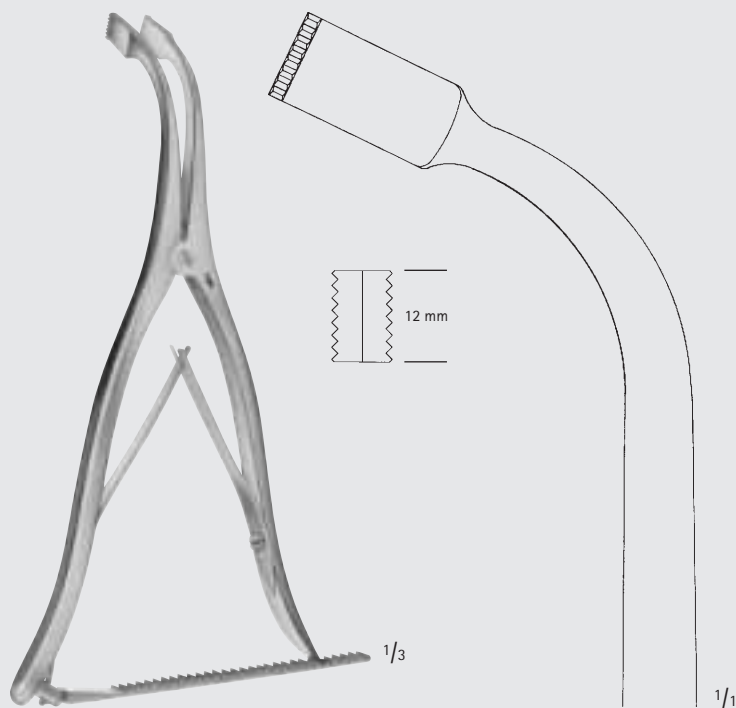
135 mm, 5 1/4"



INGE

BV297R

170 mm, 6 3/4"



INGE

BV298R

275 mm, 10 3/4"

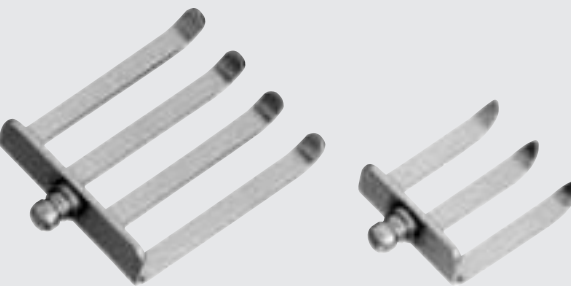


Instruments

Self-Retaining Retractors for Laminectomy



BALL SNAP CLOSURE



BV348R

Blades (pair), only
consisting of:
Blade, blunt, 60 x 50 mm
Blade, semi-sharp, 40 x 35 mm

BV349R

Retractor, complete
consisting of:
BV327R Retractor only
BV348R Blades (pair)

Retractors

MILLIMETERS

Instruments

Micro Scissors, Bayonet-Shaped

microform

... with YASARGIL microform profile handles

- According to the length of the instrument there are several burrholes which ensure an equally safe grip in front, middle or rear part of the handle, the instrument is much more balanced.
- Instruments with short working ends have same length handles and springs thus guaranteeing the best hold.
- The burrholes in the handles allow reliable gripping and holding of the instrument which is of importance for deep surgery.



NAGEL
FD056R
200 mm, 8"



NAGEL
FD057R
200 mm, 8"



DE BAKEY
FD059R
190 mm, 7 1/2"

Micro

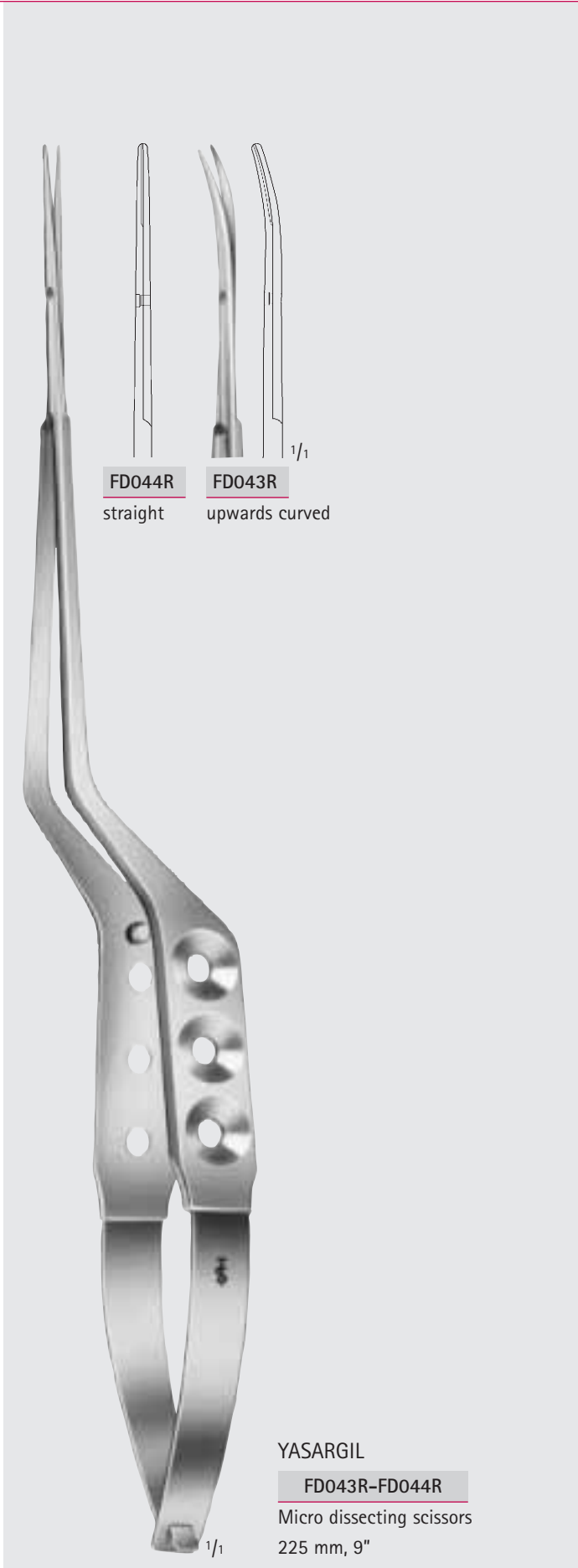
INCHES



microform

Instruments

Micro Scissors, Bayonet-Shaped



Micro

MILLIMETERS

Instruments

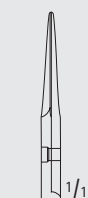
Micro Scissors, Bayonet-Shaped

microform

Micro



FD060R
straight
toothed



FD038R
straight



FD039R
upwards curved



YASARGIL

FD038R-FD060R

225 mm, 9"



microform

Instruments

Micro Scissors, Bayonet-Shaped

Micro

MILLIMETERS



YASARGIL

FD030R-FD031R

Micro scissors

165 mm, 6 1/2"



YASARGIL

FD075R

Micro dissecting scissors

185 mm, 7 1/4"

Instruments

Micro Scissors, Bayonet-Shaped

microform

Micro



FD034R

straight

FD035R

upwards curved

YASARGIL

FD034R-FD035R

200 mm, 8"

1/1

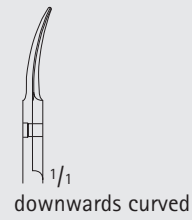
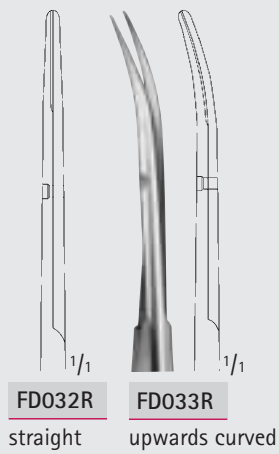


microform

Instruments

Micro Scissors, Bayonet-Shaped

- The micro scissors FD032R to FD036R have a serrated cutting edge, which prevents the tissue from slipping out.



YASARGIL
FD032R-FD033R
Micro dissecting scissors
200 mm, 8"



YASARGIL
FD036R
Micro scissors
200 mm, 8"

Micro

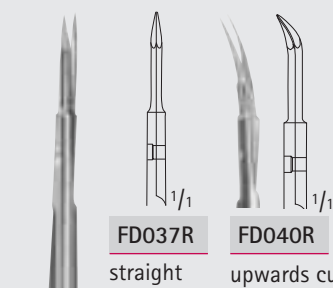
MILLIMETERS

Instruments

Micro Scissors, Bayonet-Shaped

microform

Micro



FD037R

straight

FD040R

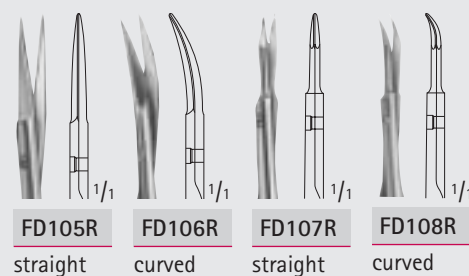
upwards curved



YASARGIL

FD037R-FD040R

225 mm, 9"



FD105R

straight

FD106R

curved

FD107R

straight

FD108R

curved



FD105R-FD108R

190 mm, 7 1/2"



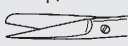
Instruments

SENSATION Micro Scissors, Bayonet-Shaped

Sensation micro instruments

- Angled bayonet shape for enhanced sight lines and easier handling.
- Especially slender jaws deliver optimal sight lines.
- Color coded profile handles.
- Illustration of jaw shape for an easy identification of the instrument.




straight jaws			
sharp/sharp			
	FM120R	FM122R	FM124R
sharp/blunt			
	FM130R	FM132R	FM134R
blunt/blunt			
	FM140R	FM142R	FM144R
Jaw length	70 mm, 2 3/4"	90 mm, 3 1/2"	120 mm, 4 3/4"
Total length	195 mm, 7 3/4"	215 mm, 8 1/2"	245 mm, 9 3/4"

Micro

MILLIMETERS

Micro



curved jaws			
sharp/sharp			
sharp/blunt			
blunt/blunt			
Jaw length	70 mm	90 mm, 3 1/2"	120 mm, 4 3/4"
Total length	200 mm, 8"	220 mm, 8 3/4"	245 mm, 9 3/4"



Instruments

XS Micro Scissors acc. PERNECZKY/CRISTANTE, Bayonet-Shaped

XS micro instruments

- Narrow tubular shaft for maximal freedom of movement.
- Angled bayonet shape for enhanced sight lines and easier handling.
- Dismountable for easy, effective cleaning and reprocessing.
- Exchangeable handles and jaw inserts for economic use.



	Instrument complete	Single parts		Instrument complete	Single parts		Instrument complete	Single parts	
		Jaw insert	Handle		Jaw insert	Handle		Jaw insert	Handle
straight jaws sharp/sharp	FM670R	FM675R	FM730R	FM671R	FM676R	FM731R	FM672R	FM677R	FM732R
blunt/blunt	FM690R	FM695R		FM691R	FM696R		FM692R	FM697R	
Jaw length	70 mm, 2 3/4"			100 mm, 4"			130 mm, 5 1/8"		
Total length	200 mm, 8"			230 mm, 9"			260 mm, 10 1/4"		

Micro

MILLIMETERS

Instruments

XS Micro Scissors acc. PERNECZKY/CRISTANTE, Bayonet-Shaped

Micro



	Instrument complete	Single parts		Instrument complete	Single parts		Instrument complete	Single parts	
		Jaw insert	Handle		Jaw insert	Handle		Jaw insert	Handle
curved jaws sharp/sharp	FM680R	FM685R	FM730R	FM681R	FM686R	FM731R	FM682R	FM687R	FM732R
blunt/blunt	FM700R	FM705R		FM701R	FM706R		FM702R	FM707R	
Jaw length	70 mm, 2 3/4"			100 mm, 4"			130 mm, 5 1/8"		
Total length	200 mm, 8"			230 mm, 9"			260 mm, 10 1/4"		



Instruments

Micro Scissors, Straight



MÜLLER

FM010R

120 mm, 4 ³/₄"



MÜLLER

FM011R

120 mm, 4 ³/₄"



MÜLLER

FM012R

120 mm, 4 ³/₄"

Micro



MILLIMETERS

Instruments

Micro Scissors, Straight

Micro



MÜLLER
FM013R
120 mm, 4 $\frac{3}{4}$ "



MÜLLER
FM014R
120 mm, 4 $\frac{3}{4}$ "



MÜLLER
FM040R
170 mm, 6 $\frac{3}{4}$ "



MÜLLER
FM041R
170 mm, 6 $\frac{3}{4}$ "

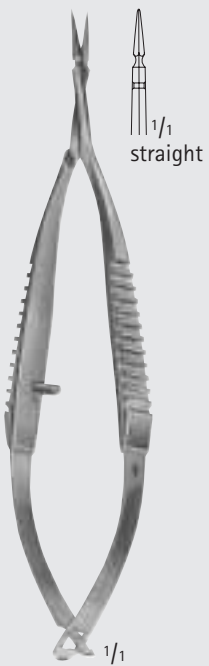


Instruments

Micro Scissors, Straight

Micro

MILLIMETERS



VANNAS

OC498R

85 mm, 3 ³/₈"



VANNAS

OC499R

85 mm, 3 ³/₈"



VANNAS

OC500R

85 mm, 3 ³/₈"



MC CLURE

OC480R

95 mm, 3 ³/₄"

Instruments

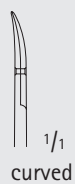
Micro Scissors, Straight

Micro



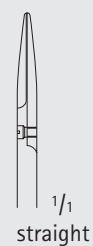
OC496R

105 mm, 4 1/8"



OC497R

105 mm, 4 1/8"



NOYES

OC482R

125 mm, 5"



Instruments

Micro Scissors with Flat Handles and Cross-Serration, Straight



FD012R

120 mm, 4 $\frac{3}{4}$ "



FD013R

120 mm, 4 $\frac{3}{4}$ "



VANNAS

FD014R

120 mm, 4 $\frac{3}{4}$ "

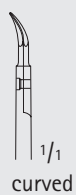
Micro

MILLIMETERS

Instruments

Micro Scissors with Flat Handles and Cross-Serration, Straight

Micro

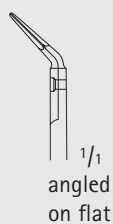


1/1
curved

VANNAS

FD015R

120 mm, 4 3/4"

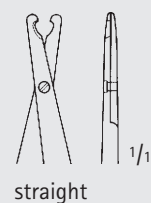


1/1
angled
on flat

VANNAS

FD011R

120 mm, 4 3/4"



straight

BIEMER

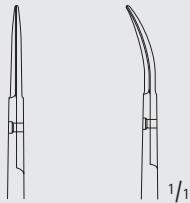
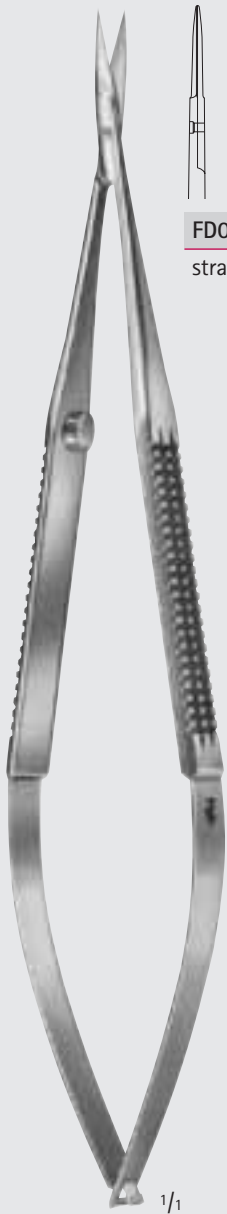
FD028R

Vein scissors
130 mm, 5 1/8"



Instruments

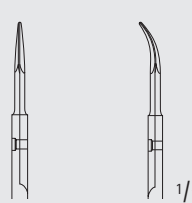
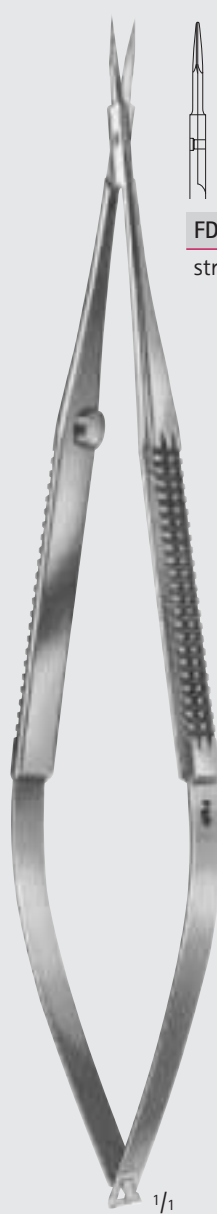
Micro Scissors with Flat Handles and Cross-Serration, Straight



FD016R
straight

FD017R
curved

FD016R-FD017R
160 mm, 6 1/4"

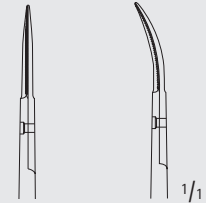


FD018R
straight

FD019R
curved

VANNAS

FD018R-FD019R
160 mm, 6 1/4"



FD020R
straight

FD021R
curved

MILLES

FD020R-FD021R
Blades serrated
160 mm, 6 1/4"

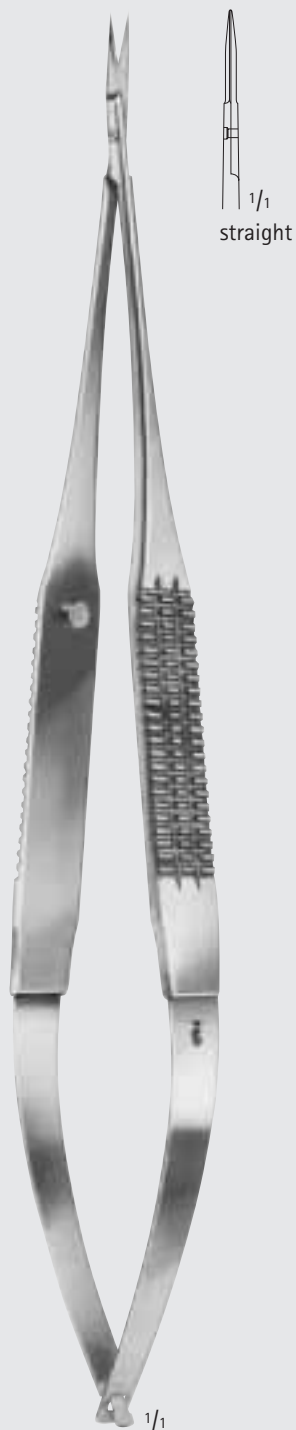
Micro

MILLIMETERS

Instruments

Micro Scissors with Flat Handles and Cross-Serration, Straight

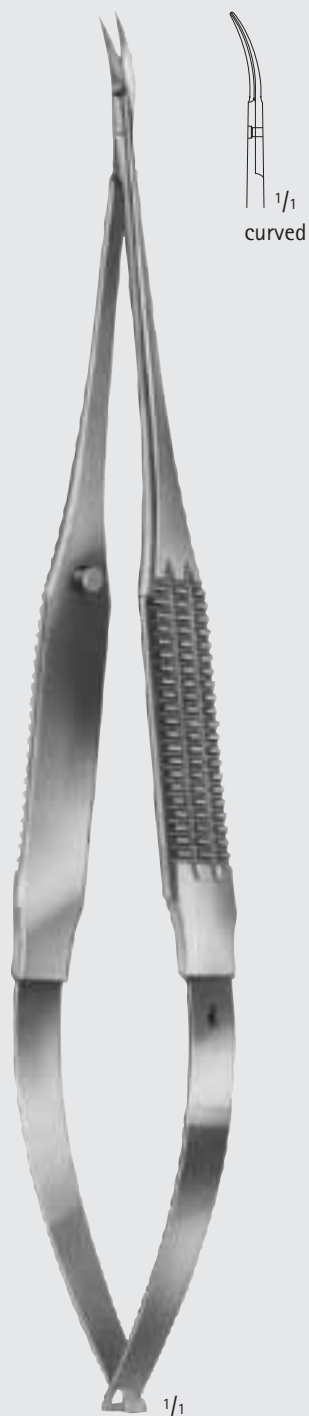
Micro



YASARGIL

FD022R

185 mm, 7 1/4"



JACOBSON

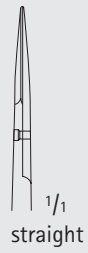
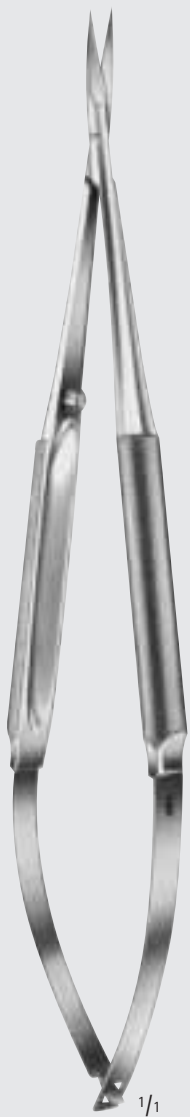
FD023R

185 mm, 7 1/4"



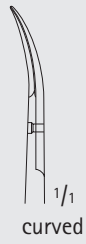
Instruments

Micro Scissors with Round Handles, Straight



FD100R

Micro scissors
145 mm, 5 ³/₄"



FD101R

Micro scissors
145 mm, 5 ³/₄"



FD103R

Micro dissecting scissors
145 mm, 5 ³/₄"

Micro

MILLIMETERS

Instruments

Micro Scissors with Round Handles, Straight



165 mm, 6 1/2"















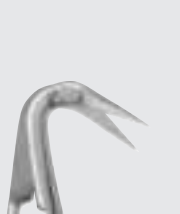









1/1

Micro



Instruments

Micro Scissors with Flat Handles, Straight

	25°	45°	60°	90°	125°	straight	curved on flat
Fine blade	 <u>FM470R</u>	 <u>FM471R</u>	 <u>FM472R</u>	 <u>FM473R</u>	 <u>FM474R</u>		
Fine blade, with 1 probe pointed blade	 <u>FM451R</u>	 <u>FM452R</u>	 <u>FM453R</u>	 <u>FM454R</u>	 <u>FM455R</u>		
Delicate blade	 <u>FM437R</u>	 <u>FM438R</u>	 <u>FM439R</u>	 <u>FM440R</u>	 <u>FM441R</u>	 <u>FM442R</u>	 <u>FM436R</u>
Ultra delicate blade	 <u>FM431R</u>	 <u>FM432R</u>	 <u>FM433R</u>	 <u>FM434R</u>	 <u>FM435R</u>	 <u>FM444R</u>	 <u>FM430R</u>

Micro

MILLIMETERS

Instruments

Micro Scissors with Round Handles, Straight



165 mm, 6 1/2"






















1/1

Micro



Instruments

Micro Scissors with Round Handles, Straight

	25°	45°	60°	90°	125°	straight	curved on flat
Fine blade	 FM476R	 FM477R	 FM478R	 FM479R	 FM480R		
Delicate blade	 FM482R	 FM483R	 FM484R	 FM485R	 FM486R	 FM488R	 FM481R
Delicate blade	 FM489R	 FM490R	 FM491R	 FM492R	 FM493R		
Ultra delicate blade	 FM504R	 FM505R	 FM506R	 FM507R	 FM508R		 FM503R

Micro

MILLIMETERS

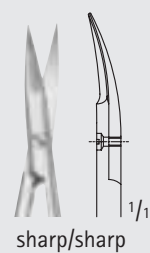
Instruments

Micro Scissors with Round Handles, Straight

Micro



FM042R
180 mm, 7"



FD251R
180 mm, 7"



Instruments

Micro Scissors with Round Handles, Straight

Special hint

- Since suture material is rather tough, the cutting capacity of scissors is quickly reduced which is noticeable as soon as tissues are cut afterwards.

Our solution

- To cut sutures with special ligature scissors. The ligature scissors FD252R have additionally rounded edges in the box lock to avoid sutures to get jammed.



FM043R

Micro scissors
180 mm, 7"



FD252R

Micro ligature scissors
for suture material - 8/0 and smaller
180 mm, 7"

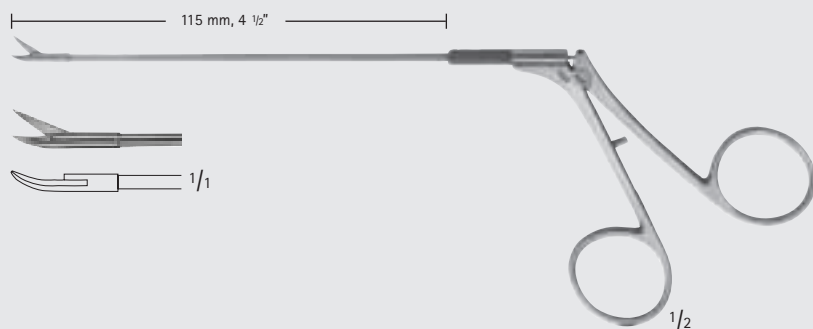
Micro

MILLIMETERS

Instruments

Micro Scissors

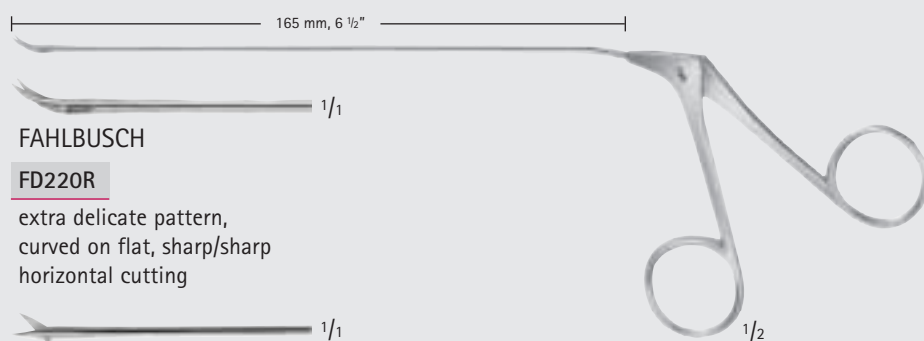
Micro



CASPAR

FD228R

curved
rotatable 360°



FAHLBUSCH

FD220R

extra delicate pattern,
curved on flat, sharp/sharp
horizontal cutting



NICOLA

FD226R

straight

FD220R-FD226R
with tubular shaft



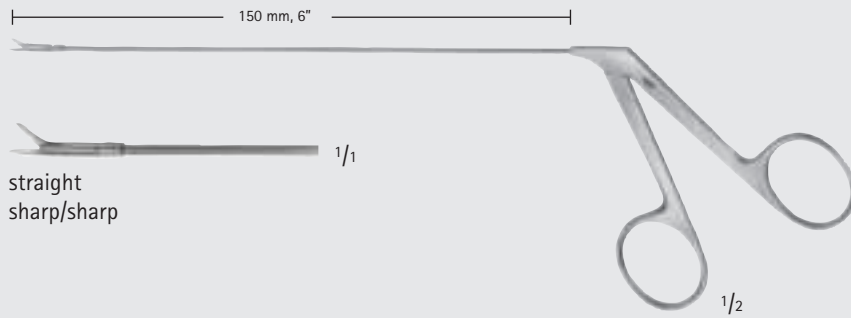
FD131R

with finger grip handle
180 mm, 7"



Instruments

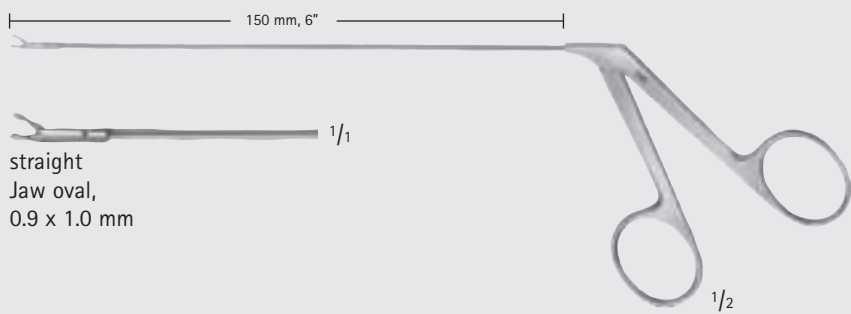
Instruments for Acoustic Neurinoma, Malleable



OPPEL

FD420R

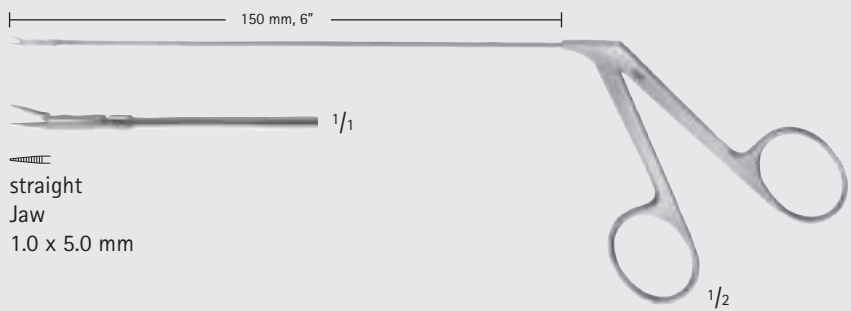
Micro scissors, malleable
vertical cutting



OPPEL

FD426R

Micro cup-shaped forceps, malleable



OPPEL

FD423R

Micro grasping forceps, malleable

Micro

MILLIMETERS

Instruments

Forceps for Grasping Tissue, Tumors etc.

microform

Micro



YASARGIL

FD234R

220 mm, 8 3/4"



YASARGIL

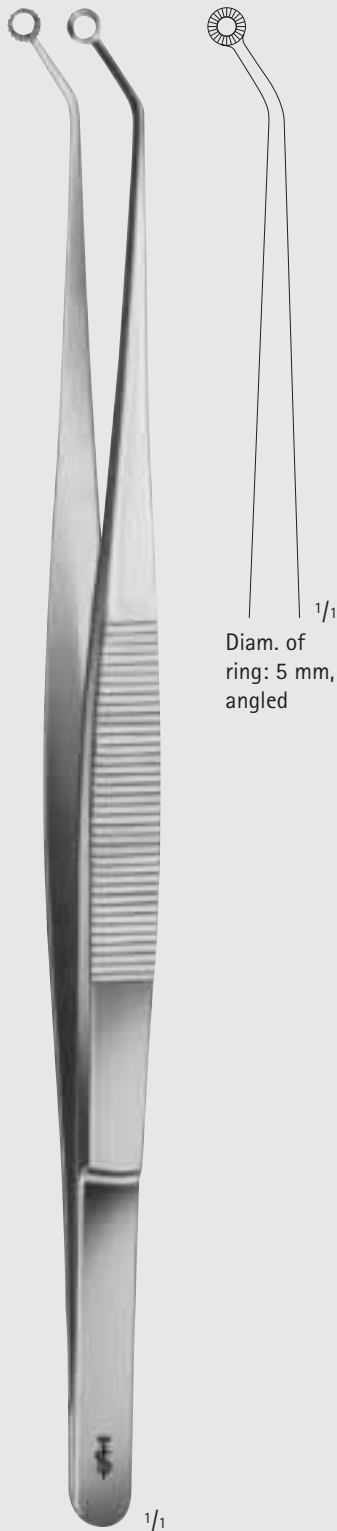
FD236R

220 mm, 8 3/4"

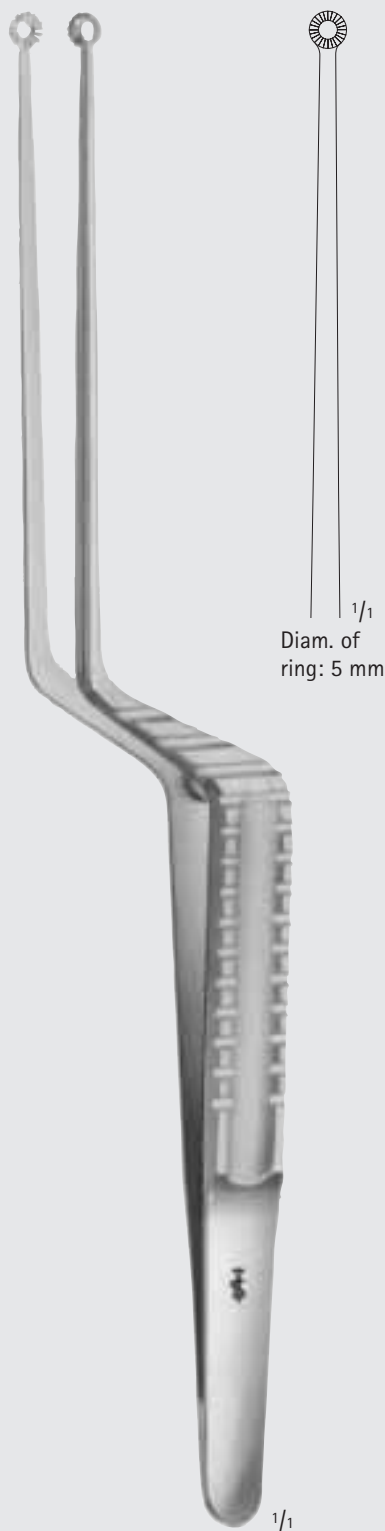


Instruments

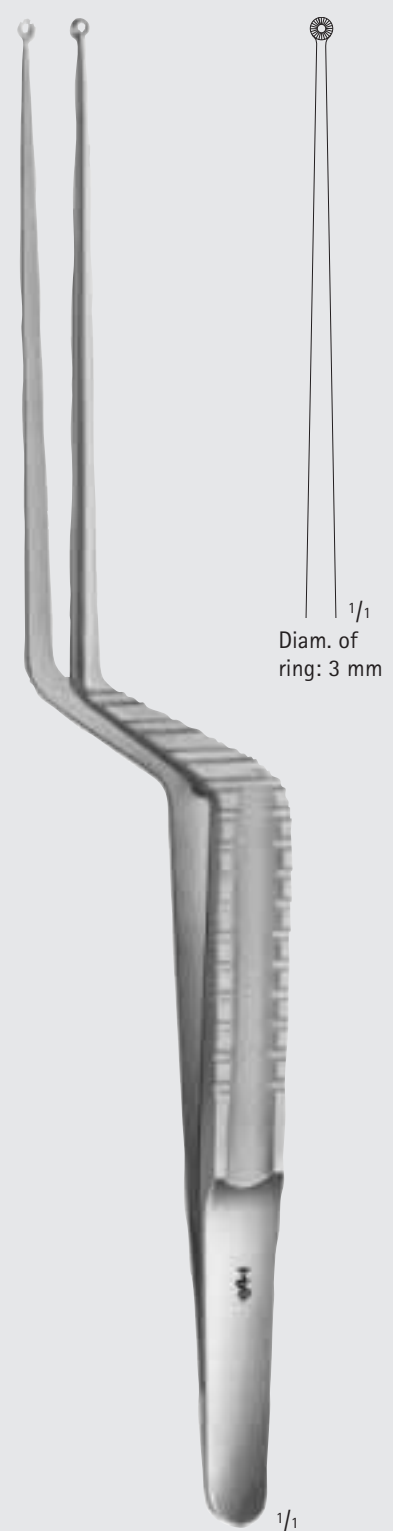
Forceps for Grasping Tissue, Tumors etc.



HUNT
BD765R
200 mm, 8"
serrated



HUNT
BD766R
200 mm, 8"
serrated



YASARGIL
BD768R
200 mm, 8"
serrated

Micro

MILLIMETERS



45°
Diam. of ring:
3 mm

YASARGIL

FD218R

Curette jaw toothed
220 mm, 8 3/4"

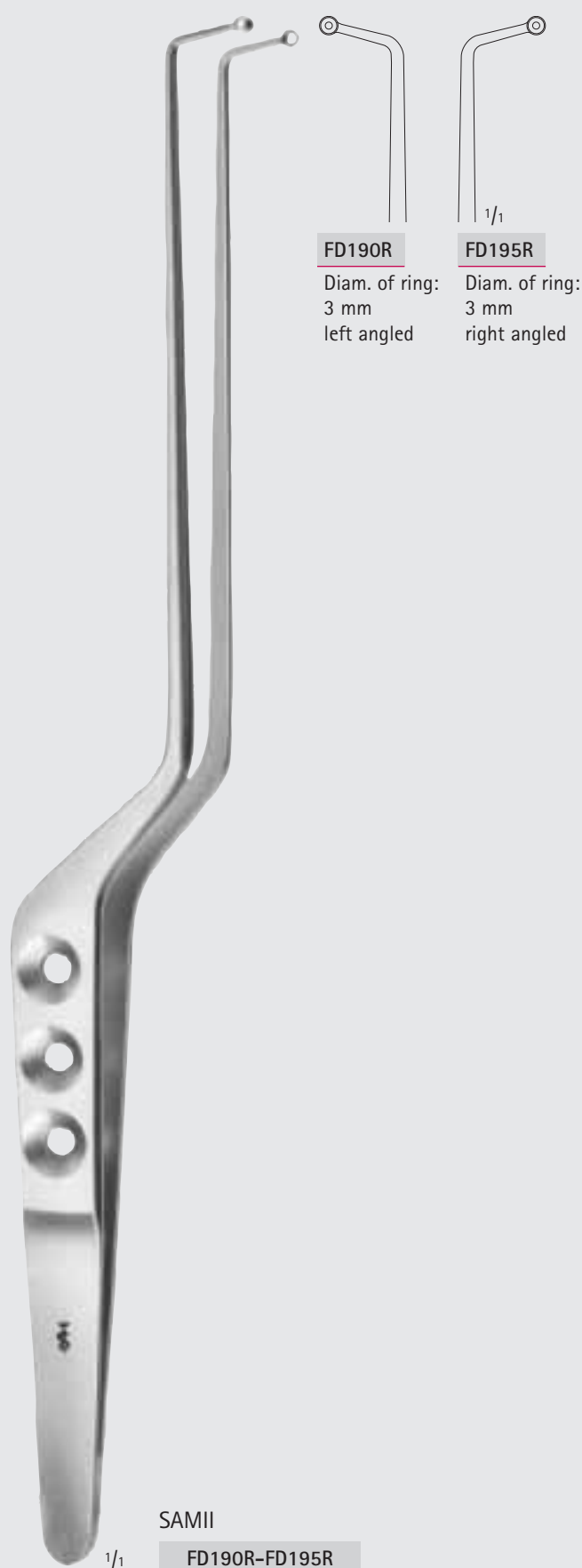


90°
Diam. of ring:
3 mm

YASARGIL

FD219R

Curette jaw toothed
220 mm, 8 3/4"



FD190R
Diam. of ring:
3 mm
left angled

FD195R
Diam. of ring:
3 mm
right angled

SAMII

FD190R-FD195R

Jaw spoon-shaped
230 mm, 9"



microform

Instruments

Forceps for Grasping Tissue, Tumors etc.



FD210R

Diam. of ring:
3 mm

FD212R

Diam. of ring:
5 mm

YASARGIL

FD210R-FD212R

Jaw spoon-shaped
220 mm, 8 ³/₄"



FD214R

Diam. of ring:
3 mm

FD216R

Diam. of ring:
5 mm

YASARGIL

FD214R-FD216R

Jaw flat, serrated
220 mm, 8 ³/₄"

Micro

MILLIMETERS

Instruments

Forceps for Grasping Tissue, Tumors etc.

microform

Micro



FD215R

Diam. of ring:
3 mm

FD217R

Diam. of ring:
5 mm

HEIFETZ

FD215R-FD217R

Curette jaw toothed
220 mm, 8 3/4"



FD200R

Diam. of ring:
3 mm

FD202R

Diam. of ring:
5 mm

FD204R

Diam. of ring:
7 mm

YASARGIL-SAMII

FD200R-FD204R

Jaw spoon-shaped
240 mm, 9 1/2"



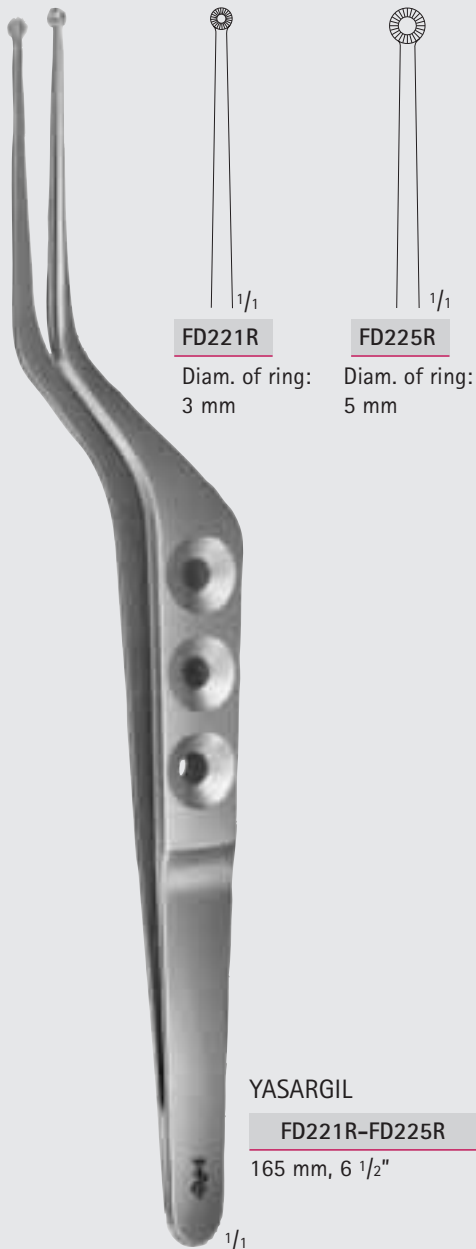
microform

Instruments

Forceps for Grasping Tissue, Tumors etc.

Micro

MILLIMETERS



Instruments

XS Micro Tumor Grasping Forceps acc. PERNECZKY/CRISTANTE



Jaw 3 mm, sharp	Instrument complete	Single parts		Instrument complete	Single parts		Instrument complete	Single parts	
		Jaw insert	Handle		Jaw insert	Handle		Jaw insert	Handle
	FM720R	FM725R	FM730R	FM721R	FM726R	FM731R	FM722R	FM727R	FM732R
Jaw length	70 mm, 2 3/4"			100 mm, 4"			130 mm, 5 1/8"		
Total length	200 mm, 8"			230 mm, 9"			260 mm, 10 1/4"		



Instruments

SENSATION Micro Forceps



Jaw			
0.5 mm			
	FM150R	FM153R	FM156R
0.9 mm			
	FM151R	FM154R	FM157R
Jaw length	70 mm, 2 3/4"	90 mm, 3 1/2"	120 mm, 4 3/4"
Total length	190 mm, 7 1/2"	210 mm, 8 1/4"	240 mm, 9 3/4"

Micro


MILLIMETERS

Instruments

XS Micro Forceps acc. PERNECZKY/CRISTANTE

Micro



Jaw	Instrument			Instrument	Single parts			Instrument	Single parts		
	complete	Jaw insert	Handle		complete	Jaw insert	Handle		complete	Jaw insert	Handle
 0.9 mm	FM710R	FM715R	FM730R	FM711R	FM716R	FM731R		FM712R	FM717R	FM732R	
Jaw length	70 mm, 2 3/4"			100 mm, 4"				130 mm, 5 1/8"			
Total length	200 mm, 8"			230 mm, 9"				260 mm, 10 1/4"			



Instruments

Micro Forceps, Light Patterns



FD110R
fine tips

FD110R

Micro forceps
185 mm, 7 1/4"



FD111R
broad tips

FD111R

Micro forceps
185 mm, 7 1/4"



YASARGIL

FD262R

Ligature forceps
180 mm, 7"

Micro

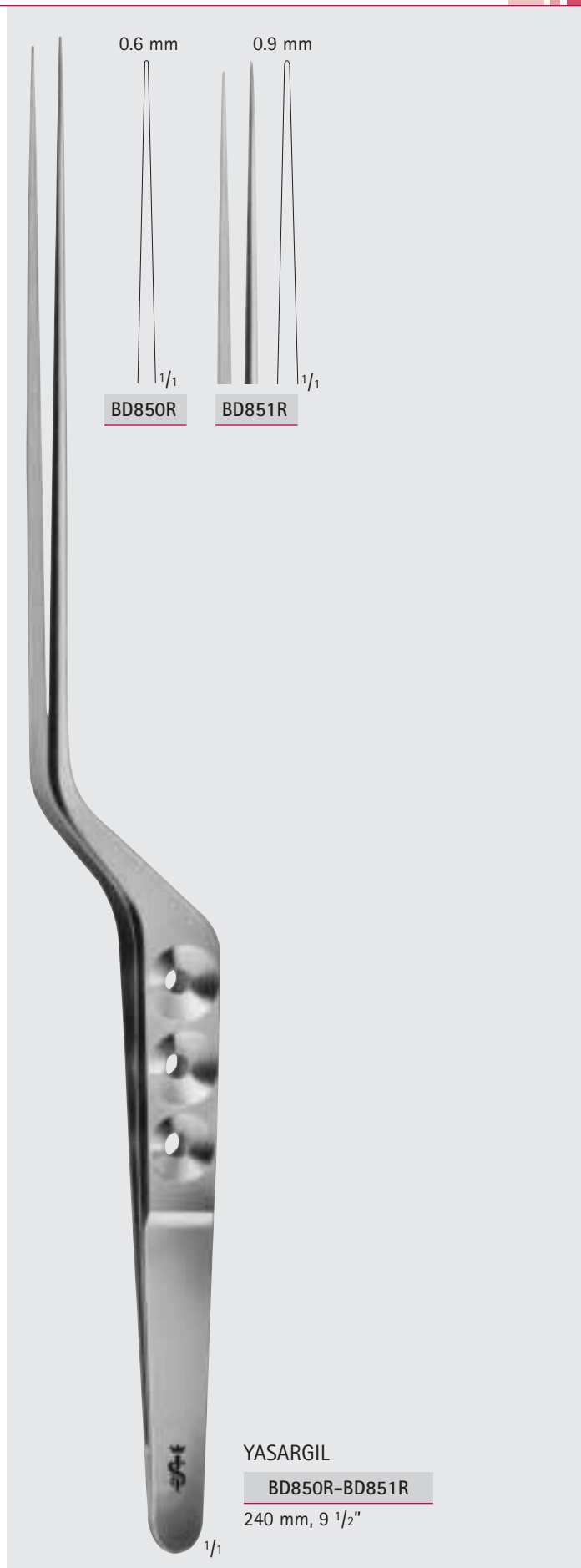
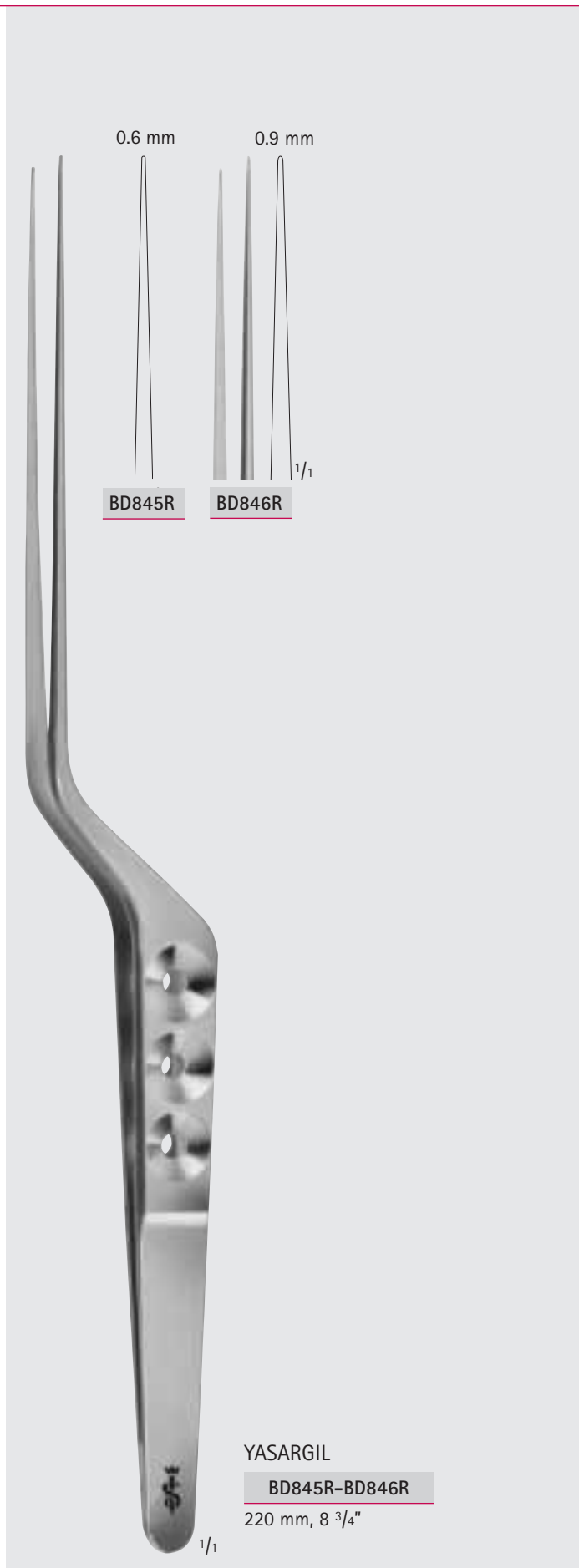
MILLIMETERS





microform

Instruments Micro Forceps

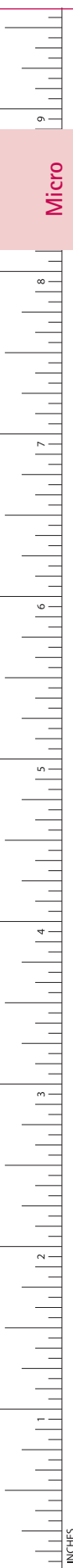


Micro

MILLIMETERS

Instruments

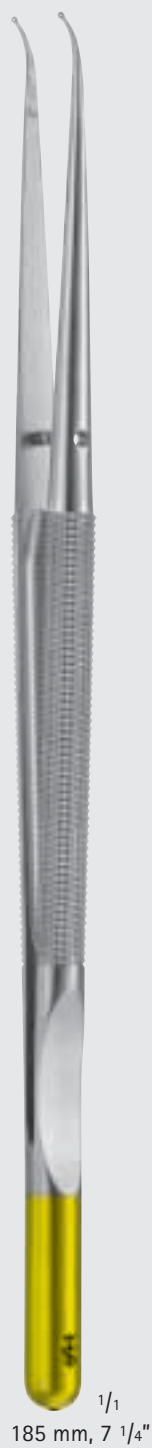
Micro Forceps with Round Handles and Counter Balance



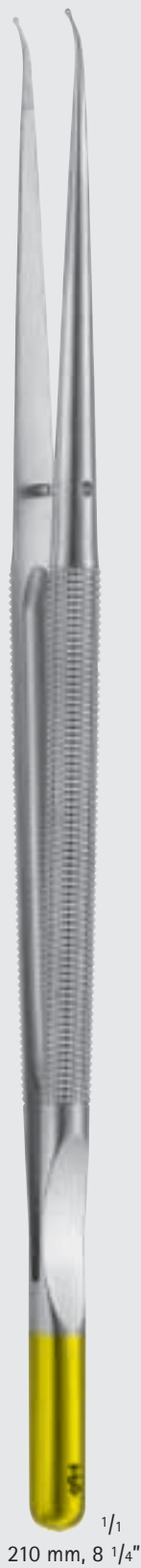
Micro



150 mm, 6" $\frac{1}{1}$



185 mm, 7 $\frac{1}{4}$ " $\frac{1}{1}$



210 mm, 8 $\frac{1}{4}$ " $\frac{1}{1}$



230 mm, 9" $\frac{1}{1}$



250 mm, 10" $\frac{1}{1}$









Instruments

Micro Forceps with Round Handles and Counter Balance

DIADUST



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.

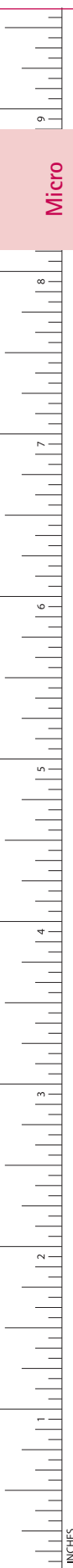
Jaw	Diam. of ring: 1 mm, straight	Diam. of ring: 1 mm, curved	Diam. of ring: 2 mm, straight	Platform tip, straight	Platform tip, curved	1 mm, DeBakey tip
						
Length						
150 mm 6"	FM570R	FM571R		FM578R	FM581R	
185 mm 7 1/4"	FM572R	FM573R	FM579R	FM580R	FM583R	FM592R
210 mm 8 1/4"	FM574R	FM575R		FM599R	FM585R	FM600R
230 mm 9"	FM576R	FM577R				
250 mm 10"	FM596R	FM595R		FM594R	FM593R	

Micro

MILLIMETERS

Instruments

Micro Forceps with Round Handles, without Counter Balance



Micro



$\frac{1}{1}$
185 mm, 7 $\frac{1}{4}$ "



$\frac{1}{1}$
210 mm, 8 $\frac{1}{4}$ "













Instruments

Micro Forceps with Round Handles, without Counter Balance

DIADUST



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.

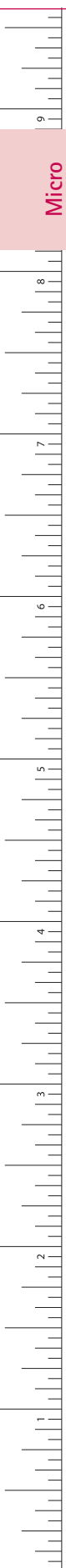
Jaw	Diam. of ring: 1 mm, straight	Diam. of ring: 1 mm, curved	Diam. of ring: 1 mm with platform tip	Platform tip, straight	1 mm, DeBakey tip
					
Length					
185 mm 7 1/4"	<u>FM597R</u>	<u>FM587R</u>	<u>FM582R</u>	<u>FM586R</u>	<u>FM590R</u>
210 mm 8 1/4"	<u>FM598R</u>	<u>FM589R</u>	<u>FM584R</u>	<u>FM588R</u>	<u>FM591R</u>

Micro

MILLIMETERS

Instruments

Micro Forceps with Flat Handle



Micro





Instruments

Micro Forceps with Flat Handle



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.

Jaw	1 mm, cross serrated	1 mm, DeBakey tip	Diam. of ring: 1 mm, straight	Diam. of ring: 1 mm, curved	1 mm, straight
Length					
180 mm 7"	BD190R	BD191R	BD192R	BD193R	BD194R
200 mm 8"		BD195R			BD196R
250 mm 10"	BD197R				

Micro

MILLIMETERS

Instruments

DIADUST Micro Forceps

Micro



cross serrated

1/2

FM063R

round handle
200 mm, 8"

DIADUST



FM053R

Diam. of ring: 2.5 mm
180 mm
7"



FM054R

Diam. of ring: 2.5 mm
200 mm
8"

FM053R-FM054R

round handle



FD255R

straight,
1 x 2 teeth



FD256R

angled,
1 x 2 teeth

DIADUST



1/2

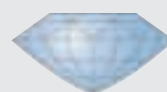
FD255R-FD256R

Micro tissue forceps
180 mm, 7"



with platform tip

DIADUST



1/2

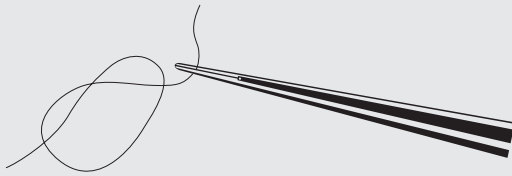
FD253R

Micro dissecting forceps
180 mm, 7"

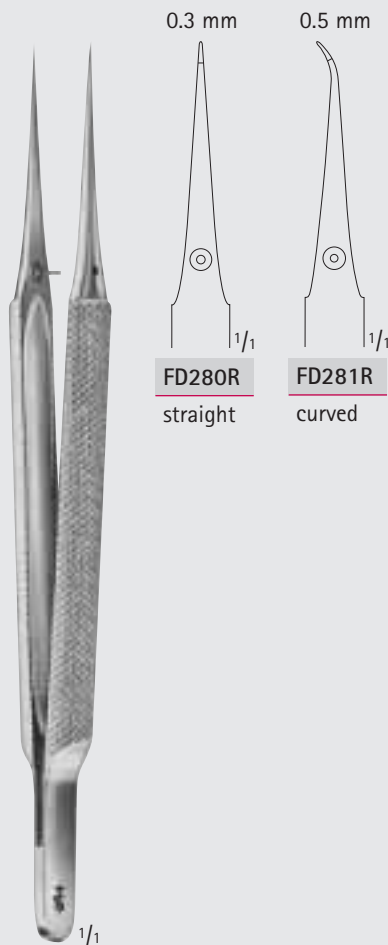


Instruments

Micro Suture Tying Forceps with Round Handle



with plateau at the tips

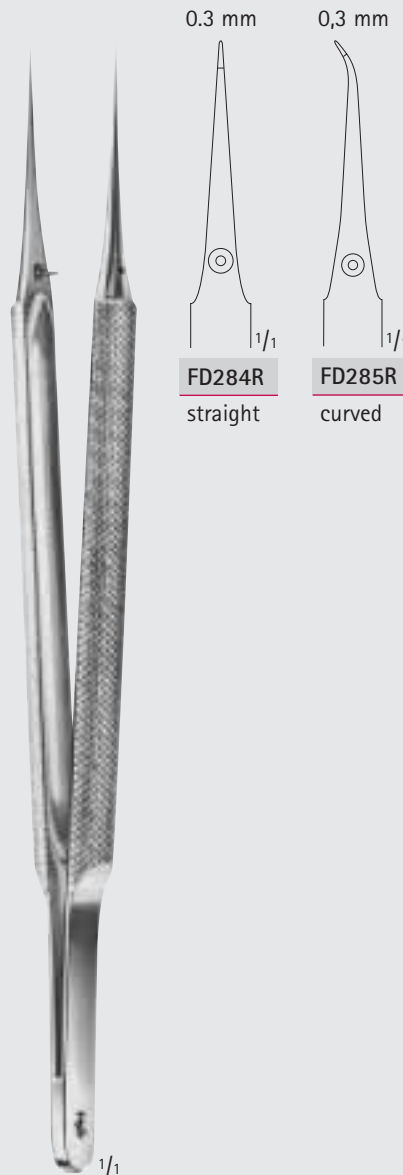


FD280R
straight

FD281R
curved

FD280R-FD281R

120 mm, 4 $\frac{3}{4}$ "

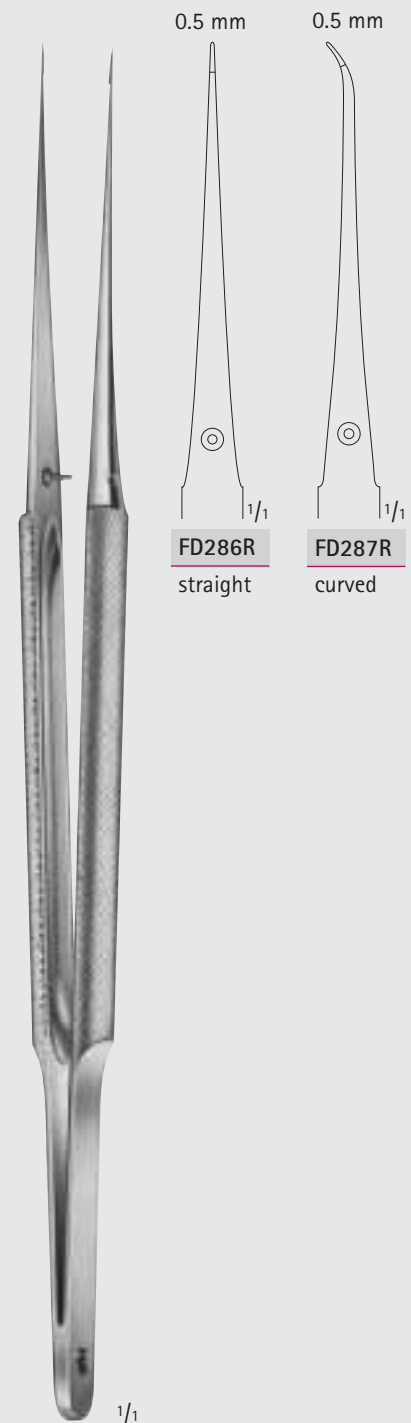


FD284R
straight

FD285R
curved

FD284R-FD285R

150 mm, 6"



FD286R
straight

FD287R
curved

FD286R-FD287R

180 mm, 7"

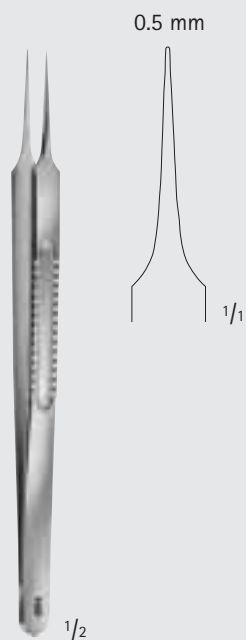
Micro

MILLIMETERS

Instruments

Micro Suture Tying Forceps

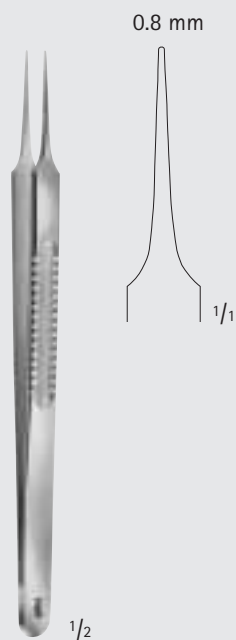
Micro



LAZAR

BD260R

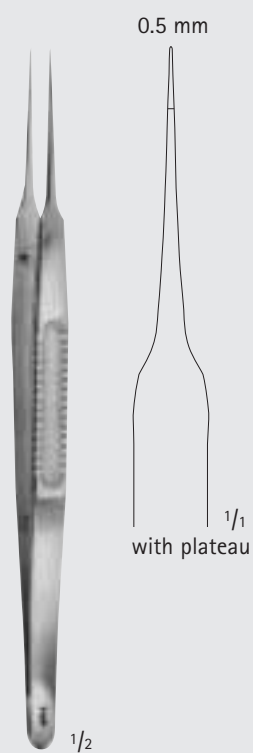
155 mm, 6"



LAZAR

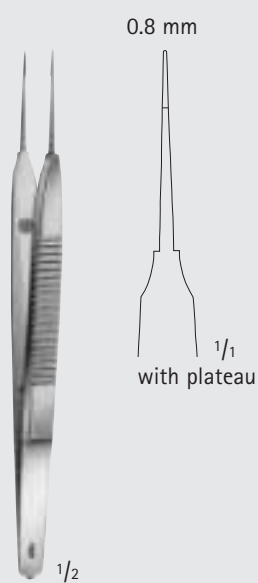
BD261R

155 mm, 6"



BD264R

185 mm, 7 1/4"



AUSTIN

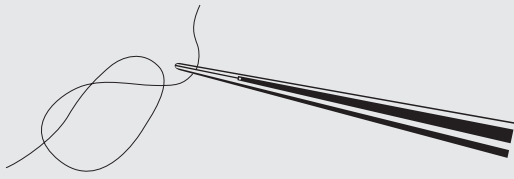
BD340R

140 mm, 5 1/2"

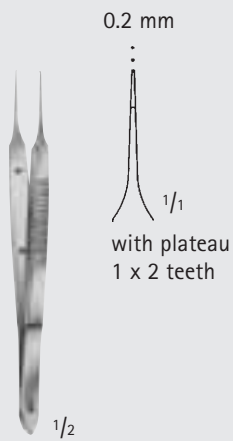


Instruments

Micro Suture Tying Forceps



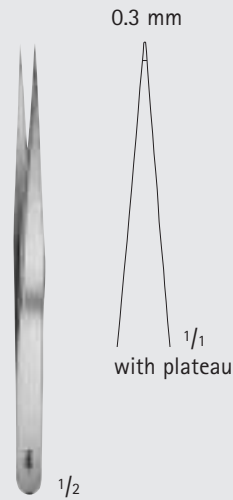
with plateau at the tips



BONNER MODELL

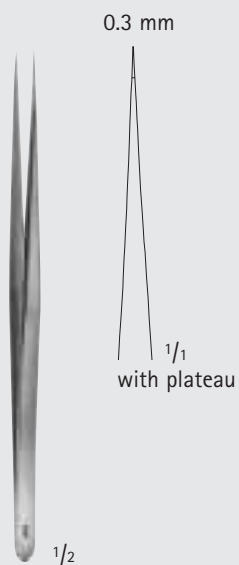
BD505R

95 mm, 3 ³/₄"



BD338R

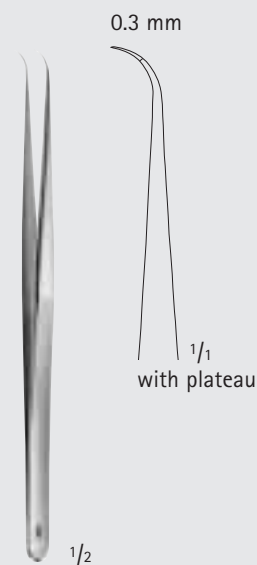
120 mm, 4 ³/₄"



WISE

BD336R

135 mm, 5 ¹/₄"



WISE

BD337R

135 mm, 5 ¹/₄"

Micro

MILLIMETERS

Instruments

The Long Micro Forceps

Micro

0.3 mm



MÜLLER

FM033R

160 mm, 6 1/4"

0.5 mm



1 x 2
teeth

MÜLLER

FM034R

160 mm, 6 1/4"



Diam.
of ring:
1.2 mm

MÜLLER

FM035R

160 mm, 6 1/4"

0.4 mm



with plateau

MÜLLER

FM036R

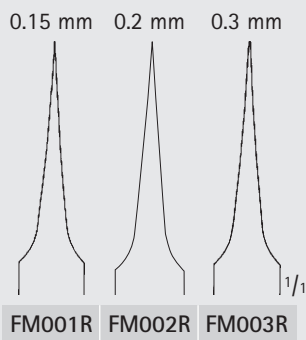
Micro suturing forceps
160 mm, 6 1/4"



Instruments

Micro Forceps

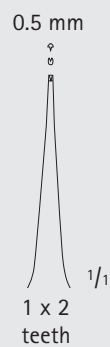
Micro



MÜLLER

FM001R-FM003R

110 mm, 4 $\frac{3}{8}$ "



MÜLLER

FM004R

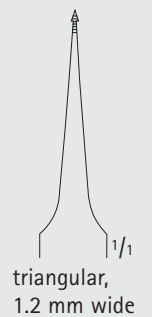
110 mm, 4 $\frac{3}{8}$ "



MÜLLER

FM005R

110 mm, 4 $\frac{3}{8}$ "



MÜLLER

FM006R

110 mm, 4 $\frac{3}{8}$ "

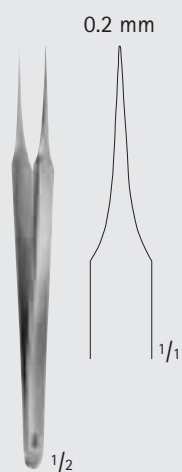


MILLIMETERS

Instruments

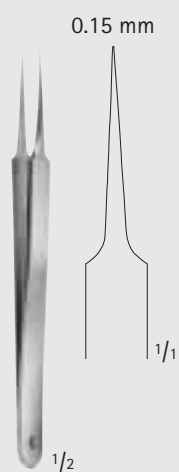
Micro Forceps, Jeweler Patterns

Micro



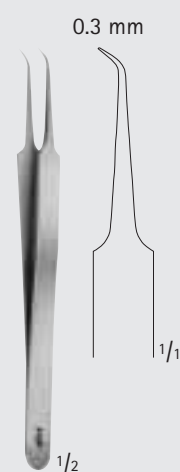
BD330R

110 mm, 4 3/8"



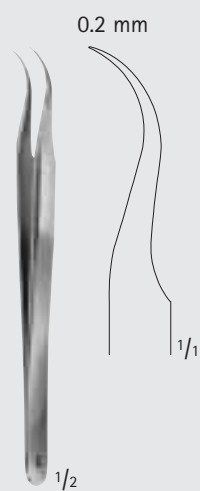
BD331R

110 mm, 4 3/8"



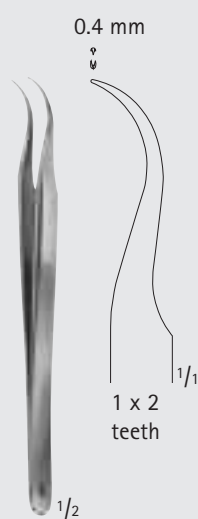
BD329R

110 mm, 4 3/8"



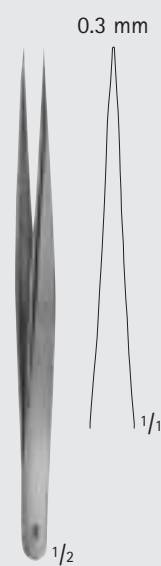
BD333R

115 mm, 4 1/2"



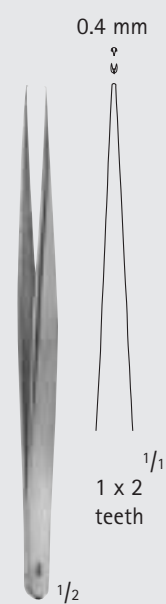
BD343R

115 mm, 4 1/2"



BD335R

135 mm, 5 1/4"



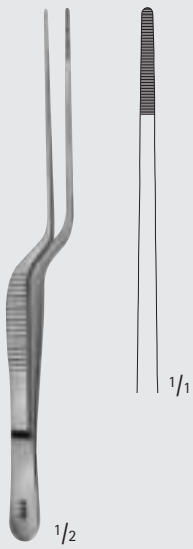
BD345R

135 mm, 5 1/4"



Instruments Forceps

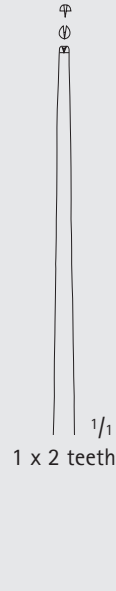
Micro



LUCAE

BD878R

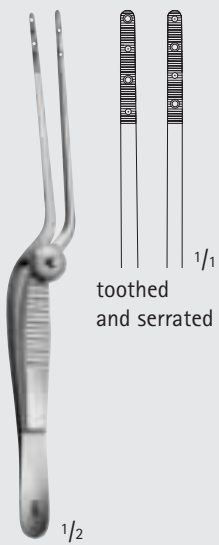
140 mm, 5 1/2"



LUCAE

BD879R

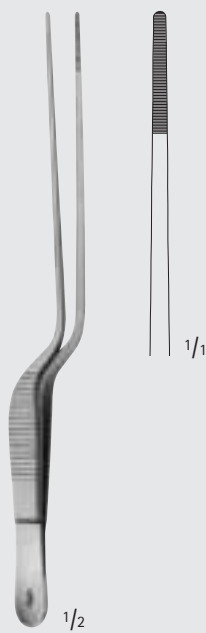
140 mm, 5 1/2"



COTTLE

OL011R

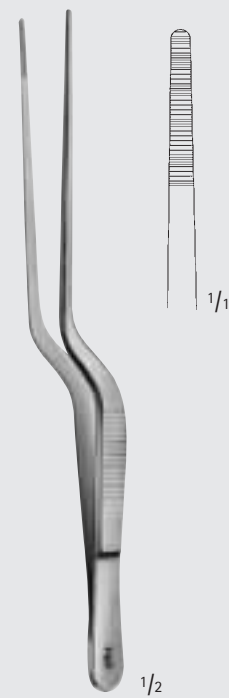
Fixation forceps
140 mm, 5 1/2"



JANSEN

BD880R

160 mm, 6 1/4"



ADSON

BD870R

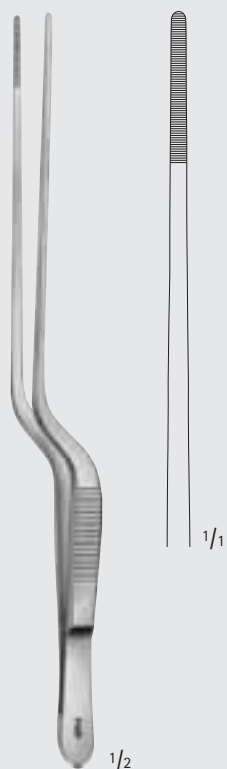
180 mm, 7"

MILLIMETERS

Instruments

Forceps

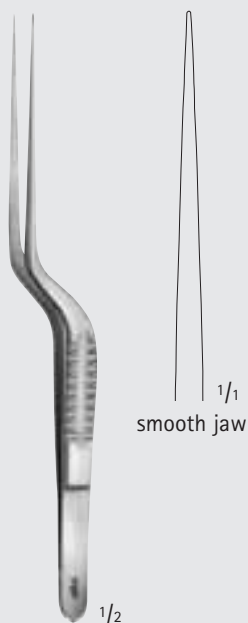
Micro



GRUENWALD

BD883R

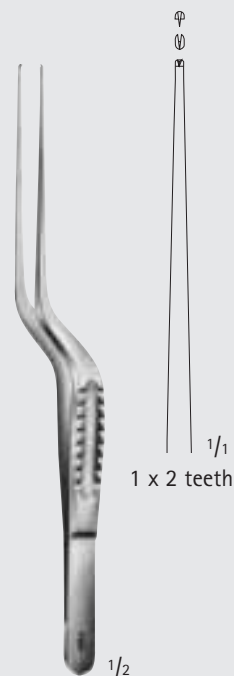
200 mm, 8"



smooth jaw

BD887R

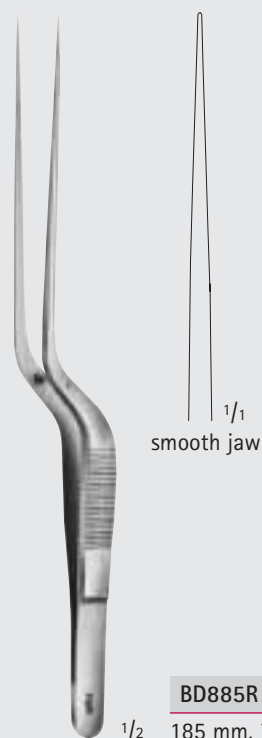
160 mm, 6 1/4"



1 x 2 teeth

BD888R

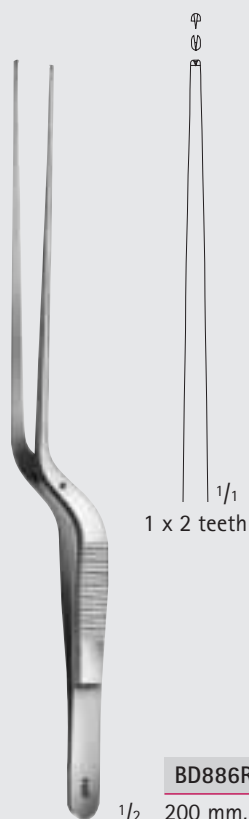
160 mm, 6 1/4"



smooth jaw

BD885R

185 mm, 7 1/4"



1 x 2 teeth

BD886R

200 mm, 8"



microform

Instruments

Micro Needle Holders



YASARGIL

FD092R-FD093R

200 mm, 8"



YASARGIL

FD096R-FD097R

225 mm, 9"

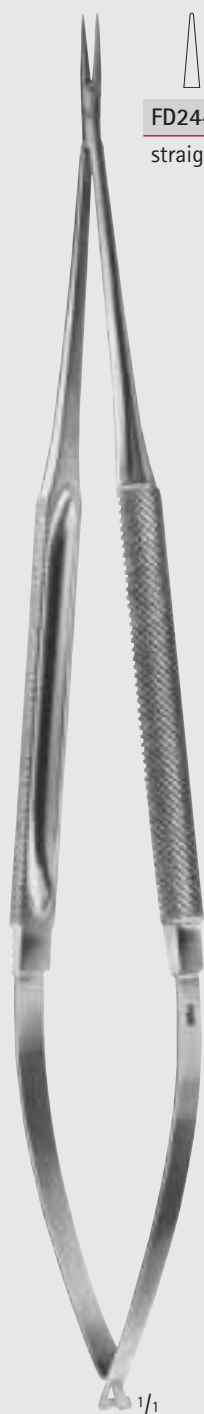
Micro

MILLIMETERS

Instruments

Micro Needle Holders with Round Handles

Micro



FD244R
straight

FD245R
curved

FD244R-FD245R
without ratchet
185 mm, 7 1/4"



FD246R
straight

FD247R
curved

FD246R-FD247R
with ratchet
185 mm, 7 1/4"



FM398R
without ratchet
200mm, 8"

FM392R
with ratchet
230 mm, 9"

FM392R-FM398R

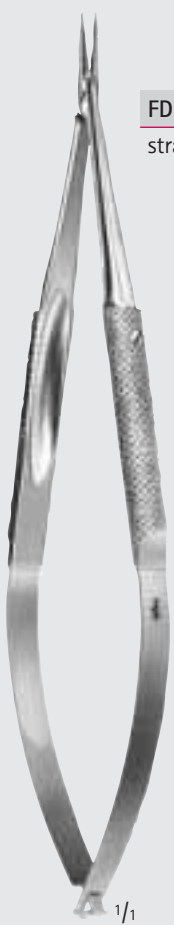


Instruments

Micro Needle Holders with Round Handles

Micro

MILLIMETERS




FD230R
straight


FD231R
curved


BARRAQUER

FD230R-FD231R

without ratchet
120 mm, 4 $\frac{3}{4}$ "



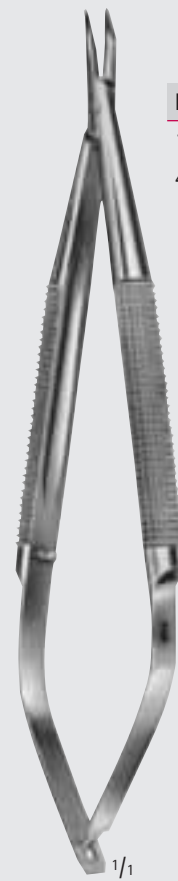

FD232R
straight


FD233R
curved


BARRAQUER

FD232R-FD233R

with ratchet
120 mm, 4 $\frac{3}{4}$ "




BM560R
115 mm
4 $\frac{1}{2}$ "


BM562R
120 mm
4 $\frac{3}{4}$ "

BARRAQUER

BM560R-BM562R

without ratchet

Instruments

Micro Needle Holders with Round Handles

Micro



FD240R
straight

FD241R
curved

REILL

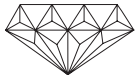
FD240R-FD241R
without ratchet
150 mm, 6"



FD242R
straight

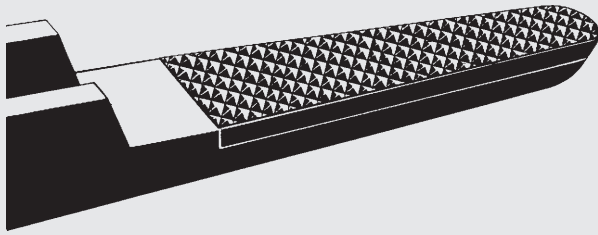
FD243R
curved

FD242R-FD243R
with ratchet
150 mm, 6"

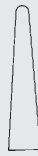


Instruments

DUROGRIP® Micro Needle Holders



Aesculap needle holders have jaws with carbide inserts and according to the use required the resp. structure can be chosen. A smooth jaw surface as well as 3 different serrations guarantee a sure „grip“ of the resp. needle.



smooth



0.2



0.4



0.5

We recommend carbide inserts

with smooth jaw surface for suture material

with 0.2 mm pitch of serration for suture material

0.4 mm

0.5 mm


9/0 – 11/0

6/0 – 10/0

4/0 – 6/0

up to 3/0




with
smooth
jaw

BM001R
straight


0.2

BM002R
straight

CASTROVIEJO

BM001R-BM002R

with ratchet

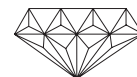
145 mm, 5 3/4"

Micro

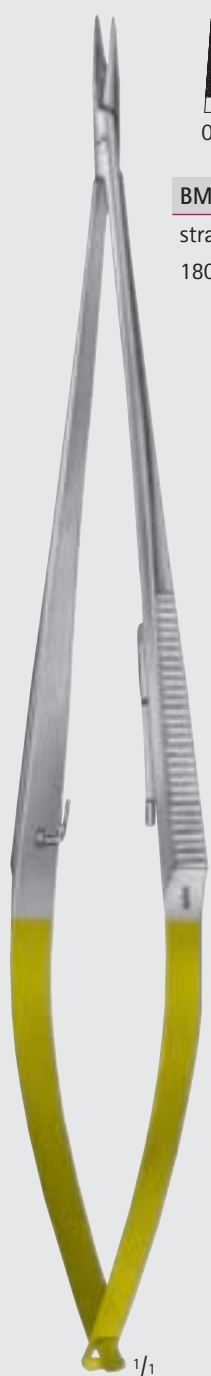
MILLIMETERS

Instruments

DUROGRIP® Micro Needle Holders



Micro



CASTROVIEJO

BM004R-BM005R
with ratchet



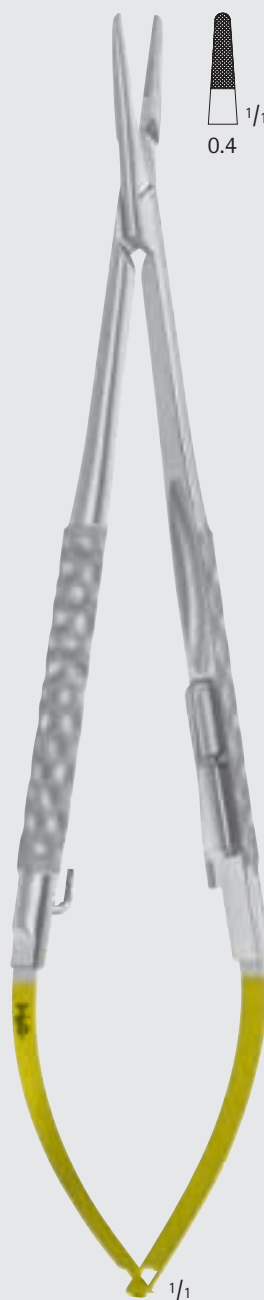
BM004R

straight
180 mm, 7"



BM005R

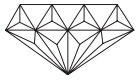
straight
215 mm, 8 1/2"



BM003R

with ratchet
170 mm, 6 3/4"





Instruments

DUROGRIP® Micro Needle Holders



FM388R
with ratchet
180 mm, 7"



FM390R
with ratchet
200 mm, 8"

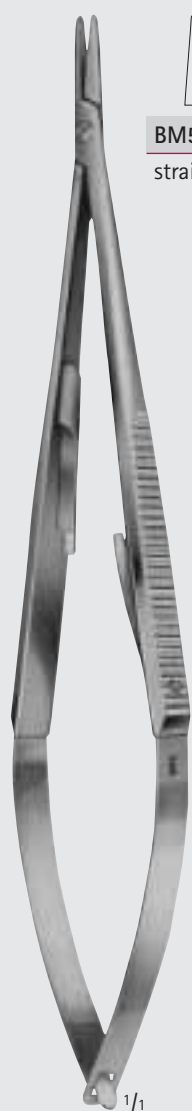
Micro

MILLIMETERS

Instruments

Micro Needle Holders

Micro



BM563R
straight

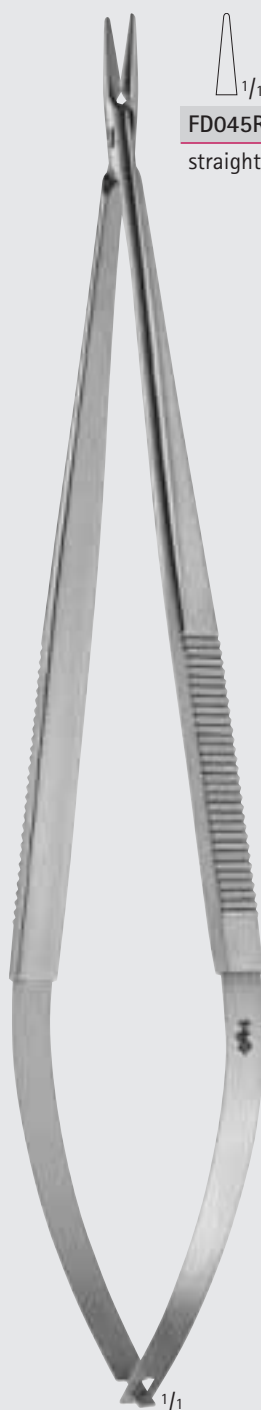


BM564R
curved

CASTROVIEJO

BM563R-BM564R

with ratchet
145 mm, 5 3/4"



FD045R
straight



FD046R
straight

JACOBSON

FD045R-FD046R

without ratchet
185 mm, 7 1/4"



FD048R

with ratchet
200 mm, 8"

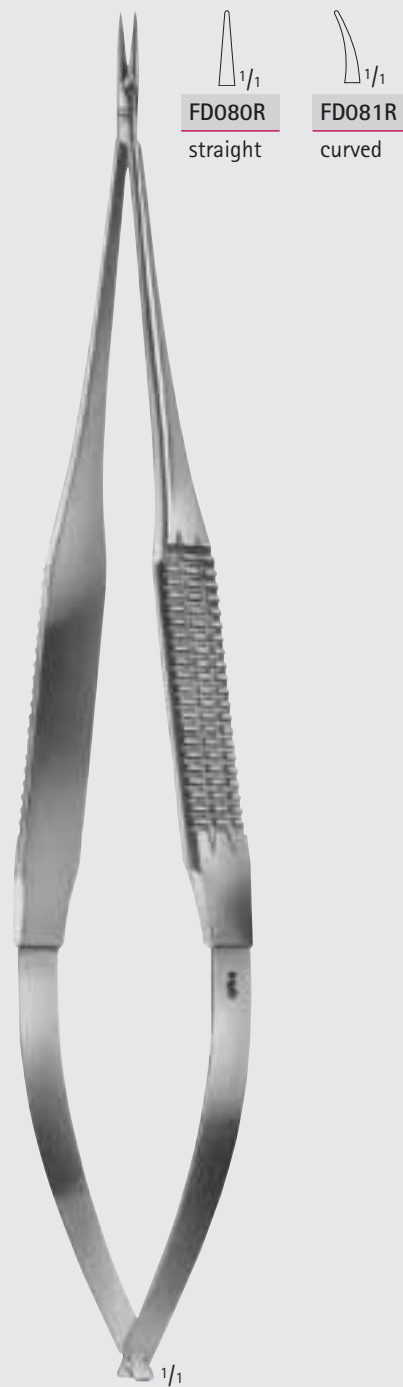


Instruments

Micro Needle Holders with Flat Handles and Cross-Serration



FD076R-FD079R
without ratchet
160 mm, 6 1/4"

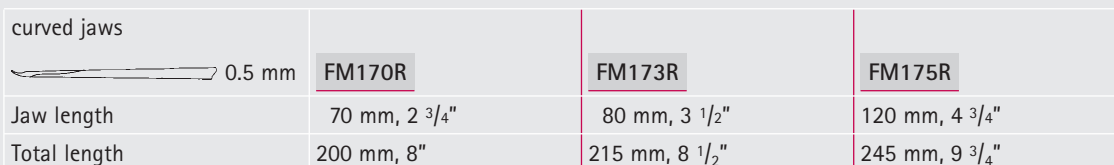


FD080R-FD081R
without ratchet
185 mm, 7 1/4"

Micro

MILLIMETERS

Micro





Instruments

Micro Needle Holders



MÜLLER
FM021R
with ratchet
145 mm, 5 ³/₄"



MÜLLER
FM061R
with ratchet
180 mm, 7"



FD120R
without ratchet
195 mm, 7 ³/₄"

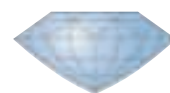
Micro

MILLIMETERS

Instruments

DIADUST Micro Needle Holders with Round Handles

DIADUST



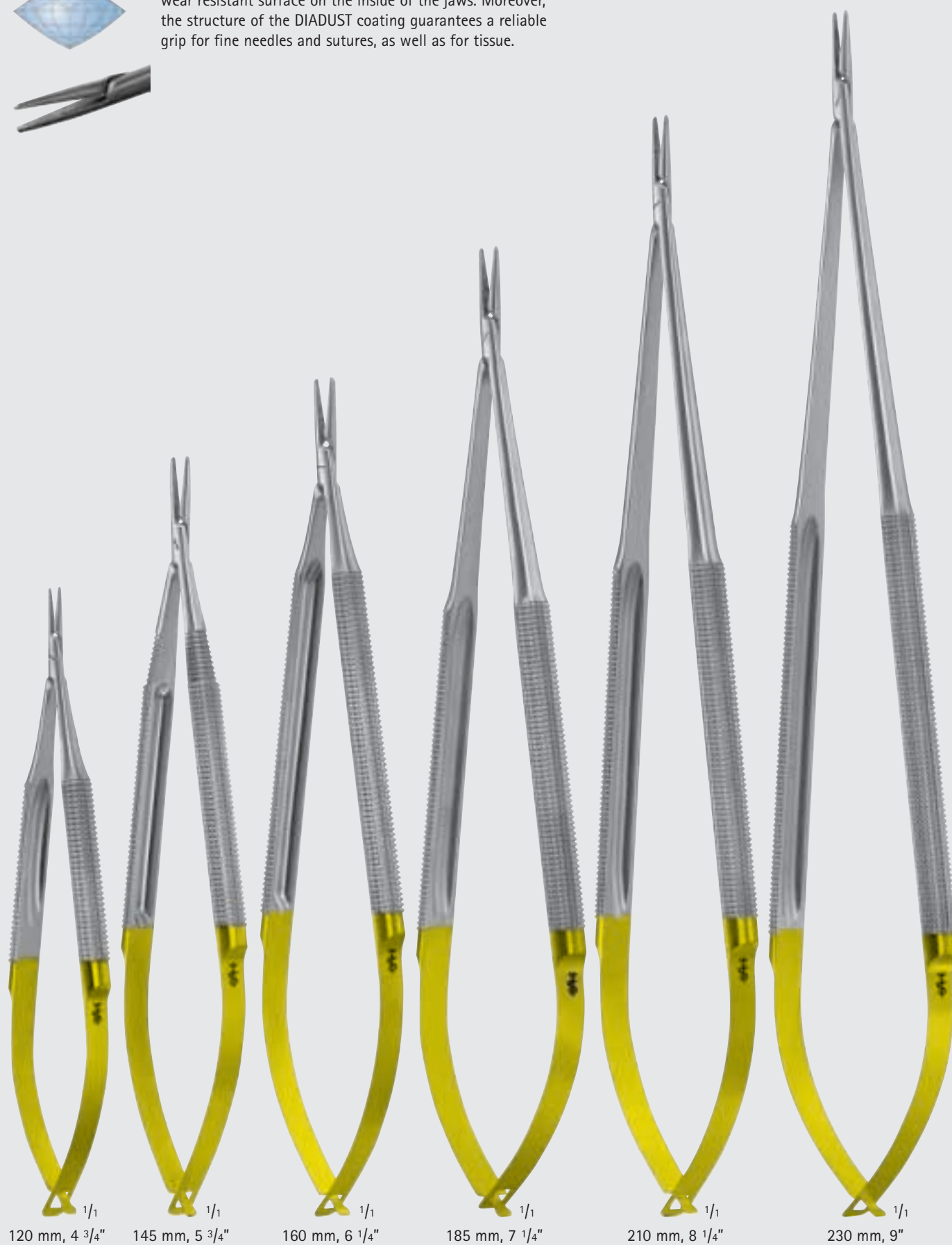
DIADUST



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.



Micro



120 mm, 4 ³/₄"

145 mm, 5 ³/₄"

160 mm, 6 ¹/₄"

185 mm, 7 ¹/₄"

210 mm, 8 ¹/₄"

230 mm, 9"

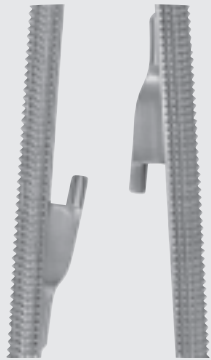


DIADUST



Instruments

DIADUST Micro Needle Holders with Round Handles

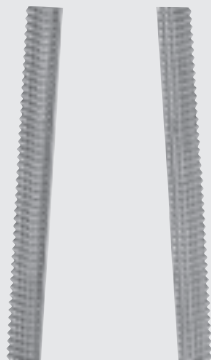


with ratchet



Suture size

Length	7/0 and smaller	5/0 and smaller	4/0 and smaller	4/0 and smaller
120 mm 4 3/4"	FM520R			
145 mm 5 3/4"		FM522R		
160 mm 6 1/4"	FM521R	FM523R		
185 mm 7 1/4"	FM563R	FM564R	FM218R	
210 mm 8 1/4"	FM565R	FM566R	FM228R	FM221R
230 mm 9"	FM567R	FM568R	FM230R	FM223R



without
ratchet



Suture size

Length	7/0 and smaller	5/0 and smaller
120 mm 4 3/4"	FM524R	
145 mm 5 3/4"		FM528R
160 mm 6 1/4"	FM525R	FM529R
185 mm 7 1/4"	FM526R	FM530R
210 mm 8 1/4"	FM527R	FM531R
230 mm 9"	FM532R	FM533R

Micro

MILLIMETERS

Instruments

DIADUST Micro Needle Holders with Round Handles

DIADUST



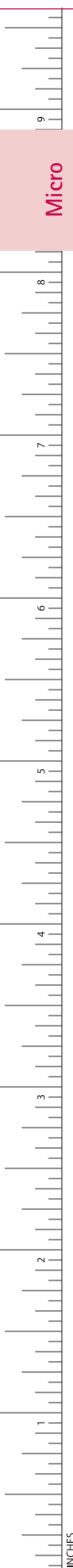
The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.



190 mm, 7 1/2"

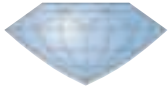
230 mm, 9"

250 mm, 10"



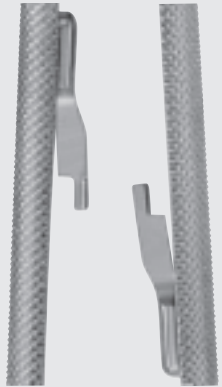


DIADUST



Instruments

DIADUST Micro Needle Holders with Round Handles



with ratchet,
heavy style



Suture size

Length 2/0 and smaller

190 mm
7 1/2"

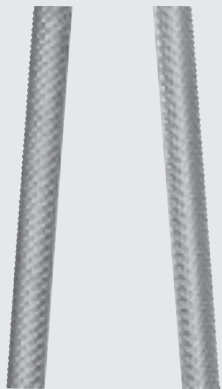
FM538R

230 mm
9"

FM539R

250 mm
10"

FM534R



without
ratchet,
heavy style



Suture size

Length 2/0 and smaller

190 mm
7 1/2"

FM535R

230 mm
9"

FM536R

250 mm
10"

FM537R

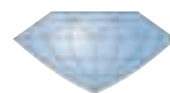
Micro

MILLIMETERS

Instruments

DIADUST Micro Needle Holders with Flat Handles

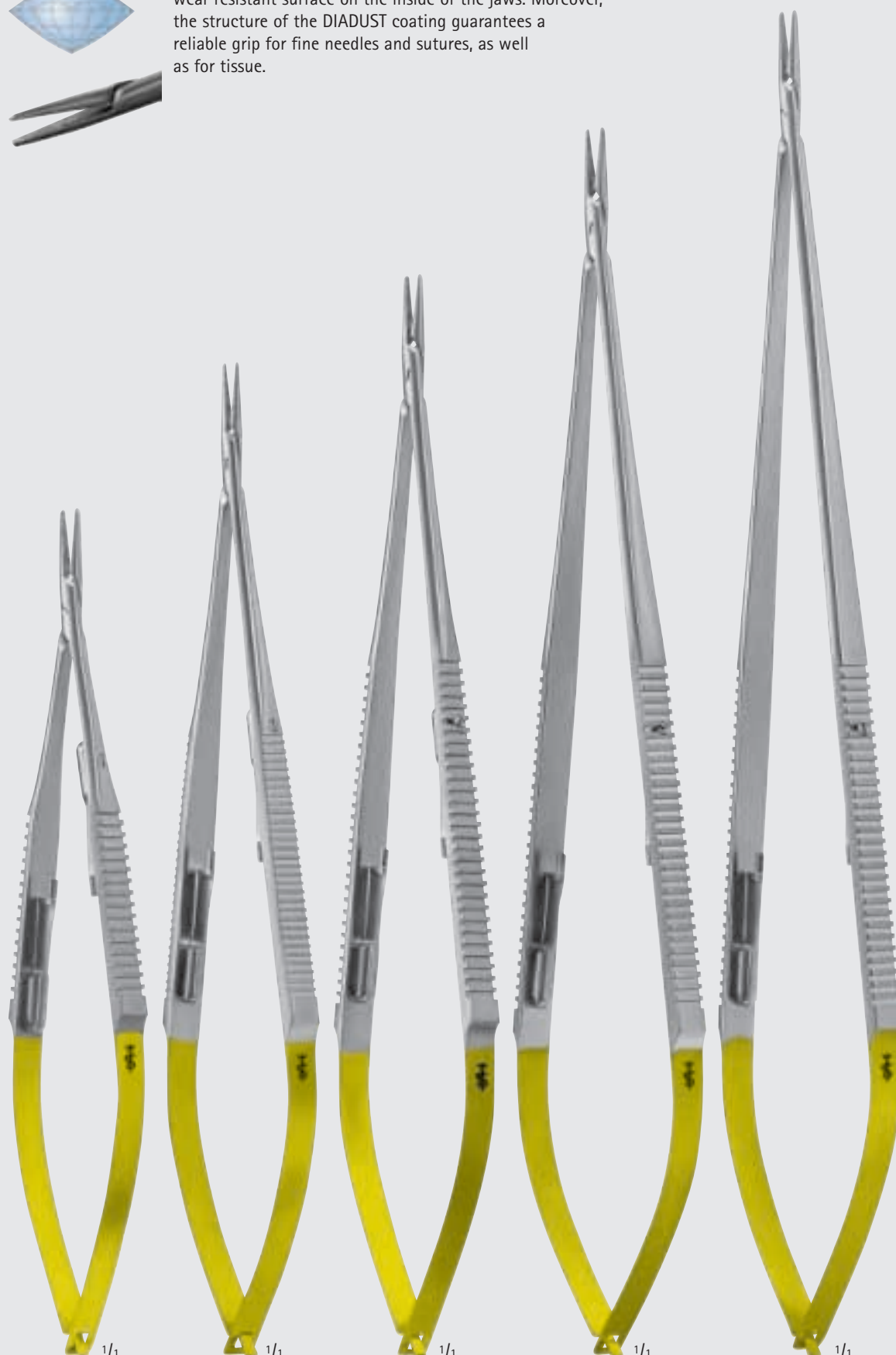
DIADUST



DIADUST



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.



145 mm, 5 ³/₄"

170 mm, 6 ³/₄"

185 mm, 7 ¹/₄"

210 mm, 8 ¹/₄"

230 mm, 9"

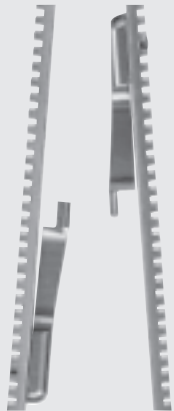


DIADUST



Instruments

DIADUST Micro Needle Holders with Flat Handles

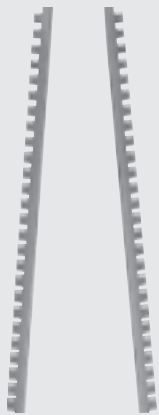


with ratchet



Suture size

Length	7/0 and smaller	5/0 and smaller
145 mm 5 3/4"		<u>FM541R</u>
170 mm 6 3/4"	<u>FM540R</u>	
185 mm 7 1/4"		<u>FM542R</u>
210 mm 8 1/4"		<u>FM543R</u>
230 mm 9"		<u>FM544R</u>



without
ratchet



Suture size

Length	7/0 and smaller	5/0 and smaller
145 mm 5 3/4"		<u>FM546R</u>
170 mm 6 3/4"	<u>FM545R</u>	
185 mm 7 1/4"		<u>FM547R</u>
210 mm 8 1/4"		<u>FM548R</u>
230 mm 9"		<u>FM549R</u>

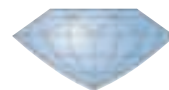
Micro

MILLIMETERS

Instruments

DIADUST Micro Needle Holder with Flat Knurled Handles

DIADUST



DIADUST



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.



