Aesculap Neurosurgery

Main Catalog



Aesculap Neurosurgery

B BRAUN
SHARING EXPERTISE

Welcome!



Aesculap Global Headquarter in Tuttlingen, Germany

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 145 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

Welcome!

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).



Aesculap catalog published in 1887

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.



KAIRison® pneumatic bone punch

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!

Please find further information:

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

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Aesculap Neurosurgery



Instruments

General & Micro Instruments
for Cranial & Spinal Neurosurgery

KAIRison® Pneumatic Bone Punch



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

KAIRison® Pneumatic Bone Punch



Total length	Working length	Footplate	Width (mm)	Art. No.	Ejector	Jaw opening (mm)
235 mm, 9 ¼"	140 mm, 5 ½"	standard	2.0	FK882R	✔	12
		standard	3.0	FK883R	✔	12
		standard	4.0	FK884R	✔	12
		standard	5.0	FK885R	✔	12
		standard	6.0	FK886R	✔	12
285 mm, 11 ¼"	190 mm, 7 ½"	standard	2.0	FK892R	✔	12
		standard	3.0	FK893R	✔	12
		standard	4.0	FK894R	✔	12
		standard	5.0	FK895R	✔	12
		standard	6.0	FK896R	✔	12

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 (handle and pressure reducer not included)



FK891R Storage rack for KAIRison® shafts (shafts not included)



GA466R Pneumatic hose (5 m) with Aesculap-Dräger connection



GA468R Pneumatic hose (5 m) with Aesculap-Schrader connection

KERRISON Bone Punches

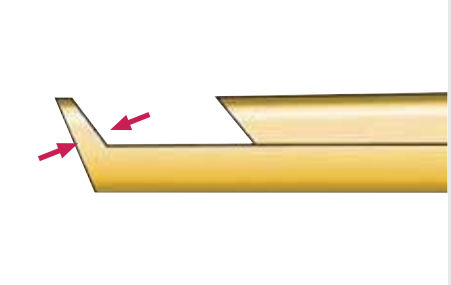


- **Non detachable design**
  - The classical KERRISON with excellent cutting quality and durability
- **Detachable design**
  - Can be taken apart easily without any tools for efficient cleaning
  - Jaw ejector ensures easy removal of punched-out material
- **Noir® detachable design**
  - Same as detachable design, but with black Noir® coating
  - Reduces irritating light reflection
  - Increases surface hardness for improved cutting characteristics and service life

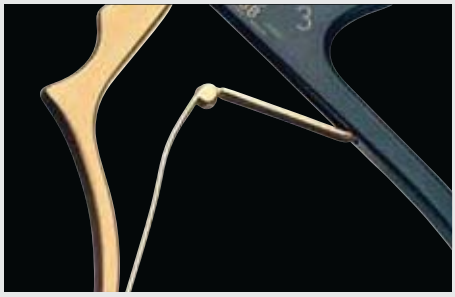
Complete product range:

- 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 golden spring stands for easy identification of detachable bone punches.



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



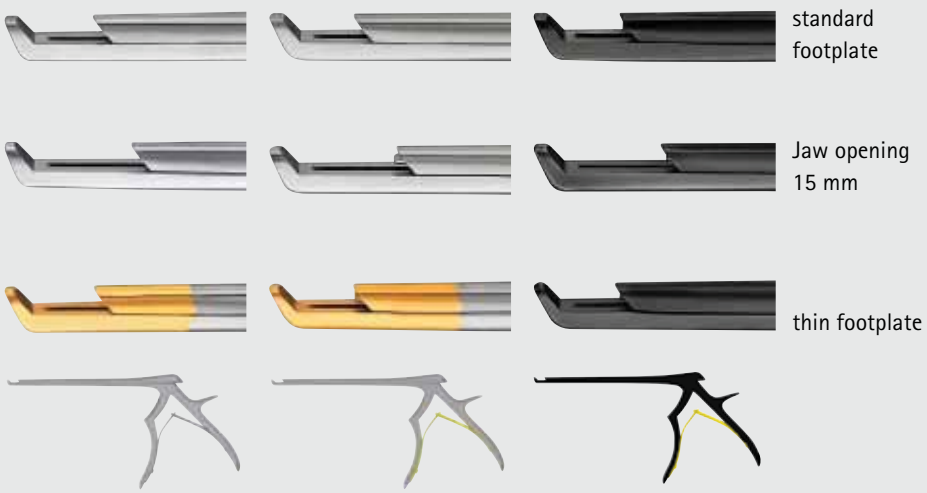
The **numerical code** ensures a safe and easy assignment and assembly of the two bone punch components which belong together.



Large number for identification of jaw width at a glance.

Please find further information on the internet:
www.aesculap-neuro.com

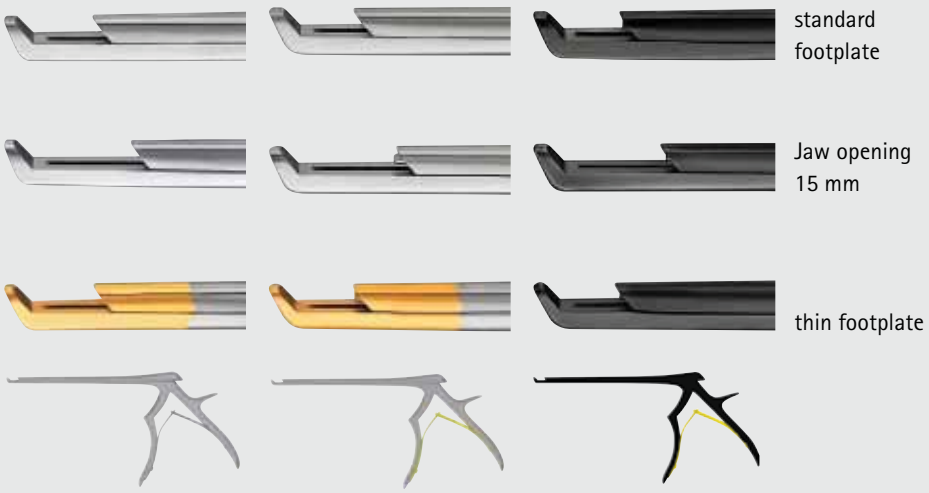
Instruments
KERRISON Bone Punches



Jaw position 130°, upwards opening

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

Width (mm) 1.0 1.5 2.0 2.5 3.0 4.0 5.0 6.0

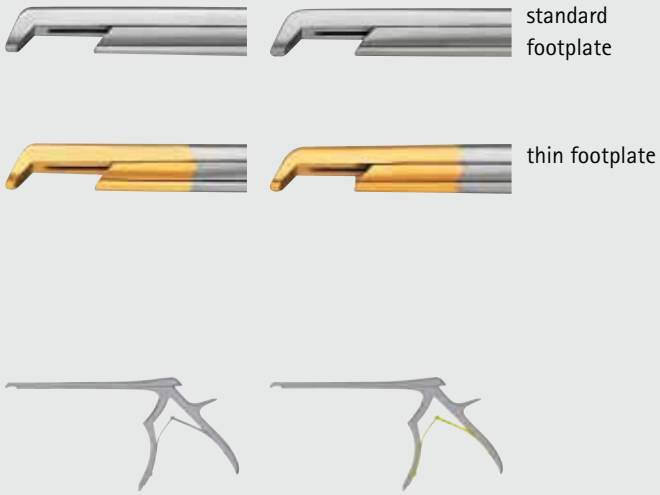


Jaw position 130°, upwards opening

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

Width (mm) 1.0 1.5 2.0 2.5 3.0 4.0 5.0 6.0

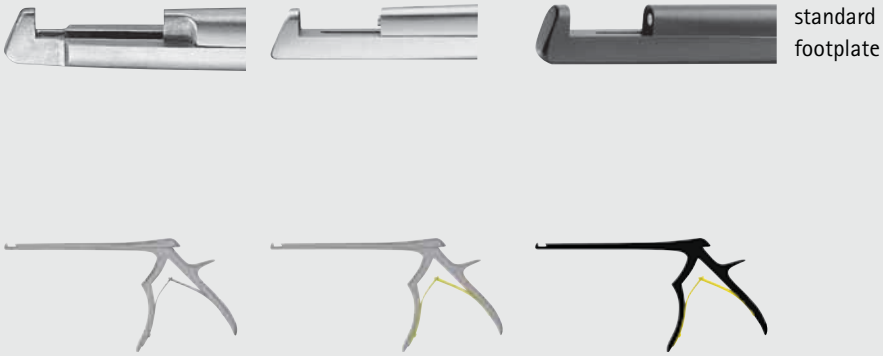
Instruments
KERRISON Bone Punches



Jaw position 130°, downwards opening

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

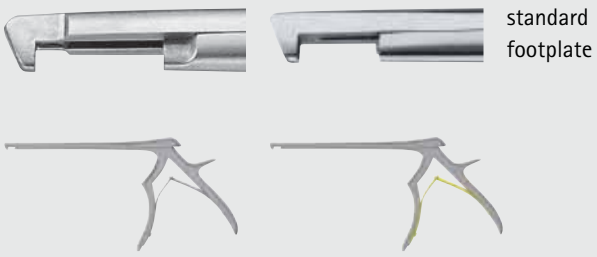
Width (mm) 1.0 2.0 3.0 4.0 5.0



Jaw position 90°, upwards opening

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

Width (mm) 1.0 2.0 3.0 4.0 5.0 6.0



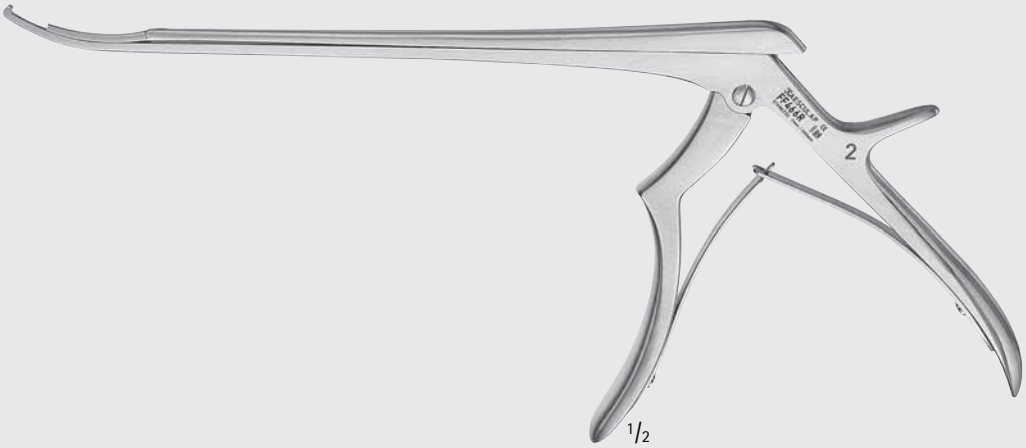
Jaw position 90°, downwards opening

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

Width (mm) 1.0 2.0 3.0 4.0 5.0 6.0

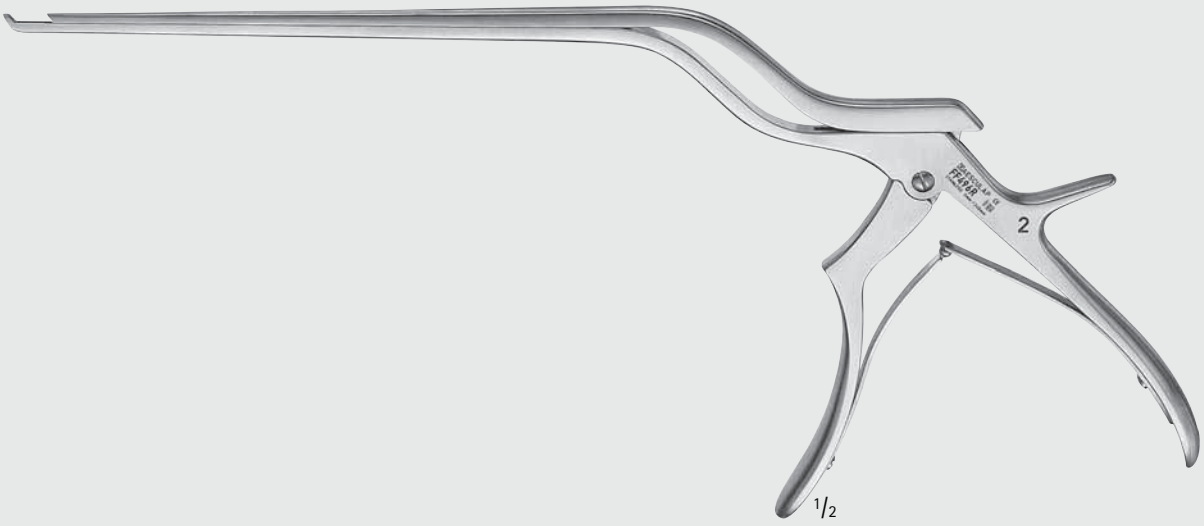
Instruments
KERRISON Bone Punches

■ Curved KERRISON punch, upbiting



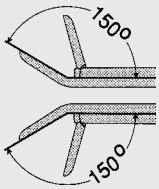
Total length	Width (mm)	Art. No.	Jaw opening (mm)
200 mm, 8"	2.0	FF466R	10
	3.0	FF467R	10
	4.0	FF468R	10
	5.0	FF469R	10

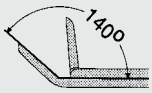
■ Bayonet-shaped KERRISON punch, 130°, upbiting

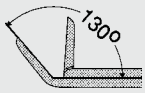


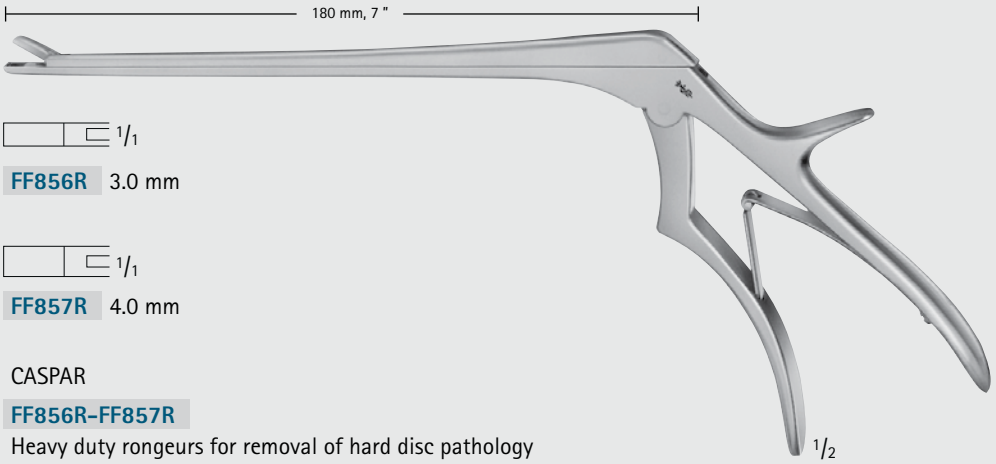
Total length	Width (mm)	Working length	Art. No.	Jaw opening (mm)
240 mm, 9 1/2"	2.0	170 mm, 6 3/4"	FF496R	10
	3.0	170 mm, 6 3/4"	FF497R	10
	4.0	170 mm, 6 3/4"	FF498R	10
	5.0	170 mm, 6 3/4"	FF499R	10

Angled positions for rongeurs









1/1

FF856R 3.0 mm

1/1

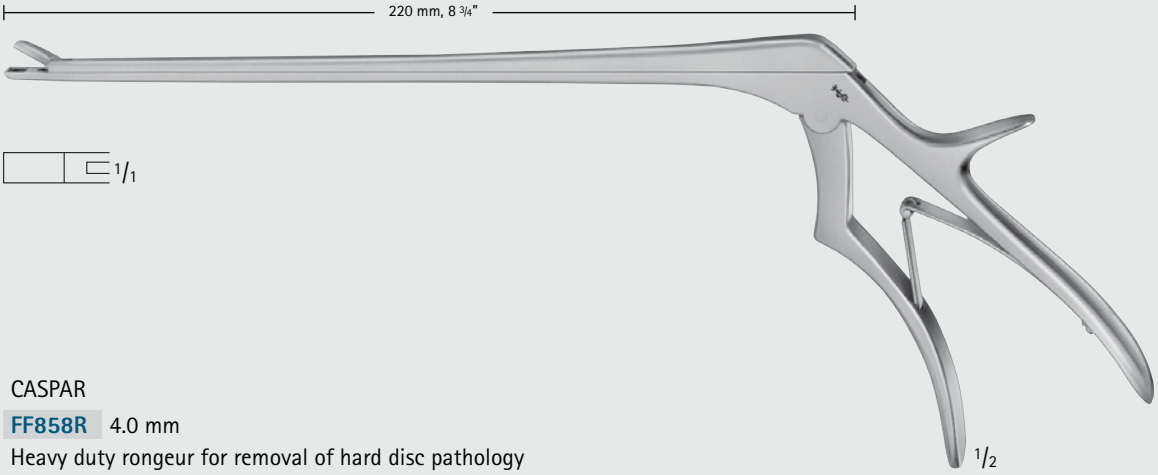
FF857R 4.0 mm

CASPAR

FF856R–FF857R

Heavy duty rongeurs for removal of hard disc pathology

1/2



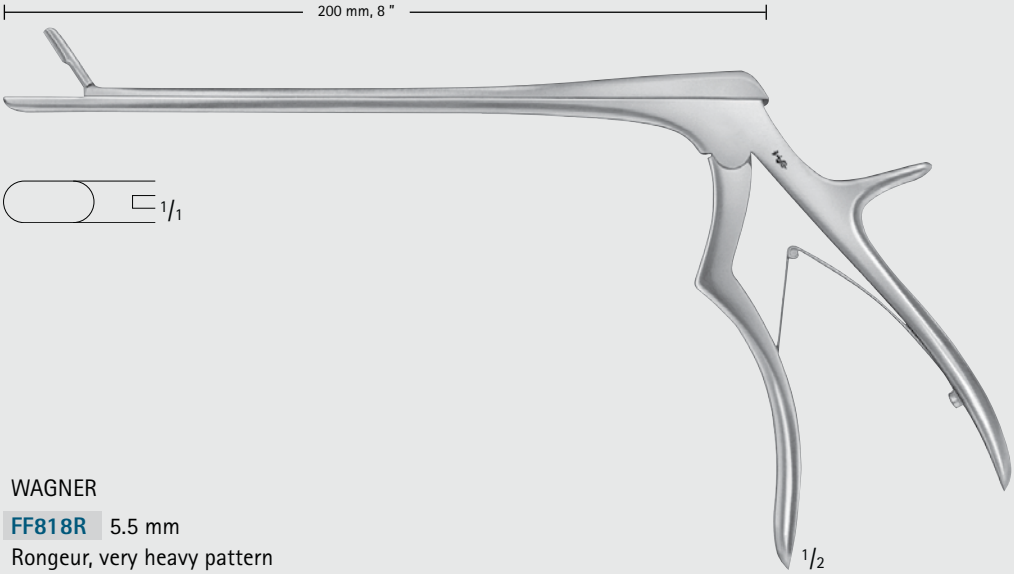
1/1

CASPAR

FF858R 4.0 mm

Heavy duty rongeur for removal of hard disc pathology

1/2



1/1

WAGNER

FF818R 5.5 mm

Rongeur, very heavy pattern

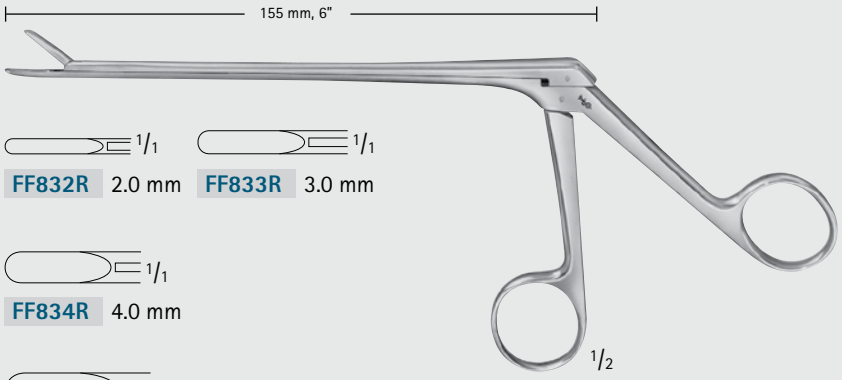
1/2

Instruments

Rongeurs



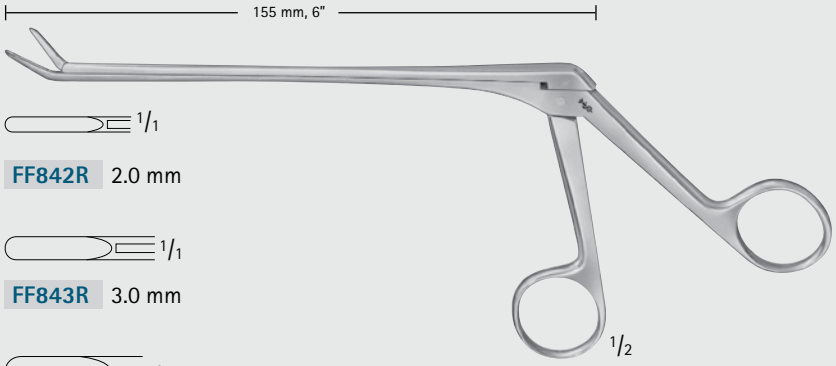
	Art. No.	Width (mm)	Shaft length		Angle	Jaw
1/1	FH832R	2.0	155 mm, 6"		straight	standard
	FH532R	2.0	155 mm, 6"		straight	serrated
	FH552R	2.0	185 mm, 7 1/4"		straight	standard
	FH562R	2.0	185 mm, 7 1/4"		straight	serrated
	FH842R	2.0	155 mm, 6"		curved	standard
	FH542R	2.0	155 mm, 6"		curved	serrated
	FH572R	2.0	185 mm, 7 1/4"		standard	curved
	FH502R	2.0	185 mm, 7 1/4"		curved	serrated
1/1	FH833R	3.0	155 mm, 6"		straight	standard
	FH533R	3.0	155 mm, 6"		straight	serrated
	FH553R	3.0	185 mm, 7 1/4"		straight	standard
	FH563R	3.0	185 mm, 7 1/4"		straight	serrated
	FH843R	3.0	155 mm, 6"		curved	standard
	FH543R	3.0	155 mm, 6"		curved	serrated
	FH573R	3.0	185 mm, 7 1/4"		curved	standard
	FH503R	3.0	185 mm, 7 1/4"		curved	serrated
1/1	FH834R	4.0	155 mm, 6"		straight	standard
	FH534R	4.0	155 mm, 6"		straight	serrated
	FH554R	4.0	185 mm, 7 1/4"		straight	standard
	FH564R	4.0	185 mm, 7 1/4"		straight	serrated
	FH844R	4.0	155 mm, 6"		curved	standard
	FH544R	4.0	155 mm, 6"		curved	serrated
	FH574R	4.0	185 mm, 7 1/4"		curved	standard
	FH545R	4.0	185 mm, 7 1/4"		curved	serrated
1/1	FH835R	5.0	155 mm, 6"		straight	standard
	FH535R	5.0	155 mm, 6"		straight	serrated
	FH555R	5.0	185 mm, 7 1/4"		straight	standard
	FH565R	5.0	185 mm, 7 1/4"		straight	serrated



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

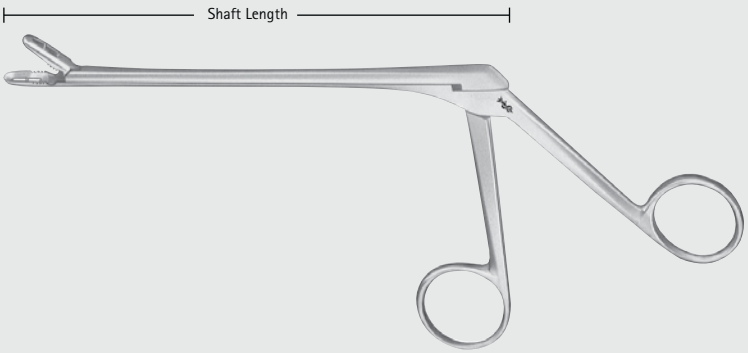
150° lower part of jaw movable



1/1 **FF852R** 2.0 mm
1/1 **FF853R** 3.0 mm
1/1 **FF854R** 4.0 mm

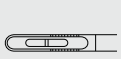
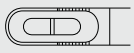
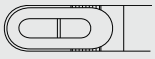
CASPAR
FF852R–FF854R

Instruments
Rongeurs

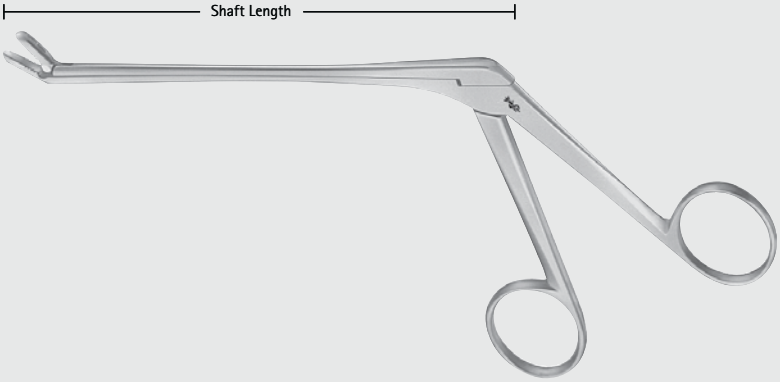


CASPAR

FF502R–FF566R

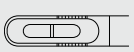
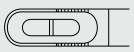
Shaft length	Jaw size 2 x 12 mm	3 x 12 mm	4 x 14 mm	5 x 14 mm	6 x 16 mm
					
140 mm, 5 1/2"	FF502R	FF503R	FF504R	–	–
160 mm, 6 1/4"	FF532R	FF533R	FF534R	FF535R	FF536R
185 mm, 7 1/4"	FF562R	FF563R	FF564R	FF565R	FF566R

150°



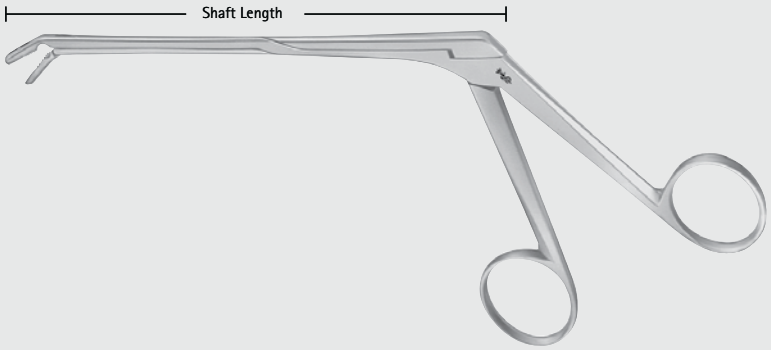
CASPAR

FF513R–FF575R

Shaft length	Jaw size 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

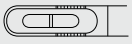
150°

lower part of jaw movable

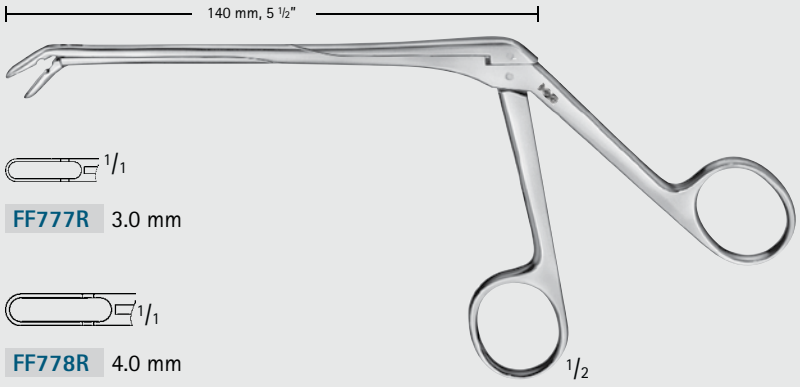


CASPAR

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°



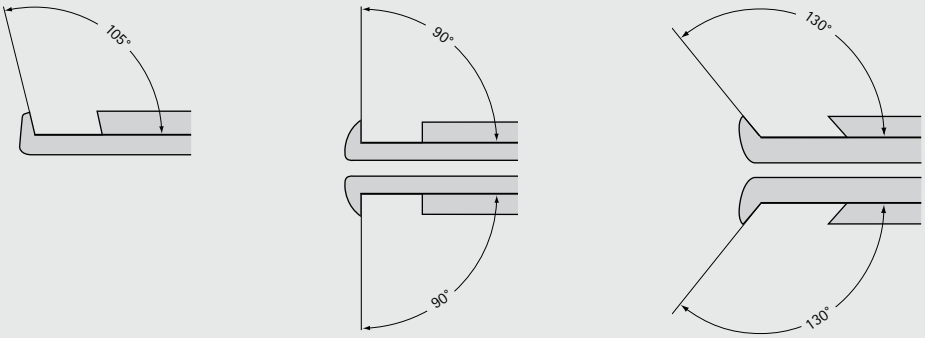
FF777R 3.0 mm

FF778R 4.0 mm

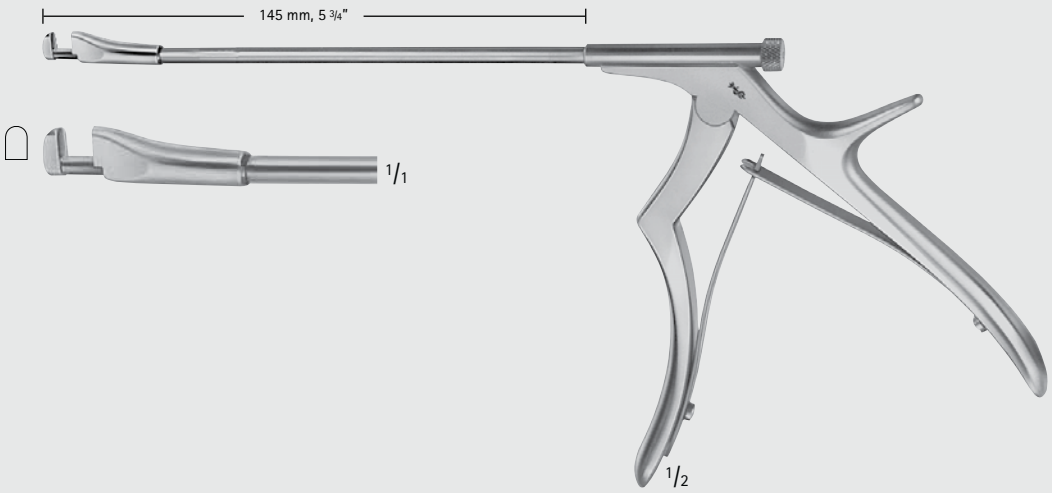
CUSHING

FF777R–FF778R

Angled positions for punches

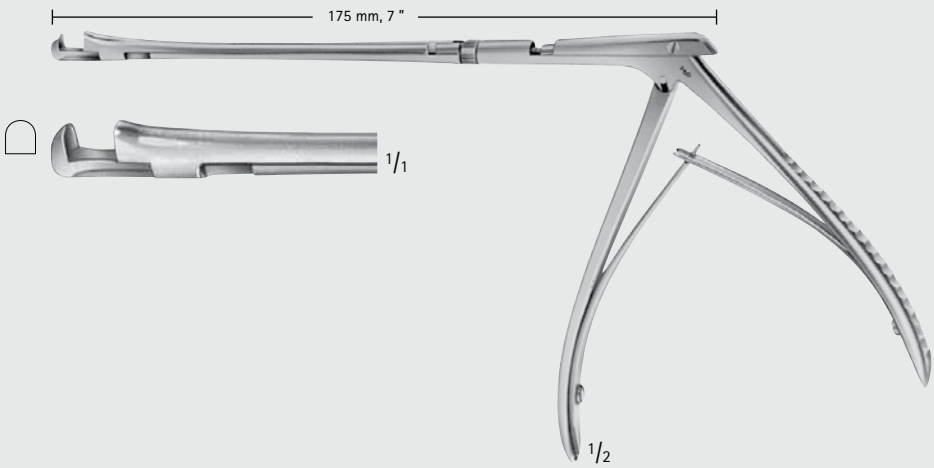


90° upwards cutting
rotates 360°



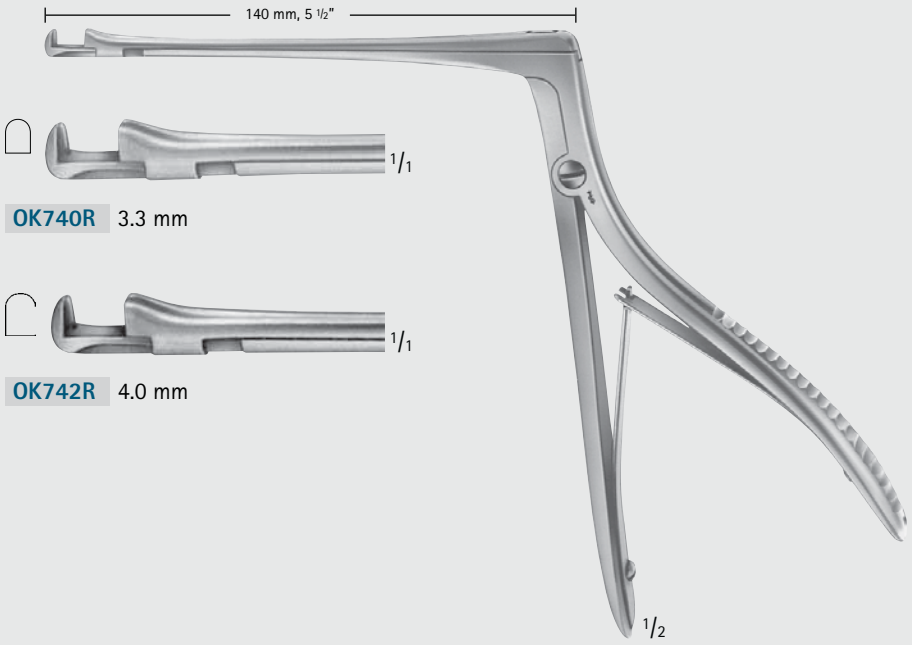
KOFLER
OK737R 3.0 mm

90° upwards cutting
rotates 360°



HAJEK-KOFLER
OK745R 4.0 mm

90° upwards cutting



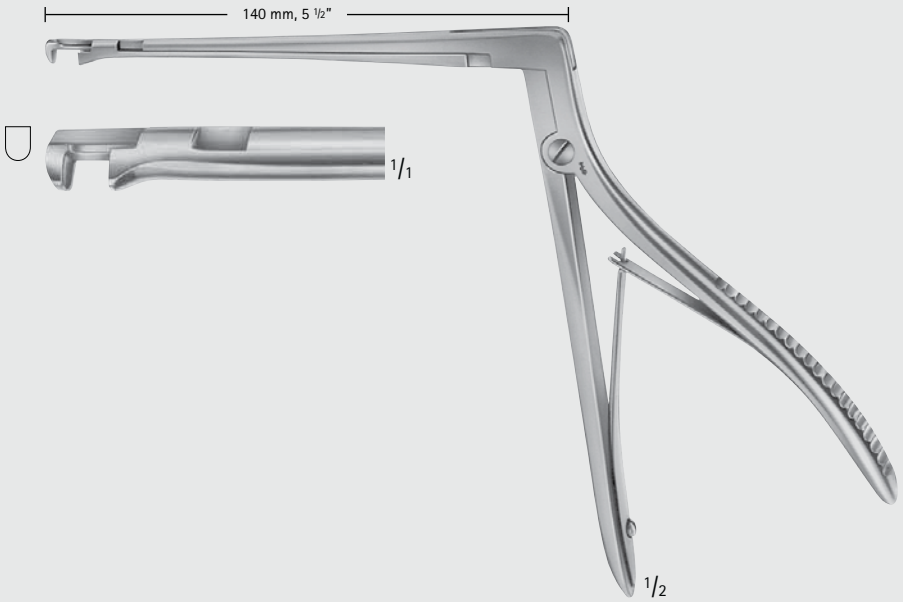
OK740R 3.3 mm

OK742R 4.0 mm

HAJEK-KOFLER

OK740R-OK742R

90° downwards cutting

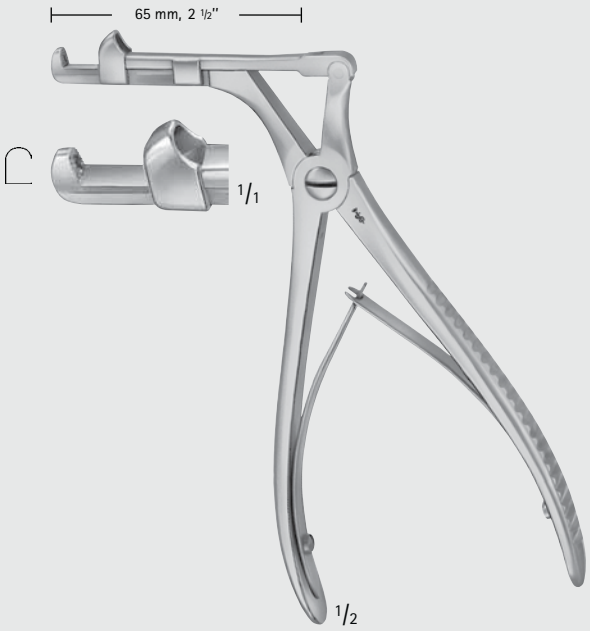


HAJEK-KOFLER

OK741R 3.3 mm

Instruments
Punches

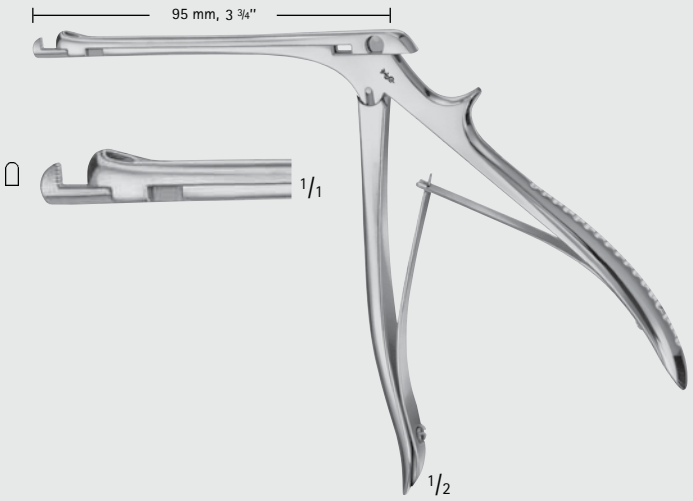
90° upwards cutting



CITELLI

OF760R 3.0 mm

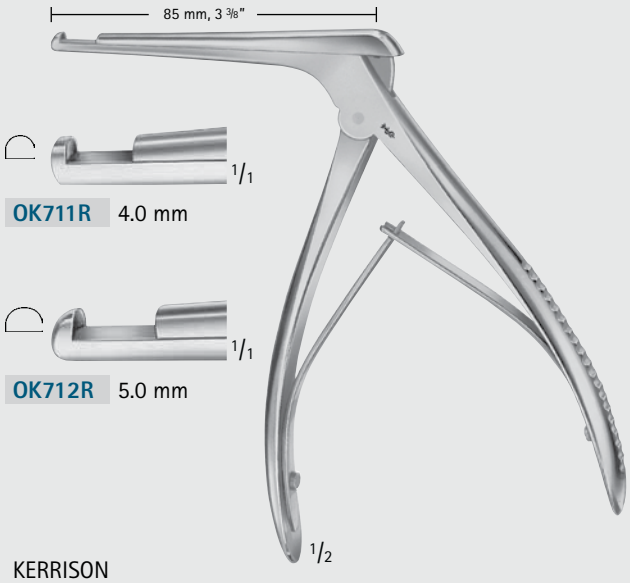
90° upwards cutting



CITELLI-BEYER

OF768R 1.8 mm

90° upwards cutting



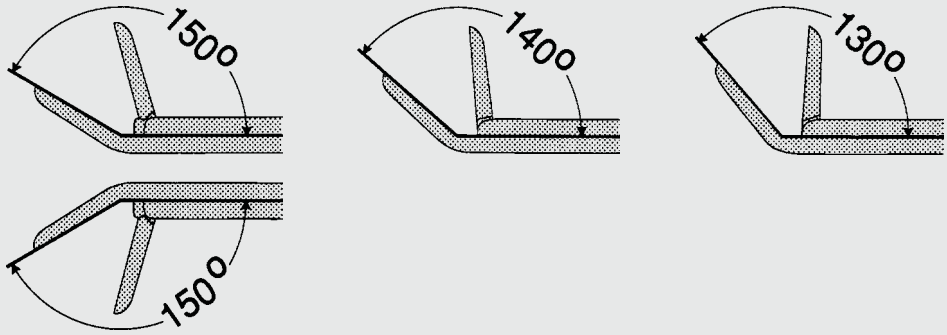
OK711R 4.0 mm

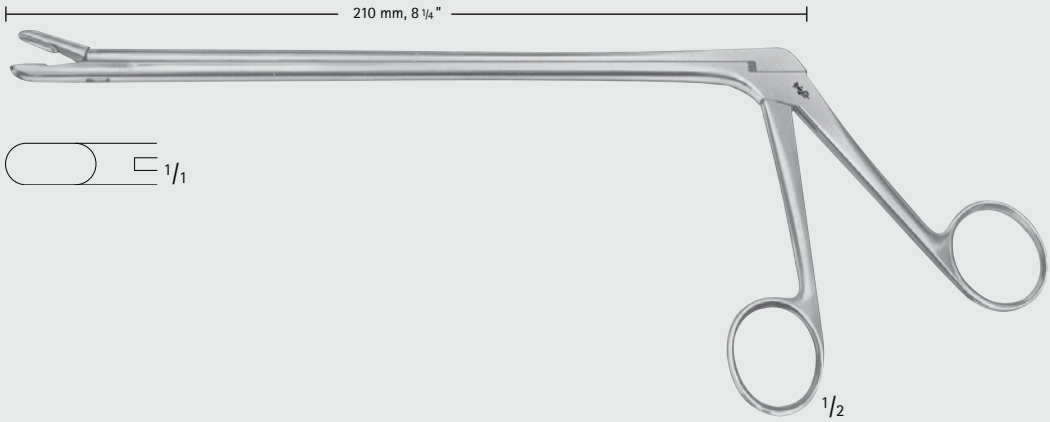
OK712R 5.0 mm

KERRISON

OK711R-OK712R

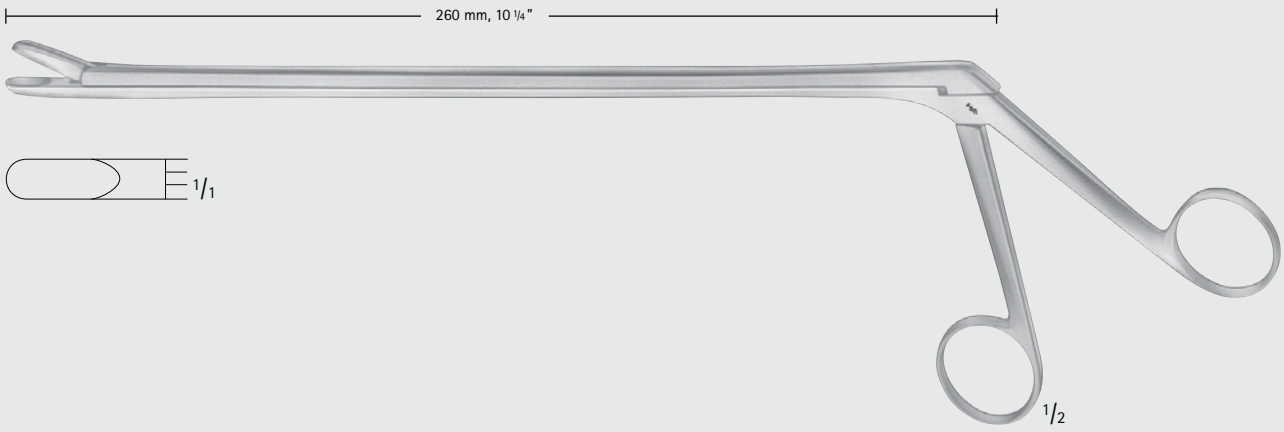
Angled positions for rongeurs





WAGNER

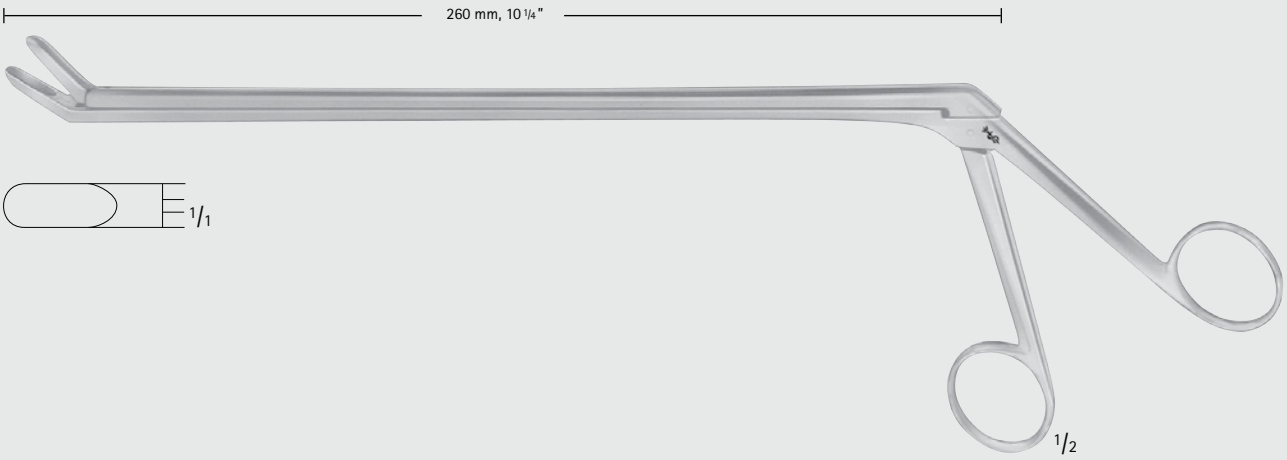
FF808R 5.5 mm



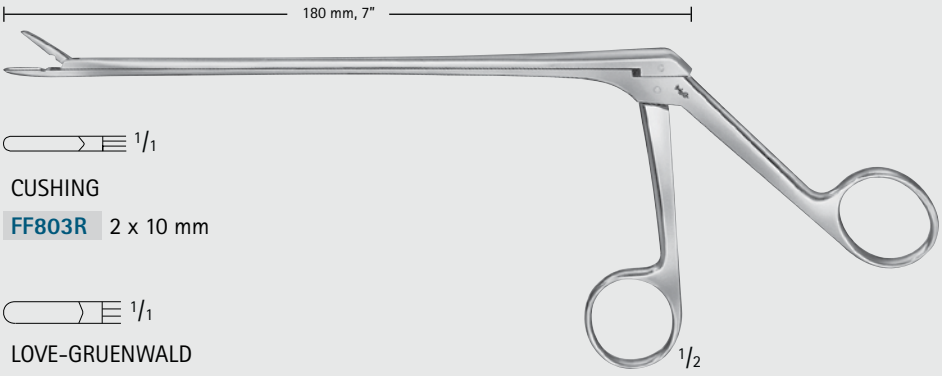
ND087R 5.3 mm

Instruments
Rongeurs

150°

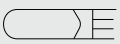


SYPERT
FG057R 5.5 mm



CUSHING
FF803R 2 x 10 mm

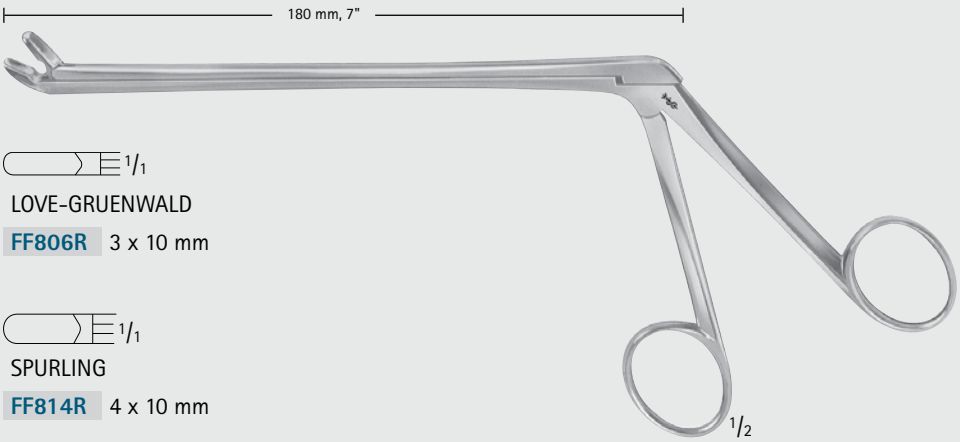
LOVE-GRUENWALD
FF805R 3 x 10 mm



SPURLING
FF807R 4 x 10 mm

FF803R–FF807R

150°

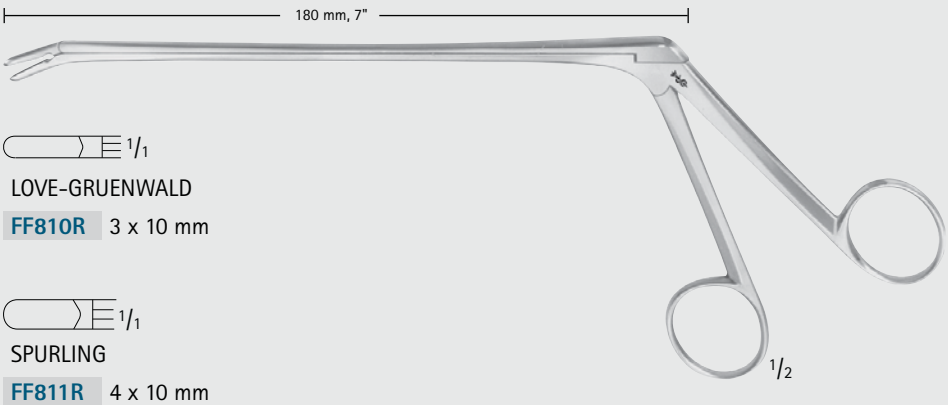


1/1
LOVE-GRUENWALD
FF806R 3 x 10 mm

1/1
SPURLING
FF814R 4 x 10 mm

FF806R–FF814R

150°
upper part of jaw movable

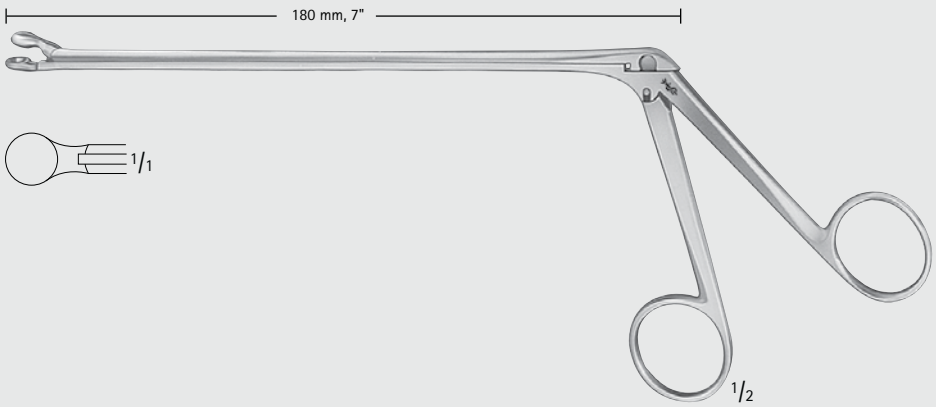


1/1
LOVE-GRUENWALD
FF810R 3 x 10 mm

1/1
SPURLING
FF811R 4 x 10 mm

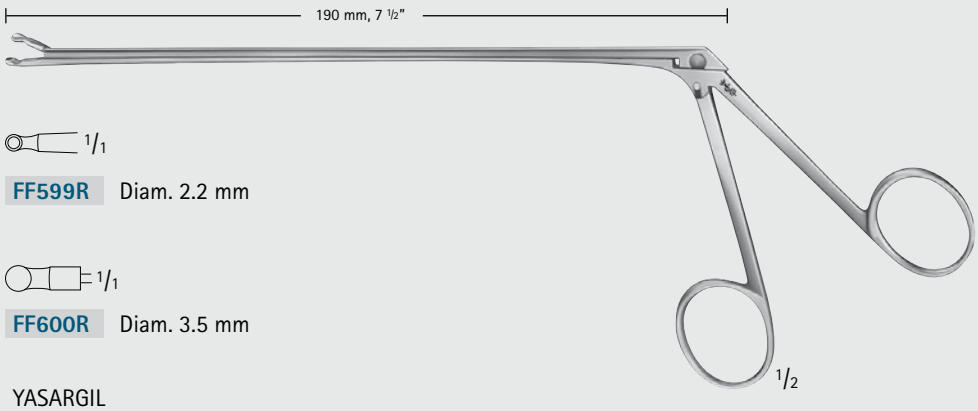
FF810R–FF811R

Rongeurs



OLDBERG

FF605R Diam. 7.0 mm

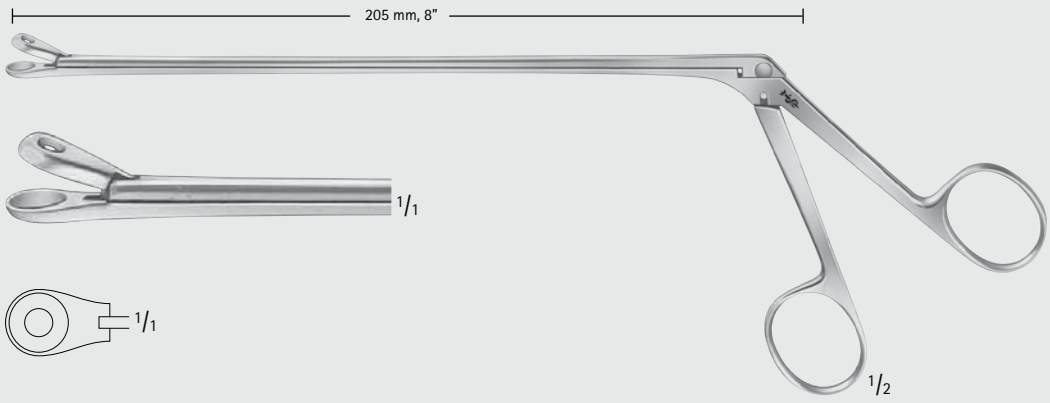


FF599R Diam. 2.2 mm

FF600R Diam. 3.5 mm

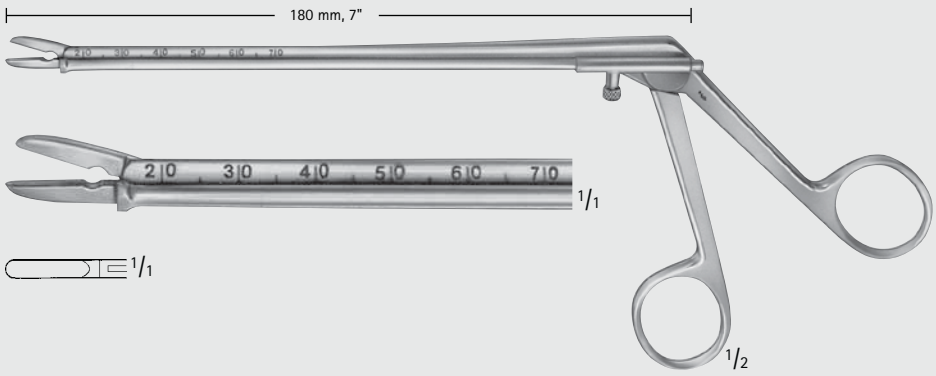
YASARGIL

FF599R-FF600R



LANDOLT

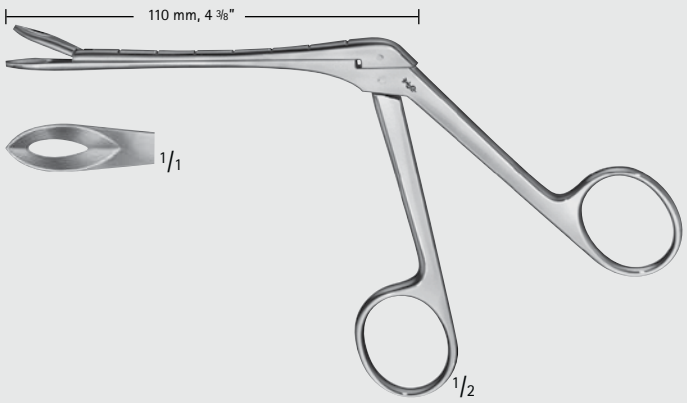
FF345R Diam. 9.0 mm
Tumor grasping forceps, blunt



KRÄMER

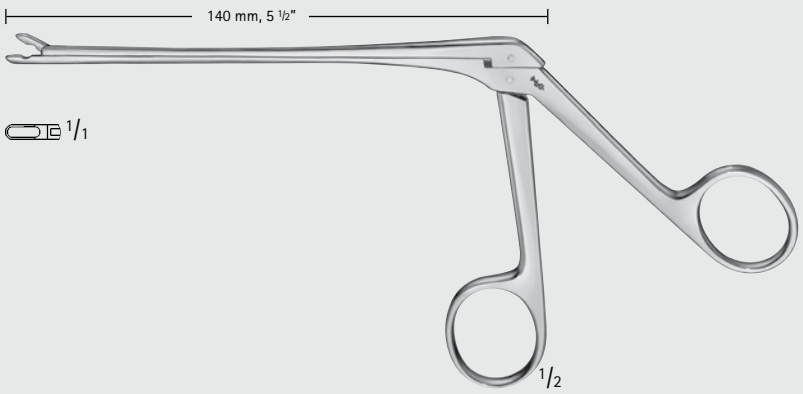
FF820R 2.5 x 10 mm
Rongeur with depth guard

Rongeurs



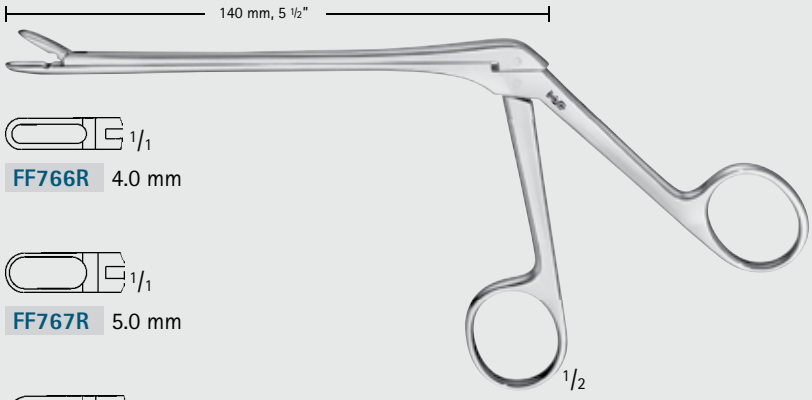
HENCKEL-TILLEY

OK503R 6.5 mm
Shaft graduated in cm



BECK

FF765R 2.0 mm

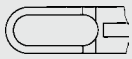


1/1

FF766R 4.0 mm

1/1

FF767R 5.0 mm

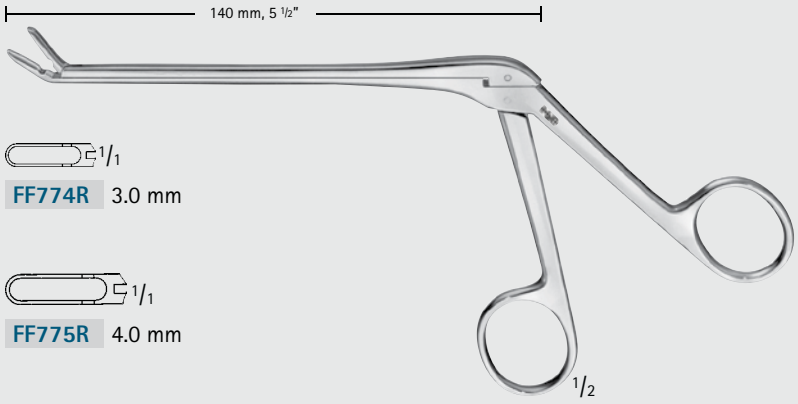

1/1

FF768R 6.0 mm

CUSHING

FF766R–FF768R

150°

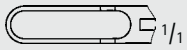


1/1

FF774R 3.0 mm

1/1

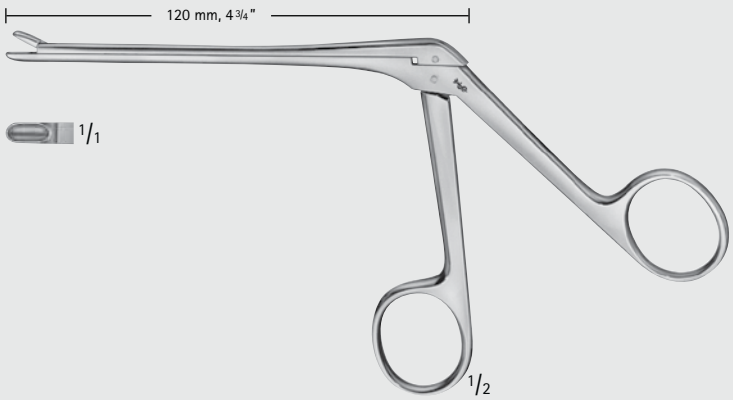
FF775R 4.0 mm


1/1

FF776R 5.0 mm

CUSHING

FF774R–FF776R

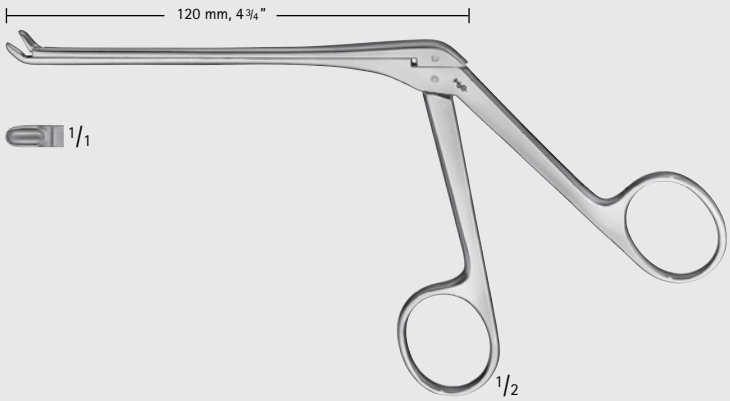


ST. BARTS

OK536R 3.0 mm

140°

upwards cutting

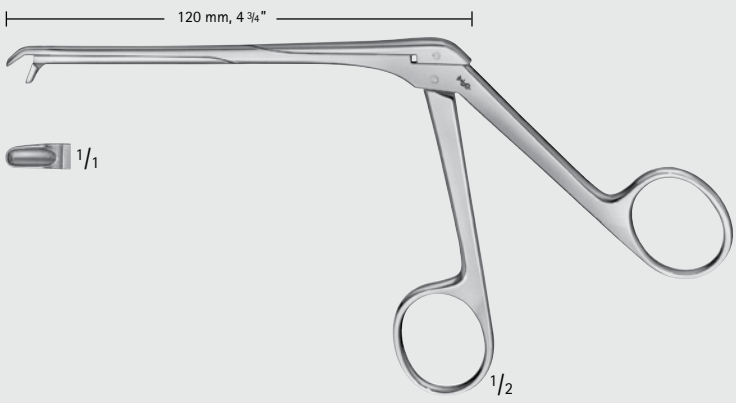


ST. BARTS

OK537R 3.0 mm

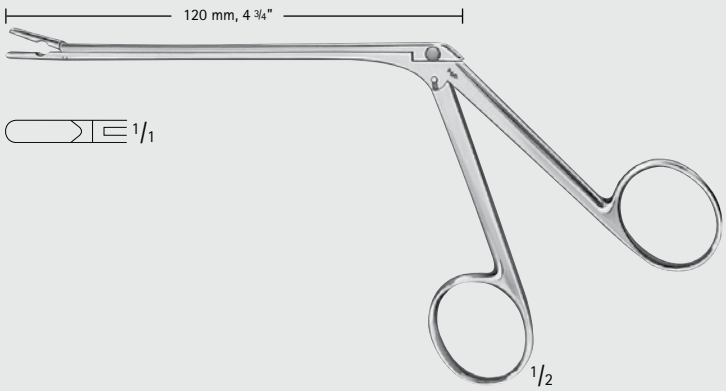
140°

downwards cutting



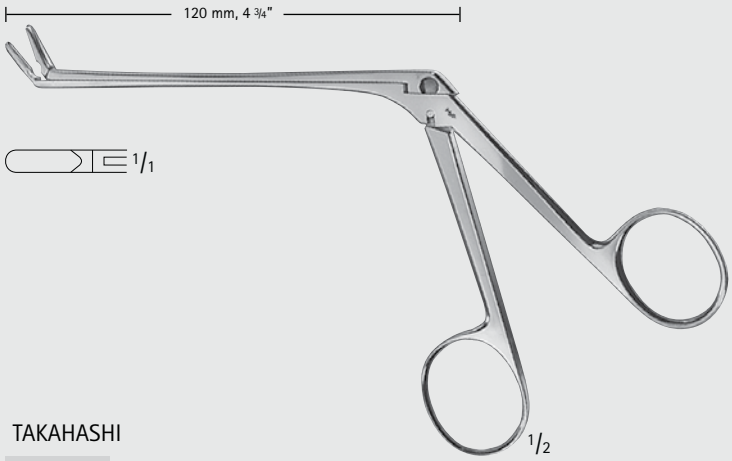
ST. BARTS

OK538R 3.0 mm

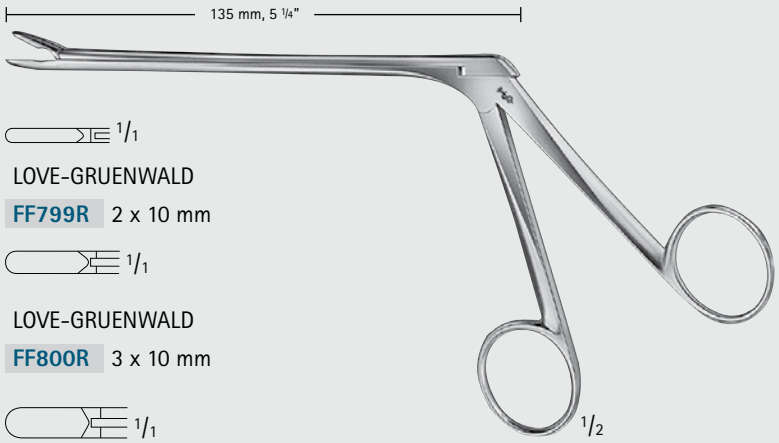


TAKAHASHI
OK525R 3.0 mm

130°
upwards cutting



TAKAHASHI
OK526R 3.0 mm



LOVE-GRUENWALD
FF799R 2 x 10 mm

1/1

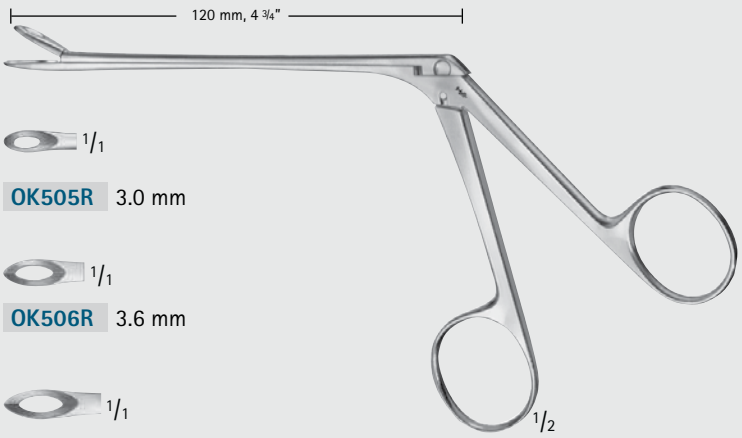
LOVE-GRUENWALD
FF800R 3 x 10 mm

1/1

SPURLING
FF801R 4 x 10 mm

FF799R–FF801R

Instruments
Rongeurs



1/1
OK505R 3.0 mm

1/1
OK506R 3.6 mm

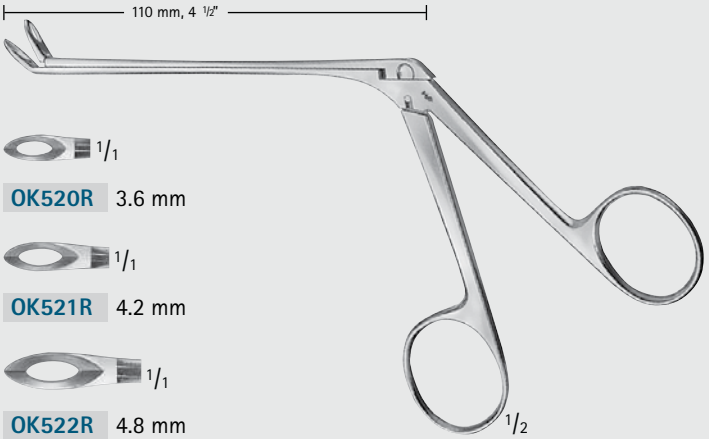
1/1
OK507R 4.2 mm

1/1
OK508R 4.8 mm

1/1
OK509R 5.6 mm

WEIL-BLAKESLEY
OK505R-OK509R

140°
upward cutting



1/1
OK520R 3.6 mm

1/1
OK521R 4.2 mm

1/1
OK522R 4.8 mm

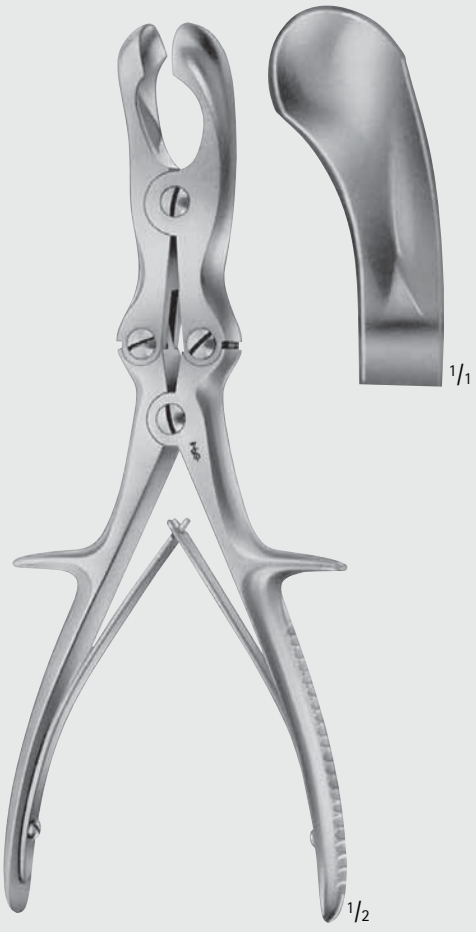
WEIL-BLAKESLEY
OK520R-OK522R



LUER-STILLE

FO566R

270 mm, 10 3/4"



SEMB

FO555R

240 mm, 9 1/2"



LUER-STILLE

FO550R

225 mm, 9"



LUER-STILLE

FO551R

225 mm, 9"



SYPERT

FG052R

360 mm, 14 1/2"



STILLE

FO530R

230 mm, 9"



LEKSELL-STILLE

FO532R

240 mm, 9 1/2"



STILLE-RUSKIN

FO534R

240 mm, 9 1/2"



LEKSELL

FO526R–FO527R

245 mm, 9 3/4"



ECHLIN

FO522R–FO523R

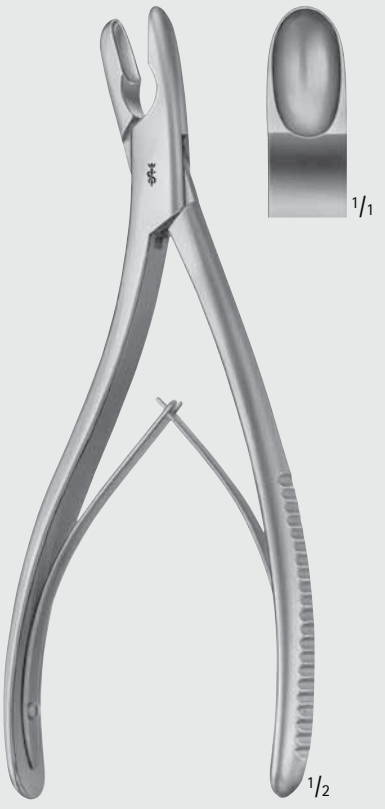
230 mm, 9"



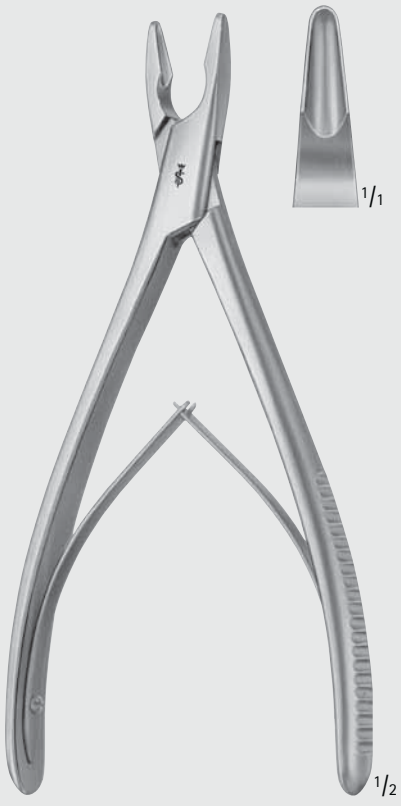
FRYKHOLM

FO525R

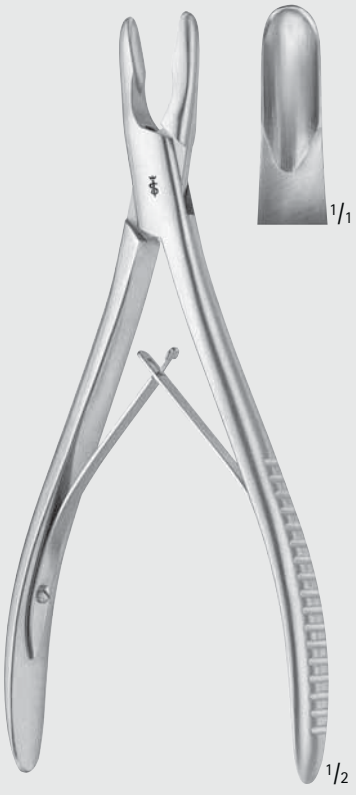
240 mm, 9 1/2"



NORTHFIELD
FO474R
210 mm, 8 1/4"



PENNYBACKER
FO475R
205 mm, 8"



ADSON
MD615
200 mm, 8"



BÖHLER
FO500R–FO502R
155 mm, 6"



MAYFIELD
FO511R
175 mm, 7"



MARQUARDT
FO520R
200 mm, 8"



FO514R–FO515R
180 mm, 7"



RUSKIN
FO518R
190 mm, 7 1/2"



RÖTTGEN-RUSKIN
FO521R
240 mm, 9 1/2"



LUER
FO460R–FO461R
175 mm, 7"



LUER
FO462R
180 mm, 7"



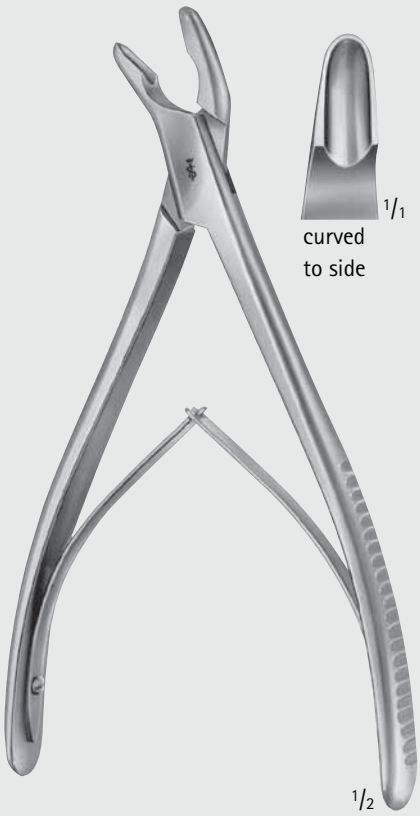
LUER
FO463R
180 mm, 7"



OLIVECRONA
FO470R
205 mm, 8"



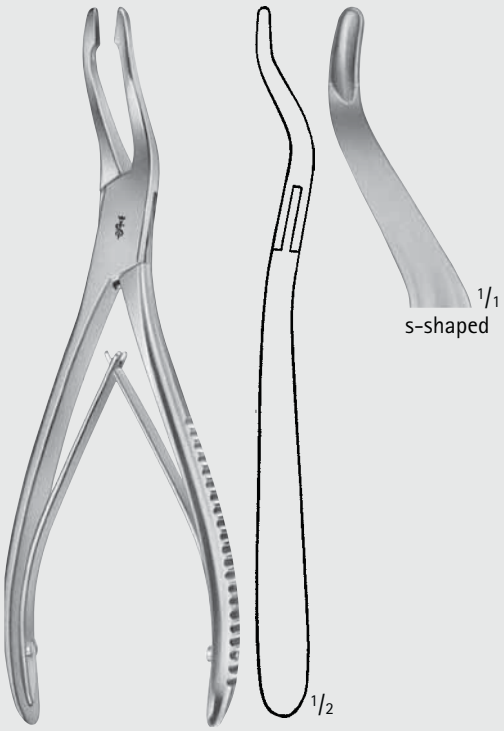
GULEKE
FO472R
205 mm, 8"



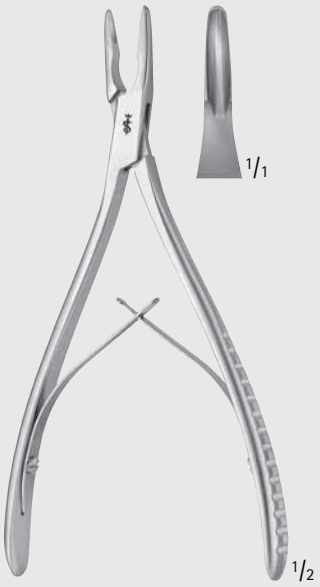
TROTTER
FO467R
205 mm, 8"



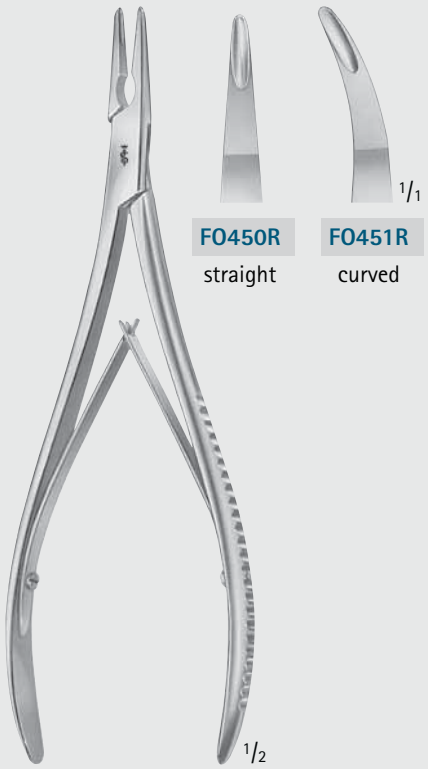
ALEXANDER
FO440R
140 mm, 5 1/4"



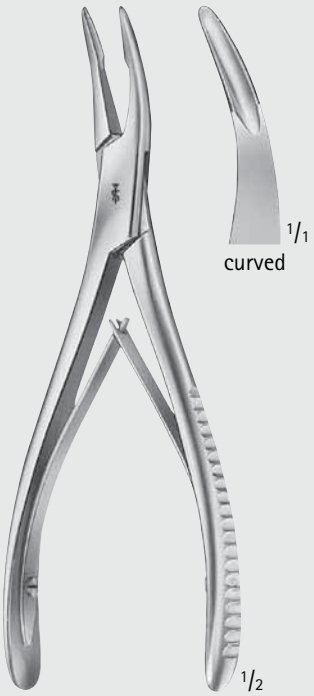
JANSEN
FO442R
190 mm, 7 1/2"



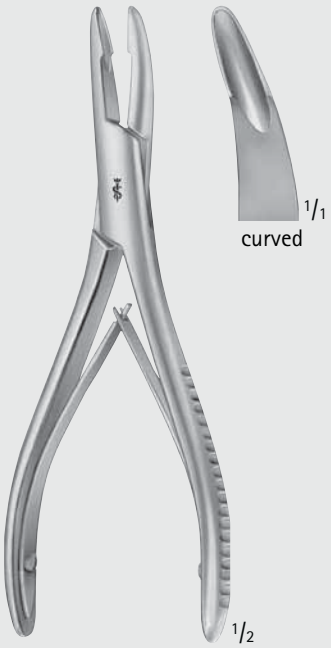
LEMPERT
MD617
155 mm, 6 1/8"



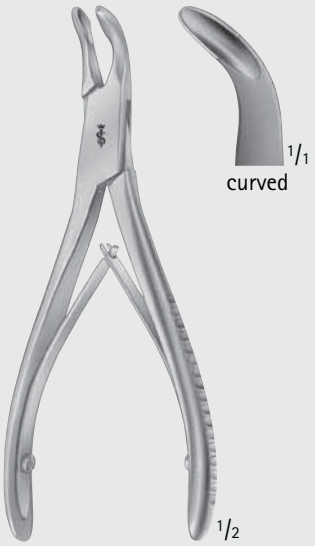
LEMPERT
FO450R–FO451R
200 mm, 8"



BEYER
FO453R
180 mm, 7"



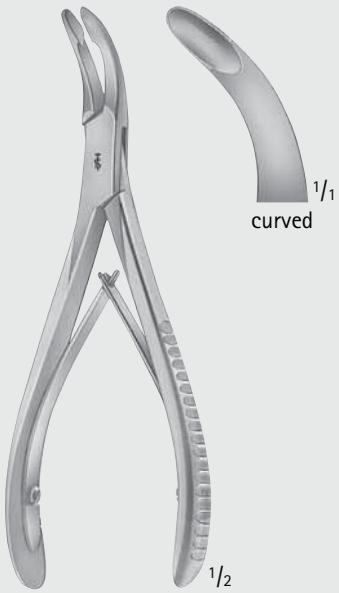
MEAD
FO455R
165 mm, 6 1/2"



FO410R
140 mm, 5 1/2"



LUER
FO411R
150 mm, 6"



LUER
FO412R
155 mm, 6"



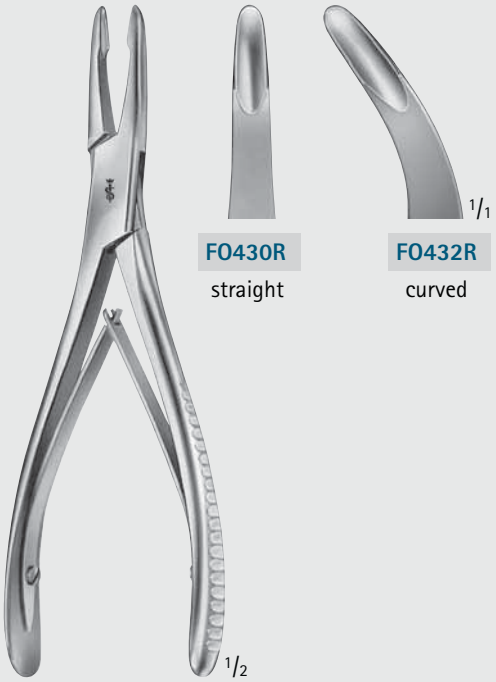
BLUMENTHAL
FO415R
155 mm, 6"



BLUMENTHAL
FO416R
150 mm, 6"



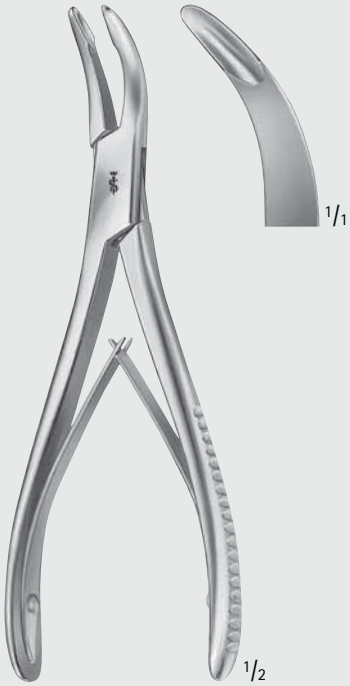
HAKANSSON
FO428R
170 mm, 6 3/4"



FO430R
straight

FO432R
curved

JANSEN
FO430R-FO432R
175 mm, 7"



BANE-HARTMANN
FO457R
175 mm, 7"



FO599R
fine rongeur
width of jaw 2.0 mm
130 mm, 5 1/8"



STELLBRINK
FO399R
fine rongeur
175 mm, 7"

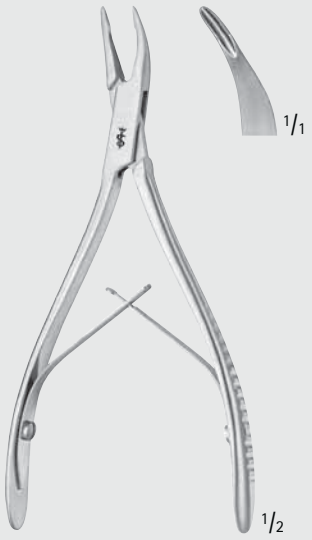


STELLBRINK
FO400R
fine rongeur
170 mm, 6 3/4"

Instruments
Bone Rongeurs



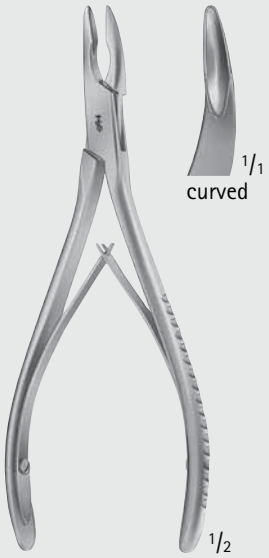
FRIEDMANN
FO406R
140 mm, 5 1/2"



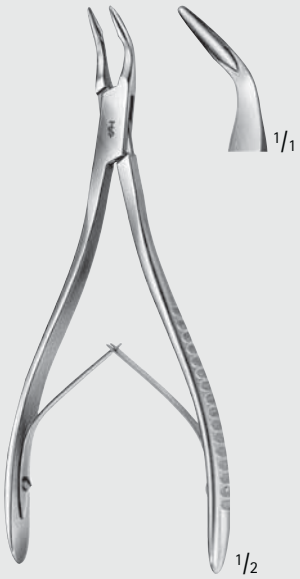
FRIEDMANN
FO407R
140 mm, 5 1/2"



SCHWARZ
FO408R
145 mm, 5 3/4"



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



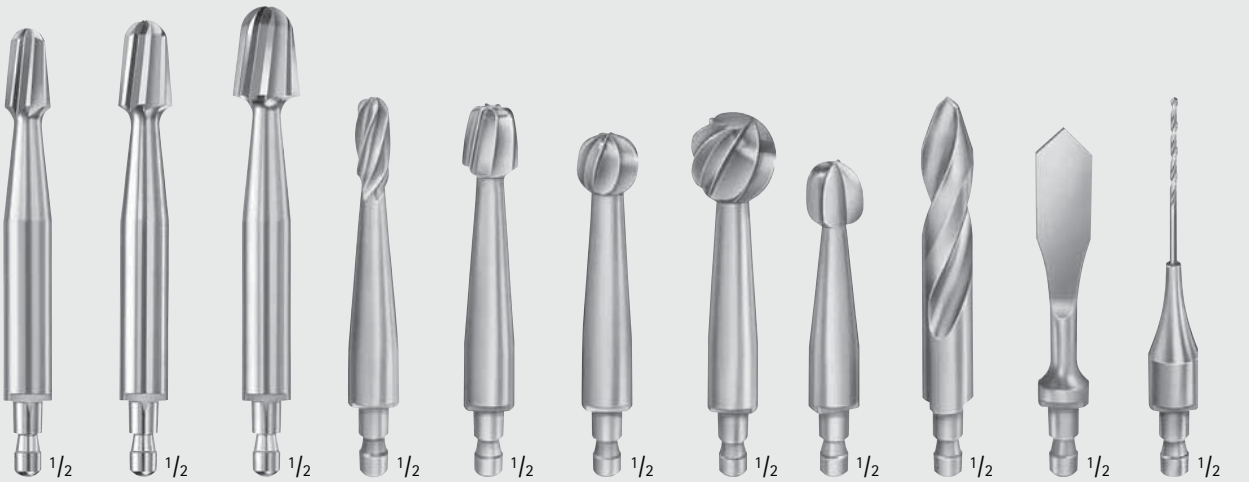
FO413R
150 mm, 6"



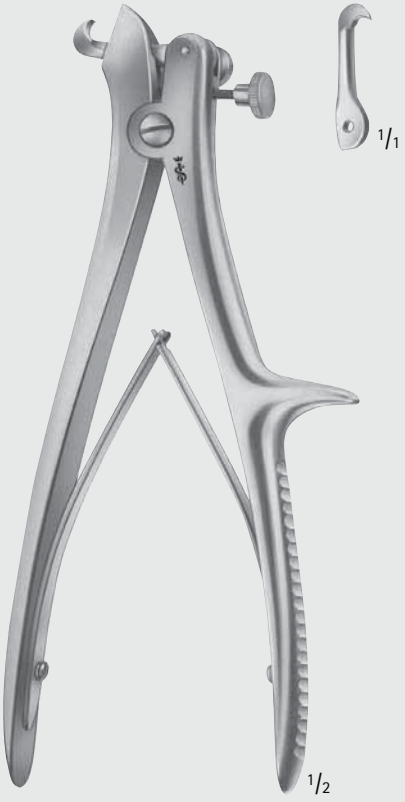
HUDSON
FF056R
Brace only

FF057R
Extension piece only

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



HUDSON	HUDSON	HUDSON	HUDSON	HUDSON	HUDSON	HUDSON	ADSON	MCKENZIE	CUSHING	
FF037R	**FF038R**	**FF039R**	**FF061R**	**FF062R**	**FF063R**	**FF064R**	**FF065R**	**FF066R**	**FF067R**	**FF068R**
Diam. 11 mm	Diam. 13 mm	Diam. 16 mm	Diam. 9 mm	Diam. 14 mm	Diam. 16 mm	Diam. 22 mm	Diam. 15 mm	Diam. 13 mm	Diam. 14 mm	Diam. 2 mm



DAHLGREN

FF113R
Skull punch
with 2 extra hooks
210 mm, 8 1/4"



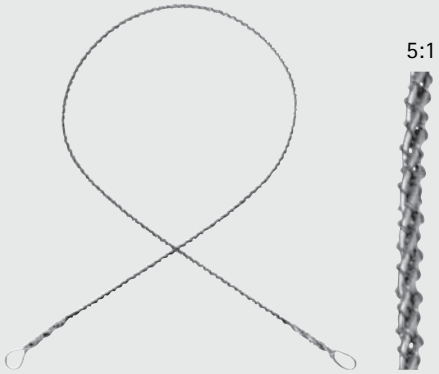
FF050R
Burrhole protection forceps
205 mm, 8"



OLIVECRONA

Art. No.	Diam.	Length
FH403	1.2 mm	300 mm, 12"
FH404	1.2 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

Art. No.	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

Art. No.	Diam.	Length
FH430R	1.8 mm	500 mm, 20"

coarse, 4 wires twisted
Sales unit:
PAK = Package of 5 pieces



GIGLI

FH480R
Handle for wire saws



1/2

LEBSCHE

FF133C

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



1/2

DE MARTEL

FF130R

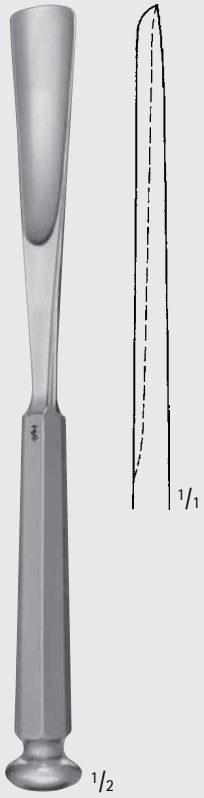
Conductor for GIGLI and OLIVECRONA wire saws, flexible
350 mm, 14"



STILLE

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

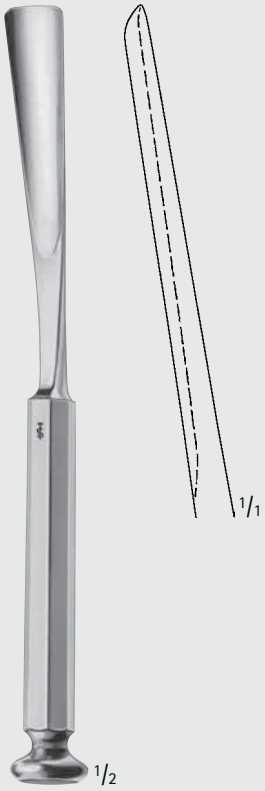
Chisels
205 mm, 8"



STILLE

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"



STILLE

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

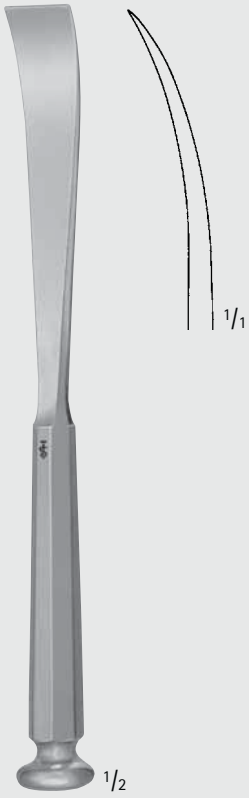
Osteotomes
205 mm, 8"



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"



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"

Instruments
Osteotomes



MB657R–MB662R



MB663R–MB669R



MB675R–MB684R



MB685R–MB694R



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"



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"



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"





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"





OBWEGESER

DO720R 11 mm

curved
235 mm, 9 1/4"





NIEDERDELLMANN

DO728R	8 mm
DO730R	10 mm

curved
250 mm, 10"

Instruments

Raspatories with PEEK-Handle



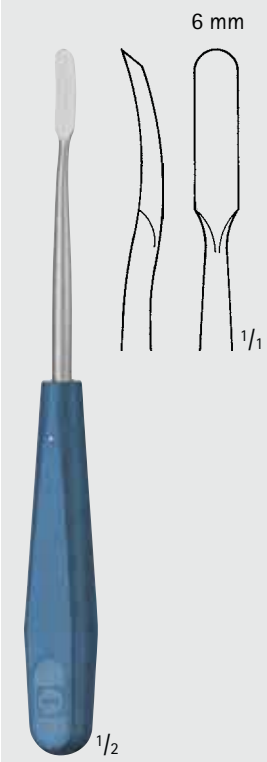
FK318R
190 mm, 7 1/2"



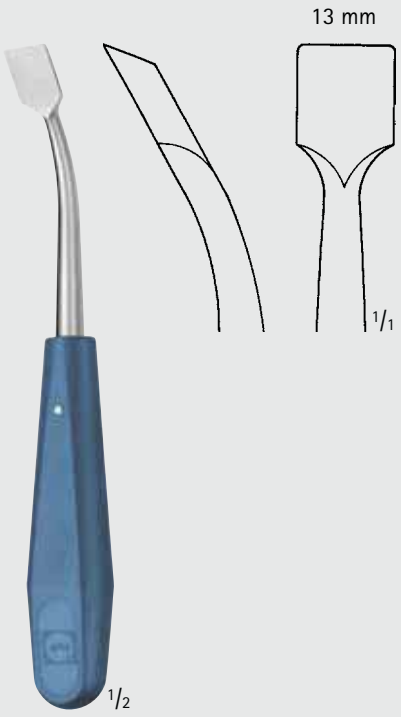
FK317R
185 mm, 7 1/4"



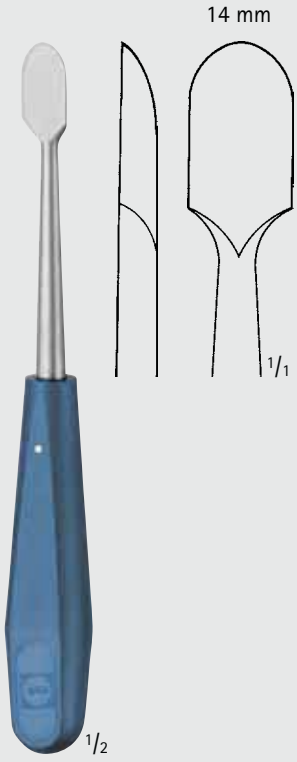
FK319R
190 mm, 7 1/2"



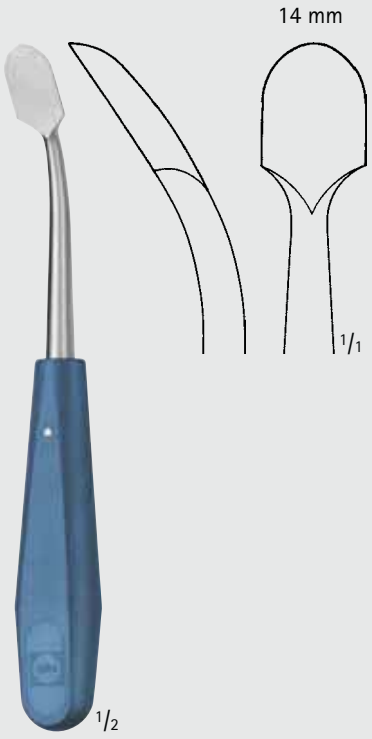
FK321R
190 mm, 7 1/2"



FK323R
175 mm, 7"



FK324R
190 mm, 7 1/2"



FK325R
180 mm, 7"



LEXER

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

Osteotomes
225 mm, 9"



LEXER

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

Gouges
225 mm, 9"



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"

Mallets

Weights refer to the heads of the mallets



DF112R 80 g
165 mm, 6 1/2"



DF114R 155 g
190 mm, 7 1/2"



HAJEK
FL044R 135 g
220 mm, 8 3/4"

Weights refer to the heads of the mallets



MEAD

FL035R 180 g
with interchangeable plastic discs
190 mm, 7 1/2"

FL034
Pair of spare discs



FL036R 135 g
with interchangeable plastic discs
185 mm, 7 1/4"

FL037
Pair of spare discs



COTTLE

FL038R 235 g
1 side flat, 1 side convex
185 mm, 7 1/4"



FL039R 130 g
with one smooth and one rough surface
185 mm, 7 1/4"

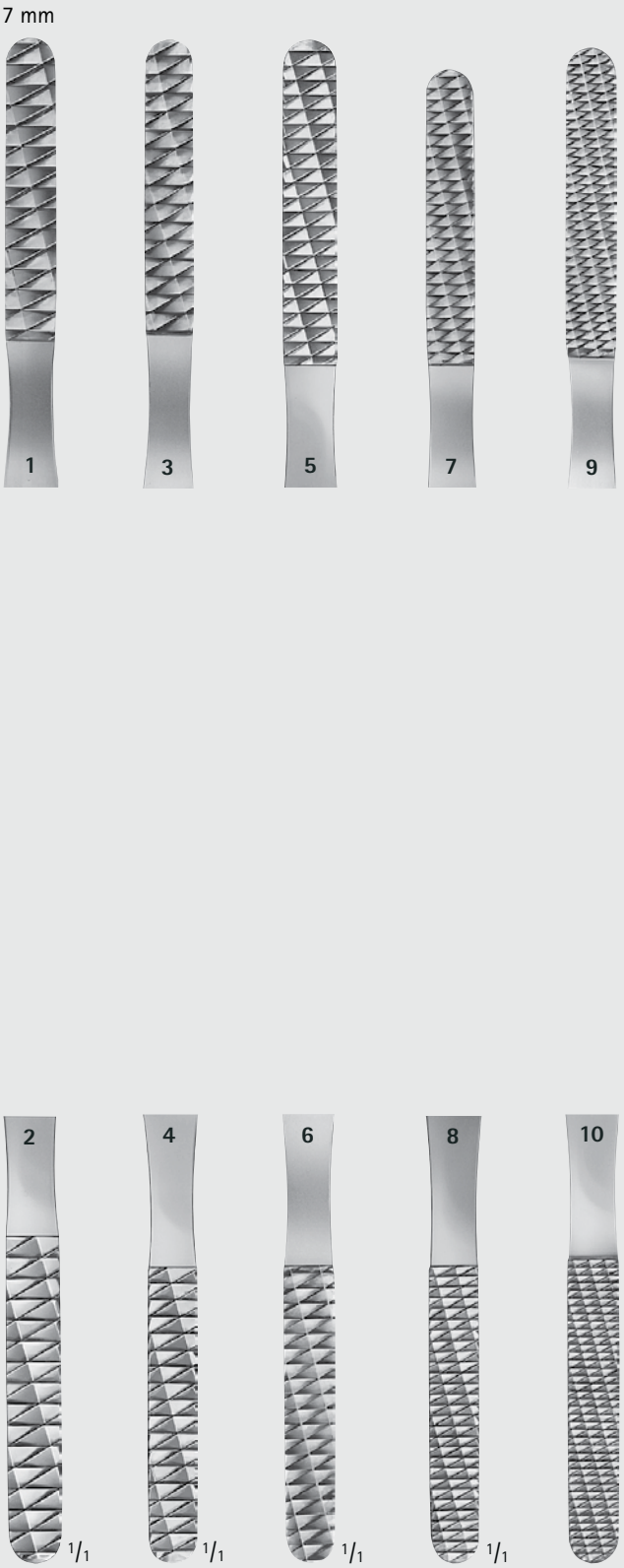
Instruments

DUROGRIP® Rasps, Double-Ended

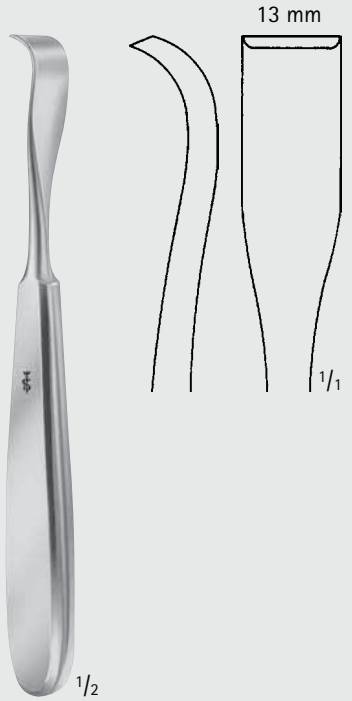
DUROGRIP® double-ended rasps with tungsten carbide inserts

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





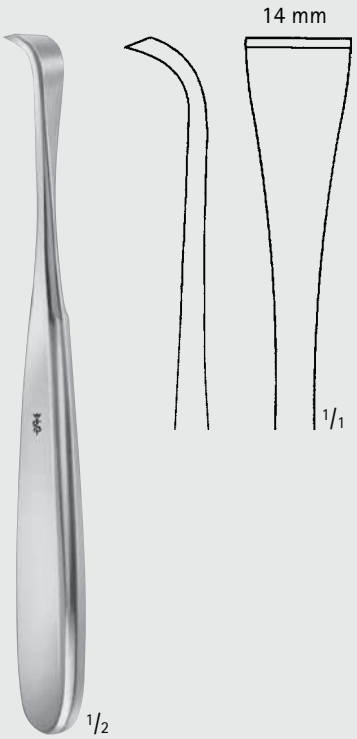
OL421R	**OL421R**	**OL423R**	**OL425R**	**OL427R**	**OL429R**
205 mm, 8"	Teeth 12/14	16/20	24/30	36/44	52/62



SCHNEIDER

FK365R

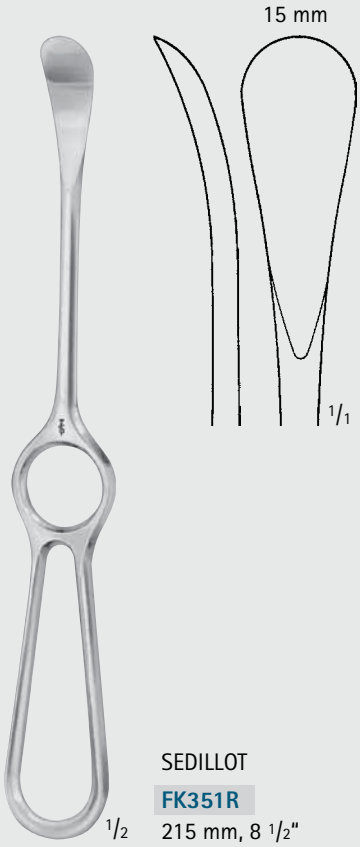
175 mm, 7"



SCHNEIDER-SAUERBRUCH

FK366R

190 mm, 7 1/2"



SEDILLOT

FK351R

215 mm, 8 1/2"



FK355R	5 mm
FK356R	10 mm
FK357R	15 mm
FK358R	20 mm
FK359R	25 mm

LAMBOTTE

FK355R–FK359R

215 mm, 8 1/2"



MITCHELL

FK336R

210 mm, 8 1/4"



COBB

FK146R–FK157R

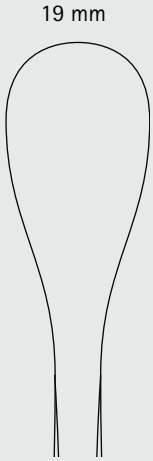
280 mm, 11“



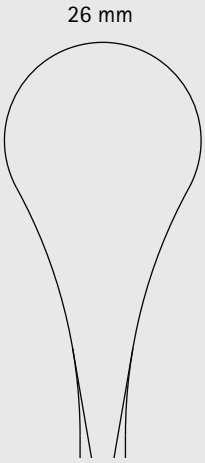
FK146R



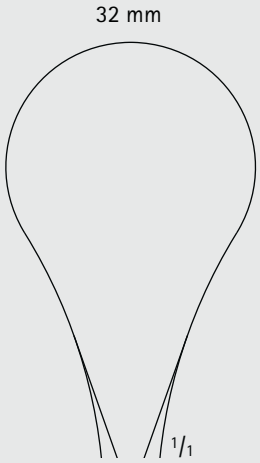
FK147R



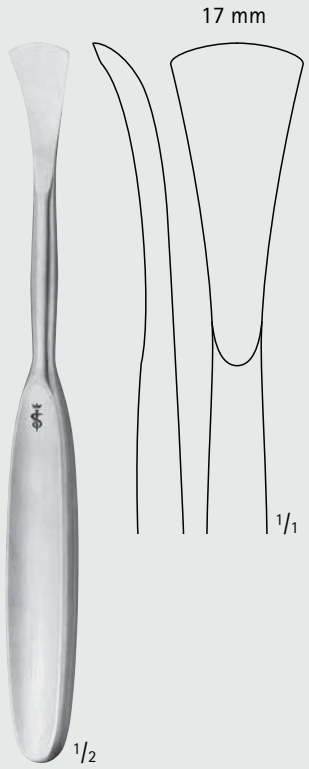
FK148R



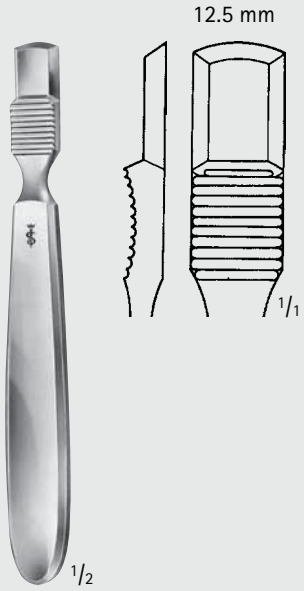
FK149R



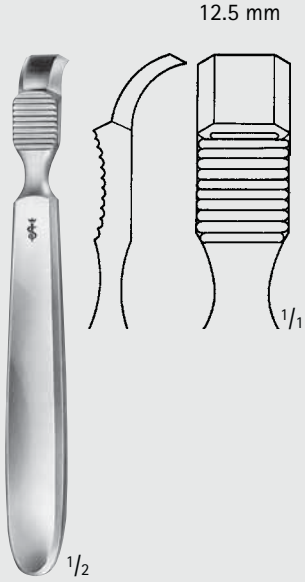
FK157R



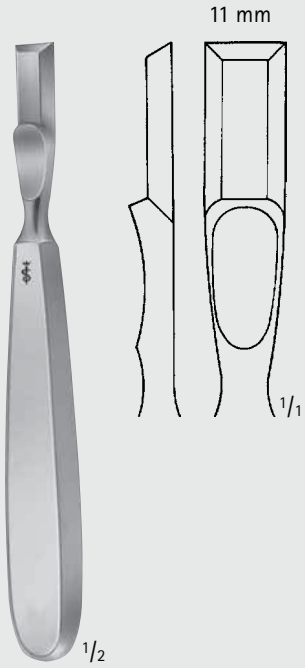
LANGENBECK
MB279R
190 mm, 7 1/2"



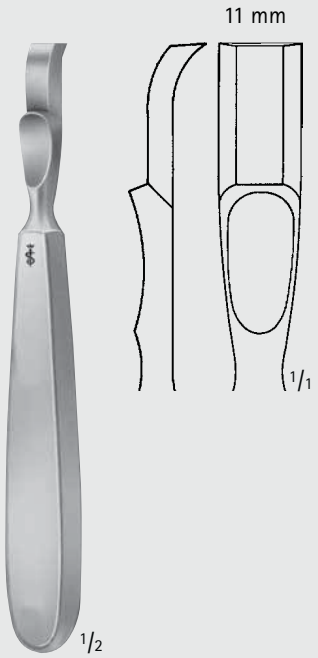
FARABEUF
FK340R
140 mm, 5 1/2"



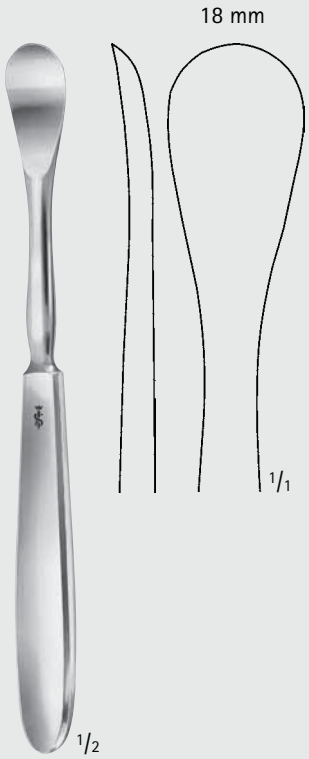
FARABEUF
FK341R
140 mm, 5 1/2"



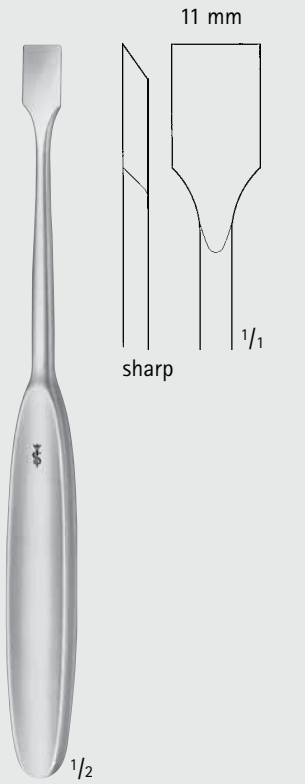
FARABEUF-COLLIN
FK344R
160 mm, 6 1/4"



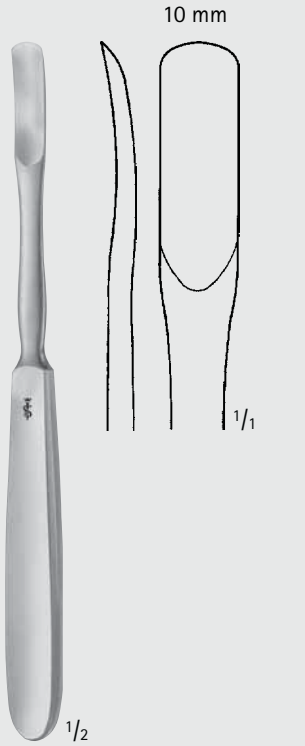
FARABEUF-COLLIN
FK345R
160 mm, 6 1/4"



SEDILLOT
FK350R
185 mm, 7 1/4"



MC KISSOCK
FK379R
195 mm, 7 3/4"

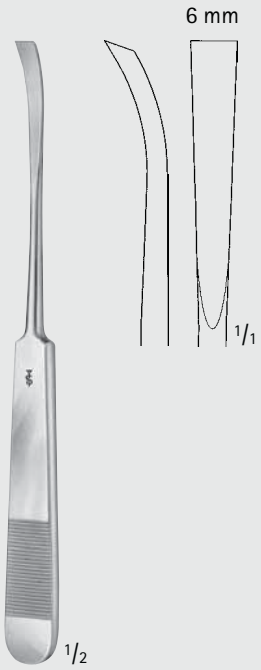


KRÄMER
FK390R
185 mm, 7 1/4"

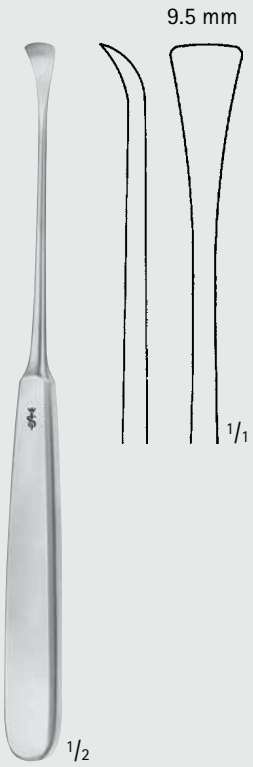
Instruments
Periosteal Elevators



KRÄMER
FK391R
190 mm, 7 1/2"



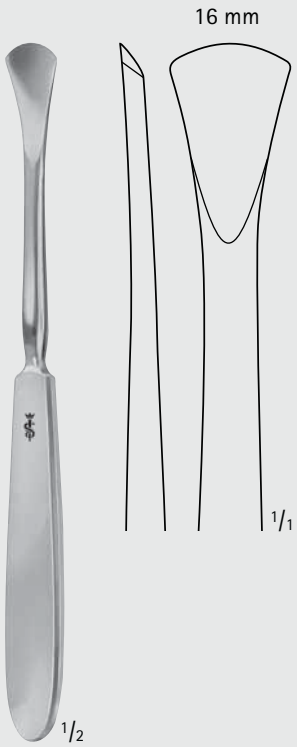
PENNYBACKER
FK378R
165 mm, 6 1/2"



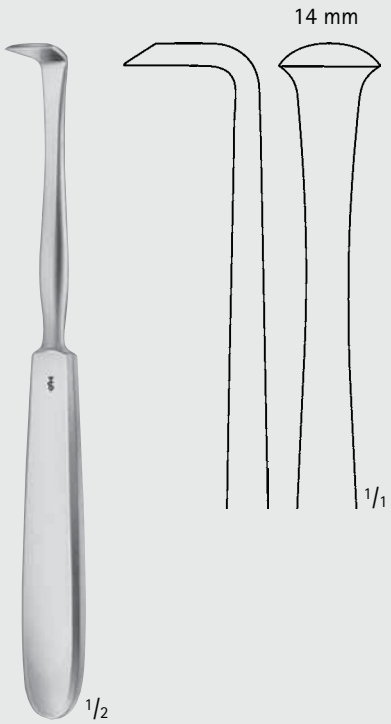
BÜCHS
DO518R
190 mm, 7 1/2"



JANSEN
FK362R
165 mm, 6 1/2"



LANGENBECK
FK360R
190 mm, 7 1/2"



LANGENBECK
FK361R
180 mm, 7"



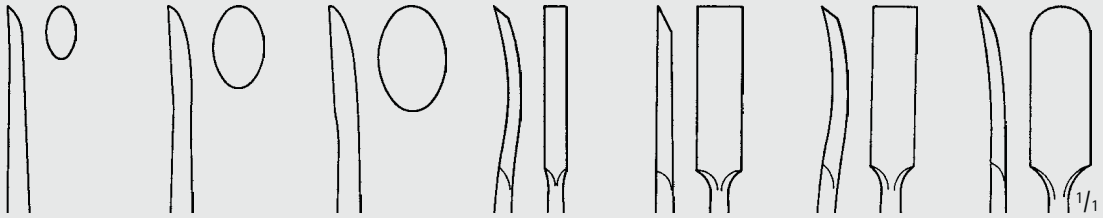
1/2

KEY

Art. No.	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	19.0 mm	200 mm, 8"
FK414R	25.4 mm	210 mm, 8 1/4"



1/2



1/1

FK530R
4 mm

FK532R
7 mm

FK534R
9 mm

FK541R
3 mm

FK542R
6 mm

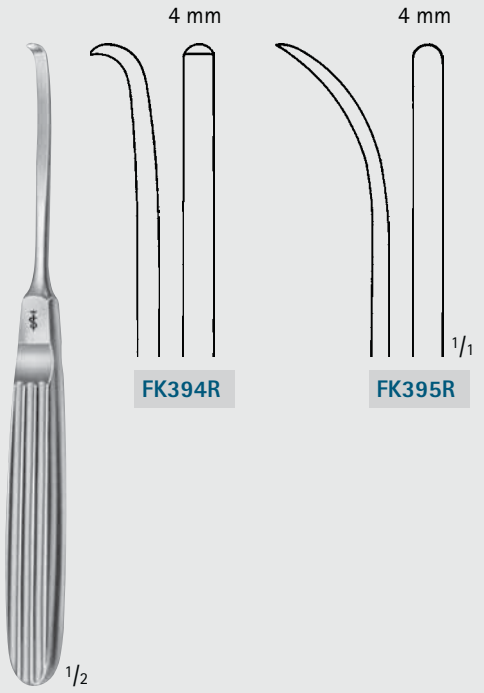
FK543R
6 mm

FK552R
8 mm

MANNERFELT MODIF.