185 mm, 7 ¹/₄"

210 mm, 8 ¹/₄"

230 mm, 9"

Micro

INCHES



DIADUST



Instruments

DIADUST Micro Needle Holder with Flat Knurled Handles



with ratchet



Suture size

Length 5/0 and smaller

185 mm
7 1/4"

FM550R

210 mm
8 1/4"

FM551R

230 mm
9"

FM552R



without
ratchet



Suture size

Length 5/0 and smaller

185 mm
7 1/4"

FM553R

210 mm
8 1/4"

FM554R

230 mm
9"

FM555R

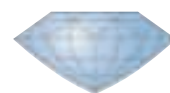
Micro

MILLIMETERS

Instruments

DIADUST Micro Needle Holder with Flat Knurled Handles

DIADUST



DIADUST



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.



Micro



GLASSER

FM560R

Suture size: 5/0 and smaller
125 mm, 5"



GLASSER

FM561R

Suture size: 5/0 and smaller
180 mm, 7"

INCHES

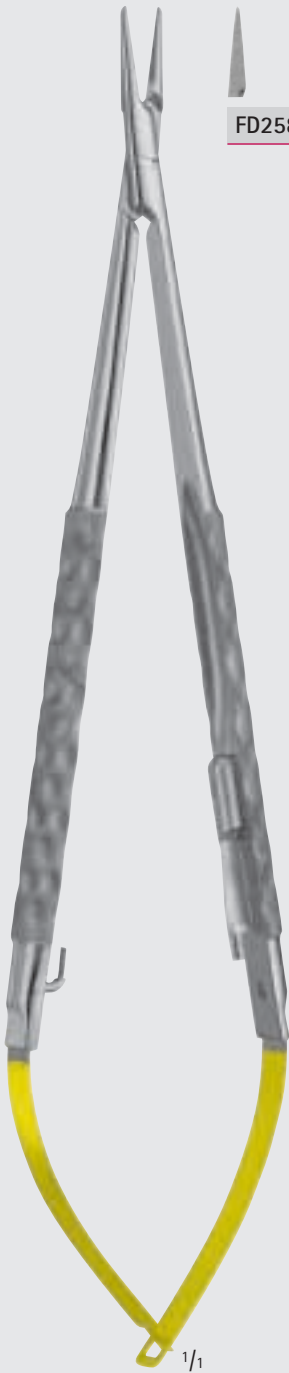


DIADUST



Instruments

DIADUST Micro Needle Holders



FD258R

FD259R

FD258R-FD259R

180 mm, 7"



FM236R

with ratchet
Suture size: 5/0 and smaller
210 mm, 8 1/4"



FM276R

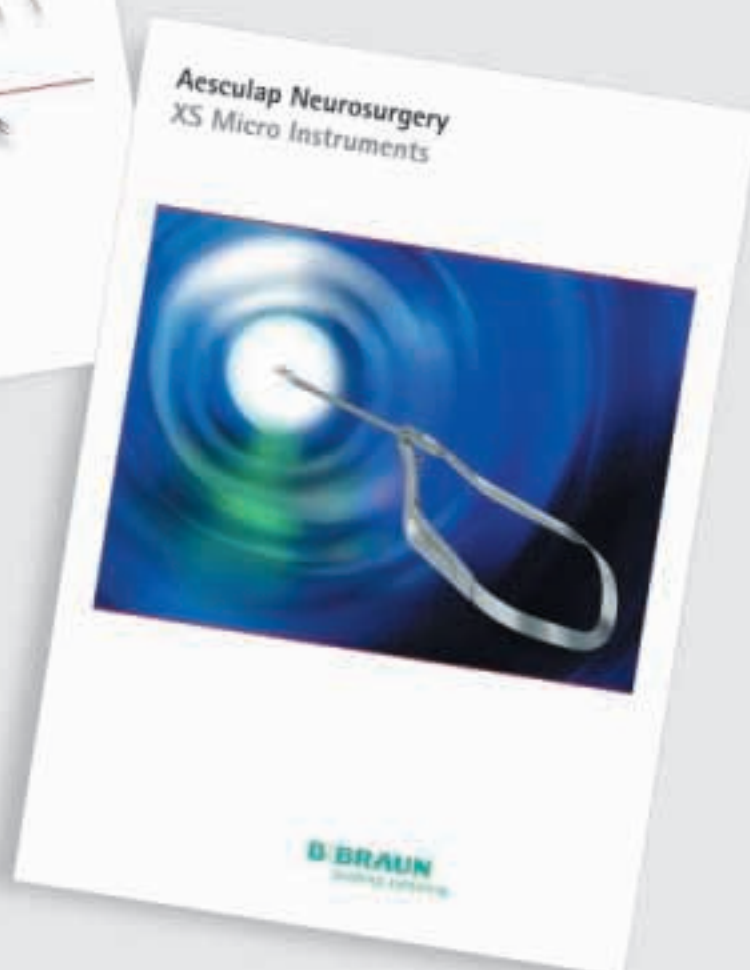
without ratchet
Suture size: 5/0 and smaller
210 mm, 8 1/4"

Micro

MILLIMETERS



For further details see
brochure No. C74511



For further details see
brochure No. C77011



Instruments

Tumor Forks



YASARGIL
FD388R
200 mm, 8"



YASARGIL
FD385R
220 mm, 8 3/4"

Micro

MILLIMETERS

Instruments

Skull Base Instruments

AL MEFTY skull base instruments

- Variable grip, to reach different working depths without having to change instruments
- Sharp working tips for precise preparations - blunt external contours to protect neighboring structures
- Ergonomic handle, optimized for secure grip and fine movement

2.8 mm



FD901R

Spoon, sharp
straight

2.8 mm



FD902R

Spoon, sharp
angled

4.4 mm



FD903R

Spoon, sharp
straight

4.4 mm



FD904R

Spoon, sharp
angled

2.0 mm



FD911R

Dissector, sharp,
angled

3.5 mm



FD912R

Dissector, sharp,
angled

4.0 mm



FD913R

Dissector, sharp,
angled

AL MEFTY

FD901R-FD913R

"sharp" instruments
(270°) with black cap
200 mm, 8"

Micro

INCHES

1/1



Instruments

Skull Base Instruments



FD908R

Dissector,
semi-sharp,
angled

FD909R

Dissector,
semi-sharp,
angled

FD910R

Dissector,
semi-sharp,
angled

AL MEFTY

FD908R-FD910R

"semi-sharp" instruments
(180°) with grey cap
200 mm, 8"



AL MEFTY

FD905R

Ligature needle,
malleable
190 mm, 7 1/2"



AL MEFTY

FD906R

Suction cannula
225 mm, 9"



AL MEFTY

FD907R

Chisel
215 mm,
8 1/2"

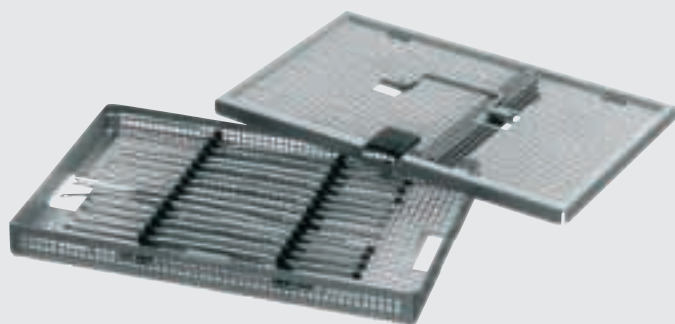
Micro

MILLIMETERS

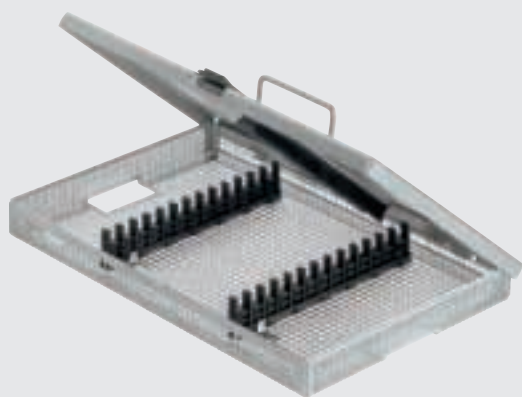
Instruments

Skull Base Instruments

Micro



AL MEFTY
Skull base set, complete



JF237R 274 x 172 x 30 mm
Perforated basket with instrument racks
and lid for storage of
AL MEFTY skull base instruments
(instruments not included)



JN092
Container fits one JF237R
(instruments not included)



Instruments

Exploration Hooks, Probe-Pointed



BT088R

BT089R

BT090R

BT091R

CASPAR

BT088R-BT091R

245 mm, 9 ³/₄"

Micro

MILLIMETERS

Instruments

Ligature Guides, Probe-Pointed

Micro



YASARGIL

FD270R-FD273R

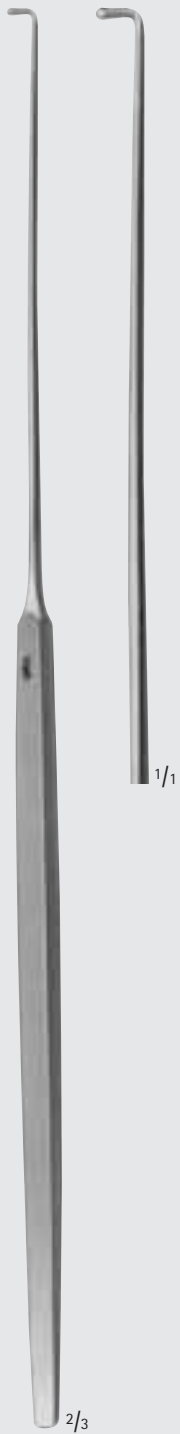
185 mm, 7 1/4"



Instruments

Nerve- and Vessel Hooks

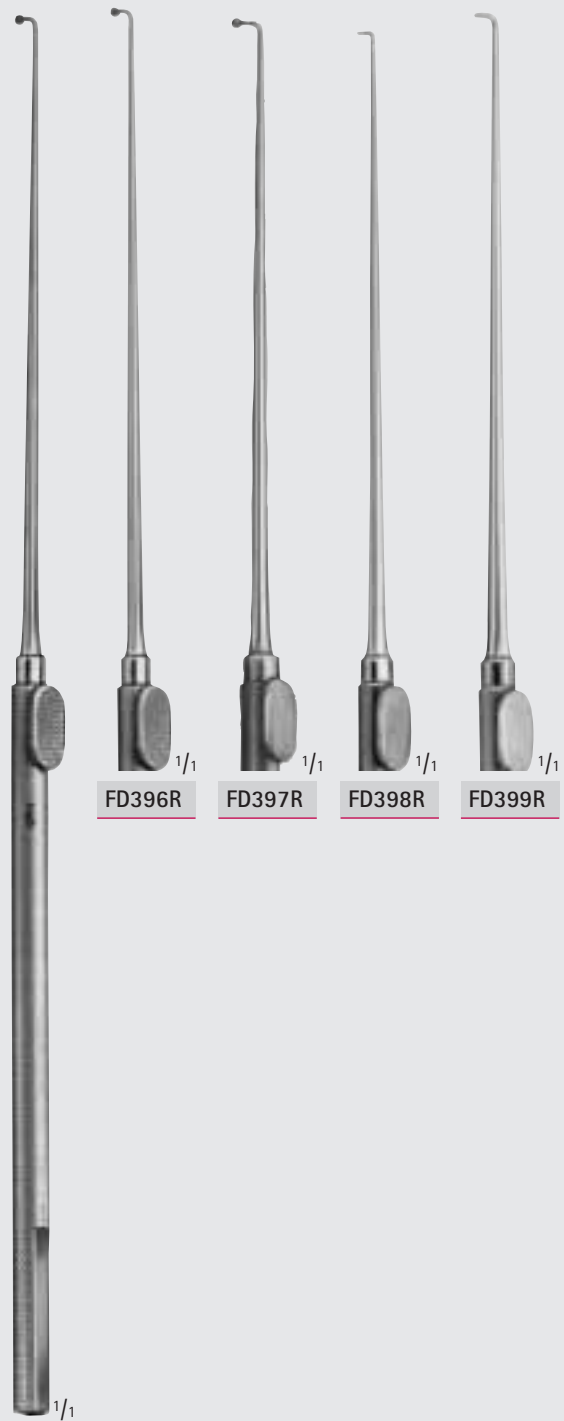
Micro



CUSHING

BT084R

280 mm, 11"



FD396R

FD397R

FD398R

FD399R

KRAYENBÜHL

FD396R-FD399R

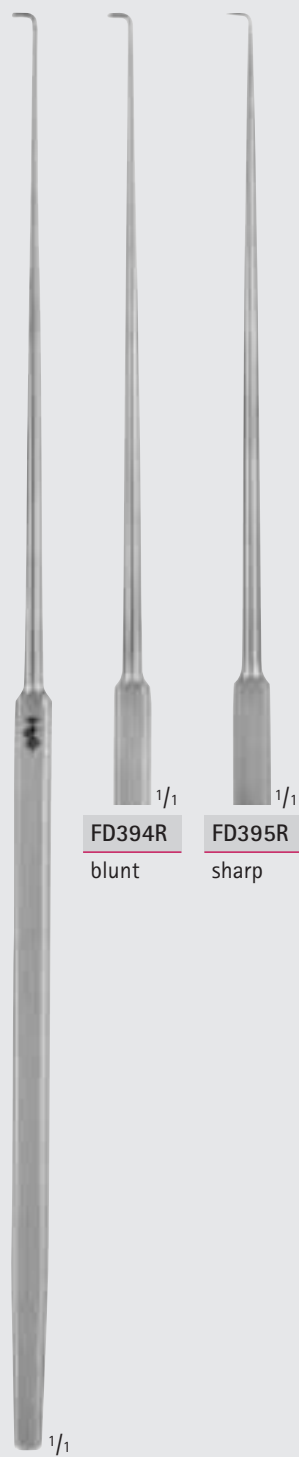
185 mm, 7 1/4"

MILLIMETERS

Instruments

Nerve- and Vessel Hooks

Micro



FD394R
blunt

FD395R
sharp

ADSON

FD394R-FD395R

190 mm, 7 1/2"



Instruments

Fine Wound Retractors

Micro



MILLIMETERS

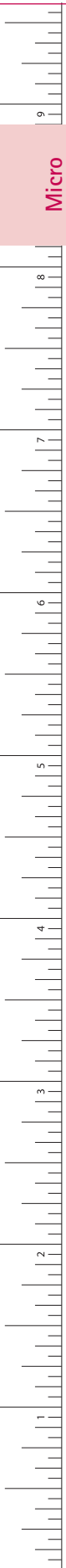


JÄGER
OA351R
135 mm, 5 1/4"



JOSEPH
OL620R-MD581
165 mm, 6 1/2"

Instruments
Fine Wound Retractors



Micro



1/1

GILLIES

OL611R-OL612R

180 mm, 7"



OL611R



OL612R



1/1

KILNER

OL610R

160 mm, 6 1/4"



1/1

MC INDOE

OL615R-OL616R

150 mm, 6"

9.0 mm



OL615R

10.0 mm



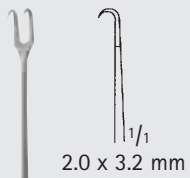
OL616R

1/1



Instruments

Fine Wound Retractors



¹/₁

FREER

OL621R

150 mm, 6"

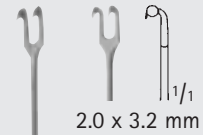


¹/₁

MÜLLER

OL626R

150 mm, 6"



¹/₁

MÜLLER

OL627R

150 mm, 6"

Micro



MILLIMETERS

Instruments

Fine Wound Retractors

Micro



$\frac{1}{16}$

COTTLE

OL617R

160 mm, 6 $\frac{1}{4}$ "

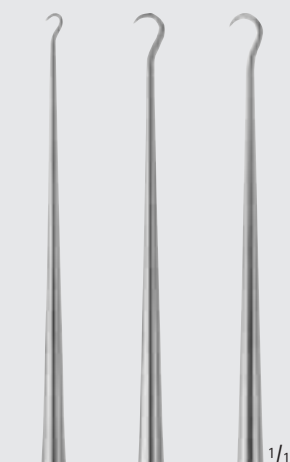


$\frac{1}{16}$

KLEINERT-KUTZ

OL601R-OL603R

160 mm, 6 $\frac{1}{4}$ "



OL601R

OL602R

OL603R

$\frac{1}{16}$



$\frac{1}{16}$

COTTLE

OL619R

160 mm, 6 $\frac{1}{4}$ "

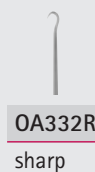


$\frac{1}{16}$

GRAEFE

OA332R-OA333R

125 mm, 5"



OA332R

sharp



$\frac{1}{16}$

OA333R

blunt



Instruments

Fine Wound Retractors



$\frac{1}{1}$

GUTHRIE

OA334R-OA335R

sharp



OA334R

1.2 x 2.0 mm

125 mm, 5"



OA335R

1.7 x 3.0 mm

130 mm, 5 $\frac{1}{8}$ "



$\frac{1}{1}$

ROLLET

OA336R-OA338R



OA336R

sharp

2.2 x 4.5 mm

130 mm, 5 $\frac{1}{8}$ "



OA337R

sharp

2.5 x 7.0 mm

135 mm, 5 $\frac{1}{4}$ "



OA338R

blunt

2.2 x 7.0 mm

135 mm, 5 $\frac{1}{4}$ "

Micro

MILLIMETERS

Instruments

Fine Wound Retractors (Dura Retractors)

Micro



¹/₁
CAIRNS

FF313R

130 mm, 5 ¹/₈"



¹/₁
FRAZIER

FF321R

130 mm, 5 ¹/₈"



¹/₁
TÖNNIS

FF322R

150 mm, 6"



Instruments

Nerve Stripper, Vessel Spreaders



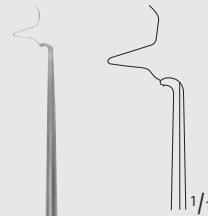
1/1

1/2

ASSMUS

FD610R Diam. 3 mm

Nerve stripper, blunt
Shaft length: 350 mm, 13 3/4"
395 mm, 15 1/2"



1/1

1/1

BIEMER

FD310R 3 mm

Vessel spreader
160 mm, 6 1/4"

Micro

MILLIMETERS

Instruments

Vessel Dilators

Micro



FD306R

Diam. 0.5 mm

FD307R

Diam. 1.0 mm

FD308R

Diam. 1.5 mm

FD306R-FD308R

Vessel dilators
125 mm, 5"



JACOBSON

FD311R

Probe with ball tip, angled
(counter presser)
185 mm, 7 1/4"



JACOBSON

FD312R

Vessel probe
and supporter
185 mm, 7 1/4"



Instruments

Micro Dissectors



FB150R

185 mm, 7 1/4"



FB151R

215 mm, 8 1/2"

Micro

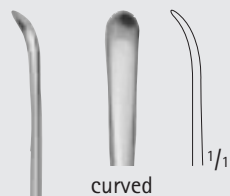
MILLIMETERS

Instruments

Micro Dissectors

Micro

4.5 mm

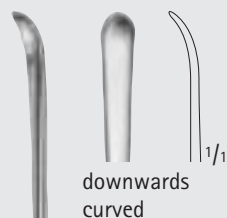


CASPAR

FF303R

230 mm, 9"

4.5 mm

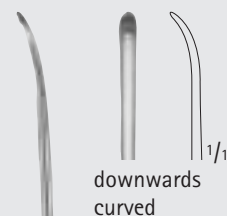


CASPAR

FF305R

230 mm, 9"

2.0 mm



CASPAR

FF307R

230 mm, 9"

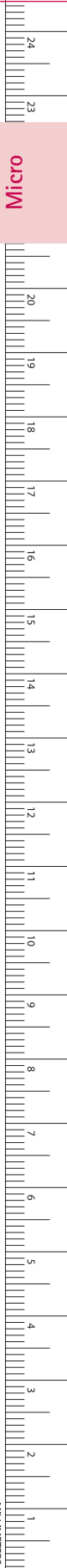


Instruments

Micro Dissectors, Suture Pusher



Micro

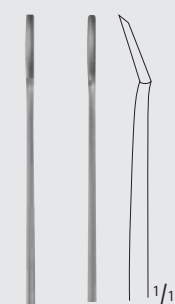


MILLIMETERS

Instruments

Micro Raspatories, Micro Dissectors

Micro



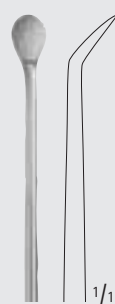
FD301R

Micro raspatory,
angled



FD302R

Micro dissector,
angled



FD303R

Micro dissector,
angled



FD304R

Micro raspatory,
slightly curved



FD305R

Micro raspatory,
curved



YASARGIL

FD301R-FD305R

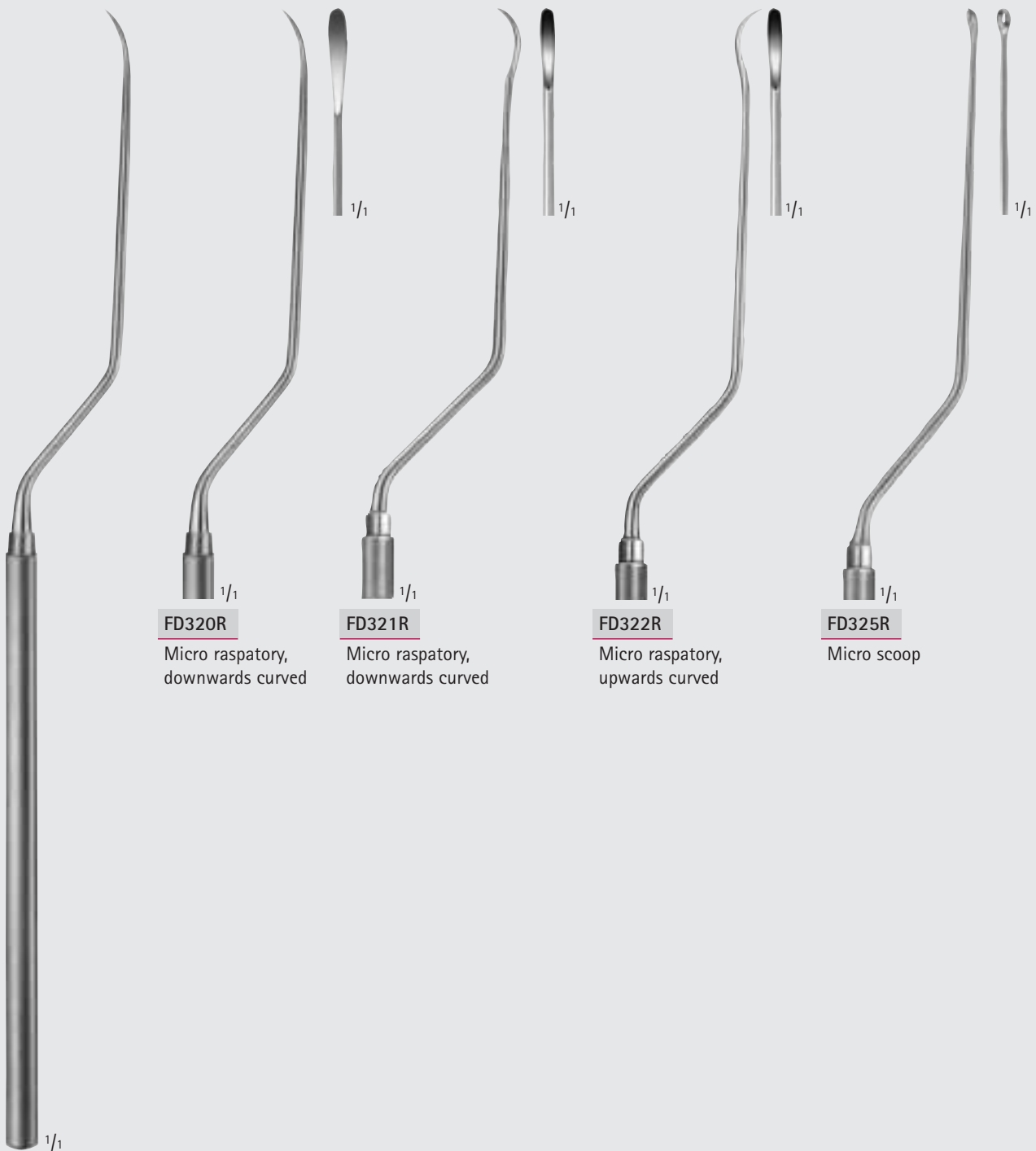
185 mm, 7 1/4"



Instruments

Micro Raspatories, Micro Dissectors

Micro



YASARGIL

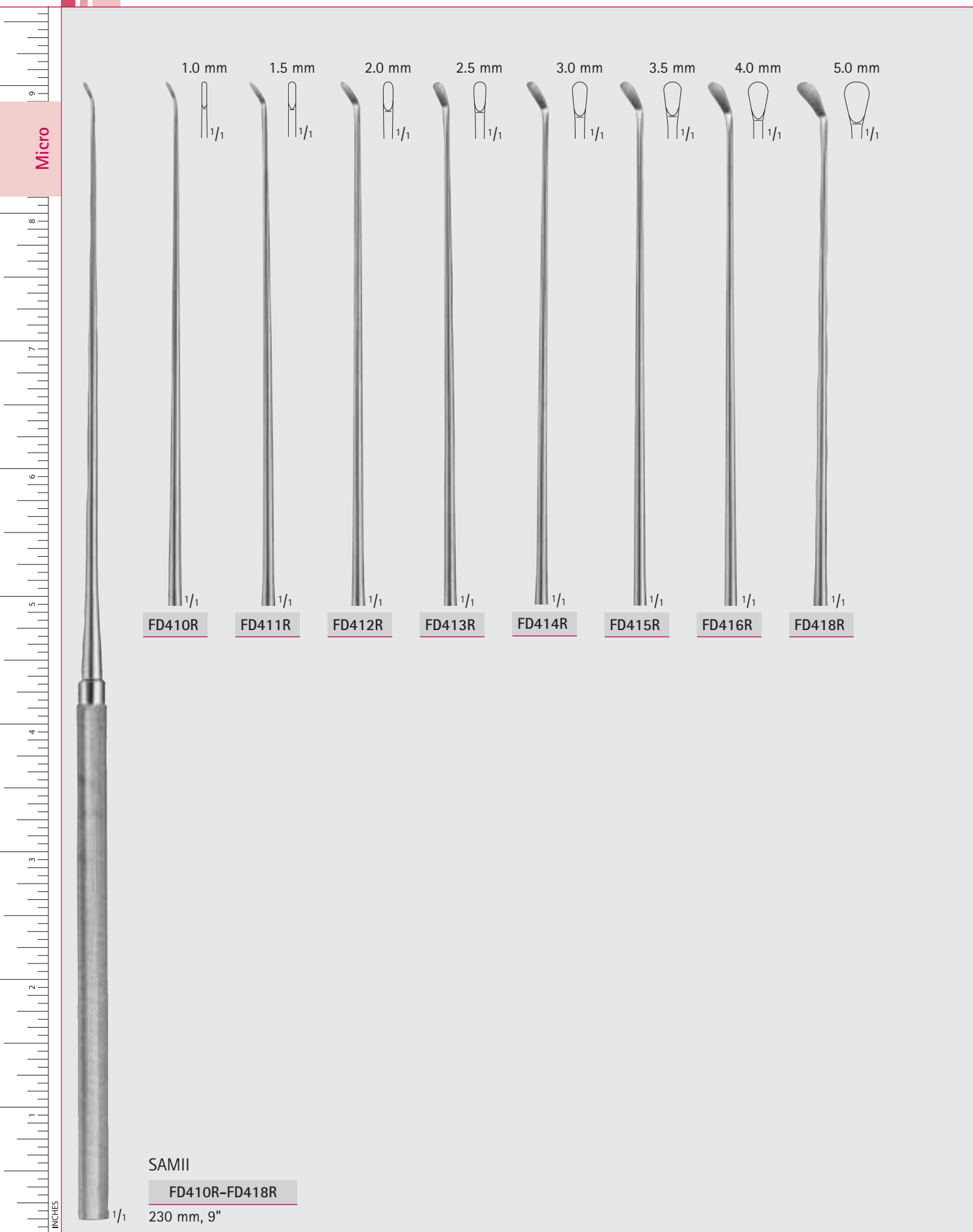
FD320R-FD325R

185 mm, 7 1/4"

MILLIMETERS

Instruments

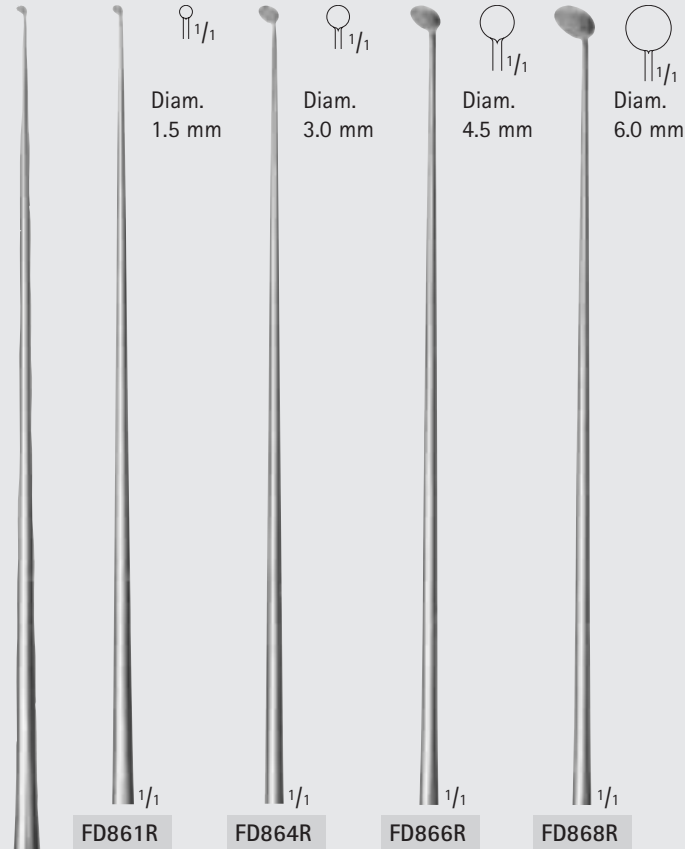
Knives for Tumor Tissue





Instruments

Knives for Tumor Tissue



SAMII

FD861R-FD868R

230 mm, 9"



SAMII

FD298R

Lancet knife
for tumor tissue
230 mm, 9"

Micro

MILLIMETERS

Instruments

Instruments for Acoustic Neurinoma

Micro

1/1

OPPEL

FD429R

Micro dissector,
malleable
curved

1/1 230 mm, 9"

OPPEL

FD430R 90°

Retractor,
diam. of tip 2 mm
malleable, blunt

1/1 230 mm, 9"

OPPEL

FD432R 45°

Retractor,
diam. of tip 2 mm
malleable, blunt

1/1 230 mm, 9"



Instruments

Micro Dissectors, Micro Raspatories



FD343R

Micro dissector,
upwards curved
230 mm, 9"

1/1



FD344R

Micro dissector,
downwards
curved, blunt
230 mm, 9"

1/1



FD346R

Micro raspatory
plate-shaped
230 mm, 9"

1/1



FD333R

Micro dissector,
blunt
230 mm, 9"

1/1

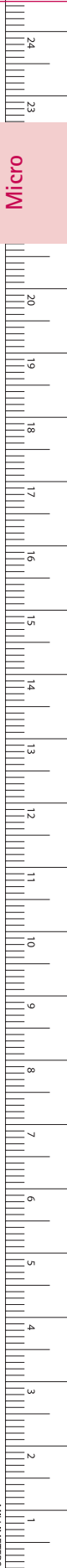


FD338R

Micro raspatory,
plate-shaped
230 mm, 9"

1/1

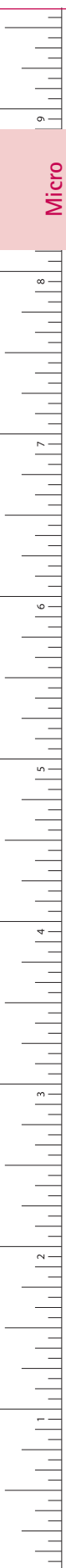
Micro



MILLIMETERS

Instruments

Micro Hooks, Micro Dissectors



Micro



FD330R

Micro hook,
semi-sharp
230 mm, 9"

$\frac{1}{16}$



FD331R

Micro hook,
blunt
230 mm, 9"

$\frac{1}{16}$



FD332R

Micro dissector,
straight
230 mm, 9"

$\frac{1}{16}$



$\frac{1}{16}$



FD334R

Micro dissector,
straight
230 mm, 9"

$\frac{1}{16}$

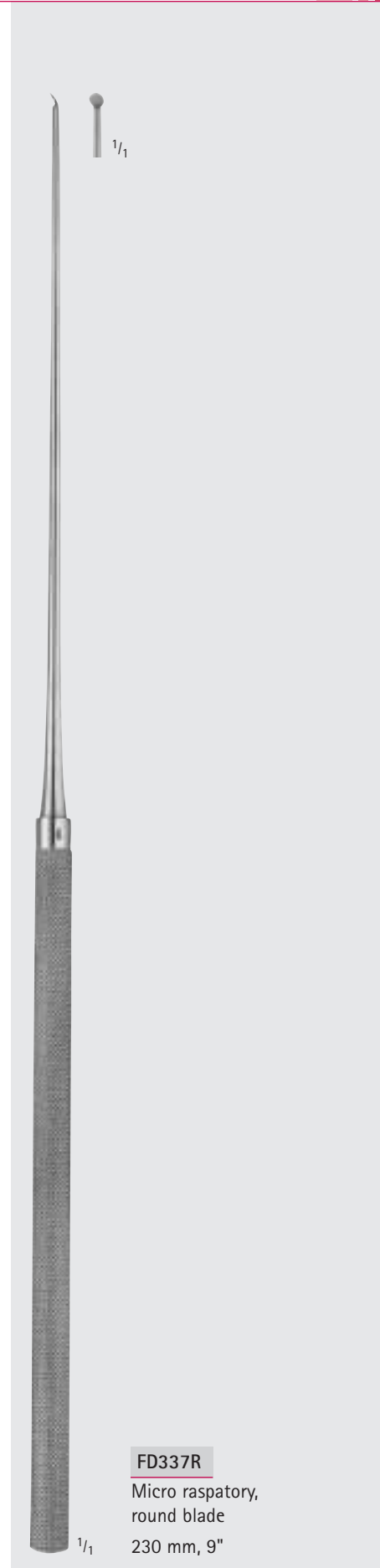


$\frac{1}{16}$



Instruments

Micro Scoops, Micro Raspatory



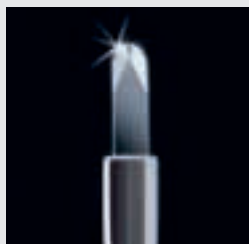
Micro

MILLIMETERS

Instruments

Diamond Knives

Micro



FD113D

Round blade,
gold-colored, 7 facets
205 mm, 8"

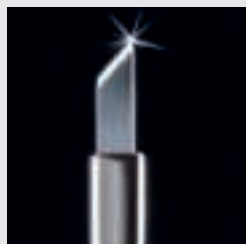
1/1



FD114D 60°

Retro blade,
copper-colored, 60°
205 mm, 8"

1/1



FD115D 45°

Wedge blade,
black, 45°
205 mm, 8"

1/1



FD116D 60°

Lancet blade,
bronze-colored, 60°
205 mm, 8"

1/1



Instruments

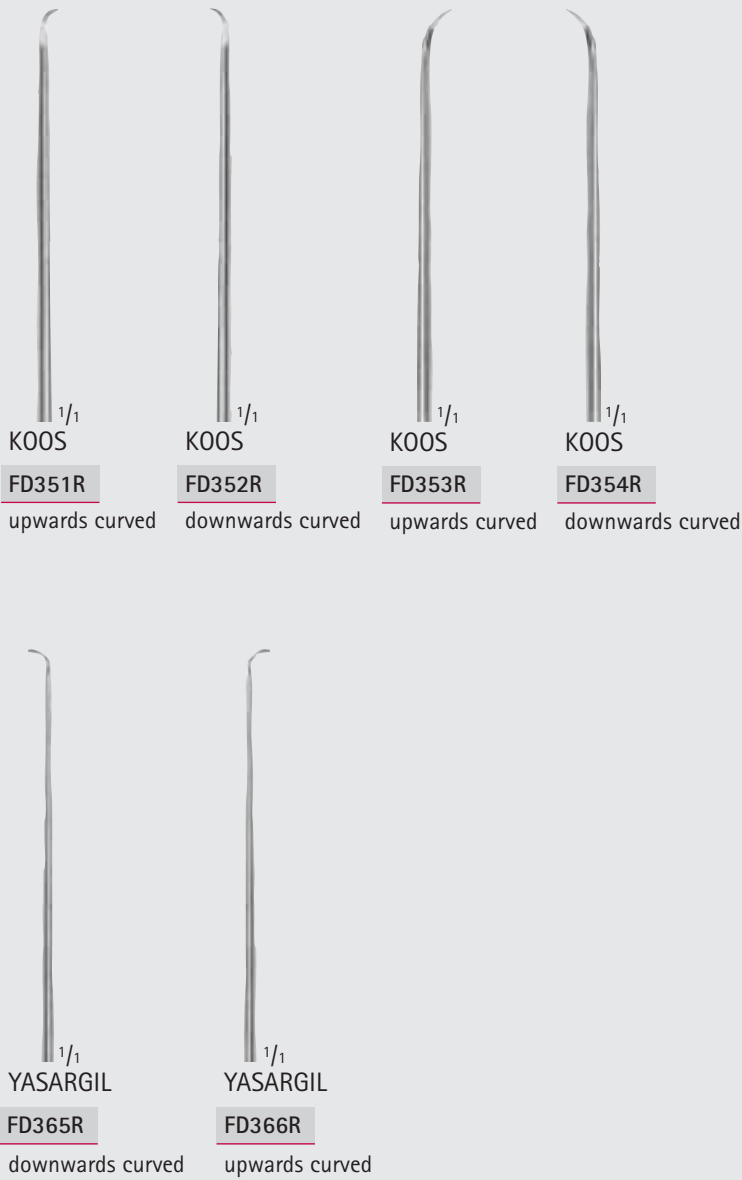
Micro Vessel Knives

Micro

MILLIMETERS



FD351R-FD366R
185 mm, 7 1/4"



Instruments

Tissue Picks, Sharp Hooks, Micro Vessel Knives

Micro



FD392R

Tissue pick
185 mm, 7 1/4"



FISCH

FD376R
Sharp hook,
90° angled
185 mm, 7 1/4"



FD375R

Sharp hook,
90° angled
185 mm, 7 1/4"



FD361R

Handle with chuck
for interchangeable
vessel knife
105 mm, 4 1/8"



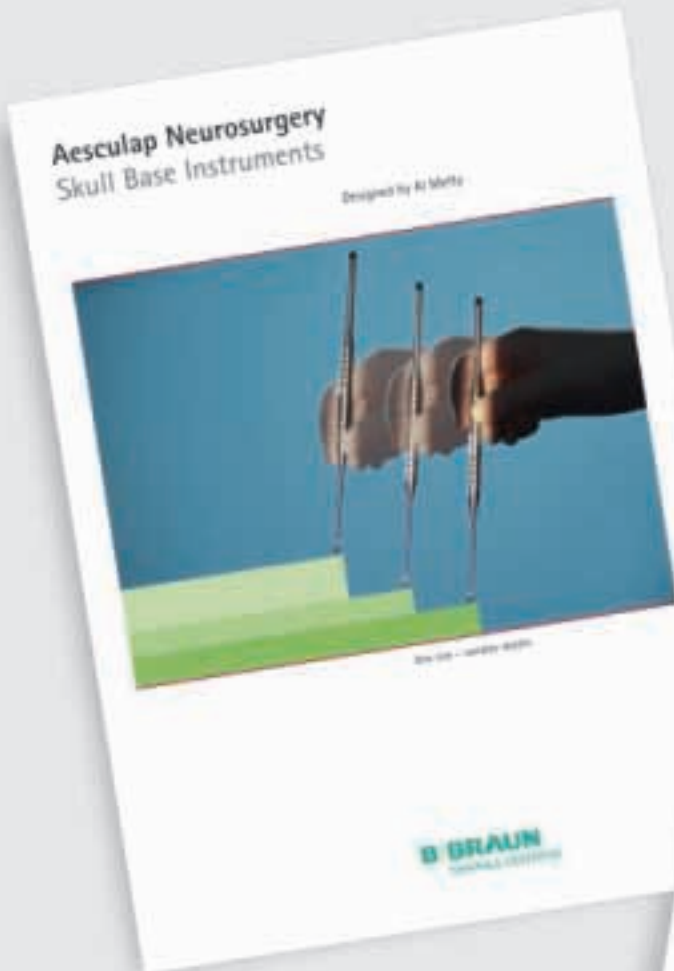
JACOBSON

FD350R
Vessel knife
185 mm, 7 1/4"

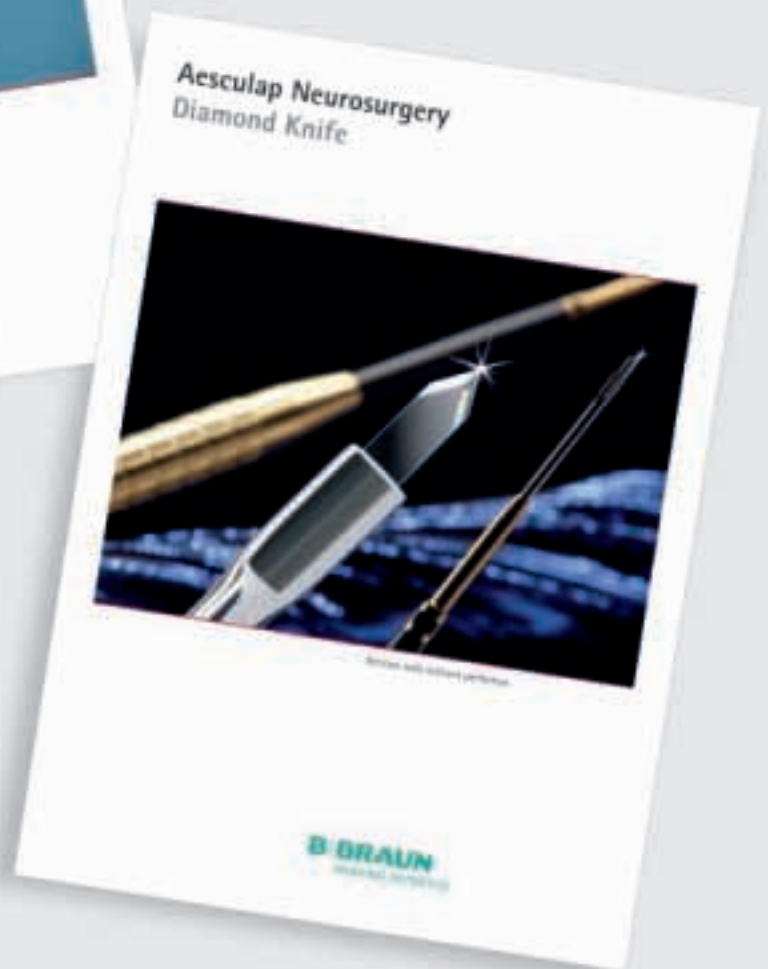


Instruments

Micro



For further details see
brochure No. C08102



For further details see
brochure No. C22402



MILLIMETERS

Instruments

Pituitary Instruments

Pituitary



PAPAVERO-CASPAR

FF589R 80 x 11 mm

FF590R 90 x 13 mm

FF591R 100 x 15 mm

Slim profile and lightweighted specula for transsphenoidal surgery with key TE749R



FF590B 90 x 13 mm

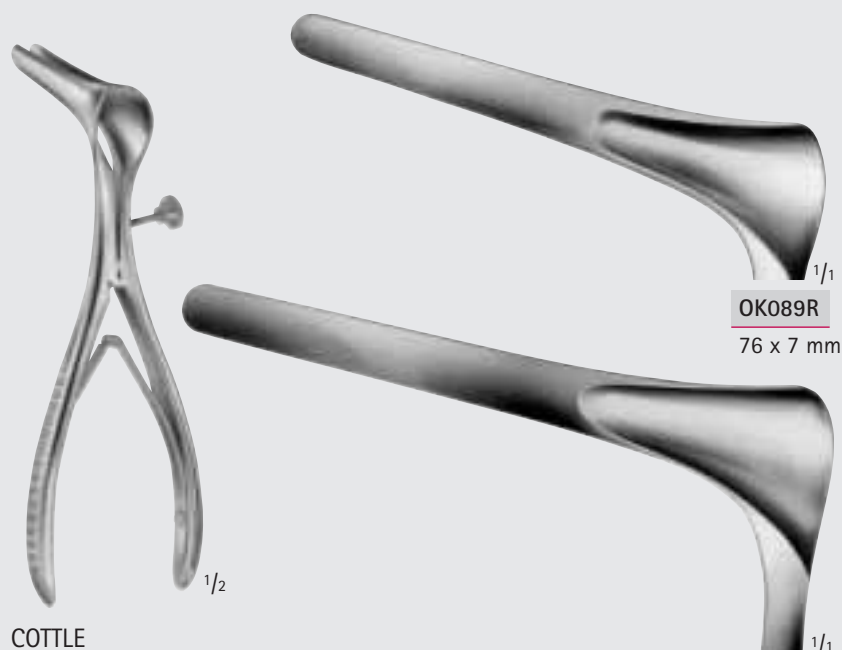
NOIR®

Transsphenoidal specula



TE749R

Key



COTTLE

OK089R-OK090R

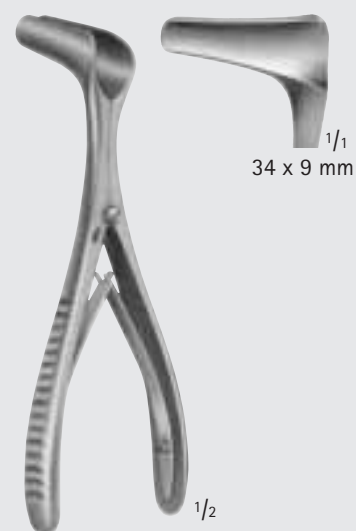
Self-retaining nasal speculum, suitable as introducer for FF589R, FF590R, FF591R
135 mm, 5 1/4"

OK089R

76 x 7 mm

OK090R

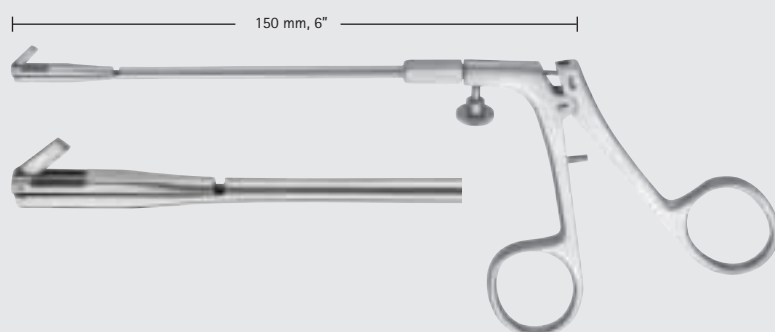
90 x 7 mm



PAPAVERO-HARTMANN

FF595R

Spreader for specula
FF589R, FF590R, FF591R
140 mm, 5 1/2"



FA076R

Antrum punch

Kerrison bone punches and rongeurs see page 4-26.



Instruments

Pituitary Instruments



1/2

CUSHING-LANDOLT

OK100R	70 x 15 mm
OK101R	90 x 15 mm
OK102R	110 x 15 mm

Specula
for transsphenoidal hypophysectomy



1/2

LANDOLT

OK103R	70 x 15 mm
--------	------------

Spreader
for specula OK100R-OK102R
210 mm, 8 1/4"



1/2

PAPAVERO

FF610R

Bayonet chisel, 4 mm wide,
for the perpendicular plate
of ethmoid bone
220 mm, 8 3/4"



1/2

COTTLE

OL301R	4 mm
OL302R	7 mm
OL303R	9 mm
OL304R	12 mm

Chisel with depth markings
180 mm, 7"



diam. 30 mm

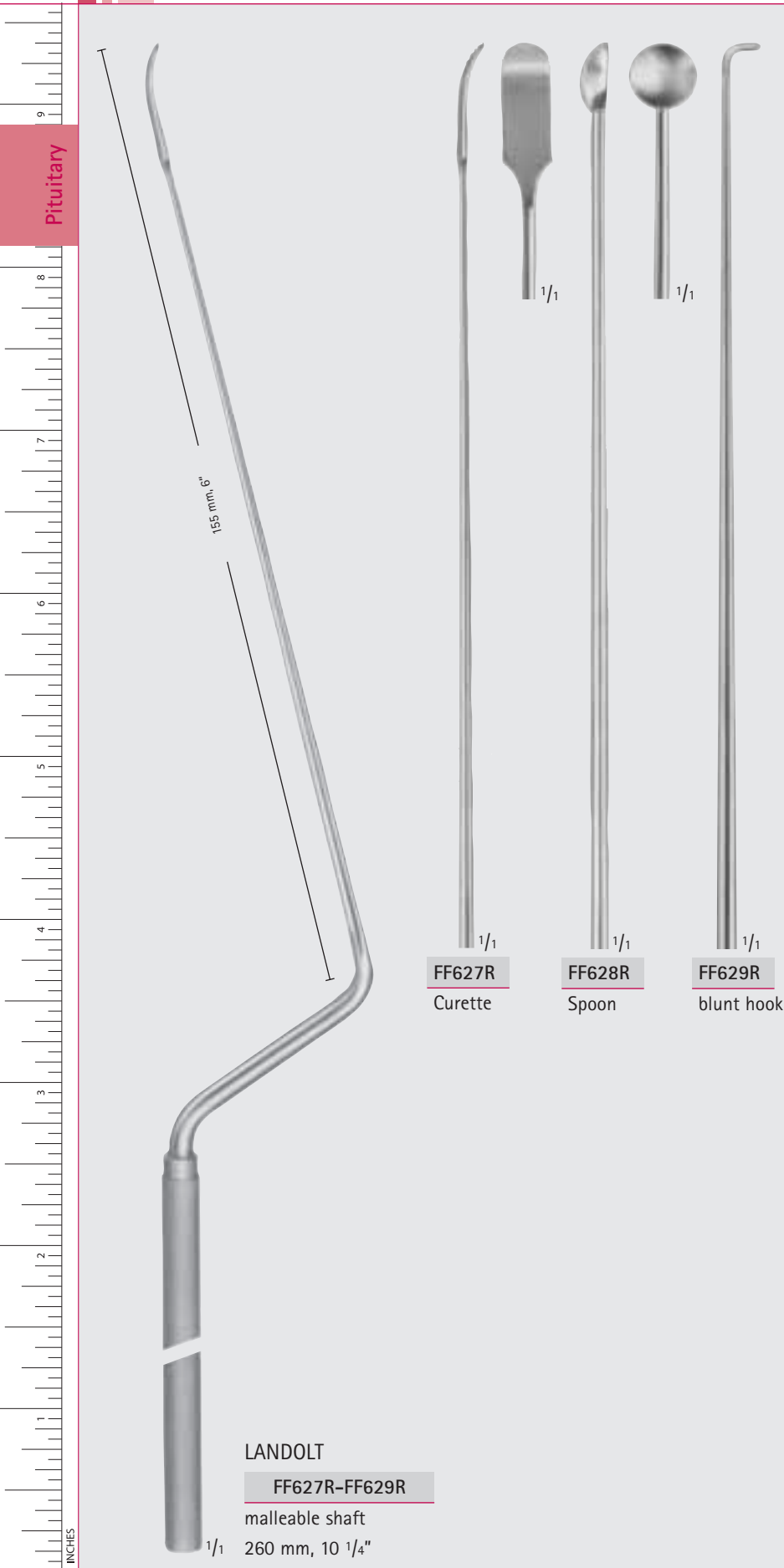
1/2

COTTLE

FL038R	235 g
--------	-------

Mallet,
1 side flat, 1 side convex
185 mm, 7 1/4"

Instruments
Pituitary Instruments





Instruments

Pituitary Instruments



LANDOLT

FF625R-FF656R

Enucleators, malleable

$\frac{1}{1}$ 260 mm, 10 $\frac{1}{4}$ "



$\frac{1}{1}$
FF625R
blunt
right



$\frac{1}{1}$
FF655R
blunt
left



$\frac{1}{1}$
FF626R
blunt
right



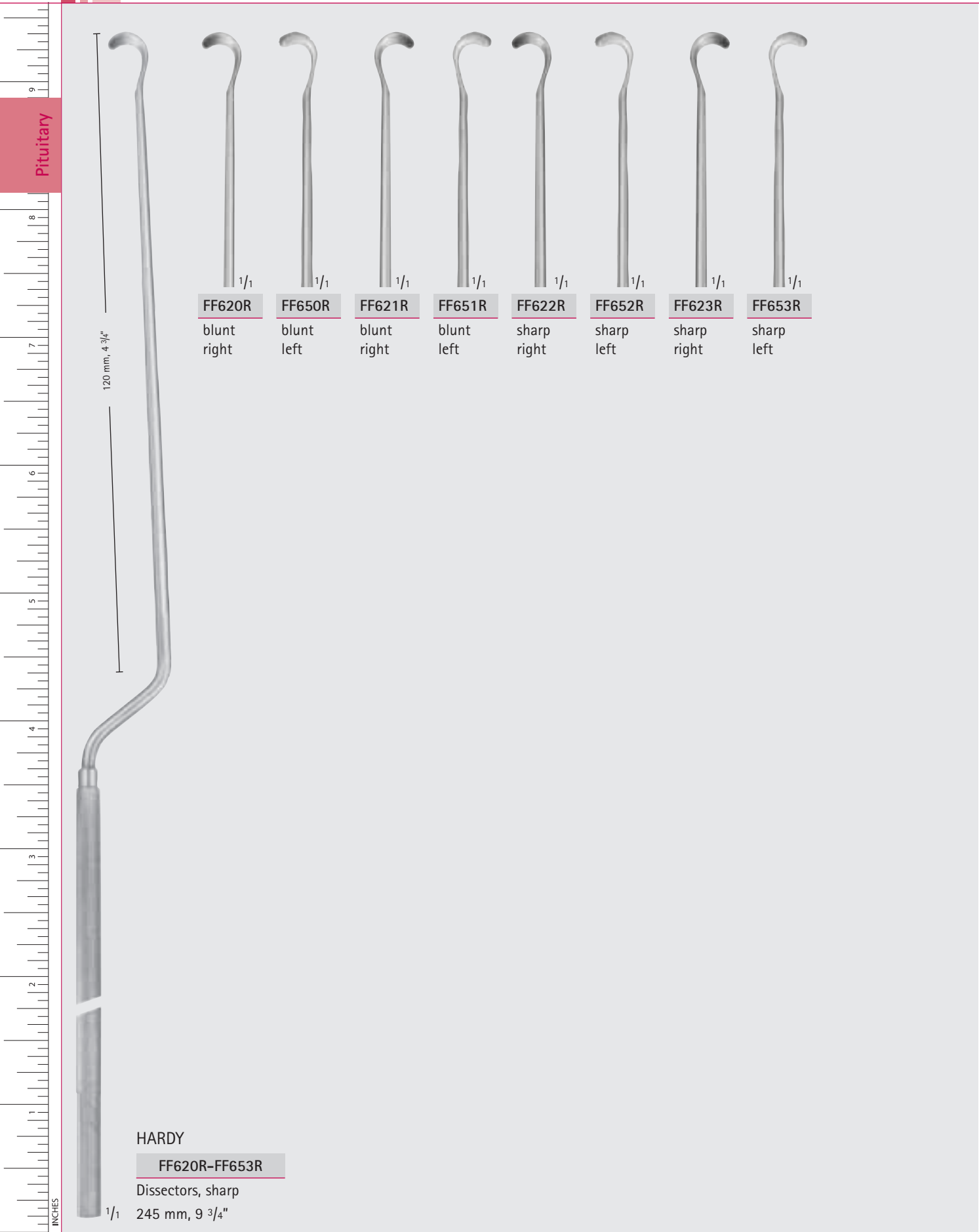
$\frac{1}{1}$
FF656R
blunt
left

Pituitary

MILLIMETERS

Instruments

Pituitary Instruments





Instruments

Pituitary Instruments

120 mm, 4 3/4"

1/1

FF608R

1/1

FF609R

HARDY-FAHLBUSCH

FF608R-FF609R

Dissectors, sharp

1/1 245 mm, 9 3/4"

120 mm, 4 3/4"

HARDY

FF624R

Implant fork

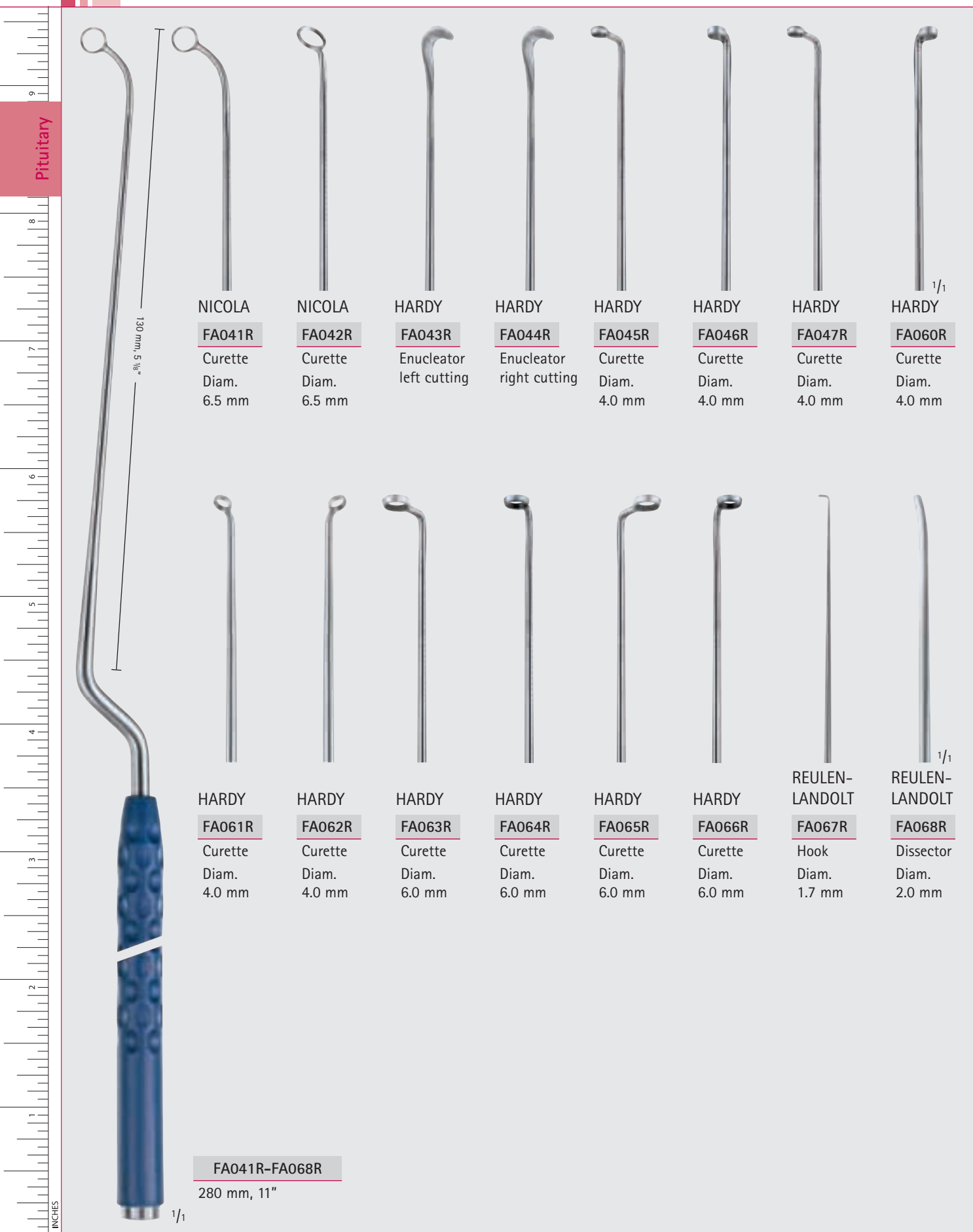
1/1 245 mm, 9 3/4"

Pituitary

MILLIMETERS

Instruments

Pituitary Instruments





Instruments

Pituitary Instruments



NICOLA
FA030R
Curette
Diam.
6.5 mm

NICOLA
FA031R
Curette
Diam.
6.5 mm

HARDY
FA032R
Enucleator
left cutting

HARDY
FA033R
Enucleator

HARDY
FA034R
Curette
Diam.
4.0 mm

HARDY ^{1/1}
FA035R
Curette
Diam.
4.0 mm

HARDY
FA036R
Curette
Diam.
4.0 mm

HARDY
FA037R
Curette
Diam.
6.0 mm

HARDY
FA038R
Curette
Diam.
6.0 mm

LANDOLT-
REULEN
FA039R
Hook
Diam.
1.7 mm

LANDOLT-
REULEN ^{1/1}
FA040R
Dissector
Diam.
2.0 mm

FA030R-FA040R
265 mm, 10 1/2"

Pituitary

MILLIMETERS

Instruments

Pituitary Instruments

Pituitary

140 mm, 5 1/2"

FF616R Diam. 6.5 mm
cutting to the right

FF617R Diam. 6.5 mm
cutting to the left

FF618R Diam. 6.5 mm

NICOLA

FF616R-FF618R

Curettes, malleable

1/1 260 mm, 10 1/4"

NICOLA

FF619R

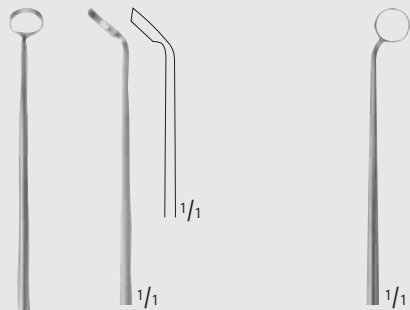
Raspatory

1/1 215 mm, 8 1/2"



Instruments

Pituitary Instruments



FF611R Diam. 4 mm
horizontal 45°

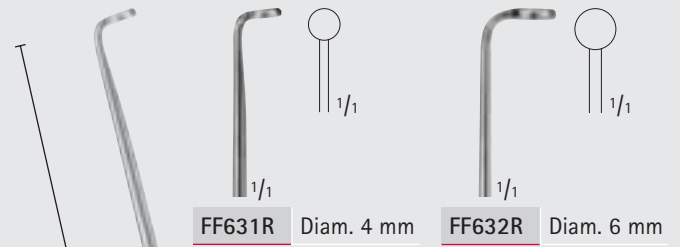
FF614R Diam. 4 mm
vertical 45°

RAY

FF611R-FF614R

Curettes

1/1 180 mm, 7"



FF631R Diam. 4 mm

FF632R Diam. 6 mm

HARDY

FF631R-FF632R

Curettes, malleable

1/1 260 mm, 10 1/4"

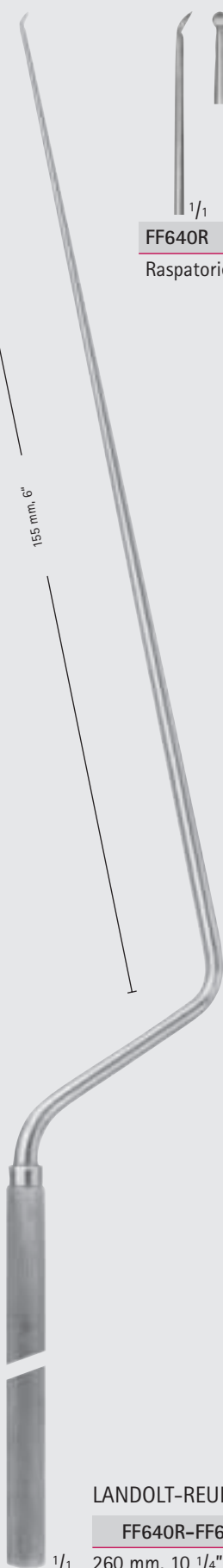
Pituitary

MILLIMETERS

Instruments

Pituitary Instruments

Pituitary

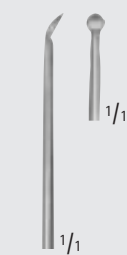


155 mm, 6"

LANDOLT-REULEN

FF640R-FF644R

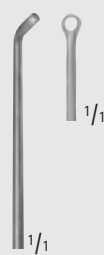
$\frac{1}{1}$ 260 mm, 10 $\frac{1}{4}$ "



FF640R Diam. 2.2 mm
Raspatories, rigid



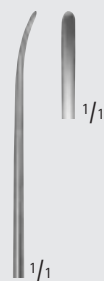
FF641R Diam. 3.2 mm
Raspatories, rigid



FF642R Diam. 2.5 mm
Curette, rigid



FF643R Diam. 1.7 mm
blunt hook, rigid



FF644R Diam. 2.0 mm
Dissector, rigid

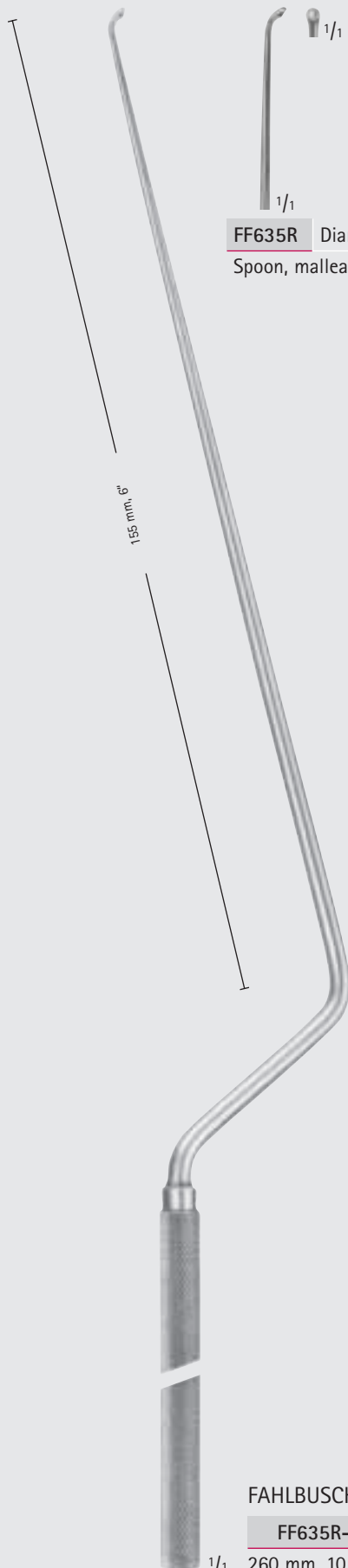


Instruments

Pituitary Instruments

Pituitary

MILLIMETERS



FF635R Diam. 2.0 mm
Spoon, malleable



1/1

FF637R Diam. 2.5 mm
Curette, malleable



1/1

FAHLBUSCH

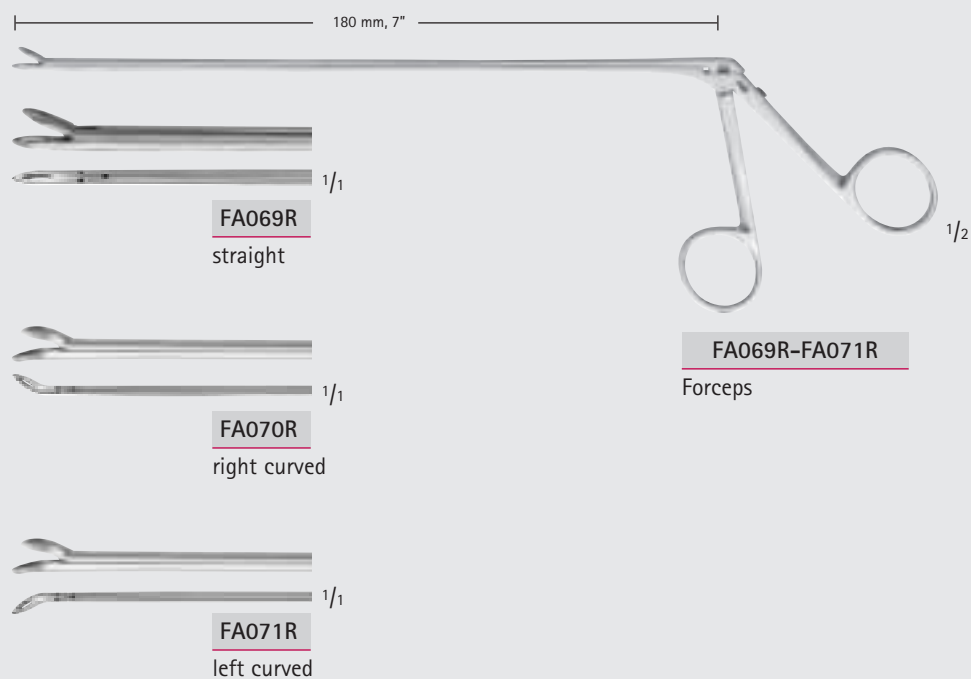
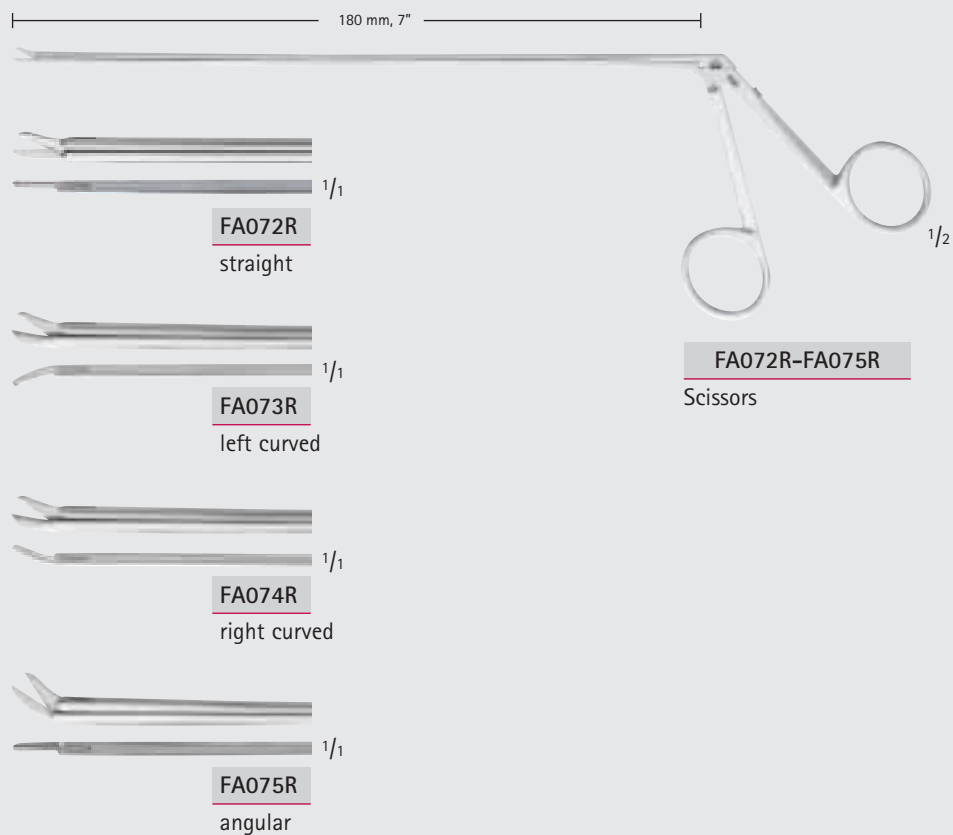
FF635R-FF637R

1/1 260 mm, 10 1/4"

Instruments

Pituitary Instruments

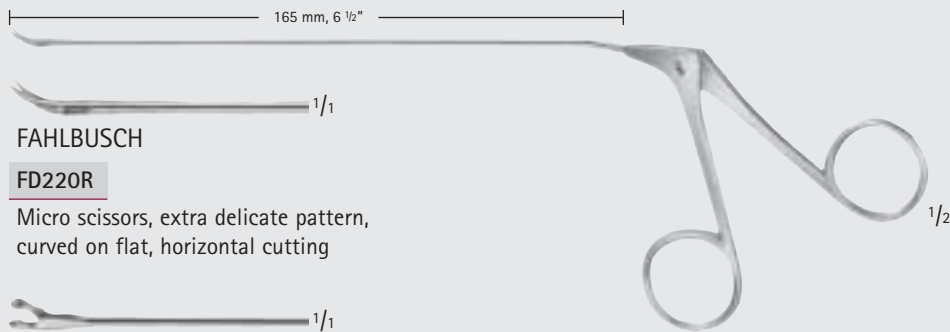
Pituitary





Instruments

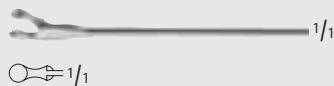
Pituitary Instruments



FAHLBUSCH

FD220R

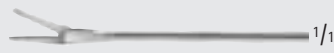
Micro scissors, extra delicate pattern,
curved on flat, horizontal cutting



NICOLA

FD222R Diam. 2.5 mm

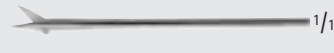
Forceps, scoop-shaped



YASARGIL-NICOLA

FD224R

Grasping forceps with long
conical jaw

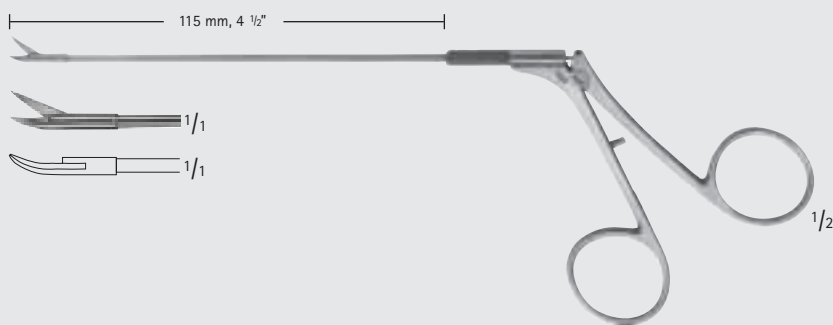


NICOLA

FD226R Diam. 2.5 mm

Micro scissors, straight

FD220R-FD226R
with tubular shaft



CASPAR

FD228R

Micro scissors, curved
rotatable 360°

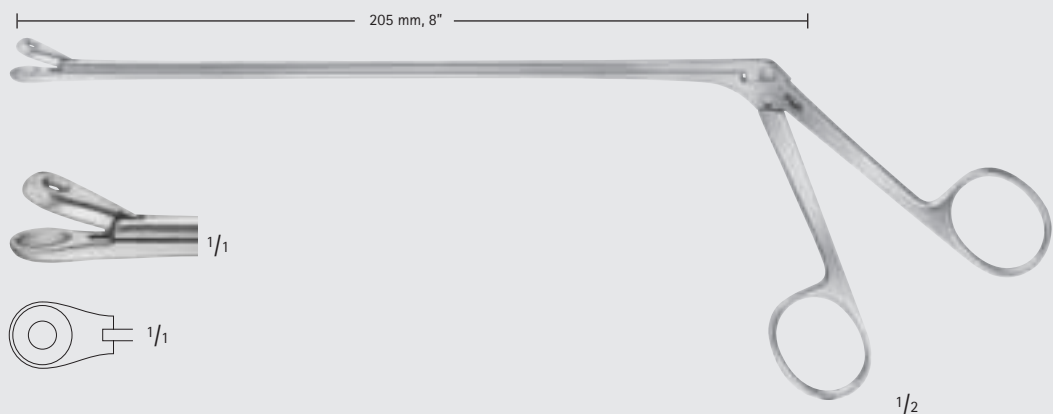
Pituitary

MILLIMETERS

Instruments

Pituitary Instruments

Pituitary



LANDOLT

FF345R Diam. 9.0 mm

Tumor grasping forceps, blunt



FM158R

Micro forceps, straight
245 mm, 9 3/4"



YASARGIL

FD130R

Micro mirror, moveable
for retrospective inspection
240 mm, 9 1/2"

FD129

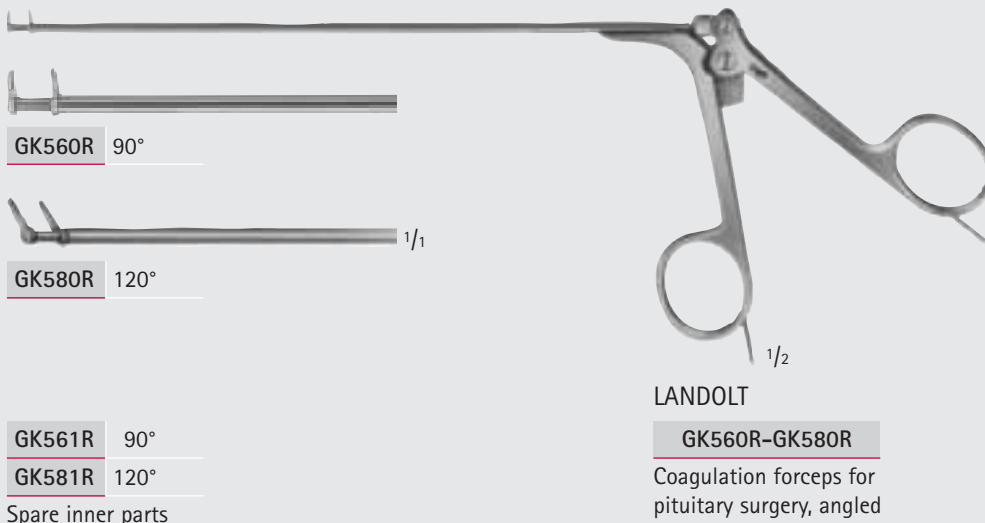
Spare mirror



Instruments

Pituitary Instruments

Pituitary



GK560R 90°

GK580R 120°

GK561R 90°

GK581R 120°

Spare inner parts

LANDOLT

GK560R-GK580R

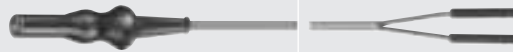
Coagulation forceps for pituitary surgery, angled

GN075 3.5 m

AESCULAP
Martin
Berchtold

On the equipment side - Manufacturer

On the instrument side



GK801R

Bipolar coagulation forceps with slender jaws
250 mm, 10"

135 mm, 5 1/4"

1/2

135 mm, 5 1/4"

GK800R

T-coagulation forceps with blunt, t-shaped tips
for secure fixation and coagulation at the operation site,
especially in the region of the pituitary
255 mm, 10"

135 mm, 5 1/4"

1/2



Working length	135 mm, 5 1/4"
Total length	200 mm, 8"
Outer diameter	
2.7 mm	GF431R
2.0 mm	GF432R

Suction cannulae, Fukushima design

MILLIMETERS

Instruments

Suction Cannulae

Suction



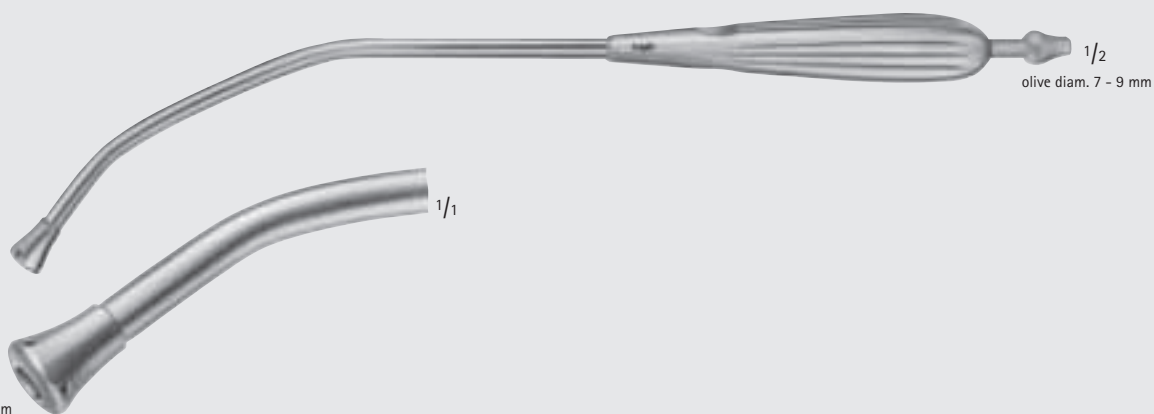
YANKAUER

Diam.

GF944R 10,0 mm

with central bore, 2.0 mm diam.

285 mm, 11 1/4"



YANKAUER

Diam.

OM671R 10,0 mm

with especially large central bore, 4.8 mm diam.

285 mm, 11 1/4"



Diam.

Tip width

GF919R 5.0 mm 6.5 mm

Nasal suction tube, with LUER hub

180 mm, 7"



Instruments

Suction Cannulae



FRAZIER

Diam.

GF923R 3,0 mm

GF925R 5,0 mm

with finger cut-off and stylet, thumb piece 90° to curve, with LUER hub
180 mm, 7"

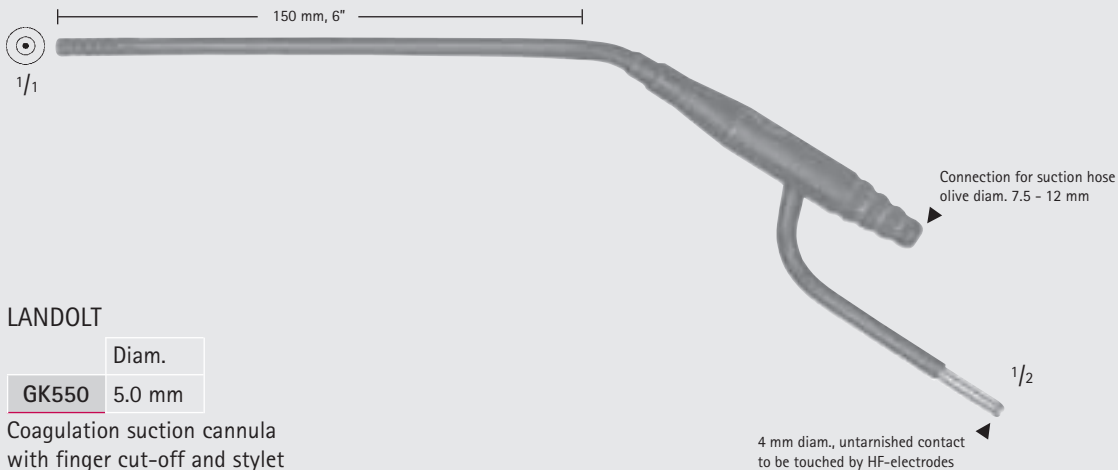


FERGUSSON

Diam.

GF933R 4.0 mm

insulated, with finger cut-off and stylet,
thumb piece 90° to curve, with LUER hub
180 mm, 7"



LANDOLT

Diam.

GK550 5.0 mm

Coagulation suction cannula
with finger cut-off and stylet

Suction

MILLIMETERS

Instruments

Suction Cannulae

Suction



ADSON

Diam.

GF917R 4,0 mm

with finger cut-off
190 mm, 7 1/2"



MAGILL

Diam.

GF906R 3.0 mm

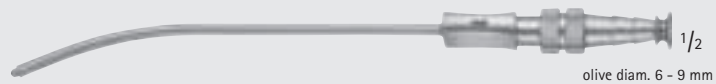
GF907R 3.5 mm

GF908R 4.0 mm

245 mm, 9 3/4"

GF909R

Stylet for MAGILL suction tubes



GILLIES

Diam.

OL187R 3.0 mm

with finger cut-off and stylet
170 mm, 6 3/4"



ADSON

Diam.

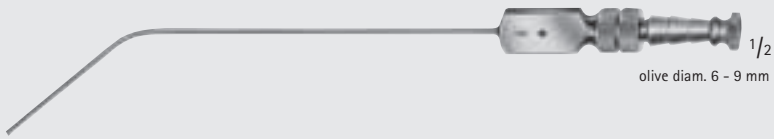
GF918R 3 mm

with finger cut-off and stylet
165 mm, 6 1/2"



Instruments

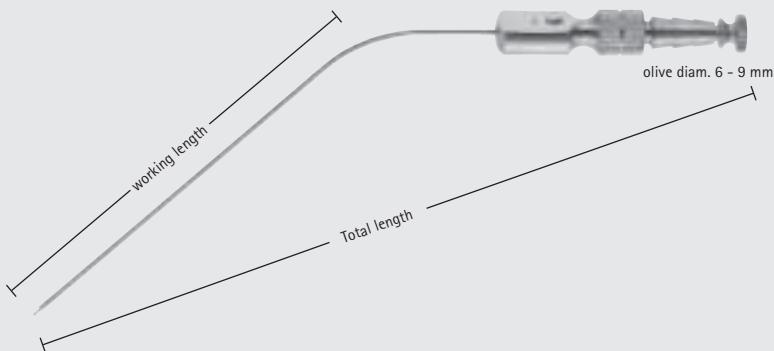
Suction Cannulae



PLESTER

	Diam.
GF939R	1,5 mm
GF940R	2,0 mm
GF941R	2,5 mm
GF942R	3,0 mm

with finger cut-off and stylet, thumb piece
parallel to curve, with LUER hub
195 mm, 7 $\frac{3}{4}$ "



FERGUSON

Working length	110 mm, 4 $\frac{3}{8}$ "	130 mm, 5 $\frac{1}{8}$ "	160 mm, 6 $\frac{1}{4}$ "	200 mm, 8"
Total length	195 mm, 7 $\frac{3}{4}$ "	215 mm, 8 $\frac{1}{2}$ "	245 mm, 9 $\frac{3}{4}$ "	280 mm, 11"
Diam.				
1.5 mm	GF350R	GF360R	GF370R	GF380R
2.0 mm	GF351R	GF361R	GF371R	GF381R
2.5 mm	GF352R	GF362R	GF372R	GF382R
3.0 mm	GF353R	GF363R	GF373R	GF383R
4.0 mm	GF354R	GF364R	GF374R	GF384R
5.0 mm	GF355R	GF365R	GF375R	GF385R

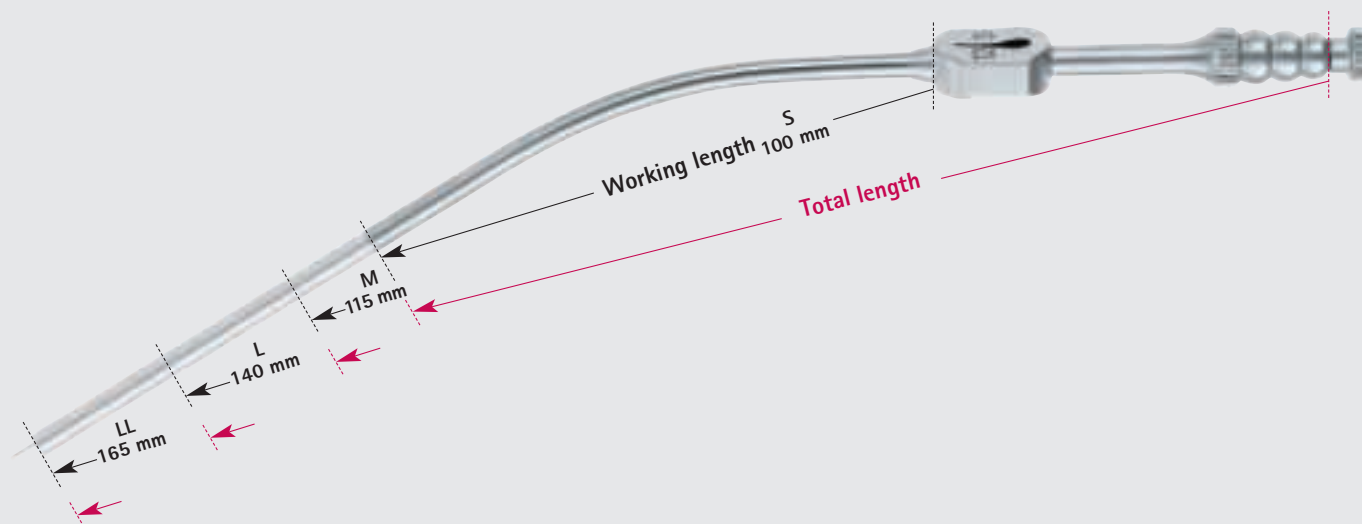
Suction

MILLIMETERS

Instruments

Suction Cannulae

- Teardrop shaped thumb control for a very precise suction regulation
- Malleable material for individual forming of the suction hose
- Conical design of the tube prevents plugging
- Comprehensive product program: 4 lengths and 8 diameters from 3 to 12 French (3 Fr = 1 mm)
- Delivered with stylet



		S	M	L	LL
Working length		100 mm, 4"	115 mm, 4 1/2"	140 mm, 5 1/2"	165 mm, 6 1/2"
Total length		165 mm, 6 1/2"	180 mm, 7"	205 mm, 8"	230 mm, 9"
Outer diameter					
3 Fr ◦ 1.0 mm		GF401R	GF391R	GF411R	GF421R
4 Fr ◦ 1.4 mm		GF402R	GF392R	GF412R	GF422R
5 Fr ◉ 1.7 mm		GF403R	GF393R	GF413R	GF423R
6 Fr ◎ 2.0 mm		GF404R	GF394R	GF414R	GF424R
7 Fr ◎ 2.3 mm		GF405R	GF395R	GF415R	GF425R
8 Fr ◎ 2.7 mm		GF406R	GF396R	GF416R	GF426R
9 Fr ◎ 3.0 mm		GF407R	GF397R	GF417R	GF427R
12 Fr ◎ 4.0 mm		GF409R	GF399R	GF419R	GF429R

Suction cannulae, tapered teardrop

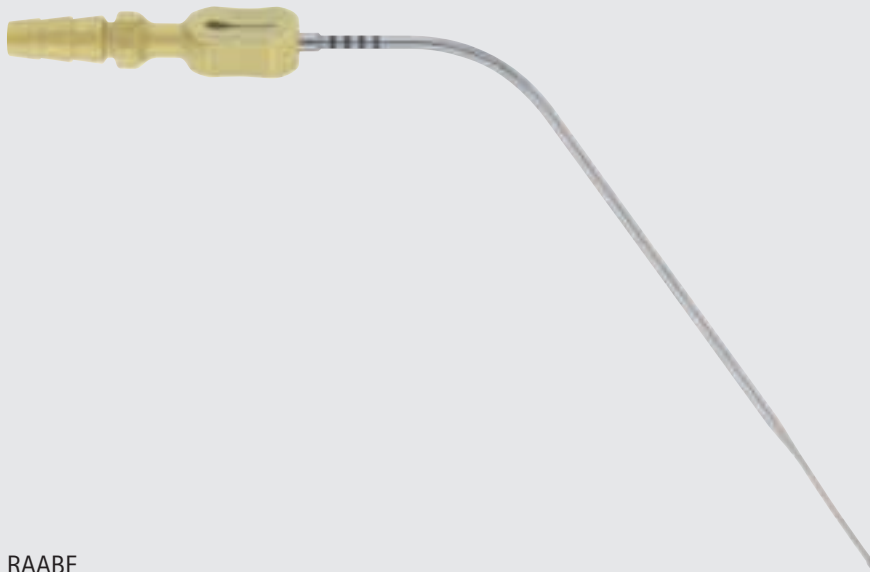
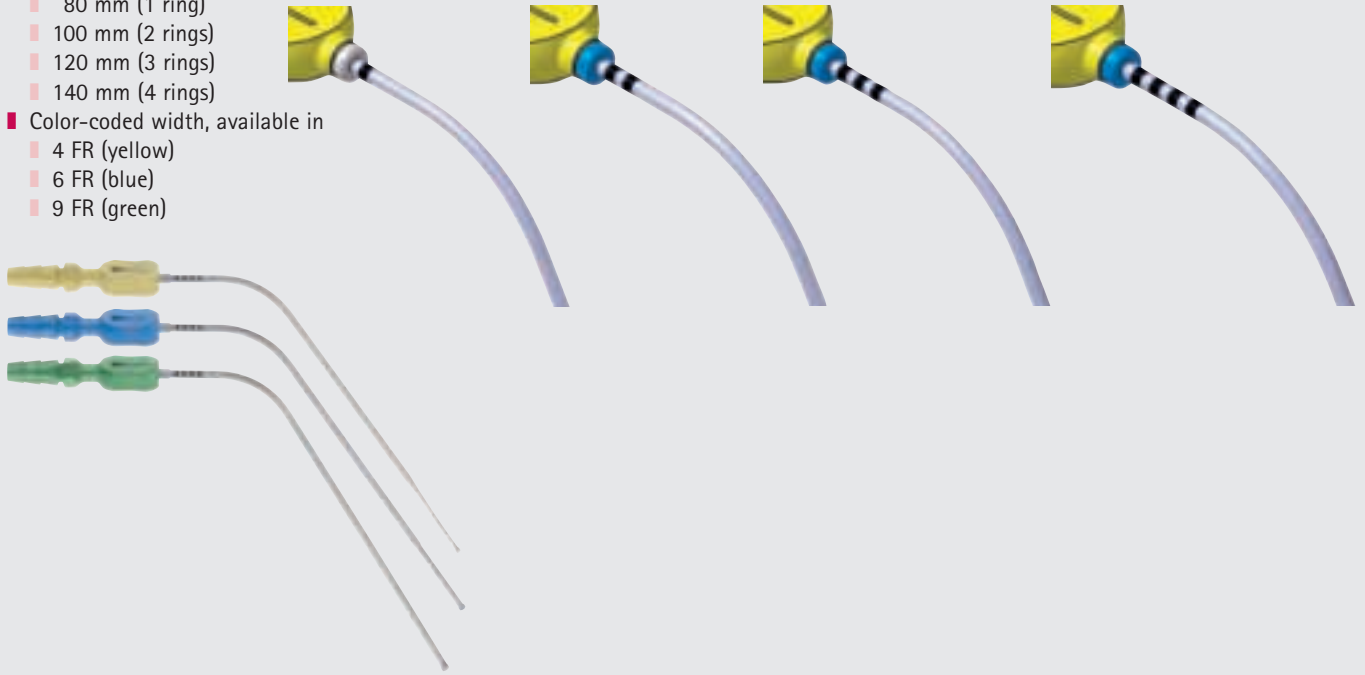


Instruments

Suction Cannulae

RAABE micro suction

- Fine micro suction for microneurosurgery
- Rigid instrument, ideal for precise preparations
- Atraumatic instrument tip
- Wider view of the operating site even for the narrowest of approaches
- Ring-coded length, available in:
 - 80 mm (1 ring)
 - 100 mm (2 rings)
 - 120 mm (3 rings)
 - 140 mm (4 rings)
- Color-coded width, available in
 - 4 FR (yellow)
 - 6 FR (blue)
 - 9 FR (green)



RAABE

Working length		80 mm, 3 1/8"	100 mm, 4"	120 mm, 4 3/4"	140 mm, 5 1/2"
Total length		130 mm, 5 1/8"	150 mm, 6"	165 mm, 6 1/2"	185 mm, 7 1/4"
Color-coded width	Outer diameter	1 ring	2 rings	3 rings	4 rings
yellow	4 Fr ○ 1.4 mm	GF470R	GF473R	GF476R	GF479R
blue	6 Fr ◎ 2.0 mm	GF471R	GF474R	GF477R	GF480R
green	8 Fr ○ 2.7 mm	GF472R	GF475R	GF478R	GF481R

Suction

MILLIMETERS

Instruments

Suction Cannulae

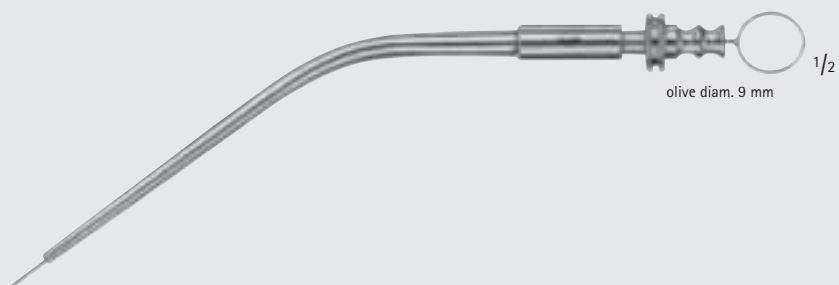
Suction



LEMPERT

	Diam.
GF937R	2.0 mm
GF938R	3.0 mm

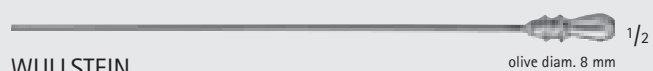
with finger cut-off and stylet
200 mm, 8"



FORMBY

	Diam.
GF932R	3.3 mm

210 mm, 8 $\frac{1}{4}$ "



WULLSTEIN

	Diam.
OF239	1.5 mm
OF238	2.0 mm

Suction tube, cylindrical, silver, with stylet, olive with LUER hub
160 mm, 6 $\frac{1}{4}$ "



Instruments

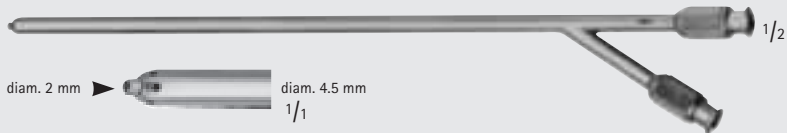
Suction Cannulae



LANDOLT

	wide
GF980R	3.2 mm

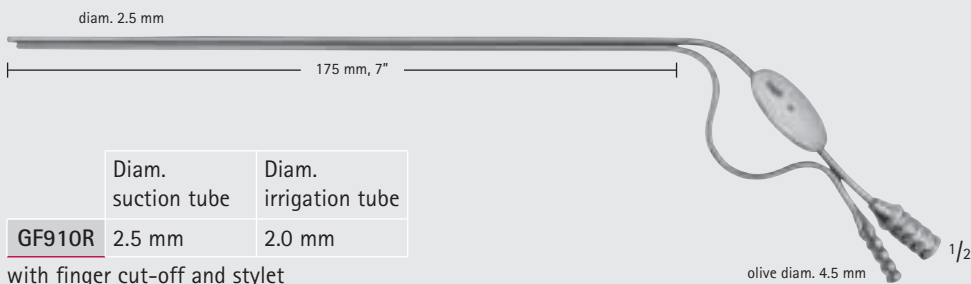
Dissecting suction tube for hypophysectomy and ENT, sharp angled point
200 mm, 8"



YASARGIL

GF905R

LUER-LOCK cone
200 mm, 8"



	Diam. suction tube	Diam. irrigation tube
GF910R	2.5 mm	2.0 mm

with finger cut-off and stylet

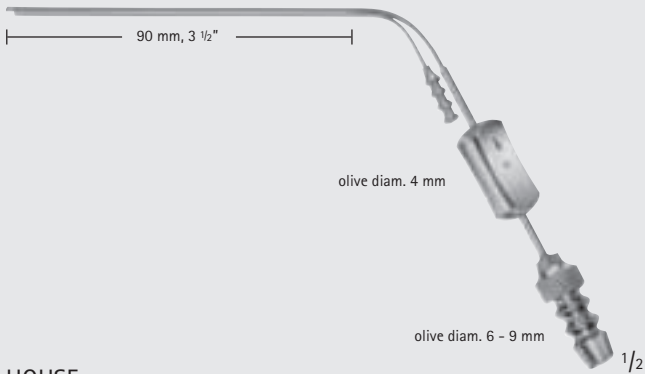
Suction

MILLIMETERS

Instruments

Suction Cannulae

Suction



HOUSE

	Diam. suction tube	Diam. irrigation tube
GF911R	0.9 mm	0.7 mm
GF912R	1.2 mm	0.9 mm
GF913R	1.5 mm	1.2 mm

with finger cut-off and stylet, with LUER hub



BARRON

	Diam.
GF935R	1.3 mm
GF936R	2.0 mm

with finger cut-off and stylet
160 mm, 6 1/4 inch



SCHUHKNECHT

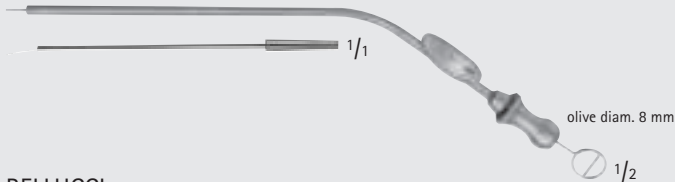
	Diam. (swg.)	Diam. (mm)
GF756R	20	1.0
GF757R	24	0.5

Suction cannulae
130 mm, 5 1/8 inch



Instruments

Suction Cannulae

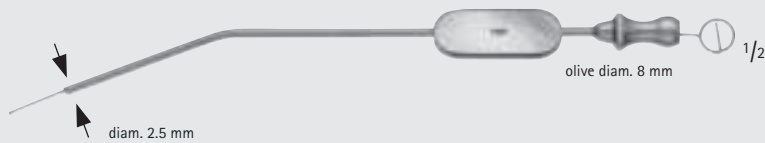


BELLUCCI

OG950R

Suction set, complete, consisting of:

OG951R	Suction tube with finger cut-off and stylet, 155 mm, 6"
GF772R	Detachable end, 20 swg. diam., 1.0 mm diam.
GF773R	Detachable end, 22 swg. diam., 0.7 mm diam.
GF774R	Detachable end, 24 swg. diam., 0.5 mm diam.