FK530R–FK552R
155 mm, 6"

Instruments
Periosteal Elevators



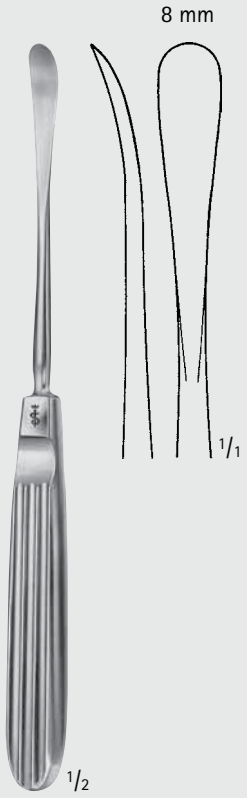
FK394R

FK395R

MÜHLING

FK394R–FK395R

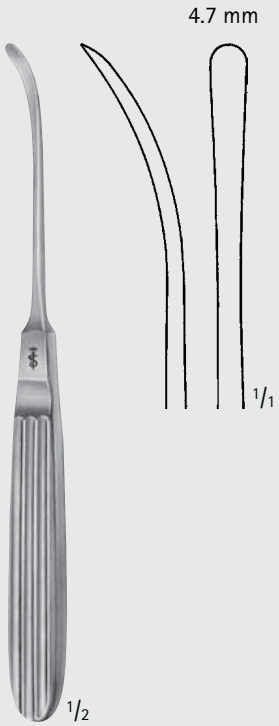
165 mm, 6 1/2"



COTTLE

OL157R

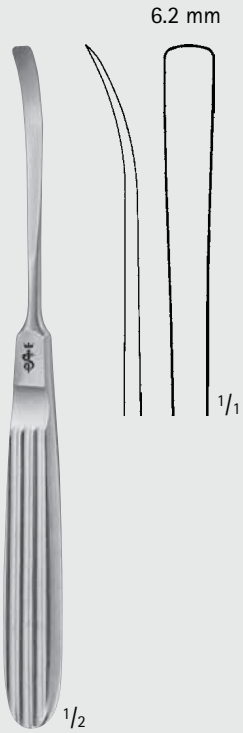
195 mm, 7 3/4"



LANDOLT

FK314R

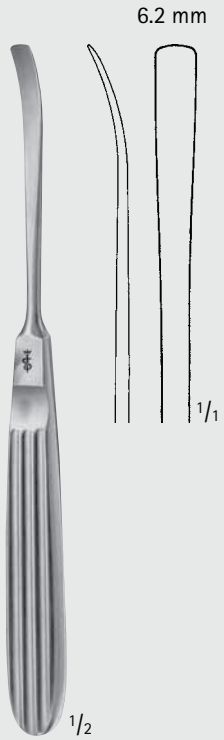
175 mm, 7"



CASPAR

FK328R

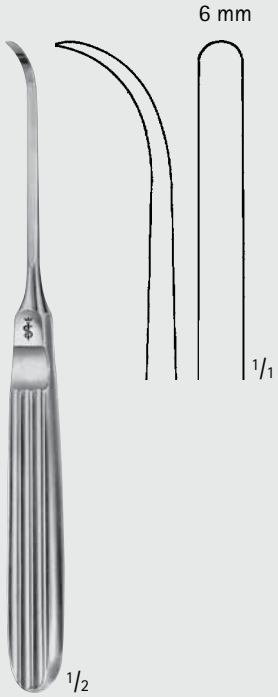
180 mm, 7"



CASPAR

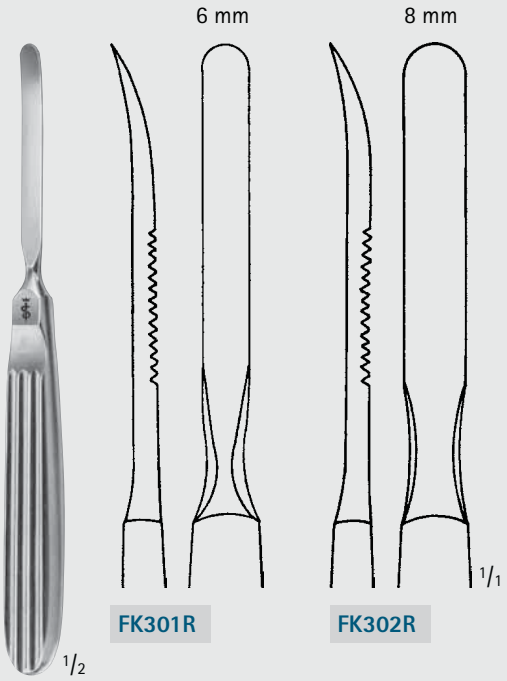
FK329R

180 mm, 7"



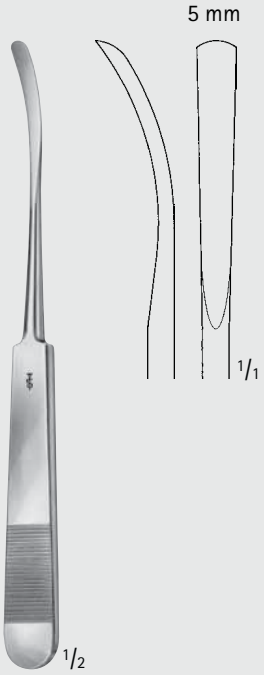
DO523R

170 mm, 6 3/4"

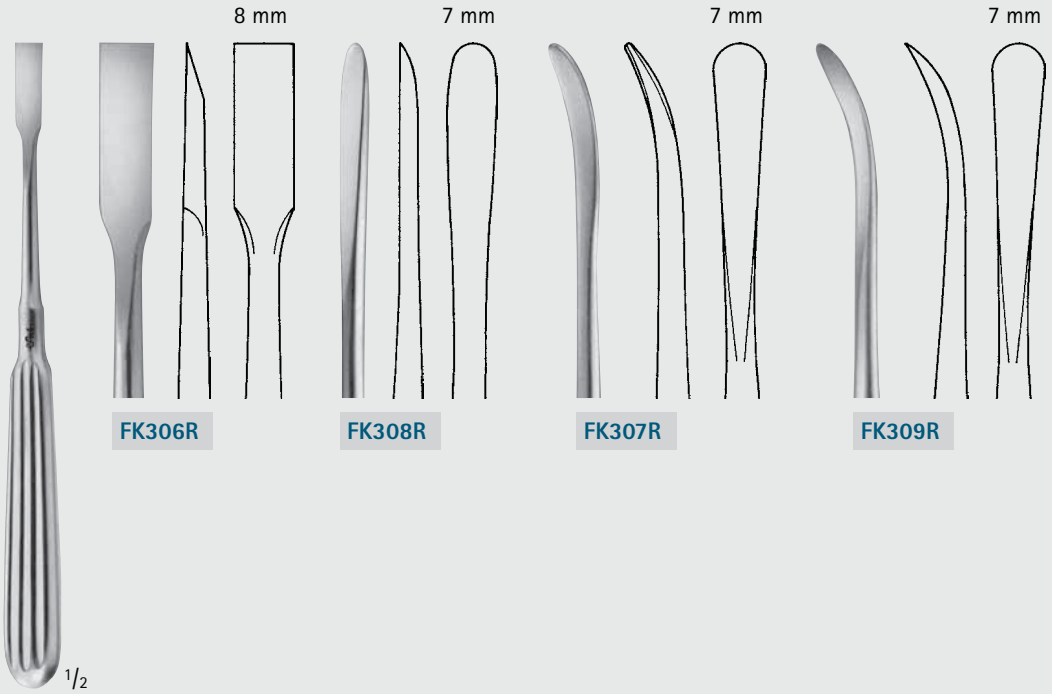


FK301R FK302R

FK301R-FK302R
165 mm, 6 1/2"



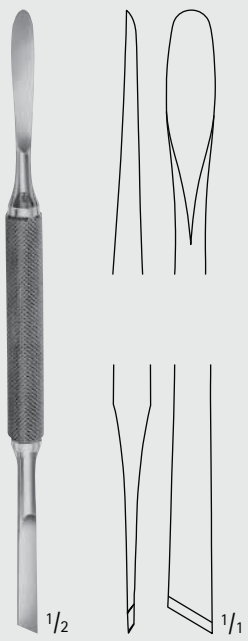
ADSON
FK299R
165 mm, 6 1/2"



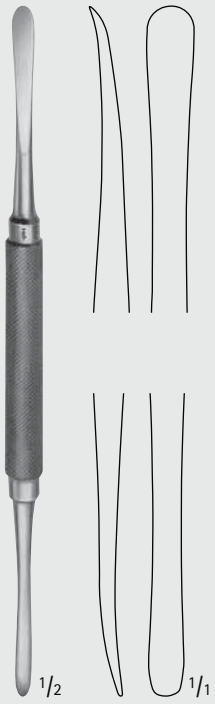
FK306R FK308R FK307R FK309R

ADSON
FK306R-FK309R
170 mm, 6 3/4"

Instruments
Periosteal Elevators



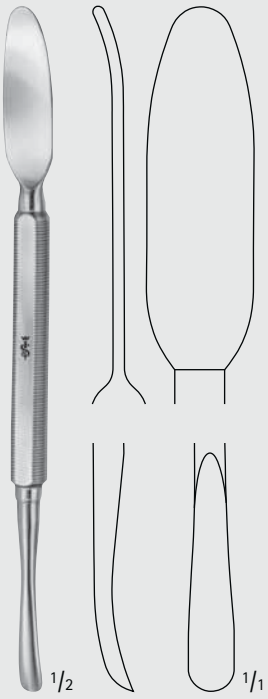
MEAD
DO520R
sharp/sharp
165 mm, 6 1/2"



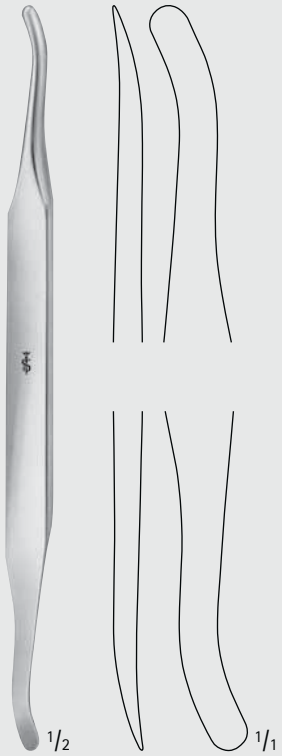
MOLT
DO543R
sharp/sharp
180 mm, 7"



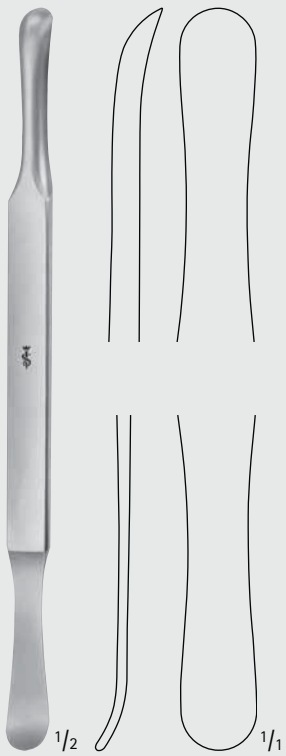
SYME 4 mm
DO547R
sharp
185 mm, 7 1/4"



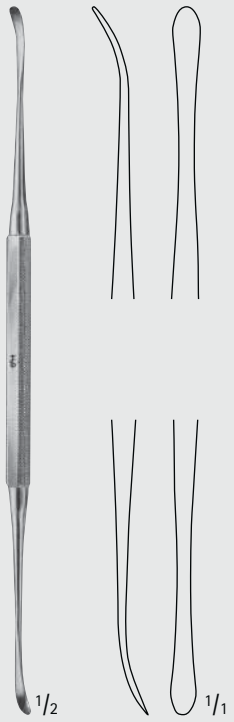
ROBERTS
DO548R
blunt
185 mm, 7 1/4"



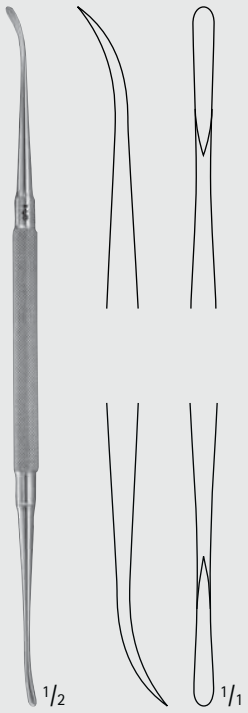
SELDIN
DO552R
195 mm, 7 3/4"



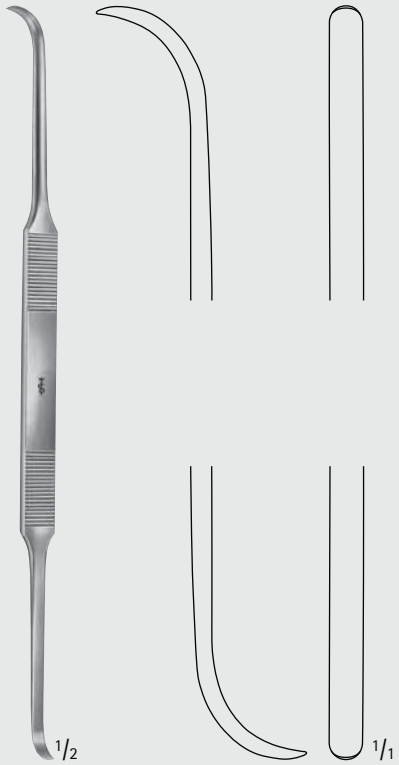
SELDIN
DO553R
195 mm, 7 3/4"



FREER
OL165R
blunt/sharp
185 mm, 7 1/4"



FREER-YASARGIL
OL166R
sharp/sharp
185 mm, 7 1/4"



COTTLE
OL155R
sharp/sharp
200 mm, 8"



HILL
OL179R
semi-sharp/blunt
220 mm, 8 3/4"

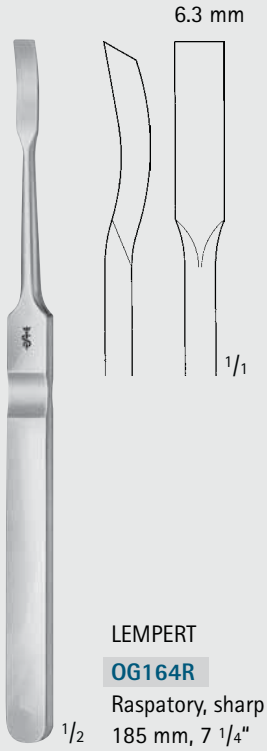
Instruments
Periosteal Elevators



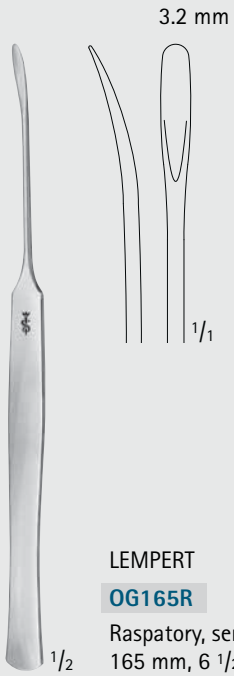
FREER
OL162R
sharp
190 mm, 7 1/2"



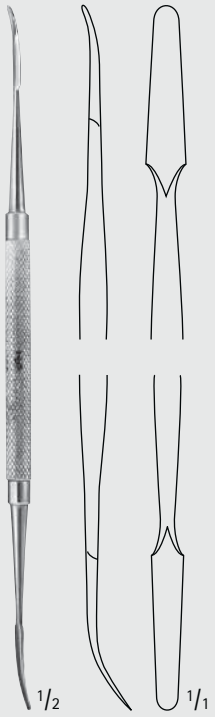
FREER
OL163R
blunt
190 mm, 7 1/2"



LEMPERT
OG164R
Raspatory, sharp
185 mm, 7 1/4"



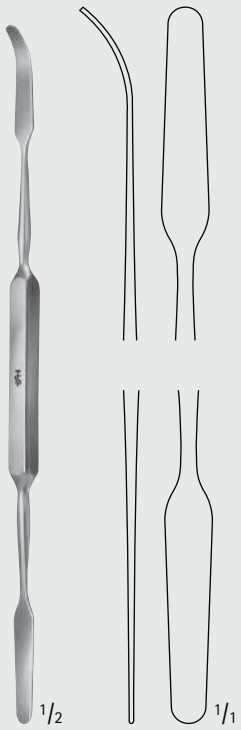
LEMPERT
OG165R
Raspatory, semi-sharp
165 mm, 6 1/2"



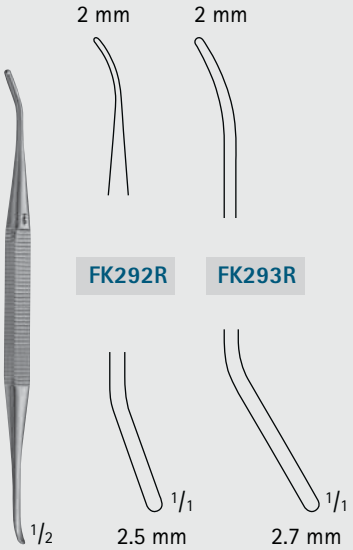
KILLIAN
OL170R
blunt/sharp
185 mm, 7 1/4"



HOWARTH
OL171R
sharp/blunt
215 mm, 8 1/2"



MAC DONALD
FK291R
blunt/blunt
185 mm, 7 1/4"



WATSON-CHEYNE

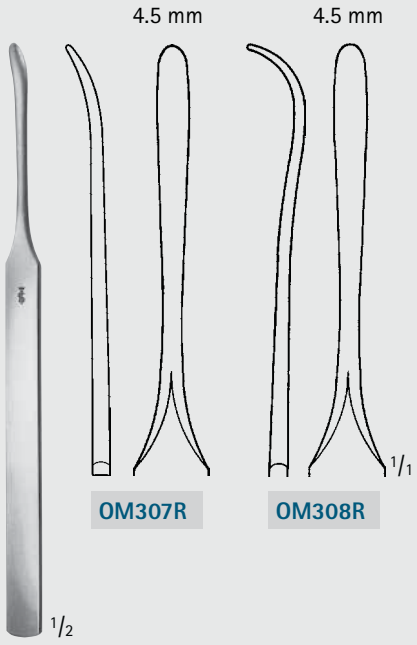
FK292R	130 mm, 5 1/8"
FK293R	190 mm, 7 1/2"



FREER
OL164R
180 mm, 7"

Instruments

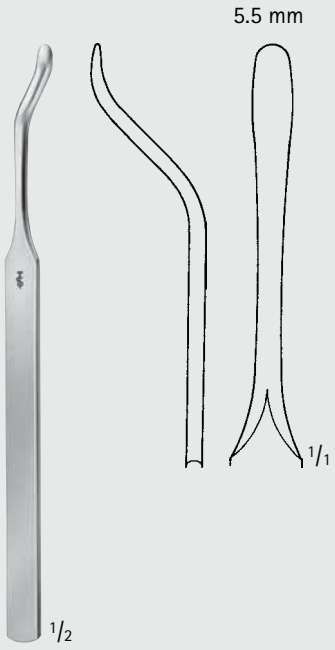
Periosteal Elevators and Bone Levers



KÖNIG

OM307R-OM308R

155 mm, 6"



FK110R

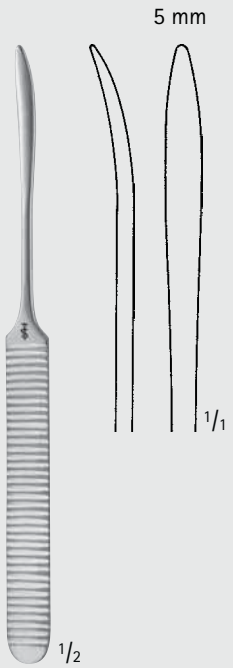
155 mm, 6"



CAIRNS

FK141R

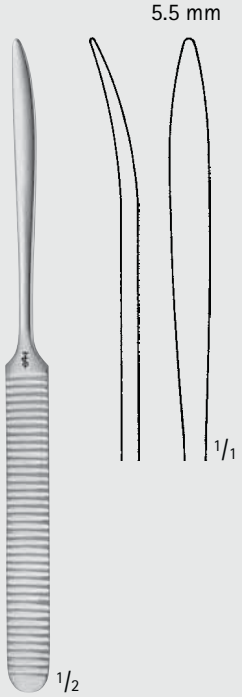
175 mm, 7"



WILLIGER

FK120R

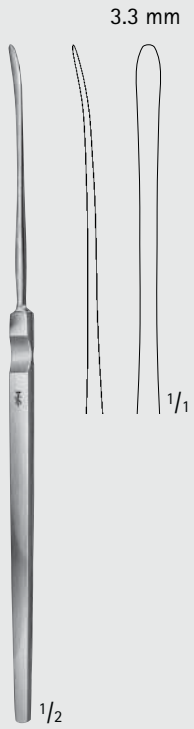
165 mm, 6 1/2"



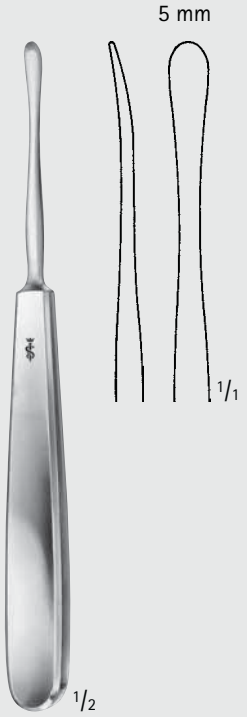
WILLIGER

FK121R

170 mm, 6 3/4"



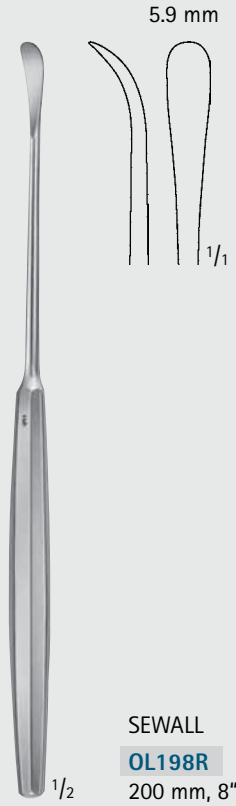
HALLE
OL160R
180 mm, 7"



SEBILEAU
FK124R
175 mm, 7"



QUERVAIN
FK133R
195 mm, 7 3/4"

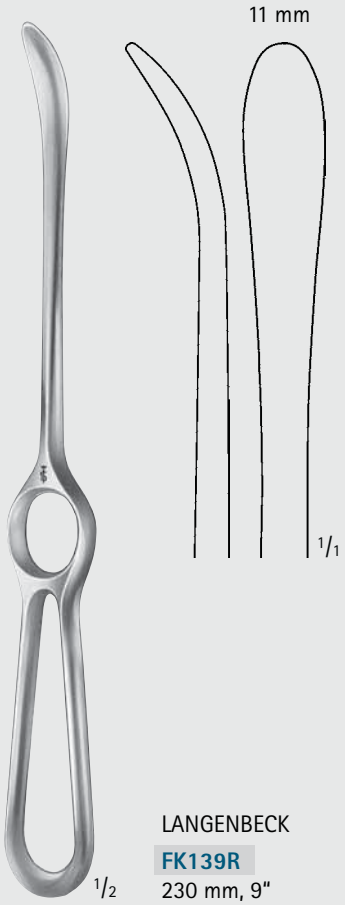


SEWALL
OL198R
200 mm, 8"

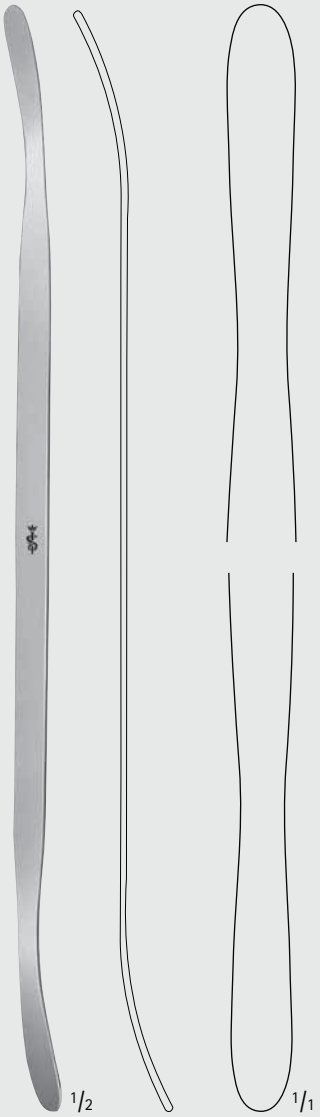


FK130R **FK131R**

LANGENBECK
FK130R–FK131R
195 mm, 7 3/4"



LANGENBECK
FK139R
230 mm, 9"



PENFIELD

FF295R

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



YASARGIL

FF326R 4 mm

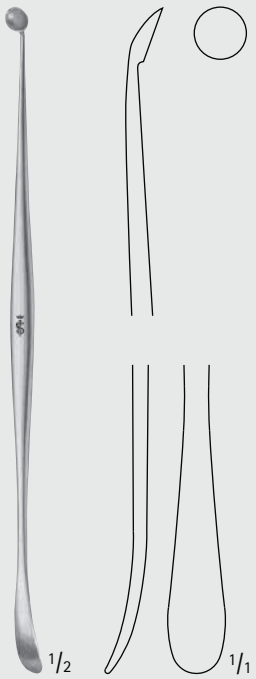
with flexible shaft
for children
195 mm, 7 3/4"



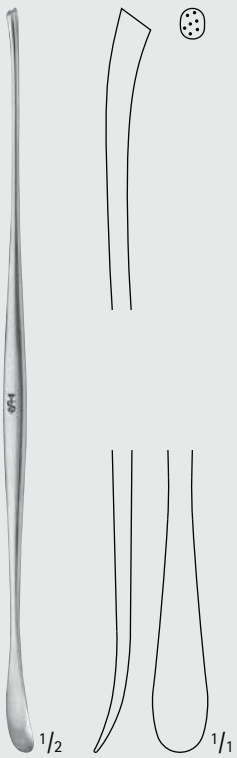
YASARGIL

FF327R 7 mm

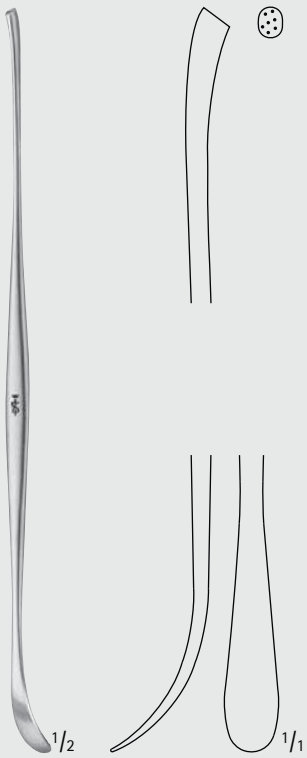
with flexible shaft
for adults
195 mm, 7 3/4"



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"



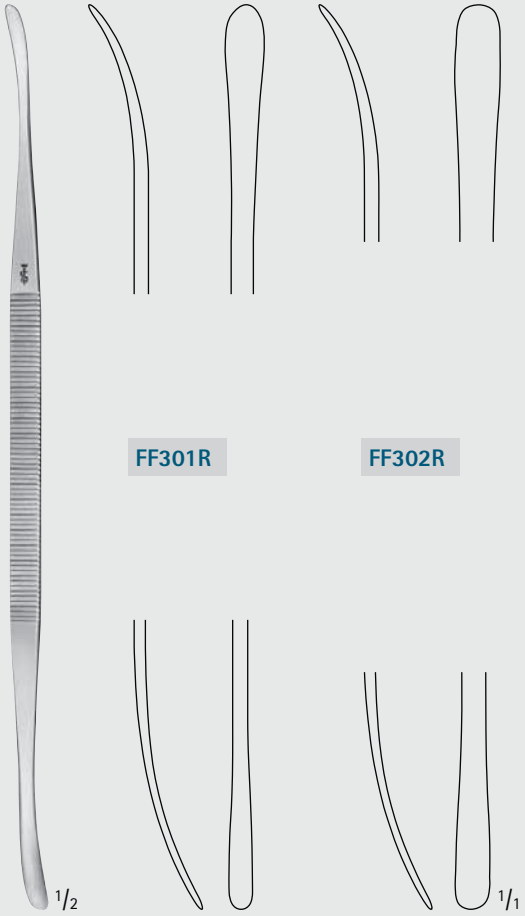
PENFIELD
FF294R
slightly curved
205 mm, 8"



DAVIS

FF300R

245 mm, 9 3/4"

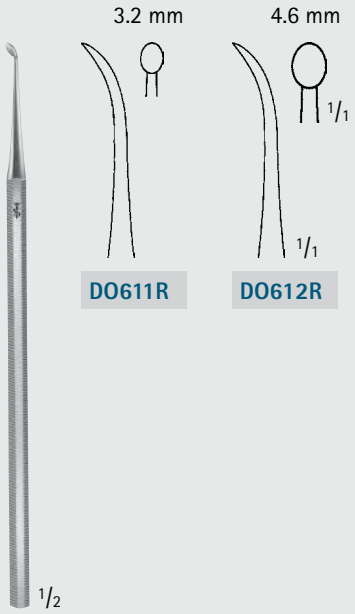


TÖNNIS

FF301R–FF302R

blunt/blunt

240 mm, 9 1/2"

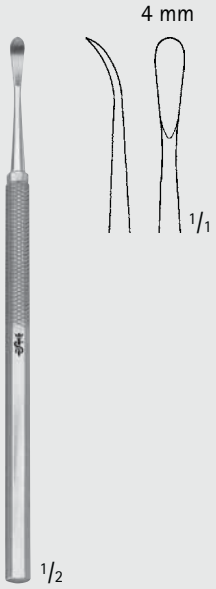


DO611R DO612R

PARTSCH

DO611R–DO612R

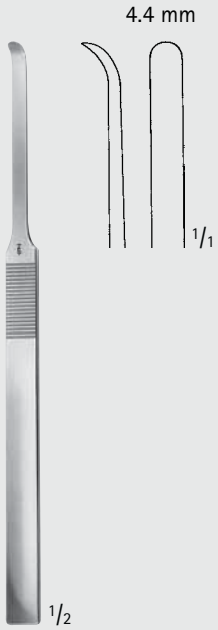
150 mm, 6"



PARTSCH MOD. LANGE

DO642R

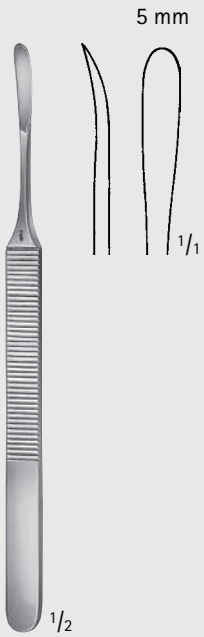
145 mm, 5 3/4"



MC KENTY

OL192R

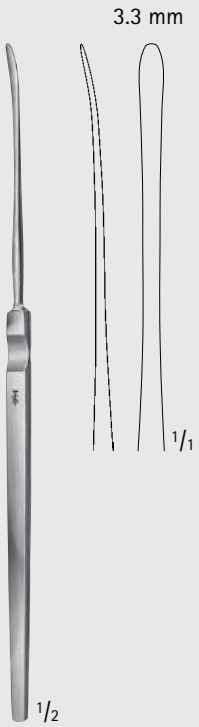
155 mm, 6"



KÖNIG

OM309R

155 mm, 6"



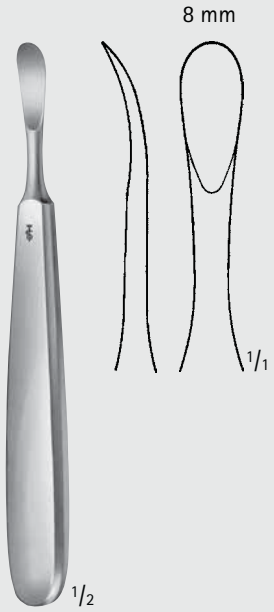
HALLE
OL160R
blunt
180 mm, 7"



FREER
OL163R
blunt
190 mm, 7 1/2"



FREER
OL162R
sharp
190 mm, 7 1/2"



TRELAT

OM311R

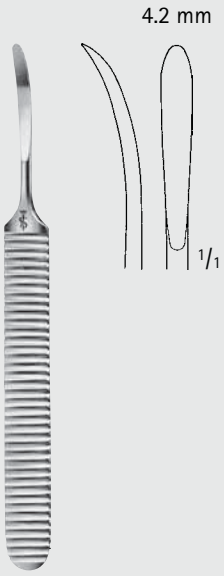
150 mm, 6"



OM314R **OM315R**

OM314R-OM315R

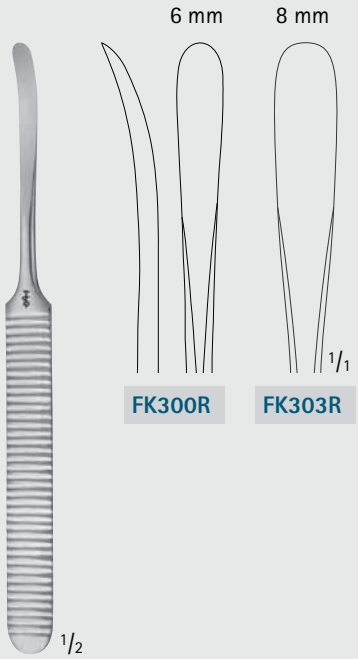
140 mm, 5 1/2"



WILLIGER

DO510R

140 mm, 5 1/2"

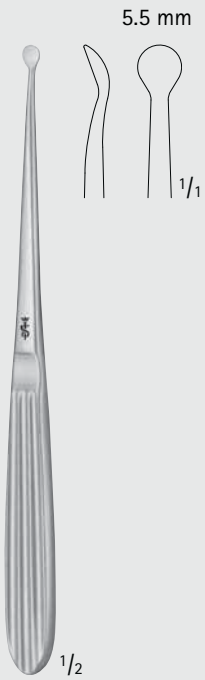


FK300R **FK303R**

WILLIGER

FK300R-FK303R

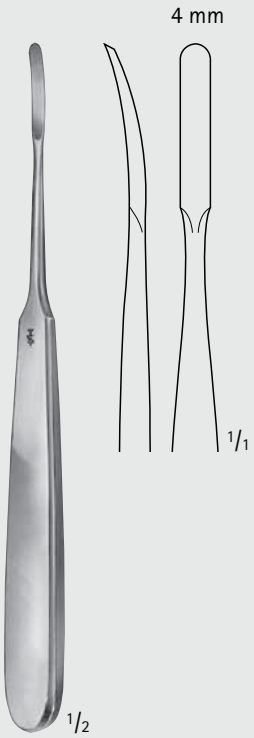
160 mm, 6 1/4"



WARD

DO546R

170 mm, 6 3/4"

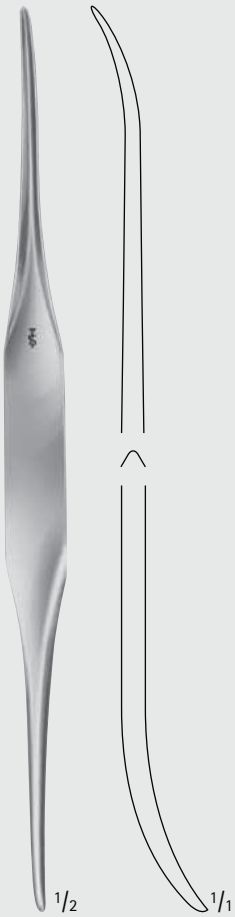


JOSEPH

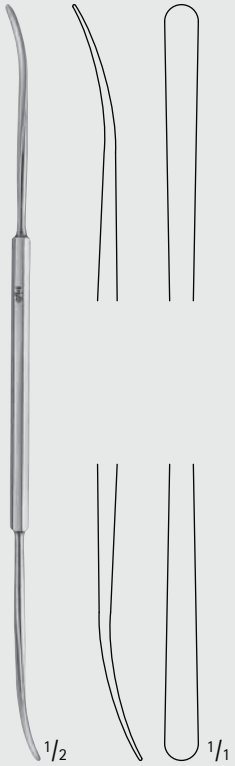
FK310R

180 mm, 7"

Instruments
Grooved Dissectors



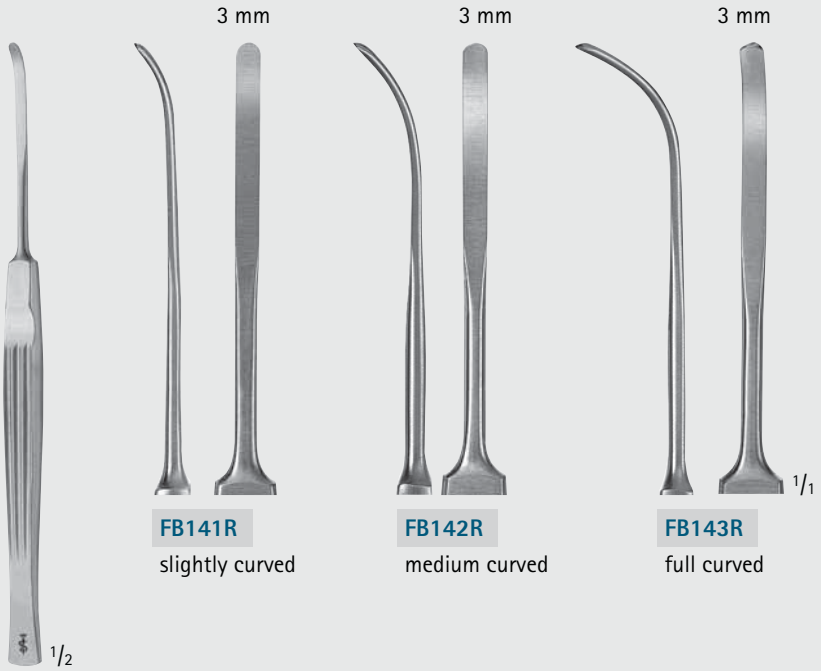
TÖNNIS
FF308R
Grooved dissector
240 mm, 9 1/2"



SWEDISH
FF347R
light pattern
180 mm, 7"



PENNYBACKER
FF349R
Probe dissector
230 mm, 9"



FB141R
slightly curved

FB142R
medium curved

FB143R
full curved

LEMMON
FB141R–FB143R
Intima dissectors
165 mm, 6 1/2"



3.6 mm



Fig. 000

FK688R

4.4 mm



Fig. 00

FK689R

5.2 mm



Fig. 0

FK690R

SIMON

FK688R–FK690R

235 mm, 9 1/4"



3.6 mm



Fig. 000

FK773R

4.4 mm



Fig. 00

FK774R

5.2 mm



Fig. 0

FK775R

CASPAR

FK773R–FK775R

220 mm, 8 3/4"



3.6 mm



Fig. 000

FK783R

4.4 mm



Fig. 00

FK784R

5.2 mm



Fig. 0

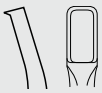
FK785R

CASPAR

FK783R–FK785R

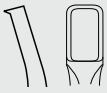
220 mm, 8 3/4"





4 mm

FK834R



5 mm

FK835R



6 mm

FK836R

CASPAR

FK834R–FK836R

toothed

220 mm, 8 3/4"



FK854R FK855R

CASPAR
FK854R–FK855R
toothed
250 mm, 10"



FK863R FK864R

CASPAR
FK863R–FK864R
toothed
270 mm, 10 3/4"



1/2

2.0 mm	2.5 mm	3.3 mm	3.8 mm	4.8 mm	5.3 mm	6.0 mm	6.7 mm	7.3 mm
								 1/1
Fig. 000	Fig. 00	Fig. 0	Fig. 1	Fig. 2	Fig.3	Fig. 4	Fig. 5	Fig. 6
MB872R	MB873R	MB874R	MB875R	MB876R	MB877R	MB878R	MB879R	MB880R

BRUNS

MB872R–MB880R

230 mm, 9"



MARTINI

FK801R

140 mm, 5 1/2"



WILLIGER

FK814R

145 mm, 5 3/4"



FK850R

210 mm, 8 1/4"



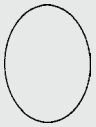
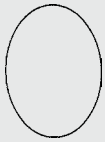
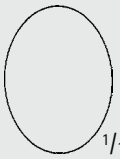
VOLKMANN

FK842R

170 mm, 6 3/4"



1/2

2.8 mm	3.6 mm	4.4 mm	5.2 mm	6.8 mm	8.5 mm	10 mm	11.5 mm	13 mm	14.5 mm
									 1/1
Fig. 0000	Fig. 000	Fig. 00	Fig. 0	Fig. 1	Fig. 2	Fig. 3	Fig. 4	Fig. 5	Fig. 6
FK630R	FK631R	FK632R	FK633R	FK634R	FK635R	FK636R	FK637R	FK638R	FK639R

VOLKMANN

FK630R–FK639R

170 mm, 6 3/4"



1/2

1.8 mm	2.0 mm	2.4 mm	2.6 mm	2.8 mm
				 1/1
FK675R	FK676R	FK677R	FK678R	FK679R

LEMPERT

FK675R–FK679R

215 mm, 8 1/2"

Bone Curettes

malleable



1/2

4.4 mm

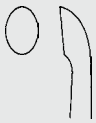


Fig. 00

FK684R

5.2 mm



Fig. 0

FK685R

6.8 mm



1/1

Fig. 1

FK686R

HALLE

FK684R–FK686R

215 mm, 8 1/2"



1/2

2.8 mm



Fig. 0000

FK662R

3.6 mm



Fig. 000

FK663R

4.4 mm



Fig. 00

FK664R

5.2 mm



1/1

Fig. 0

FK665R

DAUBENSPECK

FK662R–FK665R

200 mm, 8"



3.6 mm



Fig. 000

FK702R

4.4 mm



Fig. 00

FK703R

5.2 mm



Fig. 0

FK704R

6.8 mm



Fig. 1

FK705R

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

FK712R–FK715R
250 mm, 10"



3 mm



FK723R

4 mm



FK724R

5 mm



FK725R

BUSHE

FK723R–FK725R
250 mm, 10"

Instruments

Curettes for Micro Discectomy



Art. 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

Art. 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	

Art. 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	

Instruments

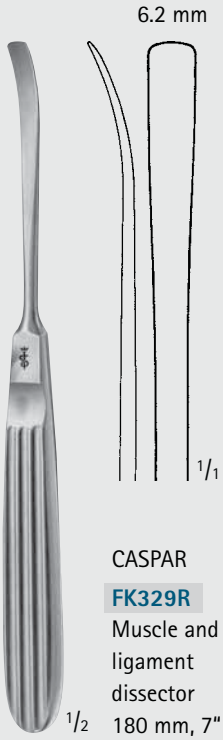
Instruments for Micro Discectomy



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



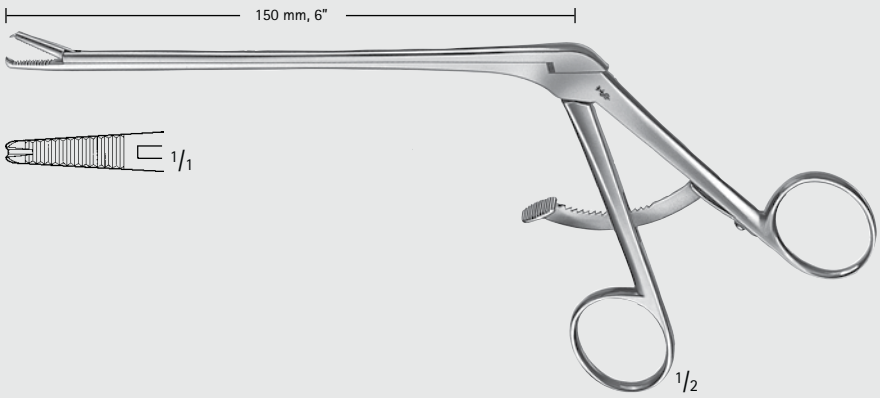
CASPAR
FD348R
Micro knife,
blunt tip
200 mm, 8"



CASPAR
FK329R
Muscle and
ligament
dissector
180 mm, 7"



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



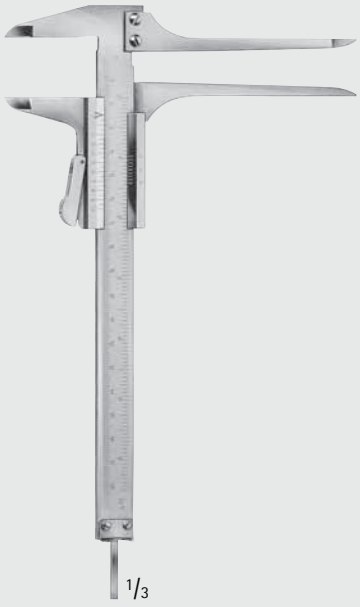
KRÄMER
FO820R
Grasping forceps
for ligamentum flavum, with ratchet
Bone punches and rongeurs see page 2-28



FF917R FF918R

CASPAR

FF917R–FF918R
Vertebral body dissector
usable for loosening the posterior longitudinal ligament and removal of disk fragments and osteophytes
205 mm, 8"



AA845R
Caliper
for the bone graft and graft site.
Measuring range up to 150 mm
225 mm, 9"

Instruments

Instruments for Anterior Cervical Plating

Instruments for graft harvesting and impaction



CASPAR

FF927R

Graft cutter with adjustable depth control, 10 mm wide, for graft from 9-12 mm

CASPAR

FF928R

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



CASPAR

FF911R

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



CASPAR

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. **C84802**



For further details see brochure No. **C24302**



For further details see brochure No. **C27702**

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



Art. No.	Width (mm)	Length
FF480R	6.0	200 mm, 8"
FF482R	7.5	200 mm, 8"
FF484R	10.0	200 mm, 8"
FF486R	12.5	200 mm, 8"
FF488R	15.0	200 mm, 8"

Brain spatula with silicone coating, malleable
Sales unit:
PAK = Package of 10 pieces

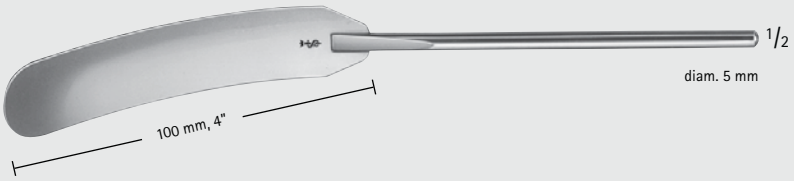
Coated brain spatula

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



Art. No.	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 spatula



Art. No.	Width (mm)	Length
FF231R	14	200 mm, 8"
FF232R	17	200 mm, 8"
FF233R	20	200 mm, 8"

malleable



HEIFETZ

Art. No.	Width (mm)	Length
FF256R	8	155 mm, 6"
FF257R	11	155 mm, 6"
FF258R	14	155 mm, 6"
FF259R	17	155 mm, 6"

malleable

Brain Spatulas, Flat



AACHEN pattern

Art. No.	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



Art. No.	Width (mm)	Length
BT751R	12	200 mm, 8"
BT752R	17	200 mm, 8"
BT755R	25	250 mm, 10"

malleable



Art. No.	Width (mm)	Length
FF201R	9	200 mm, 8"
FF202R	12	200 mm, 8"
FF222R	12	250 mm, 10"

malleable



Art. No.	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

Art. No.	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"

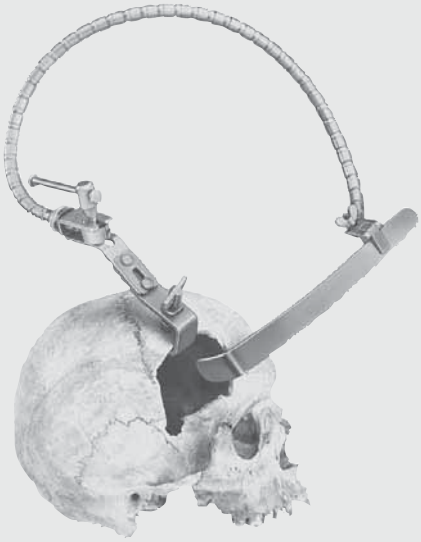
flexible

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

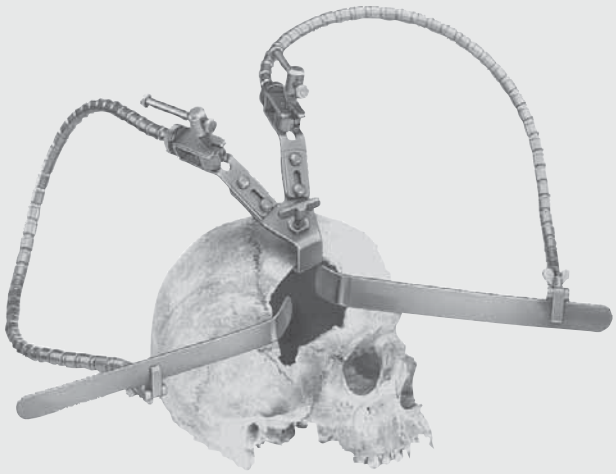


YASARGIL

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

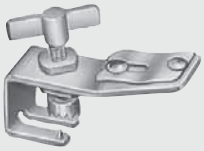


YASARGIL

FF262R

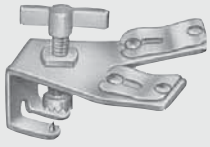
Self-retaining brain retractor,
with 2 flexible arms, complete,
consisting of:

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



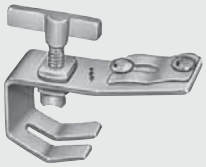
FF267R

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



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



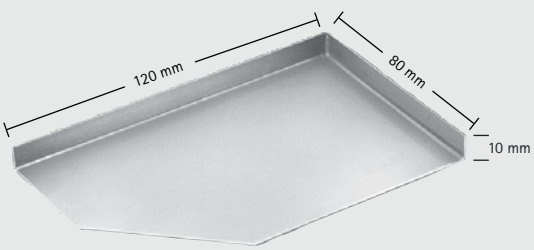
FF273R

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



FF274R

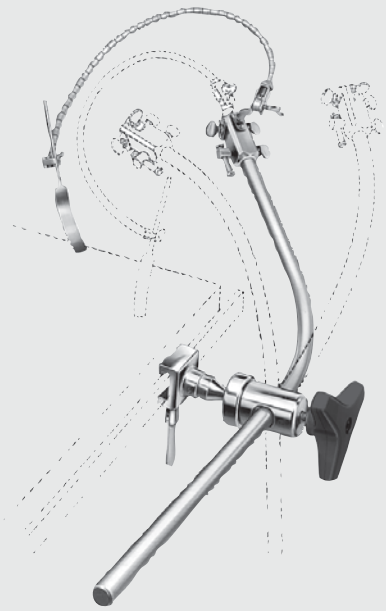
Support only,
for brain spatulas with round shaft up to 5.5 mm diam.,
fixing to flexible arm FF270R



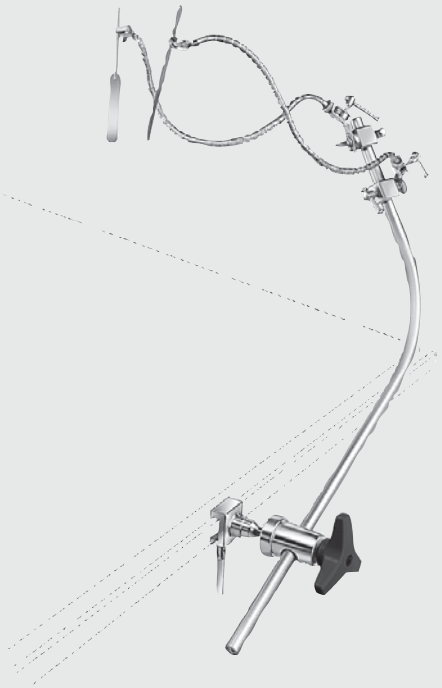
FF180R

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

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



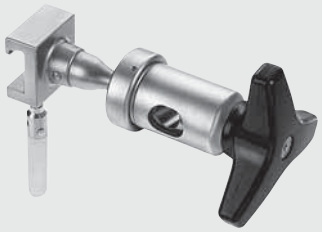
FF280R	Ball-and socket joint
FF285R	Holding rod
FF282R	Coupling head
FF270R	Flexible arm
FF274R	Support for brain spatulas with round shaft



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

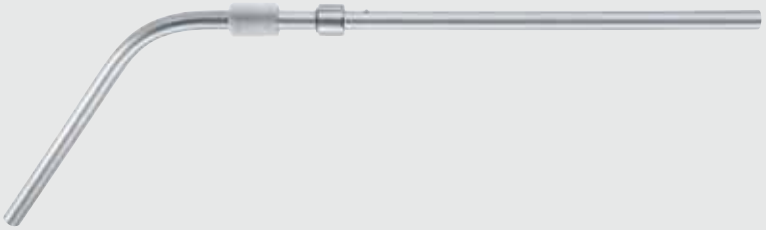
Instruments

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
and 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



GILSBACH

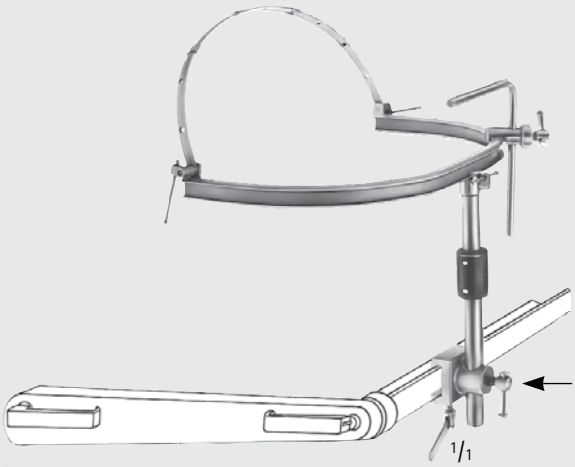
FF150R

Basic unit,
consisting of:

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

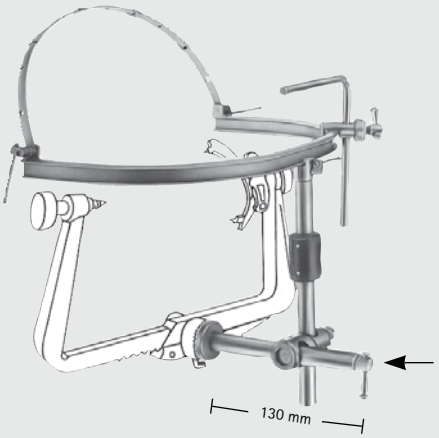
Instruments

Accessories for Combined Retractor and Handrest System





FF151R
Socket,
to attach the unit to lateral supporting arm

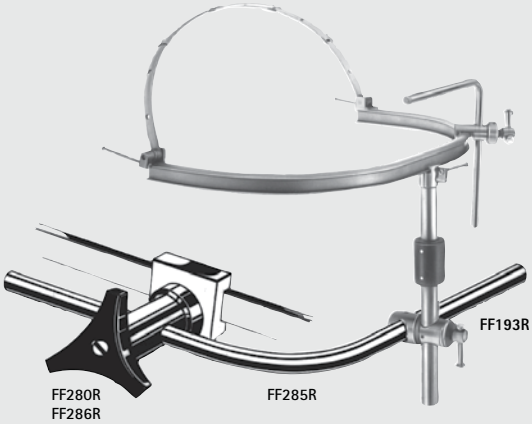




FF190R
Holding device, complete,
to attach the unit to the MAYFIELD head holder,
consisting of:
FF191R Holding rod, to be fixed MAYFIELD head holder
FF193R Connection piece, to be mounted to holding rod FF152R



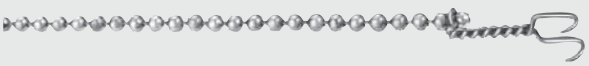
FF193R
Connection piece,
to attach the unit to holding rod FF285R



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



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

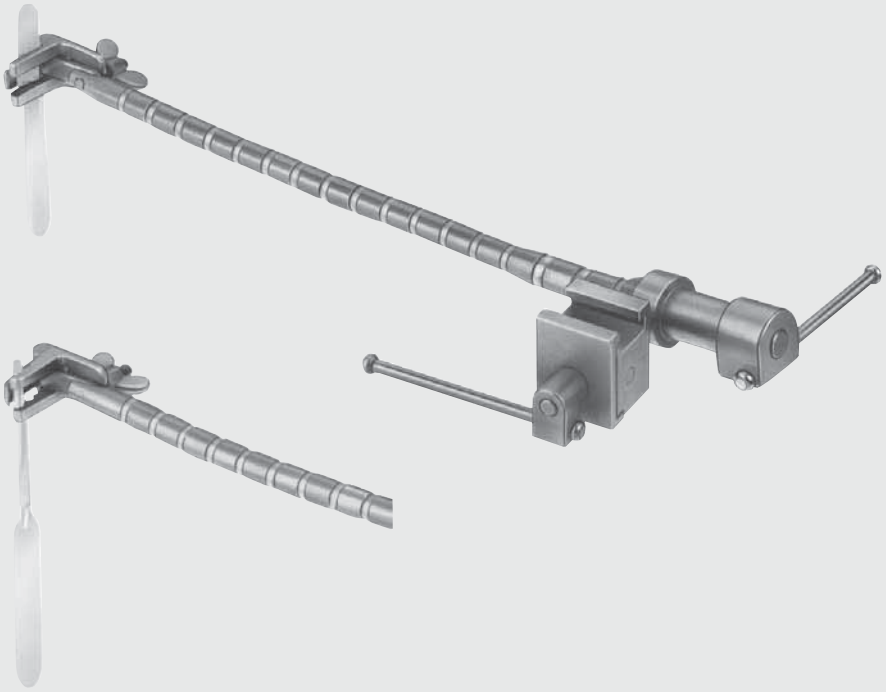
FF187R
Handrest
adjustable in height, pivoting
fit for sliding on the
semi-circular basic bar FF153R



FF185R
Tubular forceps holder
fit for sliding on the
semi-circular basic bar FF153R

Instruments

Accessories for Combined Retractor and Handrest System



Art. No.	Length
FF161R	150 mm, 6"
FF163R	200 mm, 8"
FF165R	250 mm, 10"

Flexible arm only



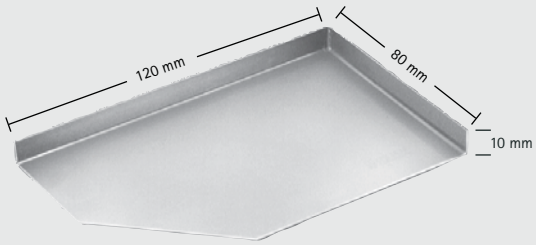
FF273R

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

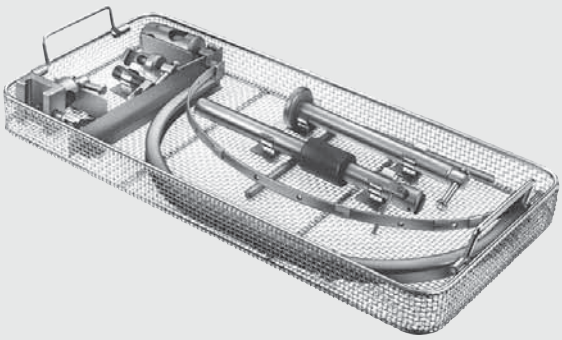


FF274R

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

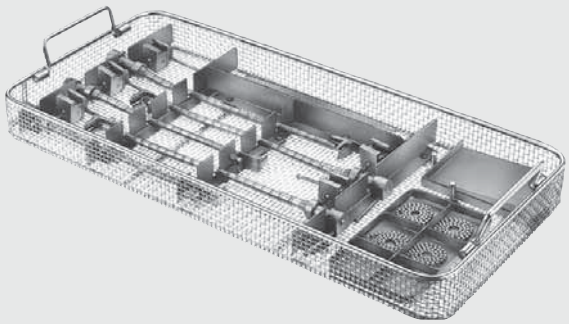


FF180R
Tray for patties,
can be fixed to the flexible arms FF161R, FF163R,
FF165R together with FF273R



FF148R
Storage rack for basic unit
(instruments not included)

TE584
Packing stencil for FF148R (not sterilizable)

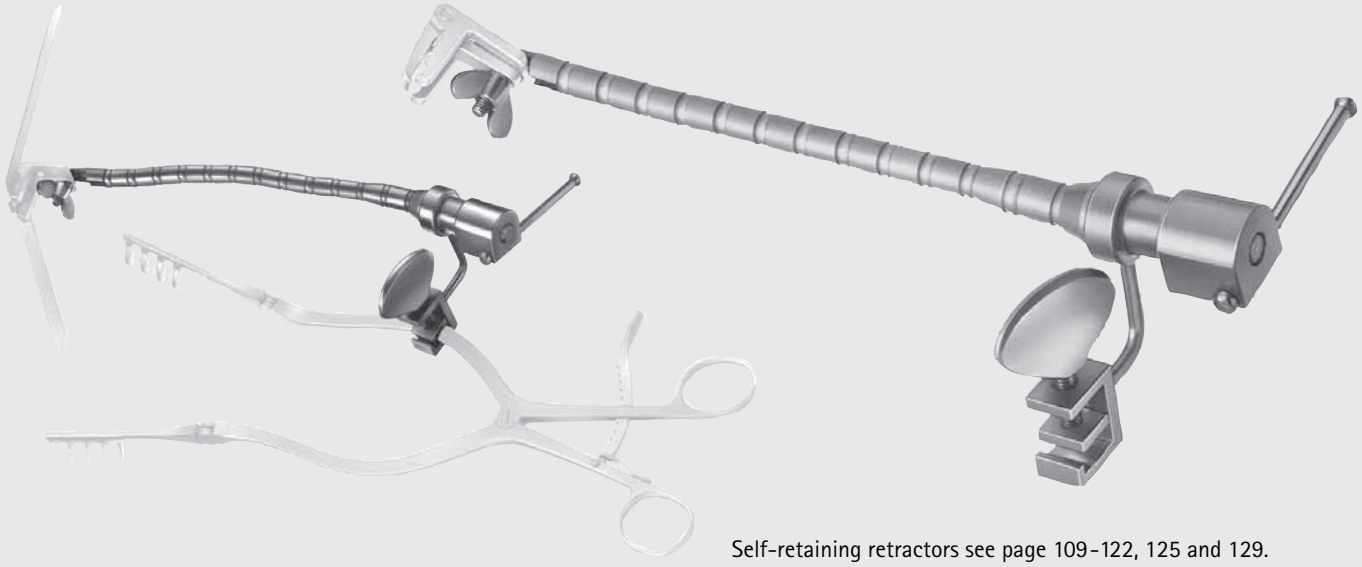


FF149R
Storage rack for flexible arms etc.
(instruments not included)

TE585
Packing stencil for FF149R (not sterilizable)

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



Self-retaining retractors see page 109-122, 125 and 129.

NEW JERSEY

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



FF870R
Skull traction tongs,
large type
Pins are adjustable



FF871R
Wrench, double-ended, for FF870R,
for tightening and turning in the pins



For further details see brochure No. **C61602**





FF020R



FF022R

YASARGIL

FF020R–FF022R

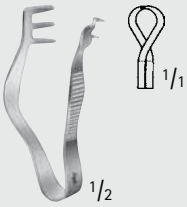
Spring hook for galea fixation with bulldog clamp,
to be fastened to covering drape



BOSE

FA001R

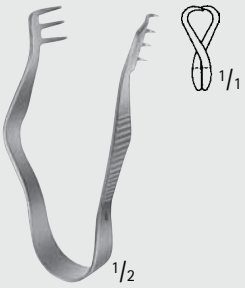
60 mm, 2 3/8"



FINSEN

BV001R

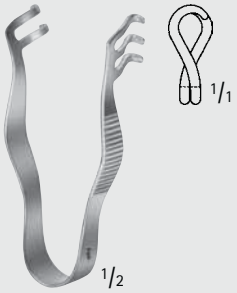
50 mm, 2"



FINSEN

BV002R

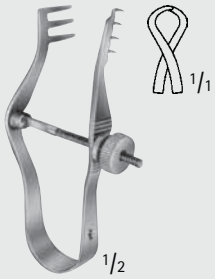
70 mm, 2 3/4"



FINSEN

BV003R

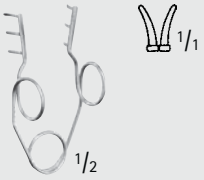
75 mm, 3"



FINSEN

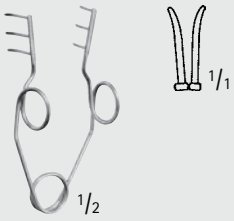
BV005R

70 mm, 2 3/4"



BV006R

45 mm, 1 3/4"



BV007R

55 mm, 2 1/8"



PARSONNET

BV014R

50 mm, 2"



BV008R

blunt

100 mm, 4"



BV015R

sharp

100 mm, 4"





BV010R

70 mm

2 3/4"



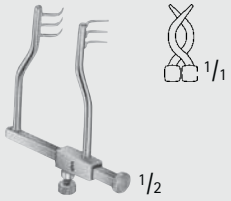
BV011R

100 mm

4"

ALM

BV010R-BV011R



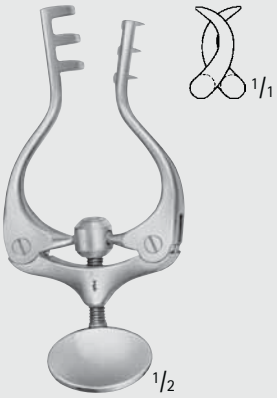
LOGAN MODIF. REILL

BV013R

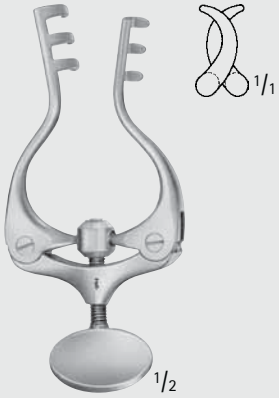
50 mm, 2"



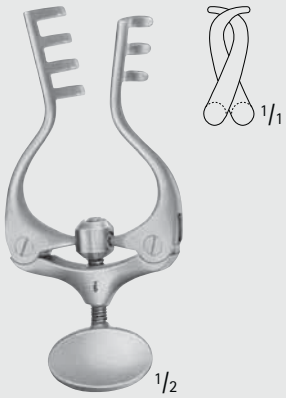
ALLPORT
BV028R
95 mm, 3 3/4"



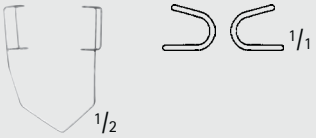
JANSEN
BV030R
100 mm, 4"



JANSEN
BV032R
100 mm, 4"



JANSEN
BV033R
100 mm, 4"



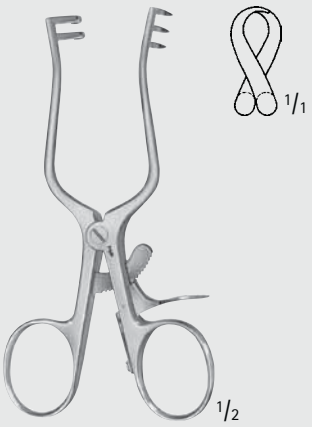
BARRAQUER
OA200R
45 mm, 1 3/4"



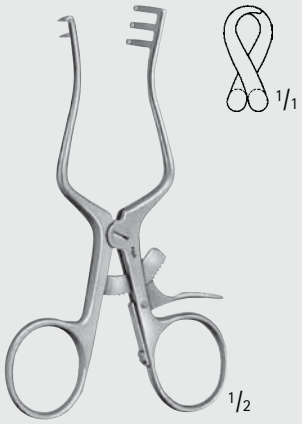
SAUER
OA218R
35 mm, 1 3/8"



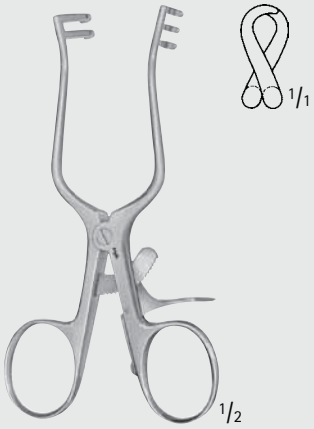
LANCASTER
OA225R
80 mm, 3 3/8"



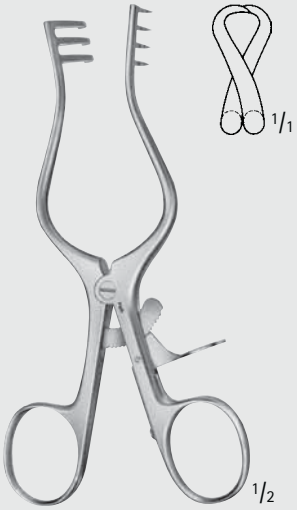
WEITLANER
BV070R
sharp
110 mm, 4 3/8"



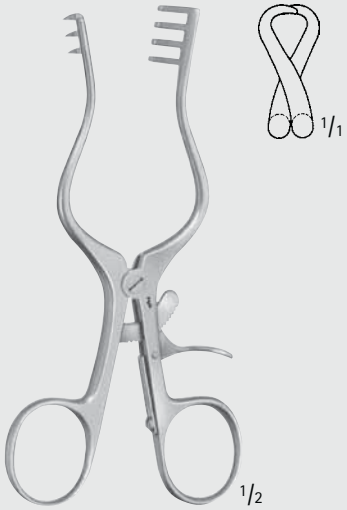
WEITLANER
BV066R
semi-sharp
110 mm, 4 3/8"



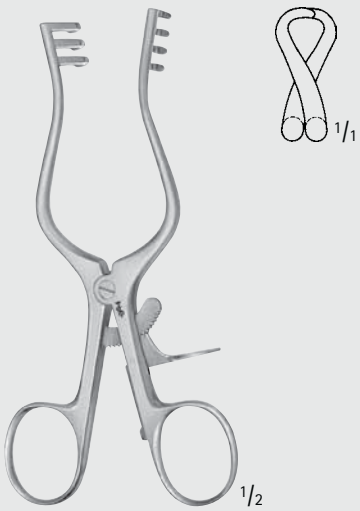
WEITLANER
BV073R
blunt
110 mm, 4 3/8"



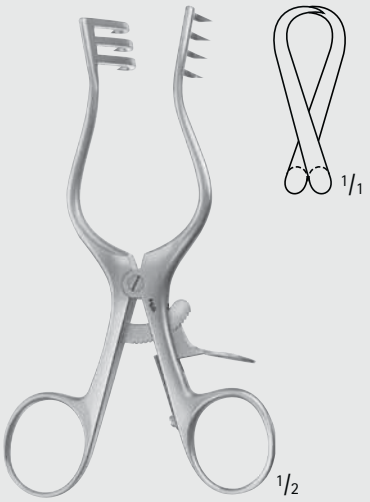
WEITLANER
BV071R
sharp
130 mm, 5 1/8"



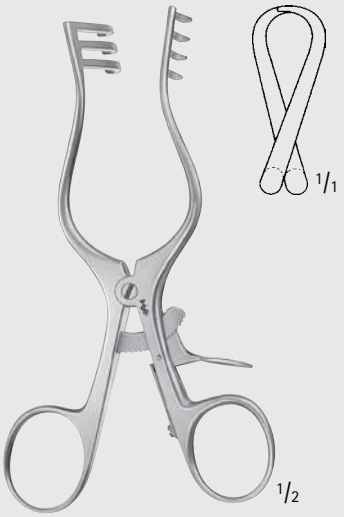
WEITLANER
BV067R
semi-sharp
130 mm, 5 1/8"



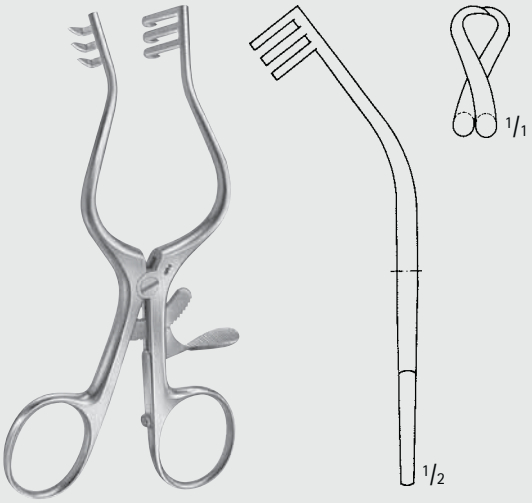
WEITLANER
BV074R
blunt
130 mm, 5 1/8"



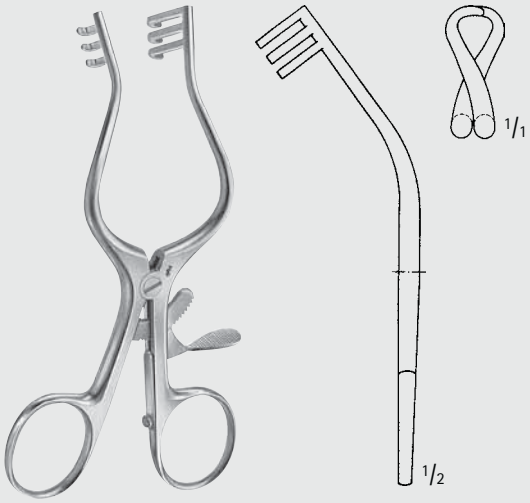
WEITLANER
BV101R
sharp
130 mm, 5 1/8"



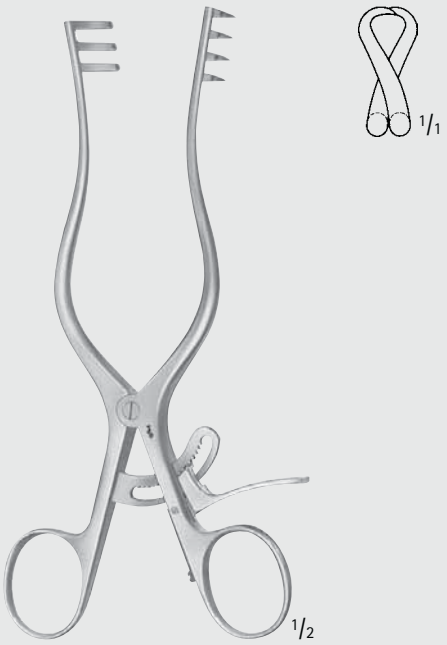
WEITLANER
BV104R
blunt
130 mm, 5 1/8"



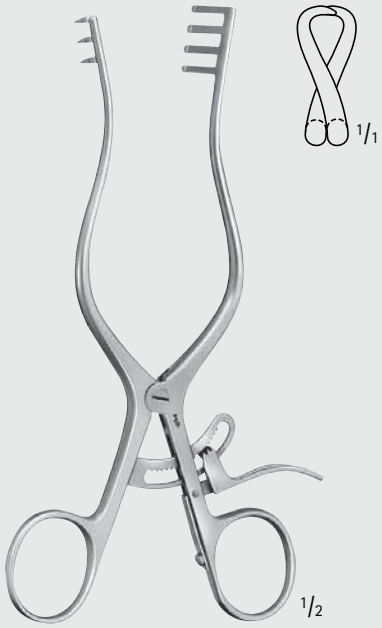
WULLSTEIN
BV076R
sharp
130 mm, 5 1/8"



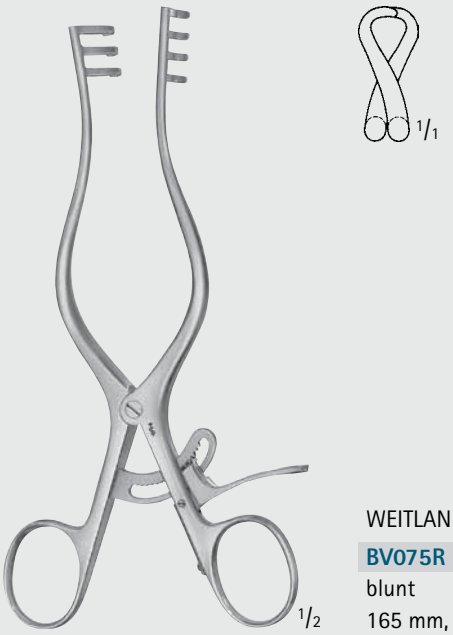
WULLSTEIN
BV077R
blunt
130 mm, 5 1/8"



WEITLANER
BV072R
sharp
165 mm, 6 1/2"



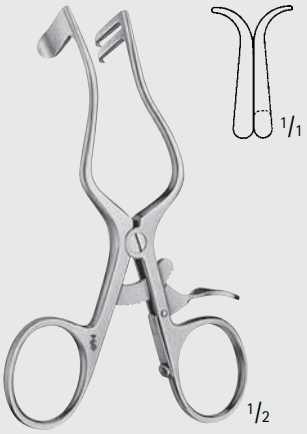
WEITLANER
BV068R
semi-sharp
165 mm, 6 1/2"



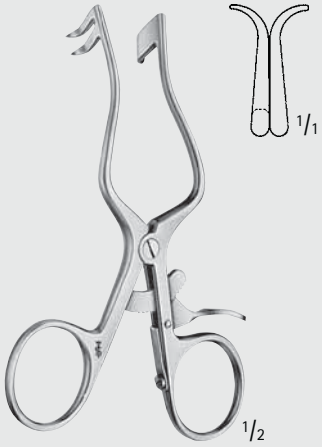
WEITLANER
BV075R
blunt
165 mm, 6 1/2"



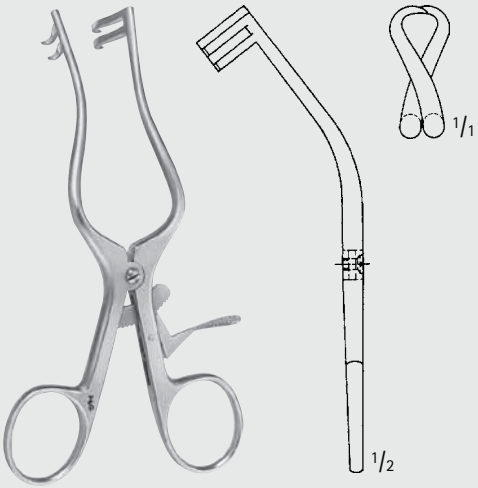
ALLENBERG
BV097R
Carotid retractor complete, consisting of:
BV098R Retractor only, blunt, 170 mm, 6 3/4"
BV099R Center blade only, 130 mm, 5 1/8"



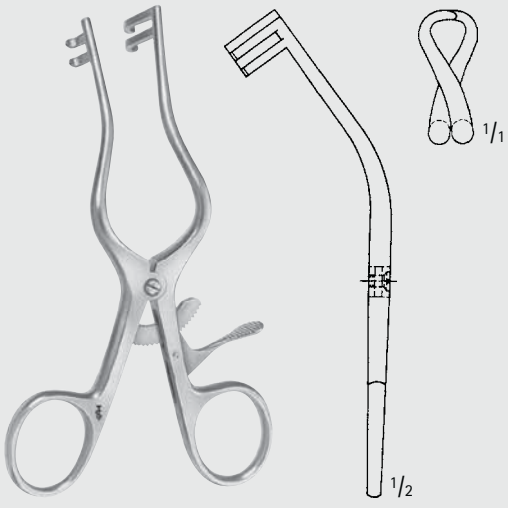
PLESTER
BV090R
blunt
110 mm, 4 3/8"



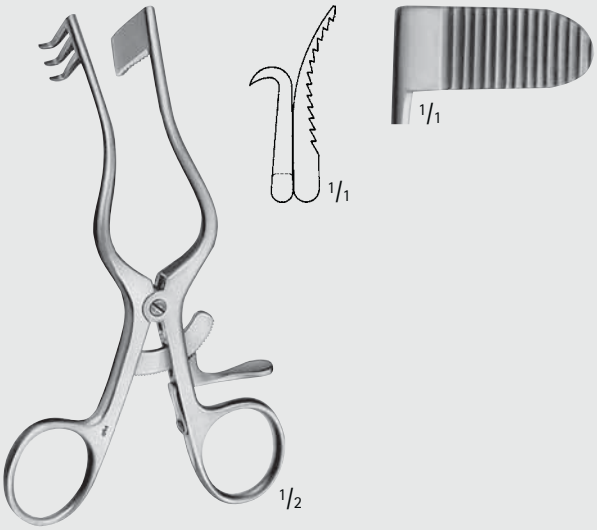
PLESTER
BV091R
blunt
110 mm, 4 3/8"



PLESTER
BV078R
sharp
130 mm, 5 1/8"



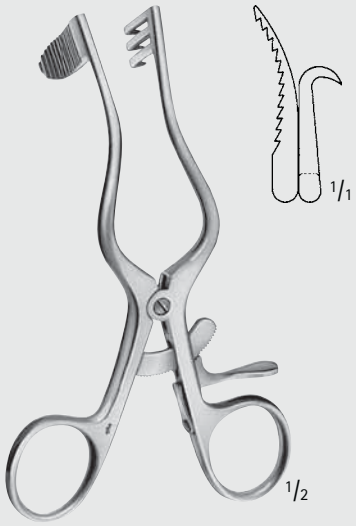
PLESTER
BV079R
blunt
130 mm, 5 1/8"



PERKINS

OK794R

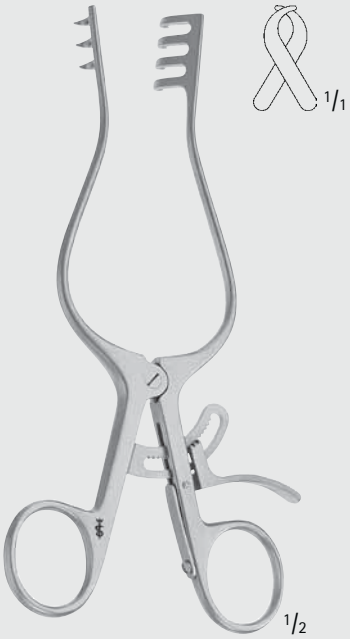
130 mm, 5 1/8"



PERKINS

OK795R

130 mm, 5 1/8"



RNTNE HOSPITAL

BV084R

sharp

165 mm, 6 1/2"

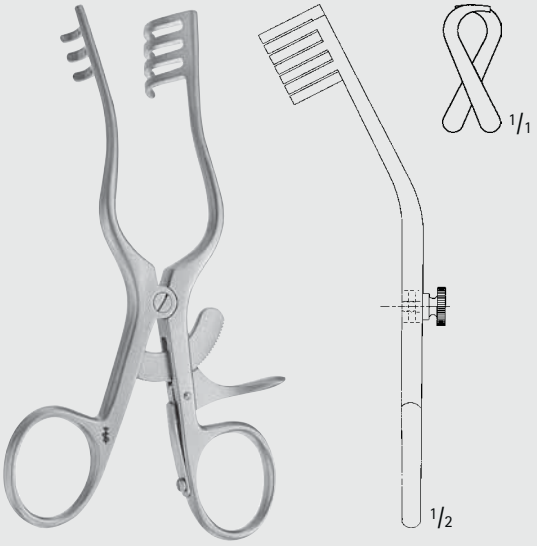


ADSON-BABY

BV085R 140 mm, 5 1/2"

BV094R 165 mm, 6 1/2"

semi-sharp



JEFFERSON

BV092R

curved, blunt

140 mm, 5 1/2"

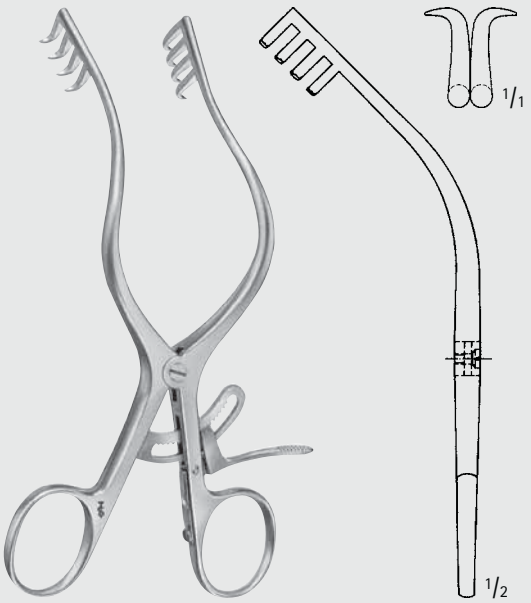


MOLLISON

BV093R

sharp

140 mm, 5 1/2"

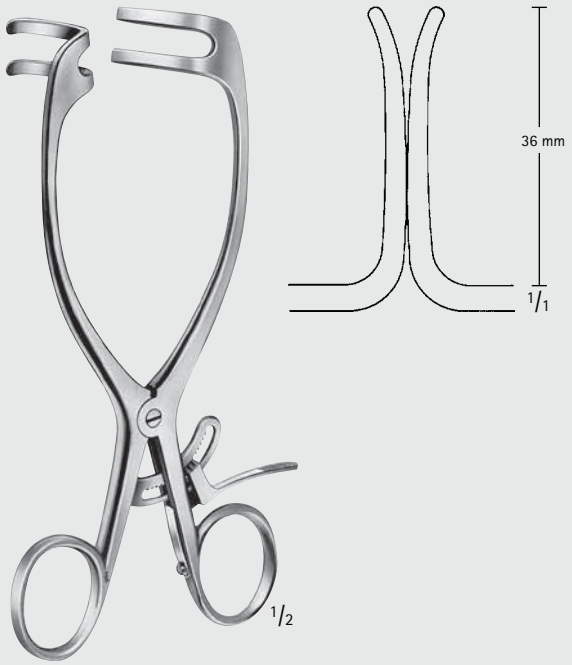


MOLLISON

BV088R

sharp

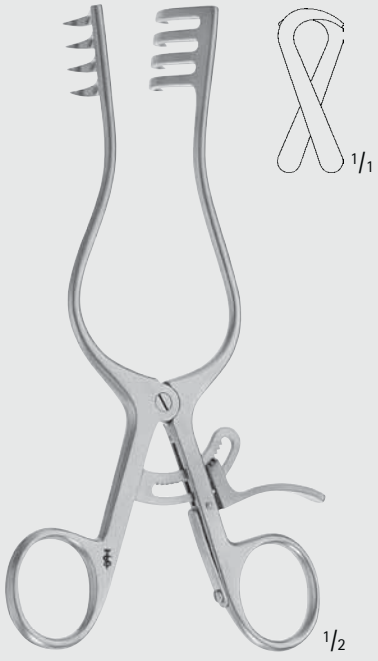
155 mm, 6"



MAYO-ADAMS

BV112R

165 mm, 6 1/2"

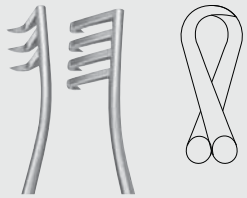


HENDERSON

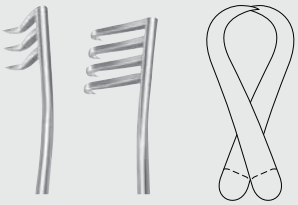
BV113R

sharp

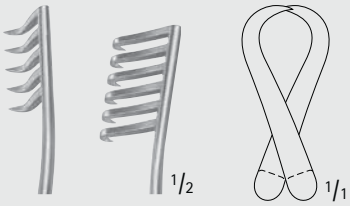
180 mm, 7"



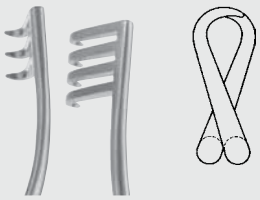
BV200R
sharp
195 mm, 7 3/4"



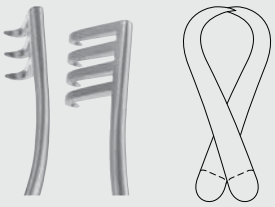
BV206R
sharp
240 mm, 9 1/2"



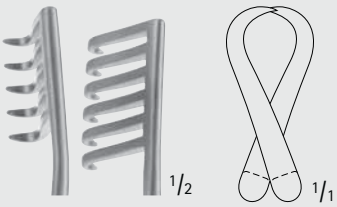
BV208R
sharp
255 mm, 10"



BV199R
semi-sharp
195 mm, 7 3/4"



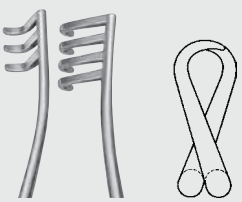
BV203R
semi-sharp
240 mm, 9 1/2"



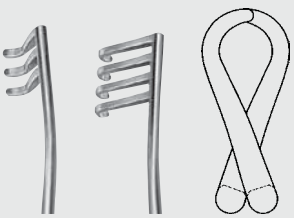
BV205R
semi-sharp
255 mm, 10"



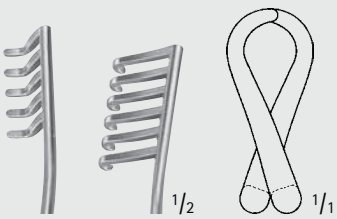
WEITLANER
BV199R–BV209R



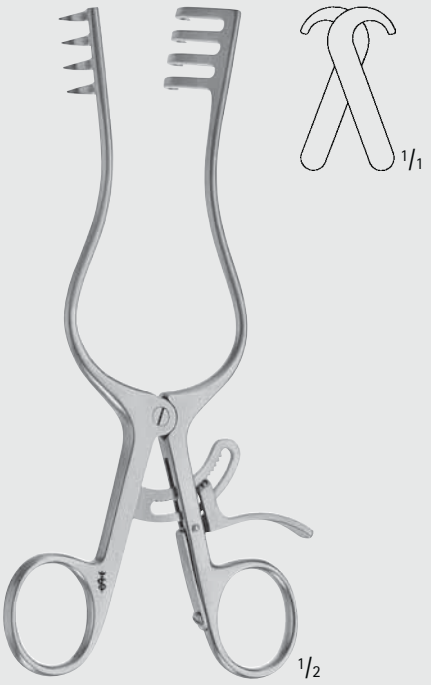
BV201R
blunt
195 mm, 7 3/4"



BV207R
blunt
240 mm, 9 1/2"



BV209R
blunt
255 mm, 10"



IRWIN

BV247R

sharp

175 mm, 7"



TRAVERS

BV249R

blunt

215 mm, 8 1/2"

Instruments

Self-Retaining Laminectomy Retractors

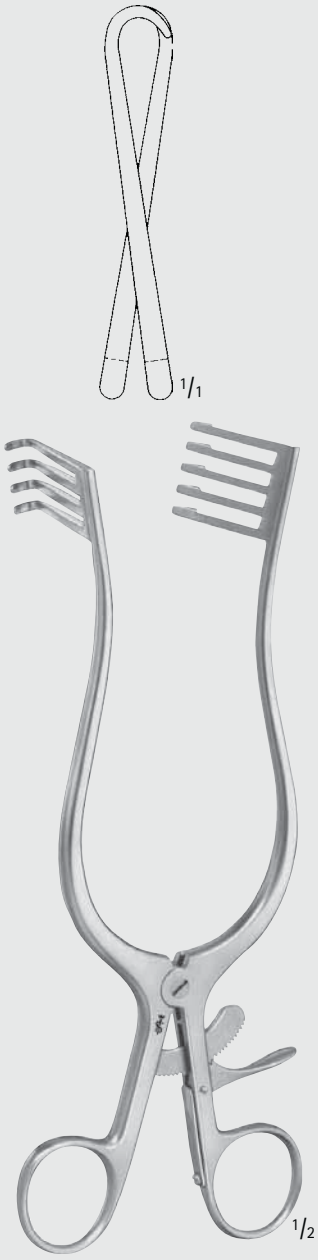


ANDERSON-ADSON

BV250R

sharp

190 mm, 7 1/2"

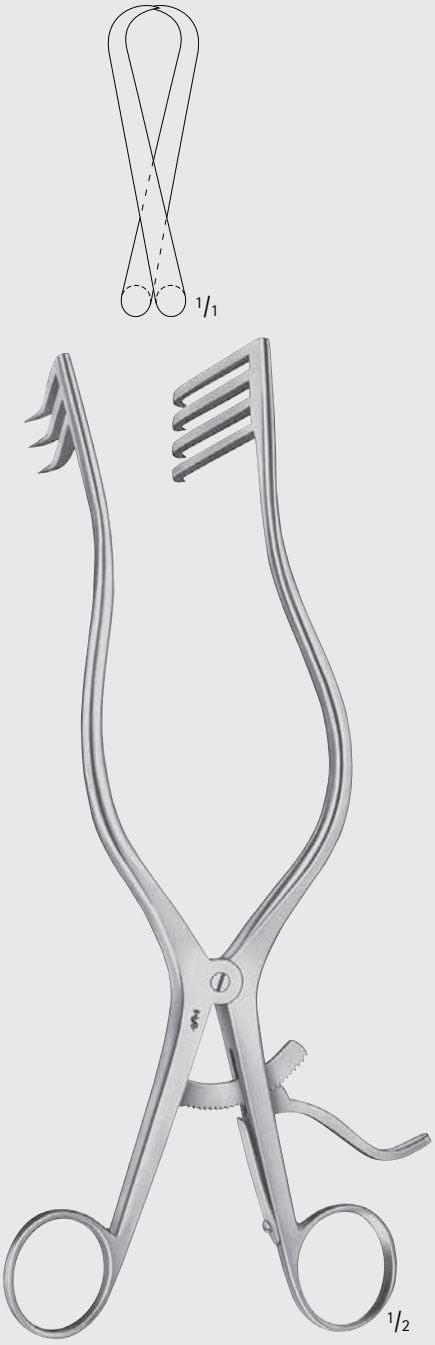


NORFOLK AND NORWICH

BV248R

blunt

220 mm, 8 3/4"

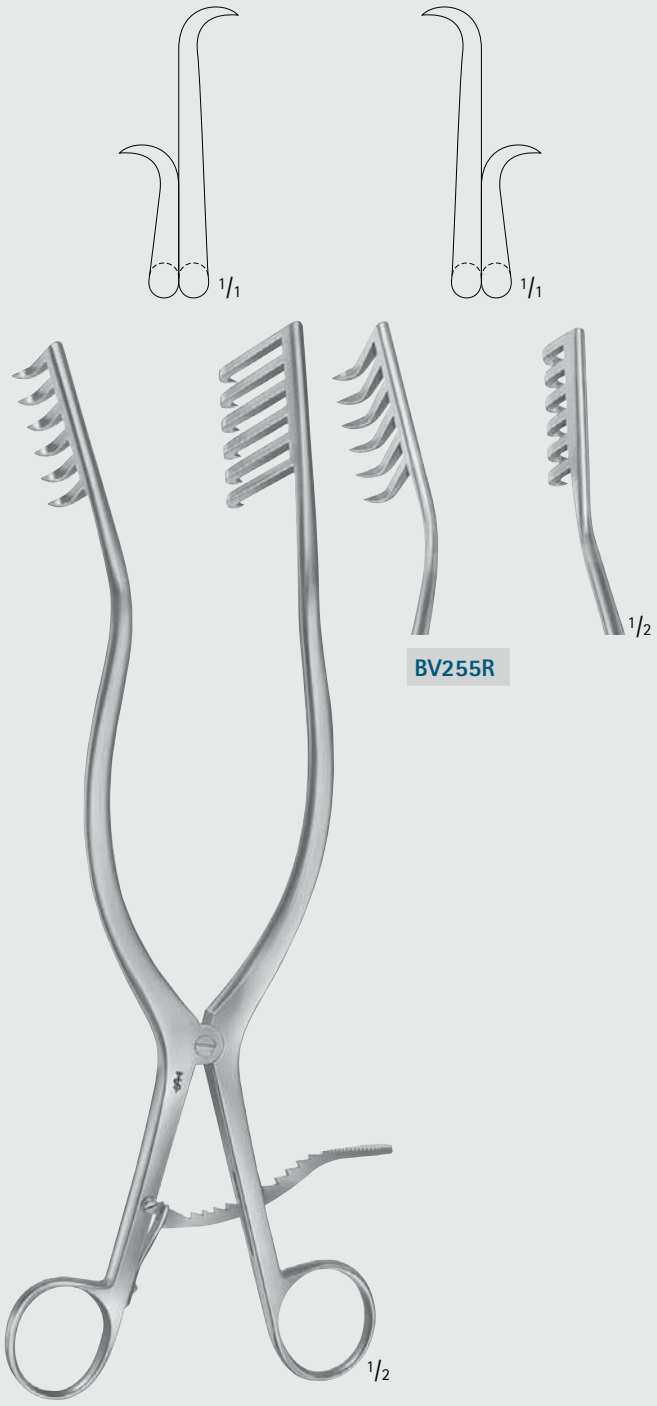


ADSON

BV252R

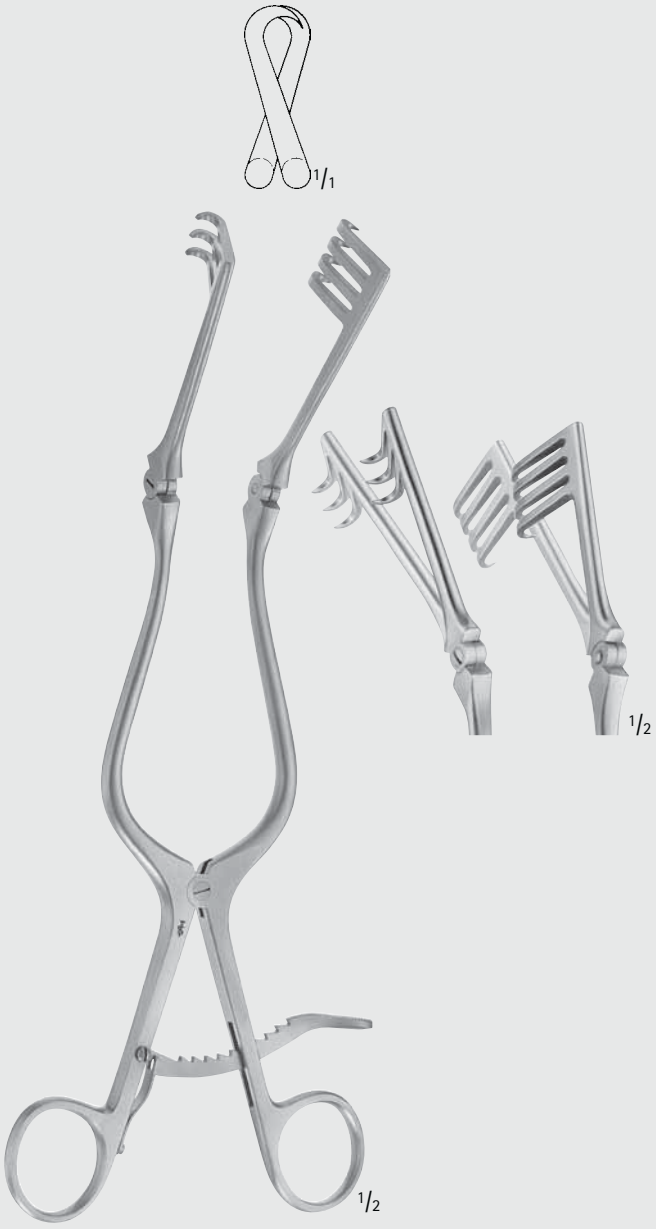
sharp

265 mm, 10 1/2"



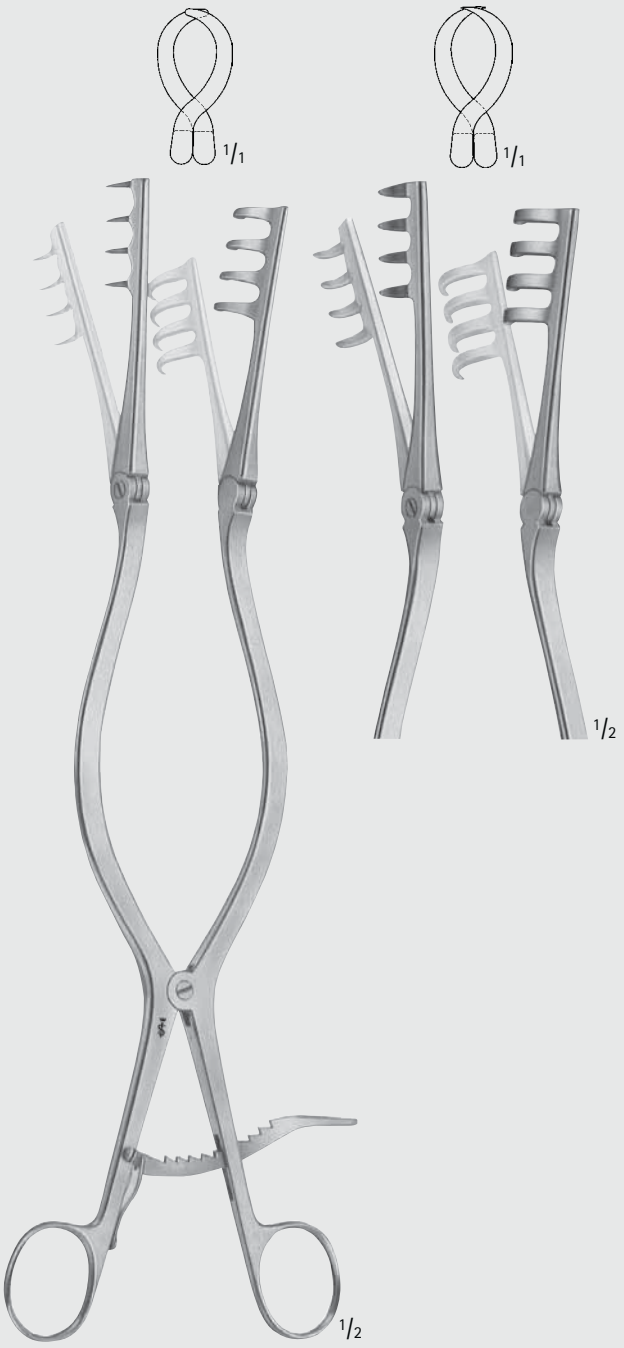
BV255R

BV254R–BV255R
Hemi-laminectomy retractor, sharp
280 mm, 11"



CONE

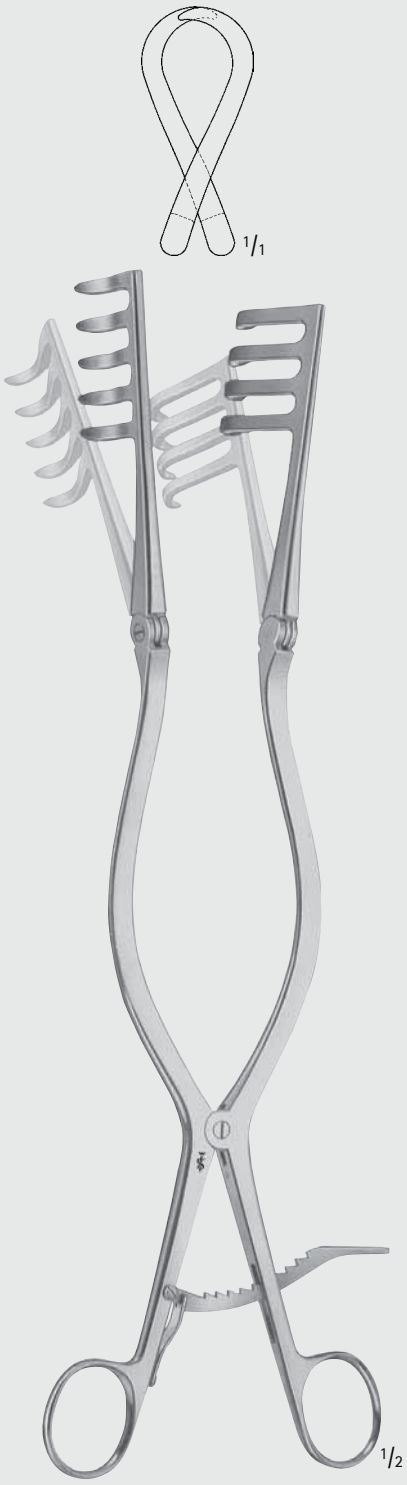
BV260R
sharp
265 mm, 10 1/2"



BECKMANN-ADSON
BV271R semi-sharp
BV272R sharp
310 mm, 12 1/4"



HARVEY-JACKSON
BV258R
sharp
300 mm, 12"

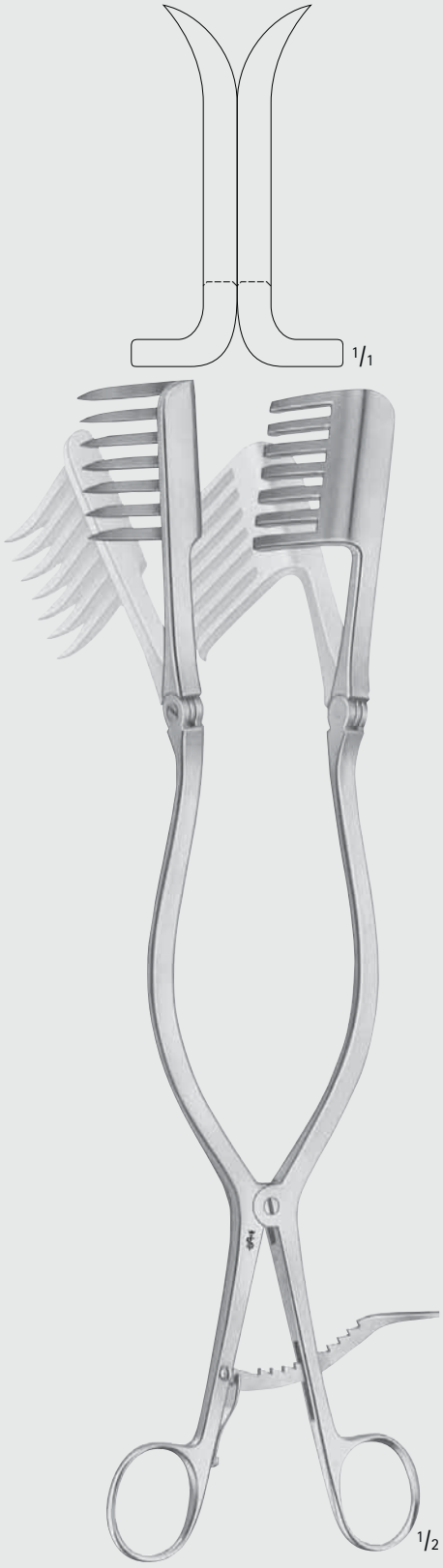


ADSON

BV273R

semi-sharp

320 mm, 12 3/4"



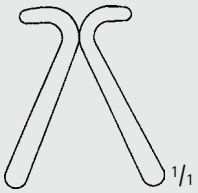
BECKMANN

BV276R

sharp

320 mm, 12 3/4"





JACKSON-BURROWS

BV993R

blunt

180 mm, 7"

BALL SNAP CLOSURE WITH TORSION LOCK



CLOWARD MODIF.