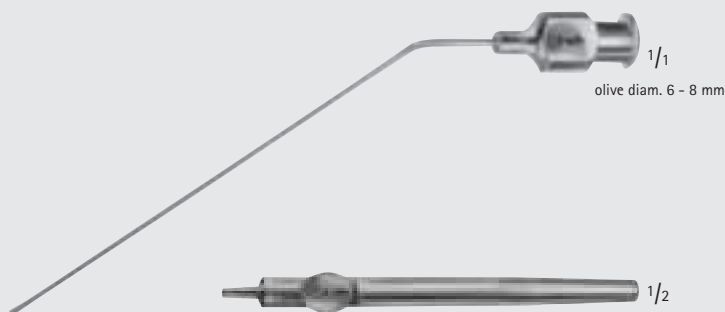


ZOELLNER

Diam.

GF770R 2.5 mm

Suction cannula only, with stylet, fitting to the detachable ends GF771R and GF775R
180 mm, 7"



OG970R

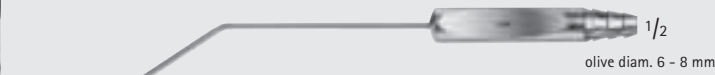
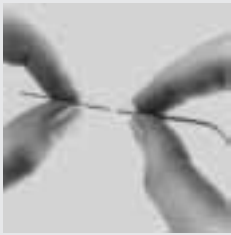
Suction set, complete, consisting of:

OG971R	Suction handle, with finger cut-off, with LUER cone
OG972R	2 suction cannulae, 0.5 mm diam., with LUER cone
OG973R	2 suction cannulae, 0.7 mm diam., with LUER cone
OG974R	2 suction cannulae, 1.0 mm diam., with LUER cone
OG969R	2 suction cannulae, 1.3 mm diam., with LUER cone

Suction

MILLIMETERS

Instruments
Suction Instruments

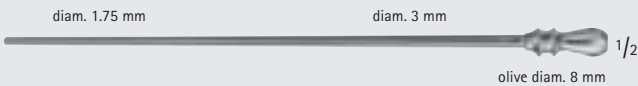


WULLSTEIN

OG960R

Micro suction tube, complete, consisting of:

OG961R	Suction tube with LUER hub
OG962R	Micro suction cannula, 0.4 mm diam.
OG963R	Micro suction cannula, 0.6 mm diam.
OG964R	Micro suction cannula, 0.8 mm diam.



WULLSTEIN

OF237

Suction tube, conical, silver, olive with LUER hub
160 mm, 6 1/4"



HOUSE

GF768R

Suction adapter with finger cut-off,
LUER cone, LUER hub
55 mm, 2 1/8"

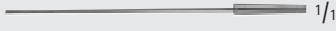


Instruments

Suction Cannulae

Suction

MILLIMETERS



ZOELLNER

	Diam. (swg.)	Diam. (mm)
GF771R	18	1.2
GF772R	20	1.0
GF773R	22	0.7
GF774R	24	0.5
GF775R	26	0.4

detachable ends, fitting to GF770R and OG951R

Sales unit:

PAK = Package of 10 pieces



VERHOEVEN

	Diam. (swg.)	Diam. (mm)
GF763R	16	1.5
GF764R	18	1.2
GF765R	20	1.0
GF766R	22	0.7
GF767R	24	0.5

Suction cannulae with LUER cone
100 mm, 4"



CERULLO

GF966R

Suction regulating valve
for fine adjustment of the suction efficiency

Instruments

Ventricular Puncture Cannulae

Suction



FRAZIER

	Diam.
FF330R	3.0 mm



	Diam.
FF331R	2.0 mm
FF332R	2.5 mm



JEFFERSON

	Diam.	Working length
FF120R	1.7 mm	80 mm
FF121R	1.7 mm	100 mm



CONE

	Diam.
FF122R	1.6 mm
FF123R	2.0 mm



DANDY

	Diam.
FF124R	2.0 mm

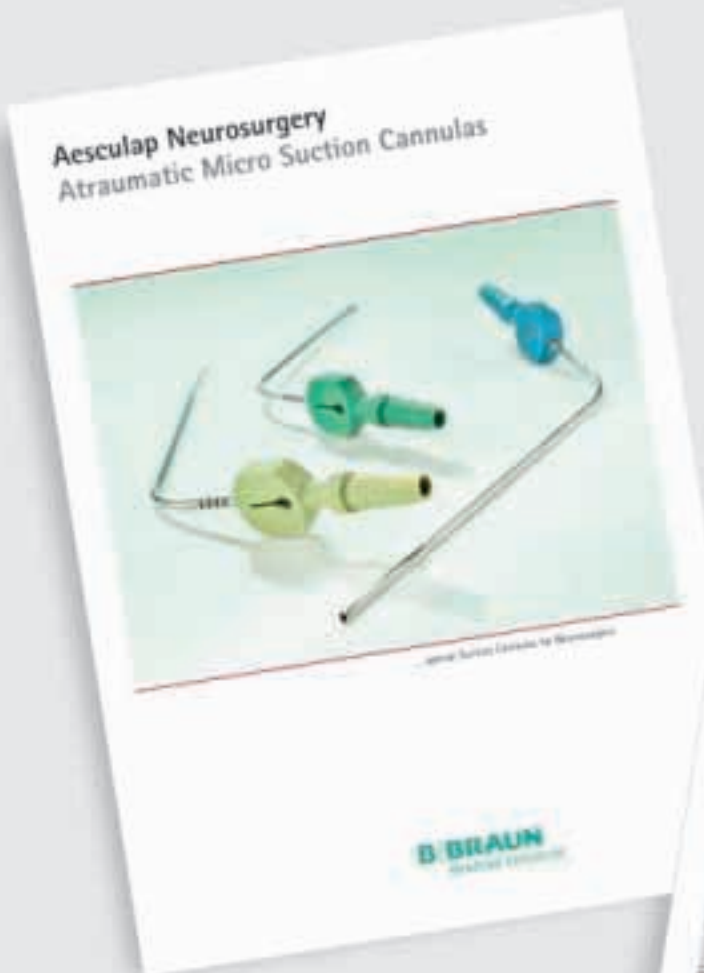


CUSHING-CAIRNS

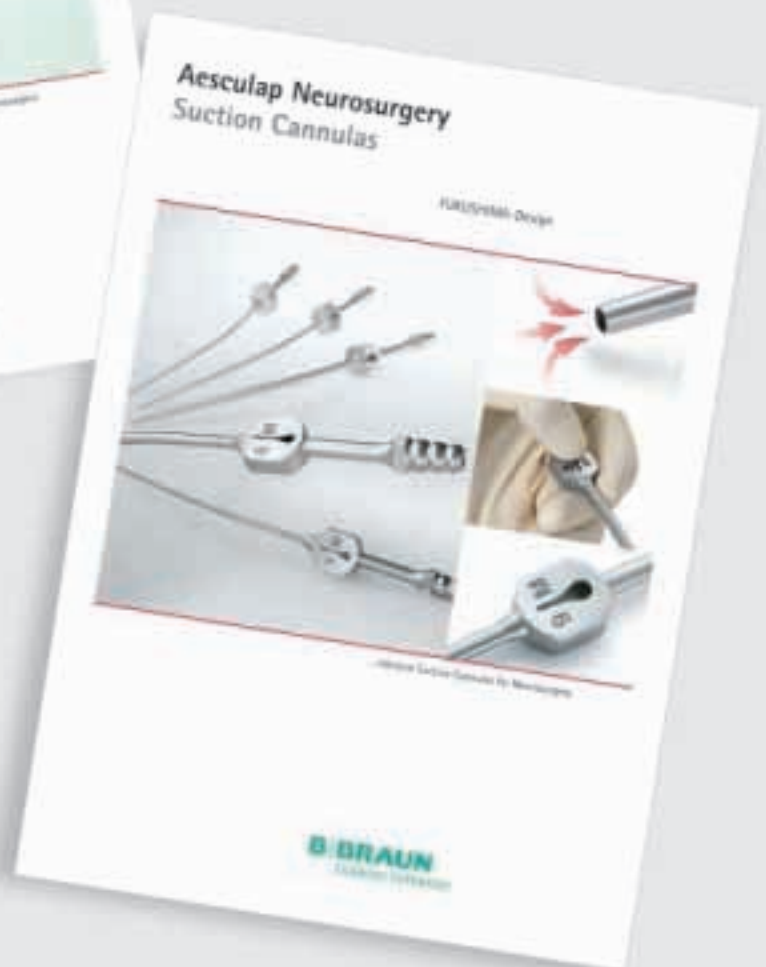
	Diam.
FF125R	2.3 mm
FF126R	2.6 mm



Instruments



For further details see
brochure No. **C24602**



For further details see
brochure No. **C81202**

Instruments

Sterile Scalpels with Plastic Handle and Blade Protector

Single Use

General



Carbon Steel **BA219**
Stainless Steel

Fig. 19



Carbon Steel **BA220**
Stainless Steel **5518067**

Fig. 20



Carbon Steel **BA221**
Stainless Steel **5518075**

Fig. 21



Carbon Steel **BA222**
Stainless Steel **5518083**

Fig. 22



Carbon Steel **BA223**
Stainless Steel **5518016**

Fig. 23



Carbon Steel **BA224**
Stainless Steel **5518091**

Fig. 24

BA210-BA224/5518016-5518105

Sales unit:

PAK = Package of 10 pieces



Instruments

Sterile Scalpels with Plastic Handle and Blade Protector

Single Use



Carbon Steel **BA210**
Stainless Steel **5518059**
Fig. 10



BA211
5518040
Fig. 11



BA212
5518105
Fig. 12



BA215
5518032
Fig. 15



BA215-1
Fig. 15



BA215-C
Fig. 15



BA218
Fig. 18

General



MILLIMETERS



Instruments

Scalpels for Single Use, Scalpel Handles

Sales unit:
PAK = Package of 10 pieces

For blades fig.10 -
15 and fig. 40, 42

For blades fig. 18 - 36

Single Use

Single Use



BA311SU

Fig. 11
230 mm, 9"



BA323SU

Fig. 23
230 mm, 9"



BB075R

No. 3
210 mm, 8 1/4"



BB085R

No. 4 L
215 mm, 8 1/2"



BB087R

No. 4 XL
250 mm, 10"



BB080R

No. 4
225 mm, 9"

General



Instruments Scalpel Handles

For blades fig.10 - 15 and fig. 40, 42



BB175R

No. 3 XL
250 mm, 10"



BARRÉ

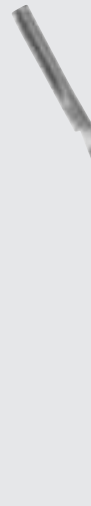
BB176R-BB178R

No. 3 XL
for left hand
250 mm, 10"



BB176R

12°



BB178R

25°



BARRÉ

BB177R

250 mm, 10"

General

MILLIMETERS

Instruments

Scalpel Handles

For blades fig.10 - 15 and fig. 40, 42

General

corresponds
with english
No. 5



BB077R

No. 7
160 mm, 6 1/4"



BB063R

145 mm, 5 3/4"



BB073R

No. 3
125 mm, 5"



BB074R

No. 3
125 mm, 5"



BARRON

BB068R

130 mm, 5 1/8"



Instruments

Scalpel Handles

For blades fig.10 – 15 and fig. 40, 42

For blades fig. 18 – 36



BB084R

No. 4
135 mm, 5 1/4"



BB088R

No. 8
130 mm, 5 1/8"



BB089R

145 mm, 5 3/4"



BB078R

225 mm, 9"



BB079R

225 mm, 9"



BB071R

210 mm, 8 1/4"

General

MILLIMETERS

Instruments

Scalpel Handle, Microsurgery Scalpels with Plastic Handle

For blades fig. 10 - 15 and
fig. 40, 42

Sales unit:
PAK = Package of 5 pieces

Single Use

Single Use

Single Use



BBO70R

155 mm, 6"



BA364

165 mm, 6 1/2"



BA365

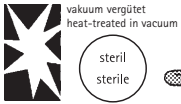
165 mm, 6 1/2"



BA367

165 mm, 6 1/2"

General



Instruments

Sterile Scalpel Blades



1/1

Carbon Steel
Stainless Steel

BB510
16600495



1/1

BB511
16600509



1/1

BB512
16600517



1/1

BB513
16615492



1/1

BB515
16600525



1/1

Carbon Steel

BB515-1



1/1

BB515-C



1/1

BB540
double cutting



1/1

BB542
double cutting

fitting handles:
BB080R, BB084R, BB085R, BB087R, BB089R and BB089R

Sales unit:
PAK = Package of 100 pieces
in dispenser package

General



MILLIMETERS

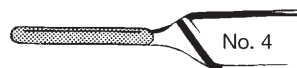
Instruments

Sterile Scalpel Blades, Stitch-Cutter



vakuum vergütet
heat-treated in vacuum

steril
sterile



1/1

Carbon
Steel

BB518

Stainless
Steel

16600541



1/1

BB519

16615514



1/1

BB520

16600550



1/1

BB521

16600568



1/1

BB522

16600576



1/1

BB523

16600584



1/1

BB524

16600592



1/1

BB525

16616634



1/1

BB536

16615522

fitting handles:

BB068R, BB070R, BB071R, BB073R-BB075R, BB077R-BB079R and BB175R-BB178R

Sales unit:

PAK= 1 Package of 100 pieces
in dispenser package



1/1

Carbon Steel

BB500

Stainless Steel

16600487

Stitch-cutter

Sales unit:

PAK = Package of 100 pieces



Instruments

Scalpel Handles, Round, for Microsurgery Blades



1/1

BB045T

Titanium scalpel handle
145 mm, 5 3/4"



1/1

BB046R

135 mm, 5 1/4"



1/1

BB048R

155 mm, 6"



1/1

CASPAR

BB052R

180 mm, 7"



1/1

BB054R

200 mm, 8"



2/3

BB060R

330 mm, 13"

General



MILLIMETERS

Instruments

Scalpel Handles for Microsurgery Blades - Microsurgery Blades

stainless
steel

sterile

General



LANDOLT

BB057R

Scalpel handle,
bayonet-shaped,
round
250 mm, 10"



LANDOLT

BB053R

Scalpel handle,
bayonet-shaped,
square shank
210 mm, 8 1/4"



BB331R

PAK = Package
of 10 pieces



BB332R

PAK = Package
of 10 pieces



1/1

BB361R

PAK = Package
of 10 pieces



1/1

BB362R

PAK = Package
of 10 pieces



1/1

BB363R

ST = Package
of 1 piece



1/1

BB364R

PAK = Package
of 10 pieces



1/1

BB365R

PAK = Package
of 10 pieces



1/1

BB366R

ST = Package
of 1 piece

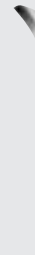
60°



1/1

BB367R

PAK = Package
of 10 pieces



1/1

BB368R

PAK = Package
of 10 pieces



1/1

BB369R

ST = Package
of 1 piece



For further details see
brochure No. C08602

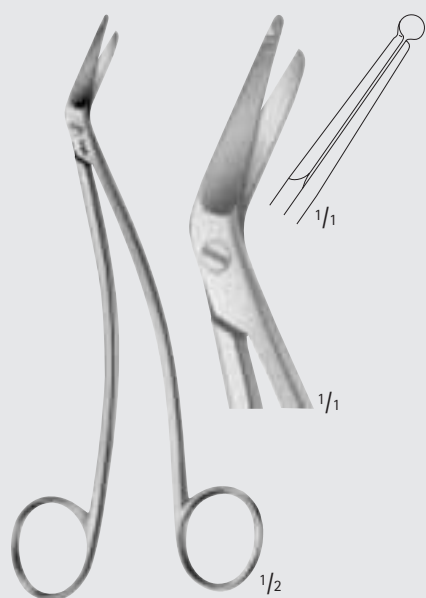


MILLIMETERS

Instruments

Dura Scissors

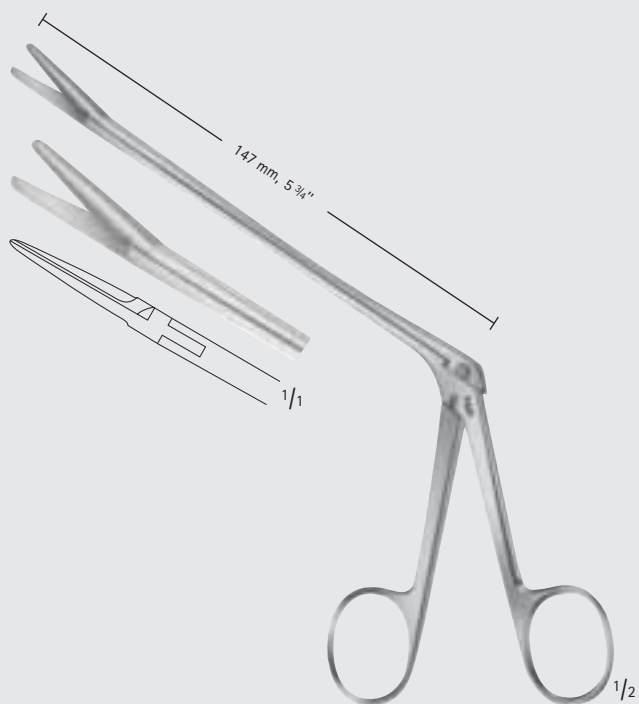
General



SCHMIEDEN-TAYLOR

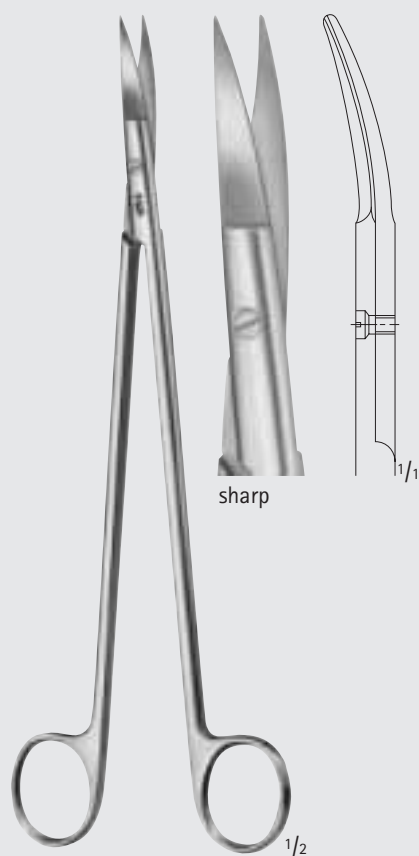
BC660R

155 mm, 6"



OLIVECRONA

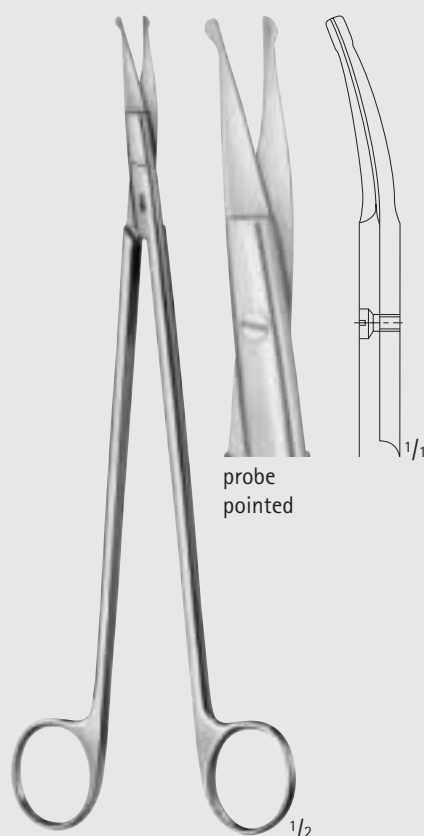
BC665R



STRULLY

BC644R

220 mm, 8 3/4"



STRULLY

BC645R

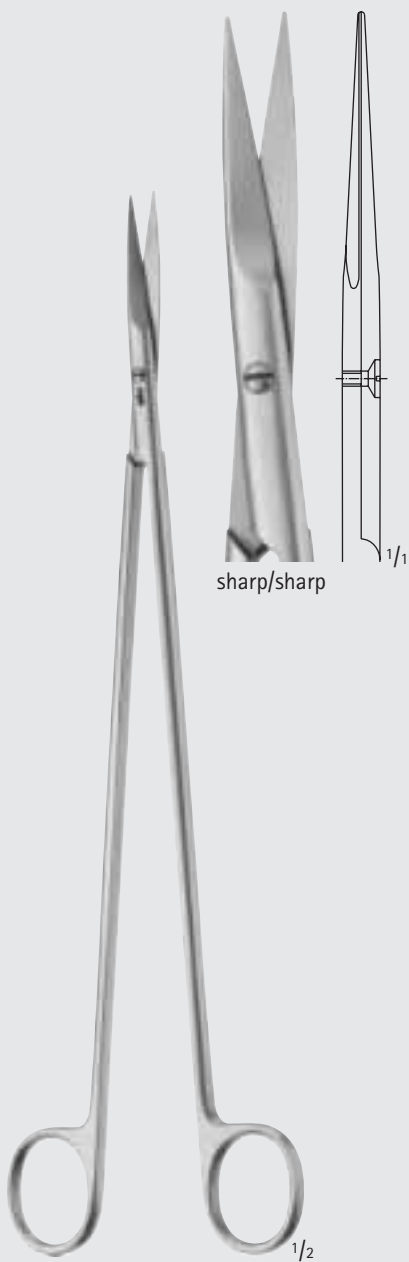
220 mm, 8 3/4"



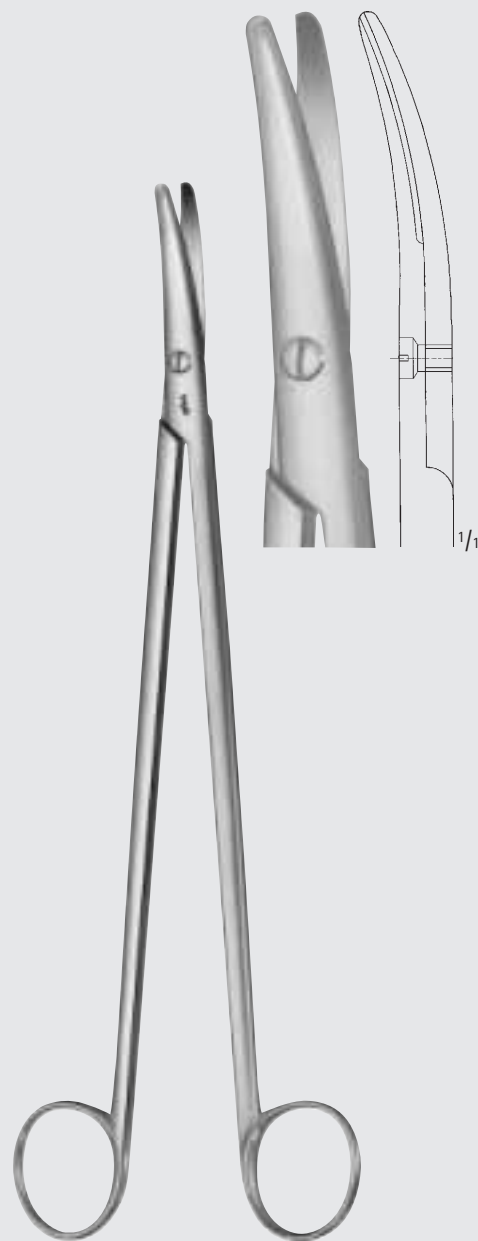
Instruments

Dissecting Scissors

General



BARRÉ
BC715R
280 mm, 11"



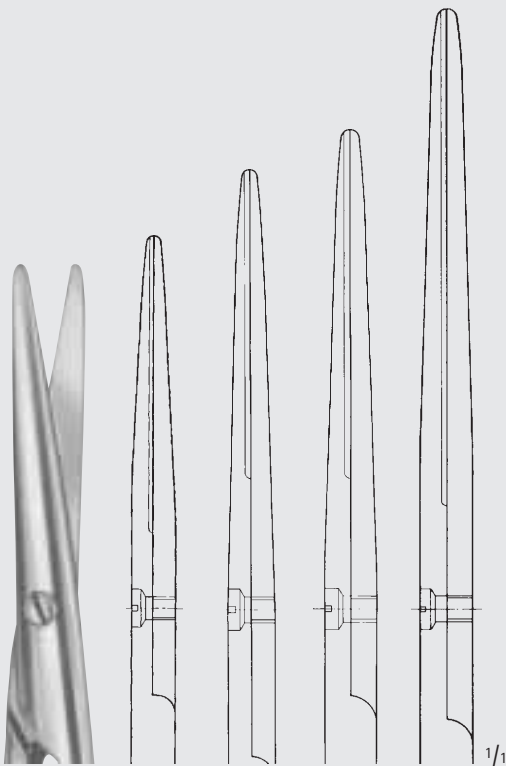
WELLER
BC620R
heavy pattern
280 mm, 11"



MILLIMETERS

Instruments
Dissecting Scissors

General



BC611R	BC612R	BC613R	BC614R
230 mm	250 mm	280 mm	305 mm
9"	10"	11"	12"



NELSON-METZENBAUM
BC611R-BC625R



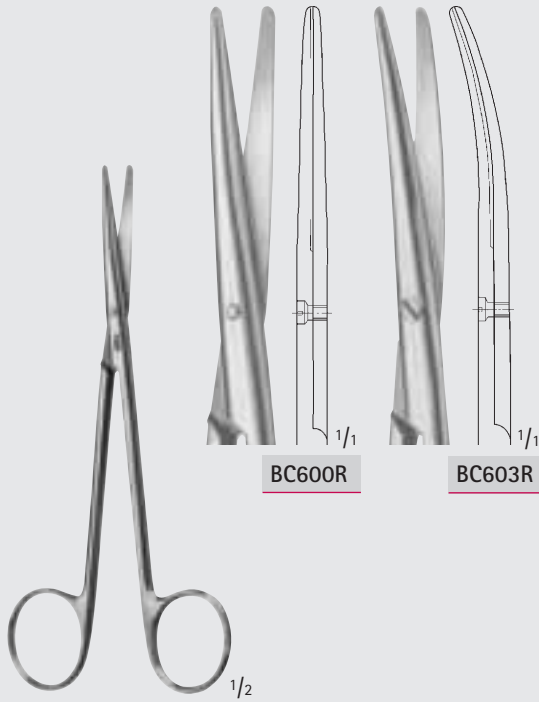
BC615R	BC616R	BC618R	BC619R	BC625R
230 mm	250 mm	280 mm	305 mm	350 mm
9"	10"	11"	12"	14"



Instruments

Dissecting Scissors

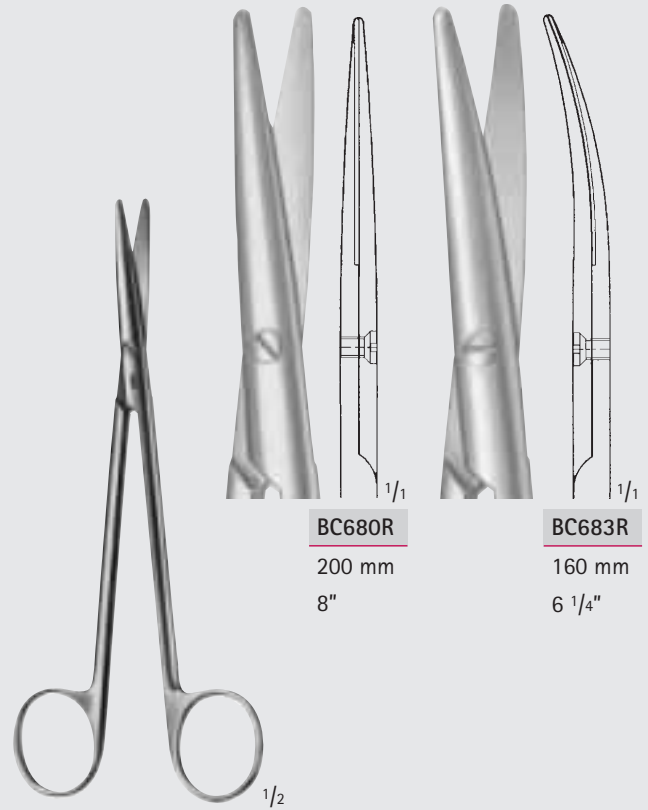
General



BABY-METZENBAUM

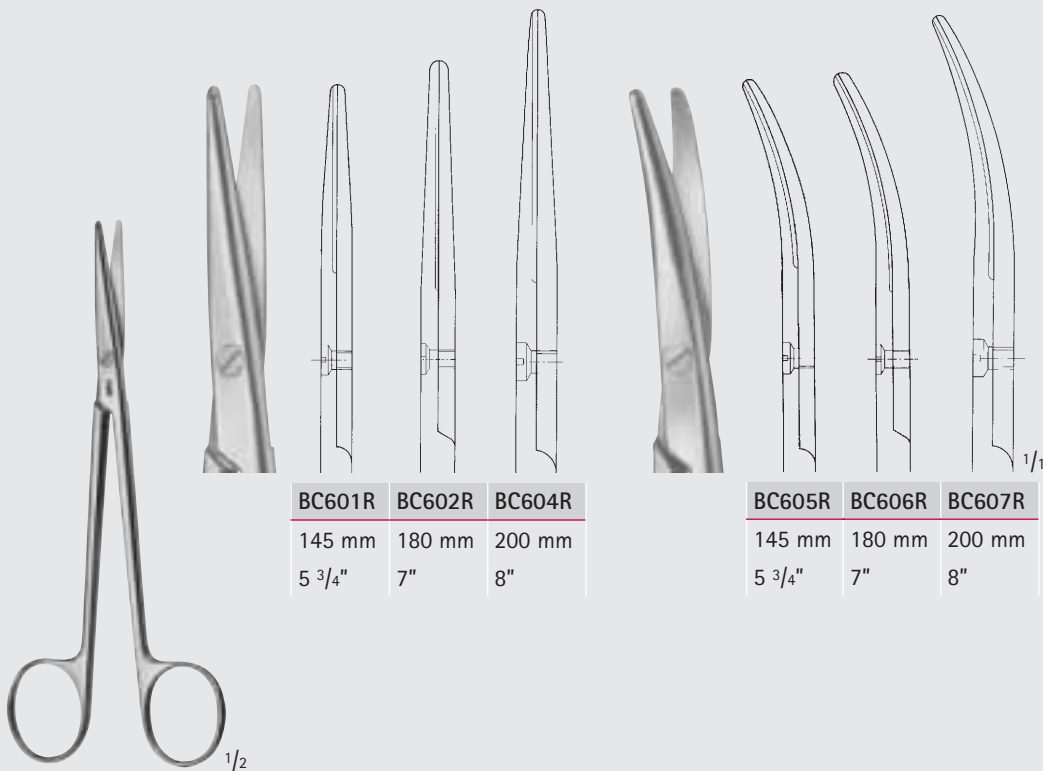
BC600R-BC603R

145 mm, 5 3/4"



METZENBAUM

BC680R-BC683R



METZENBAUM

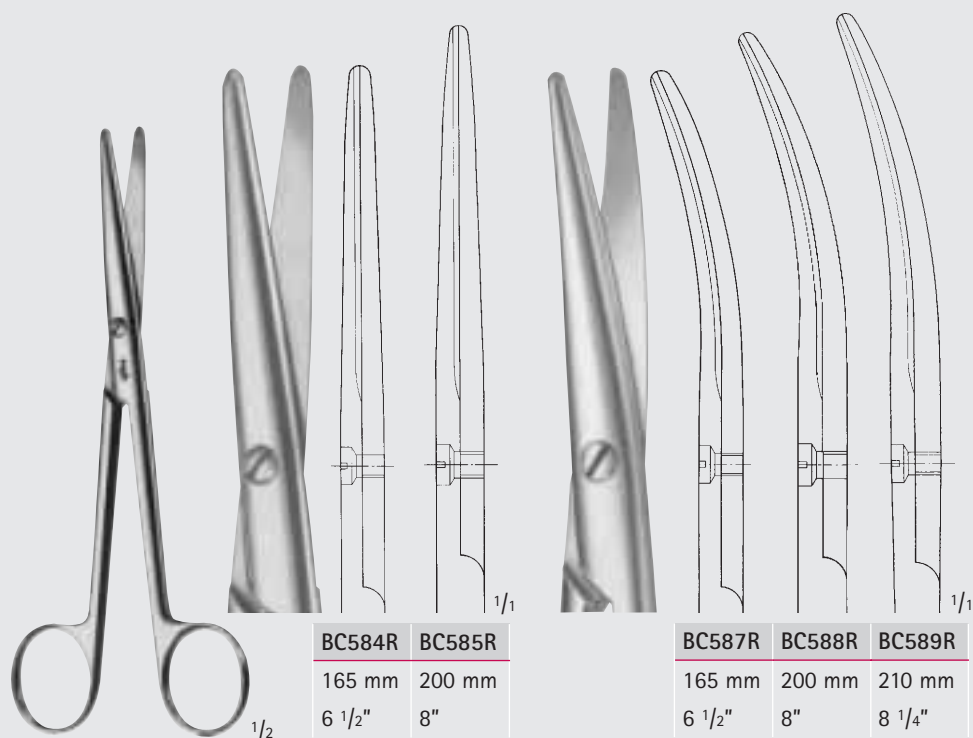
BC601R-BC607R

MILLIMETERS

Instruments

Dissecting Scissors

General



MAYO

BC584R-BC589R



BC580R

BC581R

STILLE

BC580R-BC581R

150 mm, 6"



BC590R

BC591R

LEXER

BC590R-BC591R

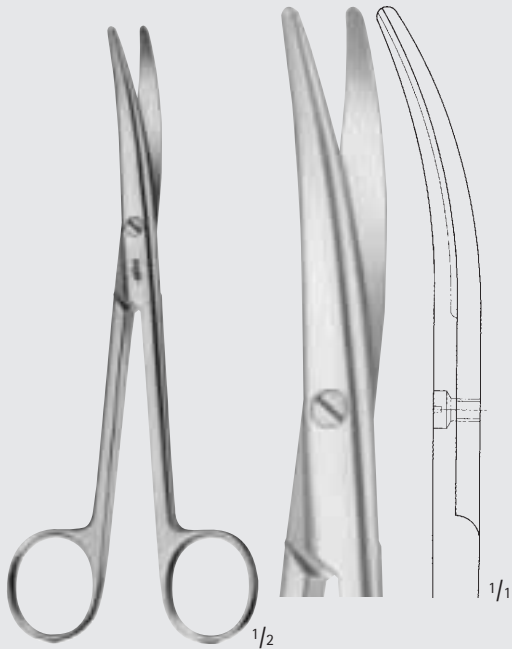
narrow

165 mm, 6 1/2"



Instruments

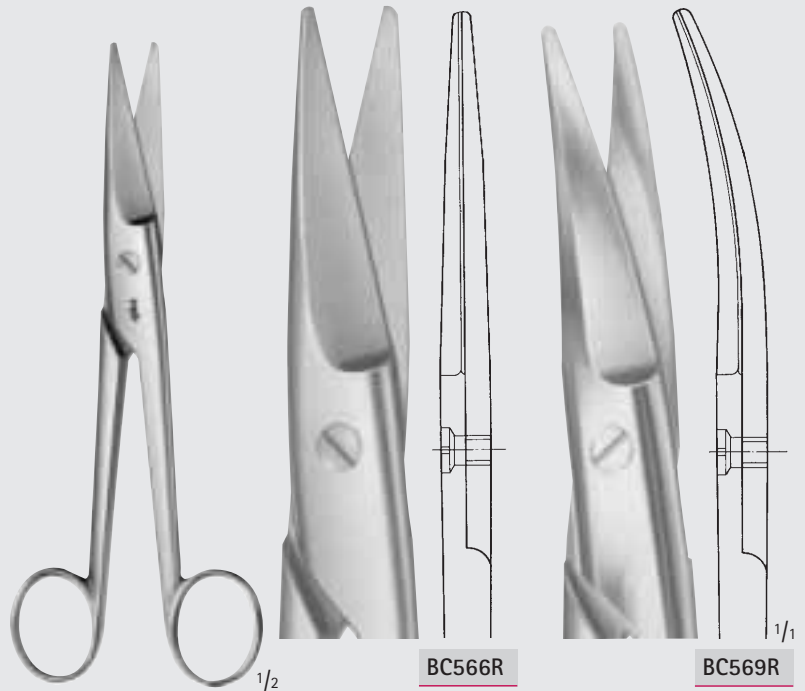
Dissecting Scissors



MAYO-LEXER

BC592R

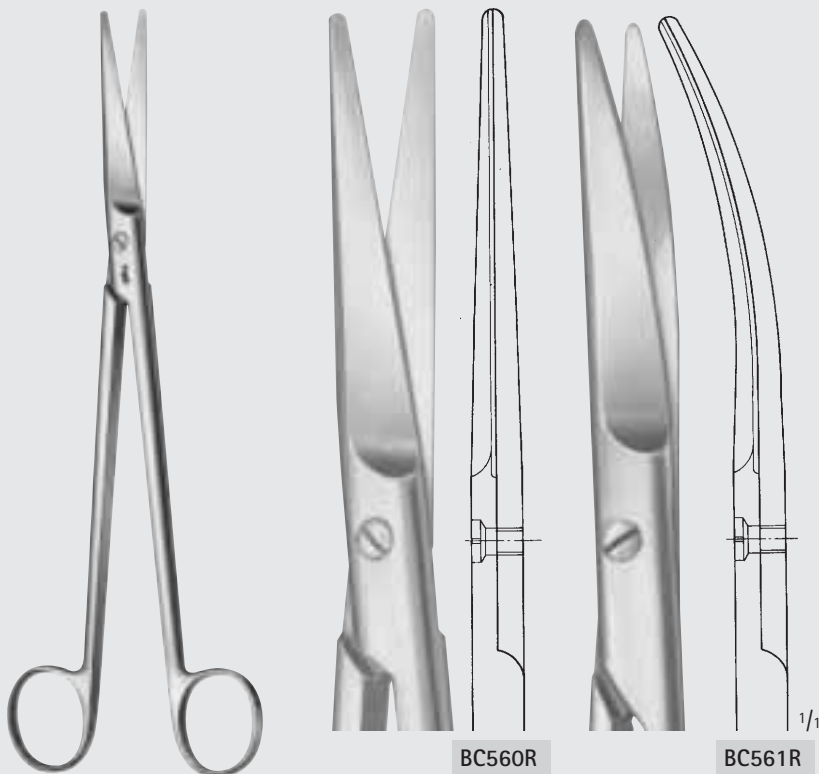
Standard pattern
165 mm, 6 1/2"



MAYO-NOBLE

BC566R-BC569R

broad patterns
170 mm, 6 3/4"



MAYO-HARRINGTON

BC560R-BC561R

230 mm, 9"

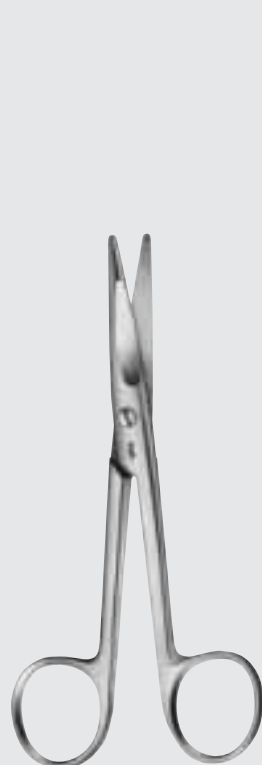
General

MILLIMETERS

Instruments

Dissecting Scissors

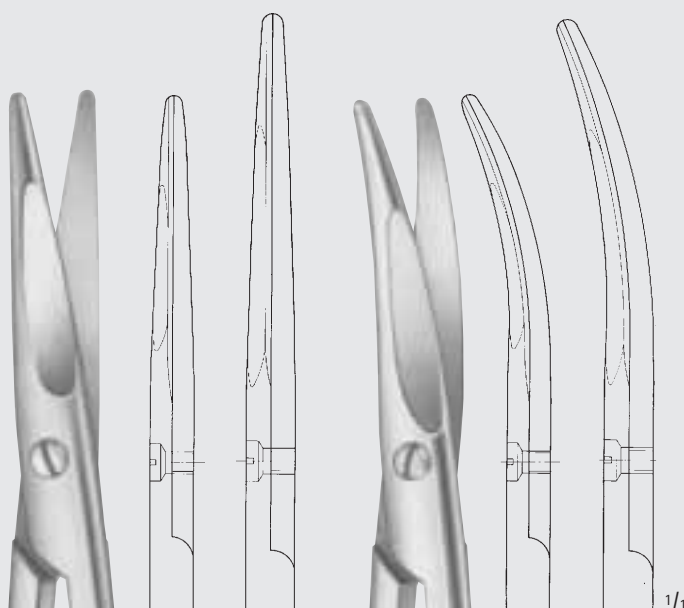
General



MAYO-STILLE

BC576R-BC579R

with chamfered blades



BC576R	BC578R
140 mm	170 mm
5 1/2"	6 3/4"

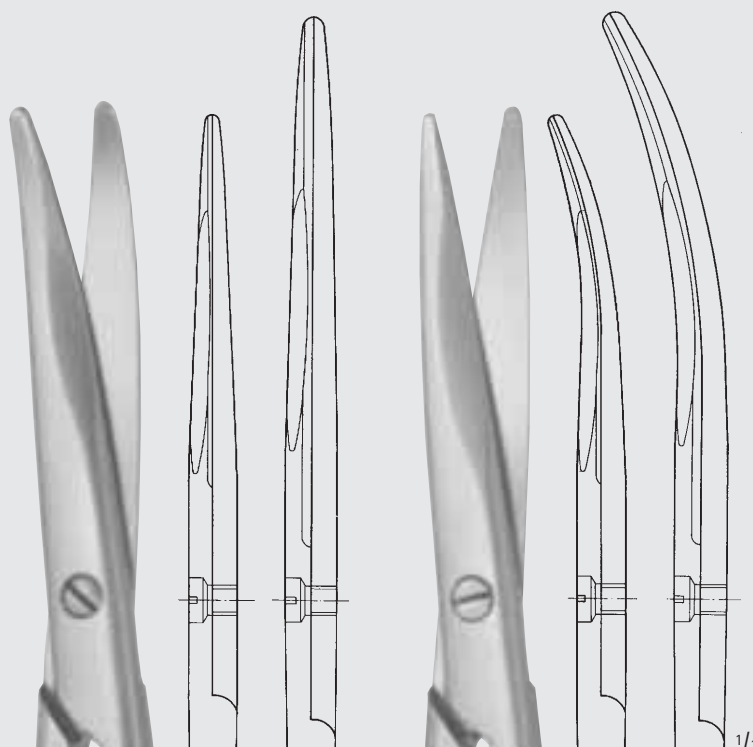
BC577R	BC579R
140 mm	170 mm
5 1/2"	6 3/4"



MAYO

BC562R-BC565R

with chamfered blades



BC562R	BC564R
190 mm	215 mm
7 1/2"	8 1/2"

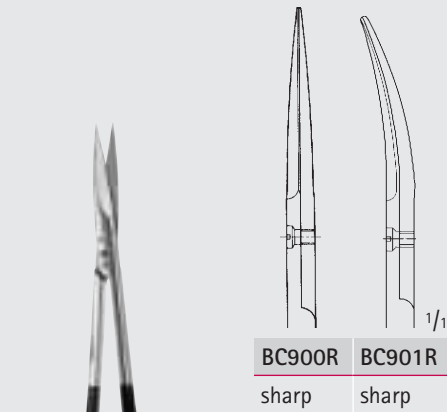
BC563R	BC565R
190 mm	215 mm
7 1/2"	8 1/2"



Instruments

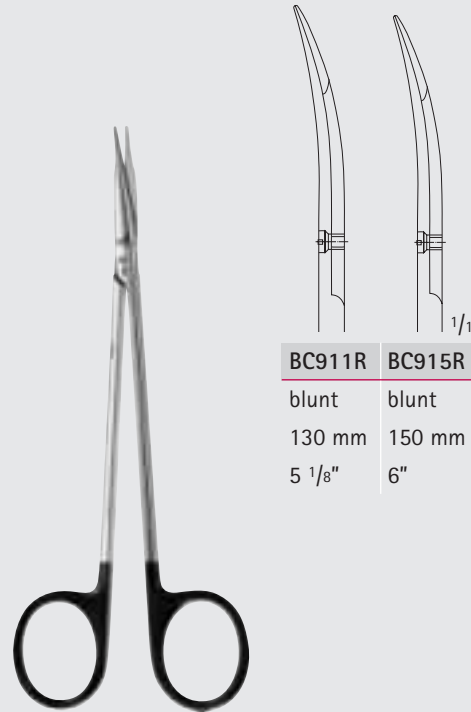
SuperCut Scissors

General



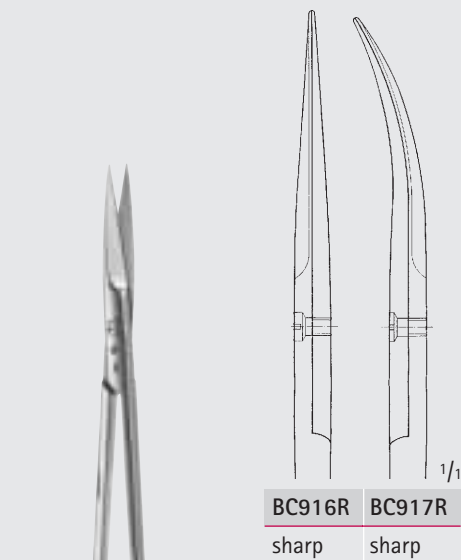
BC900R sharp
BC901R sharp

BC900R-BC901R
110 mm, 4 $\frac{3}{8}$ "



BC911R blunt
130 mm
5 $\frac{1}{8}$ "
BC915R blunt
150 mm
6"

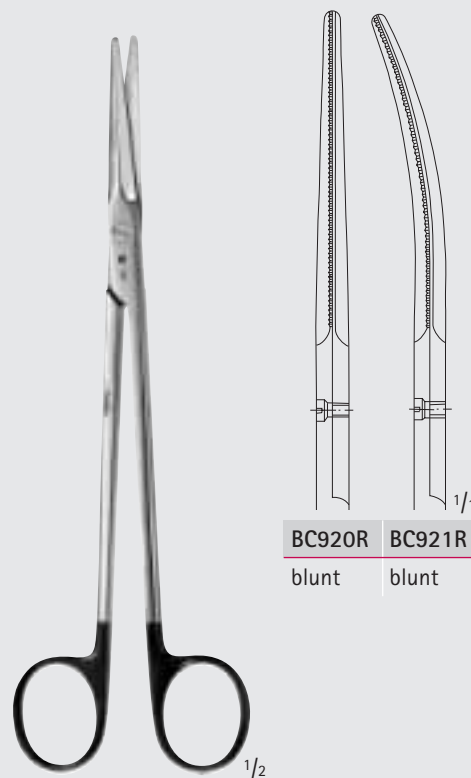
JAMESON
BC911R-BC915R



BC916R sharp
BC917R sharp

JOSEPH

BC916R-BC917R
150 mm, 6"



BC920R blunt
BC921R blunt

GORNEY

BC920R-BC921R
195 mm, 7 $\frac{3}{4}$ "

MILLIMETERS

Instruments

SuperCut Scissors

General



MAYO

BC924R-BC925R

165 mm, 6 1/2"



BC924R BC925R

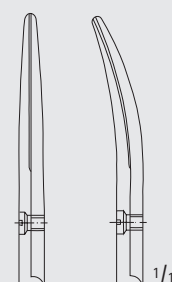
1/1



BABY-METZENBAUM

BC930R-BC931R

115 mm, 4 1/2"



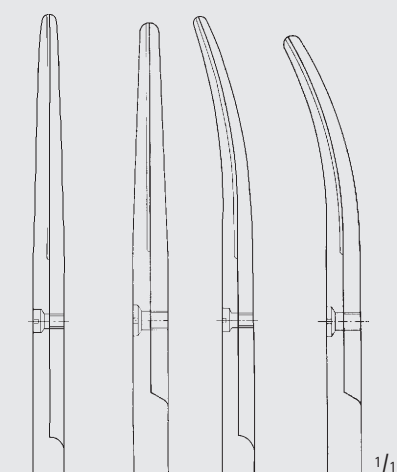
BC930R BC931R

1/1



METZENBAUM

BC934R-BC937R

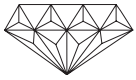


BC934R BC936R BC935R BC937R

145 mm 180 mm 145 mm 180 mm

5 3/4" 7" 5 3/4" 7"

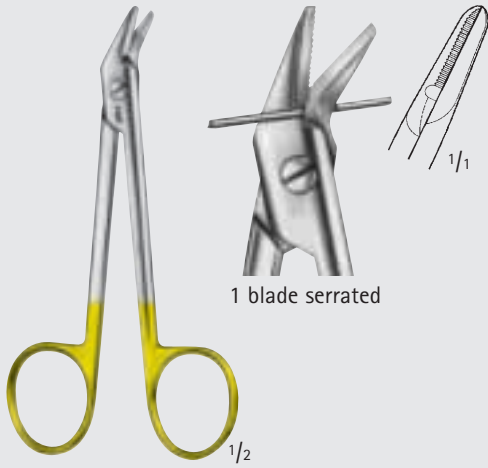
1/1



Instruments

DUROTIP® Scissors

General



DP552R

Wire cutting scissors
120 mm, 4 $\frac{3}{4}$ "



DE BAKEY

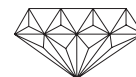
BC245R 60°

Vascular scissors
220 mm, 8 $\frac{3}{4}$ "

MILLIMETERS

Instruments

DUROTIP® Dissecting Scissors



General



METZENBAUM

BC260R-BC265R



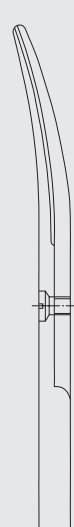
BC260R
145 mm
5 3/4"



BC262R
180 mm
7"



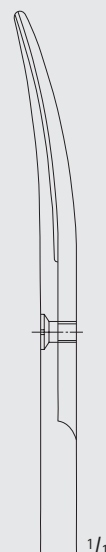
BC261R
145 mm
5 3/4"



BC263R
180 mm
7"



BC265R
200 mm
8"



NELSON-METZENBAUM (MC INDOE)

BC266R-BC289R



BC266R
230 mm
9"



BC267R
230 mm
9"



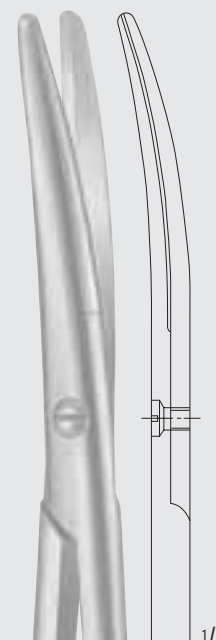
BC289R
300 mm
12"



METZENBAUM

BC287R

230 mm, 9"



broad blade ends



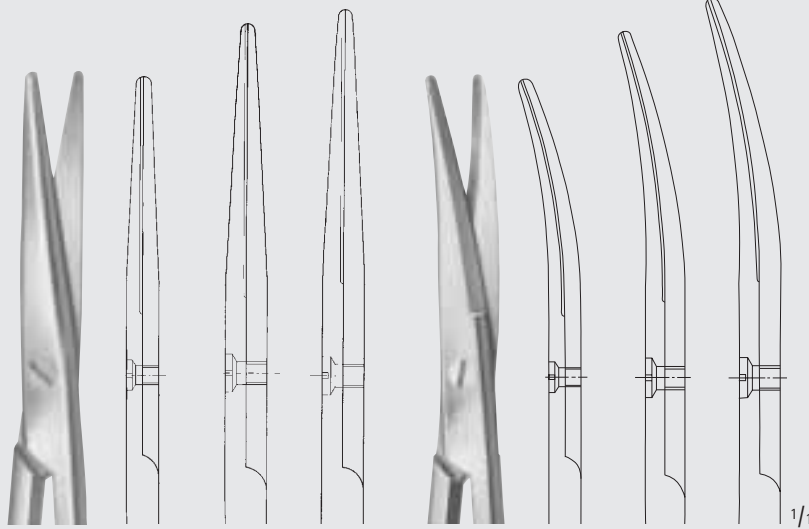
Instruments

DUROTIP® Dissecting Scissors



METZENBAUM

BC270R-BC277R



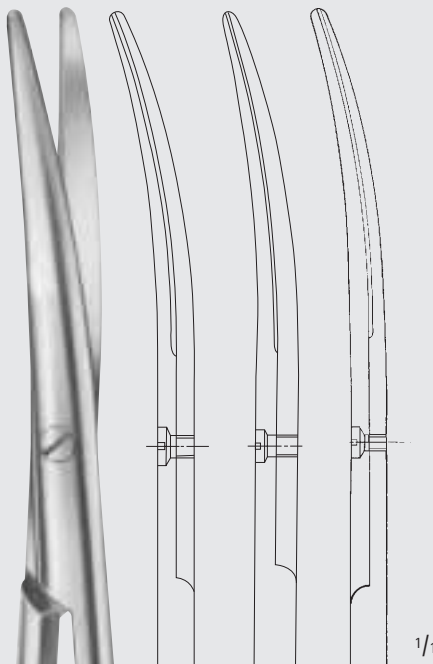
BC270R	BC274R	BC276R
180 mm	200 mm	230 mm
7"	8"	9"

BC271R	BC275R	BC277R
180 mm	200 mm	230 mm
7"	8"	9"



NELSON-METZENBAUM

BC279R-BC282R



BC279R	BC281R	BC282R
260 mm	280 mm	285 mm
10 1/4"	11"	11 1/4"

General

MILLIMETERS

Instruments

DUROTIP® Dissecting Scissors



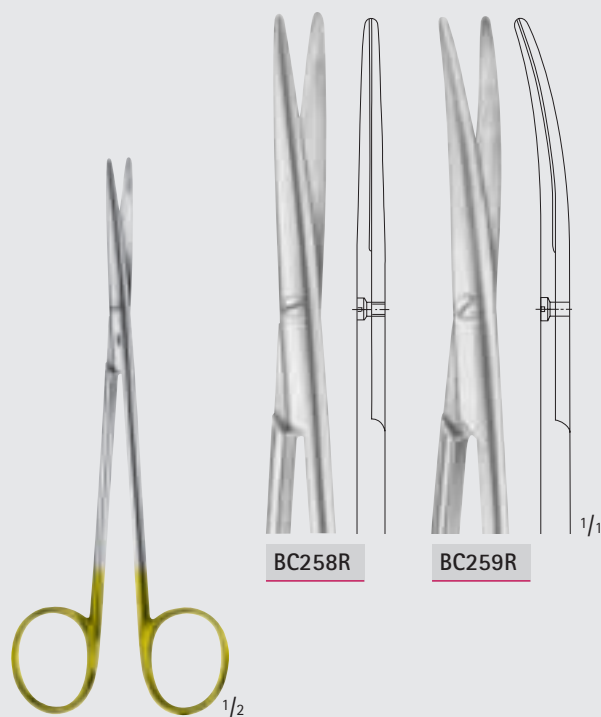
General



NELSON-METZENBAUM

BC285R

350 mm, 14"



BABY-METZENBAUM

BC258R-BC259R

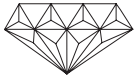
145 mm, 5 3/4"



TÖNNIS-ADSON

BC273R

175 mm, 7"



Instruments

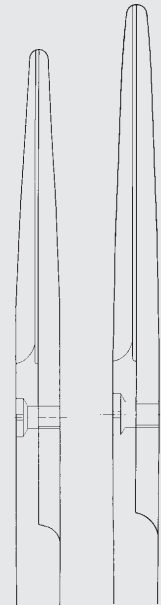
DUROTIP® Dissecting Scissors

General

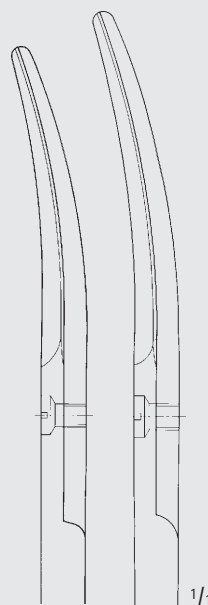


MAYO

BC250R-BC253R



BC250R	BC252R
140 mm	170 mm
5 1/2"	6 3/4"



BC251R	BC253R
140 mm	170 mm
5 1/2"	6 3/4"

1/1



MAYO

BC242R-BC559R



BC242R	BC558R
170 mm	230 mm
6 3/4"	9"



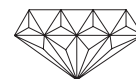
BC243R	BC559R
170 mm	230 mm
6 3/4"	9"

1/1

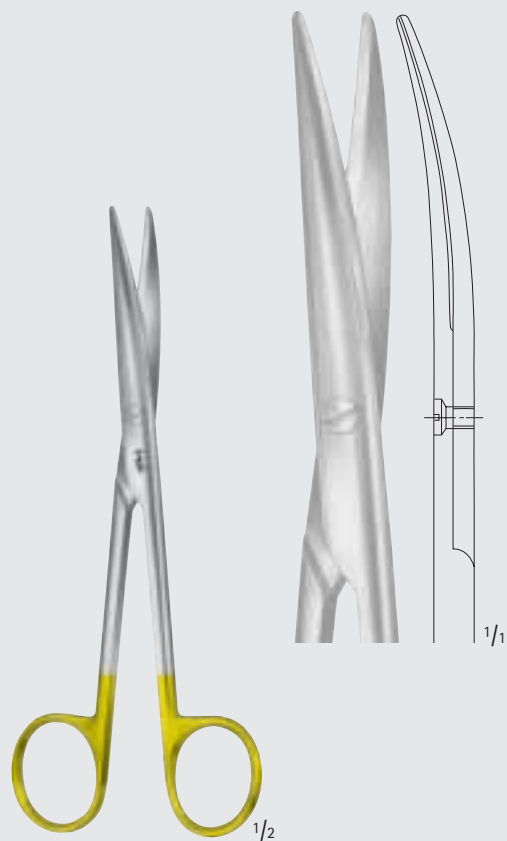
MILLIMETERS

Instruments

DUROTIP® Dissecting Scissors



General

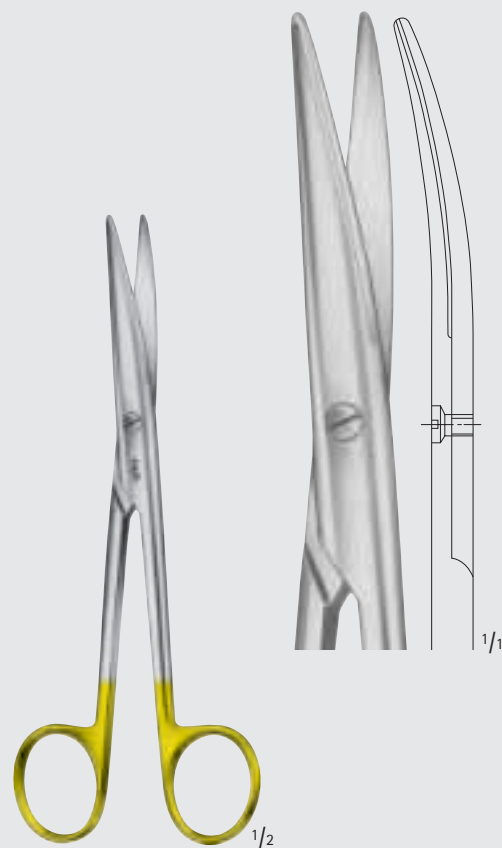


LEXER

BC283R

narrow

165 mm, 6 1/2"



MAYO-LEXER

BC284R

165 mm, 6 1/2"

»grazil«

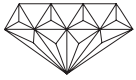


BC256R

BC257R

BC256R-BC257R

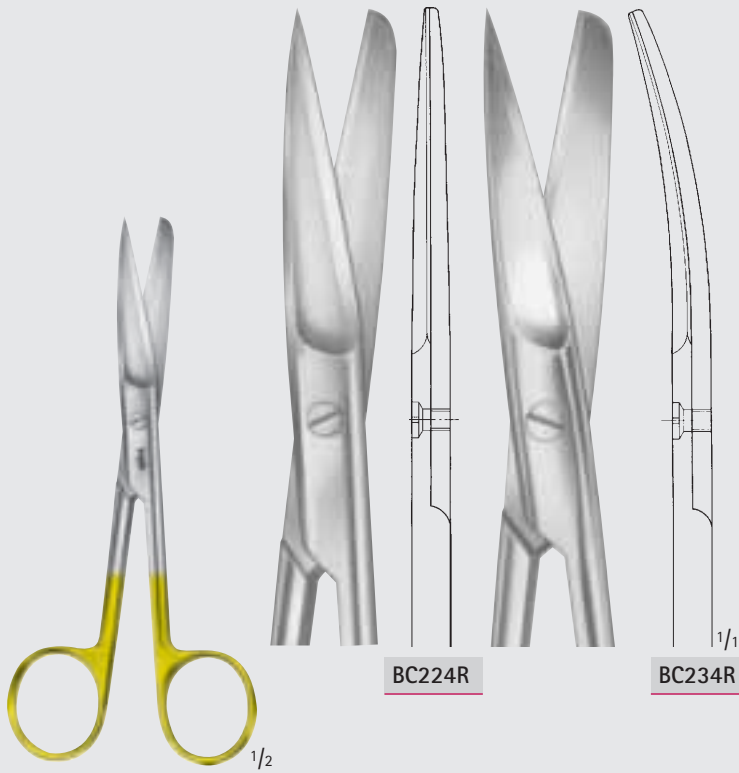
115 mm, 4 1/2"



Instruments

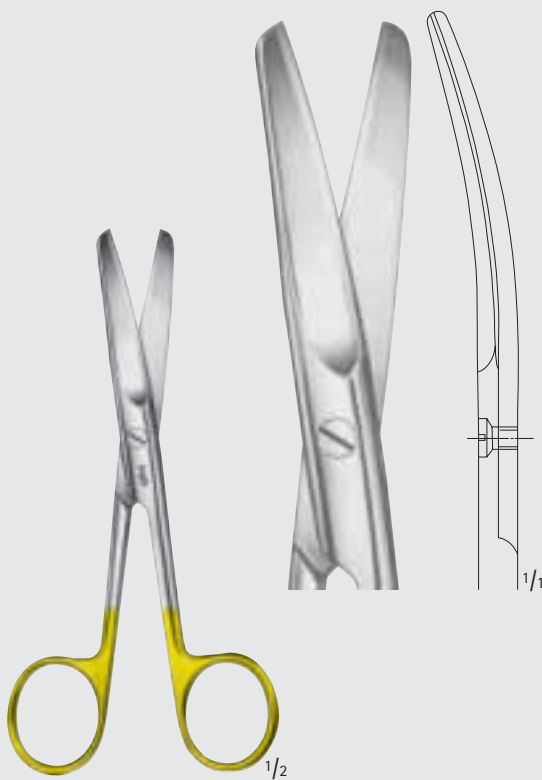
DUROTIP® Surgical Scissors

General



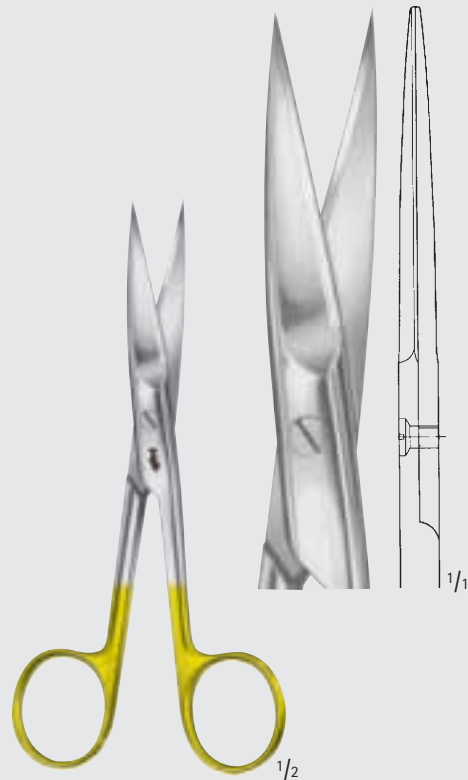
BC224R-BC234R

145 mm, 5 3/4"



BC231R

145 mm, 5 3/4"



BC228R

145 mm, 5 3/4"

MILLIMETERS

Instruments

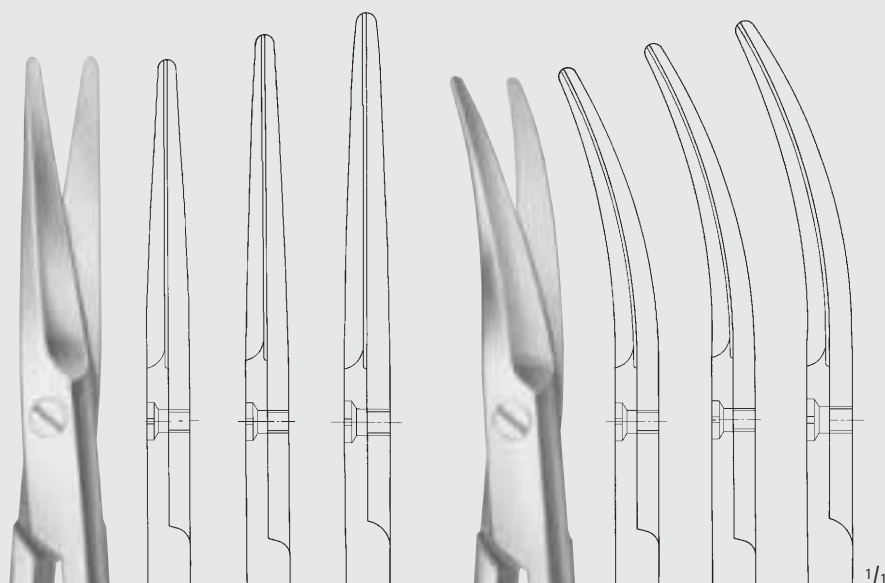
Surgical and Dissecting Scissors

General



MAYO

BC544R-BC557R



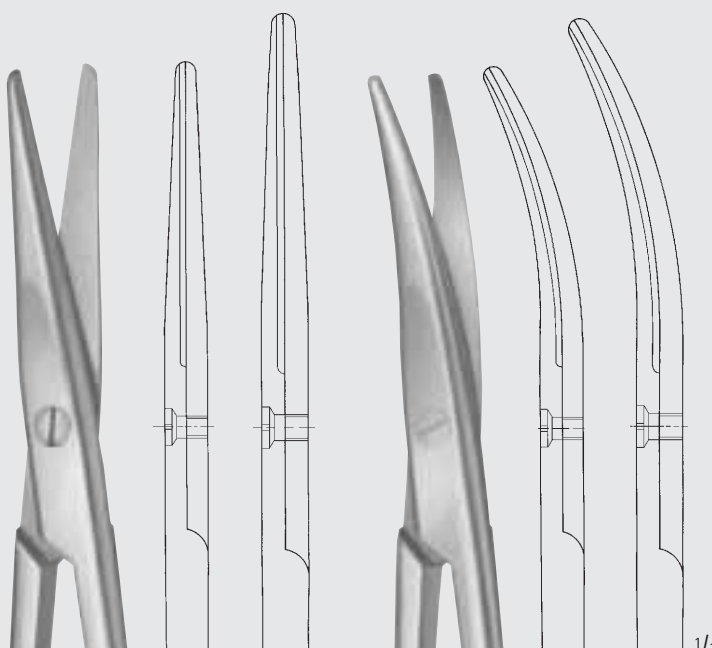
BC544R	BC545R	BC547R
140 mm	155 mm	170 mm
5 1/2"	6"	6 3/4"

BC554R	BC555R	BC557R
140 mm	155 mm	170 mm
5 1/2"	6"	6 3/4"



MAYO-STILLE

BC570R-BC575R



BC570R	BC572R
140 mm	170 mm
5 1/2"	6 3/4"

BC573R	BC575R
140 mm	170 mm
5 1/2"	6 3/4"



Instruments

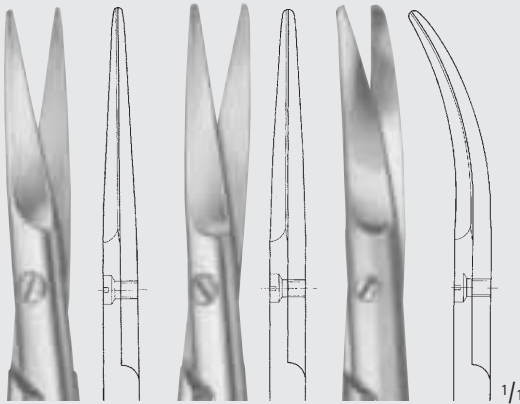
Dissecting Scissors, Delicate Patterns



TÖNNIS

BC633R-BC635R

Dissecting scissors
180 mm, 7"



BC633R

very delicate

BC634R

delicate

BC635R

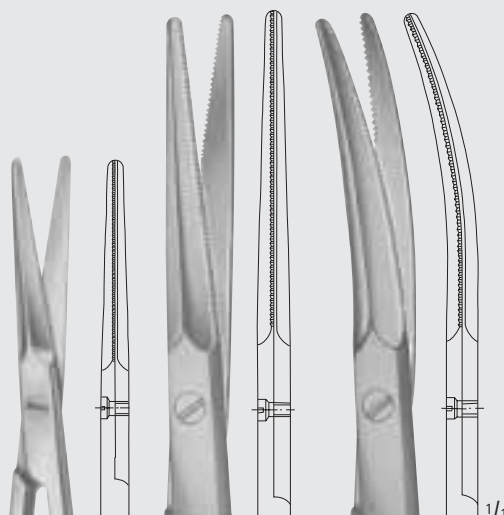
delicate



GORNEY

BC184R-BC189R

Dissection scissors
Blades: outside semi-sharp
inside fine serrated



BC184R

125 mm

5"

BC188R

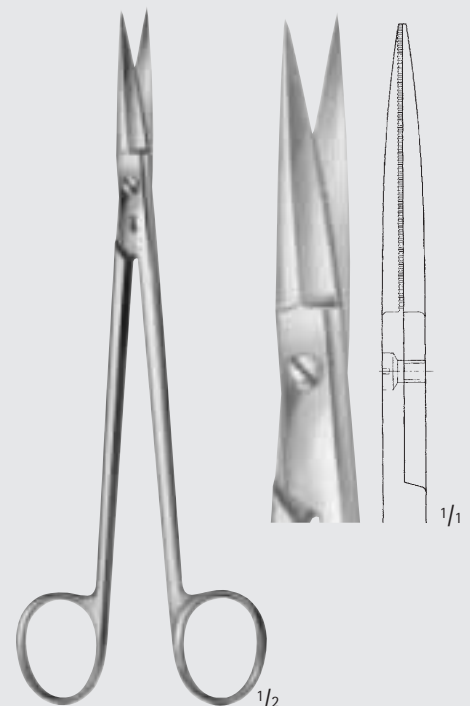
195 mm

7 3/4"

BC189R

195 mm

7 3/4"



BC672R

Cartilage scissors,
blades cutting on both sides
185 mm, 7 1/4"

General

MILLIMETERS

Instruments

Dissecting Scissors, Delicate Patterns

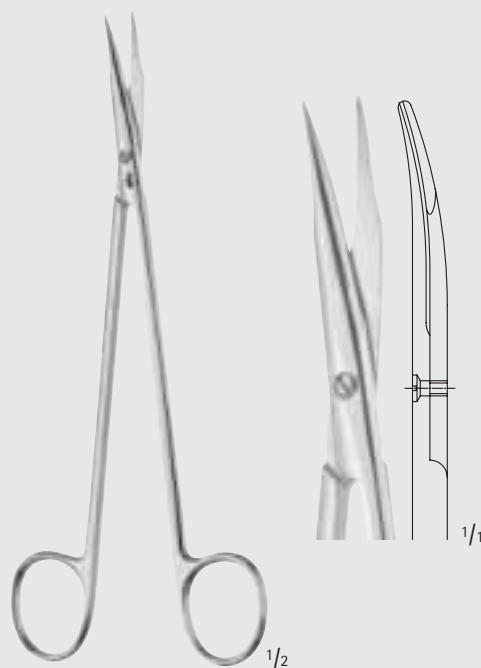
General



REYNOLDS

BC180R-BC181R

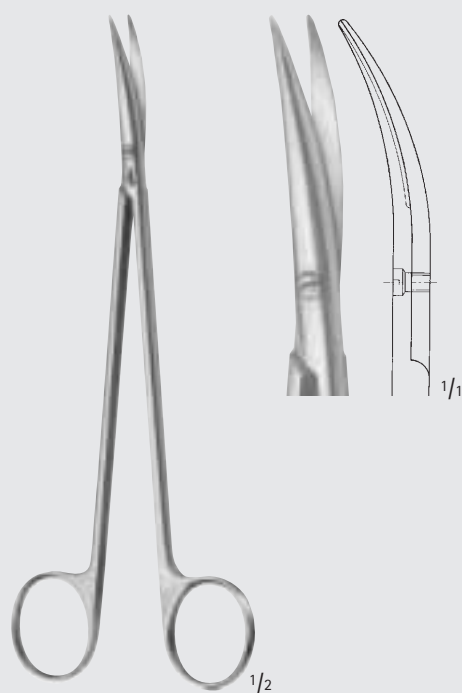
Dissecting scissors



POTTS

BC178R

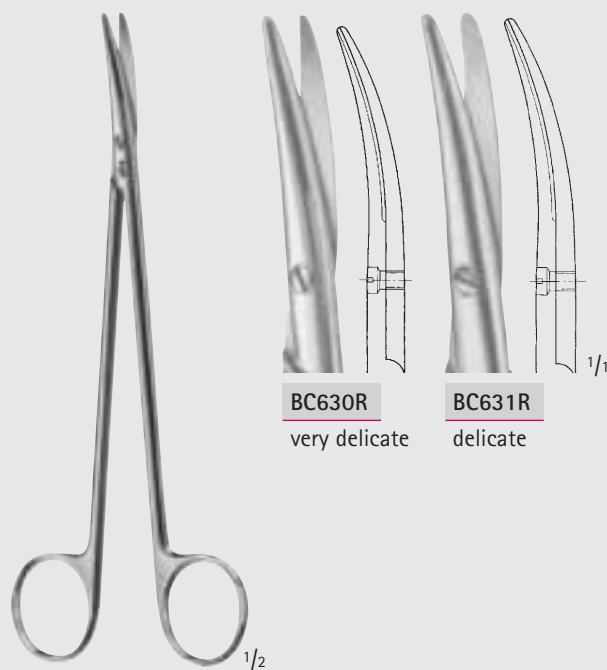
Dissecting scissors
180 mm, 7"



DE BAKAY

BC629R

Arteriotomy scissors
175 mm, 7"



TÖNNIS-ADSON

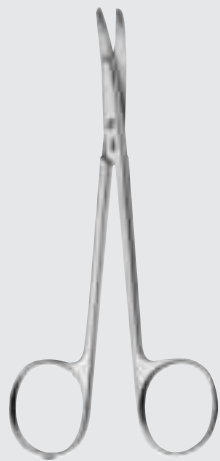
BC630R-BC631R

Dissecting scissors
175 mm, 7"



Instruments

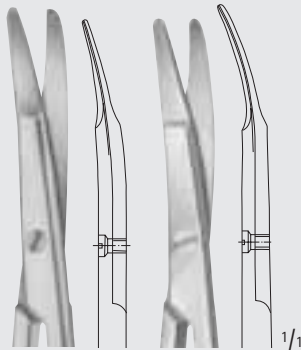
Dissecting Scissors, Delicate Patterns



KILNER

BC166R-BC168R

special flat points for dissecting and undermining the skin



BC166R

125 mm

5"

BC168R

150 mm

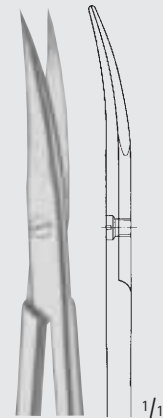
6"

1/1



BC628R

Nerve dissecting scissors
150 mm, 6"



blades outside
semi-sharp

1/1

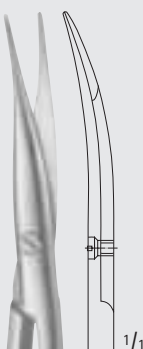
1/2



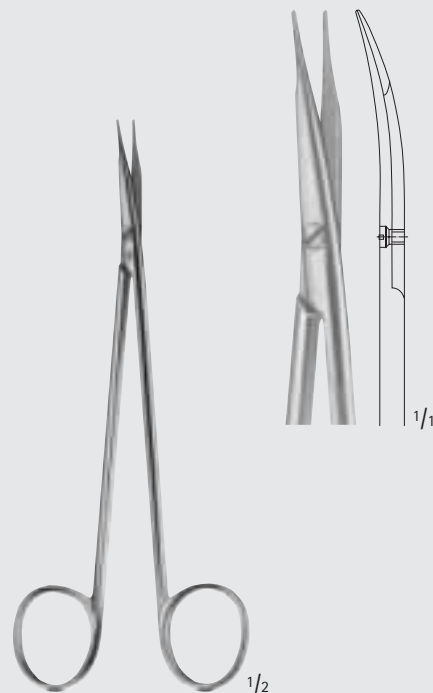
JAMESON-WERBER

BC175R

Dissecting scissors
130 mm, 5 1/8"



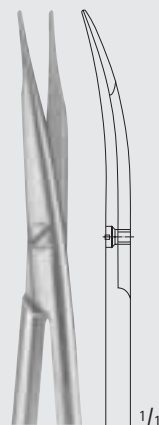
1/1



JAMESON

BC177R

Dissecting scissors
150 mm, 6"



1/1

1/2

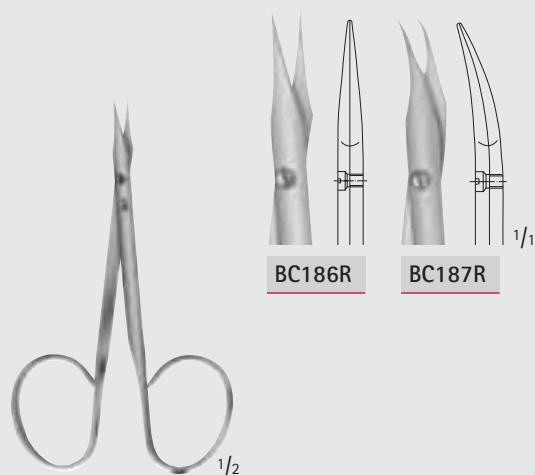
General

MILLIMETERS

Instruments

Dissecting Scissors, Delicate Patterns

General

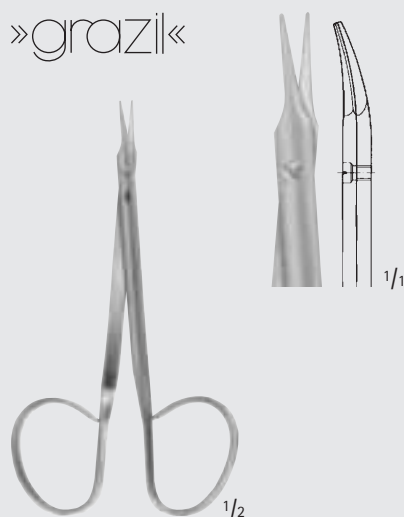


STEVENS

BC186R-BC187R

Vascular- and tendon scissors
100 mm, 4"

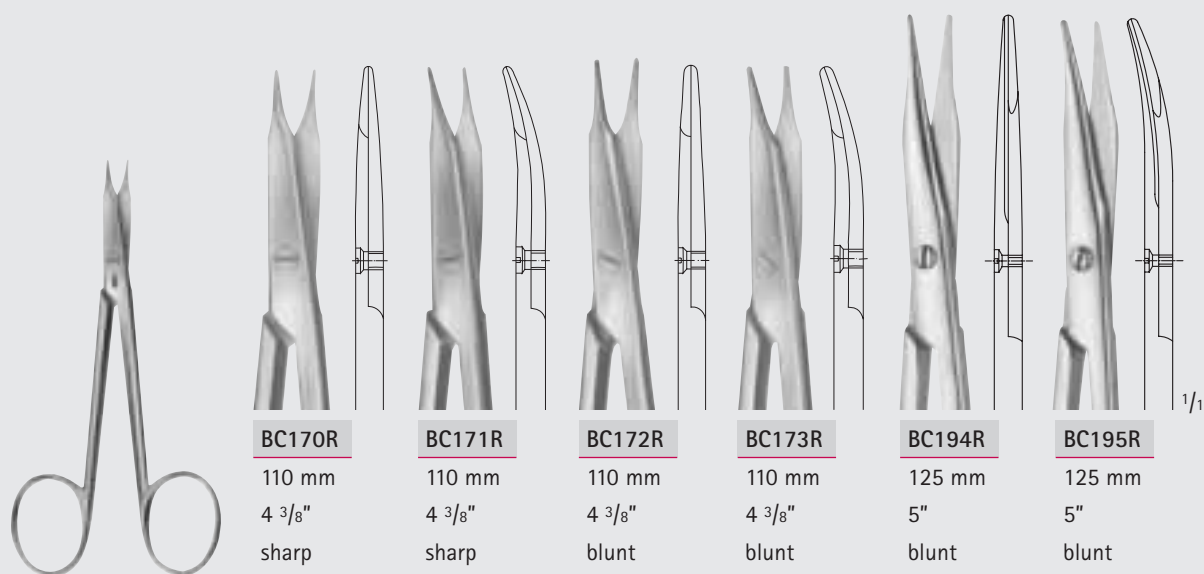
»grazil«



STEVENS

OK366R

Delicate dissecting scissors
110 mm, 4 3/8"



STEVENS

BC170R-BC195R

Vascular- and tendon scissors

BC170R

110 mm
4 3/8"
sharp

BC171R

110 mm
4 3/8"
sharp

BC172R

110 mm
4 3/8"
blunt

BC173R

110 mm
4 3/8"
blunt

BC194R

125 mm
5"
blunt

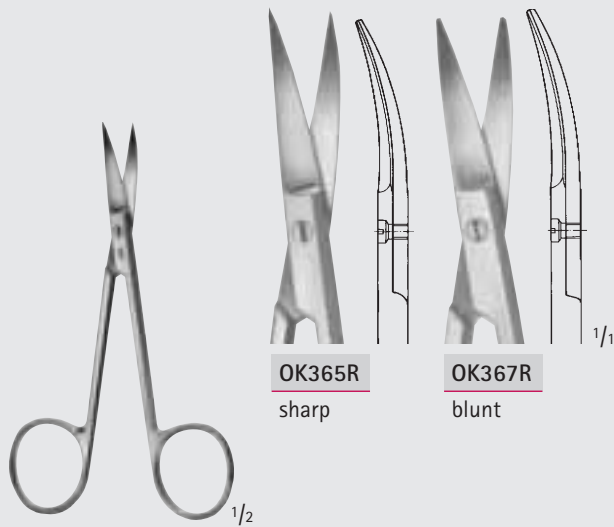
BC195R

125 mm
5"
blunt



Instruments

Dissecting Scissors, Delicate Patterns



OK365R

sharp

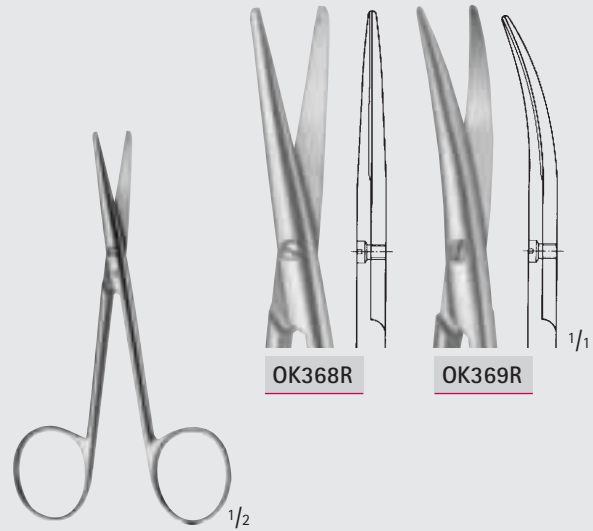
OK367R

blunt

COTTLE-MASING

OK365R-OK367R

Dissecting scissors
105 mm, 4 1/8"



OK368R

OK369R

COTTLE-KNAPP

OK368R-OK369R

Dissecting scissors
105 mm, 4 1/8"



OK372R

135 mm

5 1/4"

OK373R

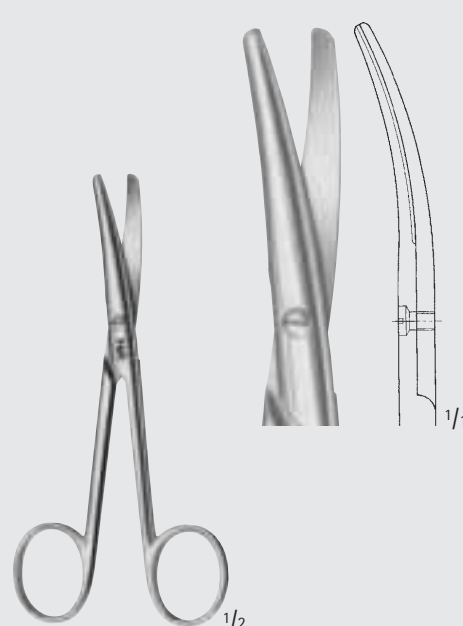
115 mm

4 1/2"

FOMON

OK372R-OK373R

Dissecting scissors



LANDOLT

OC430R

Enucleation scissors
120 mm, 4 3/4"

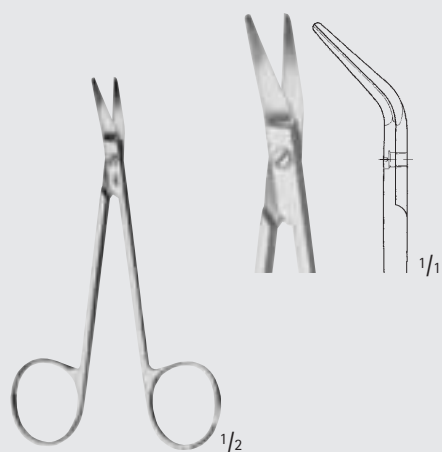
General

MILLIMETERS

Instruments

Dissecting Scissors, Delicate Patterns

General



GRAEFE

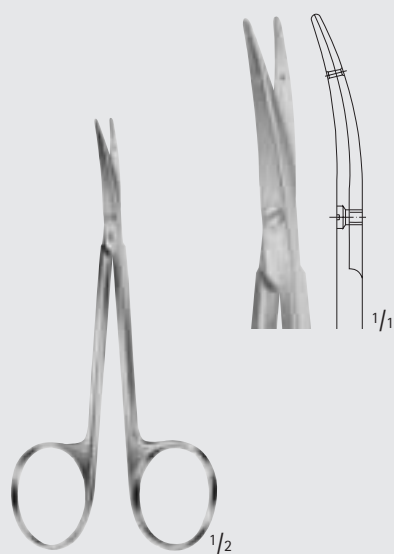
OC415R

Dissecting scissors
100 mm, 4"



BC164R-BC165R

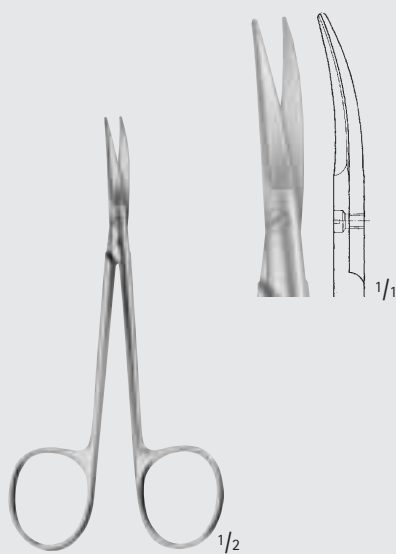
Dissecting Scissors
115 mm, 4 1/2"



LITTLER

BC163R

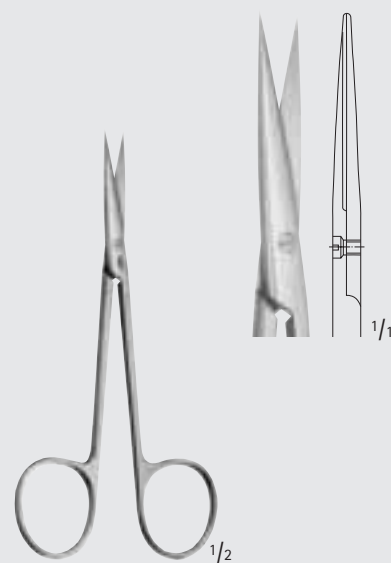
Dissecting scissors,
tips with eye for suture
115 mm, 4 1/2"



COTTLE

OK374R

Bulldog scissors
115 mm, 4 1/2"



KILNER

BC162R

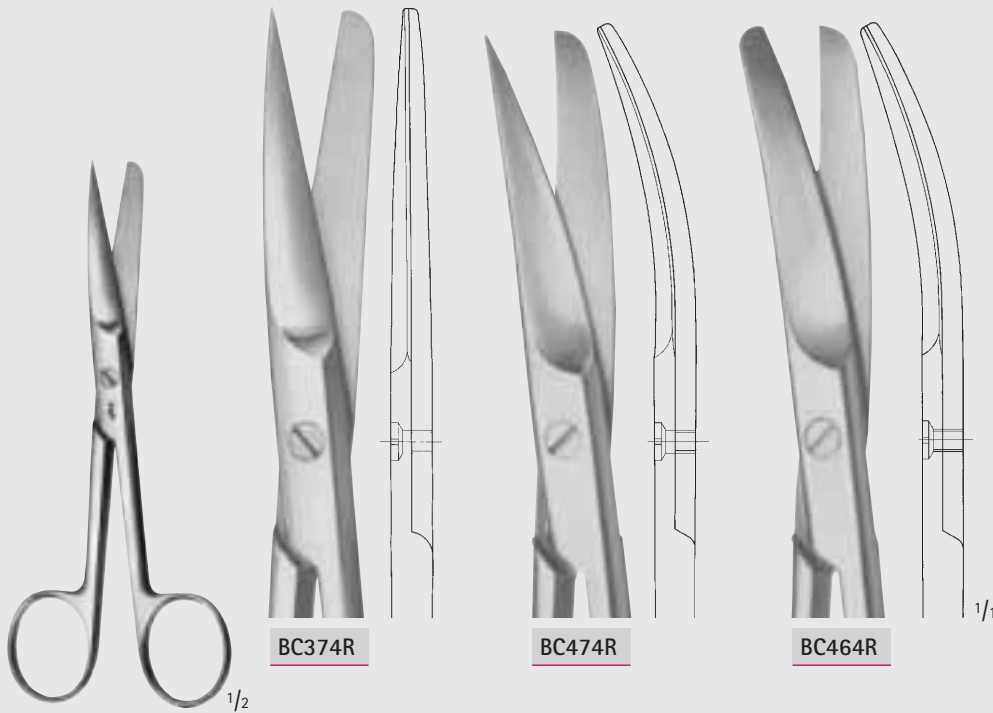
Delicate dissecting scissors
115 mm, 4 1/2"



Instruments

Surgical Scissors

General



DEAYER

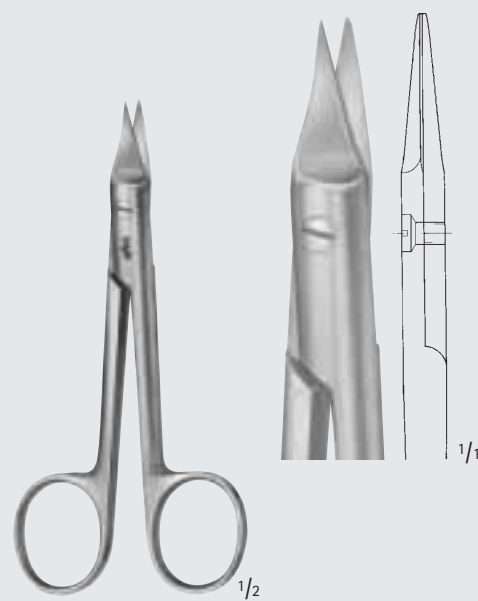
BC374R-BC474R

Surgical scissors with flat lock
145 mm, 5 $\frac{3}{4}$ "



BC503R-BC506R

Incision scissors



SYSTRUNK

BC521R

Surgical scissors
130 mm, 5 $\frac{1}{8}$ "

MILLIMETERS

Instruments

Surgical Scissors

General



BC341R-BC346R

Standard patterns

BC341R	BC343R	BC344R	BC345R	BC346R
115 mm	130 mm	145 mm	150 mm	165 mm
4 1/2"	5 1/8"	5 3/4"	6"	6 1/2"



BC441R-BC445R

Standard patterns

BC441R	BC443R	BC444R	BC445R
115 mm	130 mm	145 mm	150 mm
4 1/2"	5 1/8"	5 3/4"	6"

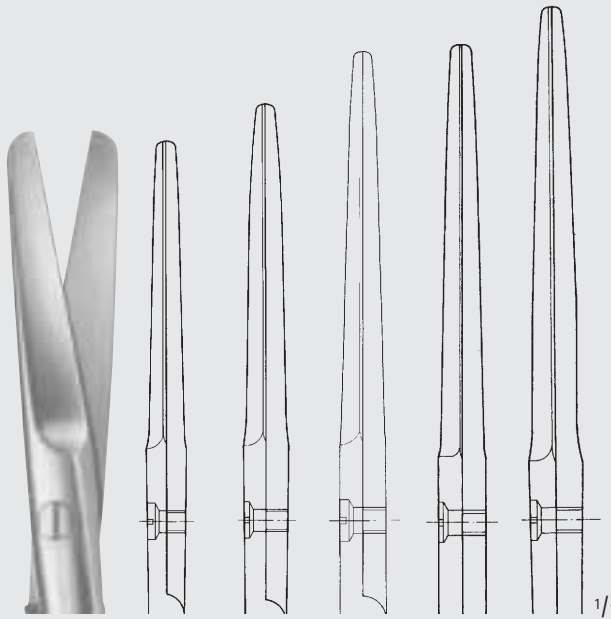


Instruments Surgical Scissors



BC313R-BC317R

Standard patterns



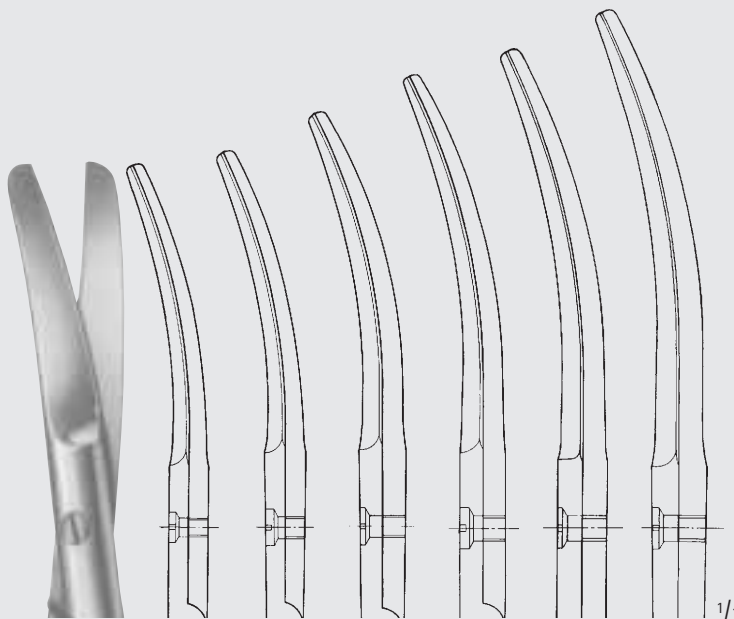
BC313R	BC314R	BC315R	BC316R	BC317R
130 mm	145 mm	150 mm	165 mm	175 mm
5 1/8"	5 3/4"	6"	6 1/2"	7"



COOPER

BC411R-BC417R

Standard patterns



BC411R	BC413R	BC414R	BC415R	BC416R	BC417R
115 mm	130 mm	145 mm	150 mm	165 mm	175 mm
4 1/2"	5 1/8"	5 3/4"	6"	6 1/2"	7"

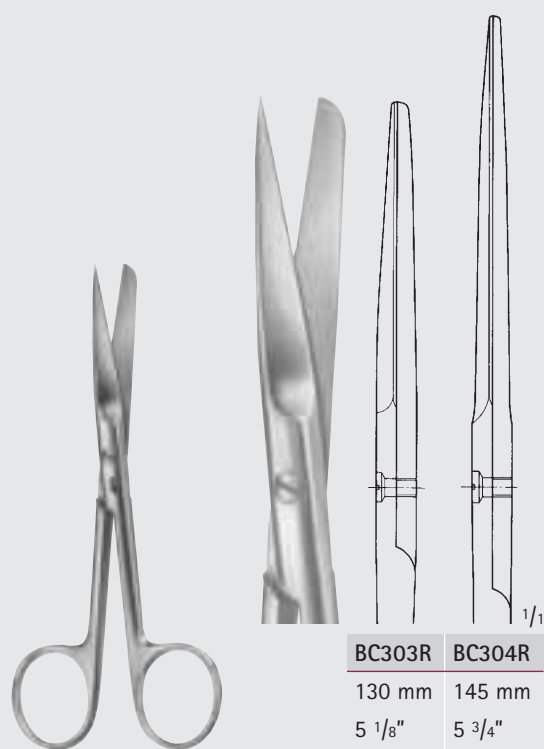
General

MILLIMETERS

Instruments

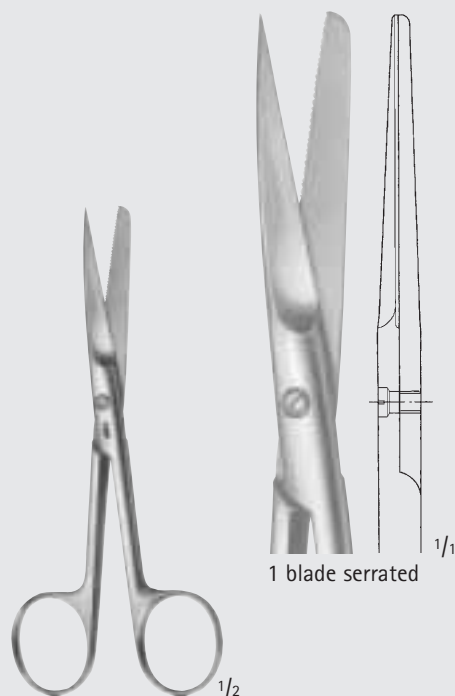
Surgical Scissors

General



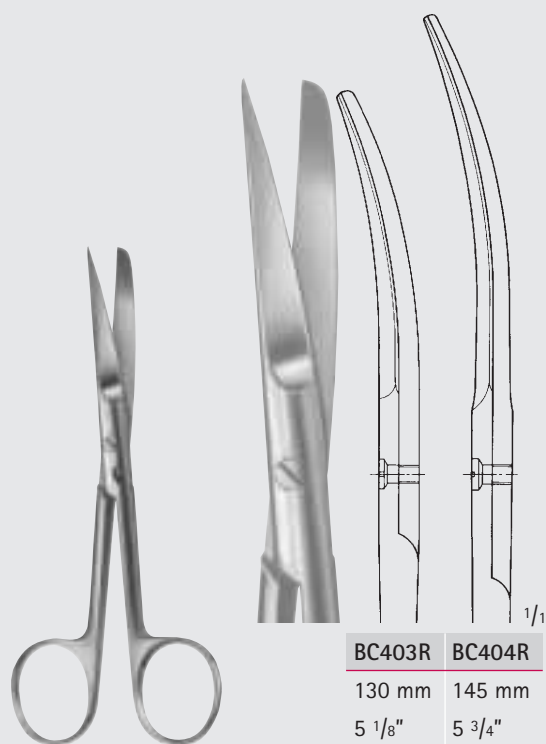
BC303R-BC304R

Slender patterns



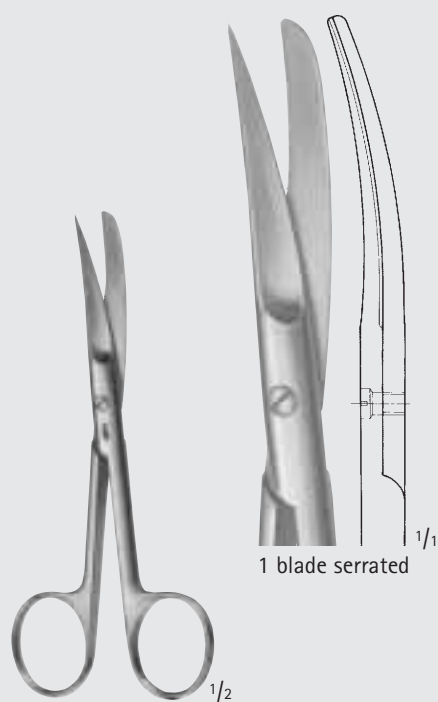
BC496R

Scissors for wound edges
130 mm, 5 1/8"