BV380R
250 mm, 10"
Retractor complete,
consisting of:

BV379R	Spreader only
BV381R	Blade
BV382R	Blade
BV383R	Blade
BV384R	Blade
BV385R	Blade



BV381R



BV382R



BV391R



BV392R



BV383R



BV384R



BV393R



BV394R



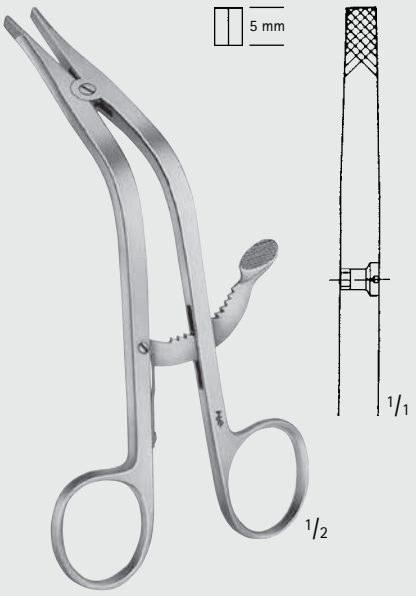
BV385R



BV395R

BV381R–BV395R
Blades only for BV379R

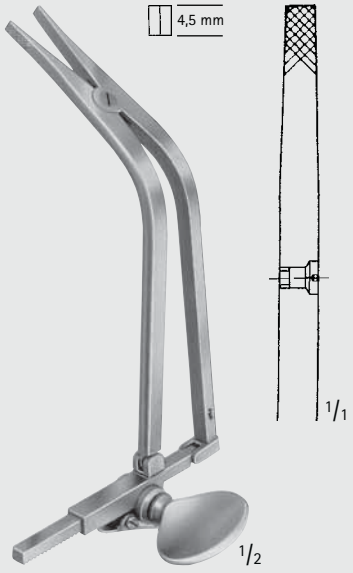
Instruments
Lamina Spreaders



CLOWARD

BV296R

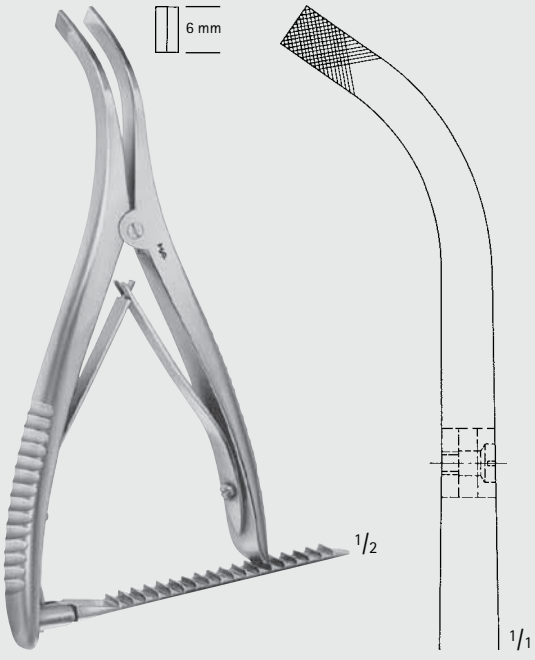
155 mm, 6"



CLOWARD

BV299R

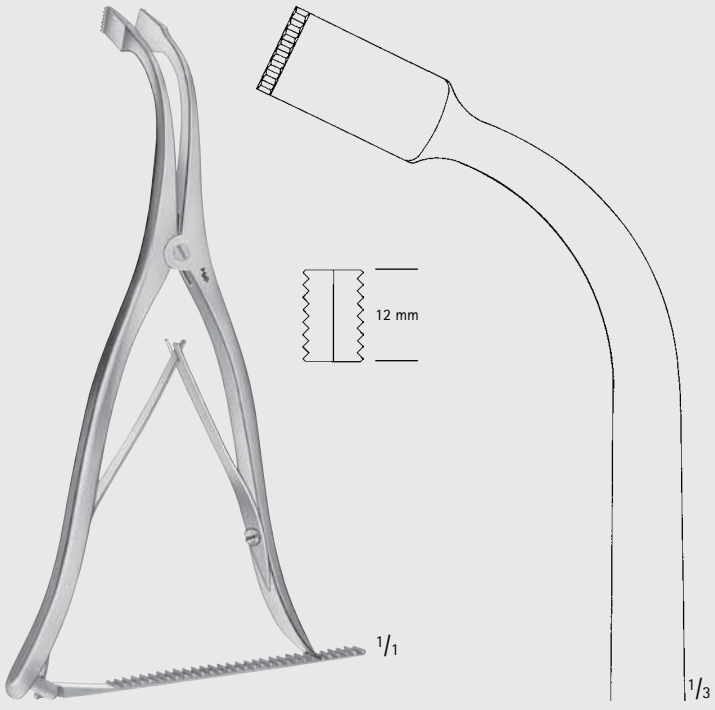
135 mm, 5 1/4"



INGE

BV297R

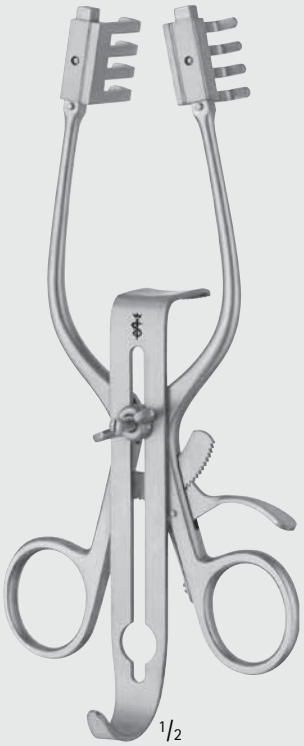
170 mm, 6 3/4"



INGE

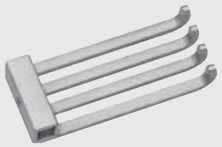
BV298R

275 mm, 10 3/4"

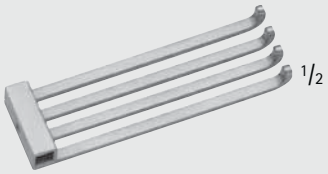




27 x 22 mm



52 x 22 mm



77 x 22 mm



18 x 16 mm



25 x 16 mm



30 x 16 mm



74 x 16 mm

HENLY

BV120R

Retractor set complete,
consisting of:
Center blade 18 x 16 mm
Center blade 25 x 16 mm
Center blade 30 x 16 mm
Center blade 74 x 16 mm
Lateral blades (pair) 27 x 22 mm
Lateral blades (pair) 52 x 22 mm
Lateral blades (pair) 77 x 22 mm
180 mm, 7"

Instruments

Self-Retaining Retractors for Laminectomy and other Applications

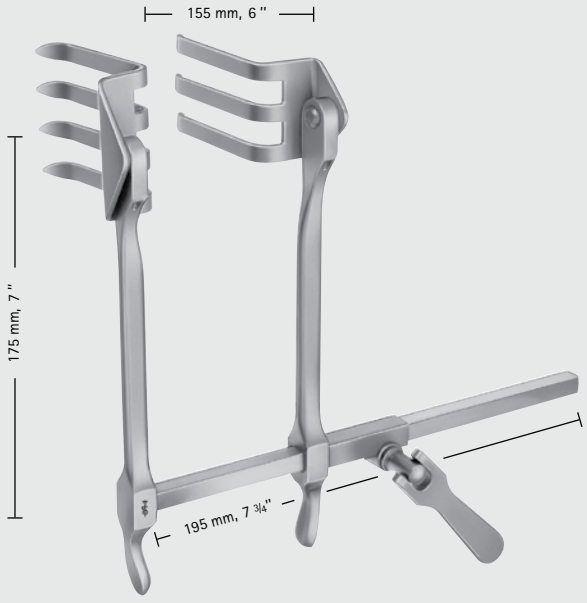


Aesculap ball snap system on spreaders and blades

Advantages:

- Without additional fixation blades are safely locked
  - and can therefore not fall off the retractor shanks even if 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 retractor 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

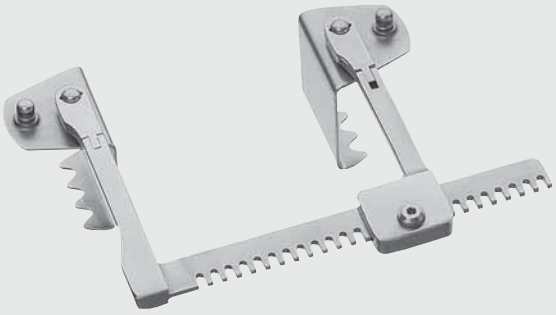


BV518R
30 x 40 mm



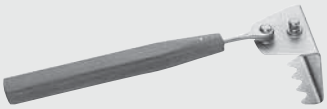
BV519R
37 x 62 mm

■ **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

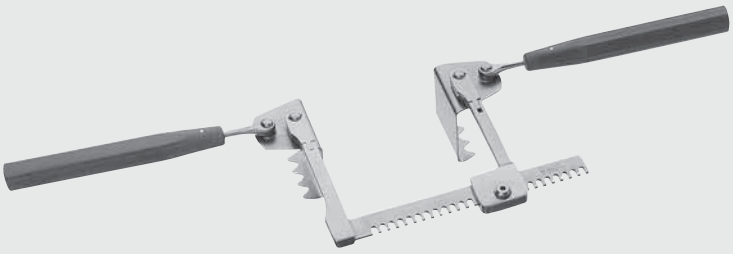


BV413R
Handle



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

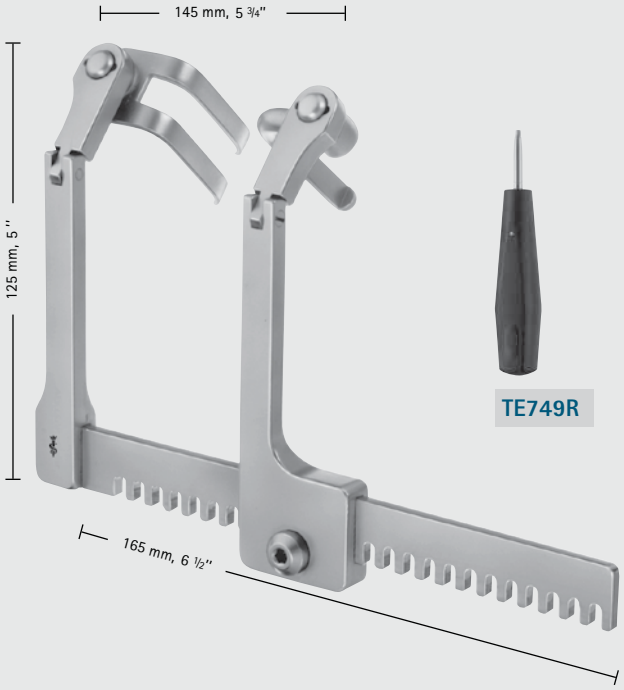
Blades





TE749R
Key for socket-head screw

BALL SNAP CLOSURE WITH TORSION LOCK



CASPAR

BV450R

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

BV449R Retractor only, with key TE749R
BV435R Hook
BV442R Blade
BV443R Blade
BV444R Blade
BV445R Blade
BV446R Blade

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



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



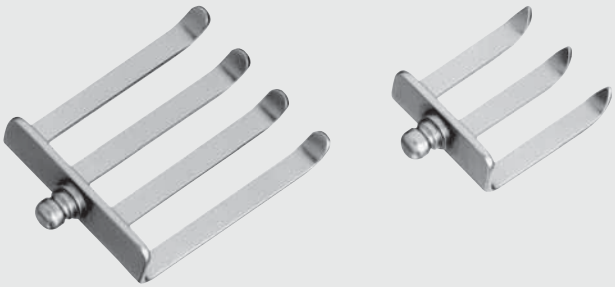
BV461R	32 x 52 mm
BV462R	37 x 52 mm
BV463R	42 x 52 mm
BV464R	47 x 52 mm
BV465R	52 x 52 mm
BV466R	57 x 52 mm
BV467R	62 x 52 mm
BV468R	67 x 52 mm

Blades

BALL SNAP CLOSURE



BV349R
Retractor, complete
consisting of:
BV327R Retractor only
BV348R Blades (pair)



BV348R
Blades (pair), only
consisting of:
Blade, blunt, 60 x 50 mm
Blade, semi-sharp, 40 x 35 mm

Instruments

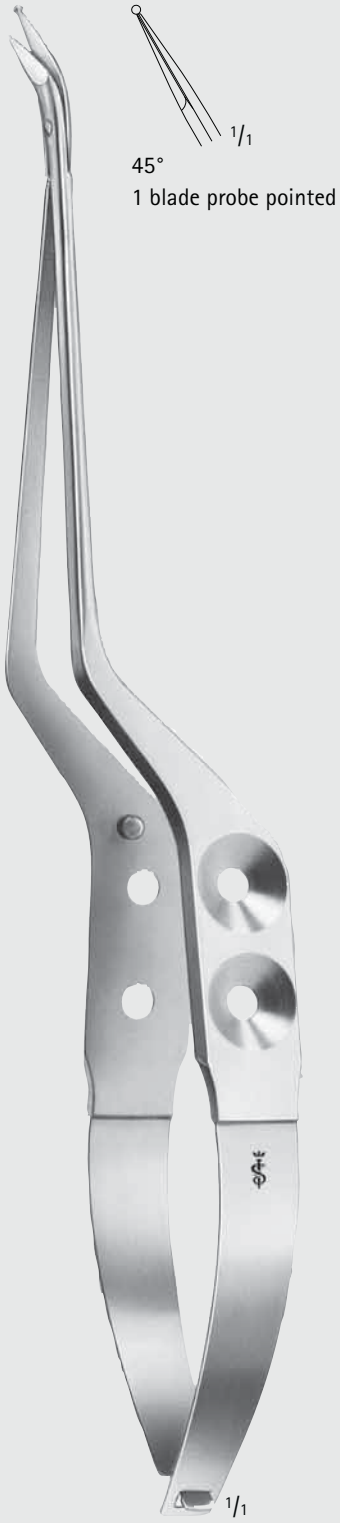
Micro Scissors, Bayonet-Shaped

... 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"

■ Noir® Scissors, straight



FD118B
sharp/sharp
145 mm, 5 3/4"

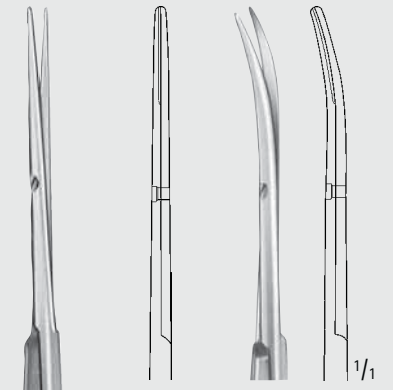
■ Noir® Scissors, upwards curved



FD119B
blunt/blunt
145 mm, 5 3/4"

Instruments

Micro Scissors, Bayonet-Shaped



FD044R
straight

FD043R
upwards curved

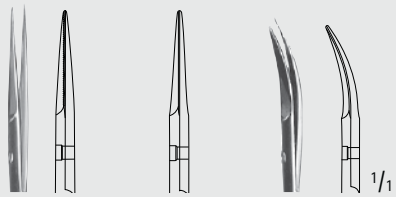


YASARGIL
FD043R–FD044R
Micro dissecting scissors
225 mm, 9"

upwards curved



YASARGIL
FD061R
Micro scissors
245 mm, 9 3/4"

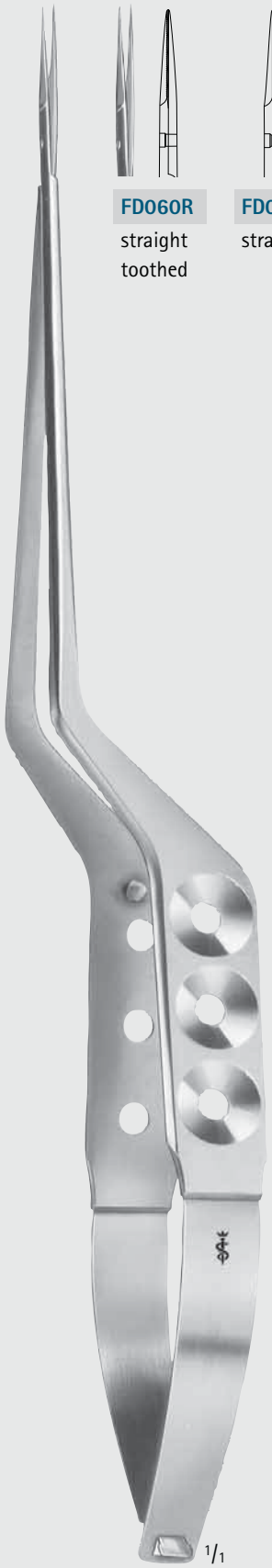


1/1

FD060R
straight
toothed

FD038R
straight

FD039R
upwards curved



1/1

YASARGIL
FD038R–FD060R
225 mm, 9"

Instruments

Micro Scissors, Bayonet-Shaped



1/1

FD030R
straight

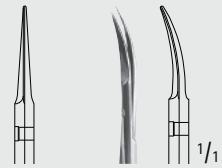
FD031R
upwards curved

YASARGIL
FD030R–FD031R
Micro scissors
165 mm, 6 1/2"



1/1
straight

YASARGIL
FD075R
Micro dissecting scissors
185 mm, 7 1/4"



FD034R
straight

FD035R
upwards curved

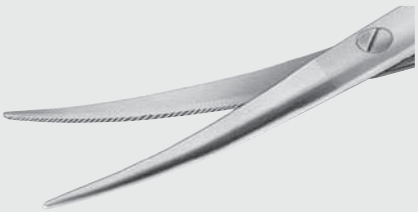


YASARGIL
FD034R-FD035R
200 mm, 8"

Instruments

Micro Scissors, Bayonet-Shaped

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





1/1

FD032R
straight

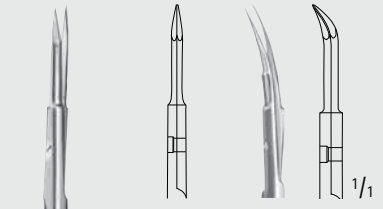
FD033R
upwards curved

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



1/1
downwards curved

YASARGIL
FD036R
Micro scissors
200 mm, 8"



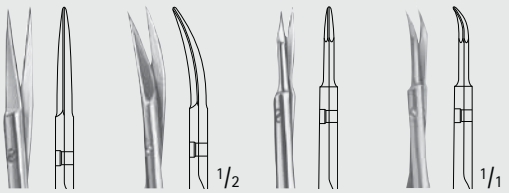
FD037R
straight

FD040R
upwards curved



YASARGIL

FD037R–FD040R
225 mm, 9"

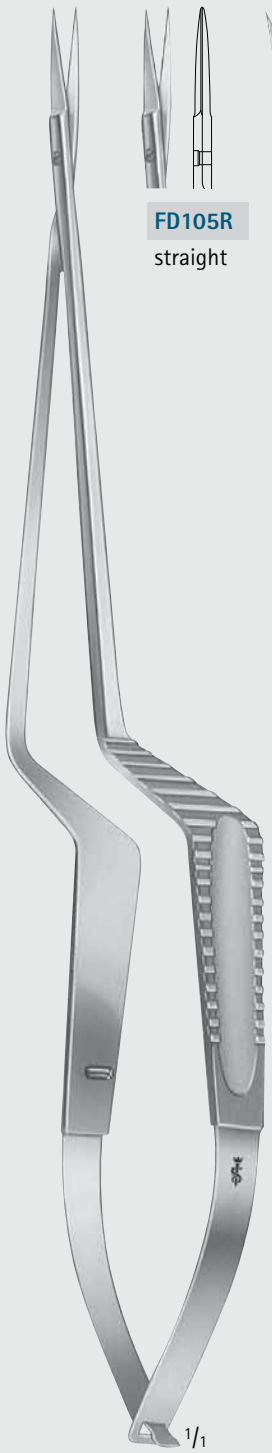


FD105R
straight

FD106R
curved

FD107R
straight

FD108R
curved



FD105R–FD108R
190 mm, 7 1/2"

Instruments

Micro Scissors, Robust



	YASARGIL FD062R	YASARGIL FD063R	YASARGIL FD124R	YASARGIL FD125R
Working length	80 mm, 3 1/8"	110 mm, 4 3/8"	80 mm, 3 1/8"	110 mm, 4 3/8"
Total length	210 mm, 8 1/4"	240 mm, 9 1/2"	210 mm, 8 1/4"	240 mm, 9 1/2"

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**	**FM159R**
sharp/blunt	**FM130R**	**FM132R**	**FM134R**	**-**
blunt/blunt	**FM140R**	**FM142R**	**FM144R**	**FM160R**
Working length	70 mm, 2 3/4"	90 mm, 3 1/2"	120 mm, 4 3/4"	135 mm, 5 1/4"
Total length	195 mm, 7 3/4"	215 mm, 8 1/2"	245 mm, 9 3/4"	265 mm, 10 1/2"

Instruments

SENSATION Micro Scissors, Bayonet-Shaped



upwards curved jaws sharp/sharp	FM121R	FM123R	FM125R	FM161R
sharp/blunt	FM131R	FM133R	FM135R	-
blunt/blunt	FM141R	FM143R	FM145R	FM162R
Working length	70 mm, 2 3/4"	90 mm, 3 1/2"	120 mm, 4 3/4"	135 mm, 5 1/4"
Total length	200 mm, 8"	220 mm, 8 3/4"	245 mm, 9 3/4"	265 mm, 10 1/2"



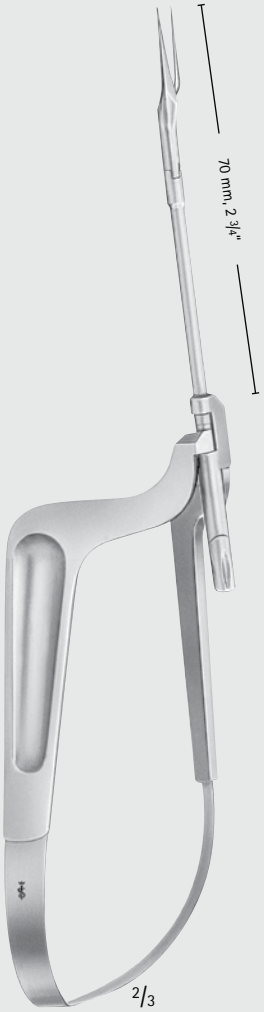
downwards curved jaws sharp/sharp	**FM163R**	angled jaws **FM167R**	angled jaws **FM168R**	angled jaws **FM169R**
sharp/blunt	-	-	-	-
blunt/blunt	**FM164R**	-	-	-
Working length	90 mm, 3 1/2"	90 mm, 3 1/2"	90 mm, 3 1/2"	90 mm, 3 1/2"
Total length	220 mm, 8 3/4"	220 mm, 8 3/4"	220 mm, 8 3/4"	220 mm, 8 3/4"

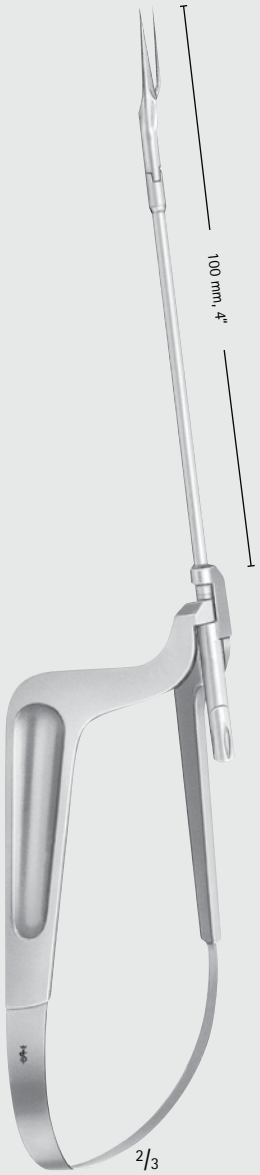
Instruments

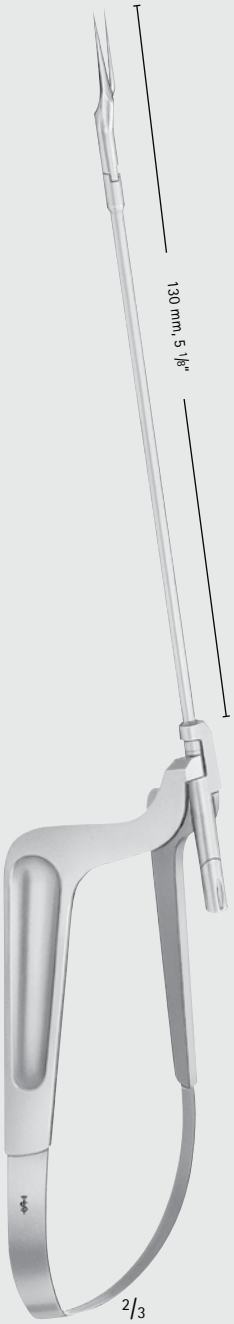
XS Micro Scissors acc. PERNECZKY/CRISTANTE, Bayonet-Shaped

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



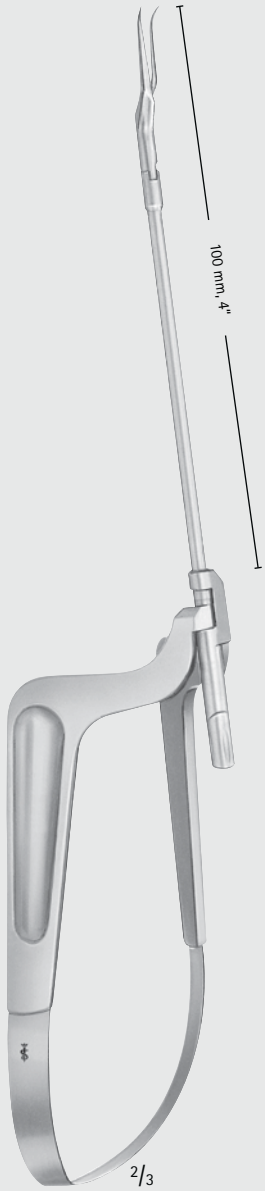


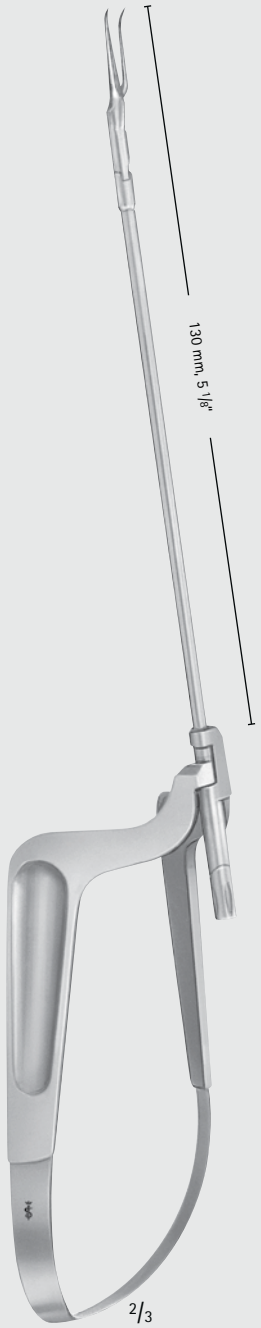


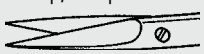
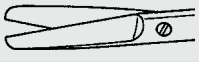
straight jaws	Instrument complete	Single parts Jaw inserts	Handle	Instrument complete	Single parts Jaw inserts	Handle	Instrument complete	Single parts Jaw inserts	Handle
sharp/sharp	FM670R	FM675R	FM730R	FM671R	FM676R	FM731R	FM672R	FM677R	FM732R
blunt/blunt	FM690R	FM695R		FM691R	FM696R		FM692R	FM697R	
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 acc. PERNECZKY/CRISTANTE, Bayonet-Shaped







upwards curved jaws	Instrument complete	Single parts Jaw inserts	Handle	Instrument complete	Single parts Jaw inserts	Handle	Instrument complete	Single parts Jaw inserts	Handle
sharp/sharp 	FM680R	FM685R	FM730R	FM681R	FM686R	FM731R	FM682R	FM687R	FM732R
blunt/blunt 	FM700R	FM705R		FM701R	FM706R		FM702R	FM707R	
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"		

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"



MÜLLER
FM013R
120 mm, 4 3/4"



MÜLLER
FM014R
120 mm, 4 3/4"



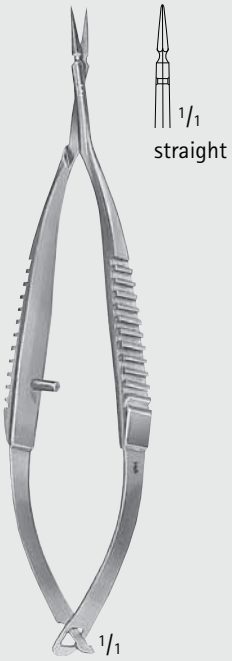
MÜLLER
FM040R
170 mm, 6 3/4"



MÜLLER
FM041R
170 mm, 6 3/4"

Instruments

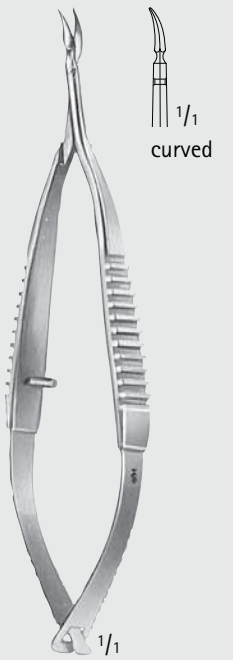
Micro Scissors, Straight



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"



OC496R

105 mm, 4 1/8"



OC497R

105 mm, 4 1/8"

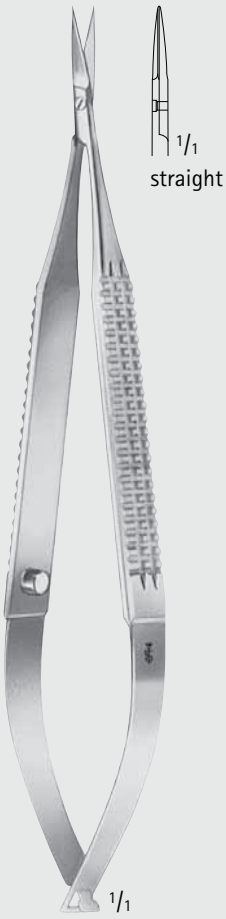


NOYES

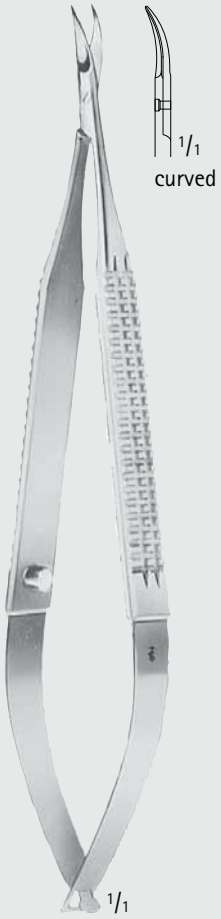
OC482R

125 mm, 5"

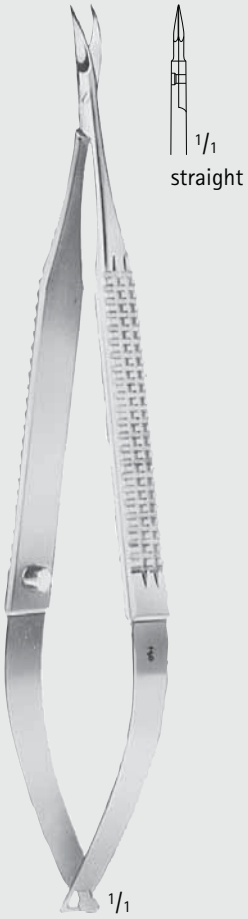
Micro Scissors with Flat Handles and Cross-Serration, Straight



FD012R
120 mm, 4 3/4"



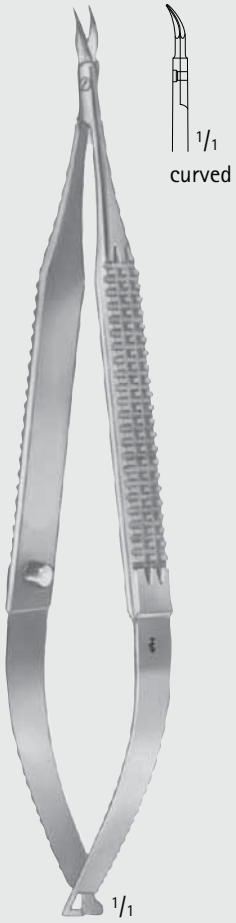
FD013R
120 mm, 4 3/4"



VANNAS

FD014R
120 mm, 4 3/4"

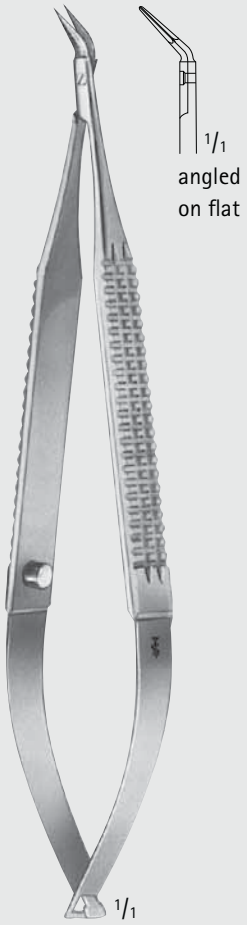
Micro Scissors with Flat Handles and Cross-Serration, Straight



VANNAS

FD015R

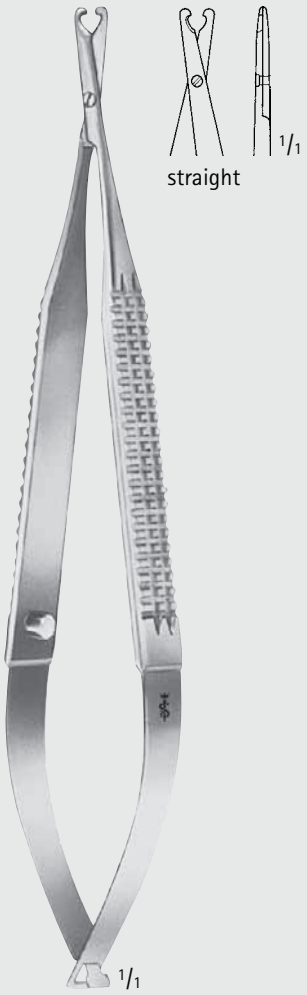
120 mm, 4 3/4"



VANNAS

FD011R

120 mm, 4 3/4"



BIEMER

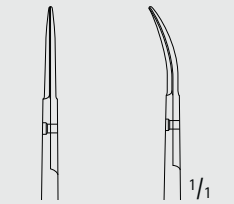
FD028R

Vein scissors

130 mm, 5 1/8"

Micro Scissors with Flat Handles and Cross-Serration, Straight

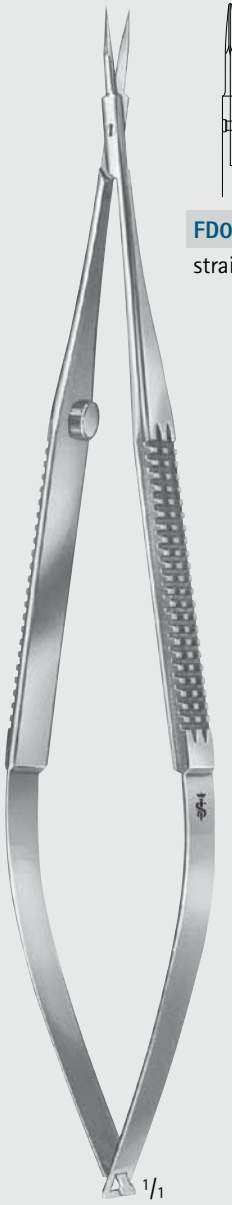


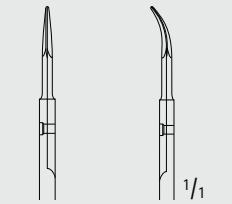


FD016R straight

FD017R curved

FD016R–FD017R
160 mm, 6 1/4"





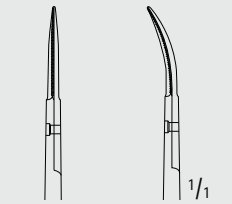
FD018R straight

FD019R curved

VANNAS

FD018R–FD019R
160 mm, 6 1/4"





FD020R straight

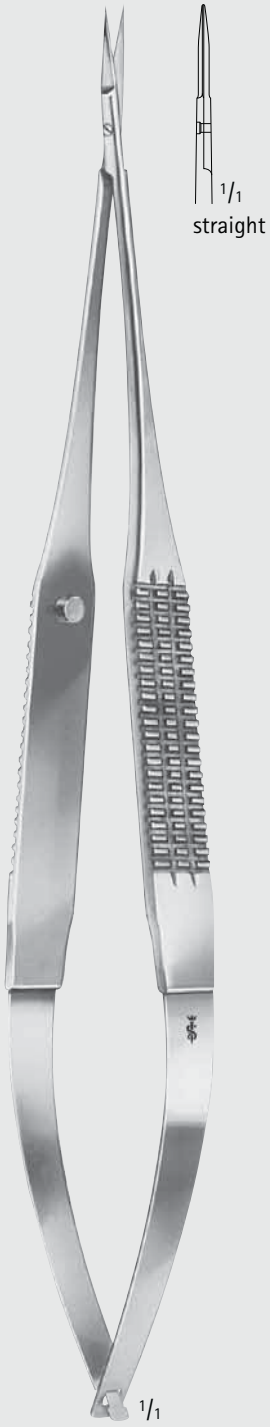
FD021R curved

MILLESI

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

Instruments

Micro Scissors with Flat Handles and Cross-Serration, Straight



YASARGIL

FD022R

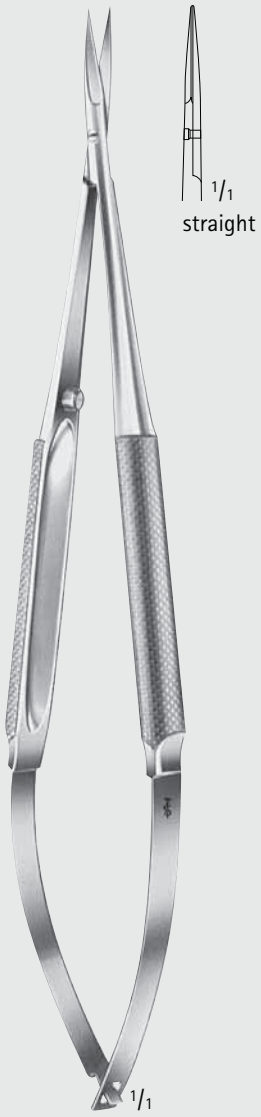
185 mm, 7 1/4"



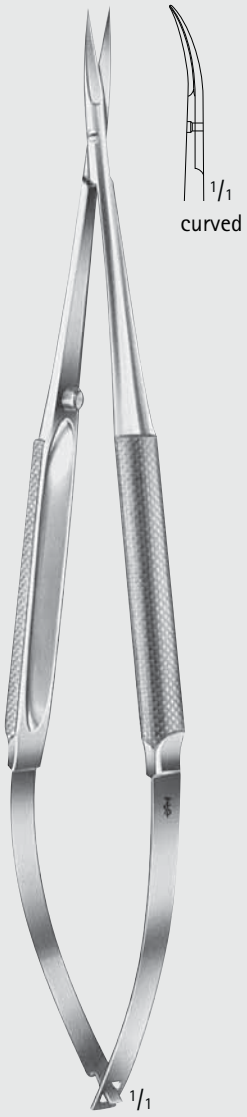
JACOBSON

FD023R

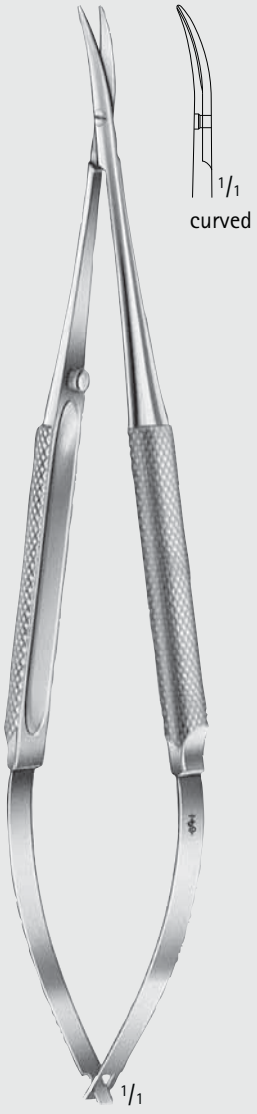
185 mm, 7 1/4"



FD100R
Micro scissors
145 mm, 5 3/4"

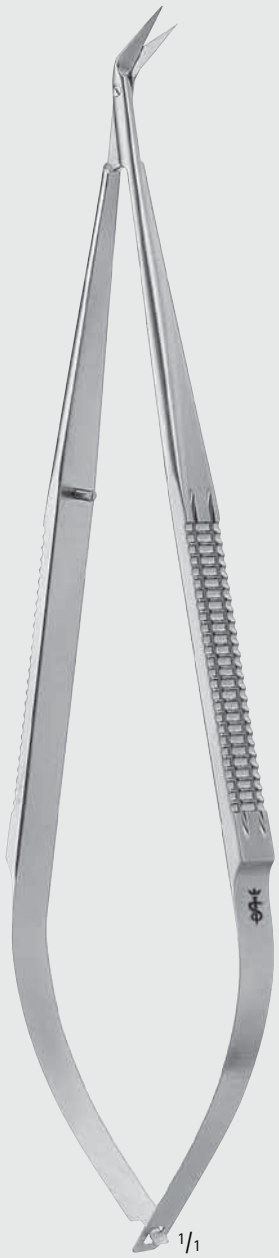


FD101R
Micro scissors
145 mm, 5 3/4"



FD103R
Micro dissecting scissors
145 mm, 5 3/4"

Micro Scissors with Round Handles, Straight



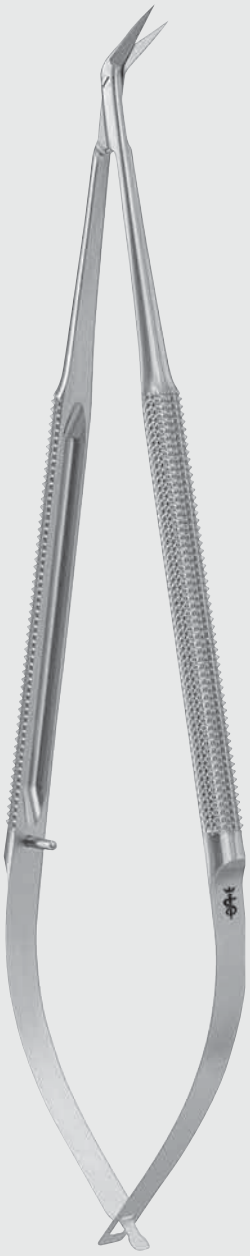
1/1

FM430R–FM474R

165 mm, 6 1/2"

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

Micro Scissors with Round Handles, Straight

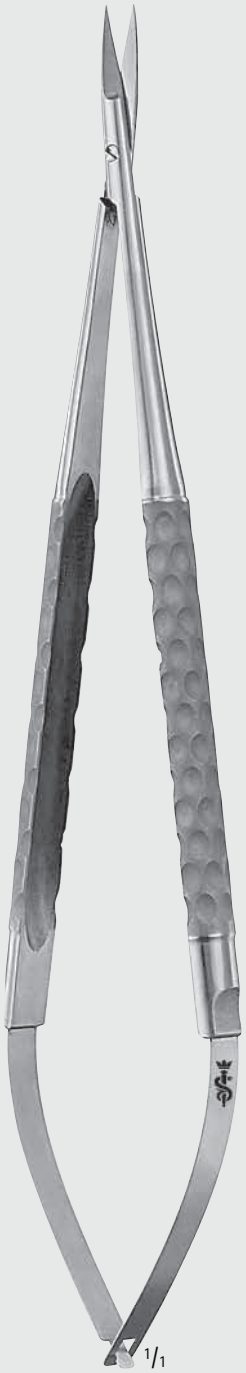


FM476R–FM503R
165 mm, 6 1/2"

	25°	45°	60°	90°	125°	straight	curved on flat
					 1/1		
Fine blade	FM476R	FM477R	FM478R	FM479R	FM480R		
							 1/1
Delicate blade	FM482R	FM483R	FM484R	FM485R	FM486R	FM488R	FM481R
					 1/1		
Fine blade, with 1 probe pointed blade	FM489R	FM490R	FM491R	FM492R	FM493R		
							 1/1
Ultra delicate blade	FM504R	FM505R	FM506R	FM507R	FM508R		FM503R

Instruments

Micro Scissors with Round Handles, Straight





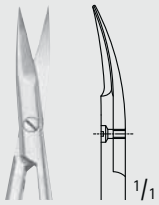
1/1

straight
sharp/sharp

1/1

FM042R
180 mm, 7"



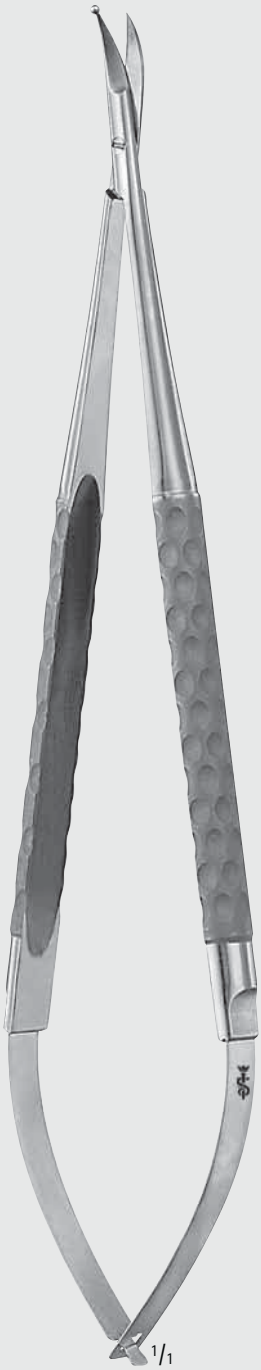


1/1

curved
sharp/sharp

1/1

FD251R
180 mm, 7"





curved
1 blade probe pointed

FM043R
Micro scissors
180 mm, 7"

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.

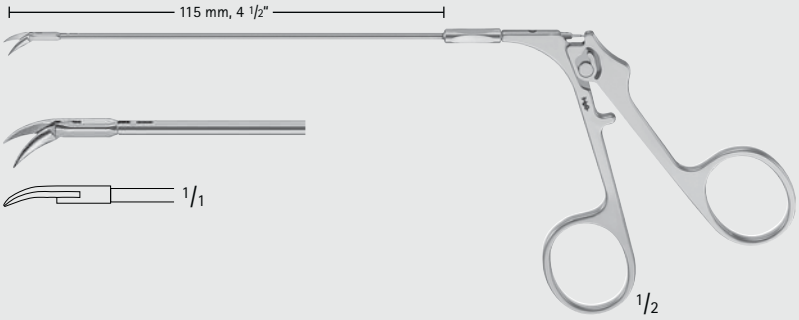




curved
sharp/sharp,
1 blade serrated

FD252R
Micro ligature scissors
for suture material - 8/0 and smaller
180 mm, 7"

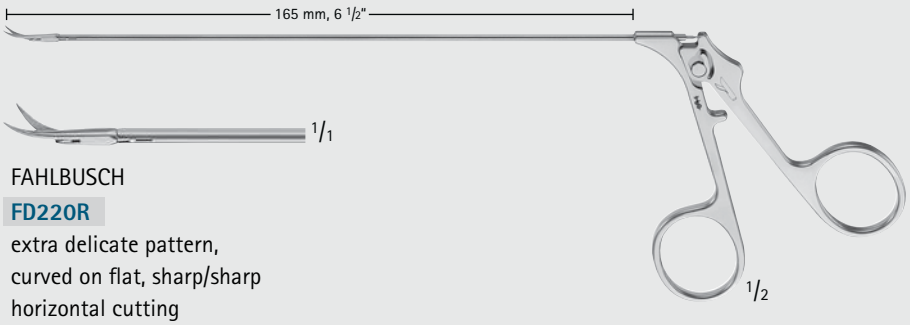
Instruments
Micro Scissors



CASPAR

FD228R

Micro scissors, curved
rotatable 360°



FAHLBUSCH

FD220R

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



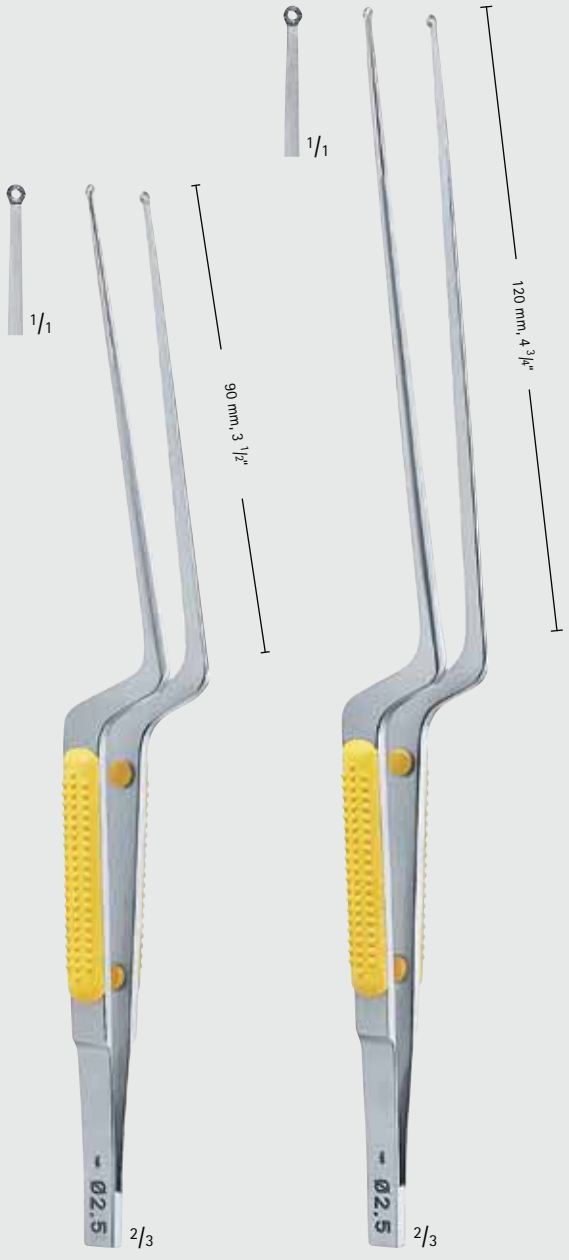
NICOLA

FD226R

straight

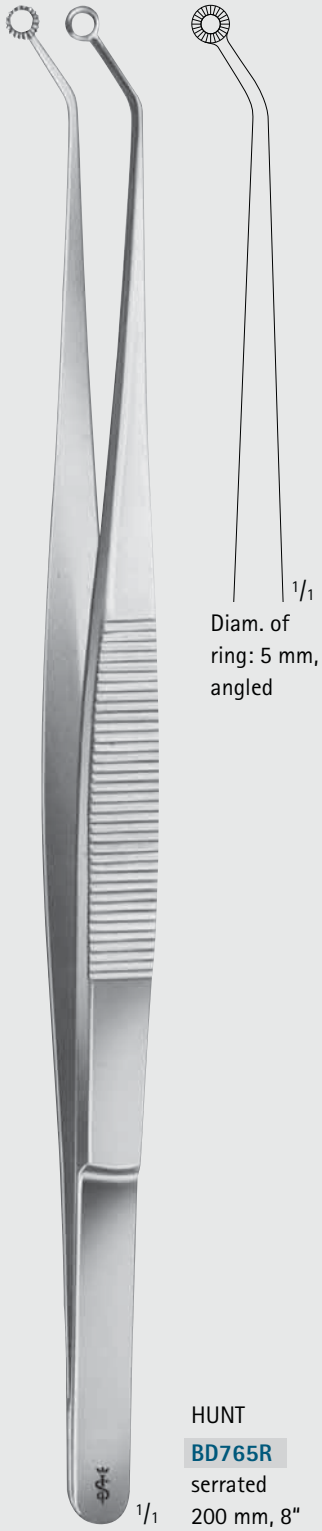
FD220R–FD226R

with tubular shaft



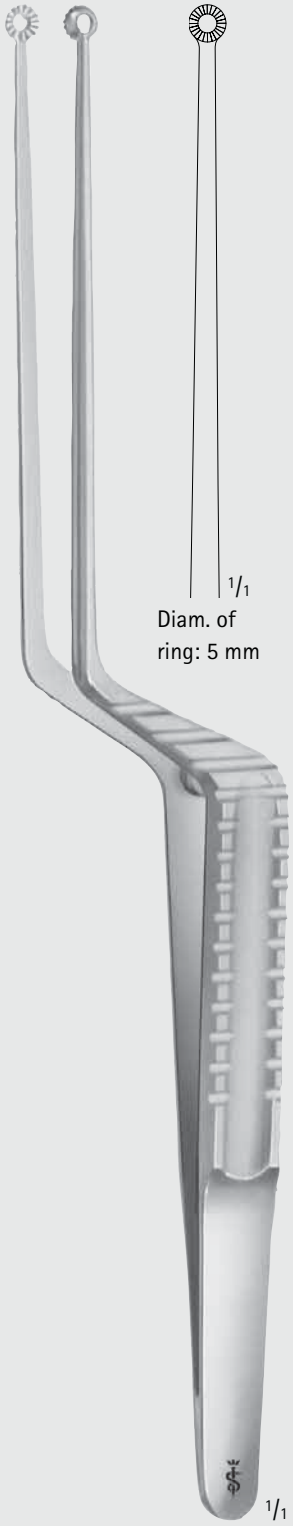
2.5 mm	FM176R	FM178R
3.5 mm	FM177R	FM179R
Working length	90 mm, 3 1/2"	120 mm, 4 3/4"
Total length	210 mm, 8 1/4"	245 mm, 9 1/2"

Forceps for Grasping Tissue, Tumors etc.



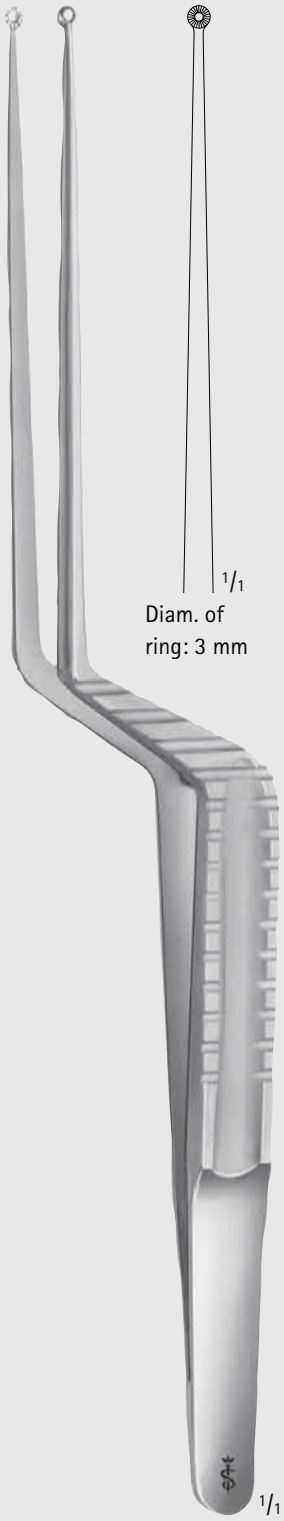
Diam. of ring: 5 mm, angled

HUNT
BD765R
serrated
200 mm, 8"



Diam. of ring: 5 mm

HUNT
BD766R
serrated
200 mm, 8"



Diam. of ring: 3 mm

YASARGIL
BD768R
serrated
200 mm, 8"

1/1

45°
Diam. of ring:
3 mm



YASARGIL
FD218R
Curette jaw toothed
220 mm, 8 3/4"

1/1

1/1

90°
Diam. of ring:
3 mm

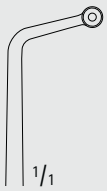


YASARGIL
FD219R
Curette jaw toothed
220 mm, 8 3/4"

1/1



FD190R
Diam. of ring:
3 mm
left angled



1/1

FD195R
Diam. of ring:
3 mm
right angled

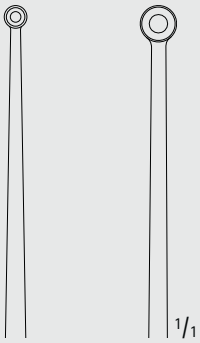
SAMII
FD190R–FD195R
Jaw spoon-shaped
230 mm, 9"

1/1

Instruments

Forceps for Grasping Tissue, Tumors etc.



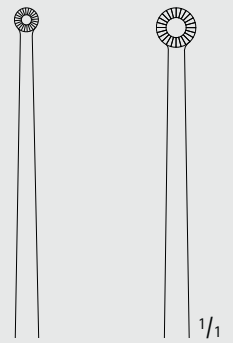


FD210R
Diam. of ring:
3 mm

FD212R
Diam. of ring:
5 mm

YASARGIL
FD210R–FD212R
Jaw spoon-shaped
220 mm, 8 3/4"



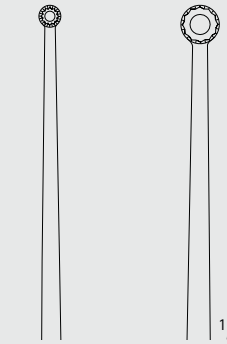


FD214R
Diam. of ring:
3 mm

FD216R
Diam. of ring:
5 mm

YASARGIL
FD214R–FD216R
Jaw flat, serrated
220 mm, 8 3/4"





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"





FD223R
Diam. of ring:
3 mm



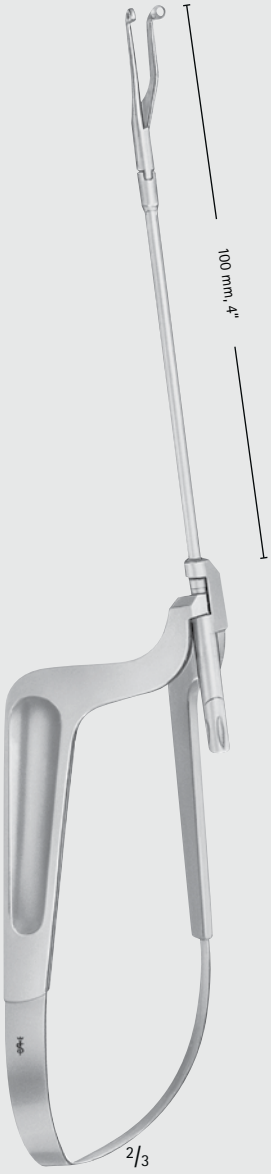
FD229R
Diam. of ring:
5 mm

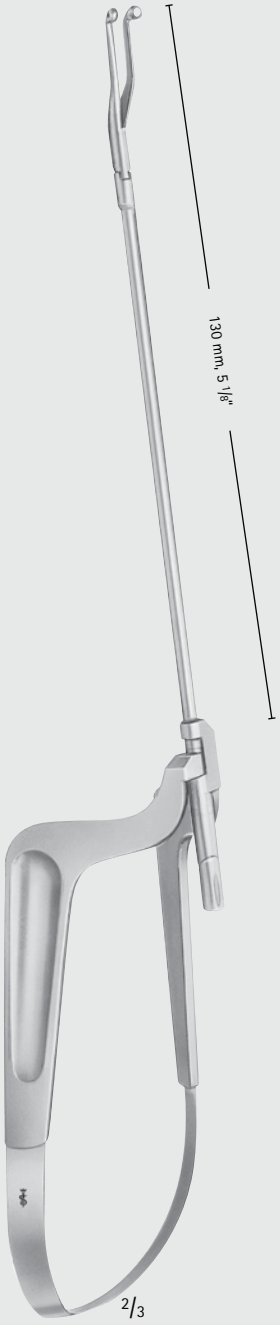
YASARGIL
FD223R–FD229R
Jaw flat, serrated
200 mm, 8"

Instruments

XS Micro Tumor Grasping Forceps acc. PERNECZKY/CRISTANTE







Jaw 3 mm, sharp	Instrument complete	Single parts Jaw insert	Handle	Instrument complete	Single parts Jaw insert	Handle	Instrument complete	Single parts Jaw insert	Handle
	**FM720R**	**FM725R**	**FM730R**	**FM721R**	**FM726R**	**FM731R**	**FM722R**	**FM727R**	**FM732R**
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"		



straight jaw			
0.5 mm	FM150R	FM153R	FM156R
0.9 mm	FM151R	FM154R	FM157R
Working 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 3/4"	240 mm, 9 1/2"



Tissue forceps straight jaw	
1x2 teeth	FM174R
Working length	90 mm, 3 1/2"
Total length	210 mm, 8 1/4"

Instruments

XS Micro Forceps acc. PERNECZKY/CRISTANTE



Jaw 0.9 mm	Instrument complete	Single parts Jaw insert	Handle	Instrument complete	Single parts Jaw insert	Handle	Instrument complete	Single parts Jaw insert	Handle
	FM710R	FM715R	FM730R	FM711R	FM716R	FM731R	FM712R	FM717R	FM732R
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"		



FD110R
Micro forceps
185 mm, 7 1/4"



FD111R
Micro forceps
185 mm, 7 1/4"

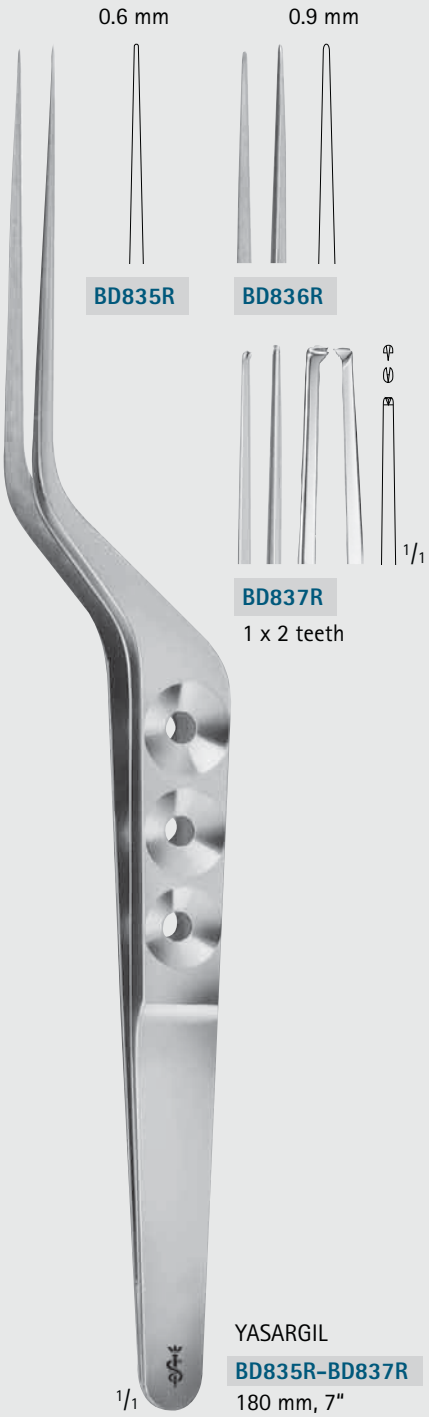


YASARGIL
FD262R
Ligature forceps
180 mm, 7"

■ Noir® forceps



BD838B
155 mm, 6"



BD835R **BD836R**

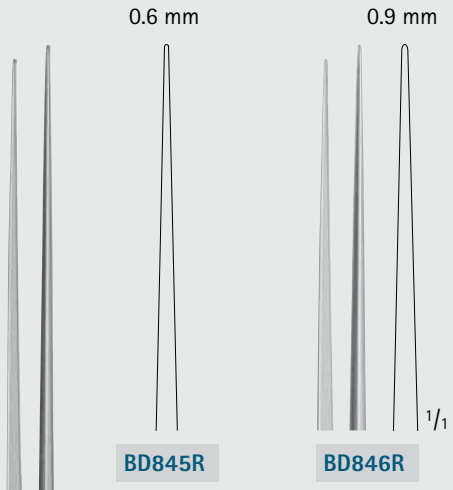
BD837R
1 x 2 teeth

YASARGIL
BD835R–BD837R
180 mm, 7"



BD840R **BD841R**

YASARGIL
BD840R–BD841R
200 mm, 8"



BD845R

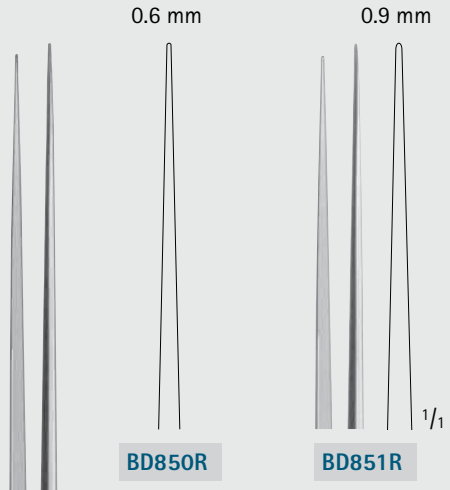
BD846R



YASARGIL

BD845R-BD846R

220 mm, 8 3/4"



BD850R

BD851R



YASARGIL

BD850R-BD851R

240 mm, 9 1/2"

Instruments

Micro Forceps with Round Handles and Counter Balance



1/1 150 mm, 6"

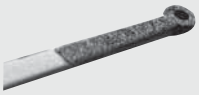
1/1 185 mm, 7 1/4"

1/1 210 mm, 8 1/4"

1/1 230 mm, 9"

1/1 250 mm, 10"

Micro Forceps with Round Handles and Counter Balance

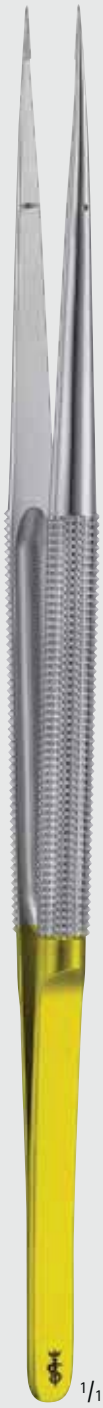


- The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the Dia Dust® coating enables a reliable grip for fine needles and sutures, as well as for tissue.

Jaw type	Diam. of ring: 1 mm, straight Dia Dust®	Diam. of ring: 1 mm, curved Dia Dust®	Diam. of ring: 2 mm, straight Dia Dust®	Platform tip, straight Dia Dust®	Platform tip, curved Dia Dust®	DeBakey tip, 1 mm
Total 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	

Instruments

Micro Forceps with Round Handles, without Counter Balance



1/1

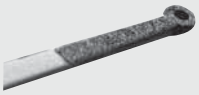
185 mm, 7 1/4"



1/1

210 mm, 8 1/4"

Micro Forceps with Round Handles, without Counter Balance



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

Jaw type	Diam. of ring: 1 mm, straight Dia Dust®	Diam. of ring: 1 mm, curved Dia Dust®	Diam. of ring: 1 mm with platform tip Dia Dust®	Platform tip, straight Dia Dust®	DeBakey tip, 1 mm
Total length					
185 mm, 7 1/4"	FM597R	FM587R	FM582R	FM586R	FM590R
210 mm, 8 1/4"	FM598R	FM589R	FM584R	FM588R	FM591R

Instruments

Micro Forceps with Flat Handle



1/1

180 mm, 7"



1/1

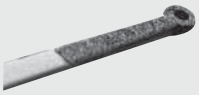
200 mm, 8"



1/1

250 mm, 10"

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 Dia Dust® coating enables a reliable grip for fine needles and sutures, as well as for tissue.

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

Instruments
Dia Dust® Micro Forceps





1/1

cross serrated

1/2

FM063R
round handle
200 mm, 8"

■ Dia Dust®





FM053R
Diam. of ring: 2.5 mm
180 mm
7"



1/1

FM054R
Diam. of ring: 2.5 mm
200 mm
8"

FM053R–FM054R
round handle

■ Dia Dust®





FD255R
straight,
1 x 2 teeth



1/2

FD256R
angled,
1 x 2 teeth

1/2

FD255R–FD256R
Micro tissue forceps
180 mm, 7"

■ Dia Dust®



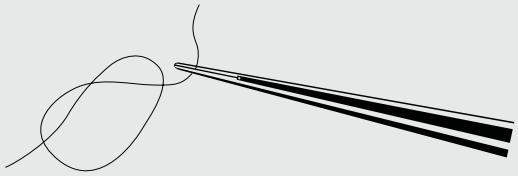


1/1

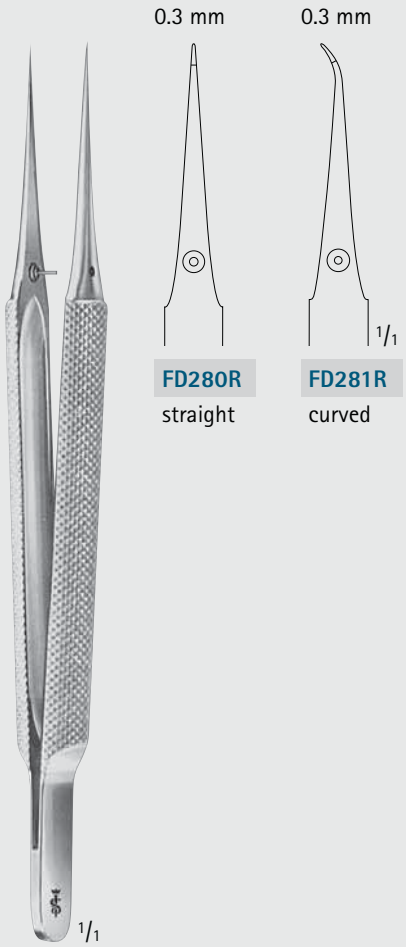
FD253R
with platform tip

1/2

FD253R
Micro dissecting forceps
180 mm, 7"



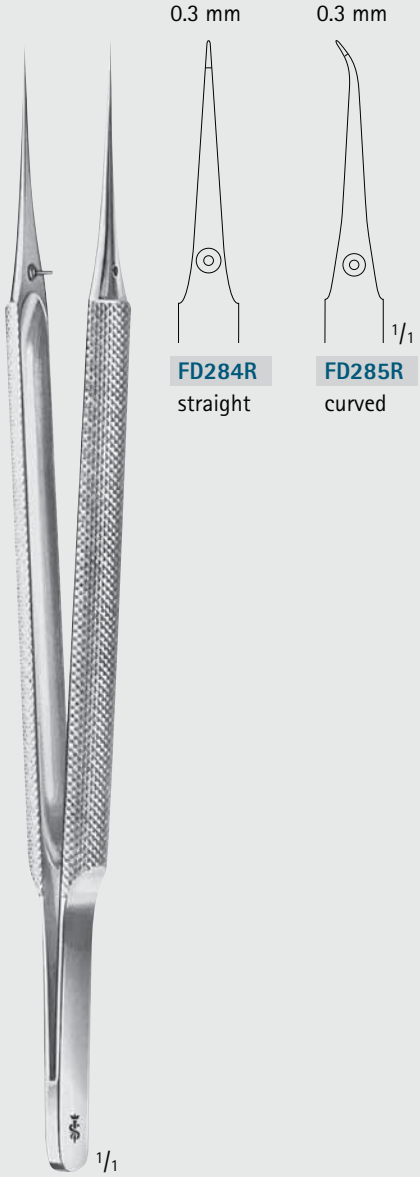
with plateau at the tips



FD280R straight

FD281R curved

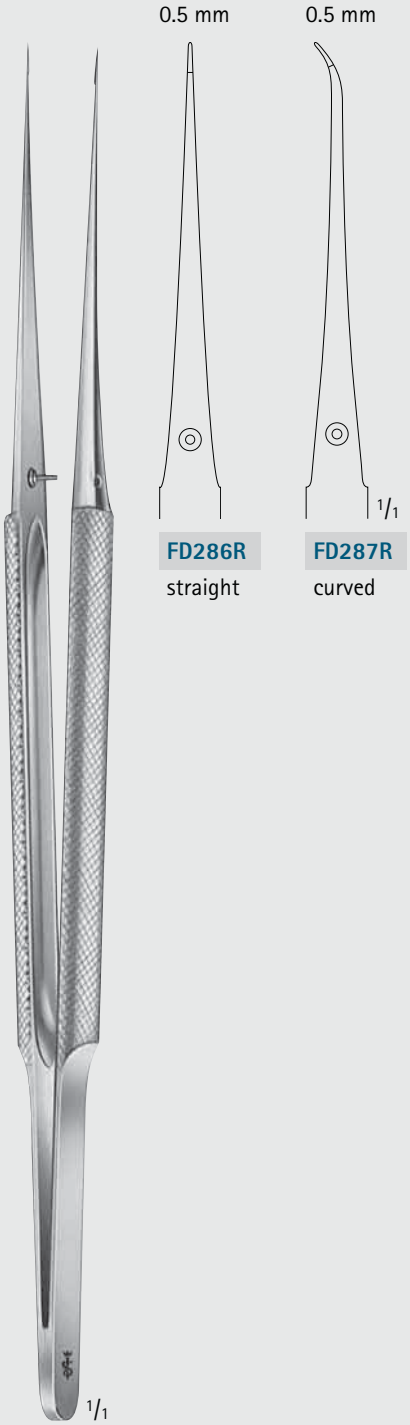
FD280R–FD281R
120 mm, 4 3/4"



FD284R straight

FD285R curved

FD284R–FD285R
150 mm, 6"



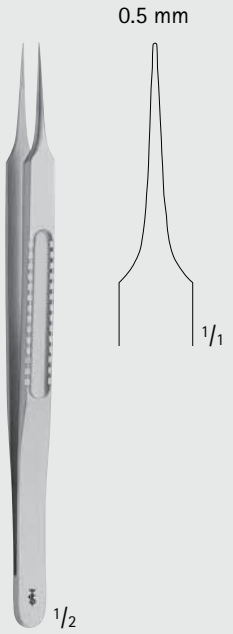
FD286R straight

FD287R curved

FD286R–FD287R
180 mm, 7"

Instruments

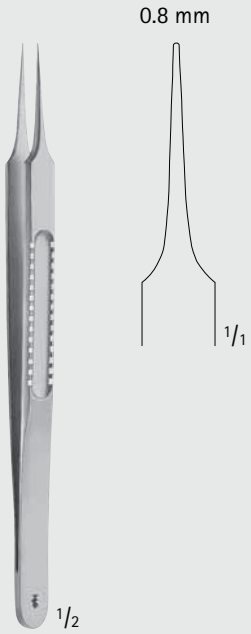
Micro Suture Tying Forceps



LAZAR

BD260R

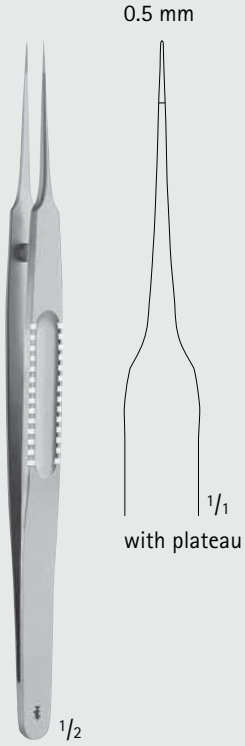
155 mm, 6"



LAZAR

BD261R

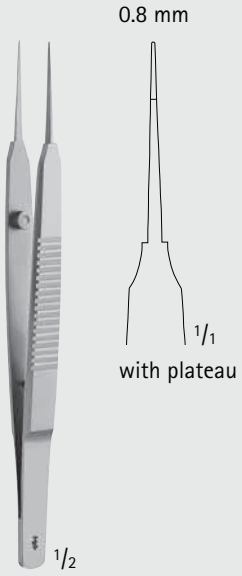
155 mm, 6"



with plateau

BD264R

185 mm, 7 1/4"

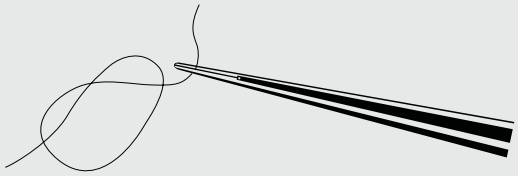


with plateau

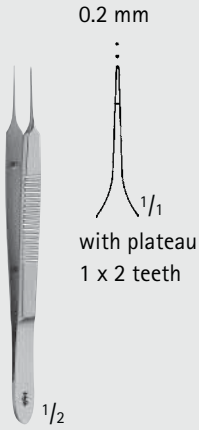
AUSTIN

BD340R

140 mm, 5 1/2"



with plateau at the tips

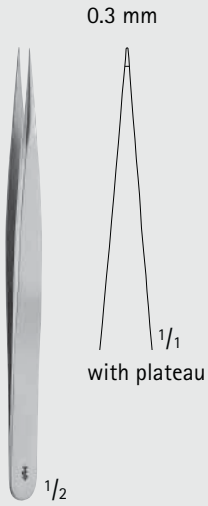


with plateau
1 x 2 teeth

BONNER MODELL

BD505R

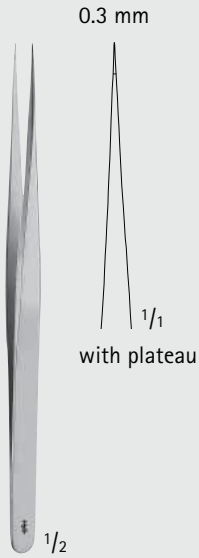
95 mm, 3 3/4"



with plateau

BD338R

120 mm, 4 3/4"

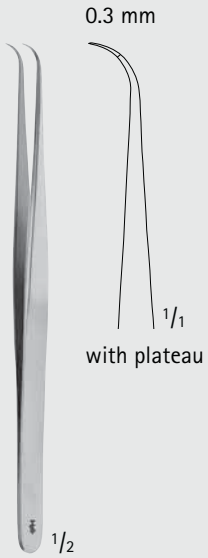


with plateau

VISE

BD336R

135 mm, 5 1/4"



with plateau

VISE

BD337R

135 mm, 5 1/4"

0.3 mm
1/1



1/1

MÜLLER
FM033R
160 mm, 6 1/4"

0.5 mm
1/1
1 x 2 teeth



1/1

MÜLLER
FM034R
160 mm, 6 1/4"

1/1
Diam.
of ring:
1.2 mm



1/1

MÜLLER
FM035R
160 mm, 6 1/4"

0.4 mm
1/1
with plateau



1/1

MÜLLER
FM036R
Micro suturing forceps
160 mm, 6 1/4"



FM001R FM002R FM003R

MÜLLER

FM001R–FM003R

110 mm, 4 3/8"



1 x 2 teeth

MÜLLER

FM004R

110 mm, 4 3/8"



Diam. of ring: 1.2 mm

MÜLLER

FM005R

110 mm, 4 3/8"

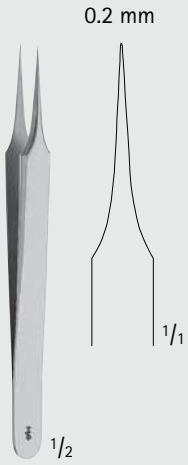


triangular, 1.2 mm wide

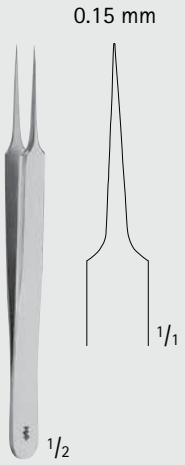
MÜLLER

FM006R

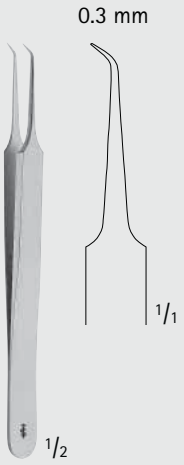
110 mm, 4 3/8"



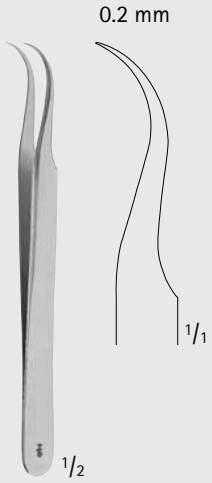
BD330R
110 mm, 4 3/8"



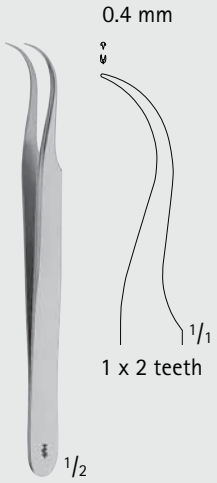
BD331R
110 mm, 4 3/8"



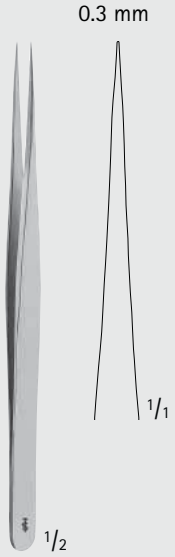
BD329R
110 mm, 4 3/8"



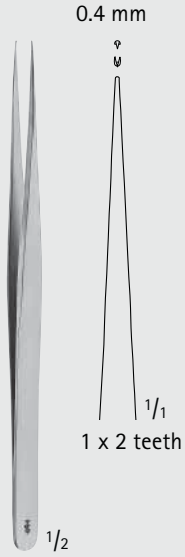
BD333R
115 mm, 4 1/2"



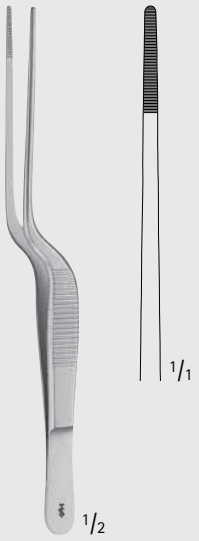
BD343R
115 mm, 4 1/2"



BD335R
135 mm, 5 1/4"



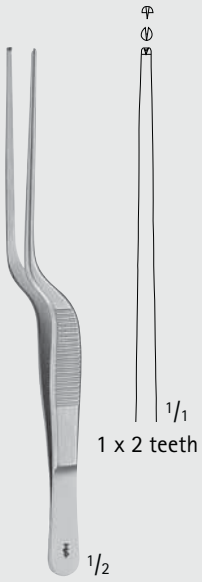
BD345R
135 mm, 5 1/4"



LUCAE

BD878R

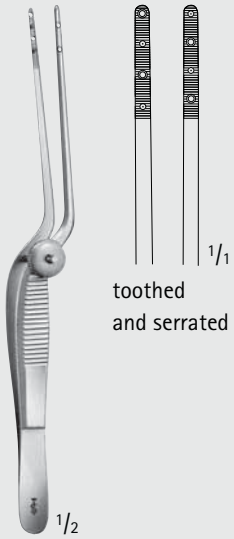
140 mm, 5 1/2"



LUCAE

BD879R

140 mm, 5 1/2"

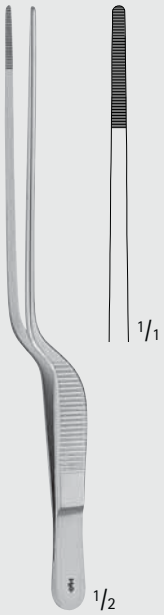


COTTLE

OL011R

Fixation forceps

140 mm, 5 1/2"



JANSEN

BD880R

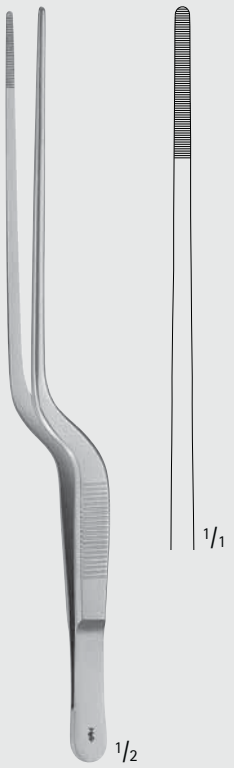
160 mm, 6 1/4"



ADSON

BD870R

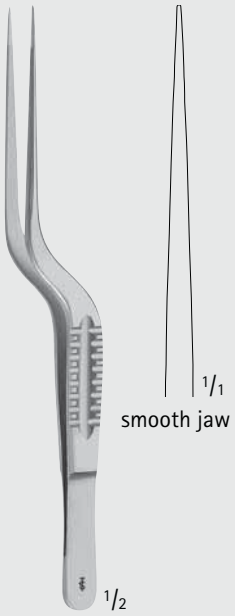
180 mm, 7"



GRUENWALD

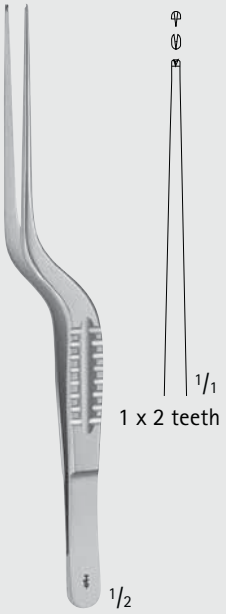
BD883R

200 mm, 8"



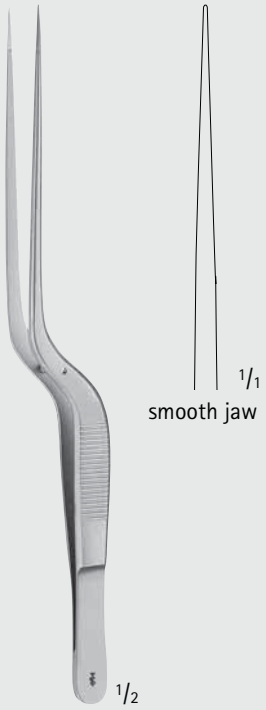
BD887R

160 mm, 6 1/4"



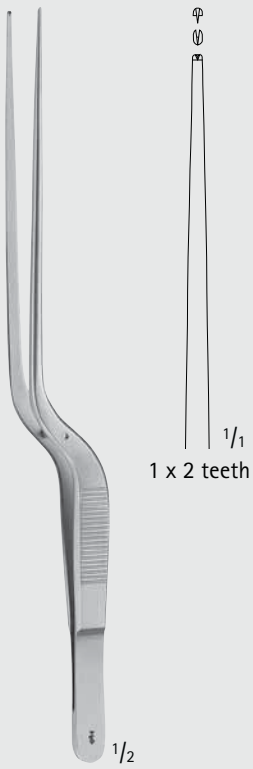
BD888R

160 mm, 6 1/4"



BD885R

185 mm, 7 1/4"



BD886R

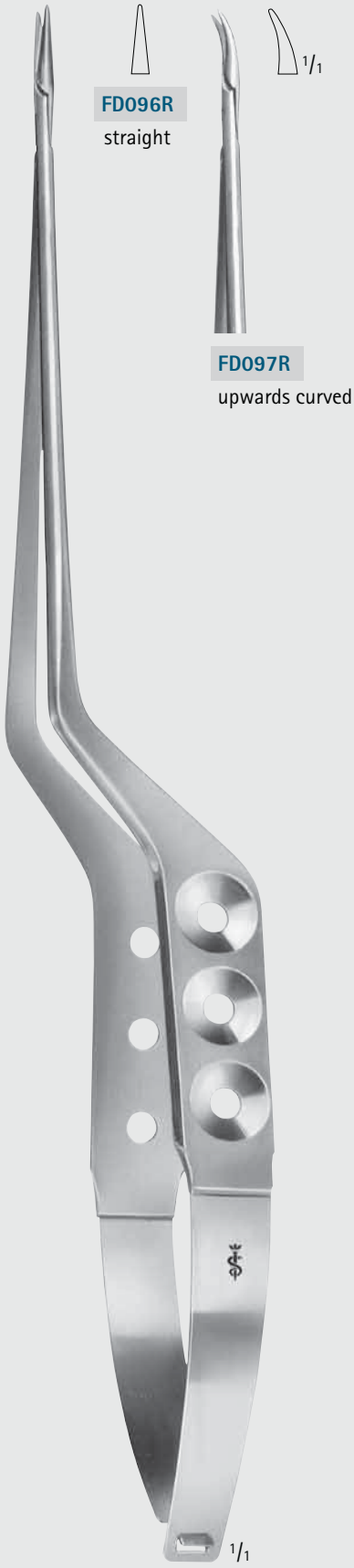
200 mm, 8"



YASARGIL

FD092R–FD093R

200 mm, 8"



YASARGIL

FD096R–FD097R

225 mm, 9"

Instruments

Micro Needle Holders with Round Handles



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



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



FM392R
with ratchet
230 mm, 9"





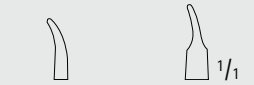
BARRAQUER
FD230R–FD231R
120 mm, 4 3/4"
without ratchet





BARRAQUER
FD232R–FD233R
with ratchet
120 mm, 4 3/4"





BARRAQUER
BM560R–BM562R
without ratchet

Instruments

Micro Needle Holders with Round Handles



FD240R
straight

FD241R
curved

REILL

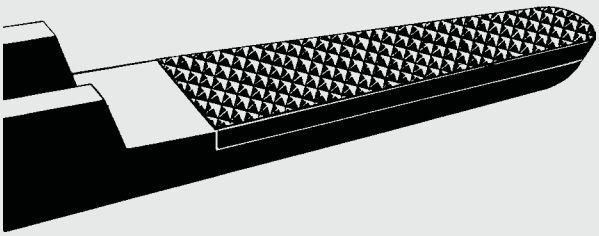
FD240R–FD241R
without ratchet
150 mm, 6"

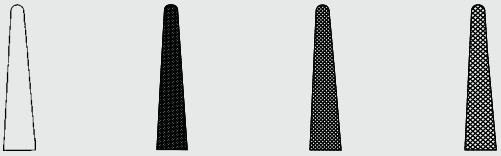


FD242R
straight

FD243R
curved

FD242R–FD243R
with ratchet
150 mm, 6"

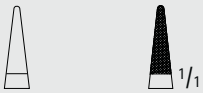




- Aesculap needle holders have jaws with tungsten carbide inserts and according to the use required the resp. structure can be chosen. A smooth jaw surface as well as 3 different serrations ensure a sure „grip" of the resp. needle.

- We recommend tungsten carbide inserts
  with smooth jaw surface for suture material 9/0 - 11/0
  with 0.2 mm pitch of serration for suture material 6/0 - 10/0
  0.4 mm 4/0 - 6/0
  0.5 mm up to 3/0





with smooth jaw	0.2
BM001R straight	**BM002R** straight

CASTROVIEJO

BM001R-BM002R

with ratchet

145 mm, 5 3/4"

DUROGRIP® Micro Needle Holders







BM004R
straight
180 mm
7"

BM005R
straight
215 mm
8 1/2"

CASTROVIEJO
BM004R-BM005R
with ratchet



BM003R
with ratchet
180 mm, 7"



FM388R
with ratchet
180 mm, 7"



FM390R
with ratchet
200 mm, 8"

Instruments
Micro Needle Holders



BM563R
straight

BM564R
curved

1/1

CASTROVIEJO
BM563R–BM564R
with ratchet
145 mm, 5 3/4"

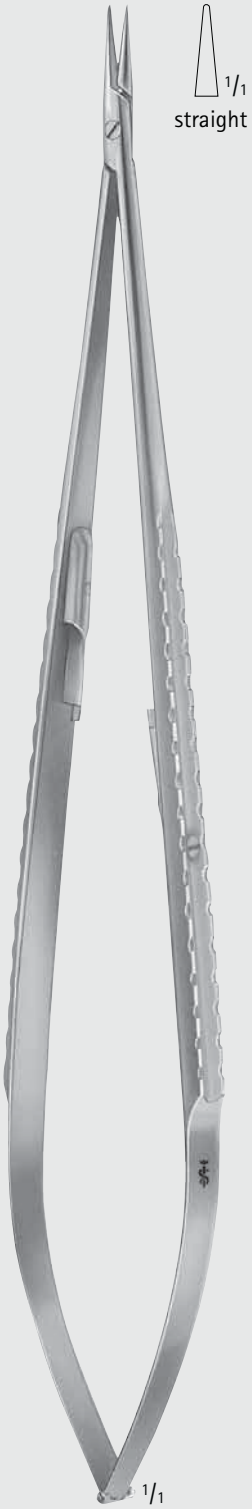


FD045R
straight

FD046R
straight

1/1

JACOBSON
FD045R–FD046R
without ratchet
185 mm, 7 1/4"



1/1
straight

FD048R
with ratchet
200 mm, 8"



FD076R straight
FD079R curved

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



FD080R straight
FD081R curved

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

Instruments

SENSATION Micro Needle Holders, Bayonet-Shaped



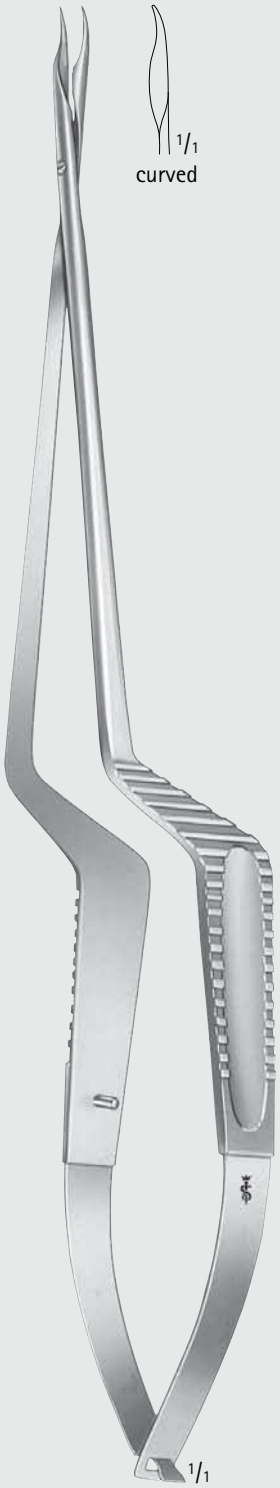
curved jaws			
0.5 mm	**FM170R**	**FM173R**	**FM175R**
Working length	70 mm, 2 3/4"	80 mm, 3 1/2"	120 mm, 4 3/4"
Total length	200 mm, 8"	215 mm, 8 1/2"	245 mm, 9 3/4"



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



MÜLLER
FM061R
with ratchet
180 mm, 7"



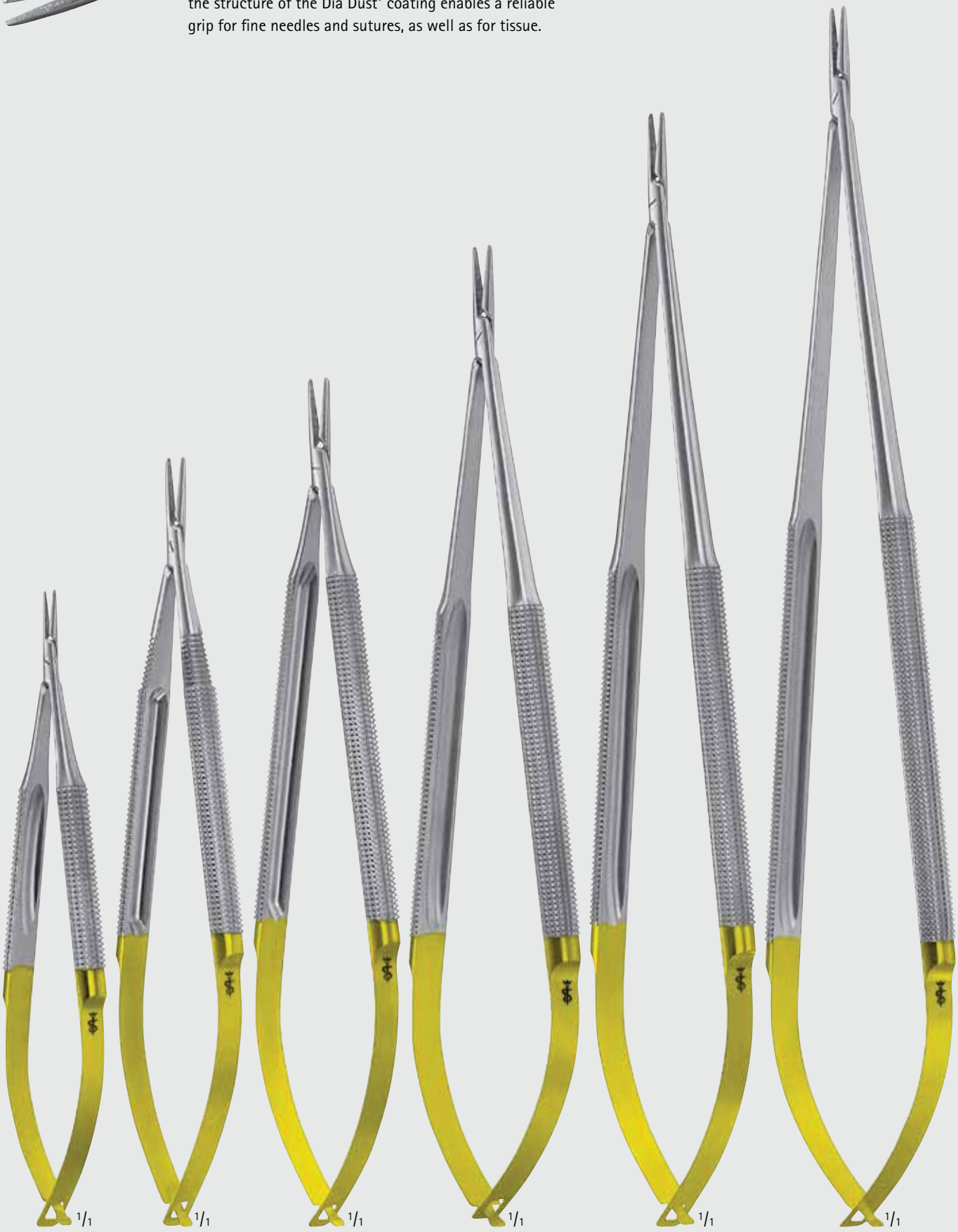
FD120R
without ratchet, bayonet-shaped
195 mm, 7 3/4"

Instruments

Dia Dust® Micro Needle Holders with Round Handles



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



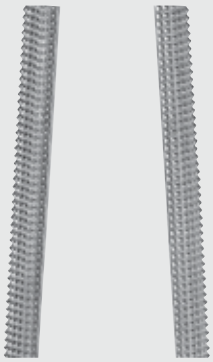
120 mm, 4 3/4"	145 mm, 5 3/4"	160 mm, 6 1/4"	185 mm, 7 1/4"	210 mm, 8 1/4"	230 mm, 9"
1/1	1/1	1/1	1/1	1/1	1/1

Dia Dust® Micro Needle Holders with Round Handles



with ratchet

	 1/1	 1/1	 1/1	 1/1
	Suture size			
Total 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

	 1/1	 1/1
	Suture size	
Total 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

Instruments

Dia Dust® Micro Needle Holders with Round Handles



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



1/1

190 mm, 7 1/2"

1/1

230 mm, 9"

1/1

250 mm, 10"

Dia Dust® Micro Needle Holders with Round Handles

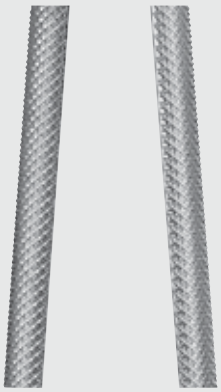




with ratchet, heavy style

Total length	Suture size 2/0 and smaller
190 mm 7 1/2"	FM538R
230 mm 9"	FM539R
250 mm 10"	FM534R





without ratchet, heavy style

Total length	Suture size 2/0 and smaller
190 mm 7 1/2"	FM535R
230 mm 9"	FM536R
250 mm 10"	FM537R

Instruments

Dia Dust® Micro Needle Holders with Flat Handles

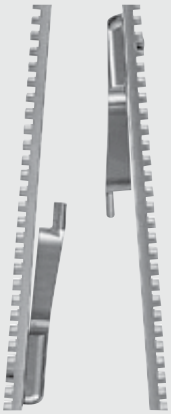


- The diamond dust coating ensures an even harder and more wear resistant surface on the inside of the jaws. Moreover, the structure of the Dia Dust® coating enables a reliable grip for fine needles and sutures, as well as for tissue.

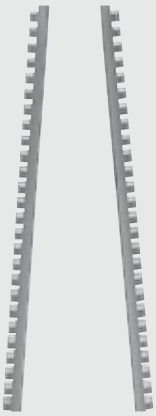


145 mm, 5 3/4"	170 mm, 6 3/4"	185 mm, 7 1/4"	210 mm, 8 1/4"	230 mm, 9"
1/1	1/1	1/1	1/1	1/1

Dia Dust® Micro Needle Holders with Flat Handles



		 1/1	 1/1
		Suture size	
with ratchet	Total length	7/0 and smaller	5/0 and smaller
	145 mm 5 3/4"		FM541R
	170 mm 6 3/4"	FM540R	
	185 mm 7 1/4"		FM542R
	210 mm 8 1/4"		FM543R
	230 mm 9"		FM544R



		 1/1	 1/1
		Suture size	
without ratchet	Total length	7/0 and smaller	5/0 and smaller
	145 mm 5 3/4"		FM546R
	170 mm 6 3/4"	FM545R	
	185 mm 7 1/4"		FM547R
	210 mm 8 1/4"		FM548R
	230 mm 9"		FM549R

Instruments

Dia Dust® Micro Needle Holders with Flat Knurled Handles



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



1/1
185 mm, 7 1/4"

1/1
210 mm, 8 1/4"

1/1
230 mm, 9"

Dia Dust® Micro Needle Holders with Flat Knurled Handles





		Suture size
with ratchet	Length	5/0 and smaller
	185 mm 7 1/4"	FM550R
	210 mm 8 1/4"	FM551R
	230 mm 9"	FM552R





		Suture size
without ratchet	Length	5/0 and smaller
	185 mm 7 1/4"	FM553R
	210 mm 8 1/4"	FM554R
	230 mm 9"	FM555R

Instruments

Dia Dust® Micro Needle Holders with Round Handles



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



GLASSER

FM560R

Suture size: 5/0 and smaller

125 mm, 5"



GLASSER

FM561R

Suture size: 5/0 and smaller

180 mm, 7"

Dia Dust® Micro Needle Holders



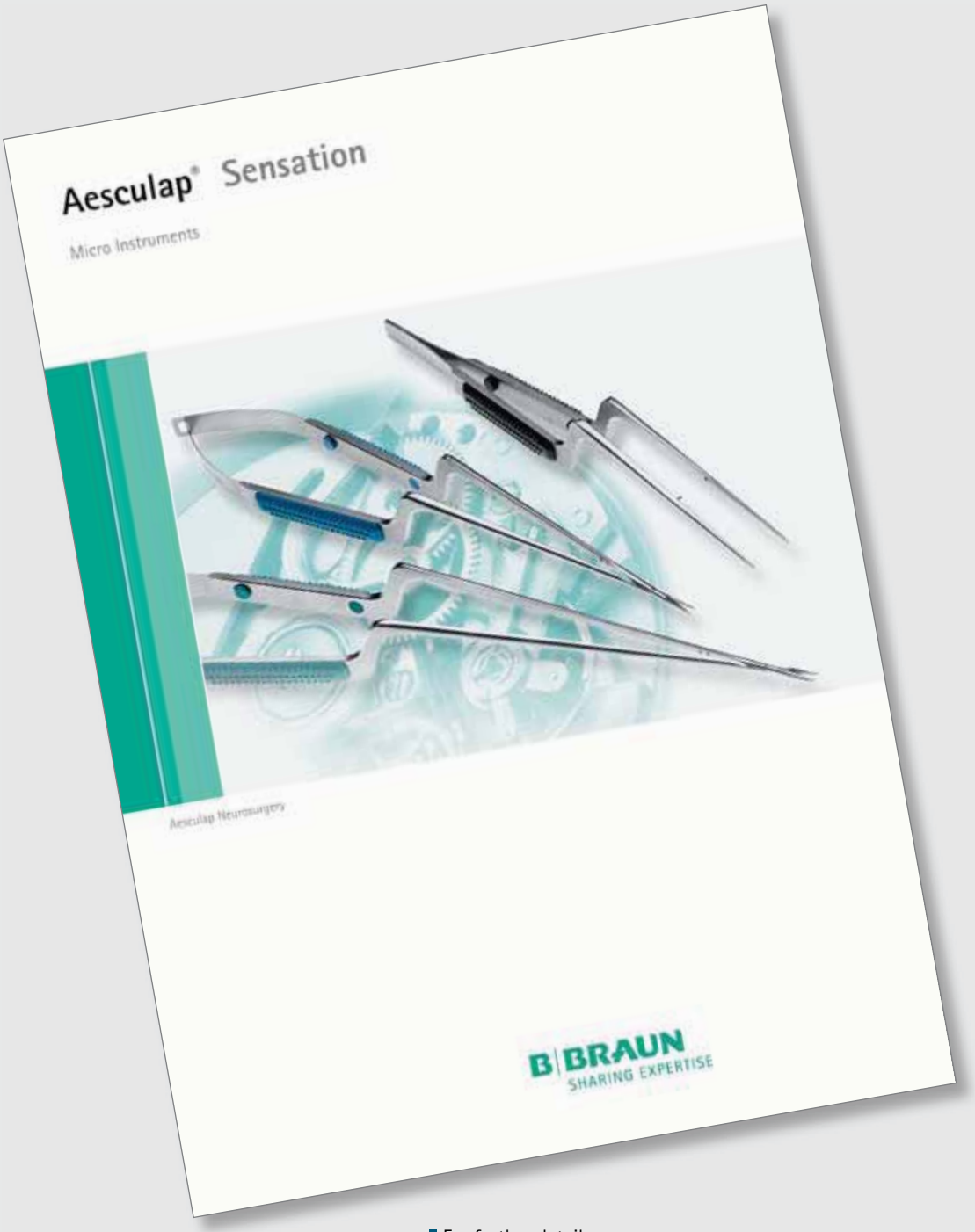
FD258R–FD259R
with ratchet
Suture size: 7/0 and smaller
180 mm, 7"



FM236R
with ratchet and streamline box
Suture size: 5/0 and smaller
210 mm, 8 1/4"



FM276R
without ratchet and streamline box
Suture size: 5/0 and smaller
210 mm, 8 1/4"



For further details see brochure No. **C74511**

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



1/1

2.8 mm



FD901R
Spoon, sharp straight

2.8 mm



FD902R
Spoon, sharp angled

4.4 mm


1/1

FD903R
Spoon, sharp straight

4.4 mm



FD904R
Spoon, sharp angled

2.0 mm



FD911R
Dissector, sharp, angled

3.5 mm


1/1

FD912R
Dissector, sharp, angled

4.0 mm

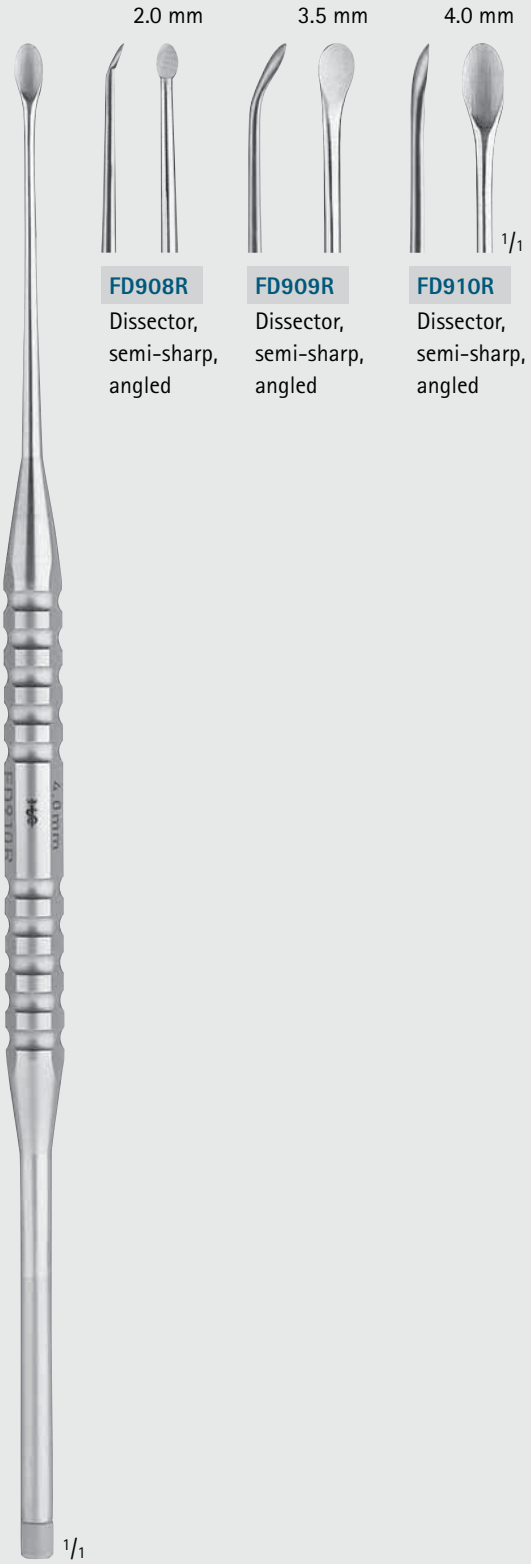

1/1

FD913R
Dissector, sharp, angled

AL MEFTY
FD901R–FD913R
„sharp" instruments (270°) with black cap
200 mm, 8"

Instruments

Skull Base Instruments



FD908R
Dissector, semi-sharp, angled

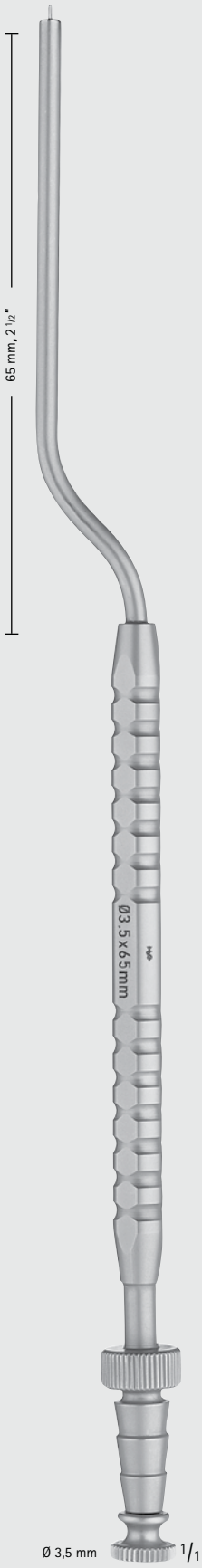
FD909R
Dissector, semi-sharp, angled

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"



JG381R 273 x 176 x 30 mm
Perforated basket with instrument racks
and lid for storage of
AL MEFTY skull base instruments



JN092
Container fits one JG381R
(basket not included)

Instruments

Nerve Retractors, Nerve Root Retractors



BT082R

BT083R

CUSHING

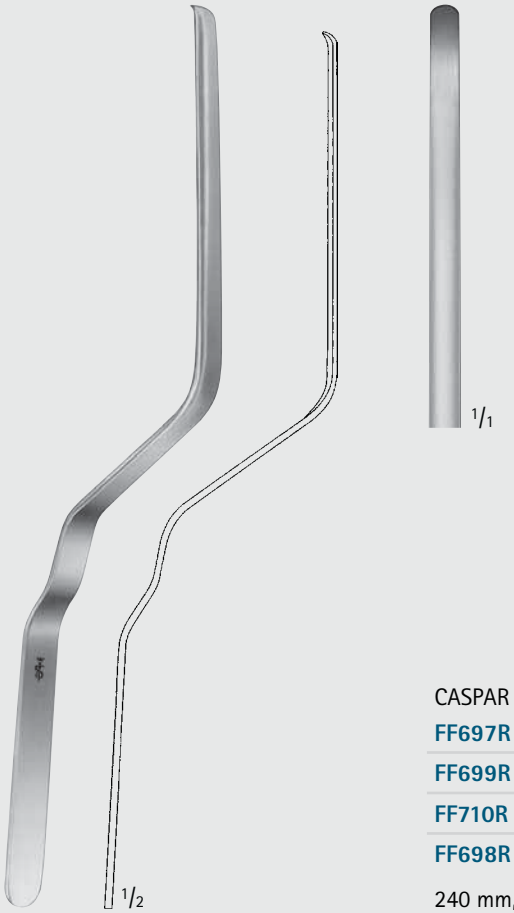
BT082R–BT083R

190 mm, 7 1/2"



LOVE

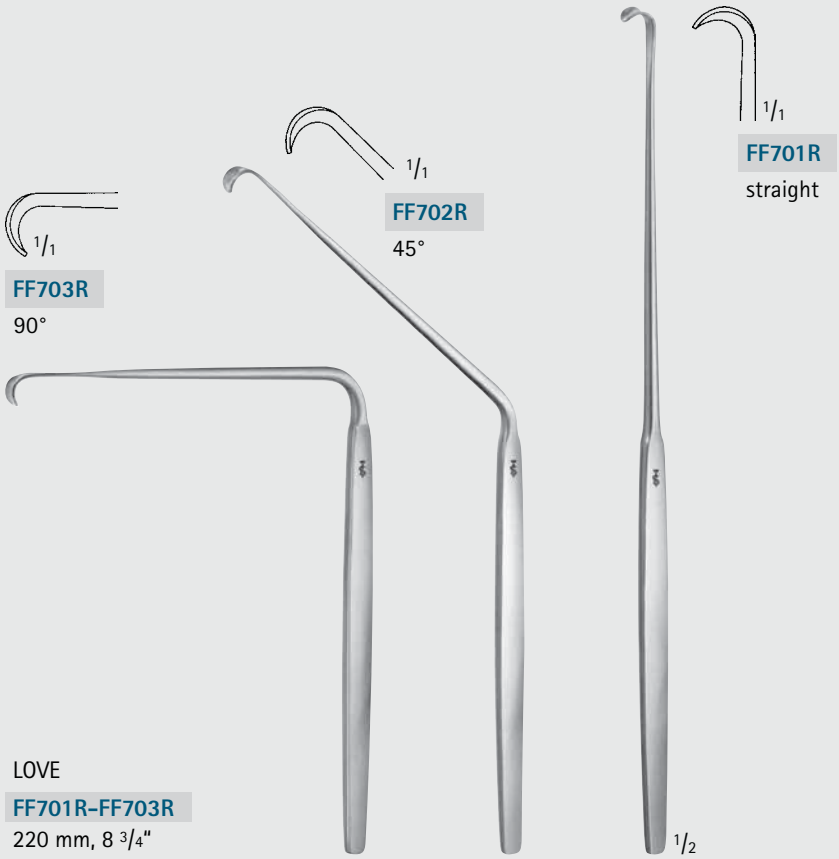
FF700R



CASPAR

FF697R	4 mm
FF699R	6 mm
FF710R	8 mm
FF698R	10 mm

240 mm, 9 1/2"

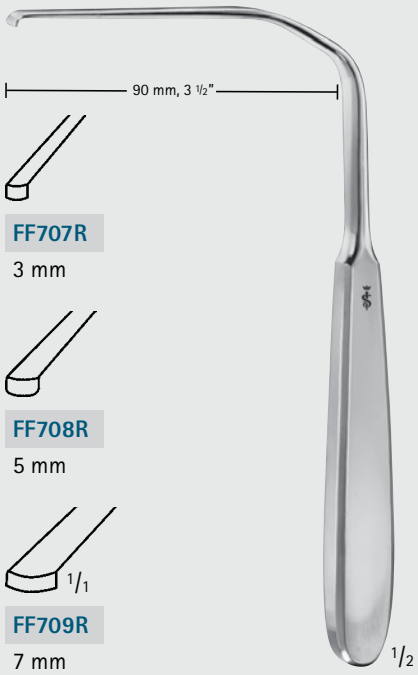


FF703R
90°

FF702R
45°

FF701R
straight

LOVE
FF701R–FF703R
220 mm, 8 3/4"



FF707R
3 mm

FF708R
5 mm

FF709R
7 mm

HESS
FF707R–FF709R
175 mm, 7"

Exploration Hooks, Probe-Pointed



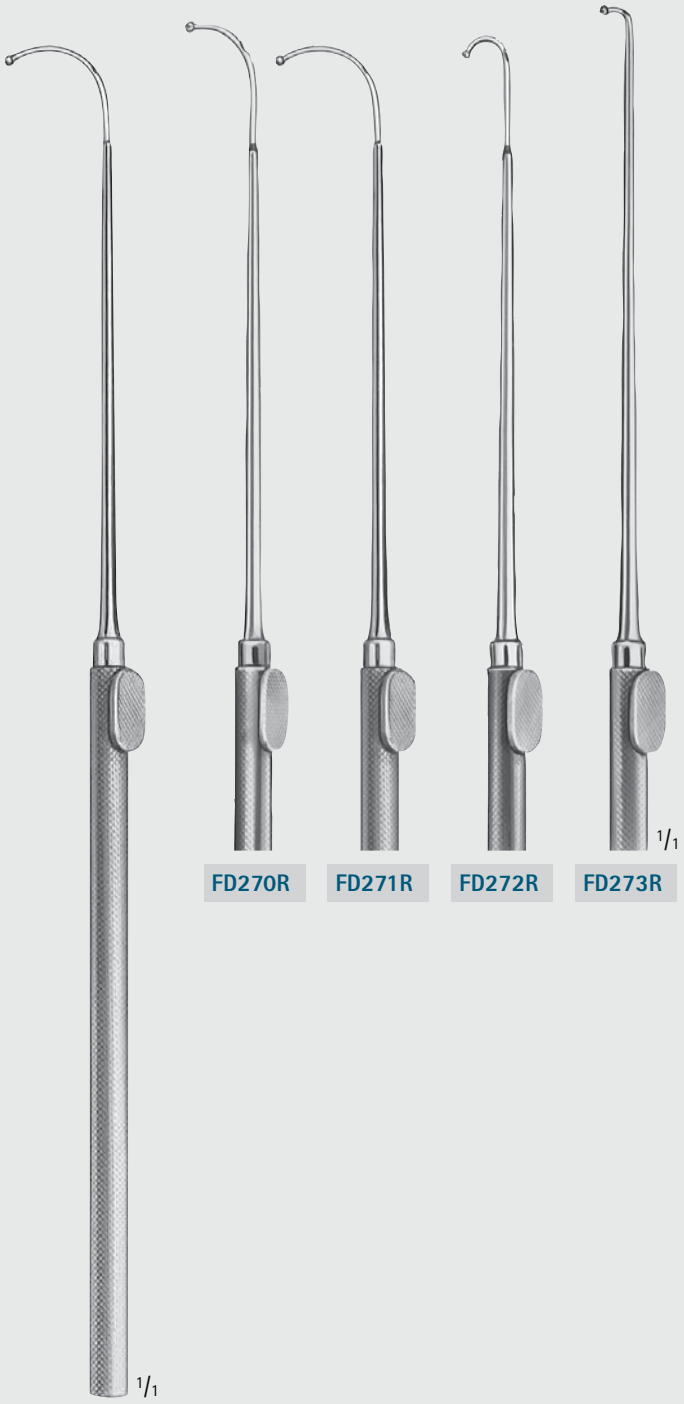
1/1

BT088R BT089R BT090R BT091R

CASPAR

BT088R-BT091R

245 mm, 9 3/4"



1/1

FD270R FD271R FD272R FD273R

YASARGIL

FD270R-FD273R

185 mm, 7 1/4"



CUSHING

BT084R

280 mm, 11"

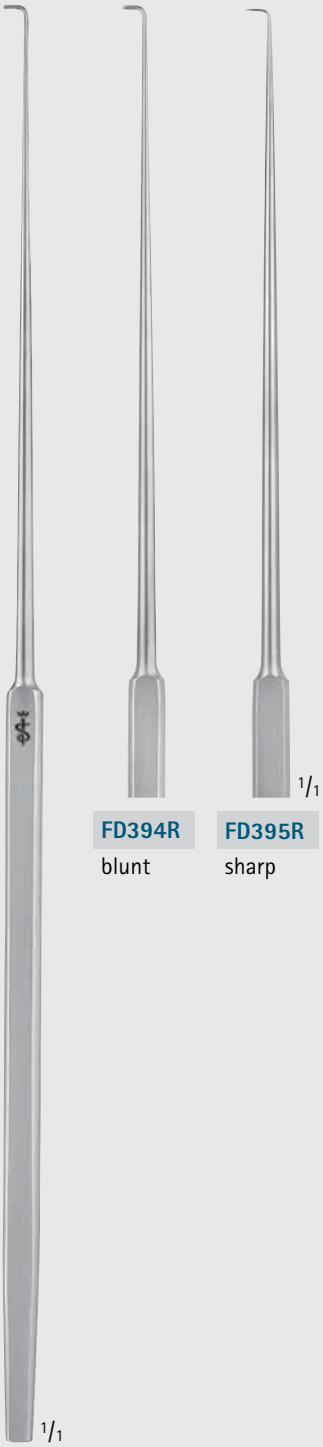


FD396R **FD397R** **FD398R** **FD399R**

KRAYENBÜHL

FD396R–FD399R

185 mm, 7 1/4"



FD394R blunt

FD395R sharp

ADSON

FD394R–FD395R

190 mm, 7 1/2"



JÄGER

OA351R

135 mm, 5 1/4"





OL620R **OL622R** **OL623R** **OL624R** **MD581**

JOSEPH

OL620R-MD581

165 mm, 6 1/2"



OL611R OL612R

GILLIES
OL611R-OL612R
180 mm, 7"



KILNER
OL610R
160 mm, 6 1/4"



OL615R OL616R

MC INDOE
OL615R-OL616R
150 mm, 6"



FREER
OL621R
150 mm, 6"



MÜLLER
OL626R
150 mm, 6"



MÜLLER
OL627R
150 mm, 6"



1/1

COTTLE

OL617R

160 mm, 6 1/4"



1/1

KLEINERT-KUTZ

OL601R–OL603R

160 mm, 6 3/8"



1/1

COTTLE

OL619R

160 mm, 6 1/4"



1/1

OA332R sharp

OA333R blunt

GRAEFE

OA332R–OA333R

125 mm, 5"





OA334R
sharp
1.2 x 2.0 mm
125 mm, 5"



OA335R
sharp
1.7 x 3.0 mm
130 mm, 5 1/8"

GUTHRIE
OA334R-OA335R





OA336R
sharp
2.2 x 4.5 mm
130 mm, 5 1/8"



OA337R
sharp
2.5 x 7.0 mm
135 mm, 5 1/4"



OA338R
blunt
2.2 x 7.0 mm
135 mm, 5 1/4"

ROLLET
OA336R-OA338R

Fine Wound Retractors (Dura Retractors)



1/1

CAIRNS

FF313R

128 mm, 5"



1/1

FRAZIER

FF321R

130 mm, 5 1/8"



1/1

TÖNNIS

FF322R

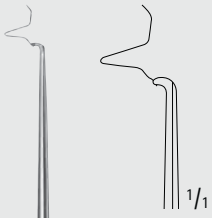
150 mm, 6"





ASSMUS

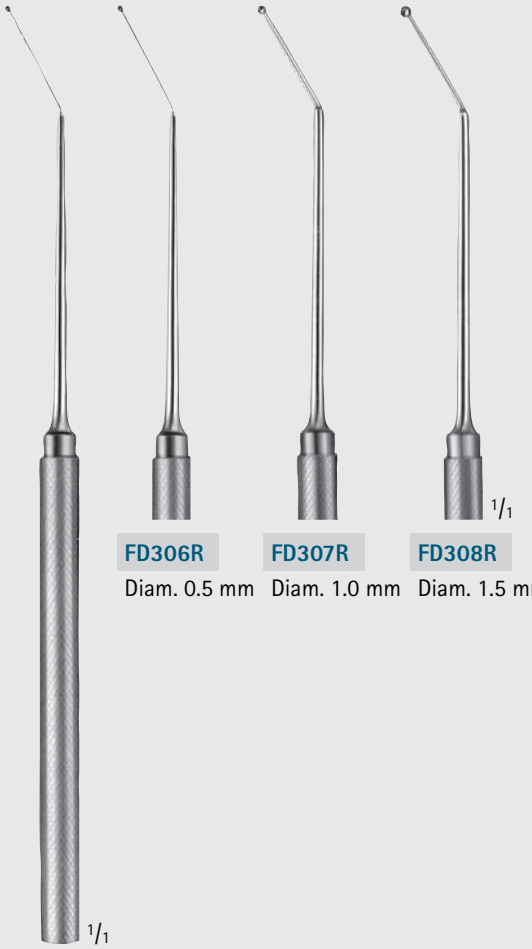
FD610R Diam. 3 mm
Nerve stripper, blunt
Shaft length: 350 mm, 13 3/4"
395 mm, 15 1/2"





BIEMER

FD310R 3 mm
Vessel spreader
160 mm, 6 1/4"



FD306R Diam. 0.5 mm
FD307R Diam. 1.0 mm
FD308R Diam. 1.5 mm

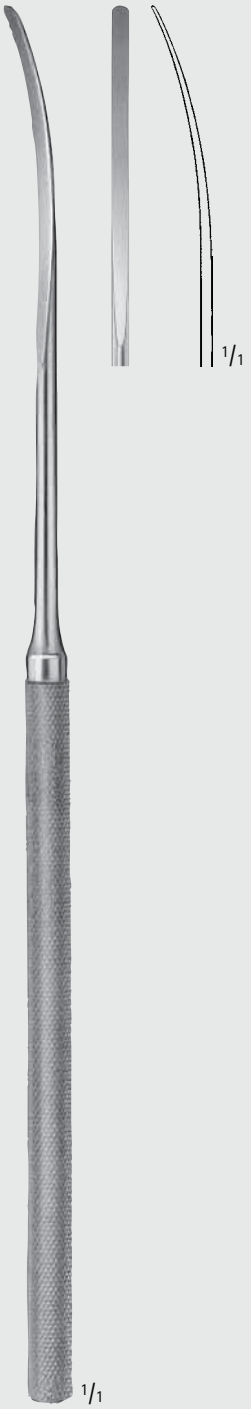
FD306R–FD308R
Vessel dilators
125 mm, 5"



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"



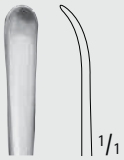
FB150R
185 mm, 7 1/4"



FB151R
215 mm, 8 1/2"

Instruments
Micro Dissectors

4.5 mm

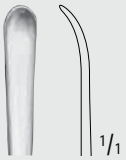


curved



CASPAR
FF303R
230 mm, 9"

4.5 mm

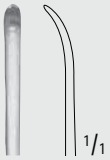


downwards
curved



CASPAR
FF305R
230 mm, 9"

2.0 mm



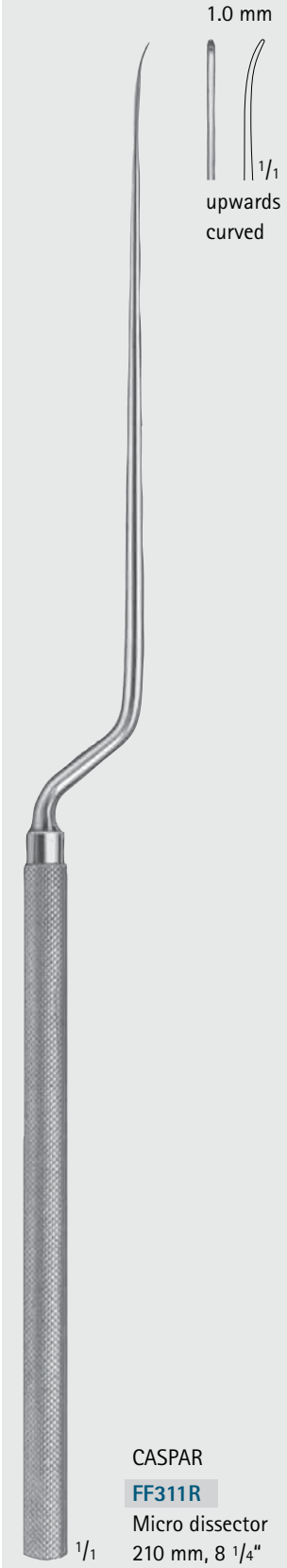
downwards
curved



CASPAR
FF307R
230 mm, 9"



CASPAR
FF310R
Micro dissector
200 mm, 8"



CASPAR
FF311R
Micro dissector
210 mm, 8 1/4"



CASPAR
FF312R
Micro dissector
210 mm, 8 1/4"



CASPAR
FF309
Suture pusher
230 mm, 9"



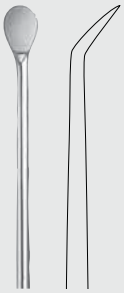
1/1



FD301R
Micro raspatory, angled



FD302R
Micro dissector, angled



FD303R
Micro dissector, angled



FD304R
Micro raspatory, slightly curved



1/1

FD305R
Micro raspatory, curved

YASARGIL

FD301R–FD305R

185 mm, 7 1/4"



1/1

FD320R
Micro raspatory, downwards curved

FD321R
Micro raspatory, downwards curved

FD322R
Micro raspatory, upwards curved

FD325R
Micro scoop



1/1

YASARGIL

FD320R–FD325R
185 mm, 7 1/4"

Instruments

Knives for Tumor Tissue

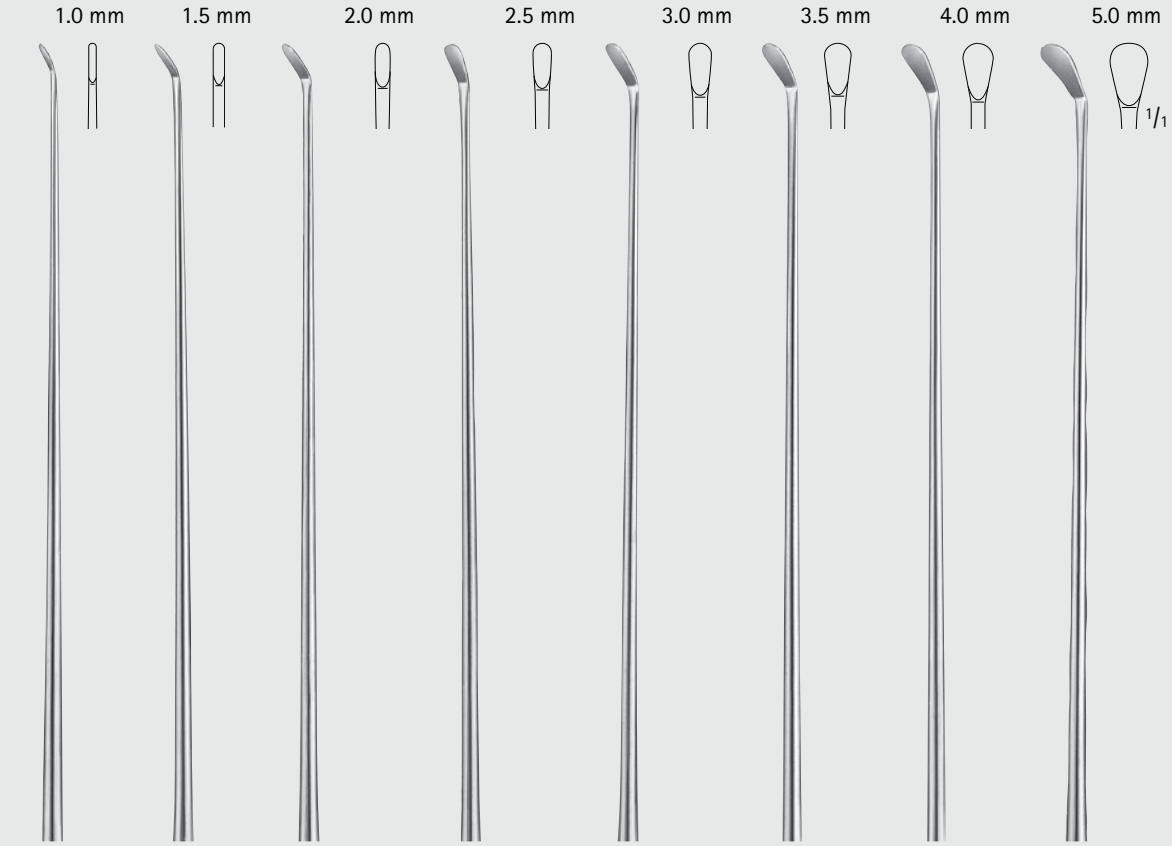


1/1

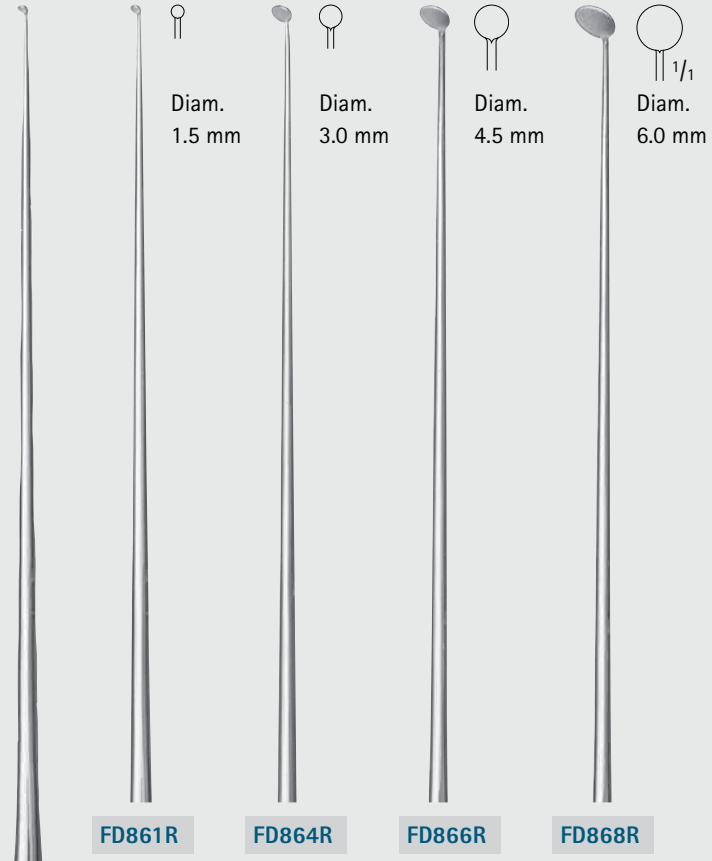
SAMII

FD410R–FD418R

230 mm, 9"



FD410R **FD411R** **FD412R** **FD413R** **FD414R** **FD415R** **FD416R** **FD418R**



FD861R **FD864R** **FD866R** **FD868R**

SAMII
FD861R–FD868R
230 mm, 9"

1/1



SAMII
FD298R
Lancet knife
for tumor tissue
230 mm, 9"

Instruments for Acoustic Neurinoma



OPPEL

FD429R

Micro dissector, malleable
curved
230 mm, 9"



OPPEL

FD430R 90°

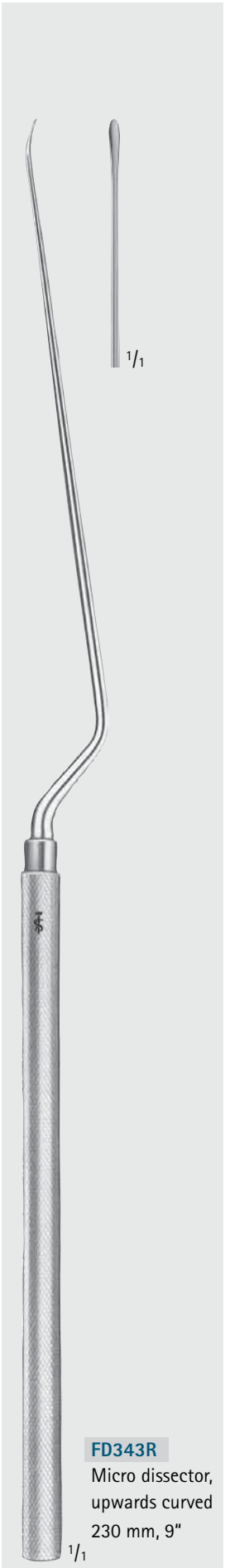
Retractor,
diam. of tip 2 mm
malleable, blunt
230 mm, 9"



OPPEL

FD432R 45°

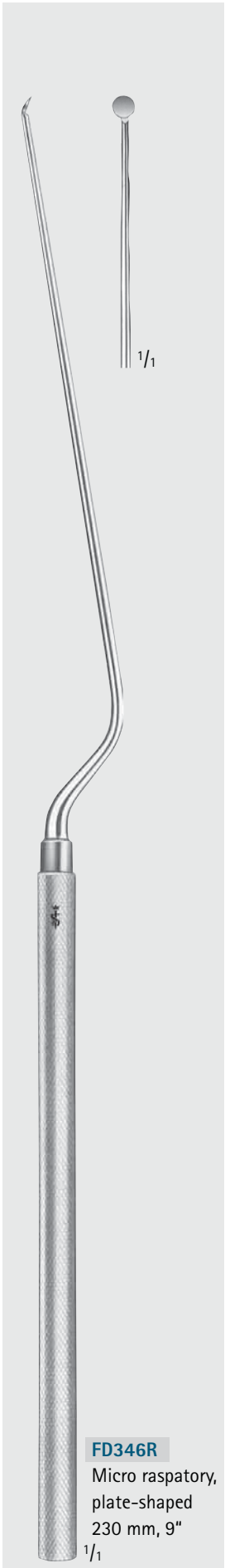
Retractor,
diam. of tip 2 mm
malleable, blunt
230 mm, 9"



FD343R
Micro dissector, upwards curved
230 mm, 9"



FD344R
Micro dissector, downwards curved, blunt
230 mm, 9"



FD346R
Micro raspatory, plate-shaped
230 mm, 9"



FD333R
Micro dissector, blunt
230 mm, 9"



FD338R
Micro raspatory, plate-shaped
230 mm, 9"



FD330R
Micro hook,
semi-sharp
230 mm, 9"



FD331R
Micro hook,
blunt
230 mm, 9"



FD332R
Micro dissector,
straight
230 mm, 9"



FD334R
Micro dissector,
straight
230 mm, 9"





FD335R
Micro scoop,
straight, sharp
230 mm, 9"





FD336R
Micro scoop,
angled, sharp
230 mm, 9"





FD337R
Micro raspatory
round blade
230 mm, 9"





1/1

FD113D
Round blade,
gold-colored,
7 facets
205 mm, 8"





1/1

FD114D 60°
Retro blade,
copper-colored
205 mm, 8"





1/1

FD115D 45°
Wedge blade,
black
205 mm, 8"





1/1

FD116D 60°
Lancet blade,
bronze-colored
205 mm, 8"



1/1



KOOS
FD351R
upwards curved



KOOS
FD352R
downwards curved



KOOS
FD353R
upwards curved



1/1

KOOS
FD354R
downwards curved



YASARGIL
FD365R
downwards curved



1/1

YASARGIL
FD366R
upwards curved

FD351R–FD366R
185 mm, 7 1/4"

Instruments

Tissue Picks, Sharp Hooks, Micro Vessel Knives



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"



JACOBSON
FD362R
interchangeable
vessel knife
for handle
FD361R

FD361R
Handle with chuck
for interchangeable
vessel knife
105 mm, 4 1/8"



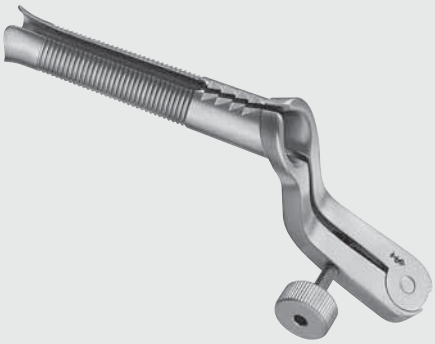
JACOBSON
FD350R
Vessel knife
185 mm, 7 1/4"



For further details see brochure No. **C08102**



For further details see brochure No. **C22402**



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

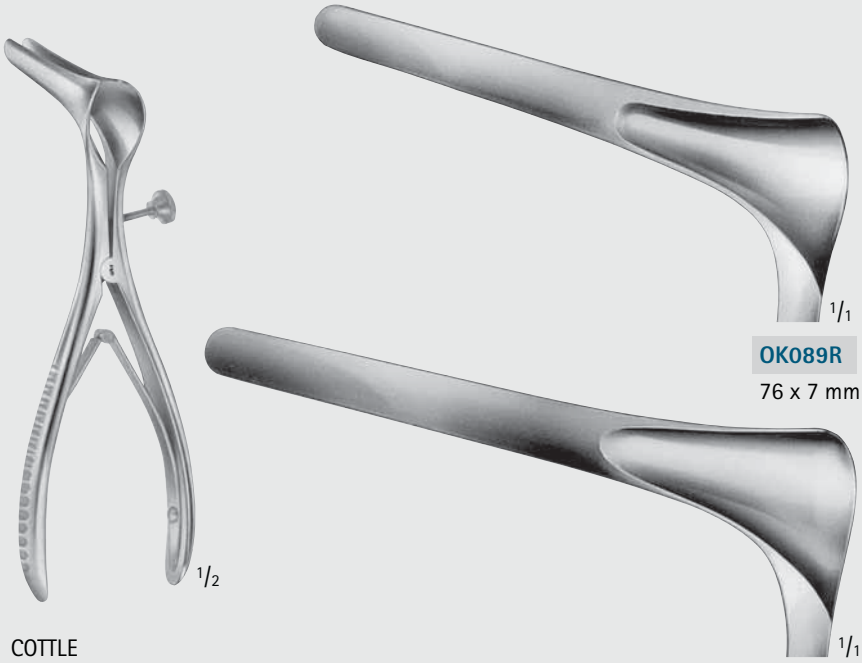


FF590B 90 x 13 mm
Noir®
Transsphenoidal specula



1/2

TE749R
Key



1/2

1/1

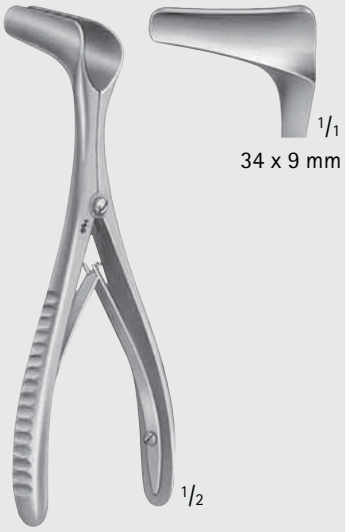
1/1

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



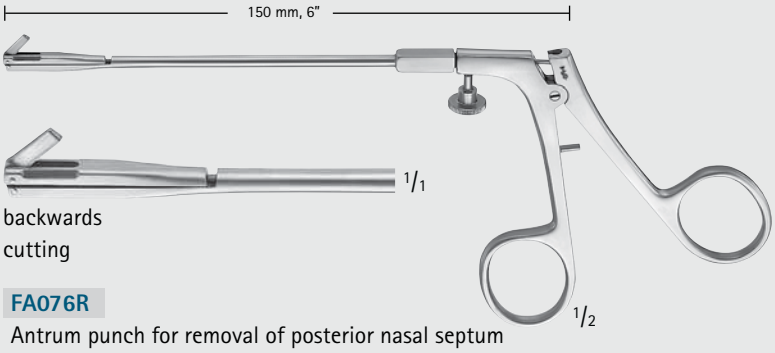
1/1

1/2

34 x 9 mm

PAPAVERO-HARTMANN

FF595R
Spreader for specula
FF589R, FF590R, FF591R
140 mm, 5 1/2"

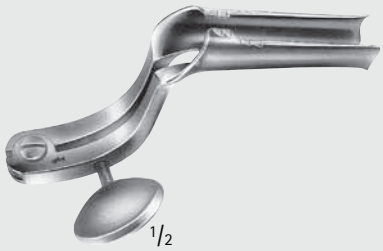


1/1

1/2

backwards
cutting

FA076R
Antrum punch for removal of posterior nasal septum
Kerrison bone punches and rongeurs see page 4-28.