BC403R-BC404R

Slender patterns



BC497R

Scissors for wound edges
130 mm, 5 1/8"

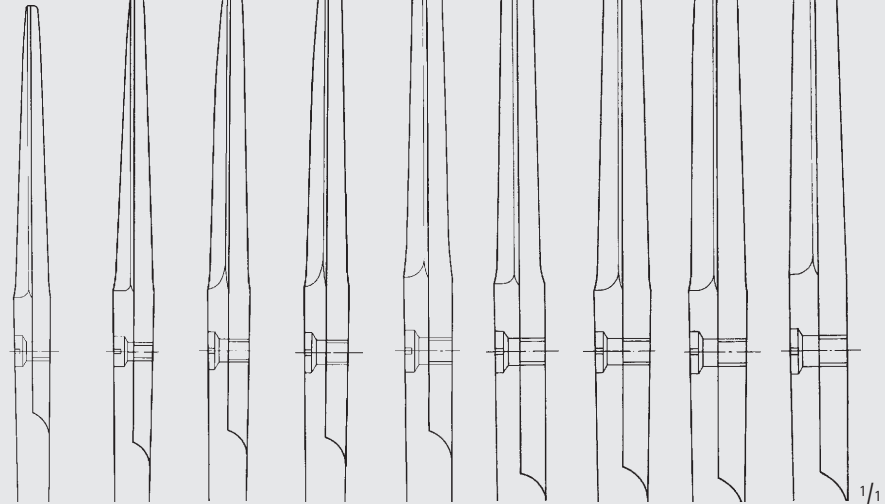


Instruments Surgical Scissors



BC320R-BC330R

Standard patterns

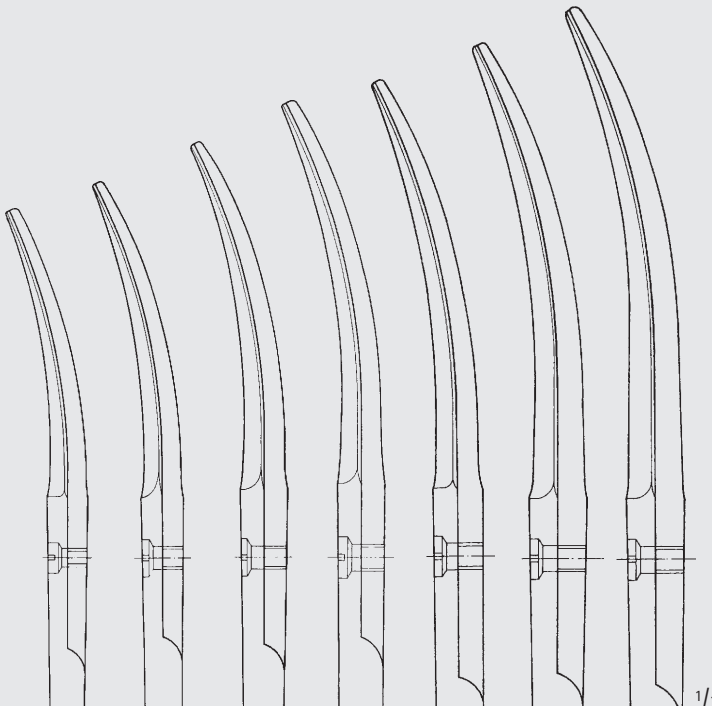


BC320R	BC321R	BC323R	BC324R	BC325R	BC326R	BC327R	BC328R	BC330R
105 mm	115 mm	130 mm	145 mm	150 mm	165 mm	175 mm	185 mm	200 mm
4 1/8"	4 1/2"	5 1/8"	5 3/4"	6"	6 1/2"	7"	7 1/4"	8"



BC421R-BC428R

Standard patterns



BC421R	BC423R	BC424R	BC425R	BC426R	BC427R	BC428R
115 mm	130 mm	145 mm	150 mm	165 mm	175 mm	185 mm
4 1/2"	5 1/8"	5 3/4"	6"	6 1/2"	7"	7 1/4"

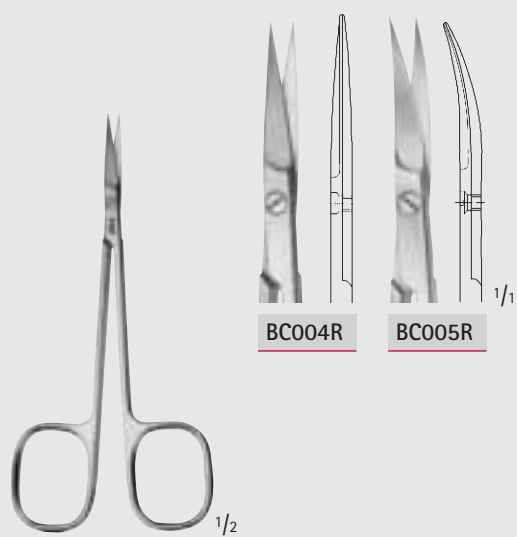
General

MILLIMETERS

Instruments

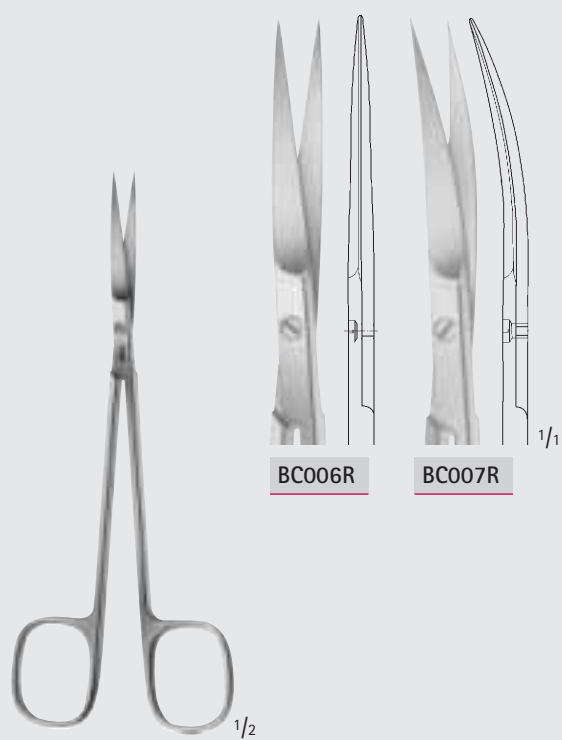
Delicate Scissors - Large Ring Design

General



BC004R-BC005R

115 mm, 4 1/2"



JOSEPH

BC006R-BC007R

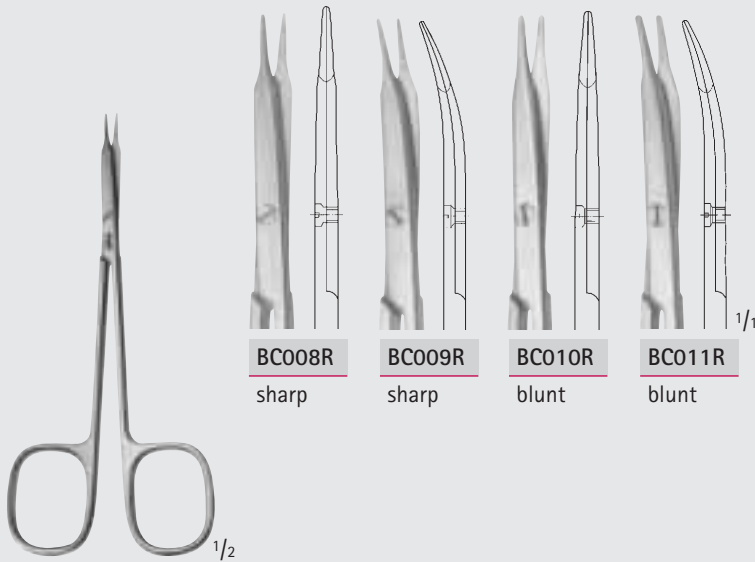
150 mm, 6"



Instruments

Delicate Scissors - Large Ring Design

General

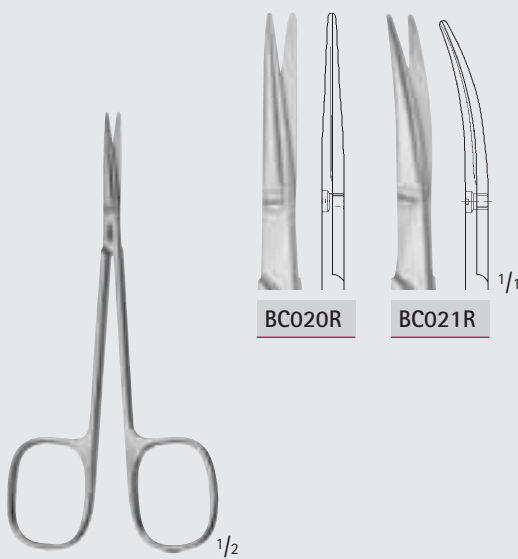


STEVENS

BC008R-BC011R

Dissecting scissors

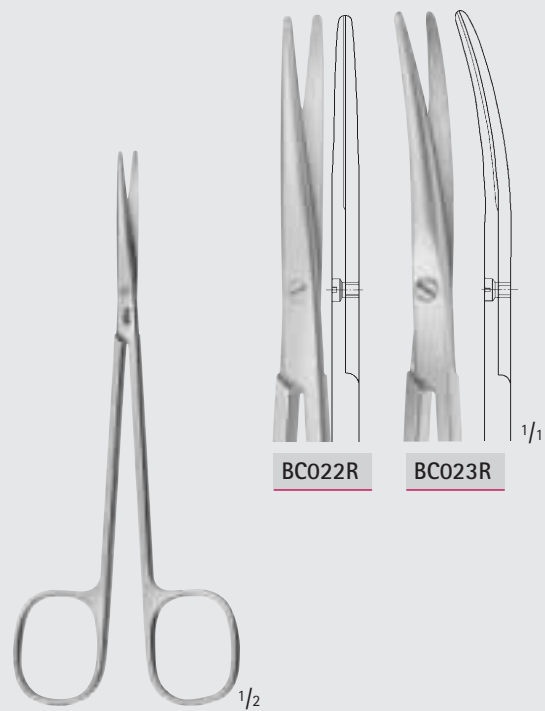
115 mm, 4 1/2"



BC020R-BC021R

Dissecting- and strabismus scissors

115 mm, 4 1/2"



METZENBAUM

BC022R-BC023R

Dissecting scissors

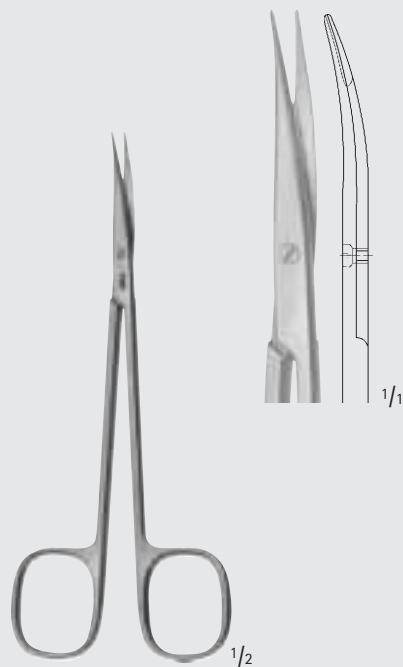
145 mm, 5 3/4"

MILLIMETERS

Instruments

Delicate Scissors - Large Ring Design

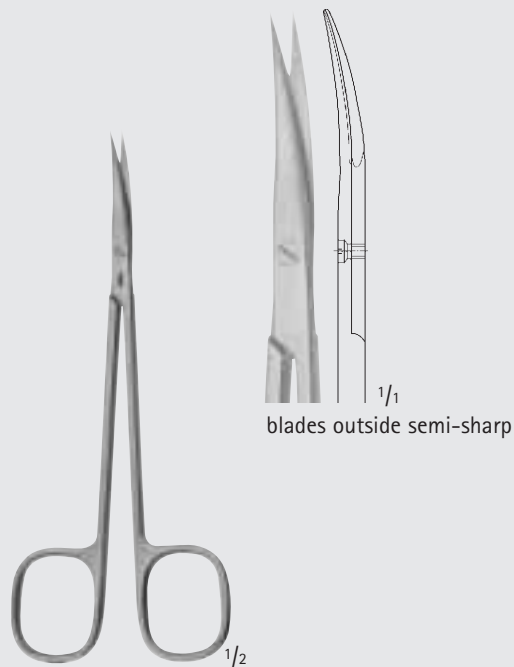
General



REYNOLDS-JAMESON

BC015R

Vascular scissors
140 mm, 5 1/2"



BC017R

Nerve dissecting scissors
140 mm, 5 1/2"



RAGNELL

BC026R-BC029R

Special flat points for dissecting and
undermining the skin



Instruments

Delicate Scissors

General

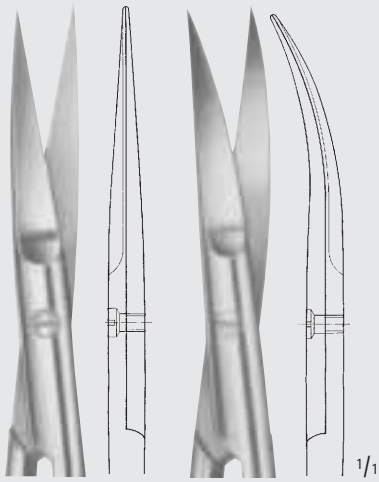


$\frac{1}{2}$

JOSEPH

BC156R-BC157R

150 mm, 6"



BC156R

BC157R

$\frac{1}{1}$

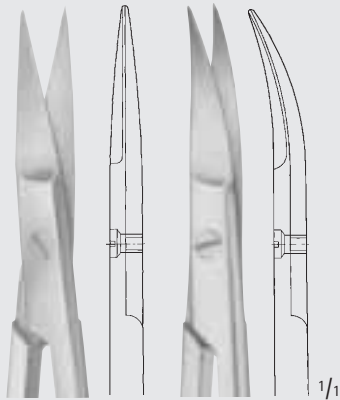


$\frac{1}{2}$

KELLY

BC160R-BC161R

175 mm, 7"



BC160R

BC161R

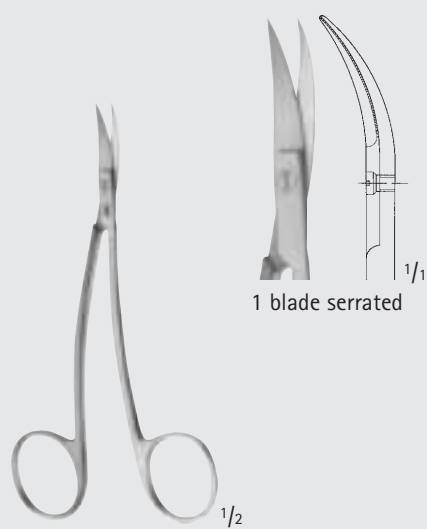
$\frac{1}{1}$

MILLIMETERS

Instruments

Delicate Scissors

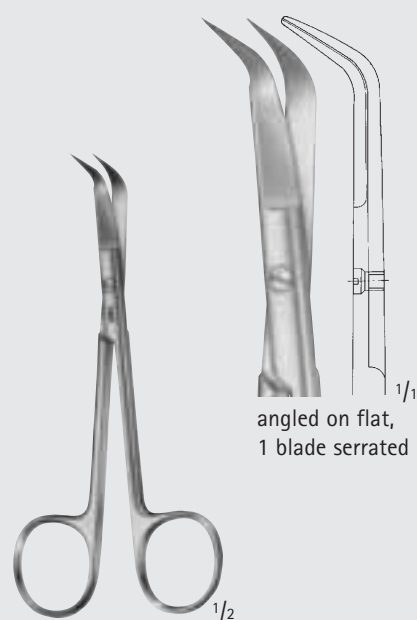
General



LA GRANGE

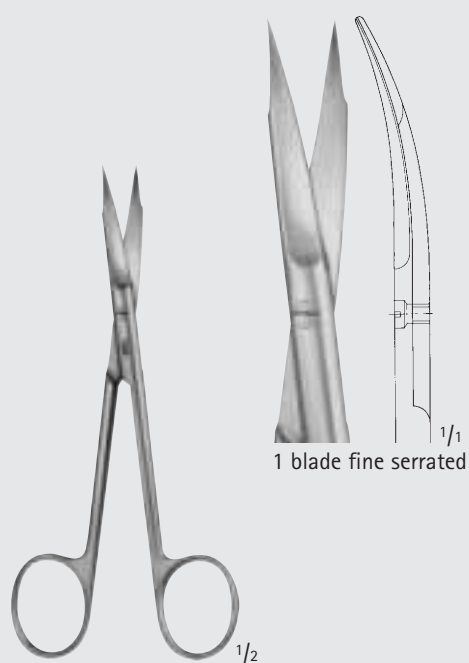
BC154R

110 mm, 4"



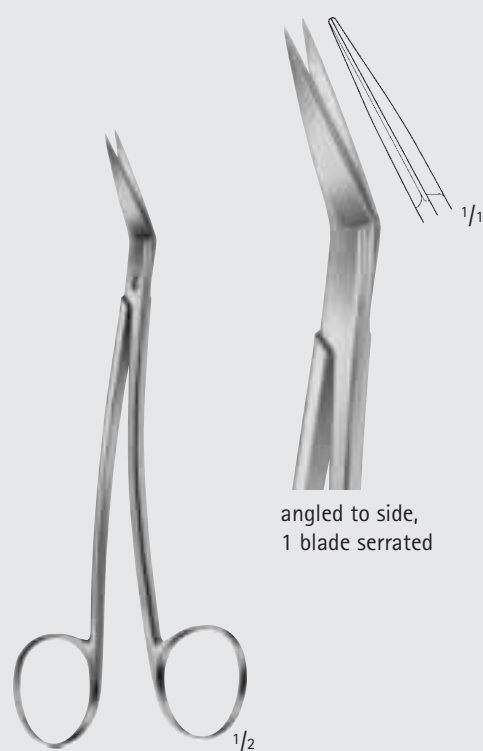
D0252R

125 mm, 5"



D0251R

130 mm, 5 $\frac{1}{8}$ "



LOCKLIN

D0219R

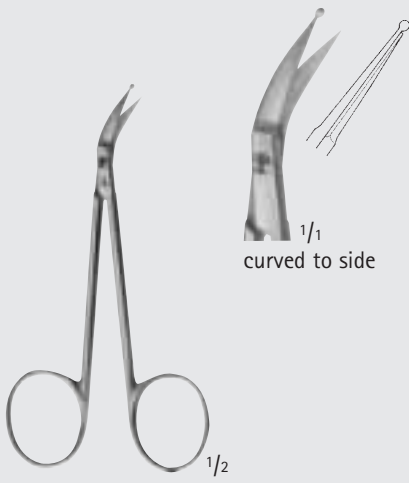
155 mm, 6"



Instruments

Delicate Scissors

General

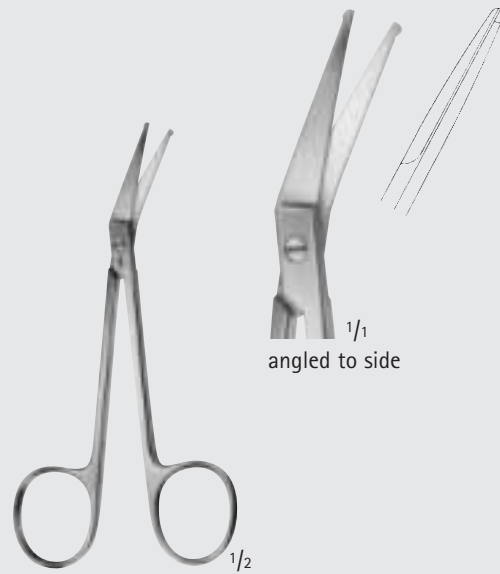


1/1
curved to side

PERWITZSCHKY

OM489R

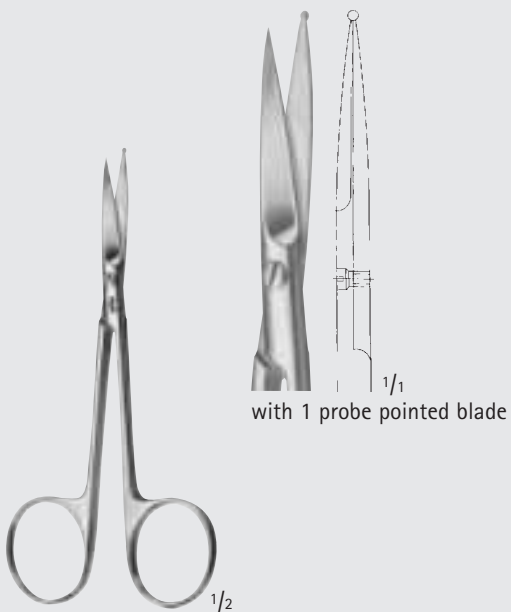
100 mm, 4"



1/1
angled to side

BC033R

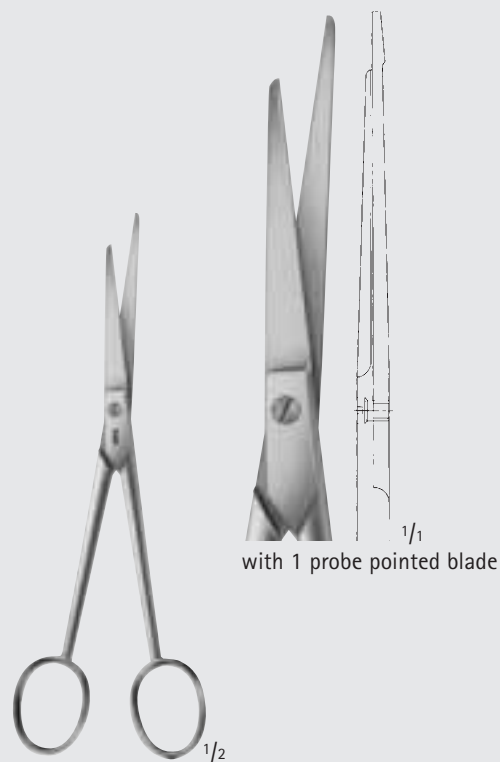
115 mm, 4 1/2"



1/1
with 1 probe pointed blade

BC030R

120 mm, 4 3/4"



1/1
with 1 probe pointed blade

BC034R

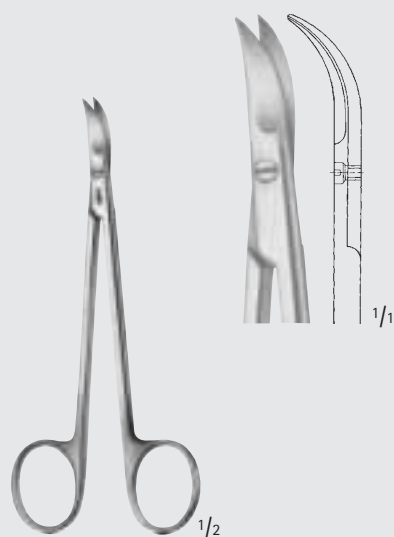
145 mm, 5 3/4"

MILLIMETERS

Instruments

Delicate Scissors

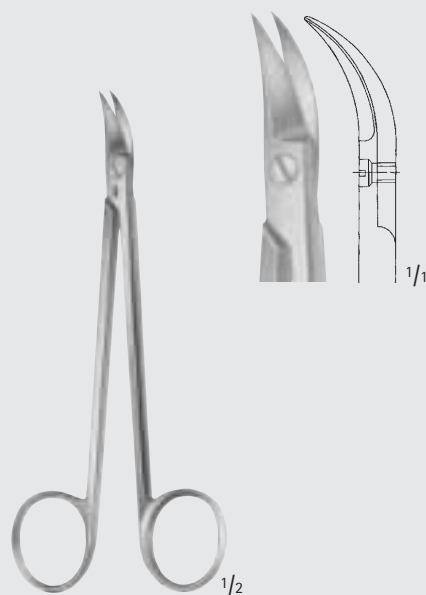
General



CHADWICK

BC153R

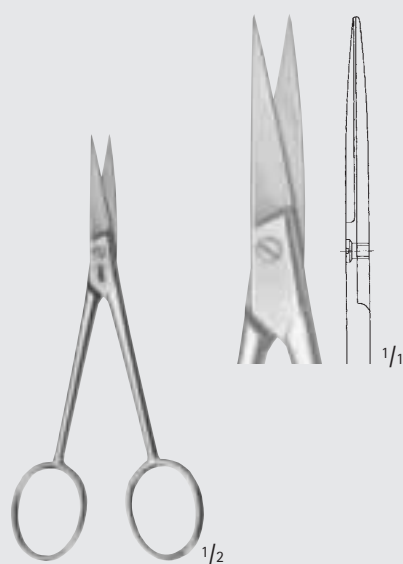
115 mm, 4 1/2"



QUINBY

D0218R

130 mm, 5 1/8"



BC050R

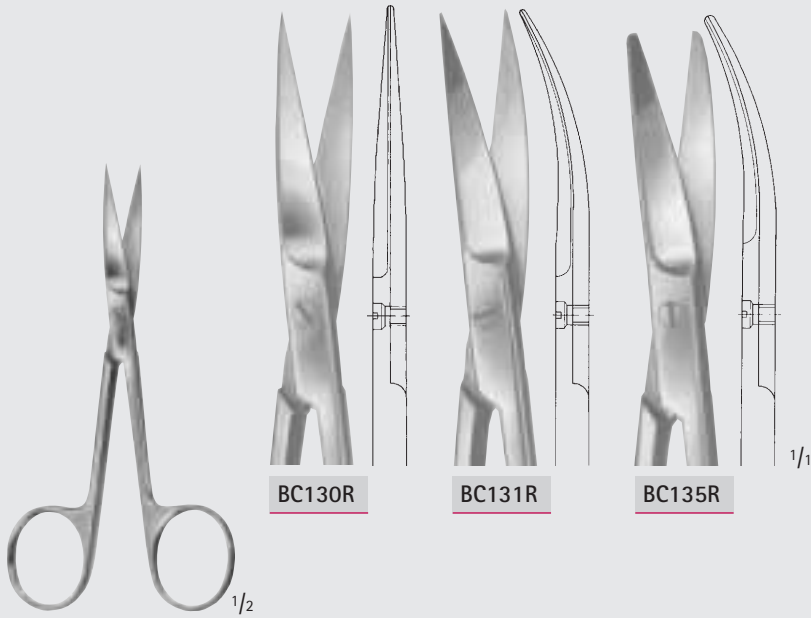
110 mm, 4 3/8"



Instruments

Delicate Scissors

General



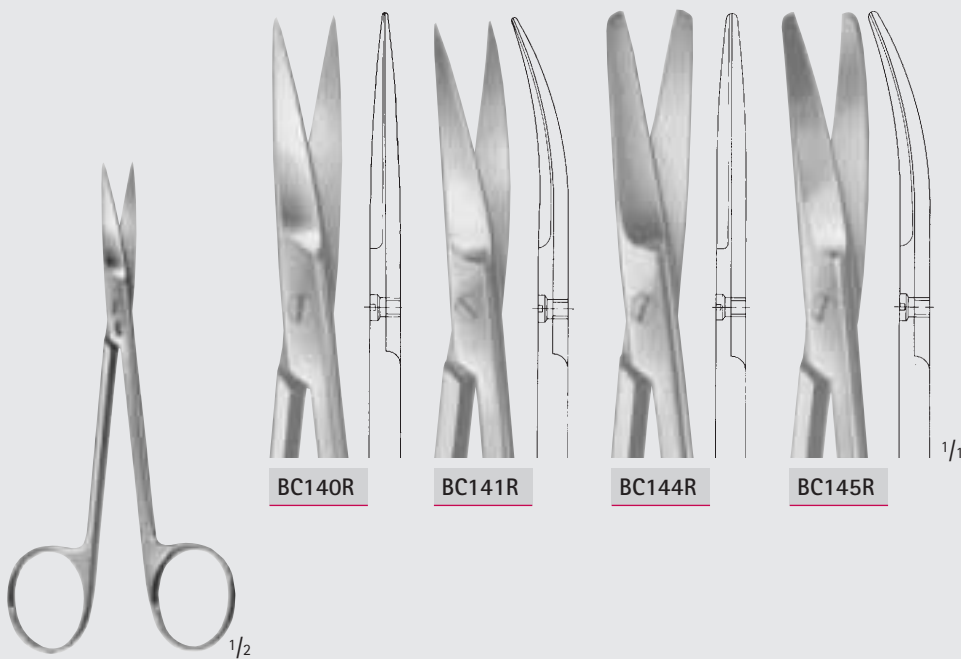
BC130R

BC131R

BC135R

BC130R-BC135R

120 mm, 4 $\frac{3}{4}$ "



BC140R

BC141R

BC144R

BC145R

BC140R-BC145R

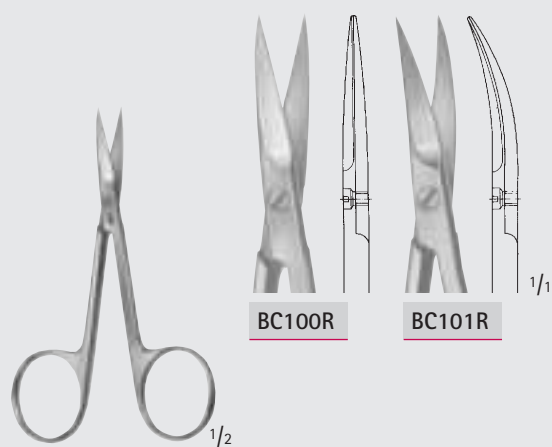
130 mm, 5 $\frac{1}{8}$ "

MILLIMETERS

Instruments

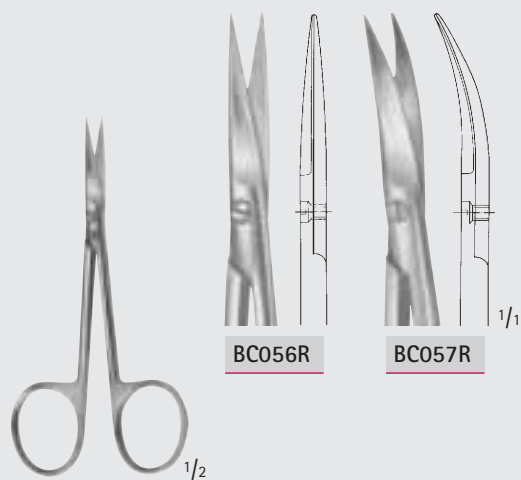
Delicate Scissors

General



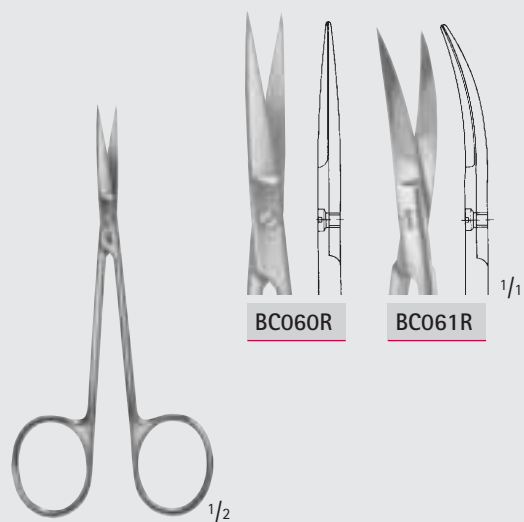
BC100R-BC101R

90 mm, 3 1/2"



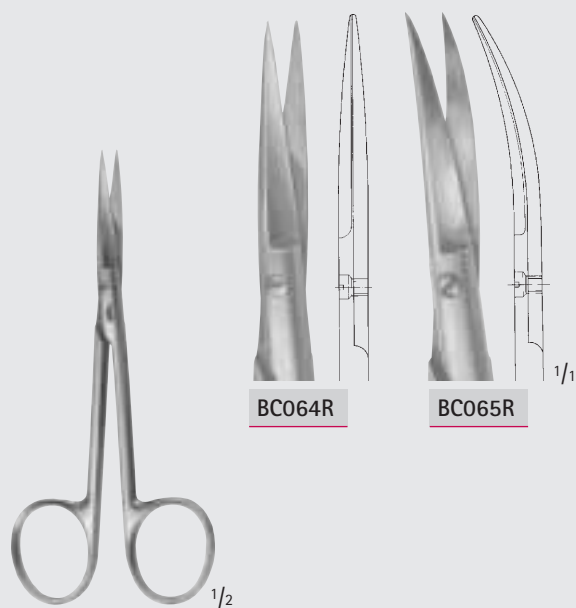
BC056R-BC057R

90 mm, 3 1/2"



BC060R-BC061R

105 mm, 4 1/8"



BC064R-BC065R

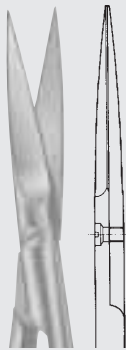
120 mm, 4 3/4"



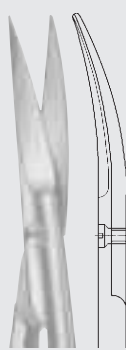
Instruments

Delicate Scissors

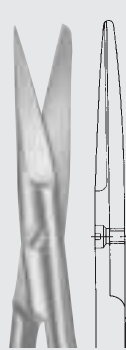
General



BC110R



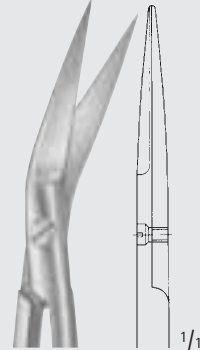
BC111R



BC112R



BC113R

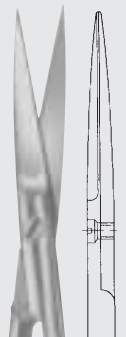


BC117R

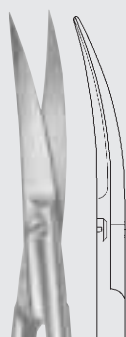
curved to side

BC110R-BC117R

110 mm, 4 $\frac{3}{8}$ "



BC106R



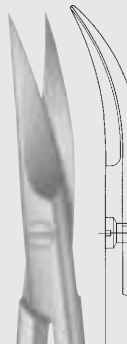
BC107R

BC106R-BC107R

115 mm, 4 $\frac{1}{2}$ "



D0210R



D0211R

D0210R-D0211R

120 mm, 4 $\frac{3}{4}$ "



MILLIMETERS

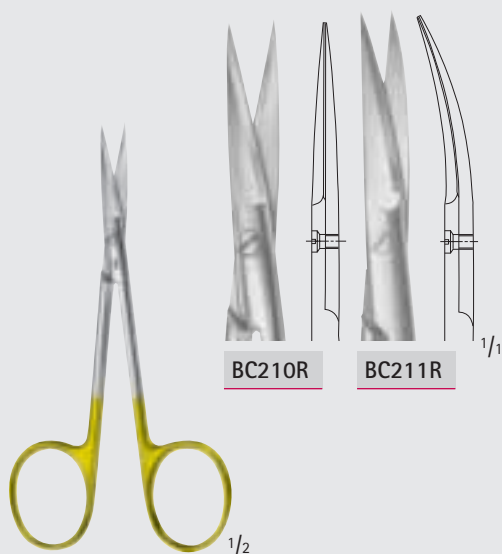
Instruments

DUROTIP® Delicate Scissors



DUROTIP® Scissors with inserted carbide cutting edges

- 3 years guarantee!
- Excellent cutting accuracy
- Long working life
- Gold-plated rings



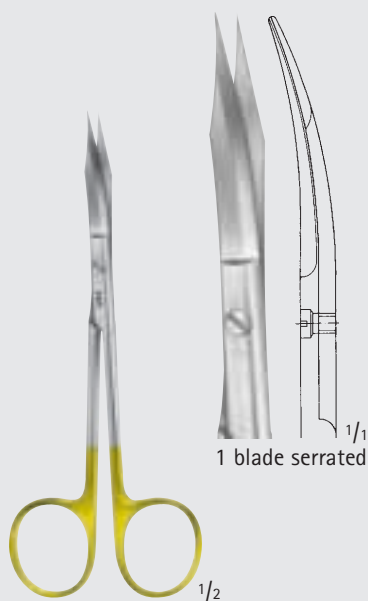
BC210R

BC211R

BC210R-BC211R

Ligature scissors

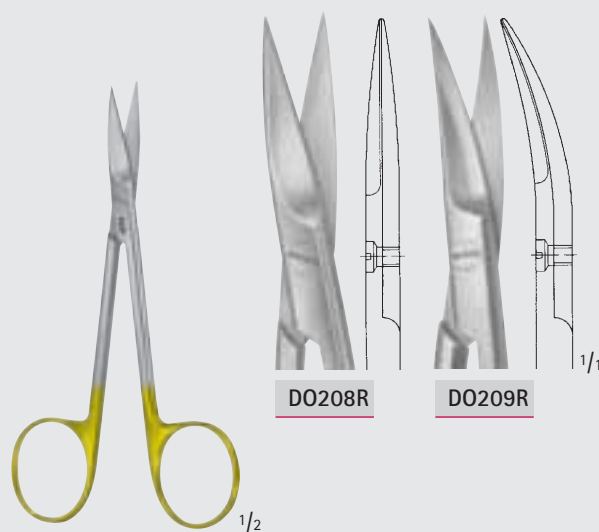
110 mm, 4 $\frac{3}{8}$ "



1 blade serrated

D0250R

130 mm, 5 $\frac{1}{8}$ "

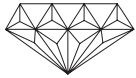


D0208R

D0209R


D0208R-D0209R

120 mm, 4 $\frac{3}{4}$ "




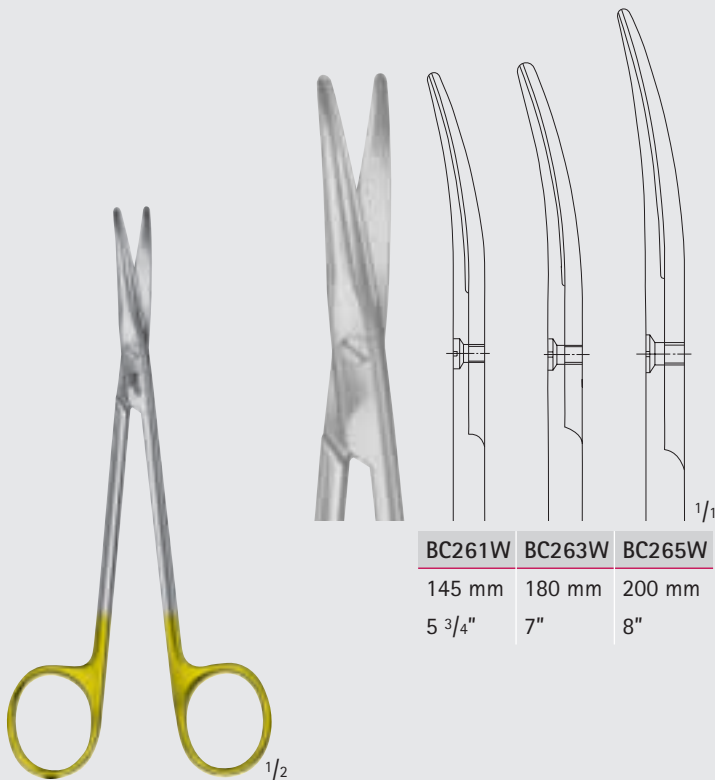
Instruments

DUROTIP® Wavecut Dissecting Scissors

 Wavecut
prevents tissue
from slipping out



 directly after the catalog number indicates that the resp. item has one serrated cutting edge. (When ordering please indicate together with the catalog number e.g. BC211W)



BC261W	BC263W	BC265W
145 mm	180 mm	200 mm
5 ³ / ₄ "	7"	8"

METZENBAUM

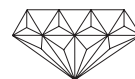
BC261W-BC265W

General

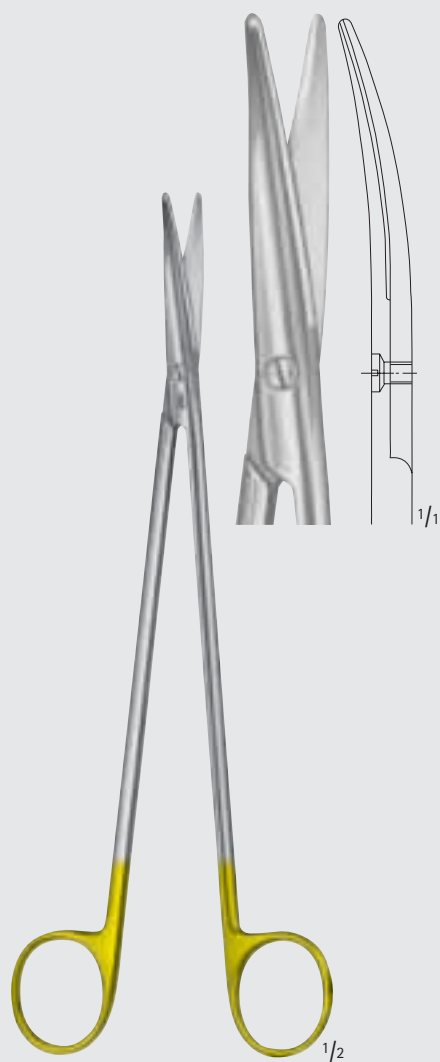
MILLIMETERS

Instruments

DUROTIP® Wavecut Dissecting Scissors

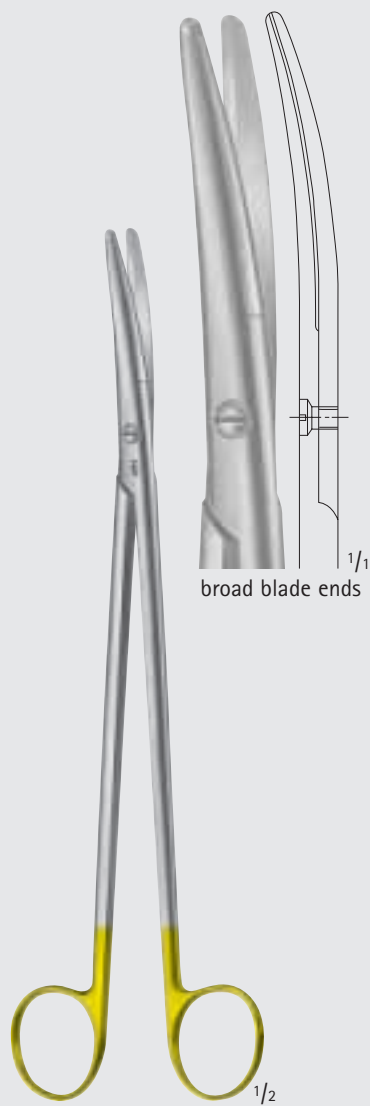


General



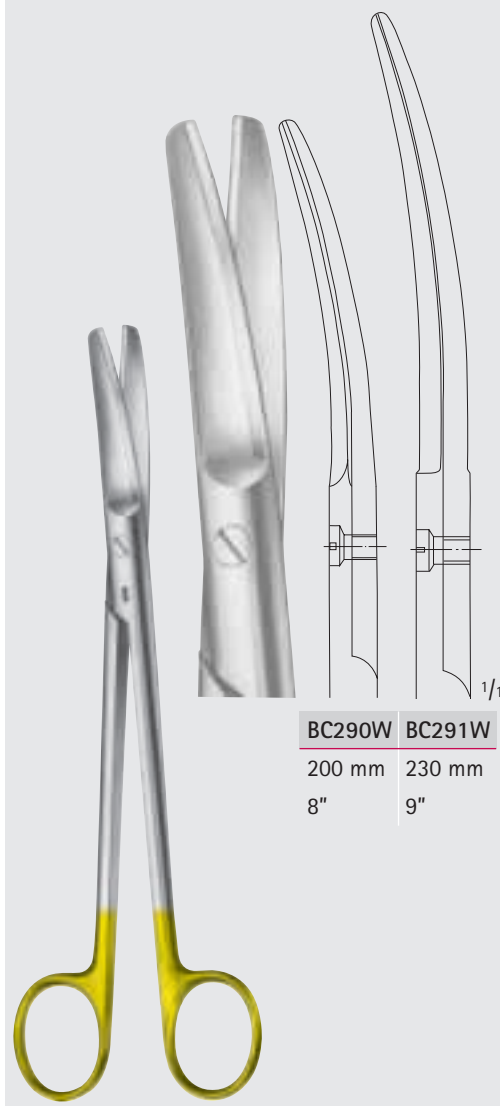
NELSON-METZENBAUM

BC267W
230 mm, 9"



METZENBAUM

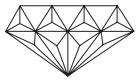
BC287W
230 mm, 9"



SIMS

BC290W-BC291W

BC290W	BC291W
200 mm	230 mm
8"	9"

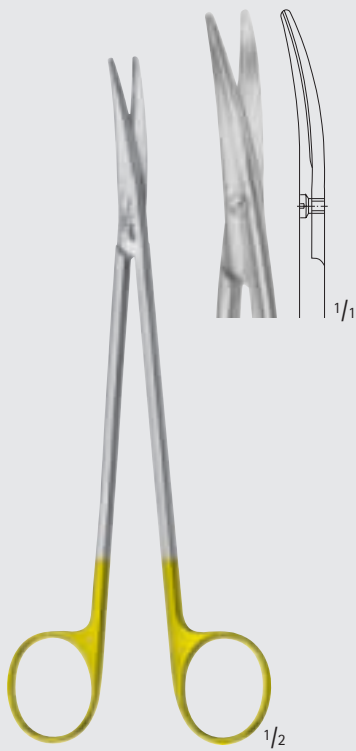


Instruments

DUROTIP® Wavecut Dissecting Scissors

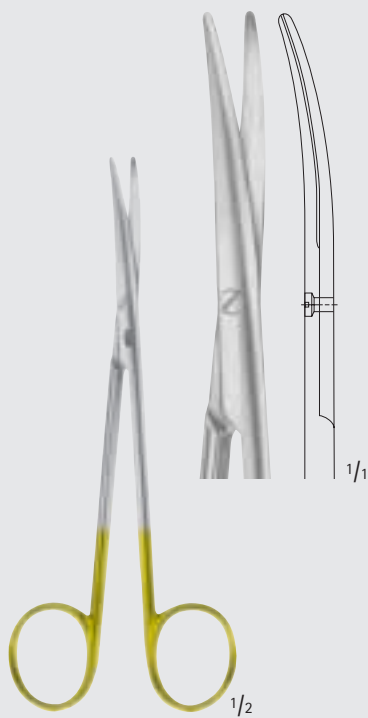
General

MILLIMETERS



BC257W

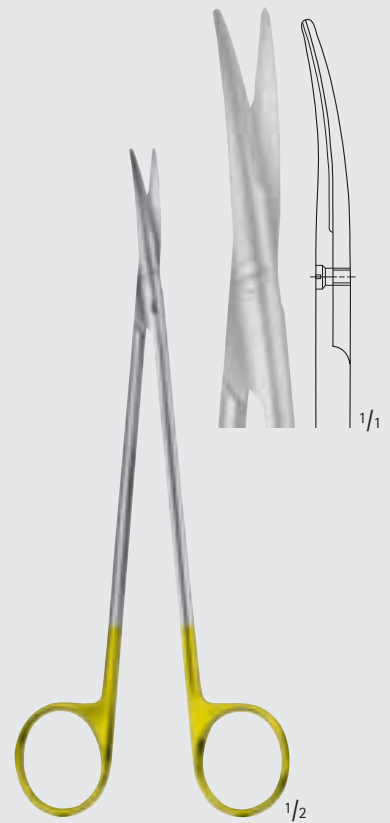
115 mm, 4 1/2"



BABY-METZENBAUM

BC259W

145 mm, 5 3/4"



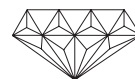
TÖNNIS-ADSON

BC273W

175 mm, 7"

Instruments

DUROTIP® Wavecut Dissecting Scissors

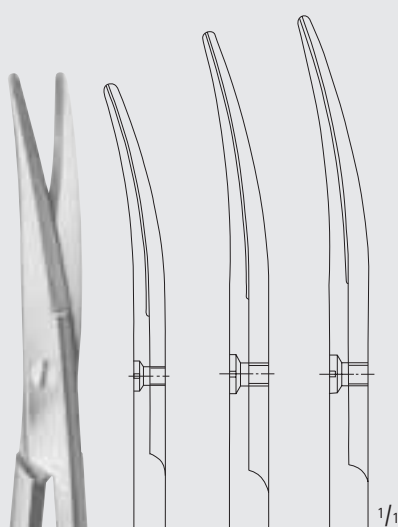


General



METZENBAUM

BC271W-BC277W

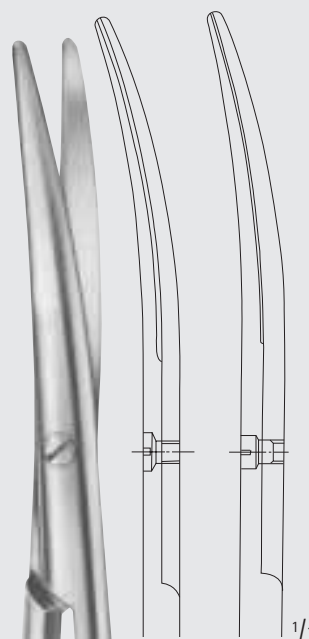


BC271W	BC275W	BC277W
180 mm	200 mm	230 mm
7"	8"	9"

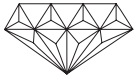


NELSON-METZENBAUM

BC279W-BC281W



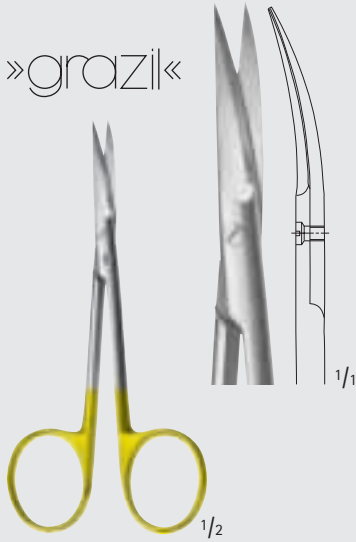
BC279W	BC281W
260 mm	280 mm
10 1/4"	11"



Instruments

DUROTIP® Wavecut Scissors

»grazil«



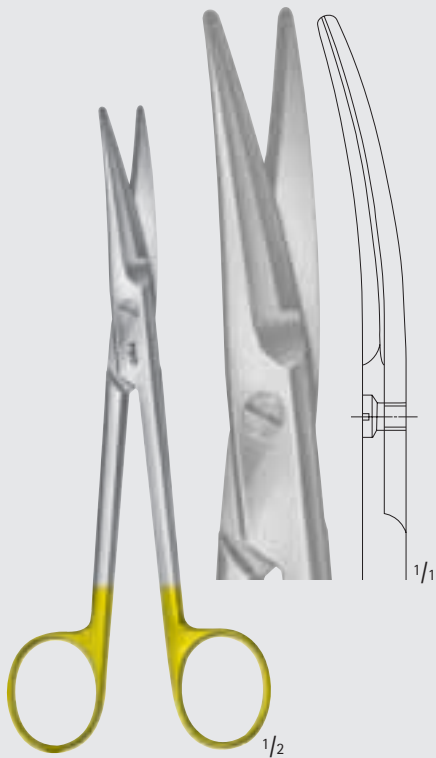
BC211W

Ligature scissors
110 mm, 4 $\frac{3}{8}$ "



BC231W

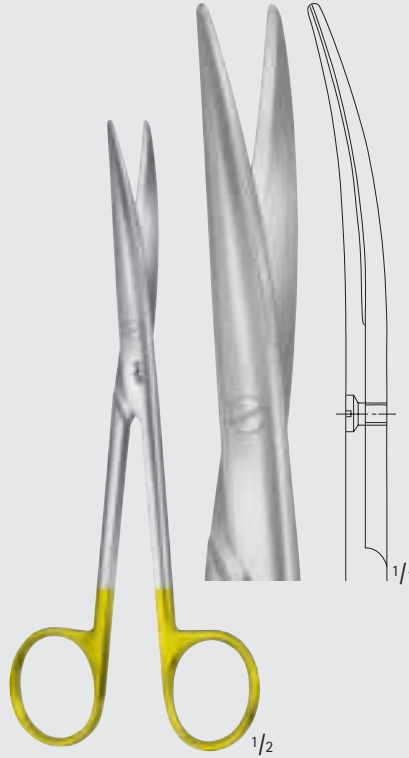
Surgical scissors
145 mm, 5 $\frac{3}{4}$ "



MAYO

BC253W

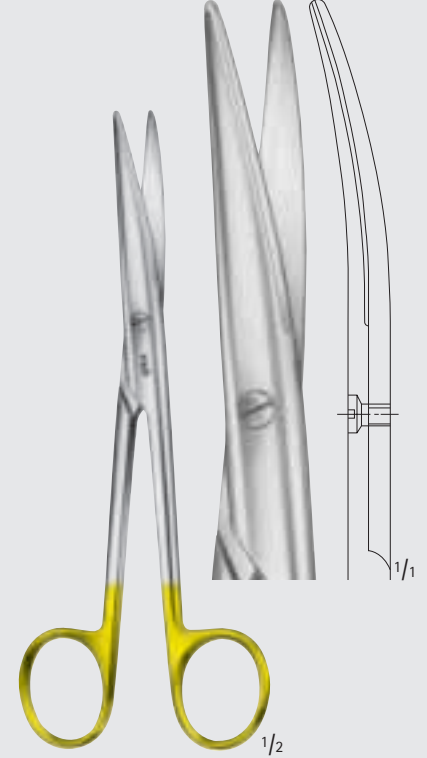
Dissecting scissors
170 mm, 6 $\frac{3}{4}$ "



LEXER

BC283W

Dissecting scissors
165 mm, 6 $\frac{1}{2}$ "



MAYO-LEXER

BC284W

Dissecting scissors
165 mm, 6 $\frac{1}{2}$ "

General

MILLIMETERS

Instruments

Dissecting Scissors Noir

General

»grazil«



BC257B

115 mm, 4 1/2"

»grazil«

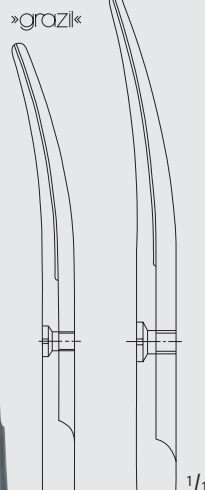


BABY-METZENBAUM

BC259B

145 mm, 5 3/4"

»grazil«



BC261B

145 mm

5 3/4"

BC263B

180 mm

7"

BC265B

200 mm

8"

BC271B

180 mm

7"

BC275B

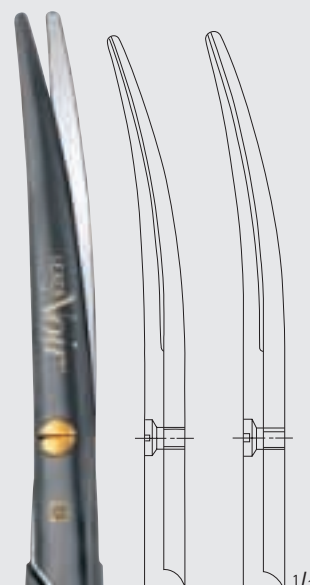
200 mm

8"



METZENBAUM

BC294W-BC298W



LEXER

MAYO-
LEXER

BC283B

BC284B



BC283B-BC284B

165 mm, 6 1/2"



»grazil«

Instruments

Wavecure Dissecting Scissors Noir



Wavecure prevents tissue from slipping out during the cutting process

General



BC257WB

115 mm, 4 1/2"



BABY-METZENBAUM

BC259WB

145 mm, 5 3/4"

MILLIMETERS

Instruments

Wavecutf Dissecting Scissors Noir

General

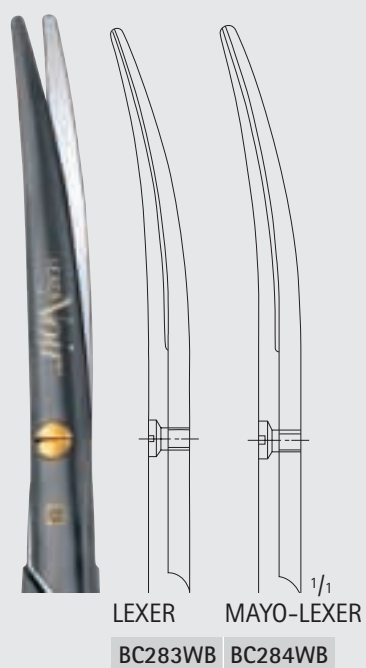


METZENBAUM

BC261WB-BC275WB

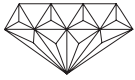


1/2



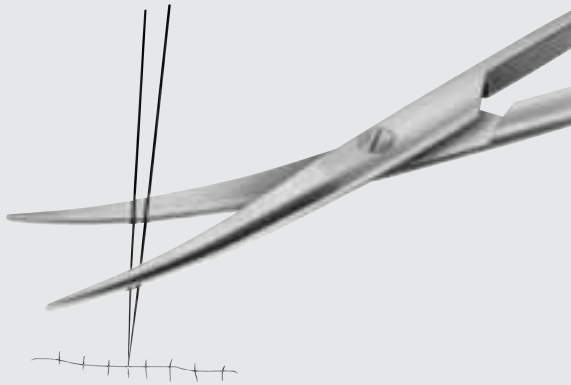
BC283WB-BC284WB

165 mm, 6 ¹/₂"



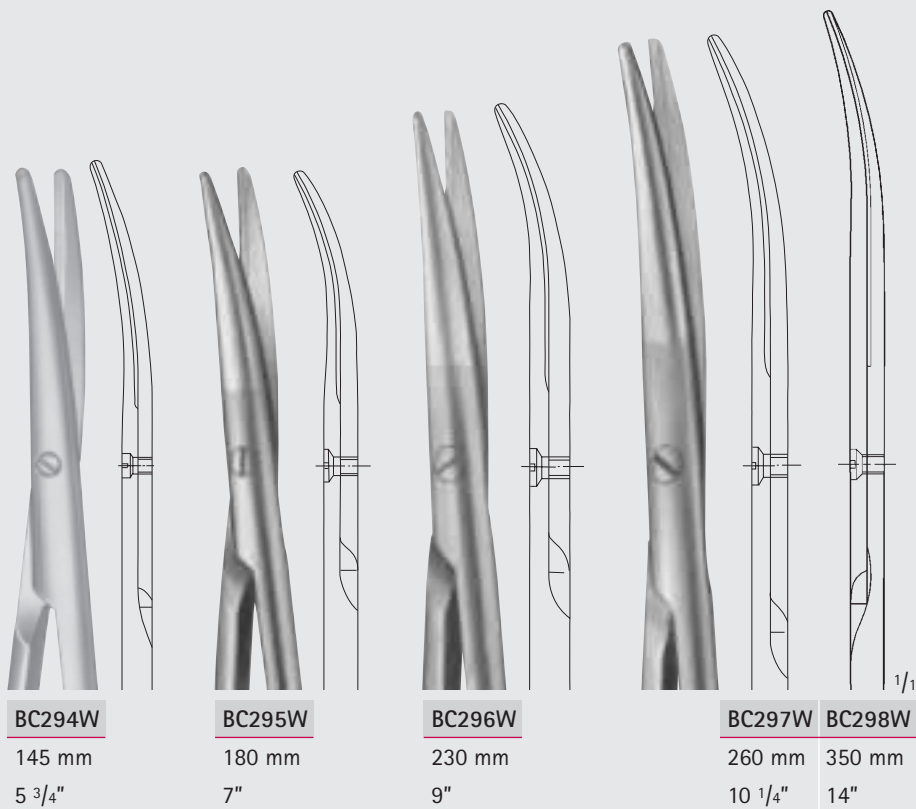
Instruments

DUROTIP® Wavecut Ligature Scissors



especially for cutting suture materials

- Carbide inserts guarantee permanent cutting edge (also in the distal area of the blades)
- Wavecut prevents suture materials from slipping out
- DUROTIP® ligature scissors are identified by 1 goldplated ring



BC294W-BC298W

General

MILLIMETERS

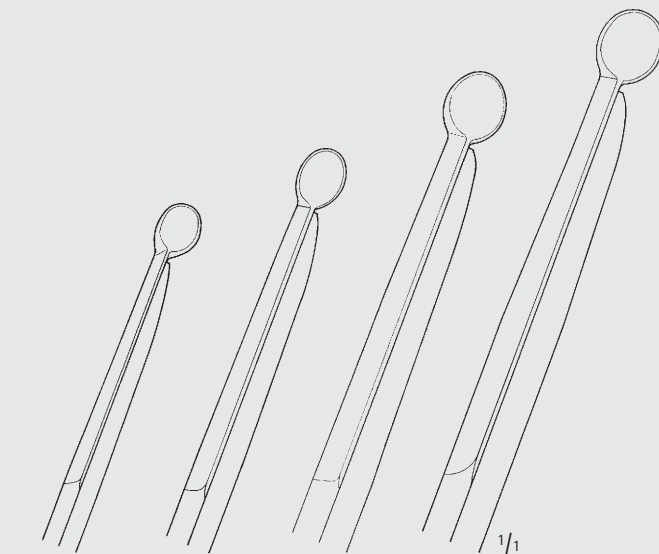
Instruments

Bandage- and Cloth Scissors



LISTER

BC860R-BC863R



BC860R

115 mm

4 1/2"

BC861R

140 mm

5 1/2"

BC862R

180 mm

7"

BC863R

200 mm

8"



LISTER

BC885R black

BC970R red

BC971R blue

BC973R yellow

BC975R orange

BC977R pink

BC978R light green

BC979R violet

Universal bandage- and cloth scissors,
with toothed edges,
autoclavable up to 143 °C (3 bar)

145 mm, 5 3/4"



BC881R black

BC980R red

BC981R blue

BC983R yellow

BC985R orange

BC987R pink

BC988R light green

BC989R violet

Universal bandage- and cloth scissors, with toothed edges,
autoclavable up to 143 °C (3 bar)

180 mm, 7"



Instruments

General



For further details see
brochure No. C81511



For further details see
brochure No. C09202



MILLIMETERS

Instruments

Tumor Grasping Forceps

General



TÖNNIS

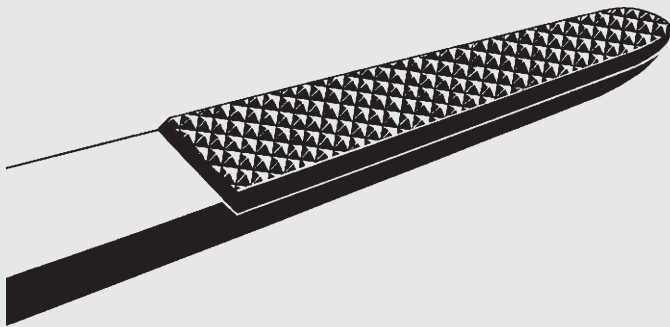
FF341R-FF343R

200 mm, 8"



Instruments

DUROGRIP® Non-traumatic Dissecting Forceps

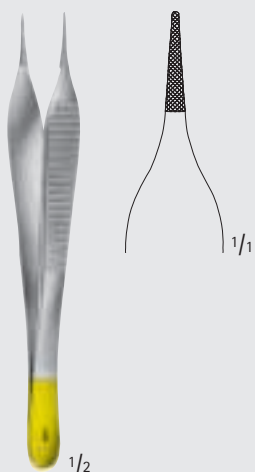


- Precisely worked out fine structure of carbide inserts
- thus firm and non-traumatic gripping of tissue
- universal in use – long working life



DUROGRIP® Dissecting forceps with carbide inserts
Identification: gold-plated end

General



ADSON

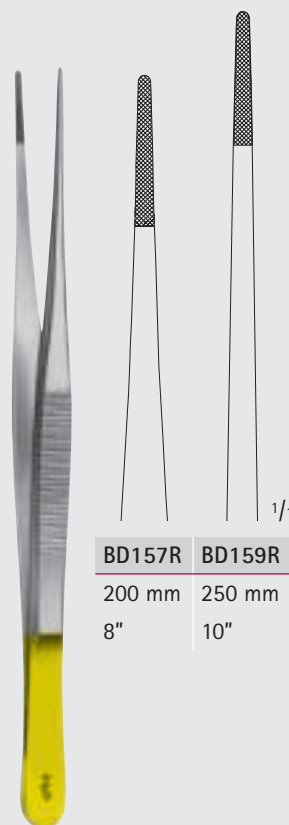
BD151R

120 mm, 4 3/4"



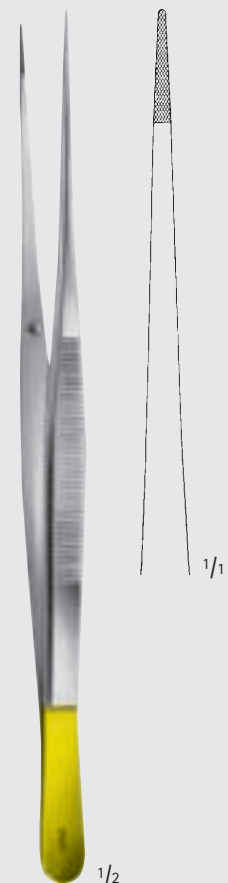
BD154R	BD156R
145 mm	180 mm
5 3/4"	7"

BD154R-BD156R



BD157R	BD159R
200 mm	250 mm
8"	10"

BD157R-BD159R



BD158R
230 mm, 9"

MILLIMETERS

Instruments

DUROGRIP® Dissecting Forceps



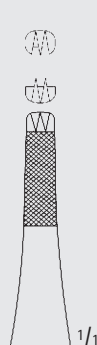
General



Cushion shaped tip ensures a safe and gentle grasping of the thread

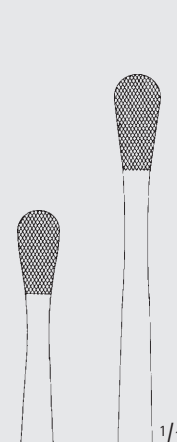
BD180R

Suture forceps
200 mm, 8"



FERRIS-SMITH

BD181R
175 mm, 7"



BD171R

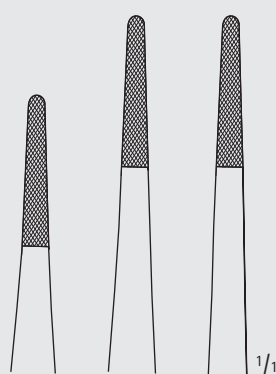
150 mm
6"

BD173R

230 mm
9"

WANGENSTEEN

BD171R-BD173R



BD164R

145 mm
5 3/4"

BD165R

200 mm
8"

BD166R

250 mm
10"

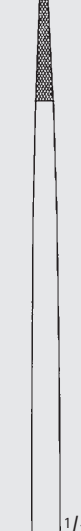
STANDARD

BD164R-BD166R



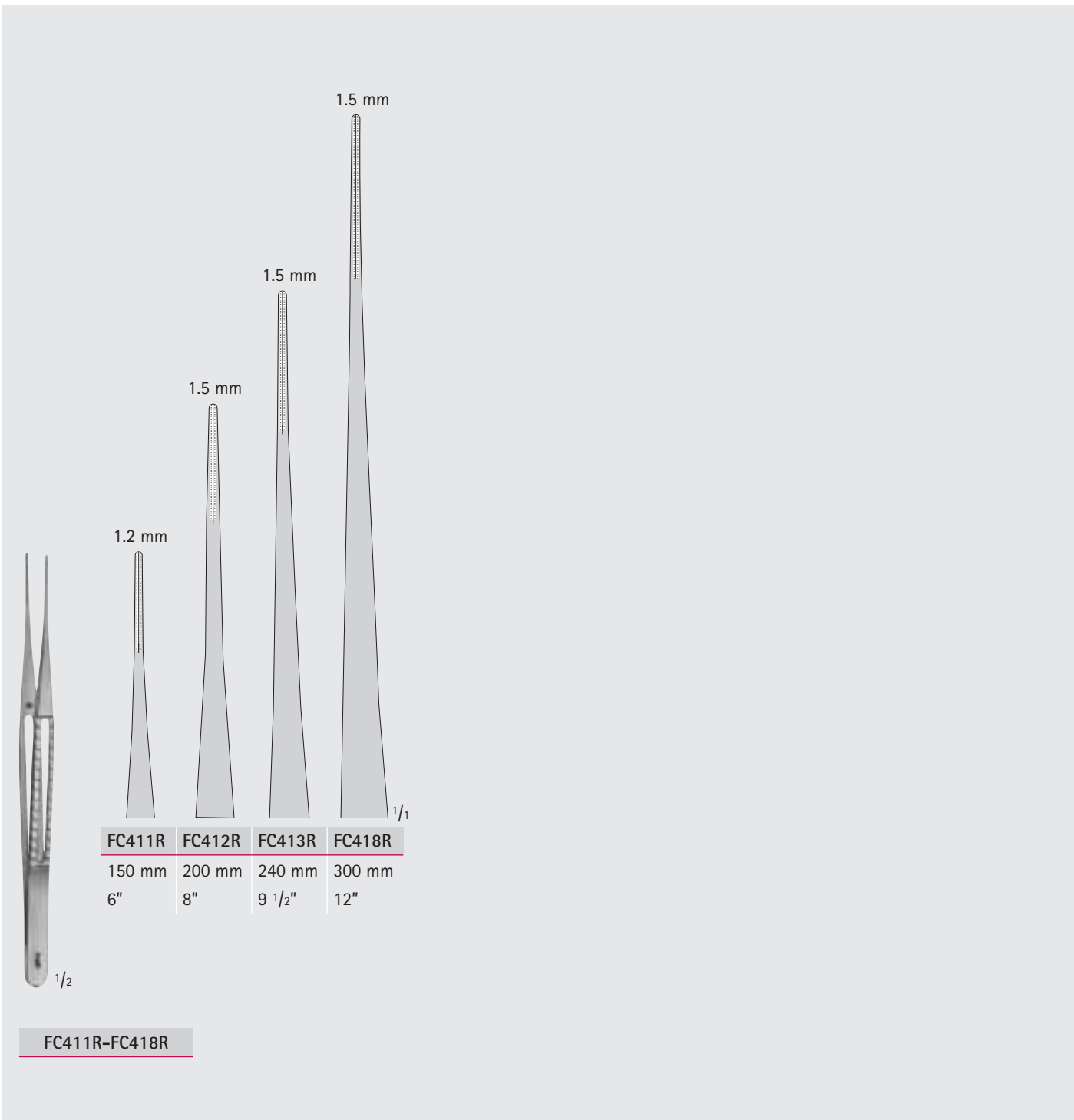
CUSHING

BD160R
with scraper end
180 mm, 7"



GRUENWALD

BD168R
185 mm, 7 1/4"



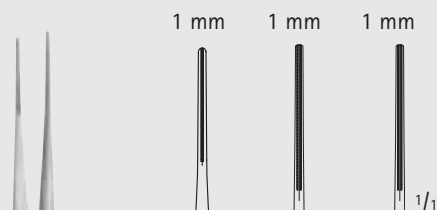
General

MILLIMETERS

Instruments

Forceps

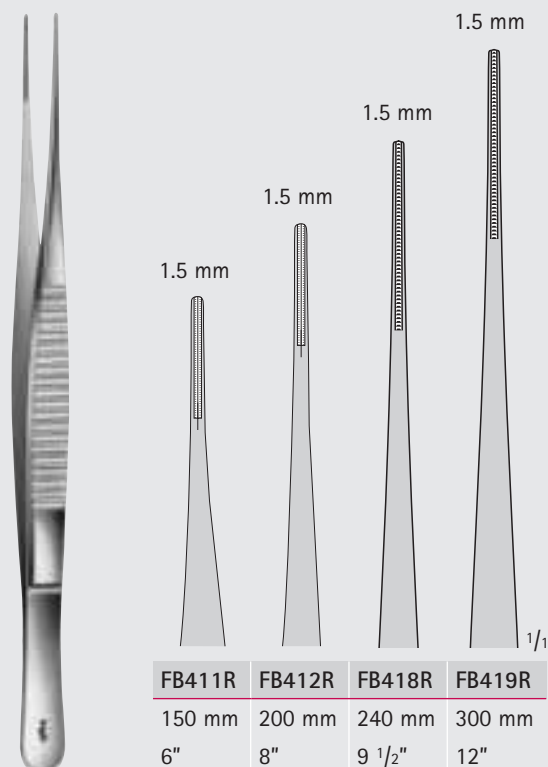
General



FB394R	FB395R	FB396R
150 mm	195 mm	240 mm
6"	7 3/4"	9 1/2"

DE BAKEY

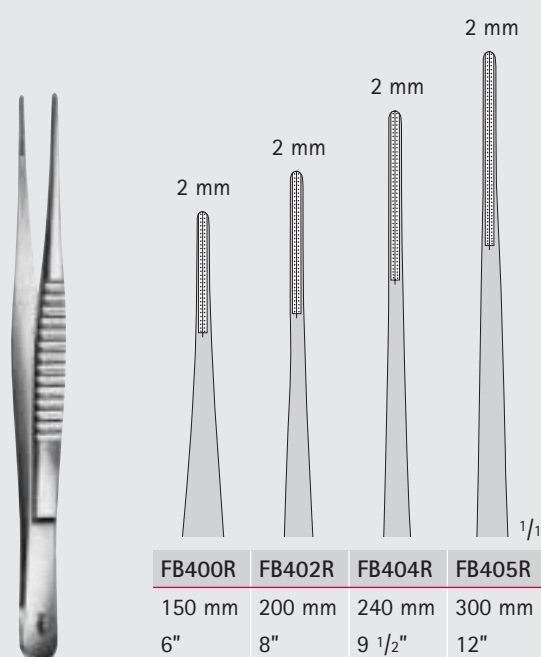
FB394R-FB396R



FB411R	FB412R	FB418R	FB419R
150 mm	200 mm	240 mm	300 mm
6"	8"	9 1/2"	12"

DE BAKEY

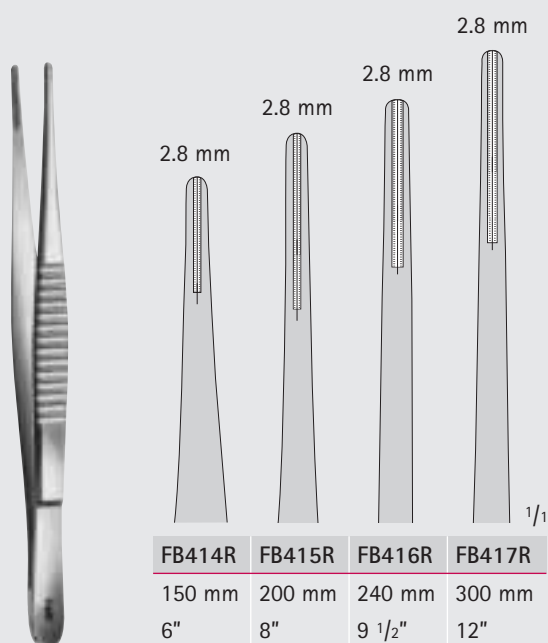
FB411R-FB419R



FB400R	FB402R	FB404R	FB405R
150 mm	200 mm	240 mm	300 mm
6"	8"	9 1/2"	12"

DE BAKEY

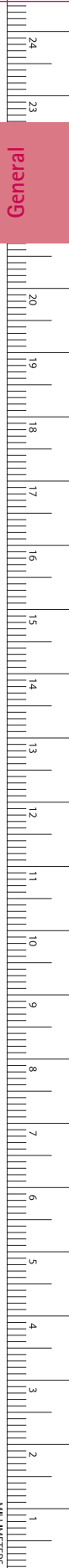
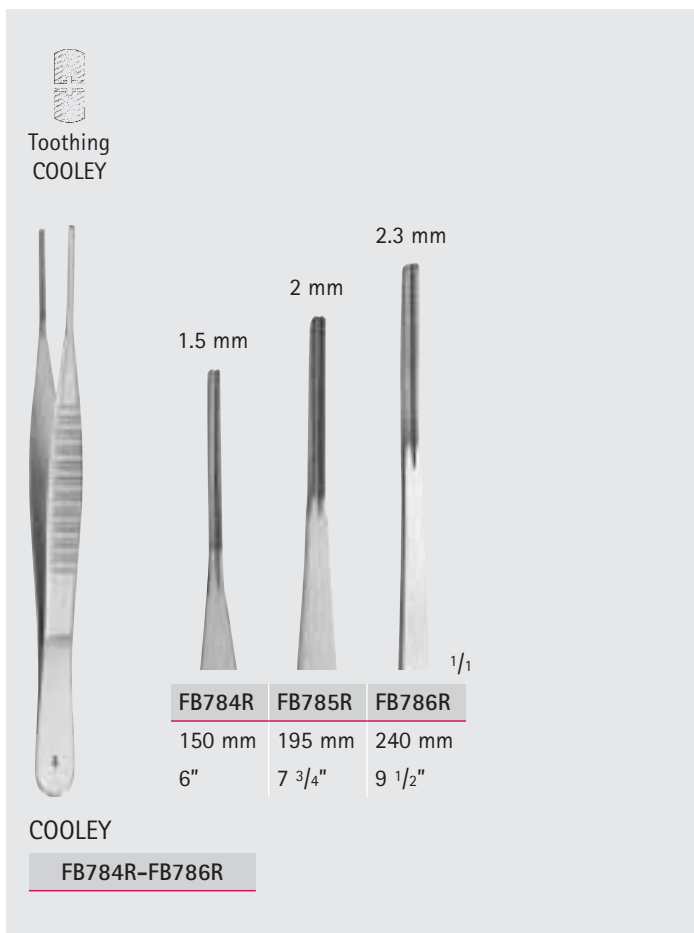
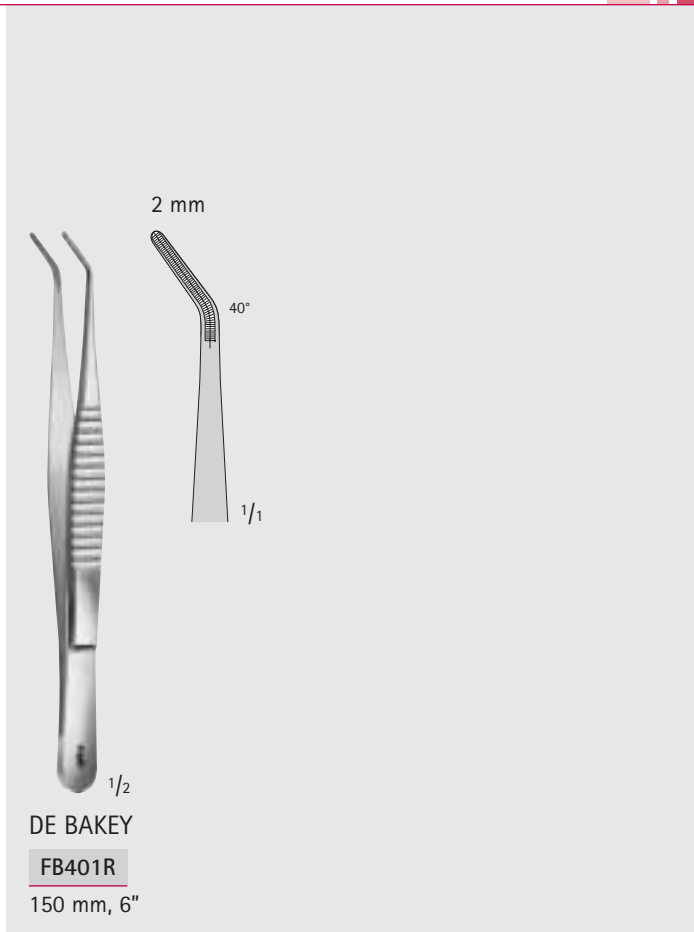
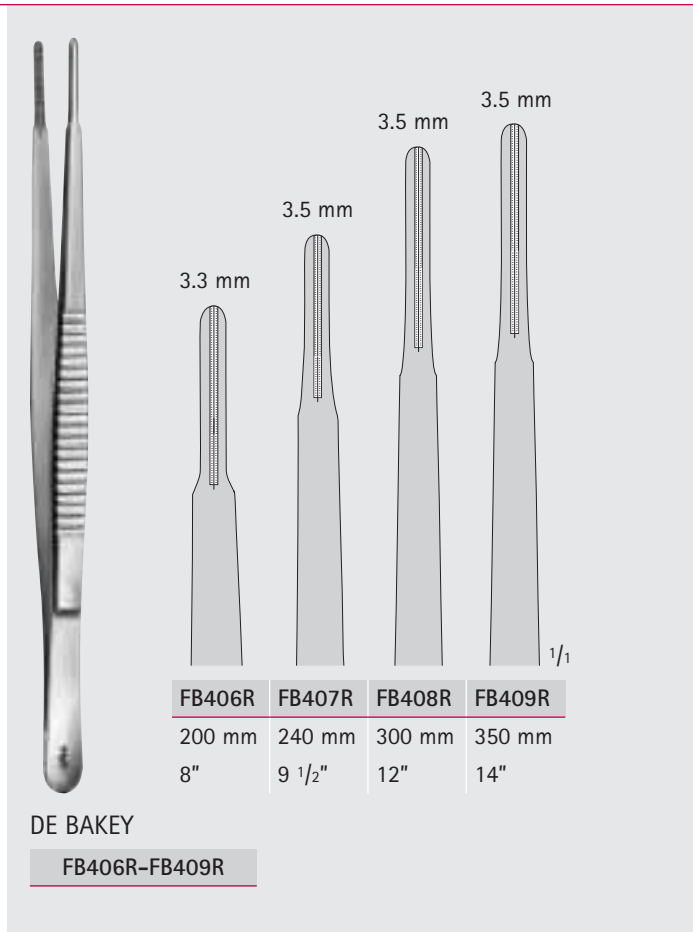
FB400R-FB405R



FB414R	FB415R	FB416R	FB417R
150 mm	200 mm	240 mm	300 mm
6"	8"	9 1/2"	12"

DE BAKEY

FB414R-FB417R



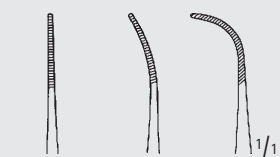
Instruments

Delicate Dissecting Forceps

General



$\frac{1}{2}$



OC020R

OC021R

OC022R

OC020R-OC022R

100 mm, 4"



$\frac{1}{2}$



$\frac{1}{1}$

THORPE

OC069R

120 mm, 4 $\frac{3}{4}$ "



$\frac{1}{2}$



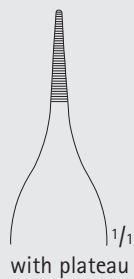
$\frac{1}{1}$

BD210R

115 mm, 4 $\frac{1}{2}$ "



$\frac{1}{2}$



with plateau

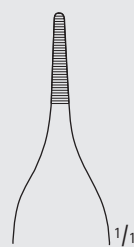
MICRO-ADSON

BD220R

120 mm, 4 $\frac{3}{4}$ "



$\frac{1}{2}$



$\frac{1}{1}$

ADSON

BD222R

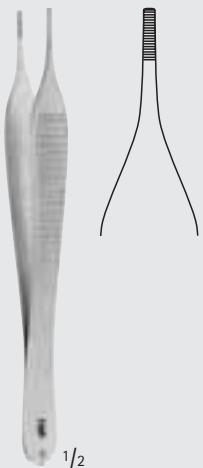
120 mm, 4 $\frac{3}{4}$ "



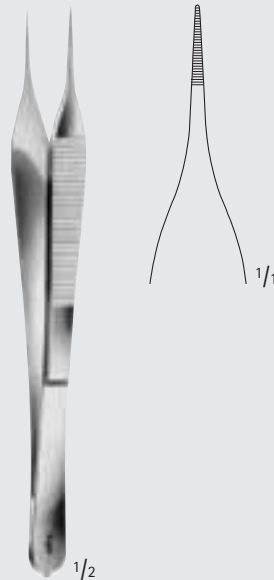
Instruments

Delicate Dissecting Forceps

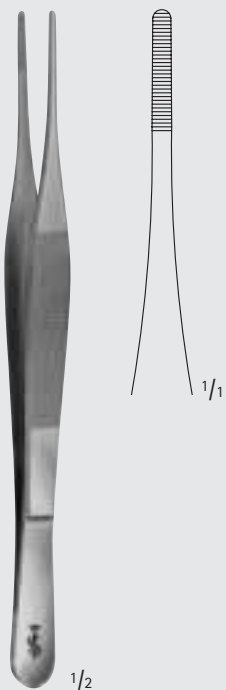
General



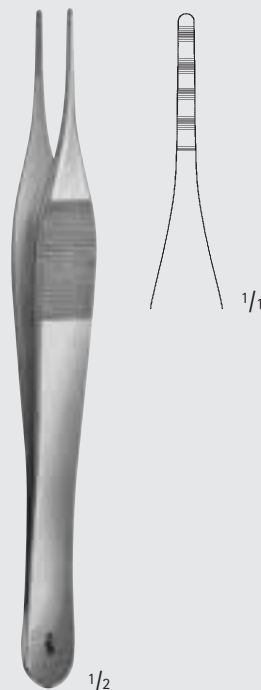
HUDSON
BD225R
125 mm, 5"



MICRO-ADSON
BD223R
150 mm, 6"



ADSON
BD224R
180 mm, 7"

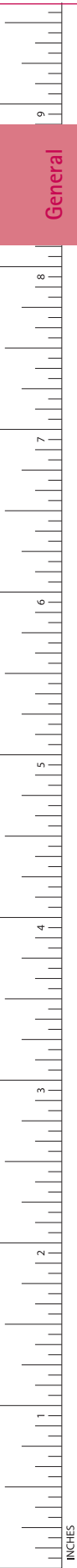


JEFFERSON
BD226R
180 mm, 7"

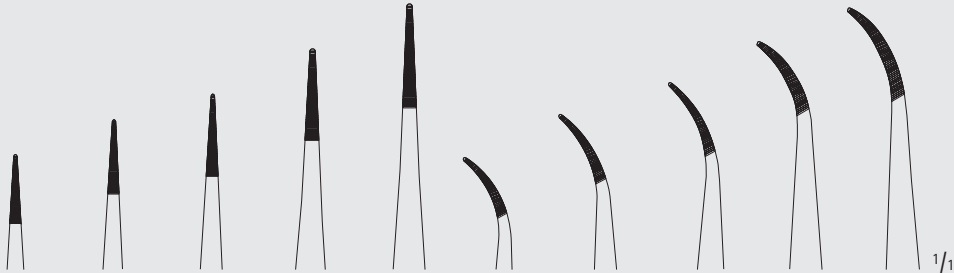
MILLIMETERS

Instruments

Delicate Dissecting Forceps



General

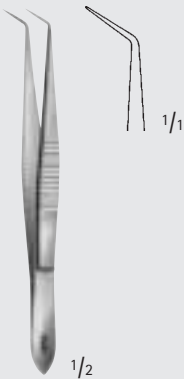


BD301R	BD302R	BD303R	BD304R	BD305R	BD311R	BD312R	BD313R	BD314R	BD315R
90 mm	105 mm	115 mm	130 mm	145 mm	90 mm	105 mm	115 mm	130 mm	145 mm
3 1/2"	4 1/8"	4 1/2"	5 1/8"	5 3/4"	3 1/2"	4 1/8"	4 1/2"	5 1/8"	5 3/4"

BD301R-BD315R



BD320R
100 mm, 4"



BD321R
100 mm, 4"



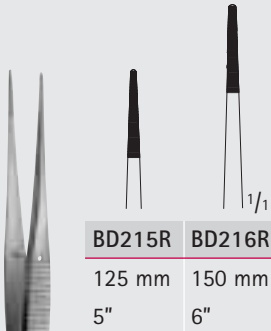
BD322R
100 mm, 4"



Instruments

Delicate Dissecting Forceps

General



SEMKEN

BD215R-BD216R



BD217R

155 mm, 6"



GILLIES

BD213R

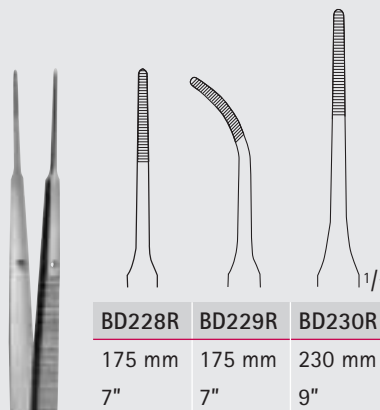
150 mm, 6"



MC INDOE

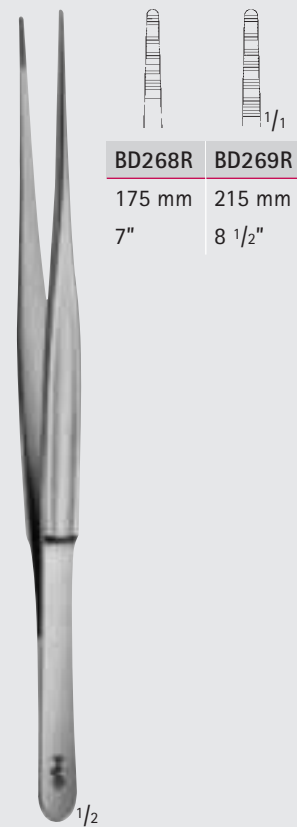
BD236R

150 mm, 6"



GERALD

BD228R-BD230R



CAIRNS-DOTT

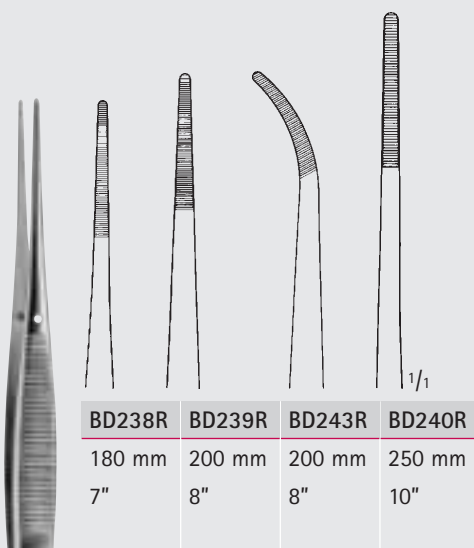
BD268R-BD269R

MILLIMETERS

Instruments

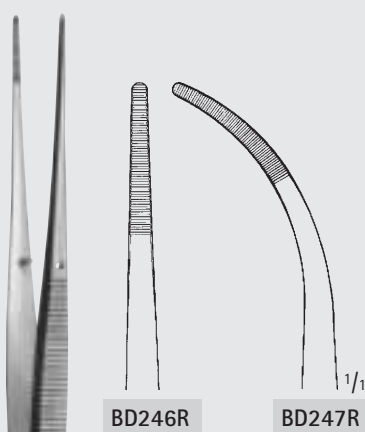
Delicate Dissecting Forceps

General



CUSHING

BD238R-BD240R



BROPHY

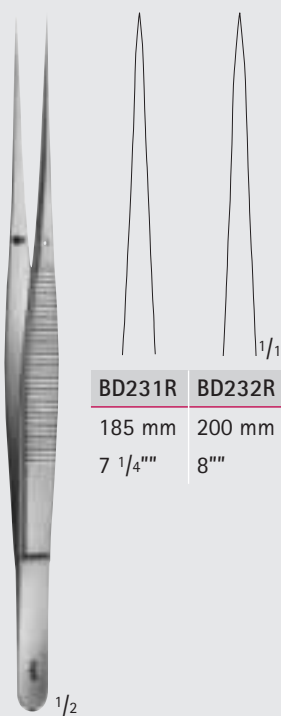
BD246R-BD247R

200 mm, 8"



BD081R

200 mm, 8"



BD231R BD232R

185 mm 200 mm

7 1/4" 8"

BD231R-BD232R

smooth jaws



COOLEY

BD250R

200 mm, 8"



BD257R

200 mm, 8"



Instruments

Dissecting Forceps



BD043R	BD045R	BD047R	BD049R	BD050R	BD051R	BD052R	BD053R
115 mm	130 mm	145 mm	160 mm	180 mm	200 mm	250 mm	300 mm
4 1/2"	5 1/8"	5 3/4"	6 1/4"	7"	8"	10"	12"

BD043R-BD053R

Standard patterns



BD023R	BD025R	BD027R	BD029R	BD030R	BD031R	BD032R	BD033R
115 mm	130 mm	145 mm	160 mm	180 mm	200 mm	250 mm	305 mm
4 1/2"	5 1/8"	5 3/4"	6 1/4"	7"	8"	10"	12"

BD023R-BD033R

medium

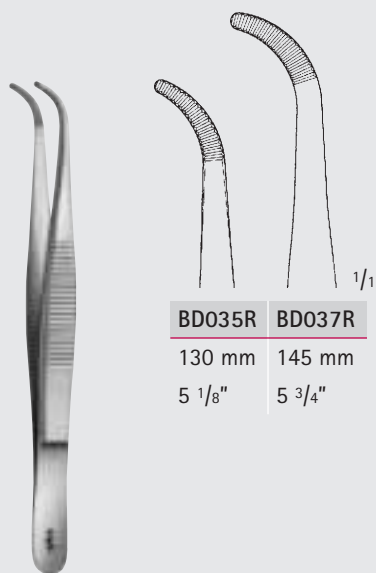
General

MILLIMETERS

Instruments

Dissecting Forceps

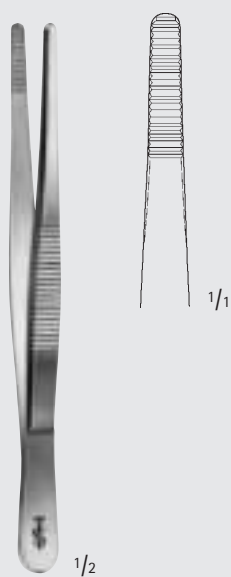
General



BD035R	BD037R
130 mm	145 mm
5 1/8"	5 3/4"

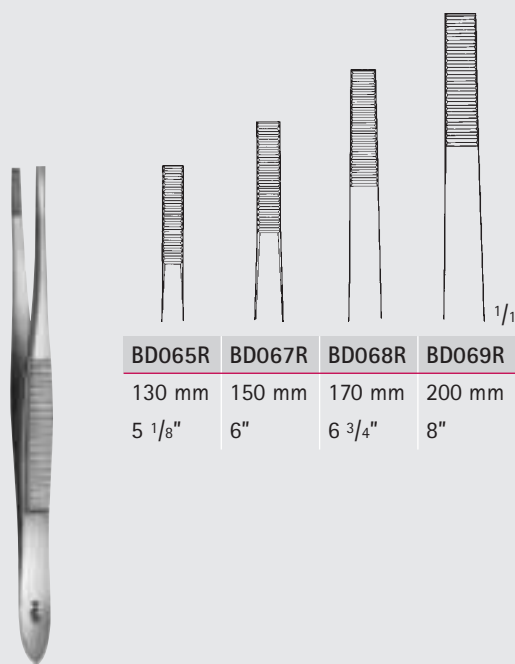
BD035R-BD037R

medium



BD077R

extra large
145 mm, 5 3/4"



BD065R	BD067R	BD068R	BD069R
130 mm	150 mm	170 mm	200 mm
5 1/8"	6"	6 3/4"	8"

SCHWEDISCHES MODELL

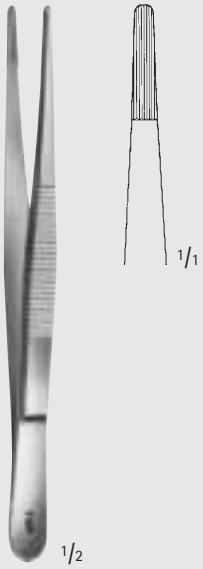
BD065R-BD069R



Instruments

Dissecting Forceps

General

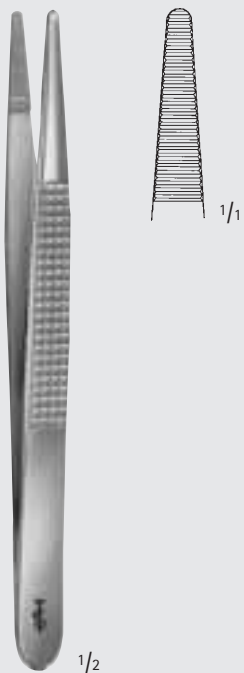


OCHSNER

BD130R

Ligature forceps

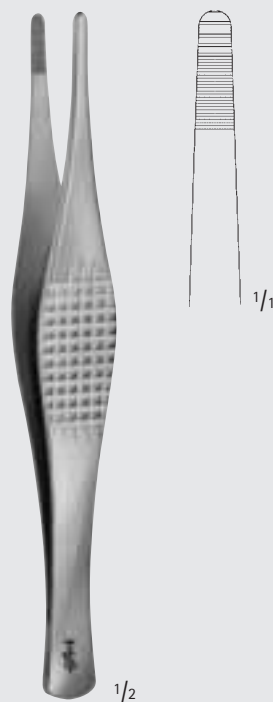
145 mm, 5 $\frac{3}{4}$ "



BONNEY

BD078R

175 mm, 7"



RAMSEY

BD083R

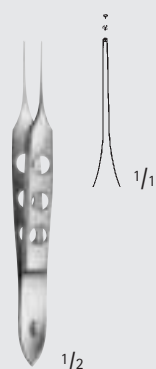
180 mm, 7"

MILLIMETERS

Instruments

Delicate Tissue Forceps

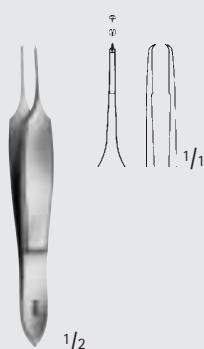
General



BISHOP-HARMON

OC051R

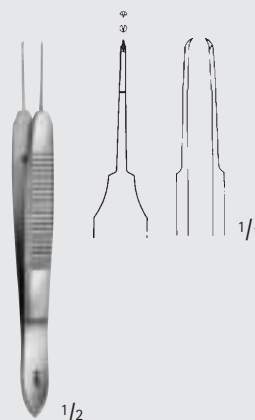
85 mm, 3 1/2"



ST. MARTIN

OC091R

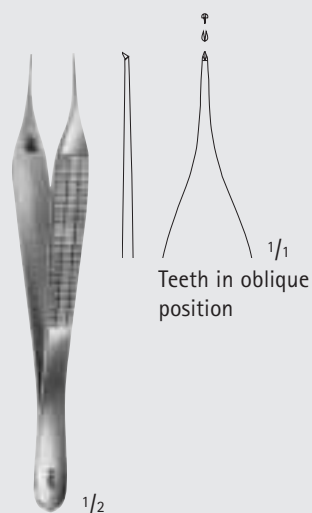
80 mm, 3 1/8"



CASTROVIEJO

OC094R

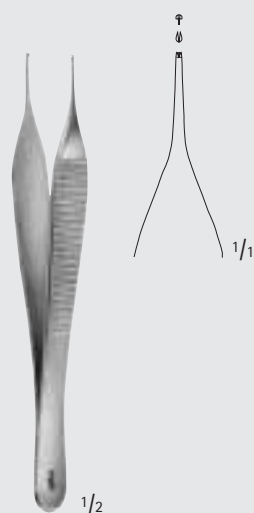
100 mm, 4"



MICRO-ADSON-BIEMER

BD509R

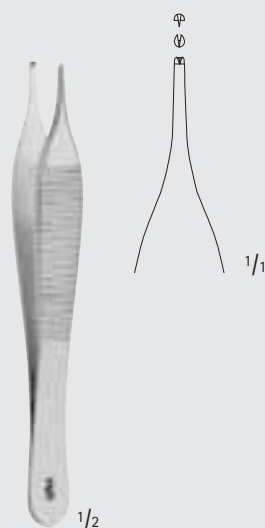
120 mm, 4 3/4"



MICRO-ADSON

BD510R

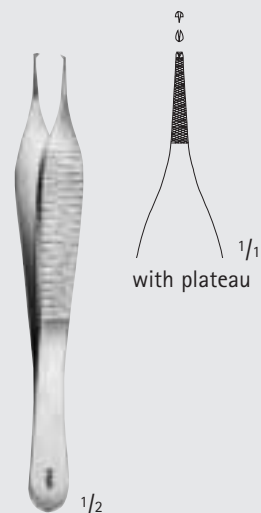
120 mm, 4 3/4"



ADSON

BD511R

120 mm, 4 3/4"



ADSON

BD512R

120 mm, 4 3/4"



Instruments

Delicate Tissue Forceps

General



MICRO-ADSON

BD520R

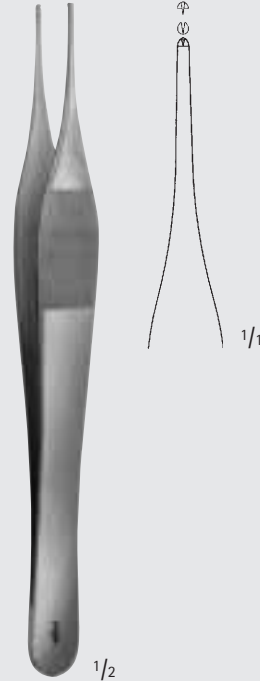
150 mm, 6"



ADSON

BD522R

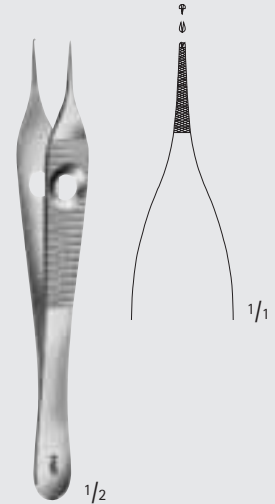
180 mm, 7"



JEFFERSON

BD523R

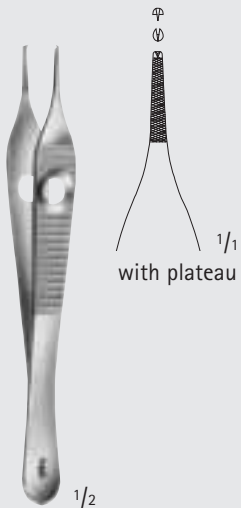
180 mm, 7"



ADSON

BD508R

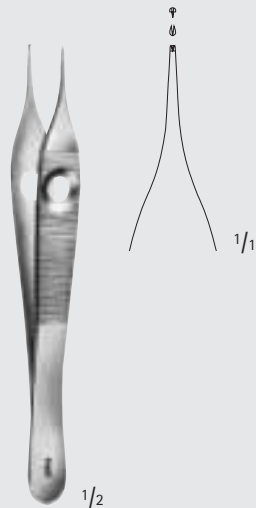
120 mm, 4 3/4"



ADSON

BD513R

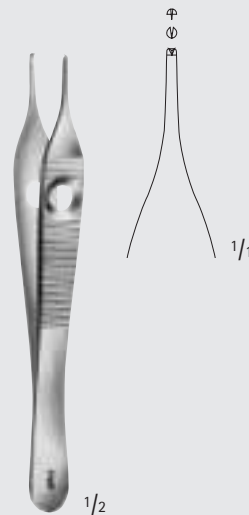
120 mm, 4 3/4"



ADSON

BD506R

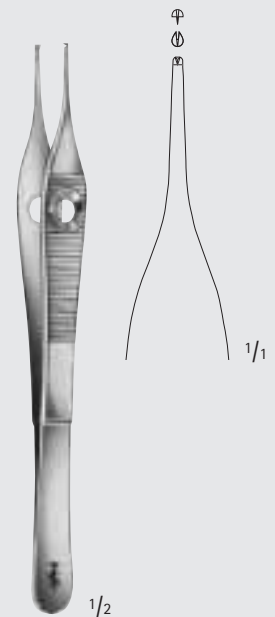
120 mm, 4 3/4"



ADSON

BD507R

120 mm, 4 3/4"



ADSON

BD521R

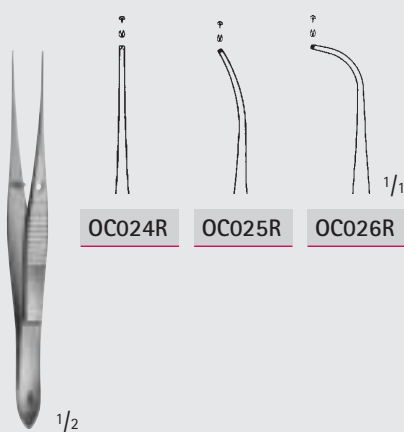
150 mm, 6"

MILLIMETERS

Instruments

Delicate Tissue Forceps

General



OC024R

OC025R

OC026R

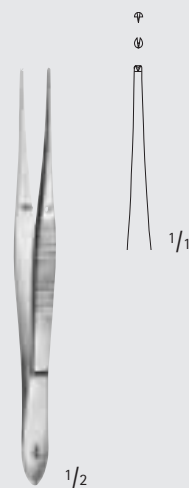
OC024R-OC026R

very delicate
100 mm, 4"



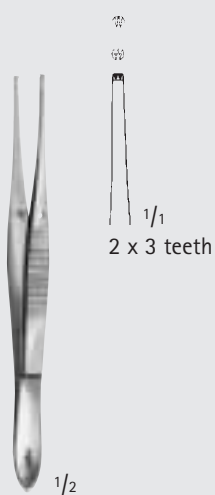
BD500R

100 mm, 4"



BD501R

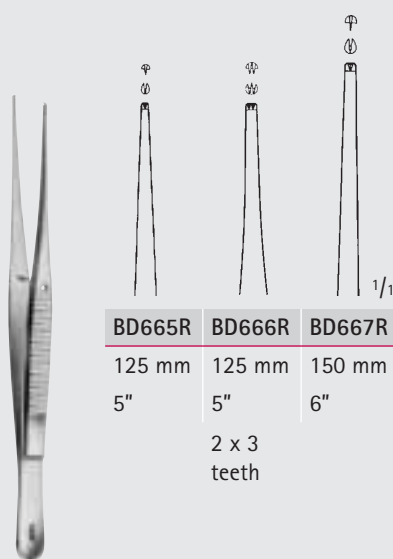
110 mm, 4 3/8"



2 x 3 teeth

BD502R

110 mm, 4 3/8"



BD665R

125 mm

5"

BD666R

125 mm

5"

BD667R

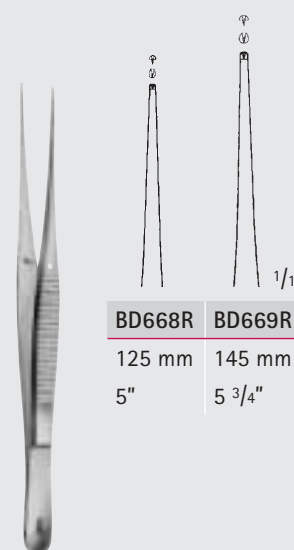
150 mm

6"

2 x 3
teeth

SEMKEN

BD665R-BD667R



BD668R

125 mm

5"

BD669R

145 mm

5 3/4"

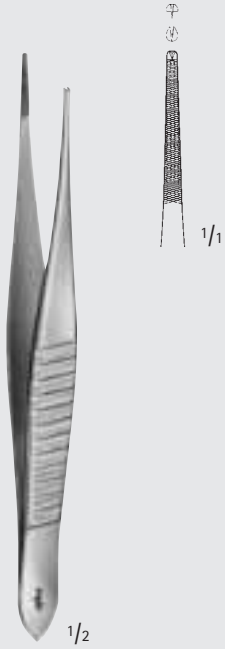
SEMKEN

BD668R-BD669R



Instruments

Delicate Tissue Forceps



GILLIES

BD660R

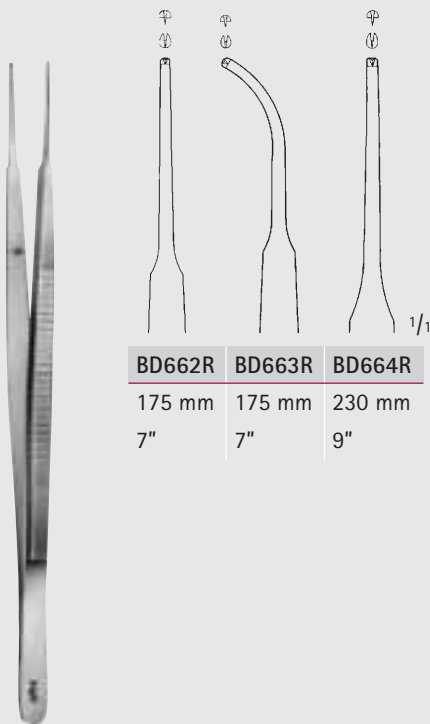
155 mm, 6"



MC INDOE

BD661R

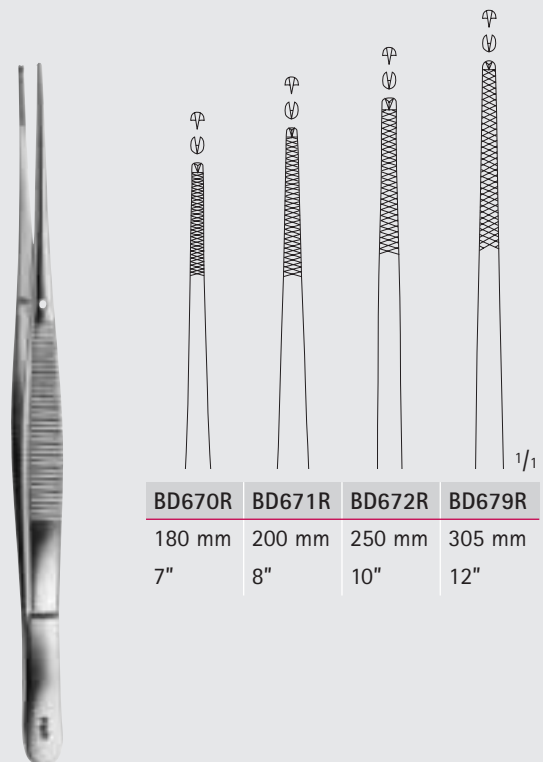
150 mm, 6"



GERALD

BD662R-BD664R

BD662R	BD663R	BD664R
175 mm	175 mm	230 mm
7"	7"	9"



WAUGH

BD670R-BD679R

BD670R	BD671R	BD672R	BD679R
180 mm	200 mm	250 mm	305 mm
7"	8"	10"	12"

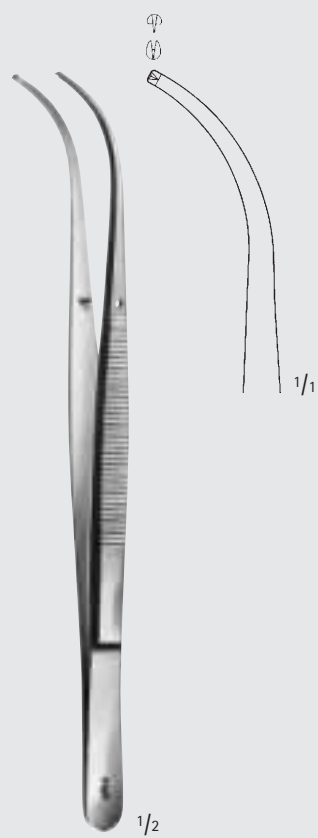
General

MILLIMETERS

Instruments

Tissue Forceps

General



BROPHY
BD678R
200 mm, 8"



BD651R
200 mm, 8"



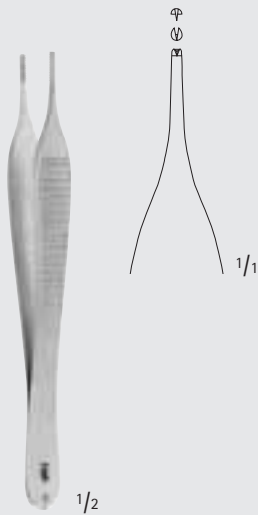
CUSHING
MD463
180 mm, 7"



Instruments

Tissue Forceps

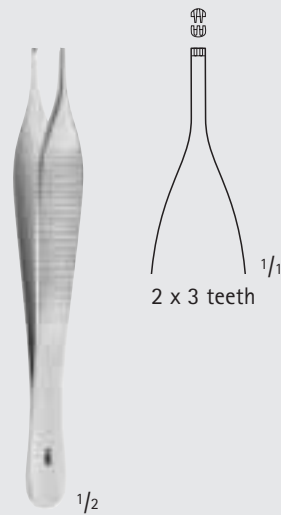
General



HUDSON

MB291R

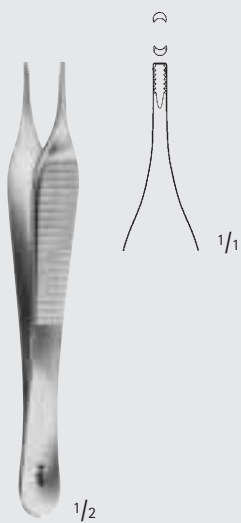
125 mm, 4 7/8"



ADSON

MB454R

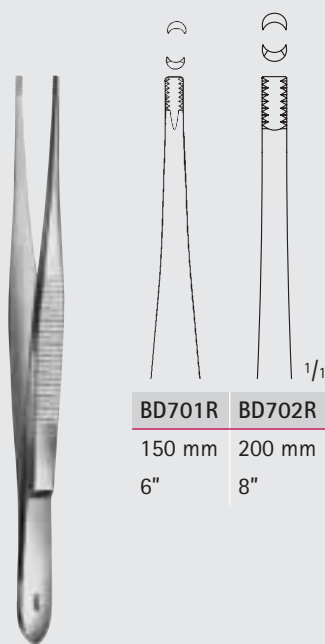
120 mm, 4 3/4"



ADSON-BROWN

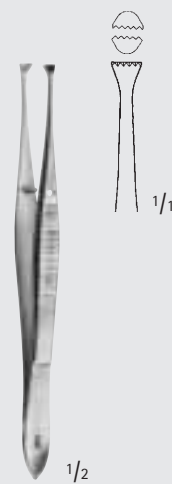
BD700R

Tissue forceps, sharp
120 mm, 4 3/4"



BROWN

BD701R-BD702R



GRAEFKE

OC100R

110 mm, 4 1/2"

MILLIMETERS

Instruments

Tissue Forceps

General



BD552R	BD553R	BD555R	BD557R	BD559R	BD560R	BD561R	BD562R	BD563R	BD564R
105 mm	115 mm	130 mm	145 mm	160 mm	180 mm	200 mm	250 mm	300 mm	350 mm
4 1/8"	4 1/2"	5 1/8"	5 3/4"	6 1/4"	7"	8"	10"	12"	14"

BD552R-BD564R

Standard patterns



BD533R	BD535R	BD537R	BD527R	BD539R	BD540R	BD541R	BD542R	BD543R
115 mm	130 mm	145 mm	145 mm	160 mm	180 mm	200 mm	250 mm	300 mm
4 1/2"	5 1/8"	5 3/4"	5 3/4"	6 1/4"	7"	8"	10"	12"

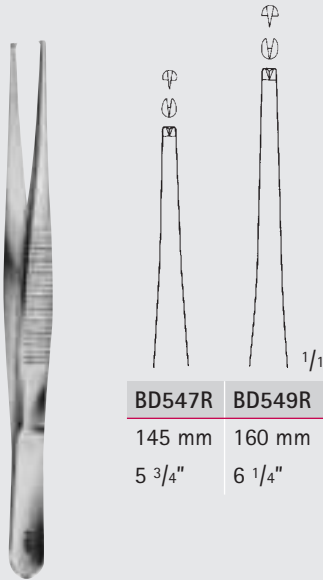
BD527R-BD543R

medium



Instruments

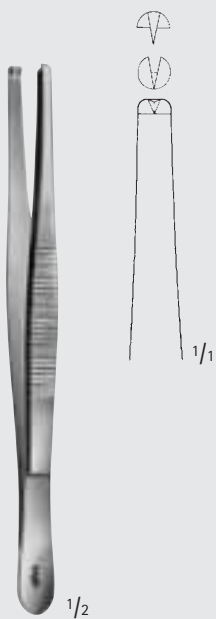
Tissue Forceps



BD547R	BD549R
145 mm	160 mm
5 3/4"	6 1/4"

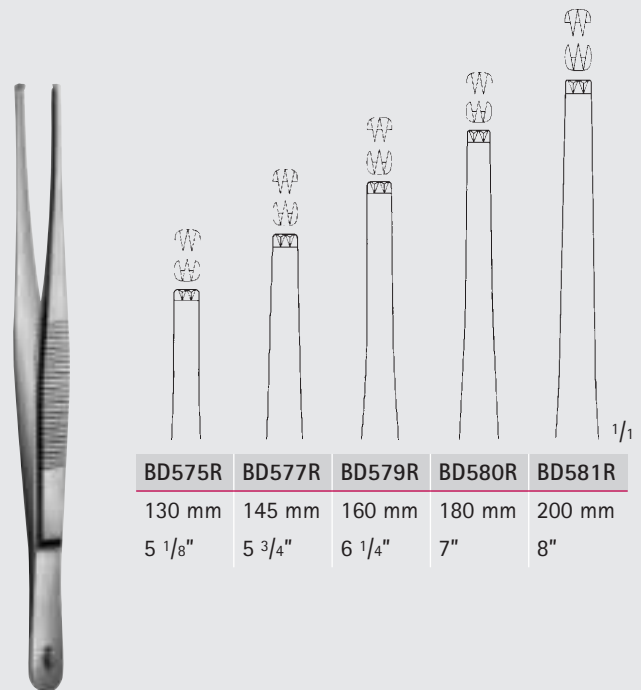
BD547R-BD549R

stronger as BD537R and BD539R
but finer than BD557R and BD559R



BD600R

heavy pattern
145 mm, 5 3/4"



BD575R	BD577R	BD579R	BD580R	BD581R
130 mm	145 mm	160 mm	180 mm	200 mm
5 1/8"	5 3/4"	6 1/4"	7"	8"

BD575R-BD581R

2 x 3 teeth

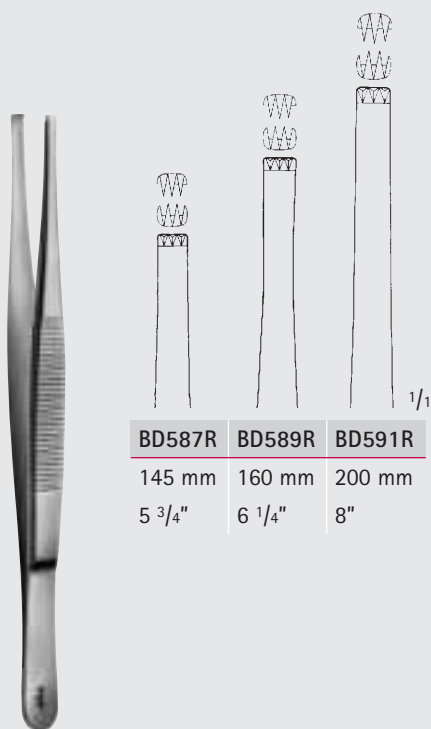
General

MILLIMETERS

Instruments

Tissue Forceps

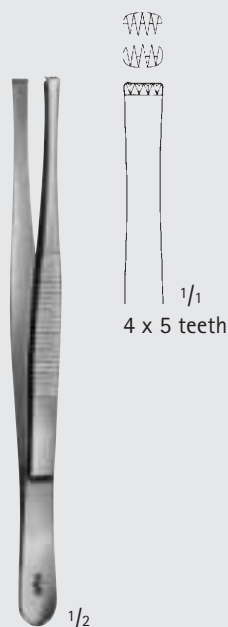
General



BD587R	BD589R	BD591R
145 mm	160 mm	200 mm
5 3/4"	6 1/4"	8"

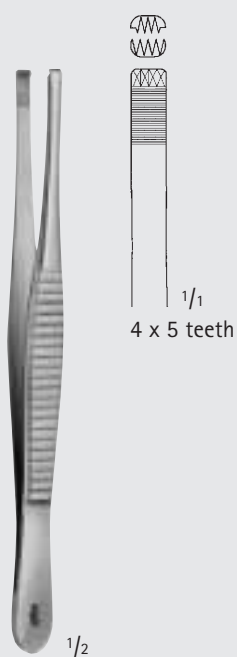
BD587R-BD591R

3 x 4 teeth



BD597R

145 mm, 5 3/4"

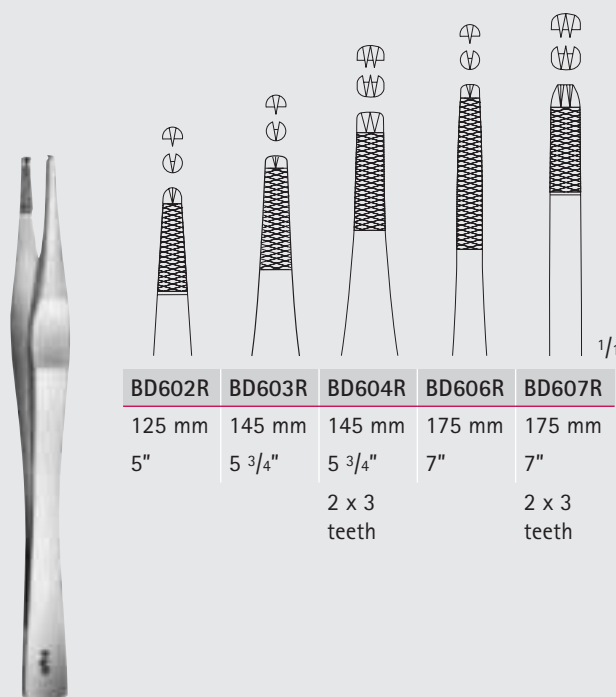


4 x 5 teeth

OFFICER

BD598R

150 mm, 6"



BD602R	BD603R	BD604R	BD606R	BD607R
125 mm	145 mm	145 mm	175 mm	175 mm
5"	5 3/4"	5 3/4"	7"	7"
		2 x 3 teeth		2 x 3 teeth

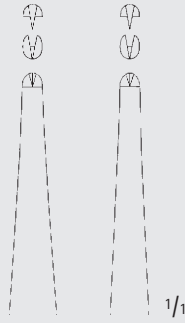
LANE

BD602R-BD607R



Instruments

Tissue Forceps



BD608R	BD609R
125 mm	150 mm
5"	6"

TREVES

BD608R-BD609R



$\frac{1}{2}$

BONNEY

BD693R

175 mm, 7"

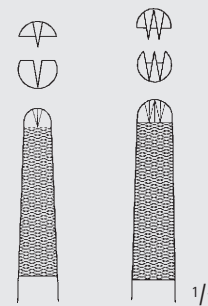


$\frac{1}{2}$

JACKSON-BURROWS

BD704R

140 mm, 5 $\frac{1}{2}$ "



BD610R

BD611R

3 x 4
teeth

$\frac{1}{2}$

RAMSEY

BD610R-BD611R

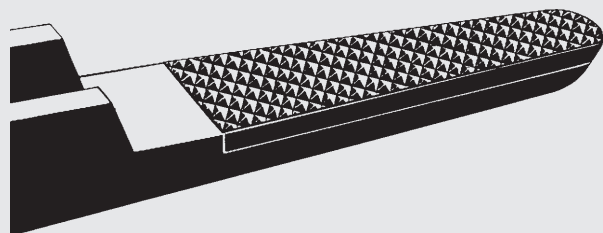
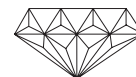
180 mm, 7"

General

MILLIMETERS

Instruments

DUROGRIP® Needle Holders



smooth



AESCLAP needle holders have jaws with carbide inserts and according to the use required the resp. structure can be chosen. A smooth jaw surface as well as 3 different serrations guarantee a sure „grip“ of the resp. needle.

We recommend carbide inserts

with smooth jaw surface for suture material

with 0.2 mm pitch of serration for suture material

0.4 mm

0.5 mm

9/0 – 11/0

6/0 – 10/0

4/0 – 6/0

up to 3/0



DUROGRIP® Needle holders with carbide inserts

Identification:

gold-plated rings, handle ends and ratchets



Instruments

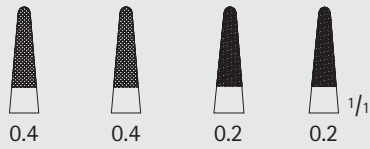
DUROGRIP® Needle Holders



DE BAKEY

BM033R-BM064R

very delicate

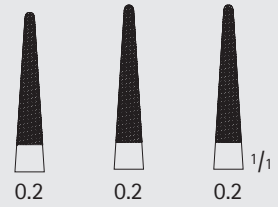


BM033R	BM034R	BM063R	BM064R
165 mm	210 mm	165 mm	210 mm
6 1/2"	8 1/4"	6 1/2"	8 1/4"



BM025R-BM027R

very delicate

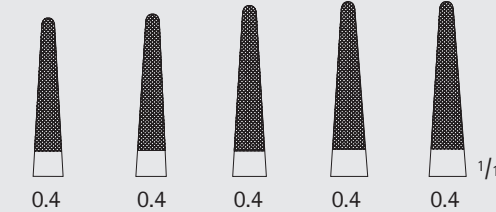


BM025R	BM026R	BM027R
180 mm	200 mm	230 mm
7"	8"	9"



DE BAKEY

BM032R-BM038R



BM032R	BM035R	BM036R	BM037R	BM038R
150 mm	180 mm	230 mm	250 mm	305 mm
6"	7"	9"	10"	12"

General

MILLIMETERS

Instruments

DUROGRIP® Needle Holders

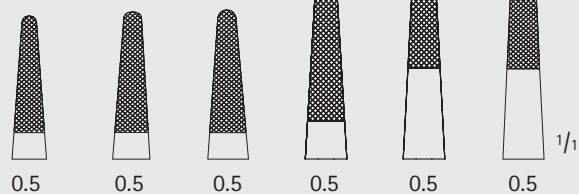


General

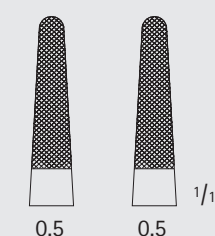


HEGAR-MAYO

BM065R-BM070R



BM065R	BM066R	BM067R	BM068R	BM070R	BM069R
150 mm	185 mm	205 mm	235 mm	265 mm	300 mm
6"	7 1/4"	8"	9 1/4"	10 1/2"	12"

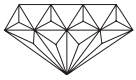


BM077R	BM078R
205 mm	245 mm
8"	9 3/4"

HEGAR

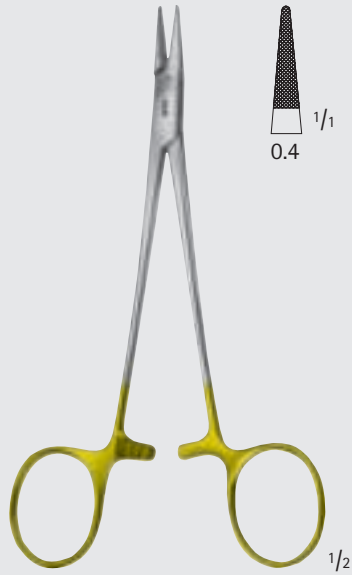
BM077R-BM078R

heavy patterns



Instruments

DUROGRIP® Needle Holders



BABY-CRILE-WOOD

BM013R

150 mm, 6"



CRILE-WOOD

BM016R-BM030R

0.4	0.4	0.4	0.4	0.4	1/1
BM016R	BM017R	BM019R	BM030R	BM021R	
145 mm	185 mm	200 mm	270 mm	305 mm	
5 3/4"	7 1/4"	8"	10 3/4"	12"	



SAROT

BM020R-BM023R

0.4	0.4	1/1
BM020R	BM023R	
175 mm	260 mm	
7"	10 1/4"	



HEGAR-MAYO-SEELEY

BM022R

200 mm, 8"

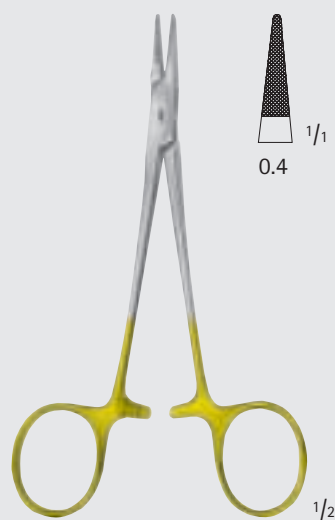
General

MILLIMETERS

Instruments

DUROGRIP® Needle Holders

General



HALSEY

BM012R

130 mm, 5 1/8"



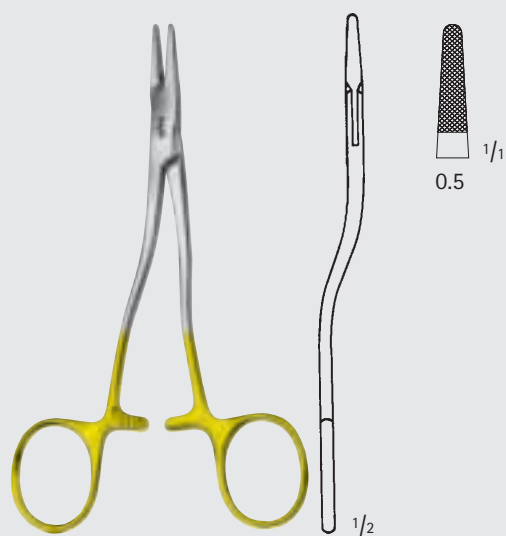
WEBSTER

BM014R-BM024R

125 mm, 5"

BM014R
with smooth
jaws

BM024R



KILNER

BM018R

135 mm, 5 1/4"



BAUMGARTNER

BM015R

145 mm, 5 3/4"



DIADUST








DIADUST



The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the DIADUST coating guarantees a reliable grip for fine needles and sutures, as well as for tissue.



				
BM301R	BM325R	BM302R	BM327R	BM328R ^{1/1}
140 mm	160 mm	180 mm	220 mm	250 mm
5 1/2"	6 1/4"	7"	8 3/4"	10"

RYDER

BM301R-BM328R

Suture Size: 5/0 and smaller

Instruments

DIADUST Micro Needle Holders



BM300R

195 mm, 7 3/4"

General

MILLIMETERS

Instruments

Self-Retaining Retractors for Laminectomy and other Applications



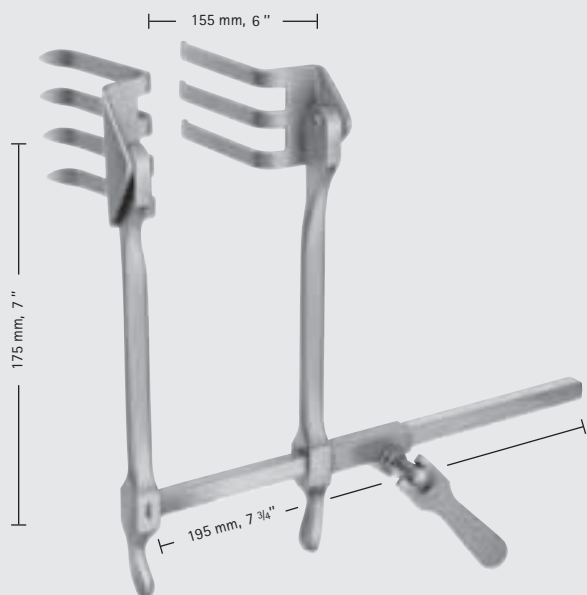
Aesculap ball snap system on spreaders and blades

Advantages:

- Without additional fixation blades are safely locked
 - and can therefore not fall off the retractor shanks even the instrument is passed on to the surgeon
 - no risk of catching suture due to smooth surface
- Without any trouble blades can be quickly exchanged also during the operation
- Different retractors patterns can be universally combined and exchanged at random, which allows
 - optimum selection of the blade size according to surgical needs.



BALL SNAP CLOSURE



SCOVILLE-RICHTER

BV510R

Retractor complete, reversible type consisting of:

BV509R Retractor only

BV516R Blades (pair)

The retractor bar and shanks may be easily rotated 180° when blades are in situ.



BV516R

62 x 52 mm

PAA = Pair

62 x 37 mm



BV517R

47 x 51 mm



BV518R

30 x 40 mm



BV519R

37 x 62 mm

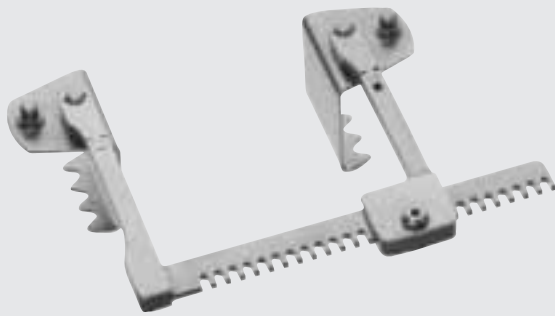


Instruments

Universal Spinal Retractor System

Universal spinal retractor system

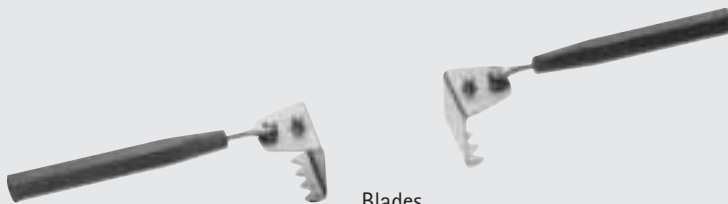
The self-retaining CASPAR universal spinal retractor permits safe retraction and saves space in the operation area due to the removable handles.



CASPAR

BV449R

Retractor without blades

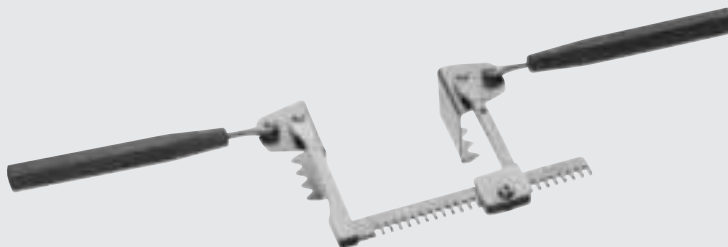


BV413R

Handle

Blades

BV414R	50 x 44 mm
BV415R	50 x 54 mm
BV416R	50 x 74 mm
BV417R	50 x 89 mm



TE749R

Key for socket-head screw

Spine

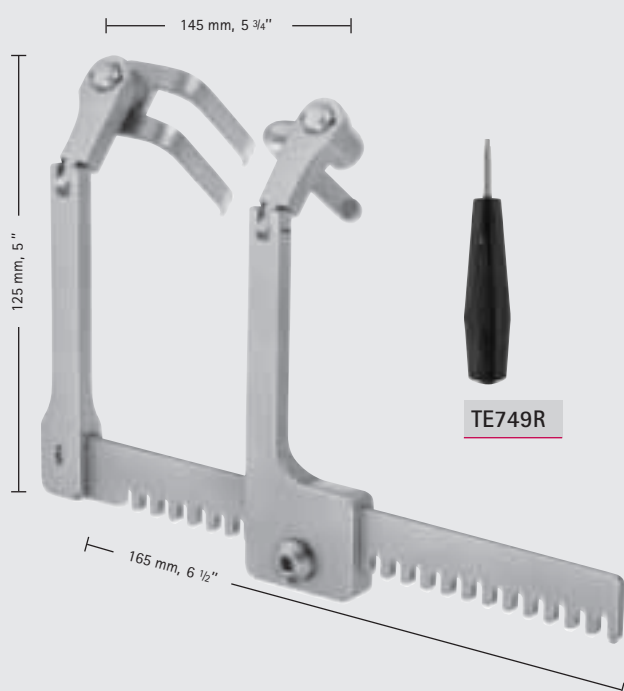
MILLIMETERS

Instruments

Self-Retaining Retractors



BALL SNAP CLOSURE WITH TORSION LOCK



TE749R



BV435R

Hook 38 mm

BV437R

Hook 58 mm

BV441R	32 x 22 mm
BV442R	37 x 22 mm
BV443R	42 x 22 mm
BV444R	47 x 22 mm
BV445R	52 x 22 mm
BV446R	57 x 22 mm
BV447R	62 x 22 mm
BV448R	67 x 22 mm

Blades

CASPAR

BV450R

Retractor complete, for laminectomy and hemi-laminectomy, lumbar, thoracic and cervical available consisting of:

BV449R Retractor only, with key TE749R

BV435R Hook

BV442R Blade

BV443R Blade

BV444R Blade

BV445R Blade

BV446R Blade



BV451R	32 x 37 mm
BV452R	37 x 37 mm
BV453R	42 x 37 mm
BV454R	47 x 37 mm
BV455R	52 x 37 mm
BV456R	57 x 37 mm
BV457R	62 x 37 mm
BV458R	67 x 37 mm

Blades

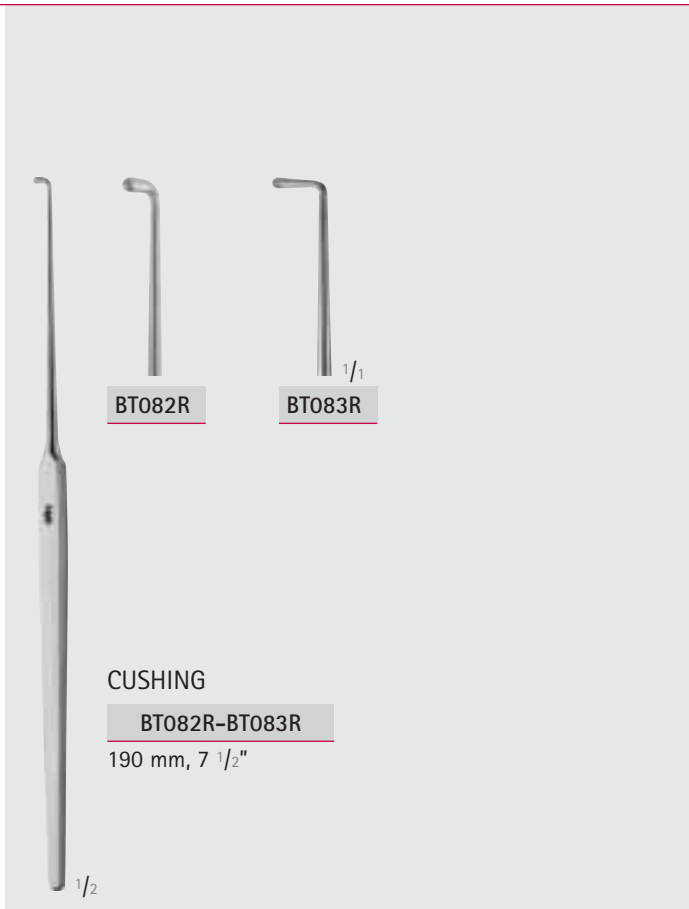
BV461R	32 x 52 mm
BV462R	37 x 52 mm
BV463R	42 x 52 mm
BV464R	47 x 52 mm
BV465R	52 x 52 mm
BV466R	57 x 52 mm
BV467R	62 x 52 mm
BV468R	67 x 52 mm

Blades



Instruments

Nerve Retractors, Nerve Root Retractors



Spine

MILLIMETERS

Instruments

Nerve Retractors, Nerve Root Retractors

Spine



FF703R

90°



FF702R

45°



FF701R

straight

LOVE

FF701R-FF703R

220 mm, 8 3/4"

1/2



FF707R

3 mm



FF708R

5 mm



FF709R

7 mm

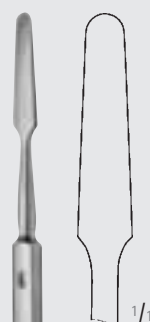
90 mm, 3 1/2"

HESS

FF707R-FF709R

175 mm, 7"

1/2



1/1

O'CONNELL

FF730R

double-ended

220 mm, 8 3/4"

1/2



1/1

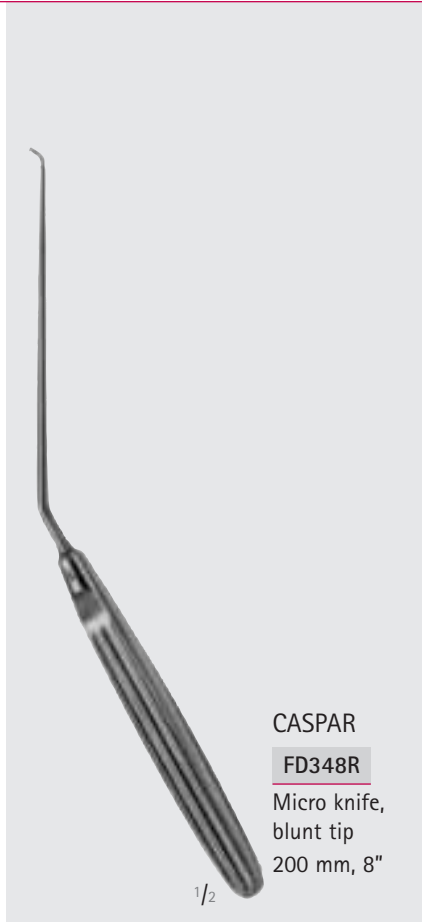


Instruments

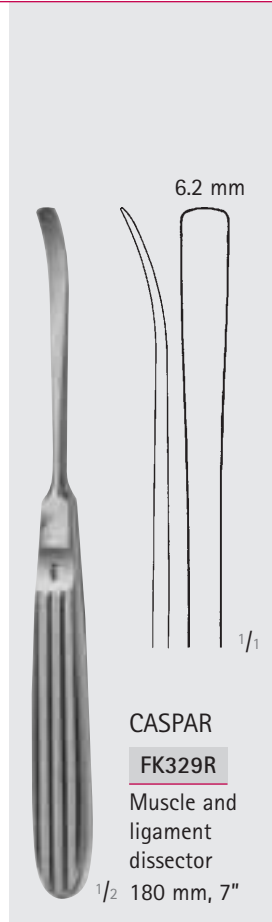
Instruments for Micro Discectomy



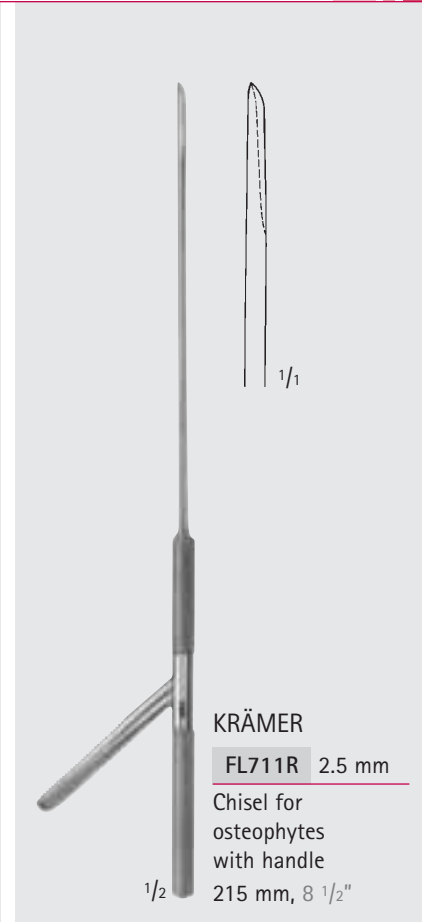
CASPAR
FD347R
Micro knife,
blunt tip
200 mm, 8"



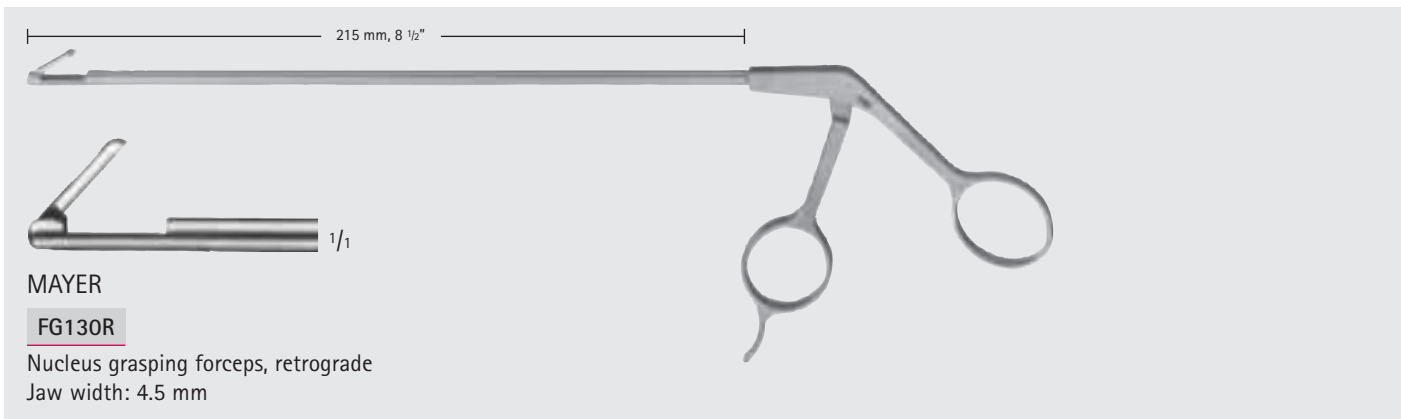
CASPAR
FD348R
Micro knife,
blunt tip
200 mm, 8"



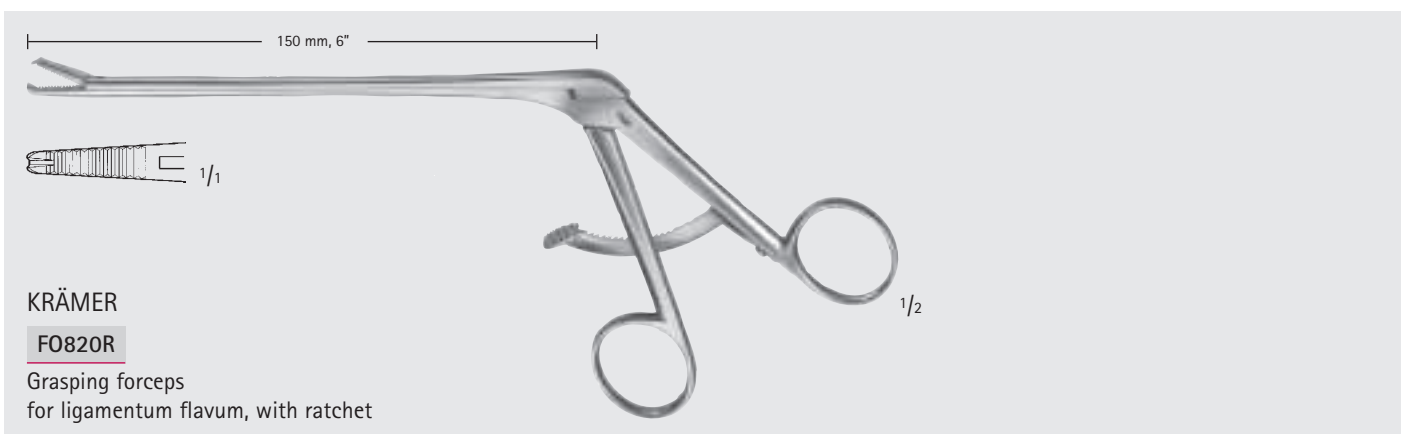
CASPAR
FK329R
Muscle and
ligament
dissector
180 mm, 7"



KRÄMER
FL711R 2.5 mm
Chisel for
osteophytes
with handle
215 mm, 8 1/2"



MAYER
FG130R
Nucleus grasping forceps, retrograde
Jaw width: 4.5 mm



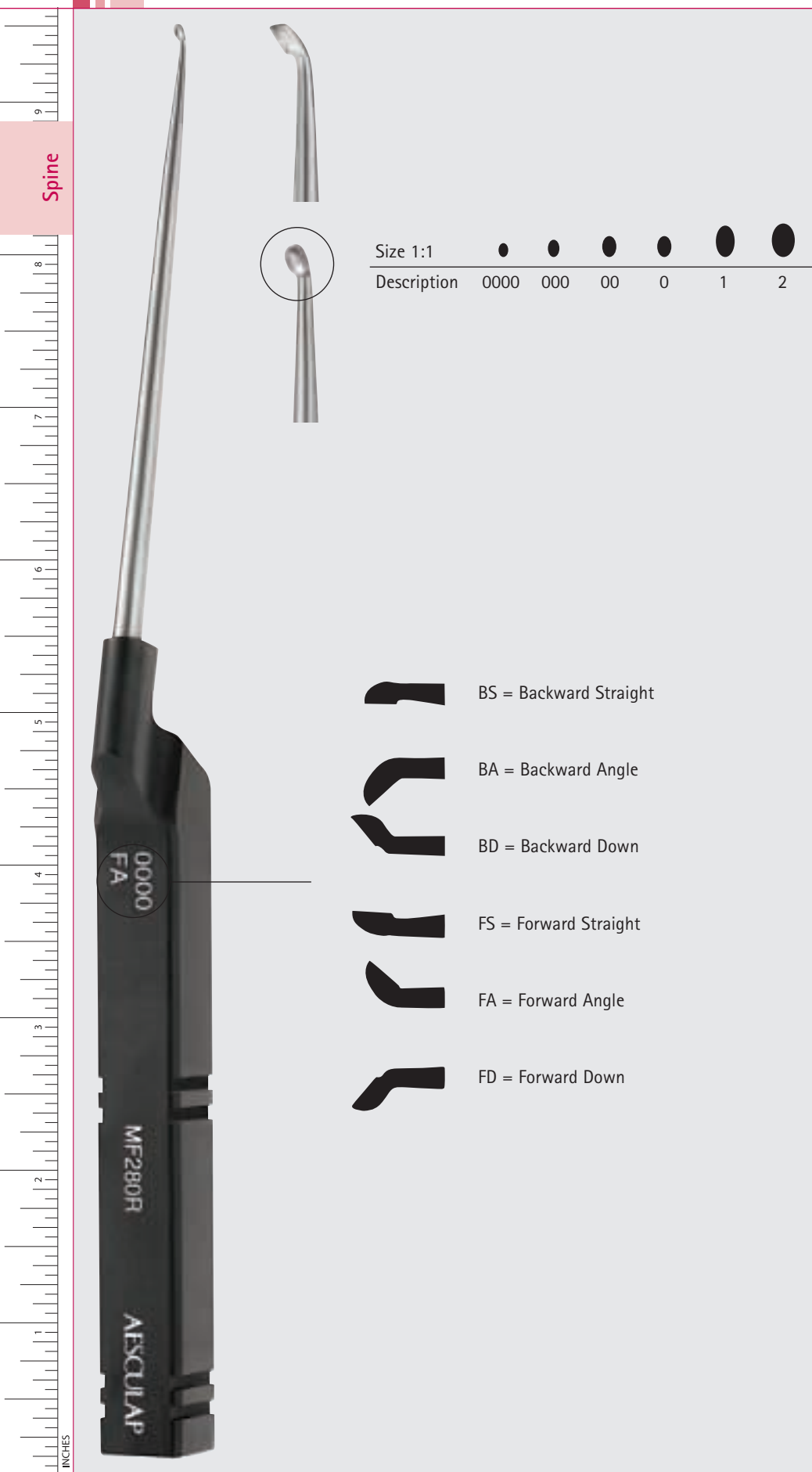
KRÄMER
FO820R
Grasping forceps
for ligamentum flavum, with ratchet

Bone punches and rongeurs see page 4-26

Spine



Curettes for Micro Discectomy





Instruments

Curettes for Micro Cervical Discectomy

Cat. No.	Description	Length	Tip configuration
MF251R	Cervical bayonet style curette	215 mm, 8 1/2"	0 FS
MF252R	Cervical bayonet style curette	215 mm, 8 1/2"	00 FS
MF253R	Cervical bayonet style curette	215 mm, 8 1/2"	000 FS
MF254R	Cervical bayonet style curette	215 mm, 8 1/2"	0000 FS
MF256R	Cervical bayonet style curette	215 mm, 8 1/2"	0 FA
MF257R	Cervical bayonet style curette	215 mm, 8 1/2"	00 FA
MF258R	Cervical bayonet style curette	215 mm, 8 1/2"	000 FA
MF259R	Cervical bayonet style curette	215 mm, 8 1/2"	0000 FA
MF261R	Cervical bayonet style curette	215 mm, 8 1/2"	0 BS
MF262R	Cervical bayonet style curette	215 mm, 8 1/2"	00 BS
MF263R	Cervical bayonet style curette	215 mm, 8 1/2"	000 BS
MF264R	Cervical bayonet style curette	215 mm, 8 1/2"	0000 BS
MF266R	Cervical bayonet style curette	215 mm, 8 1/2"	0 BA
MF267R	Cervical bayonet style curette	215 mm, 8 1/2"	00 BA
MF268R	Cervical bayonet style curette	215 mm, 8 1/2"	000 BA
MF269R	Cervical bayonet style curette	215 mm, 8 1/2"	0000 BA

Instruments

Curettes for Micro Cervical Discectomy

Cat. No.	Description	Length	Tip configuration	
MF272R	Cervical long bayonet style curette	240 mm, 9 1/2"	0 FS	
MF273R	Cervical long bayonet style curette	240 mm, 9 1/2"	00 FS	
MF274R	Cervical long bayonet style curette	240 mm, 9 1/2"	000 FS	
MF275R	Cervical long bayonet style curette	240 mm, 9 1/2"	0000 FS	
MF277R	Cervical long bayonet style curette	240 mm, 9 1/2"	0 FA	
MF278R	Cervical long bayonet style curette	240 mm, 9 1/2"	00 FA	
MF279R	Cervical long bayonet style curette	240 mm, 9 1/2"	000 FA	
MF280R	Cervical long bayonet style curette	240 mm, 9 1/2"	0000 FA	
MF282R	Cervical long bayonet style curette	240 mm, 9 1/2"	0 BS	
MF283R	Cervical long bayonet style curette	240 mm, 9 1/2"	00 BS	
MF284R	Cervical long bayonet style curette	240 mm, 9 1/2"	000 BS	
MF285R	Cervical long bayonet style curette	240 mm, 9 1/2"	0000 BS	
MF287R	Cervical long bayonet style curette	240 mm, 9 1/2"	0 BA	
MF288R	Cervical long bayonet style curette	240 mm, 9 1/2"	00 BA	
MF289R	Cervical long bayonet style curette	240 mm, 9 1/2"	000 BA	
MF290R	Cervical long bayonet style curette	240 mm, 9 1/2"	0000 BA	

Spine



Instruments

Curettes for Micro Lumbar Discectomy

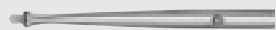
Cat. No.	Description	Length	Tip configuration	
MF296R	Lumbar bayonet style curette	240 mm, 9 1/2"	0 FS	
MF297R	Lumbar bayonet style curette	240 mm, 9 1/2"	1 FS	
MF298R	Lumbar bayonet style curette	240 mm, 9 1/2"	2 FS	
MF299R	Lumbar bayonet style curette	240 mm, 9 1/2"	0 FA	
MF300R	Lumbar bayonet style curette	240 mm, 9 1/2"	1 FA	
MF301R	Lumbar bayonet style curette	240 mm, 9 1/2"	2 FA	
MF302R	Lumbar bayonet style curette	240 mm, 9 1/2"	0 FD	
MF303R	Lumbar bayonet style curette	240 mm, 9 1/2"	1 FD	
MF304R	Lumbar bayonet style curette	240 mm, 9 1/2"	2 FD	
MF305R	Lumbar bayonet style curette	240 mm, 9 1/2"	0 BS	
MF306R	Lumbar bayonet style curette	240 mm, 9 1/2"	1 BS	
MF307R	Lumbar bayonet style curette	240 mm, 9 1/2"	2 BS	
MF308R	Lumbar bayonet style curette	240 mm, 9 1/2"	0 BA	
MF309R	Lumbar bayonet style curette	240 mm, 9 1/2"	1 BA	
MF310R	Lumbar bayonet style curette	240 mm, 9 1/2"	2 BA	
MF311R	Lumbar bayonet style curette	240 mm, 9 1/2"	0 BD	
MF312R	Lumbar bayonet style curette	240 mm, 9 1/2"	1 BD	
MF313R	Lumbar bayonet style curette	240 mm, 9 1/2"	2 BD	

Spine



Instruments

Skull Traction Tongs for Vertebrae Treatment



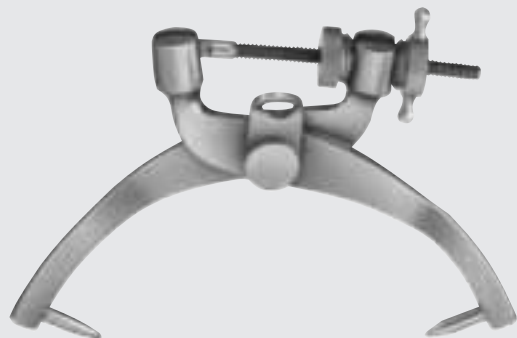
FF861R

Drill point, small



FF862R

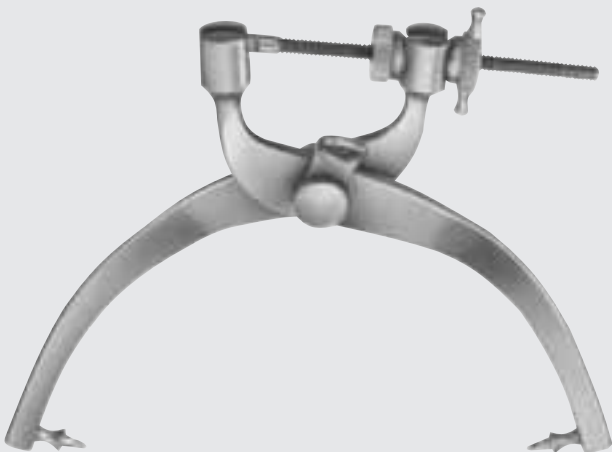
Drill point, large



CRUTCHFIELD

FF860R

for children



CRUCHFIELD

FF865R

medium size



FF870R

Skull traction tongs,
large type
Pins are adjustable



FF871C

Wrench, double-ended, for FF870R,
for tightening and turning in the pins



Instruments

Instruments for Anterior Cervical Plating

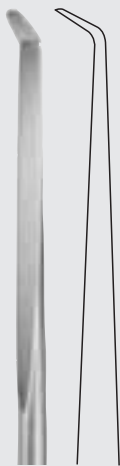
Spine



CASPAR

FF917R-FF918R

Vertebral body dissector
usable for loosening the posterior
longitudinal ligament and removal
of disk fragments and osteophytes
205 mm, 8"



FF917R



FF918R

$\frac{1}{1}$



AA845R

Caliper
for the bone graft and graft site.
Measuring range up to 150 mm
225 mm, 9"

$\frac{1}{3}$



MILLIMETERS

Instruments for Anterior Cervical Plating

Spine



FF927R

 $1/2$

FF928R

Graft cutter with adjustable depth control, 7 mm wide, for graft from 6-9 mm
220 mm, 8 3/4"



1/1

FF911R

Bone graft holder and impactor
220 mm, 8 3/4"



FF913R

Diam. 3 mm

FF914R

Diam. 5 mm

FF915R

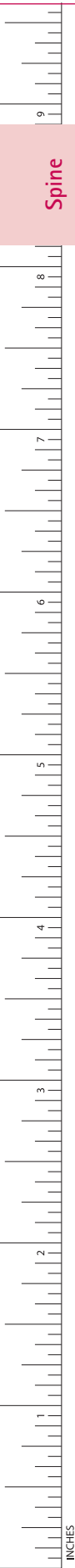
Diam. 8 mm

Tapper for the fine positioning of the graft and for cancellous bone plasty
200 mm, 8"



For further details see
brochure No. C22702





Shunt



CSF & ICP Management

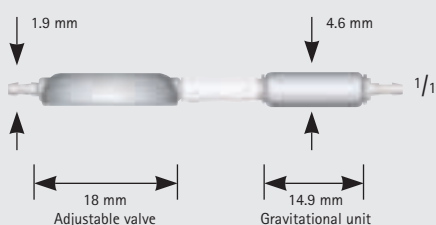
Valve

■ Available as adjustable valve only or in combination with gravitational unit

■ All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
<u>FV410T</u>	0 to 20	-
<u>FV411T</u>	0 to 20	10
<u>FV412T</u>	0 to 20	15
<u>FV413T</u>	0 to 20	20
<u>FV414T</u> **	0 to 20	25
<u>FV415T</u>	0 to 20	30
<u>FV416T</u>	0 to 20	35

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

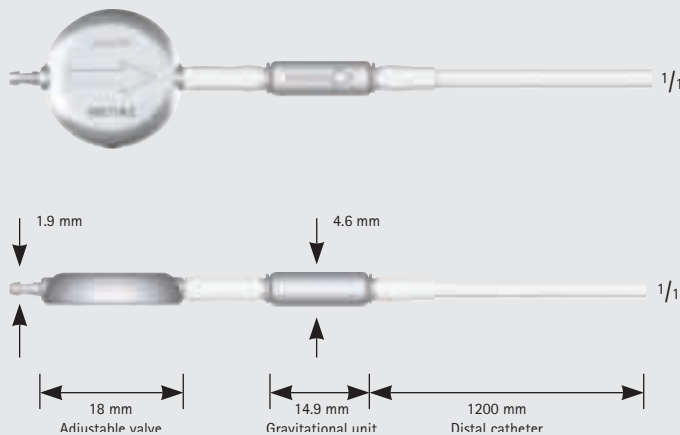
Valve with integrated distal catheter

■ Available as adjustable valve only or in combination with gravitational unit

■ All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
<u>FV417T</u>	0 to 20	-
<u>FV418T</u>	0 to 20	10
<u>FV419T</u>	0 to 20	15
<u>FV420T</u>	0 to 20	20
<u>FV421T</u> **	0 to 20	25
<u>FV422T</u>	0 to 20	30
<u>FV423T</u>	0 to 20	35

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

proGAV® Shunt System with SPRUNG Reservoir



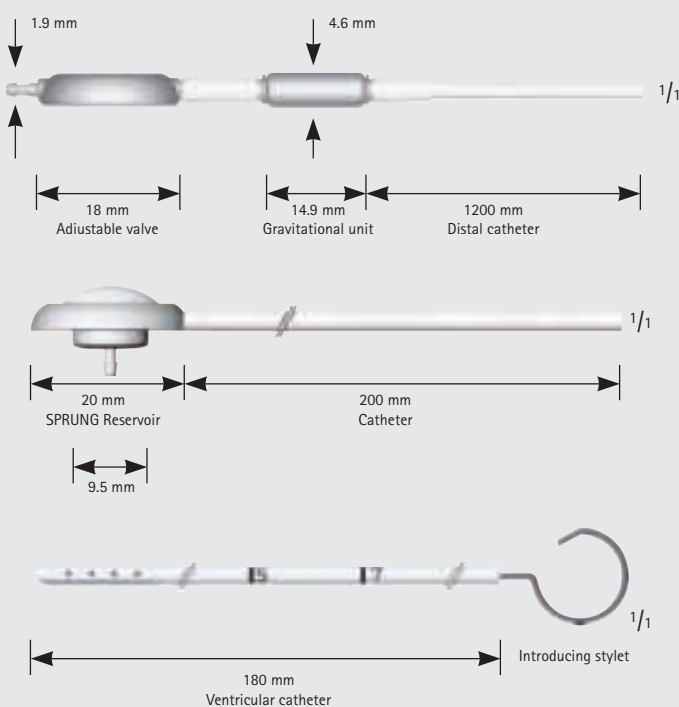
Shunt system with two connections

- Available as adjustable valve only or in combination with gravitational unit
- SPRUNG reservoir* with integrated distal catheter
- *Flushing reservoir for control of the ventricular catheters patency and the distal share of drainage
- Ventricular catheter with introducing stylet

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
FV424T	0 to 20	-
FV425T	0 to 20	10
FV426T	0 to 20	15
FV427T	0 to 20	20
FV428T **	0 to 20	25
FV429T	0 to 20	30
FV430T	0 to 20	35

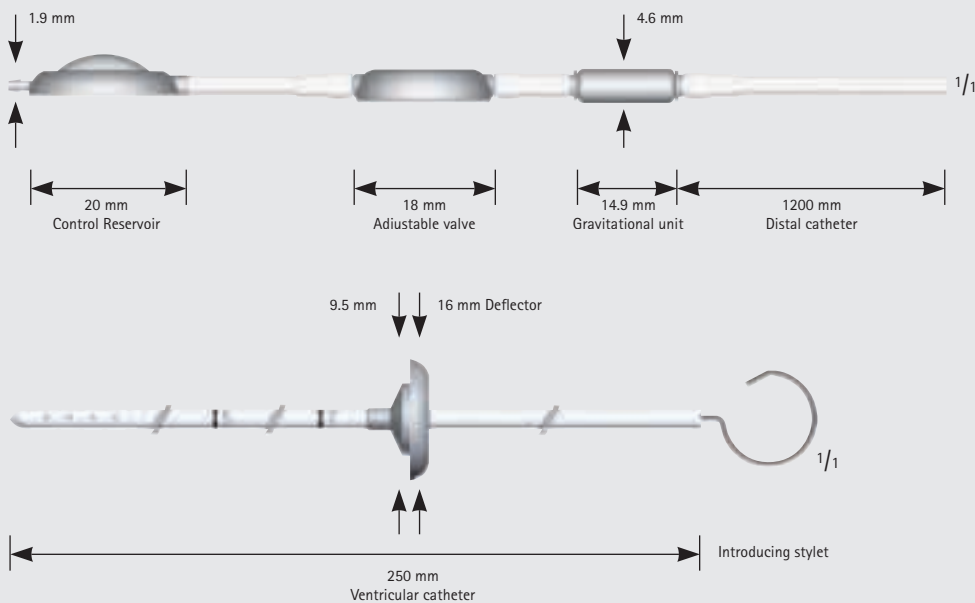
****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Shunt system with one connection

- Available as adjustable valve only or in combination with gravitational unit
- with integrated catheter and integrated Control reservoir*
*Flushing reservoir for control of the ventricular catheters patency and the distal share of drainage
- Ventricular catheter with introducing stylet and deflector

- All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
<u>FV431T</u>	0 to 20	-
<u>FV432T</u>	0 to 20	10
<u>FV433T</u>	0 to 20	15
<u>FV434T</u>	0 to 20	20
<u>FV435T</u> **	0 to 20	25
<u>FV436T</u>	0 to 20	30
<u>FV437T</u>	0 to 20	35

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

proGAV® Shunt System with Control Reservoir

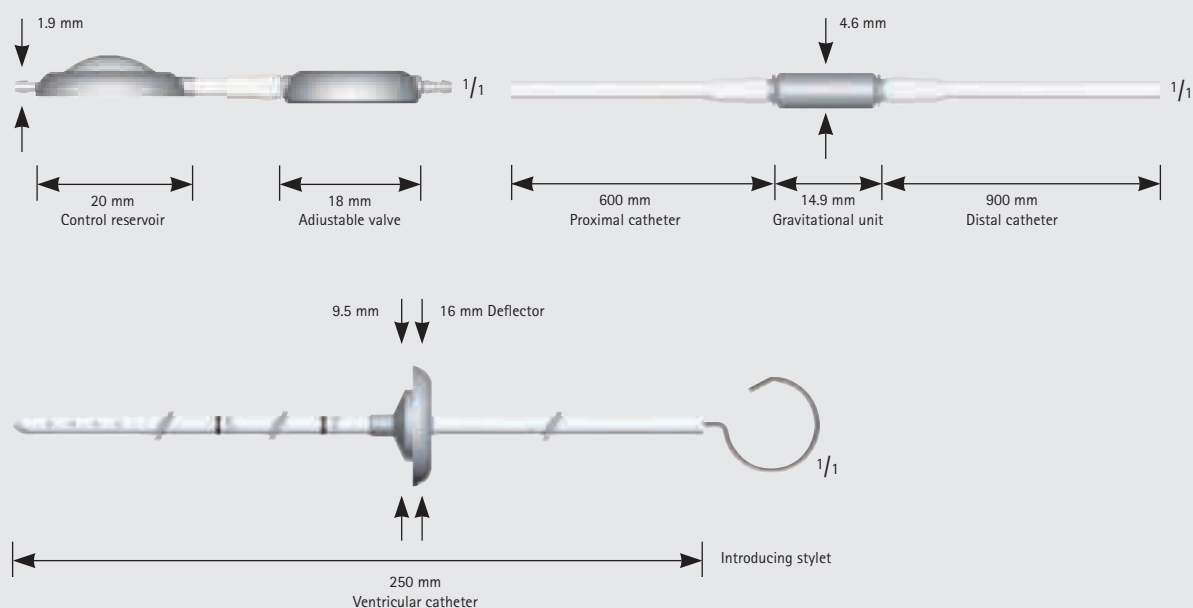
Shunt system with two connections

- Available as adjustable valve only or in combination with gravitational unit
- Valve with integrated Control reservoir*
*Flushing reservoir for control of the ventricular catheter's patency and the distal share of drainage
- Distal catheter with integrated gravitational unit
- Ventricular catheter with introducing stylet and deflector

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
FV459T	0 to 20	-
FV460T	0 to 20	10
FV461T	0 to 20	15
FV462T	0 to 20	20
FV463T **	0 to 20	25
FV464T	0 to 20	30
FV465T	0 to 20	35

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



CSF & ICP Management

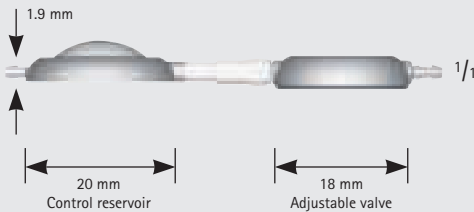
proGAV® with Control Reservoir

proGAV® with Flushing Reservoir for Pediatric Application

Adjustable valve only with integrated Control reservoir*

*Flushing reservoir for control of the ventricular catheter's patency and the distal share of drainage

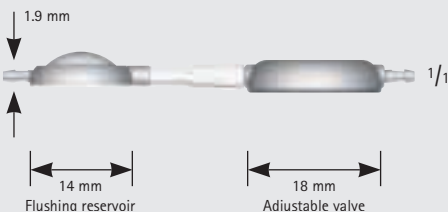
- All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
FV467T	0 to 20	-

Adjustable valve only with integrated pediatric flushing reservoir

- All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
FV466T	0 to 20	-

* 1 cmH₂O = 0,74 mmHg

Shunts

MILLIMETERS

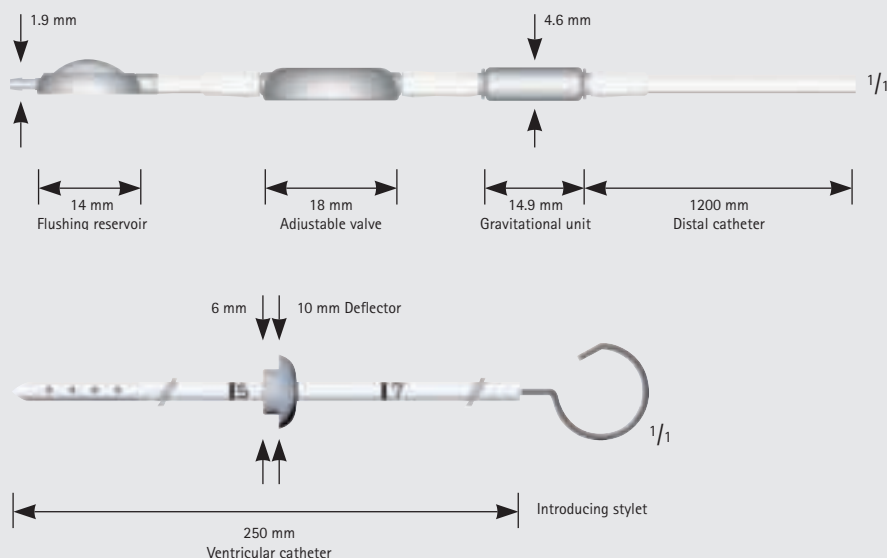
Shunt system with one connection

- Available as adjustable valve only or in combination with gravitational unit
- with integrated distal catheter and integrated pediatric flushing reservoir
- Ventricular catheter with introducing stylet and deflector

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
FV438T	0 to 20	-
FV439T	0 to 20	10
FV440T	0 to 20	15
FV441T **	0 to 20	20
FV442T	0 to 20	25
FV443T	0 to 20	30
FV444T	0 to 20	35

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

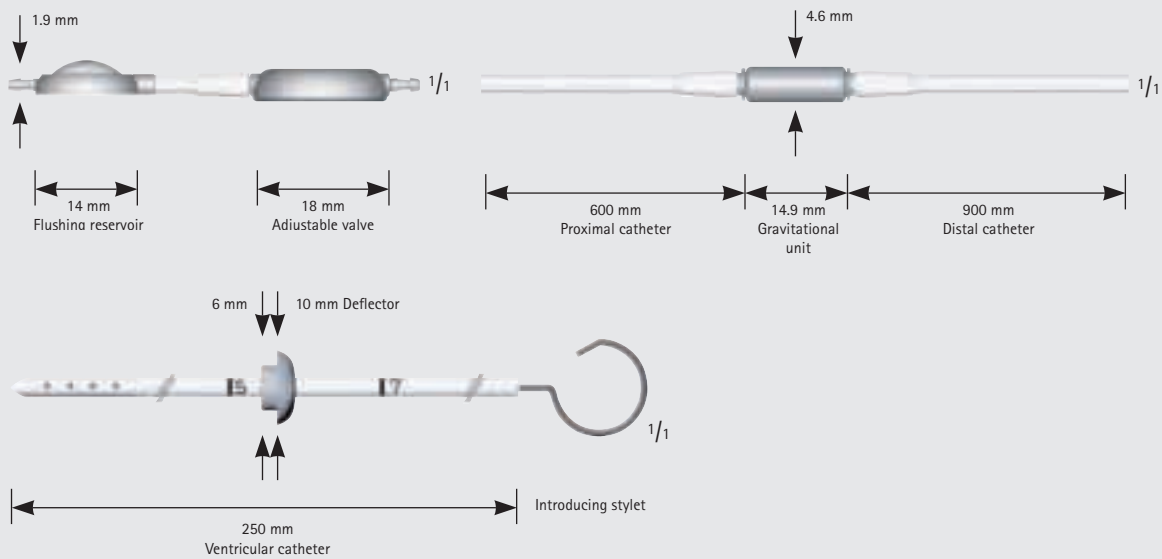
Shunt system with two connections

- Available as adjustable valve only or in combination with gravitational unit
- Valve with integrated pediatric flushing reservoir
- Distal catheter with integrated gravitational unit
- Ventricular catheter with introducing stylet and deflector

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
FV452T	0 to 20	-
FV453T	0 to 20	10
FV454T	0 to 20	15
FV455T **	0 to 20	20
FV456T	0 to 20	25
FV457T	0 to 20	30
FV458T	0 to 20	35

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

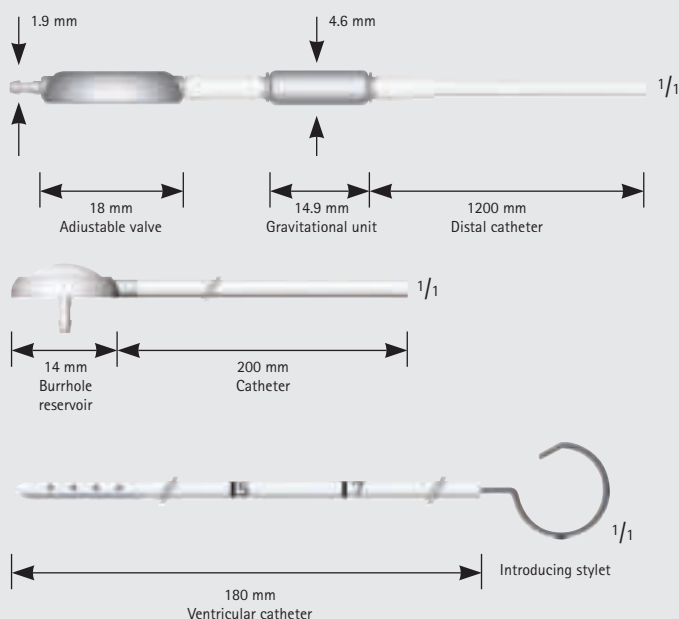
Shunt system with two connections

- Available as adjustable valve only or in combination with gravitational unit
- Pediatric burrhole reservoir with integrated distal catheter
- Ventricular catheter with introducing stylet

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



	Adjustable valve (cmH ₂ O*)	Gravitational unit (cmH ₂ O*)
FV445T	0 to 20	-
FV446T	0 to 20	10
FV447T	0 to 20	15
FV448T **	0 to 20	20
FV449T	0 to 20	25
FV450T	0 to 20	30
FV451T	0 to 20	35

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Instruments for valve adjustment

- *proGAV*® adjustment instrument for setting the required opening pressure
- *proGAV*® verification instrument for reading the actual opening pressure setting
- *proGAV*® masterdisc for calibrating the verification instrument
- *proGAV*® compass for locating the *proGAV*®

Adjustment instrument:

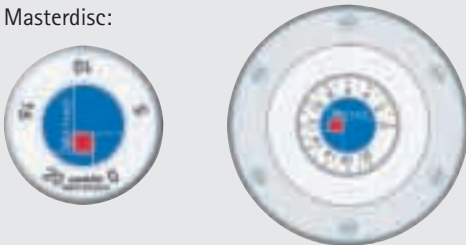


Verification instrument:

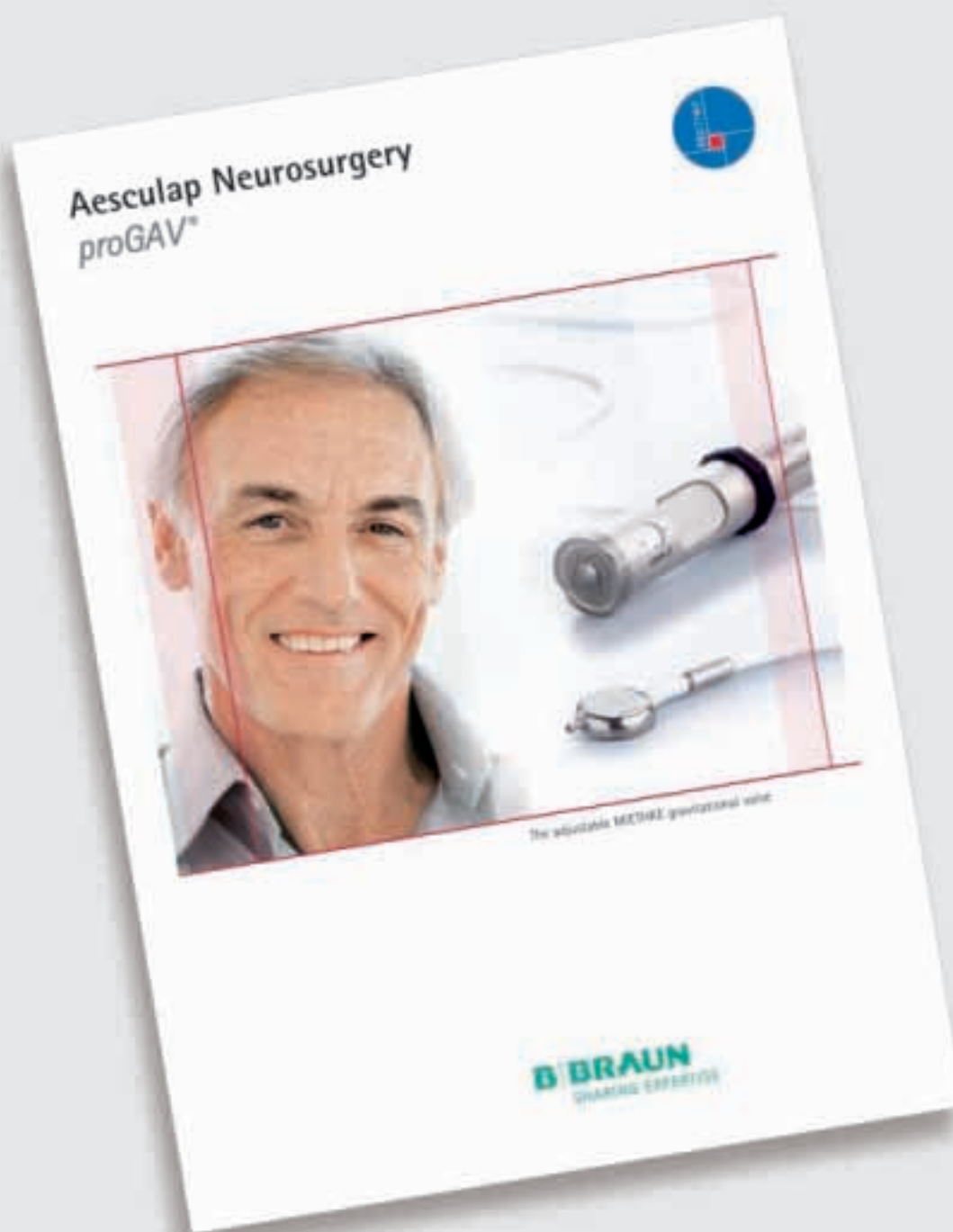


Compass:

Masterdisc:



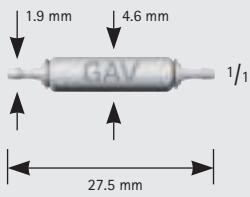
	Instruments
<u>FV400T</u>	<i>proGAV</i> ® verification instrument
<u>FV401T</u>	<i>proGAV</i> ® adjustment instrument
<u>FV402T</u>	<i>proGAV</i> ® masterdisc
<u>FV403T</u>	<i>proGAV</i> ® compass
<u>FV404T</u>	<i>proGAV</i> ® instrument set (consisting of FV400T-FV403T)





For further details see
brochure No. C42002



Single valve

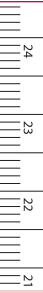


Valve pressure level (cmH₂O*)

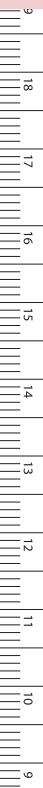
			
<u>FV310T</u>	up to 160 cm**	5	30
<u>FV311T</u>	160 – 180 cm**	5	35
<u>FV312T</u>	over 180 cm**	5	40
<u>FV313T</u>		10	30
<u>FV314T</u>		10	40
<u>FV315T</u>		10	50

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



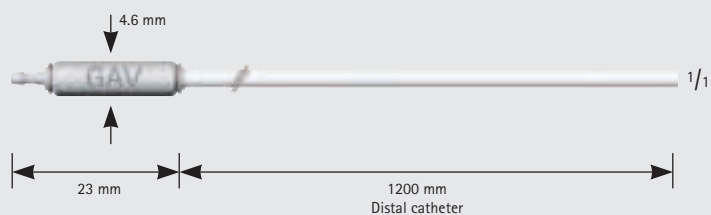
Shunts



MILLIMETERS

Single valve with preattached distal catheter

■ All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
<u>FV316T</u>	up to 160 cm**	5	30
<u>FV317T</u>	160 - 180 cm**	5	35
<u>FV318T</u>	over 180 cm**	5	40
<u>FV319T</u>		10	30
<u>FV320T</u>		10	40
<u>FV321T</u>		10	50

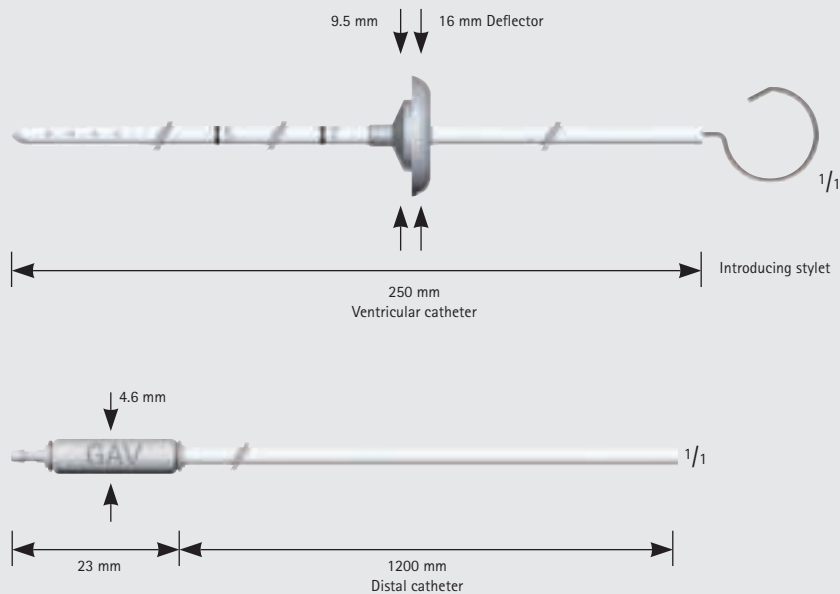
**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Valve system with one connection

- Ventricular catheter with introducing stylet and deflector
- Valve with preattached distal catheter

■ All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

<u>FV322T</u>	up to 160 cm**	5	30
<u>FV323T</u>	160 – 180 cm**	5	35
<u>FV324T</u>	over 180 cm**	5	40
<u>FV325T</u>		10	30
<u>FV326T</u>		10	40
<u>FV327T</u>		10	50

**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

GAV® - System with Flushing Reservoir



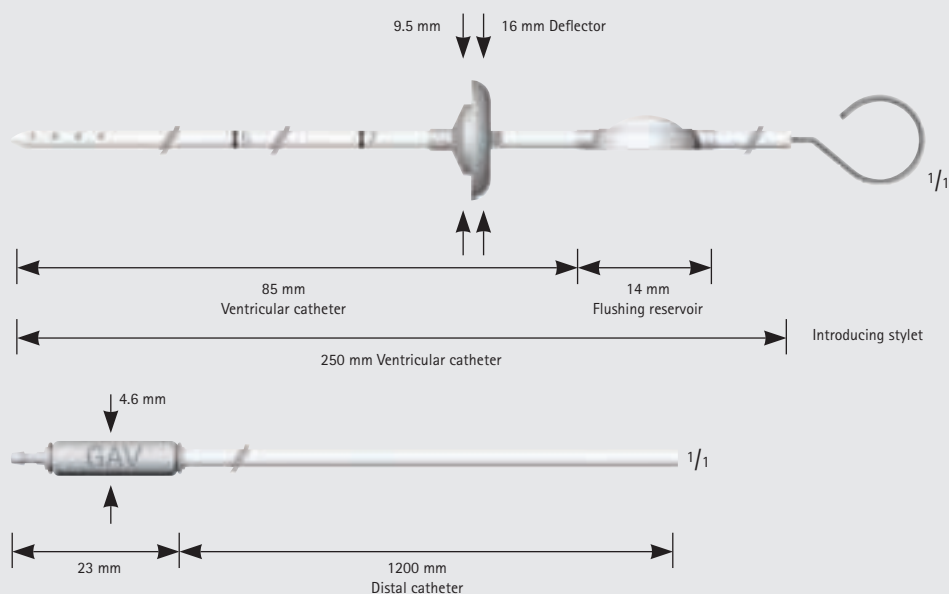
Valve system with one connection

- Ventricular catheter with introducing stylet and deflector
- Valve with preattached distal catheter

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
FV328T	up to 160 cm**	5	30
FV329T	160 - 180 cm**	5	35
FV330T	over 180 cm**	5	40
FV331T		10	30
FV332T		10	40
FV333T		10	50

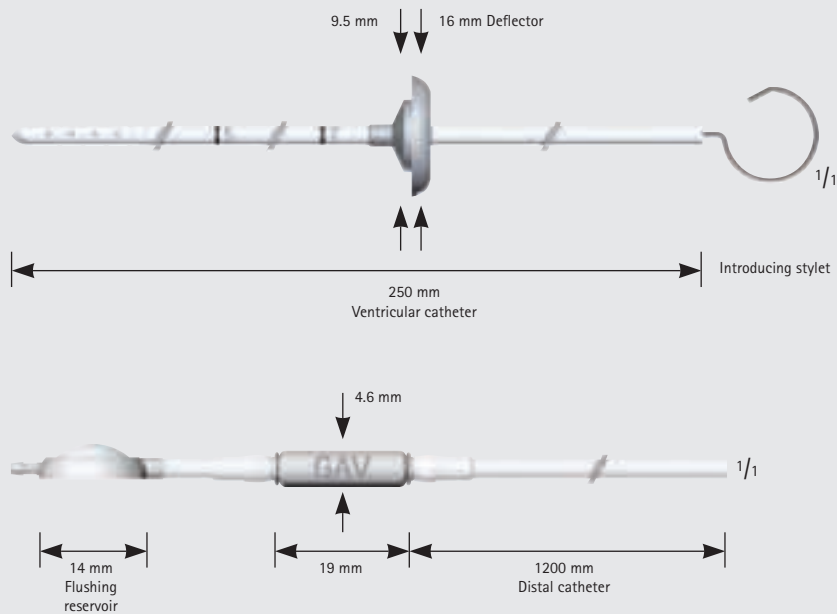
****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Valve system with one connection

- Ventricular catheter with introducing stylet and deflector
- Valve with preattached distal catheter and flushing reservoir

All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

<u>FV340T</u>	up to 160 cm**	5	30
<u>FV341T</u>	160 – 180 cm**	5	35
<u>FV342T</u>	over 180 cm**	5	40
<u>FV343T</u>		10	30
<u>FV344T</u>		10	40
<u>FV345T</u>		10	50

**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

GAV® - System with Burrhole Reservoir



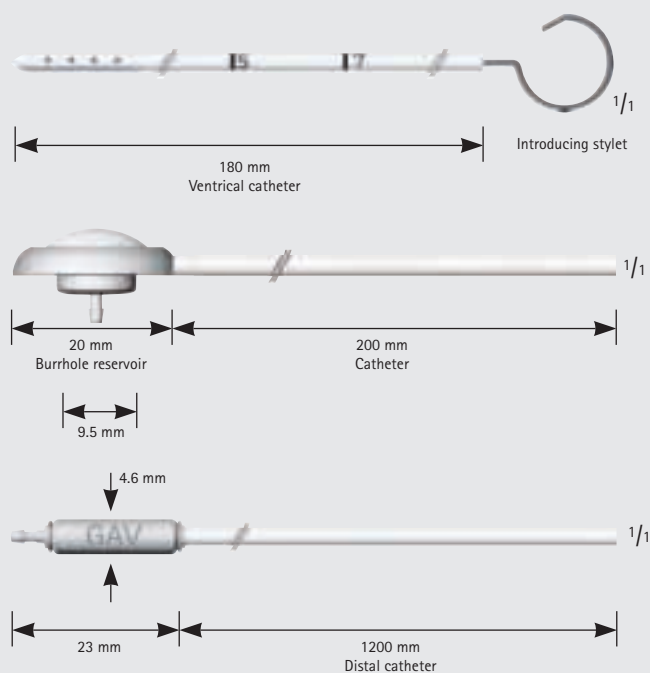
Valve system with two connections

- Ventricular catheter with introducing stylet
- Burrhole reservoir with integrated catheter
- Valve with preattached distal catheter

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
<u>FV334T</u>	up to 160 cm**	5	30
<u>FV335T</u>	160 - 180 cm**	5	35
<u>FV336T</u>	over 180 cm**	5	40
<u>FV337T</u>		10	30
<u>FV338T</u>		10	40
<u>FV339T</u>		10	50

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



CSF & ICP Management

GAV® - System with SPRUNG Reservoir

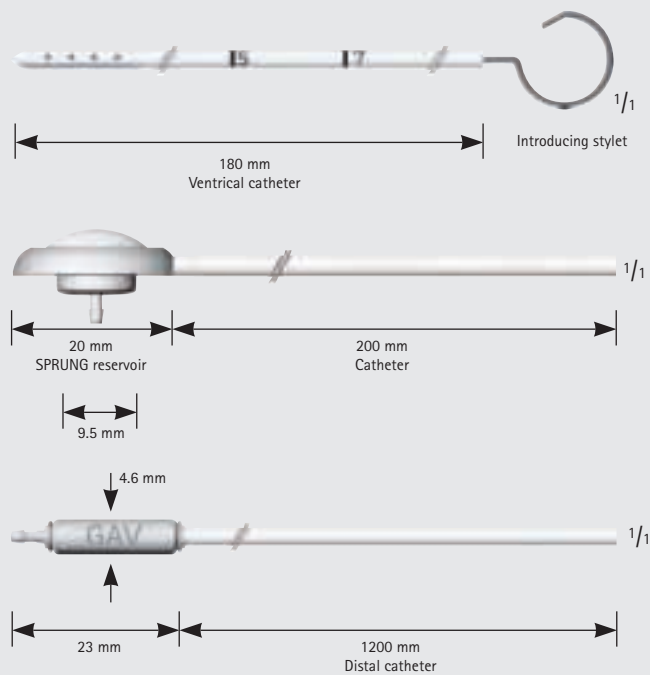
Valve system with two connections

- Ventricular catheter with introducing stylet
- SPRUNG reservoir* with integrated distal catheter
- * Flushing reservoir for control of the ventricular catheters patency and the distal share of drainage
- Valve with preattached distal catheter

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$

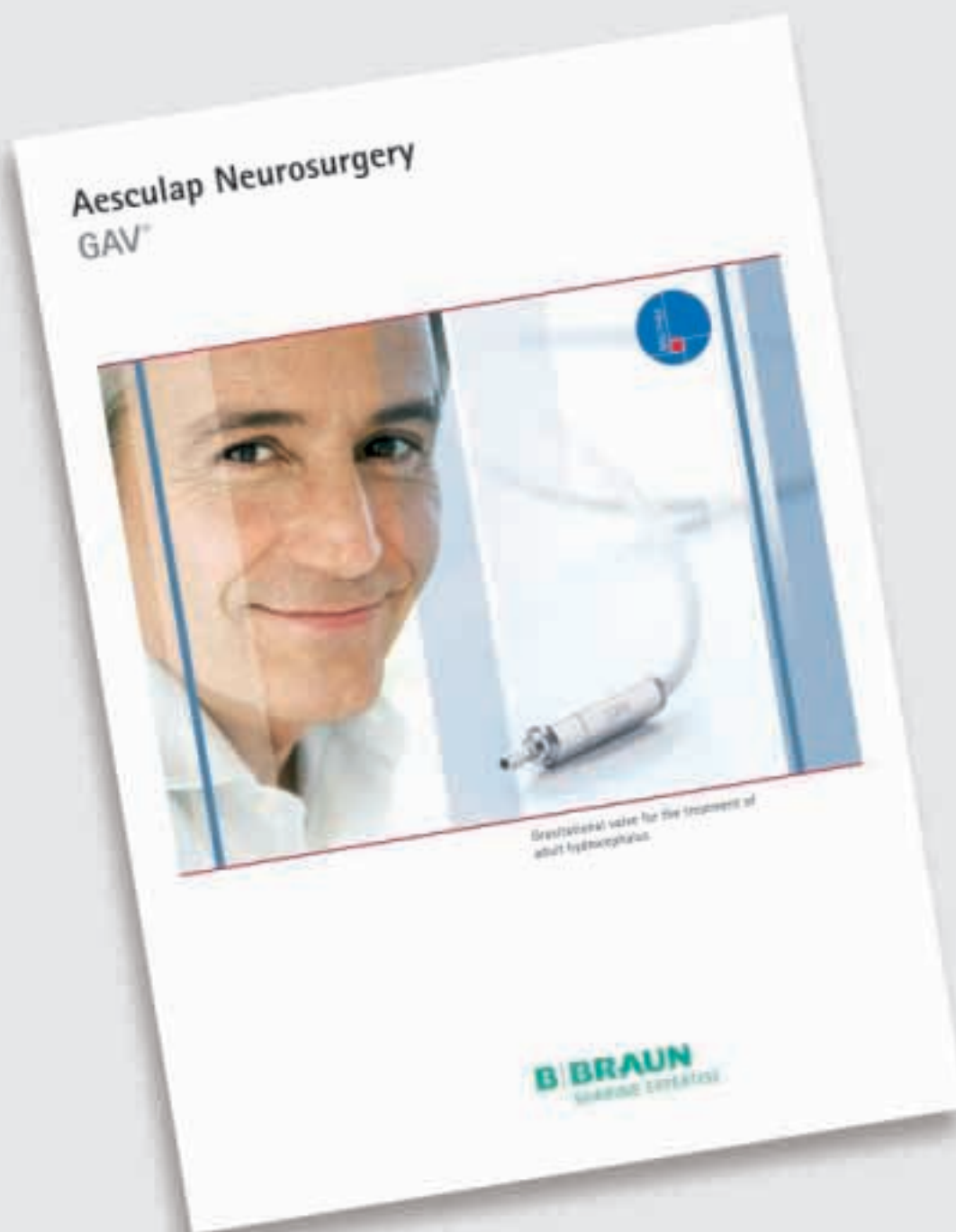


Valve pressure level (cmH₂O*)

<u>FV346T</u>	up to 160 cm**	5	30
<u>FV347T</u>	160 – 180 cm**	5	35
<u>FV348T</u>	over 180 cm**	5	40
<u>FV349T</u>		10	30
<u>FV350T</u>		10	40
<u>FV351T</u>		10	50

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

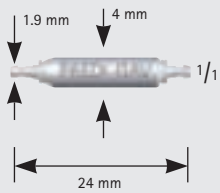
* 1 cmH₂O = 0,74 mmHg





For further details see
brochure No. **C82602**



Single valve



Valve pressure level (cmH₂O*)

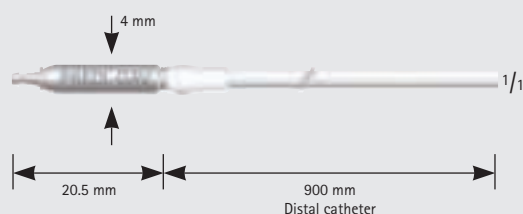
		
<u>FV290T</u>	4	14
<u>FV291T</u>	4	19
<u>FV292T</u> up to 6 months**	4	24
<u>FV293T</u>	9	19
<u>FV294T</u> 6 months - 5 years**	9	24
<u>FV295T</u> over 5 years**	9	29

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Single valve with preattached distal catheter

■ All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

		
<u>FV270T</u>	4	14
<u>FV271T</u>	4	19
<u>FV272T</u> up to 6 months**	4	24
<u>FV273T</u>	9	19
<u>FV274T</u> 6 months - 5 years**	9	24
<u>FV275T</u> over 5 years**	9	29

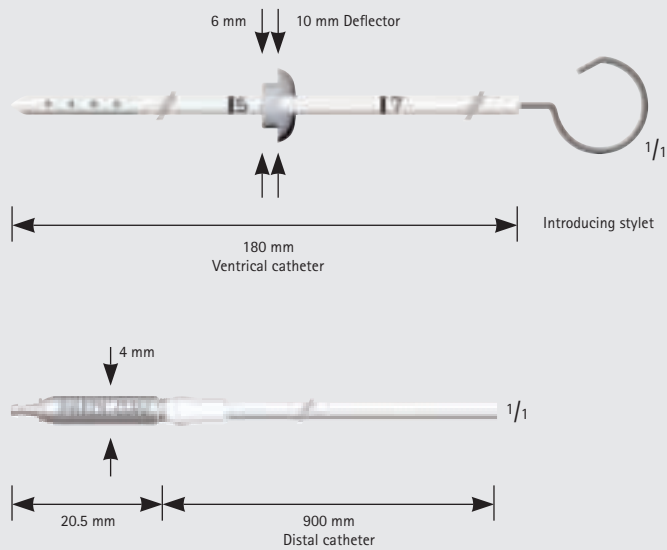
**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Valve system with one connection

- Ventricular catheter with introducing stylet and deflector
- Valve with preattached distal catheter

All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

<u>FV276T</u>		4	14
<u>FV277T</u>		4	19
<u>FV278T</u>	up to 6 months**	4	24
<u>FV279T</u>		9	19
<u>FV280T</u>	6 months - 5 years**	9	24
<u>FV281T</u>	over 5 years**	9	29

**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

paediGAV® - System with Burrhole Reservoir



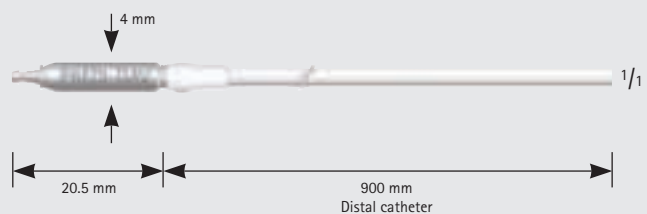
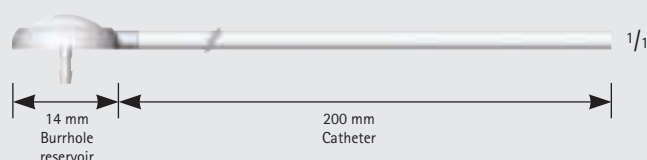
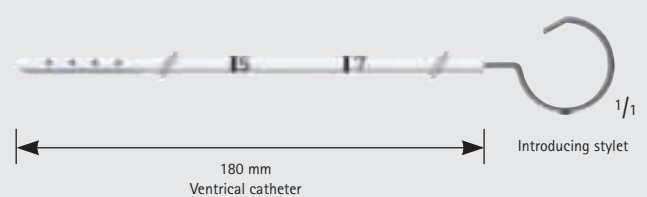
Valve system with two connections

- Ventricular catheter with introducing stylet
- Burrhole reservoir with integrated catheter
- Valve with preattached distal catheter

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

FV296T	4	14
FV297T	4	19
FV298T up to 6 months**	4	24
FV299T	9	19
FV300T 6 months - 5 years**	9	24
FV301T over 5 years**	9	29

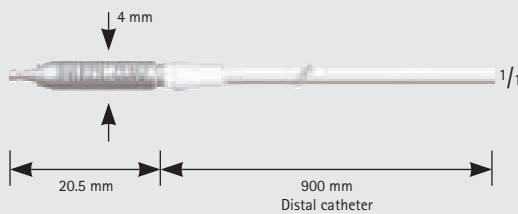
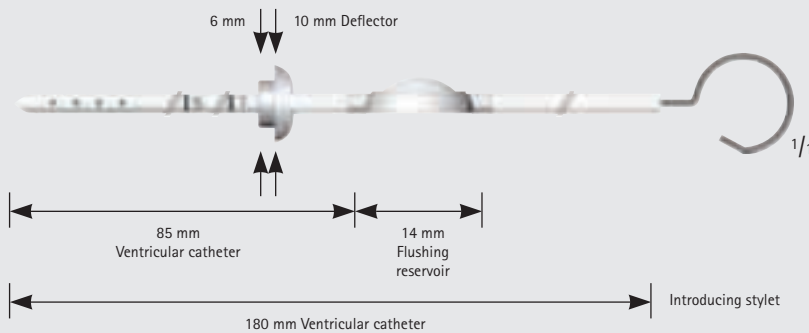
****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



Valve system with one connection

- Ventricular catheter with introducing stylet, integrated flushing reservoir and deflector
- Valve with preattached distal catheter

■ All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
<u>FV282T</u>		4	14
<u>FV283T</u>		4	19
<u>FV284T</u>	up to 6 months**	4	24
<u>FV285T</u>		9	19
<u>FV286T</u>	6 months - 5 years**	9	24
<u>FV287T</u>	over 5 years**	9	29

**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

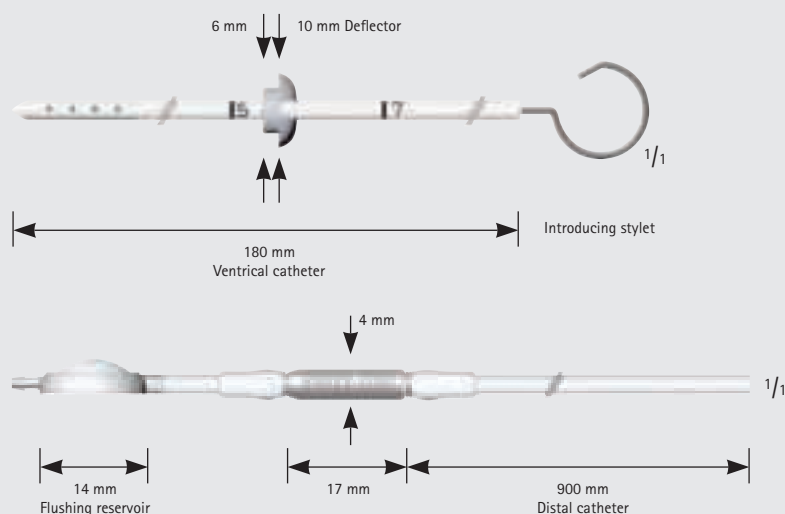
paediGAV® - System with Flushing Reservoir



Valve system with one connection

- Ventricular catheter with introducing stylet and deflector
- Valve with preattached distal catheter and flushing reservoir

All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

		
FV302T	4	14
FV303T	4	19
FV304T	up to 6 months**	24
FV305T	9	19
FV306T	6 months - 5 years**	24
FV307T	over 5 years**	29

**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



CSF & ICP Management *paediGAV®*

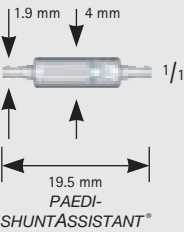


For further details see
brochure No. C82202

Shunts

MILLIMETERS

Single valve



Opening pressure (cmH₂O*)



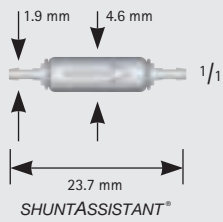
FV288T

10

* 1 cmH₂O = 0,74 mmHg



Single valve



Opening pressure(cmH₂O*)



FV250T	15
FV251T	20
FV252T	25
FV253T	30
FV254T	35

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

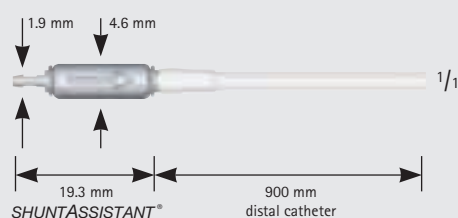
CSF & ICP Management

SHUNTASSISTANT® with Distal Catheter



Single valve with preattached distal catheter

■ All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Opening pressure (cmH₂O*)



FV260T	15
FV261T	20
FV262T	25
FV263T	30
FV264T	35

****Standard pressure levels.** These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



CSF & ICP Management SHUNTASSISTANT® / PAEDI-SHUNTASSISTANT®

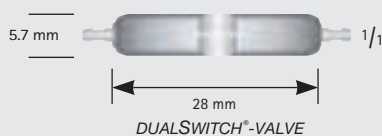


For further details see
brochure No. C82402



Shunts

MILLIMETERS

Single valve



Valve pressure level (cmH₂O*)

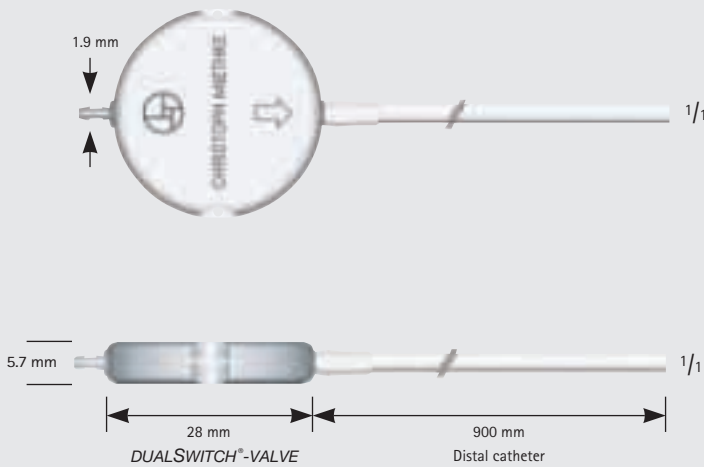
			
<u>FV190T</u>		5	30
<u>FV191T</u>		5	40
<u>FV192T</u>		5	50
<u>FV100T</u>	up to 160 cm**	10	30
<u>FV101T</u>	160 – 180 cm**	10	40
<u>FV102T</u>	above 180 cm*	10	50
<u>FV103T</u>		13	30
<u>FV104T</u>		13	40
<u>FV105T</u>		13	50

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.