CUSHING-LANDOLT

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

Specula
for transsphenoidal hypophysectomy



LANDOLT

OK103R 70 x 15 mm
Spreader
for specula OK100R-OK102R
210 mm, 8 1/4"



PAPAVERO

FF610R
Bayonet chisel, 4 mm wide,
for the perpendicular plate
of ethmoid bone
220 mm, 8 3/4"



COTTLE

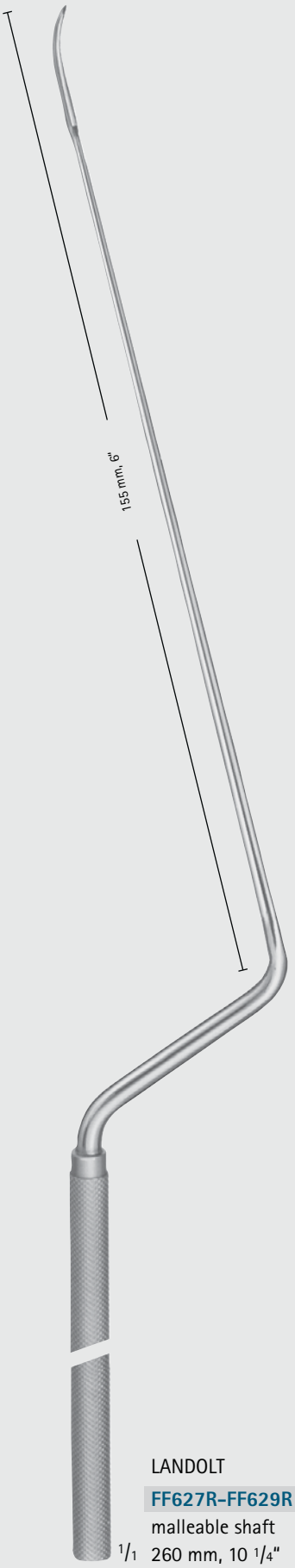
OL301R	4 mm
OL302R	7 mm
OL303R	9 mm
OL304R	12 mm

Chisel with depth markings
180 mm, 7"

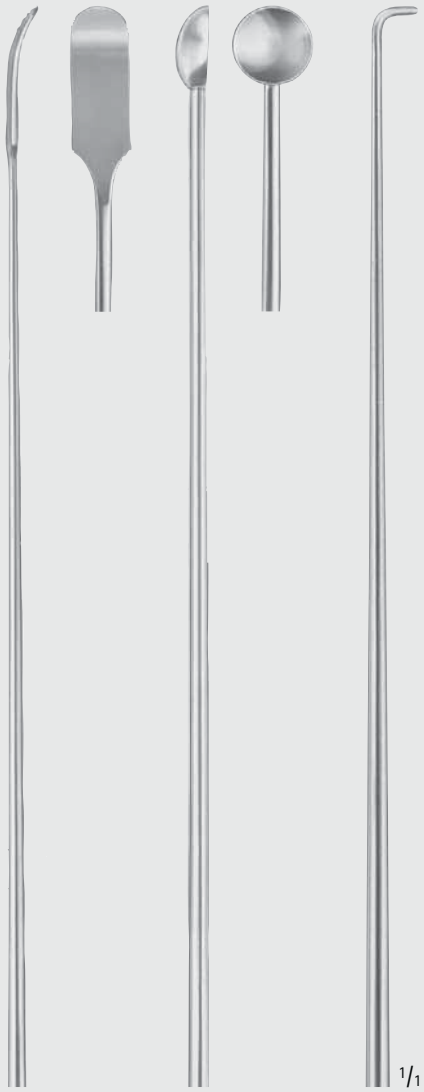


COTTLE

FL038R 235 g
Mallet,
1 side flat, 1 side convex
185 mm, 7 1/4"



LANDOLT
FF627R–FF629R
malleable shaft
1/1 260 mm, 10 1/4"

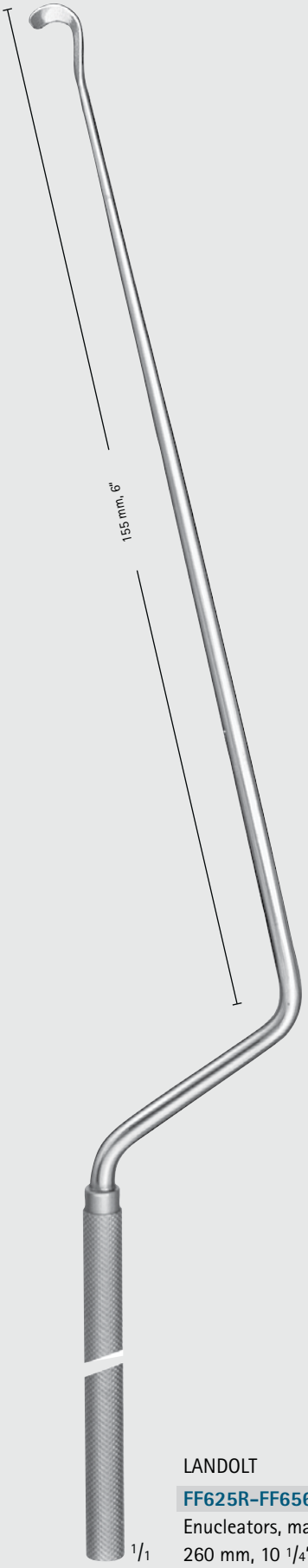


1/1

FF627R
Curette

FF628R
Spoon

FF629R
Blunt hook

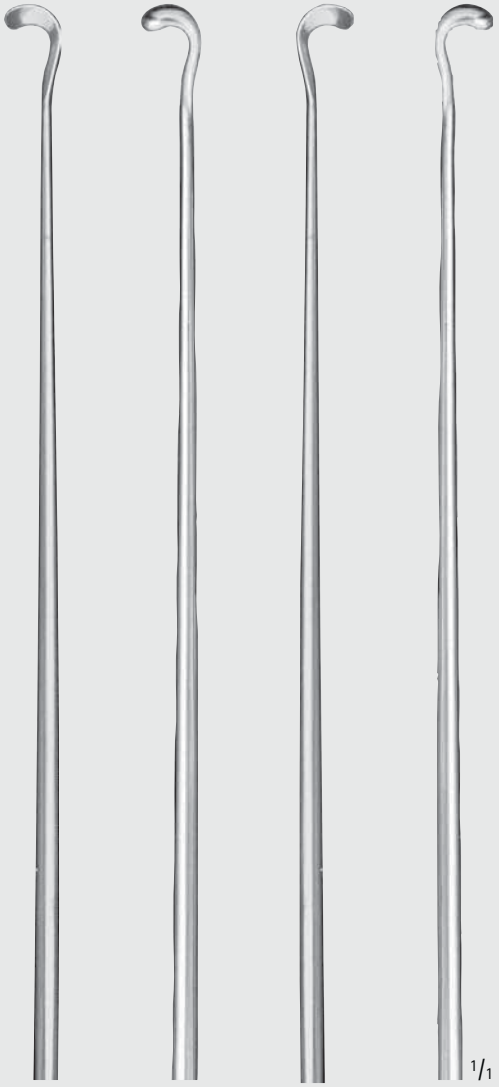


LANDOLT

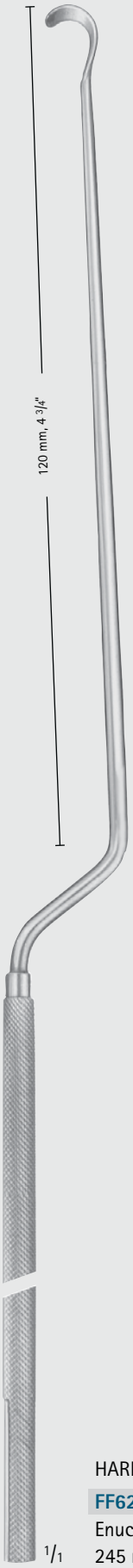
FF625R–FF656R

Enucleators, malleable

260 mm, 10 1/4"



FF625R	**FF655R**	**FF626R**	**FF656R**
blunt	blunt	blunt	blunt
right	left	right	left





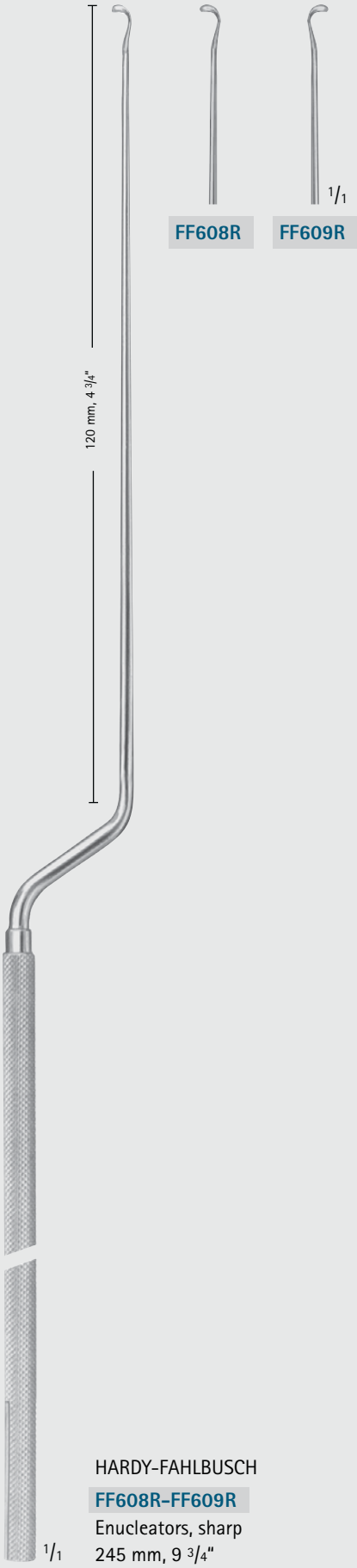
FF620R	**FF650R**	**FF621R**	**FF651R**	**FF622R**	**FF652R**	**FF623R**	**FF653R**
blunt right	blunt left	blunt right	blunt left	sharp right	sharp left	sharp right	sharp left

HARDY

FF620R–FF653R

Enucleators, sharp

245 mm, 9 3/4"



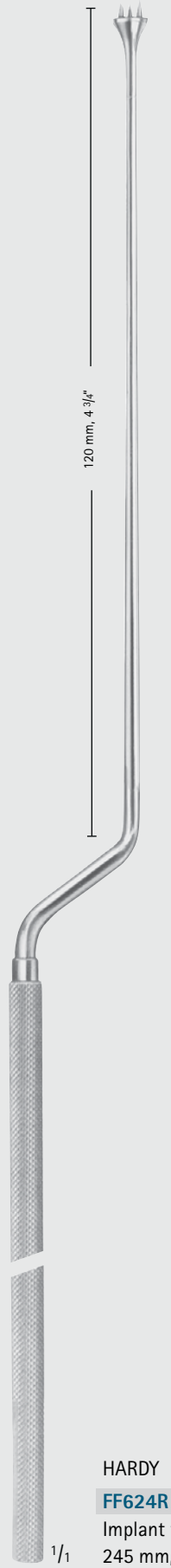
FF608R **FF609R**

HARDY-FAHLBUSCH

FF608R–FF609R

Enucleators, sharp

245 mm, 9 3/4"



HARDY

FF624R

Implant fork

245 mm, 9 3/4"

Pituitary Instruments

■ Bayonet design with ergonomic grasping part and semi-sharp tips



NICOLA
FA041R-FA068R
280 mm, 11"

Diam. 6.5 mm



NICOLA
FA041R
Curette
45°
vertical
angled
long neck

Diam. 6.5 mm



NICOLA
FA042R
Curette
45°
horizontal
angled
short neck



HARDY
FA043R
Enucleator
left cutting



HARDY
FA044R
Enucleator
right cutting

Diam. 4.0 mm



HARDY
FA045R
Curette
90°
left angled
long neck

Diam. 4.0 mm



HARDY
FA046R
Curette
90°
left angled
short neck

Diam. 4.0 mm



HARDY
FA047R
Curette
90°
right angled
long neck

Diam. 4.0 mm



HARDY
FA060R
Curette
90°
right angled
short neck

Diam. 4.0 mm



HARDY
FA061R
Curette
45° left
horizontal
angled
short neck

Diam. 4.0 mm



HARDY
FA062R
Curette
45° right
horizontal
angled
short neck

Diam. 6.0 mm



HARDY
FA063R
Curette
90°
left angled
long neck

Diam. 6.0 mm



HARDY
FA064R
Curette
90°
left angled
short neck

Diam. 6.0 mm



HARDY
FA065R
Curette
90°
right angled
long neck

Diam. 6.0 mm



HARDY
FA066R
Curette
90°
right angled
short neck

Diam. 1.7 mm



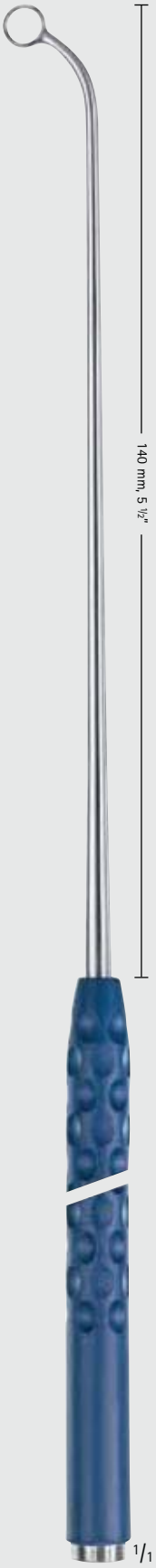
LANDOLT-REULEN
FA067R
Hook

Diam. 2.0 mm



LANDOLT-REULEN
FA068R
Dissector
blunt

■ Bayonet design with ergonomic grasping part and semi-sharp tips



NICOLA
FA030R–FA040R
265 mm, 10 ½"

Diam.
6.5 mm



NICOLA
FA030R
Curette
45°
vertical
angled
long neck

Diam.
6.5 mm



NICOLA
FA031R
Curette
45°
horizontal
angled
short neck



HARDY
FA032R
Enucleator
left cutting



HARDY
FA033R
Enucleator
right cutting

Diam.
4.0 mm



HARDY
FA034R
Curette
90°
angled
long neck

Diam.
4.0 mm



HARDY
FA035R
Curette
90°
angled
short neck

Diam.
4.0 mm



HARDY
FA036R
Curette
45°
angled
short neck

Diam.
6.0 mm



HARDY
FA037R
Curette
90°
angled
long neck

Diam.
6.0 mm



HARDY
FA038R
Curette
90°
angled
short neck

Diam.
1.7 mm



LANDOLT-
REULEN
FA039R
Hook

Diam.
2.0 mm



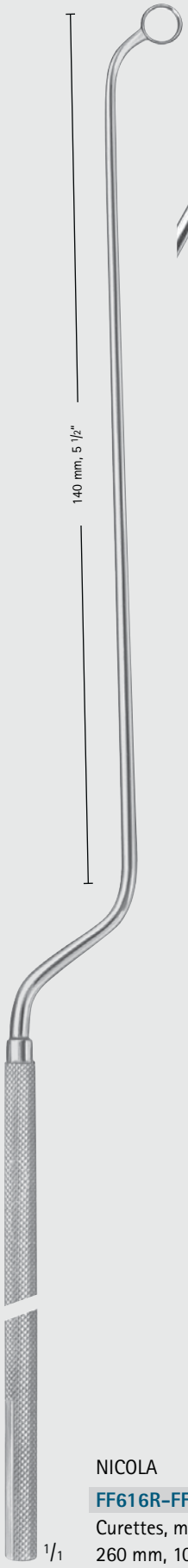
LANDOLT-
REULEN
FA040R
Dissector
blunt



FF616R Diam. 6.5 mm cutting to the right

FF617R Diam. 6.5 mm

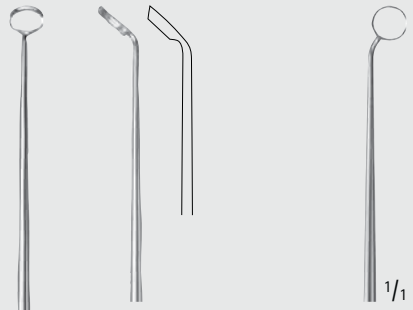
FF618R Diam. 6.5 mm



NICOLA
FF616R–FF618R
Curettes, malleable
260 mm, 10 1/4"



NICOLA
FF619R
Raspatory
215 mm, 8 1/2"



FF611R Diam. 4 mm
horizontal 45°

FF614R Diam. 4 mm
vertical 45°

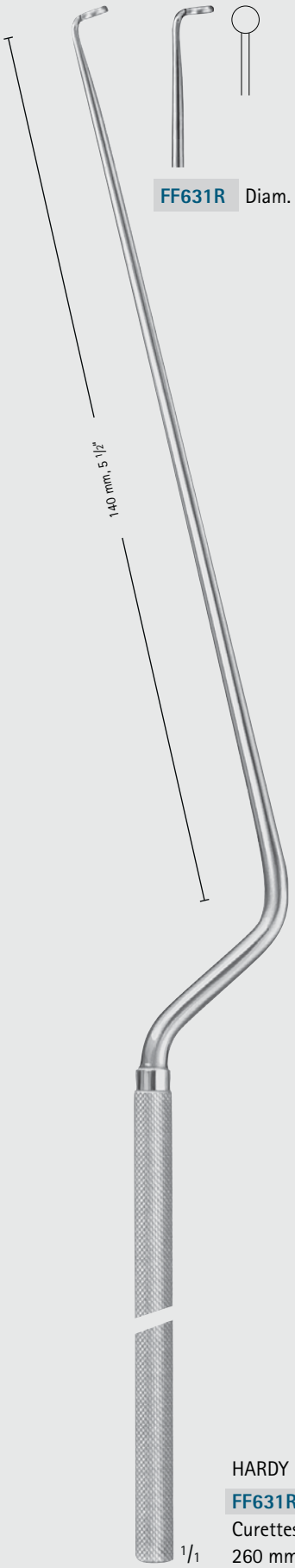


RAY
FF611R–FF614R
Curettes
180 mm, 7"



FF631R Diam. 4 mm

FF632R Diam. 6 mm



HARDY
FF631R–FF632R
Curettes, malleable
260 mm, 10 1/4"

Pituitary Instruments



LANDOLT-REULEN

FF640R-FF644R

260 mm, 10 1/4"



FF640R Diam. 2.2 mm

Raspatory, rigid



FF641R Diam. 3.2 mm

Raspatory, rigid



FF642R Diam. 2.5 mm

Curette, rigid



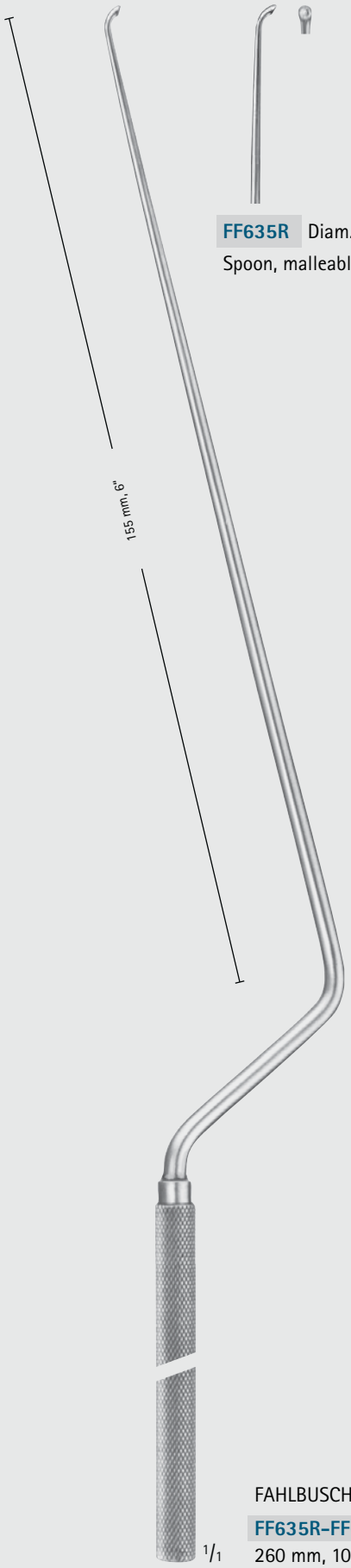
FF643R Diam. 1.7 mm

Blunt hook, rigid



FF644R Diam. 2.0 mm

Dissector, rigid



FAHLBUSCH

FF635R–FF637R

260 mm, 10 1/4"

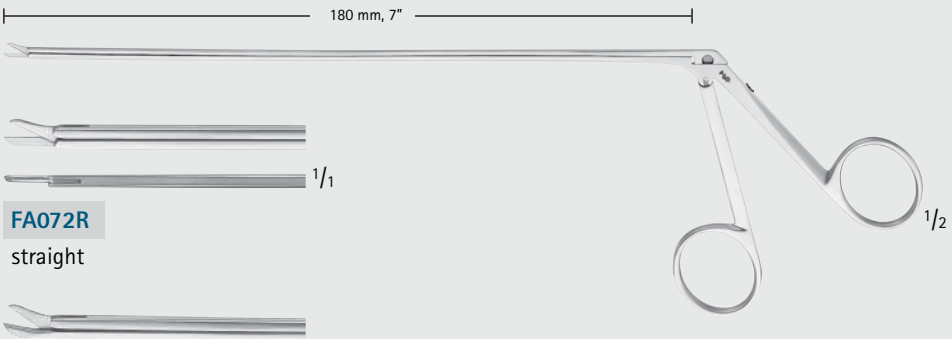
FF635R Diam. 2.0 mm

Spoon, malleable



FF637R Diam. 2.5 mm

Curette, malleable



FA072R
straight



FA073R
left curved

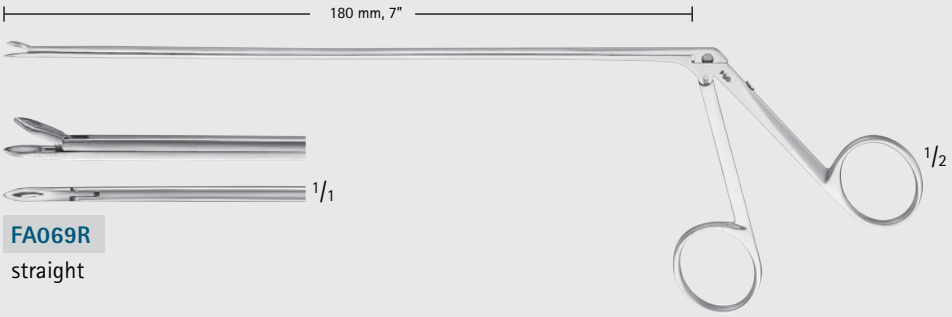


FA074R
right curved

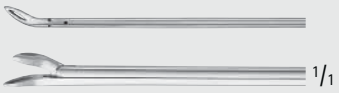


FA075R
angular

FA072R–FA075R
Scissors



FA069R
straight

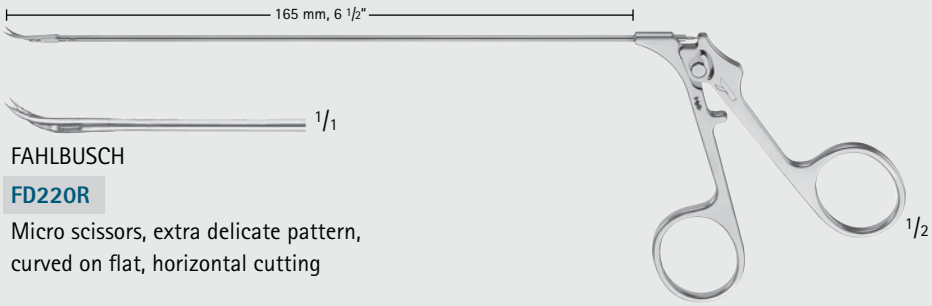


FA070R
right curved



FA071R
left curved

FA069R–FA071R
Forceps



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



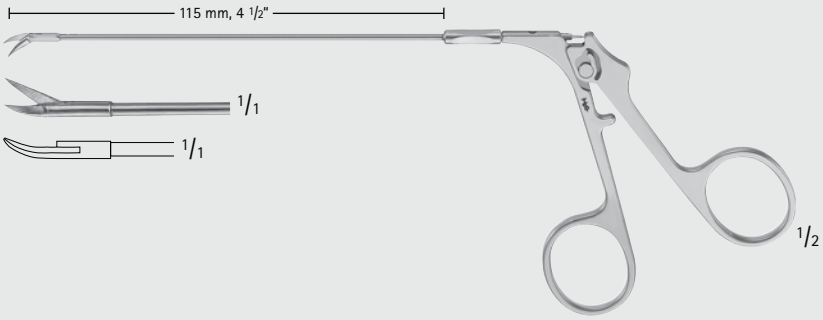
NICOLA

FD226R Diam. 2.5 mm

Micro scissors, straight

FD220R–FD226R

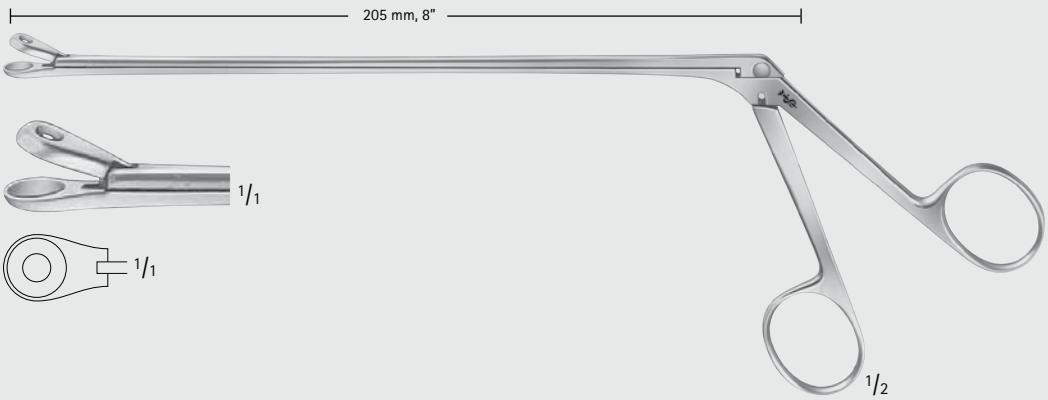
with tubular shaft



CASPAR

FD228R

Micro scissors, curved rotatable 360°

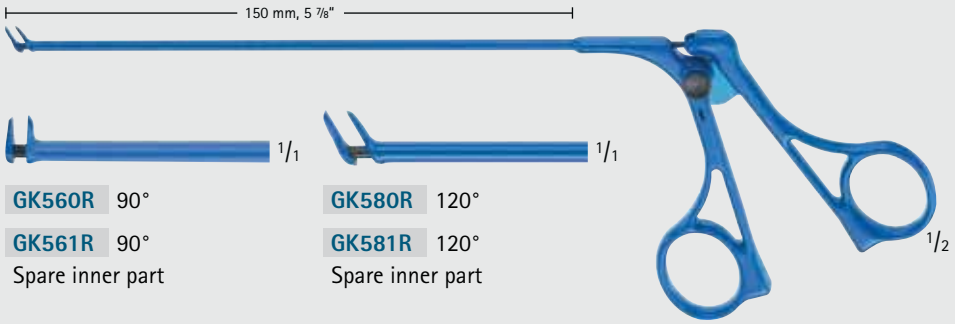


LANDOLT

FF345R Diam. 9.0 mm
Tumor grasping forceps, blunt



FM158R
SENSATION Micro forceps,
245 mm, 9 3/4"

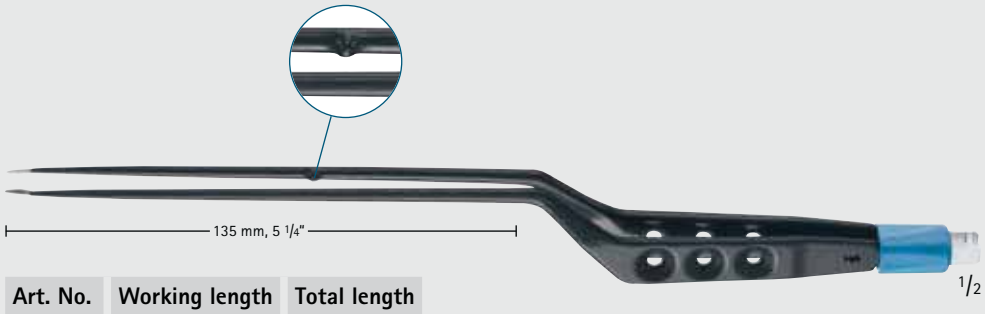


GK560R 90°
GK561R 90°
Spare inner part

GK580R 120°
GK581R 120°
Spare inner part

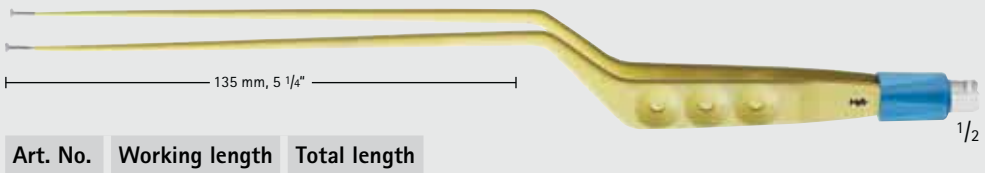
LANDOLT
GK560R–GK581R
Coagulation forceps for hypophysectomy

- Special pin between the branches opens the tip of the forceps by additional compression of the handle – allowing secure coagulation in narrow and deep seated surgical field.



Art. No.	Working length	Total length
GK801R	135 mm, 5 1/4"	250 mm, 10"

Bipolar coagulation forceps with slender jaws and higher spring tension



Art. No.	Working length	Total length
GK800R	135 mm, 5 1/4"	255 mm, 10"

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



Art. No.	Diam.	Tip	Working length	Total length
GF431R	2.0 mm	right angled tip	135 mm, 5 1/4"	200 mm, 8"
GF432R	2.0 mm	left angled tip	135 mm, 5 1/4"	200 mm, 8"

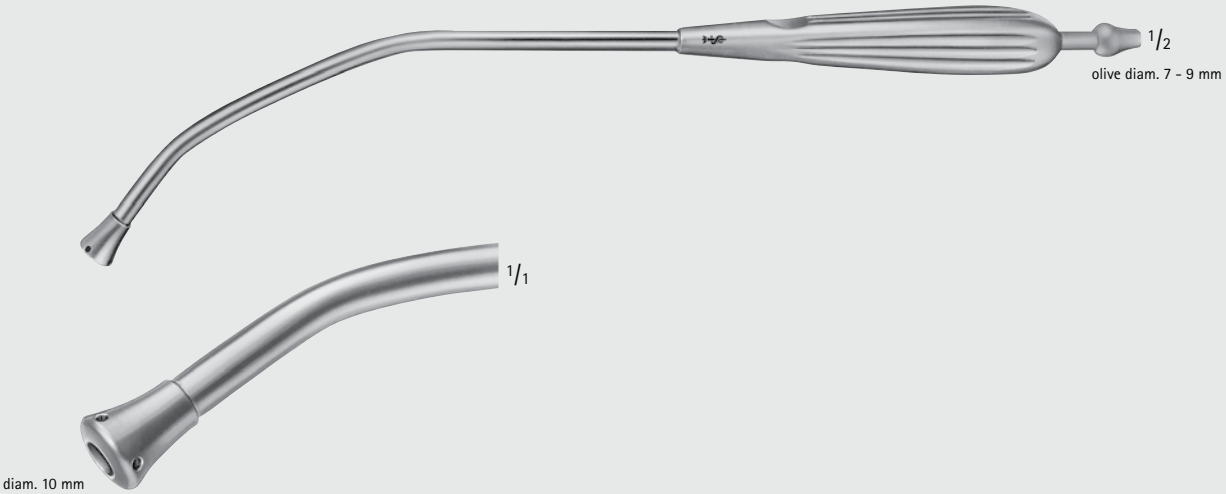
Suction cannulae, Fukushima design



YANKAUER

Art. No.	Diam.
GF944R	10.0 mm

with central bore, 2.0 mm diam.
285 mm, 11 1/4"



YANKAUER

Art. No.	Diam.
OM671R	10.0 mm

with especially large central bore, 4.8 mm diam.
285 mm, 11 1/4"



Art. No.	Diam.	Tip width
GF919R	5.0 mm	6.5 mm

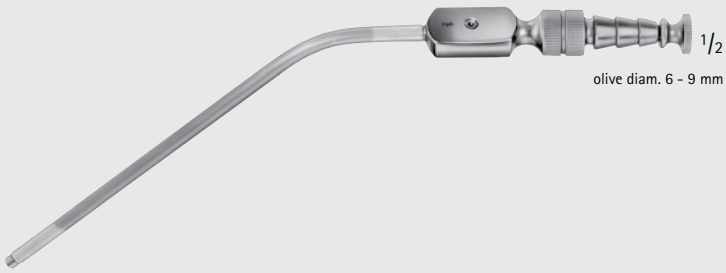
Nasal suction tube, with LUER hub
180 mm, 7"



FRAZIER

Art. No.	Diam.
GF923R	3.0 mm
GF925R	5.0 mm

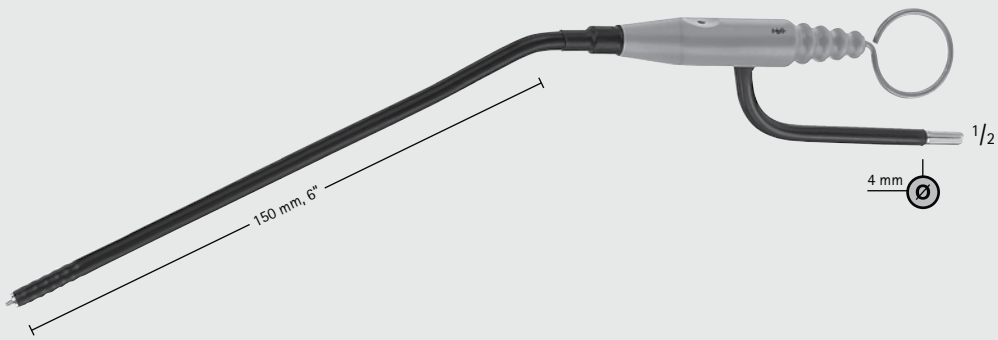
with finger cut-off and stylet,
thumb piece 90° to curve, with LUER hub
180 mm, 7"



FERGUSSON

Art. No.	Diam.
GF933R	4.0 mm

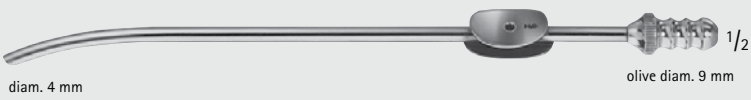
insulated, with finger cut-off and stylet,
thumb piece 90° to curve, with LUER hub
180 mm, 7"



LANDOLT

Art. No.	Diam.
GK550	6.5 mm

Coagulation suction cannula
with finger cut-off and stylet



ADSON

Art. No.	Diam.
GF917R	4.0 mm

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

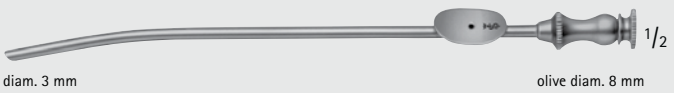


MAGILL

Art. No.	Diam.
GF906R	3.0 mm
GF907R	3.5 mm
GF908R	4.0 mm

245 mm, 9 3/4"

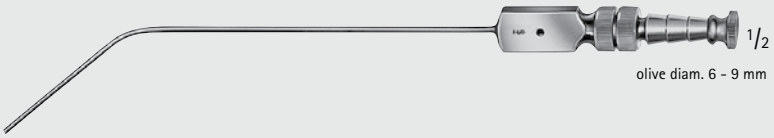
GF909R
Stylet for MAGILL suction tubes



ADSON

Art. No.	Diam.
GF918R	3 mm

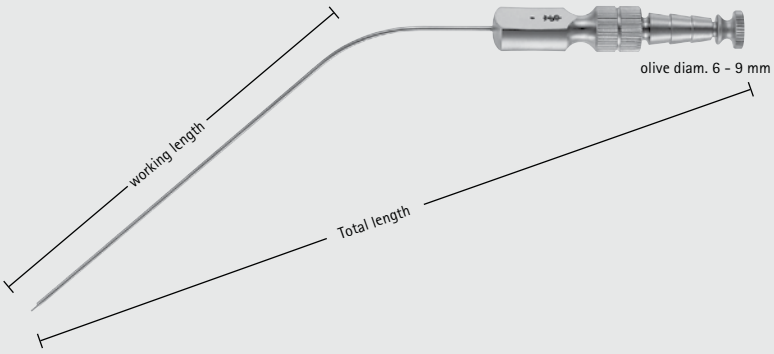
with finger cut-off and stylet
165 mm, 6 1/2"



PLESTER

Art. No.	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 3/4"

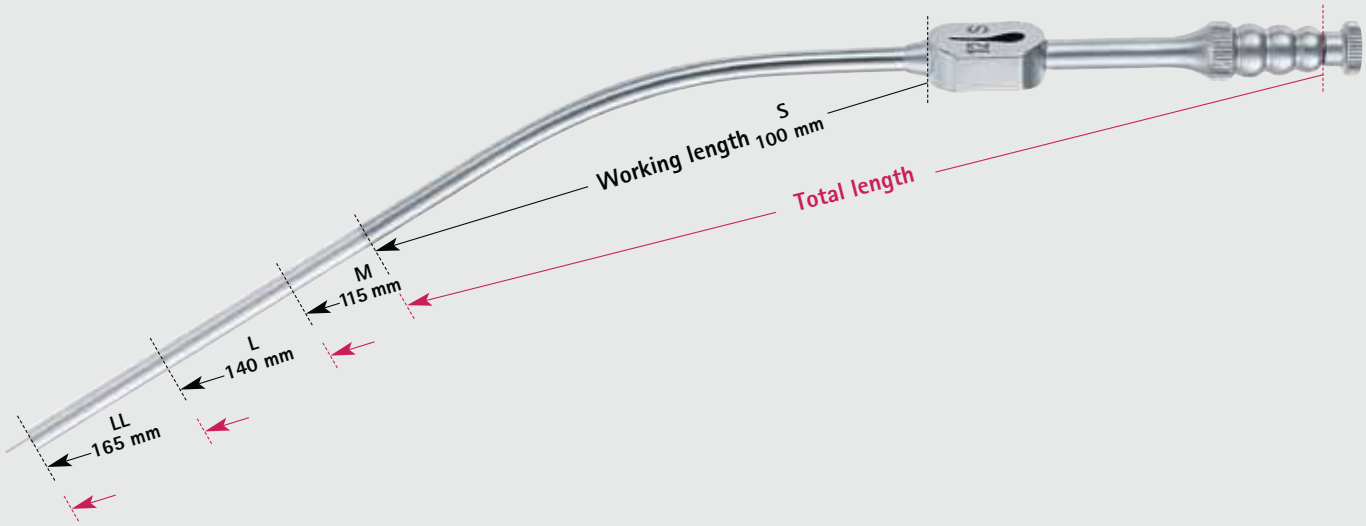


FERGUSSON

Working length	110 mm, 4 3/8"	130 mm, 5 1/8"	160 mm, 6 1/4"	200 mm, 8"
Total length	195 mm, 7 3/4"	215 mm, 8 1/2"	245 mm, 9 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 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

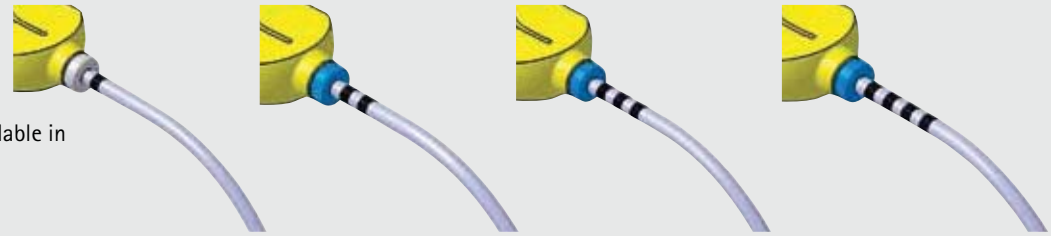


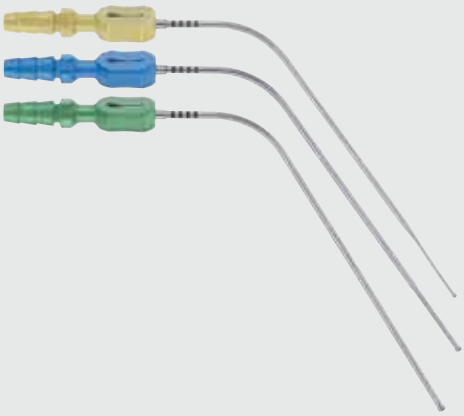
		S	M	L	LL
Working length		100 mm, 4"	115 mm, 4 1/2"	140 mm, 5 1/2"	165 mm, 6 1/2"
Total length		165 mm, 6 1/2"	180 mm, 7"	205 mm, 8"	230 mm, 9"
Outer diameter					
3 Fr	1.0 mm	GF401R	GF391R	GF411R	GF421R
4 Fr	1.3 mm	GF402R	GF392R	GF412R	GF422R
5 Fr	1.7 mm	GF403R	GF393R	GF413R	GF423R
6 Fr	2.0 mm	GF404R	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
10 Fr	3.3 mm	GF408R	GF398R	GF418R	GF428R
12 Fr	4.0 mm	GF409R	GF399R	GF419R	GF429R

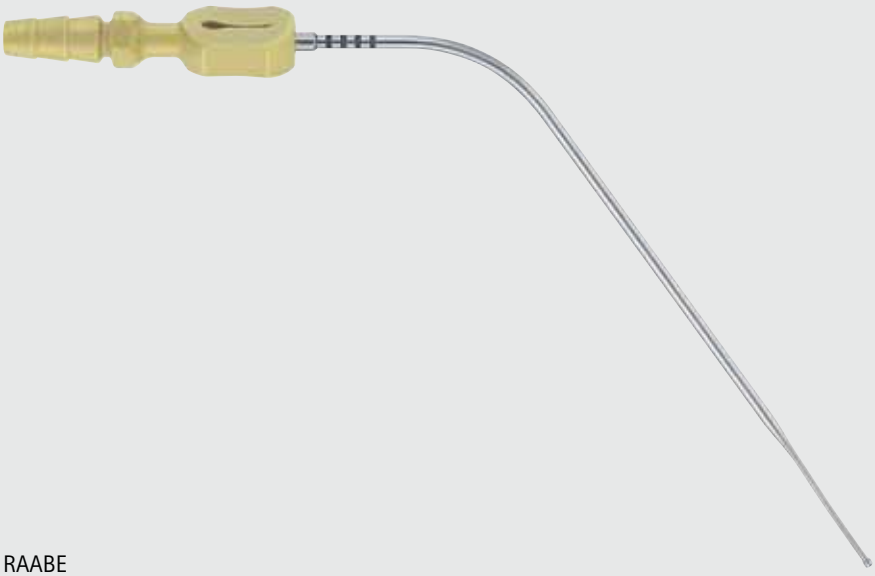
Suction cannulae, tapered teardrop, Fukushima design

RAABE micro suction

- Fine micro suction instruments
- 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)

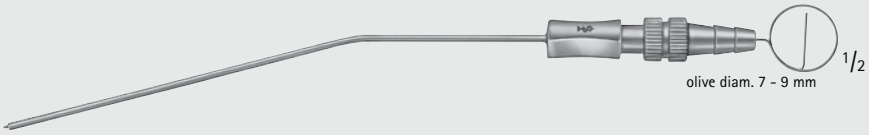






RAABE

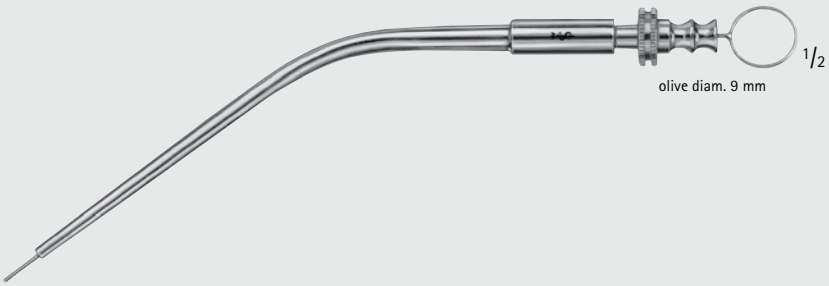
Working length		80 mm, 3 1/8"	100 mm, 4"	120 mm, 4 3/4"	140 mm, 5 1/2"
Total length		130 mm, 5 1/8"	150 mm, 6"	165 mm, 6 1/2"	185 mm, 7 1/4"
Color-coded width	Outer diameter	1 ring	2 rings	3 rings	4 rings
yellow	4 Fr ⌾ 1.4 mm	GF470R	GF473R	GF476R	GF479R
blue	6 Fr ◎ 2.0 mm	GF471R	GF474R	GF477R	GF480R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



LEMPERT

Art. No.	Diam.
GF937R	2.0 mm
GF938R	3.0 mm

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



FORMBY

Art. No.	Diam.
GF932R	3.3 mm

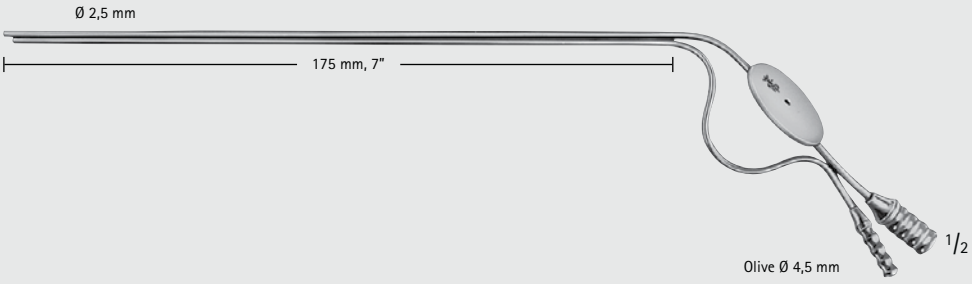
210 mm, 8 1/4"



LANDOLT

Art. No.	Diam.
GF980R	3.2 mm

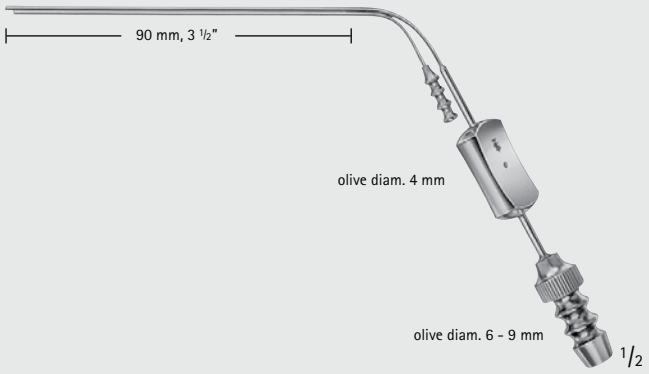
Dissecting suction tube for hypophysectomy and ENT,
sharp angled point
200 mm, 8"



Art. No.	Diam. suction tube	Diam. irrigation tube
GF910R	2.5 mm	2.0 mm

with finger cut-off and stylet

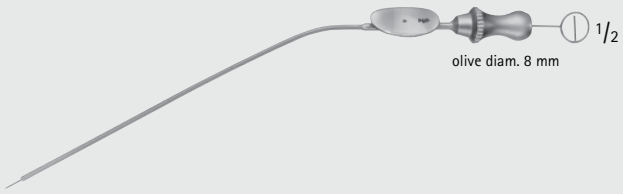
Suction Cannulae



HOUSE

Art. No.	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

Art. No.	Diam.
GF935R	1.3 mm
GF936R	2.0 mm

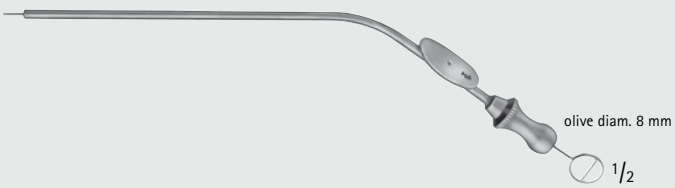
with finger cut-off and stylet
160 mm, 6 1/4"



SCHUHKNECHT

Art. No.	Diam. (swg.)	Diam. (mm)
GF756R	20	1.0
GF757R	24	0.5

Suction cannulae
130 mm, 5 1/8"



BELLUCCI

OG950R

Suction set, complete, consisting of:

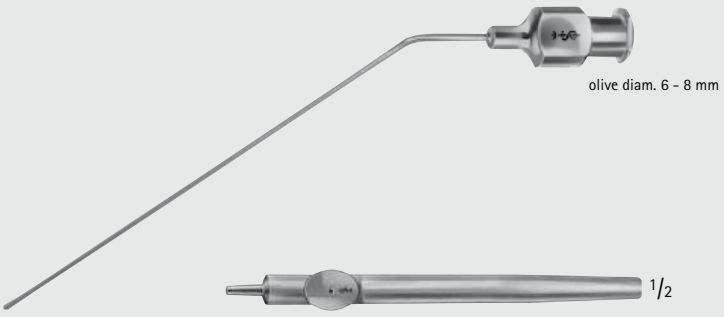
OG951R Suction tube with finger cut-off and stylet, 155 mm, 6"
GF772R Detachable end, 20 swg. diam., 1.0 mm diam.
GF773R Detachable end, 22 swg. diam., 0.7 mm diam.
GF774R Detachable end, 24 swg. diam., 0.5 mm diam.



ZOELLNER

Art. No.	Diam.
GF770R	2.5 mm

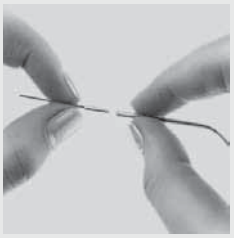
Suction cannula only, with stylet, fitting to
the detachable ends GF771R and GF775R
180 mm, 7"

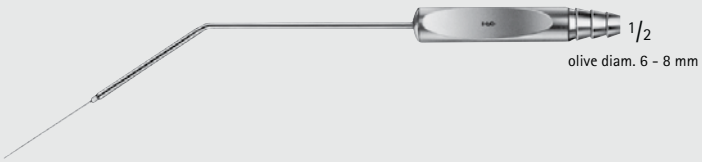


OG970R

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





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.



HOUSE

GF768R

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



ZOELLNER

Art. No.	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

Art. No.	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

Ventricular Puncture Cannulae



DANDY

Art. No.	Diam.
FF124R	2.0 mm

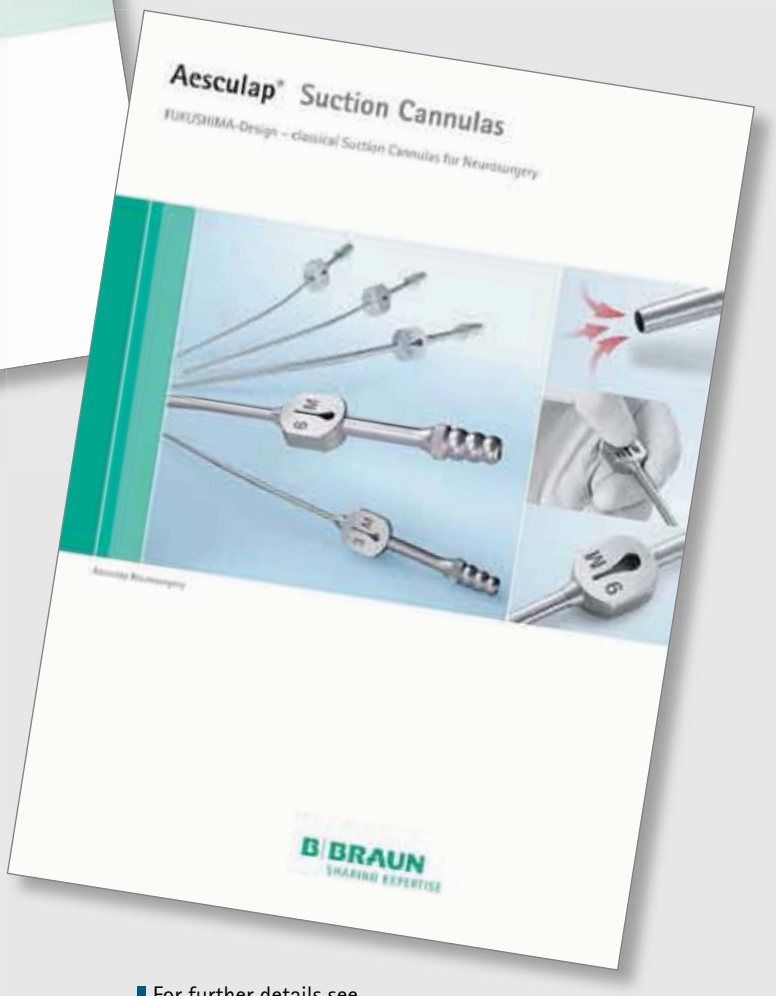


CUSHING-CAIRNS

Art.No.	Diam.
FF125R	2.3 mm
FF126R	2.6 mm



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



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

Single Use

BA810SU–BA836SU
Carbon Steel
Sales unit:
PAK = Package of 10 pieces



BA810SU
Fig. 10



BA811SU
Fig. 11



BA812SU
Fig. 12



BA813SU
Fig. 13



BA815SU
Fig. 15



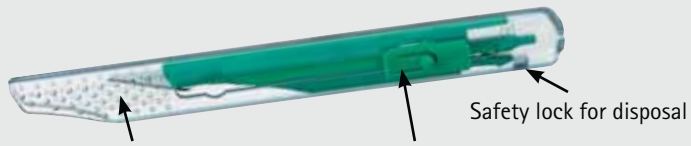
BA815-1SU
Fig. 15-1



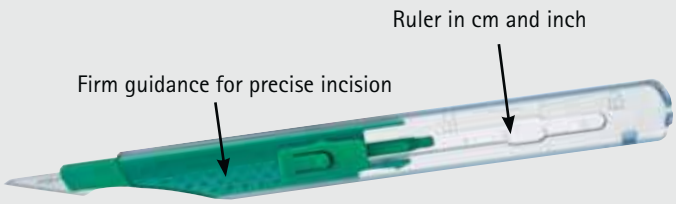
BA815-CSU
Fig. 15-C



BA818SU
Fig. 18



- Blade shape is visible
- Position of blade is always evident





BA819SU
Fig. 19



BA820SU
Fig. 20



BA821SU
Fig. 21



BA822SU
Fig. 22



BA823SU
Fig. 23



BA824SU
Fig. 24



BA825SU
Fig. 25



BA836SU
Fig. 36

Sterile Scalpels with Plastic Handle and Blade Protector

Single Use

BA210–BA224/5518016–5518105
Sales unit:
PAK = Package of 10 pieces



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

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. 15-1



BA215-C
Fig. 15-C



BA218
Fig. 18

Scalpel Handles

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

For blades fig. 18 - 36



BB075R
No. 3 L
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"

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



BB175R
No. 3 XL
245 mm, 10"



$^{1}/_{1}$

BB176R
12°

BB178R
25°

BARRÉ
BB176R–BB178R
No. 3 XL
250 mm, 10"



BARRÉ
BB177R
No. 3 XL
250 mm, 10"

Scalpel Handles

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

corresponds
with english
No. 5



1/1

BB077R
No. 7
160 mm, 6 1/4"



1/1

BB063R
145 mm, 5 3/4"



1/1

BB073R
No. 3
125 mm, 5"



1/1

BB074R
No. 3
125 mm, 5"



1/1

BARRON
BB068R
130 mm, 5 1/8"

For blades fig. 18 - 36

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



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"

Scalpel Handle, Microsurgery Scalpels with Plastic Handle

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

Sales unit:
PAK = Package of 5 pieces



1/1

BB070R
155 mm, 6"

Single Use



1/1

BA364
165 mm, 6 1/2"

Single Use



1/1

BA365
165 mm, 6 1/2"

Single Use



1/1

BA367
165 mm, 6 1/2"

■ Sterile scalpel blades
BB510–BB542 / 16600495–16615492



fitting handles:
BB068R, BB070R, BB071R, BB073R–BB075R, BB077R–BB079R and BB175R–BB178R
Sales unit:
PAK = Package of 100 pieces
in dispenser package



Carbon Steel **BB510**
Stainless Steel **16600495**
Fig. 10



BB511
16600509
Fig. 11



BB512
16600517
Fig. 12



BB513
16615492
Fig. 13



BB515
16600525
Fig. 15



Carbon Steel **BB515-1**
Fig. 15-1



BB515-C
Fig. 15-C



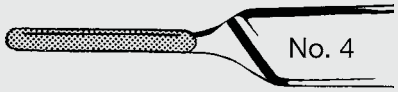
BB540
Fig. 40
double cutting



BB542
Fig. 42
double cutting

Sterile Scalpel Blades, Stitch-Cutter

■ Sterile scalpel blades
BB518–BB536/16600541–16616634



fitting handles:
BB080R, BB084R, BB085R, BB087R und BB089R
Sales unit:
PAK = Package of 100 pieces in dispenser package

	 1/1	 1/1	 1/1	 1/1	 1/1	 1/1	 1/1	 1/1	 1/1
Carbon Steel	**BB518**	**BB519**	**BB520**	**BB521**	**BB522**	**BB523**	**BB524**	**BB525**	**BB536**
Stainless Steel	**16600541**		**16600550**	**16600568**	**16600576**	**16600584**	**16600592**	**16616634**	**16615522**
	Fig. 18	Fig. 19	Fig. 20	Fig. 21	Fig. 22	Fig. 23	Fig. 24	Fig. 25	Fig. 36



BB500
16600487
Carbon Steel
Stainless Steel
Stitch-cutter
Sales unit:
PAK = Package of 100 pieces

Scalpel Handles, Round, for Microsurgery Blades



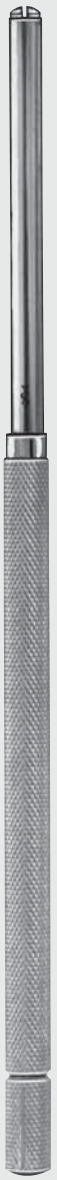
1/1

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"

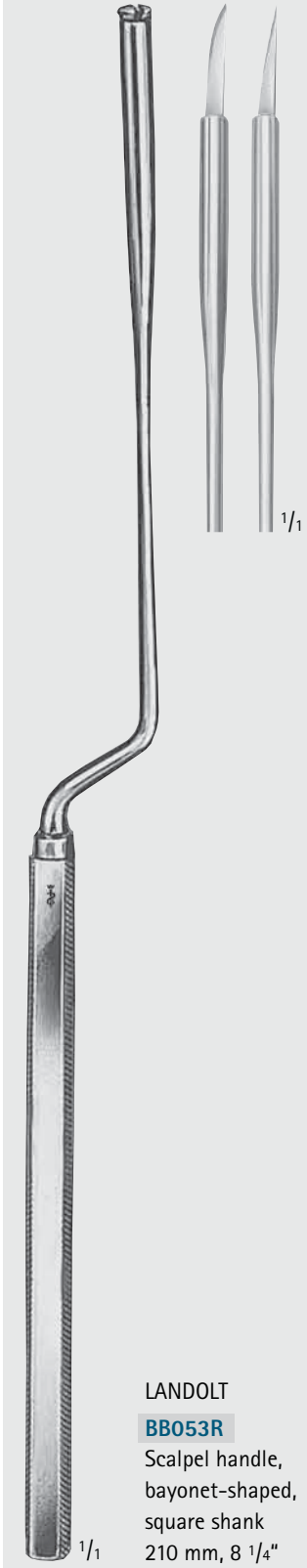


1/2

BB060R
450 mm, 17 3/4"



LANDOLT
BB057R
Scalpel handle, bayonet-shaped, round
250 mm, 10"



LANDOLT
BB053R
Scalpel handle, bayonet-shaped, square shank
210 mm, 8 1/4"



YASARGIL
BB331R
Arachnoid blade, diam. 1.5 mm
Sales unit:
PAK = Package of 10 pieces



YASARGIL
BB332R
Arachnoid blade, diam. 2.5 mm
Sales unit:
PAK = Package of 10 pieces



BB361R
PAK = Package of 10 pieces



BB362R
PAK = Package of 10 pieces



BB363R
ST = Package of 1 piece



BB364R
PAK = Package of 10 pieces



BB365R
PAK = Package of 10 pieces



BB366R
ST = Package of 1 piece



BB367R
PAK = Package of 10 pieces



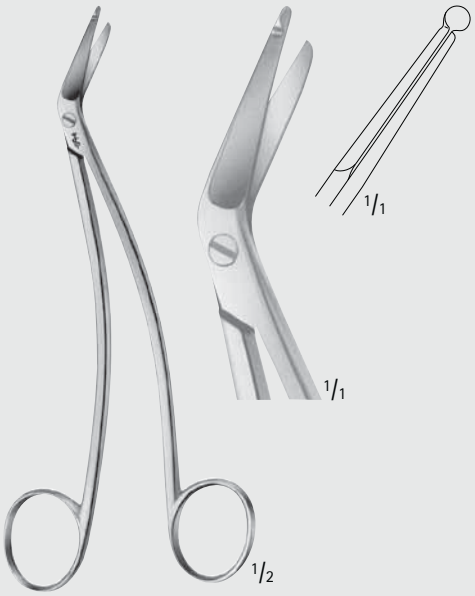
BB368R
PAK = Package of 10 pieces



BB369R
ST = Package of 1 piece



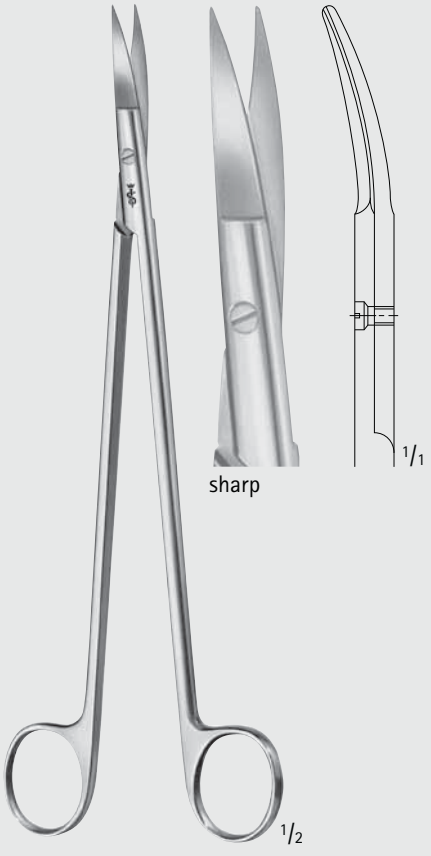
For further details see brochure No. **C08602**



SCHMIEDEN-TAYLOR

BC660R

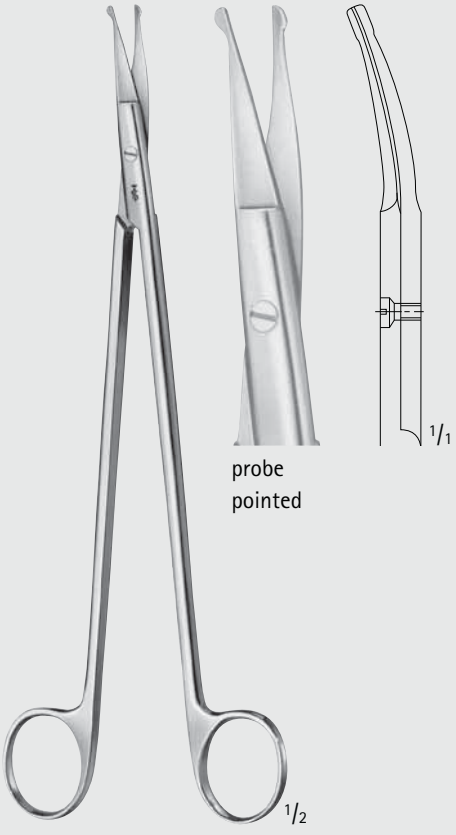
155 mm, 6"



STRULLY

BC644R

220 mm, 8 3/4"



STRULLY

BC645R

220 mm, 8 3/4"



BC210B

BC211B

BC210B–BC211B
110 mm, 4 3/8"



BC257B
115 mm, 4 1/2"



BABY-METZENBAUM

BC259B
145 mm, 5 3/4"

Instruments

Noir® Dissecting Scissors



METZENBAUM

BC261B

145 mm, 5 3/4"



BC263B

BC271B

METZENBAUM

BC263B–BC271B

180 mm, 7"



TÖNNIS-ADSON

BC273B

175 mm, 7"

very delicate





BC265B



BC275B

METZENBAUM

BC265B–BC275B

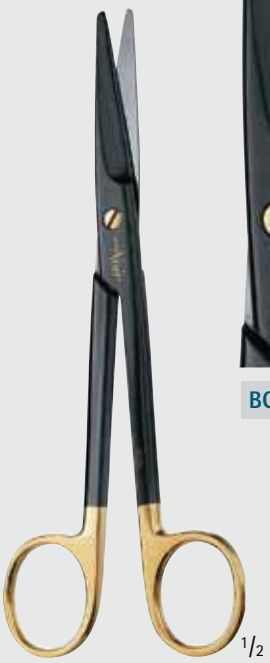
200 mm, 8"

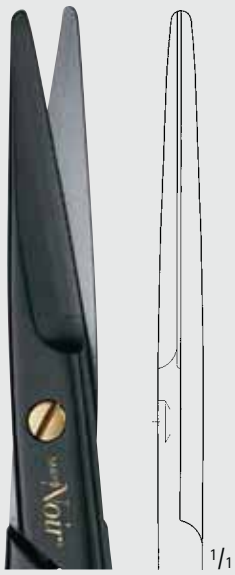
very delicate



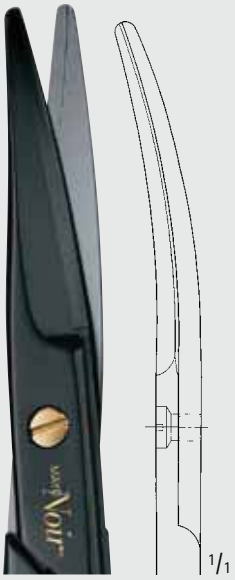
LEXER

BC283B





BC252B



BC253B

MAYO

BC252B–BC253B

170 mm, 6 3/4"





MAYO-LEXER

BC284B

BC283B–BC284B

165 mm, 6 1/2"



BC267B BC277B

METZENBAUM

BC267B–BC277B

230 mm, 9"



NELSON-METZENBAUM

BC279B

260 mm, 10 1/4"



NELSON-METZENBAUM

BC281B

280 mm, 11"

Supercut Scissors

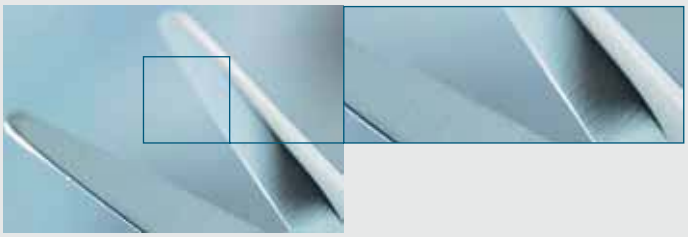
- 1 Cutting blade with sharp Microtome edge
- 1 Cutting blade with Wavecut
- Identification:
  - Black marked rings, shiny instrument surface





Microtome edge

- the extremely sharp cutting edge of the scissors blade facilitates gentle cutting of tissue with minimal use of force



Wavecut

- prevents tissue from slipping out during the cutting process





BC900R **BC901R**

BC900R–BC901R
110 mm, 4 3/8"



BC903R
125 mm, 5"



STEVENS
BC904R–BC905R
105 mm, 4 1/8"



STEVENS
BC906R–BC907R
110 mm, 4 3/8"



GOLDMAN-FOX
BC909R
130 mm, 5 1/8"



FOMON
BC939R
115 mm, 4 1/2"



JAMESON
BC911R
130 mm, 5 1/8"



JAMESON
BC915R
150 mm, 6"



JAMESON
BC919R
180 mm, 7"



BC916R **BC917R**

JOSEPH
BC916R–BC917R
150 mm, 6"





BC926R

BC927R

MAYO

BC926R–BC927R

145 mm, 5 3/4"





BC924R

BC925R

MAYO

BC924R–BC925R

165 mm, 6 1/2"



1/2



1/1

BC930R BC931R

BABY-METZENBAUM

BC930R–BC931R

115 mm, 4 1/2"



1/2



1/1

BC934R BC935R

METZENBAUM

BC934R–BC935R

145 mm, 5 3/4"



1/2



1/1

BC936R BC937R

METZENBAUM

BC936R–BC937R

180 mm, 7"

Supercut Scissors



POTTS-SMITH

BC957R–BC959R



BC957R

25°

190 mm

7 1/2"



BC958R

45°

185 mm

7 1/4"



BC959R

60°

180 mm

7"



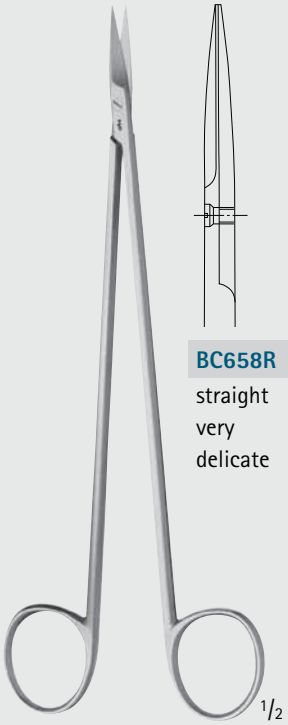


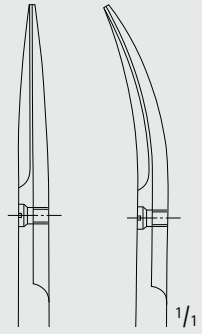
THOREK
BC636R
180 mm
7"

HOHENFELLNER
BC638R
225 mm
9"

HOHENFELLNER
BC639R
255 mm
10"

BC636R–BC639R

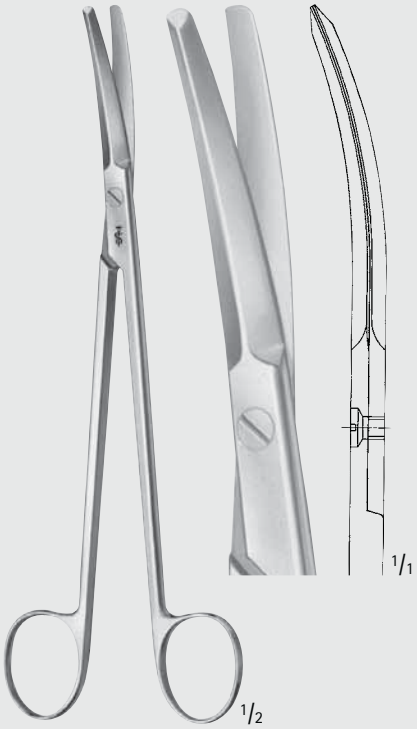




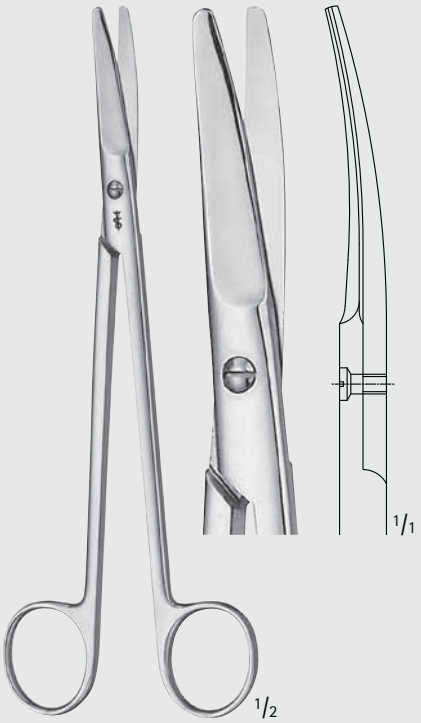
BC658R
straight
very
delicate

BC659R
curved
very
delicate

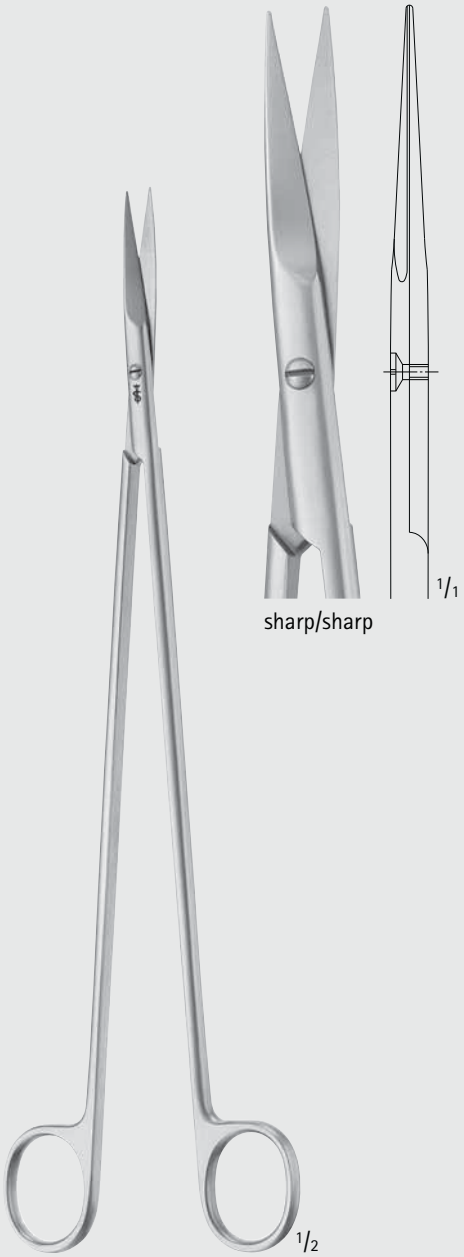
BC658R–BC659R
190 mm, 7 1/2"



POTTS-SMITH
BC643R
190 mm, 7 1/2"



COOLEY
BC597R
190 mm, 7 1/2"

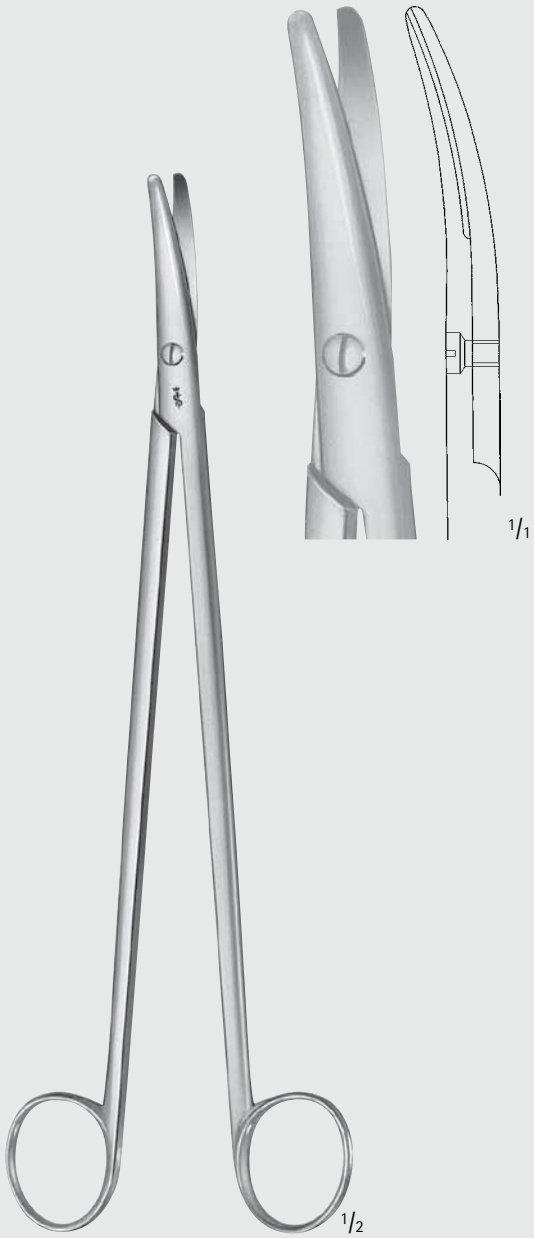


sharp/sharp

BARRÉ

BC715R

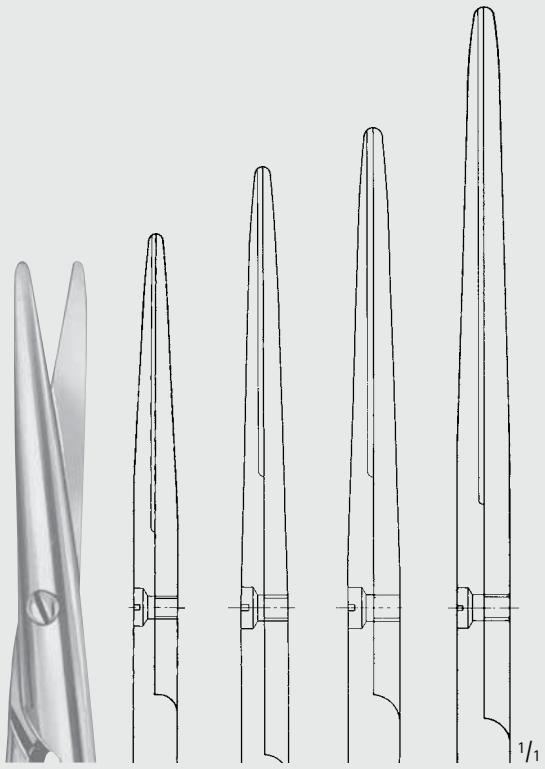
280 mm, 11"



WELLER

BC620R

280 mm, 11"
heavy pattern



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

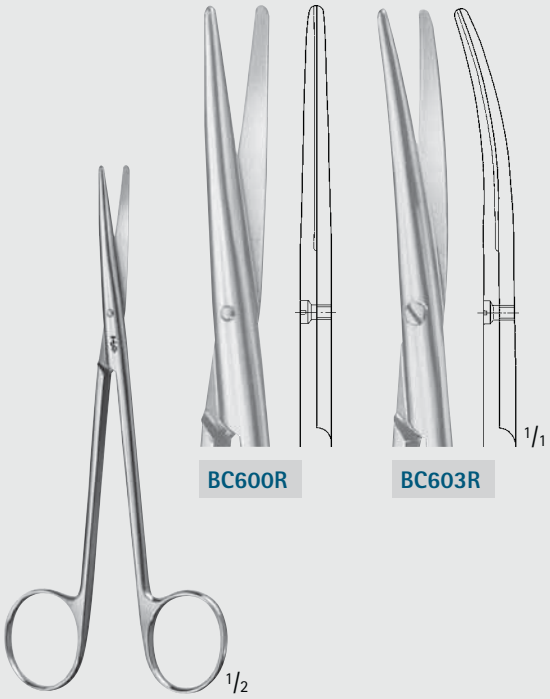


NELSON-METZENBAUM

BC611R–BC625R



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



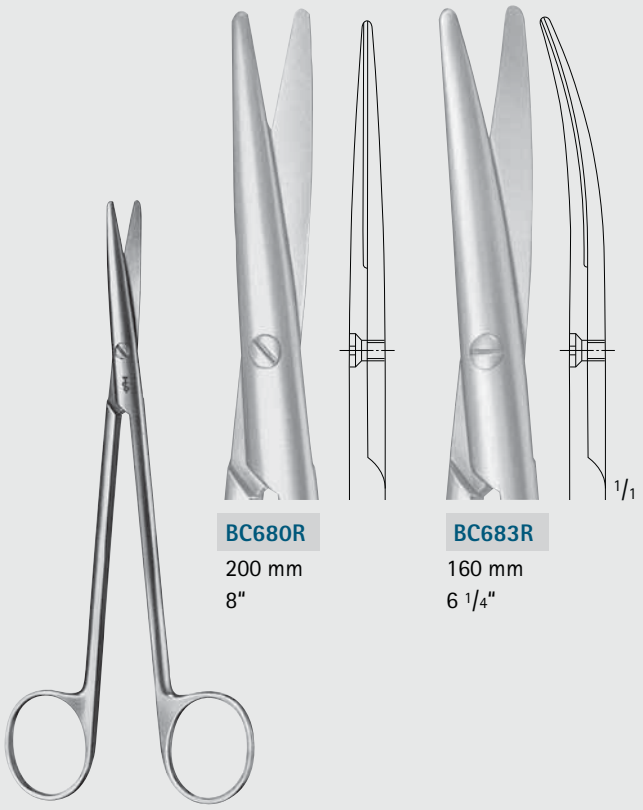
BC600R

BC603R

BABY-METZENBAUM

BC600R–BC603R

145 mm, 5 3/4"

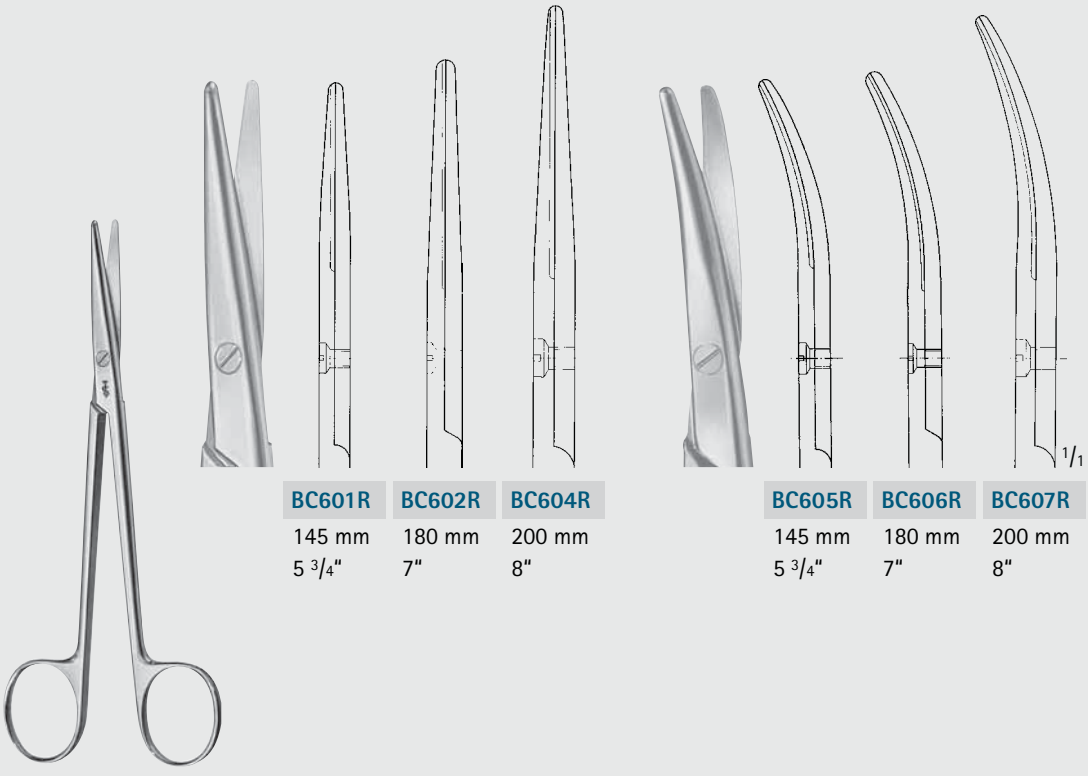


BC680R
200 mm
8"

BC683R
160 mm
6 1/4"

METZENBAUM

BC680R–BC683R



BC601R
145 mm
5 3/4"

BC602R
180 mm
7"

BC604R
200 mm
8"

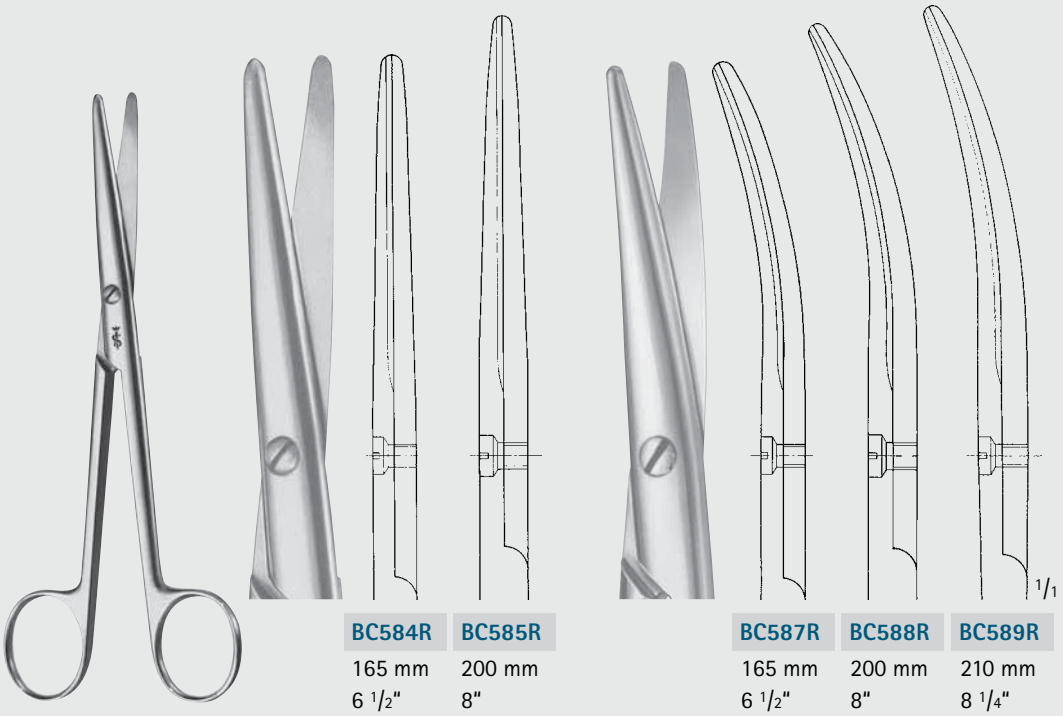
BC605R
145 mm
5 3/4"

BC606R
180 mm
7"

BC607R
200 mm
8"

METZENBAUM

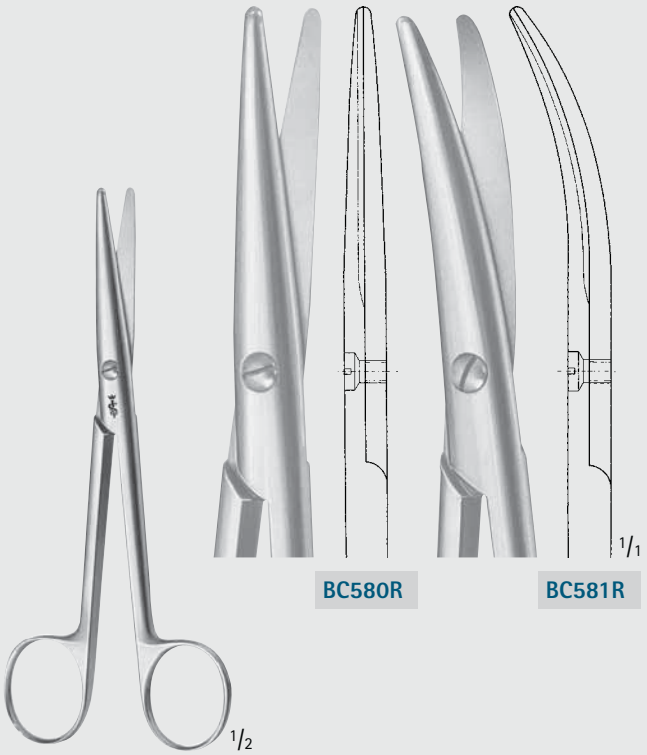
BC601R–BC607R



BC584R	BC585R	BC587R	BC588R	BC589R
165 mm 6 1/2"	200 mm 8"	165 mm 6 1/2"	200 mm 8"	210 mm 8 1/4"

MAYO

BC584R–BC589R

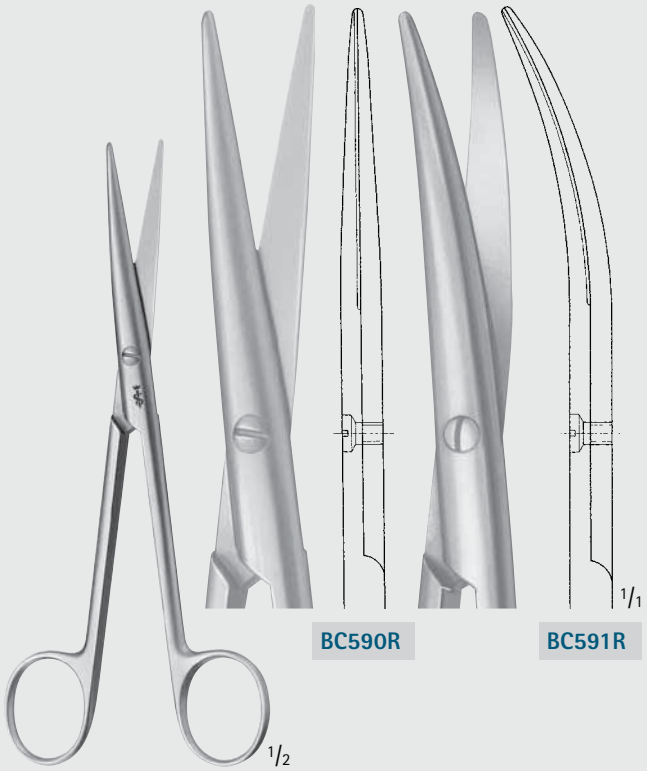


BC580R	BC581R

STILLE

BC580R–BC581R

150 mm, 6"



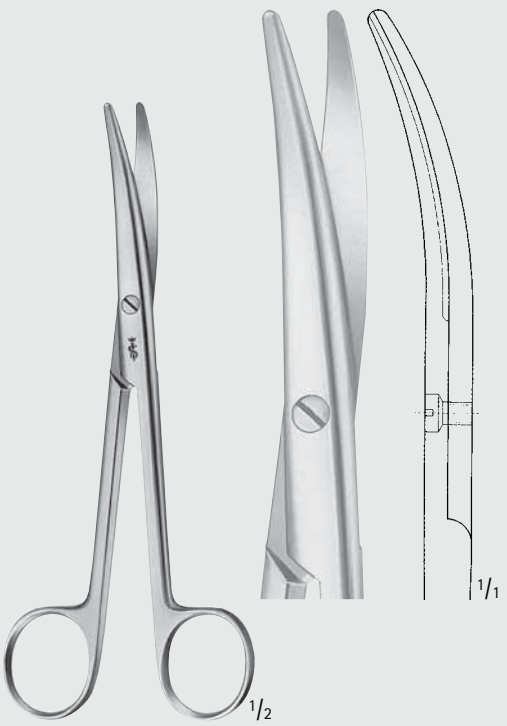
BC590R	BC591R

LEXER

BC590R–BC591R

narrow

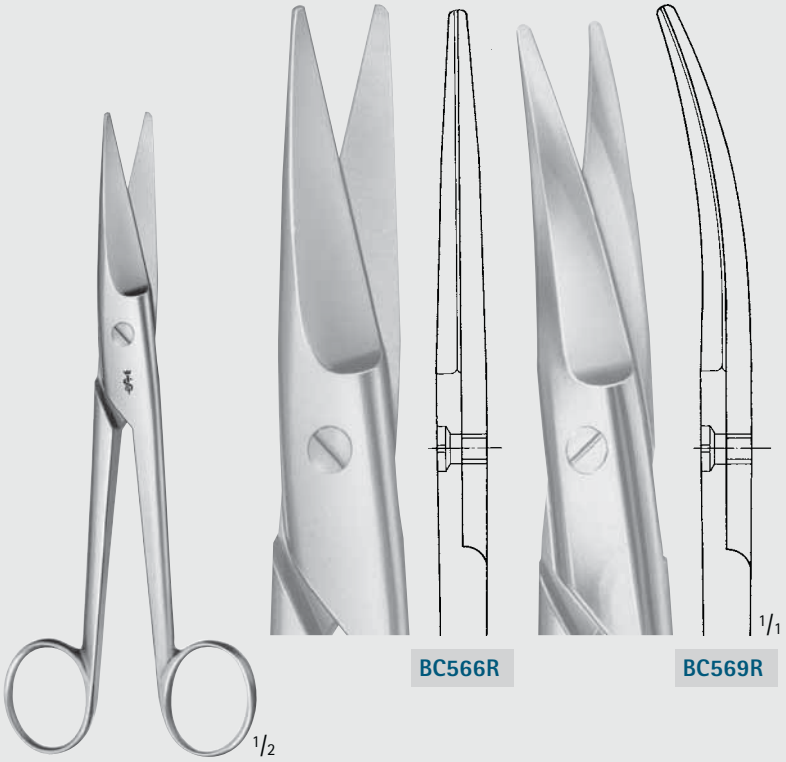
165 mm, 6 1/2"



MAYO-LEXER

BC592R

Standard pattern
165 mm, 6 1/2"

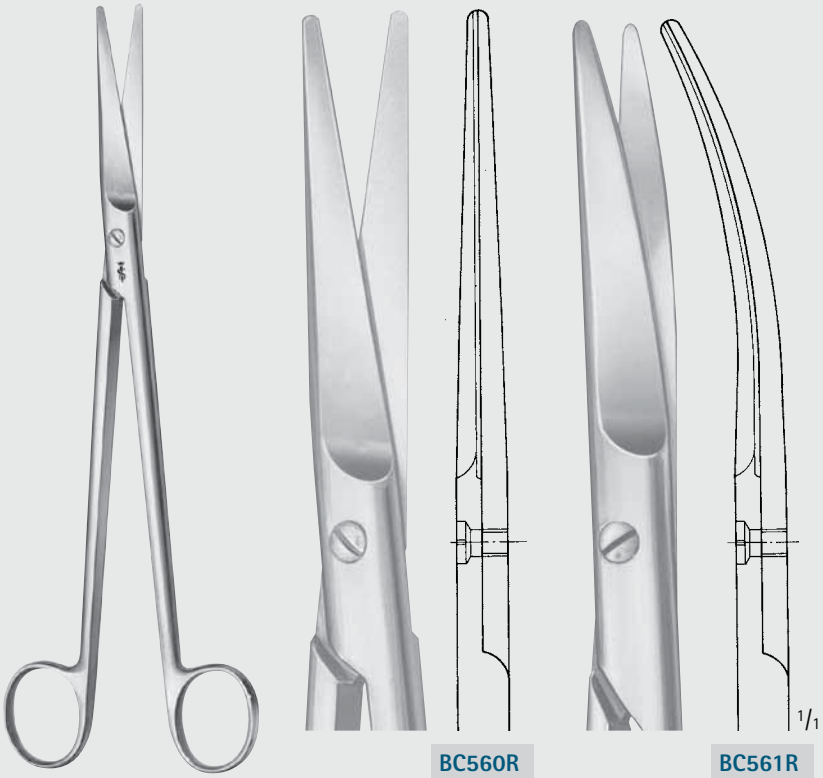


BC566R **BC569R**

MAYO-NOBLE

BC566R-BC569R

broad patterns
170 mm, 6 3/4"



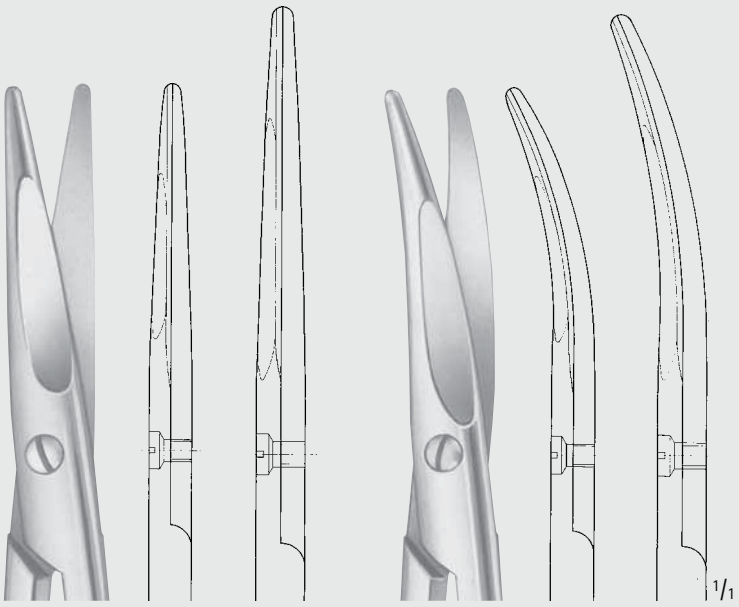
BC560R **BC561R**

MAYO-HARRINGTON

BC560R-BC561R

230 mm, 9"

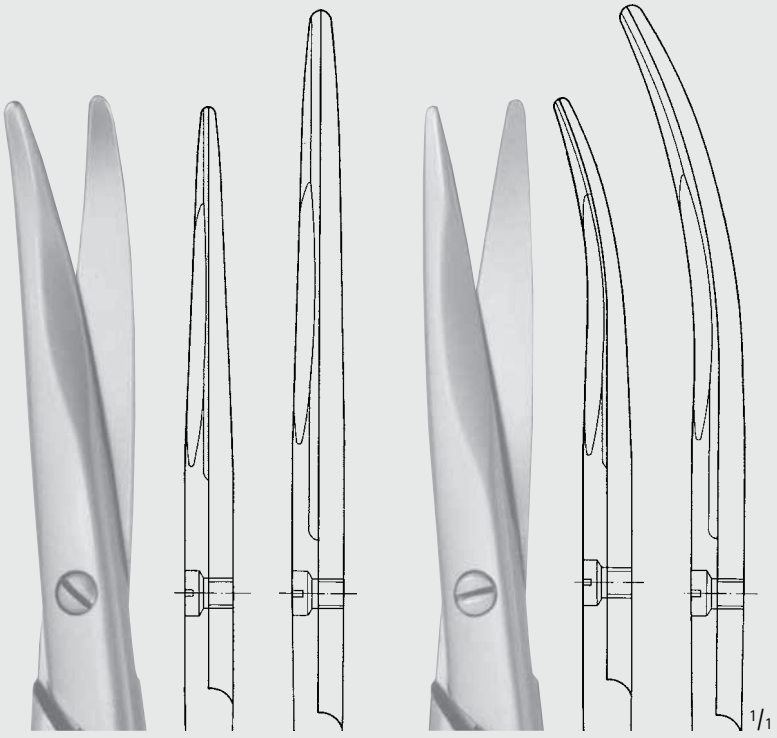




BC576R	BC578R	BC577R	BC579R
140 mm	170 mm	140 mm	170 mm
5 1/2"	6 3/4"	5 1/2"	6 3/4"

MAYO-STILLE
BC576R–BC579R
with chamfered blades

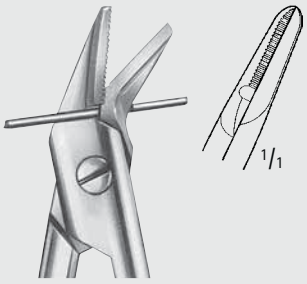




BC562R	BC564R	BC563R	BC565R
190 mm	215 mm	190 mm	215 mm
7 1/2"	8 1/2"	7 1/2"	8 1/2"

MAYO
BC562R–BC565R
with chamfered blades





1 blade serrated

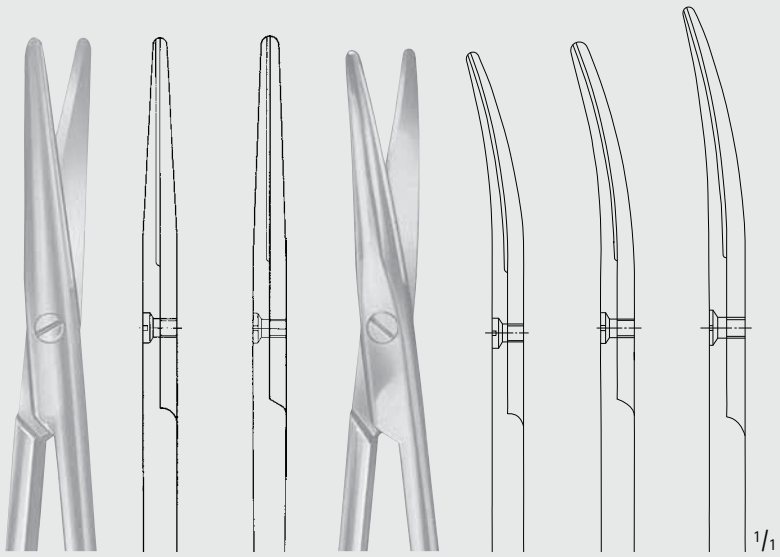
DP552R
Wire cutting scissors
120 mm, 4 3/4"



DE BAKEY

BC245R 60°
Vascular scissors
220 mm, 8 3/4"





BC260R	BC262R	BC261R	BC263R	BC265R
145 mm 5 3/4"	180 mm 7"	145 mm 5 3/4"	180 mm 7"	200 mm 8"

METZENBAUM
BC260R–BC265R

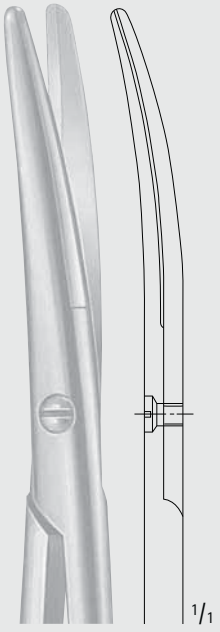




BC266R	BC267R	BC289R
230 mm 9"	230 mm 9"	300 mm 12"

NELSON-METZENBAUM (MC INDOE)
BC266R–BC289R





broad blade ends

METZENBAUM
BC287R
230 mm, 9"

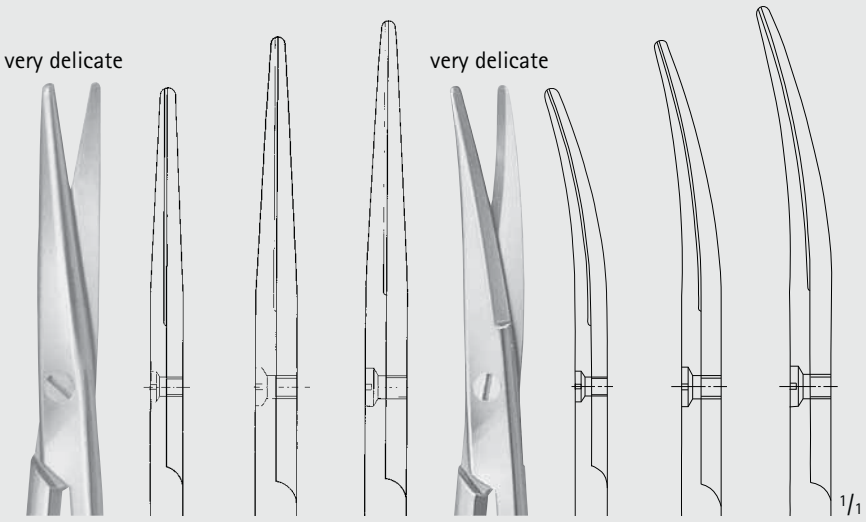
Instruments

DUROTIP® Dissecting Scissors



METZENBAUM

BC270R–BC277R

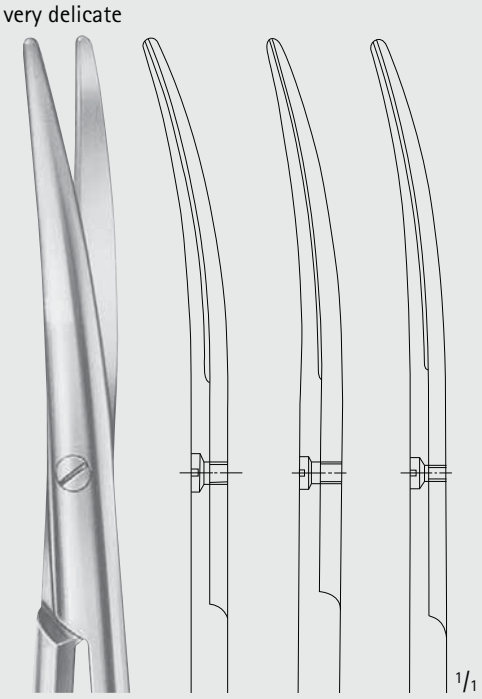


BC270R	BC274R	BC276R	BC271R	BC275R	BC277R
180 mm 7"	200 mm 8"	230 mm 9"	180 mm 7"	200 mm 8"	230 mm 9"

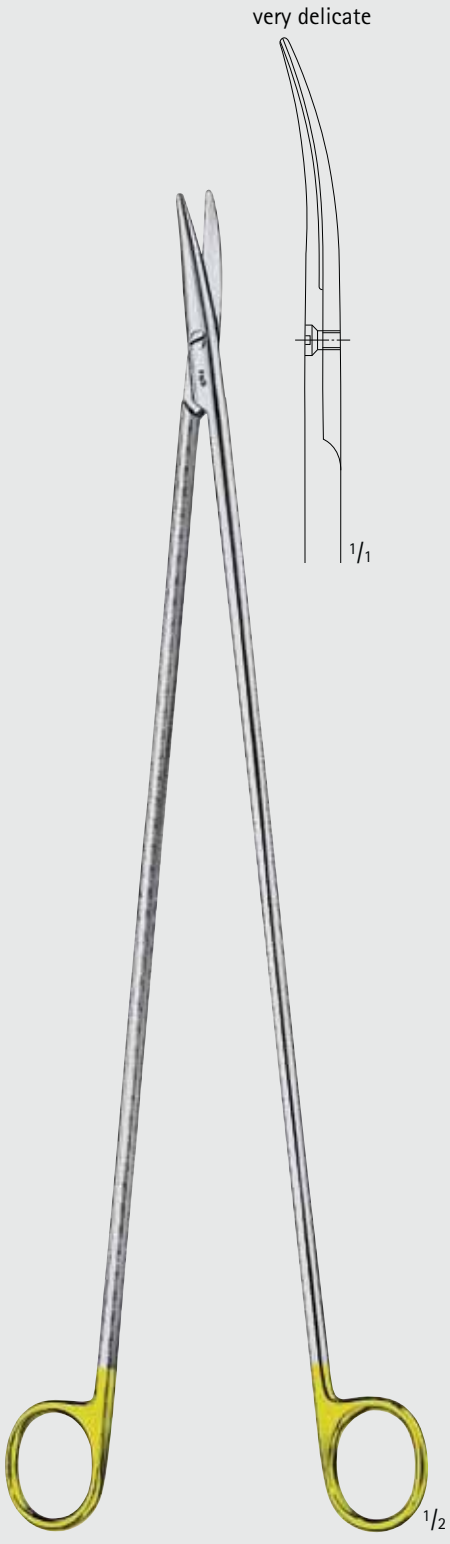


NELSON-METZENBAUM

BC279R–BC282R



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



NELSON-METZENBAUM

BC285R

350 mm, 14"

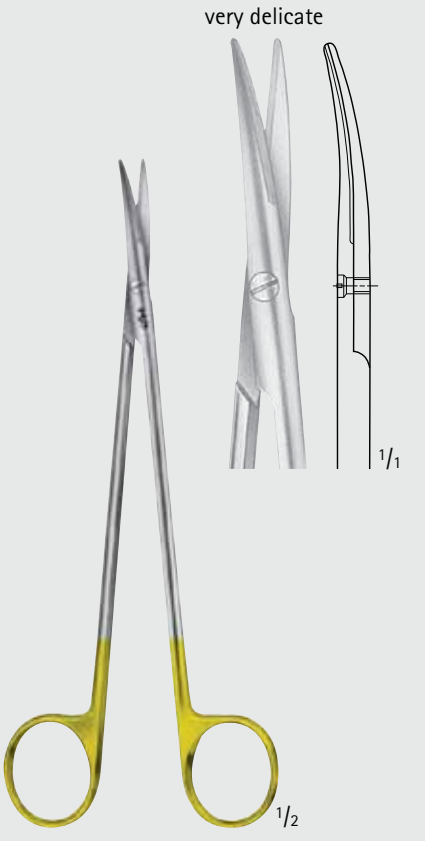


BC258R **BC259R**

BABY-METZENBAUM

BC258R–BC259R

145 mm, 5 3/4"



TÖNNIS-ADSON

BC273R

175 mm, 7"

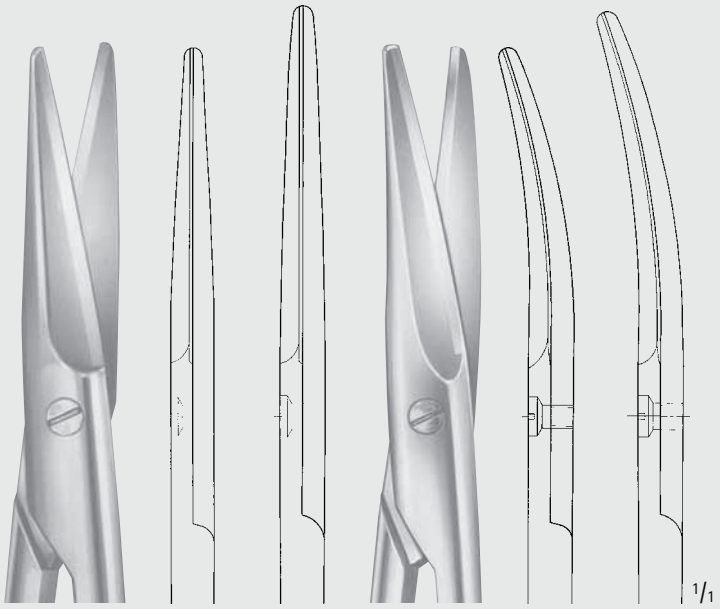
Instruments

DUROTIP® Dissecting Scissors



MAYO

BC250R–BC253R

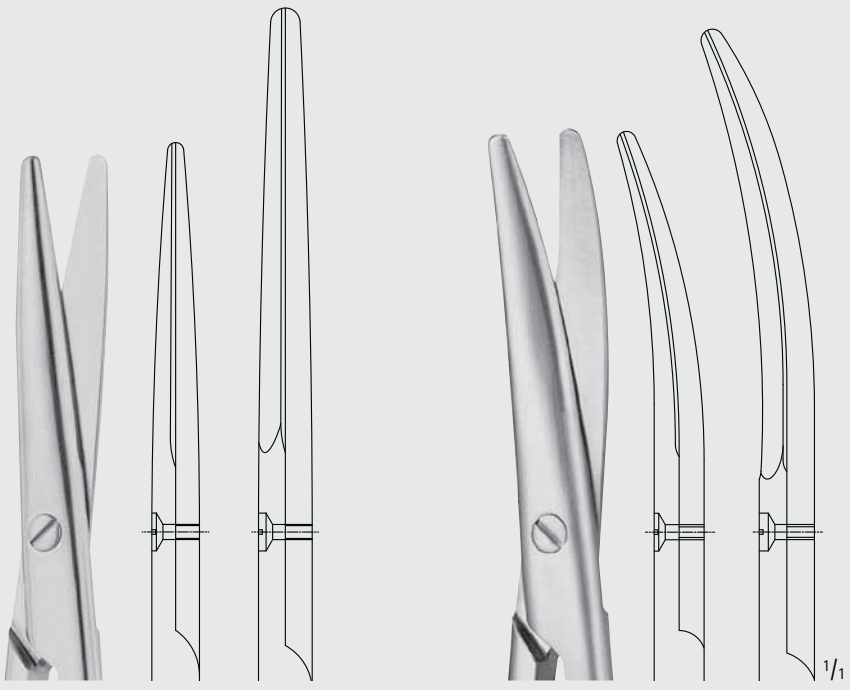


BC250R	BC252R	BC251R	BC253R
140 mm 5 1/2"	170 mm 6 3/4"	140 mm 5 1/2"	170 mm 6 3/4"

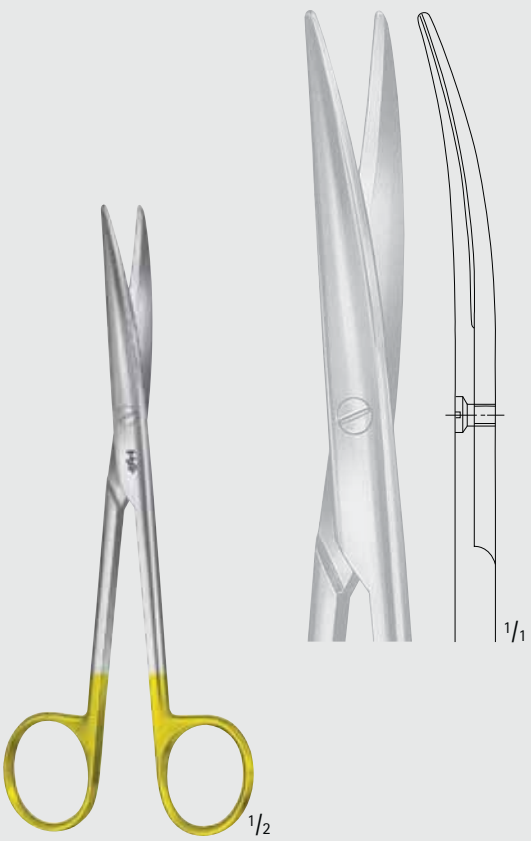


MAYO

BC242R–BC559R



BC242R	BC558R	BC243R	BC559R
170 mm 6 3/4"	230 mm 9"	170 mm 6 3/4"	230 mm 9"

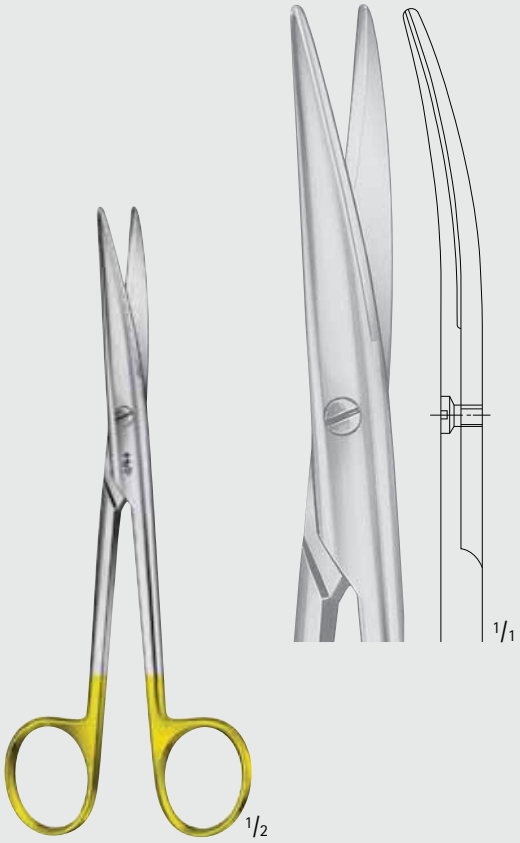


LEXER

BC283R

narrow

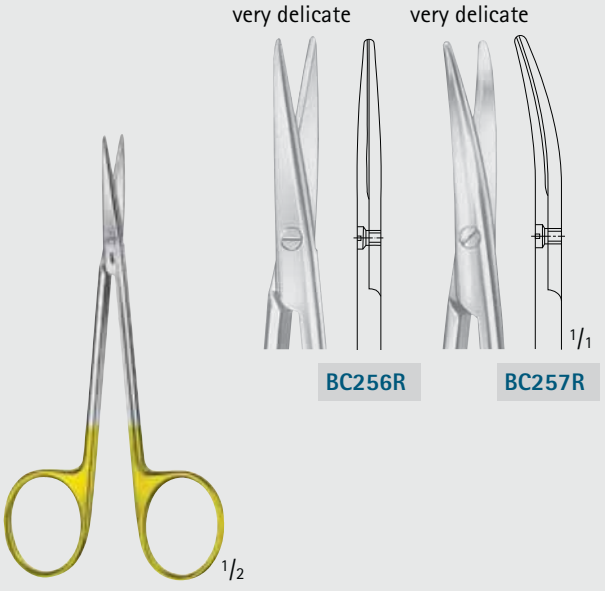
165 mm, 6 1/2"



MAYO-LEXER

BC284R

165 mm, 6 1/2"

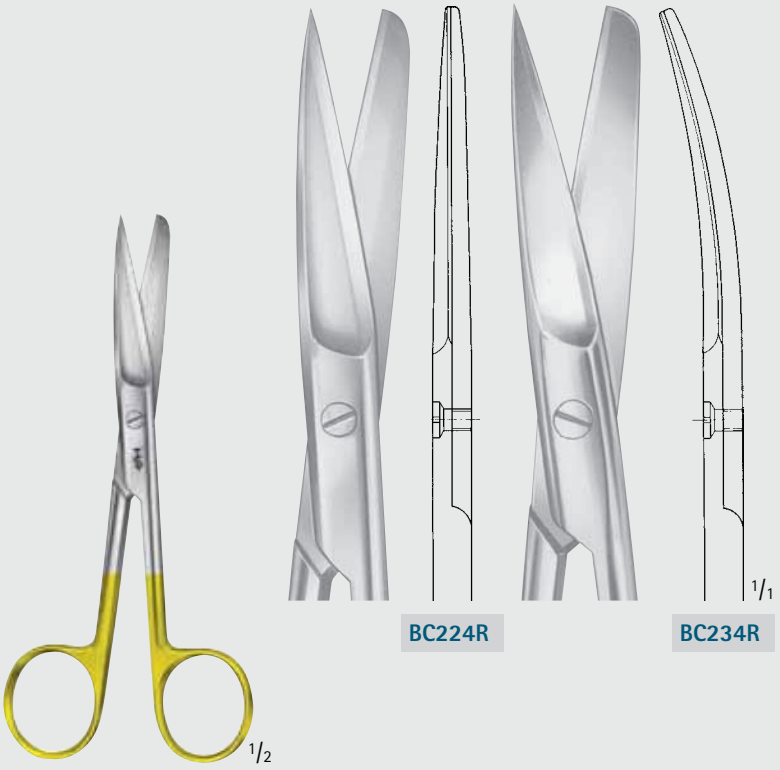


BC256R **BC257R**

BC256R–BC257R

115 mm, 4 1/2"

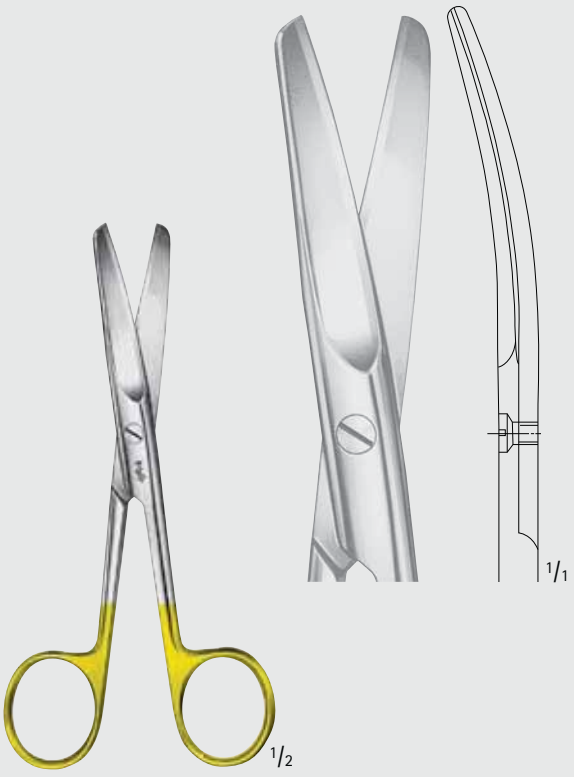
Instruments
DUROTIP® Surgical Scissors



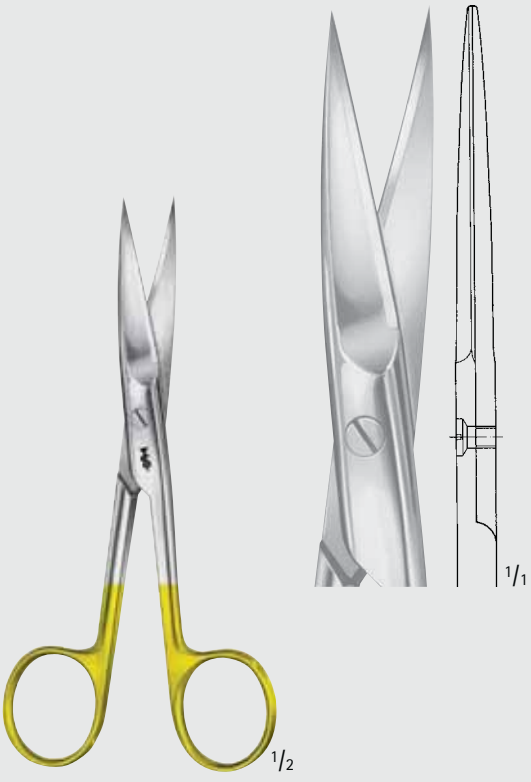
BC224R

BC234R

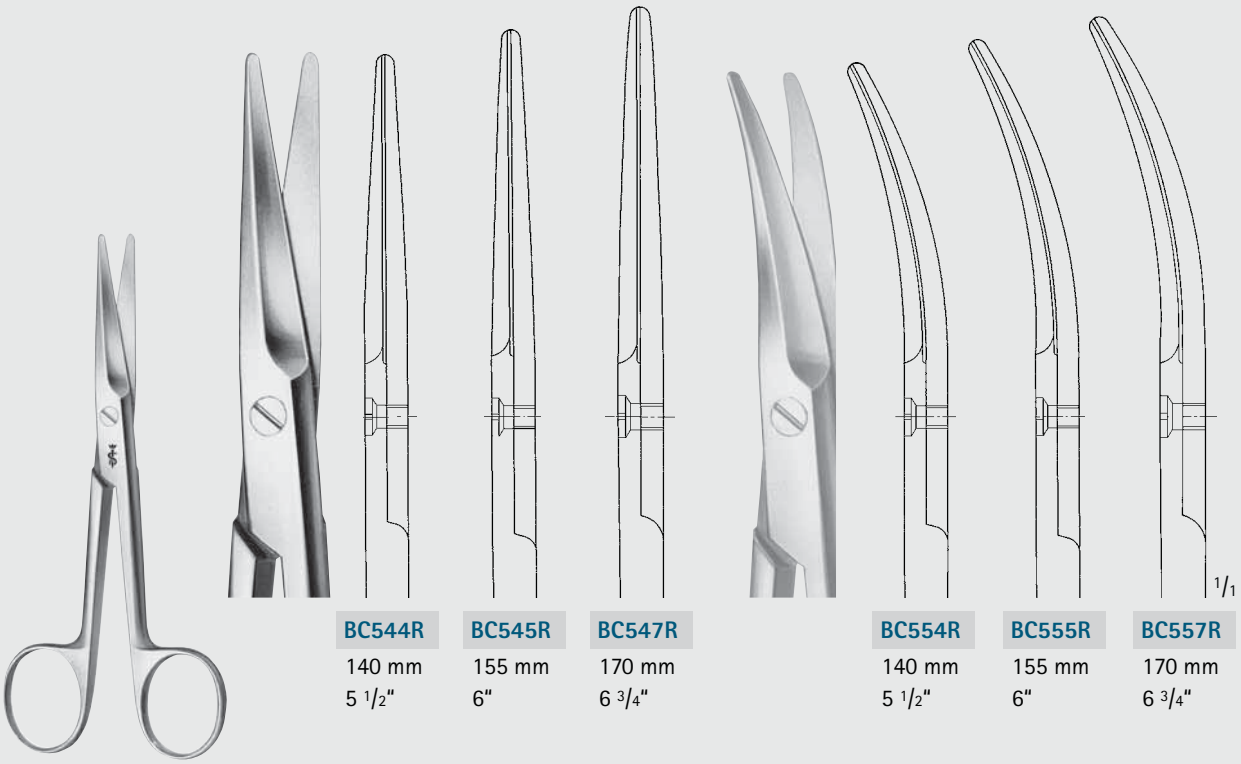
BC224R–BC234R
145 mm, 5 3/4"



BC231R
145 mm, 5 3/4"



BC228R
145 mm, 5 3/4"

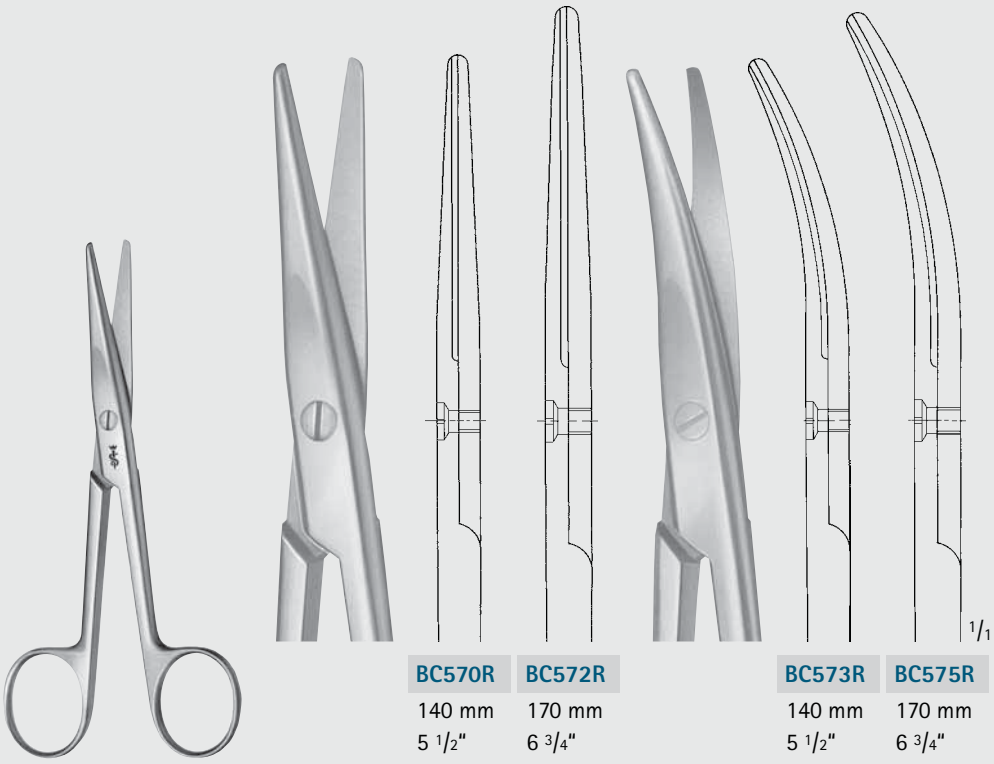


BC544R	BC545R	BC547R	BC554R	BC555R	BC557R
140 mm 5 1/2"	155 mm 6"	170 mm 6 3/4"	140 mm 5 1/2"	155 mm 6"	170 mm 6 3/4"

1/1

MAYO

BC544R–BC557R



BC570R	BC572R	BC573R	BC575R
140 mm 5 1/2"	170 mm 6 3/4"	140 mm 5 1/2"	170 mm 6 3/4"

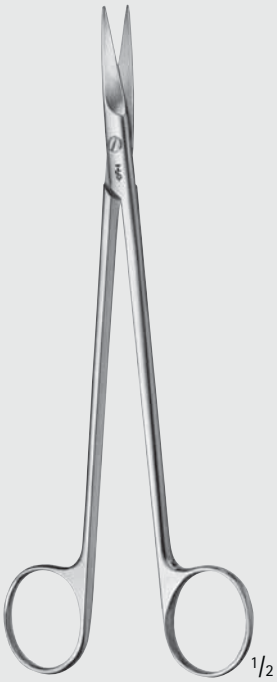
1/1

MAYO-STILLE

BC570R–BC575R

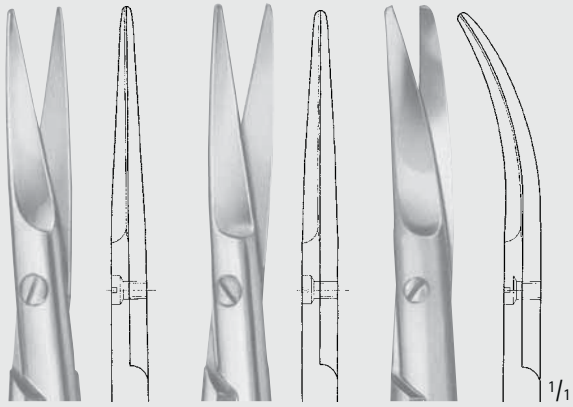
Instruments

Dissecting Scissors, Delicate Patterns



TÖNNIS

BC633R–BC635R
Dissecting scissors
180 mm, 7"

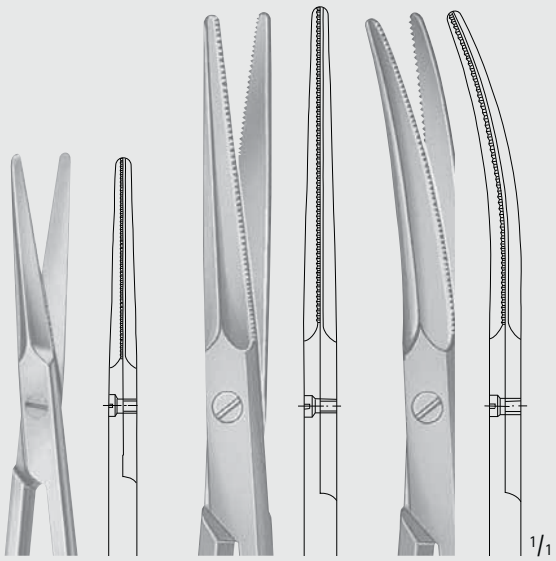


BC633R
very delicate

BC634R
delicate

BC635R
delicate





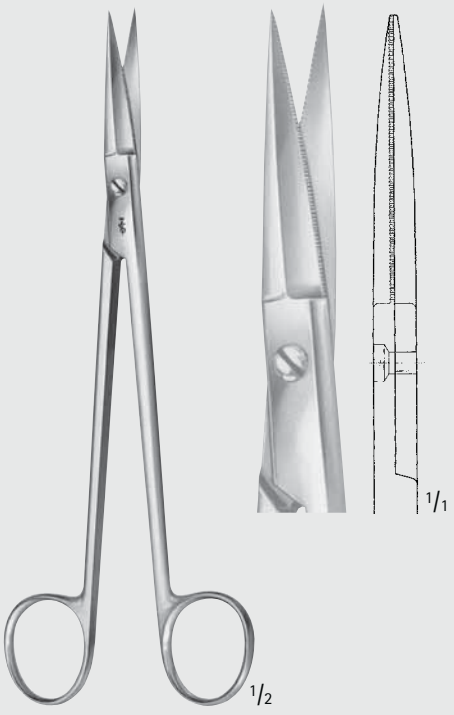
GORNEY

BC184R–BC189R
Dissection scissors
Blades: outside semi-sharp
inside fine serrated

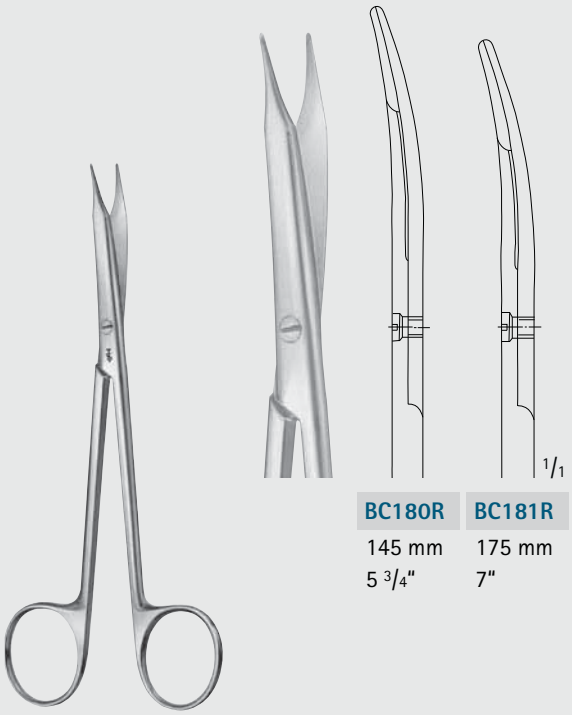
BC184R
125 mm
5"

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"

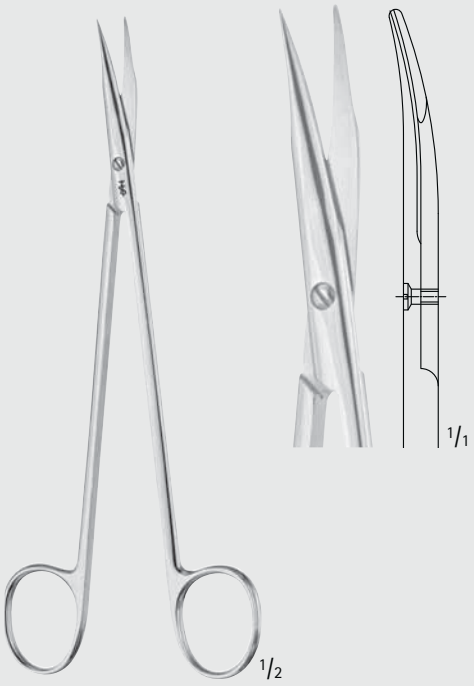


BC180R	BC181R
145 mm	175 mm
5 3/4"	7"

REYNOLDS

BC180R–BC181R

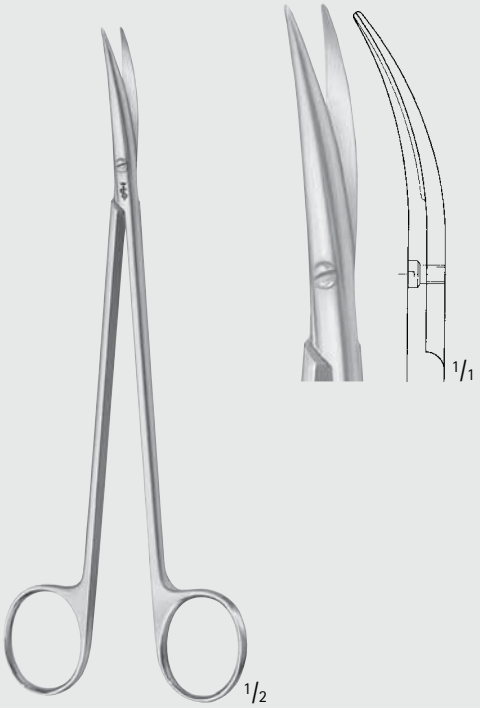
Dissecting scissors



POTTS

BC178R

Dissecting scissors
175 mm, 7"



DE BAKEY

BC629R

Arteriotomy scissors
175 mm, 7"



BC630R	BC631R
very delicate	delicate

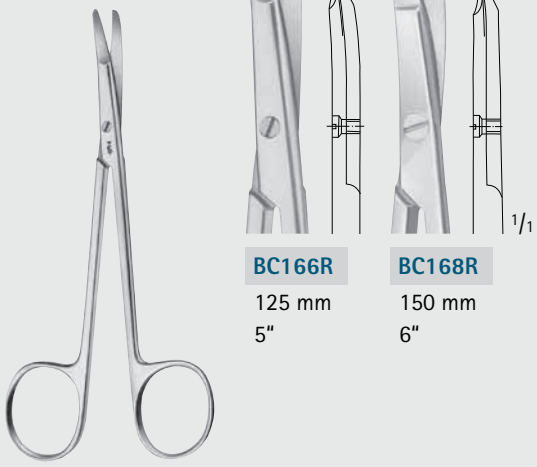
TÖNNIS-ADSON

BC630R–BC631R

Dissecting scissors
175 mm, 7"

Instruments

Dissecting Scissors, Delicate Patterns

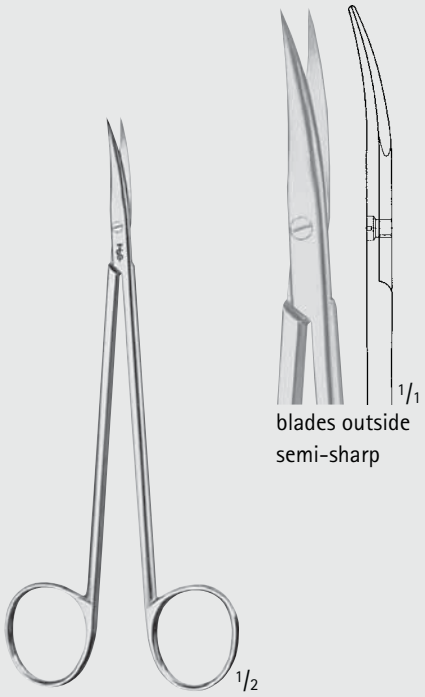


BC166R
125 mm
5"

BC168R
150 mm
6"

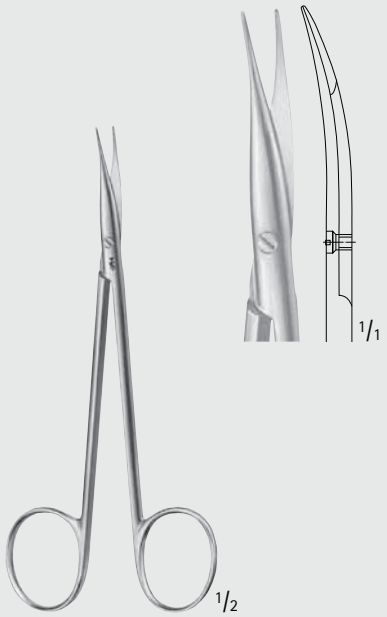
KILNER

BC166R–BC168R
special flat points for dissecting and undermining the skin



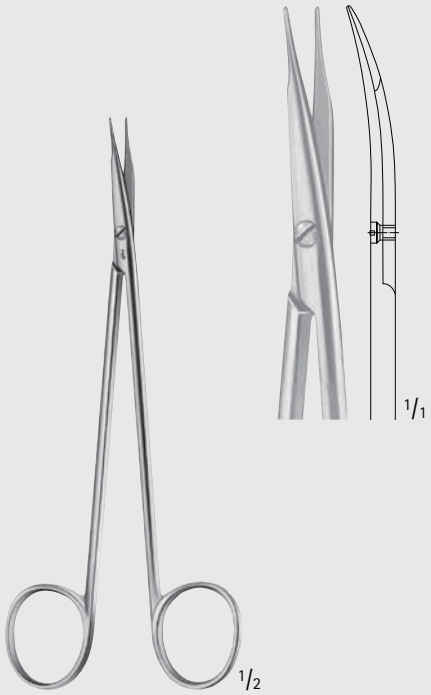
blades outside
semi-sharp

BC628R
Nerve dissecting scissors
150 mm, 6"



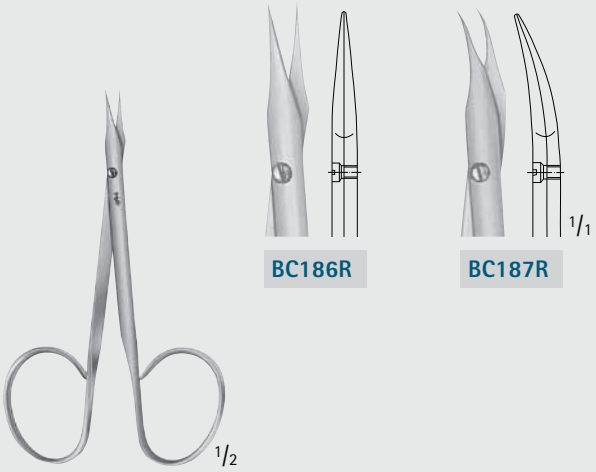
JAMESON-WERBER

BC175R
Dissecting scissors
130 mm, 5 1/8"



JAMESON

BC177R
Dissecting scissors
150 mm, 6"

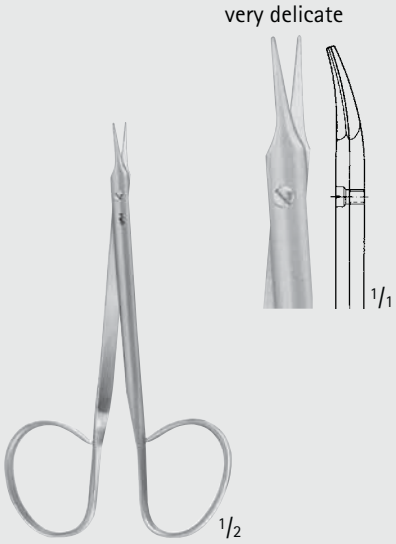


BC186R **BC187R**

STEVENS

BC186R–BC187R

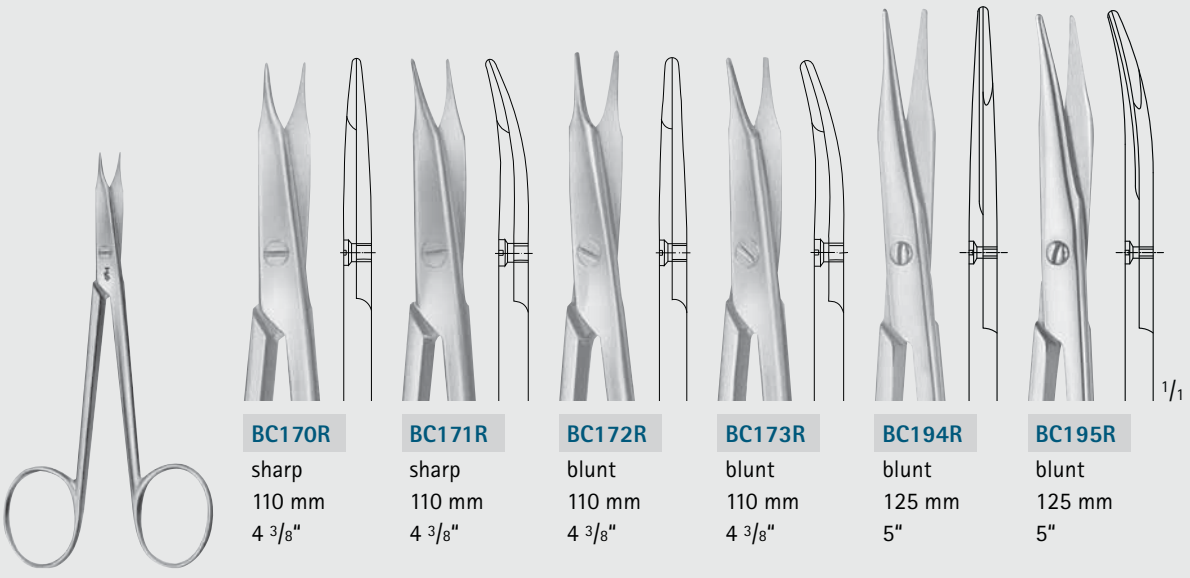
Vascular- and tendon scissors
100 mm, 4"



STEVENS

OK366R

Dissecting scissors
110 mm, 4 3/8"



BC170R
sharp
110 mm
4 3/8"

BC171R
sharp
110 mm
4 3/8"

BC172R
blunt
110 mm
4 3/8"

BC173R
blunt
110 mm
4 3/8"

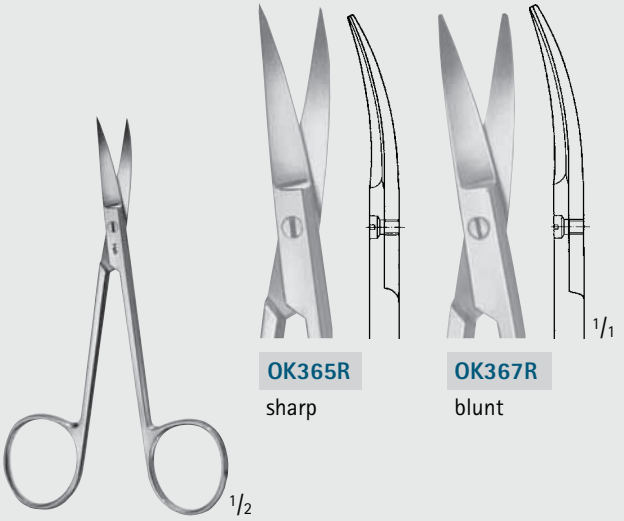
BC194R
blunt
125 mm
5"

BC195R
blunt
125 mm
5"

STEVENS

BC170R–BC195R

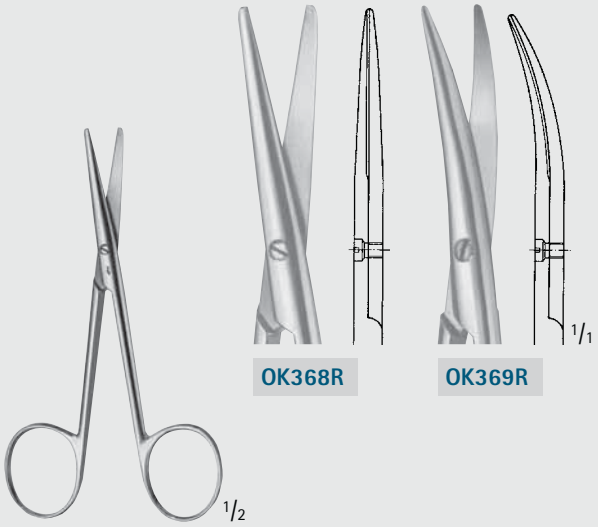
Vascular- and tendon scissors



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"



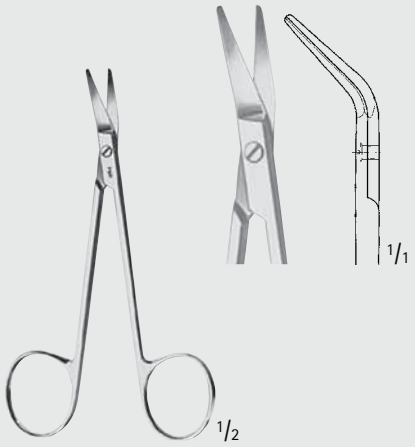
FOMON
OK372R
135 mm
5 1/4"

FOMON
OK373R
115 mm
4 1/2"

FOMON
OK372R–OK373R
Dissecting scissors



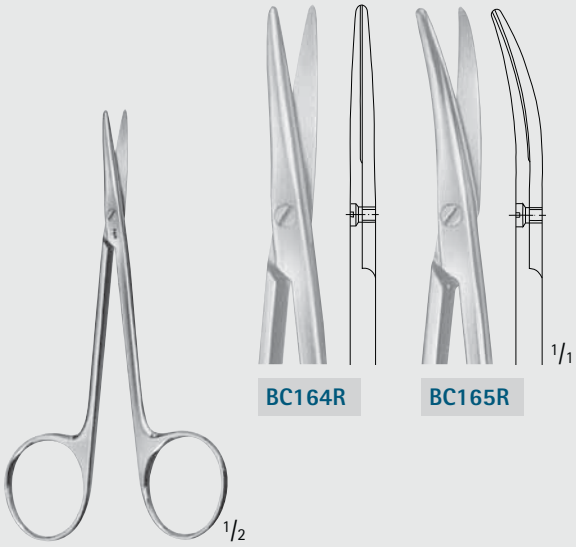
LANDOLT
OC430R
Enucleation scissors
120 mm, 4 3/4"



GRAEFE

OC415R

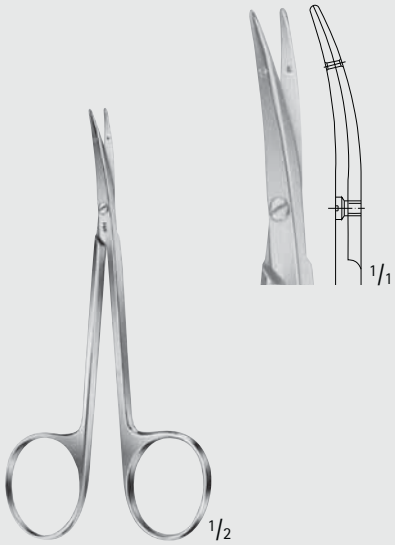
Dissecting scissors
100 mm, 4"



BC164R **BC165R**

BC164R-BC165R

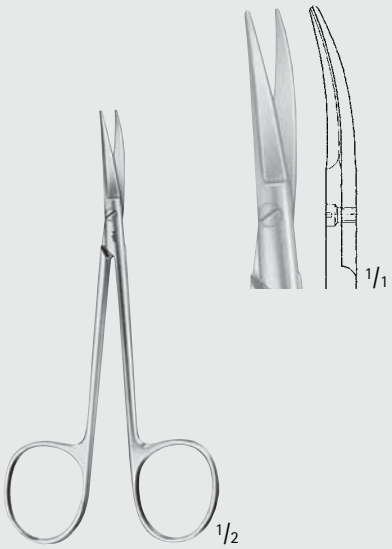
Dissecting Scissors
115 mm, 4 1/2"



LITTLER

BC163R

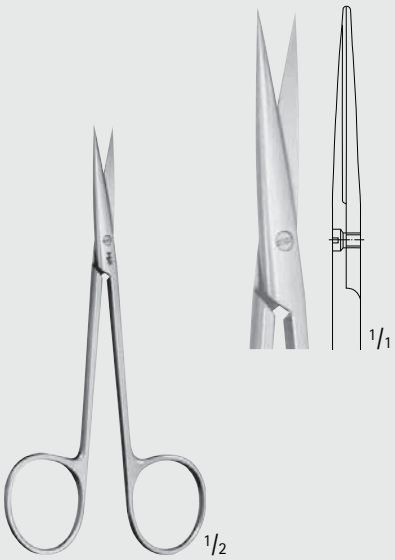
Dissecting scissors,
tips with eye for suture
115 mm, 4 1/2"



COTTLE

OK374R

Bulldog scissors
115 mm, 4 1/2"

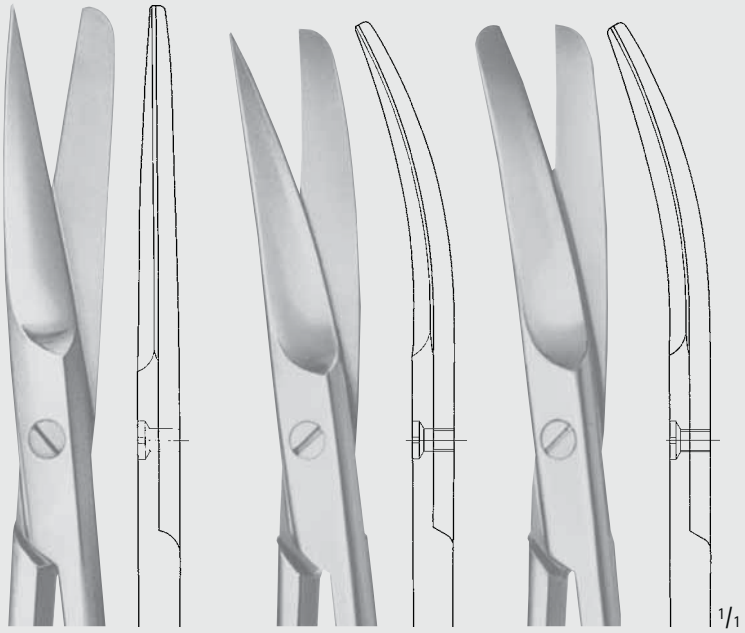


KILNER

BC162R

Delicate dissecting scissors
115 mm, 4 1/2"





BC374R **BC474R** **BC464R**

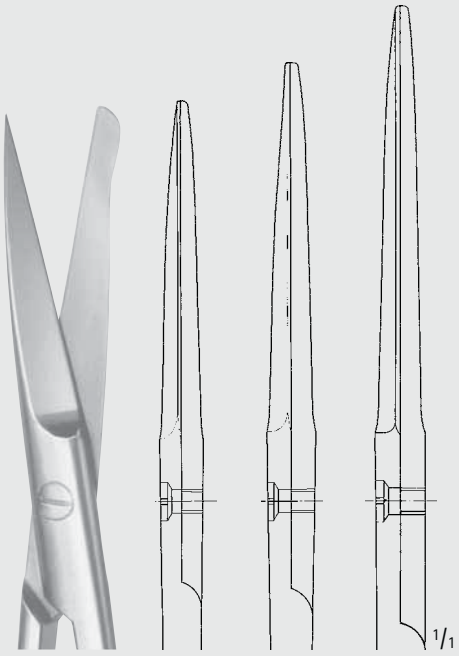
DEAVER

BC374R–BC474R

Surgical scissors with flat lock

145 mm, 5 3/4"



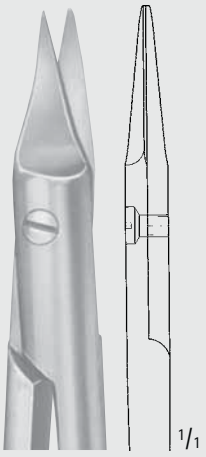


BC503R	BC504R	BC506R
130 mm	145 mm	165 mm
5 1/8"	5 3/4"	6 1/2"

BC503R–BC506R

Incision scissors





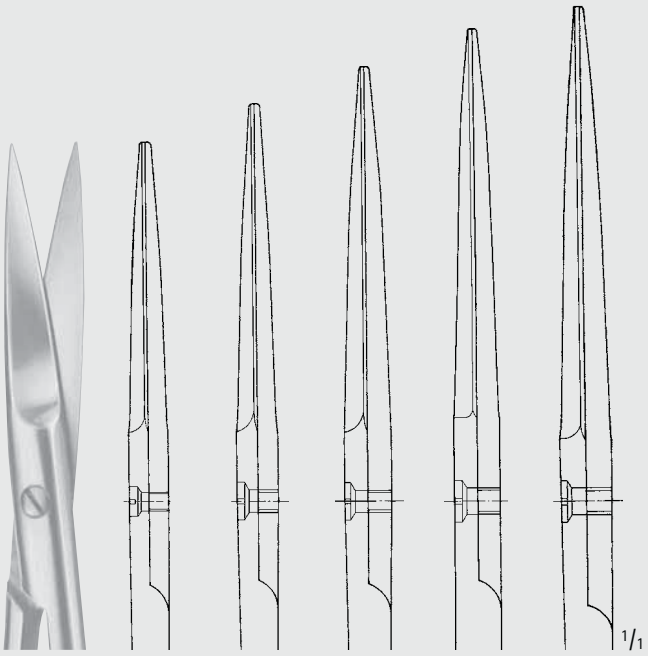
SYSTRUNK

BC521R

Surgical scissors

130 mm, 5 1/8"

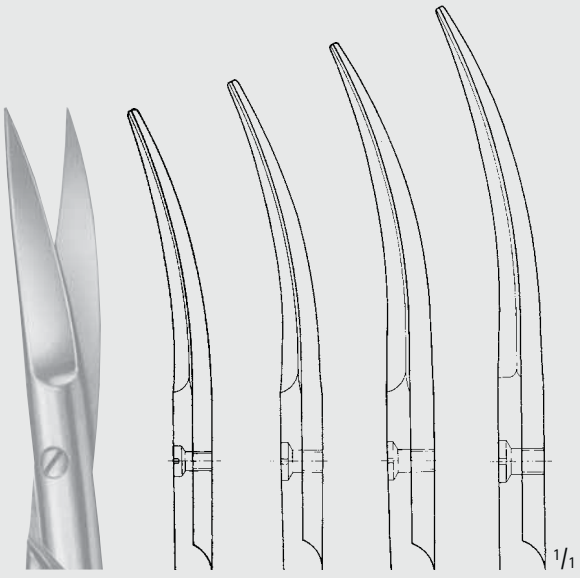




BC341R	BC343R	BC344R	BC345R	BC346R
115 mm 4 1/2"	130 mm 5 1/8"	145 mm 5 3/4"	150 mm 6"	165 mm 6 1/2"

BC341R–BC346R
Standard patterns

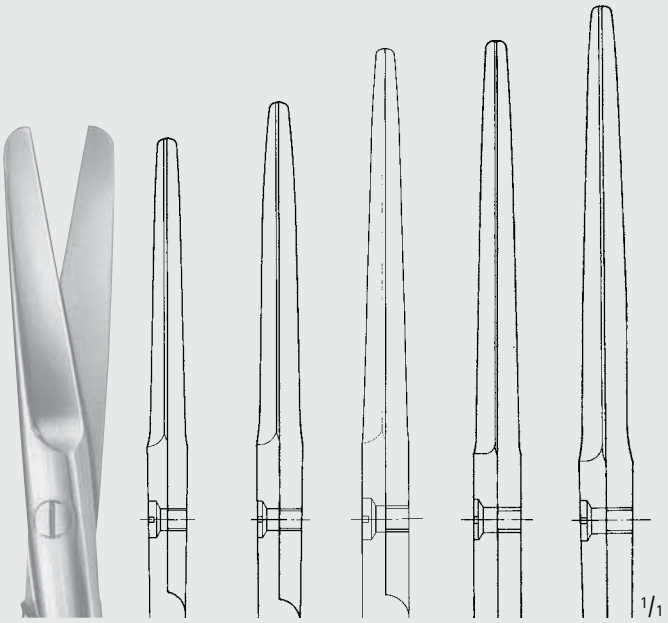




BC441R	BC443R	BC444R	BC445R
115 mm 4 1/2"	130 mm 5 1/8"	145 mm 5 3/4"	150 mm 6"

BC441R–BC445R
Standard patterns





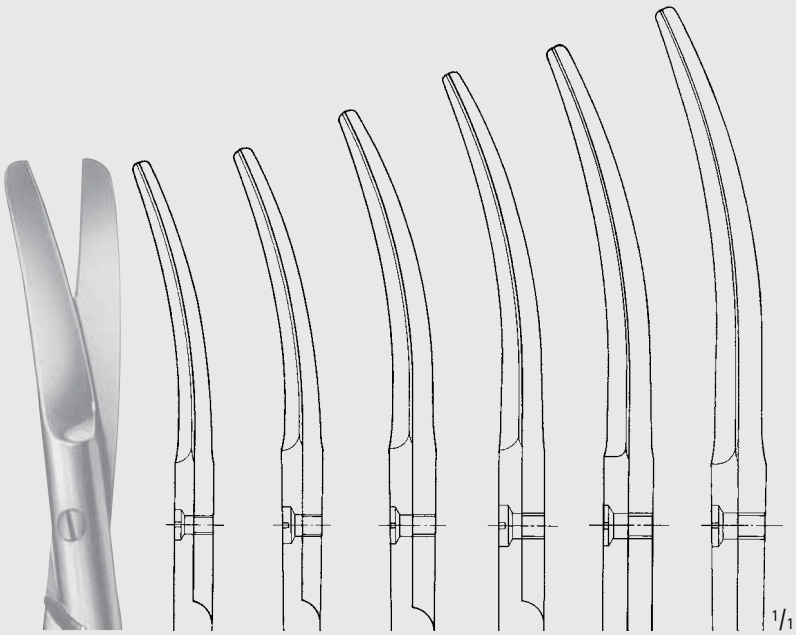
COOPER

BC313R–BC317R

Standard patterns

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



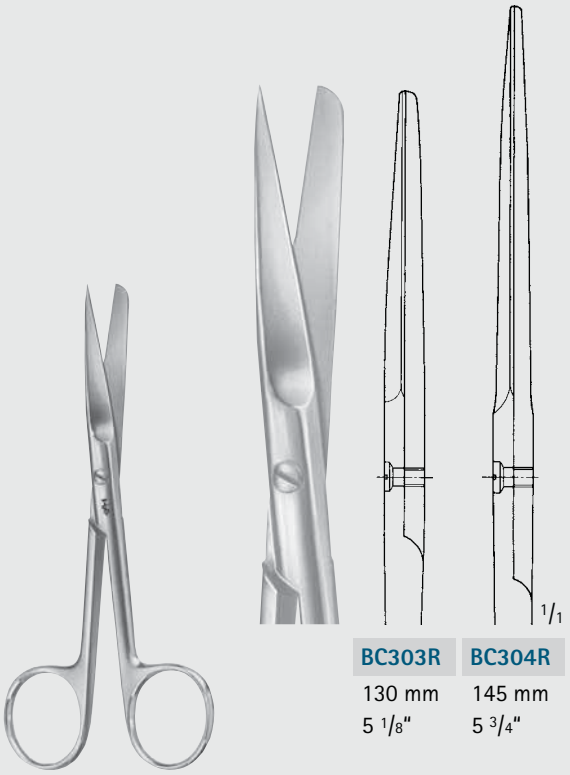


COOPER

BC411R–BC417R

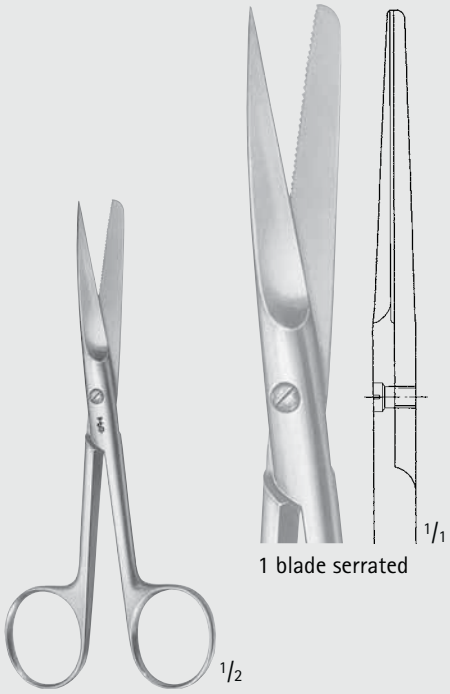
Standard patterns

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



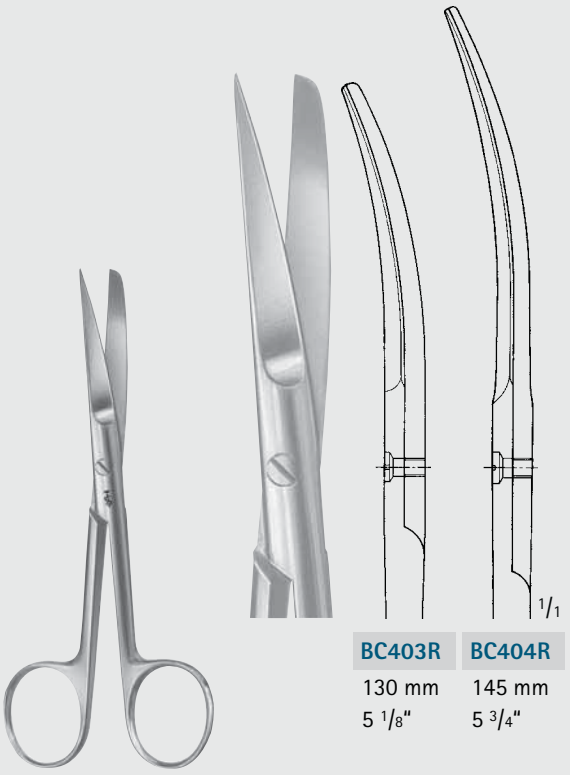
BC303R	BC304R
130 mm	145 mm
5 1/8"	5 3/4"

BC303R–BC304R
Slender patterns



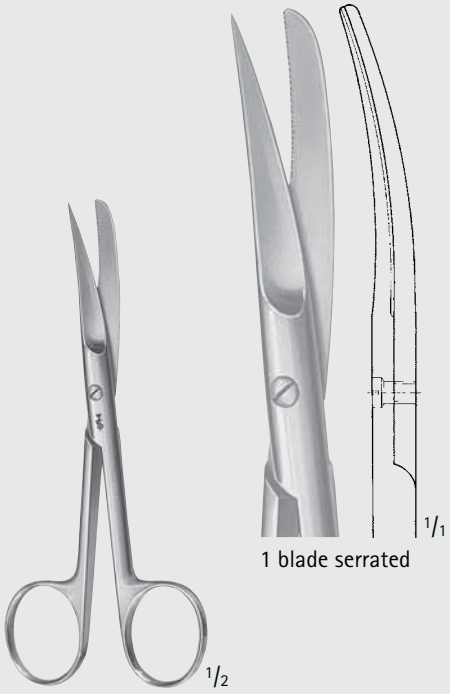
1 blade serrated

BC496R
Scissors for wound edges
130 mm, 5 1/8"



BC403R	BC404R
130 mm	145 mm
5 1/8"	5 3/4"

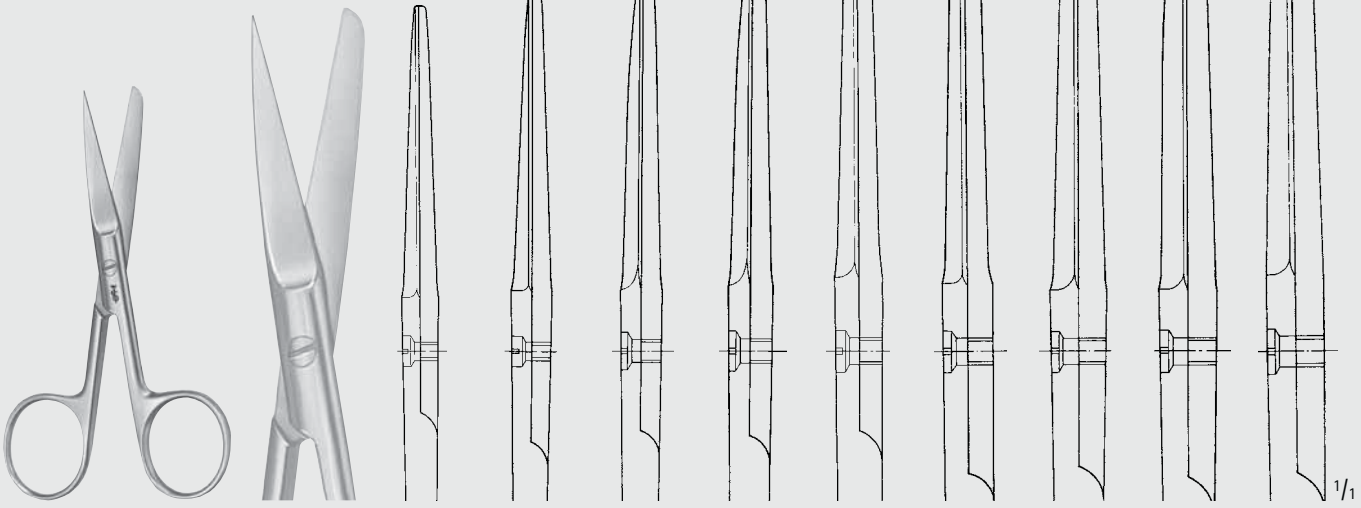
BC403R–BC404R
Slender patterns



1 blade serrated

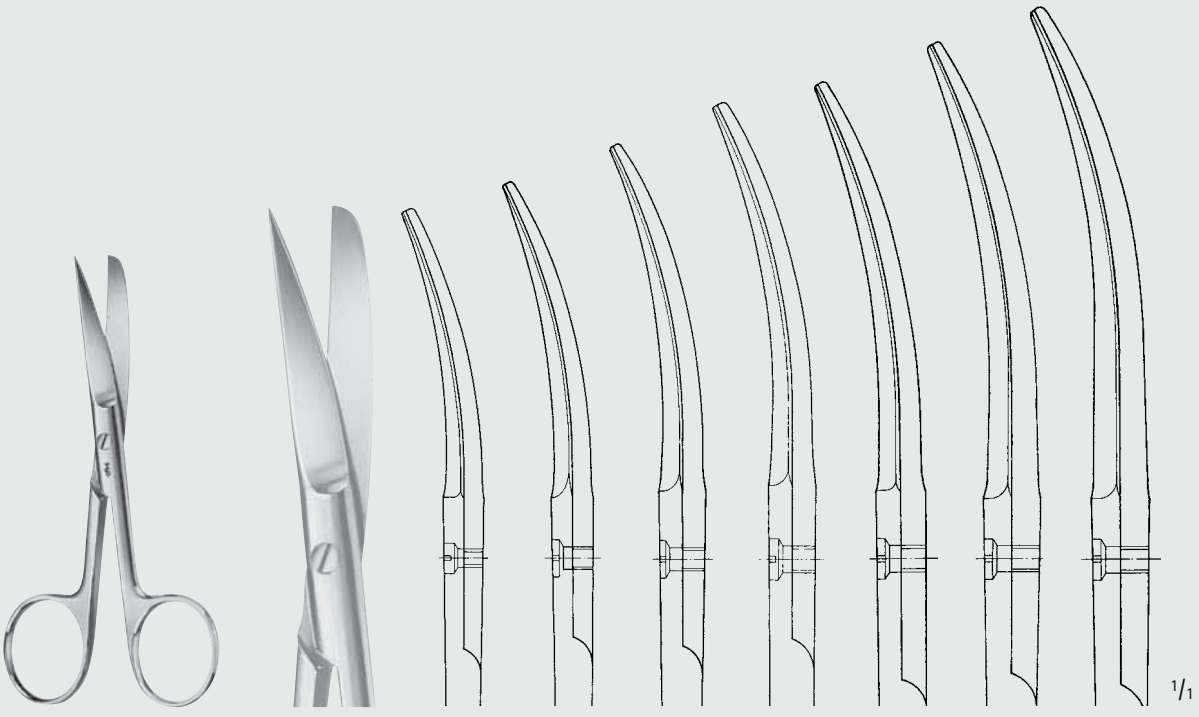
BC497R
Scissors for wound edges
130 mm, 5 1/8"

Instruments
Surgical Scissors



BC320R–BC330R
Standard patterns

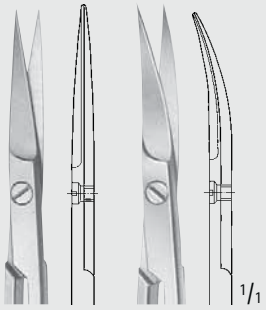
BC320R	BC321R	BC323R	BC324R	BC325R	BC326R	BC327R	BC328R	BC330R
105 mm 4 1/8"	115 mm 4 1/2"	130 mm 5 1/8"	145 mm 5 3/4"	150 mm 6"	165 mm 6 1/2"	175 mm 7"	185 mm 7 1/4"	200 mm 8"



BC421R–BC428R
Standard patterns

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

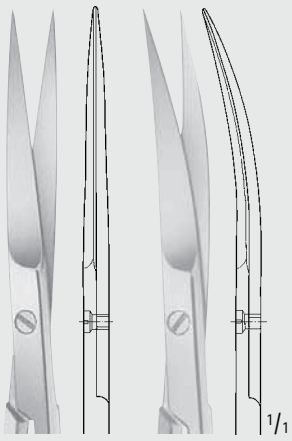




BC004R BC005R

BC004R-BC005R
115 mm, 4 1/2"





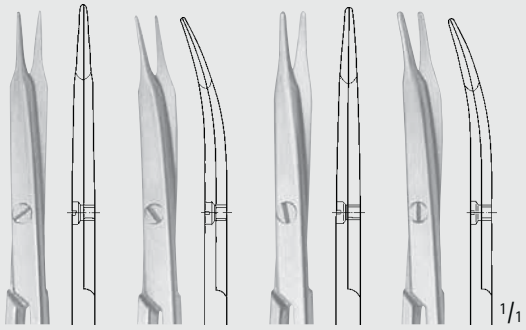
BC006R BC007R

JOSEPH

BC006R-BC007R
150 mm, 6"

Delicate Scissors - Large Ring Design





BC008R sharp

BC009R sharp

BC010R blunt

BC011R blunt

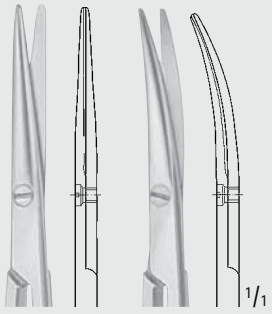
STEVENS

BC008R–BC011R

Dissecting scissors

115 mm, 4 1/2"





BC020R

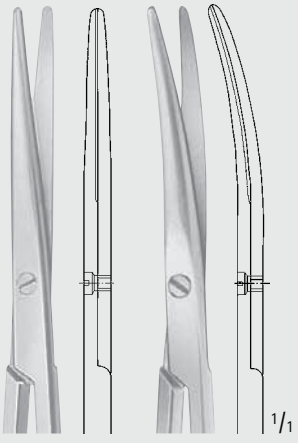
BC021R

BC020R–BC021R

Dissecting- and strabismus scissors

115 mm, 4 1/2"





BC022R

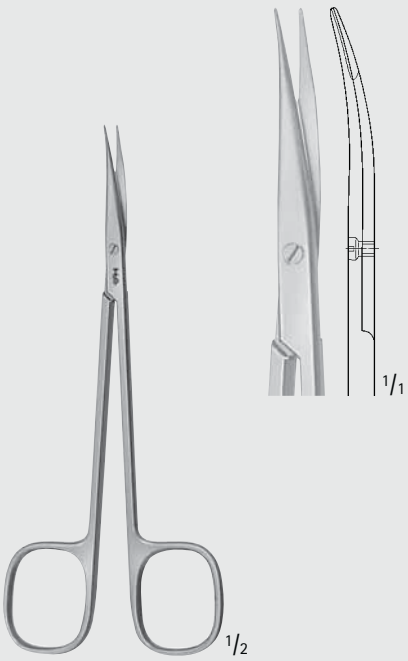
BC023R

METZENBAUM

BC022R–BC023R

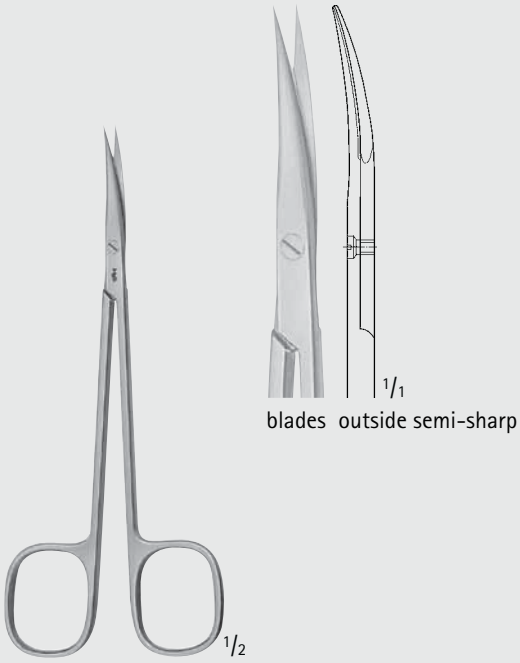
Dissecting scissors

145 mm, 5 3/4"



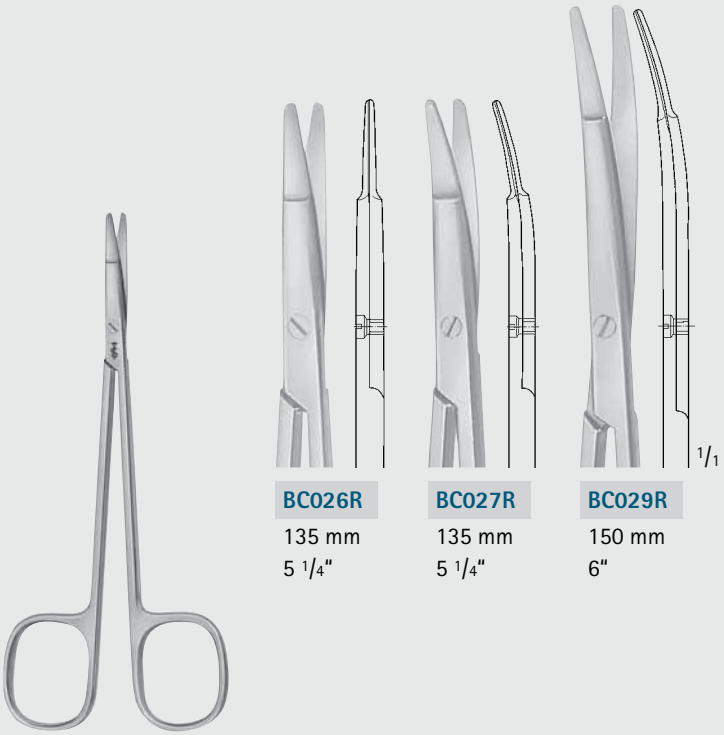
REYNOLDS-JAMESON

BC015R
Vascular scissors
140 mm, 5 1/2"



blades outside semi-sharp

BC017R
Nerve dissecting scissors
140 mm, 5 1/2"



RAGNELL

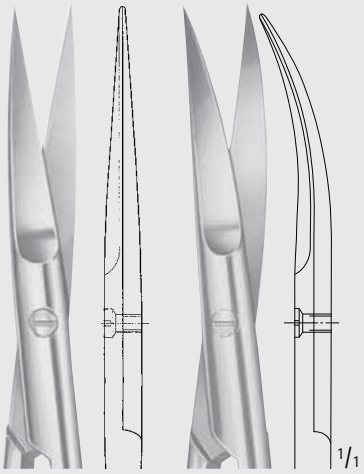
BC026R–BC029R
special flat points for dissecting and undermining the skin

BC026R
135 mm
5 1/4"

BC027R
135 mm
5 1/4"

BC029R
150 mm
6"





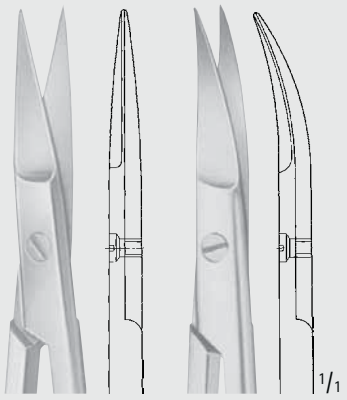
BC156R BC157R

JOSEPH

BC156R–BC157R

150 mm, 6"



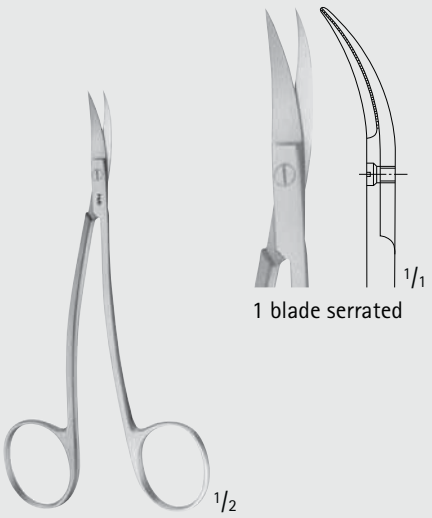


BC160R BC161R

KELLY

BC160R–BC161R

175 mm, 7"

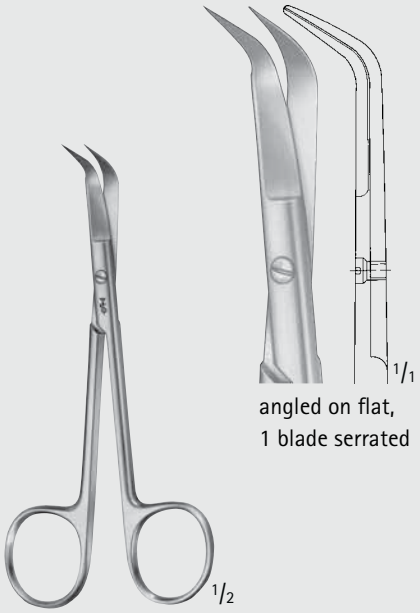


1 blade serrated

LA GRANGE

BC154R

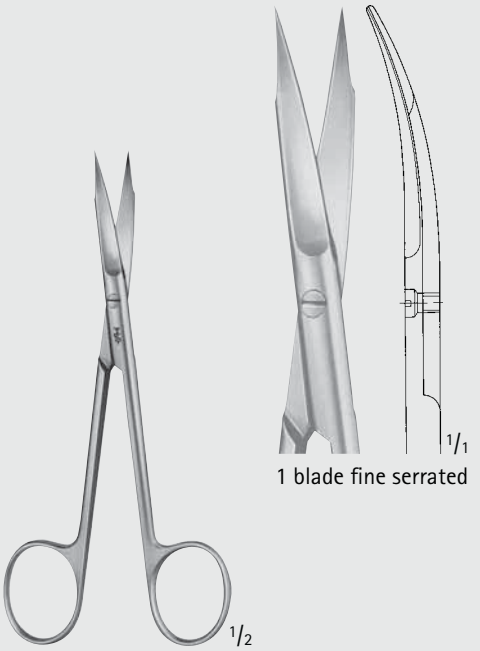
110 mm, 4 3/8"



angled on flat,
1 blade serrated

DO252R

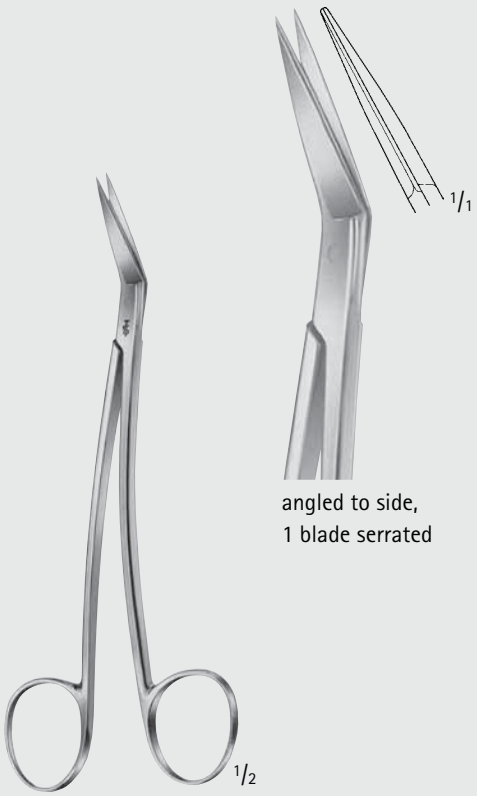
125 mm, 5"



1 blade fine serrated

DO251R

130 mm, 5 1/8"



angled to side,
1 blade serrated

LOCKLIN

DO219R

155 mm, 6"





curved to side

PERWITZSCHKY

OM489R

100 mm, 4"

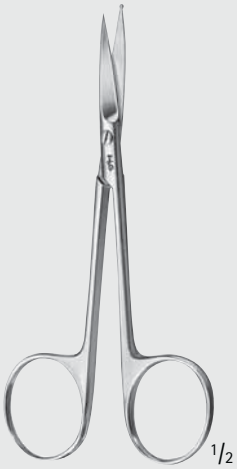




angled to side

BC033R

115 mm, 4 1/2"



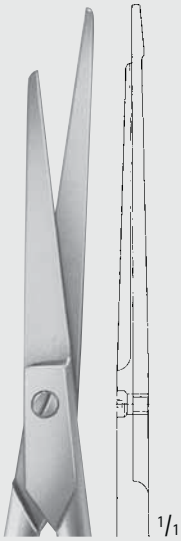


with 1 probe pointed blade

BC030R

120 mm, 4 3/4"

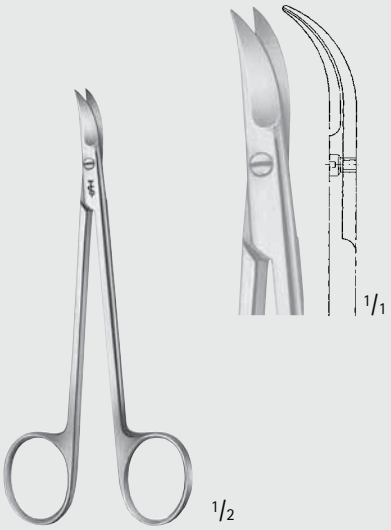




with 1 probe pointed blade

BC034R

145 mm, 5 3/4"



CHADWICK

BC153R

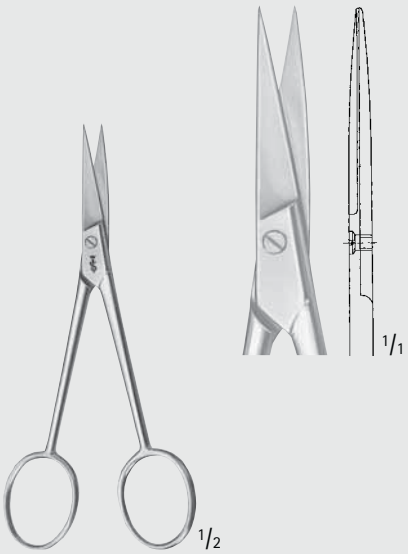
115 mm, 4 1/2"



QUINBY

DO218R

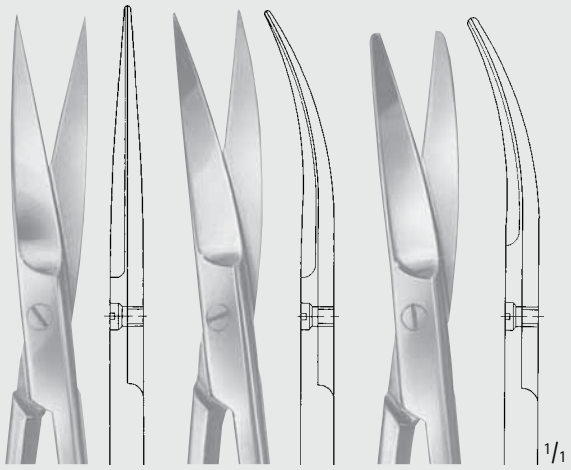
130 mm, 5 1/8"



BC050R

110 mm, 4 3/8"



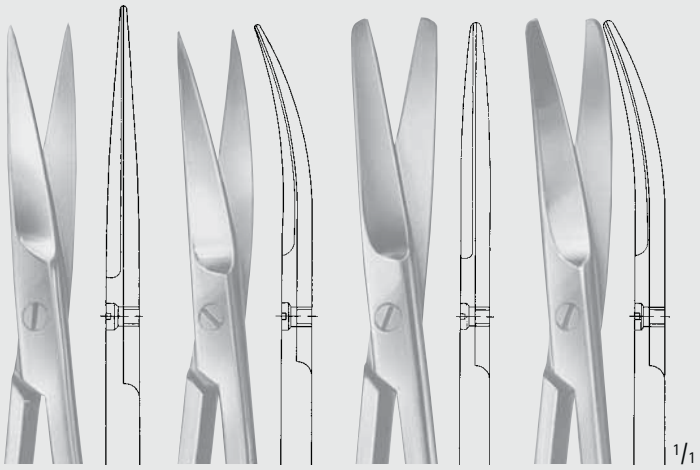


BC130R BC131R BC135R

BC130R–BC135R

120 mm, 4 3/4"

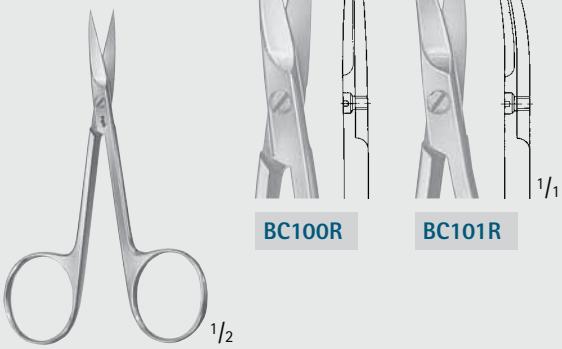




BC140R BC141R BC144R BC145R

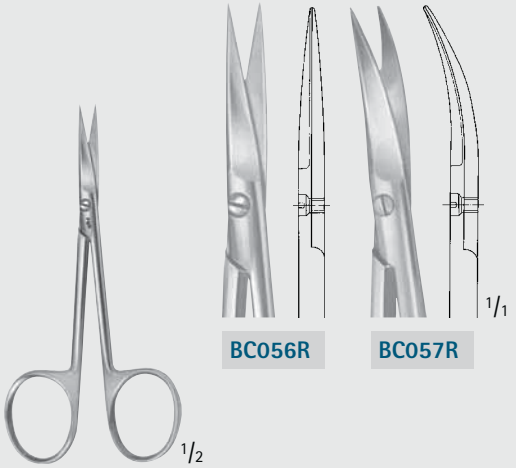
BC140R–BC145R

130 mm, 5 1/8"



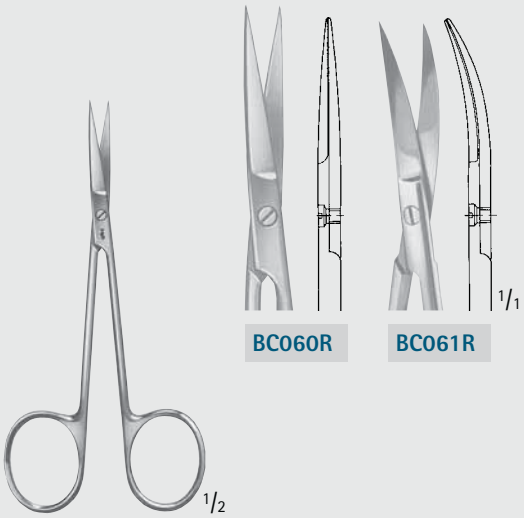
BC100R BC101R

BC100R–BC101R
90 mm, 3 1/2"



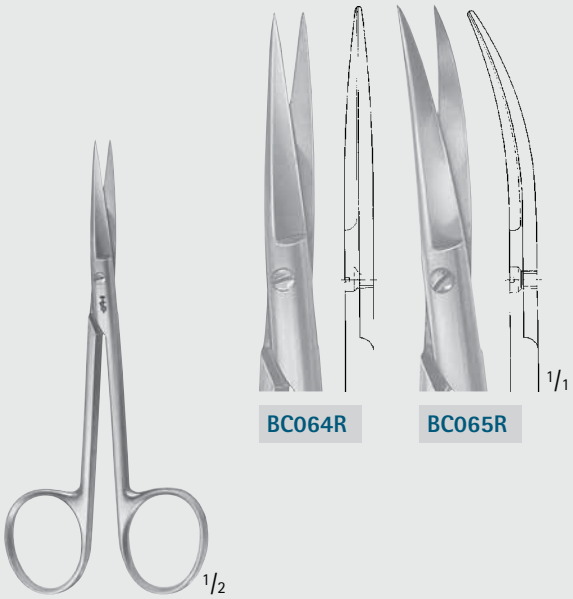
BC056R BC057R

BC056R–BC057R
95 mm, 3 3/4"



BC060R BC061R

BC060R–BC061R
105 mm, 4 1/8"

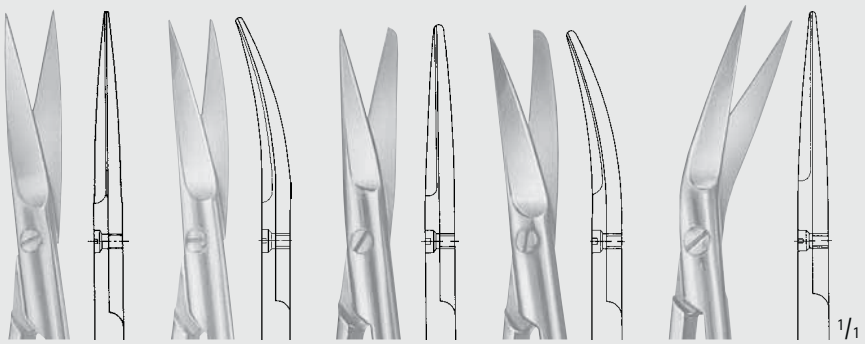


BC064R BC065R

BC064R–BC065R
120 mm, 4 3/4"



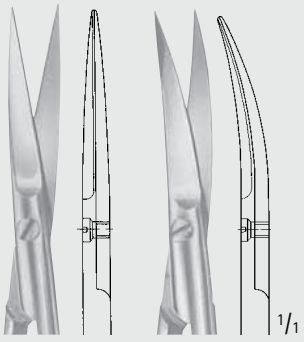
BC110R–BC117R
110 mm, 4 3/8"



BC110R **BC111R** **BC112R** **BC113R** **BC117R**
curved to side



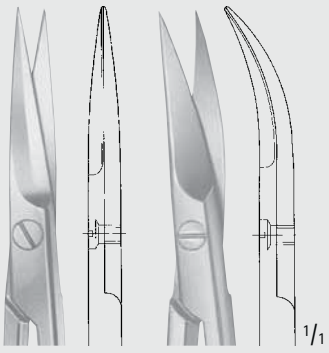
BC106R–BC107R
115 mm, 4 1/2"



BC106R **BC107R**



DO210R–DO211R
120 mm, 4 3/4"

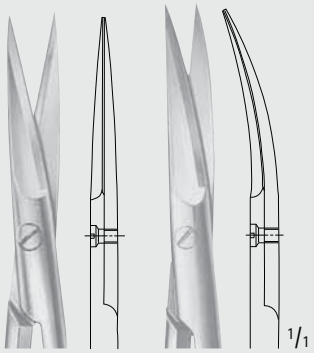


DO210R **DO211R**

DUROTIP® Scissors
with inserted tungsten carbide cutting edges

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

very delicate very delicate

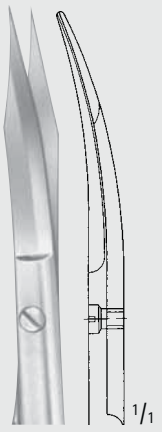


BC210R BC211R



BC210R-BC211R
Ligature scissors
110 mm, 4 3/8"

very delicate

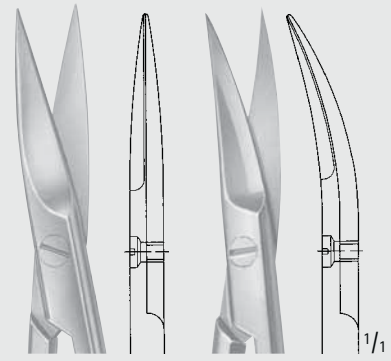


1 blade serrated



DO250R
130 mm, 5 1/8"

very delicate very delicate



DO208R DO209R



DO208R-DO209R
120 mm, 4 3/4"

DUROTIP® Wavecut Dissecting Scissors

Wavecut
prevents tissue from slipping out

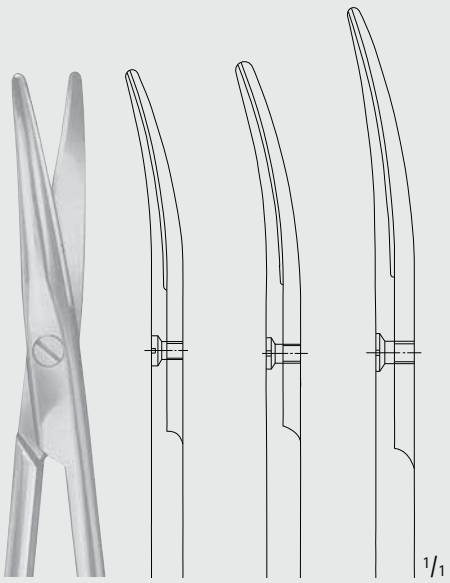


W directly after the catalog number indicates that the resp. item has one serrated cutting edge. (When ordering please indicate together with the catalog number e.g. BC211W)

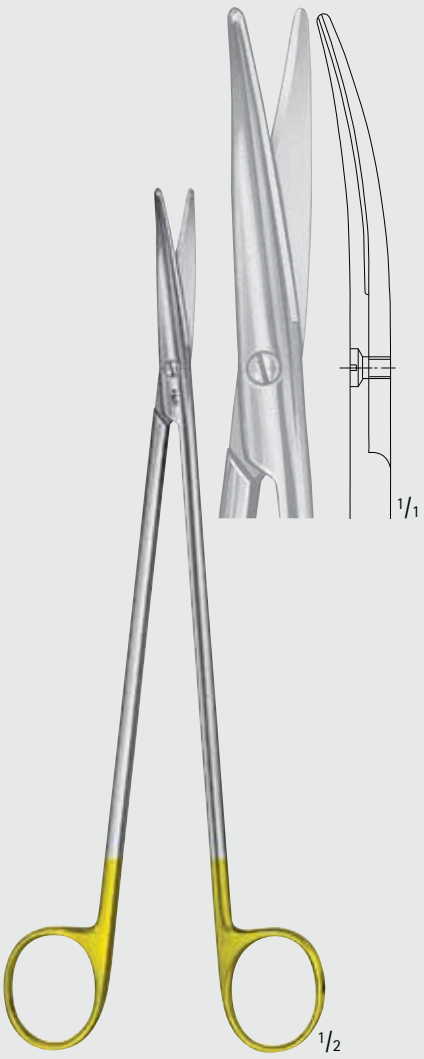


METZENBAUM

BC261W–BC265W



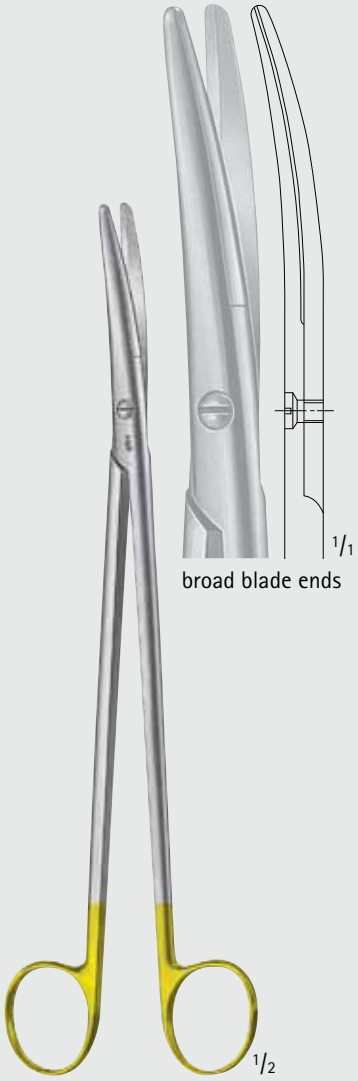
BC261W	BC263W	BC265W
145 mm 5 3/4"	180 mm 7"	200 mm 8"



NELSON-METZENBAUM

BC267W

230 mm, 9"



broad blade ends

METZENBAUM

BC287W

230 mm, 9"

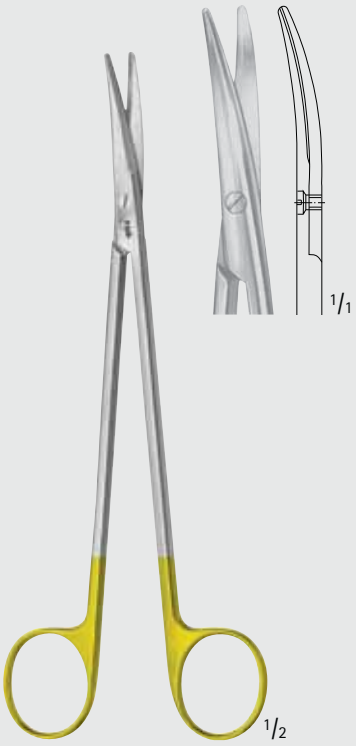


BC290W	BC291W
200 mm	230 mm
8"	9"

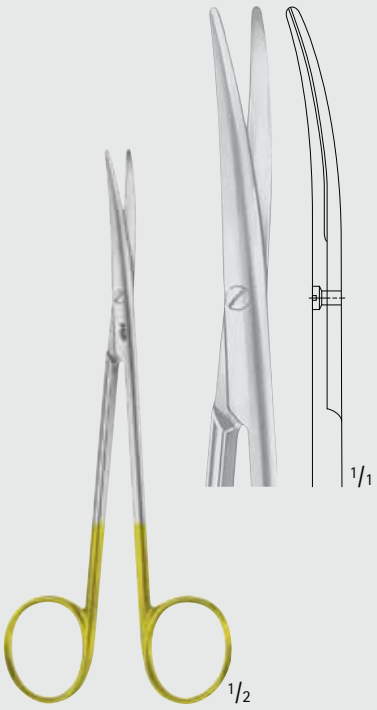
SIMS

BC290W-BC291W

DUROTIP® Wavecut Dissecting Scissors



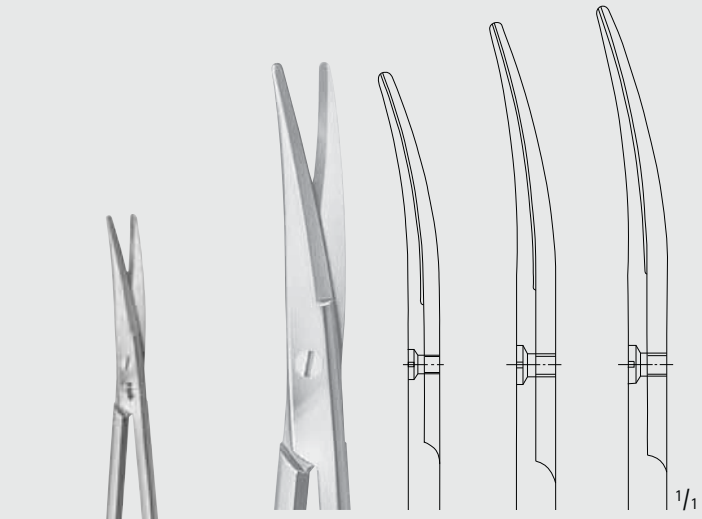
BC257W
115 mm, 4 1/2"



BABY-METZENBAUM
BC259W
145 mm, 5 3/4"



TÖNNIS-ADSON
BC273W
175 mm, 7"

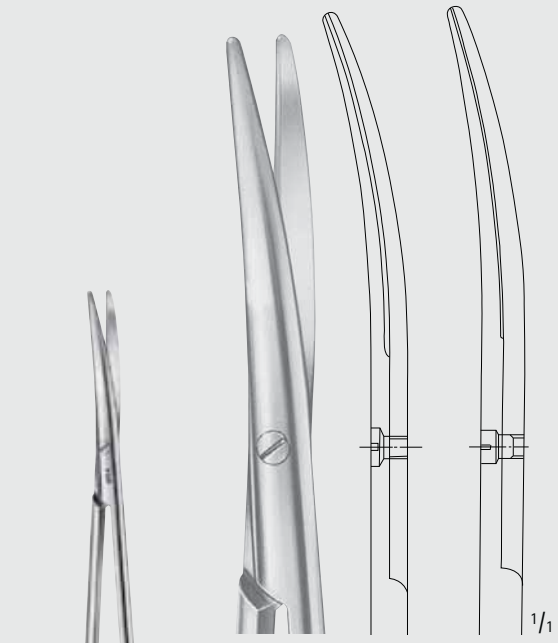


BC271W	BC275W	BC277W
180 mm	200 mm	230 mm
7"	8"	9"



METZENBAUM

BC271W–BC277W



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

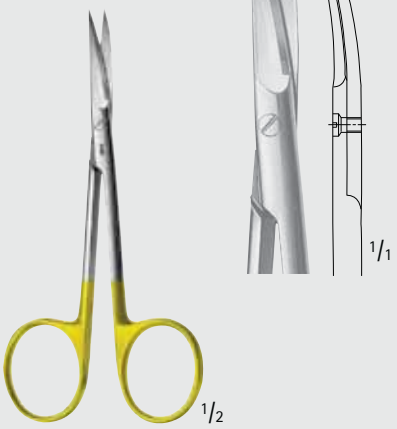


NELSON-METZENBAUM

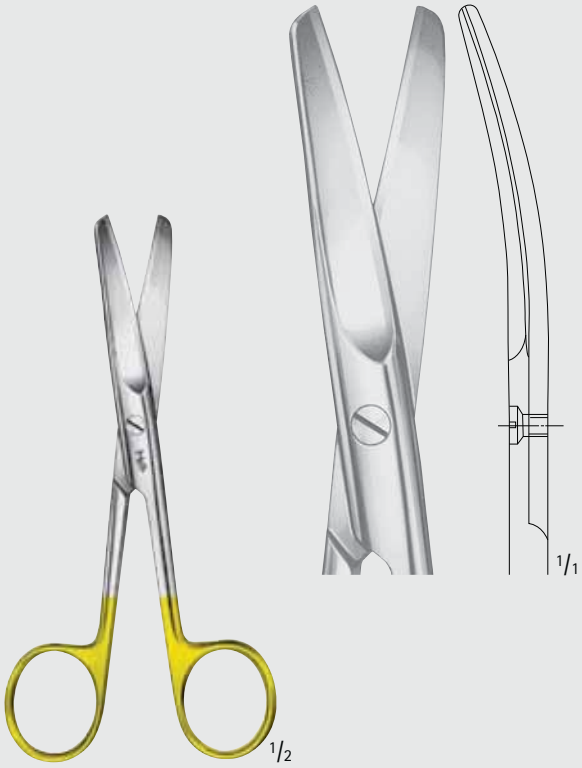
BC279W–BC281W

Instruments
DUROTIP® Wavecut Scissors

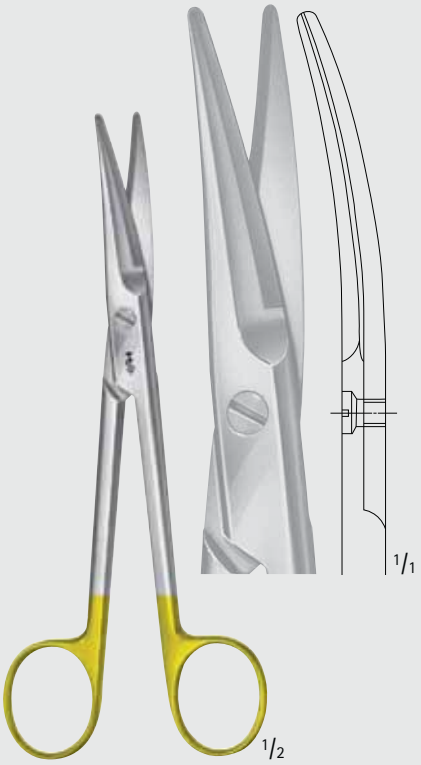
very delicate



BC211W
Ligature scissors
110 mm, 4 3/8"



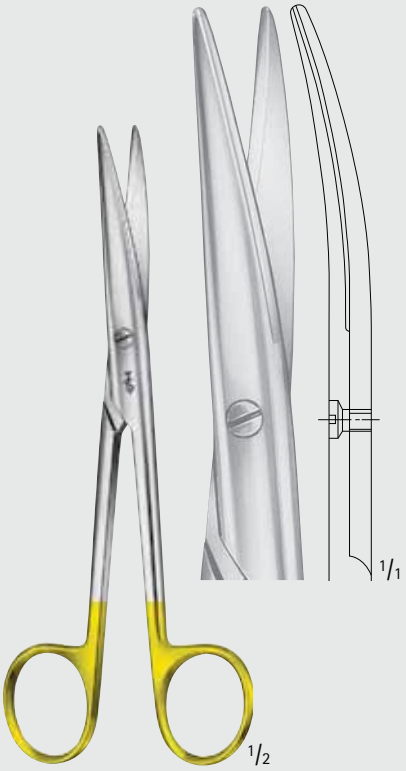
BC231W
Surgical scissors
145 mm, 5 3/4"



MAYO
BC253W
Dissecting scissors
170 mm, 6 3/4"



LEXER
BC283W
Dissecting scissors
165 mm, 6 1/2"



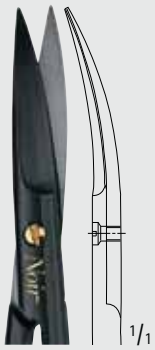
MAYO-LEXER
BC284W
Dissecting scissors
165 mm, 6 1/2"

■ Wavecut prevents tissue from slipping out during the cutting process



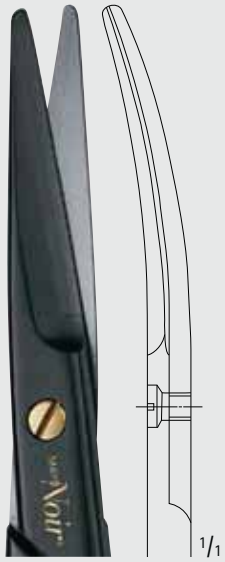
very delicate





BC211WB
110 mm, 4 3/8"





MAYO
BC253WB
170 mm, 6 3/4"

very delicate



BC257WB
115 mm, 4 1/2"

very delicate

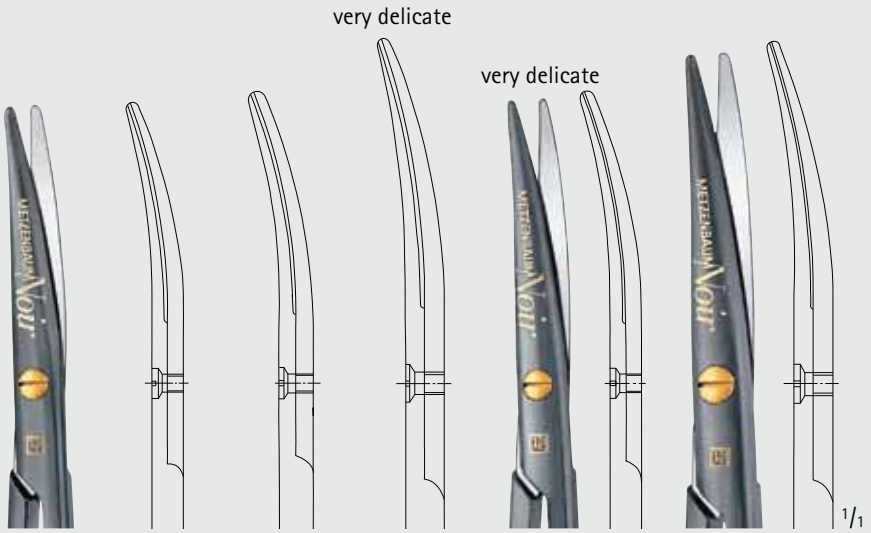


BABY-METZENBAUM
BC259WB
145 mm, 5 3/4"

Instruments

Wavecut Dissecting Scissors Noir®





METZENBAUM

BC261WB–BC275WB

BC261WB	BC263WB	BC265WB	BC271WB	BC275WB
145 mm 5 3/4"	180 mm 7"	200 mm 8"	180 mm 7"	200 mm 8"





TÖNNIS-ADSON

BC273WB

175 mm, 7"





LEXER

BC283WB

MAYO-LEXER

BC284WB

BC283WB–BC284WB

165 mm, 6 1/2"

very delicate



BC267WB BC277WB

METZENBAUM

BC267WB–BC277WB

230 mm, 9"



NELSON-METZENBAUM

BC279WB

260 mm, 10 1/4"

very delicate

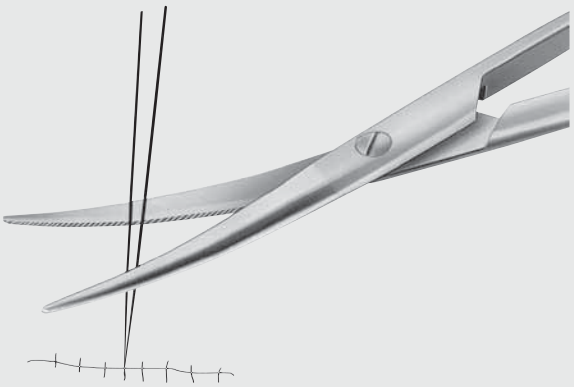


NELSON-METZENBAUM

BC281WB

280 mm, 11"

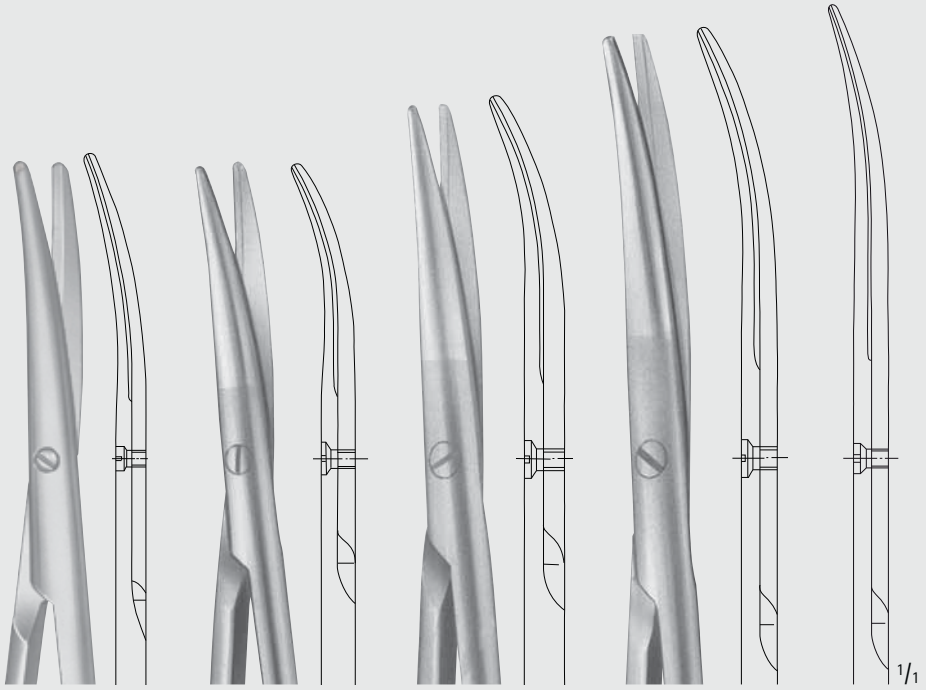
DUROTIP® Wavecut Ligature Scissors



especially for cutting suture materials

- Tungsten carbide inserts ensure permanent sharp 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

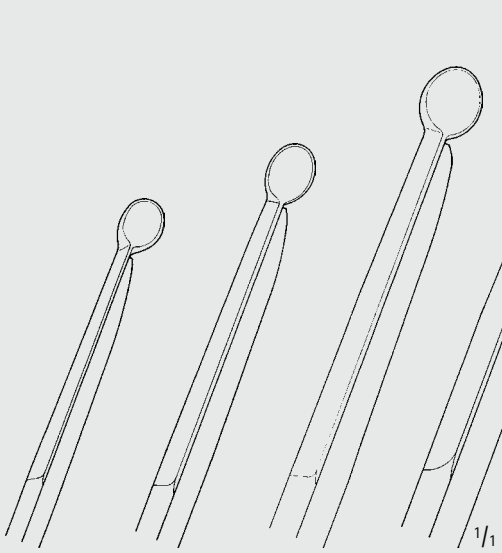




BC294W	BC295W	BC296W	BC297W	BC298W
145 mm	180 mm	230 mm	260 mm	350 mm
5 3/4"	7"	9"	10 1/4"	14"

BC294W–BC298W



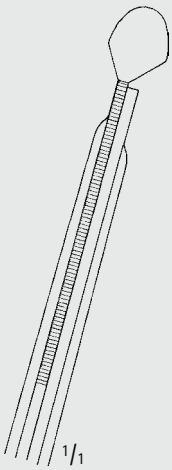


BC860R	BC861R	BC862R	BC863R
115 mm 4 1/2"	140 mm 5 1/2"	180 mm 7"	200 mm 8"

LISTER

BC860R–BC863R





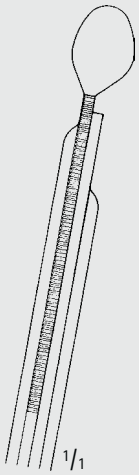
BC885R	black
BC970R	red
BC971R	blue
BC973R	yellow
BC975R	orange
BC977R	pink
BC978R	light green
BC979R	violet

LISTER

BC885R–BC979R

Universal bandage and cloth scissors,
with toothed edges,
autoclavable up to 143 °C (3 bar)
145 mm, 5 3/4"





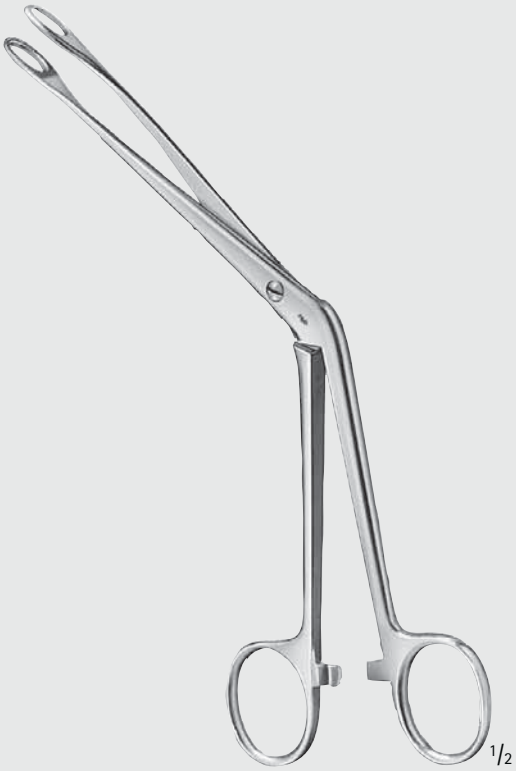
BC881R	black
BC980R	red
BC981R	blue
BC983R	yellow
BC985R	orange
BC987R	pink
BC988R	light green
BC989R	violet

BC881R–BC989R

Universal bandage and cloth scissors,
with toothed edges,
autoclavable up to 143 °C (3 bar)
180 mm, 7"



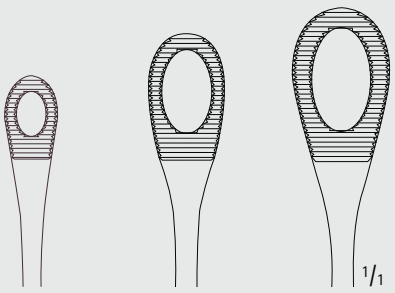
For further details see brochure No. **C09211**



TÖNNIS

FF341R–FF343R

200 mm, 8"

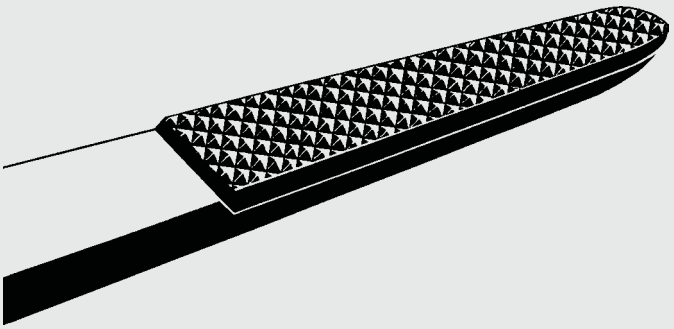


FF341R
Size 1
small

FF342R
Size 2
medium

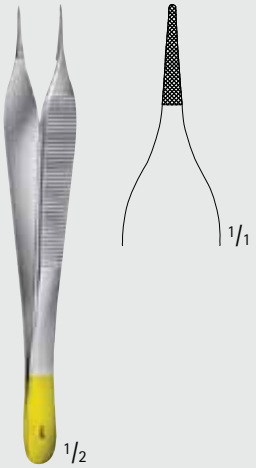
FF343R
Size 3
large

DUROGRIP® Non-traumatic Dissecting Forceps



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

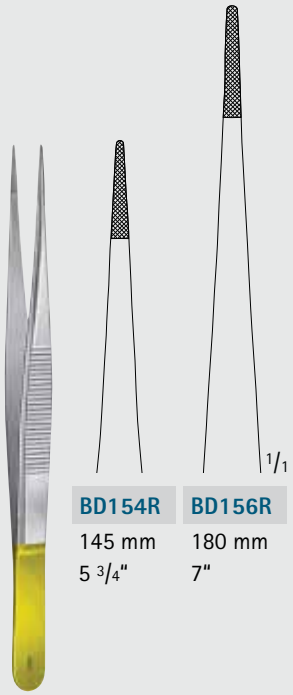
- DUROGRIP® Dissecting forceps with tungsten carbide inserts
  - Identification: gold-plated end



ADSON

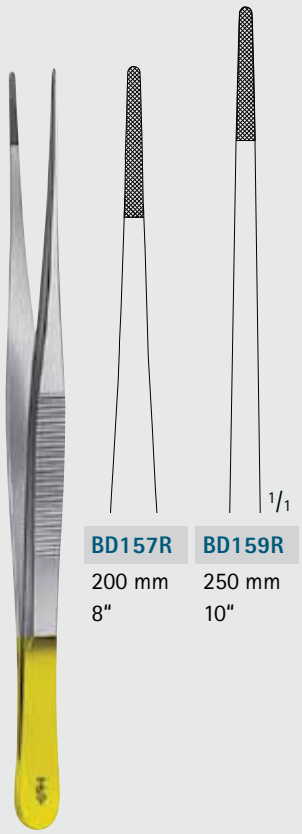
BD151R

120 mm, 4 3/4"



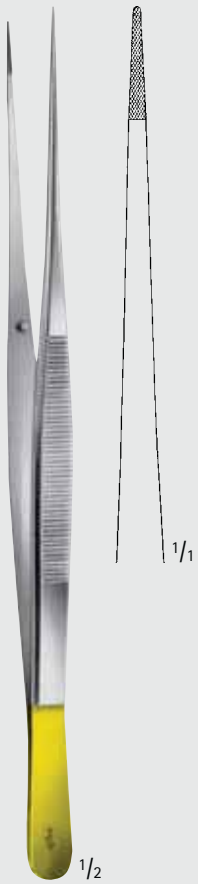
BD154R	BD156R
145 mm 5 3/4"	180 mm 7"

BD154R–BD156R



BD157R	BD159R
200 mm 8"	250 mm 10"

BD157R–BD159R



BD158R

230 mm, 9"



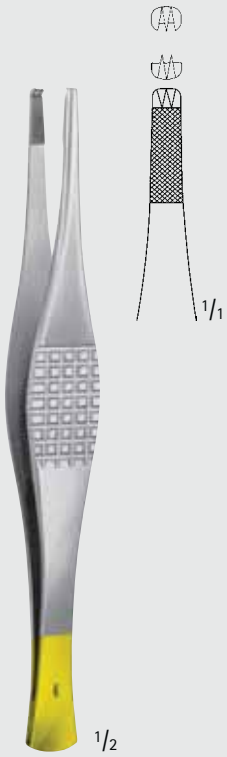


1/1

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

1/2

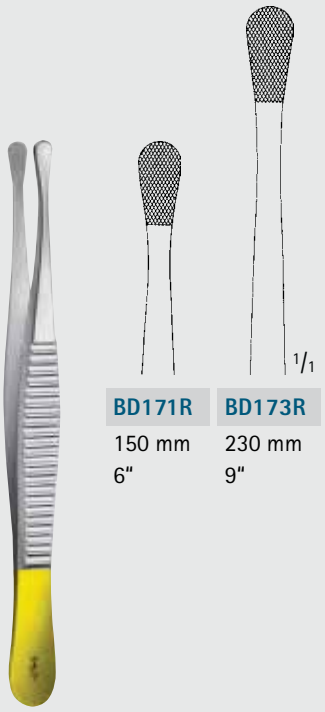
BD180R
Suture forceps
200 mm, 8"



1/1

1/2

FERRIS-SMITH
BD181R
175 mm, 7"

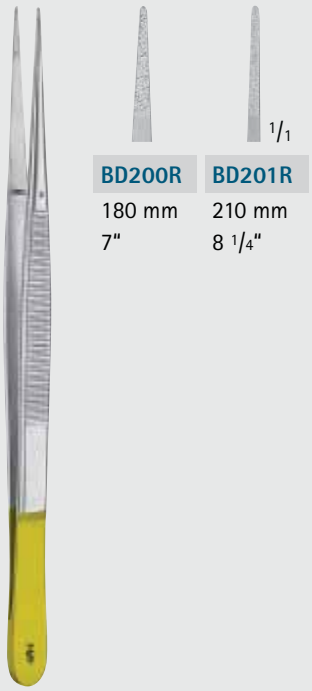


1/1

BD171R	BD173R
150 mm	230 mm
6"	9"

WANGENSTEEN
BD171R–BD173R

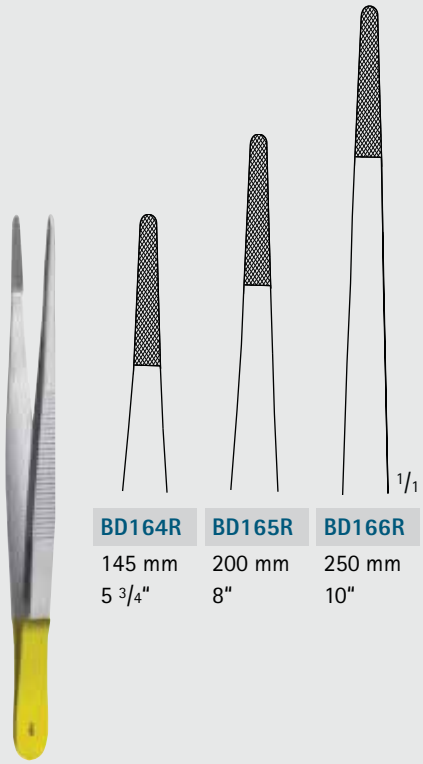
■ Dia Dust®



1/1

BD200R	BD201R
180 mm	210 mm
7"	8 1/4"

THUMB
BD200R–BD201R

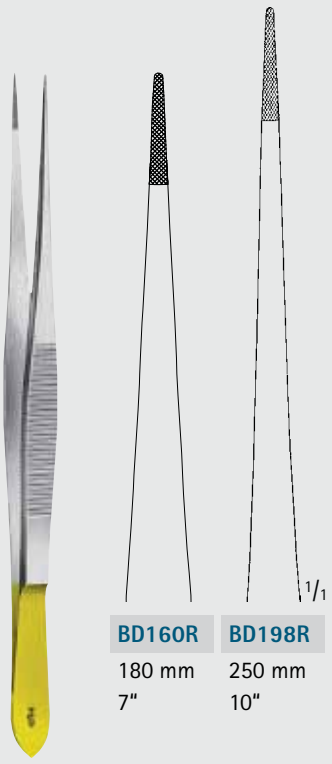


1/1

BD164R	BD165R	BD166R
145 mm	200 mm	250 mm
5 3/4"	8"	10"

STANDARD
BD164R–BD166R

DUROGRIP® Dissecting Forceps

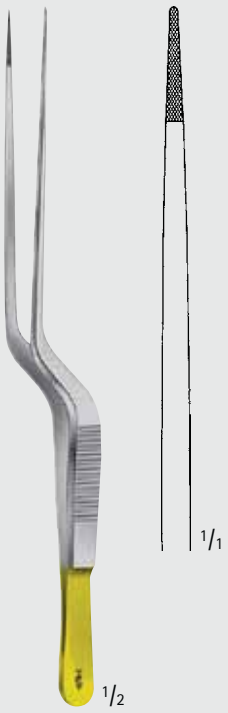


BD160R
180 mm
7"

BD198R
250 mm
10"

CUSHING

BD160R–BD198R
with scraper end

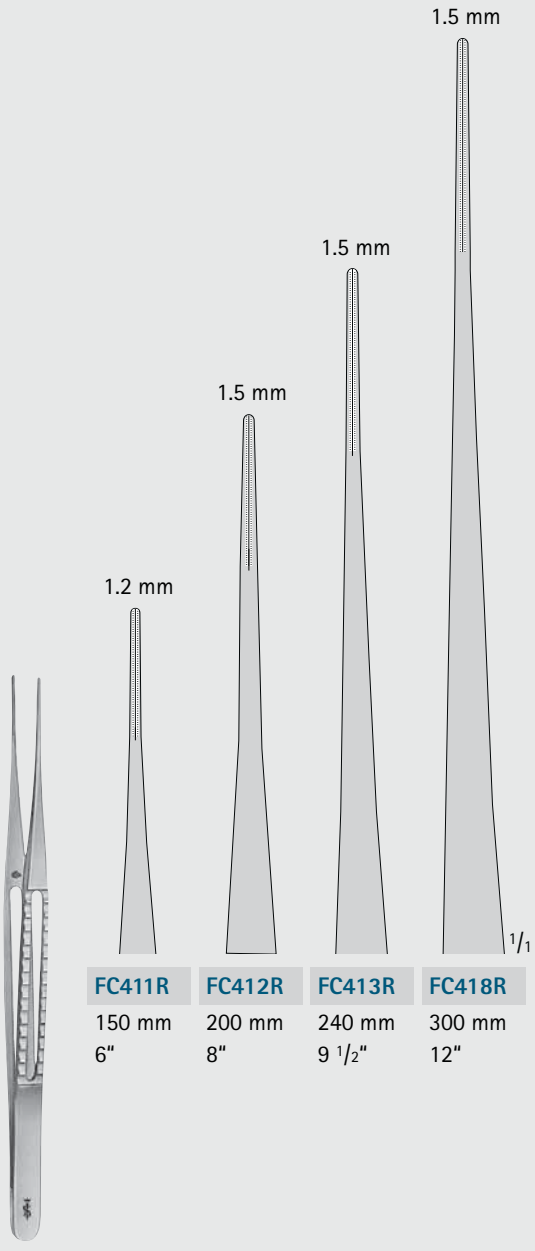


GRUENWALD

BD168R
185 mm, 7 1/4"