* 1 cmH₂O = 0,74 mmHg

Single valve with preattached distal catheter

■ All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
<u>FV370T</u>		5	30
<u>FV371T</u>		5	40
<u>FV372T</u>		5	50
<u>FV118T</u>	up to 160 cm**	10	30
<u>FV119T</u>	160 - 180 cm**	10	40
<u>FV120T</u>	up to 180 cm**	10	50
<u>FV121T</u>		13	30
<u>FV122T</u>		13	40
<u>FV123T</u>		13	50

**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

DUALSWITCH® Shunt System with Flushing Reservoir



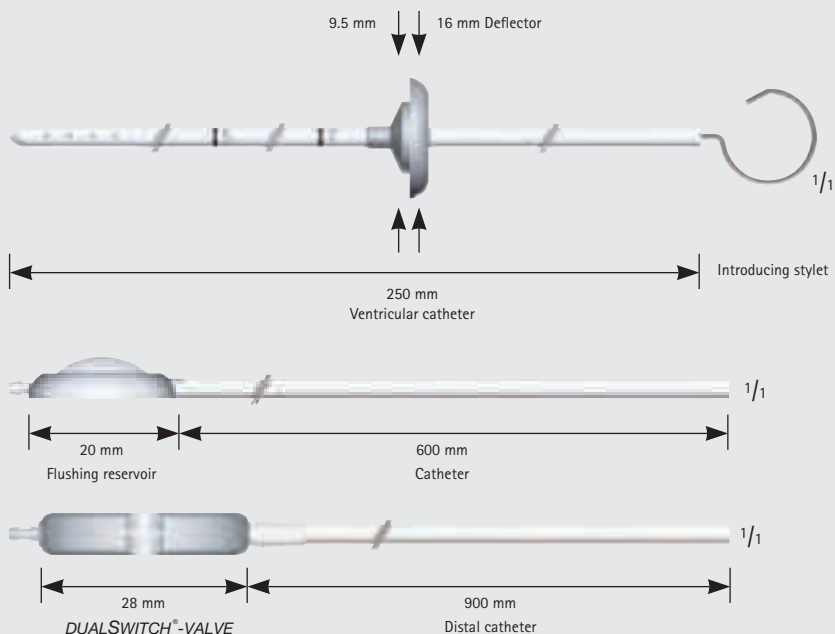
Valve system with two connections

- Ventricular catheter with introducing stylet and deflector
- Flushing reservoir with integrated catheter
- Valve with integrated distal catheter



All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
FV379T		5	30
FV380T		5	40
FV381T		5	50
FV172T	up to 160 cm**	10	30
FV173T	160 – 180 cm**	10	40
FV174T	above 180 cm*	10	50
FV175T		13	30
FV176T		13	40
FV177T		13	50

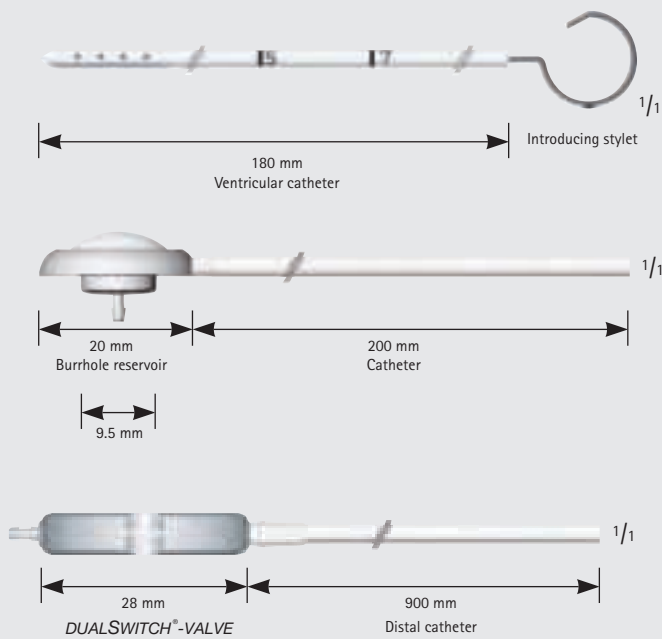
****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Valve system with two connections

- Ventricular catheter with introducing stylet
- Burrhole reservoir with integrated catheter
- Valve with integrated distal catheter

■ All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

FV376T		5	30
FV377T		5	40
FV378T		5	50
FV145T	up to 160 cm**	10	30
FV146T	160 – 180 cm**	10	40
FV147T	above 180 cm**	10	50
FV148T		13	30
FV149T		13	40
FV150T		13	50

**Standard pressure levels. These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

DUALSWITCH® Shunt System with SPRUNG Reservoir



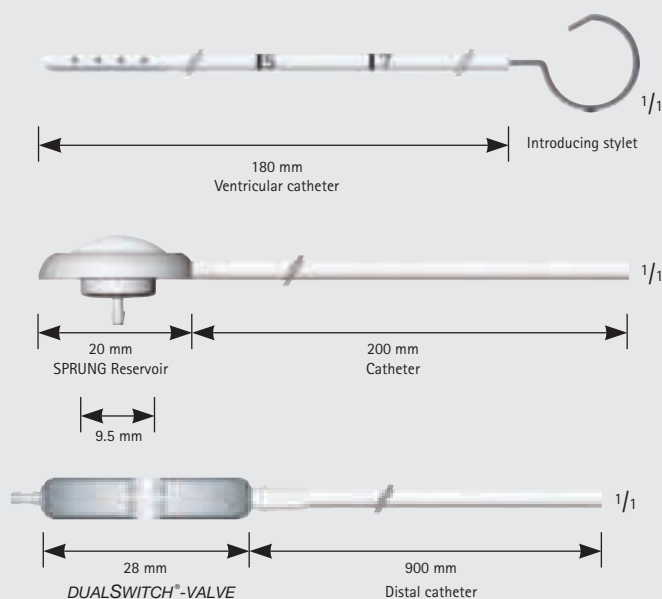
Valve system with two connections

- Ventricular catheter with introducing stylet
- SPRUNG reservoir* with integrated catheter
- * Flushable reservoir for control of the ventricular catheter's patency and the distal share of drainage
- Valve with integrated distal catheter



All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
<u>FV385T</u>		5	30
<u>FV386T</u>		5	40
<u>FV387T</u>		5	50
<u>FV388T</u>	up to 160 cm**	10	30
<u>FV389T</u>	160 – 180 cm**	10	40
<u>FV390T</u>	above 180 cm*	10	50

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



CSF & ICP Management DUALSWITCH® VALVE for L-P Drainage

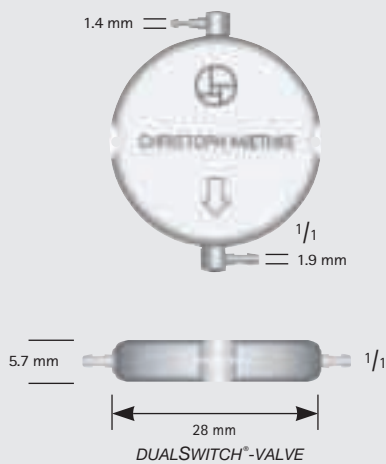
Single valve

- for lumbo-peritoneal drainage

■ All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

FV373T	5	30
FV374T	5	40
FV375T	5	50
FV127T	up to 160 cm**	10
FV128T	160 - 180 cm**	10
FV129T	above 180 cm*	10
FV130T	13	30
FV131T	13	40
FV132T	13	50

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

CSF & ICP Management

DUALSWITCH® VALVE for L-P Drainage



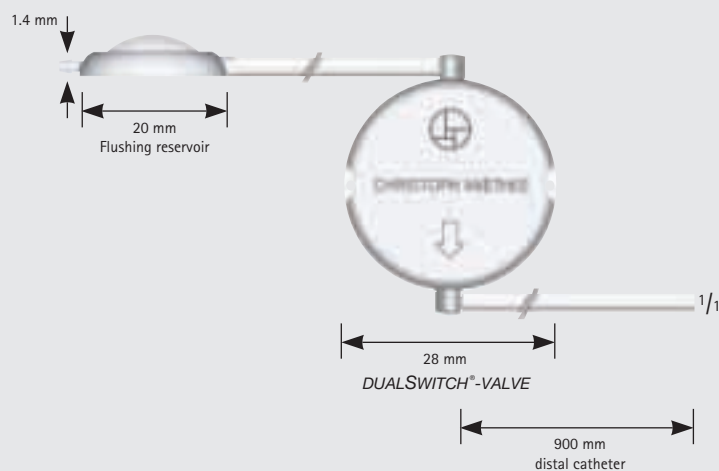
Valve system

- Valve with integrated flushing reservoir and integrated distal catheter
- for lumbo-peritoneal drainage



All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)

			
<u>FV382T</u>		5	30
<u>FV383T</u>		5	40
<u>FV384T</u>		5	50
<u>FV163T</u>	up to 160 cm**	10	30
<u>FV164T</u>	160 – 180 cm**	10	40
<u>FV165T</u>	above 180 cm*	10	50
<u>FV166T</u>		13	30
<u>FV167T</u>		13	40
<u>FV168T</u>		13	50

****Standard pressure levels.** These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



CSF & ICP Management DUALSWITCH®-VALVE / MONOSTEP®-VALVE

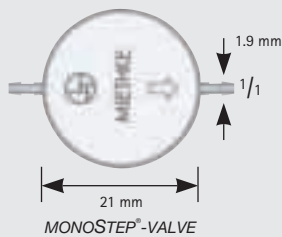



For further details see
brochure No. C82302

Shunts

MILLIMETERS

Single valve



	Valve pressure level (cmH ₂ O*)
	
<u>FV200T</u>	5
<u>FV201T</u>	7
<u>FV202T **</u>	10
<u>FV203T</u>	13
<u>FV204T</u>	16

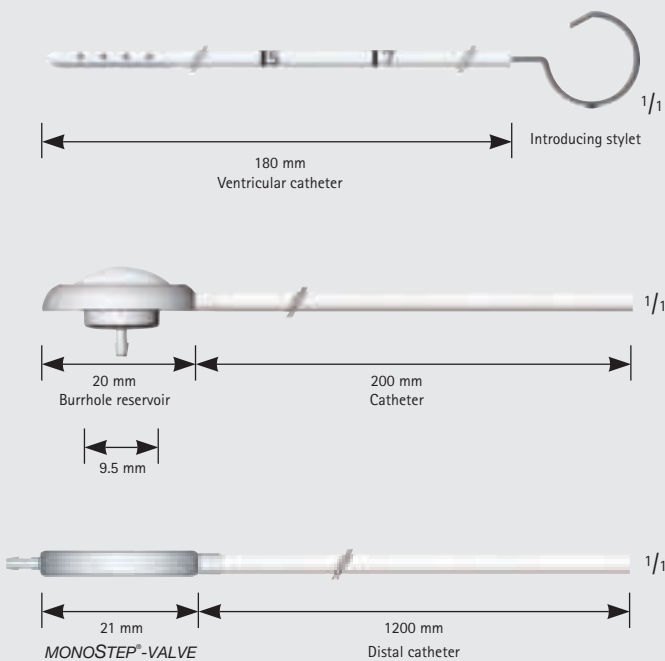
**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

Valve system with two connections

- Ventricular catheter with introducing stylet
- Burrhole reservoir with integrated catheter
- Valve with integrated distal catheter

- All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)



	Valve pressure level (cmH ₂ O*)
FV210T	5
FV211T	7
FV212T **	10
FV213T	13
FV214T	16

****Standard pressure levels.** These guide values are not binding.
 Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg

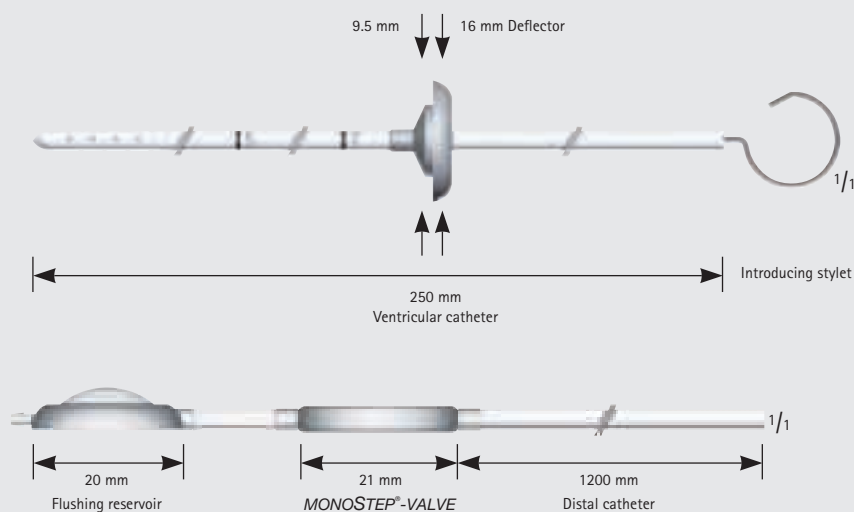
Valve system with one connection

- Ventricular catheter with introducing stylet and deflector
- Valve with integrated flushing reservoir and integrated distal catheter

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Valve pressure level (cmH₂O*)



FV220T	5
FV221T	7
FV222T **	10
FV223T	13
FV224T	16

**Standard pressure levels. These guide values are not binding.
Other specifications may be preferable depending on the individual patient and anamnesis.

* 1 cmH₂O = 0,74 mmHg



CSF & ICP Management DUALSWITCH®-VALVE / MONOSTEP®-VALVE



For further details see
brochure No. C82302

Shunts

MILLIMETERS

- All catheters
 - are made of radiopaque silicone
 - $d_i = 1.2 \text{ mm}$
 - $d_o = 2.5 \text{ mm}$



	Length
FV070P	600 mm
FV071P	900 mm
FV072P	1200 mm

Peritoneal catheter, barium-impregnated



	Length
FV092P	600 mm
FV091P	900 mm
FV090P	1200 mm

Peritoneal catheter with integrated barium strip



	Length
FV074P	180 mm
FV077P	250 mm

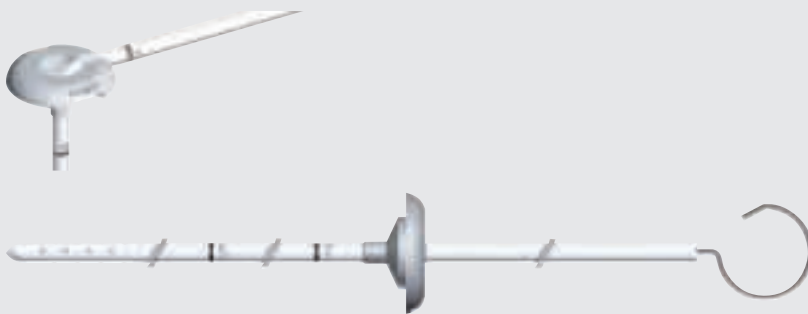
Ventricular catheter with introducing stylet , graduated

- All catheters
 - are made of radiopaque silicone
 - $d_i = 1.2 \text{ mm}$
 - $d_o = 2.5 \text{ mm}$

Deflector:

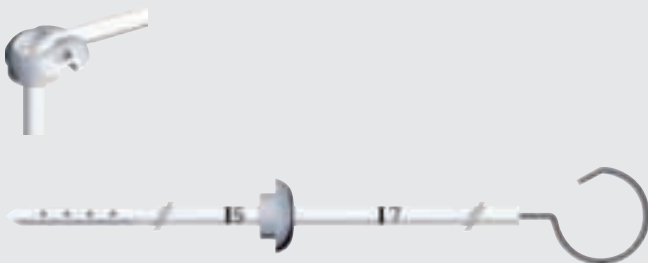
- With suture fixation hole
- Made of titanium
- Radiopaque
- Allows 90° deflection of the ventricular catheter in the burrhole without kinking the catheter
- Adjustable on catheter
- Allows precise setting of the penetration depth of the ventricular catheter prior to implantation

Ventricular catheter with deflector



Set, consisting of:

- | | |
|---------------|--|
| FV075P | - Ventricular catheter, 180 mm, with introducing, graduated |
| | - Deflector, large |
| FV078P | - Ventricular catheter, 250 mm, with introducing stylet, graduated |
| | - Deflector, large |



Set, consisting of:

- | | |
|---------------|--|
| FV076P | - Ventricular catheter, 250 mm, with introducing stylet, graduated |
| | - Deflector, small, for pediatric application |

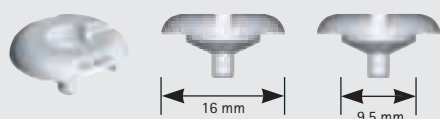
Burrhole deflector

- With suture fixation hole
- Made of titanium
- Radiopaque
- Allows 90° deflection of the ventricular catheter in the burrhole without kinking the catheter
- Adjustable on catheter

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



FV010T

Deflector,
large, 16 mm



FV011T

Deflector for pediatric patients,
small, 10 mm

Port

- Made of titanium
- Radiopaque
- Low overall height for easy and safe positioning and fixation of the ventricular catheter
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Solid titanium base preventing penetration with a syringe needle

■ All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



FV030T

Burrhole port,
large, 20 mm



FV040T

Burrhole port for pediatric application,
small, 14 mm



FV042T

Burrhole port set for pediatric application,
consisting of:

- Burrhole port, small, 14 mm
- Ventricular catheter, 180 mm, with introducing stylet, graduated

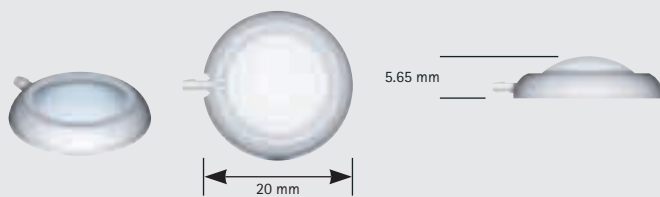
Port

- Made of titanium
- Radiopaque
- Low overall height for easy and safe positioning and fixation of the ventricular catheter
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Solid titanium base preventing penetration with a syringe needle

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



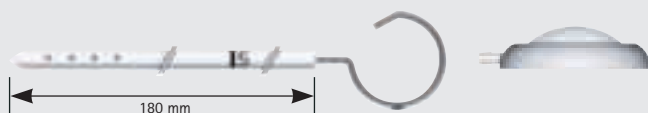
FV060T

CSF port,
20 mm



FV061T

CSF port
with integrated ventricular catheter,
85 mm



FV062T

CSF port, 20 mm, consisting of:

- ventricular catheter, 180 mm, with introducing stylet, graduated

Burrhole reservoir

- Made of titanium
- Radiopaque
- Low overall height for easy and safe positioning and fixation of the ventricular catheter
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Solid titanium base preventing penetration with a syringe needle

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



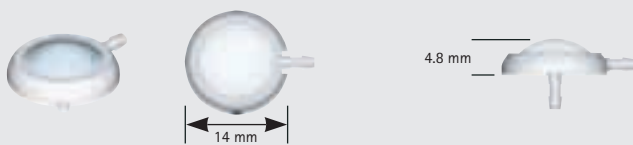
FV028T

large, 20 mm



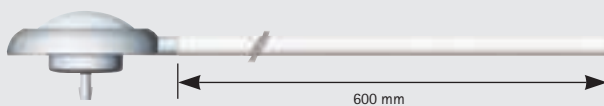
FV029T

ETOU reservoir, large, 20 mm
with adjustable connector



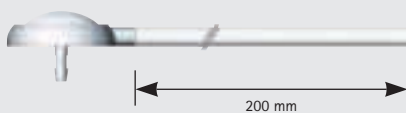
FV039T

small, 14 mm
for pediatric application



FV027T

large, 20 mm
with integrated catheter, 600 mm



FV054T

small, 14 mm
with integrated catheter, 200 mm

CSF & ICP Management

Accessories - Burrhole Reservoir Set



Burrhole reservoir

- Made of titanium
- Radiopaque
- Low overall height for easy and safe positioning and fixation of the ventricular catheter
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Solid titanium base preventing penetration with a syringe needle

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



FV032T

Set, consisting of:

- Burrhole reservoir, large, 20 mm
- Ventricular catheter, 180 mm, with introducing stylet, graduated



FV031T

Set, consisting of:

- Burrhole reservoir, large, with catheter 600 mm
- Ventricular catheter, 180 mm, with introducing stylet



FV041T

Set for pediatric application, consisting of:

- Burrhole reservoir, small, 14 mm
- Ventricular catheter, 180 mm, with introducing stylet, graduated



FV055T

Set for pediatric application, consisting of:

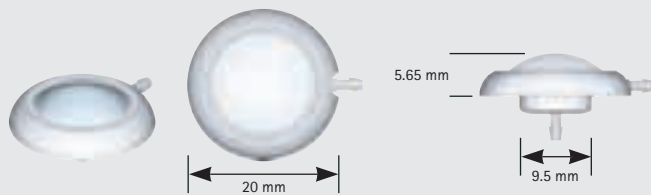
- Burrhole reservoir, small, 14 mm with catheter, 200 mm
- Ventricular catheter, 180 mm, with introducing stylet, graduated



CSF & ICP Management Accessories - Burrhole Reservoir

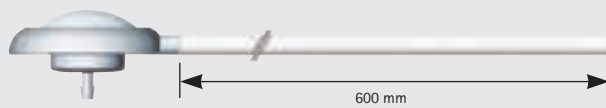
SPRUNG reservoir

- Made of titanium
- Radiopaque
- Allows checking the patency of both the ventricular catheter and the distal catheter
- Solid titanium base preventing penetration with a syringe needle
- Integrated valve mechanism shutting off the proximal connection to the ventricular catheter during pumping



FV043T

SPRUNG Reservoir,
20 mm



FV044T

SPRUNG Reservoir, 20 mm
with integrated catheter, 600 mm

- Integrated valve mechanism shutting off the proximal connection to the ventricular catheter during pumping

Mechanism:



Shunts

MILLIMETERS

SPRUNG reservoir

- Made of titanium
- Radiopaque
- Allows checking the patency of both the ventricular catheter and the distal catheter
- Solid titanium base preventing penetration with a syringe needle
- Integrated valve mechanism shutting off the proximal connection to the ventricular catheter during pumping

All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



FV045T

Set, consisting of:

- **SPRUNG** reservoir, 20 mm
- Ventricular catheter, 180 mm, with introducing stylet, graduated



FV046T

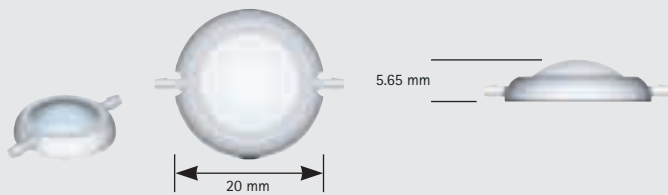
Set, consisting of:

- **SPRUNG** reservoir, 20 mm, with catheter, 600 mm
- Ventricular catheter, 180 mm, with introducing stylet, graduated

Flushing reservoir

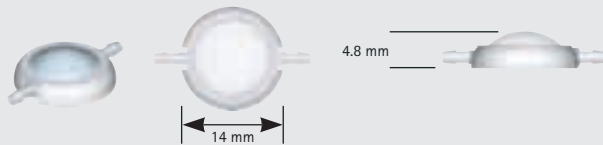
- Made of titanium
- Radiopaque
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Solid titanium base preventing penetration with a syringe needle

- All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



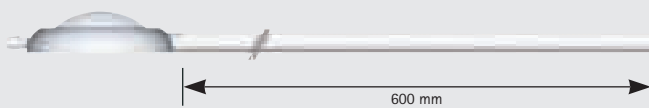
FV033T

large, 20 mm



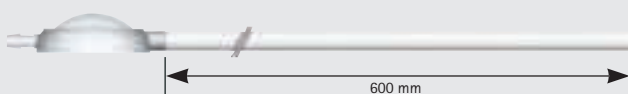
FV035T

small, 14 mm
for pediatric patients



FV034T

large, 20 mm
with integrated catheter,
600 mm



FV081T

small, 14 mm
with integrated catheter,
600 mm

CSF & ICP Management

Accessories - Flushing Reservoir Set



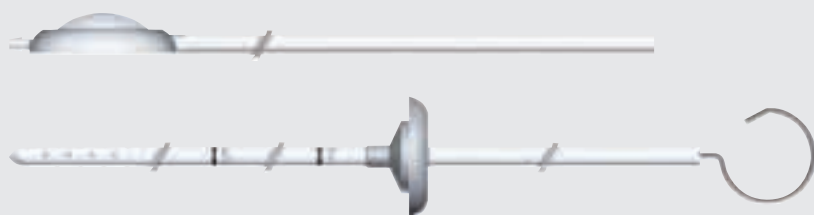
Flushing reservoir

- Made of titanium
- Radiopaque
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Solid titanium base preventing penetration with a syringe needle

All catheters:

$d_i = 1.2 \text{ mm}$

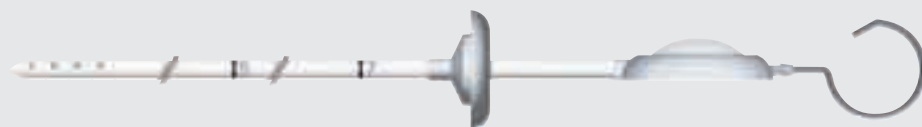
$d_o = 2.5 \text{ mm}$



FV036T

Set, consisting of:

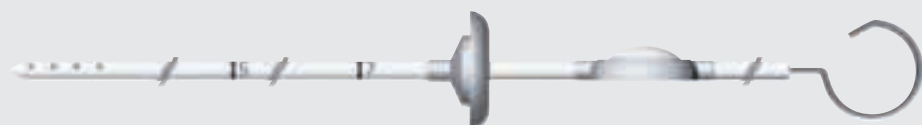
- Ventricular catheter, 180 mm, with introducing stylet, graduated
- Flushing reservoir, large, 20 mm with integrated catheter, 600 mm
- Deflector, large, 16 mm



FV037T

Set, consisting of:

- Ventricular catheter, 85 mm, graduated with introducing stylet and integrated flushing reservoir, large, 20 mm
- Deflector, large, 16 mm



FV079T

Set, consisting of:

- Ventricular catheter, 85 mm, graduated with introducing stylet and integrated flushing reservoir, small, 14 mm, and with distal catheter
- Deflector, large, 16 mm

Flushing reservoir

- Made of titanium
- Radiopaque
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Solid titanium base preventing penetration with a syringe needle

■ All catheters:

$d_i = 1.2 \text{ mm}$

$d_o = 2.5 \text{ mm}$



Set, consisting of:

FV038T	- Ventricular catheter, 85 mm, graduated, with integrated flushing reservoir, small, 14 mm, and with distal catheter and introducing stylet Deflector, small, 10 mm
FV080T	- Ventricular catheter, 100 mm, graduated, with integrated flushing reservoir, small, 14 mm, and with distal catheter and introducing stylet Deflector, small, 10 mm

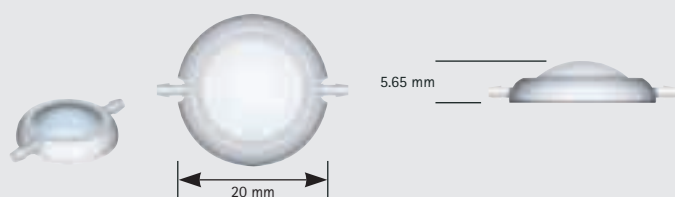
CSF & ICP Management

Accessories - Flushing Reservoir



Control reservoir

- Made of titanium
 - Radiopaque
 - Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
 - Allows checking the patency of both the ventricular catheter and the distal catheter
 - Solid titanium base preventing penetration with a syringe needle
 - Integrated valve mechanism shutting off the proximal connection to the ventricular catheter during pumping
- All catheters:
 $d_i = 1.2 \text{ mm}$
 $d_o = 2.5 \text{ mm}$



FV047T

Control reservoir, 20 mm

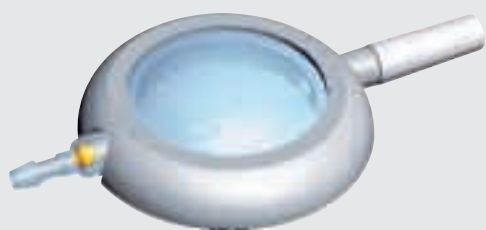


FV048T

Control reservoir, 20 mm,
with integrated catheter,
600 mm

- Integrated valve mechanism shutting off the proximal connection to the ventricular catheter during pumping

Mechanism:

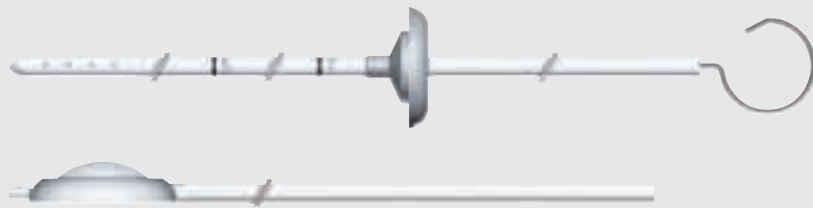




CSF & ICP Management Accessories - Flushing Reservoir

Control reservoir

- Made of titanium
- Radiopaque
- Allows CSF extraction and drug injection by inserting a syringe through the silicone dome
- Allows checking the patency of both the ventricular catheter and the distal catheter
- Solid titanium base preventing penetration with a syringe needle
- Integrated valve mechanism shutting off the proximal connection to the ventricular catheter during pumping
- All catheters:
 - $d_i = 1.2 \text{ mm}$
 - $d_o = 2.5 \text{ mm}$



FV049T

Set, consisting of:

- Control reservoir, 20 mm, with integrated catheter, 600 mm
- Ventricular catheter, 180 mm, with introducing stylet, graduated
- Deflector, large, 16 mm

Shunts

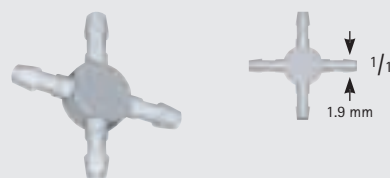
MILLIMETERS

Titanium connector

- Preferably for use with catheters of
 - internal diameter (d_i): 1.2 mm,
 - external diameter (d_o): 2.5 mm
- Connector diameter: 1.9 mm



straight	Sales unit
<u>FV012T</u>	ST = Package of 1 piece
<u>FV013T</u>	PAK = Package of 5 pieces
<u>FV014T</u>	PAK = Package of 10 pieces



X-shape	Sales unit
<u>FV021T</u>	ST = Package of 1 piece
<u>FV022T</u>	PAK = Package of 5 pieces
<u>FV023T</u>	PAK = Package of 10 pieces



L-shape	Sales unit
<u>FV051T</u>	ST = Package of 1 piece



Y-shape	Sales unit
<u>FV015T</u>	ST = Package of 1 piece
<u>FV016T</u>	PAK = Package of 5 pieces
<u>FV017T</u>	PAK = Package of 10 pieces



T-shape	Sales unit
<u>FV018T</u>	ST = Package of 1 piece
<u>FV019T</u>	PAK = Package of 5 pieces
<u>FV020T</u>	PAK = Package of 10 pieces



	Sales unit
<u>FV024T</u>	ST = Package of 1 piece
<u>FV025T</u>	PAK = Package of 5 pieces
<u>FV026T</u>	PAK = Package of 10 pieces

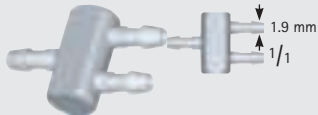
Sealing plugs



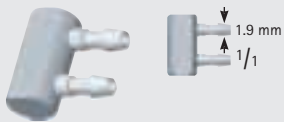
CSF & ICP Management Accessories - Titanium Connector

MAGRAM connector

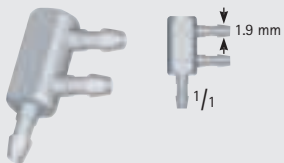
- Preferably for use with catheters of
 - internal diameter (d_i): 1.2 mm,
 - external diameter (d_o): 2.5 mm
- Connector diameter: 1.9 mm



Y-shape	Sales unit
<u>FV056T</u>	ST = Package of 1 piece



U-shape	Sales unit
<u>FV057T</u>	ST = Package of 1 piece



F-shape	Sales unit
<u>FV058T</u>	ST = Package of 1 piece



L-shape	Sales unit
<u>FV059T</u>	ST = Package of 1 piece

Shunts

MILLIMETERS

CSF & ICP Management

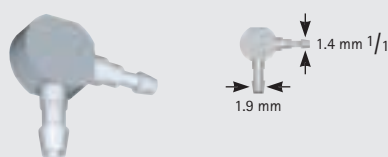
Accessories - Titanium Connector



- Step-down connector
 - designed for connecting standard catheters to lumbar catheters
 - diameters: 1.9 mm to 1.4 mm

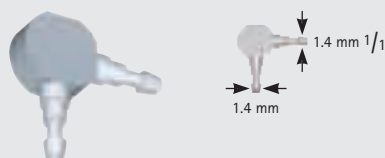


straight	Sales unit
FV050T	ST = Package of 1 piece
Titanium connector, step down	



L-shape	Sales unit
FV052T	ST = Package of 1 piece
Titanium connector, step down	

- L-P connector
 - designed for connecting two lumbar catheters to each other
 - diameters: 1.4 mm to 1.4 mm



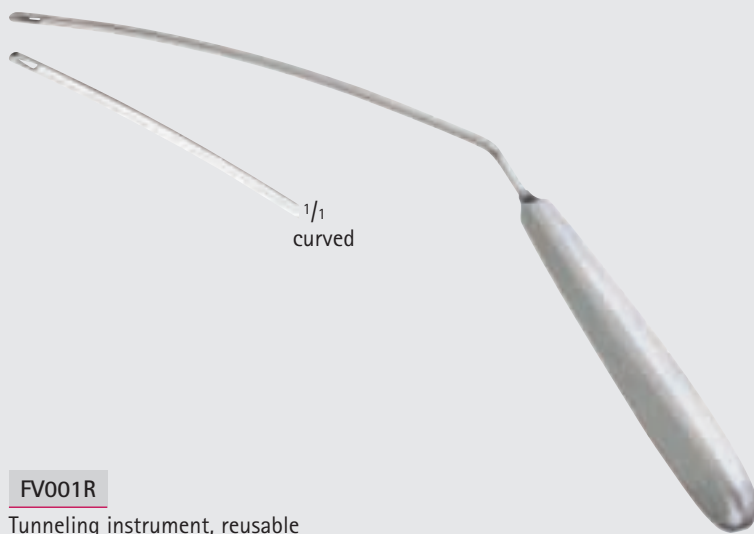
L-shape	Sales unit
FV053T	ST = Package of 1 piece
Titanium connector, L-P drainage	



CSF & ICP Management Accessories - Tunneling Instruments



- For percutaneous tunneling and inserting of catheters



FV001R

Tunneling instrument, reusable



Length

FV002R	300 mm
FV003R	450 mm
FV004R	600 mm

Single-use tunneling instrument, flexible

Sales unit:

PAK = Package of 10 pieces,
each in individual sterile packaging

Shunts

MILLIMETERS

Aesculap Neurosurgery Hydrocephalus Shunt Accessories



Accessories for MEDTRONIC shunt systems

B. BRAUN
Shaping Progress

For further details see
brochure No. C82502

Clips



Cerebrovascular Clips

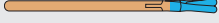

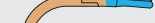
Cerebrovascular Clips

YASARGIL Titanium Standard Clips

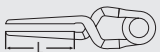


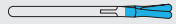

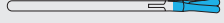





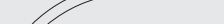

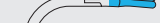
YASARGIL Titanium Standard Clips

- MRI safety, non-ferromagnetic, tested up to 3 Tesla
- minor artifacts in CT and MRI
- color coding with blue spring (standard clip) and golden or silver blades (temporary or permanent clip respectively)
- sterile packaging

TEMPORARY

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT240T		7.0	6.2	1.08	110
FT250T		9.0	7.0	0.88	90
FT260T		11.0	7.8	0.88	90
FT280T		15.0	9.2	0.88	90
FT292T		17.5	10.6	0.88	90
FT290T		20.0	11.4	1.08	110
FT242T		6.5	6.0	1.08	110
FT252T		8.3	6.8	0.88	90
FT262T		10.2	7.5	0.88	90
FT282T		13.7	8.7	1.08	110
FT286T		15.3	9.8	1.08	110
FT244T		5.4	5.5	1.08	110
FT254T		6.4	6.1	1.08	110

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT740T		7.0	6.2	1.47	150
FT750T		9.0	7.0	1.77	180
FT760T		11.0	7.8	1.77	180
FT780D		15.0	9.2	1.96	200
FT792D		17.5	10.6	1.96	200
FT790D		20.0	11.4	1.96	200
FT742T		6.5	6.0	1.47	150
FT752T		8.3	6.8	1.77	180
FT762T		10.2	7.5	1.77	180
FT782T		13.7	8.7	1.96	200
FT786T		15.3	9.8	1.77	180
FT744T		5.4	5.5	1.47	150
FT754T		6.4	6.1	1.77	180



Cerebrovascular Clips

YASARGIL Titanium Standard Clips

TEMPORARY

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT264T		8.0	6.5	1.08	110
FT284T		10.3	7.4	1.08	110
FT323T		7.4	5.4	1.08	110
FT324T		8.4	5.8	1.08	110
FT325T		10.5	6.2	1.08	110
FT270T	 Height of step 2.5 mm	5.0	8.0	1.08	110
FT271T	 Height of step 3.5 mm	5.0	8.0	1.08	110
FT272T	 Height of step 4.5 mm	5.0	8.0	1.08	110
FT248T		7.0	7.9	0.88	90
FT258T		9.0	8.7	0.88	90
FT259T		12.0	10.2	0.88	90
FT103T		6.1	6.5	1.08	110
FT113T		8.0	6.2	1.08	110

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT764T		8.0	6.5	1.77	180
FT784T		10.3	7.4	1.96	200
FT823T		7.4	5.4	1.77	180
FT824T		8.4	5.8	1.77	180
FT825T		10.5	6.2	1.77	180
FT770T	 Height of step 2.5 mm	5.0	8.0	1.96	200
FT771T	 Height of step 3.5 mm	5.0	8.0	1.96	200
FT772T	 Height of step 4.5 mm	5.0	8.0	1.96	200
FT748T		7.0	7.9	1.96	200
FT758T		9.0	8.7	1.96	200
FT759T		12.0	10.2	1.96	200
FT603T		6.1	6.5	1.96	200
FT613T		8.0	6.2	1.96	200


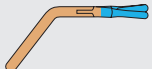
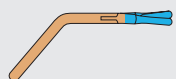
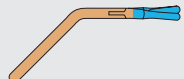
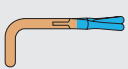
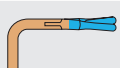
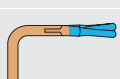
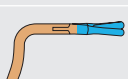
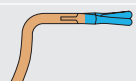
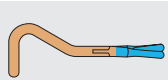

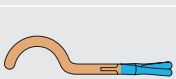
Clips

MILLIMETERS

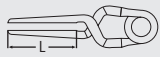
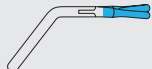
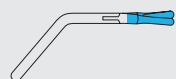
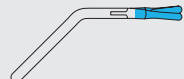
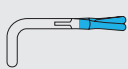
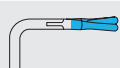
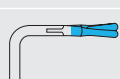
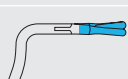
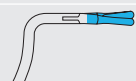
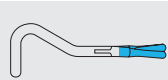


Cerebrovascular Clips

YASARGIL Titanium Standard Clips

TEMPORARY

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
<u>FT310T</u>		9.0	6.5	1.08	110
<u>FT123T</u>		10.6	7.8	1.08	110
<u>FT263T</u>		11.8	8.4	1.08	110
<u>FT319T</u>		5.0	5.6	1.28	130
<u>FT320T</u>		7.0	4.5	1.28	130
<u>FT322T</u>		10.0	5.6	1.28	130
<u>FT350T</u>		6.7	5.4	1.28	130
<u>FT351T</u>		9.0	5.6	1.28	130
<u>FT330T</u>		7.0	7.2	0.88	90
<u>FT332T</u>		9.3	7.2	0.88	90
<u>FT333T</u>		11.3	8.2	0.88	90

PERMANENT

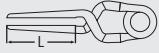
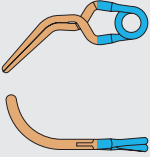
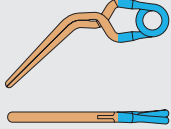
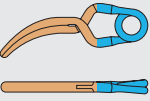
Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
<u>FT810T</u>		9.0	6.5	1.96	200
<u>FT623T</u>		10.6	7.8	1.96	200
<u>FT763T</u>		11.8	8.4	1.67	170
<u>FT819T</u>		5.0	5.6	1.96	200
<u>FT820T</u>		7.0	4.5	1.96	200
<u>FT822T</u>		10.0	5.6	1.96	200
<u>FT850T</u>		6.7	5.4	1.96	200
<u>FT851T</u>		9.0	5.6	1.96	200
<u>FT830T</u>		7.0	7.2	1.96	200
<u>FT832T</u>		9.3	7.2	1.96	200
<u>FT833T</u>		11.3	8.2	1.96	200



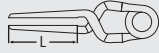
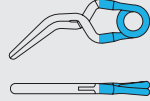
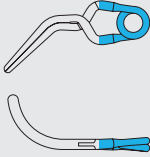
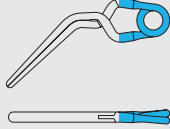
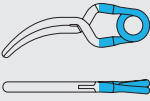
Cerebrovascular Clips

YASARGIL Titanium Standard Clips

TEMPORARY

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT246T		7.0	5.7	0.88	90
FT273T		7.8	5.3	0.88	90
FT261T		11.4	8.0	0.88	90
FT247T		8.6	7.0	0.88	90

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT746T		7.0	5.7	1.96	200
FT773T		7.8	5.5	1.77	180
FT761T		11.4	8.0	1.96	200
FT747T		8.6	7.0	1.77	180

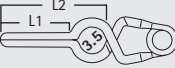
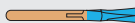
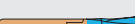
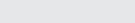
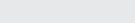
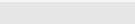
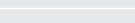
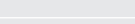
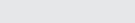
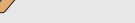
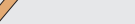
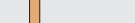
Clips

MILLIMETERS

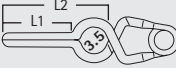
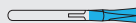
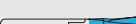
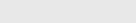
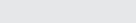
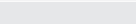
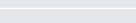
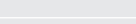
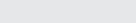
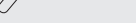
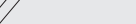
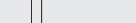
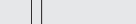
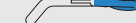
Cerebrovascular Clips

YASARGIL Titanium Fenestrated Clips

TEMPORARY

Cat. No.		Diameter of fenestration 3.5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT097T		3/8.1	7.5	1.08	110
FT098T		4/9.1	7.4	1.08	110
FT099T		5/10.1	7.4	1.08	110
FT100T		6/11.1	7.4	1.08	110
FT110T		9/14.1	8.4	1.08	110
FT120T		12/17	9.6	1.08	110
FT102T		5/7.8	5.8	1.08	110
FT112T		7.5/9.4	6.5	1.08	110
FT122T		10/11	7.2	1.08	110
FT104T		5/5.1	4.9	1.08	110
FT114T		7.5/5.1	4.9	1.08	110

PERMANENT


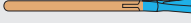
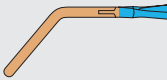
Cat. No.		Diameter of fenestration 3.5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT597T		3/8.1	7.5	1.47	150
FT598T		4/9.1	7.4	1.47	150
FT599T		5/10.1	7.4	1.47	150
FT600T		6/11.1	7.4	1.47	150
FT610T		9/14.1	8.4	1.47	150
FT620T		12/17	9.6	1.77	180
FT602T		5/7.8	5.8	1.47	150
FT612T		7.5/9.4	6.5	1.47	150
FT622T		10/11	7.2	1.77	180
FT604T		5/5.1	4.9	1.47	150
FT614T		7.5/5.1	4.9	1.47	150
FT902T		3/6.3	5.8	1.47	150
FT904T		3/5.1	4.9	1.47	150




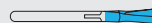

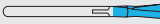

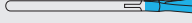


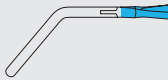
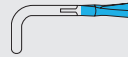
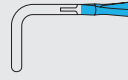
Cerebrovascular Clips

YASARGIL Titanium Fenestrated Clips

TEMPORARY

Cat. No.		Diameter of fenestration 5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N)	Closing force (g)
FT137T		3/9.8	7.4	1.08	110
FT138T		4/10.8	7.4	1.08	110
FT139T		5/11.8	7.4	1.08	110
FT140T		6/12.7	7.9	1.08	110
FT150T		9/15.7	9.1	1.08	110
FT142T		5/9	6.5	1.08	110
FT152T		7.5/10.6	7.2	1.08	110
FT162T		10/12.2	7.8	1.08	110
FT144T		5/6.7	5.5	1.08	110
FT154T		7.5/6.7	5.5	1.08	110

PERMANENT

Cat. No.		Diameter of fenestration 5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N)	Closing force (g)
FT637T		3/9.8	7.4	1.47	150
FT638T		4/10.8	7.4	1.47	150
FT639T		5/11.8	7.4	1.47	150
FT640T		6/12.7	7.9	1.47	150
FT650T		9/15.7	9.1	1.47	150
FT642T		5/9.4	6.5	1.47	150
FT652T		7.5/10.6	7.2	1.47	150
FT662T		10/12.2	7.8	1.77	180
FT644T		5/6.7	5.5	1.47	150
FT654T		7.5/6.7	5.5	1.47	150

Clips

MILLIMETERS

Cerebrovascular Clips

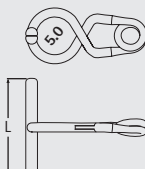



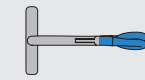
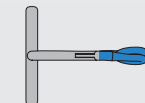
YASARGIL Titanium T-Bar Clips

Titanium T-Bar Clips acc. KOPITNIK

Aneurysm clip with a unique design

- the blades of the T-Bar Clip are oriented in a 90° or 45° angle to the axis of the spring plane resulting in a T-like clip form. The unique shape opens up new options for the treatment of complicated cerebral aneurysms. The spring type is identical to the existing and proven Standard YASARGIL Aneurysm Clip with a 5 mm diameter fenestration.

PERMANENT

Cat. No.		Diameter of fenestration 5 mm				
		Blade length (mm)	Angle	Max. opening (mm)	Closing force (N)	Closing force (g)
FT852T		5.0	45°	5.5	1.47	150
FT853T		9.0	45°	5.5	1.47	150
FT854T		5.0	90°	5.5	1.47	150
FT855T		9.0	90°	5.5	1.47	150
FT856T		13.0	90°	5.5	1.77	180



Cerebrovascular Clips

YASARGIL Titanium Reinforcing Clip

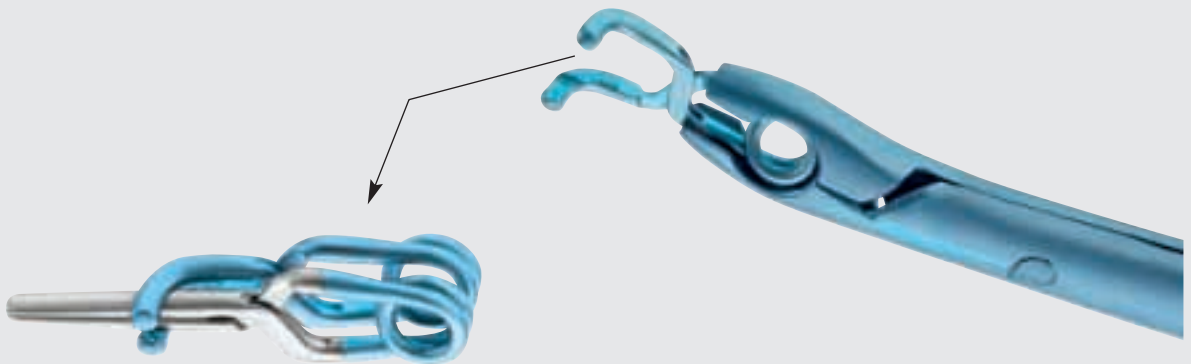
Titanium Reinforcing Clip

- to increase the closing force of YASARGIL Titanium Standard Aneurysm Clips.

PERMANENT

Cat. No.

FT900T



Clips

MILLIMETERS

Cerebrovascular Clips

YASARGIL Titanium Mini Clips

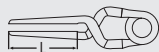



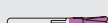
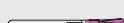



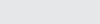
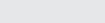
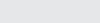
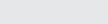
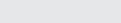
YASARGIL Titanium Mini Clips

- MRI safety, non-ferromagnetic, tested up to 3 Tesla
- minor artifacts in CT and MRI
- color coding with violet spring (mini clip) and golden or silver blades (temporary or permanent clip respectively)
- sterile packaging

TEMPORARY

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT180T		3.0	3.3	0.88	90
FT190T		5.0	4.0	0.69	70
FT200T		3.0	3.3	0.88	90
FT210T		5.0	4.0	0.69	70
FT220T		7.0	4.6	0.69	70
FT182T		2.8	3.2	0.88	90
FT194T		4.0	3.6	0.78	80
FT192T		4.7	3.8	0.69	70
FT211T		4.0	3.6	0.78	80
FT212T		4.7	3.8	0.69	70
FT213T		4.0	3.6	0.78	80
FT226T		5.2	4.0	0.69	70
FT222T		6.6	4.4	0.69	70

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT680T		3.0	3.3	1.08	110
FT690T		5.0	4.0	1.08	110
FT700T		3.0	3.3	1.08	110
FT710T		5.0	4.0	1.08	110
FT720T		7.0	4.6	1.08	110
FT682T		2.8	3.2	1.08	110
FT694T		4.0	3.6	1.08	110
FT692T		4.7	3.8	1.08	110
FT711T		4.0	3.6	1.08	110
FT712T		4.7	3.8	1.08	110
FT713T		4.0	3.6	1.08	110
FT726T		5.2	4.0	1.08	110
FT722T		6.6	4.4	1.08	110



Cerebrovascular Clips

YASARGIL Titanium Mini Clips

TEMPORARY

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT214T		3.9	3.5	0.78	80
FT224T		5.0	4.0	0.69	70
FT216T		5.0	3.5	0.69	70
FT307T		4.7	4.0	0.69	70
FT217T		6.3	6.0	0.69	70
FT227T		4.0	7.0	0.69	70
FT228T		7.0	5.7	0.69	70
FT306T		7.0	4.5	0.69	70

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FT714T		3.9	3.5	1.08	110
FT724T		5.0	4.0	1.08	110
FT716T		5.0	3.5	1.08	110
FT807T		4.7	4.0	1.08	110
FT717T		6.3	6.0	1.08	110
FT727T		4.0	7.0	1.08	110
FT728D		7.0	5.7	1.08	110
FT806T		7.0	4.5	1.08	110

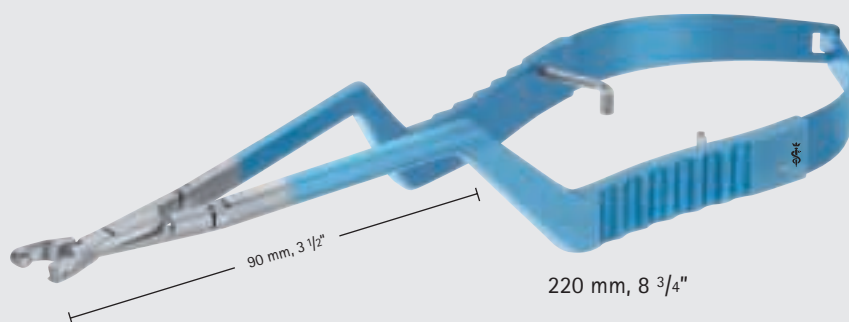
Clips

MILLIMETERS

Cerebrovascular Clips

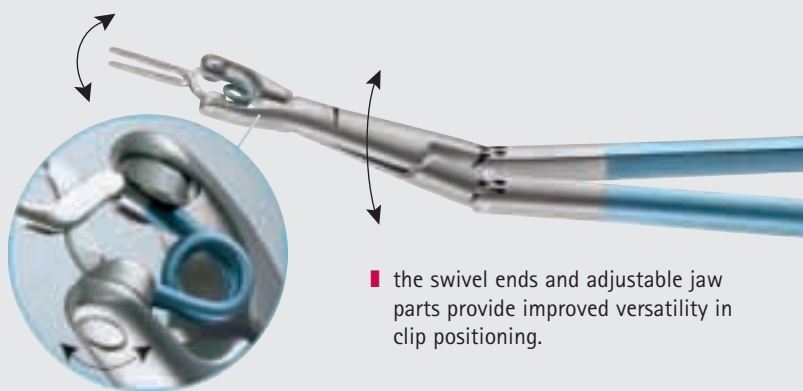
YASARGIL Titanium Vario Clip Applier

- color coding blue for Standard and violet for Mini Clips



Standard	Mini
FT412T	FT402T

Clips



FT402/800

Adjusting key

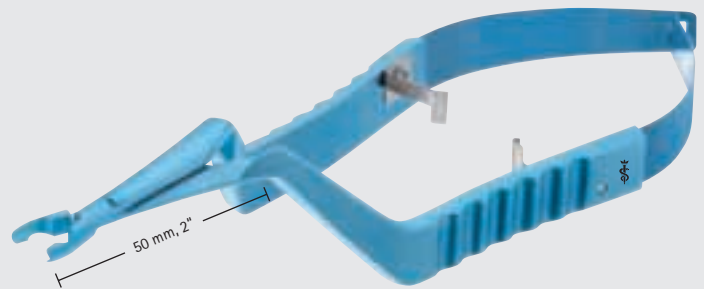




Cerebrovascular Clips

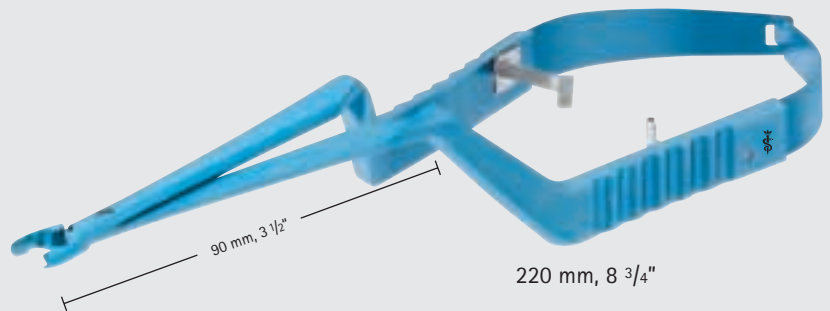
YASARGIL Titanium Clip Applier

■ color coding blue for Standard
and violet for Mini Clips



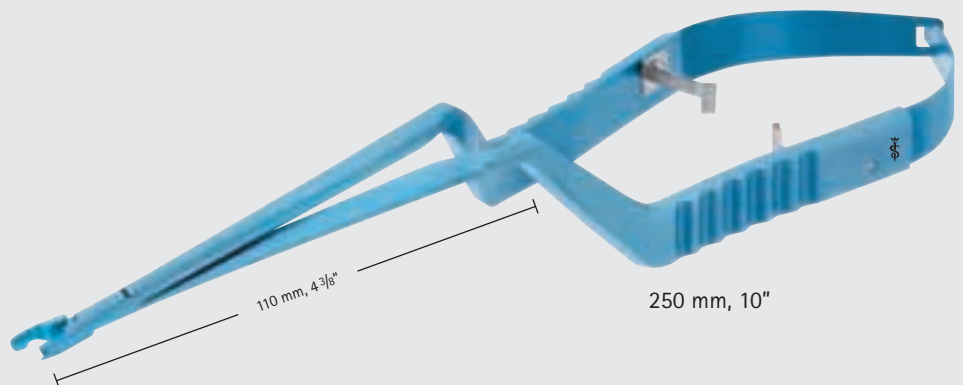
180 mm, 7"

Standard	Mini
FT480T	FT470T



220 mm, 8 3/4"

Standard	Mini		
FT482T	FT472T		straight
FT485T	FT475T		15° angled



250 mm, 10"

Standard	Mini		
FT484T	FT474T		straight
FT487T	FT477T		15° angled

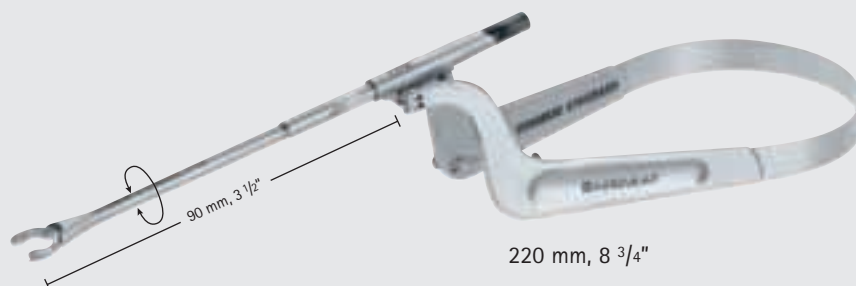
Clips

MILLIMETERS

Cerebrovascular Clips

YASARGIL Titanium XS Clip Applier

- 360° rotation
- suitable for narrow approach



Standard	Mini
FT495T	FT490T

Clips



Standard	Mini
FT496T	FT491T

Notice:
Disassembling/Assembling of Titanium XS Clip Appliers: See page 606.

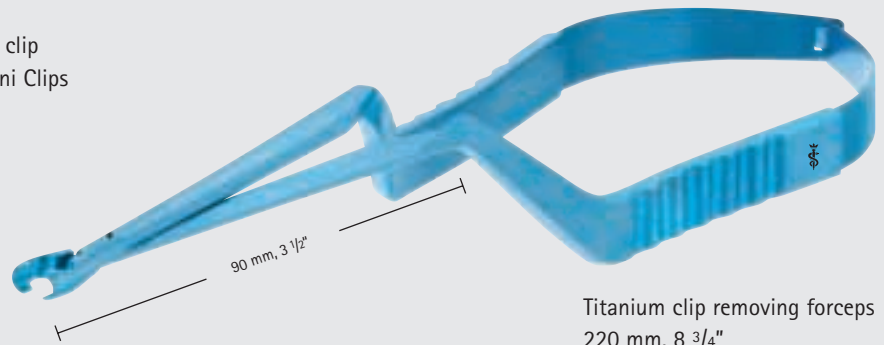


Cerebrovascular Clips

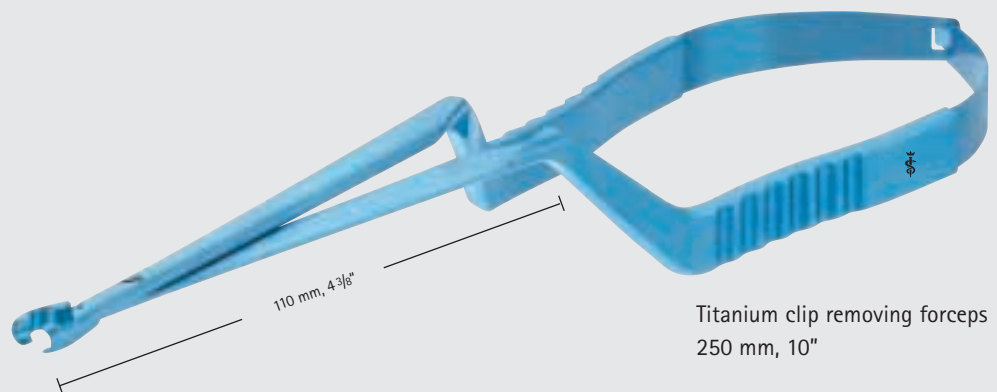
YASARGIL Titanium Clip Removing Forceps

YASARGIL Removing Forceps

- with special jaws for safe removal of an applied clip
- color coding blue for Standard and violet for Mini Clips



Standard	Mini
FT082T	FT072T



Standard	Mini
FT083T	FT073T


Clips

MILLIMETERS

Cerebrovascular Clips


1968 – 2008: 40 Years YASARGIL Aneurysm Clips

An Indisputable Benchmark



REVOLUTIONARY

Aesculap Neurosurgery



Forty years ago, Aesculap collaborated with Dr. M. Gazi Yasargil to design the first aneurysm clip intended specifically for use under the surgical microscope. That clip started a revolution in the surgical treatment of aneurysms.

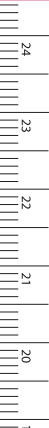
With an extremely low profile, a patented box lock mechanism, and the largest number of patterns in the industry, it's no wonder that Aesculap Yasargil aneurysm clips are still the first choice of thousands of neurosurgeons worldwide.

B BRAUN
SHARING EXPERTISE

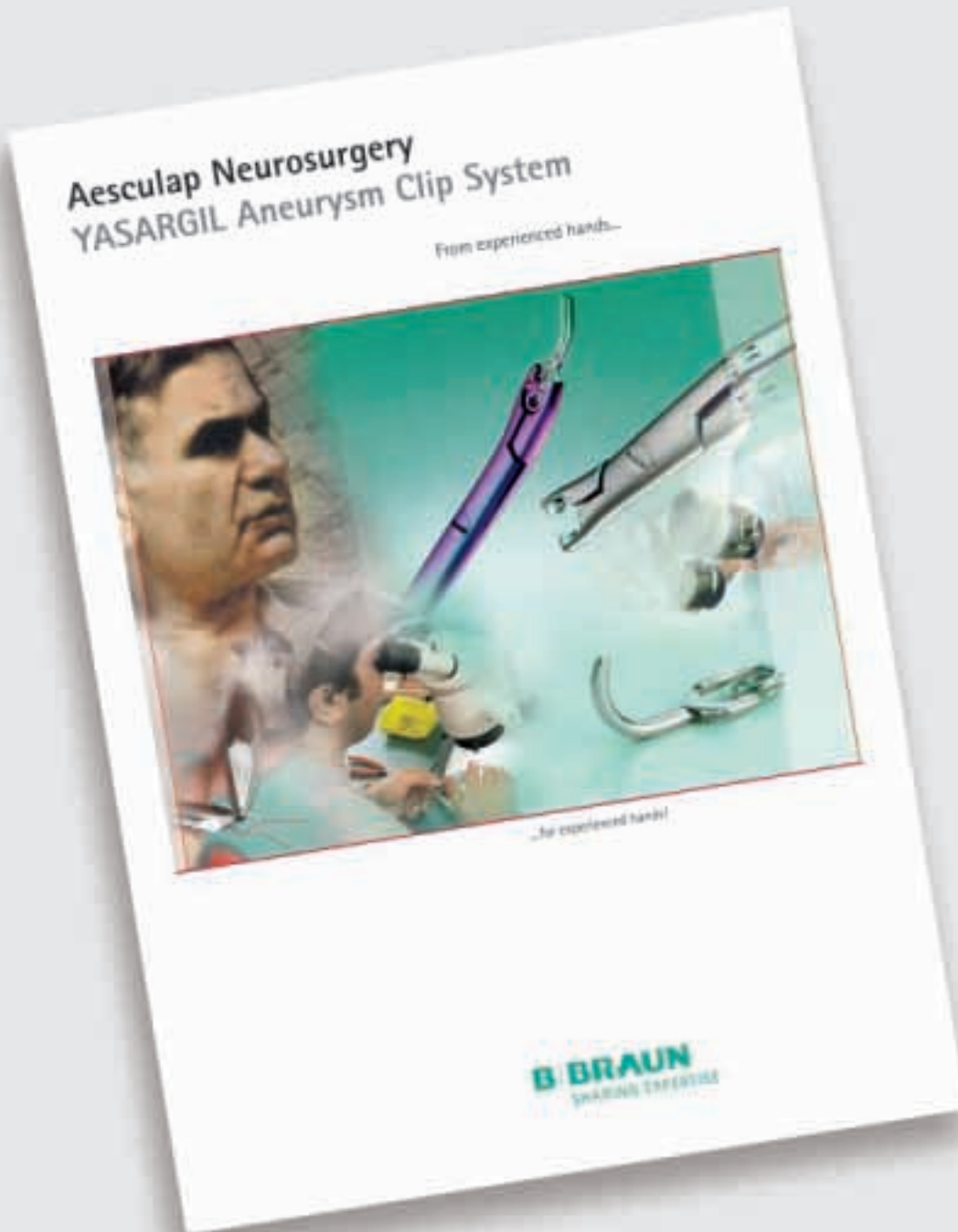
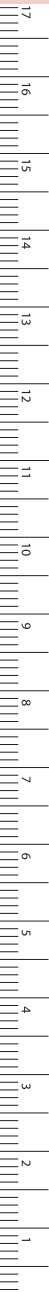
AESCULAP AG & Co. KG • Am Aesculap-Platz • 70632 Tuttlingen/Germany • Phone: +49 7467 95-0 • Fax: +49 7467 95-2400 • www.aesculap-neuros.com



Cerebrovascular Clips



Clips



For further details see
brochure No. C45602

Cerebrovascular Clips

YASARGIL Phynox Standard Clips

YASARGIL Phynox Standard Clips

- MRI safety, non-ferromagnetic, tested up to 3 Tesla
- color coding with silver spring and blades (permanent clip)
- sterile packaging

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE740K		7.0	6.2	1.47	150
FE750K		9.0	7.0	1.77	180
FE760K		11.0	7.8	1.77	180
FE780K		15.0	9.2	1.96	200
FE792K		17.5	10.6	1.96	200
FE790K		20.0	11.4	1.96	200
FE840K		25.0	13.3	1.77	180
FE742K		6.5	6.0	1.47	150
FE752K		8.3	6.8	1.77	180
FE762K		10.2	7.5	1.77	180
FE782K		13.7	8.7	1.96	200
FE786K		15.3	9.8	1.96	200
FE744K		5.4	5.5	1.47	150

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE754K		6.4	6.1	1.77	180
FE764K		8.0	6.5	1.77	180
FE784K		10.3	7.4	1.96	200
FE823K		7.4	5.4	1.77	180
FE824K		8.4	5.8	1.77	180
FE825K		10.5	6.2	1.77	180
FE748K		7.0	7.9	1.96	200
FE758K		9.0	8.7	1.96	200
FE759K		12.0	10.2	1.96	200
FE798K		20.0	13.0	1.77	180
FE770K		5.0	8.0	1.96	200
FE771K		5.0	8.0	1.96	200
FE772K		5.0	8.0	1.96	200



Cerebrovascular Clips

YASARGIL Phynox Standard Clips

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
<u>FE603K</u>		6.1	6.5	1.96	200
<u>FE613K</u>		8.0	6.2	1.96	200
<u>FE623K</u>		10.6	7.8	1.96	200
<u>FE763K</u>		11.8	8.4	1.96	200
<u>FE810K</u>		9.0	6.5	1.96	200
<u>FE819K</u>		5.0	5.6	1.96	200
<u>FE820K</u>		7.0	4.5	1.96	200
<u>FE822K</u>		10.0	5.6	1.96	200
<u>FE850K</u>		6.7	5.4	1.96	200
<u>FE851K</u>		9.0	5.6	1.96	200
<u>FE830K</u>		7.0	7.2	1.96	200
<u>FE832K</u>		9.3	7.2	1.96	200
<u>FE833K</u>		11.3	8.2	1.96	200

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
<u>FE746K</u>		7.0	5.7	1.96	200
<u>FE773K</u>		7.8	6.5	1.77	180
<u>FE761K</u>		11.4	8.0	1.96	200
<u>FE747K</u>		8.6	7.0	1.77	180

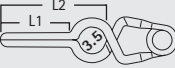



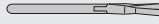
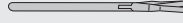
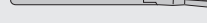
Clips

MILLIMETERS


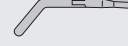

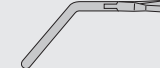
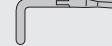


Cerebrovascular Clips

YASARGIL Phynox Fenestrated Clips

PERMANENT

Cat. No.		Diameter of fenestration 3.5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE597K		3/8.1	6.5	1.47	150
FE598K		4/9.1	6.6	1.47	150
FE599K		5/10.1	7.0	1.47	150
FE600K		6/11	7.4	1.47	150
FE610K		9/14	8.4	1.47	150
FE620K		12/17	9.6	1.77	180

PERMANENT


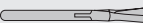

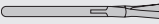
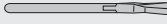
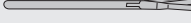
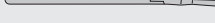



Cat. No.		Diameter of fenestration 3.5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE602K		5/7.3	5.8	1.47	150
FE612K		7.5/8.9	6.5	1.47	150
FE622K		10/10.5	7.2	1.77	180
FE604K		5/4.9	4.9	1.47	150
FE614K		7.5/4.9	4.9	1.47	150
FE624K		10/4.9	4.9	1.77	180











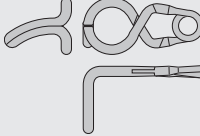
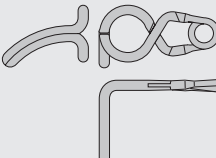
Cerebrovascular Clips

YASARGIL Phynox Fenestrated Clips

PERMANENT

Cat. No.		Diameter of fenestration 5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N)	Closing force (g)
FE637K		3/9.8	6.7	1.47	150
FE638K		4/10.8	7.1	1.47	150
FE639K		5/11.8	7.5	1.47	150
FE640K		6/12.7	7.9	1.47	150
FE650K		9/15.7	9.1	1.47	150
FE660K		12/18.7	10.3	1.77	180
FE642K		5/9	6.5	1.47	150
FE652K		7.5/10.6	7.2	1.47	150
FE662K		10/12.2	7.8	1.77	180

PERMANENT

Cat. No.		Diameter of fenestration 5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N)	Closing force (g)
FE644K		5/6.4	5.5	1.47	150
FE654K		7.5/6.4	5.5	1.47	150
FE664K		10/6.4	5.5	1.77	180
FE648K		5/15.2	7.9	1.47	150
FE658K		7.5/17.7	8.8	1.47	150
FE668K		10/20.2	10.0	1.77	180
FE774K		5/6.7	5.0	1.47	150
FE775K		7.5/6.7	5.0	1.47	150
FE776K		10/6.7	5.0	1.47	150


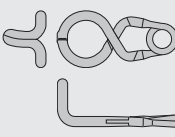
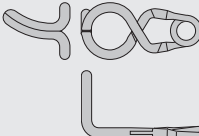

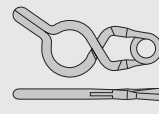
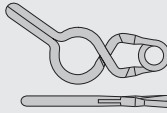
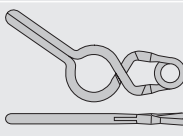
Clips

MILLIMETERS

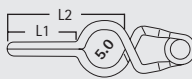
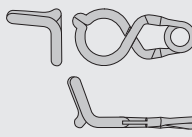

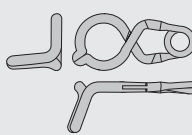
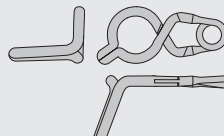


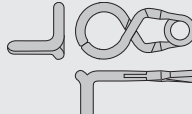
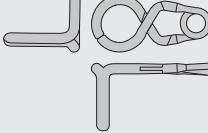
Cerebrovascular Clips

YASARGIL Phynox Fenestrated Clips

PERMANENT

Cat. No.		Diameter of fenestration 5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE777K		5/6.7	5.0	1.47	150
FE778K		7.5/6.7	5.0	1.47	150
FE779K		10/6.7	5.0	1.47	150
FE881K		5/10.4	7.0	1.47	150
FE882K		7.5/12.4	7.8	1.47	150
FE883K		10/14.5	8.8	1.47	150

PERMANENT

Cat. No.		Diameter of fenestration 5 mm			
		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE886K		5/7.4	5.0	1.47	150
FE887K		7.5/8.1	5.0	1.47	150
FE888K		5/7.4	5.0	1.47	150
FE889K		7.5/8.1	5.0	1.47	150
FE891K		5/6.6	5.0	1.47	150
FE892K		7.5/6.6	5.0	1.47	150
FE893K		5/6.6	5.0	1.47	150
FE894K		7.5/6.6	5.0	1.47	150



Cerebrovascular Clips

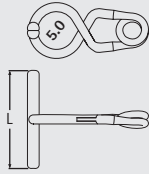



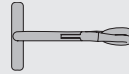
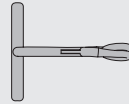
YASARGIL Phynox T-Bar Clips

Phynox T-Bar Clips acc. KOPITNIK

Aneurysm clip with a unique design

- the blades of the T-Bar Clip are oriented in a 90° or 45° angle to the axis of the spring plane resulting in a T-like clip form. The unique shape opens up new options for the treatment of complicated cerebral aneurysms. The spring type is identical to the existing and proven Standard YASARGIL Aneurysm Clip with a 5 mm diameter fenestration.

PERMANENT

Cat. No.		Diameter of fenestration 5 mm				
		Blade length (mm)	Angle	Max. opening (mm)	Closing force (N)	Closing force (g)
FE852K		5.0	45°	5.5	1.47	150
FE853K		9.0	45°	5.5	1.47	150
FE854K		5.0	90°	5.5	1.47	150
FE855K		9.0	90°	5.5	1.47	150
FE856K		13.0	90°	5.5	1.77	180

Clips

MILLIMETERS

Cerebrovascular Clips

YASARGIL Phynox Reinforcing Clip

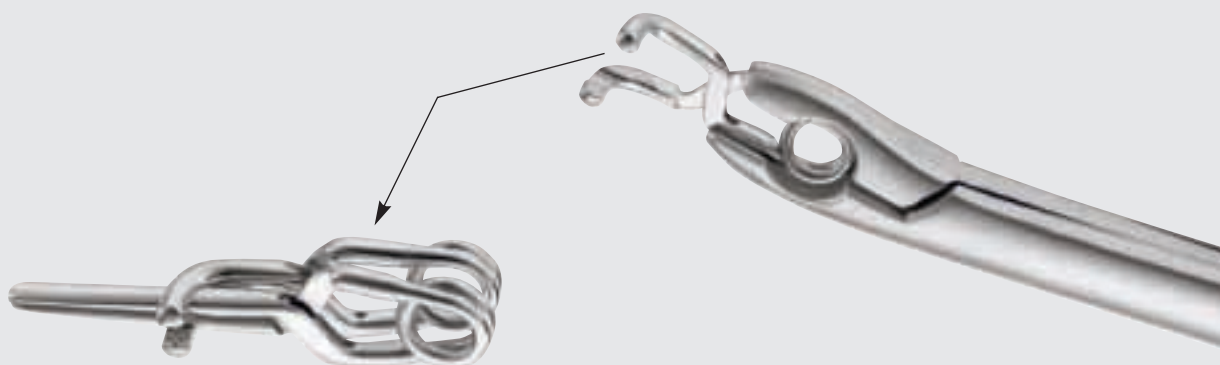
YASARGIL Phynox Reinforcing Clip

- Phynox Reinforcing Clip to increase the closing force of Phynox Standard Aneurysm Clips

PERMANENT

Cat. No.

FE900K





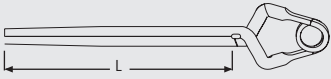
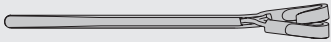

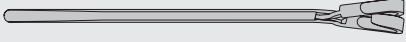
Cerebrovascular Clips

YASARGIL Phynox Long Clips and Applier

YASARGIL Phynox Long Clips

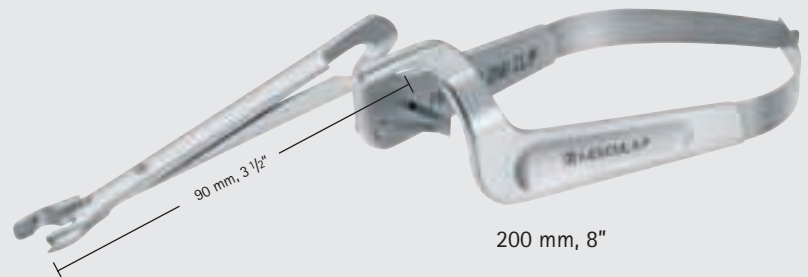
- with extra long blades for the treatment of giant aneurysms.

PERMANENT

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
<u>FE861K</u>		30	19	1.86	190
<u>FE862K</u>		35	21	1.96	200
<u>FE863K</u>		40	23	1.96	200

YASARGIL Long Clip Applier

- with "active" locking mechanism; the applier can be used with or without the lock being activated, as the surgeon desires.



FE560K



Clips

MILLIMETERS

Cerebrovascular Clips

YASARGIL Phynox Standard and Mini Clips

YASARGIL Phynox Standard and Mini Clips

- MRI safety, non-ferromagnetic, tested up to 3 Tesla
- color coding with gold spring and blades (temporary clip)

TEMPORARY (Standard)

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE751K		9.0	7.0	0.69	70
FE753K		8.4	6.8	0.69	70
FE755K		6.7	6.1	0.69	70
FE781K		15.0	9.2	0.69	70
FE783K		13.8	8.7	0.69	70
FE785K		10.4	7.4	0.69	70
FE756K		9.1	6.2	0.69	70
FE791K		20.0	11.4	0.88	90
FE793K		18.7	11.0	0.88	90
FE795K		16.8	9.9	0.88	90
FE801K		13.0	7.5	0.88	90

TEMPORARY (Mini)

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE681K		3.0	3.3	0.49	50
FE691K		5.0	4.0	0.49	50
FE683K		2.8	3.2	0.49	50
FE693K		4.7	3.8	0.49	50
FE721K		7.0	4.6	0.69	70
FE723K		6.6	4.4	0.69	70
FE725K		5.0	4.0	0.69	70



Cerebrovascular Clips

YASARGIL Phynox Mini Clips

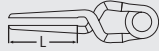
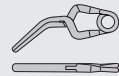
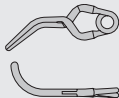
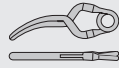



YASARGIL Phynox Mini Clips

- MRI safety, non-ferromagnetic, tested up to 3 Tesla
- color coding with silver spring and blades (permanent clip)

PERMANENT (Mini)

Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE680K		3.0	3.3	1.08	110
FE690K		5.0	4.0	1.08	110
FE700K		3.0	3.3	1.08	110
FE710K		5.0	4.0	1.08	110
FE720K		7.0	4.6	1.08	110
FE682K		2.8	3.2	1.08	110
FE692K		4.7	3.8	1.08	110
FE694K		4.0	3.6	1.08	110
FE711K		4.0	3.6	1.08	110
FE712K		4.7	3.8	1.08	110
FE713K		4.0	3.6	1.08	110
FE726K		5.2	4.0	1.08	110
FE722K		6.6	4.4	1.08	110
FE714K		3.9	3.5	1.08	110
FE724K		5.0	4.0	1.08	110

PERMANENT (Mini)

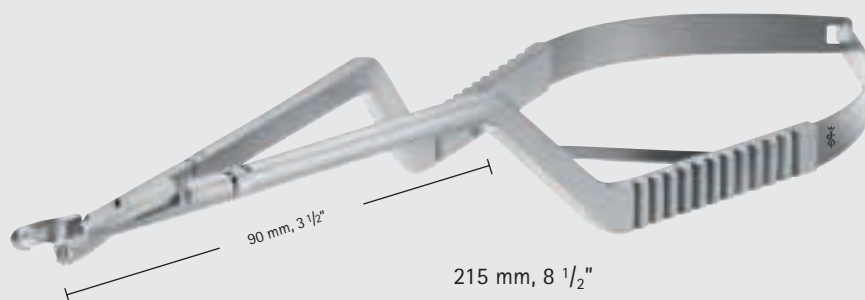
Cat. No.		Blade length (mm)	Max. opening (mm)	Closing force (N) (g)	
FE716K		5.0	3.5	1.28	130
FE807K		4.7	4.0	1.08	110
FE717K		6.3	6.0	1.28	130
FE727K		4.0	7.0	1.28	130
FE728K		7.0	5.7	1.28	130
FE806K		7.0	4.5	1.28	130

Clips

MILLIMETERS

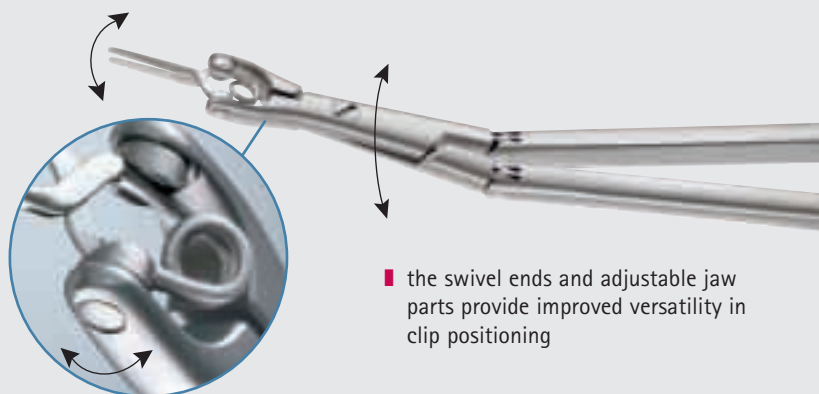
Cerebrovascular Clips

YASARGIL Phynox Vario Clip Applier



Standard	Mini
FE512T	FE502T

Clips



the swivel ends and adjustable jaw parts provide improved versatility in clip positioning



FT402/800

Adjusting key



adjusting key for Vario Clip applier for setting the swivel at an angle



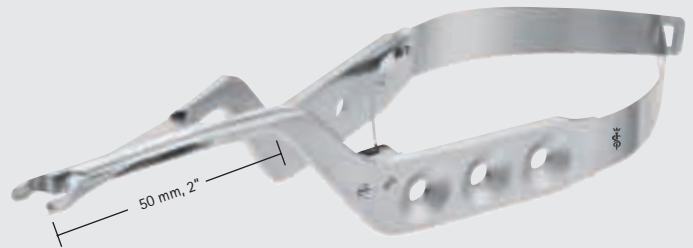
Cerebrovascular Clips

YASARGIL Phynox Clip Applier



175 mm, 7"

Standard	Mini
FE558K	FE548K



50 mm, 2"

175 mm, 7"

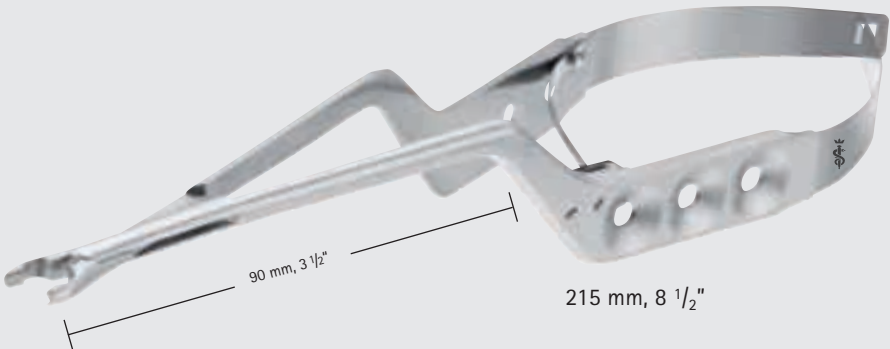
Standard	Mini
FE580K	FE570K

Clips

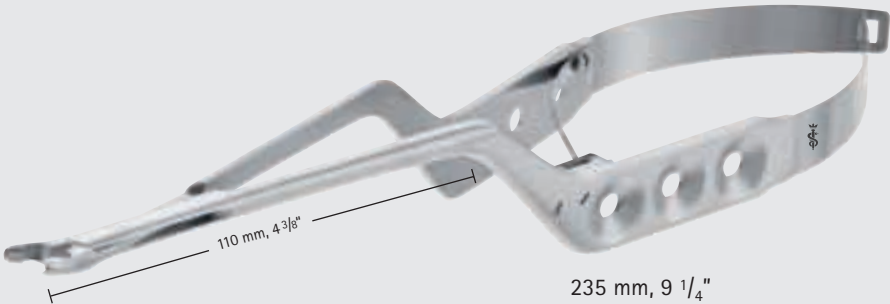
MILLIMETERS

Cerebrovascular Clips

YASARGIL Phynox Clip Applier



Standard	Mini		
FE582K	FE572K		straight
FE585K	FE575K		15° angled



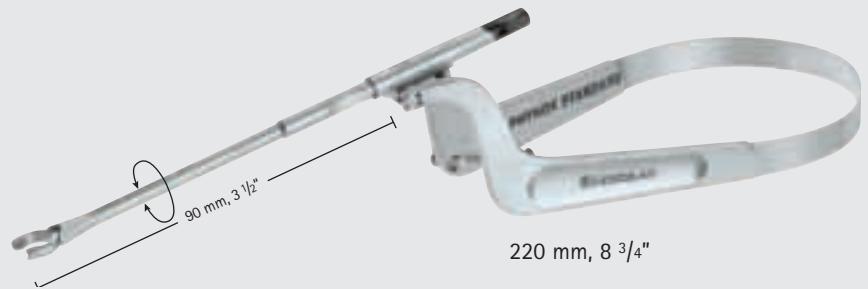
Standard	Mini		
FE584K	FE574K		straight
FE587K	FE577K		15° angled



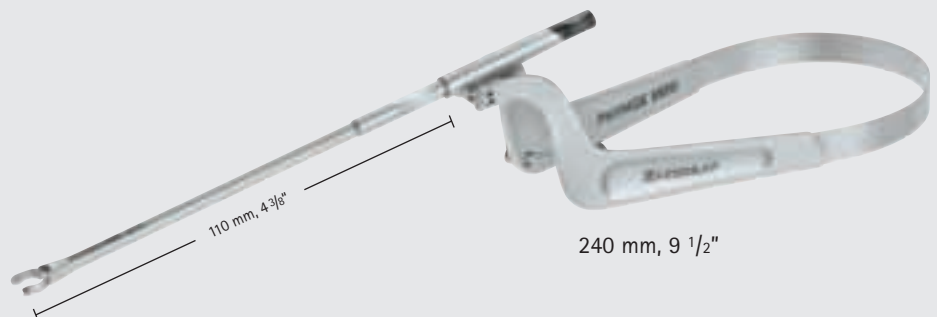
Cerebrovascular Clips

YASARGIL Phynox XS Clip Applier

- 360° rotation
- suitable for narrow approach



Standard	Mini
FE495K	FE490K



Standard	Mini
FE496K	FE491K

Notice:
Disassembling/Assembling of Titanium XS Clip Appliers: See page 606.

Clips

MILLIMETERS

Cerebrovascular Clips Storage

Clip tray
for storage, transport and sterilization of YASARGIL Aneurysm Clips

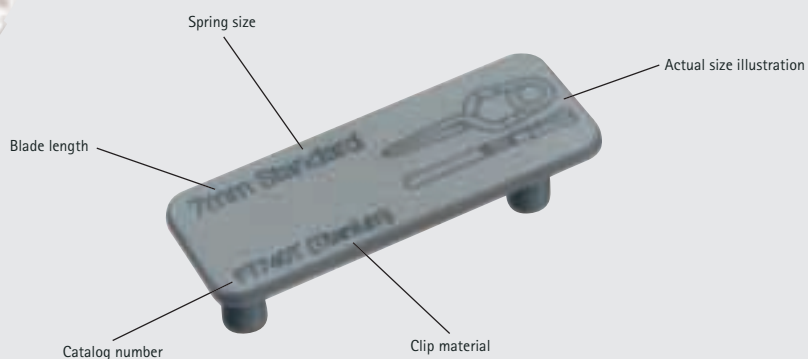
- autoclavable plastic
- fits 1/1 standard container
- 34 storage compartments for Standard and Mini Clips
- 4 storage compartments for Long Clips
- with special identification tags for individual tray configuration

Identification tags for the clip tray

- allow quick and easy recording of the necessary clip data
- helpful for classifying and reordering the clips that have been removed



YASARGIL
FT007P

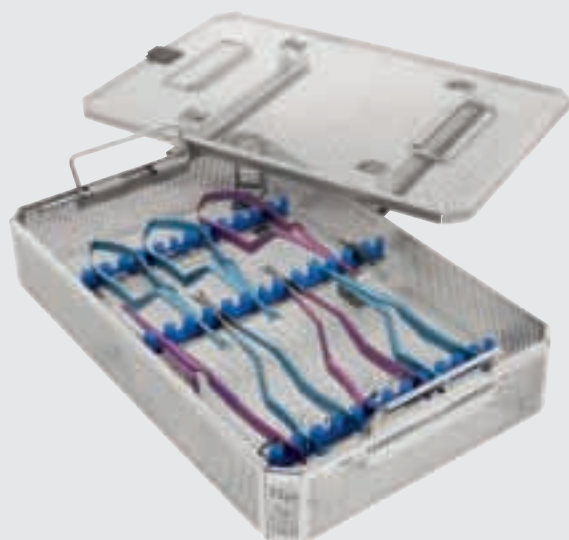


_____-TAG

- For each clip variant there is a matching identification tag.
- The catalog numbers of the tags are as follows:
- Cat. No. of clip + "-TAG"
 - e.g.: FT740T-TAG is the identification tag for the clip FT740T.
- The identification tags for temporary clips are yellow and for permanent clips grey in line with the color coding of the YASARGIL Aneurysm Clips.