Toothing DE BAKEY

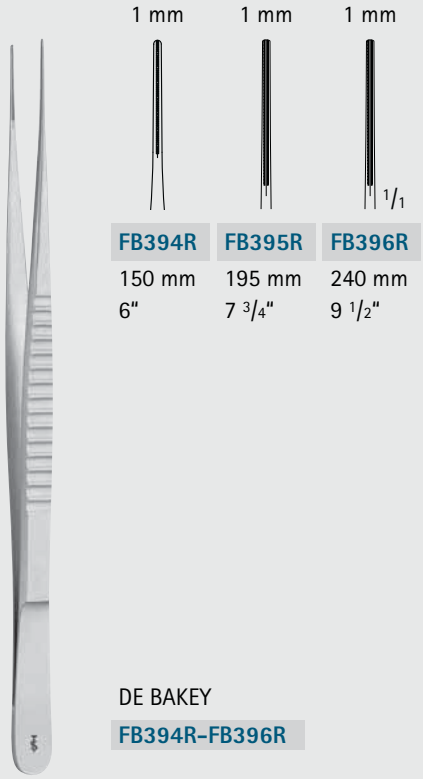


FC411R	FC412R	FC413R	FC418R
150 mm 6"	200 mm 8"	240 mm 9 1/2"	300 mm 12"

FC411R–FC418R

Atraumatic Forceps

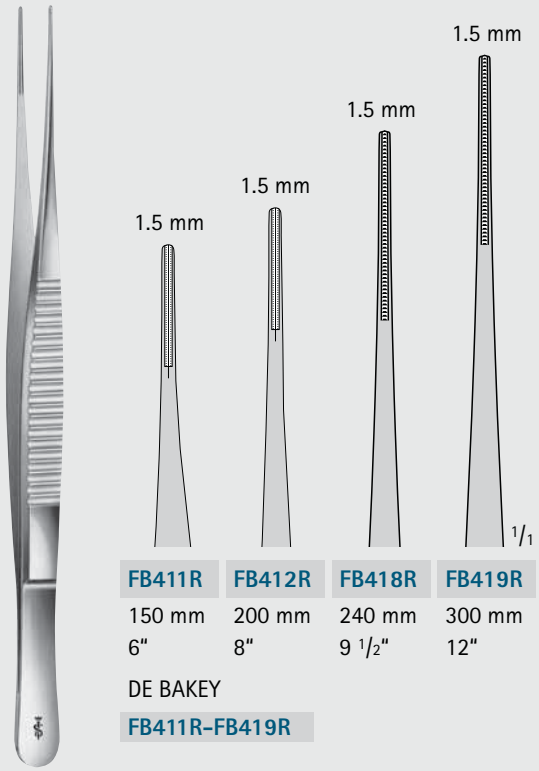
Toothing DE BAKEY



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

DE BAKEY
FB394R–FB396R

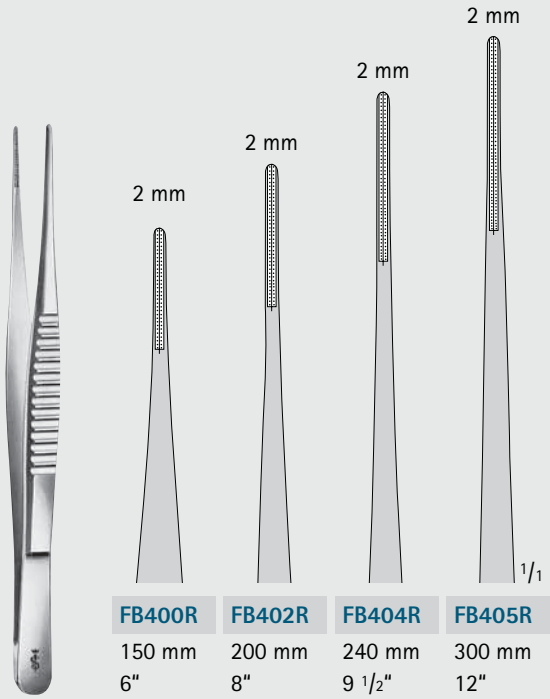
Toothing DE BAKEY



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

DE BAKEY
FB411R–FB419R

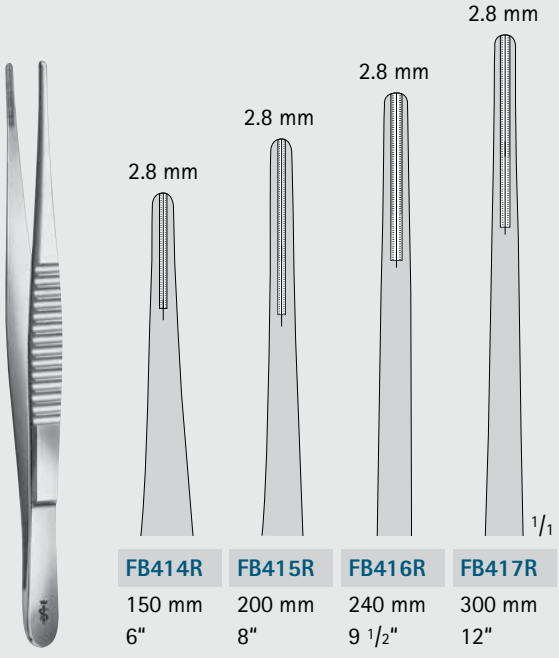
Toothing DE BAKEY



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

DE BAKEY
FB400R–FB405R

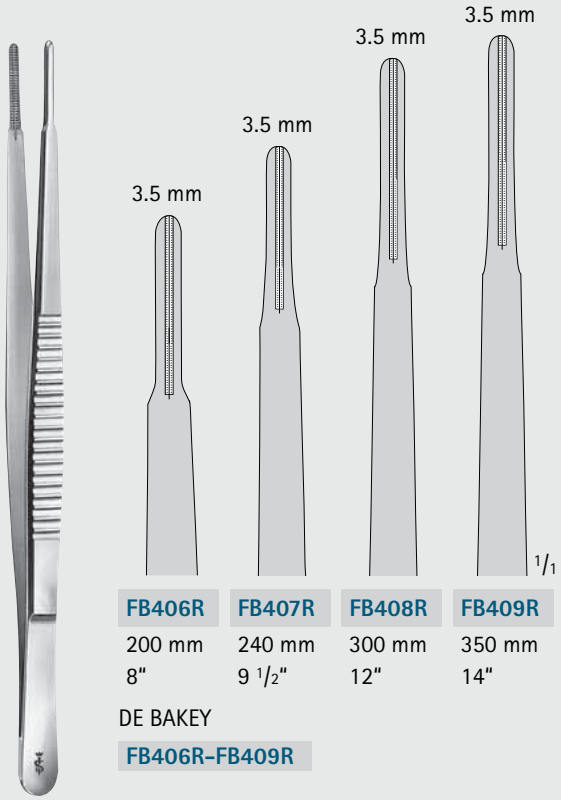
Toothing DE BAKEY



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

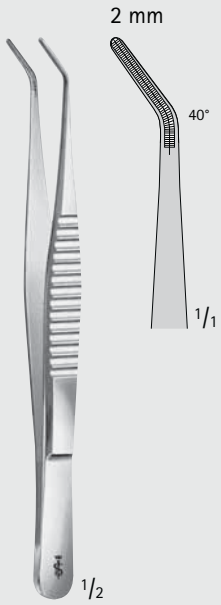
DE BAKEY
FB414R–FB417R

Toothing DE BAKEY

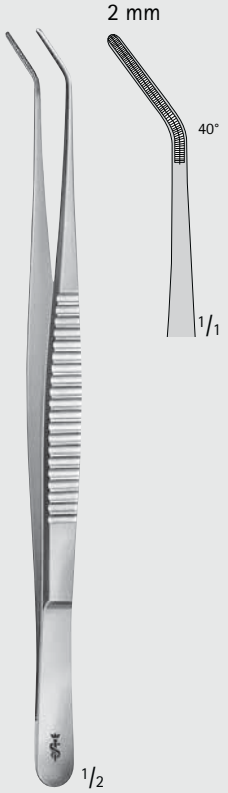


FB406R	FB407R	FB408R	FB409R
200 mm	240 mm	300 mm	350 mm
8"	9 1/2"	12"	14"

DE BAKEY
FB406R–FB409R



DE BAKEY
FB401R
150 mm, 6"

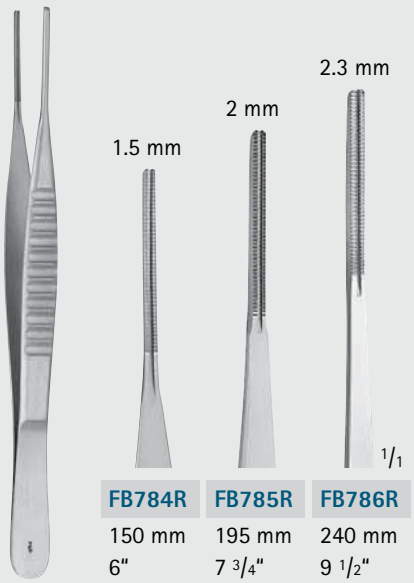


DE BAKEY
FB403R
200 mm, 8"



DE BAKEY
FB410R
240 mm, 9 1/2"

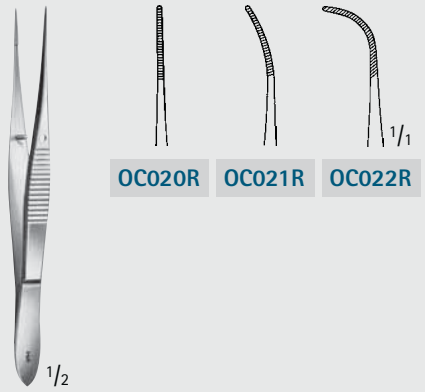
Toothing COOLEY



FB784R	FB785R	FB786R
150 mm	195 mm	240 mm
6"	7 3/4"	9 1/2"

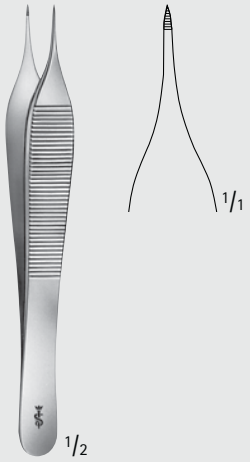
COOLEY
FB784R–FB786R

Delicate Dissecting Forceps

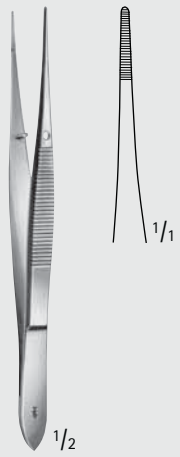


OC020R | OC021R | OC022R

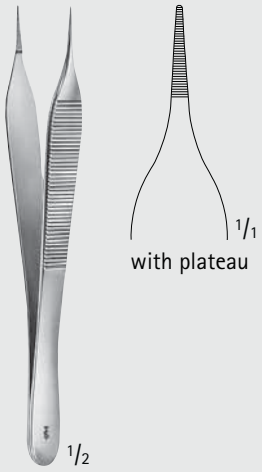
OC020R–OC022R
100 mm, 4"



THORPE
OC069R
120 mm, 4 3/4"

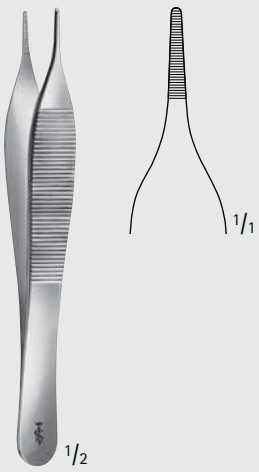


BD210R
115 mm, 4 1/2"

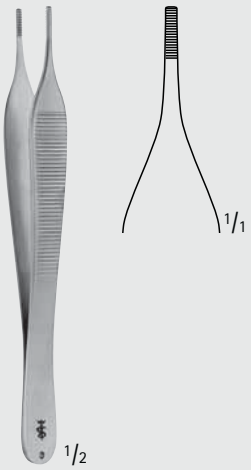


with plateau

MICRO-ADSON
BD220R
120 mm, 4 3/4"



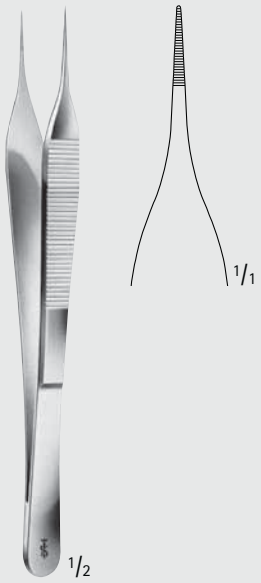
ADSON
BD222R
120 mm, 4 3/4"



HUDSON

BD225R

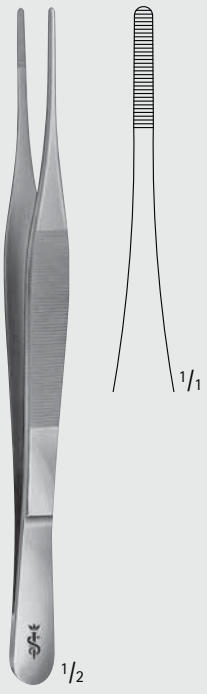
125 mm, 5"



MICRO-ADSON

BD223R

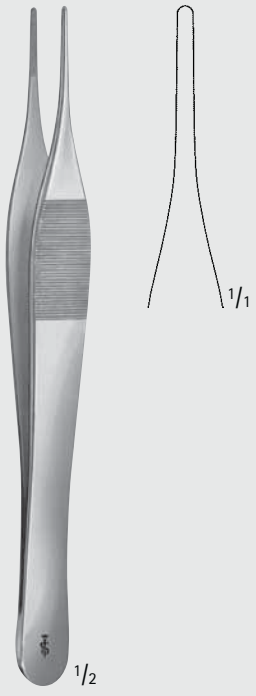
150 mm, 6"



ADSON

BD224R

180 mm, 7"

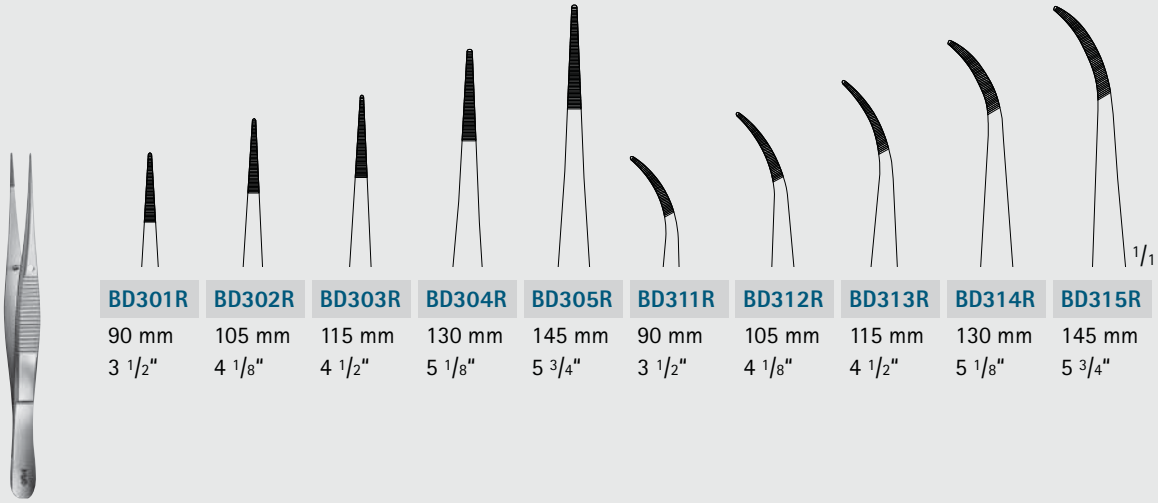


JEFFERSON

BD226R

180 mm, 7"

Delicate Dissecting Forceps

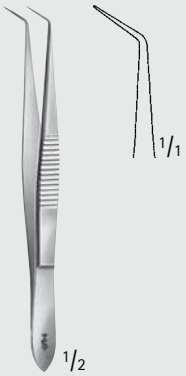


BD301R	BD302R	BD303R	BD304R	BD305R	BD311R	BD312R	BD313R	BD314R	BD315R
90 mm 3 1/2"	105 mm 4 1/8"	115 mm 4 1/2"	130 mm 5 1/8"	145 mm 5 3/4"	90 mm 3 1/2"	105 mm 4 1/8"	115 mm 4 1/2"	130 mm 5 1/8"	145 mm 5 3/4"

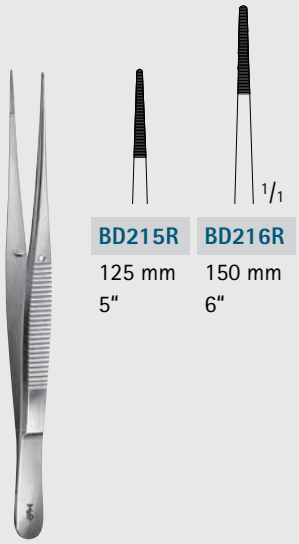
BD301R–BD315R



BD320R
100 mm, 4"



BD321R
100 mm, 4"



BD215R	BD216R
125 mm 5"	150 mm 6"

SEMKEN
BD215R–BD216R



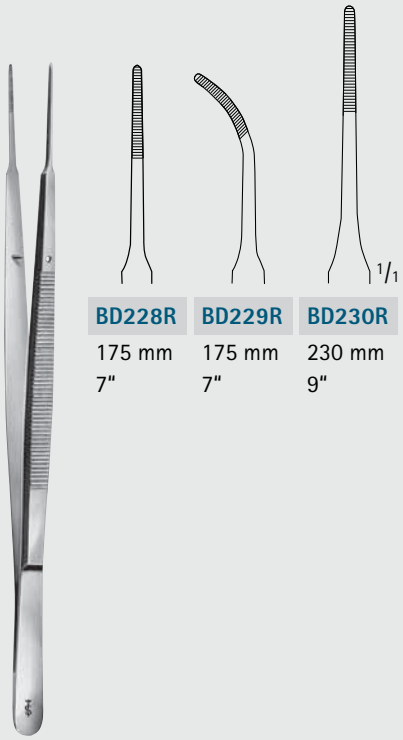
BD217R
155 mm, 6"



GILLIES
BD213R
150 mm, 6"



MC INDOE
BD236R
150 mm, 6"



BD228R	BD229R	BD230R
175 mm 7"	175 mm 7"	230 mm 9"

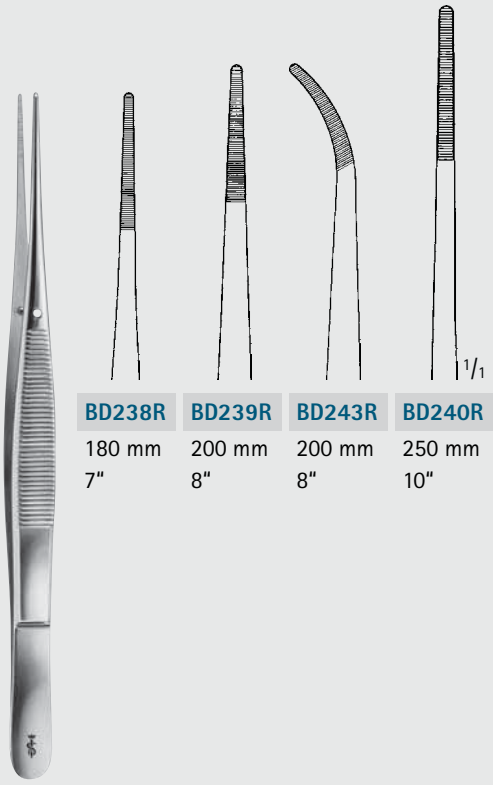
GERALD
BD228R–BD230R



BD268R	BD269R
175 mm 7"	215 mm 8 1/2"

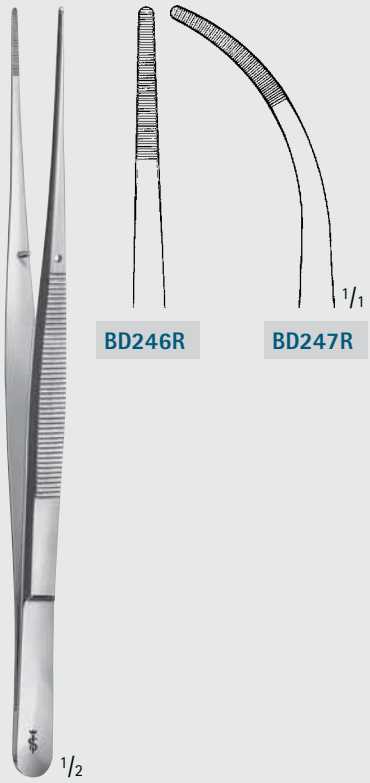
CAIRNS-DOTT
BD268R–BD269R

Instruments
Delicate Dissecting Forceps



BD238R	BD239R	BD243R	BD240R
180 mm 7"	200 mm 8"	200 mm 8"	250 mm 10"

CUSHING
BD238R–BD240R

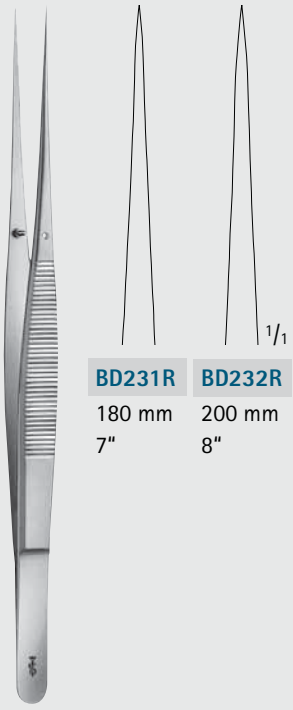


BD246R **BD247R**

BROPHY
BD246R–BD247R
200 mm, 8"



BD081R
200 mm, 8"



BD231R	BD232R
180 mm 7"	200 mm 8"

BD231R–BD232R
smooth jaws

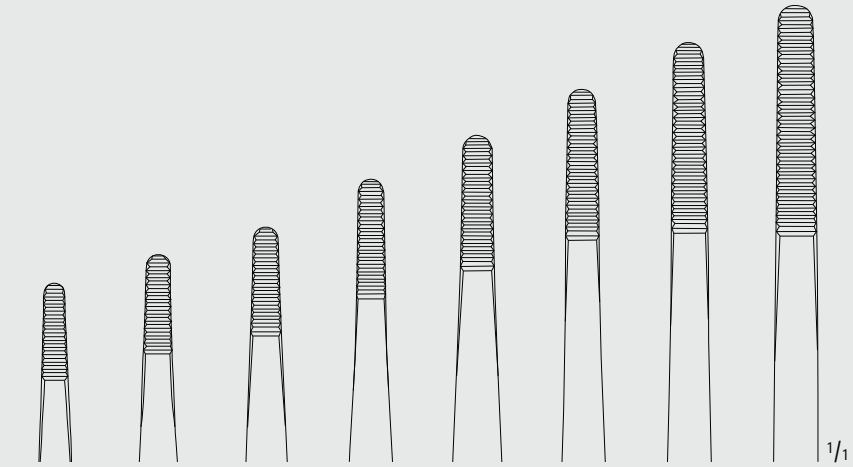


COOLEY
BD250R
200 mm, 8"



BD257R
200 mm, 8"

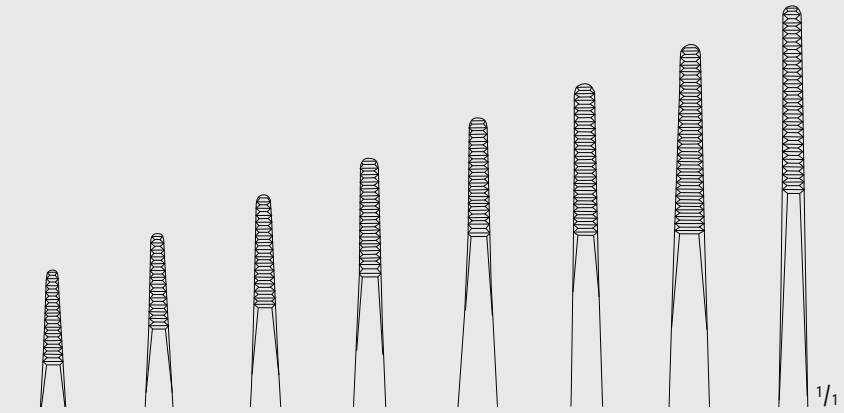




BD043R	BD045R	BD047R	BD049R	BD050R	BD051R	BD052R	BD053R
115 mm	130 mm	145 mm	160 mm	180 mm	200 mm	250 mm	300 mm
4 1/2"	5 1/8"	5 3/4"	6 1/4"	7"	8"	10"	12"

BD043R-BD053R
Standard patterns

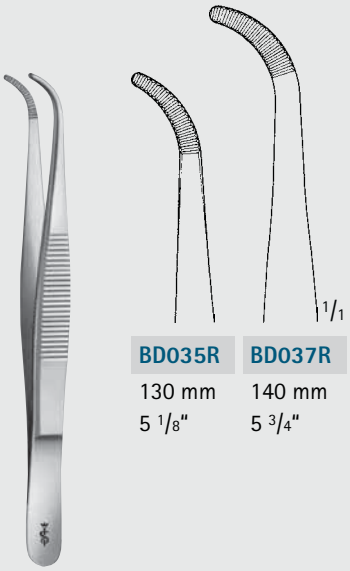




BD023R	BD025R	BD027R	BD029R	BD030R	BD031R	BD032R	BD033R
115 mm	130 mm	145 mm	160 mm	180 mm	200 mm	250 mm	305 mm
4 1/2"	5 1/8"	5 3/4"	6 1/4"	7"	8"	10"	12"

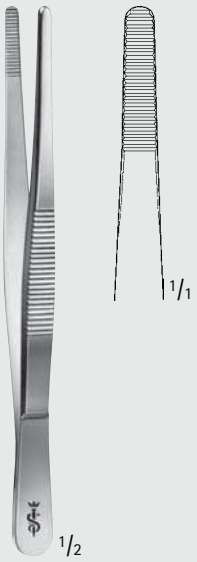
BD023R-BD033R

Dissecting Forceps

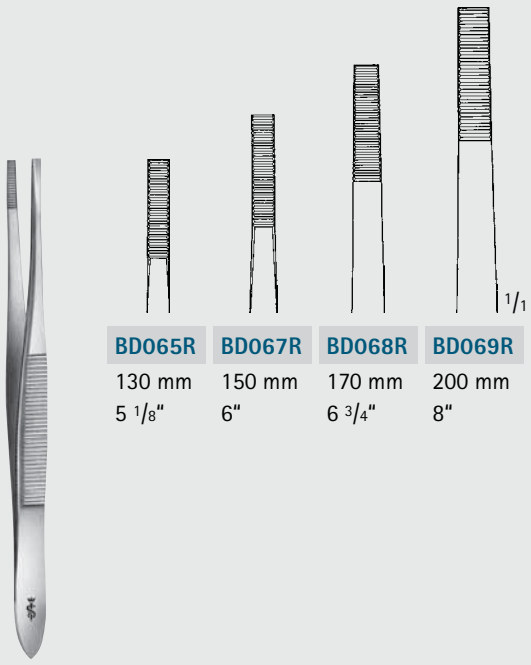


BD035R	BD037R
130 mm	140 mm
5 1/8"	5 3/4"

BD035R-BD037R
medium

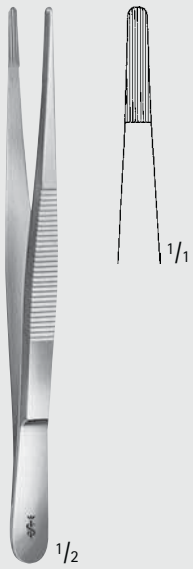


BD077R
extra large
145 mm, 5 3/4"



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

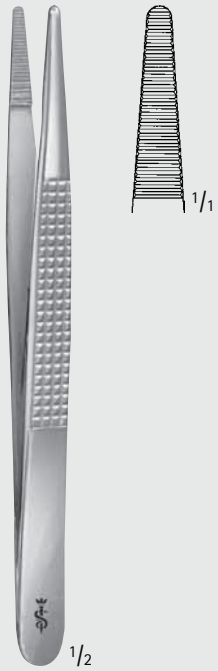
PATTERN SWEDEN
BD065R-BD069R



OCHSNER

BD130R

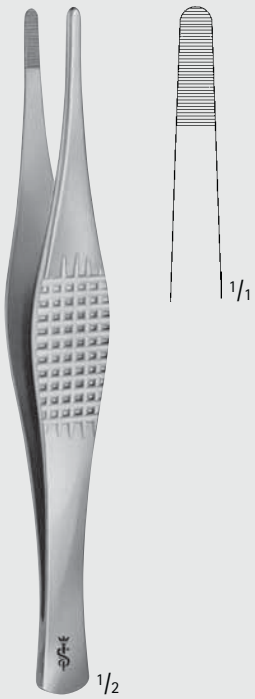
Ligature forceps
145 mm, 5 3/4"



BONNEY

BD078R

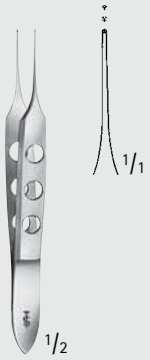
175 mm, 7"



RAMSEY

BD083R

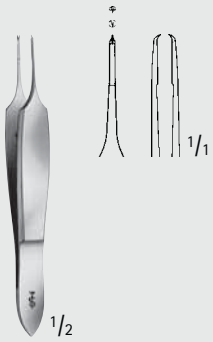
180 mm, 7"



BISHOP-HARMON

OC051R

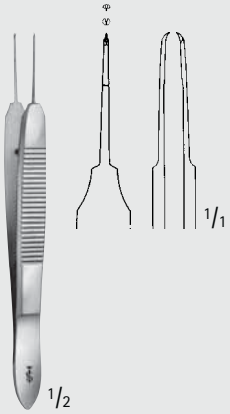
85 mm, 3 1/2"



ST. MARTIN

OC091R

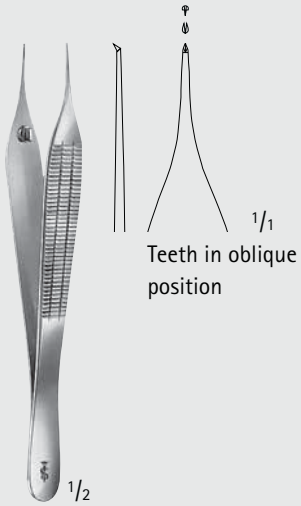
80 mm, 3 1/8"



CASTROVIEJO

OC094R

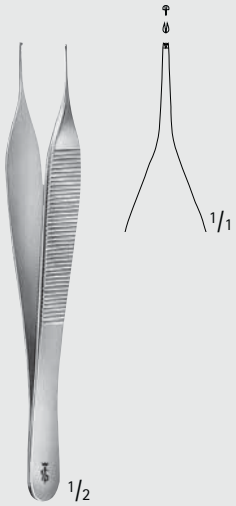
100 mm, 4"



MICRO-ADSON-BIEMER

BD509R

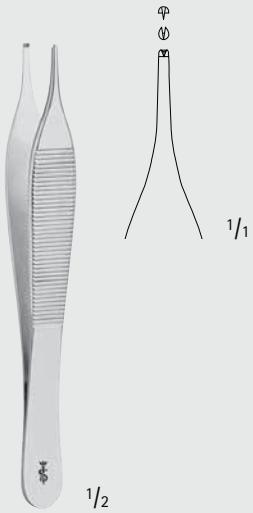
120 mm, 4 3/4"



MICRO-ADSON

BD510R

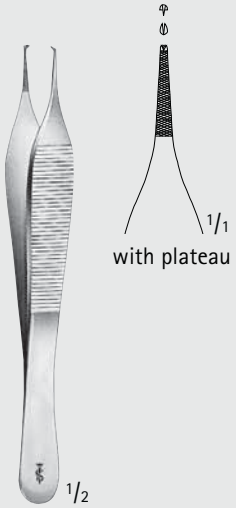
120 mm, 4 3/4"



ADSON

BD511R

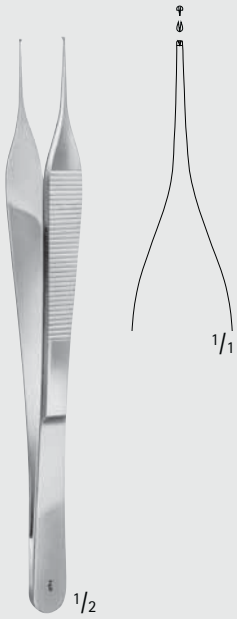
120 mm, 4 3/4"



ADSON

BD512R

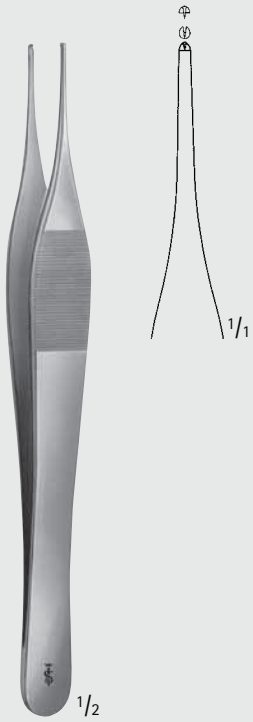
120 mm, 4 3/4"



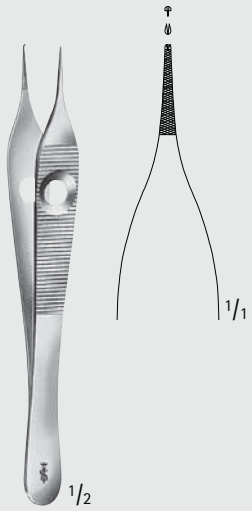
MICRO-ADSON
BD520R
150 mm, 6"



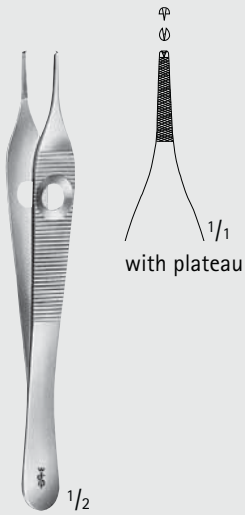
ADSON
BD522R
180 mm, 7"



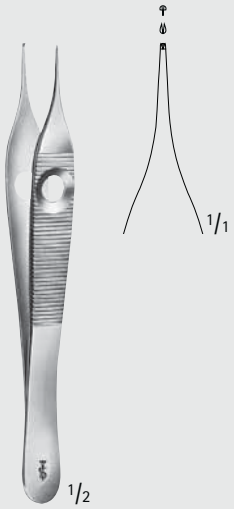
JEFFERSON
BD523R
180 mm, 7"



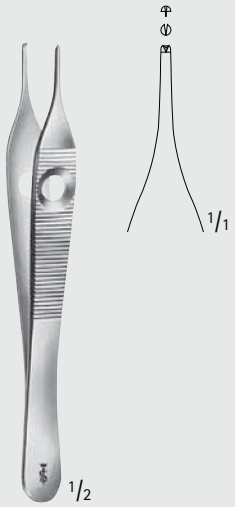
ADSON
BD508R
120 mm, 4 3/4"



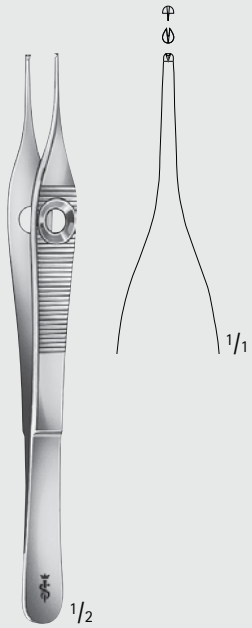
ADSON
BD513R
120 mm, 4 3/4"



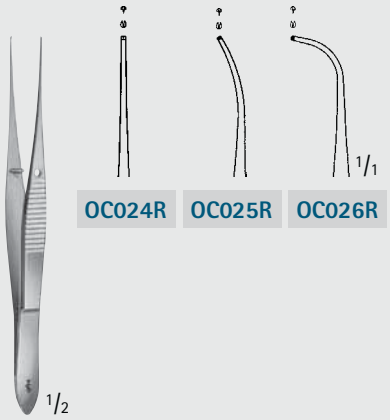
ADSON
BD506R
120 mm, 4 3/4"



ADSON
BD507R
120 mm, 4 3/4"

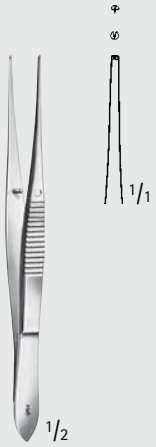


ADSON
BD521R
150 mm, 6"

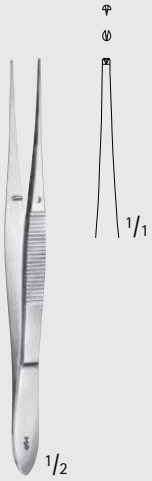


OC024R **OC025R** **OC026R**

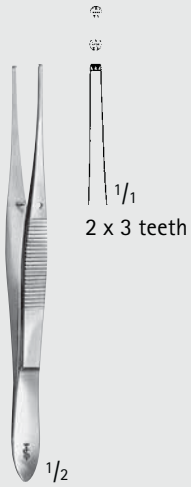
OC024R-OC026R
very delicate
100 mm, 4"



BD500R
100 mm, 4"

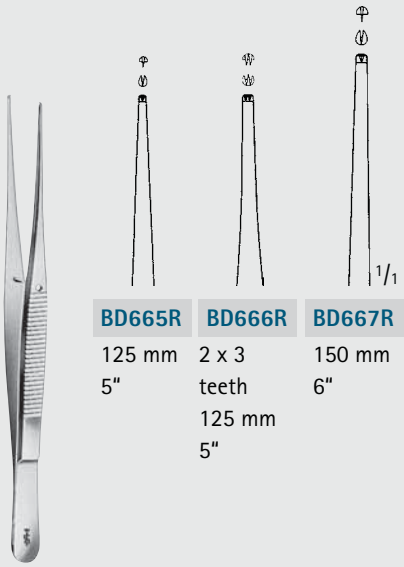


BD501R
110 mm, 4 3/8"



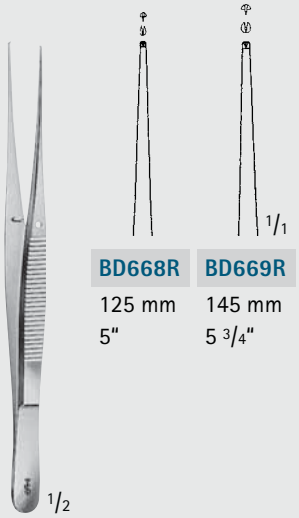
2 x 3 teeth

BD502R
110 mm, 4 3/8"



BD665R	BD666R	BD667R
125 mm 5"	2 x 3 teeth 125 mm 5"	150 mm 6"

SEMKEN
BD665R-BD667R



BD668R	BD669R
125 mm 5"	145 mm 5 3/4"

SEMKEN
BD668R-BD669R



GILLIES

BD660R

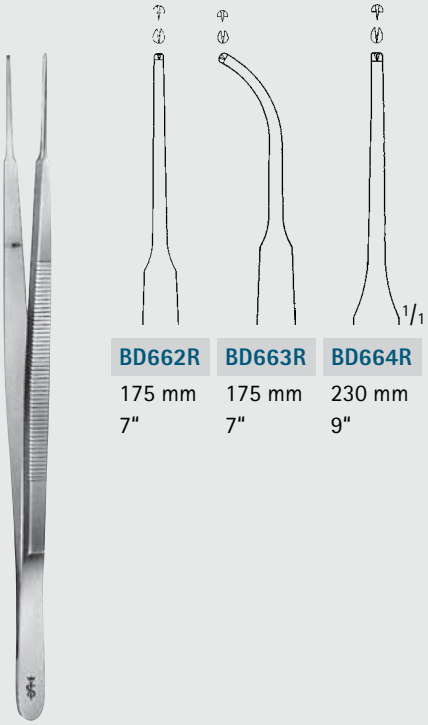
155 mm, 6"



MC INDOE

BD661R

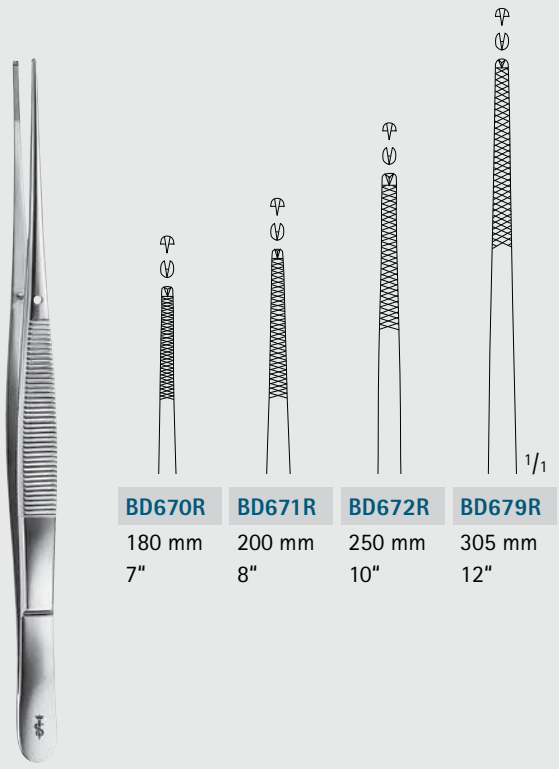
150 mm, 6"



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

GERALD

BD662R–BD664R

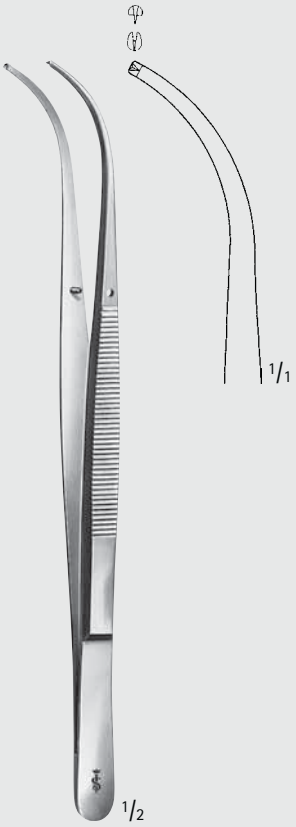


BD670R	BD671R	BD672R	BD679R
180 mm	200 mm	250 mm	305 mm
7"	8"	10"	12"

WAUGH

BD670R–BD679R

Tissue Forceps



BROPHY

BD678R

200 mm, 8"



BD651R

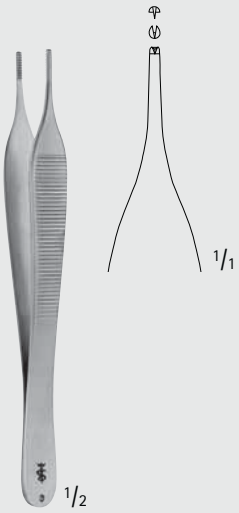
200 mm, 8"



CUSHING

MD463

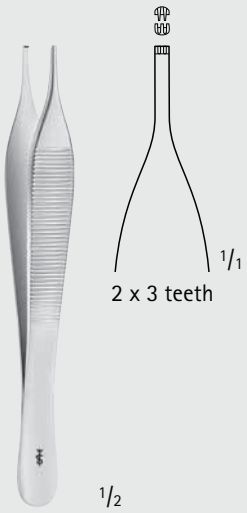
180 mm, 7"



HUDSON

MB291R

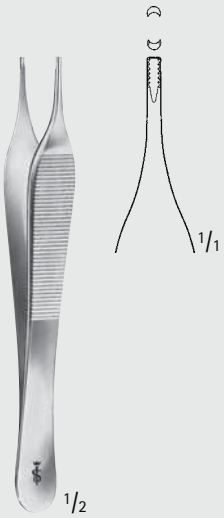
125 mm, 4 7/8"



ADSON

MB454R

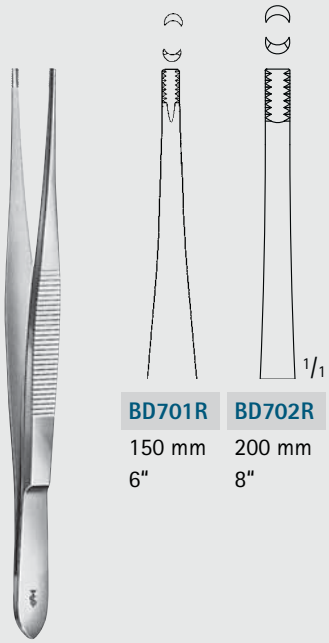
120 mm, 4 3/4"



ADSON-BROWN

BD700R

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



BROWN

BD701R 150 mm 6"
BD702R 200 mm 8"

BD701R–BD702R



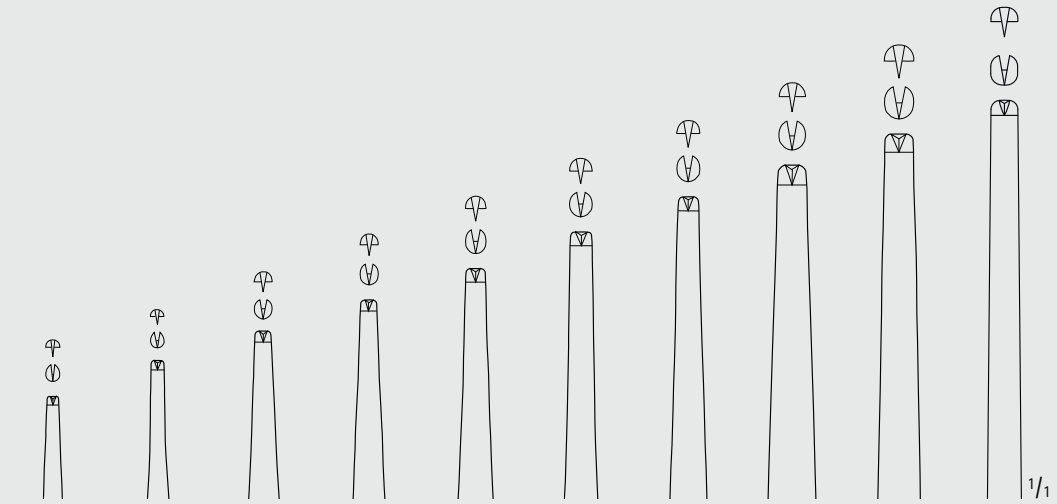
GRAEFFE

OC100R

110 mm, 4 1/2"

Instruments
Tissue Forceps

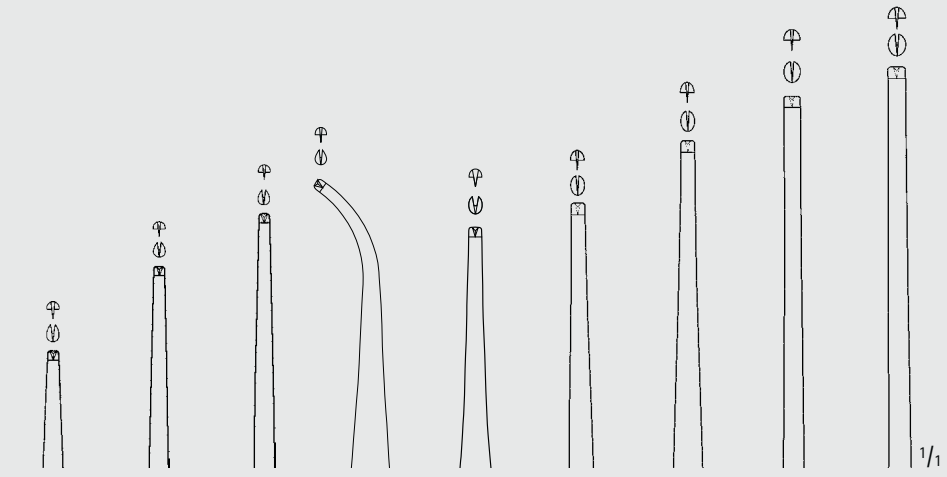




BD552R	BD553R	BD555R	BD557R	BD559R	BD560R	BD561R	BD562R	BD563R	BD564R
105 mm 4 1/8"	115 mm 4 1/2"	130 mm 5 1/8"	145 mm 5 3/4"	160 mm 6 1/4"	180 mm 7"	200 mm 8"	250 mm 10"	300 mm 12"	350 mm 14"

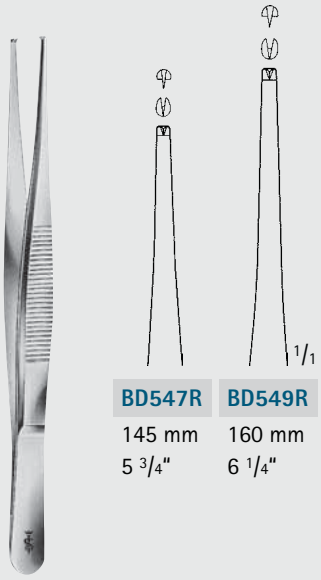
BD552R–BD564R
Standard patterns





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

BD527R–BD543R
medium

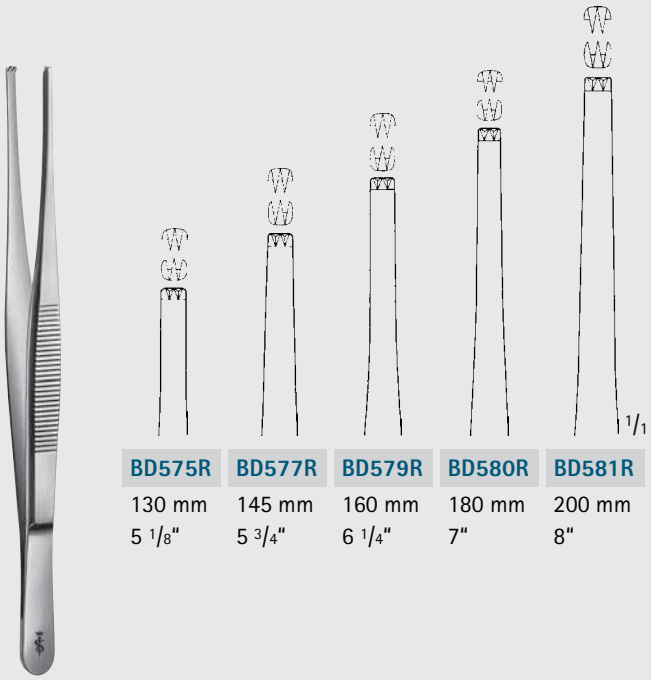


BD547R	BD549R
145 mm 5 3/4"	160 mm 6 1/4"

BD547R–BD549R
stronger as BD537R and BD539R
but finer than BD557R and BD559R



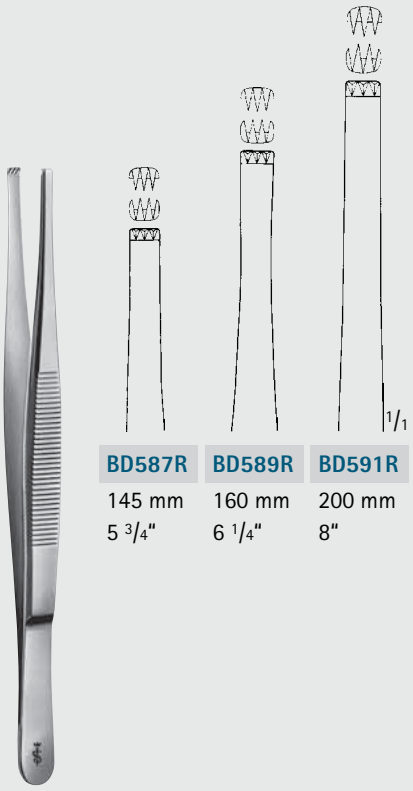
BD600R
heavy pattern
145 mm, 5 3/4"



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

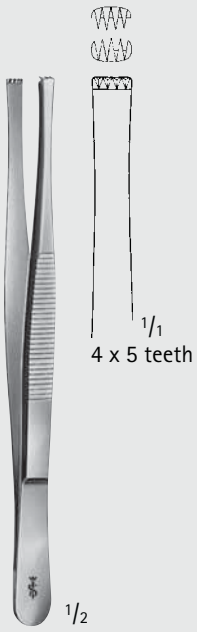
BD575R–BD581R
2 x 3 teeth

Instruments
Tissue Forceps



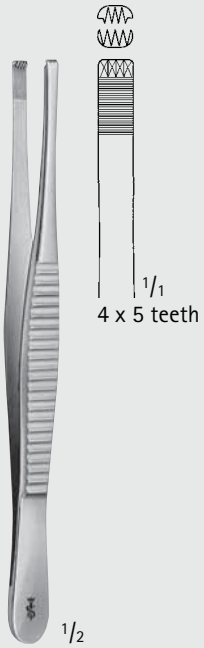
BD587R 145 mm 5 3/4"
BD589R 160 mm 6 1/4"
BD591R 200 mm 8"

BD587R–BD591R
3 x 4 teeth



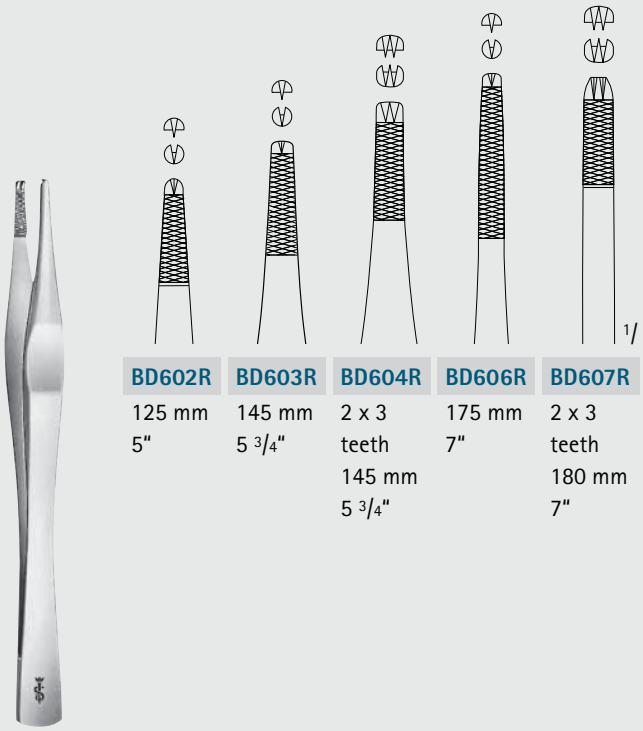
4 x 5 teeth

BD597R
145 mm, 5 3/4"



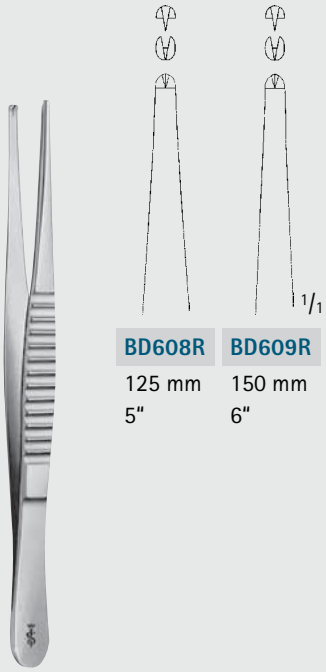
4 x 5 teeth

OFFICER
BD598R
150 mm, 6"



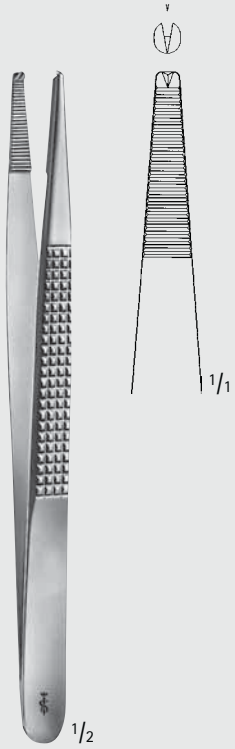
BD602R 125 mm 5"
BD603R 145 mm 5 3/4"
BD604R 2 x 3 teeth 145 mm 5 3/4"
BD606R 175 mm 7"
BD607R 2 x 3 teeth 180 mm 7"

LANE
BD602R–BD607R

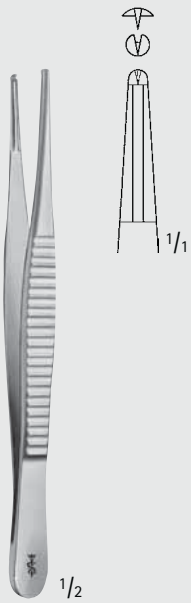


BD608R 125 mm 5"
BD609R 150 mm 6"

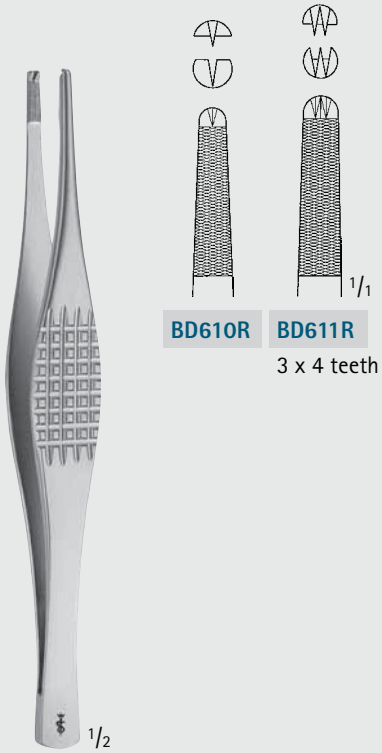
TREVES
BD608R–BD609R



BONNEY
BD693R
175 mm, 7"



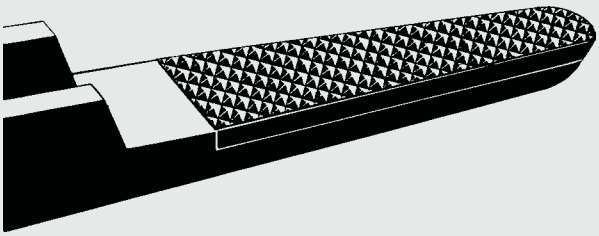
JACKSON-BURROWS
BD704R
140 mm, 5 1/2"

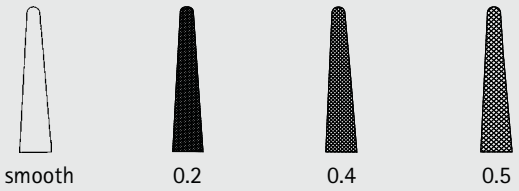


BD610R **BD611R**
3 x 4 teeth

RAMSEY (FERRIS-SMITH)
BD610R–BD611R
180 mm, 7"

Instruments
DUROGRIP® Needle Holders





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

- We recommend tungsten carbide inserts

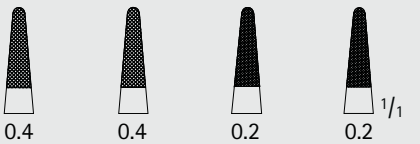
with smooth jaw surface for suture material	9/0 - 11/0
with 0.2 mm pitch of serration for suture material	6/0 - 10/0
0.4 mm	4/0 - 6/0
0.5 mm	up to 3/0

- DUROGRIP® Needle holders with tungsten carbide inserts
  - Identification: gold-plated rings, handle ends and ratchets



very delicate





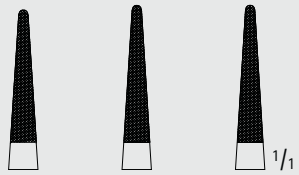
BM033R	BM034R	BM063R	BM064R
165 mm 6 1/2"	210 mm 8 1/4"	165 mm 6 1/2"	210 mm 8 1/4"

DE BAKEY

BM033R–BM064R

very delicate

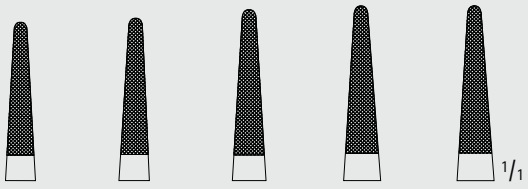




BM025R	BM026R	BM027R
180 mm 7"	200 mm 8"	230 mm 9"

BM025R–BM027R





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

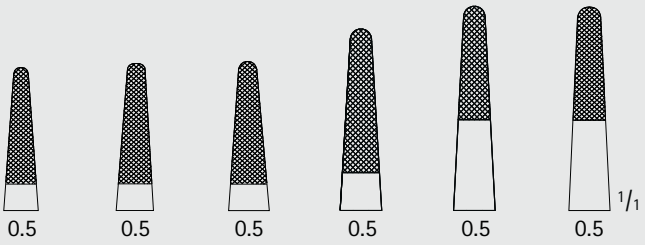
DE BAKEY

BM032R–BM038R

Instruments
DUROGRIP® Needle Holders



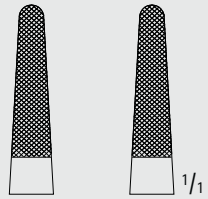
HEGAR-MAYO
BM065R–BM069R



0.5	0.5	0.5	0.5	0.5	0.5
BM065R	**BM066R**	**BM067R**	**BM068R**	**BM070R**	**BM069R**
150 mm 6"	185 mm 7 1/4"	205 mm 8"	235 mm 9 1/4"	265 mm 10 1/2"	300 mm 12"



HEGAR
BM077R–BM078R
heavy patterns



0.5	0.5
BM077R	**BM078R**
205 mm 8"	245 mm 9 3/4"

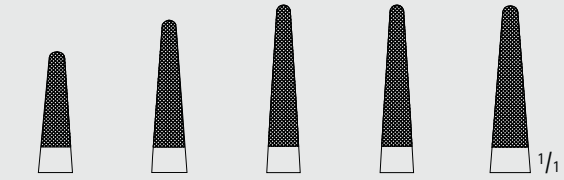


BABY-CRILE-WOOD

BM013R

150 mm, 6"



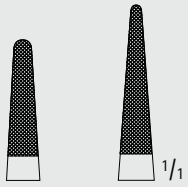


BM016R	BM017R	BM019R	BM030R	BM021R
145 mm 5 3/4"	185 mm 7 1/4"	200 mm 8"	270 mm 10 3/8"	305 mm 12 1/2"

CRILE-WOOD

BM016R–BM030R





BM020R	BM023R
180 mm 7"	260 mm 10 1/4"

SAROT

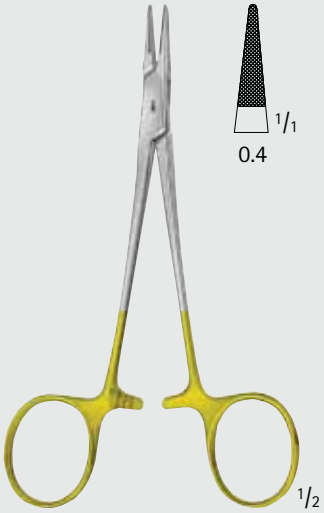
BM020R–BM023R



HEGAR-MAYO-SEELEY

BM022R

205 mm, 8"



HALSEY

BM012R

130 mm, 5 1/8"



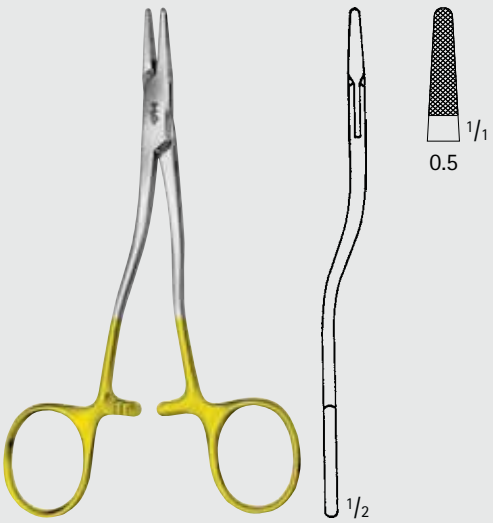
BM014R
with smooth jaws

BM024R

WEBSTER

BM014R-BM024R

130 mm, 5 1/8"



KILNER

BM018R

135 mm, 5 1/4"



BAUMGARTNER

BM015R

145 mm, 5 3/4"



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



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



RYDER

BM301R–BM328R

Suture size: 5/0 and smaller

- The broad back of the jaw exerts greater force on the needle, facilitating a secure hold.





BM300R

195 mm, 7 3/4"

Instruments

Aesculap Neurosurgery



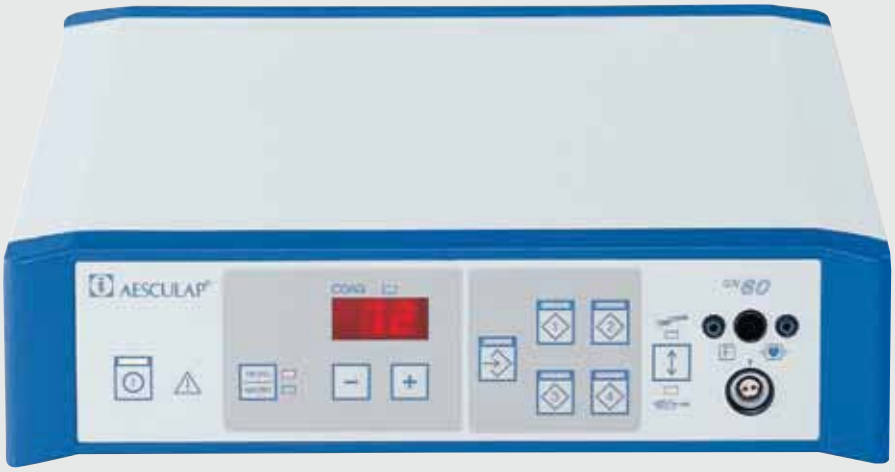
Bipolar

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



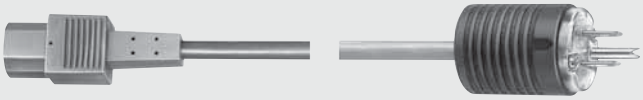
Art. No.	Length
TE780	1.5 m
TE730	5 m

Grounding-type European plug



Art. No.	Length
TE734	5 m

for Great Britain and Ireland



Art. No.	Length
TE735	5 m

for USA, Canada and Japan



Art. No.	Length
TE676	1 m
TE736	2.5 m

IEC 60320 connector
(non-heating equipment)



Aesculap Tab connector

Art. No.	Length
GN140	4 m

Bipolar connecting cable
for Aesculap coagulation forceps



GK226
Single-pedal foot switch,
plastic housing



GN161
Single-pedal foot switch,
plastic housing GN060

Bipolar Coagulation

YASARGIL Coagulation Forceps

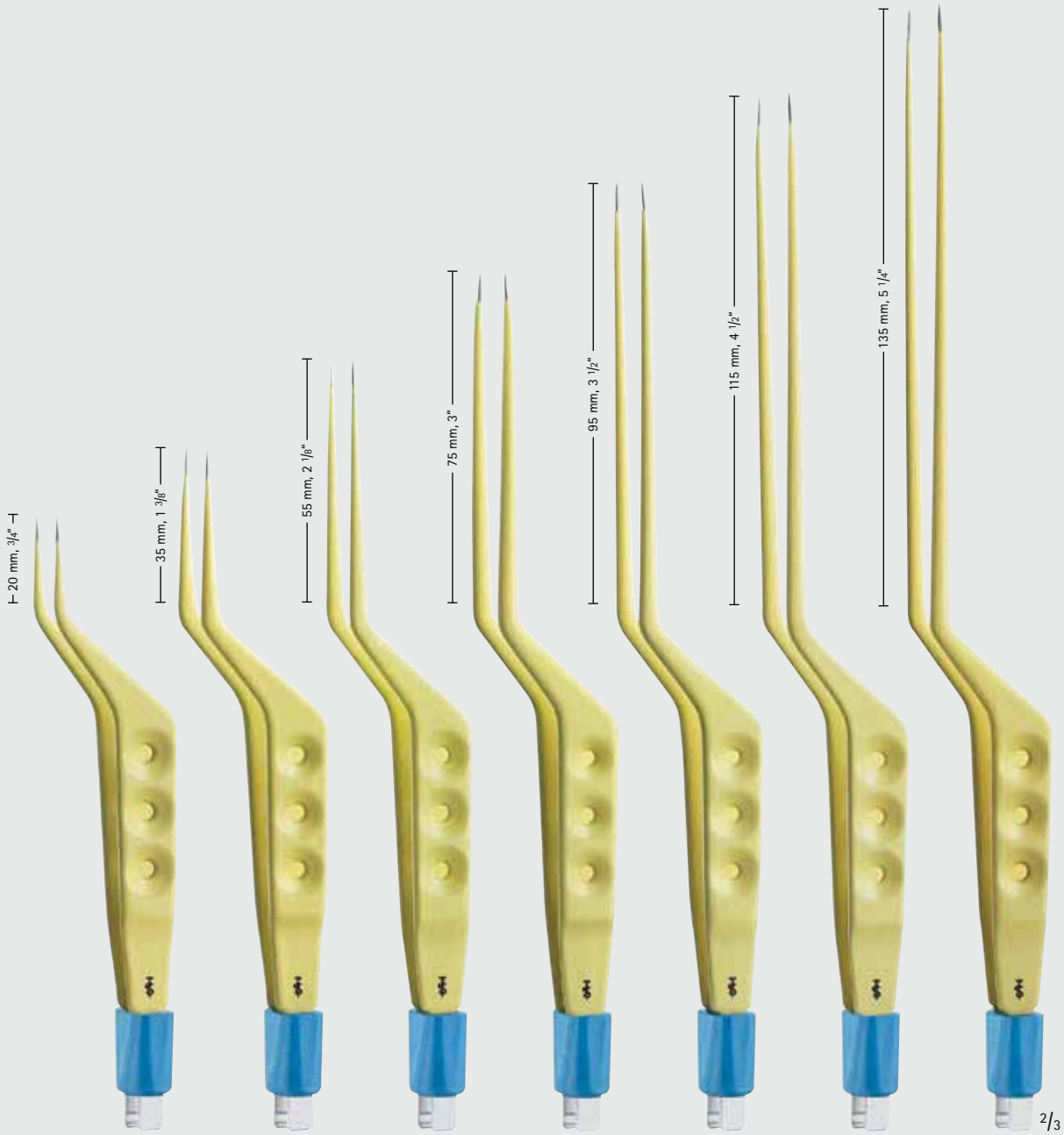
Features:

- 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.





Aesculap Tab connector



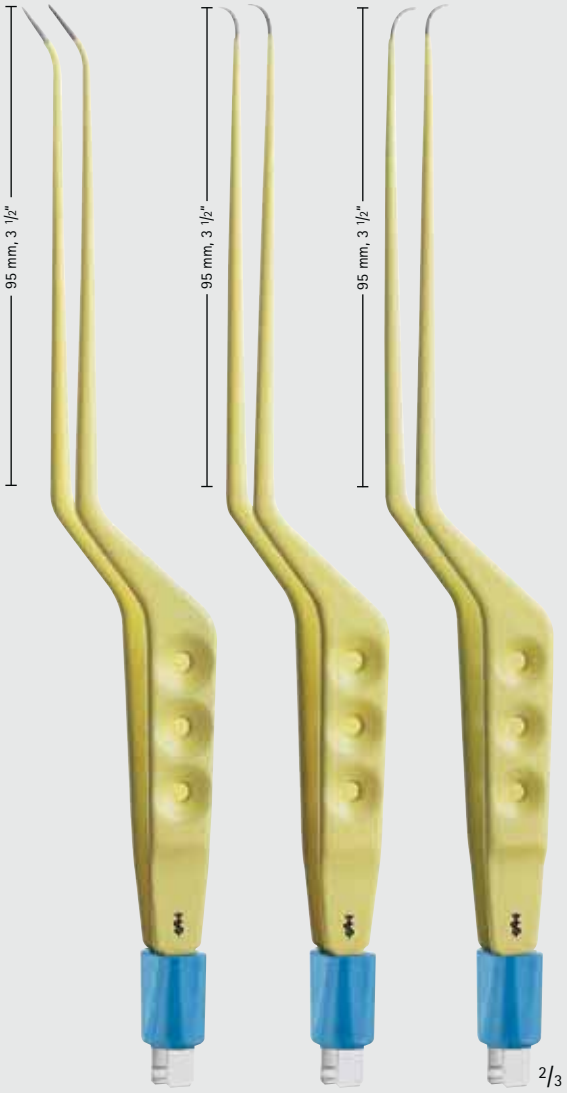
0.4 mm	GK746R	GK760R	GK764R	GK768R	GK772R	GK788R	–
0.7 mm	GK747R	GK761R	GK765R	GK769R	GK773R	GK789R	GK793R
1.0 mm	GK748R	GK762R	GK766R	GK770R	GK774R	GK790R	–
1.3 mm	GK749R	GK763R	GK767R	GK771R	GK775R	GK791R	–
Working length	20 mm, 3/4"	35 mm, 1	75 mm, 2 1/4"	85 mm, 3"	115 mm, 3 3/4"	115 mm, 4 1/2"	135 mm, 5 1/4"
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



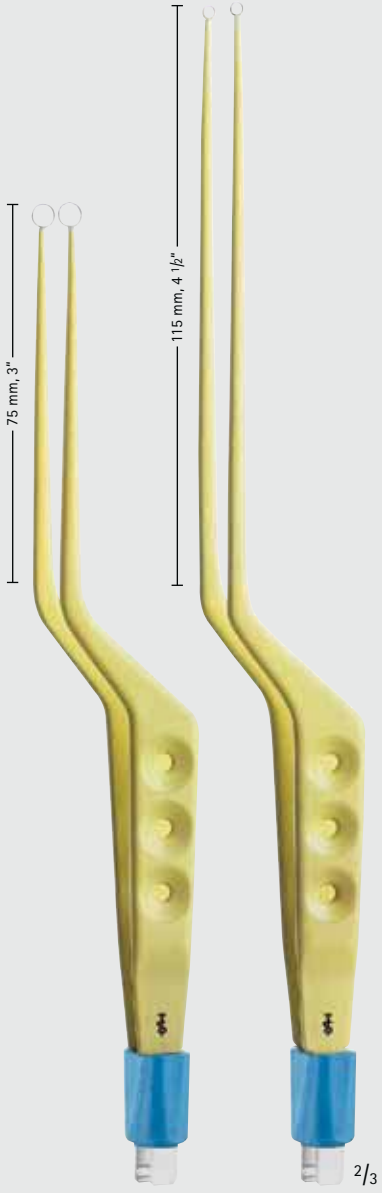
2/3

0.4 mm	–	GK780R	–
0.7 mm	GK777R	–	–
0.7 mm	–	GK781R	–
0.7 mm	–	–	GK785R
Working length	95 mm, 3 3/4"	95 mm, 3 3/4"	95 mm, 3 3/4"
Total length	215 mm, 8 1/2"	215 mm, 8 1/2"	215 mm, 8 1/2"



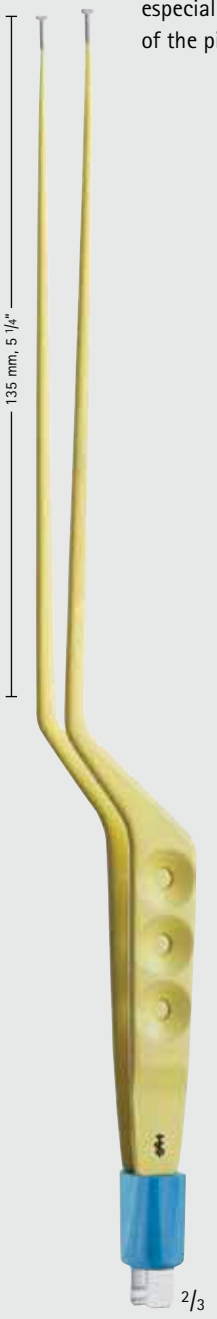
Aesculap Tab connector

- 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
Working length	75 mm, 3"	115 mm, 4 1/2"
Total length	195 mm, 7 3/4"	235 mm, 9 1/4"

- T-coagulation forceps with blunt, T-shaped tips for secure fixation and coagulation at the operation site, especially in the region of the pituitary.



	GK800R
	–
	–
	135 mm, 5 1/4"
	255 mm, 10"



GK801R
–
–
135 mm, 5 1/4"
250 mm, 10"

Bipolar Coagulation

Coagulation Forceps with Sintram Tips



Aesculap Tab connector



1.0 mm	GK719R
Working length	130 mm, 5 1/8"
Total length	215 mm, 8 1/2"



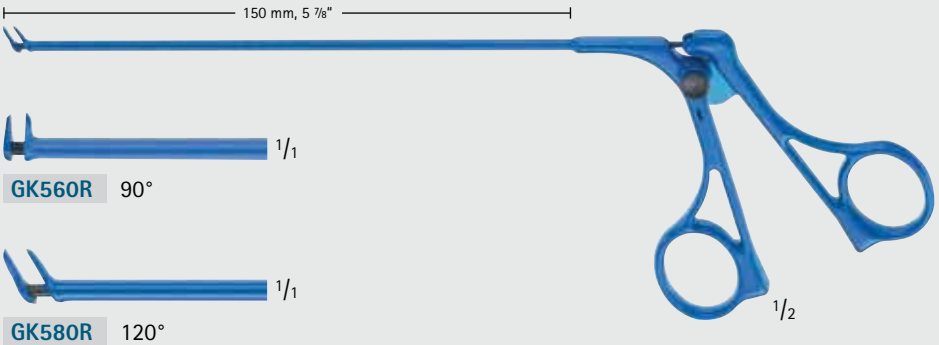
Aesculap Round pin connector



0.6 mm	GK660R	GK670R	GK675R	GK677R
0.9 mm	–	GK671R	–	GK679R
Working length	40 mm, 1 1/2"	80 mm, 3 1/8"	100 mm, 4"	120 mm, 4 3/4"
Total length	160 mm, 6 1/4"	200 mm, 8"	220 mm, 8 3/4"	240 mm, 9 1/2"

Bipolar Coagulation

Coagulation Instruments for Hypophysectomy



GK560R 90°

GK580R 120°

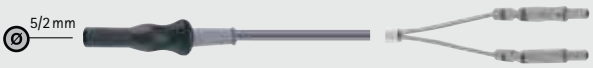
LANDOLT

GK560R–GK580R

Coagulation forceps for hypophysectomy

Art. No.	Angle	
GK561R	90°	
GK581R	120°	

Spare inner parts



GN075

Cable, 4 m



GK195

Cable, 4 m

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
Working length	70 mm, 2 3/4"	100 mm, 4"	125 mm, 5"
Total length	165 mm, 6 1/2"	195 mm, 7 3/4"	220 mm, 8 3/4"



Aesculap Tab connector



2/3

1.0 mm	GK972R	GK974R	–	–
1.0 mm	–	–	GK976R	GK978R
Working length	125 mm, 5"	125 mm, 5"	120 mm, 4 3/4"	120 mm, 4 3/4"
Total length	220 mm, 8 3/4"	220 mm, 8 3/4"	215 mm, 8 1/2"	215 mm, 8 1/2"

Bipolar Coagulation

Coagulation Forceps with Sintram Tips



Aesculap Tab connector

- Bipolar coagulation forceps with Sintram tips do not stick.

NON STICKING



0.7 x 23 mm	GK614R	–	–
0.7 x 6 mm	GK644R	–	–
1.0 x 23 mm	–	GK615R	GK616R
1.0 x 6 mm	–	GK645R	GK646R
Working length	60 mm, 2 3/8"	85 mm, 3 3/8"	100 mm, 4"
Total length	160 mm, 6 1/4"	185 mm, 7 1/4"	200 mm, 8"



Aesculap Tab connector

NON STICKING



2/3

0.9 x 23 mm	GK604R	GK605R	GK606R	–	–
0.9 x 23 mm	–	–	–	GK624R	–
0.8 x 23 mm	–	–	–	–	GK625R
Total length	160 mm, 6 1/4"	185 mm, 7 1/4"	200 mm, 8"	160 mm, 6 1/4"	200 mm, 8"

Bipolar Coagulation

Standard Coagulation Forceps



Aesculap Tab connector



2/3

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"



Aesculap Round pin connector



0.4 mm	GK690R	–	–	–
0.6 mm	–	GK720R	–	–
0.9 mm	–	GK722R	GK723R	GK730R
Total length	120 mm, 4 3/4"	160 mm, 6 1/4"	160 mm, 6 1/4"	200 mm, 8"

Bipolar Coagulation

Standard Coagulation Forceps, Micro and Laboratory Forceps



Aesculap Tab connector



1.1 mm	GK809R	GK807R	GK808R
Total length	125 mm, 4 7/8"	175 mm, 6 7/8"	220 mm, 8 2/3"

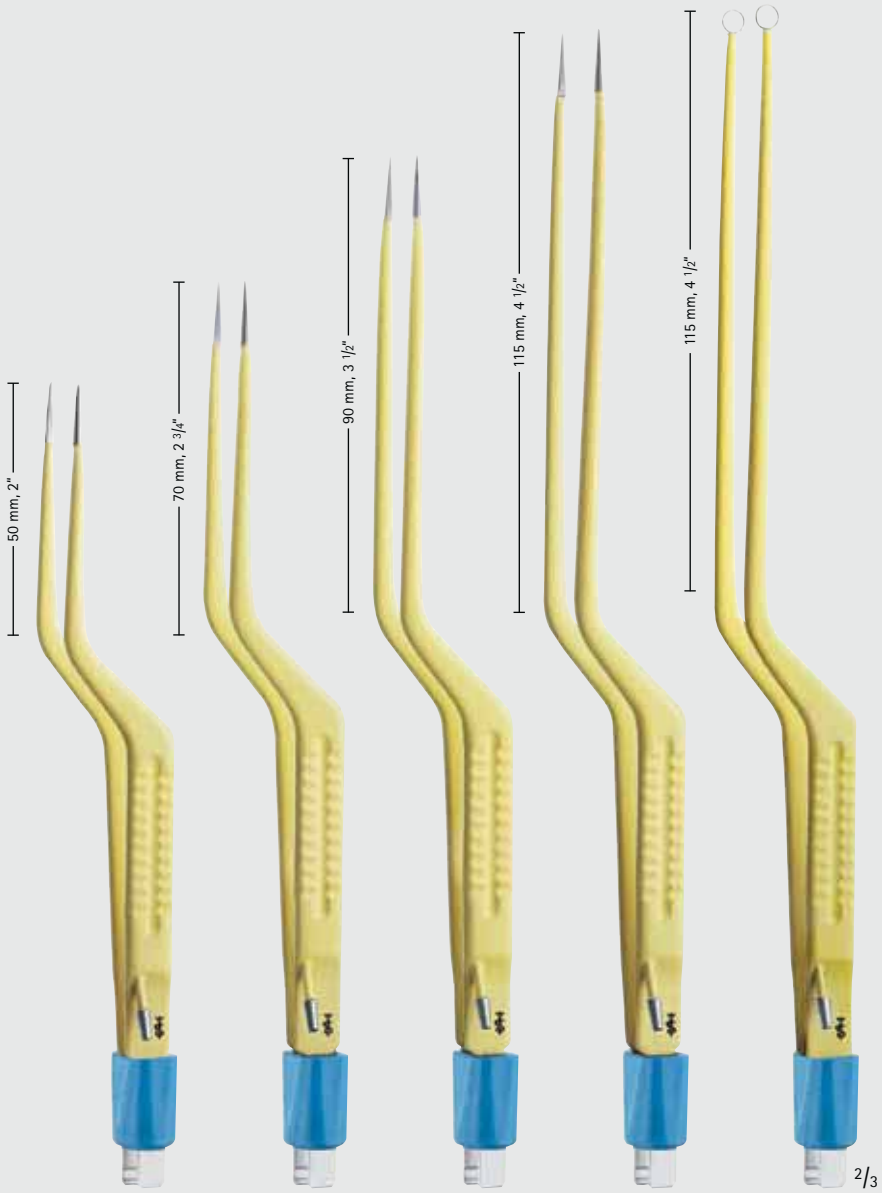


0.3 mm	–	GK596R	–
0.6 mm	GK595R	–	–
0.6 mm	–	–	GK597R
Total length	120 mm, 4 3/4"	145 mm, 5 3/4"	110 mm, 4 3/8"



Aesculap Tab connector

- Irrigating coagulation forceps facilitate gentle coagulation without tissue adhesion.

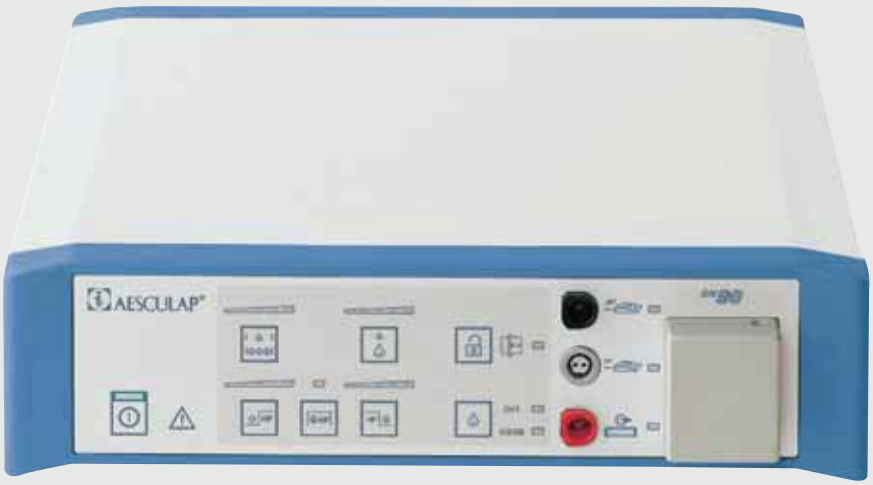


0.4 mm	–	GK840R	GK843R	GK846R	–
0.7 mm	GK838R	GK841R	GK844R	GK847R	–
1.3 mm	–	GK842R	GK845R	GK848R	–
4/5 mm	–	–	–	–	GK871R
6/7 mm	–	–	–	–	GK872R
Working length	50 mm, 2"	70 mm, 2 3/4"	90 mm, 3 1/2"	115 mm, 4 1/2"	115 mm, 4 1/2"
Total length	165 mm, 6 1/2"	180 mm, 7"	205 mm, 8"	230 mm, 9"	235 mm, 9 1/4"

Bipolar Coagulation
Irrigation Unit

JET Irrigation Unit

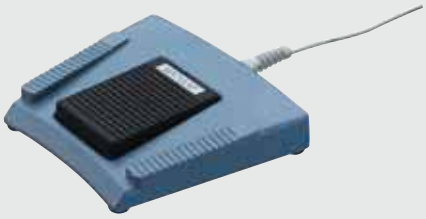
- The JET irrigation system transforms an irrigation coagulation forceps into a multifunctional instrument.
- The use of JET irrigation without coagulation makes it possible to wash away blood (e.g. in subarachnoidal hemorrhages) for exposing fine anatomical structures and enables subsequent coagulation 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



GN092
JET foot switch



GN093
Pressure cuff



GN094
Tubing set
Sales unit:
PAK = Package of 10 tubing sets



Art. No.	Length
TE780	1.5 m
TE730	5 m

Grounding-type European plug



Art. No.	Length
TE734	5 m

for Great Britain and Ireland



Art. No.	Length
TE735	5 m

for USA, Canada and Japan



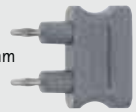
Art. No.	Length
TE676	1 m
TE736	2.5 m

IEC 60320 connector
(non-heating equipment)

Bipolar Coagulation

Bipolar Connecting Cables

Equipment side connection	Used e.g. at these units	Instrument side: Aesculap - Tab connector	Instrument side: Aesculap - Round pin connector
Equipment side: 5/2 mm	Aesculap (all units) ACMI Berchthold Martin Wolf	**GN140**	**GN141**
Equipment side: 8/4 mm	Erbe Storz	**GK342**	
Equipment side: 22 mm	Erbe Int. Dolly EMC-DOLLEY	**GK280** or **GK290SU** (Single Use)	**GN226** (Adapter) + **GK331**
Equipment side: 25 mm	Aesculap - GN300 - GN060 (SN ≤ 4000)	**GN228** (Adapter) + **GK281** or **GN228** (Adapter) + **GK291SU** (Single Use)	**GN228** (Adapter) + **GK331**
Equipment side: 28.6 mm	Aesculap - GN640 - GN310 - GN060 (SN ≥ 4000) BOWA Lamidey Söring Valleylab Olympus	**GK281** or **GK291SU** (Single Use)	**GK331**
Equipment side: 32 mm	Conmed	**GN219** (Adapter) + **GK281** or **GN219** (Adapter) + **GK291SU** (Single Use)	**GN219** (Adapter) + **GK331**
Equipment side: 38 mm	Codman CMC II	**GK282** or **GK292SU** (Single Use)	**GK332**
Equipment side: 38 mm	Codman CMC III	**GN224** (Adapter) + **GK281** or **GN224** (Adapter) + **GK291SU** (Single Use)	**GN224** (Adapter) + **GK331**
Equipment side	Aesculap - GK050 - GK051	**GK328**	**GK329**
Equipment side	Codman	**GK217**	

	Equipment side connection	Used e.g. at these units	Instrument side: Euro tab connector	Instrument side: Aesculap Landolt	Instrument side: Aesculap BipoJet
Equipment side	 5/2 mm	Aesculap (all units) ACMI Berchthold Martin Wolf	**GN076**	**GN075**	**GN081**
	 8/4 mm	Erbe Storz	**GK185**	**GN082** (BipoJet Connection)	**GN082**
	 22 mm	Erbe Int. Dolly EMC-DOLLEY	**GN226** (Adapter) + **GK194**	**GN226** (Adapter) + **GK195** or **GN145** (BipoJet Connection)	**GN145**
	 25 mm	Aesculap - GN300 - GN060 (SN ≤ 4000)	**GN228** (Adapter) + **GK194**	**GN228** (Adapter) + **GK195**	**GN228** (Adapter) + **GN085**
	 28.6 mm	Aesculap - GN640 - GN310 - GN060 (SN ≥ 4000) BOWA Lamidey Söring Valleylab Olympus	**GK194**	**GK195**	**GN085**
	 32 mm	Conmed	**GN219** (Adapter) + **GK194**	**GN219** (Adapter) + **GK195**	**GN219** (Adapter) + **GN085**
	 38 mm	Codman CMC II	**GN224** (Adapter) + **GK194**	**GN224** (Adapter) + **GK195**	**GN146**
	 38 mm	Codman CMC III	**GN224** (Adapter) + **GK194**	**GN224** (Adapter) + **GK195**	**GN224** (Adapter) + **GN085**
		Aesculap - GK050 - GK051		**GN083** (BipoJet Connection)	**GN083**
		Codman			

Bipolar Coagulation

Bipolar Connecting Cables

Aesculap
ACMI
Berchtold
Martin
Wolf

		Equipment side	Instrument side	
GN140	4 m	Ø 5/2 mm		RECOMMENDED FOR ALL AESCULAP GENERATORS Aesculap Tab connector
GN141	4 m			RECOMMENDED FOR ALL AESCULAP GENERATORS Aesculap Round pin connector
GN076	3.5 m			Euro tab connector
GN075	4 m			Aesculap Landolt Coagulation forceps for hypophysectomy
GN081	5 m			BIPOJET

Erbe
Storz

		Equipment side	Instrument side	
GK342	4 m	Ø 8/4 mm		Aesculap Tab connector
GK185	3.5 m			Euro tab connector
GN082	5 m			BIPOJET

Bipolar Connecting Cables

Equipment side — Instrument side

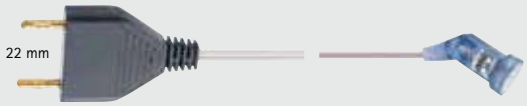
ERBE Int.
EMC-DOLLEY



GK280 4 m — Aesculap Tab connector



GN145 5 m — BIPOJET



GK290SU 3.7 m
Single Use — Aesculap Tab connector, US Round pin connector

Equipment side — Instrument side

Aesculap
GN640
GN310
GN060
(SN>=4000)
BOWA
Lamidey
Söring
Valleylab
Olympus



GK281 4 m — Aesculap Tab connector



GK331 4 m — Aesculap Round pin connector



GK194 3.5 m — Euro tab connector



GK195 4.0 m — Aesculap Landolt Coagulation forceps for hypophysectomy



GN085 5 m — BIPOJET



GK291SU 3.7 m
Single Use — Aesculap Tab connector, US Round pin connector

Bipolar Coagulation

Bipolar Connecting Cables

Codman
- CMC II

Equipment side | Instrument side



GK282 4 m — Aesculap Tab connector



GK332 4 m — Aesculap Round pin connector



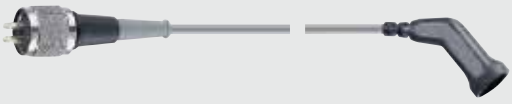
GN146 5 m — BIPOJET



GK292SU 3.7 m — Aesculap Tab connector, US Round pin connector
Single Use

Aesculap
- GK050
- GK051

Equipment side | Instrument side



GK328 4 m — Aesculap Tab connector
UHF



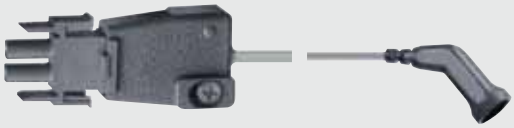
GK329 4 m — Aesculap Round pin connector
UHF



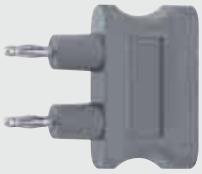
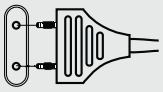
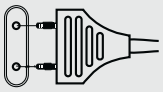
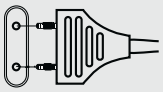
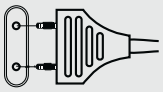
GN083 5 m — BIPOJET

Codman

Equipment side | Instrument side



GK217 3.5 m — Aesculap Tab connector

		Equipment side	Instrument side
GN217	Aesculap		Erbe, Storz 8/4
GN226	ERBE Int. EMC-DOLLEY	22 mm 	 Aesculap 28.6 mm
GN219	Conmed	32 mm 	 Aesculap 28.6 mm
GN224	Codman ESPECIALLY FOR CMC III	38 mm 	 Aesculap 28.6 mm
GN228	Aesculap ■ GN300 ■ GN060 (SN<=4000)	25 mm 	 Aesculap 28.6 mm

Bipolar Coagulation

Aesculap Neurosurgery



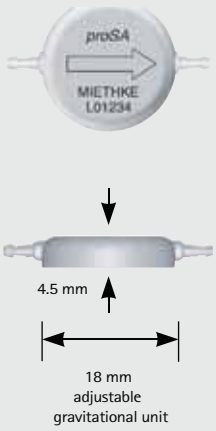
Shunts

CSF & ICP Management

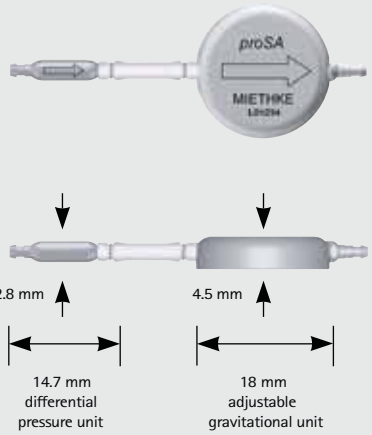
- Available as adjustable gravitational unit only or in combination with differential pressure unit

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Diff. press. unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

no differential pressure unit:



with differential pressure unit:



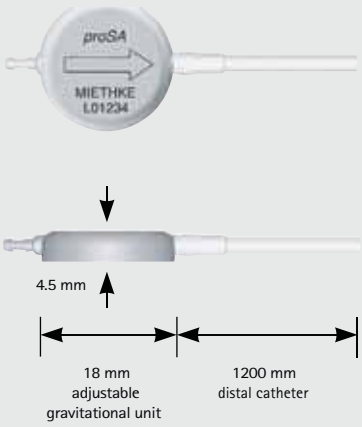
Art. No.	Adjustable gravitational unit (cmH_2O*)	Differential pressure unit (not adjustable / cmH_2O*)
FV701T	0 - 40	-
FV702T	0 - 40	0**
FV703T	0 - 40	5
FV704T	0 - 40	10
FV705T	0 - 40	15

*1 cmH_2O = 0.74 mmHg
**for prevention of reflux only

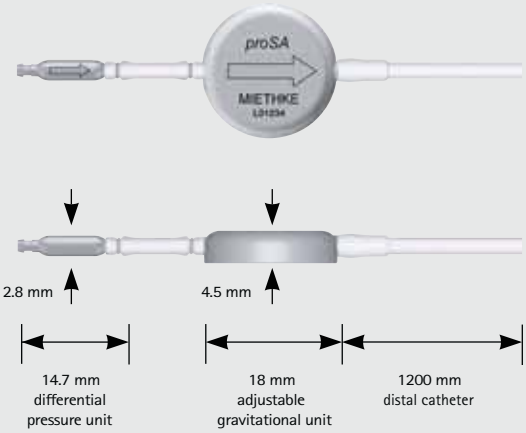
- Available as adjustable gravitational unit with integrated distal catheter only or in combination with differential pressure unit

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Diff. press. unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

no differential pressure unit:



with differential pressure unit:



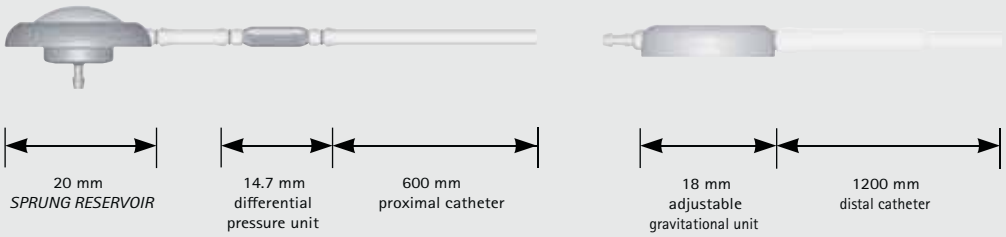
Art. No.	Adjustable gravitational unit (cmH_2O*)	Differential pressure unit (not adjustable / cmH_2O*)
FV706T	0 - 40	-
FV707T	0 - 40	0**
FV708T	0 - 40	5
FV709T	0 - 40	10
FV710T	0 - 40	15

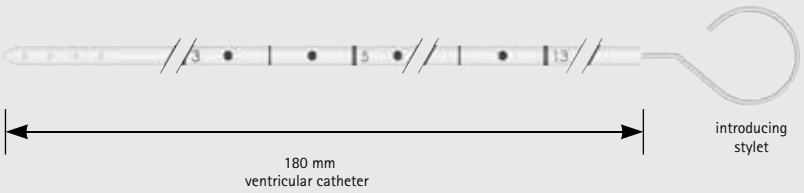
*1 cmH_2O = 0.74 mmHg
**for prevention of reflux only

proSA® SHUNTSYSTEM with SPRUNG RESERVOIR

- Adjustable gravitational unit with integrated distal catheter
- *SPRUNG RESERVOIR** with integrated proximal catheter; optional combination with differential pressure unit
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Diff. press. unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



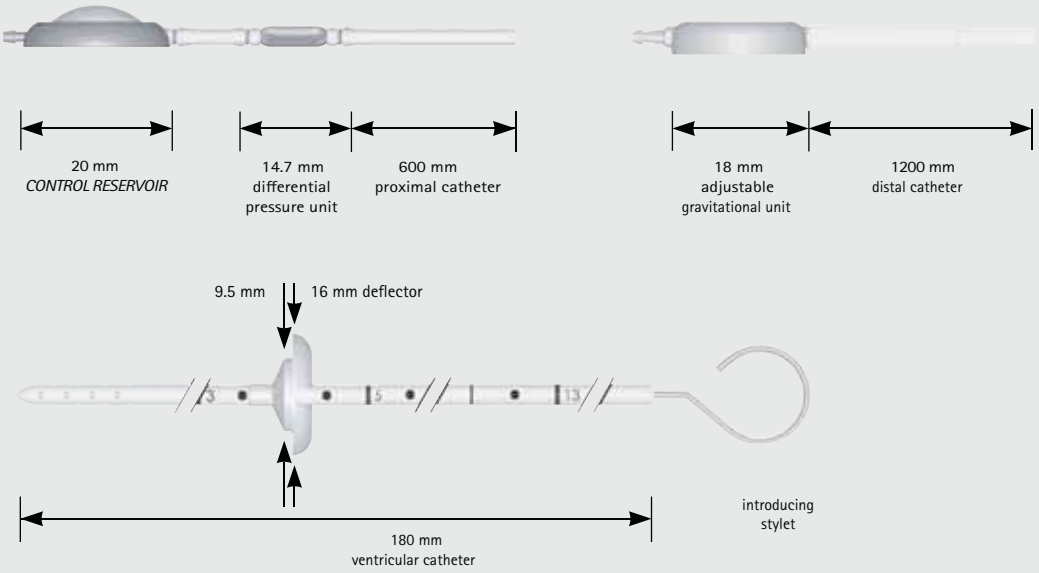


Art. No.	Adjustable gravitational unit (cmH_2O*)	Differential pressure unit (not adjustable / cmH_2O*)
FV711T	0 - 40	-
FV712T	0 - 40	0**
FV713T	0 - 40	5
FV714T	0 - 40	10
FV715T	0 - 40	15

*1 cmH_2O = 0.74 mmHg
**for prevention of reflux only

- Adjustable gravitational unit with integrated distal catheter
- *CONTROL RESERVOIR** with integrated proximal catheter; optional combination with differential pressure unit
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Ventricular catheter with introducing stylet and deflector

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Diff. press. unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



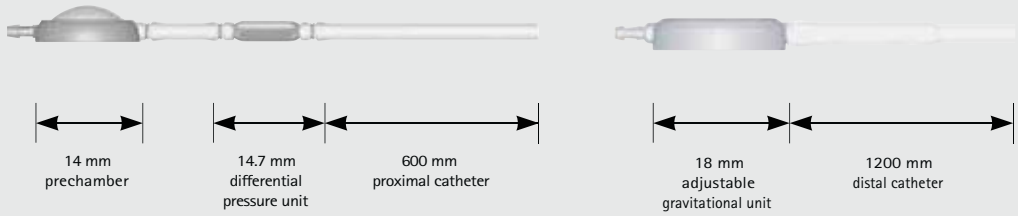
Art. No.	Adjustable gravitational unit (cmH_2O*)	Differential pressure unit (not adjustable / cmH_2O*)
FV716T	0 - 40	-
FV717T	0 - 40	0**
FV718T	0 - 40	5
FV719T	0 - 40	10
FV720T	0 - 40	15

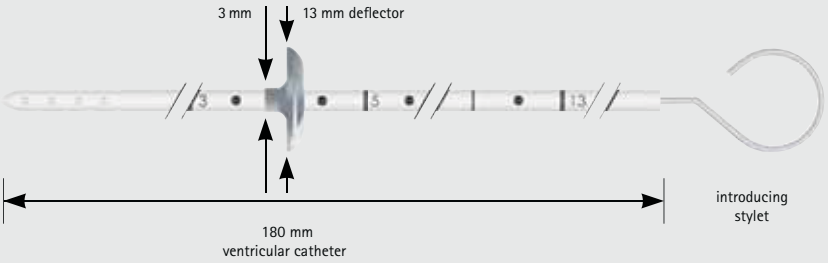
*1 cmH_2O = 0.74 mmHg
**for prevention of reflux only

proSA® SHUNTSYSTEM with pediatric prechamber

- Adjustable gravitational unit with integrated distal catheter
- Pediatric prechamber with integrated proximal catheter; optional combination with differential pressure unit
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Diff. press. unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



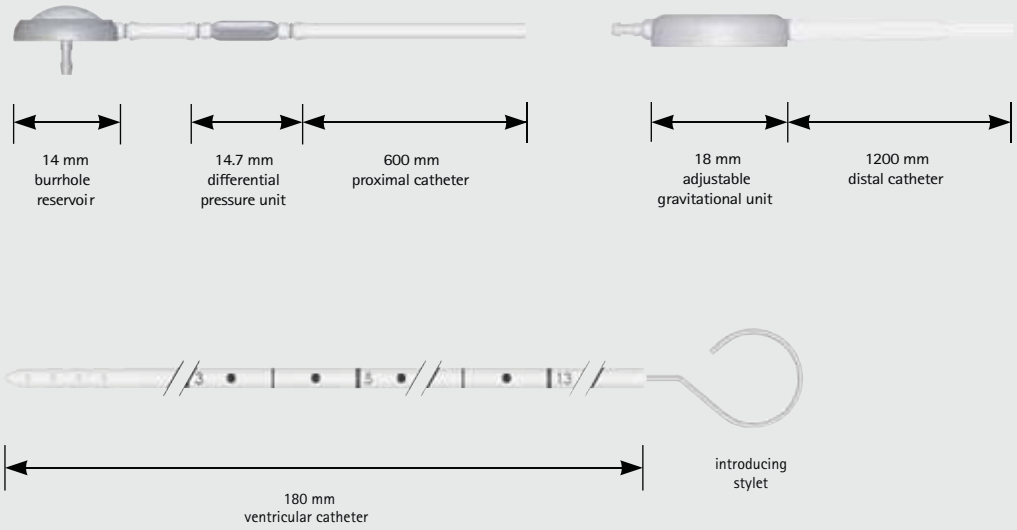


Art. No.	Adjustable gravitational unit (cmH_2O*)	Differential pressure unit (not adjustable / cmH_2O*)
FV721T	0 - 40	-
FV722T	0 - 40	0**
FV723T	0 - 40	5
FV724T	0 - 40	10
FV725T	0 - 40	15

*1 cmH_2O = 0.74 mmHg
**for prevention of reflux only

- Adjustable gravitational unit with integrated distal catheter
- Pediatric burrhole reservoir with integrated proximal catheter; optional combination with differential pressure unit
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Diff. press. unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



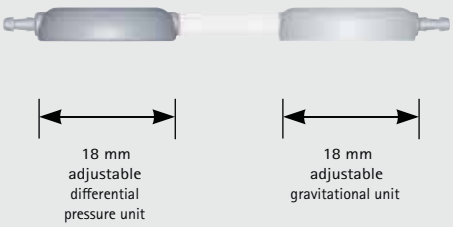
Art. No.	Adjustable gravitational unit (cmH_2O*)	Differential pressure unit (not adjustable / cmH_2O*)
FV726T	0 - 40	-
FV727T	0 - 40	0**
FV728T	0 - 40	5
FV729T	0 - 40	10
FV730T	0 - 40	15

*1 cmH_2O = 0.74 mmHg
**for prevention of reflux only

proSA® with adjustable differential pressure unit

■ Adjustable gravitational unit (*proSA®*) with integrated adjustable differential pressure unit (*proGAV®*)

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



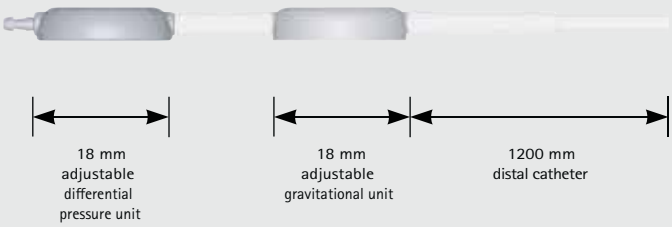
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV782T	0 - 40	0 - 20

*1 cmH_2O = 0.74 mmHg

proSA® with adjustable differential pressure unit and distal catheter

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*)
- With integrated distal catheter

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



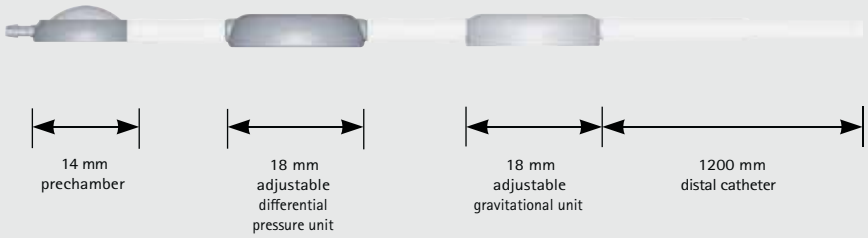
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV783T	0 - 40	0 - 20

*1 cmH_2O = 0.74 mmHg

proSA® with adjustable differential pressure unit and pediatric prechamber

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*)
- With integrated pediatric prechamber and integrated distal catheter

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



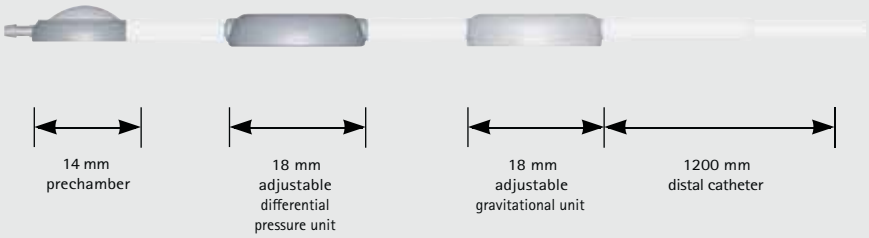
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV785T	0 - 40	0 - 20

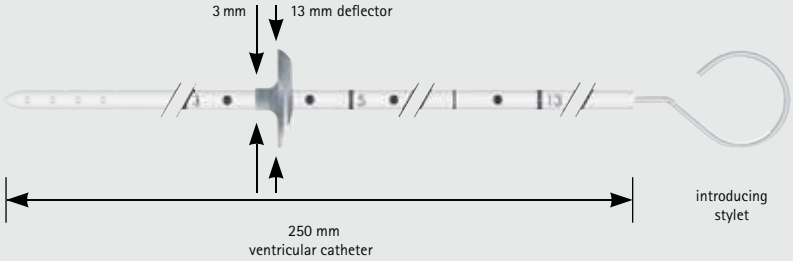
*1 cmH_2O = 0.74 mmHg

proSA® with adjustable differential pressure unit and pediatric prechamber

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*)
- With integrated pediatric prechamber and integrated distal catheter
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm





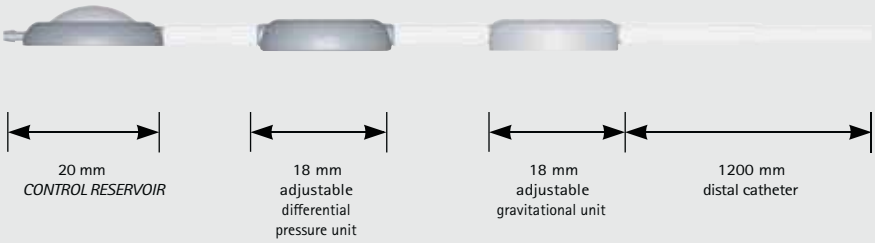
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV788T	0 - 40	0 - 20

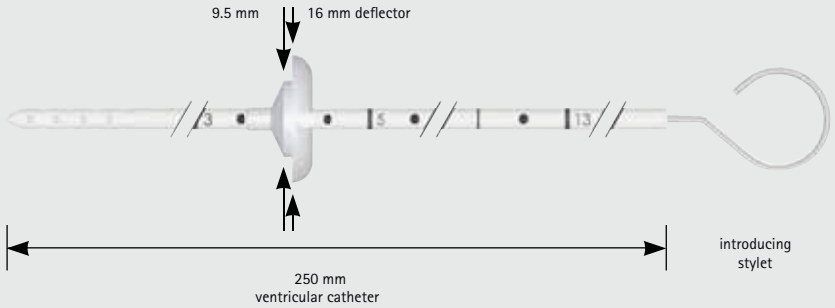
*1 cmH_2O = 0.74 mmHg

proSA® with adjustable differential pressure unit and CONTROL RESERVOIR

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*)
- With integrated *CONTROL RESERVOIR** and integrated distal catheter
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Ventricular catheter with introducing stylet and deflector

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



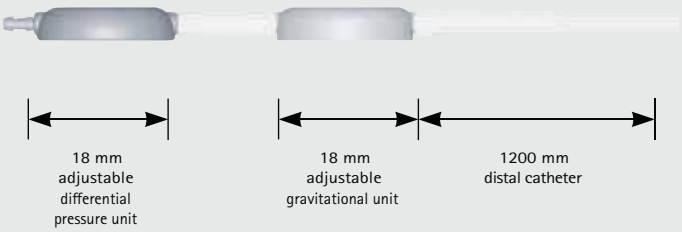


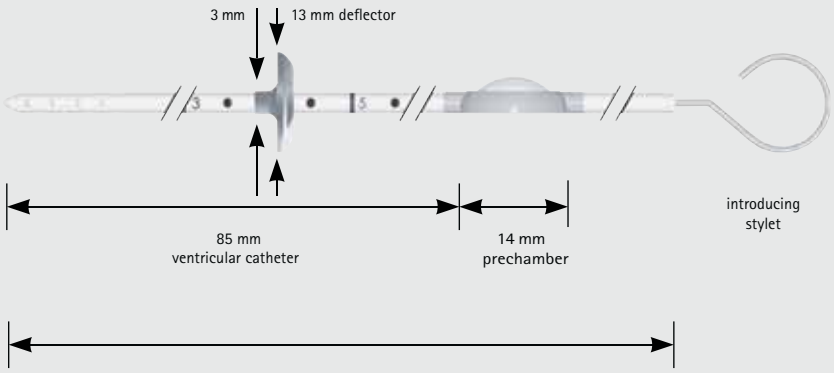
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV770T	0 - 40	0 - 20

*1 cmH_2O = 0.74 mmHg

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*)
- With integrated distal catheter
- Ventricular catheter with integrated pediatric prechamber introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm





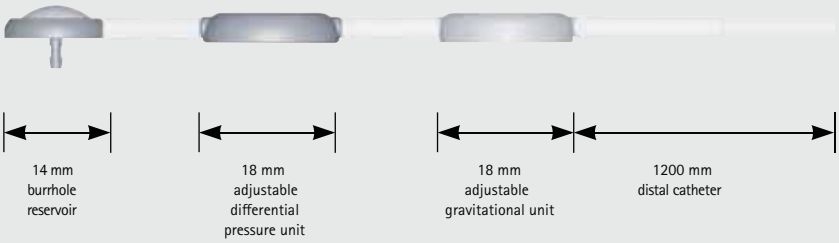
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV789T	0 - 40	0 - 20

*1 cmH_2O = 0.74 mmHg

proSA® with adjustable differential pressure unit and pediatric burrehole reservoir

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*)
- With integrated pediatric burrhole reservoir and integrated distal catheter

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



for occipital implantation only!

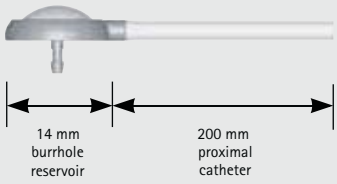
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV784T	0 - 40	0 - 20

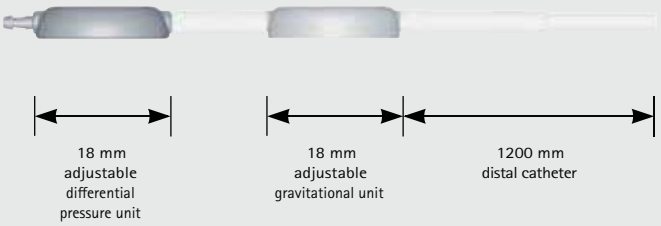
*1 cmH_2O = 0.74 mmHg

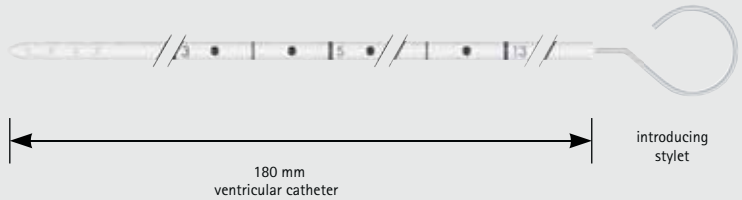
proSA® with adjustable differential pressure unit and pediatric burrhole reservoir

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*) and integrated distal catheter
- Pediatric burrhole reservoir with integrated proximal catheter
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm







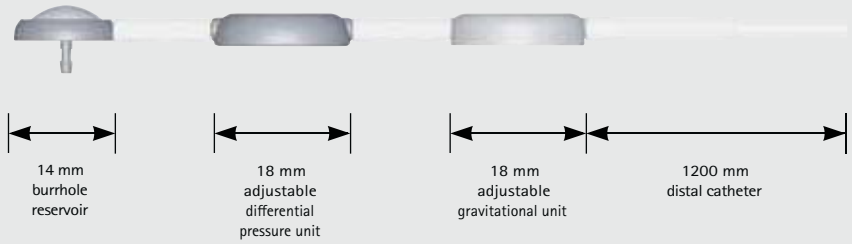
Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV786T	0 - 40	0 - 20

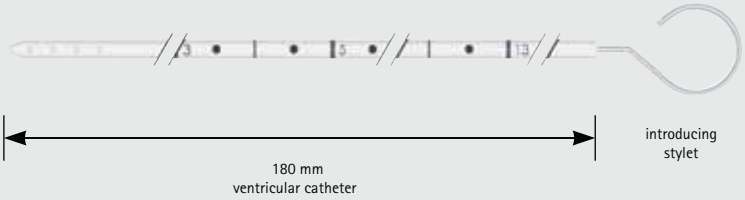
*1 cmH_2O = 0.74 mmHg

proSA® with adjustable differential pressure unit and pediatric burrhole reservoir

- Adjustable gravitational unit (*proSA®*) with adjustable differential pressure unit (*proGAV®*)
- With integrated pediatric burrhole reservoir and integrated distal catheter
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Adj. grav. unit: d_o = 4.5 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm





Art. No.	Adjustable gravitational unit (cmH_2O*)	Adjustable differential pressure unit (cmH_2O*)
FV787T	0 - 40	0 - 20

*1 cmH_2O = 0.74 mmHg

Tools for valve adjustment

- *proSA® Adjustment Tool* for setting the required opening pressure
- *proSA® Verification Tool* for reading the actual opening pressure setting

Adjustment tool:



Verification tool:



Art. No.	Instrument
FV790T	*proSA® Adjustment Tool*
FV791T	*proSA® Verification Tool*

proSA® Tools

Tools for valve adjustment

- *proSA® Masterdisc* for calibrating the verification tool
- *proSA® Compass* for locating the *proSA®*
- *proSA® Adjustment Disc* for setting the required opening pressure in patients with thicker skin
- *proSA® Check-mate* for sterile reading and setting the opening pressure of a *proSA®* prior to the implantation (resterilizable)

Compass:



Masterdisc:



Adjustment discs:



Check-mate:



Art. No.	Instrument
FV792T	*proSA® Tool set* (comprising of FV790T-FV795T)
FV793T	*proSA® Masterdisc*
FV794T	*proSA® Compass*
FV795T	*proSA® Adjustment Disc*
FV796T	*proSA® Check-mate*

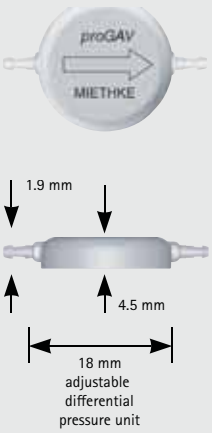


For further details see brochure No. **C84302**

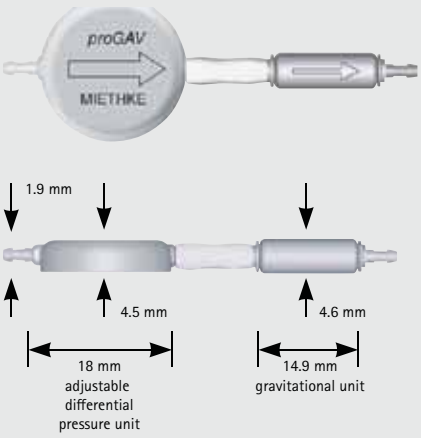
- Available as adjustable differential pressure unit only or in combination with gravitational unit

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

no gravitational unit:



with gravitational unit:



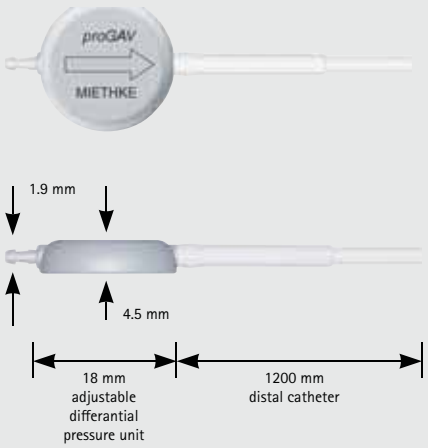
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV414T **	0 - 20	25
FV410T	0 - 20	-
FV411T	0 - 20	10
FV412T	0 - 20	15
FV413T	0 - 20	20
FV415T	0 - 20	30
FV416T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

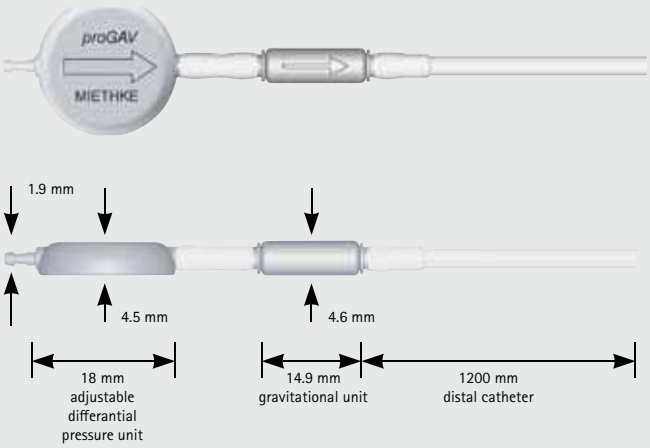
- Available as adjustable differential pressure unit only or in combination with gravitational unit
- With integrated distal catheter

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

no gravitational unit:



with gravitational unit:

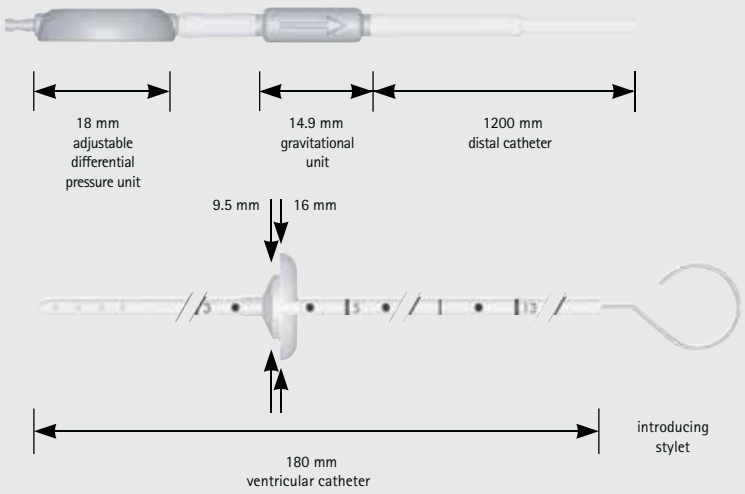


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV421T **	0 - 20	25
FV417T	0 - 20	-
FV418T	0 - 20	10
FV419T	0 - 20	15
FV420T	0 - 20	20
FV422T	0 - 20	30
FV423T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Adjustable differential pressure unit with integrated distal catheter and integrated gravitational unit
- Ventricular catheter with introducing stylet and deflector

Connector: d_i = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

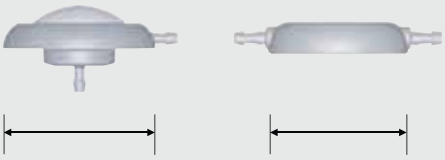


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV489T	0 - 20	25

*1 cmH_2O = 0.74 mmHg

- Adjustable differential pressure unit only with *SPRUNG RESERVOIR**; without connection
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm



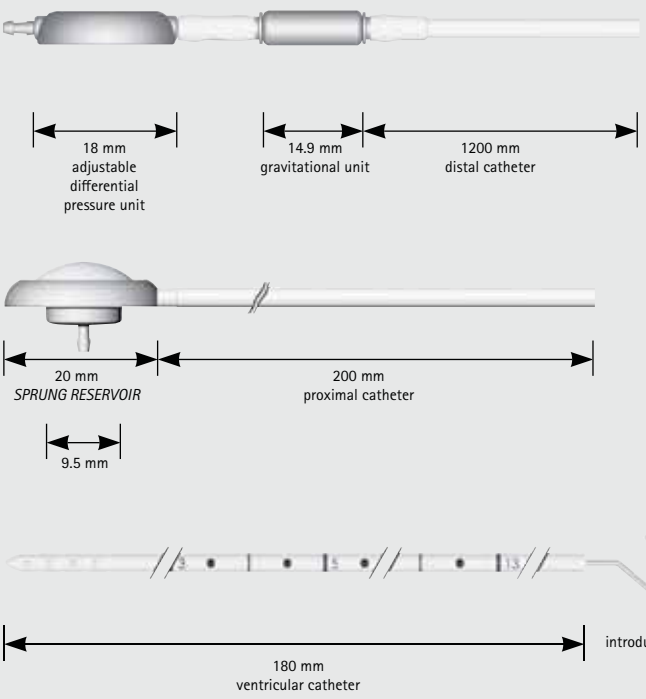
Art. No.	Adjustable differential pressure unit (cmH_2O*)
FV475T	0 - 20

*1 cmH_2O = 0.74 mmHg

proGAV® SHUNSYSTEM with SPRUNG RESERVOIR

- Available as adjustable differential pressure unit only or in combination with gravitational unit
- *SPRUNG RESERVOIR** with integrated proximal catheter; design acc. to Dr. Sprung
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

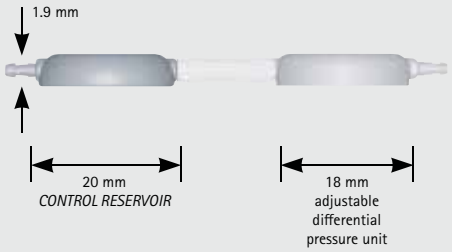


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV428T **	0 – 20	25
FV424T	0 - 20	-
FV425T	0 - 20	10
FV426T	0 - 20	15
FV427T	0 - 20	20
FV429T	0 - 20	30
FV430T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Adjustable differential pressure unit with integrated *CONTROL RESERVOIR**
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



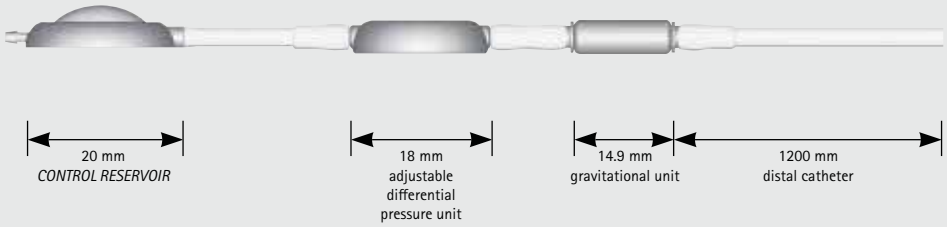
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV467T	0 - 20	-

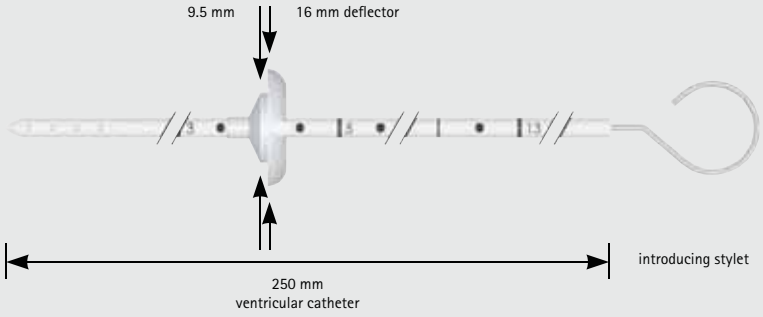
*1 cmH_2O = 0.74 mmHg

proGAV® SHUNTSYSTEM with CONTROL RESERVOIR

- Available as adjustable differential pressure unit only or in combination with gravitational unit
- With integrated distal catheter and integrated *CONTROL RESERVOIR**
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage
- Ventricular catheter with introducing stylet and deflector

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



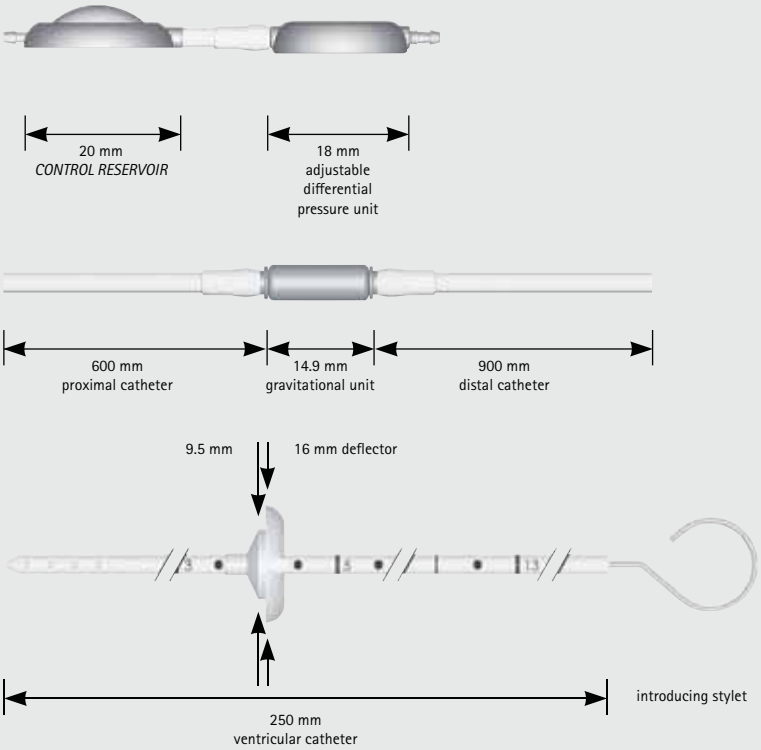


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV435T **	0 – 20	25
FV431T	0 - 20	-
FV432T	0 - 20	10
FV433T	0 - 20	15
FV434T	0 - 20	20
FV436T	0 - 20	20
FV437T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Available as adjustable differential pressure unit with integrated *CONTROL RESERVOIR**
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage
- Distal catheter only (1200 mm) or in combination with integrated gravitational unit and integrated proximal catheter
- Ventricular catheter with introducing stylet and deflector

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



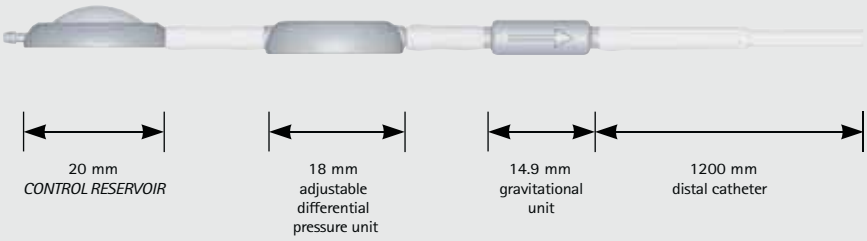
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV463T **	**0 – 20**	**25**
FV459T	0 - 20	-
FV460T	0 - 20	10
FV461T	0 - 20	15
FV462T	0 - 20	20
FV464T	0 - 20	30
FV465T	0 - 20	35

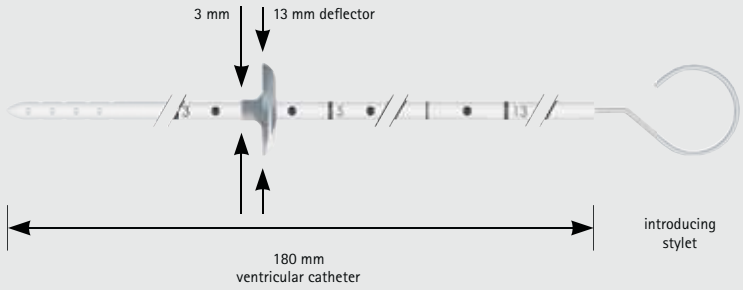
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

proGAV® SHUNTSYSTEM with CONTROL RESERVOIR

- Adjustable differential pressure unit with integrated gravitational unit
- With integrated distal catheter and integrated *CONTROL RESERVOIR**
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



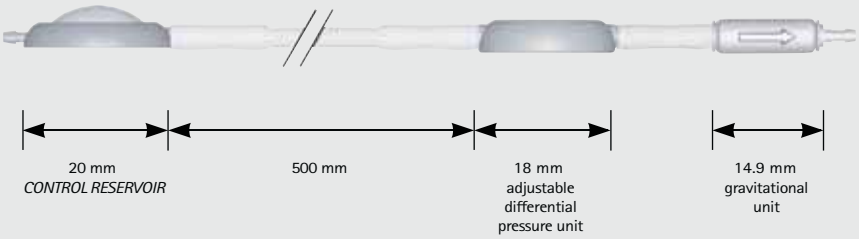


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV482T **	0 – 20	25
FV481T	0 - 20	20

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Adjustable differential pressure valve with integrated *CONTROL RESERVOIR** only or in combination with gravitational unit
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.

Connector: d_i = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



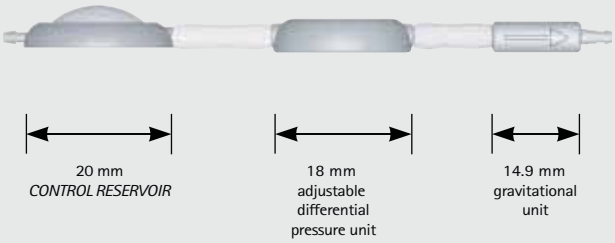
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV491T	0 - 20	-
FV492T	0 - 20	30

*1 cmH_2O = 0.74 mmHg

proGAV® with CONTROL RESERVOIR

- Adjustable differential pressure unit with integrated *CONTROL RESERVOIR** and integrated gravitational unit
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage

Connector: d_i = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2 .5 mm

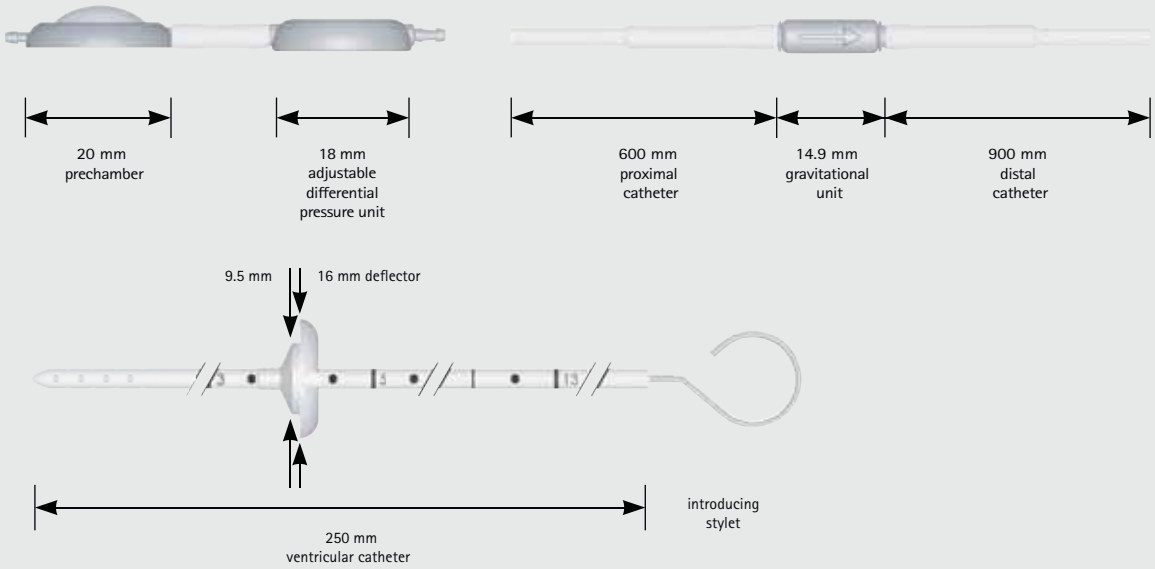


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV479T **	0 – 20	25
FV476T	0 - 20	10
FV477T	0 - 20	15
FV478T	0 - 20	20

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Adjustable differential pressure unit with integrated prechamber
- Proximal catheter with integrated gravitational unit and distal catheter
- Ventricular catheter with introducing stylet and deflector

Connector: d_i = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



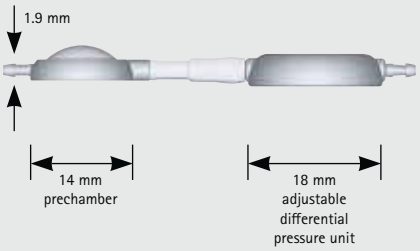
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV496T **	**0 – 20**	**25**
FV493T	0 - 20	10
FV494T	0 - 20	15
FV495T	0 - 20	20
FV497T	0 - 20	30
FV498T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

proGAV® with pediatric prechamber

- Adjustable differential pressure unit with integrated pediatric prechamber

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

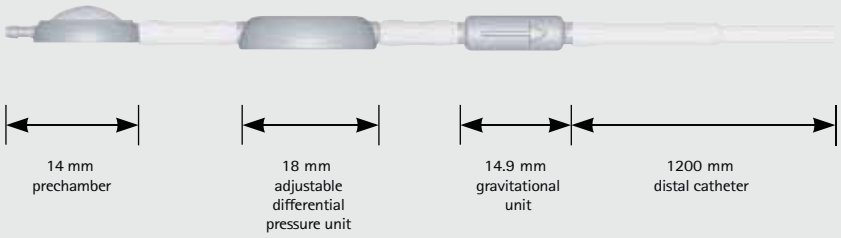


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV466T	0 - 20	-

*1 cmH_2O = 0.74 mmHg

- Adjustable differential pressure unit with integrated gravitational unit
- With integrated catheter and integrated pediatric prechamber

Connector: d_i = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



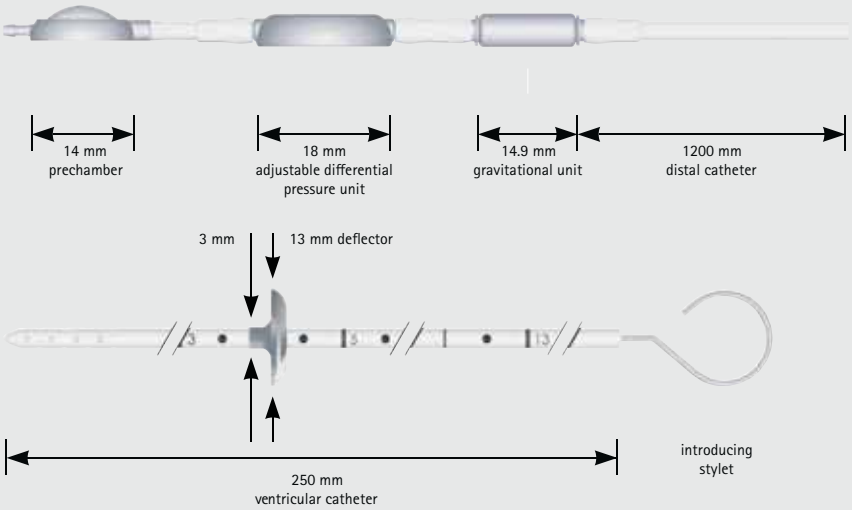
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV480T **	0 – 20	20

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

proGAV® SHUNTSYSTEM with pediatric prechamber

- Available as adjustable differential pressure unit only or in combination with gravitational unit
- With integrated distal catheter and integrated pediatric prechamber
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

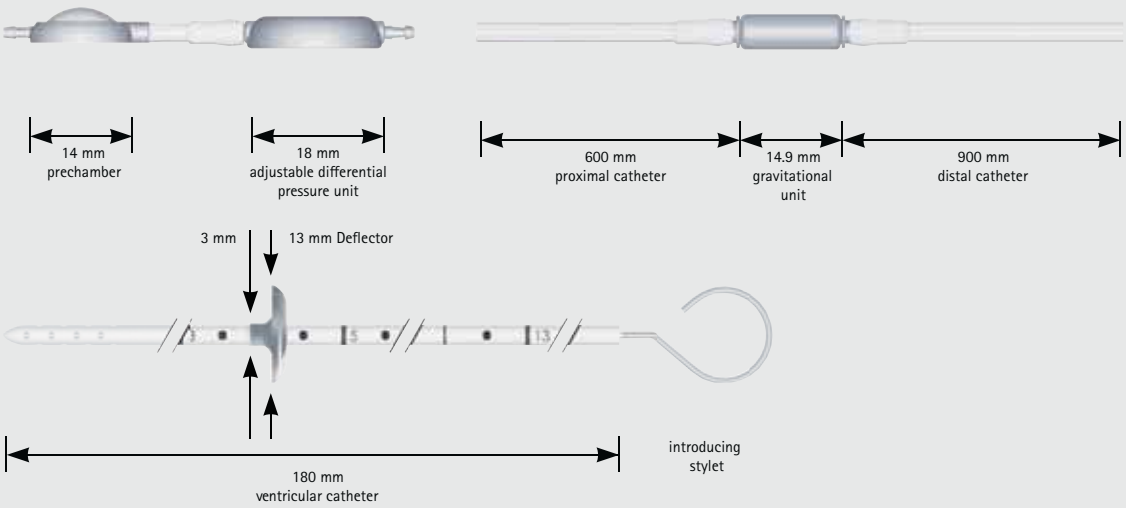


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV441T **	0 – 20	20
FV438T	0 - 20	-
FV439T	0 - 20	10
FV440T	0 - 20	15
FV442T	0 - 20	25
FV443T	0 - 20	30
FV444T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Adjustable differential pressure unit with integrated pediatric prechamber
- Distal catheter only (1200 mm) or in combination with integrated gravitational unit and integrated proximal catheter
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



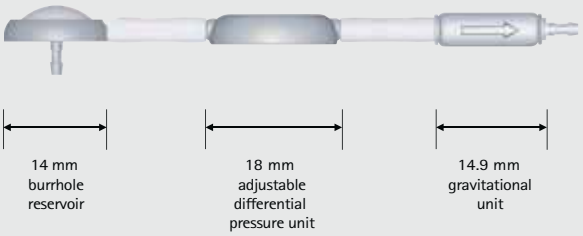
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV455T **	**0 – 20**	**20**
FV452T	0 - 20	-
FV453T	0 - 20	10
FV454T	0 - 20	15
FV456T	0 - 20	25
FV457T	0 - 20	30
FV458T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

proGAV® with pediatric burrhole reservoir

- Available as adjustable differential pressure unit with integrated pediatric burrhole reservoir or in combination with integrated gravitational unit

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

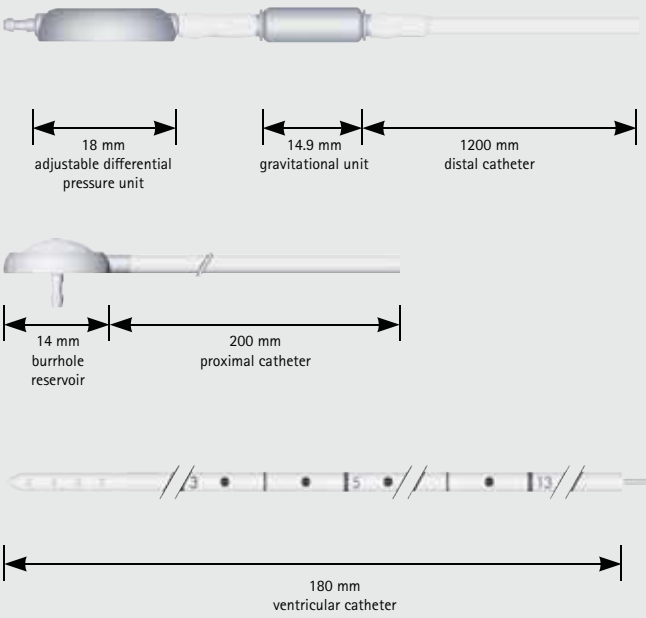


Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV485T **	**0 – 20**	**20**
FV490T	0 - 20	-
FV483T	0 - 20	10
FV484T	0 - 20	15
FV488T	0 - 20	25
FV486T	0 - 20	30
FV487T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

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

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



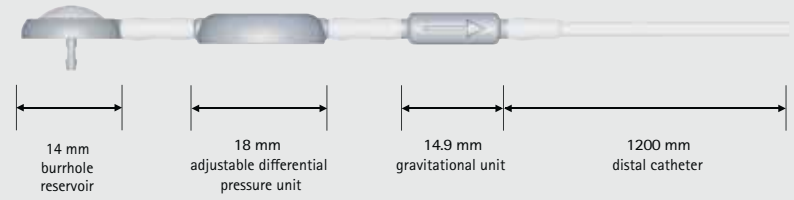
Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV448T **	0 - 20	20
FV445T	0 - 20	-
FV446T	0 - 20	10
FV447T	0 - 20	15
FV449T	0 - 20	25
FV450T	0 - 20	30
FV451T	0 - 20	35

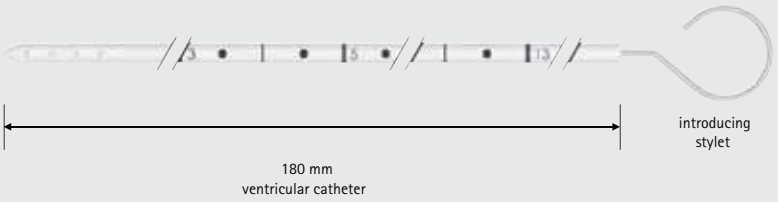
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

proGAV® SHUNTSYSTEM with pediatric burrhole reservoir

- Available as adjustable differential pressure unit only or in combination with gravitational unit
- With integrated distal catheter and integrated pediatric burrhole reservoir
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Adj. diff. pressure unit: d_o = 4.5 mm
Grav. unit: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm





Art. No.	Adjustable differential pressure unit (cmH_2O*)	Gravitational unit (cmH_2O*)
FV471T **	**0 – 20**	**20**
FV468T	0 - 20	-
FV469T	0 - 20	10
FV470T	0 - 20	15
FV472T	0 - 20	25
FV473T	0 - 20	30
FV474T	0 - 20	35

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

Tools for valve adjustment

- *proGAV® Adjustment Tool* for setting the required opening pressure
- *proGAV® Verification Tool* for reading the actual opening pressure setting
- *proGAV® Masterdisc* for calibrating the verification tool
- Compass for locating the *proGAV®*

Adjustment tool:



Verification tool:



Masterdisc:



Compass:



Art. No.	Instrument
FV400T	*proGAV® Adjustment Tool*
FV401T	*proGAV® Verification Tool*
FV402T	*proGAV® Masterdisc*
FV403T	*proGAV® Compass*
FV404T	*proGAV® Tool Set* (consisting of FV400T-FV403T)

Tools for valve adjustment

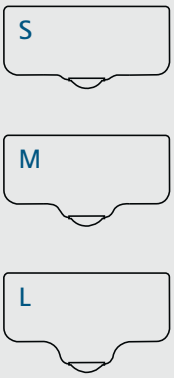
- *proGAV® Adjustment Disc* for setting the required opening pressure in patients with thicker skin
- *proGAV® Check-mate* for setting and verification of the required opening pressure prior to the implantation (resterilizable)

Adjustment discs:



Check-mate:





Art. No.	Instrument
FV405T	*proGAV® Adjustment disc, small*
FV406T	*proGAV® Adjustment disc, medium*
FV407T	*proGAV® Adjustment disc, large*
FV408T	*proGAV® Adjustment Disc Set* (comprising of FV405T-FV407T)
FV409T	*proGAV® Check-mate*

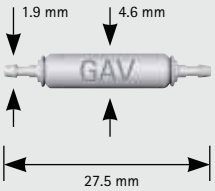


For further details see brochure No. **C42002**

GAV®

- Single valve

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm

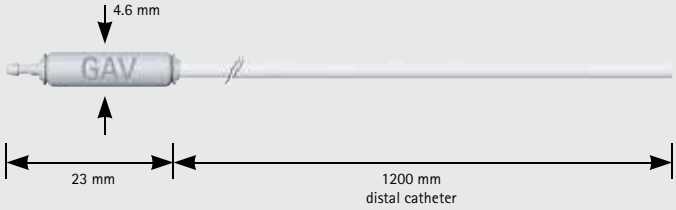


Art. No.		Valve pressure level (cmH_2O*)	
			
FV310T	up to 160 cm**	5	30
FV311T	160 - 180 cm**	5	35
FV312T	over 180 cm**	5	40
FV313T		10	30
FV314T		10	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Single valve with integrated distal catheter

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

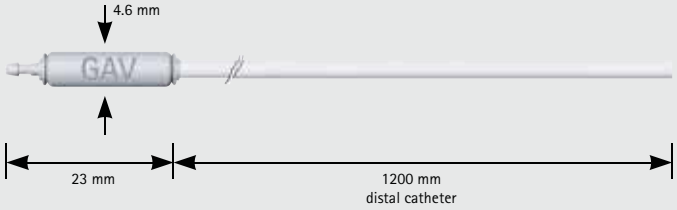


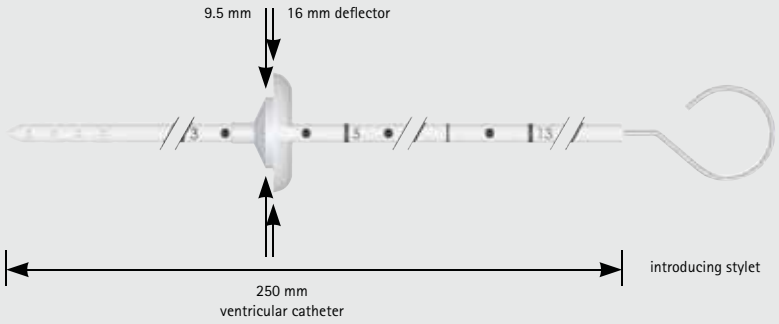
Art. No.		Valve pressure level (cmH_2O*)	
FV316T	up to 160 cm**	5	30
FV317T	160 - 180 cm**	5	35
FV318T	over 180 cm**	5	40
FV319T		10	30
FV320T		10	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

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

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



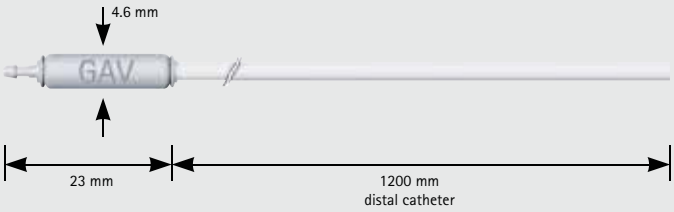


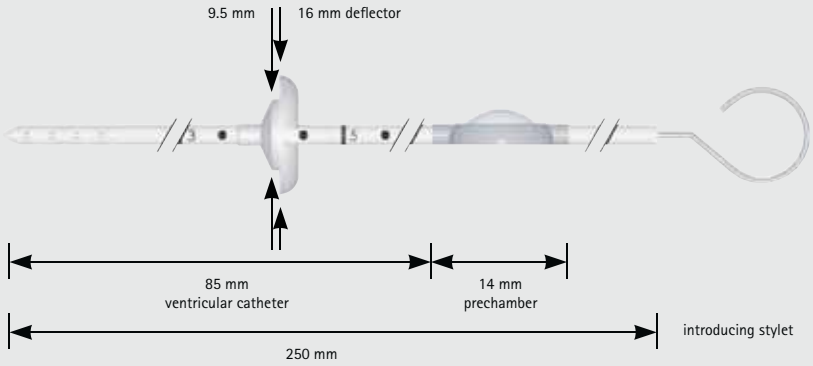
Art. No.		Valve pressure level (cmH_2O*)	
FV322T	up to 160 cm**	5	30
FV323T	160 - 180 cm**	5	35
FV324T	over 180 cm**	5	40
FV325T		10	30
FV326T		10	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet, integrated prechamber and deflector

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm





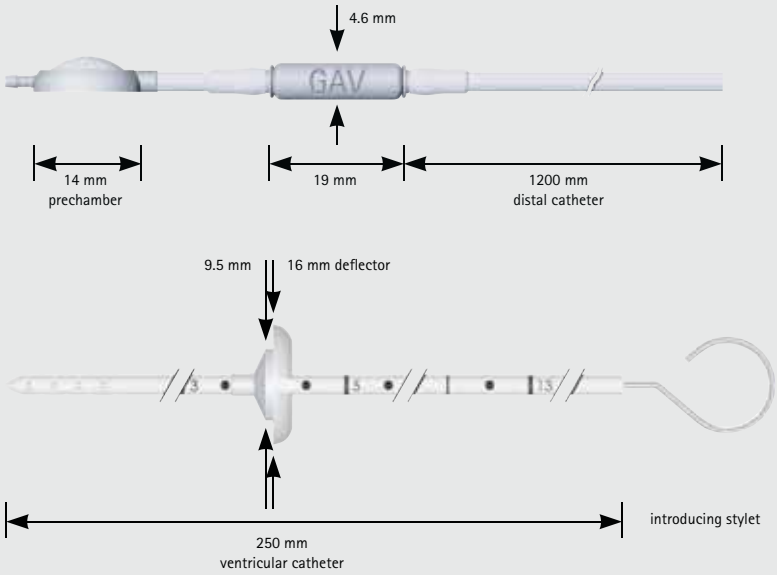
Art. No.		Valve pressure level (cmH_2O*)	
FV328T	up to 160 cm**	5	30
FV329T	160 - 180 cm**	5	35
FV330T	over 180 cm**	5	40
FV331T		10	30
FV332T		10	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

GAV® SHUNTSYSTEM with prechamber

- Valve with integrated distal catheter and prechamber
- Ventricular catheter with introducing stylet and deflector

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

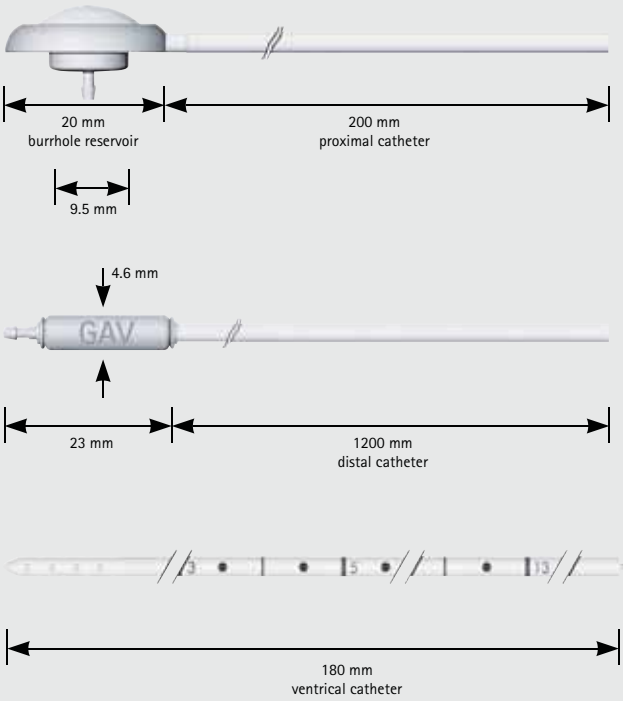


Art. No.		Valve pressure level (cmH_2O*)	
			
FV340T	up to 160 cm**	5	30
FV341T	160 - 180 cm**	5	35
FV342T	over 180 cm**	5	40
FV343T		10	30
FV344T		10	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

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

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



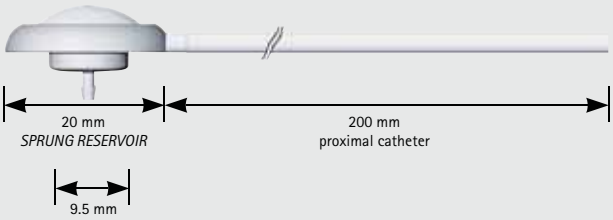
Art. No.		Valve pressure level (cmH_2O*)	
FV334T	up to 160 cm**	5	30
FV335T	160 - 180 cm**	5	35
FV336T	over 180 cm**	5	40
FV337T		10	30
FV338T		10	40

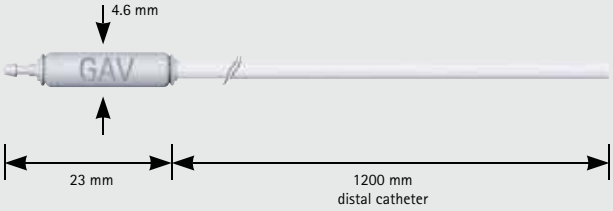
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

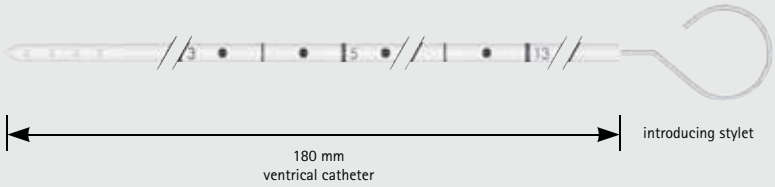
GAV® SHUNTSYSTEM with SPRUNG RESERVOIR

- *SPRUNG RESERVOIR** with integrated proximal catheter
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm







Art. No.		Valve pressure level (cmH_2O*)	
FV346T	up to 160 cm**	5	30
FV347T	160 - 180 cm**	5	35
FV348T	over 180 cm**	5	40
FV349T		10	30
FV350T		10	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.



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

paediGAV®

■ Single valve

Connector: d_o = 1.9 mm
Valve: d_o = 4.0 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

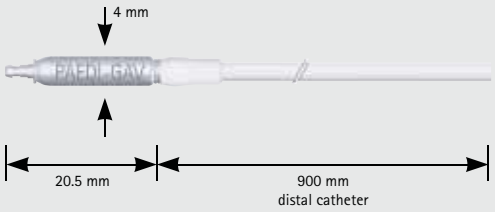


Art. No.		Valve pressure level (cmH_2O*)	
			
FV292T	up to 6 months**	4	24
FV294T	6 months - 5 years**	9	24
FV295T	over 5 years**	9	29
FV290T		4	14
FV291T		4	10
FV293T		9	19

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Single valve with integrated distal catheter

Connector: d_o = 1.9 mm
Valve: d_o = 4.0 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



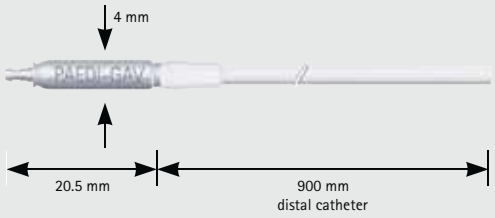
Art. No.		Valve pressure level (cmH_2O*)	
FV272T	up to 6 months**	4	24
FV274T	6 months - 5 years**	9	24
FV275T	over 5 years**	9	29
FV270T		4	14
FV271T		4	19
FV273T		9	19

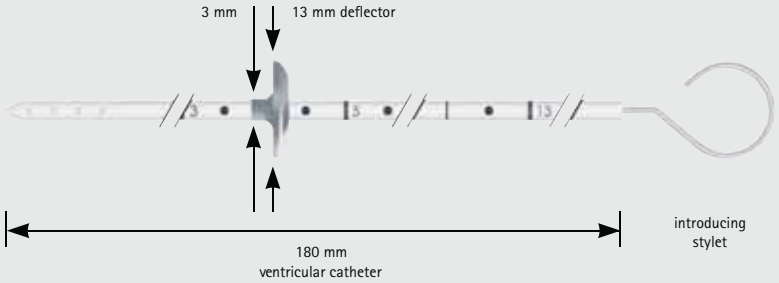
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

paediGAV® SHUNTSYSTEM

- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Valve: d_o = 4.0 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



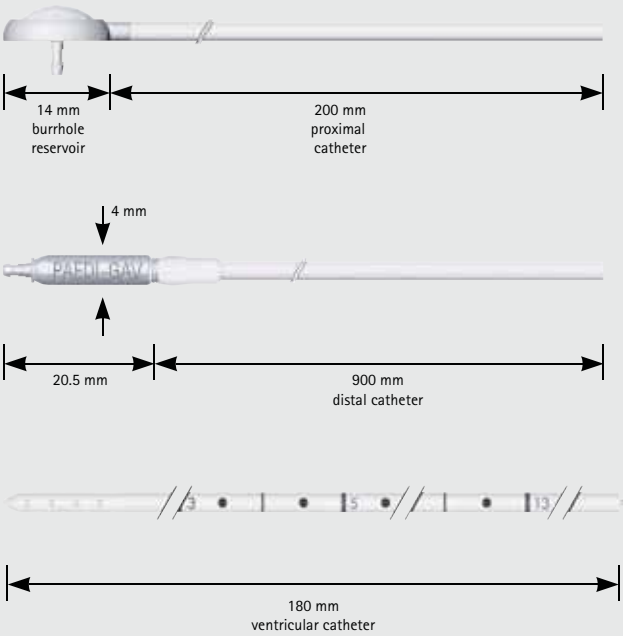


Art. No.		Valve pressure level (cmH_2O*)	
FV278T	up to 6 months**	4	24
FV280T	6 months - 5 years**	9	24
FV281T	over 5 years**	9	29
FV276T		4	14
FV277T		4	19
FV279T		9	19

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Pediatric burrhole reservoir with integrated proximal catheter
- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Valve: d_o = 4.0 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



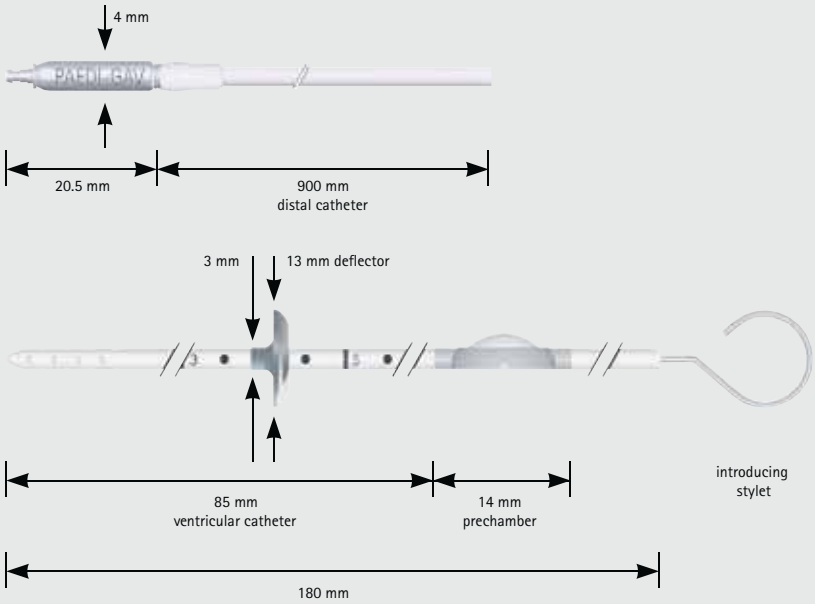
Art. No.		Valve pressure level (cmH_2O*)	
FV298T	up to 6 months**	4	24
FV300T	6 months - 5 years**	9	24
FV301T	over 5 years**	9	29
FV296T		4	14
FV297T		4	19
FV299T		9	19

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

paediGAV® SHUNTSYSTEM with prechamber

- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet, integrated pediatric prechamber and pediatric deflector

Connector: d_o = 1.9 mm
Valve: d_o = 4.0 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

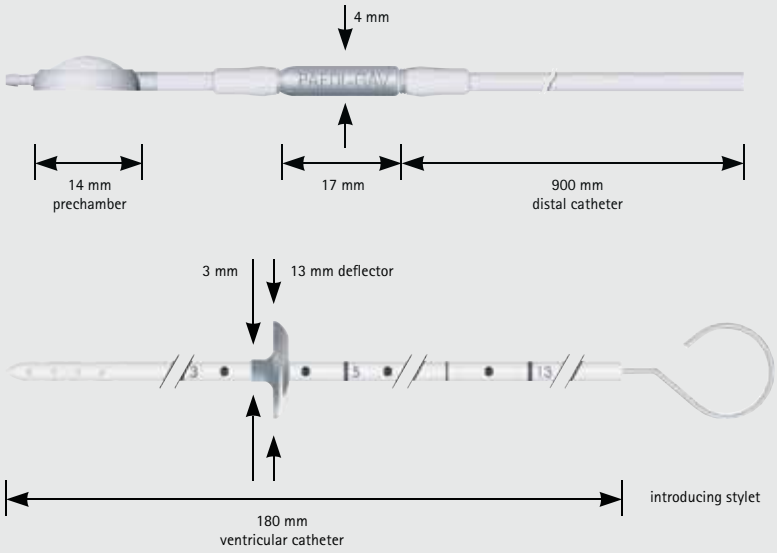


Art. No.		Valve pressure level (cmH_2O*)	
FV284T	up to 6 months**	4	24
FV286T	6 months - 5 years**	9	24
FV287T	over 5 years**	9	29
FV282T		4	14
FV283T		4	19
FV285T		9	19

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Valve with integrated distal catheter and prechamber
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Valve: d_o = 4.0 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



Art. No.		Valve pressure level (cmH_2O*)	
FV304T	up to 6 months**	4	24
FV306T	6 months - 5 years**	9	24
FV307T	over 5 years**	9	29
FV302T		4	14
FV303T		4	19
FV305T		9	19

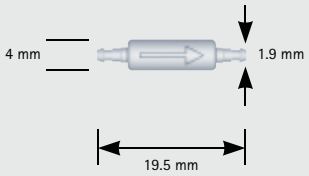
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.



For further details see brochure No. **C82202**

- Single valve

Connector: d_o = 1.9 mm
Valve: d_o = 4.0 mm

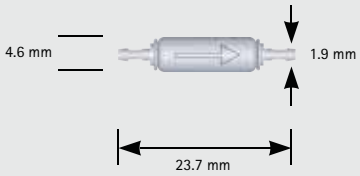


Art. No.	Opening pressure (cmH_2O*)
FV288T	10

*1 cmH_2O = 0.74 mmHg

- Single valve

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm

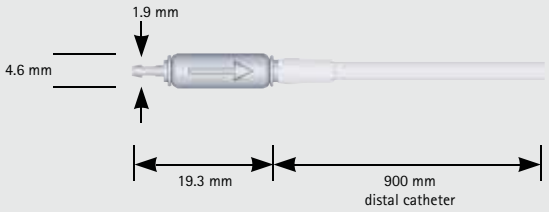


Art. No.	Opening pressure (cmH_2O*)
FV250T	15
FV251T	20
FV252T	25
FV253T	30
FV254T	35

*1 cmH_2O = 0.74 mmHg

- Single valve with integrated distal catheter

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



Art. No.	Opening pressure (cmH_2O*)
FV260T	15
FV261T	20
FV262T	25
FV263T	30
FV264T	35

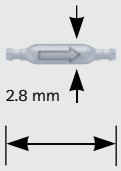
*1 cmH_2O = 0.74 mmHg



For further details see brochure No. **C82402**

- Single valve

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm



14.7 mm
differential
pressure unit

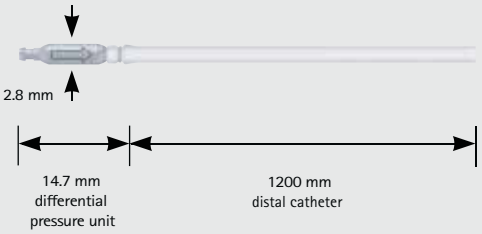
Art. No.	Differential pressure unit (cmH_2O*)
FV660T **	10
FV658T	0***
FV659T	5
FV661T	15

*1 cmH_2O = 0.74mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.
***for prevention of reflux only

miniNAV® with integrated distal catheter

- Valve with integrated distal catheter

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

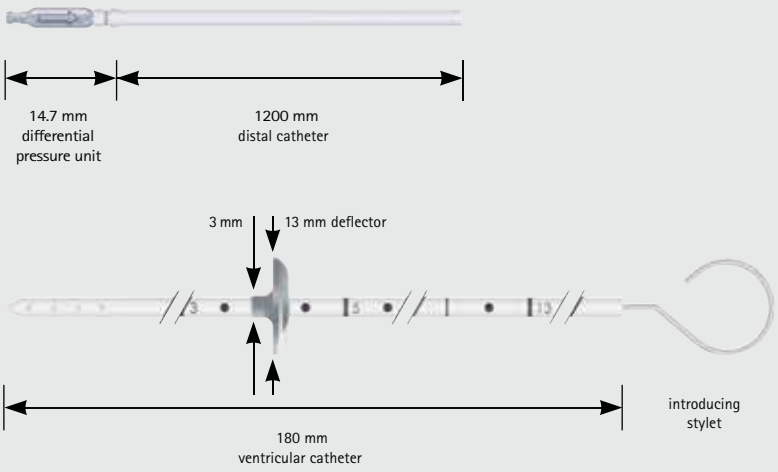


Art. No.	Differential pressure unit (cmH_2O*)
FV664T **	10
FV662T	0***
FV663T	5
FV665T	15

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.
***for prevention of reflux only

- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



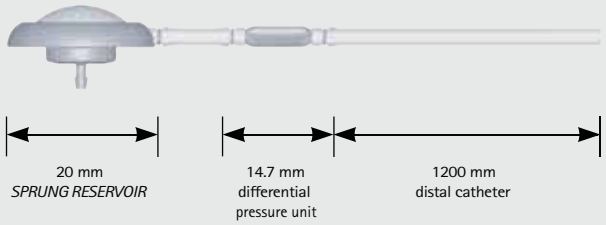
Art. No.	Differential pressure unit (cmH_2O*)
FV668T **	10
FV666T	0***
FV667T	5
FV669T	15

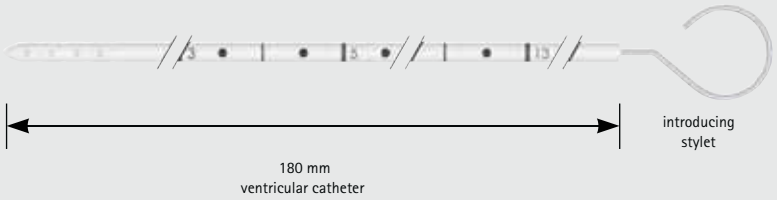
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.
***for prevention of reflux only

miniNAV® SHUNTSYSTEM with SPRUNG RESERVOIR

- Valve with integrated distal catheter and integrated *SPRUNG RESERVOIR**
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



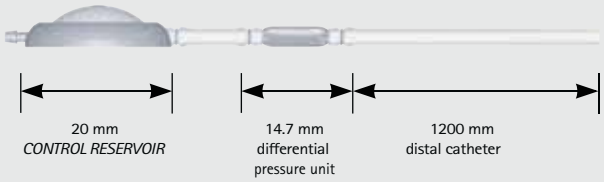


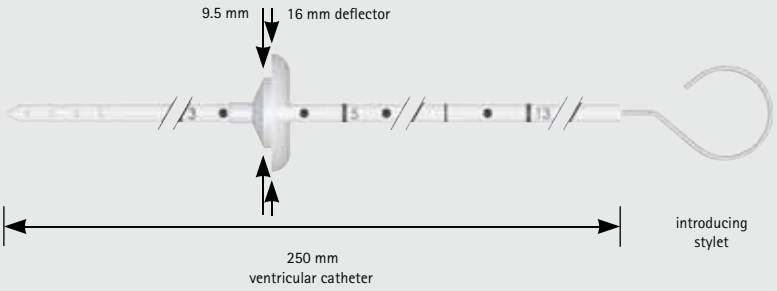
Art. No.	Differential pressure unit (cmH_2O*)
FV672T **	10
FV670T	0***
FV671T	5
FV673T	15

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.
***for prevention of reflux only

- Valve with integrated distal catheter and integrated *CONTROL RESERVOIR**
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm





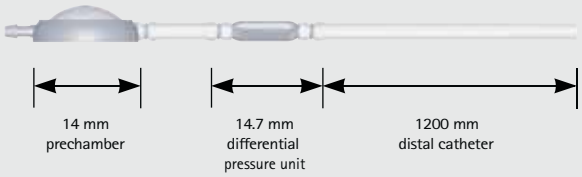
Art. No.	Differential pressure unit (cmH_2O*)
FV676T **	10
FV674T	0***
FV675T	5
FV677T	15

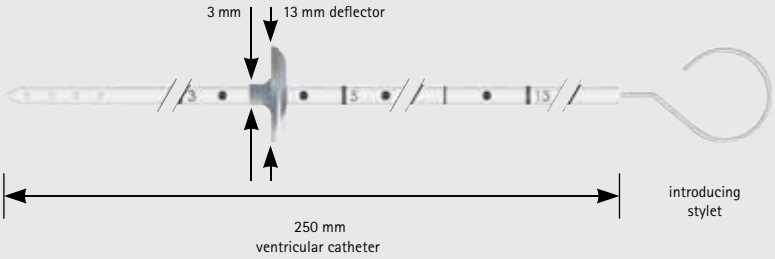
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.
***for prevention of reflux only

miniNAV® SHUNTSYSTEM with pediatric prechamber

- Valve with integrated distal catheter and integrated pediatric prechamber
- Ventricular catheter with introducing stylet and pediatric deflector

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



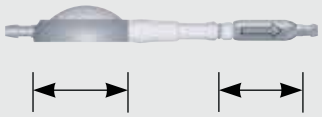


Art. No.	Differential pressure unit (cmH_2O*)
FV680T **	10
FV678T	0***
FV679T	5
FV681T	15

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.
***for prevention of reflux only

- Valve with integrated pediatric prechamber

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



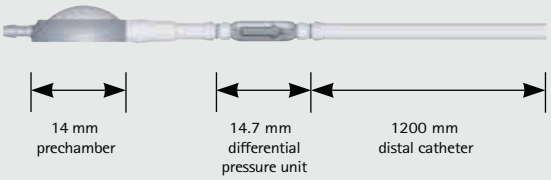
Art. No.	Differential pressure unit (cmH_2O*)
FV688T **	10
FV686T	5

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

miniNAV® with pediatric prechamber

- Valve with integrated pediatric prechamber
- With integrated distal catheter

Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

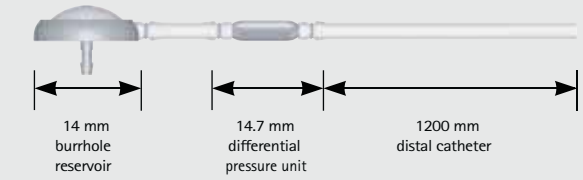


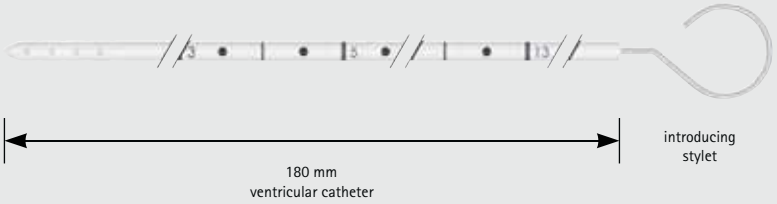
Art. No.	Differential pressure unit (cmH_2O*)
FV689T **	10
FV687T	5

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Valve with integrated distal catheter and integrated pediatric burrhole reservoir
- Ventricular catheter with introducing stylet

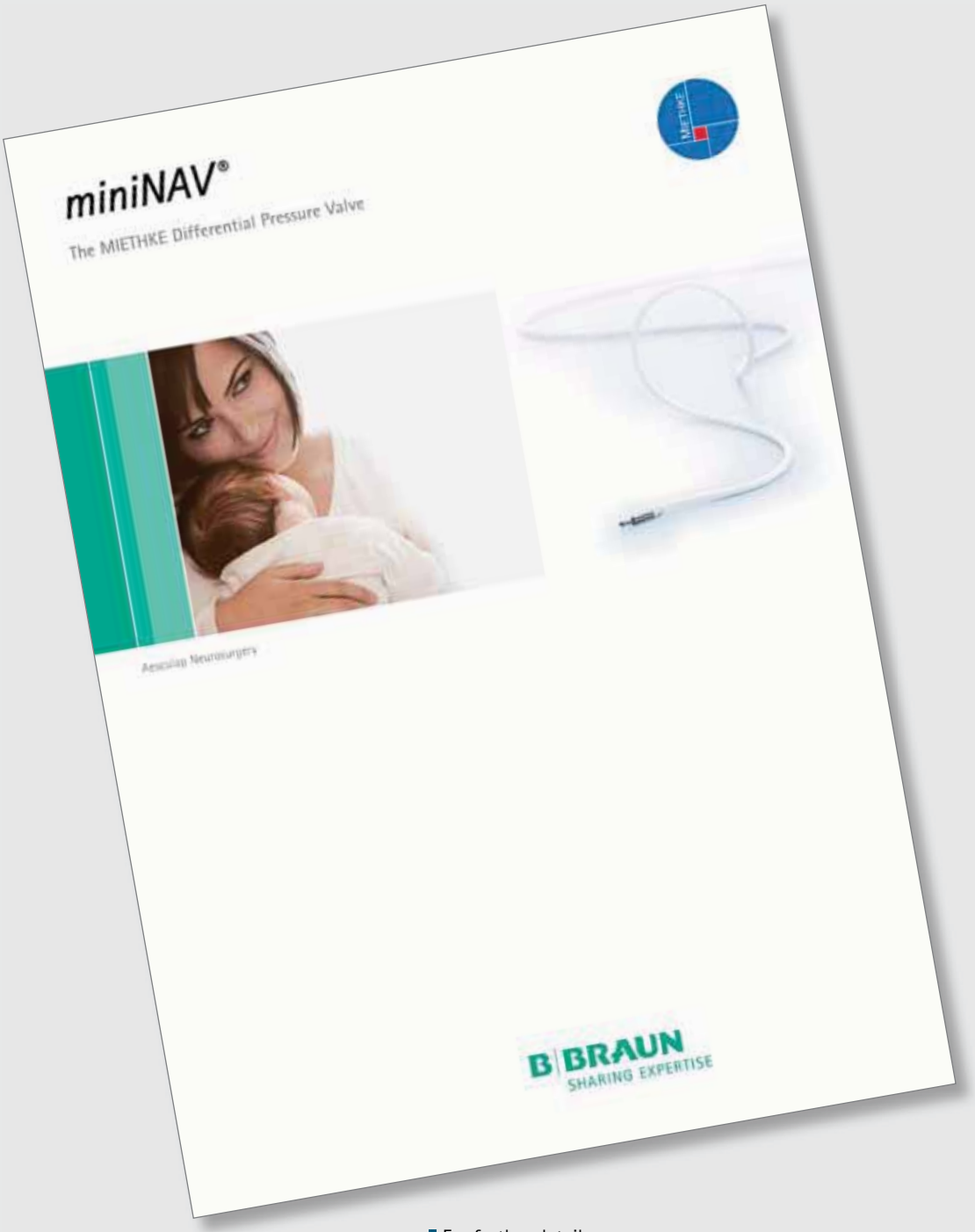
Connector: d_o = 1.9 mm
Diff. pressure unit: d_o = 2.8 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm





Art. No.	Differential pressure unit (cmH_2O*)
FV684T **	10
FV682T	0***
FV683T	5
FV685T	15

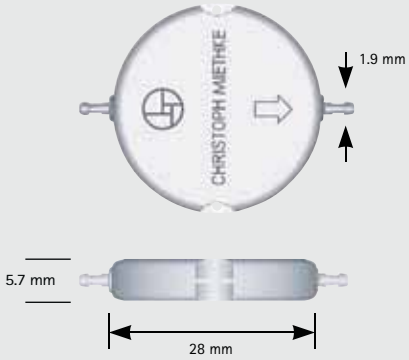
*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.
***for prevention of reflux only



For further details see brochure No. **C27802**

- Single valve

Connector: d_o = 1.9 mm
Valve: d_o = 5.7 mm



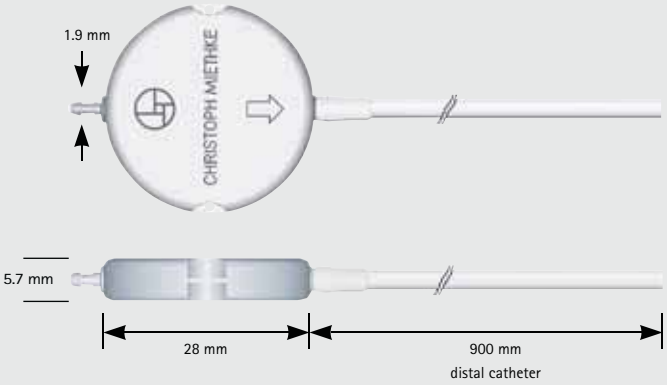
Art. No.		Valve pressure level (cmH_2O*)	
FV100T	up to 160 cm**	10	30
FV101T	160 - 180 cm**	10	40
FV190T		5	30
FV191T		5	40
FV103T		13	30
FV104T		13	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

DUALSWITCH® VALVE with distal catheter

- Valve with integrated distal catheter

Connector: d_o = 1.9 mm
Valve: d_o = 5.7 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

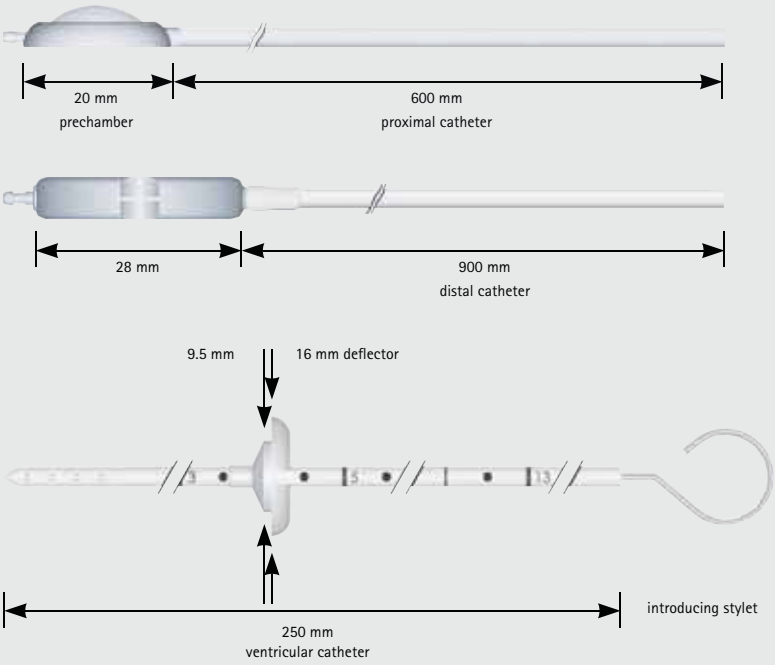


Art. No.		Valve pressure level (cmH_2O*)	
FV118T	up to 160 cm**	10	30
FV119T	160 - 180 cm**	10	40
FV370T		5	30
FV371T		5	40
FV121T		13	30
FV122T		13	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Prechamber with integrated proximal catheter
- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet and deflector

Connector: d_o = 1.9 mm
Valve: d_o = 5.7 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



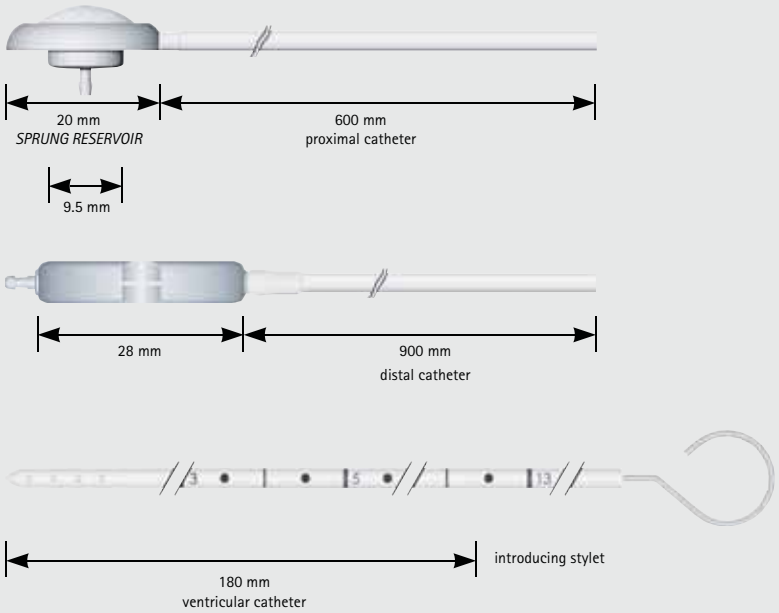
Art. No.		Valve pressure level (cmH_2O*)	
FV172T	up to 160 cm**	10	30
FV173T	160 - 180 cm**	10	40
FV175T		13	30
FV176T		13	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

DUALSWITCH® SHUNTSYSTEM with SPRUNG RESERVOIR

- *SPRUNG RESERVOIR** with integrated proximal catheter
  *Flushing reservoir allows for the checking of the ventricular catheters patency and ensures only distal drainage.
- Valve with integrated distal catheter
- Ventricular catheter with introducing stylet

Connector: d_o = 1.9 mm
Valve: d_o = 5.7 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

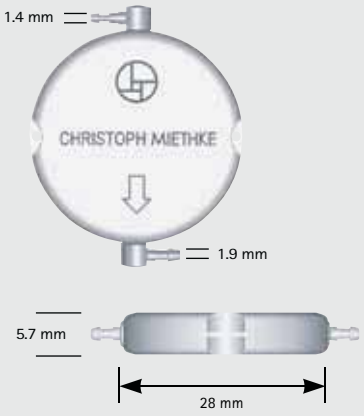


Art. No.		Valve pressure level (cmH_2O*)	
FV388T	up to 160 cm**	10	30
FV389T	160 - 180 cm**	10	40
FV385T		5	30
FV386T		5	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

- Single valve for lumbo-peritoneal drainage

Connector: d_o = 1.9 mm
Valve: d_o = 5.7 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



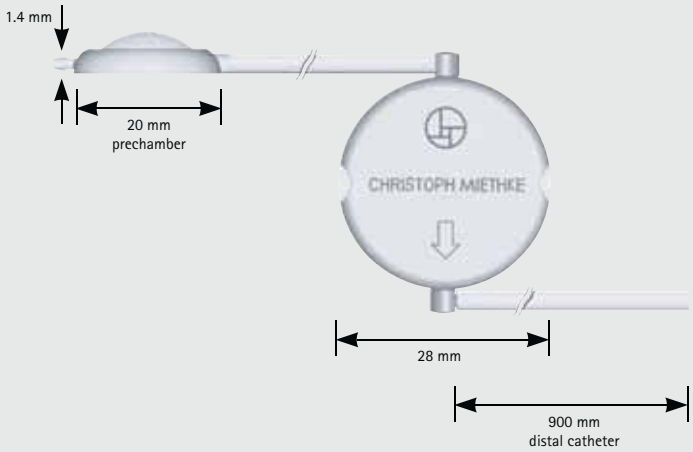
Art. No.		Valve pressure level (cmH_2O*)	
FV127T	up to 160 cm**	10	30
FV128T	160 - 180 cm**	10	40
FV129T	above 180 cm**	10	50
FV373T		5	30
FV374T		5	40
FV130T		13	30
FV131T		13	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

DUALSWITCH® SHUNTSYSTEM for L-P derivation

- Valve with integrated prechamber and integrated distal catheter
- For lumbo-peritoneal derivation

Connector: d_o = 1.4 mm
Valve: d_o = 5.7 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



Art. No.		Valve pressure level (cmH_2O*)	
FV163T	up to 160 cm**	10	30
FV164T	160 - 180 cm**	10	40
FV382T		5	30
FV383T		5	40

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

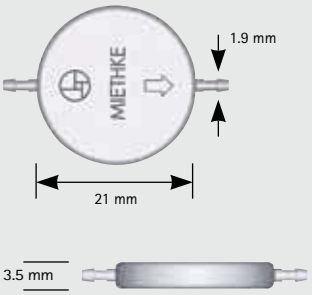


For further details see brochure No. **C82302**

MONOSTEP® VALVE

- Single valve

Connector: d_o = 1.9 mm
Valve: d_o = 3.5 mm

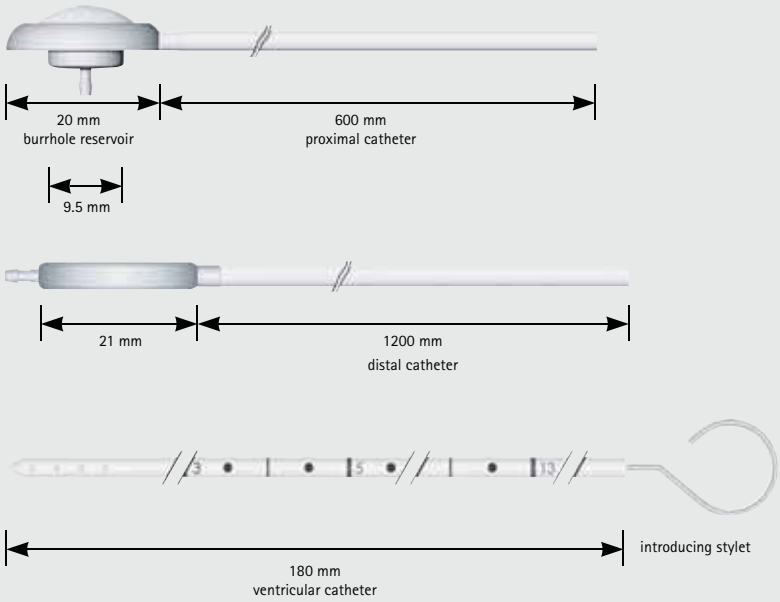


Art. No.	Valve pressure level (cmH_2O*)
FV202T **	10
FV200T	5

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

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

Connector: d_o = 1.9 mm
Valve: d_o = 3.5 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



Valve pressure level (cmH_2O*)

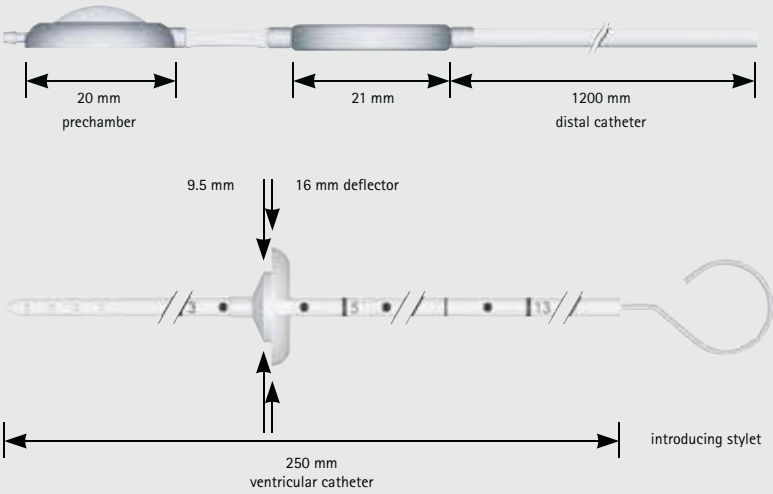
Art. No.	
FV212T **	10
FV210T	5

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.

MONOSTEP® SHUNTSYSTEM with prechamber

- Valve with integrated prechamber and integrated distal catheter
- Ventricular catheter with introducing stylet and deflector

Connector: d_o = 1.9 mm
Valve: d_o = 3.5 mm
Catheter: d_i = 1.2 mm, d_a = 2.5 mm



Art. No.	Valve pressure level (cmH_2O*)
FV222T **	10
FV220T	5

*1 cmH_2O = 0.74 mmHg
**Standard pressure levels. These guide values are not binding. Other specifications may be preferable depending on the individual patient and anamnesis.



For further details see brochure No. **C82302**

- All catheters are made of radiopaque silicone
- d_i = 1.2 mm
  d_o = 2.5 mm

- Peritoneal catheters, barium-impregnated



Art. No.	Length
FV070P	600 mm
FV071P	900 mm
FV072P	1200 mm

- Peritoneal catheter with integrated barium strip





Art. No.	Length
FV091P	900 mm
FV090P	1200 mm

- Ventricular catheter with stylet



Art. No.	Ventricular catheter with stylet
FV074P	180 mm, graduated
FV077P	250 mm, graduated

- *THOMALE CATHETER* with stylet
- Design acc. to Dr. Thomale



Art. No.	Ventricular catheter with stylet
FV093P	180 mm, graduated, marked

- Peritoneal catheter, barium-impregnated

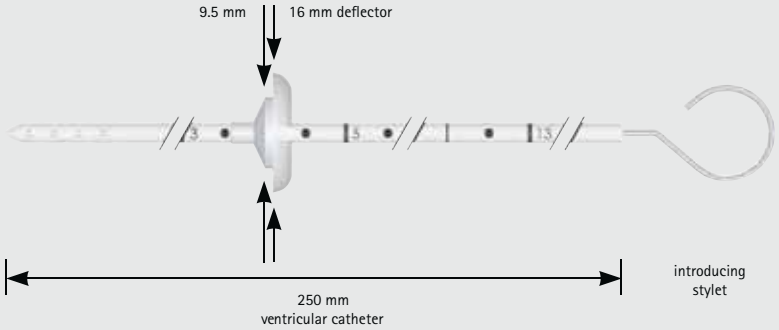
Art. No.	Sales unit	Length
FV094P	PAK = Package of 5 pieces	50 mm

Deflector:

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

- All catheters are made of radiopaque silicone
- d_i = 1.2 mm
  d_o = 2.5 mm

- Ventricular catheter with deflector

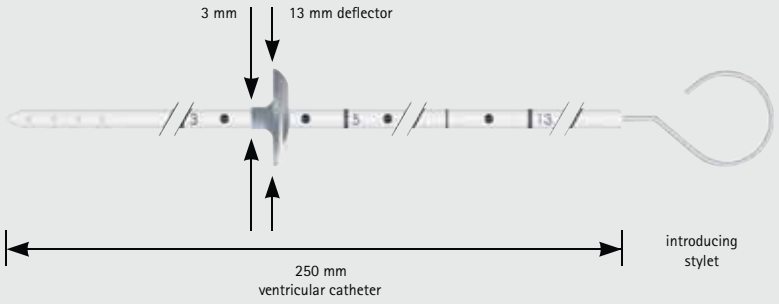


FV075P

Set, consisting of:
- Ventricular catheter, 180 mm, with stylet, graduated
- Deflector, large, 16 mm

FV078P

- Ventricular catheter, 250 mm, with stylet, graduated
- Deflector, large, 16 mm



FV076P

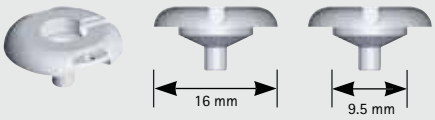
Set, consisting of:
- Ventricular catheter, 180 mm, with stylet, graduated
- Deflector, small, 13 mm, for pediatric application

Accessories - *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

Catheter: d_i = 1.2 mm, d_o = 2.5 mm

- **Deflectors**



FV010T
Deflector
Large, 16 mm



FV011T
Deflector for pediatric application
Small, 13 mm

- 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

Connector: d_o = 1.9 mm
Valve: d_o = 4.6 mm
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

- Burrhole Port



FV030T
Burrhole Port,
Large, 20 mm

- Pediatric Burrhole Port



FV040T
Pediatric Burrhole Port,
Small, 14 mm

- Pediatric Burrhole Port Set



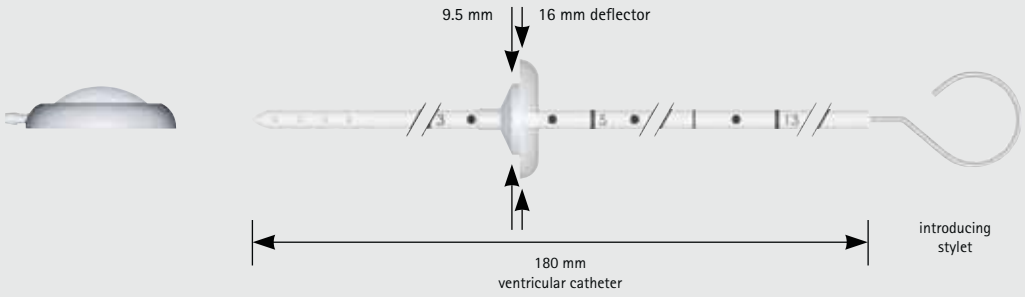
FV042T
Pediatric Burrhole Port Set,
consisting of:
- Ventricular catheter, 180 mm, with stylet, graduated
- Burrhole port, small, 14 mm

- CSF 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

Catheter: d_i = 1.2 mm, d_o = 2.5 mm



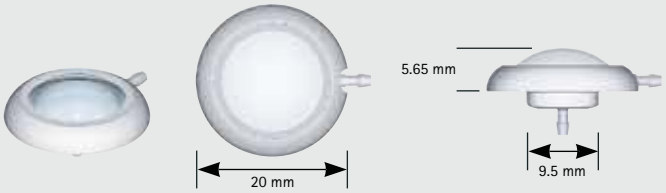
FV060T
Large, 20 mm



FV062T
- Set incl. *CSF Port*, large, 20 mm and ventricular catheter, 180 mm, with stylet, graduated
- Deflector, large, 16 mm

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

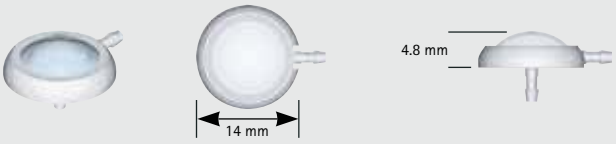
Catheter: d_i = 1.2 mm, d_o = 2.5 mm



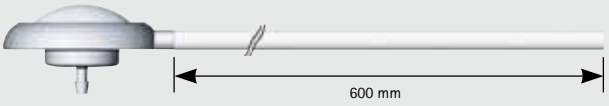
FV028T
Large, 20 mm



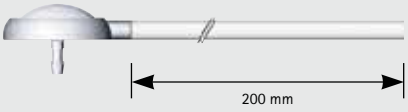
FV029T
ETOU, large, 20 mm,
with adjustable connector



FV039T
Small, 14 mm,
for pediatric application



FV027T
Large, 20 mm,
with integrated proximal catheter, 600 mm



FV054T
Small, 14 mm,
with integrated proximal catheter, 200 mm

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

Catheter: d_i = 1.2 mm, d_o = 2.5 mm





FV032T
Set, consisting of:
- Burrhole reservoir, large, 20 mm
- Ventricular catheter, 180 mm, with stylet, graduated





FV031T
Set, consisting of:
- Burrhole reservoir, large, 20 mm, with proximal catheter, 600 mm
- Ventricular catheter, 180 mm, with stylet, graduated





FV041T
Set for pediatric application,
consisting of:
- Burrhole reservoir, small, 14 mm
- Ventricular catheter , 180 mm, with stylet, graduated





FV055T
Set for pediatric application,
consisting of:
- Burrhole reservoir, small, 14 mm with proximal catheter, 200 mm
- Ventricular catheter, 180 mm, with stylet, graduated

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
- Design acc. to Dr. Sprung

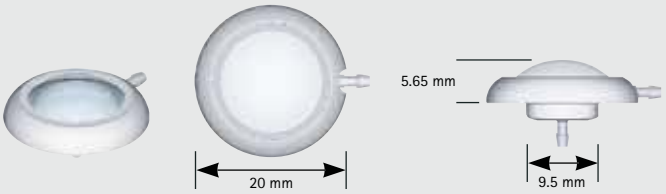
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

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

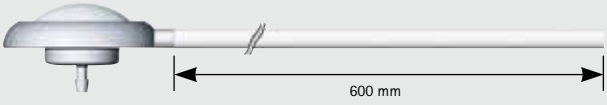
Mechanism:







FV043T
20 mm



FV044T
20 mm, with integrated proximal catheter, 600 mm

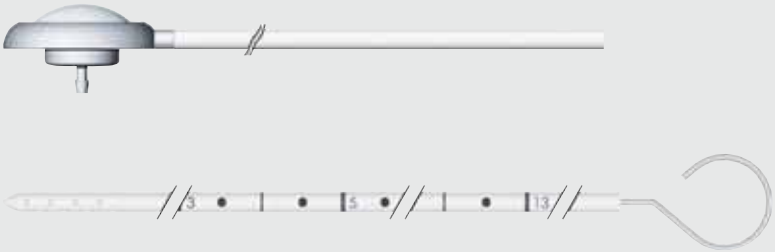
SPRUNG RESERVOIR
- Made of titanium
- Radiopaque
- Allows checking the patency of both the ventricular catheter and the distal catheter
- Solid titanium base preventing penetration with a syringe needle
- Design acc. to Dr. Sprung

Catheter: d_i = 1.2 mm, d_o = 2.5 mm



FV045T

Set, consisting of:
- *SPRUNG RESERVOIR*, 20 mm
- Ventricular catheter, 180 mm, with stylet, graduated



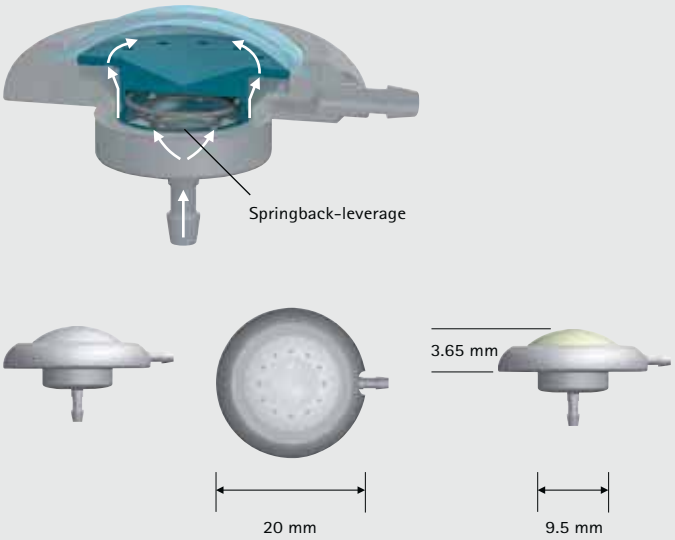
FV046T

Set, consisting of:
- *SPRUNG RESERVOIR*, 20 mm, with proximal catheter, 600 mm
- Ventricular catheter, 180 mm, with stylet, graduated

McLANAHAN RESERVOIR

- Made of titanium
- Radiopaque
- Allows checking the patency of both the ventricular catheter and the distal catheter
- Allows CSF extraction and drug injection to proximal syring through the silicone dome
- Integrated valve mechanism shutting off the proximal connection to the ventricular catheter during pumping
- Integrated valve mechanism shutting off the distal connection to distal catheter during injection to proximal
- Solid titanium base preventing penetration with asyringe needle
- Design acc. to Dr. McLanahan

Mechanism:

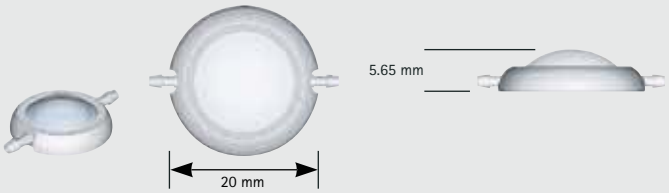


FV082T

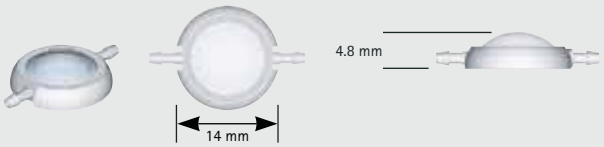
McLANAHAN RESERVOIR, 20 mm

Prechamber
- 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

Catheter: d_i = 1.2 mm, d_o = 2.5 mm



FV033T
Large, 20 mm



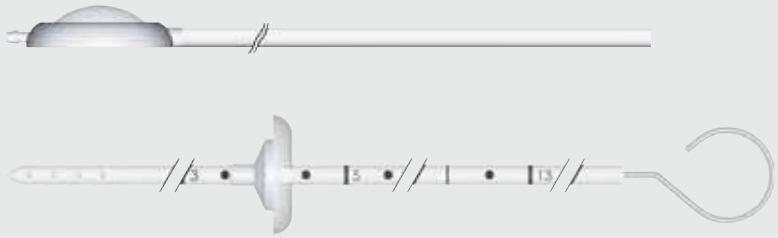
FV035T
Small, 14 mm, for pediatric application



FV034T
Large, 20 mm, with integrated proximal catheter, 600 mm

Prechamber
- 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

Catheter: d_i = 1.2 mm, d_o = 2.5 mm



FV036T
Set, consisting of:
- Prechamber, large, 20 mm, with integrated proximal catheter, 600 mm
- Ventricular catheter, 180 mm, with stylet, graduated
- Deflector, large, 16 mm



FV037T
Set, consisting of:
- Ventricular catheter, 85 mm, graduated,
with stylet and integrated prechamber, large, 20 mm
- Deflector, large, 16 mm



FV079T
Set, consisting of:
- Ventricular catheter, 85 mm, graduated,
with stylet and integrated prechamber, small, 14 mm,
and integrated proximal catheter, 153 mm
- Deflector, large, 16 mm

Accessories - *Prechamber*

Prechamber
- 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

Catheter: d_i = 1.2 mm, d_o = 2.5 mm

- Pediatric Prechamber Set



FV038T

Set, consisting of:
- Ventricular catheter, 85 mm, graduated, with stylet and integrated prechamber, small, 14 mm, and integrated proximal catheter, 80 mm
- Deflector, small, 13 mm

FV080T

- Ventricular catheter, 100 mm, graduated, with stylet and integrated prechamber, small, 14 mm, and integrated proximal catheter, 80 mm
- Deflector, small, 13 mm

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

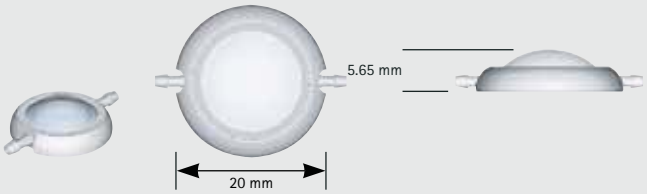
Catheter: d_i = 1.2 mm, d_o = 2.5 mm

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

Mechanism:







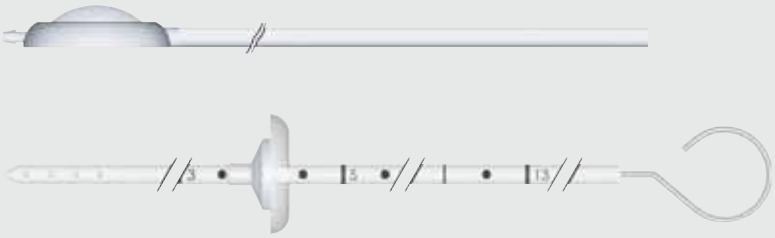
FV047T
20 mm



FV048T
20 mm,
with integrated proximal catheter, 600 mm

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

Catheter: d_i = 1.2 mm, d_o = 2.5 mm

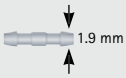


FV049T

Set, consisting of:
- *CONTROL RESERVOIR,* 20 mm, with integrated proximal catheter, 600 mm
- Ventricular catheter, 180 mm, with stylet, graduated
- Deflector, large, 16 mm

Titanium Connector
- Preferably for use with catheters of
  - internal diameter (di): 1.2 mm
  - external diameter (do): 2.5 mm
- Connector diameter: 1.9 mm





Art. No.	Sales unit
FV012T	PAK = Package of 1 pieces
FV013T	PAK = Package of 5 pieces
FV014T	PAK = Package of 10 pieces

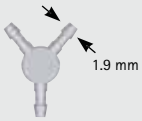
Titanium connector, straight





Art. No.	Sales unit
FV051T	PAK = Package of 1 pieces





Art. No.	Sales unit
FV015T	PAK = Package of 1 pieces
FV016T	PAK = Package of 5 pieces
FV017T	PAK = Package of 10 pieces

Titanium connector, Y-formed

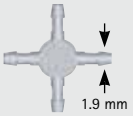




Art. No.	Sales unit
FV018T	PAK = Package of 1 pieces
FV019T	PAK = Package of 5 pieces
FV020T	PAK = Package of 10 pieces

Titanium connector, T-formed

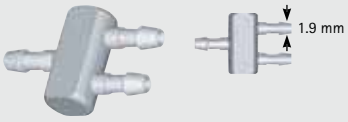




Art. No.	Sales unit
FV021T	PAK = Package of 1 pieces

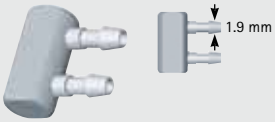
Titan connectors, X-shape

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



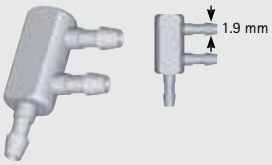
Art. No.	Sales unit
FV056T	PAK = Package of 1 pieces

MAGRAM CONNECTOR, Y-formed



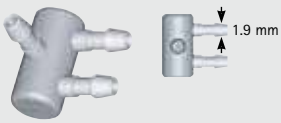
Art. No.	Sales unit
FV057T	PAK = Package of 1 pieces

MAGRAM CONNECTOR, U-formed



Art. No.	Sales unit
FV058T	PAK = Package of 1 pieces

MAGRAM CONNECTOR, F-formed



Art. No.	Sales unit
FV059T	PAK = Package of 1 pieces

MAGRAM CONNECTOR, L-formed



Art. No.	Sales unit
FV024T	PAK = Package of 1 pieces
FV025T	PAK = Package of 5 pieces
FV026T	PAK = Package of 10 pieces

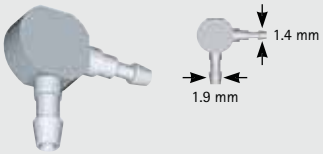
MAGRAM CONNECTOR, Sealing plugs

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



Art. No.	Sales unit
FV050T	PAK = Package of 1 pieces

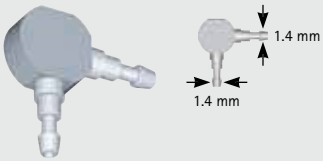
Titanium connector, step down, straight



Art. No.	Sales unit
FV052T	PAK = Package of 1 pieces

Titanium connector, step down, L-formed

- L-P connectors are designed for connecting two lumbar catheters to each other
- Connector diameters for L-P drainage:
  1.4 mm



Art. No.	Sales unit
FV053T	PAK = Package of 1 pieces

Titanium connector, L-P drainage, L-formed

- For percutaneous tunneling and inserting of catheters



FV001R
Reusable Tunneling Instrument, curved



Art. No.	Length
FV002R	300 mm, flexible
FV003R	450 mm, flexible
FV004R	600 mm, flexible

Disposable Tunneling Instrument, pack of ten instruments, each in individual steril packing



For further details see brochure No. **C82502**

Aesculap Neurosurgery



Clips

Cerebrovascular Clips

Cerebrovascular Clips

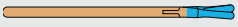
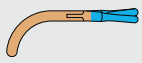
YASARGIL Aneurysm Clips

Titanium Standard

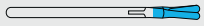
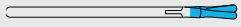
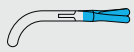
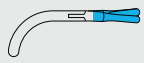
YASARGIL Titanium Standard Clips

- 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

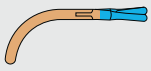
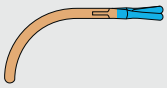
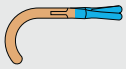
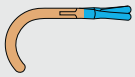
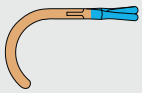
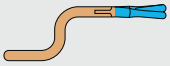
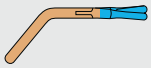
TEMPORARY

Art. 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

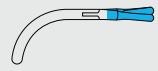
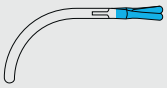
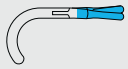
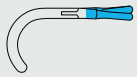
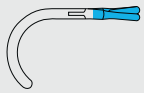
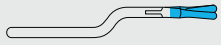
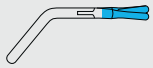
PERMANENT

Art. 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

TEMPORARY

Art. 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

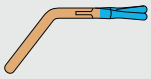
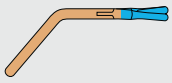
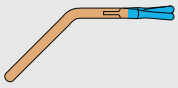
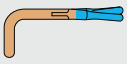
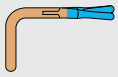
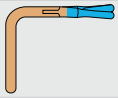
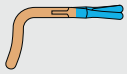
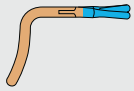
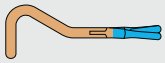
Art. No.		Blade length (mm)	Max. opening (mm)	Closing force (N)	(g)
FT764T		8.0	6.5	1.77	180
FT784T		10.3	7.4	1.96	200
FT823T		7.4	5.4	1.77	180
FT824T		8.4	5.8	1.77	180
FT825T		10.5	6.2	1.77	180
FT770T	Height of step 2.5 mm 	5.0	8.0	1.96	200
FT771T	Height of step 3.5 mm 	5.0	8.0	1.96	200
FT772T	Height 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

Cerebrovascular Clips

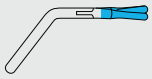
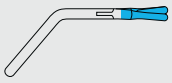
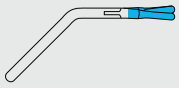
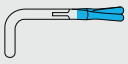
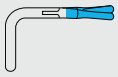
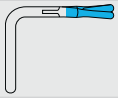
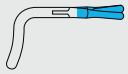
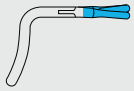
YASARGIL Aneurysm Clips

Titanium Standard

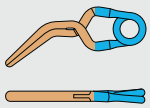
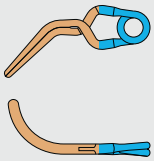
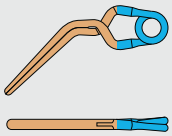
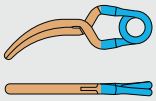
TEMPORARY

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

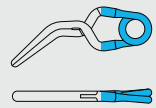
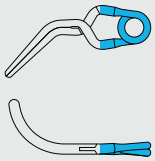
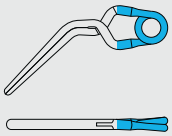
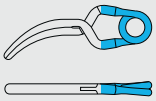
PERMANENT

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

TEMPORARY

Art. 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

Art. 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

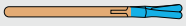
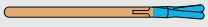
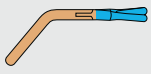
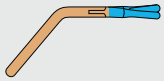
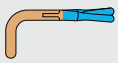
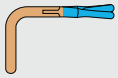
Cerebrovascular Clips

YASARGIL Aneurysm Clips

Titanium Fenestrated

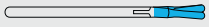
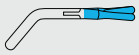
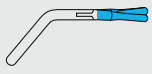
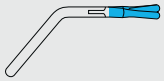
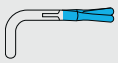
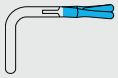
TEMPORARY

Diameter of fenestration 3.5 mm

Art. No.		Blade length (mm) L1/L2	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

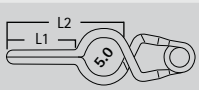
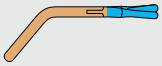
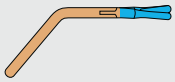
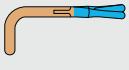
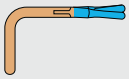
Diameter of fenestration 3.5 mm

Art. No.		Blade length (mm) L1/L2	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

YASARGIL Aneurysm Clips
Titanium Fenestrated

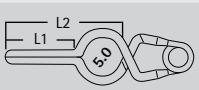
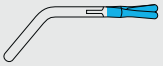
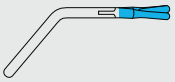
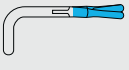
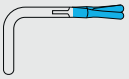
TEMPORARY

Diameter of fenestration 5 mm

Art. No.		Blade length (mm) L1/L2	Max. opening (mm)	Closing force (N)	(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

Diameter of fenestration 5 mm

Art. No.		Blade length (mm) L1/l2	Max. opening (mm)	Closing force (N)	(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		5/9.0	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

Cerebrovascular Clips

YASARGIL Aneurysm Clips

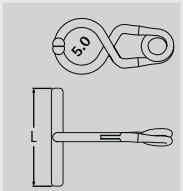
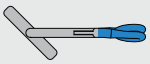
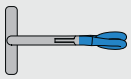
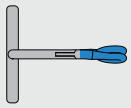
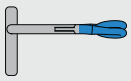
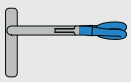
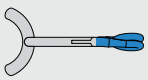
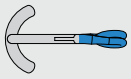
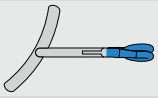
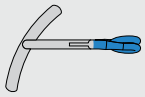
Titanium T-Bar

Titanium T-Bar Clips acc. KOPITNIK
Aneurysm clip with a unique design

- The blades of the T-Bar Clip are oriented in a 90°, 60° 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

Diameter of fenestration 5 mm

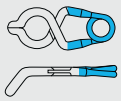
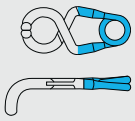
Art. No.		Blade length (mm)	Angle	Max. opening (mm)	Closing force (N)	(g)
FT852T		5.0	45°	5.5	1.47	150
FT853T		9.0	45°	5.5	1.47	150
FT854T		5.0	90°	5.5	1.47	150
FT855T		9.0	90°	5.5	1.47	150
FT856T		13.0	90°	5.5	1.77	180
FT864T		9.0	90°	5.5	1.47	150
FT865T		13.0	90°	5.5	1.47	180
FT857T		8.9	90°	5.5	1.47	150
FT858T		9.0	90°	5.5	1.47	150
FT859T		13.0	60°	5.5	1.77	180
FT860T		13.0	60°	5.5	1.77	180

Ultra Short Fenestrated Aneurysm Clips

- Aneurysm clips with a particularly short jaw length (3 mm) and fenestration serve for the treatment of **minor aneurysms** (e.g. **„dog-ear aneurysms"**).

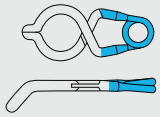
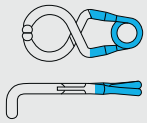
PERMANENT

Diameter of fenestration **3.5 mm**

Art. No.	L2 / L1 / 3.5	Blade length (mm) L1/L2	Max. opening (mm)	Closing force (N)	(g)
FT902T		3.0/6.3	5.8	1.47	150
FT904T		3.0/5.1	4.9	1.47	150

PERMANENT

Diameter of fenestration **5 mm**

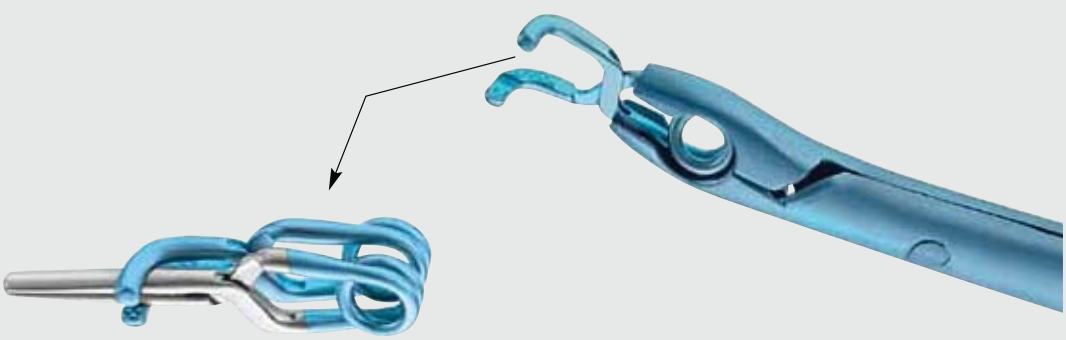
Art. No.	L2 / L1 / 5.0	Blade length (mm) L1/L2	Max. opening (mm)	Closing force (N)	(g)
FT942T		3.0/8.1	6.0	1.47	150
FT944T		3.0/6.7	5.5	1.47	150

Titanium Reinforcing Clip

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

PERMANENT

Art. No.	
FT900T	



Cerebrovascular Clips

YASARGIL Aneurysm Clips

Titanium Mini

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

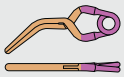
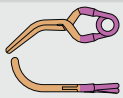
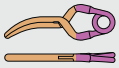
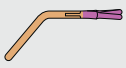
TEMPORARY

Art. 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

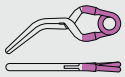
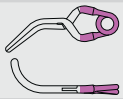
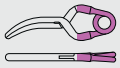
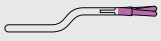
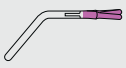
PERMANENT

Art. 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

TEMPORARY

Art. 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

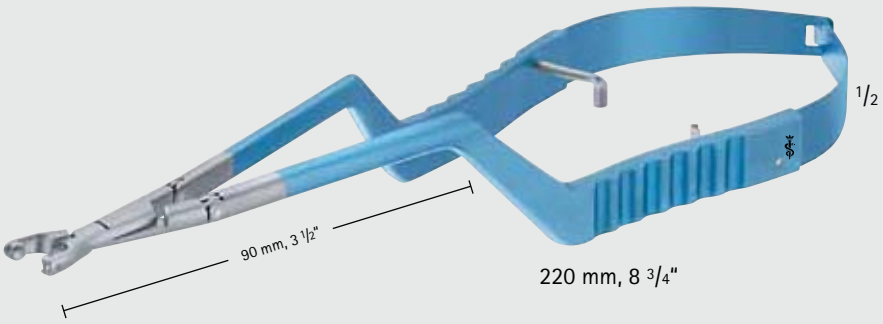
PERMANENT

Art. 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

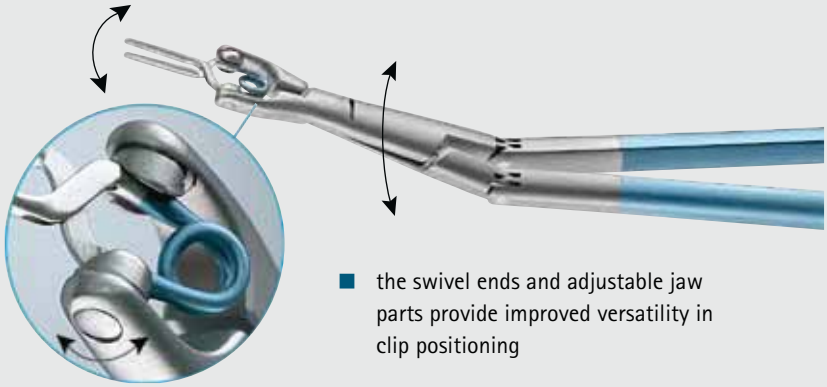
Cerebrovascular Clips

YASARGIL Aneurysm Clips
Titanium Vario Clip Applier

- color coding blue for Standard and violet for Mini Clips



Standard	Mini
FT412T	FT402T



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



FT402800
Adjusting key



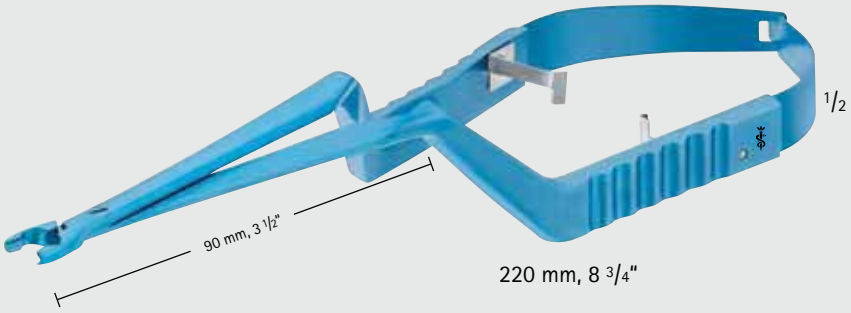
- adjusting key for Vario Clip Applier for setting the swivel at an angle

- color coding blue for Standard and violet for Mini Clips



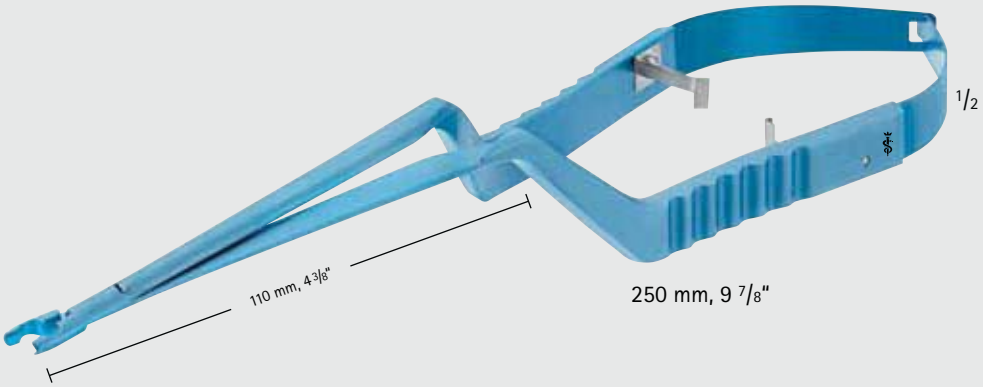
180 mm, 7"

Standard	Mini
FT480T	FT470T



220 mm, 8 3/4"

Standard	Mini	
FT482T	FT472T	 straight
FT485T	FT475T	 15° angled



250 mm, 9 7/8"

Standard	Mini	
FT484T	FT474T	 straight
FT487T	FT477T	 15° angled

Cerebrovascular Clips

YASARGIL Aneurysm Clips

Titanium XS Clip Applier

- 360° rotation
- suitable for narrow approach



Standard	Mini
FT495T	**FT490T**



Standard	Mini
FT496T	**FT491T**

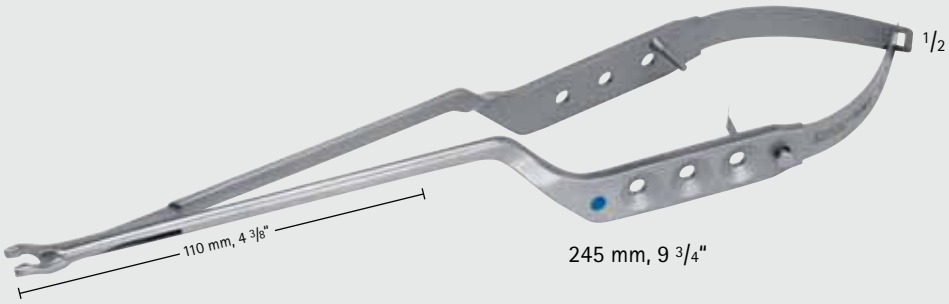
Notice:
Disassembling/Assembling of Titanium XS Clip Appliers: See page 680.

Double Bayonet Clip Applier

- color coding is realized as a colored button in the handle area



Standard	Mini	
FT501T	FT511T	with latch
FT505T	FT515T	without latch

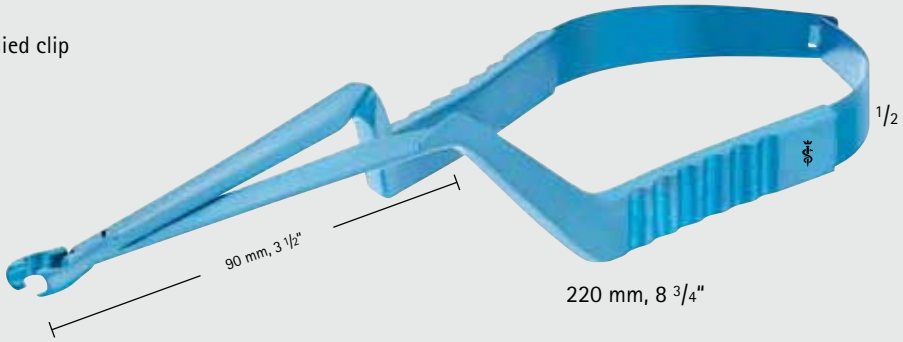


Standard	Mini	
FT502T	FT512T	with latch
FT506T	FT516T	without latch

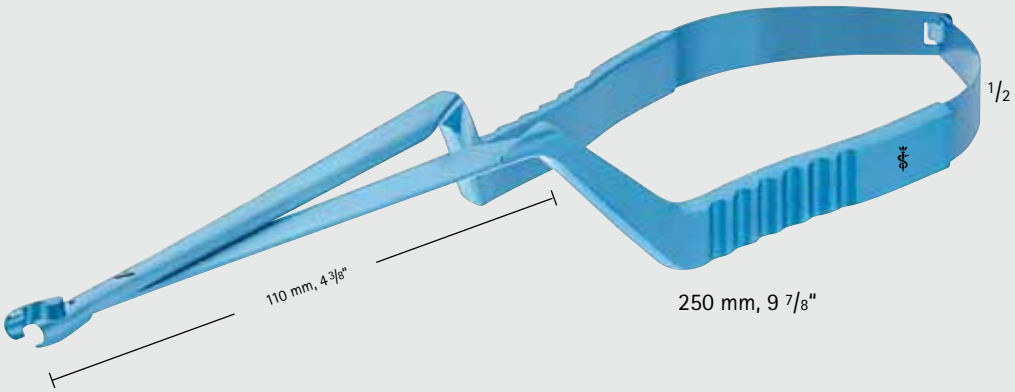
YASARGIL Aneurysm Clips
Titanium Clip Removing Forceps

YASARGIL Removing Forceps

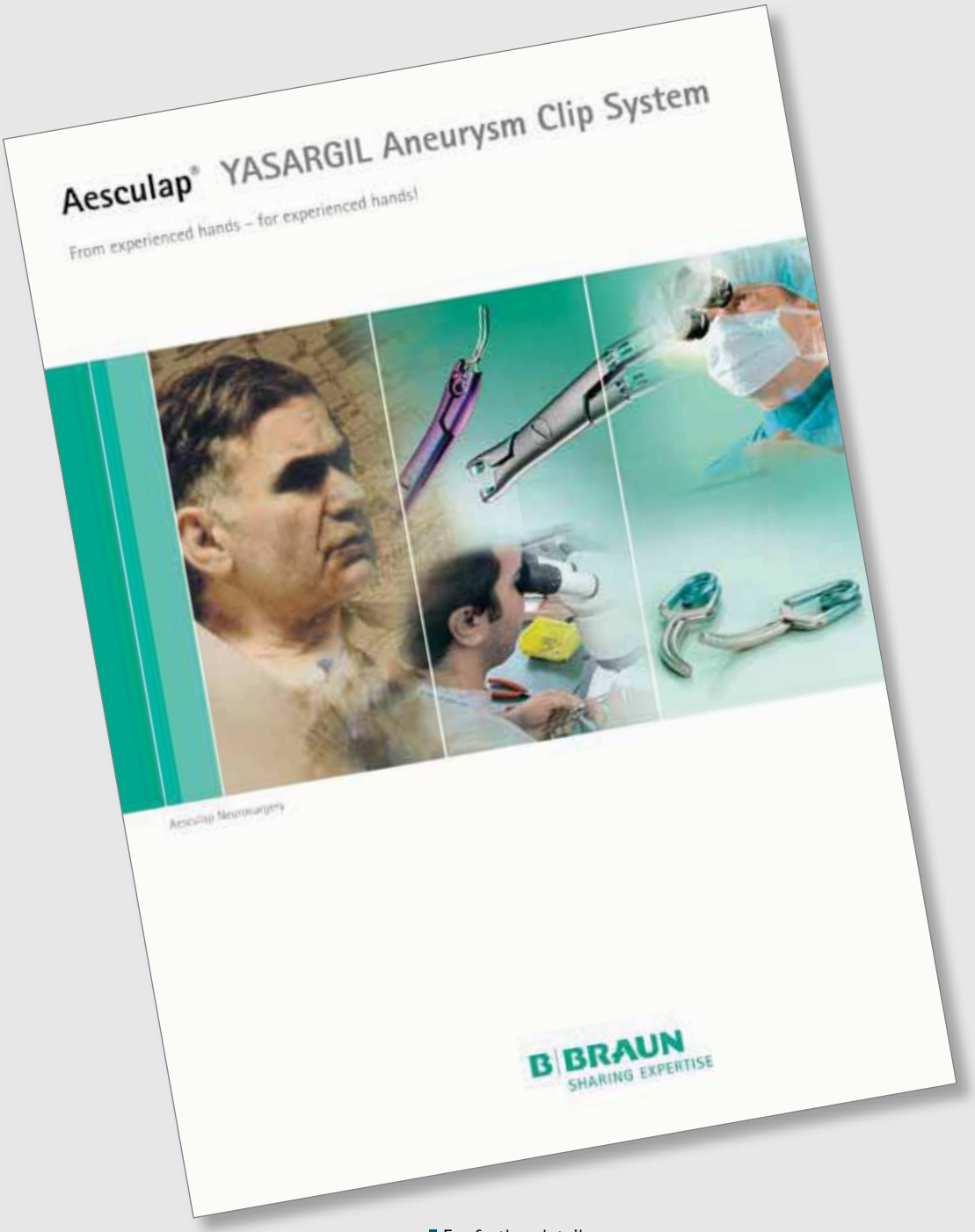
- with special jaws for safe removal of an applied clip



Standard	Mini
FT082T	FT072T



Standard	Mini
FT083T	FT073T



For further details see brochure No. **C45602**

Cerebrovascular Clips

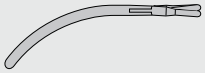
YASARGIL Aneurysm Clips

Phynox Standard

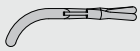
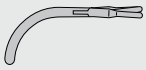
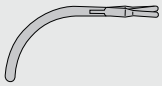
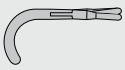
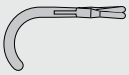
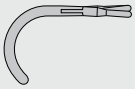
YASARGIL Phynox Standard Clips

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

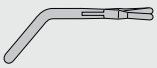
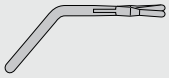
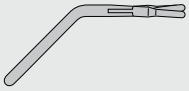
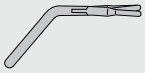
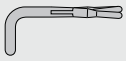
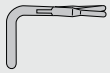
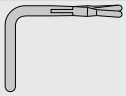
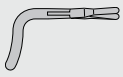
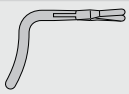
PERMANENT

Art. 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

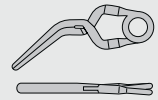
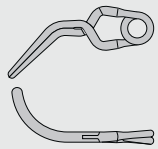
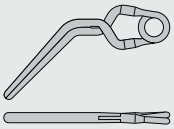
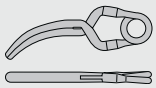
PERMANENT

Art. 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

PERMANENT

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

PERMANENT

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

Cerebrovascular Clips

YASARGIL Aneurysm Clips

Phynox Fenestrated

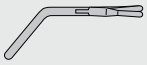
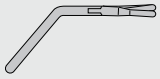
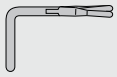
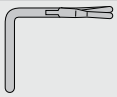
PERMANENT

Diameter of fenestration 3.5 mm

Art. No.		Blade length (mm) L1/L2	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

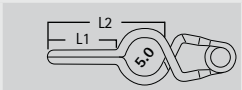
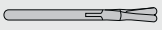
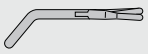
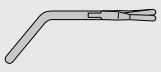
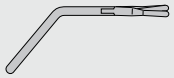
Diameter of fenestration 3.5 mm

Art. No.		Blade length (mm) L1/L2	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

YASARGIL Aneurysm Clips
Phynox Fenestrated

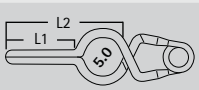
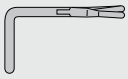
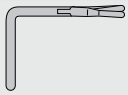
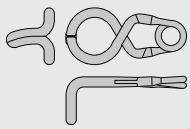
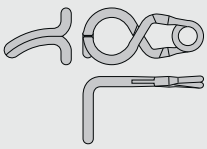
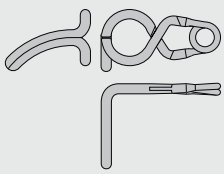
PERMANENT

Diameter of fenestration 5 mm

Art. No.		Blade length (mm) L1/L2	Max. opening (mm)	Closing force (N)	(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

Diameter of fenestration 5 mm

Art. No.		Blade length (mm) L1/L2	Max. opening (mm)	Closing force (N)	(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

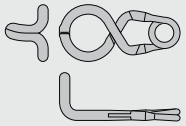
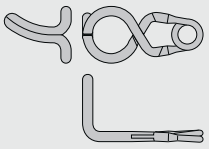
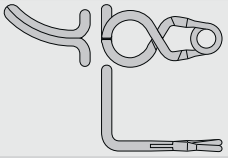
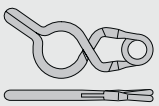
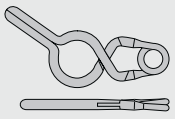
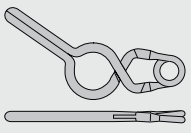
Cerebrovascular Clips

YASARGIL Aneurysm Clips

Phynox Fenestrated Clips

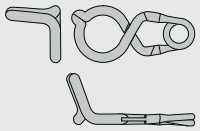
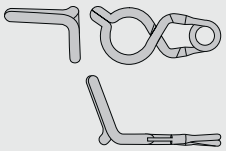
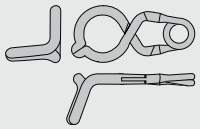
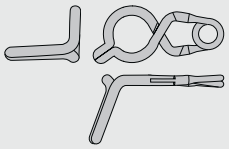
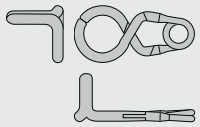
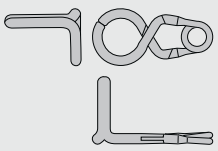
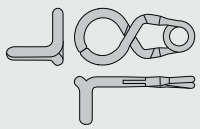
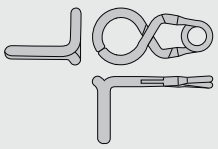
PERMANENT

Diameter of fenestration 5 mm

Art. No.		Blade length (mm) L1/L2	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

Diameter of fenestration 5 mm

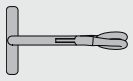
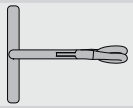
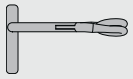
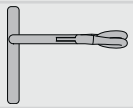
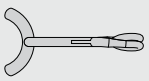
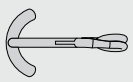
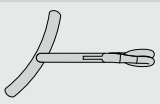
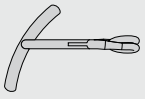
Art. No.		Blade length (mm) L1/L2	Max. opening (mm)	Closing force (N)	(g)
FE886K		5/7.4	5.0	1.47	150
FE887K		7.5/8.1	5.0	1.47	150
FE888K		5/7.4	5.0	1.47	150
FE889K		7.5/8.1	5.0	1.47	150
FE891K		5/6.6	5.0	1.47	150
FE892K		7.5/6.6	5.0	1.47	150
FE893K		5/6.6	5.0	1.47	150
FE894K		7.5/6.6	5.0	1.47	150

Phynox T-Bar Clips acc. KOPITNIK
Aneurysm clip with a unique design

- The blades of the T-Bar Clip are oriented in a 90°, 60° 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

Diameter of fenestration 5 mm

Art. No.		Blade length (mm)	Angle	Max. opening (mm)	Closing force (N)	(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
FE864K		9.0	90°	5.5	1.47	150
FE865K		13.0	90°	5.5	1.77	180
FE857K		9.0	90°	5.5	1.47	150
FE858K		9.0	90°	5.5	1.47	150
FE859K		13.0	60°	5.5	1.77	180
FE860K		13.0	60°	5.5	1.77	180

Cerebrovascular Clips

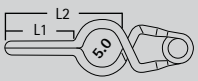
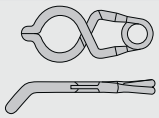
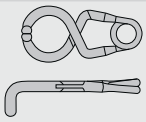
YASARGIL Aneurysm Clips
Ultra Short Fenestrated and Phynox Reinforcing

Ultra Short Fenestrated Aneurysm Clips

- Aneurysm clips with a particularly short jaw length (3 mm) and fenestration serve for the treatment of **minor aneurysms** (e.g. **„dog-ear aneurysms"**).