Storage of appliers

- perforated basket with lid, for storage of appliers



FM665R 520 x 250 x 25 mm





Cerebrovascular Clips

KOPITNIK AVM Microclips

KOPITNIK AVM Microclips straight

■ closing force between 50 g and 70 g

Single pack	4-pack		Blade length (mm)	Max. opening (mm)
FE902K	FE922K		2.0	1.5
FE903K	FE923K		3.0	1.7
FE904K	FE924K		4.0	2.0
FE905K	FE925K		5.0	2.3

KOPITNIK AVM Microclips curved

■ closing force between 50 g and 70 g

Single pack	4-pack		Blade length (mm)	Max. opening (mm)
FE912K	FE932K		2.0	1.5
FE913K	FE933K		3.0	1.7
FE914K	FE934K		4.0	2.0
FE915K	FE935K		5.0	2.3

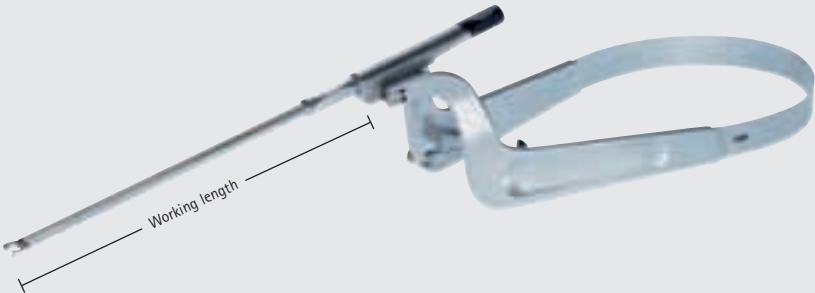
Clips

MILLIMETERS

Cerebrovascular Clips

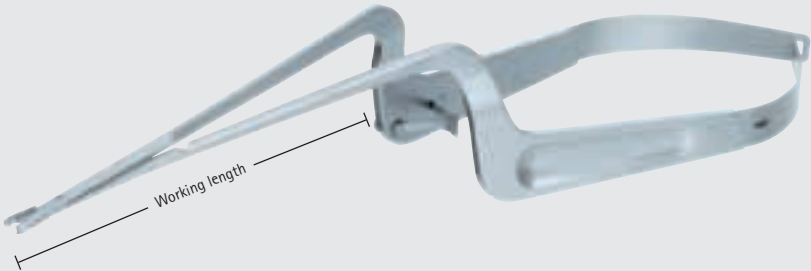
Clip Applier for KOPITNIK AVM Microclips

KOPITNIK AVM Clip Applier - XS Design



	Working length	
FE906K	40 mm	1 1/2 "
FE907K	70 mm	2 3/4 "
FE908K	90 mm	3 1/2 "
FE909K	110 mm	4 3/8 "

KOPITNIK AVM Clip Applier



	Working length	
FE917K	70 mm	2 3/4 "
FE918K	90 mm	3 1/2 "



Cerebrovascular Clips

Titanium Ligating Clips and Clip Appliers

Titanium ligating clips

	small	medium	medium-large	large
	PL565T Sales unit: PAK = 30 cartridges à 6 clips = 180 clips	PL567T Sales unit: PAK = 30 cartridges à 6 clips = 180 clips	PL568T Sales unit: PAK = 20 cartridges à 6 clips = 120 clips	PL561T Sales unit: PAK = 20 cartridges à 6 clips = 120 clips
	PL566T Cardiopack Sales unit: PAK = 8 cartridges à 24 clips = 192 clips			

Clip appliers

Design versions of appliers



FB222R 25° 150 mm, 6"	FB234R 25° 150 mm, 6"	FB240R 25° 200 mm, 8"	FB246R 25° 200 mm, 8"
FB223R 25° 200 mm, 8"	FB235R 25° 200 mm, 8"	FB243R 65° 200 mm, 8"	FB249R 65° 200 mm, 8"
FB226R 65° 200 mm, 8"	FB238R 65° 200 mm, 8"	FB254R 90° 200 mm, 8"	FB252R 90° 200 mm, 8"
FB224R 25° 280 mm, 11"	FB236R 25° 280 mm, 11"	FB242R 25° 280 mm, 11"	FB248R 25° 280 mm, 11"
FB227R 65° 280 mm, 11"	FB239R 65° 280 mm, 11"	FB245R 65° 280 mm, 11"	FB251R 65° 280 mm, 11"
		FB255R 90° 280 mm, 11"	FB253R 90° 280 mm, 11"

Clips

MILLIMETERS

Cerebrovascular Clips

Clips

INCHES

Closure



Cranial Repair & Closure

Cranial Repair & Closure

CranioPlate Plates

Plates:

- 0.6 mm low profile plates made from pure titanium for an excellent cosmetic result
- Screw head is completely countersunk in the plate
- Selection of high performance plates especially for neurosurgery
- Blue implant coloring increases contrast and simplifies plate recognition



	Length	Sales unit
FM960T	11 mm	ST = 1 piece
FM980T	11 mm	PAK = 5 pieces
FM961T	16 mm	ST = 1 piece
FM981T	16 mm	PAK = 5 pieces

Straight 2 hole



	Length	Sales unit
FM962T	17 mm	ST = 1 piece
FM982T	17 mm	PAK = 5 pieces
FM963T	20 mm	ST = 1 piece
FM983T	20 mm	PAK = 5 pieces

Straight 4 hole



	Length	Sales unit
FM964T	17 mm	ST = 1 piece

Y plate 5 hole



	Length	Sales unit
FM965T	63 mm	ST = 1 piece

Straight 16 hole



	Length	Sales unit
FM966T	15 mm	ST = 1 piece
FM967T	17 mm	ST = 1 piece

Double Y plate 6 hole



	Length	Sales unit
FM968T	10 mm	ST = 1 piece

Box car 4 hole



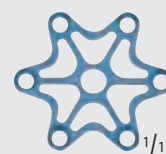
	Length	Sales unit
FM969T	17 mm	ST = 1 piece

Box car 6 hole



	Length	Sales unit
FM970T	24 mm	ST = 1 piece

Box car 8 hole



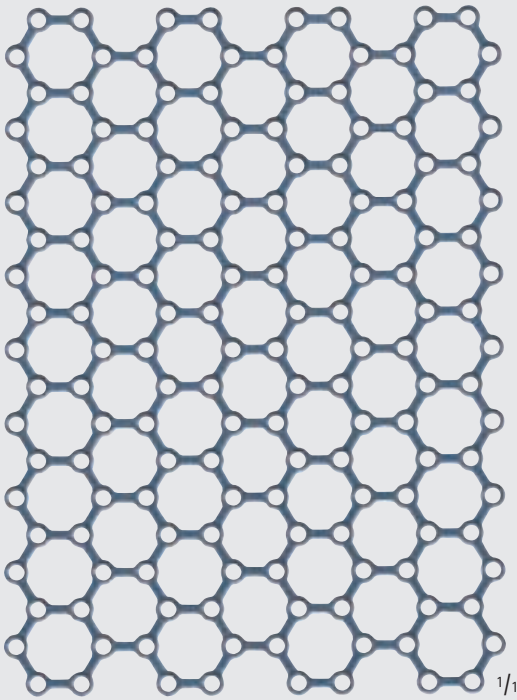
	Length	Sales unit
FM971T	16 mm	ST = 1 piece
FM972T	20 mm	ST = 1 piece

Burrhole cover



Cranial Repair & Closure

CranioPlate Mesh and Sterile Kits



1/1

	Length	Sales unit
FM973T	65 x 90 x 0.6 mm	ST = 1 piece
Mesh		



1/1

FM991T

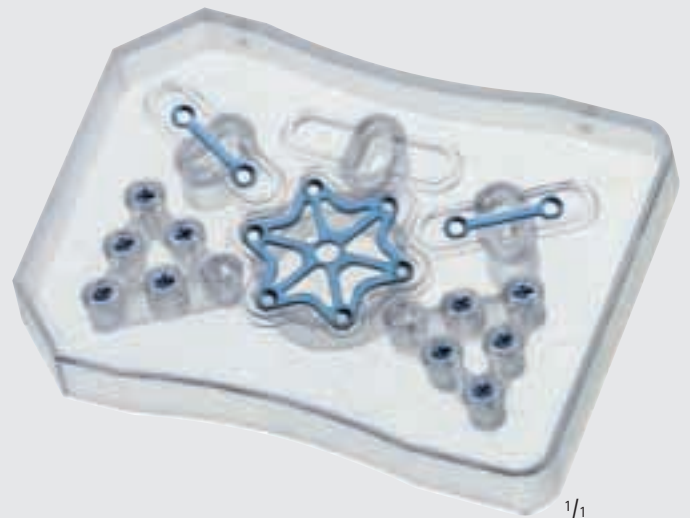
Sterile Kit
3 pieces Straight 4 hole 20 mm,
4 mm screws, cross head



1/1

FM990T

Sterile Kit
3 pieces Straight 2 hole 16 mm,
4 mm screws, cross head



1/1

FM992T

Sterile Kit
2 pieces Straight 2 hole 16 mm, 4 mm screws, cross head
1 piece burrhole cover 20 mm

Closure

MILLIMETERS

Cranial Repair & Closure

CranioPlate Screws

Screws:

- 1.5 mm screw diameter
- Low profile screws made from titanium alloy Ti6Al4V
- Self-drilling screws for ease of use
- Self-retaining screw head simplifies pick up and transfer
- Special neurosurgery screw lengths: 3, 4, 5 mm

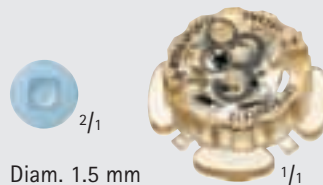
Closure



Diam. 1.5 mm

	Length
FM920T	3 mm
FM921T	4 mm
FM922T	5 mm

Screw magazine with 8 self-drilling screws, cross head, blue color-coded



Diam. 1.5 mm

	Length
FM923T	3 mm
FM924T	4 mm
FM925T	5 mm

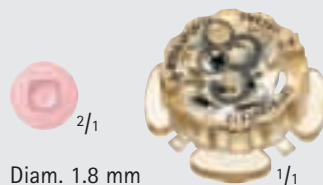
Screw magazine with 8 self-drilling screws, square head, blue color-coded



Diam. 1.8 mm

	Length
FM926T	3 mm
FM927T	5 mm

Screw magazine with 8 emergency screws, self-tapping, cross head, violet color-coded



Diam. 1.8 mm

	Length
FM928T	3 mm
FM929T	5 mm

Screw magazine with 8 emergency screws, self-tapping, square head, violet color-coded



Cranial Repair & Closure

CranioPlate Instruments and Storage/Modules

Instruments

Screwdriver:

- Ergonomic shape simplifies screwing
- Non-detachable screwdriver with large cleaning windows
- No more dismantling and reassembly



FM902R Screwdriver

FM916R Screwdriver blade, cross head

FM917R Screwdriver blade, square head

105 mm, 4 1/8"



FM903R

Plate cutting forceps
120 mm, 4 3/4"



FM904R

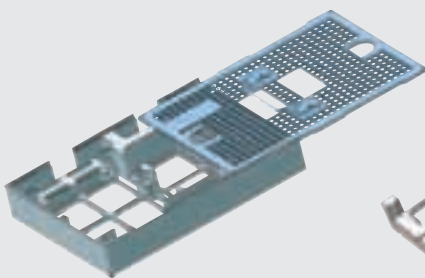
Plate bending forceps
120 mm, 4 3/4"



FM905R

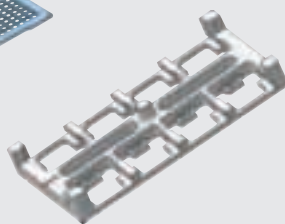
Holding forceps
150 mm, 6"

Storage/Modules



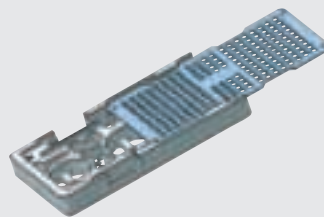
FM910P

Storage unit



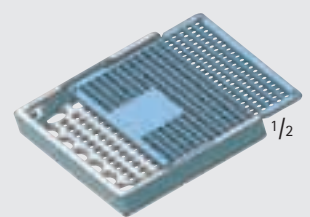
FM911P

Module screws



FM913P

Module plates

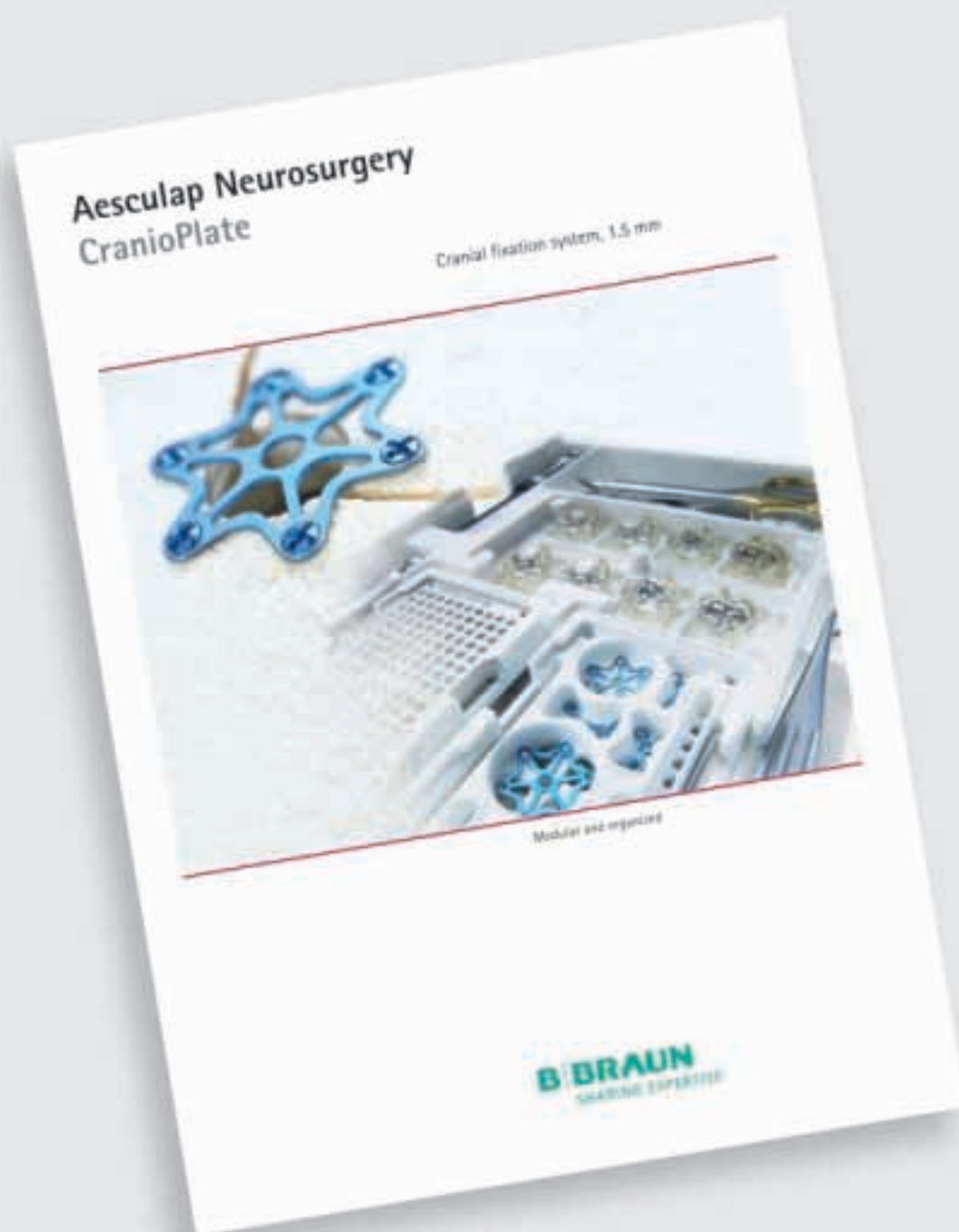


FM915P

Module Mesh

Closure

MILLIMETERS

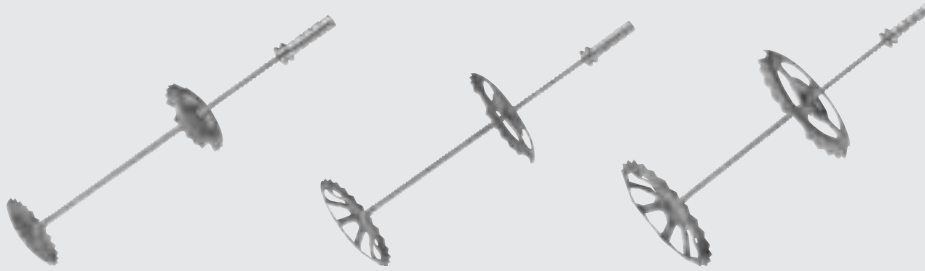


For further details see
brochure No. C83402



Cranial Repair & Closure CranioFix®2

CranioFix®2 Implants



FF490T

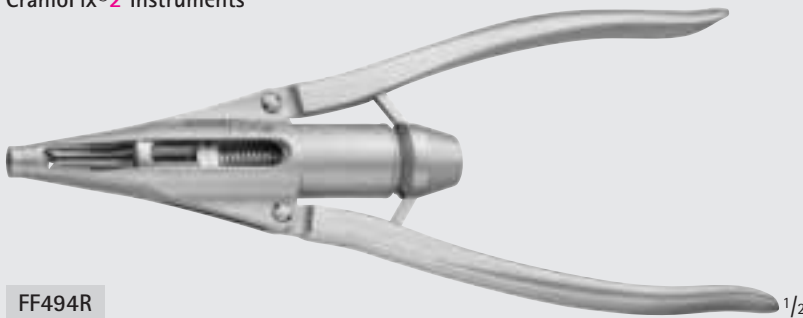
FF491T

FF492T

	Diam.	Sales unit	
FF490T	11 mm	PAK = 12 pieces	for craniotomy gap
FF491T	16 mm	PAK = 6 pieces	for small burrholes
FF492T	20 mm	PAK = 6 pieces	for large burrholes

CranioFix®2 clamps

CranioFix®2 Instruments



FF494R

CranioFix®2
Applier, non-dismountable
with automatic stop
205 mm, 8"



FF105R

CranioFix®2
Holding forceps
115 mm, 4 1/2"



FF103R

CranioFix®2
Pin cutter
145 mm, 5 3/4"



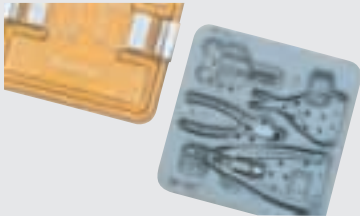
FF104R

CranioFix®2
Removal forceps
130 mm, 5 1/8"

Closure

MILLIMETERS

Cranial Repair & Closure
CranioFix®2 Accessories



FF094P
CranioFix®2
Tray
(instruments not included)



1/2 Container
for tray FF094P
consisting of:
JK340 Container bottom
JK389 Container lid (basic version)

For lubricating the CranioFix®2 instruments, especially the applier, we recommend the well-tried Aesculap instrument oil

STERILIT®



JG600
Aesculap instrument oil

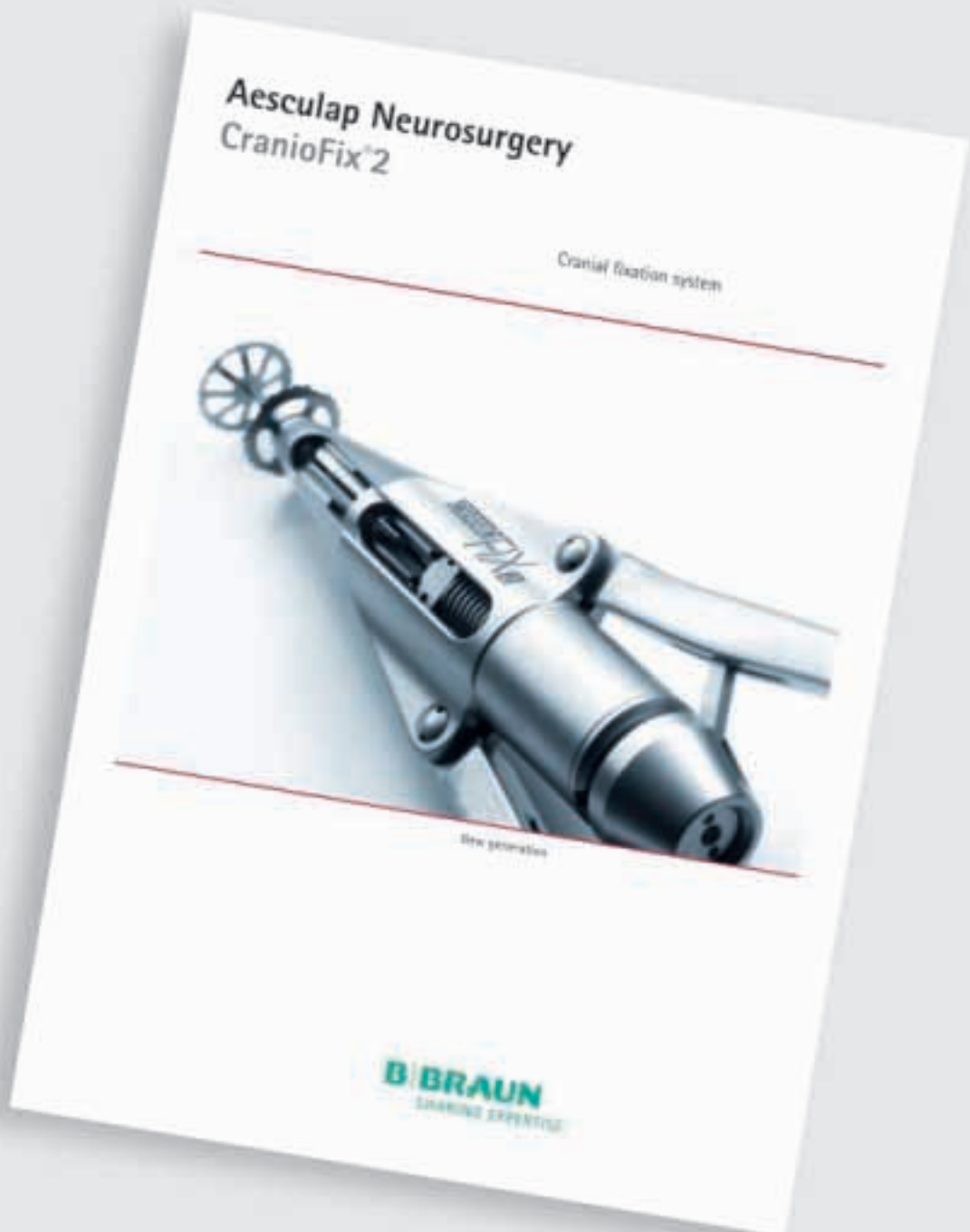
STERILIT®



JG598
Aesculap instrument oil



Cranial Repair & Closure



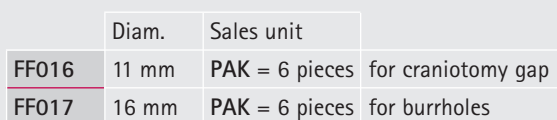
For further details see
brochure No. C08802



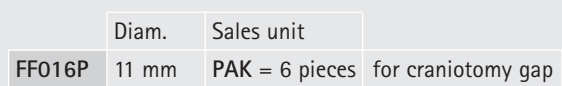
CranioFix® absorbable, CranioFix® PEEK

CranioFix® absorbable, CranioFix® PEEK

INCHES



CranioFix® absorbable Clamps



CranioFix® PEEK Clamps



Cranial Repair & Closure



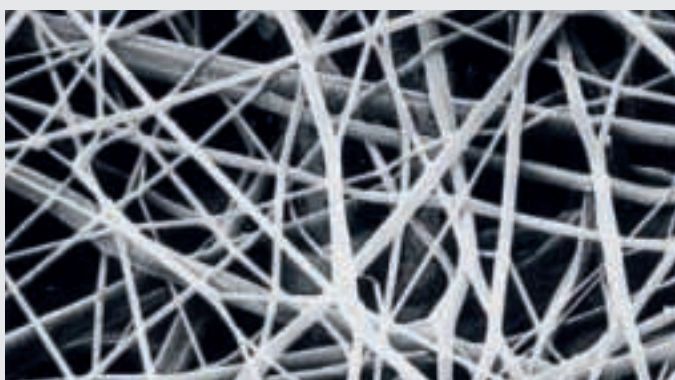
For further details see
brochure No. C09802

Cranial Repair & Closure

Dura Substitution

Neuro-Patch® – Synthetic dura substitution, non-absorbable

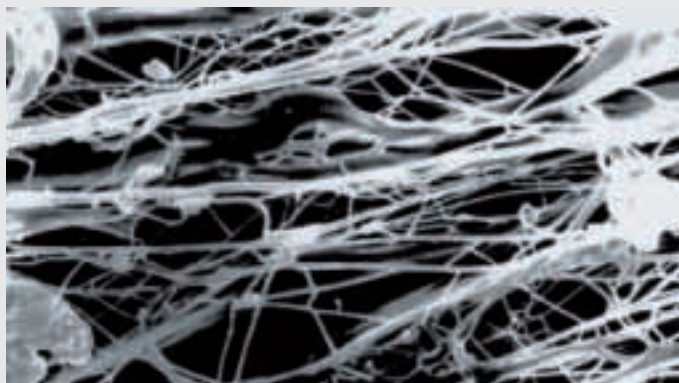
- Neuro-Patch® is a type of microporous fabric manufactured from a highly purified polyester-urethane.
- A controlled procedure has been developed for producing Neuro-Patch®, in which a dissolved polyesterurethane polymer is sprayed from specialised jets. This produces fibres which are captured at defined angles, producing a fleece-like structure.
- The fine fibred microstructure supports the rapid infiltration of connective tissue cells.



Cat. No.	Size	Content
1064002	12 x 14 cm	1 piece
1064010	6 x 14 cm	1 piece
1064029	6 x 8 cm	1 piece
1064037	4 x 10 cm	1 piece
1064045	2 x 5 cm	2 pieces
1064053	2 x 10 cm	2 pieces
1064061	1.5 x 3 cm	2 pieces

Lyoplant® – Biological substitution, absorbable

- Lyoplant® is a pure collagen implant that is produced from bovine pericardium. This collagen is a Type I collagen and is known for its low propensity to cause immunological reactions.
- The special and comprehensive manufacturing process eliminates all non-collagenous substances such as fats, enzymes and other non-collagenous proteins.
- Controlled lyophilisation (freeze drying) process ensures that the loose fibre structure of Lyoplant® is preserved to offer the optimum conditions for integration after implantation.

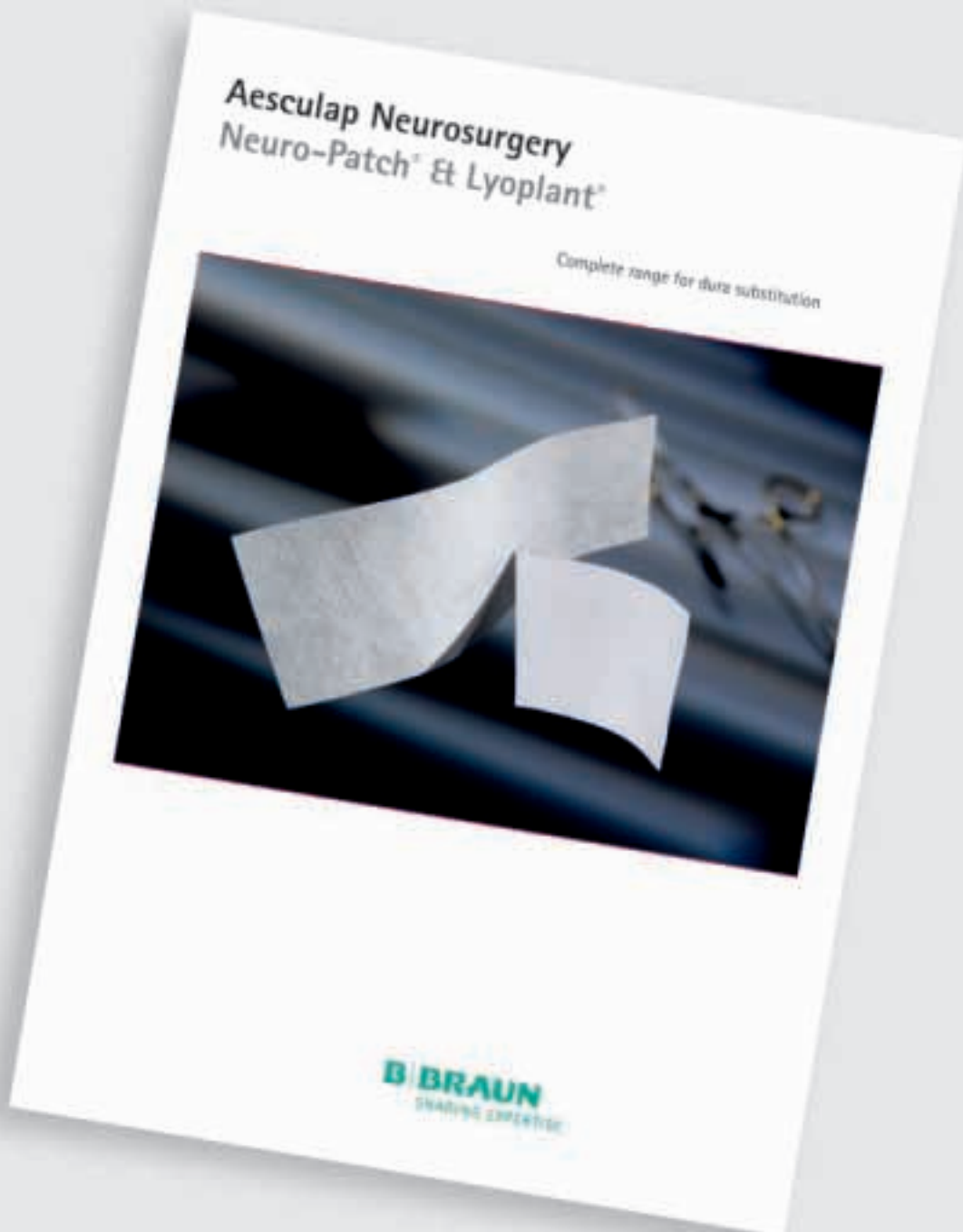


Cat. No.	Size	Content
1066021	6 x 14 cm	1 piece
1066242	6 x 8 cm	1 piece
1066048	4 x 10 cm	1 piece
1066064	4 x 5 cm	1 piece
1066080	2 x 10 cm	2 pieces
1066102	1.5 x 3 cm	2 pieces

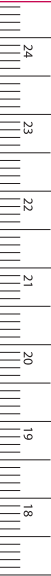
To improve smoothness and flexibility, the Lyoplant® material may be rehydrated prior to implantation.



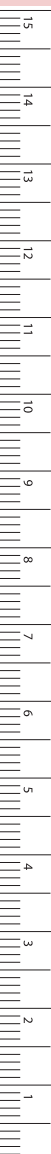
Cranial Repair & Closure



For further details see
brochure No. C23002



Closure



MILLIMETERS

Cranial Repair & Closure

Closure

Disposables



Disposables

Disposables

Hemostats

Gelita

- spongy absorbable gelatin of porcine origin.
- for rapid hemostasis in tissue during surgical procedures.



Cat. No.	Size	Units per box
2070014	1 x 1 x 1 cm	10
2070103	1 x 1 x 1 cm	50
2070154	1.5 x 1.5 x 1 cm	50
2070600	8 x 5 x 1 cm	10
2070707	8 x 2 x 1 cm	10

Bone wax

- mixture of beeswax (70%) and vaseline (30%), non-absorbable
- for mechanical hemostasis in bone injuries during surgical procedures.



Cat. No.	Box contains
1029754	24 units of 2.5 g each



Disposables Scalp Clip Systems

RANEY Scalp clip clamps and clips



RANEY

FF003R

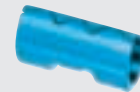
Applying and removing forceps
for scalp hemostasis clips FF001R
and FF015P
160 mm, 6 1/4"



RANEY

FF001R

Metal scalp hemostasis clip, reusable
Sales unit:
PAK = Package of 25 pieces



RANEY

FF015P

Plastic scalp hemostasis clip,
sterile single use
Sales unit:
PAK = 20 packages of 10 pieces =
200 pieces

ScalpFix® System



FF013P

Scalp clips
Sales unit:
PAK = 1 Box of 20 single
sterile packed
cartridges with
10 scalp clips each



FF012R

Applicator made of
aluminium, reusable



FF007P

Applicator made of
polymer, reusable



FF014R

Removing forceps
150 mm, 6"

MD371

Combination tray with lid
for ScalpFix® and CranioFix®2
(instruments not included)
For further details see page 585.

Disposables

Skin Stapler



783100

Manipler® AZ

Single-use skin stapler for wound closure

■ Staple Information

■ Type: Wide

■ No.: 35

■ Staple dimensions

■ Crown: 6.9 mm

■ Leg.: 3.6 mm

■ Sales unit:

■ PAK = Package of 6 pieces



783101

Single-use skin staple remover

Sales unit:

PAK = Package of 6 pieces



783102

Reusable skin staple remover

Sales unit:

ST = Package of 1 piece



Disposables

Tunneling Instruments, Drapes, Anti Fog Solution



FV002R-FV004R

Single-use tunneling instruments, flexible

Sales unit:

PAK = Package of 10 pieces,
each in individual sterile packaging

	Length
FV002R	300 mm
FV003R	450 mm
FV004R	600 mm



JG904

Sterile camera drape, disposable,
ring design

Sales unit:

PAK = Package of 25 pieces



JG910

Sterile Anti Fog Solution for endoscopes

Sales unit:

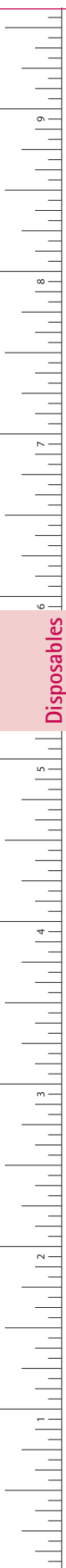
PAK = Package of 10 pieces

Disposables

MILLIMETERS

Disposables

Scalpels



Disposables



Carbon Steel **BA210**
Stainless Steel **5518059**
Fig. 10



BA211
5518040
Fig. 11



BA212
5518105
Fig. 12



BA215
5518032
Fig. 15



BA215-1
Fig. 15



BA215-C
Fig. 15



BA218
Fig. 18





Disposables Scalpels



Carbon Steel **BA219**
Stainless Steel

Fig. 19



BA220
5518067

Fig. 20



BA221
5518075

Fig. 21



BA222
5518083

Fig. 22



BA223
5518016

Fig. 23



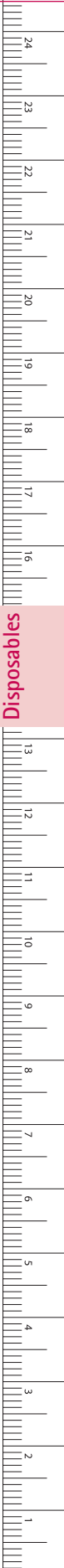
BA224
5518091

Fig. 24

BA210-BA224/5518016-5518105

Sales unit:

PAK = Package of 10 pieces



Disposables

MILLIMETERS

Disposables

Scalpels

Sales unit:
PAK = Package of 10 pieces

Sales unit:
PAK = Package of 5 pieces



BA311SU

Fig. 11
230 mm, 9"



BA323SU

Fig. 23
230 mm, 9"



BA364

165 mm, 6 1/2"



BA365

165 mm, 6 1/2"



BA367

165 mm, 6 1/2"



Disposables

Brain Spatulas, Tubes, Bipolar Cables, Instrument Oil



2/3

	Width (mm)	Length
FF480R	6	200 mm, 8"
FF482R	7.5	200 mm, 8"
FF484R	10	200 mm, 8"
FF486R	12.5	200 mm, 8"
FF488R	15	200 mm, 8"

Brain spatulas with silicone coating, malleable

Sales unit:

PAK = Package of 10 pieces



FK888SU 3.5 m

KAIRison tube

Sales unit:

PAK = Package of 10 tubes



FH605SU 4.0 m

MINOP® TREND irrigation/suction tube, sterile

Sales unit:

PAK = Package of 10 tubes



GN094 3.5 m

Tubing set for bipolar irrigation forceps
in combination with the irrigation unit GN090

Sales unit:

PAK = Package of 10 tubes



GK211 3.5 m

Bipolar connecting cable,
sterile



JG600

Oil spray

in aerosol can (ozone-friendly), for maintenance of instruments
prior to sterilization. Physiologically inert acc. to DAB and
§ 31 LMBG (German Pharmacopoeia).



JG598

Instrument oil

for box locks, ratchets etc. prior to sterilization.
Physiologically inert acc. to DAB and § 31 LMBG
(German Pharmacopoeia).



Neuroendo



Neuroendoscopy

Neuroendoscopy

Intraventricular Neuroendoscopy

MINOP® Trocars

MINOP
SYSTEM.



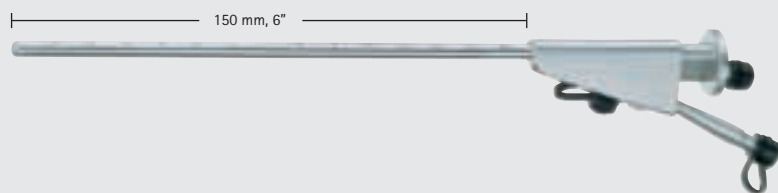
FF397R

Outer diameter: 3.2 mm

1 channel:

■ optic or working channel: diam. 2.8 mm

including 1 obturator



FF398R

Outer diameter: 4.6 mm

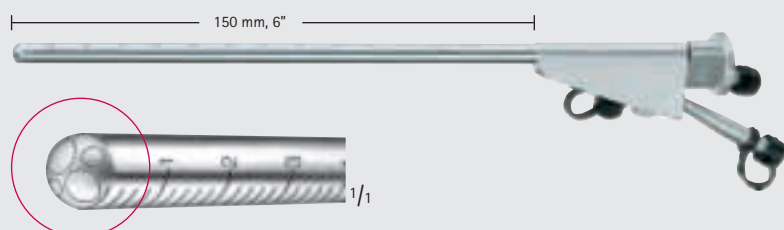
3 channels:

■ optic channel: diam. 2.8 mm

■ irrigation channel: diam. 0.8 mm

■ overflow channel: diam. 0.8 mm

including 1 obturator



FF399R

Outer diameter: 6 mm

4 channels:

■ optic channel: diam. 2.8 mm

■ working channel: diam. 2.2 mm

■ irrigation channel: diam. 1.4 mm

■ overflow channel: diam. 1.4 mm

including 3 obturators

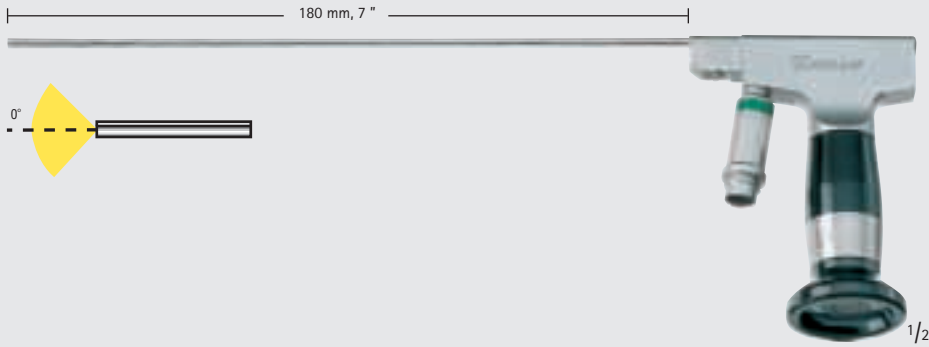


MINOP
SYSTEM®

Neuroendoscopy

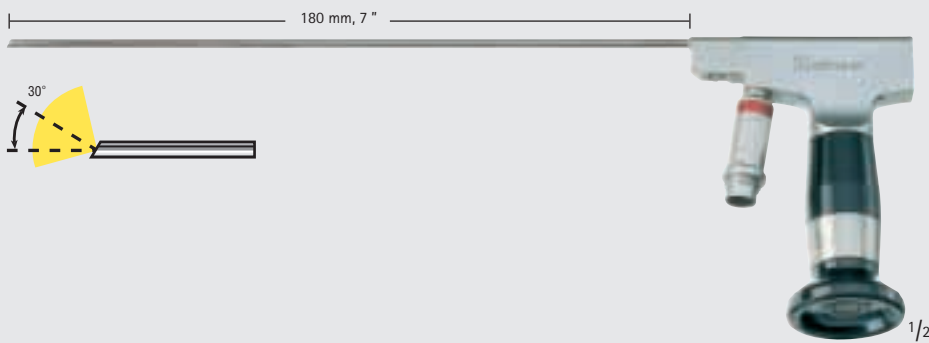
Intraventricular Neuroendoscopy

MINOP® Angled Endoscopes



PE184A

Direction of view: 0°
Shaft diameter: 2.7 mm
autoclavable



PE204A

Direction of view: 30°
Shaft diameter: 2.7 mm
autoclavable



Endoscopes with the SDS symbol can be sterilised by Steris® und Sterrad®

Neuroendoscopy

Intraventricular Neuroendoscopy

Detachable Instruments with Tubular Shaft

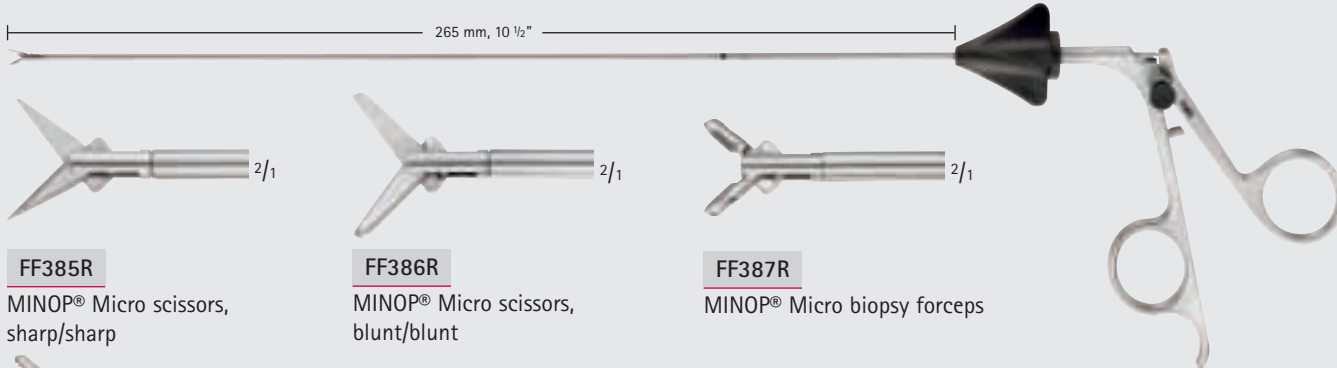
MINOP
SYSTEM.



2 mm

Instrument complete

Handle · outer tube · jaw part with inner tube



FF385R

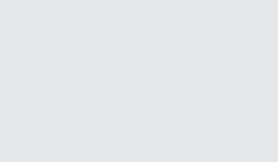
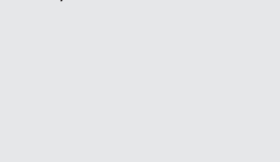
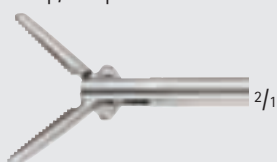
MINOP® Micro scissors,
sharp/sharp

FF386R

MINOP® Micro scissors,
blunt/blunt

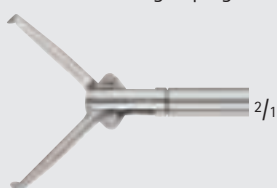
FF387R

MINOP® Micro biopsy forceps



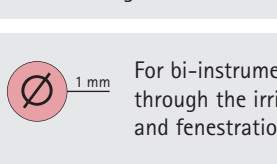
FF388R

MINOP® Micro grasping and dissecting forceps



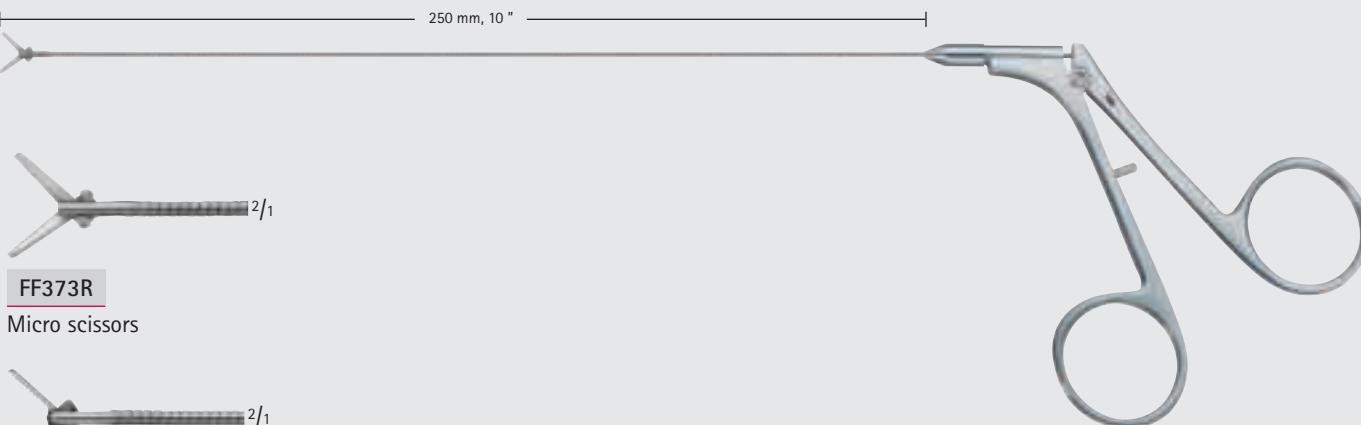
FF389R

MINOP® Surgical micro forceps



1 mm

For bi-instrumental operation, 1 mm instruments can be introduced short term through the irrigation channel of the trocar FF399R (e.g. for simultaneous grasping and fenestration of a cyst)



FF373R

Micro scissors



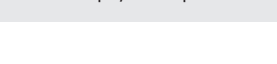
FF374R

Micro grasping and dissecting scissors



FF378R

Micro biopsy forceps



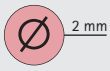


MINOP
SYSTEM®

Neuroendoscopy

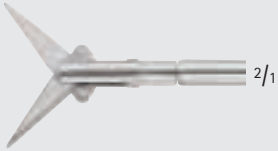
Intraventricular Neuroendoscopy

Detachable Instruments with Tubular Shaft



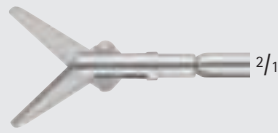
Individual parts

Jaw part with inner tube for FF385R - FF389R



FF435R

MINOP® Micro scissors,
sharp /sharp



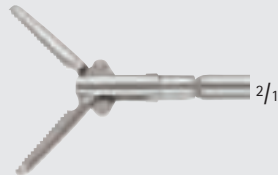
FF436R

MINOP® Micro scissors,
blunt/blunt



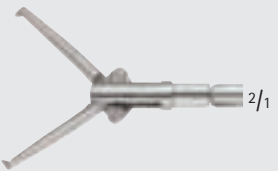
FF437R

MINOP® Micro biopsy forceps



FF438R

MINOP® Micro grasping and
dissecting forceps



FF439R

MINOP® Surgical micro forceps

Notice:

Disassembling/Assembling of MINOP® instruments: See page 602-603.



FF432R

Instrument handle, only
for FF385R - FF389R



FF433R

Outer tube, only for FF385R-FF389R

Neuroendo

MILLIMETERS

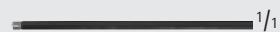
Neuroendoscopy

Intraventricular Neuroendoscopy

Electrodes and Cables

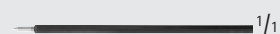
MINOP
SYSTEM.

Monopolar Electrodes



GK361R

Blunt electrode, diam. 1.1 mm



GK363R

Needle electrode, diam. 1.1 mm



GK364R

Hook electrode, 45°, diam. 2.2 mm



GK365R

Hook electrode, 70°, diam. 2.2 mm



GK362R

Hook electrode, 90°, diam. 2.2 mm



GK366R

Hook electrode, 180°, diam. 2.2 mm



GK245 3.5 m

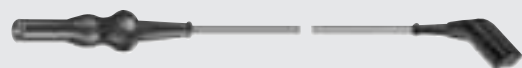
Monopolar cable
suitable for GN300, GN640

Bipolar Electrode



GK360R

Fork electrode, diam. 2.1 mm



GN073 3.5 m

Bipolar cable
suitable for GN060, GN300



Neuroendoscopy

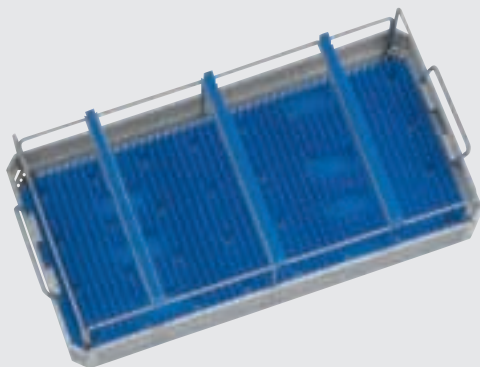
Intraventricular Neuroendoscopy

Storage Racks



FF358R

Storage rack
with silicone cushioning rack and lid
for MINOP® trocars and MINOP® endoscopes
(not included)



FF359R

Storage rack with silicone cushioning rack and lid
for MINOP® micro instruments and electrodes



Container for storage racks
FF358R and FF359R
consisting of:

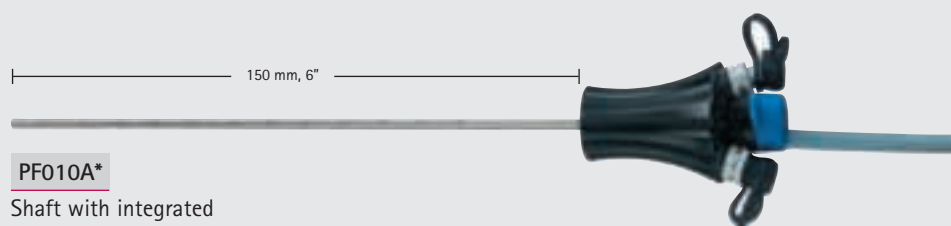
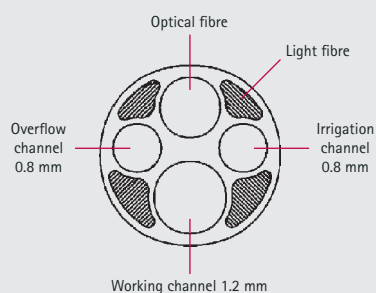
JK444 Container bottom

JK489 Container lid (basic version)

Neuroendoscopy

Intraventricular Neuroendoscopy

PaediScope® - The Ventriculoscope System for Pediatric Neurosurgery



PF010A*

Shaft with integrated
flexible scope



PF011A*

Ocular

*For complete PaediScope®, please order PF010A and PF011A



Neuroendoscopy

Intraventricular Neuroendoscopy

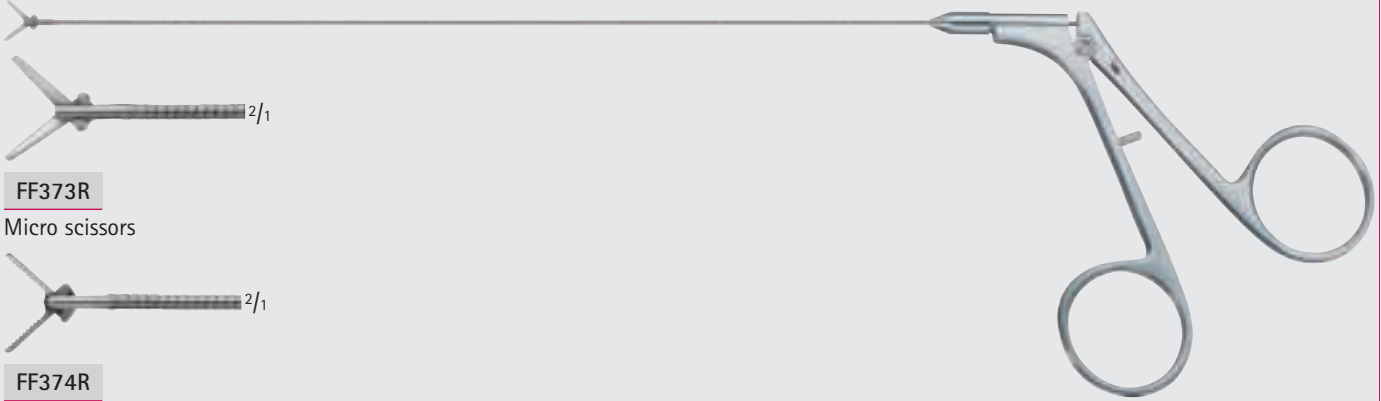
Electrodes and Cables



1 mm

Flexible Instruments

250 mm, 10"



FF373R

Micro scissors



FF374R

Micro grasping and dissecting scissors

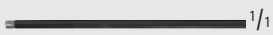
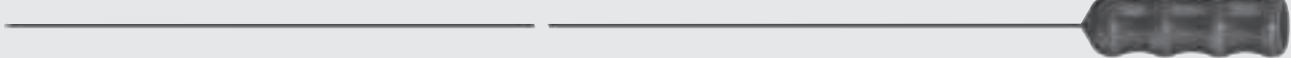


FF378R

Micro biopsy forceps

Monopolar Electrodes

255 mm, 10"



GK361R

Blunt electrode, diam. 1.1 mm



GK363R

Needle electrode, diam. 1.1 mm



GK245

Monopolar cable
suitable for GN300, GN640



FF379R

Storage rack
with silicone cushioning rack and lid
for complete PaediScope® system
(not included)

Neuroendo

MILLIMETERS

Neuroendoscopy

Intraventricular Neuroendoscopy

Flexible, Steerable Endoscope with Working Channel



PF901

Technical data:

- Direction of view: 0° with 85° angle of view
- Depth of field: 3 mm to ∞

Flexible working end:

- Length: 400 mm with linear markings
- Diameter: 4.3 mm
- Deflection: 140° up and down
- Working channel: diam. 1.4 mm

Cleaning: manual cleaning without ultrasound

Sterilization: Gas (Formaldehyde)



Neuroendoscopy

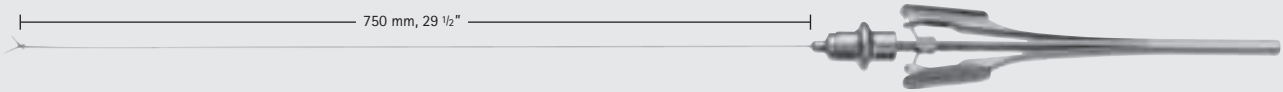
Intraventricular Neurosurgery

Flexible Micro Instruments and Electrodes



1 mm

Instruments



FF382R

Micro scissors



FF383R

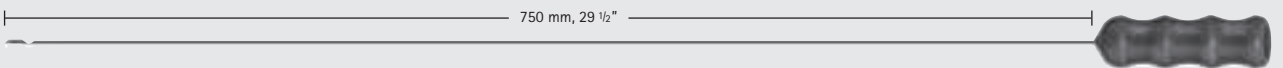
Micro grasping forceps



FF384R

Micro biopsy forceps

Monopolar Electrodes



GK354R

Blunt electrode, diam. 0.7



GK355R

Hook electrode, diam. 1.4



GK245

Monopolar cable
suitable for GN300, GN640

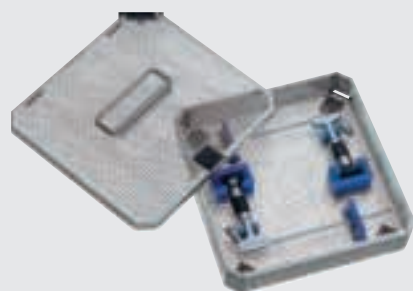
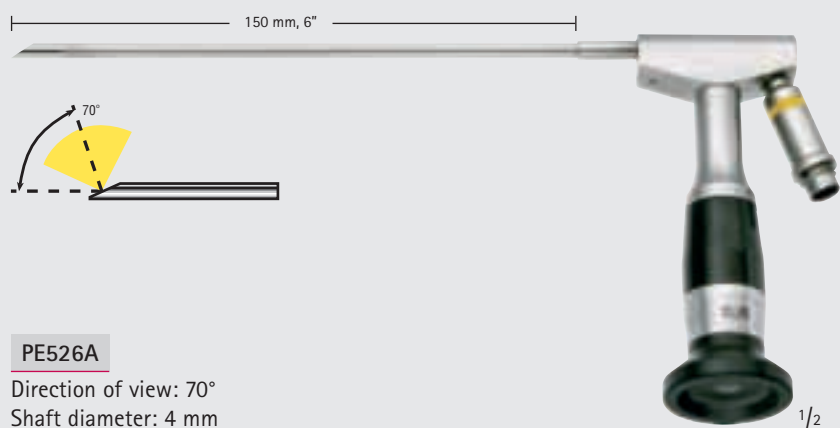
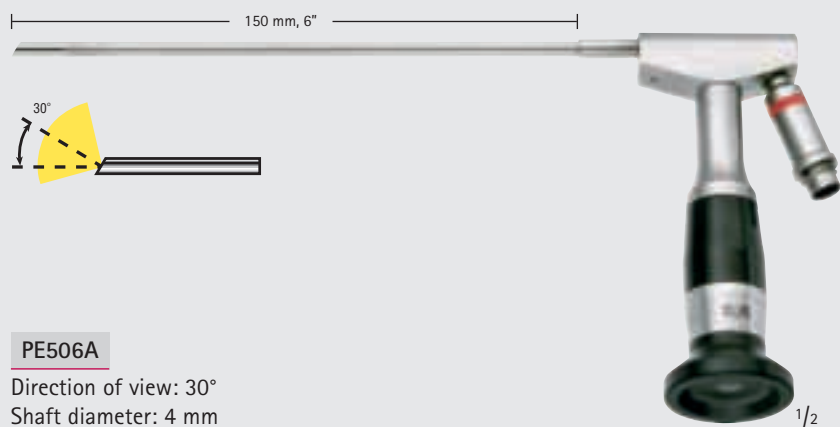
Neuroendo

MILLIMETERS

Neuroendoscopy

Endoscope-Assisted Neurosurgery

Angled Neuroscopes acc. PERNECZKY



JF324R

Storage rack with silicone cushioning rack and lid
for two angled neuroscopes
(not included)



JG910

Sterile antifogging solution for angled neuroscopes
Sales unit:
PAK = Package of 10 pieces

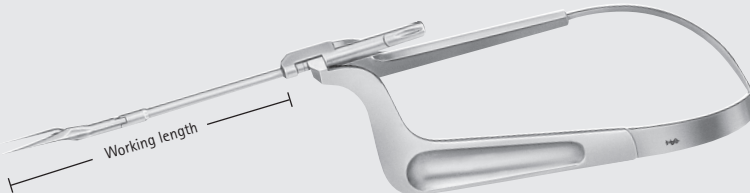


Neuroendoscopy

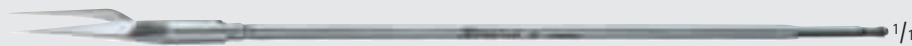
Endoscope-Assisted Micro Neurosurgery

XS Micro Instruments acc. PERNECZKY/CRISTANTE

Instrument complete, consisting of: jaw insert and handle

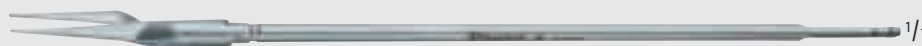


Working length	70 mm, 2 3/4"	100 mm, 4"	130 mm, 5 1/8"
Total length	200 mm, 8"	230 mm, 9"	260 mm, 10 1/4"



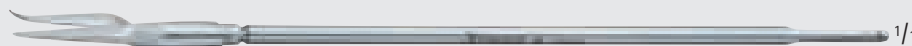
XS Micro scissors, straight, sharp/sharp

[FM670R](#) [FM671R](#) [FM672R](#)



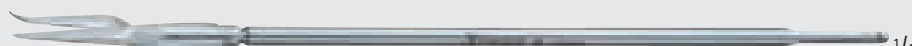
XS Micro scissors, straight, blunt/blunt

[FM690R](#) [FM691R](#) [FM692R](#)



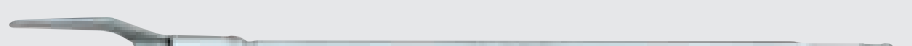
XS Micro scissors, curved, sharp/sharp

[FM680R](#) [FM681R](#) [FM682R](#)



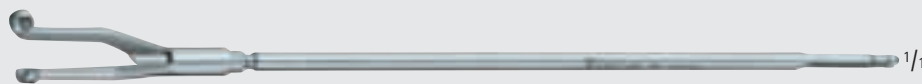
XS Micro scissors, curved, blunt/blunt

[FM700R](#) [FM701R](#) [FM702R](#)



XS Micro forceps, jaw 0.9 mm

[FM710R](#) [FM711R](#) [FM712R](#)



XS Micro tumor grasping forceps, jaw 3 mm, sharp

[FM720R](#) [FM721R](#) [FM722R](#)

Notice:

Disassembling/Assembling of XS micro instruments: See page 604-605.

Neuroendoscopy

Endoscope-Assisted Micro Neurosurgery

XS Micro Instruments acc. PERNECZKY/CRISTANTE

Instrument single parts: Handle



Working length	70 mm, 2 3/4"	100 mm, 4"	130 mm, 5 1/8"
Total length	200 mm, 8"	230 mm, 9"	260 mm, 10 1/4"

XS Micro instrument handle

FM730R	FM731R	FM732R
------------------------	------------------------	------------------------

Instrument single parts: jaw insert



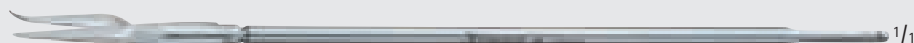
XS Micro scissors, straight, sharp/sharp

FM675R	FM676R	FM677R
------------------------	------------------------	------------------------



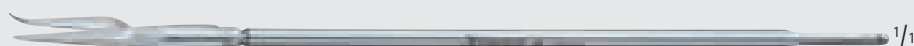
XS Micro scissors, straight, blunt/blunt

FM695R	FM696R	FM697R
------------------------	------------------------	------------------------



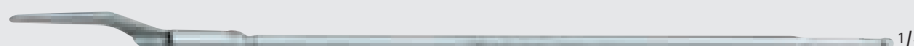
XS Micro scissors, curved, sharp/sharp

FM685R	FM686R	FM687R
------------------------	------------------------	------------------------



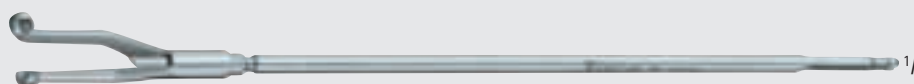
XS Micro scissors, curved, blunt/blunt

FM705R	FM706R	FM707R
------------------------	------------------------	------------------------



XS Micro forceps, jaw 0.9 mm

FM715R	FM716R	FM717R
------------------------	------------------------	------------------------



XS Micro tumor grasping forceps, jaw 3 mm, sharp

FM725R	FM726R	FM727R
------------------------	------------------------	------------------------

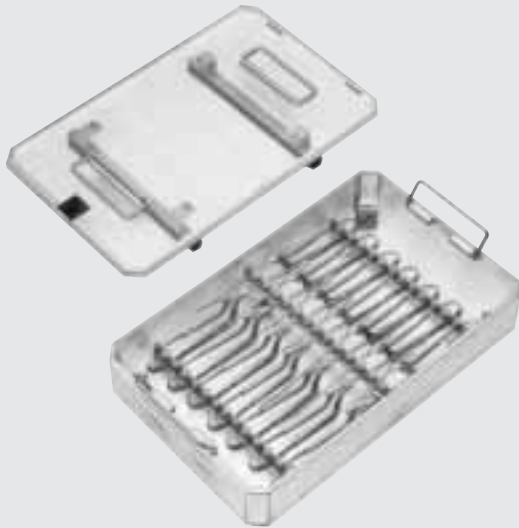
Notice:

Disassembling/Assembling of XS micro instruments: See page 604-605.



Neuroendoscopy

Endoscope-Assisted Micro Neurosurgery Storage Rack



FM665R

Perforated basket with silicone cushioning racks and lid
for storage of XS Micro instruments



$\frac{3}{4}$ Container suitable for one
perforated basket FM665R
consisting of:

JK741 Container bottom

JK789 Container lid (basic version)

Neuroendoscopy

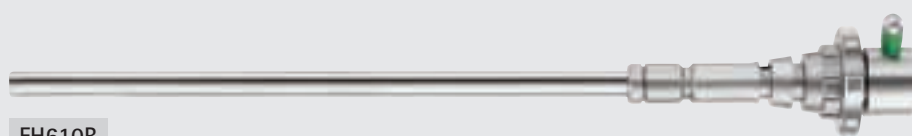
Endoscopic Pituitary Surgery

MINOP® TREND Trocars and Endoscopes



FH615

MINOP® TREND handle including irrigation button



FH610R

MINOP® TREND irrigation/suction trocar for 0° endoscope PE487A



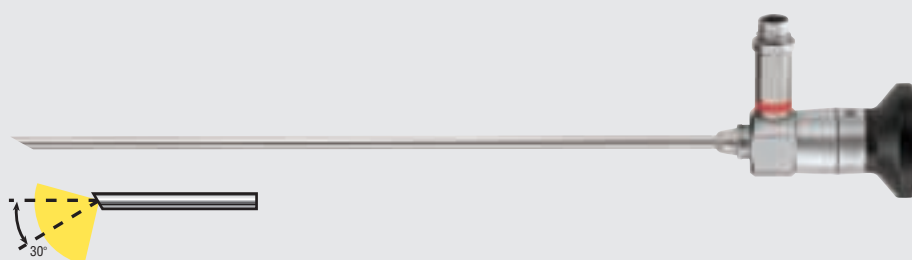
FH611R

MINOP® TREND irrigation /suction trocar for 30° endoscope PE507A



PE487A

MINOP® TREND endoscope
Direction of view 0°
Shaft diameter 4.0 mm



PE507A

MINOP® TREND endoscope
Direction of view 30°
Shaft diameter 4.0 mm



Neuroendoscopy

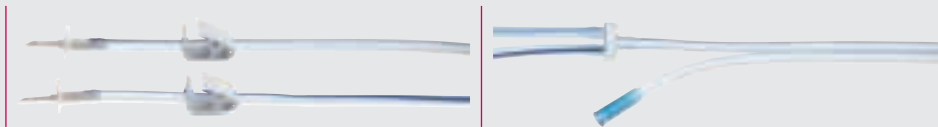
Endoscopic Pituitary Surgery

MINOP® TREND Accessories



RT099R

MINOP® TREND adapter for Aesculap holding devices



FH605SU 4.0

MINOP® TREND irrigation/suction tube, sterile
for MINOP® TREND handle FH615 or MINOP® TR trocar FH601R,
with 2 puncture needles

Sales unit:

PAK = Package of 10 tubes



FF357R

MINOP® TREND storage rack
with silicone cushioning rack and lid
for all MINOP® TREND components
(instruments not included)



Container for
MINOP® storage rack FF357R
consisting of:

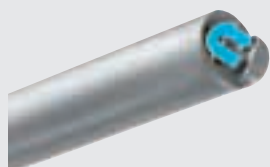
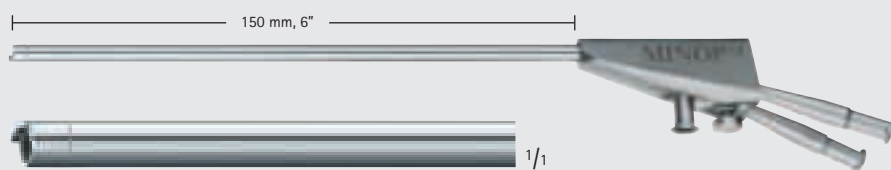
JK740 Container bottom

JK789 Container lid (basic version)

Neuroendoscopy

Endoscopic Pituitary Surgery

MINOP® TR Trocar, MINOP® Endoscopes



Cleaning function of the lens

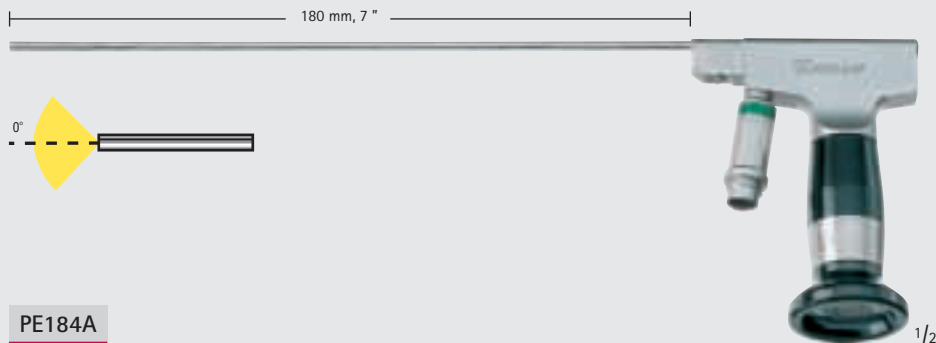
FH601R

MINOP® TR Trocar

Outer diameter: 4.6 mm

3 channels:

- optic channel: diam. 2.8 mm
- irrigation channel: diam. 0.8 mm
- suction channel: diam. 0.8 mm

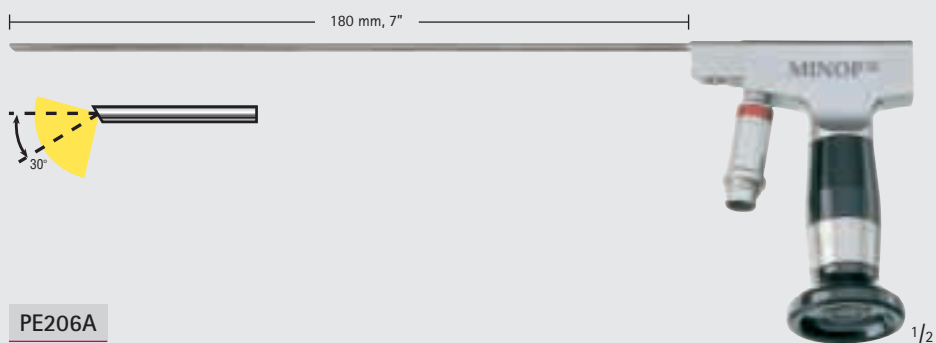


PE184A

MINOP® Endoscope

Direction of view: 0°

Shaft diameter: 2.7 mm
autoclavable



PE206A

MINOP® Endoscope

Direction of view: 30°, downwards

Shaft diameter: 2.7 mm
autoclavable



Neuroendoscopy

Endoscopic Pituitary Surgery

MINOP® Foot Switch, MINOP® TR Tube Set, Storage Rack



FH600

MINOP® TR Foot switch
for FH602



FH602

MINOP® TR Tube set, sterile
for FH601R

Length: 8 m
Diameter: 4 mm
with Luer-Lock and puncture needle

Sales unit:
PAK = Package of 5 single tube sets



FF358R

Storage rack
with silicone cushioning rack and lid
for MINOP® trocars, MINOP® endoscopes and
MINOP® TR endoscopes
(not included)

Neuroendoscopy

Holding Devices

RT040R

UNITRAC®

Flexible holding device with pneumatic fixation

- UNITRAC®, the universal retraction and holding system with special accessories for neuroendoscopy
- Pneumatically-assisted system for direct connection to OR compressed air supply
- Integrated safety systems prevent collapse of holding arm if OR compressed air supply is interrupted
- Simple to assemble onto the OR table railing
- Single handed use
- Fast and sterile set-up in the OR
- All components fully autoclavable



Diam. 20 mm

Fixation devices for RT040R, RT091R and FF168R

FF280R

Flexible fixing element with ball joint suitable for RT040R and FF168R



RT090R

Flexible fixing element with sprocket suitable for RT040R, RT091R and FF168R



FF151R

Rigid fixation element suitable for RT040R, RT091R and FF168R



Compressed air hose system for RT040R

Aesculap-Dräger system, for complete exhaust air release

GA460

3 m, spiral

GA464

3 m, straight

GA466

5 m, straight

Aesculap-Standard hose system, for pressureless exhaust air release outside the operation area

GA461

3 m, with diffusor

GA463

3 m, without diffusor

GA465

5 m, without diffusor



FF168R

Holding device for neuroendoscopes

Flexible holding device
with mechanic fixation

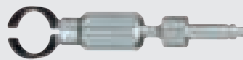


Diam. 20 mm

Adapter for RT040R and FF168R

RT079R

Adapter
for fixation of angled neuroscopes
PE486A, PE506A, PE526A



RT081R

Adapter
for PEEK-inserts RT082P – RT089P
for fixation of trocars



RT082P

PEEK-insert
with inner diameter 6.2 mm (for
fixation of long or short ventriculoscope
trocar FF370R or FF372R)

RT083P

PEEK-insert
with inner diameter 6 mm (for fixation of
MINOP® trocar FF399R)

RT084P

PEEK-insert
with inner diameter 4.6 mm (for fixation of
MINOP® trocar FF398R and FH601R)

RT085P

PEEK-insert
with inner diameter 3.2 mm (for fixation of
MINOP® trocar FF397R)

RT089P

PEEK-insert
with inner diameter 3 mm (for fixation
of PaediScope® PF010A)



neuro  pilot



NeuroPilot®

Advantages of the NeuroPilot®:

- Optimal fixation of the neuroendoscope in the NeuroPilot® and the holding device UNITRAC®
- Precise steering of the neuroendoscope by three screws in the three-dimensional space
- Safe manoeuvring of the neuroendoscope by defined movements in the sub-millimeter area
- Optimal positioning of the neuroendoscope in situ



RT060R

NeuroPilot®

RT061R

Insert for angled neuroscopes
PE486A - PE526A with diam. 4 mm

RT062R

Insert for short ventriculoscope FF372R
with diam. 6.2 mm

RT063R

Insert for MINOP® trocar FF397R
with diam. 3.2 mm

RT064R

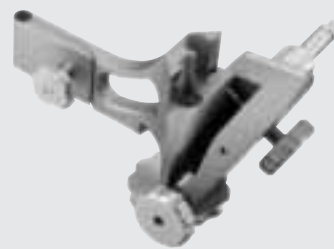
Insert for MINOP® trocars FF398R and FH601R
with diam. 4.6 mm

RT065R

Insert for MINOP® trocar FF399R
with diam. 6 mm

RT066R

Insert for PaediScope® PF010A
with diam. 3 mm



Neuroendoscopy

Single Chip Camera System



The new basic camera for all essential standard functions

- Digital signal processing for optimum contrast
- Analog video signal outputs for looping through the camera video signal to the analog monitor
- Natural, true color rendition
- High light sensitivity for outstanding image luminosity
- Integrated gain function for automatic brightness adjustment especially in critical light situations
- Ergonomic camera head for fatigue-free working
- Easy operation of camera functions via control buttons in the camera head

PAL System, complete

PV140*

NTSC System, complete

PV142*

*) Including endocoupler

CCD (Inch)	1/3"
Horizontal Resolution (Lines)	PAL 460 / NTSC 470
Dynamic Gain Function	Always "On", 0 - 20 dB
Detail Enhancement Function	Always "On"
Signal to Noise Ratio	44 dB
Minimum Light Sensitivity	1 Lx
Signal Processing	Digital, 8 bit
Modes	Laparoscopy (High) Small Neuroscope (Low)
Video Signal Outputs	Composite, Y/C
Buttons on Camera Head	2 (1 x dual activation)
Button Functions	1 x Remote 1 x White Balance/Small scope
Endocoupler	Fixed, f=23 mm
Shutter Speed	1/50 — 1/100 000 s
Dimensions camera head (w x h x d)	32 x 50 x 135 mm
Weight Camera Head and Endocoupler	200 g
Dimensions CCU (w x h x d)	100 x 63 x 200 mm
Weight CCU	0.5 kg
Length Camera Cable	3 m
Material Compatibility	EtO/Steris/Sterrad
Soakable	Gluteraldehyde
Power Supply	100-240 V AC, 50-60Hz
Maximum Power Consumption	10 VA
Tested acc. to norm	EN 60601-1, EN 60601-1-2
Safety Class acc. to EN 60601-1	I
Protection level acc. to EN 60601-1	BF
Classification acc. to directive 93/42/EEC	I



Neuroendoscopy

Single Chip Camera System



digital

Fully digital camera technology

- Digital SDI video signal output opens up a new world for endoscopy – fully digital image documentation and display for optimum results
- Digital signal processing in the camera control unit for optimum contrast
- Natural, true color rendition
- Additional analog video signal outputs for looping through the camera video signal to the analog monitor
- High light sensitivity for outstanding image luminosity
- Integrated gain function for automatic brightness adjustment especially in critical light situations
- Special modes (e.g. Lap, Arthro, Small Scope and Fiber mode) produce high quality images in every situation
- The present camera settings are displayed on screen
- Ergonomic camera head for fatigue-free working
- Easy operation of camera functions via control buttons in the camera head

PAL System, complete	PV150*
Camera Head PAL	PV151*
NTSC System, complete	PV152*
Camera Head NTSC	PV153*
*) Including endocoupler	
CCD (Inch)	1/2"
Horizontal Resolution (Lines)	470
Dynamic Gain Function	Always "On", 0 - 18 dB (except Fibre Mode)
Detail Enhancement Function	Always "On"
Signal to Noise Ratio	46 dB
Minimum Light Sensitivity	1 Lx
Signal Processing	Digital, 10 bit
Modes	Laparoscopy (High) Arthroscopy (Medium) Small Neuroscope (Low) Fibre Mode
Video Signal Outputs	Composite, Y/C, SDI
Buttons on Camera Head	2
Button Functions	1 x Remote 1 x White Balance
Endocoupler	Fixed, f=30 mm
Shutter Speed	1/50 – 1/100 000 s
Dimensions camera head (w x h x d)	32 x 50 x 135 mm
Weight Camera Head and Endocoupler	200 g
Dimensions CCU (w x h x d)	305 x 89 x 305 mm
Weight CCU	4 kg
Length Camera Cable	3 m
On-screen Display	Yes
Material Compatibility	EtO/Steris/Sterrad
Soakable	Gluteraldehyde
Power Supply	100-240 V AC, 50-60Hz
Maximum Power Consumption	25 VA
Tested acc. to norm	EN 60601-1, EN 60601-1-2
Safety Class acc. to EN 60601-1	I
Protection level acc. to EN 60601-1	BF
Classification acc. to directive 93/42/EEC	I

Neuroendoscopy

3-Chip Camera System



The new standard camera for natural colors and clear images

- The three highly sensitive CCD chips produce true color rendition
- Digital signal processing in the camera control unit for optimum contrast
- Additional analog video signal outputs for looping through the camera video signal to the analog monitor
- High light sensitivity for outstanding image luminosity
- Integrated gain function for automatic brightness adjustment especially in critical light situations
- Special modes (e.g. Lap, Arthro and Small Scope) produce high quality images in every situation
- The present camera settings are displayed on screen
- Ergonomic camera head for fatigue-free working
- Easy operation of camera functions via control buttons in the camera head

PAL System, complete **PV430***

Camera Head PAL **PV431***

NTSC System, complete **PV432***

Camera Head NTSC **PV433***

*) Including endocoupler

CCD (Inch)	3 x 1/3"
Horizontal Resolution (Lines)	750
Dynamic Gain Function	Always "On", 0 - 20 dB
Detail Enhancement Function	Always "On"
Signal to Noise Ratio	60 dB
Minimum Light Sensitivity	1 Lx
Signal Processing	Digital, 10 bit
Modes	Laparoscopy (High) Arthroscopy (Medium) Small Neuroscope (Low)
Video Signal Outputs	Composite, 2 x Y/C, RGB
Buttons on Camera Head	2
Button Functions	1 x Remote 1 x White Balance
Endocoupler	Fixed, f=23 mm
Shutter Speed	1/50 — 1/100 000 s
Color Bars	Yes
Dimensions camera head (w x h x d)	32 x 50 x 135 mm
Weight Camera Head and Endocoupler	200 g
Dimensions CCU (w x h x d)	305 x 89 x 305 mm
Weight CCU	4 kg
Length Camera Cable	3 m
On-screen Display	Yes
Material Compatibility	EtO/Steris/Sterrad
Soakable	Gluteraldehyde
Power Supply	100-240 VAC, 50-60Hz
Maximum Power Consumption	25 VA
Tested acc. to norm	EN 60601-1, EN 60601-1-2
Safety Class acc. to EN 60601-1	I
Protection level acc. to EN 60601-1	BF
Classification acc. to directive 93/42/EEC	I



Neuroendoscopy 3-Chip Camera System



High-end digital technology for perfect operation

- Digital SDI video output opens up a new world for endoscopy
 - fully digital image documentation and display for optimum results
- Digital signal processing in the camera control unit for optimum contrast
- Additional analog video signal outputs for looping through the camera video signal to the analog monitor
- The three highly sensitive CCD chips produce true color rendition
- Extremely high light sensitivity for outstanding image luminosity
- Easy operation of camera functions via integrated control button in the camera head
- Ergonomic camera head for fatigue-free working
- Integrated gain function for automatic brightness adjustment especially in critical light situations
- Special modes (e.g. Lap, Arthro, Small Scope and Fiber mode) produce high quality images in every situation
- The present camera settings are displayed on screen
- Integrated digital zoom function (2x zoom) and optional mechanical zoom (2x)

Accessories (to be ordered separately)

PV118	Beamsplitter , f= 28 mm, C-mount, free spinning, focusable
PV122S	Beamsplitter , f= 25-50 mm, focusable
PV123S	Beamsplitter , f= 30 mm, focusable

PAL System, complete	PV420*
Camera Head PAL	PV421*
Control Unit PAL	PV429
NTSC System, complete	PV422*
Camera Head NTSC	PV423*

*) Including endocoupler

CCD (Inch)	3 x 1/2"
Horizontal Resolution (Lines)	> 800
Dynamic Gain Function	On/Off Selection, 0 - 9 dB
Detail Enhancement Function	Always "On" except Fibre Mode
Signal to Noise Ratio	62 dB
Minimum Light Sensitivity	0.2 Lx
Signal Processing	Digital, 10 bit
Modes	Laparoscopy (High) Arthroscopy (Medium) Small Neuroscope (Low) Fibre Mode
Video Signal Outputs	Composite, 2 x Y/C, RGB, SDI
Buttons on Camera Head	1 (Dual activation)
Button Functions	1 x Remote, 1 x White Balance or Digital Zoom
Endocoupler	Exchangeable
Shutter Speed	1/50 – 1/10 000 s
Zoom Functions	Optical & Digital
Color Bars	Yes
Dimensions camera head (w x h x d)	45 x 57 x 53 mm
Weight Camera Head w/o Endocoupler	113 g
Dimensions CCU (w x h x d)	305 x 89 x 305 mm
Weight CCU	4.5 kg
Length Camera Cable	3 m
On-screen Display	Yes
Material Compatibility	EtO/Steris/Sterrad
Soakable	Glutaraldehyde
Power Supply	100-240 VAC, 50-60Hz
Maximum Power Consumption	55 VA
Tested acc. to norm	EN 60601-1, EN 60601-1-2
Safety Class acc. to EN 60601-1	I
Protection level acc. to EN 60601-1	CF
Classification acc. to directive 93/42/EEC	I

for Camera Systems (to be ordered separately)

Connecting Cable

PV427 SDI/Composite-Connecting cable, 1.0 m

PV963 S-VHS-Connecting cable, 2 m

PV424 D-sub 15 Pin/4 BNC cable, 1.8 m

PV416 4 BNC/4 BNC Cable, 2 m

PV425 D-sub 15 Pin/D-sub 15 Pin, 2.3 m

PV920201 D-sub 15 Pin/D-sub 15 Pin, 2.3 m

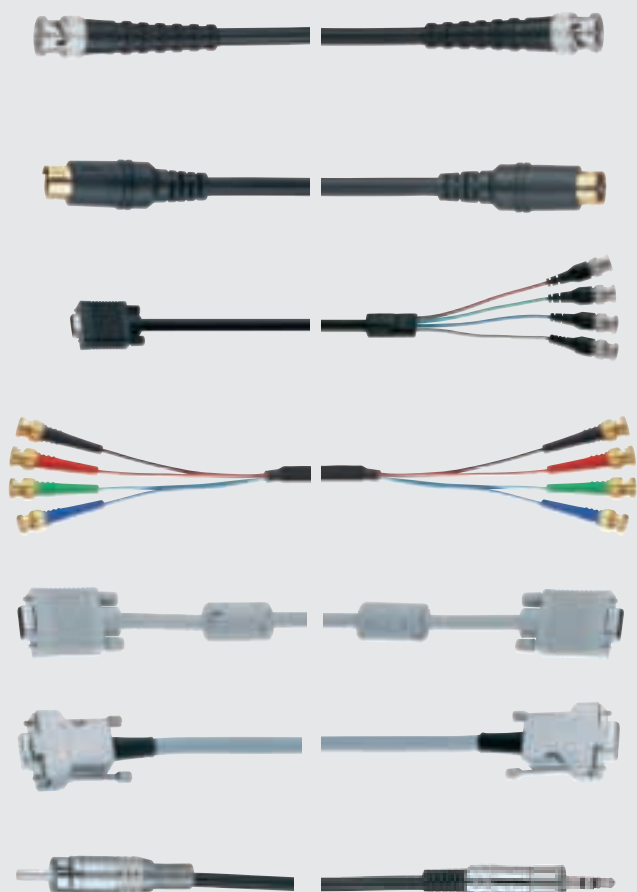
PV428 Serial Connecting cable, D-sub 9 Pin, 3 m

PV967 Remote control cable, 1.7 m
Cinch/3.5 mm Stereo Mini Jack

Additional Accessories

JG904 Sterile Camera drape, disposable, ring design
package of 25

JG910 Sterile Anti Fog Solution
package of 10





Neuroendoscopy

Digital Documentation System



Digital Documentation System

Eddy^{DVD}

PV920

Easy-to-use patient documentation system

- Archiving of still images, video sequences and audio data
- Very easy operation via camera head, mouse or optional touch screen monitor
- Can be integrated into any existing endoscopy tower
- Image data storage on DVD/CD-ROM, USB, hard drive or network
- Search function for display of existing patient data
- Equipped with common video input and output types
- Fully network-compatible
- Data printout through local printer/ network printer
- Optional DICOM 3.0 compatibility

Accessories (to be ordered separately)

PV428

Serial connecting cable from Eddy DVD to PV941 Flat Panel Display, 3 m

PV942

DICOM Upgrade Set



DVD System	DVD-R/-RW; DVD+R/+RW
Color System	PAL, NTSC
Still image format	JPEG, Bitmap
Video format	MPEG-2
Number of MPEG-2 compression rates	3 (high quality, standard, long play)
Capturing of video sequence	On hard drive, DVD/CD, USB or network
Capturing still images during video recording	Yes
Capturing audio data	Digital
Video Signal Inputs	1 x S-VHS
Video Signal Outputs	1 x DVI-D 1 x Analog VGA (15 pin D-sub) 1 x S-VHS
Other outputs	1 x RJ45 for Network 1 x Cinch for Remote function 3 x USB 2 x RS232 (9 pin D-sub)
System	Processor Pentium 4 Mobile 1.7 GHz, 256 MB RAM
Networkable via Ethernet Interface	Yes
Operation via camera head, mouse or touch screen	Yes
Can be integrated into any endoscopy tower	Yes
Hard drive capacity	40 GB
Operating System	Windows 2000
Power Supply	100-240V AC, 50-60 Hz
Maximum Power Consumption	170 VA
Dimensions (w x h x d)	305 x 125 x 305 mm
Weight	8 kg
Tested acc. to norm	EN 60601-1, EN 60601-1-2
Safety Class acc. to EN 60601-1	I
Classification acc. to directive 93/42/EEC	I



PV941

**15" Flat panel display "Touch Screen"
PAL/NTSC**

■ **Technical data:**

- Screen size: 15" (38 cm)
- Resolution (Pixel): 1027 x 768 (XGA)
- Weight: 4.3 kg
- Dimensions (w x h x d): 387 x 301 x 81 mm
- Menu control: 7 languages
- Video Signal inputs/outputs: DVI-I (analog and digital VGA)
SDI 1x In/1x Out
S-VHS 1x In/1x Out
RS 232 (9 pin D-sub)
12 V Power Input



PV945

15" Flat panel display PAL/NTSC

■ **Technical data:**

- Screen size: 15" (38 cm)
- Resolution (Pixel): 1027 x 768 (XGA)
- Weight: 5.0 kg
- Dimensions (w x h x d): 387 x 301 x 81 mm

PV949

19" Flat panel display PAL/NTSC

■ **Technical data:**

- Screen size: 19.1" (38 cm)
- Resolution (Pixel): 1280 x 1024 (SXGA)
- Weight: 6.3 kg
- Dimensions (w x h x d): 465 x 400 x 98 mm
- Mounting system: VESA-Standard
- Power supply: Input 100-240 V AC, 50-60 Hz
Output 24 V DC

Additional accessories

PV875

Articulating arm for adaptation
to Aesculap trolley, small

PV885

Articulating arm for adaptation
to Aesculap trolley, large

PV918

Base for all flat panel displays



- Sturdy and non-tilting construction
- Modular trolley design
- Special antistatic castors
- Optimum stability for units
- Rubber bumpers on the base frame
- Easy cleaning and disinfection
- Smart cable management

PV890 Trolley „Metro Classic“

PV891 Trolley „Metro Classic IT“

- with integrated Isolation Transformer (2000 VA)
- with integrated system monitoring

PV883 Irrigator stand, one-hand height adjustment, 90 cm total height

PV885 Articulating arm for flat screen

PV884 Camera holder for 1- and 3 Chip cameras

PV893 Power plug Euro

PV894 Power plug UK/Ireland

PV995 Power plug USA/Canada/Japan

■ Technical data:

- Weight: 82 kg
- Dimensions (w x h x d): 935 x 1580 x 700 mm
- Max. load capacity of cart: 210 kg
- Standing Area (w x d): 560 x 440 mm
- Max. load capacity of shelf: 40 kg
- Standard: EN 60601-1
EN 60601-1-1
EN 60601-1-2
- Safety Class acc. to EN 60601-1 I
- Classification acc. to norm 93/42/EEC I

Neuroendoscopy Trolley



- Sturdy and non-tilting construction
- Modular trolley design
- Special antistatic castors
- Optimum stability for units
- Rubber bumpers on the base frame
- Easy cleaning and disinfection
- Smart cable management

PV880 Trolley „Metro Junior“

PV891 Trolley „Metro Junior IT“

- with integrated Isolation Transformer (1120 VA)
- with integrated system monitoring

PV883 Irrigator stand, one-hand height adjustment, 90 cm total height

PV885 Articulating arm for flat screen

PV884 Camera holder for 1- and 3 Chip cameras

PV893 Power plug Euro

PV894 Power plug UK/Ireland

PV895 Power plug USA/Canada/Japan

■ Technical data:

■ Weight:	89 kg
■ Dimensions (w x h x d):	835 x 1580 x 750 mm
■ Max. load capacity of trolley:	210 kg
■ Standing Area (w x d):	560 x 440 mm
■ Max. load capacity of shelf:	40 kg
■ Standard	EN 60601-1 EN 60601-1-1 EN 60601-1-2
■ Safety Class acc. to EN 60601-1	I
■ Classification acc. to norm 93/42/EEC	I



Neuroendoscopy



For further details see
brochure No. C35502



Horizons of Knowledge. Competence to master the future.

Innovative developments in the field of medical technology, sophisticated new treatment methods, increasingly more stringent requirements for hospital and quality management and, last but not least, a healthy interest in acquiring new knowledge have given rise to an enormous and ever-increasing demand for further and advanced training.

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- Advanced Neuroendoscopy Courses
- Transnasal Pituitary & Skull Base Courses

B | BRAUN
SHARING EXPERTISE

Aesculap AG & Co. KG, Am Aesculap-Platz, 70512 Tuttingen, Germany.
Phone +49 7461 95-0, Fax +49 7461 95-2600, www.aesculap.de



Bipolar



Bipolar Coagulation

Bipolar Coagulation

Bipolar Electrosurgical Unit

- Reproducible coagulations through microprocessor control.
- Easy operation through individual memory keys.
- Very safe owing to continuous monitoring of neutral electrodes.
- MICRO - MACRO output:
 - MICRO power range: 0.1 to 9.9 w, adjustable in 0.1 watt steps.
It is thus possible to perform extremely precise point coagulation without tissue adhesion.
 - MACRO power range: 1 to 50 w, adjustable in 1 watt steps.
This permits universal use of the bipolar coagulator.



GN060

Bipolar HF surgical unit, microprocessor-controlled with membrane keyboard suitable for applications in all disciplines without mains cable and accessories.

■ Technical data:

■ Mains supply:	220 - 240 volts / 100 - 120 volts
■ Mains frequency:	50 - 60 Hz
■ Dimensions (W x D x H):	305 x 305 x 82 mm
■ Weight:	4.7 kg
■ Power consumption:	140 W
■ Class of protection:	I
■ Type:	CF
■ LF leakage current in acc.:	with IEC 601-1
■ HF leakage current in acc.:	with IEC 601-2-2
■ Output frequency:	450 kHz
■ Modulation frequency:	1 kHz

■ Output:	Power (watts)	Adaption (ohms)
■ MICRO	10	50
■ MACRO	50	100



Bipolar Coagulation

Bipolar Electrosurgical Unit - Accessories



TE780 1.5 m

TE730 5 m

Grounding-type European plug



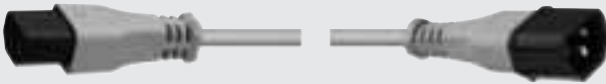
TE734 5 m

for Great Britain and Ireland



TE735 5 m

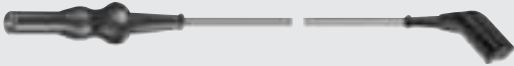
for USA, Canada and Japan



TE676 1 m


TE736 2.5 m

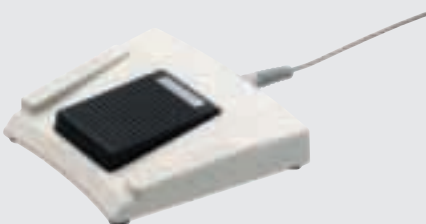
IEC 60320 connector
(non-heating equipment)



GN073 3.5 m

Bipolar connecting cable, silicone-rubber insulation,
for Aesculap coagulation forceps,
steam-sterilizable up to 3 bar (134°)

 Aesculap
tab connector



GK226

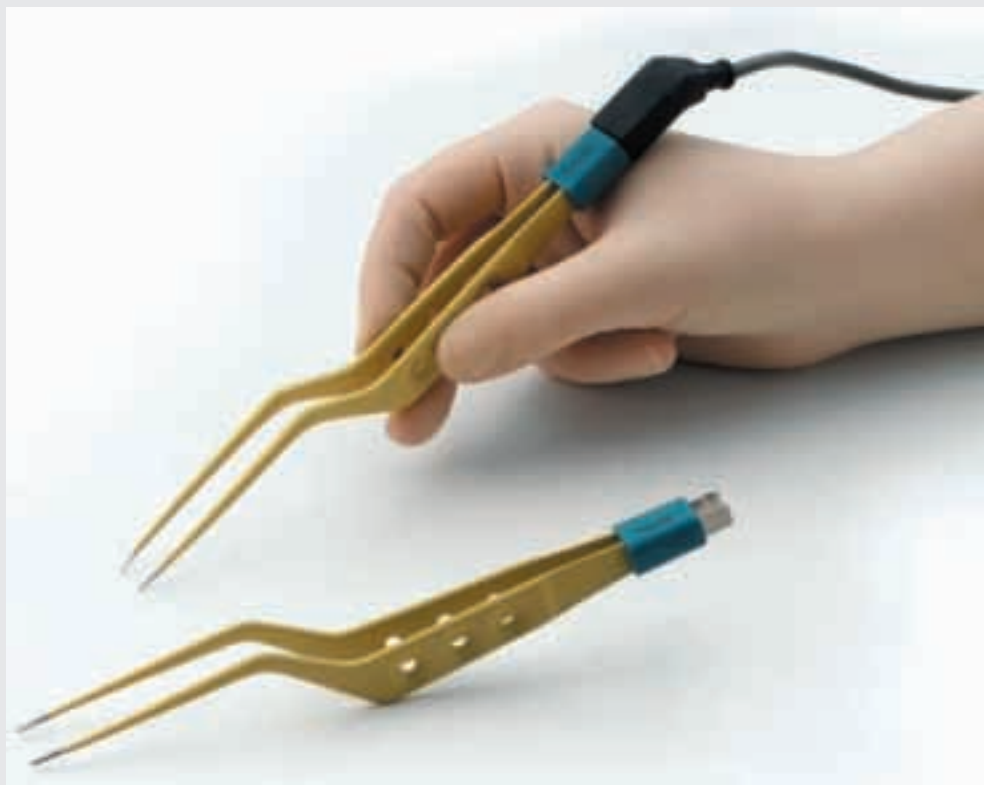
Single-pedal foot switch,
plastic housing

Bipolar

MILLIMETERS

Bipolar Coagulation

YASARGIL Coagulation Forceps



Features:

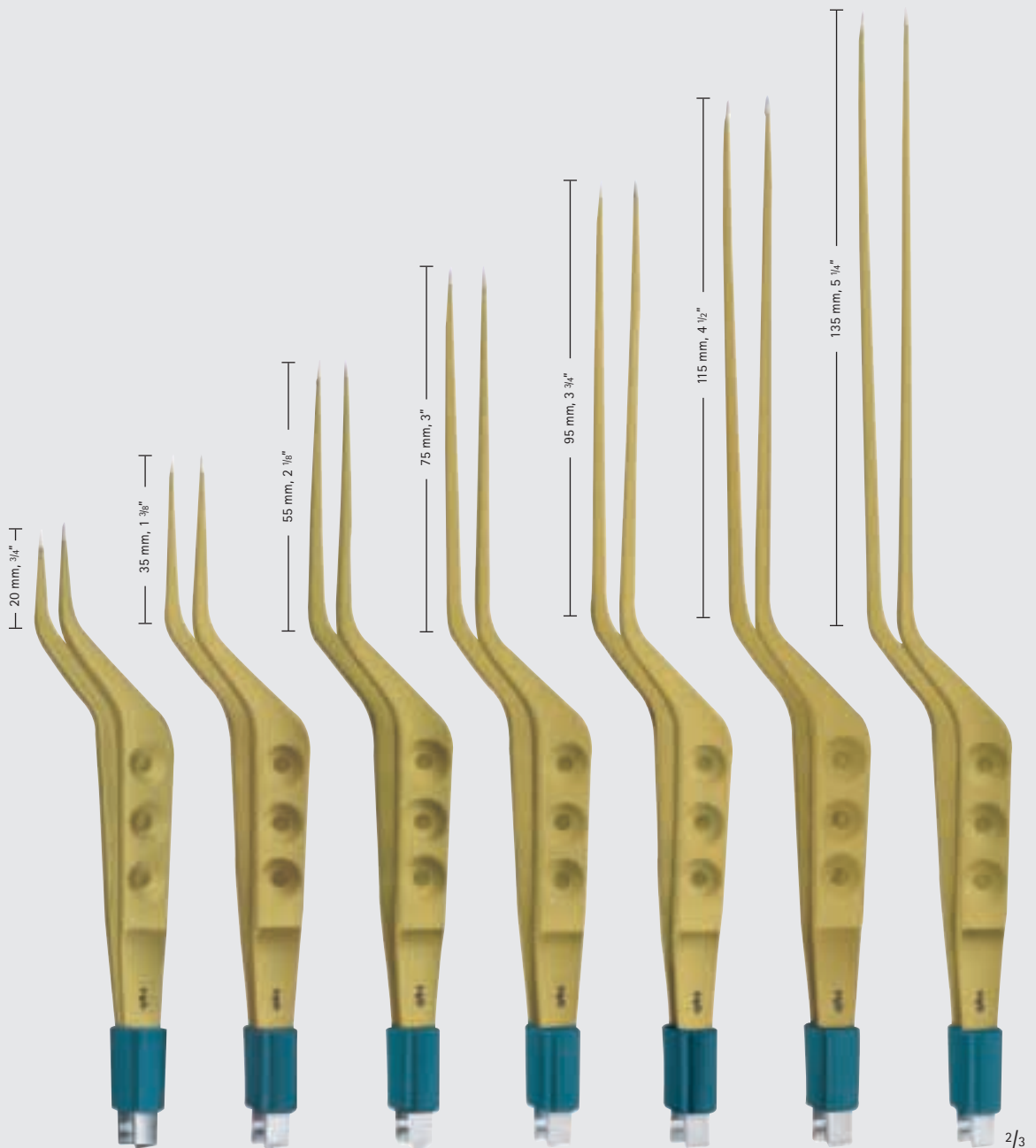
- Also suitable for tissue preparation and spreading thanks to increased spring tension.
- Forceps tips are rounded but the gripping surfaces are only finely worked to ensure good gripping of tissue.
- Robust, impact-resistant insulation coating.
- Finger recesses guarantee safe, precise handling, particularly for deep operations.
- Sturdy insulating cuff made of high-grade plastic joins the handle ends.
- Smooth, self-cleaning plug-in connection guarantees reliable electrical contact.



Bipolar Coagulation YASARGIL Coagulation Forceps



Aesculap tab connector



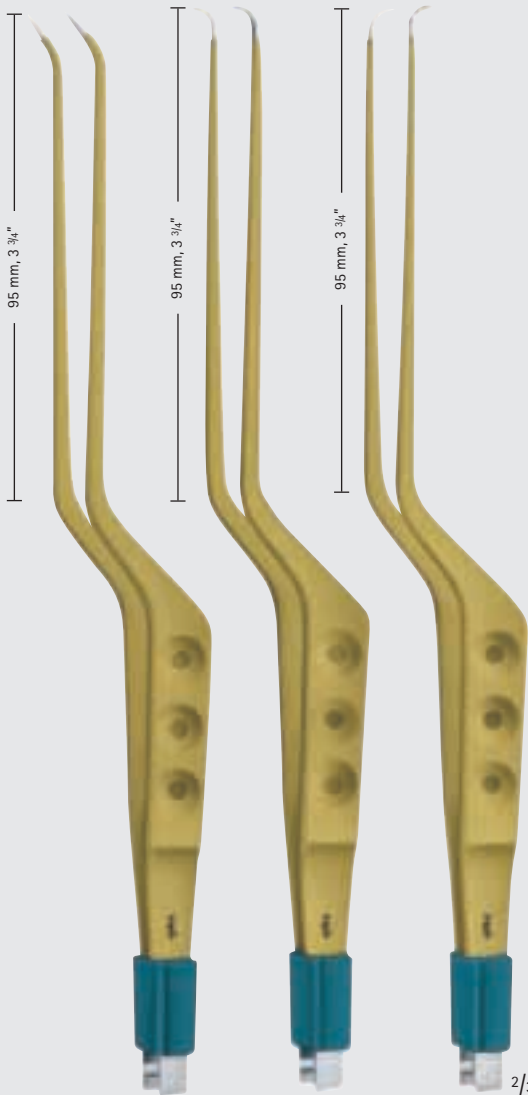
0.4 mm 	GK746R	GK760R	GK764R	GK768R	GK772R	GK788R	
0.7 mm 	GK747R	GK761R	GK765R	GK769R	GK773R	GK789R	GK793R
1.0 mm 	GK748R	GK762R	GK766R	GK770R	GK774R	GK790R	
1.3 mm 	GK749R	GK763R	GK767R	GK771R	GK775R	GK791R	
Total length	140 mm, 5 1/2"	155 mm, 6"	175 mm, 7"	195 mm, 7 3/4"	215 mm, 8 1/2"	235 mm, 9 1/4"	255 mm, 10"

Bipolar Coagulation

YASARGIL Coagulation Forceps



Aesculap tab connector



2/3

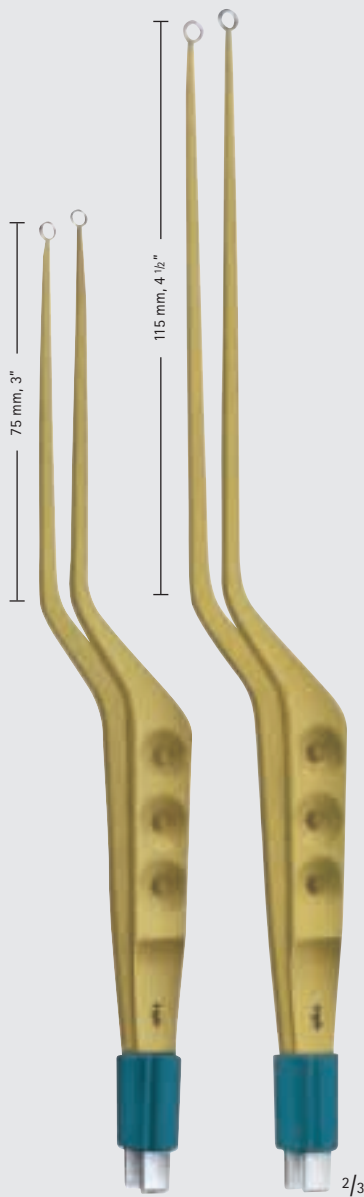
0.4 mm			<u>GK780R</u>	
0.7 mm		<u>GK777R</u>		
0.7 mm			<u>GK781R</u>	<u>GK785R</u>
Total length		215 mm, 8 1/2"	215 mm, 8 1/2"	215 mm, 8 1/2"




Bipolar



Bipolar Coagulation YASARGIL Ring and T-Coagulation Forceps

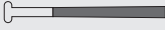
With the ring coagulation forceps, it is possible to perform resections of gliomas, meningiomas and acoustic neurinomas.



2/3 mm			GK831R
3/4 mm			GK832R
4/5 mm		GK743R	GK833R
Total length		195 mm, 7 3/4"	235 mm, 9 1/4"

T-coagulation forceps for secure fixation and coagulation at the operation site, especially in the region of the pituitary



	GK800R
Total length	250 mm, 10"



	GK801R
Total length	250 mm, 10"

Bipolar

MILLIMETERS

Bipolar Coagulation

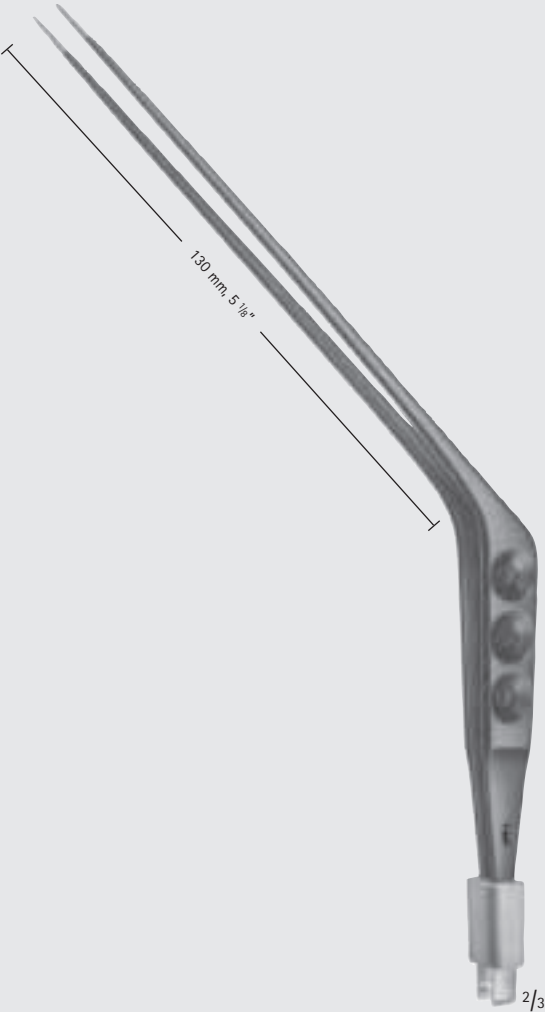
Coagulation Forceps with Sintram Tips




Aesculap tab connector



Bipolar coagulation forceps with Sintram tips.



1.0 mm		GK719R
Total length		215 mm, 8 1/2"

Bipolar



Bipolar Coagulation Standard Coagulation Forceps



Aesculap round pin connector



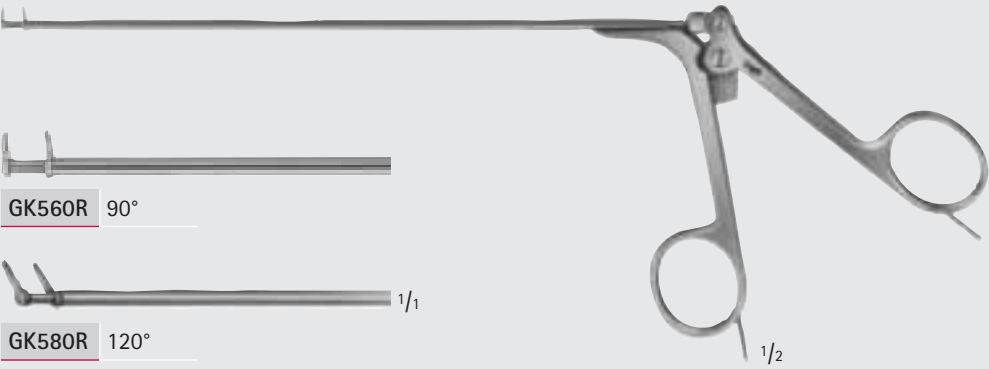
0.6 mm 	GK660R	GK670R	GK675R	GK677R
0.9 mm 		GK671R		GK679R
Total length	160 mm, 6 1/4"	200 mm, 8"	220 mm, 8 3/4"	240 mm, 9 1/2"

Bipolar

MILLIMETERS

Bipolar Coagulation

Coagulation Instruments for Hypophysectomy



GK560R 90°



GK580R 120°

GK561R 90°

GK581R 120°

Spare inner parts

LANDOLT

GK560R-GK580R

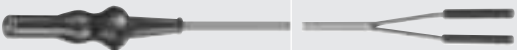
Coagulation forceps for
pituitary surgery, angled

On the equipment side - Manufacturer

On the instrument side

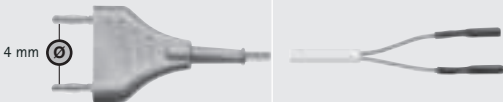
GN075 3.5 m

AESCLAP
Martin
Berchtold



GK195 3.5 m

Valleylab



GK215 3.5 m

Valleylab
Birtcher
Conmed





Bipolar Coagulation CASPAR Coagulation Forceps



Features:

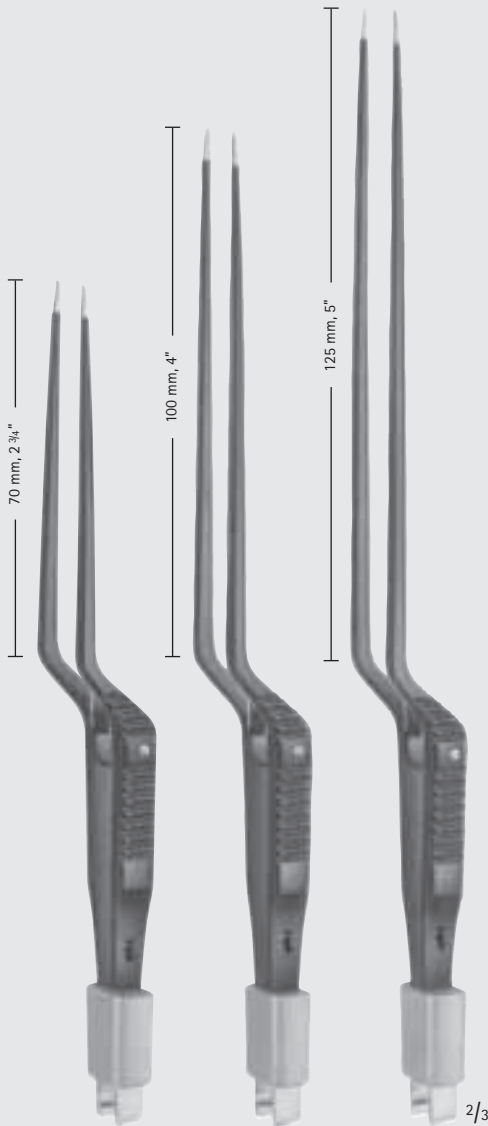
- Slim, delicate form to permit fatigue-free and sensitive working.
- Forceps tips with rounded, polished surfaces to reduce tissue adhesion.
- Insulation by proven double coating.
- Parallel guidance guarantees exact contact of forceps tips.
- Sturdy insulating cuff made of high-grade plastic joins the handle ends.
- Smooth, self-cleaning plug-in connection guarantees reliable electrical contact.





Bipolar Coagulation

CASPAR Coagulation Forceps



Aesculap tab connector



0.2 mm		GK899R	GK929R	GK959R
0.5 mm		GK900R	GK930R	GK960R
1.0 mm		GK910R	GK940R	GK970R
2.0 mm		GK920R	GK950R	GK980R
Total length		165 mm, 6 1/2"	195 mm, 7 3/4"	220 mm, 8 3/4"



Bipolar Coagulation CASPAR Coagulation Forceps



Aesculap tab connector



1.0 mm		<u>GK972R</u>	<u>GK974R</u>		
1.0 mm				<u>GK976R</u>	<u>GK978R</u>
Total length		220 mm, 8 3/4"	220 mm, 8 3/4"	215 mm, 8 1/2"	215 mm, 8 1/2"

Bipolar

MILLIMETERS

Bipolar Coagulation

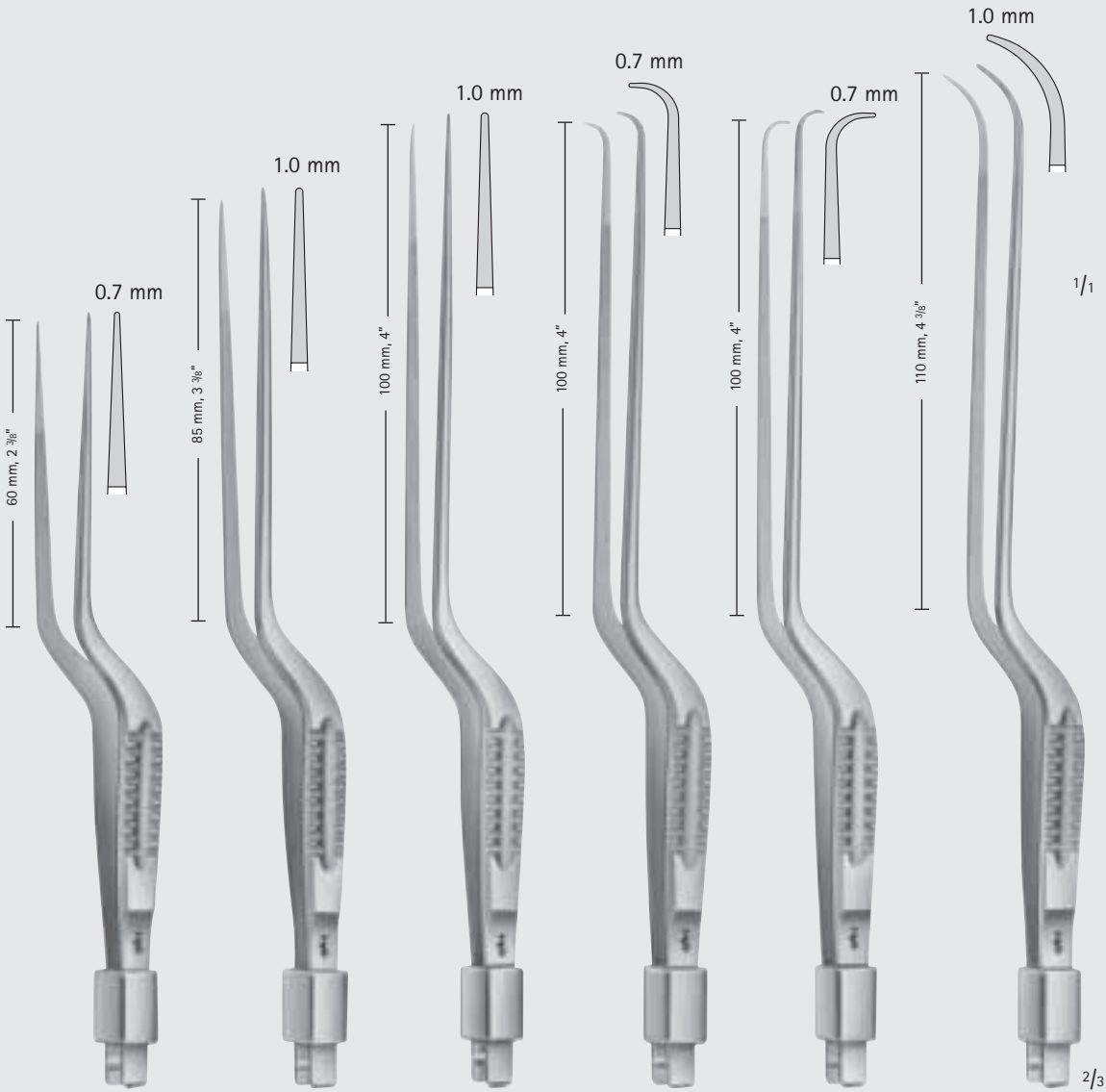
Coagulation Forceps with Sintram Tips



Aesculap tab connector



Bipolar coagulation forceps with Sintram tips.



	GK614R	GK615R	GK616R	GK656R	GK657R	GK658R
	GK644R	GK645R	GK646R			
	black insulation	black insulation	black insulation			
Total length	160 mm, 6 1/4"	185 mm, 7 1/4"	200 mm, 8"	200 mm, 8"	200 mm, 8"	210 mm, 8 1/4"



Bipolar Coagulation Coagulation Forceps with Sintram Tips



Aesculap tab connector



Bipolar coagulation forceps with Sintram tips.



²/₃

0.9 mm		<u>GK604R</u>	<u>GK605R</u>	<u>GK606R</u>		
0.9 mm					<u>GK624R</u>	
0.8 mm						<u>GK625R</u> black insulation
Total length		160 mm, 6 1/4"	185 mm, 7 1/4"	200 mm, 8"	160 mm, 6 1/4"	200 mm, 8"

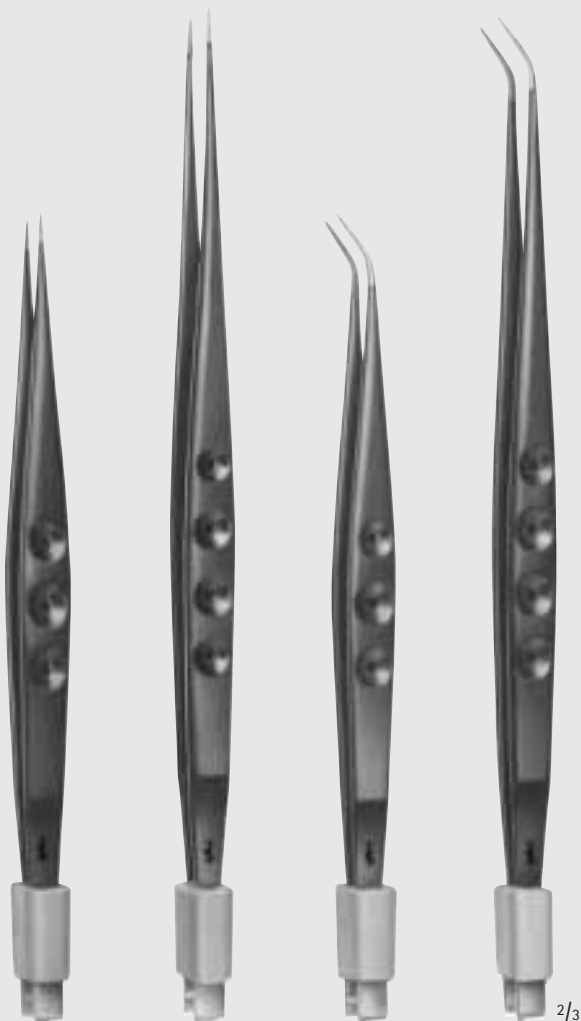
Bipolar

MILLIMETERS

Bipolar Coagulation Coagulation Forceps



Aesculap tab connector

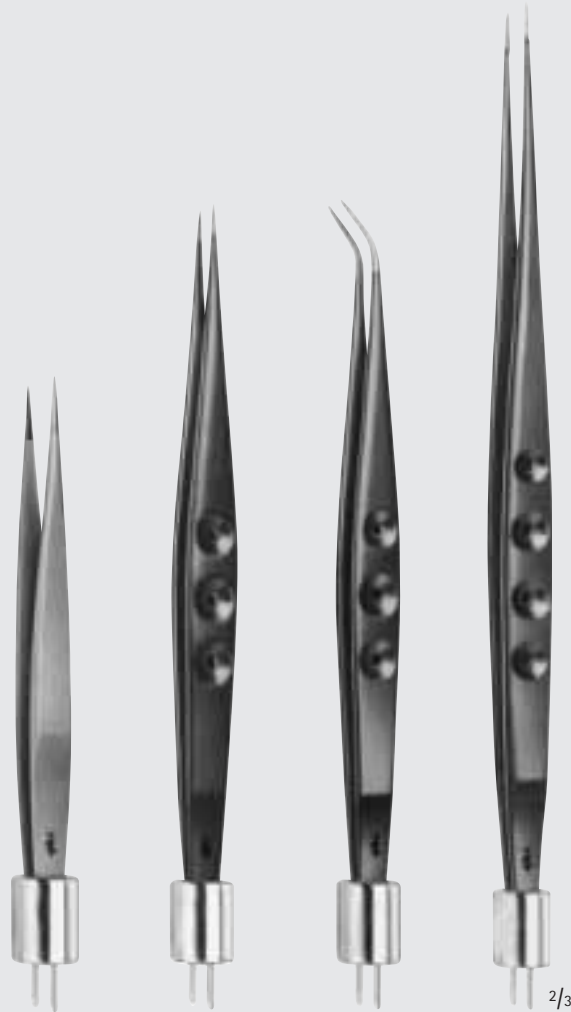


0.6 mm		GK700R			
0.9 mm		GK701R	GK703R	GK711R	GK713R
Total length		160 mm, 6 1/4"	200 mm, 8"	160 mm, 6 1/4"	200 mm, 8"

Bipolar



Bipolar Coagulation Coagulation Forceps



0.4 mm		GK690R			
0.6 mm			GK720R		
			black insulation		
0.9 mm			GK722R	GK723R	GK730R
			black insulation	black insulation	black insulation
Total length		120 mm, 4 3/4"	160 mm, 6 1/4"	160 mm, 6 1/4"	200 mm, 8"

Bipolar

MILLIMETERS




Bipolar Coagulation

Micro and Laboratory Forceps, Non-Insulated



Aesculap tab connector



0.3 mm		GK596R		
0.6 mm			GK595R	
0.6 mm				GK597R
Total length		145 mm, 5 3/4"	120 mm, 4 3/4"	110 mm, 4 3/8"

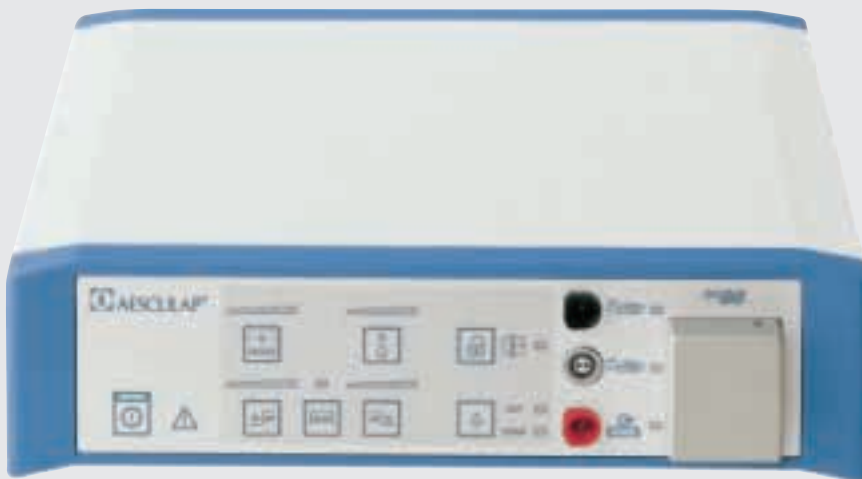
Bipolar



Bipolar Coagulation Irrigation Unit

JET Irrigation Unit

- The JET irrigation system transforms an irrigation coagulation forceps into a multifunctional instrument.
- The use of JET irrigation without coagulation makes it possible to wash away blood (e.g. in subarchnoidal hemorrhages) for exposing fine anatomical structures and enables subsequent coagulation without changing the instrument.
- In conjunction with drip irrigations, coagulation can be carried out gently and without tissue adhesion.



GN090

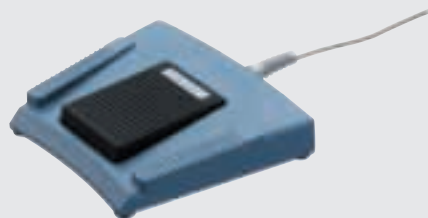
JET Irrigation Unit
(for use with bipolar unit GN060)

■ Technical data:

- Mains supply: 220 - 240 volts / 100 - 120 volts
- Mains frequency: 50 - 60 Hz
- Weight: 4.7 kg
- Dimensions (w x d x h): 305 x 305 x 82 mm

Bipolar Coagulation

Irrigation Unit - Accessories



GN092

JET foot switch



GN093

Pressure cuff



GN094

Tube set
Sales unit:
PAK = Package of 10 tubes



TE780 1.5 m

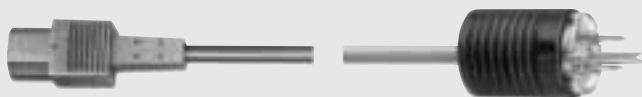
TE730 5 m

Grounding-type European plug



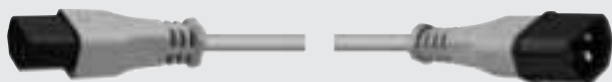
TE734 5 m

for Great Britain and Ireland



TE735 5 m

for USA, Canada and Japan



TE676 1 m

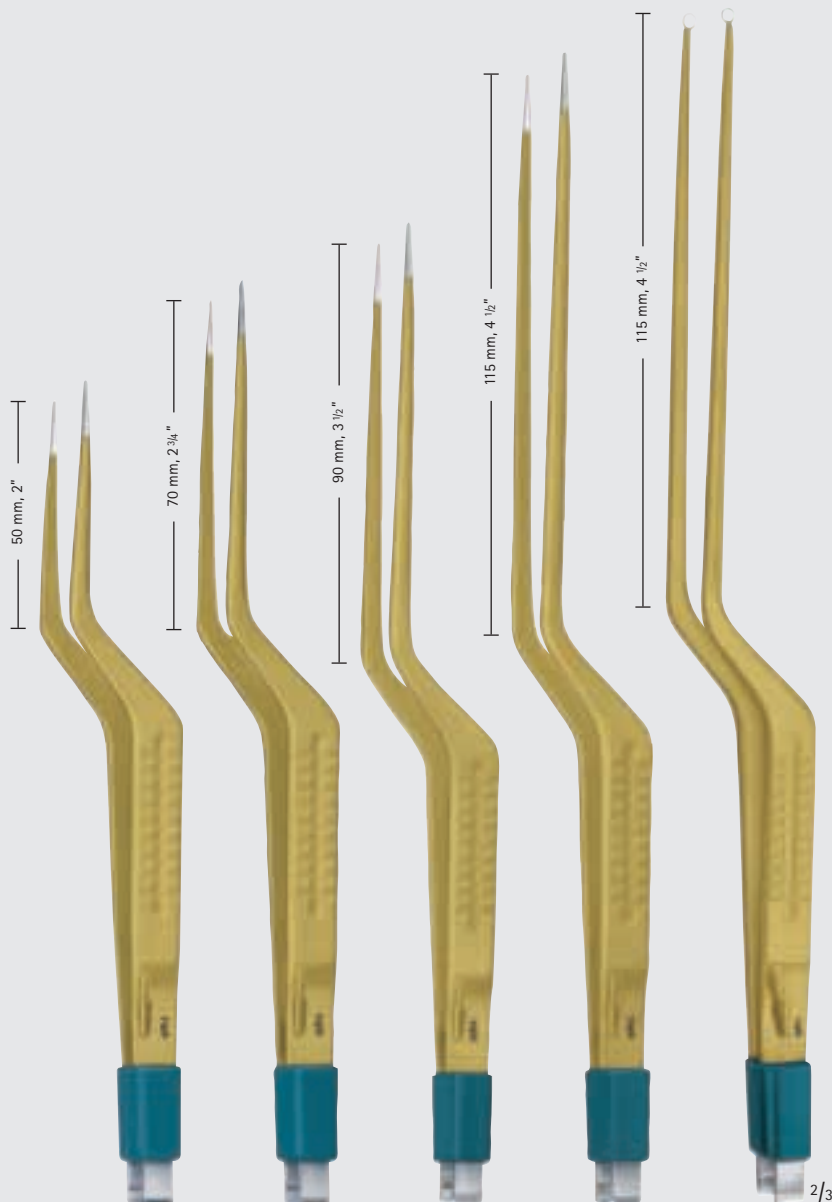
TE736 2.5 m



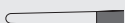


IEC 60320 connector
(non-heating equipment)



Bipolar Coagulation Irrigating Coagulation Forceps

■ Irrigation coagulation forceps facilitate gentle coagulation without tissue adhesion.



















0.4 mm			GK840R	GK843R	GK846R	
0.7 mm		GK838R	GK841R	GK844R	GK847R	
1.3 mm			GK842R	GK845R	GK848R	
4/5 mm						GK871R
6/7 mm						GK872R
Total length		160 mm, 6 1/4"	180 mm, 7"	205 mm, 8"	230 mm, 9"	235 mm, 9 1/4"

Bipolar

MILLIMETERS

Bipolar Coagulation

Bipolar Connecting Cables

			On the equipment side - Manufacturer	On the instrument side
Bipolar	GN073 3.5 m	Aesculap ACMI Berchtold Martin Wolf		  Aesculap tab connector
	GN077 5.0 m			
	GN076 3.5 m			
	GN078 5.0 m			
	GN074 3.5 m			  Aesculap Round pin connector
	GK200 3.5 m	Aesculap ACMI Codman Conmed Olympus Valleylab	 \varnothing 4 mm	  Aesculap tab connector
	GK183 3.5 m			
	GK210 3.5 m			
	XF830 3.5 m	Erbe Storz		  Aesculap Round pin connector
	GK216 3.5 m			
	GK213 5.0 m			
	GK185 3.5 m	Erbe Storz		  Aesculap tab connector
	GK188 5.0 m			
GN217	Aesculap	Bipolar adapter  Erbe, Storz		



Bipolar Coagulation Bipolar Connecting Cables

			On the equipment side - Manufacturer	On the instrument side	
GK217	3.5 m	Codman			Aesculap tab connector
GK193	3.5 m Pin distance 29 mm	Aesculap Bowa EMC Lamidey Söring Valleylab			Aesculap tab connector
GK194	3.5 m Pin distance 29 mm				Aesculap Euro tab connector
GK196	3.5 m Pin distance 22 mm	EMC/Dolley			Aesculap tab connector
GK202	3.5 m	AESCLAP GK020 GK021 GK030 GK034 GK050 GK051			Aesculap tab connector
GK212	3.5 m				Aesculap Round pin connector
Single Use					
GK211	3.5 m Sales unit: PAK = Package of 10 pieces	AESCLAP ACMI Codman Conmed Olympus Valleylab			for forceps with Aesculap tab connector and round pin connector

Bipolar

MILLIMETERS

Bipolar Coagulation Nerve Stimulator

Range of application

- Stimulation of motor cerebral nerves and peripheral nerves can take place during the operation, e.g. operations of cerebellopontine-angle tumors or peripheral nerve or plexus injuries. The unit can be applied on fresh nerve injuries to locate the peripheric stump of the nerve as long as the WALLER degeneration has not taken place.
- On old injuries showing considerable scars, the unit can also be used to locate those motor nerves with only a partial loss.
- The use of this unit facilitates in many cases the decision whether a neurolysis will be successful or whether the scar of a nerve has to be resected and the removed part replaced by a transplant.



GN015

Nerve stimulator only,
with rechargeable accumulator and built-in battery charger

■ Technical data:

- Mains supply: 120 - 240 volts
- Dimensions (W x D x H): 86 x 175 x 50 mm
- Weight: 500 g
- Circuit: CMOS-semiconductor technic
- Frequency: 2.5 Hz
- Impulses: square-wave, infinitely variable from 0.25 - 10 mA
- Length of impulses: 0.2 millise.
- Working time: at least 30 hours with one accu charging
- Charging time: approx. 15 hours
- Accumulator: 6 V / 150 mAh

- Check-up of function and loading condition by means of green LED-indication

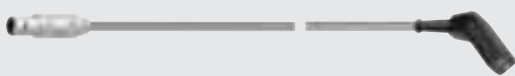



Bipolar Coagulation Nerve Stimulator - Accessories



GN016 1.5 m

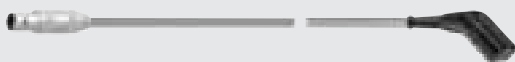
Electrical mains cord
for charging the accumulator




 Aesculap
Round pin connector

GN012 3.5 m

Bipolar stimulator cable
for bipolar forceps with round pin connector



 Aesculap
tab connector

GN013 3.5 m

Bipolar stimulator cable
for bipolar forceps with Aesculap tab connector



GK703R

Bipolar stimulator forceps
200 mm, 8"

Further bipolar stimulator forceps, see page 534.

Bipolar Coagulation



For further details see
brochure No. **C30481**



Power



Power Systems

HiLAN® XS



Advantages

- 100.000 rpm
- Easy handling
- Keyless assembly
- High performance, starting already at 6 bar/87 psi
- Very quiet
- No intraoperative lubrication required
- Excellent long term running capabilities
- Compatible with low speed systems and skull perforator
- Suitable for mechanical cleaning with Eccos®

System components

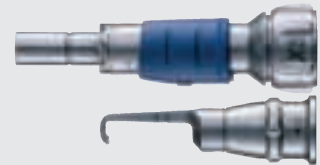
- | | |
|--------------|--|
| GA740 | High speed motor for bone dissection and craniotomy |
| GA513 | Pneumatic hose (3 m) for small Aesculap motors |
| GA521 | Foot switch |
| GA466 | Pneumatic hose (5 m) with Aesculap-Dräger connection |



For further details see
brochure No. 026002 "HiLAN® XS" and brochure No. 022702 "Power Systems"

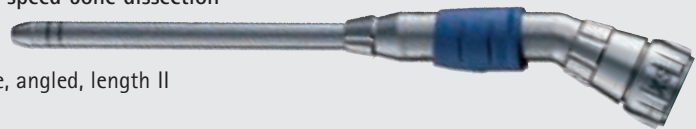
Accessories craniotomy

GB740R	Hi-Line XS craniotome, without dura guard
GB742R	Hi-Line XS craniotome dura guard, standard, length II
GE520R	Hi-Line XS craniotome burr, length II



Accessories for high speed bone dissection

GB757R	Hi-Line XS handpiece, angled, length II
GE504R	Hi-Line XS ROSEN burr, length II, diam. 2.3 mm
GE506R	Hi-Line XS ROSEN burr, length II, diam. 3.1 mm
GE507R	Hi-Line XS ROSEN burr, length II, diam. 4.0 mm
GE508R	Hi-Line XS ROSEN burr, length II, diam. 5.0 mm
GE509R	Hi-Line XS ROSEN burr, length II, diam. 6.0 mm
GE514R	Hi-Line XS Diamond burr, length II, diam. 2.3 mm
GE516R	Hi-Line XS Diamond burr, length II, diam. 3.1 mm
GE517R	Hi-Line XS Diamond burr, length II, diam. 4.0 mm
GE518R	Hi-Line XS Diamond burr, length II, diam. 5.0 mm
GE519R	Hi-Line XS Diamond burr, length II, diam. 6.0 mm



Skull perforation with safety perforator

GA742R	Perforator driver
GB302R	Safety perforator with HUDSON shaft, diam. 9/12 mm



GB600	STERILIT® Hi oilspray for high speed motors and handpieces
GB600820	STERILIT® Hi adapter

microspeed® uni



The electric precision power system for high and low speed applications in neurosurgery

- Made from high quality materials (titanium) for long life
- Extremely easy handling via intuitively designed touch screen
- Automatic motor recognition
- Two motor plug-in sockets
- Acceleration and stopping characteristics individually adjustable
- Integrated irrigation pump
- Eccos® system for mechanical cleaning

System components

GD670	microspeed® uni control unit
GD668	microspeed® uni foot control, single pedal
GD672	microspeed® uni motor connection cord
GD676	High speed motor 150W
GD678	Low speed motor 150W

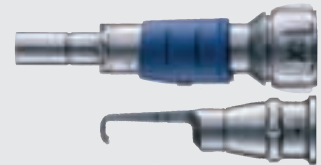


Power Systems
microspeed® uni
Electric High Speed Power System

For further details see
brochure No. 028302 "microspeed® uni" and brochure No. 022702 "Power Systems"

Accessories craniotomy

GB740R	Hi-Line XS craniotome, without dura guard
GB742R	Hi-Line XS craniotome dura guard, standard, length II
GE520R	Hi-Line XS craniotome burr, length II



Accessories for high speed bone dissection

GB757R	Hi-Line XS handpiece, angled, length II
GE504R	Hi-Line XS ROSEN burr, length II, diam. 2.3 mm
GE506R	Hi-Line XS ROSEN burr, length II, diam. 3.1 mm
GE507R	Hi-Line XS ROSEN burr, length II, diam. 4.0 mm
GE508R	Hi-Line XS ROSEN burr, length II, diam. 5.0 mm
GE509R	Hi-Line XS ROSEN burr, length II, diam. 6.0 mm
GE514R	Hi-Line XS Diamond burr, length II, diam. 2.3 mm
GE516R	Hi-Line XS Diamond burr, length II, diam. 3.1 mm
GE517R	Hi-Line XS Diamond burr, length II, diam. 4.0 mm
GE518R	Hi-Line XS Diamond burr, length II, diam. 5.0 mm
GE519R	Hi-Line XS Diamond burr, length II, diam. 6.0 mm



Skull perforation with safety perforator

GD685	Perforator driver
GB302R	Safety perforator with HUDSON shaft, diam. 9/12 mm



GB600	STERILIT® Hi oilspray for high speed motors and handpieces
GB600820	STERILIT® Hi adapter

Power

MILLIMETERS





Spine



Spine Surgery

ABC2 Dynamic Anterior Cervical Plating System



- Dynamic load-sharing plate design
- Self-locking screws
- Plate marking for easier plate length selection
- E-Plate option for extension of existing fusion with ABC to treat adjacent level disease

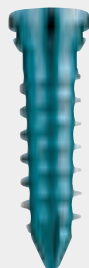


For further details see
brochure No. 029002.

Implant overview:

- Monocortical screws diam. 4.0 mm
- Revision screws diam. 4.5 mm
- Plates prebent 20 - 103 mm length
- Extra long corpectomy plates 106 - 115 mm length
- Mono- and bi-level E-plates

■ Monocortical screws



■ Revision screws



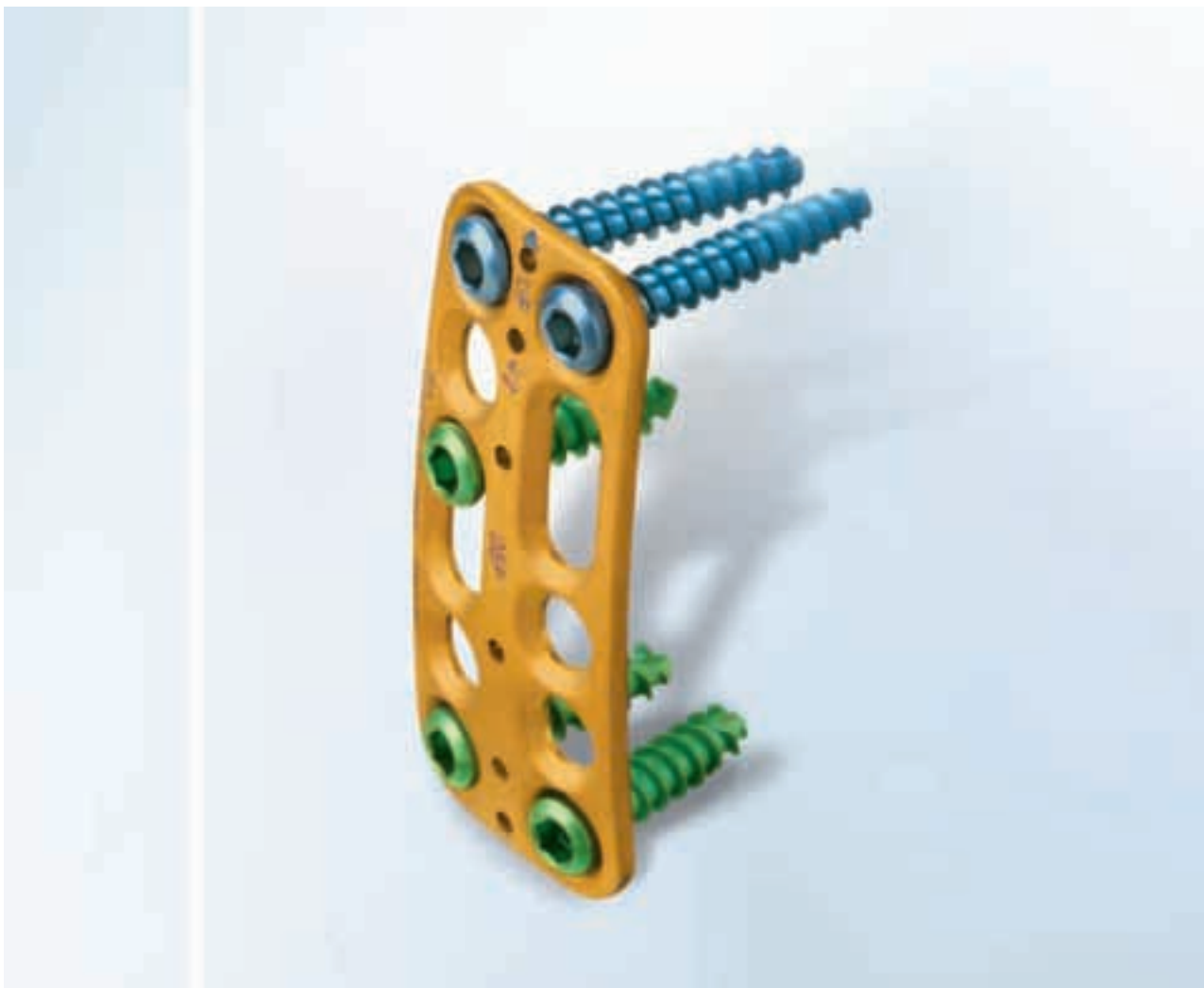
■ Plates



■ E-Plates



CASPARevolution Semi-constrained Anterior Cervical Plating System



- Semi-constrained plate design
- Very low profile
- Long clinically proven concept
- Cortical anchorage of choice
- Back-out resistance without locking mechanism

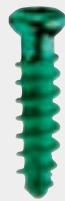


For further details see
brochure No. 013502 and surgical technique 015902.

Implant overview:

- Monocortical screws diam. 4.0 mm
- Bicortical screws diam. 3.5 mm
- Revision screws diam. 4.5 mm
- Plates pre-bent 20 - 90 mm length

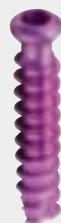
■ Monocortical screws



■ Bicortical screws



■ Revision screws



■ Plates



CASPAR Distractor – Lockable Cervical Distractor System



- For use in surgical procedures
 - from the right approach for C5 through T1/2
 - from the left approach for the upper cervical spine
- Lockable cervical distractor system
- Optional with standard or off-set screws



Spine Surgery

Anterior Cervical Plating

CASPARevolution

For further details see
brochure No. 015902.

Product overview:

Twist drill



Screw driver



Distraction screws
Standard distractor screw



Distraction screws
Off-set screws



S⁴ Cervical Occiput-Cervical-Thoracic-System



- Unique screw head design for small implant size
- Wide implant choice
- C1 guiding instrument for easy screw placement and nerve root protection
- Specialized guiding instruments minimal access transarticular screw fixation



Spine Surgery

Posterior Cervical Stabilization

S⁴ Cervical

For further details see
brochure No. 031102.

Implant overview:

- Polyaxial screws diam. 3.5 – 4.5 mm
- Favored angle screws
- Smooth shank screws
- Hooks
- Rods diam. 3.5 mm
- Occiput plate
- Cross connectors
- Lateral offset connectors
- Cable connectors
- Rod-to-rod connectors for cervical and thoracic extension

■ Polyaxial screws



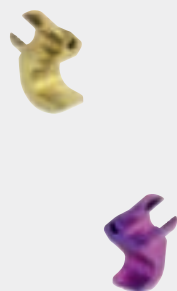
■ Favored angle screws



■ Smooth shank screws



■ Hooks



■ Rods



■ Cross connectors



■ Occiput plate



CeSpace Ti / CeSpace PEEK



Titanium Implants with Plasmapore® coating

- Good primary stability due to rough Plasmapore® coating
- Excellent secondary stability due to bony in-growth in Plasmapore® coating
- Fixation crown
 - Prevention of migration
- Hollow cavity
 - Fusion can additionally be achieved inside the cage

PEEK implants

- Radiolucency
 - No artefacts in postoperative CT or MRI control
- Large implant surface
 - Prevention of subsidence
- Toothed cranial and caudal surface
 - Prevention of migration
- Tantalum markers
 - Easy identification and location



Spine Surgery

Cervical Interbody Fusion

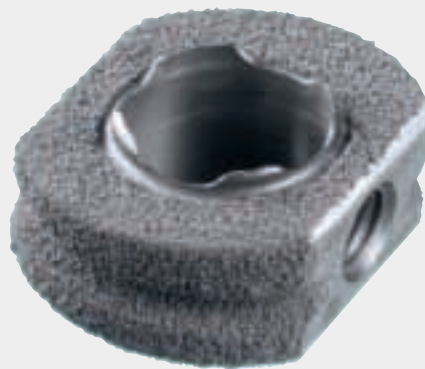
CeSpace

For further details see
brochure 016202.

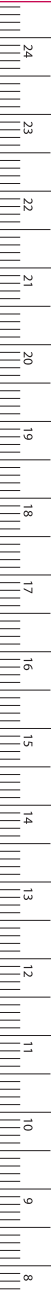
Implant overview:

- Cervical:
 - CeSpace Ti
 - CeSpace PEEK

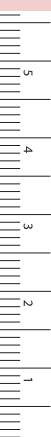
- CeSpace Ti



- CeSpace PEEK



Spine



MILLIMETERS

activ C



- Anatomical shape (convex) of the superior endplate
- COR placed in the posterior part of the prosthesis
- Plasmapore® coating
- Safe multi-level treatment through combination of spikes and keels
- Always same position of the COR in the upper third of the inferior vertebral body



Spine Surgery

Cervical Motion Preservation activ C

For further details see
brochure 031202 and surgical technique 031302.

Implant overview:

- 6 different sizes
 - XS
 - S
 - M
 - L
 - XL
 - XXL
- 3 different heights
 - 5 mm
 - 6 mm
 - 7 mm



activ C Disc Prosthesis
colour code and dimension table

scale 1:1

	16	16	16	17
	SW2746	SW2756		
XS				
S				
M				
L				
XL				
XXL				

table not classified and identified
Table not classified and identified

B. BRAUN
AESCULAP

S⁴ Spinal System



- **small:**
small implant volume decreases the risk of postoperative trauma and soft tissue irritation.
- **stable:**
a special screw design with undercut thread make the S⁴ system extremely stable, despite its small size.
- **simple:**
limited number of instruments, color coded implants and a customized storage concept allow to perform quick and easy surgical procedures.
- **safe:**
soft tissue protection, extremely stable implant construct, easy handling sum up to a safe and secure pedicle screw system.



Spine Surgery

Posterior Stabilization

S⁴ Spinal System

For further details see
brochure No. 025702.

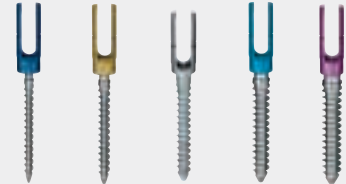
Implant overview:

- Monoaxial pedicle screws
- Polyaxial pedicle screws
- Hooks
- 5.5 mm rods
- Cross connectors

■ Monoaxial pedicle screws



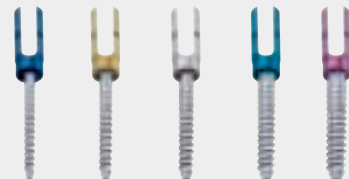
■ Polyaxial pedicle screws



■ Cannulated monoaxial pedicle screws



■ Cannulated polyaxial pedicle screws



■ Rods



■ Cross connectors



FRI – Fraktur–Reduction–Instruments



- Even with minimal implant dimensions the S⁴ Spinal System offers excellent fracture reduction possibilities.
- The S⁴ FRI allows the performance of three fracture reduction functions either individually or in combination:
 - Distraction
 - Compression
 - Restoration of the original lordosis



Spine Surgery

Posterior Stabilization

S⁴ Spinal System

For further details see
brochure No. 034002.

Implant overview:

- S⁴ FRI distractor
- S⁴ FRI distraction blades
- S⁴ FRI spindle distractor
- S⁴ FRI reduction lever, consisting of:
 - outer sleeves
 - thread tube
 - screw driver

■ S⁴ FRI
distractor



■ S⁴ FRI
distraction blade



■ S⁴ FRI
spindle distractor



■ S⁴ FRI reduction lever:
1
outer sleeve

■ S⁴ FRI reduction lever:
2
threaded tube

■ S⁴ FRI reduction lever:
3
screw driver



SRI – Spondylolisthesis Reduction Instrument



- The unique design of the S⁴ SRI facilitates simultaneous correction of transplantation.
- Safe reduction utilizing Aesculap's spondylolisthesis reduction instrument and the S⁴ Spinal System with TLIF.



Spine Surgery

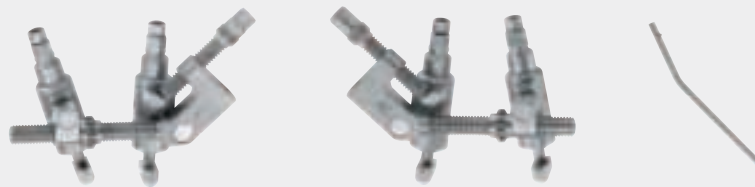
Posterior Stabilization

S⁴ Spinal System

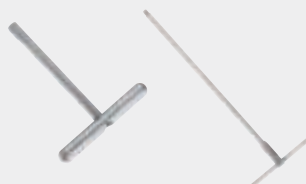
For further details see
brochure No. 032302.

Product overview:

■ Reduction instrument



■ T-handles



■ Tightening keys

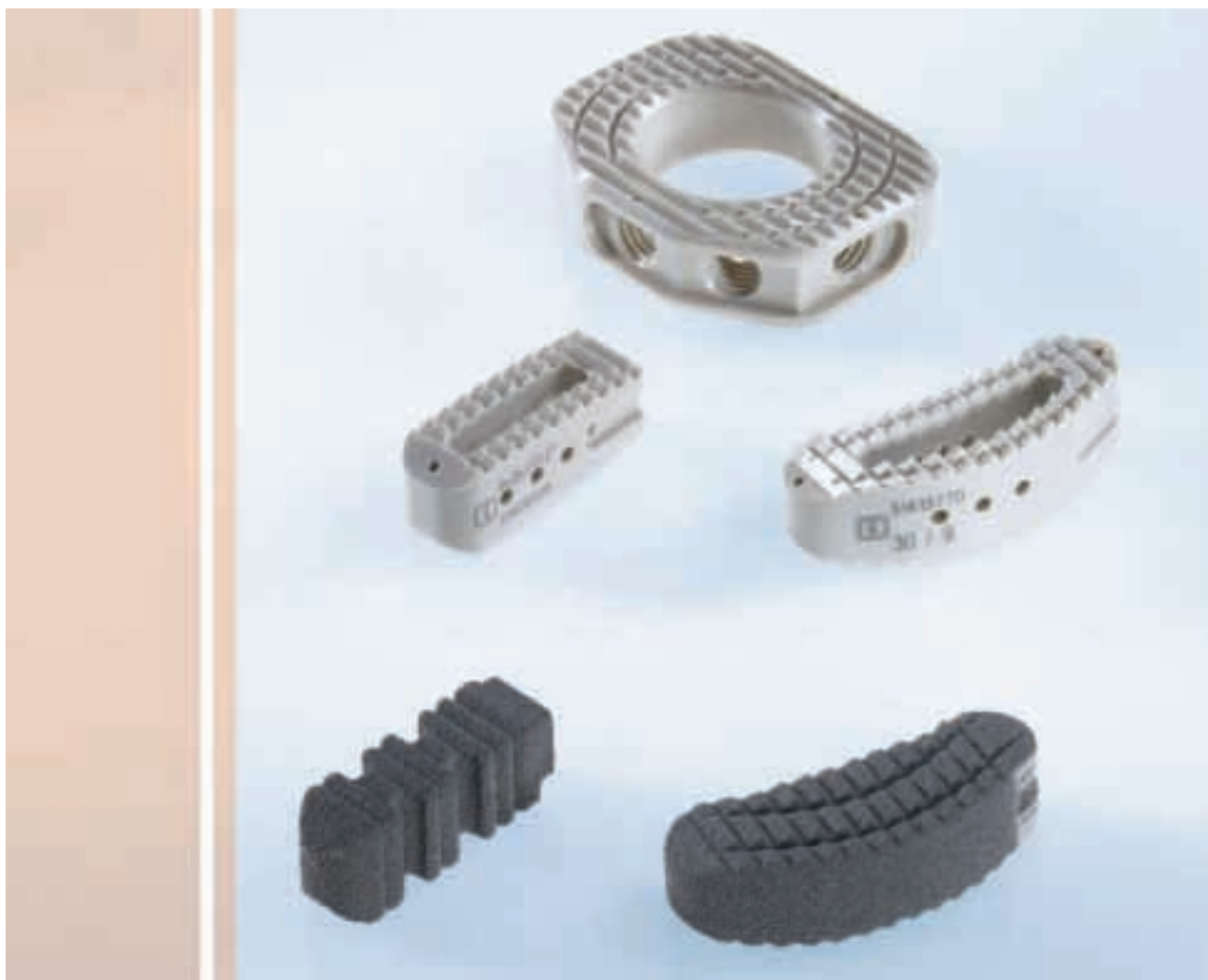


Spine Surgery

Lumbar Interbody Fusion

Prospace, T-Space, A-Space

Prospace / T-Space / A-Space



ProSpace

- Titanium
- PEEK

T-Space

- Titanium
- PEEK

A-Space

- PEEK



Spine Surgery

Lumbar Interbody Fusion

Prospace, T-Space, A-Space

For further details see
brochures 012202 and 029502.

Implant overview:

Prospace Ti

- Good primary stability due to rough Plasmapore® coating
- Excellent secondary stability due to bony in-growth in Plasmapore® coating
- Solid block
 - Large surface limits the risk of subsidence
- Wide range of implant sizes
 - Restoration of the natural lordosis and the spinal balance



Prospace PEEK

- Radiolucency
 - No artefacts in postoperative CT or MRI control
- Anatomical design
 - Secure fit due to the biconvex shape which fits to the concave shape of the endplates
- Toothed cranial and caudal surface
 - Prevention of migration
- Tantalum markers
 - Easy identification and location



T-Space Ti

- Good primary stability due to rough Plasmapore® coating
- Excellent secondary stability due to bony in-growth in Plasmapore® coating
- Solid block
 - Large surface limits the risk of subsidence
- Unilateral approach
 - Limits to the risk of nerve infringement



T-Space PEEK

- Radiolucency
 - No artefacts in postoperative CT or MRI control
- Anatomical design
 - Secure fit due to the biconvex shape which fits to the concave shape of the endplates
- Toothed cranial and caudal surface
 - Prevention of migration
- Tantalum markers
 - Easy identification and location
- Unilateral approach
 - Limits to the risk of nerve infringement



A-Space PEEK

- Radiolucency
 - No artefacts in postoperative CT or MRI control
- Anatomical design
 - Secure fit due to the biconvex shape which fits to the concave shape of the endplates
- Toothed cranial and caudal surface
 - Prevention of migration
- Tantalum markers
 - Easy identification and location



activ L



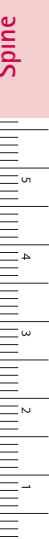
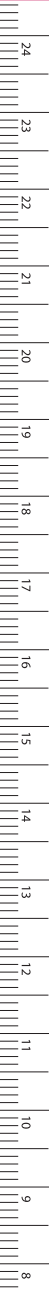
- Smallest height of 8.5 mm
 - Surgeons use this size in 50% of all cases".
- Spike and Keel version
 - the right combination for high requirements.
- Standard and S1 shape
 - for perfect fitting to the anatomy.
- Convex shaped enplates
 - fitting into the vertebral enplates surfaces.
- Translation of the inlay
 - for restoration of alignment of vertebral bodies and preservation of facet joints and adjacent segments.
- COR which is near the biological function of the lumbar vertebral disc.



For further details see
brochure 027802 and surgical technique 027902.

Implant overview:

- The implant is composed of a
 - superior plate
 - inlay and
 - inferior plate.
- There is a maximum freedom of choice for the type of implant regarding keel or spikes, which you can even mix in one implant, depending of the shape of the vertebral endplates.



CCR CASPAR Cervical Retractor System



- Double hinge retractors
 - optimal intra-operative adaption
 - basic retractor with tiltable butterfly screw
 - customized storage of the instruments.
- Retentive fenestrated titanium blades
 - firm yet gentle grip with secure fit
 - better view and light weight
 - semi-radiolucent to X-ray
 - tissue protection due to less retraction forces
 - color coded according to blade width

**Soon available
with radiolucent blades**



Spine Surgery

Spinal Approach System

CCR

For further details see
brochure No. 011202.

Product overview:

■ Toothed blades
medial /lateral
19 mm



■ Blunt blades
(longitudinal)
19 mm



■ Lateral blades
24 mm



■ Medial blades
24 mm



■ Blunt blades
(longitudinal)
24 mm



■ CCR counter retractor



■ CCR basic cervical retractor



■ CCR basic counter retractor



Spine

MILLIMETERS

Micro Lumbar Disectomy System



- Minimally invasive approach for posterior lumbar fusion and discectomy.
- Optimized basic set
 - composed by experts with a longterm experience in thousands of surgeries.
- Autoclavable tray
 - efficient storage of the instruments.
- Rapid ball snap closure
 - easy and fast handling secure connection compatibility of all CASPAR blades and retractors.
- Non-slip-fenestrated retractors
 - secure fit in muscles.
- Special retractors and blades for the treatment of extraforaminal disc herniations
 - "classic" medial and "special" lateral paraspinal approach.



Spine Surgery

Spinal Approach System

Spine Classics MLD

For further details see
brochure No. 011402.

Product overview:

Blades, medial
surface black coated



Blades, lateral
with ball snap closure, surface black coated



Specula
surface black coated



Counter retractor
with ball snap closure, surface black coated



CLR CASPAR Lumbar Retractor System



■ Joints to improve retractor positioning



■ Tissue-preserving tooth shape



■ Strong and stable, yet radiolucent



Spine Surgery

Spinal Approach System CLR

For further details see
brochure No. 018702.

Product overview:

Blades



Hooks



CLR Retractor



Spine Surgery

Spinal Approach System

activ O

activ O – The perfect retractor system for an easy and safe anterior, anterolateral or lateral approach for lumbar spine surgery



- Totally radiolucent blades
- Adjustable angulation of the blades
- Optional fixation to vertebral bodies
- Optional fixation to the table
- Tight and safe fixation to the ring





Spine Surgery

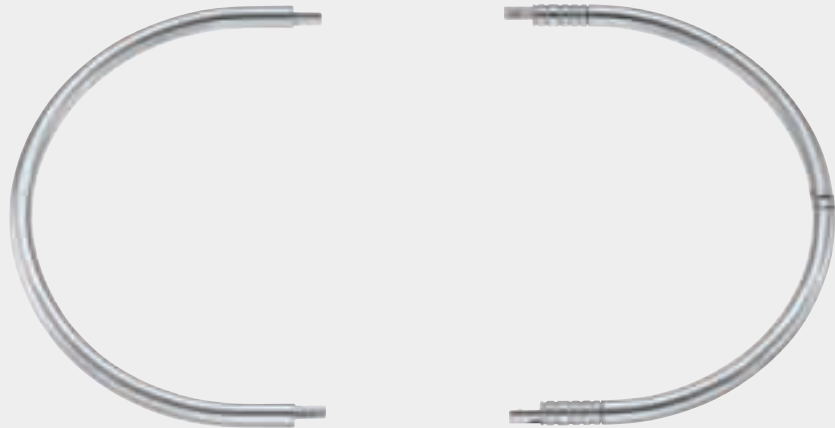
Spinal Approach System activ 0



For further details see
brochure No. 034302.

Product overview:

■ Ring



■ Connecting clamp



■ Handle for retractor blades
with screw thread



■ Retractor blades



Spine

MILLIMETERS



Container



Storage & Reprocessing

Storage

Storages for Implant Systems and Application Instruments

YASARGIL Aneurysm Clip Tray

Clip tray

for storage, transport and sterilization of Aesculap YASARGIL Aneurysm Clips

- autoclavable plastic
- fits 1/1 standard container
- 34 storage compartments for Standard and Mini Clips
- 4 storage compartments for Long Clips
- with special identification tags for individual tray configuration



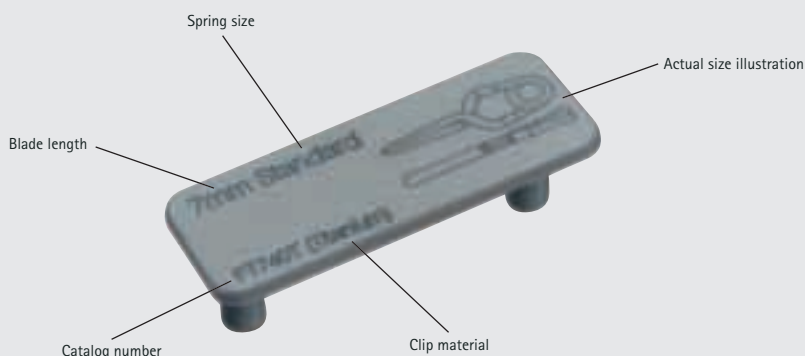
YASARGIL

FT007P 520 x 250 x 25 mm



Identification tags for the clip tray

- allow quick and easy recording of the necessary clip data
- helpful for classifying and reordering the clips that have been removed



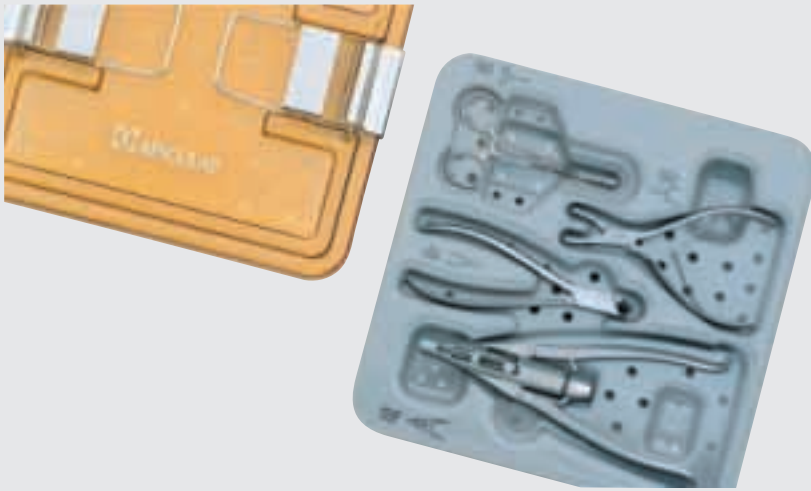
-TAG

- For each clip variant there is a matching identification tag.
- The catalog numbers of the tags are as follows:
 - Cat. No. of clip + "-TAG" e.g.: FT740T-TAG is the identification tag for the clip FT740T.
- The identification tags for temporary clips are yellow and for permanent clips grey in line with the color coding of the YASARGIL Aneurysm Clips.



Storage

Storages for Implant Systems and Application Instruments
CranioFix®2, ScalpFix® Trays



FF094P

CranioFix®2
Tray
(instruments not included)



MD371

Combination tray with lid
for ScalpFix® and CranioFix®2
(instruments not included)



MD372

Combination tray with lid
for CranioPlate, CranioFix®2 and ScalpFix®
(instruments not included)

Container

MILLIMETERS

Storage

Storages for Implant Systems and Application Instruments
Spine Classics Tray, CASPAR Cervical Retractor Tray



FG171P

Spine Classics MLD Tray I
(instruments not included)

FG172P

Spine Classics MLD Tray
(instruments not included)



CASPAR

BW125P

CCR Instrument Tray
(instruments not included)



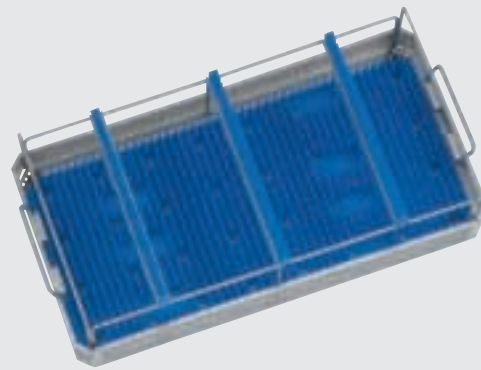
Storage

Storages for Neuroendoscopy Systems Racks for MINOP® Instruments



FF358R

Storage rack
with silicone cushioning rack and lid
for MINOP® trocars and MINOP® endoscopes
(not included)



FF359R

Storage rack with silicone cushioning rack and lid
for MINOP® micro instruments and electrodes



Container
for storage racks FF358R and FF359R
consisting of:

- JK444** Container bottom
- JK489** Container lid (basic version)

Storage

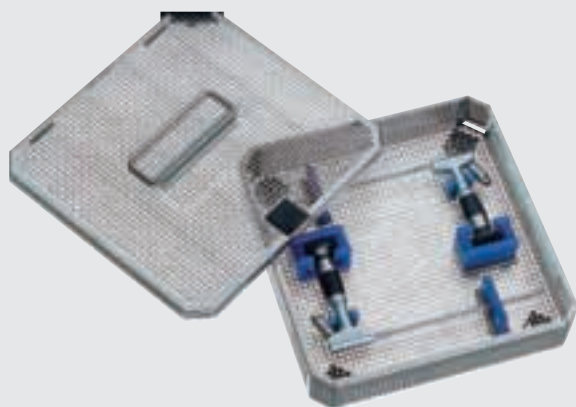
Storages for Neuroendoscopy Systems

Racks for PaediScope® and PERNECZKY Neuroscopes



FF379R

Storage rack
with silicone cushioning rack and lid
for complete PaediScope® system
(not included)



JF324R 257x 247 x 63 mm

Storage rack with silicone cushioning rack and lid
for two angled neuroscopes
(not included)



Storage

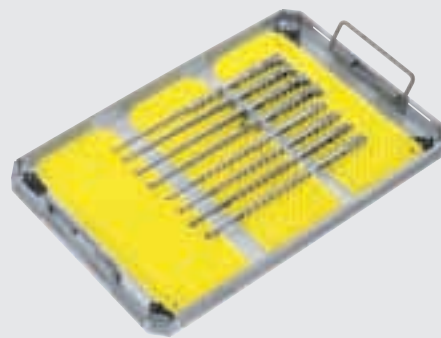
Storages for Instruments

Rack for KAIRison Bone Punch, Rack for Micro Instruments



FK881R

Storage rack for KAIRison handle and pressure reducer
(not included)



FK891R

Storage rack for KAIRison shafts
(not included)



FM665R

Perforated basket with silicone cushioning racks and lid
for storage of bayonet-shaped micro instruments and clip applicators
(not included)



3/4 Container
for one perforated basket FM665R
consisting of:

JK741

Container bottom

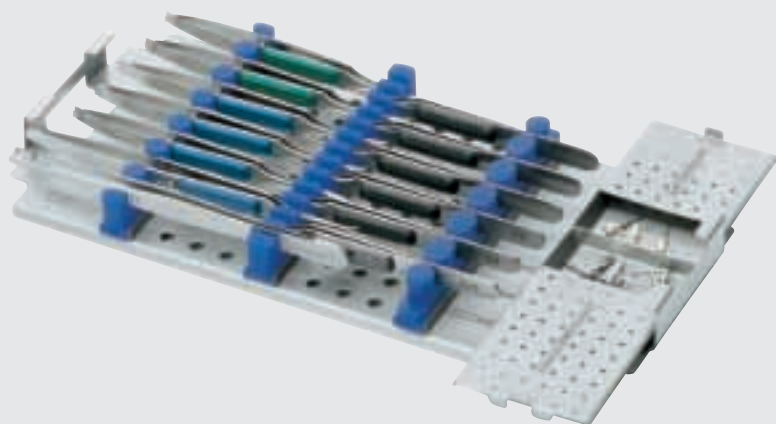
JK789

Container lid (basic version)

Storage

Storages for Instruments

Racks for Micro Instruments



MÜLLER

FM024R

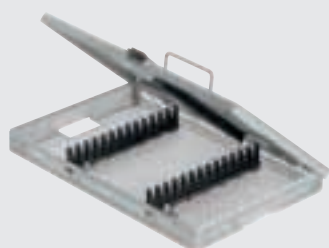
Rack with silicone pads and compartments for accessories provides organized and protective storage for the MÜLLER micro instruments FM001R – FM021R, applying forceps FD568R or FD569R and various micro vessel clips and approximators. (Instruments not included)



MÜLLER

FM026R

Rack with silicone pads and compartments for accessories provides organized and protective storage for the MÜLLER micro instruments FM033R – FM061R, applying forceps FD568R or FD569R and various micro vessel clips and approximators. (Instruments not included)



JF237R 274 x 172 x 30 mm

Perforated basket with instrument racks and lid for storage of AL MEFTY skull base instruments (instruments not included)



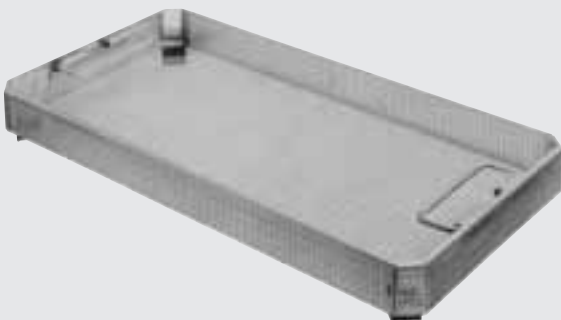
Storage

Storages for Instruments
KERRISON-Racks, Micro Instrument Holders



JF120R 240 x 225 x 161 mm

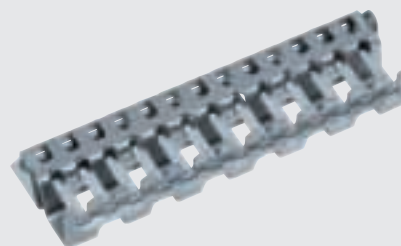
Rack for bone punches and rongeurs



JF212R 485 x 253 x 56 mm

JF112R 243 x 253 x 56 mm

Tray with feet, stainless steel



GB613R

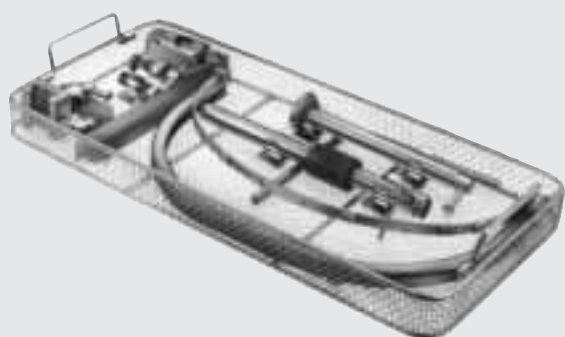
Holding device
for Hilan & Hilan XS 2.35 mm low speed burs

Container

MILLIMETERS

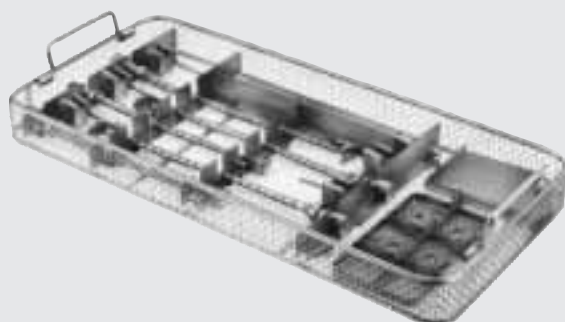
Storage

Storage Racks for Flexible Arms



FF148R

Storage rack for basic unit
(instruments not included)



FF149R

Storage rack for flexible arms etc.
(instruments not included)



Storage

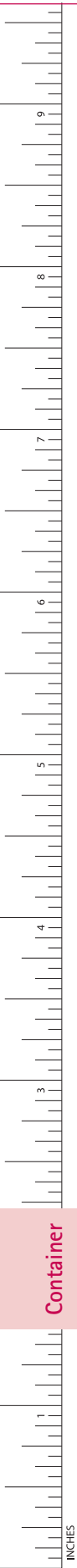


For further details see
brochure No. **C81902**



For further details see
brochure No. **C40402**

Storage



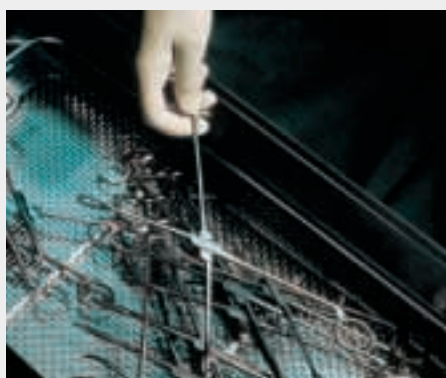
Container

Tips



Care and Maintenance of Instruments

Care and Maintenance of Instruments



Please observe the following recommendations for the care and maintenance of your high-quality Aesculap instruments.



Treatment of brand new Instruments

Brand new instruments must be cleaned before the first sterilization or use. Protective caps and protective films must be removed completely, from all microneurosurgical instruments.

After each use

- Clean contaminated instruments as quickly as possible.
- Open instruments with a joint e.g. to a 90°- angle.
- For machine cleaning, place instrument in a wire basket suitable for the cleaning process (make sure cleaning solution and rinse water from machine comes into contact with all surfaces of the instrument).
- Completely dismantle any dismantlable instruments.
- Preferably dry removal tray in the OR.
- For wet removal always use an active cleaning disinfectant. Rinse the instrument thoroughly with clear, flowing water before machine cleaning and disinfecting.
- If necessary, treat with an ultrasound washer. Always use according to the manufacturer's instructions:
 - for effective mechanical cleaning before manual cleaning,
 - for pre-treatment of instruments with dried on contaminant before machine cleaning.

- Microneurosurgical instruments and instruments with fine working distal ends should not be treated with ultrasound. They should be cleaned either manually or in the washing machine. In case of cleaning in a machine please use a suitable storage rack.
- If cleaning manually or in a machine: always follow manufacturer's instructions. For detergents and other cleaning solutions.

Manual Cleaning/Disinfection

- Place instruments into a suitable disinfectant with active cleaning properties so that all surfaces, inner cavities, lumens and openings come into contact with the solution. Always follow the disinfectant manufacturer's instructions.
- After chemical disinfection, always rinse thoroughly with clear, flowing water. Always follow the instructions provided by the manufacturer of the disinfectant.
- Remove any contaminants still clinging to the instrument with a soft synthetic brush. Do not use a scouring or metal brush.
- Clean any lumens and conduits with soft, round, synthetic brushes. Please note, the lumen and the brush must have the same diameter.
- Final rinsing to be done with distilled or de-ionized water.
- Dry instrument with an absorbent, soft and lint-free cloth.
- Dry lumens and conduits with compressed air. Always use this method with caution.

Machine Cleaning/Disinfection

- Select the program according to the material of the instrument (e.g. stainless instruments, steel, aluminium) to be cleaned. Always follow the machine manufacturer's instructions.
- Final rinsing to be done with de-ionized or demineralized water.



Care and Maintenance of Instruments

- Leave sufficient time for drying.
- Remove the instrument from the machine immediately after the program is finished.

Care/Testing

- Allow instruments to cool down to room temperature.
- Lubricate movable parts (e.g. joints and ends) with special sterilization-capable, steam-permeable lubricant (e.g. Sterilit Oil Spray JG600 or Sterilit Instrument Oil JG598).
- After each cleaning, disinfection process, check the instrument to make sure it is clean, that it functions properly and it has not suffered any damage, e.g. bent, broken, fractured or worn parts.
- Remove any damaged and defective instruments and replace with functional items and send away any product which is damaged for repair.

Storage

- Place instruments with the fine working end and/or microneurosurgical instruments in a suitable storage rack. Always secure microneurosurgical instruments properly.
- Where possible sterilize instruments on the first ratchet.

Sterilization

- To steam sterilize, proceed as follows: Steam sterilization must be carried out according to a validated steam sterilization process (e.g. with a sterilizer meeting the specifications of EN 285/ANSI/AAMI/ISO 11134-1993, ANSI/AAMI ST46-1993 and validated according to EN 554/ISO 13683.). When using the fractional vacuum method, use the 134°C/-2 bar program for sterilization with a minimum hold time of 5 minutes.



Recommended Products

STERILIT® JG600

Aesculap Oil Spray in aerosol can (ozone-friendly), for maintenance of instruments prior to sterilization. Physiologically inert acc. to DAB and § 31 LMBG (German Pharmacopoeia).



STERILIT® JG598

Aesculap Instrument Oil, for box locks, ratchets etc. prior to sterilization. Physiologically inert acc. to DAB and § 31 LMBG (German Pharmacopoeia).



You will find detailed information about the reprocessing of individual Aesculap products in the data base "Reprocessing/Instructions for Use" on the internet:

www.aesculap-extra.net

Care and Maintenance of Instruments

Detachable KERRISON Bone Punches

Disassembly



Remove spring from outer part of handle



Close handle completely and pull down the inner part of the handle



Remove sliding part backwards



Note

- Bone punches with a gold-colored distal working tip or a gold-colored inner handle have a thin footplate. These punches are for the removal of small pieces of bone or soft tissue only.
- Clean the new instrument either manually or mechanically prior to the initial sterilization.
- Inspect the instrument after each cleaning and disinfecting cycle and before use in order to be sure it is clean, functioning properly, not damaged and does not have any loose, bent, broken, cracked, worn or fractured components. Do not use the instrument if it is damaged or defective.
- The bone punches can be sterilized both in the disassembled and in the assembled state.
- Please follow the single instruction steps for disassembly and assembly of the bone punch!

Cleaning, Disinfection and Sterilization

After each use:

- Clean the contaminated instrument as soon as possible. Perform manual or mechanical cleaning. Follow the manufacturer's instructions. When carrying out mechanical cleaning, place instrument

in wire baskets suitable for cleaning (avoid watermarks).

- Detachable instrument should be disassembled, see "Disassembly", dry discharge is recommended. If the instrument is reprocessed while wet, use an active cleaning disinfectant. Prior to mechanical cleaning and disinfecting rinse the instrument thoroughly in clear running water.
- Place the instrument in a suitable active cleaning disinfectant solution in such a way that all surfaces, interior surfaces, lumina, and openings are covered. Follow the disinfectant manufacturer's instructions.
- After disinfecting chemically, always rinse the item thoroughly in plenty of clear running water. Follow the disinfectant manufacturer's instructions.
- Remove encrusted material with a soft nylon brush. Do not use harsh cleaning agents or metal brushes. Clean lumina and channels with a soft round nylon brush. Use brushes that are an appropriate diameter for the lumina they are being used to clean.
- Carry out the final rinse in distilled or fully demineralized water.
- Dry the instrument with a soft, absorbent, lint-free cloth. Dry lumina and channels with compressed air.



Proper Maintenance of Instruments



C21711 Kerrison Detachable bone punches



C08502 Kerrison Noir



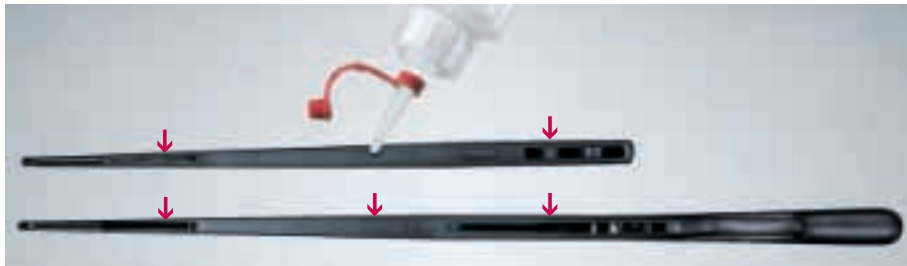
Care and Maintenance of Instruments

Detachable KERRISON Bone Punches

- Moving parts such as hinges and latches should be lubricated with a sterilizable and moisture-permeable light weight machine oil (such as Sterilit Instrument Oil JG598).
- The sterilization has to be done according to a validated steam sterilization procedure (e.g. in a sterilizer in conformance with EN 285/ANSI/AAMI/ISO 11134-1993, ANSI/AAMI ST46-1993, and validated in conformance with EN 554/ISO 13683). In case of application of the fractionated vacuum procedure, the sterilization has to be carried out for a minimum of 5 minutes at 274 °F/ 134 °C and at 2 bar pressure.

Storage

- Keep instrument in an appropriate storage tray and store in a dry (e.g. storage rack for bone punches JF120R), clean, and safe place.



Lubricate the defined places on the instruments (instruments jaw and red toggle switch) with Aesculap Sterilit Oil e. g. JG598 after each cleaning cycle.

Assembly



Put on sliding part and push it forward



Press up inside part of handle and open handle



Insert spring into outer part of handle



C61202 Kerrison
bone punches
Long version



C61302 Kerrison
bone punches
Half sizes



C61402 Kerrison
bone punches
Ejector



C81902
Aesculap Universal
Storage System

Please find further information
in our brochures or on the internet:
www.aesculap-neuro.com

Care and Maintenance of Instruments

KAIRison Pneumatic Bone Punch

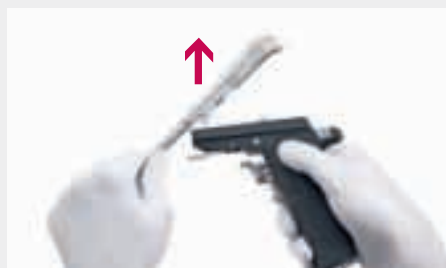
Disassembly



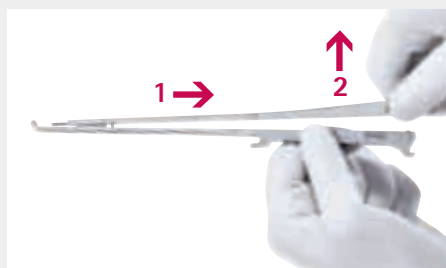
Pull back the locking mechanism to release the shaft.



Turn the shaft in the direction of the arrow.



Unhook the shaft and lift it off the handle.



Pull back the upper shaft (1) and lift it off (2).

Safe handling and preparation

- Read and follow the instructions for use, keeping them in a safe place. Use the product only in accordance with its intended purpose (Instructions for Use TA011795).
- Clean the new instrument thoroughly, either manually or mechanically, prior to initial sterilization.
- Visually inspect the product before each use for loose, bent, broken, cracked, worn or missing parts.
- Do not use the product if it is damaged or defective. Set aside damaged products immediately.
- Replace damaged components immediately with original spare parts.

Cleaning, Disinfection and Sterilization

- For general information on reprocessing, please also refer to the Aesculap Extranet: www.aesculap-extranet.net
- For further detailed instructions on safe, hygienic reprocessing to preserve the substance and value of your instruments, see www.a-k-i.org (red brochure: Proper Maintenance of Instruments).
- The shafts of the pneumatic bone punches can be sterilized either assembled or disassembled.
- Close the opening with silicone caps before washing.
- Do not clean the handle and reducer in an ultra-sonic tub.

After each use

- Reprocess contaminated instruments as quickly as possible. Clean manually or mechanically – for cleaning parameters, please refer to the Aesculap Extranet at www.aesculap-extranet.net or to the instructions for use.
- Disassemble the shaft into its individual components (see Disassembly). Dry disposal is recommended. For wet disposal, use an active cleaning disinfectant (follow the manufacturer's instructions for use). Make sure that all exterior and interior surfaces, lumina and openings are covered. Prior to mechanical cleaning and disinfection, rinse the instrument thoroughly in clear running water.
- After chemical disinfection, rinse again thoroughly and intensively using clear running water. Follow the disinfectant manufacturer's instructions.
- Remove encrusted dirt with a soft synthetic brush. Do not use abrasive cleaning agents or metal brushes. Clean lumina and channels with a soft round synthetic brush of the appropriate diameter.
- Use demineralised water for the final rinse.
- Dry the instrument completely with compressed air.
- Oil moving parts (joint, inner surfaces of sliding component, guiding mechanisms) well with steam permeable Aesculap Sterilit maintenance oil JG598 (see illustration).

Please find further information in our brochures or on the internet:

www.aesculap-neuro.com



Proper Maintenance of Instruments



C81902
Aesculap Universal
Storage System



C24302
KAIRison pneumatic
bone punches

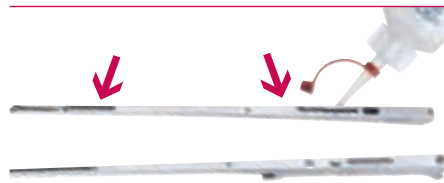


Care and Maintenance of Instruments

KAIRison Pneumatic Bone Punch

■ Sterilization must be carried out in accordance with a validated steam sterilization procedure (e.g. in a sterilizer in conformance with EN 285/ANSI/AAMI/ISO 11134-1993, ANSI/AAMI/ST46-1993 and validated in conformance with EN 554/ISO 13683). If the fractionated vacuum procedure is used, sterilization must be performed using the 134°C/2 bar program with a minimum holding time of 5 minutes.

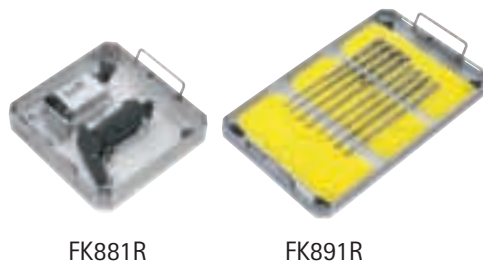
■ When sterilizing several products simultaneously in a steam sterilizer, ensure that the maximum permitted loading of the steam sterilizer as specified in the manufacturer's instructions is not exceeded.



Lubricate the defined places on the instruments (instruments jaw and red toggle switch) with Aesculap Sterilit Oil e. g. JG598 after each cleaning cycle.

Storage

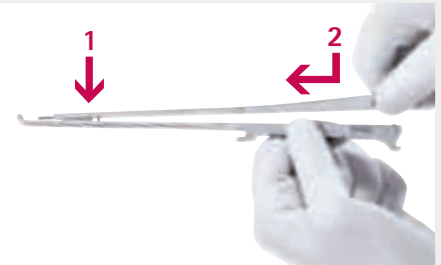
■ Keep the instrument in a suitable storage tray under low contamination conditions in a dry, dark and cool place.



FK881R

FK891R

Assembly



Insert the ejector (1), push forward until the ball clicks into place (2).



Check shaft position, hook shaft into handle.



Turn shaft towards handle.



Check correct shaft position before use.

Width	Punch shaft 235 mm	Punch shaft 285 mm
2 mm	FK882R	FK892R
3 mm	FK883R	FK893R
4 mm	FK884R	FK894R
5 mm	FK885R	FK895R
6 mm	FK886R	FK896R

Individual components

FK899R	Pneumatic punch handle
FK898R	Pressure reducer
FK887R	Punch bracket pressure reducer
FK888SU	Disposable tubes
GA466	Pneumatic hose with Aesculap-Dräger connection
GA468	Pneumatic hose with Aesculap-Schrader connection



Care and Maintenance of Instruments

Detachable MINOP® Instruments

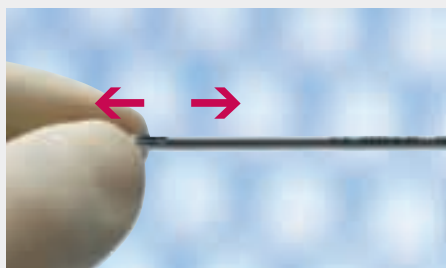
Disassembly



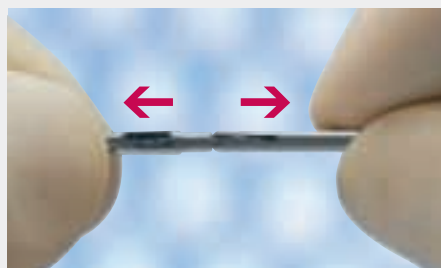
I Push and hold down the black button. At the same time, slide off the moveable ring towards the lower end.



II Pull back the star wheel towards the handle. Hold the star wheel at its positive stop and extract the shaft. Ensure that the moveable ring is kept downward.



III Remove the outer tube from the working insert.



IV Remove the inner tube from the working insert.

Processing-Accessories

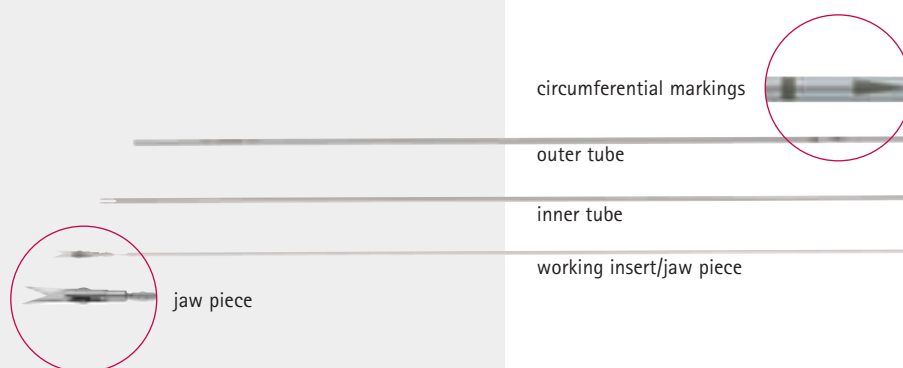
- Reprocess the product immediately after it has been contaminated.
- Please follow the instructions for use TA010843 for further information on cleaning, disinfection and sterilization.
- Please see also www.aesculap-extra.net for current information about processing.
- For accessories and spare parts see brochure C35502.
- Please find further information at www.aesculap-neuro.com

Repairs

Repairs to the product must be carried out by personnel authorized by AESCULAP only. Only in this way will warranties and guarantees remain valid.

If any repairs are needed, please send the product to: Aesculap Technischer Service, Am Aesculap-Platz, 78532 Tuttlingen/Germany.

Local service addresses can be obtained from the address indicated above or from ats@aesculap.de





Care and Maintenance of Instruments

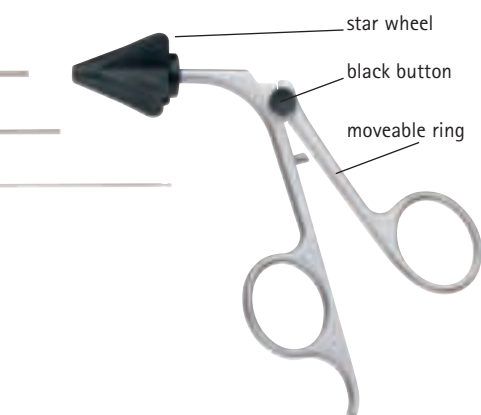
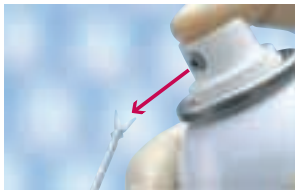
Detachable MINOP® Instruments



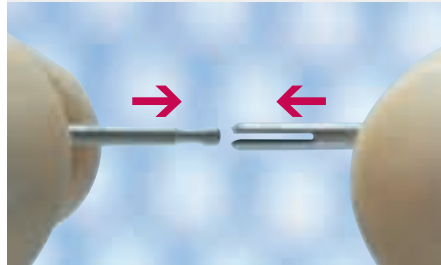
Care

! Please oil the instruments at the movable parts with Aesculap Sterilit after each cleaning.

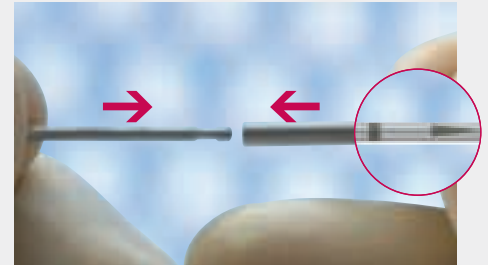
These instructions apply for all MINOP tube shaft instruments (FF385R - FF389R).



Assembly



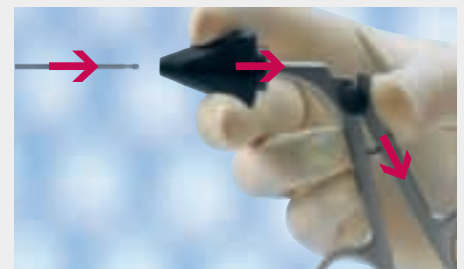
I
Push the inner tube towards the working end of the working insert and align the slots of the inner tube so they slide over the two nubbs of the working insert (see „Disassembling IV“)



II
Slide the outer tube over the inner tube with the working insert. Ensure that the arrows (circumferential markings) point towards the handle.



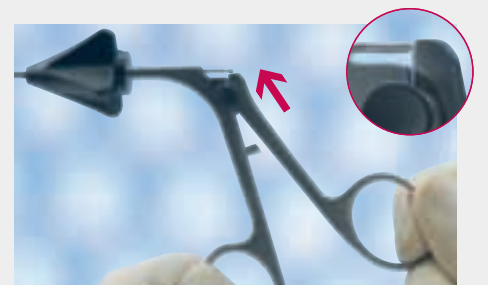
III
Hold the shaft at its closed working end. Ensure that the outer tube has been pushed over the inner tube with the working insert up to its positive stop.



IV
Slide back and hold the star wheel at its positive stop. At the same time, slide off the moveable ring towards the lower end. Hold the shaft at its closed working end and reinsert it to its positive stop.



V
Allow the star wheel to slide forward. (The shaft must be connected securely to the handle and must not come loose even when pulled.)



VI
Slide the moveable ring upward until the button clicks into place.

MINOP
SYSTEM®

Care and Maintenance of Instruments

Detachable XS Micro Instruments

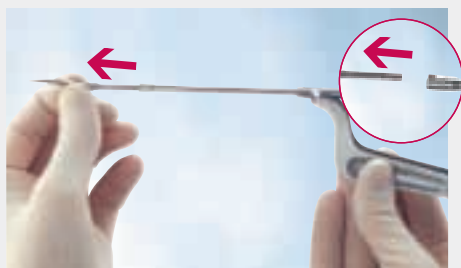
Disassembly



I Turn the adjustment knob by approximately 180° until it engages.



II With one hand, depress the handle branches, with the other hand, hold the jaw part.



III Pull the jaw part out of the tubular shaft.



IV Turn the adjustment knob back into its original position.



V In this disassembled state, the XS-Micro Instrument can be cleaned optimally.

Handling

- Handle instruments with care. Sharp cutting edges and tips on the instruments can cause injury to user and patient!
- After each cleaning and disinfecting cycle make sure that the instrument is clean, functioning properly and is not damaged.
- Do not use the instrument if it is damaged or defective. Replace damaged parts immediately with original spare parts.

Cleaning, Disinfection, Sterilization

- Before being used for the first time and each time after use, the instruments must be cleaned thoroughly and properly. They should be cleaned manually, mechanically or, if needed, by means of ultrasonics. The manufacturer's instruction must be followed.
- Disassemble the instrument before cleaning.
- Remove debris from the instrument, when instrument is dry.
- Clean the entire handle with the cleaning brush provided.
- The jaw part can be cleaned either manually or mechanically.
- The instrument has to be placed in a suitable active cleaning and disinfectant solution in such way, that all surfaces, interior surfaces, lumina and openings are covered. Follow the disinfectant manufacturer's instruction.



Please find further information in our brochures or on the internet:
www.aesculap-neuro.com

C77011
XS Micro Instruments



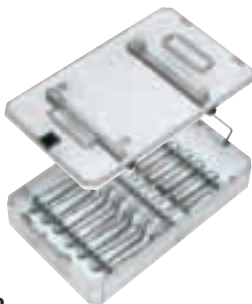
Care and Maintenance of Instruments

Detachable XS Micro Instruments

- After disinfecting chemically, always rinse the items thoroughly in plenty of clear running water. Remove encrusted material with a soft nylon brush. Do not use harsh cleaning agents or metal brushes.
- Carry out the final rinse in distilled or fully demineralized water.
- Dry the instrument with a soft, absorbent, lint-free cloth.
- Moving parts such as hinges and latches should be sprayed with a sterilizable and moisture-permeable lightweight machine oil such as AESCULAP STERILIT Spray JG 600 or maintenance oil JG 598.
- Carry out sterilization in accordance with a validated steam sterilization process. (e.g. in a sterilizer in conformance with EN 285/ANSI/AAMI/ISO 11134-1993, ANSI/AAMI ST46-1993, and validated in conformance with EN 554/ISO 13683). Prevacuum sterilization should be carried out for a minimum of 5 minutes at 270°F/134°C and at 2 bar pressure.

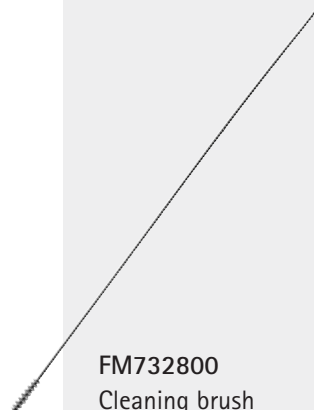
Storage

If the instruments are not in use, they must be stored in a dry, clean and protected place (preferably in a specific storage basket for microinstruments).



FM665R

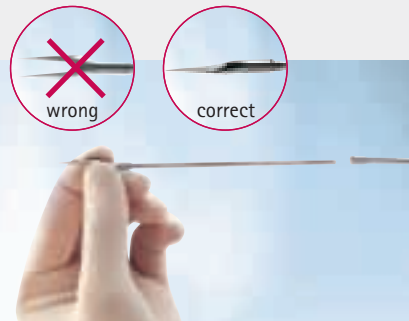
Instrument racks and lid for storage of XS-Micro Instruments (instruments not included)



FM732800

Cleaning brush for XS-Micro Instruments

Assembly



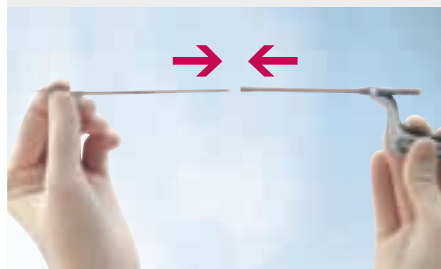
Close the tip of the jaw part.

I



Depress the handle branches and hold them in this position.

II



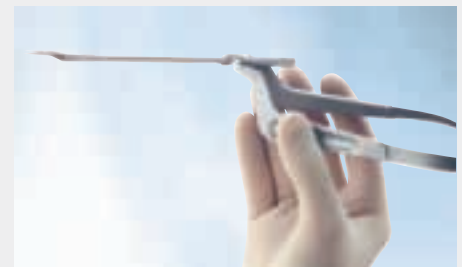
Insert the jaw part into the tubular shaft (make sure, that the nose of the jaw part is put into a position where it can slide into the slot of the tubular shaft - see picture 4).

III



Push both components together until the jaw part engages (audible click!).

IV



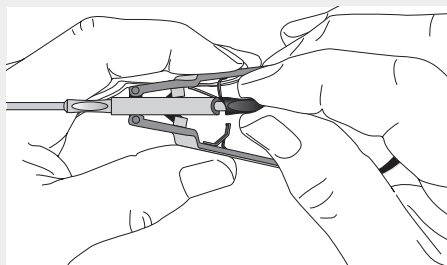
Test the function of the instrument.

V

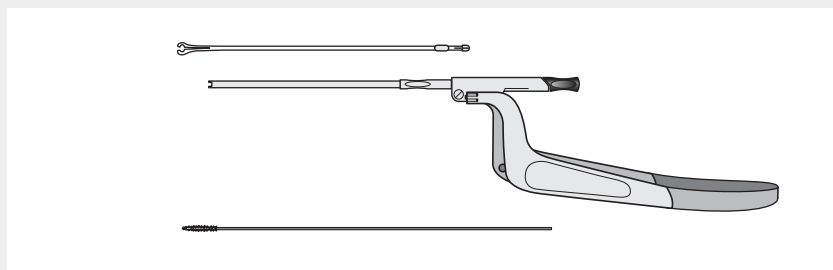
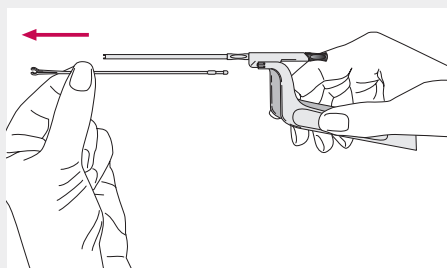
Care and Maintenance of Instruments

Detachable XS Clip Appliers

Disassembly



The XS Applier is detachable into 2 parts for thorough cleaning.



A cleaning brush is provided free of charge with every applier.

Note

■ Details regarding cleaning, disinfection and sterilization see XS-Micro Instruments.



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