PERMANENT

Diameter of fenestration 5 mm

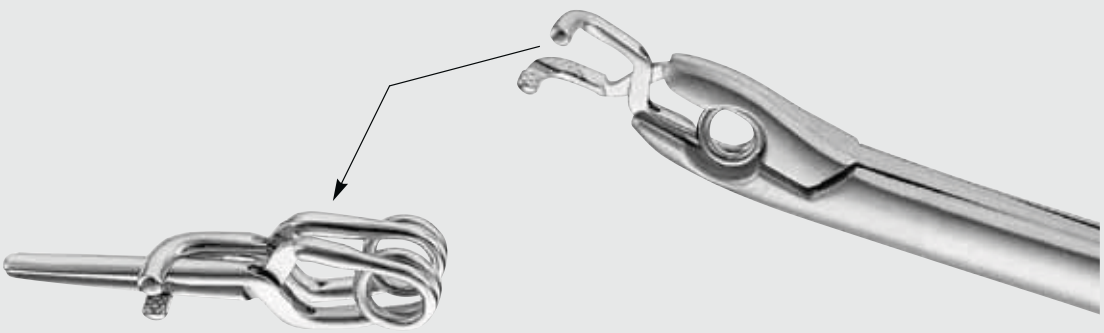
Art. No.		Blade length (mm) L1/L2	Max. opening (mm)	Closing force (N)	(g)
FE942K		3.0/8.1	6.0	1.47	150
FE944K		3.0/6.4	5.5	1.47	150

YASARGIL Phynox Reinforcing Clip

- to increase the closing force of Phynox Standard Aneurysm Clips

PERMANENT

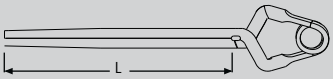
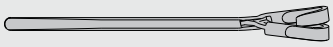
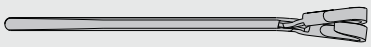
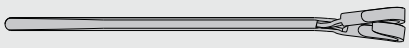
Art. No.	
FE900K	



YASARGIL Phynox Long Clips

- with extra long blades for the treatment of giant aneurysms

PERMANENT

Art. No.		Blade length (mm)	Max. opening (mm)	Closing force (N)	(g)
FE861K		30	19	1.86	190
FE862K		35	21	1.96	200
FE863K		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

Cerebrovascular Clips

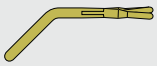
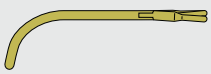
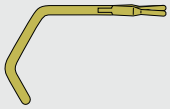
YASARGIL Aneurysm Clips

Phynox Standard and Mini

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)

Art. 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
FE769K		11.0	7.8	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)

Art. 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

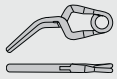
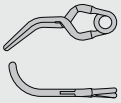
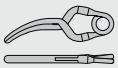
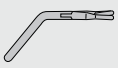
YASARGIL Phynox Mini Clips

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

PERMANENT (Mini)

Art. 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

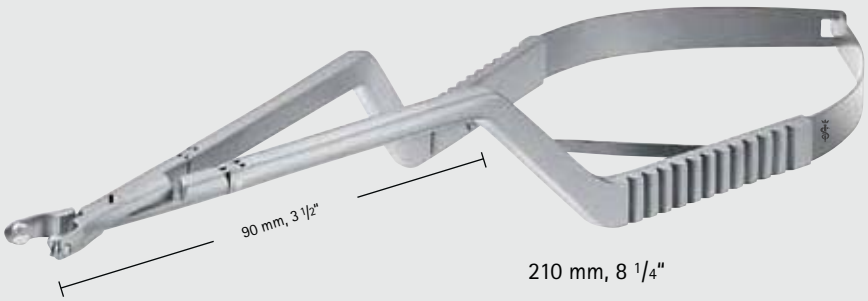
PERMANENT (Mini)

Art. 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

Cerebrovascular Clips

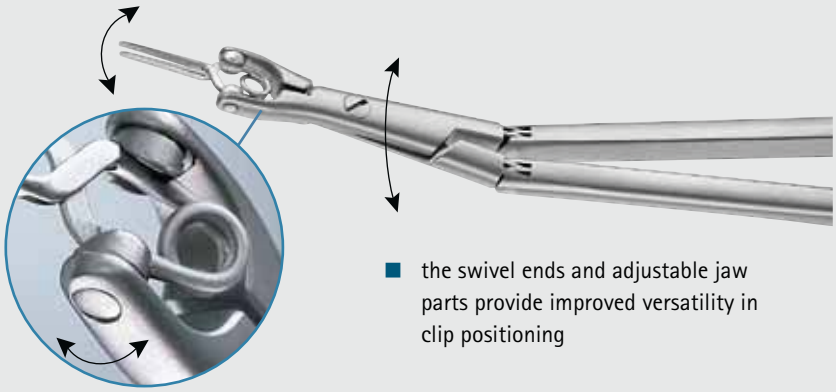
YASARGIL Aneurysm Clips

Phynox Vario Clip Applier



210 mm, 8 1/4"

Standard	Mini
FE512T	**FE502T**



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



FT402800
Adjusting key



- adjusting key for Vario Clip Applier for setting the swivel at an angle



180 mm, 7"

Standard	Mini
FE558K	FE548K



175 mm, 6 7/8"

Standard	Mini
FE580K	FE570K

YASARGIL Aneurysm Clips
Phynox Clip Applier



Standard	Mini		
FE582K	FE572K		straight
FE585K	FE575K		15° angled



Standard	Mini		
FE584K	FE574K		straight
FE587K	FE577K		15° angled

YASARGIL Aneurysm Clips
Phynox XS Clip Applier

- 360° rotation
- suitable for narrow approach



230 mm, 9"

Standard	Mini
FE495K	FE490K



250 mm, 9 7/8"

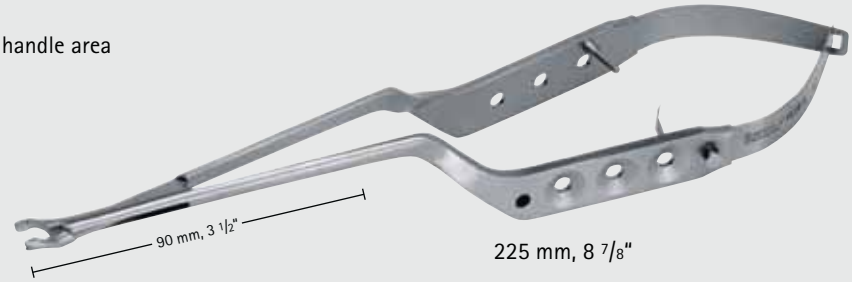
Standard	Mini
FE496K	FE491K

Notice:
Disassembling/Assembling of Titanium XS Clip Appliers: See page 680.

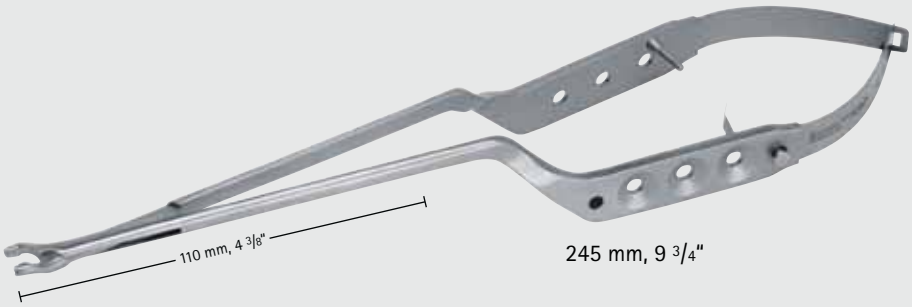
YASARGIL Aneurysm Clips
Phynox Double Bayonet Clip Applier

Double Bayonet Clip Applier

- color coding is realized as a colored button in the handle area



Standard	Mini	
FE301K	FE311K	with latch
FE305K	FE315K	without latch



Standard	Mini	
FE302K	FE312K	with latch
FE306K	FE316K	without latch

YASARGIL Aneurysm Clips Storage

Clip tray 1/1
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

Art. No.	Dimensions L/W/H
FT007P	525 x 250 x 33 mm

Clip tray 1/2
for storage, transport and sterilization of
Aesculap YASARGIL Aneurysm Clips

- autoclavable plastic
- fits 1/2 standard container
- 15 storage compartments for Standard and Mini Clips
- 3 storage compartments for Long Clips
- with special identification tags for individual tray configuration



YASARGIL

Art. No.	Dimensions L/W/H
FT006P	250 x 250 x 33 mm

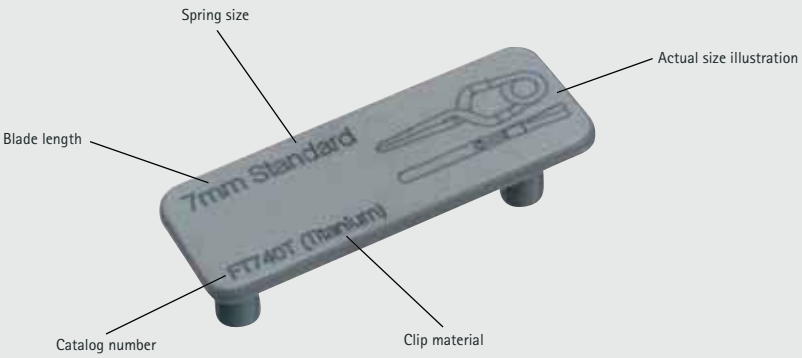


Identification tags for the clip tray

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

_____-TAG

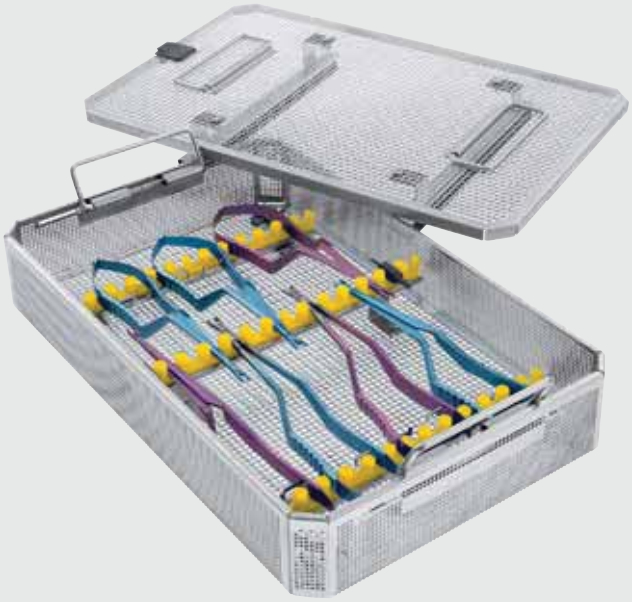
- For each clip variant there is a matching identification tag.
- The catalog numbers of the tags are as follows:
- Cat. No. of clip + "-TAG"
- e.g.: FT740T-TAG is the identification tag for the clip FT740T.
- The identification tags for temporary clips are yellow and for permanent clips grey in line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



YASARGIL Aneurysm Clips
Storage

Storage of appliers

- perforated basket with lid, for storage of appliers



FM665R 410 x 257 x 83.5 mm
(appliers not included)

KOPITNIK AVM Micro clips 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

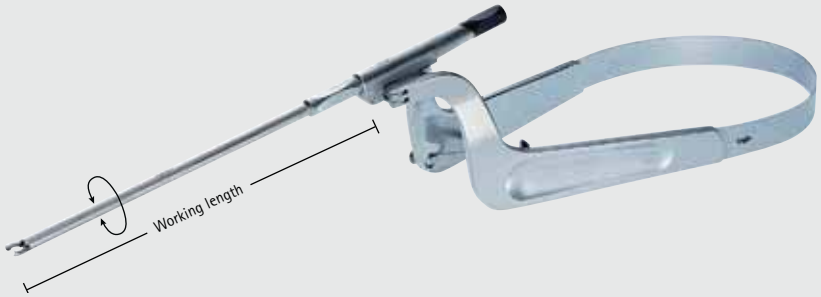
KOPITNIK AVM Micro clips curved

- 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

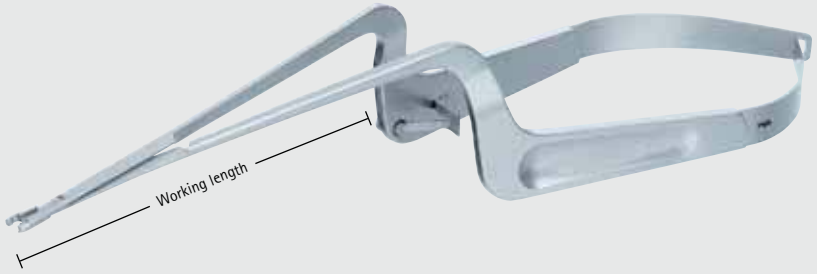
Clip Appliers for KOPITNIK AVM Micro Clips

- KOPITNIK AVM Clip Applier - XS Design
  - 360° rotation



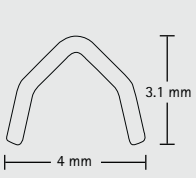
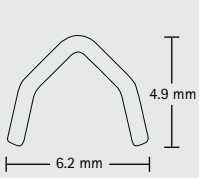
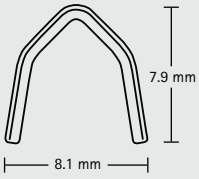
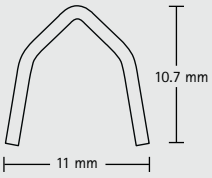
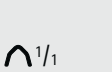
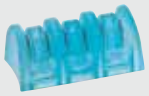
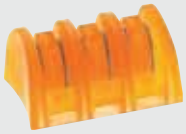
Art. No.	Working length
FE906K	40 mm, 1 1/2"
FE907K	70 mm, 2 3/4"
FE908K	90 mm, 3 1/2"
FE909K	110 mm, 4 3/8"

- KOPITNIK AVM Clip Applier



Art. No.	Working length
FE917K	70 mm, 2 3/4"
FE918K	90 mm, 3 1/2"

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° 203 mm, 8"	**FB246R** 25° 203 mm, 8"
FB223R 25° 203 mm, 8"	**FB235R** 25° 203 mm, 8"	**FB243R** 65° 203 mm, 8"	**FB249R** 65° 203 mm, 8"
FB226R 65° 203 mm, 8"	**FB238R** 65° 203 mm, 8"	**FB254R** 90° 203 mm, 8"	**FB252R** 90° 203 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"

Cerebrovascular Clips

Aesculap Neurosurgery



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



Art. No.	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



Art. No.	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



Art. No.	Length	Sales unit
FM964T	17 mm	ST = 1 piece

Y plate 5 hole



Art. No.	Length	Sales unit
FM965T	63 mm	ST = 1 piece

Straight 16 hole



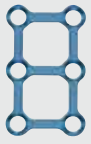
Art. No.	Length	Sales unit
FM966T	15 mm	ST = 1 piece
FM967T	17 mm	ST = 1 piece

Double Y plate 6 hole



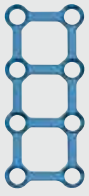
Art. No.	Length	Sales unit
FM968T	10 mm	ST = 1 piece

Box car 4 hole



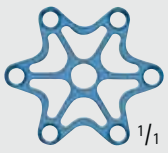
Art. No.	Length	Sales unit
FM969T	17 mm	ST = 1 piece

Box car 6 hole



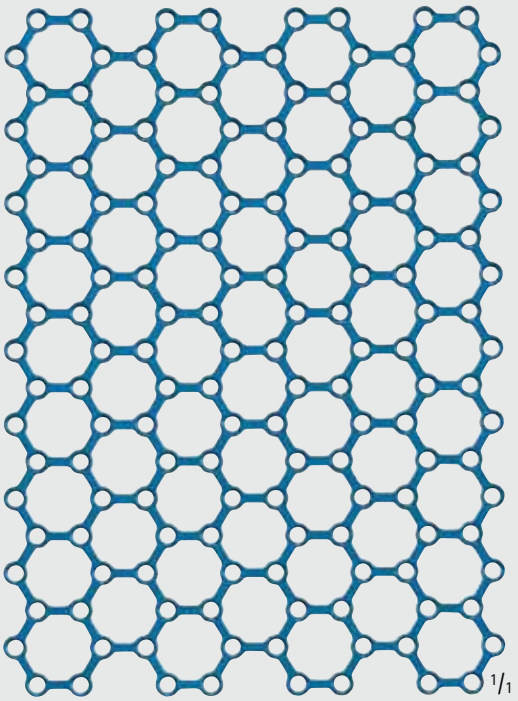
Art. No.	Length	Sales unit
FM970T	24 mm	ST = 1 piece

Box car 8 hole

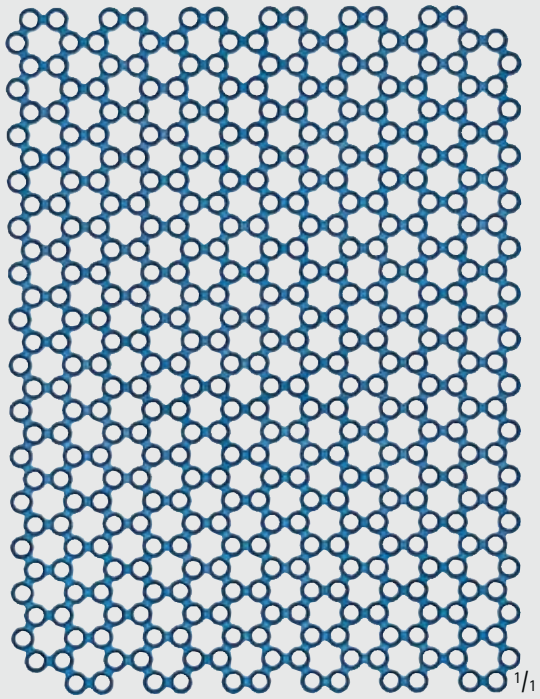


Art. No.	Diameter	Sales unit
FM971T	16 mm	ST = 1 piece
FM972T	20 mm	ST = 1 piece

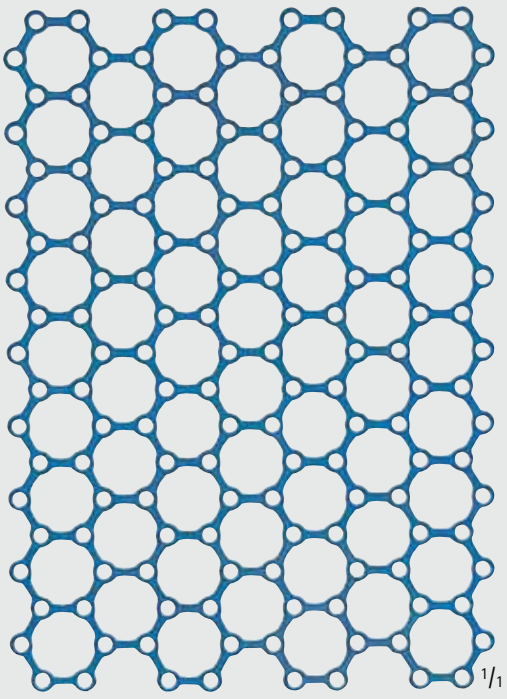
Burrhole cover



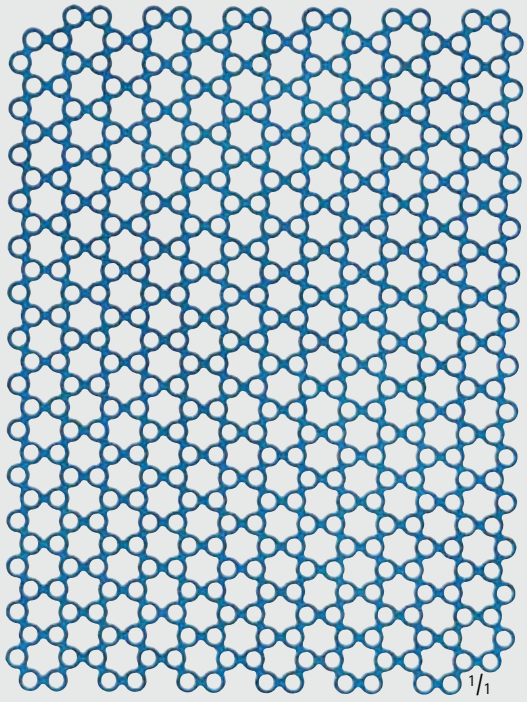
Art. No.	Size	Thickness	Fenestration	Sales unit
FM973T	65 x 90 mm	0.6 mm	normal	ST = 1 piece



Art. No.	Size	Thickness	Fenestration	Sales unit
FM974T	68 x 91 mm	0.6 mm	close / tight	ST = 1 piece



Art. No.	Size	Thickness	Fenestration	Sales unit
FM975T	65 x 90 mm	0.3 mm	normal	ST = 1 piece



Art. No.	Size	Thickness	Fenestration	Sales unit
FM976T	68 x 91 mm	0.3 mm	close / tight	ST = 1 piece

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





Diam. 1.5 mm

Art. No.	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

Art. No.	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

Art. No.	Length
FM926T	3 mm
FM927T	5 mm

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





Diam. 1.8 mm

Art. No.	Length
FM928T	3 mm
FM929T	5 mm

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

Instruments

Screwdriver:

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



FM902R
Screwdriver
105 mm, 4 1/8"

FM916R
Screwdriver blade, cross head

FM917R
Screwdriver blade, square head



FM903R
Plate cutting forceps
120 mm, 4 3/4"

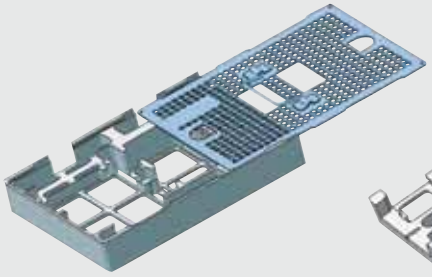


FM904R
Plate bending forceps
120 mm, 4 3/4"

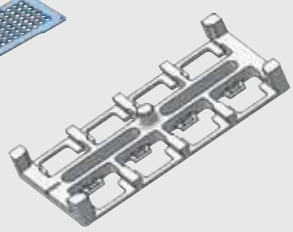


FM905R
Holding forceps
150 mm, 6"

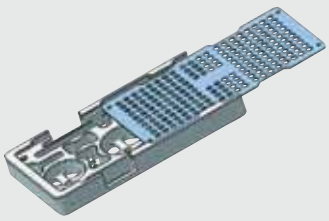
Storage/Moduls



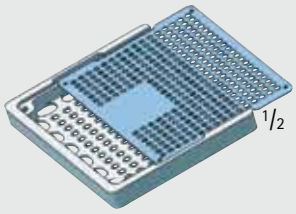
FM910P
Storage tray for instruments and moduls



FM911P
Module screws



FM913P
Module plates

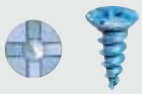


FM915P
Module Mesh

CranioPlate Sterile Kits

CranioPlate Sterile Kit

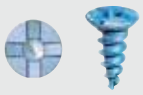
- Easy fixation of standard bone flaps
- Packed in single sterile blister
- Only a CranioPlate screwdriver is required for the application

	Phillips screws (cross head) 	Square sockets screws (square head) 
	**FM990T** Sterile Kit with **Phillips** screws 3 x FM961T 2-hole plates, straight, length 16 mm 6 x FM921T 4 mm screws, diam. 1.5 mm	**FM993T** Sterile Kit with **square socket** screws 3 x FM961T 2-hole plates, straight, length 16 mm 6 x FM924T 4 mm screws, diam. 1.5 mm
	**FM991T** Sterile Kit with **Phillips** screws 3 x FM963T 4-hole plate, length 20 mm, 12 x FM921T 4 mm screws, diam. 1.5 mm	**FM994T** Sterile Kit with **square socket** screws 3 x FM963T 4 hole plates, straight, length 20 mm 12 x FM924T 4 mm screws, diam. 1.5 mm
	**FM992T** Sterile Kit with **Phillips** screws 2 x FM961T 2-hole plates, straight, length 16 mm 1 x FM972T burrhole cover, diam. 20 mm 10 x FM921T 4 mm screws, diam. 1.5 mm	**FM995T** Sterile Kit with **square socket** screws 2 x FM961T 2-hole plates, straight, length 16 mm 1 x FM972T burrhole cover, diam. 20 mm 10 x FM924T 4 mm screws, diam. 1.5 mm

CranioPlate Sterile Kit

- Easy fixation of standard bone flaps
- Packed in single sterile blister
- Only a CranioPlate screwdriver is required for the application

Phillips screws





FM990T-GB

Sterile Kit with **Phillips** screws

3 x FM960T
2-hole plates, length 11 mm

6 x FM921T
4 mm screws, diam. 1.5 mm



FM992T-GB

Sterile Kit with **Phillips** screws

2 x FM960T
2-hole plates, length 11 mm

1 x FM972T
burrhole cover, diam. 20 mm

10 x FM921T
4 mm screws, diam. 1.5 mm

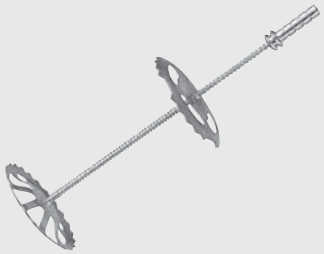


For further details see brochure No. **C83402**

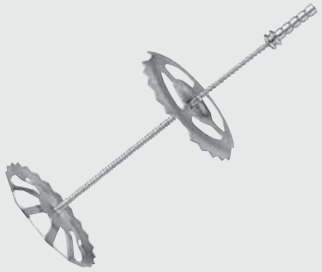
CranioFix®2 Implants



FF490T



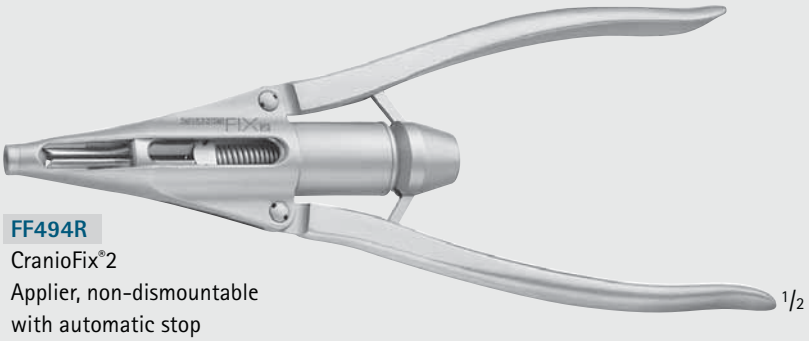
FF491T



FF492T

Art. No.	Diam.	Sales unit	Description
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 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"

Tray CranioFix®2, Combi Trays CranioFix®2, ScalpFix® and Cranioplate, CranioFix®2 Accessories



FF094P
CranioFix®2
Tray for
- 1 x FF494R CranioFix®2 Applier
- 1 x FF105R CranioFix®2 Holding forceps
- 1 x FF103R CranioFix®2 Pin cutter
- 1 x FF104R CranioFix®2 Removal forceps

(instruments not included)



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



MD371
Combination tray with lid for ScalpFix® and CranioFix®2
(instruments not included)

Detailed description of possible contents please see page 660



MD372
Combination tray with lid for CranioFix®2, ScalpFix® and CranioPlate
(instruments not included)

Detailed description of possible contents please see page 661

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

Sterilit®



JG600
Aesculap instrument oil spray

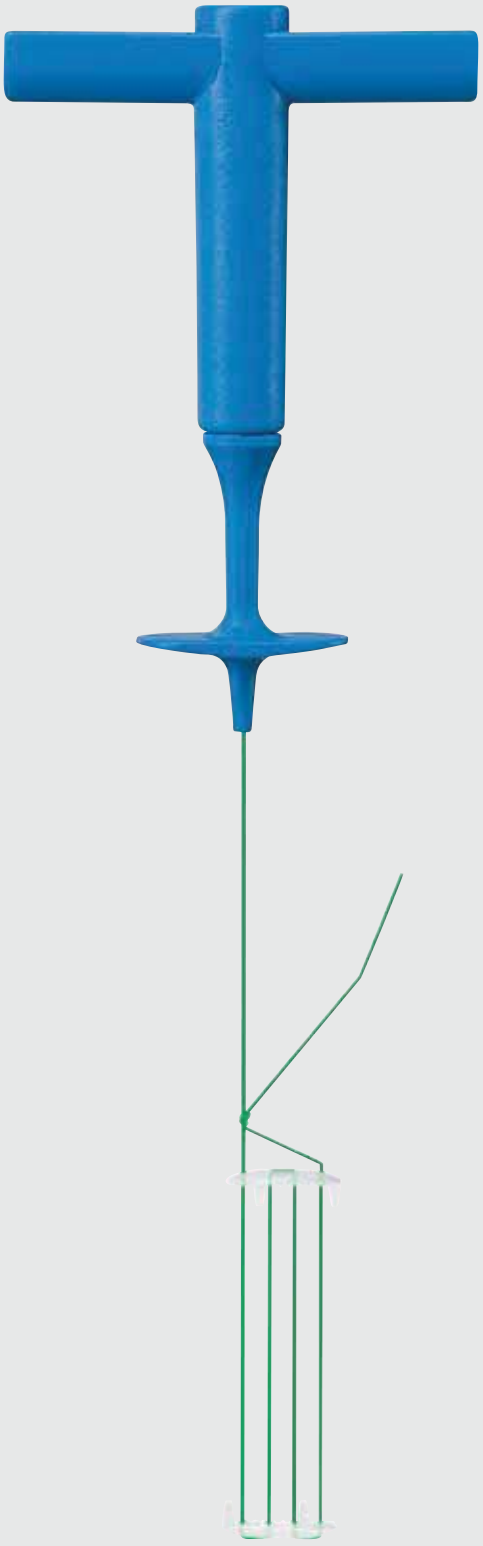
Sterilit®



JG598
Aesculap instrument oil

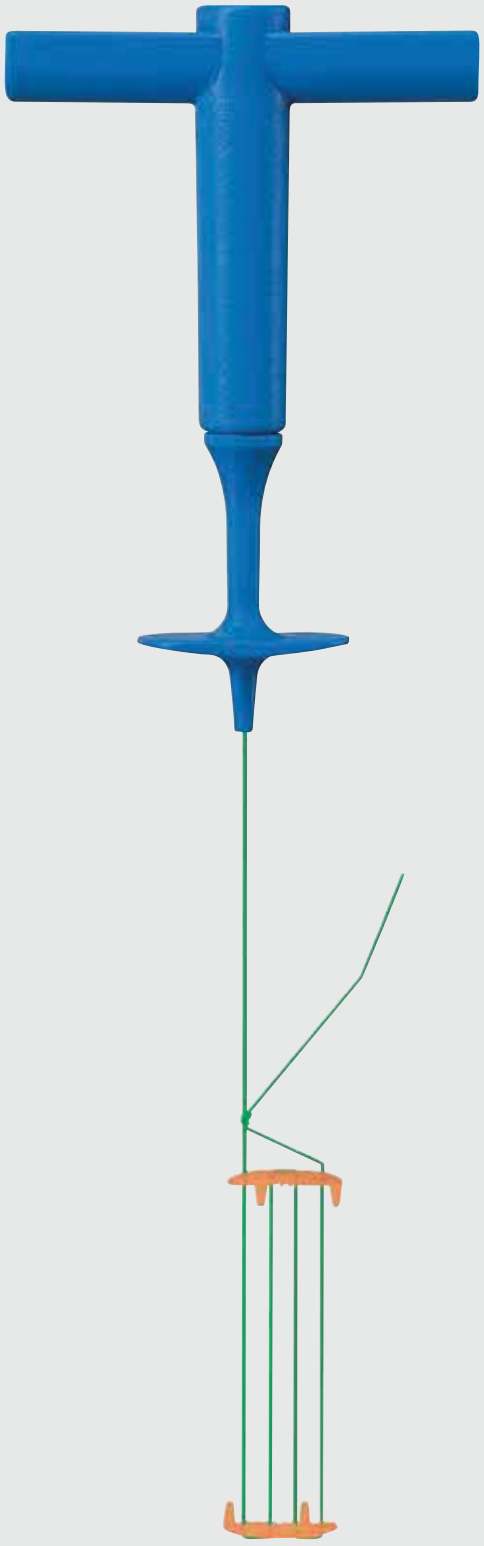


For further details see brochure No. **C08802**



Art. No.	Diam.	Sales unit	Description
FF016	11 mm	PAK = 6 pieces	for craniotomy gap
FF017	16 mm	PAK = 6 pieces	for burrhole

CranioFix® absorbable
Clamps



Art. No.	Diam.	Sales unit	Description
FF016P	11 mm	PAK = 6 pieces	for craniotomy gap

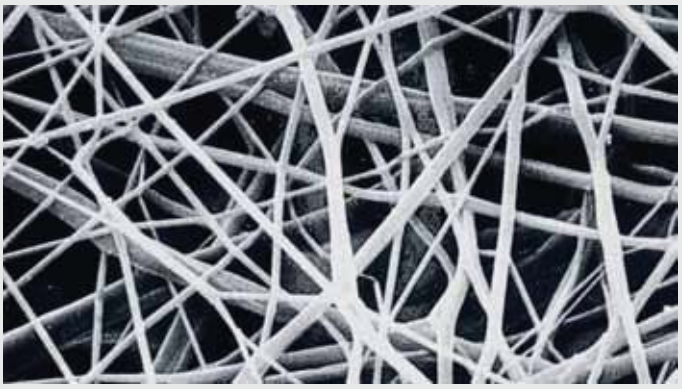
CranioFix® PEEK
Clamps



For further details see brochure No. **C09802**

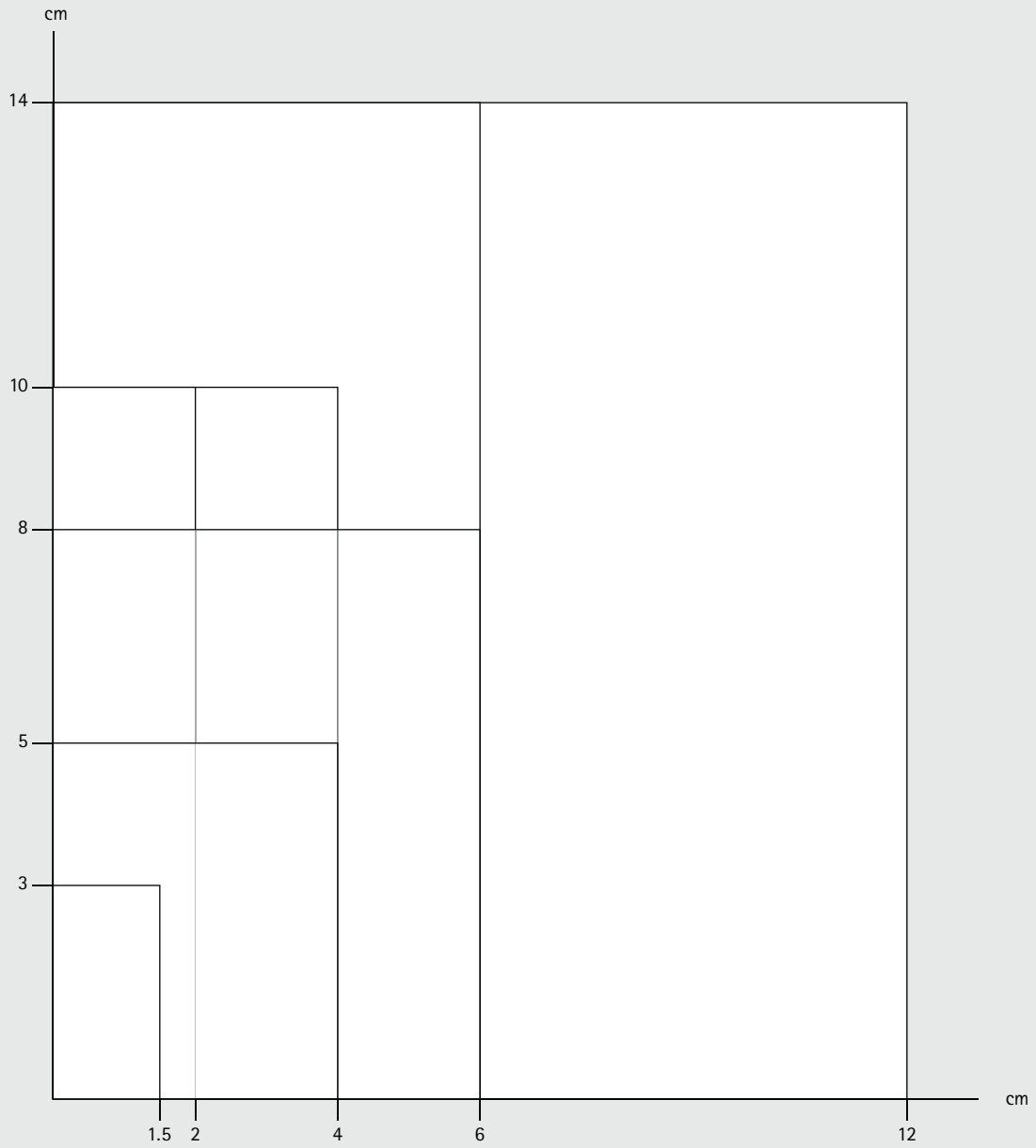
Neuro-Patch® – Synthetic dura substitution, non-absorbable

- 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.



Art. 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	4 x 5 cm	2 pieces
1064053	2 x 10 cm	2 pieces
1064061	1.5 x 3 cm	2 pieces

- Neuro-Patch® Sizes



Lyoplant® – Biological substitution, absorbable

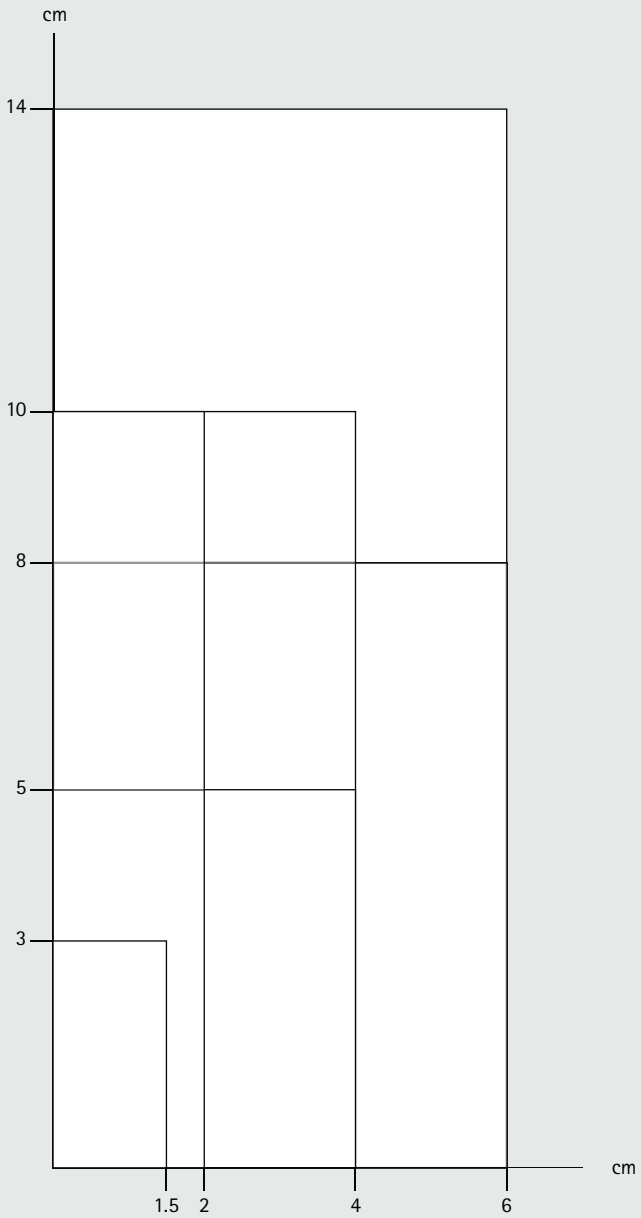
- Lyoplant® is a pure collagen implant that is produced from bovine pericardium. This collagen is a Type I collagen and is known for its low propensity to cause immunological reactions.
- The special and comprehensive manufacturing process eliminates all non-collagenous substances such as fats, enzymes 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.



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

Art. 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	2 piece
1066080	2 x 10 cm	2 pieces
1066102	1.5 x 3 cm	2 pieces

- Lyoplant® Sizes





For further details see brochure No. **C23002**

Aesculap Neurosurgery



Disposables

Hemostats

Gelita

- Spongy absorbable gelatin of porcin origin
- For rapid hemostasis in tissue during surgical procedures



Art. 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



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

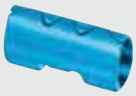
RANEY Scalp clip clamps and clips


1/2

RANEY
FF003R
Applying and removing forceps for scalp hemostasis clips FF001R and FF015P
160 mm, 6 1/4"


1/1

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


1/2

FF014R
Removing forceps
150 mm, 6"

MD371
Combination tray with lid for ScalpFix® and CranioFix®2 (instruments not included)
■ Detailed description of possible contents please see page 660.

Skin Stapler

Single use skin stapler for wound closure

- Staple Information
  - Type: Wide
  - No.: 35
- Staple dimensions
  - Crown: 6.9 mm
  - Leg.: 3.6 mm



783100
Manipler® AZ
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

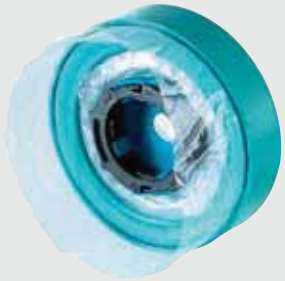


Art. No.	Length
FV002R	300 mm, flexible
FV003R	450 mm, flexible
FV004R	600 mm, flexible

Disposable tunneling instrument
Sales unit:
PAK = Package of 10 pieces,
each in individual sterile packaging



JG904
Sterile camera drape, disposable, ring design
Sales unit:
PAK = Package of 25 pieces



JG908SU
Closed sterile camera drape, 15 cm diam.
The optic can be changed under sterile conditions during surgery
Sales unit:
PAK = Package of 10 pieces

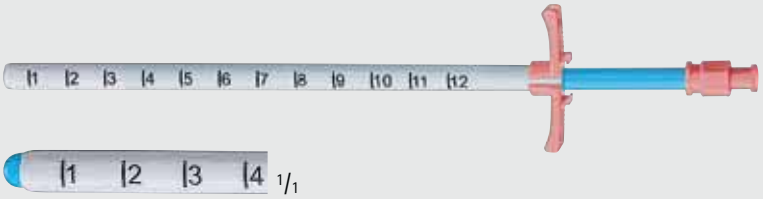


JG910
Sterile anti fog solution for endoscopes
Sales unit:
PAK = Package of 10 pieces

Introducer, Suction Cannulae



FH603SU
Disposable introducer, 10 FR



FH604SU
Disposable introducer, 19 FR



FH607SU
Disposable suction cannula,
sharp tip 45°,
diam. 2.0 mm

FH606SU
Disposable suction cannula,
blunt tip 0°,
diam. 2.0 mm

Single Use

BA364–BA367
Sales unit:
PAK = Package of 5 pieces



BA364
165 mm, 6 1/2"



BA365
165 mm, 6 1/2"



BA367
165 mm, 6 1/2"

Safety Scalpels

Single Use

BA810SU–BA836SU
Carbon Steel
Sales unit:
PAK = Package of 10 pieces



BA810SU
Fig. 10



BA811SU
Fig. 11



BA812SU
Fig. 12



BA813SU
Fig. 13



BA815SU
Fig. 15



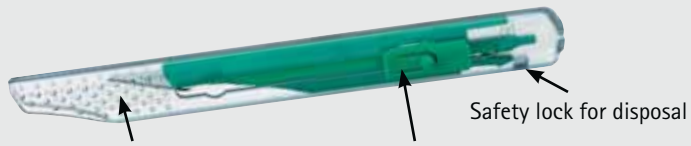
BA815-1SU
Fig. 15-1



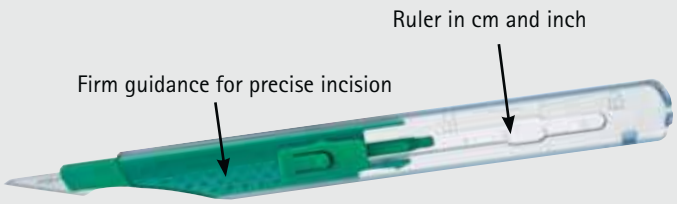
BA815-CSU
Fig. 15-C



BA818SU
Fig. 18



- Blade shape is visible
- Position of blade is always evident





BA819SU
Fig. 19



BA820SU
Fig. 20



BA821SU
Fig. 21



BA822SU
Fig. 22



BA823SU
Fig. 23



BA824SU
Fig. 24



BA825SU
Fig. 25



BA836SU
Fig. 36

Scalpels

Single Use

BA210–BA224/5518016–5518105
Sales unit:
PAK = Package of 10 pieces



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



BA211
5518040
Fig. 11



BA212
5518105
Fig. 12



BA215
5518032
Fig. 15



BA215-1
Fig. 15-1



BA215-C
Fig. 15-C



BA218
Fig. 18

Single Use





1/1

Carbon Steel **BA219**
Stainless Steel

Fig. 19



1/1

BA220
5518067

Fig. 20



1/1

BA221
5518075

Fig. 21



1/1

BA222
5518083

Fig. 22



1/1

BA223
5518016

Fig. 23



1/1

BA224
5518091

Fig. 24

Brain Spatulas, Bipolar Connecting Cables



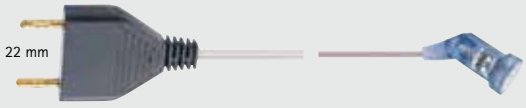
Art. No.	Width (mm)	Length
FF480R	6.0	200 mm, 8"
FF482R	7.5	200 mm, 8"
FF484R	10.0	200 mm, 8"
FF486R	12.5	200 mm, 8"
FF488R	15.0	200 mm, 8"

Brain spatula with silicone coating, malleable for single use
Sales unit:
PAK = Package of 10 pieces

Equipment side — Instrument side

GK290SU 3.7 m
Single use
Bipolar connecting cable

ERBE Int.
EMC-DOLLEY



Aesculap Tab connector
US Round pin connector

GK291SU 3.7 m
Single use
Bipolar connecting cable

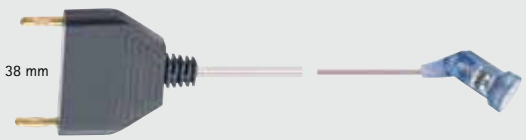
Aesculap
BOWA
Lamidey
Söring
Valleylab



Aesculap Tab connector
US Round pin connector

GK292SU 3.7 m
Single use
Bipolar connecting cable

Codman
■ CMC II



Aesculap Tab connector
US Round pin connector



GN094 3.5 m
Disposable tubing set for bipolar irrigation forceps
in combination with the irrigation unit GN090
Sales unit:
PAK = Package of 10 tubing sets



FK888SU 3.5 m
KAIRison tubes, disposable
Sales unit:
PAK = Package of 10 tubes



FH605SU 4.5 m
MINOP® TREND irrigation/suction tube, sterile, disposable
Sales unit:
PAK = Package of 10 tubes

Sterilit®



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).

Sterilit®



JG598
Instrument oil
for box locks, ratchets etc. prior to sterilization. Pysiologically inert acc. to DAB and § 31 LMBG (German Pharmacopoeia).



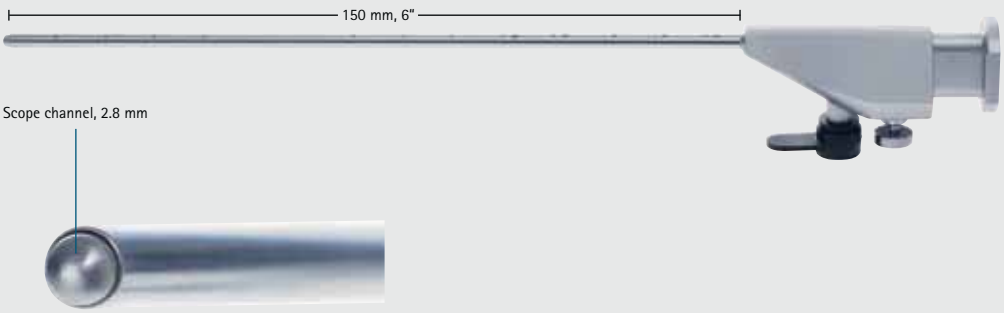
■ Single use tools for microspeed uni and HiLAN XS please see chapter Power Systems page 611-616.

Aesculap Neurosurgery



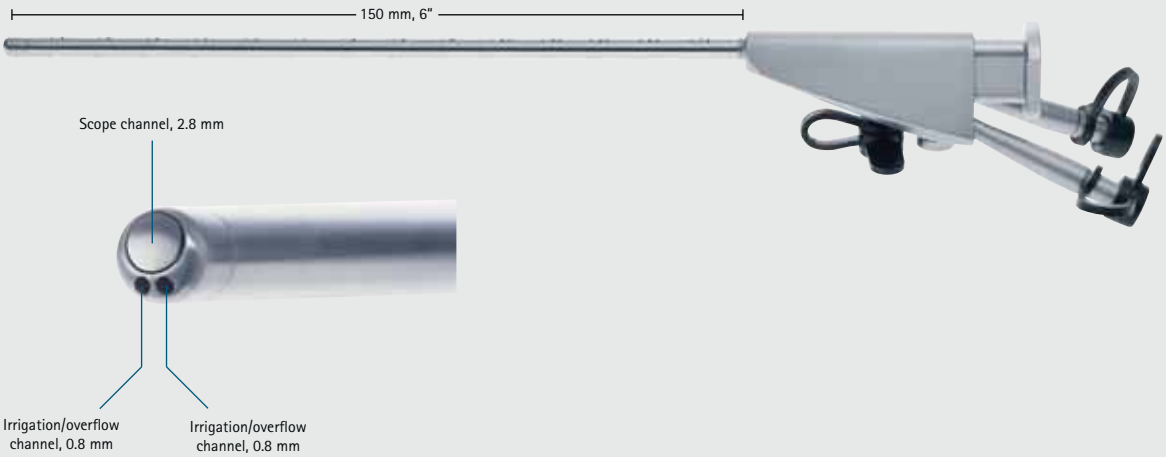
Neuroendoscopy

Intraventricular Neuroendoscopy
MINOP® Trocars



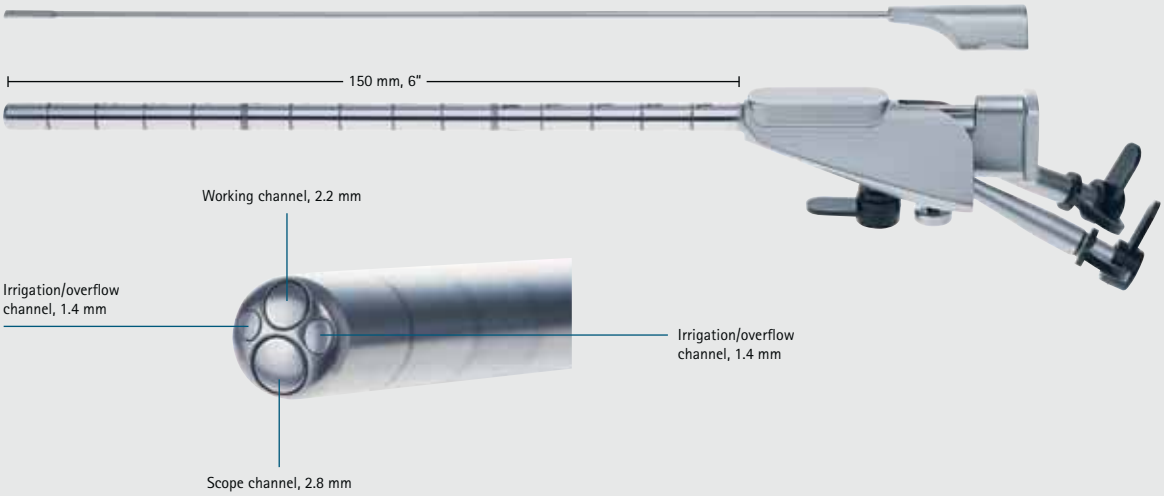
FF397R

Outer diameter: 3.2 mm
1 channel:
- scope channel: diam. 2.8 mm
  including 1 obturator



FF398R

Outer diameter: 4.6 mm
3 channels:
- scope channel: diam. 2.8 mm
- irrigation channel: diam. 0.8 mm
- overflow channel: diam. 0.8 mm
  including 1 obturator



FF399R

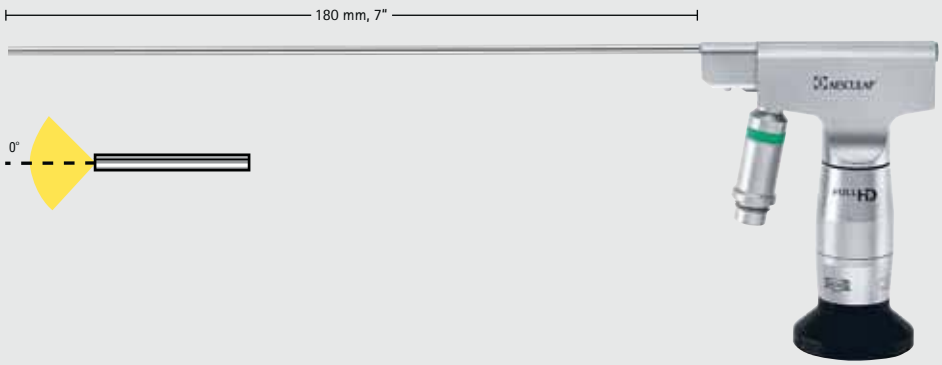
Outer diameter: 6 mm

4 channels:

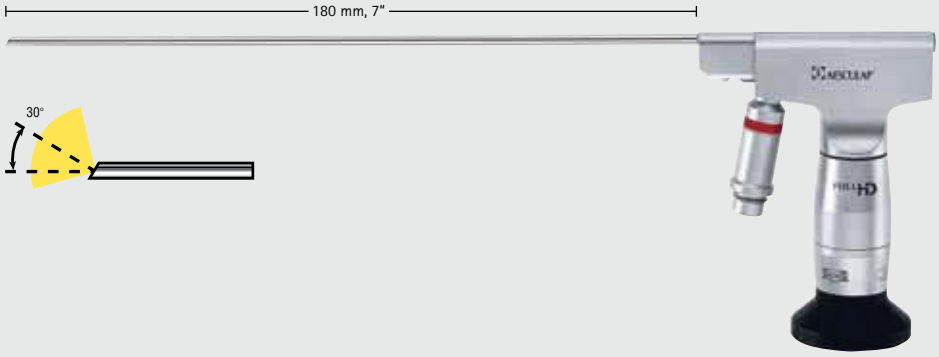
- scope channel: diam. 2.8 mm
- working channel: diam. 2.2 mm
- irrigation channel: diam. 1.4 mm
- overflow channel: diam. 1.4 mm

including 4 obturators

Intraventricular Neuroendoscopy
MINOP® Endoscopes



PE184A
Direction of view: 0°
Shaft diameter: 2.7 mm
autoclavable

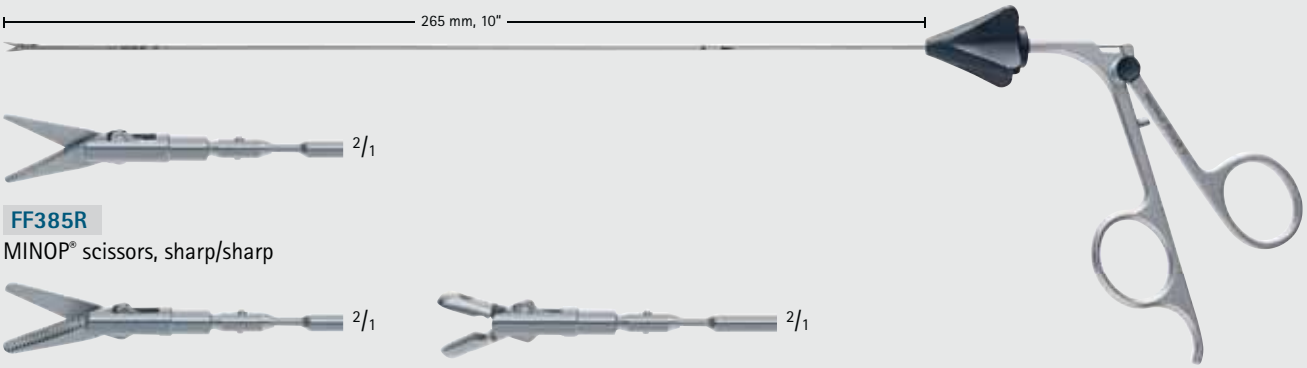


PE204A
Direction of view: 30°
Shaft diameter: 2.7 mm
autoclavable

Rigid Instruments

Ø 2 mm

Intrument complete
Handle · outer tube · jaw part with inner tube



FF385R
MINOP® scissors, sharp/sharp

FF386R
MINOP® scissors, blunt/blunt

FF387R
MINOP® biopsy forceps



FF388R
MINOP® grasping and dissecting forceps

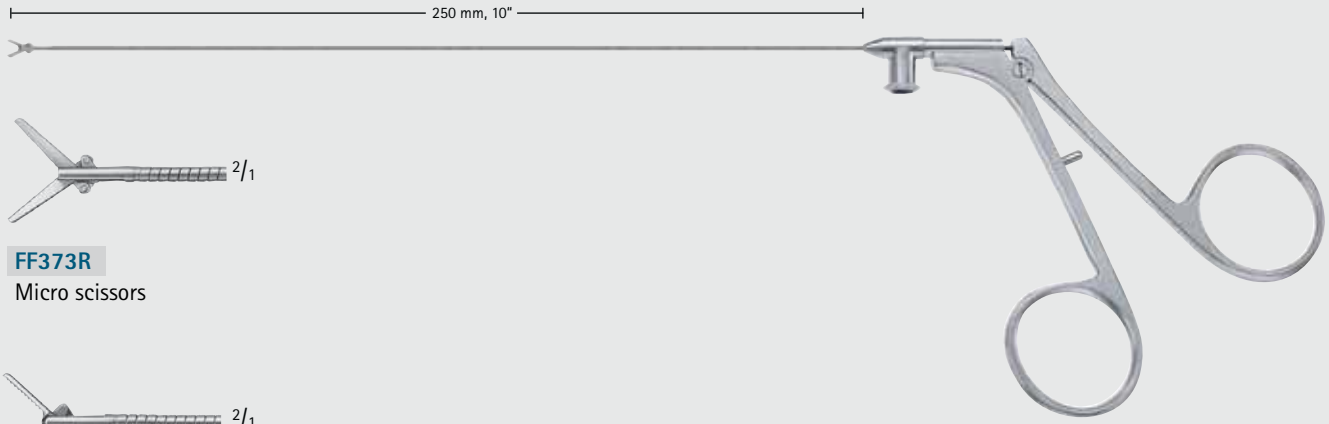


FF389R
MINOP® surgical forceps

Flexible Instruments

Ø 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

Intraventricular Neuroendoscopy
MINOP® Instruments

Rigid Instruments – Spare Parts

Ø 2 mm Jaw part with inner tube



FF435R
MINOP® scissors, sharp /sharp



FF436R
MINOP® scissors, blunt/blunt



FF437R
MINOP® biopsy forceps



FF438R
MINOP® grasping and dissecting forceps

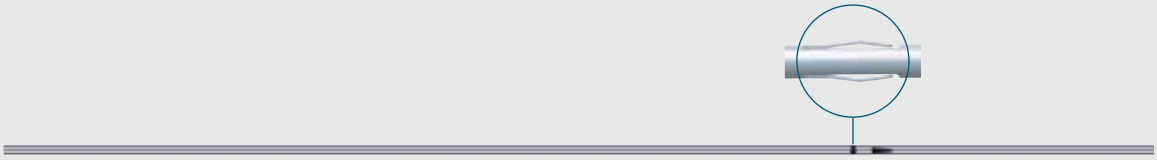


FF439R
MINOP® surgical forceps

Notice:
Disassembling/Assembling of MINOP® instruments: See page 676-677.

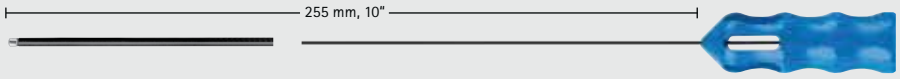


FF432R
MINOP® Instrument handle, only



FF433R
MINOP® Outer tube, only

Monopolar Electrodes





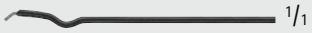
GK361R
Blunt electrode, diam. 1.1 mm



GK363R
Needle electrode, diam. 1.1 mm



GK362R
Hook electrode, 90°, diam. 2.2 mm



GK364R
Hook electrode, 45°, diam. 2.2 mm



GK365R
Hook electrode, 70°, diam. 2.2 mm

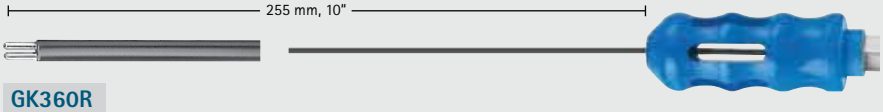


GK366R
Hook electrode, 180°, diam. 2.2 mm



GN202
Monopolar cable
suitable for GN300, GN640

Bipolar Electrode



GK360R
Fork electrode, diam. 2.1 mm



Art. No.	Length
GN140	4 m

Intraventricular Neuroendoscopy
MINOP® Disposable Suction Cannula

- MINOP® Disposable Suction Cannula
- For removal of cystic intraventricular lesions
- For puncturing the floor of the 3rd ventricle
- With depth marking, interval of 5 mm
- Outer diameter of 2.0 mm
- Suitable for working channel of MINOP® trocar FF399R
- Available with blunt or sharp tip suction cannula
- Optional control of suction
  - via thumb plate or
  - via syringe
- Single use, sterile packaging







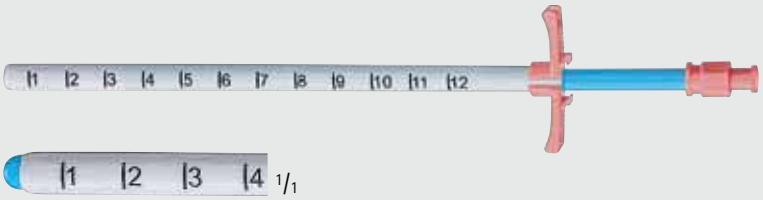
FH606SU
Suction cannula,
blunt tip 0°,
diam. 2.0 mm

FH607SU
Suction cannula,
sharp tip 45°,
diam. 2.0 mm



MINOP® Disposable Introducer

- 19 Fr disposable introducer set including obturator and sheath
- Especially for MINOP® trocar FF399R
- Introducer sheath protects the brain while inserting and removing the endoscope/trocar
- Round & blunt obturator tip for atraumatic insertion into the ventricles
- Depth scale for precise positioning and perfect control
- Easy to peel with side handles



1/1

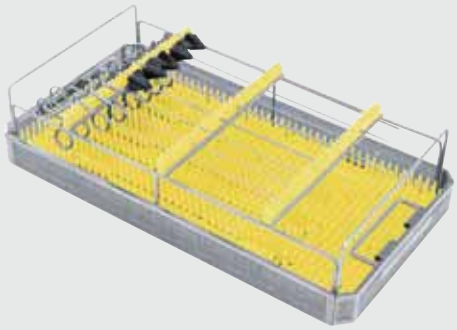
FH604SU
Introducer,
19 FR

Intraventricular Neuroendoscopy
MINOP® Storage



Art. No.	Dimensions L/W/H
FF358R	489 x 257 x 63 mm

Storage rack for MINOP® trocars and MINOP® scopes
with silicone protection cushioning
bottom and lid
(instruments not included)



Art. No.	Dimensions L/W/H
FF359R	485 x 253 x 120 mm

Storage rack for MINOP® instruments and electrodes
with silicone protection cushioning
bottom only, lid not necessary
(instruments not included)



1/1 Container (basis version)
for storage racks FF358R and FF359R
consisting of:

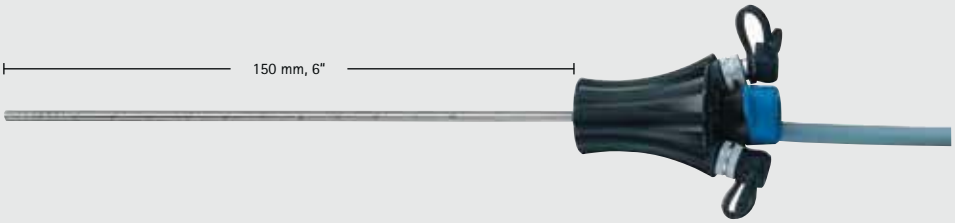
Art. No.	Description
JK440	Container body 1/1 for FF358R without base perforation Outside/Inside dimensions with lid: (L/W/H 592 x 285 x 112 mm) (L/W/H 544 x 258 x 75 mm)
JK444	Container bottom 1/1 for FF359R without base perforation Outside/Inside dimensions with lid: (L/W/H 592 x 285 x 209 mm) (L/W/H 544 x 258 x 172 mm)
JK486	Container lid 1/1 blue

Intraventricular Neuroendoscopy

Paediscope - The Intraventricular System for Pediatric Neurosurgery

- 30.000 pixel fibre optic
- Fibres integrated in rigid shaft for high precision and control
- 3.0 mm outer diameter for minimally invasive pediatric surgery
- Light-weight and ergonomic design
- Black handle can be held like a pencil
- Weight of camera ocular is away from the operating site





PF010A*
Endoscope shaft
with integrated optical fibres

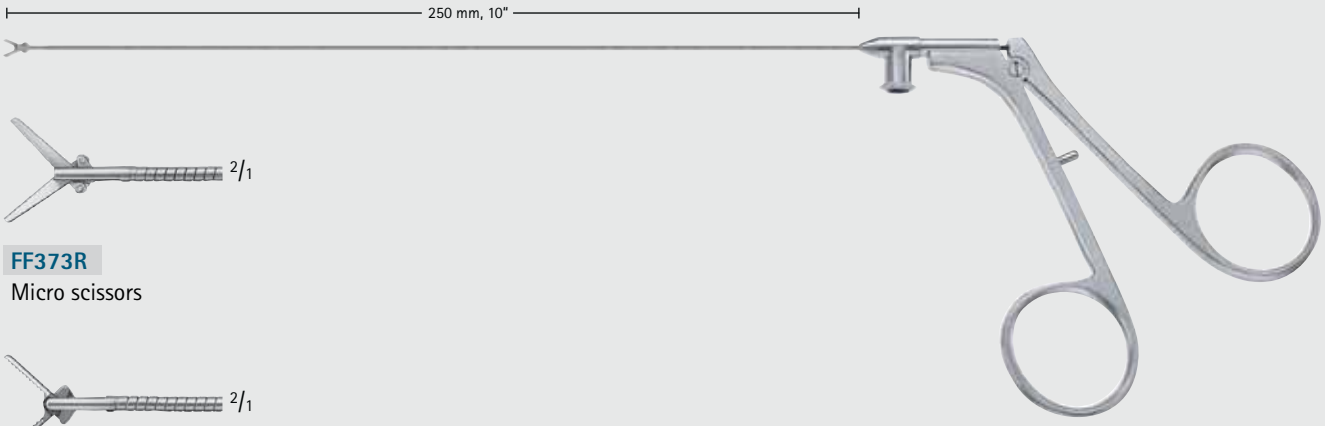


PF011A*
Ocular with focus
*for complete Paediscope, please order both PF010A and PF011A

Intraventricular Neuroendoscopy
Paediscope - Flexible Instruments and Disposable Introducer

Flexible Instruments

Ø 1 mm — 1 mm instruments, shaft length 250 mm, non-detachable



FF373R
Micro scissors



FF374R
Micro grasping and dissecting scissors



FF378R
Micro biopsy forceps

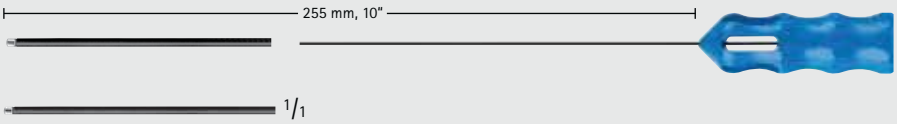
Paediscope Disposable Introducer

- 10 Fr disposable introducer set including obturator and sheath
- Especially made for Paediscope PF010A
- Introducer sheath protects the brain while inserting and removing the endoscope/trocar
- Round & blunt obturator tip for atraumatic insertion into the ventricles
- Depth scale for precise positioning and perfect control
- Easy to peel with side handles



FH603SU
Introducer,
10 FR

Monopolar Electrodes



GK361R
Blunt electrode, diam. 1.1 mm



GK363R
Needle electrode, diam. 1.1 mm



GN202
Monopolar cable
suitable for GN300, GN640



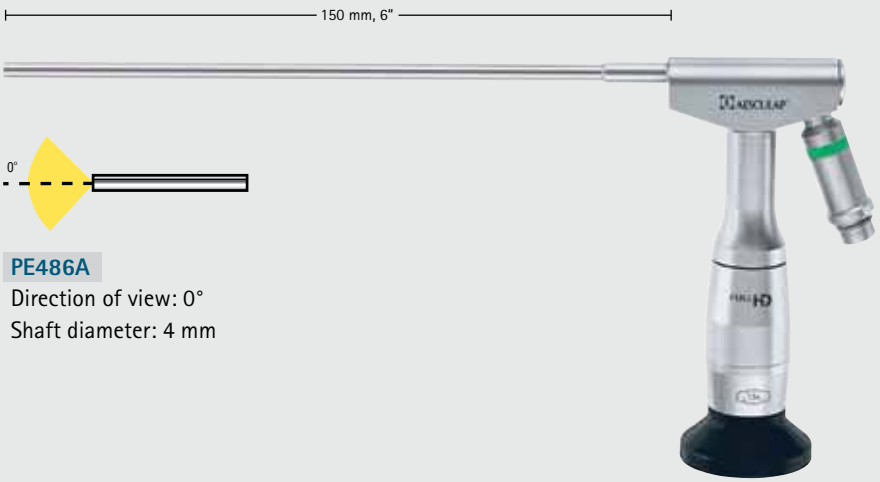
Art. No.	Dimensions L/W/H
FF379R	489 x 257 x 63 mm

Storage rack for complete Paediscope system
with silicone protection cushioning
bottom and lid
(instruments not included)

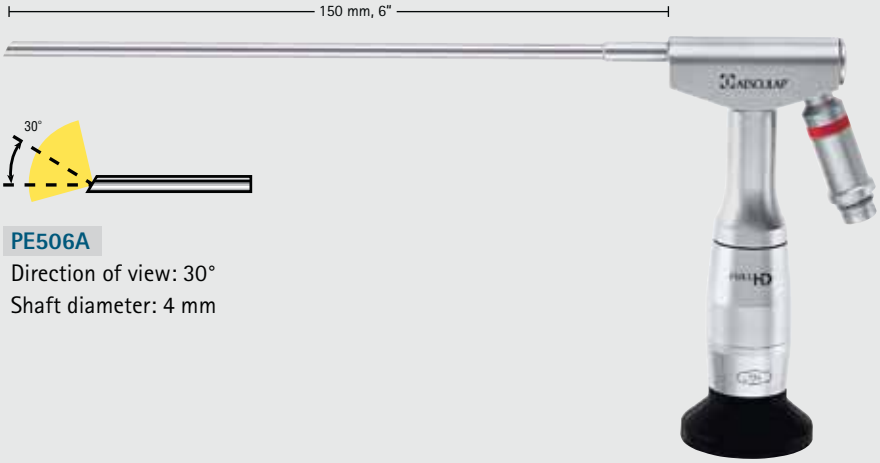


Art. No.	Description
JK440	Container body 1/1 for FF379R without base perforation Outside/Inside dimensions with lid: (L/W/H 592 x 285 x 112 mm) (L/W/H 544 x 258 x 75 mm)
JK486	Container lid 1/1 blue

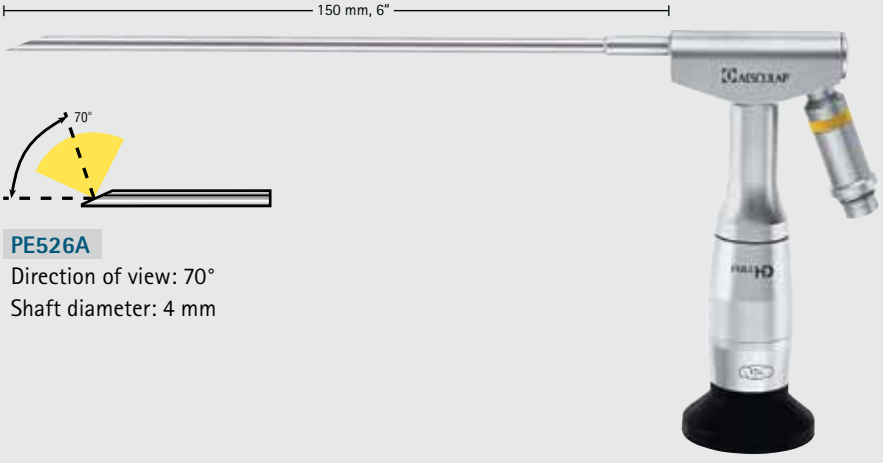
Endoscope-Assisted Microneurosurgery
Angled „Perneczky“ Scopes



PE486A
Direction of view: 0°
Shaft diameter: 4 mm



PE506A
Direction of view: 30°
Shaft diameter: 4 mm



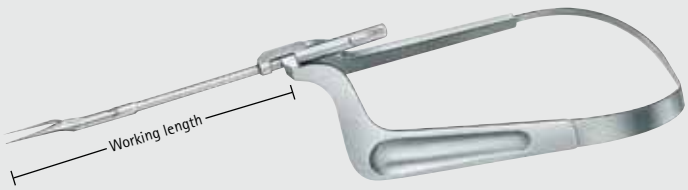
PE526A
Direction of view: 70°
Shaft diameter: 4 mm



Art. No.	Dimensions L/W/H
JF324R	257 x 247 x 63 mm

Storage rack for two angled scopes with silicone protection cushioning bottom and lid
(angled scopes not included)

- **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 1/1

FM670R	FM671R	FM672R



XS Micro scissors, straight, blunt/blunt 1/1

FM690R	FM691R	FM692R



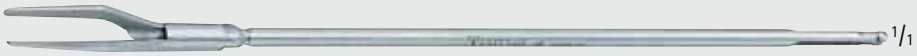
XS Micro scissors, curved, sharp/sharp 1/1

FM680R	FM681R	FM682R



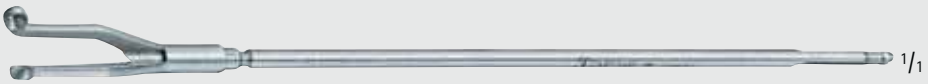
XS Micro scissors, curved, blunt/blunt 1/1

FM700R	FM701R	FM702R



XS Micro forceps, jaw 0.9 mm 1/1

FM710R	FM711R	FM712R



XS Micro tumor grasping forceps, jaw 3 mm, sharp 1/1

FM720R	FM721R	FM722R

Notice:
Disassembling/Assembling of XS micro instruments: See page 678-679.

Endoscope-Assisted Microneurosurgery
XS Tube Shaft Micro Instruments - Spare Parts

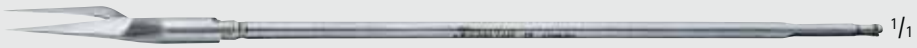
■ **Instrument single parts:**
  ■ **Handle**



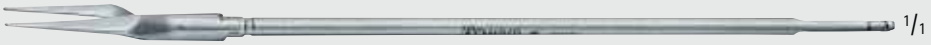
Working length	70 mm, 2 3/4"	100 mm, 4"	130 mm, 5 1/8"
Total length	200 mm, 8"	230 mm, 9"	260 mm, 10 1/4"

XS Micro instrument handle	**FM730R**	**FM731R**	**FM732R**

■ Instrument single parts:
  ■ Jaw insert



XS Micro scissors, straight, sharp/sharp	**FM675R**	**FM676R**	**FM677R**



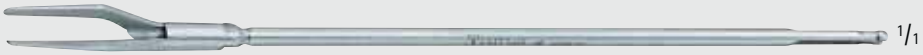
XS Micro scissors, straight, blunt/blunt	**FM695R**	**FM696R**	**FM697R**



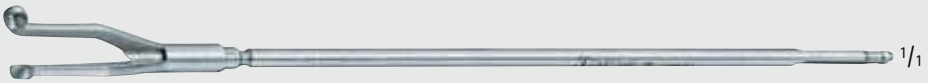
XS Micro scissors, curved, sharp/sharp	**FM685R**	**FM686R**	**FM687R**



XS Micro scissors, curved, blunt/blunt	**FM705R**	**FM706R**	**FM707R**

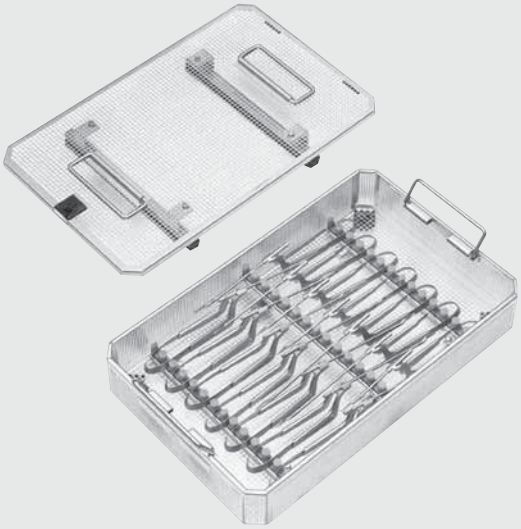


XS Micro forceps, jaw 0.9 mm	**FM715R**	**FM716R**	**FM717R**



XS Micro tumor grasping forceps, jaw 3 mm, sharp	**FM725R**	**FM726R**	**FM727R**

Notice:
Disassembling/Assembling of XS micro instruments: See page 678-679.



Art. No.	Dimensions L/W/H
FM665R	410 x 257 x 83.5 mm

Storage rack for bayonet-shaped micro instruments
with silicone protection cushioning
bottom and lid
(instruments not included)



3/4 Container (basis version)
for storage rack FM665R
consisting of:

Art. No.	Description
JK741	Container body 3/4 without base perforation (L/W/H 470 x 274 x 120 mm)
JK789	Container lid 3/4 silver

Transnasal Neuroendoscopic System
MINOP® TREND Trocars and Endoscopes



FH610R
MINOP® TREND suction and irrigation trocar
for 0° endoscope PE487A
Diameter: 4.5 / 6.0 mm
Working length: 120 mm



FH611R
MINOP® TREND suction and irrigation trocar
for 30° endoscope PE507A
Diameter: 4.5 / 6.0 mm
Working length: 120 mm



PE487A
MINOP® TREND scope
Direction of view 0°
Shaft diameter 4.0 mm



PE507A
MINOP® TREND scope
Direction of view 30°
Shaft diameter 4.0 mm



FH615
MINOP® TREND handle including irrigation button
for FH610R and FH611R



RT099R
MINOP® TREND adapter for Aesculap holding arm

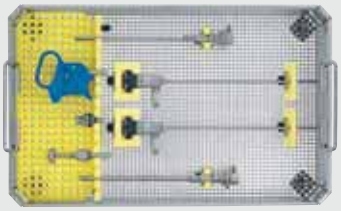




Art. No.	Length
FH605SU	4.5 m

MINOP® TREND suction and irrigation tube, sterile
for MINOP® TREND handle FH615,
with 2 puncture needles
Sales unit:
PAK = Package of 10 tubes





Art. No.	Dimensions L/W/H
FF357R	410 x 257 x 64 mm

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



3/4 Container (basis version)
for storage rack FF357R
consisting of:

Art. No.	Description
JK740	Container body 3/4 without base perforation Outside/Inside dimensions with lid: L/W/H 470 x 274 x 90 mm L/W/H 421 x 258 x 75 mm
JK786	Container lid 3/4 blue

FF168R

M-TRAC – Mechanical Holding Arm

Flexible holding device with mechanical fixation

- Assembly: flexible holding arm with integrated fixation bar
- Total length: 107 cm
- Length of fixation bar: 46 cm
- Diameter of fixation bar: 20 mm
- Total weight: 0,7 kg
- Holding force: 4 kg
- Easy mechanical fixation by clamping handle
- Small, flexible joints for fine positioning
- Autoclavable 134°C, 5 minutes
- Full range of accessories/adapters for connecting Aesculap endoscopes, trocars and instruments
- Holding Arm fits into regular Standard 1/1 Container





FF280R

Flexible fixation element with ball joint suitable for RT040R and FF168R



RT090R

Flexible fixation element with sprocket suitable for RT040R and FF168R



FF151R

Rigid fixation element suitable for RT040R and FF168R

RT040R

UNITRAC – Pneumatic Holding Arm

- Single handed use
- Fast sterile set-up in the OR
- Universal retraction and holding system with special accessories for neuroendoscopy
- Simple to assemble onto the OR table railing
- Integrated safety systems prevent collapse of holding arm if OR compressed air supply is interrupted
- Direct connection to OR compressed air supply
- Diameter of fixation bar: 20 mm
- To be used with JG901



JG901

Sterile drape for coverage of the Unitrac® arms, single-use product, package of 50 pcs.





RT020R

Quick connect adapter for use with sterile drape JG901allows the change of instruments after draping with JG901

Adapters for UNITRAC® and M-TRAC



RT046P **Universal Holder**
for Endoscopes diam. 3.0-7.5 mm
consisting of: RT081R and RT055P



RT081R **Adapter**
for universal insert RT055P



RT055P **Universal Insert** (Spare Part)
for Endoscopes diam. 3.0-7.5 mm



RT099R **Adapter**
for fixation of MINOP® TREND handle, FH615



RT079R **Adapter**
for fixation of angled neuroscopes
PE486A, PE506A, PE526A



RT079205 **Silicone insert**
for RT079R

	MINOP® FF397R	MINOP® FF398R	MINOP® FF399R	Paediscope PA010A	Angled scopes PE486A	Angled scopes PE506A	Angled scopes PE526A	MINOP® TREND FH615	MINOP®TR FH601R
RT046P	●	●	●	●	●	●	●		●
RT099R								●	
RT079R					●	●	●		

Neuropilot® – Fine positioning for UNITRAC® and M-TRAC

NeuroPilot® for IntraVentricular and Endoscope-Assisted indications with all Aesculap neuro-endoscopes. NeuroPilot® is a unique steering device for neuroendoscopes. After positioning the neuroendoscope in situ, finest corrections or adjustments are necessary, to receive the optimal endoscopic image. With traditional holding devices, only rough positioning is possible; a precise and fine steering of the neuro-endoscope can be achieved.

NeuroPilot® offers a number of unique advantages:

- Optimal fixation of the neuroendoscope in the NeuroPilot® together with a holding arm
- Precise steering of the neuroendoscope by dedicated screws in the three-dimensional space
- Safe manoeuvring of the neuroendoscope by defined movements in the sub-millimeter area
- Optimal positioning of the neuro-endoscope in situ



RT060R **NeuroPilot®**
for intraventricular and endoscope-assisted indications with all Aesculap neuroendoscopes



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



Full HD 3 Chip camera system with latest chip technology for brilliant image display

- Full HD image quality (1920 x 1080 pixel) provides a crystal-clear image of unprecedented quality
- Full HD camera provides 16:9 widescreen images for increased lateral image viewing
- Up to 6 times higher image resolution compared to standard cameras
- Full HD camera with advanced High-Definition-3-Chip technology produces 3-D lifelike images with outstanding depth perception
- Progressive scan technology at 50/60 frames per second provides a lag-free image
- Speciality modes produce excellent images in every situation
- Multi-speciality HD camera works with most standard endoscope
- Optical parfocal zoom (2.5x) for improved detail enhancement
- Easy operation of camera functions via integrated control buttons in the camera head
- Ergonomic camera head to support fatigue-free working
- Included accessories of PV460: DVI-D cable (1x)

PV460	**Camera Control Unit only**
PV462	**Camera head with zoomcoupler**
PV463	**Camera head with fixed focus coupler**

CCD (Inch)	3 x 1/3"
Camera Resolution	1920 x 1080 Pixel
Scan mode	Progressive Scan 50/60 Hz
Modes	6 Presettings 3 User Settinges
Video Signal Outputs	2x DVI-D 1080p (50/60 Hz) 2x HD-SDI 1080i (50/60 Hz) 1x S-Video NTSC/PAL (16:9 aspect)
Buttons on Camera Head	2 (5 functions)
Shutter Speed	1/100 – 1/50 000 s
Focal length (PV462)	Optical 13-32 mm
Focal length (PV463)	Optical 14 mm
Colour Bars	Yes
Dimensions camera head with zoom (w x h x d)	50 x 62 x 129 mm
Dimensions CCU (w x h x d)	305 x 75 x 305 mm
Weight CCU	4.1 kg
Weight camerahead PV462 w/o cable	227 g
Weight camerahead PV463 w/o cable	184 g
Length Camera Cable	4 m
On-screen Display	Yes
Maximum Power Consumption	65 VA
Protection level acc. to EN 60601-1	CF
Classification acc. to directive 93/42/EEC	I

Accessories (to be ordered separately)

OP942	**Communication cable** between CCU and LED light source

Camera Accessories

Connecting Cables (to be ordered separately)



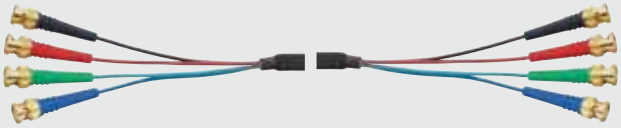
PV427 SDI/Composite-Connecting cable, 1.0 m



PV963 S-Video-Connecting cable, 2 m



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



PV416 4 BNC/4 BNC Cable, 2.0 m



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

PV920201 D-sub 15 Pin/D-sub 15 Pin, 3.0 m

PV920202 DVI-Adapter



PV428 Serial Connecting cable, D-sub 9 Pin, 3.0 m



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



PV968 Remote control cable (for PV440 only), 2.0 m
3.5 mm/3.5 mm Stereo Mini Jack



PV436 DVI-D cable (for PV440 only), 2.0 m

PV820201 DVI-D cable (for PV440 only), 3.0 m

Additional Accessories



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



JG908SU **Closed sterile Camera drape,**
15 cm diam. the optic can be changed under sterile conditions during surgery, package of 10



JG910 Sterile Anti Fog Solution, package of 10



High performance LED technology for all indications

- A world's first – our light source provides an integrated measurement system for light cable transmission measurement
- LED technology provides a very high light intensity and allows an exceptional colour reproduction of the camera
- The life time of LED lamps is much longer compared to xenon lamps – a real cost saving aspect
- The light source is fully compatible to light guide cables of other make with the integrated light guide cable adapter
- The light intensity is continuously adjustable via an easy to use rotation knob
- Aesculap camera and LED light source communicate via bus system. With a push of a button the light source can go into standby (via camera head control button)
- The light cable output is equipped with an anti-dazzle protection.

OP940 **LED Light Source**

System	LED module
Light guide cable receptacle	Aesculap/Storz/Olympus/Wolf
Integrated Spare lamp	No
Lamp Intensity Increase	Continuously
Maximum Power Consumption	550 VA
Dimensions (w x h x d)	305 x 125 x 305 mm
Weight	7.0 kg
Protection level acc. to EN 60601-1	BF
Classification acc. to directive 93/42/EEC	II a

Accessories (to be ordered separately)

OP941 Adapter

OP942 Communication cable between CCU and LED light source



180 W Light Source

- Xenon technology provides a very high light intensity and ensures an optimum colour reproduction of the camera due to the Xenon colour temperature of 6.000 K (daylight)
- Our light source sets new standards regarding the operating noise due to the integrated special "whisper ventilators"
- The light source is easy to use
- The light source design is compact and light
- The light intensity is continuously adjustable
- The life time of Xenon lamps is much longer compared to halogen lamps
- The light source is fully compatible to light guide cables of other make by using suitable adapters

OP930 **AXeL 180 Xenon Light Source**

System	Xenon
Light guide cable receptacle	Aesculap/Storz
Integrated Spare lamp	No
Lamp Output	180 W
Lamp Voltage	15 V/12 A
Lamp Intensity Increase	Continuously
Colour Temperature	6000 K
Maximum Power Consumption	360 VA
Dimensions (w x h x d)	305 x 125 x 305 mm
Weight	6.4 kg
Protection level acc. to EN 60601-1	BF
Classification acc. to directive 93/42/EEC	II a

To be ordered separately



OP931	Xenon replacement bulb 180 W

Adapter for Xenon light source



OP936	Wolf
OP937	Olympus (Xenon)
OP938	ACMI

Light guide cables, autoclavable, diam. 4.8 mm



OP923	Full HD light guide cable, length: 250 cm
OP906	Length: 180 cm
OP913	Length: 250 cm
OP914	Length: 350 cm



OP917	Light guide cables tester Measures the light transmission of Aesculap/Storz/Olympus light guide cables with Ø 3.5 mm and 4.8 mm

Light guide cables adapter for light source of other make



TE683R	Olympus
TE688R	Olympus-Xenon
TE684R	Wolf



Cutting-edge Full HD documentation system

- Documents still images and/or video sequences in Full HD resolution (1920x1080 pixel)
- No need for secondary monitor if operated with 24" touch LCD monitor PV956
- Archiving of still images and video sequences on Double Layer DVD with a maximum storage capacity of 8.5 GB
- Very easy operation via camera head, mouse or touch screen monitor
- Can be integrated into any existing endoscopy tower
- Image data storage on DVD/CD-ROM, USB, hard drive or network after procedure. Burning on the fly (live recording) for Full HD images and video optionally
- Captures still images during video recording
- Search function for display of existing patient data
- Equipped with common video input and output types
- Fully network-compatible
- Data printout through local printer/net work printer
- Optional DICOM 3.0 compatibility
- Multi patient selection for copying, printing or deleting multiple patients in one process
- Included accessories:
  - DVI cable (1x)
  - HD-SDI cable (1x1 m, 1x3 m)
  - Optical USB mouse (1x)
  - Serial cable
  - Remote control cable
  - CD with MPEG-2 Codec (1x)

PV840 **Eddy Full HD Digital Documentation System**

DVD System	DVD-R/-RW; DVD+R/+RW; DVD-RAM; DVD-RDL/+RDL
Full HD resolution	1920x1080 pixel
Double Layer Drive	Yes
Still image format Full HD	JPEG, Bitmap
Video format Full HD	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
Video Signal Inputs	1 x HD-SDI
Video Signal Outputs	1 x DVI-D, 1 x HD-SDI
Other Ports	6 x USB 2.0; 2 x USB 3.0 1 x RJ45 for Network 1 x 3.5 mm jack socket (Remote function) 1 x RS232 (9 pin D-sub)
System	Intel® Processor, 2 GB RAM
Hard drive capacity	500 GB
Operating System	Windows® XP embedded
Maximum Power Consumption	180 VA
Dimensions (w x h x d)	305 x 125 x 305 mm
Weight	6.5 kg
Classification acc. to directive 93/42/EEC	I

Accessories (to be ordered separately)

PV842 DICOM Upgrade Set



Ultra High Definition medical monitor with bright LED backlight

- Image lag reduction for super fast video imaging (8 ms typical response time)
- Wide viewing angle (178°)
- VESA 100 mounting Standard for adaptation to monitor stand, wall or ceiling mounting
- Multilingual user menu (language, color, brightness...)
- Low power consumption
- Lightweight construction
- Space-saving design
- Automatic selection of video signal
- Multi-Modality (PIP)
- 24 V DC power input power
- Included accessories:
  - DVI cable (1x)
  - S-Video cable (1x)
  - VGA cable (1x)
  - Composite cable (1x)

PV959 **26" Full HD flat panel display**

Panel Quality	Active Matrix TFT
Viewable Diagonal (Inches)	26.0
Max. Brightness (cd/m²)	800
Resolution (Pixel)	1920 x 1080 (Full HD)
Viewing Angle Horizontal/Vertical	178°/178°
Aspect Ratio	16:9
Contrast Ratio	1000:1 (typical)
Video signal inputs	2xDVI (DVI-D and DVI-i) 2xSDI/HD-SDI (BNC) RGB/HD-RGB (5 x BNC or HD-15) 2x S-Video (DIN-4 or 2 x BNC) Composite (BNC) VGA (HD-15)
Video signal outputs	DVI (DVI-D) SDI/HD-SDI (BNC) RGB/HD-RGB (5 x BNC or DVI-I) S-Video (DIN-4)
Suitable stand	PV909 (optional)
Maximum Power Consumption	130 VA (typical)
Dimensions (w x h x d)	673 x 418 x 88 mm
Weight	7.3 kg
Classification acc. to directive 93/42/EEC	I



Accessories (to be ordered separately)

PV909 Stand for flat panel displays (100 mm VESA mounting)



High quality touch-screen flat panel monitor for live viewing and documentation

- In combination with the Eddy Full HD system PV840 this monitor can display live video and documentation in Full HD quality
- Wide viewing angle (178°)
- VESA 100 Standard for adaptation to monitor stand, wall or ceiling mounting
- Multilingual user menu (language, color, brightness ...)
- Low power consumption
- Automatic selection of video signal
- 24 V DC power input
- Included accessories:
  - S-Video cable (1x)
  - Composite cable (2x)
  - VGA cable (1x)
  - DVI cable (2x)

PV956 **24" Full HD touch panel display**

LCD Panel	Active Matrix with In Plane Switching
Viewable Diagonal (Inches)	24.0
Max. Brightness (cd/m2)	400
Resolution (Pixel)	1920 x 1200 (Full HD)
Viewing Angle Horizontal/Vertical	178°/178°
Aspect Ratio	16:10
Contrast Ratio	1000:1 (typical)
Video Signal Inputs	2x DVI-I (DVI-D and DVI-I) 2x HD-SDI (BNC) 1x HD-RGB (BNC x5) 1x VGA (HD-15) 1x S-Video (DIN-4) 1x Composite (BNC)
Video Signal Outputs	1x DVI-D 1x HD-SDI (BNC) 1x HD-RGB (BNC x5) 1x S-Video (DIN-4)
Suitable stand	PV909 (optional)
Touch Function	Yes
Maximum Power Consumption	115 VA (typical)
Dimensions (w x h x d)	597 x 401 x 100 mm
Weight	8.3 kg
Classification acc. to directive 93/42/EEC	I



Accessories (to be ordered separately)

PV909 Stand for flat panel displays (100 mm VESA mounting)



High Definition medical monitor

- Image lag reduction for super fast video imaging (10-16 ms response time)
- Wide viewing angle (178°)
- VESA 100 Standard for adaptation to monitor stand, wall or ceiling mounting
- Multilingual user menu (language, color, brightness...)
- Low power consumption
- Lightweight construction
- Space-saving design
- Automatic selection of video signal
- Runs without fans (no bacteria spread)
- Picture-in picture (PIP)
- 24 V DC power input and output
- Included accessories:
  - DVI-D cable (1x)
  - S-Video cable (1x)
  - SXGA Video cable (1x)
  - Composite cable (1x)



PV949 **19" HD flat panel display**

Panel Quality	With anti-reflection safety glass
Viewable Diagonal (Inches)	19.1
Brightness (cd/m2)	450
Resolution (Pixel)	1280 x 1024 (SXGA)
Viewing Angle Horizontal/Vertical	178°/178°
Aspect Ratio	5:4
Contrast Ratio	650:1
Supported Colour Systems	PAL, NTSC
Video signal inputs	SDI/HD-SDI (BNC) DVI (DVI-D) RGB (4 x BNC or HD-15) S-Video (DIN-4 and 2x BNC) Composite (BNC) VGA (HD-15)
Video signal outputs	SDI/HD-SDI (BNC) DVI (DVI-D) RGB (4 x BNC or HD-15) S-Video (DIN-4) Composite (BNC)
Suitable stand	PV909 (optional)
Maximum Power Consumption	65 VA
Dimensions (w x h x d)	465 x 395 x 98 mm
Weight	6.8 kg
Classification acc. to directive 93/42/EEC	I

Accessories (to be ordered separately)

PV909 Stand for flat panel displays (100 mm VESA mounting)

Neuroendoscopy
Endoscopy Carts



Standard Cart

- Applied cable management with hinges for opening the cable ducts
- Separate cable ducts for video and power cables.
- Very versatile gas cylinder holder for two gas cylinders (main and reserve), which can even be of different size.
- Novel multifunction handles for easy and controlled maneuvering
- Rear cart columns provide high stability of the equipment cart
- Modular construction for a multitude of possible variations
- Antistatic smooth-running double castors for easy maneuvering even when the cart is fully loaded
- Anti-slip shelf surface for good grip of the expensive devices on the cart
- Shelf surface with all-round safety edge, for additional slide-off protection of devices
- Solid wheel bumpers prevent damage to doors, walls and furniture
- Lockable drawer for smart storage of small parts
- Cleaning-friendly – all materials are disinfectant- and solvent-proof
- A comprehensive range of accessories offers useful solutions for everyday tasks

"Metro Junior"

	PV880	PV881
Power Supply	220-240 V, 50-60Hz	220-240 V, 50/60Hz
Maximum Allowable Current Input	10 A	6 A
IEC-320 Socket Strip (number of sockets)	9	9
Antistatic double-wheel castors	Yes	Yes
Front castors lockable	Yes	Yes
Cable channel with hinges	Yes	Yes
Dimensions (w x h x d)	835 x 1580 x 750 mm	835 x 1580 x 750 mm
Standing Area (w x d)	560 x 440 mm	560 x 440 mm
Weight (without load)	76 kg	89 kg
Maximum Load Capacity of Cart	210 kg	210 kg
Maximum Load Capacity of Shelf	40 kg	40 kg
Output Power Isolating Transformer	-	1120 VA
System Monitoring	-	Integrated
Tested acc. to norm	EN 60601-1 EN 60601-1-1 EN 60601-1-2	EN 60601-1 EN 60601-1-1 EN 60601-1-2
Classification acc. to directive 93/42/EEC	I	I



Integrated System Monitoring



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- Master Course Intracranial Neuroendoscopy

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Aesculap Neurosurgery



Power

Power Systems

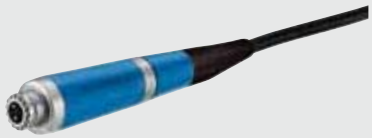
microspeed uni – Electric High Speed Motor System



System components:



GD670 microspeed uni control unit



GD675 microspeed uni XS high speed motor



GD685 microspeed uni perforator driver



GD672 Motor cable



GD668 Foot control – single pedal

HiLAN XS – Pneumatic High Speed Motor System



System components:



GA740R HiLAN XS high speed motor



GA742R HiLAN perforator driver



GA521 Foot Pedal



GA513R Motor hose (3 m)

GA464R Supply hose (3 m)
wall connection Aesculap Dräger

GA468R Supply hose (3 m)
wall connection Schrader

GA461R Supply hose (3 m)
wall connection DIN

High Speed Handpieces and Tools – for microspeed uni and HiLAN XS







GB740R

Dura guard

fixed



GB741R



GB742R



GB743R

steerable



GB746R



GB747R



GB748R

Craniotome cutters

spiral type



GE420R



GE520R



GE620R

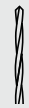
Drill depth guard



GB744R

2 – 8 mm

Twist drills



Ø 1.0

GE390R



Ø 1.1

GE391R



Ø 1.2

GE389R



Ø 1.5

GE395R

Holding sleeve



GB745R

Diamond burrs

coarse



Ø 3.1

GE394R



Ø 5.0

GE398R



Ø 6.0

GE399R

extra coarse



Ø 4.0

GE386SU



Ø 5.0

GE387SU

Twin-cut burrs



Ø 5.0

GE396R



Ø 6.0

GE397R

Pin cutter



Ø 1.0

GE392R



GB756R



Rosen burrs

Ø 1.0	Ø 1.4	Ø 1.8	Ø 2.3	Ø 2.7	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE401R	GE402R	GE403R	GE404R	GE405R	GE406R	GE407R	GE408R	GE409R

Rosen burrs long neck

Ø 0.6	Ø 0.8	Ø 1.0	Ø 1.8	Ø 2.7
GE469SU	GE470SU	GE471SU	GE473SU	GE475SU

Diamond burrs

Ø 1.0	Ø 1.4	Ø 1.8	Ø 2.3	Ø 2.7	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE411R	GE412R	GE413R	GE414R	GE415R	GE416R	GE417R	GE418R	GE419R

Diamond burrs long neck

Ø 0.6	Ø 0.8	Ø 1.0	Ø 1.8	Ø 2.3	Ø 2.7
GE459SU	GE460SU	GE461SU	GE463SU	GE464SU	GE465SU

Diamond burrs coarse

Ø 2.3	Ø 3.1
GE424R	GE425R

extra coarse

Ø 4.0	Ø 5.0
GE456SU	GE457SU

Neuro cutters

Ø 1.8	Ø 2.3	Ø 3.1
GE431R	GE434R	GE435R

Acorn burr

Ø 6.0
GE437R

Twist drills

Ø 1.5	Ø 2.0
GE432R	GE433R

TUNGSTEN CARBIDE

Rosen burrs

Ø 3.1	Ø 4.0	Ø 5.0
GE406TC-SU	GE407TC-SU	GE408TC-SU

Neuro cutter

Ø 3.1
GE435TC-SU



GB757R

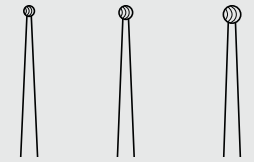


Rosen burrs



Ø 1.0	Ø 1.4	Ø 1.8	Ø 2.3	Ø 2.7	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE501R	GE502R	GE503R	GE504R	GE505R	GE506R	GE507R	GE508R	GE509R

Rosen burrs long neck



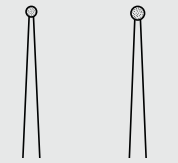
Ø 1.4	Ø 1.8	Ø 2.3
GE572R	GE573R	GE574R

Diamond burrs



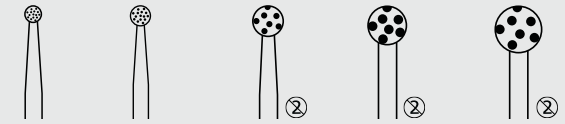
Ø 1.0	Ø 1.4	Ø 1.8	Ø 2.3	Ø 2.7	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE511R	GE512R	GE513R	GE514R	GE515R	GE516R	GE517R	GE518R	GE519R

Diamond burrs long neck



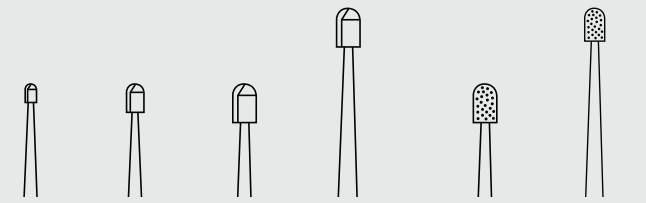
Ø 1.4	Ø 1.8
GE562R	GE563R

Diamond burrs coarse extra coarse



Ø 2.3	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE524R	GE525R	GE556SU	GE557SU	GE558SU

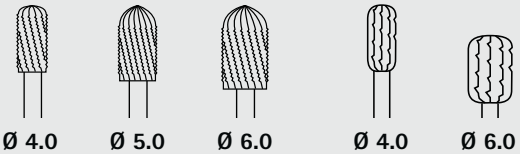
Neuro cutters Diamond coarse



Ø 1.8	Ø 2.3	Ø 3.1	Ø 3.1	Ø 3.1	Ø 3.1
GE531R	GE534R	GE535R	GE553R	GE554R	GE555R

Barrel burrs
soft cut

Barrel burrs
standard



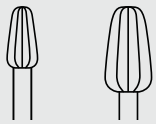
Ø 4.0	Ø 5.0	Ø 6.0	Ø 4.0	Ø 6.0
GE548R	GE549R	GE550R	GE544R	GE546R



GB757R



Cone burrs



Ø 4.0 GE540R | Ø 6.0 GE542R

Oval burr



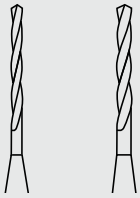
Ø 4.0 GE536R

Reverse Taper burr
Diamond coarse



Ø 4.0 GE539R

Twist drills



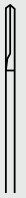
Ø 1.5 GE532R | Ø 2.0 GE533R

Acorn burr



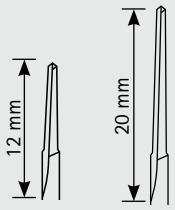
Ø 6.0 GE537R

Pin cutter



Ø 1.0 GE521R

Lindemann



Ø 1.4 GE522R | Ø 1.4 GE523R

TUNGSTEN CARBIDE

Rosen burrs



Ø 4.0 GE507TC-SU | Ø 5.0 GE508TC-SU

Neuro cutter



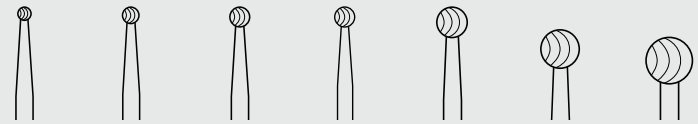
Ø 3.1 GE535TC-SU



GB758R



Rosen burrs



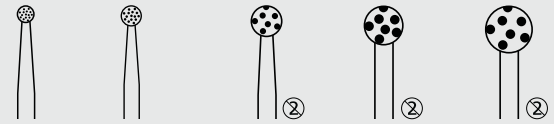
Ø 1.8	Ø 2.3	Ø 2.7	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE603R	GE604R	GE605R	GE606R	GE607R	GE608R	GE609R

Diamond burrs



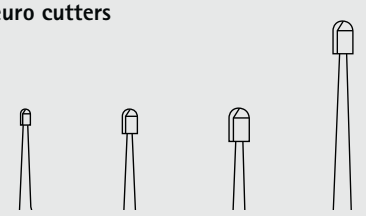
Ø 1.8	Ø 2.3	Ø 2.7	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE613R	GE614R	GE615R	GE616R	GE617R	GE618R	GE619R

Diamond burrs coarse extra coarse



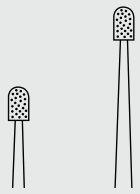
Ø 2.3	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE624R	GE625R	GE656SU	GE657SU	GE658SU

Neuro cutters



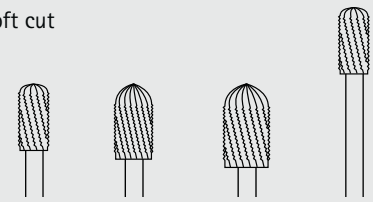
Ø 1.8	Ø 2.3	Ø 3.1	Ø 3.1
GE631R	GE634R	GE635R	GE653R

Diamond coarse



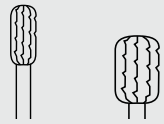
Ø 3.1	Ø 3.1
GE654R	GE655R

Barrel burrs
soft cut



Ø 4.0	Ø 5.0	Ø 6.0	Ø 4.0
GE648R	GE649R	GE650R	GE645R

Barrel burrs
standard



Ø 4.0	Ø 6.0
GE644R	GE646R

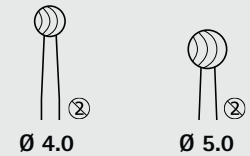
Reverse Taper burr
Diamond coarse



Ø 4.0
GE639R

TUNGSTEN CARBIDE

Rosen burrs



Ø 4.0	Ø 5.0
GE607TC-SU	GE608TC-SU

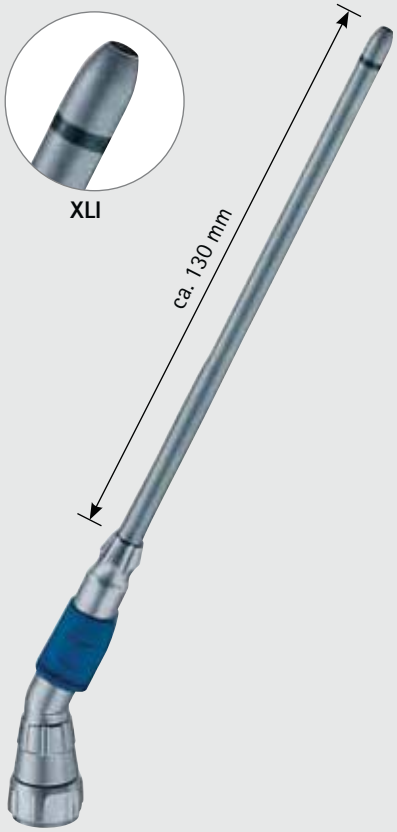
Neuro cutter



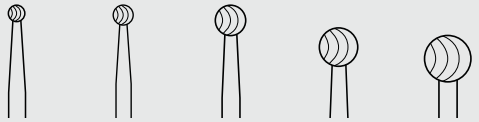
Ø 3.1
GE635TC-SU

GB771R XLI

XLI

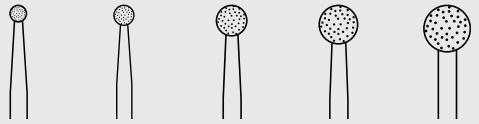


Rosen burrs



Ø 2.3	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE704R	GE706R	GE707R	GE708R	GE709R

Diamond burrs

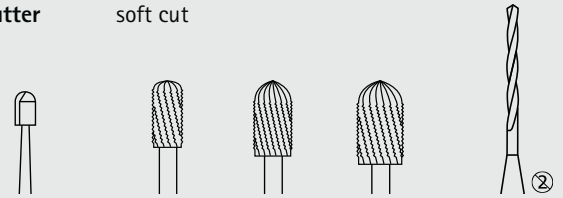


Ø 2.3	Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0
GE714R	GE716R	GE717R	GE718R	GE719R

Neuro cutter

Barrel burrs soft cut

Twist drill



Ø 3.1	Ø 4.0	Ø 5.0	Ø 6.0	Ø 1.5
GE702R	GE711R	GE729R	GE712R	GE700SU

Aesculap Neurosurgery



Spine

Spine Surgery

ABC2 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

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

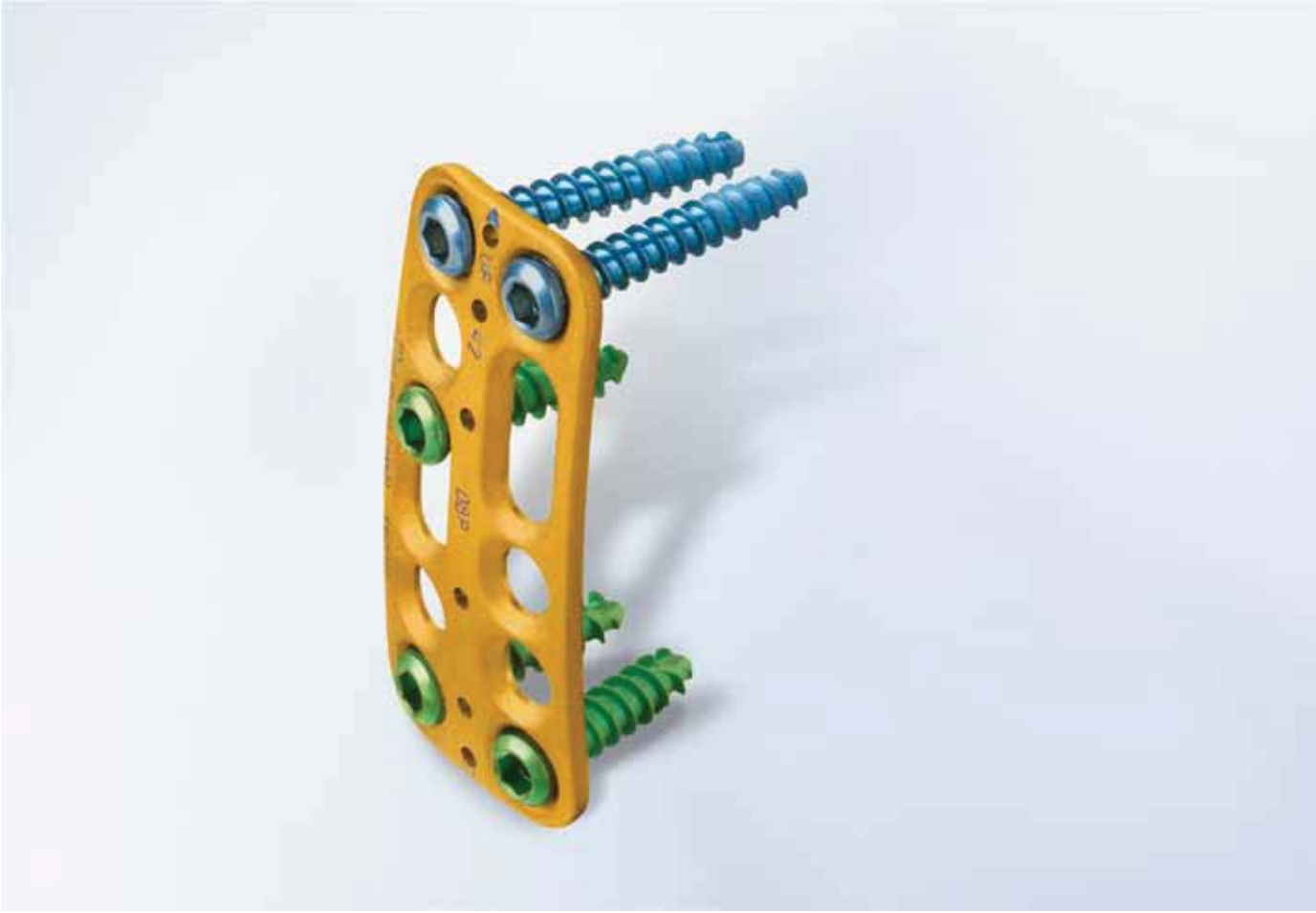


- E-Plates



For further details see brochure No. **029002.**

CASPARevolution 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

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

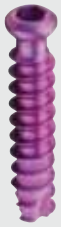
- Monocortical screws



- Bicortical screws



- Revision screws



- Plates



For further details see brochure No. **O13502.**

CASPAR Distractor – Cervical Distractor System



Standard

- For use in surgical procedures
  - from the left approach for C5 through T1/2
  - from the right approach for the upper cervical spine
- Further distractor with elongated toothed bar for multilevel distraction (for left and right approach)

Lockable

- For use in surgical procedures
  - from the left approach for C5 through T1/2
  - from the right approach for the upper cervical spine
- Lockable cervical distractor system
- Optional with standard or off-set screws

Product overview:

- Twist drill



- Screw driver



- **Standard**
  Distraction pins



- **Lockable**
  Standard distraction screws



- **Lockable**
  Off-set distraction screws



For further details see brochure No. **O36602.**

S4® Cervical Posterior Occipital Cervical Thoracic Fixation 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

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



For further details see brochure No. **O31102** and surgical technique No. **O34202.**

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

Implant overview:

- CeSPACE® Ti
  - 14 + 16 mm diameter, 4–7 mm height, 5° angled
- CeSPACE® PEEK
  - 14 + 16 mm diameter, 4–8 mm height, 5° angled

- CeSPACE® Ti



- CeSPACE® PEEK



For further details see brochure No. **O16202.**

activC® Flat

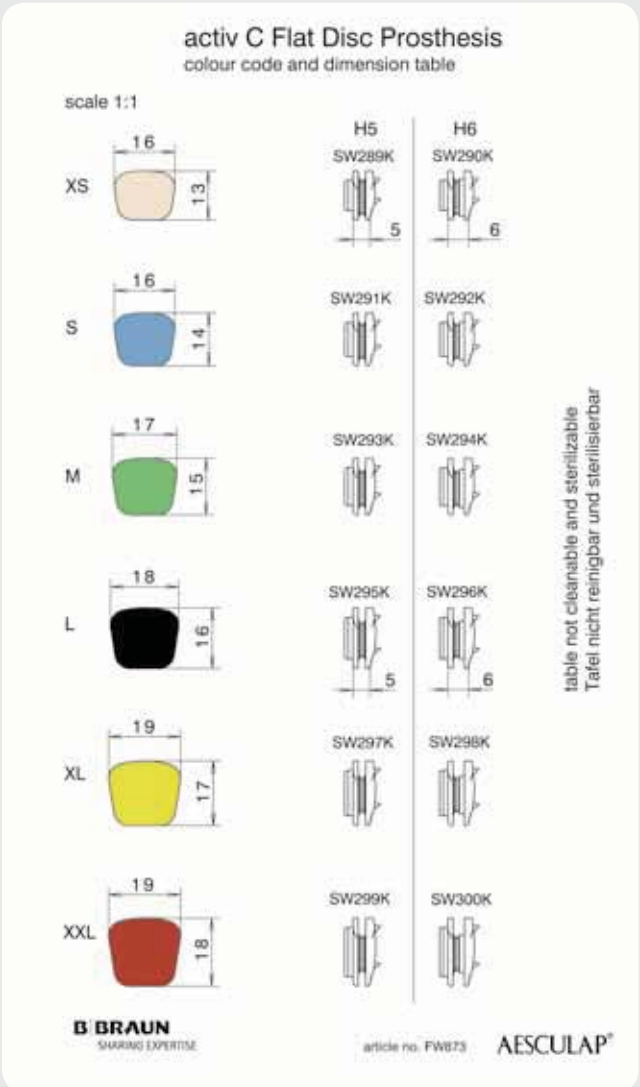


- Anatomical shape (convex) of the superior endplate
- COR placed in the center of the prosthesis
- Plasmapore® coating
- Safe multi-level treatment throught combination of spikes and keels
- Always same position of the COR in the upper third of the inferior vertebral body

Implant overview:

- 6 different sizes
  - XS
  - S
  - M
  - L
  - XL
  - XXL
- 3 different heights
  - 5 mm
  - 6 mm





For further details see brochure No. **O31202** and surgical technique No. **O31302.**

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 constuct, easy handling sum up to a safe and secure pedicle screw system.

Implant overview:

- Monoaxial pedicle screws
- Polyaxial pedicle screws
- Hooks
- 5.5 mm rods
- Cross connectors

- **Monoxial/polyaxial pedicle screws**



- **Monoxial/polyaxial cannulated pedicle screws**



- **Monoxial/polyaxial augmentation screws**



- Rods



- Cross connectors



For further details see brochure No. **O25702** and surgical technique No. **O26702.**

S4® FRI – Frakture-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

Product overview:

- S4® FRI distractor
- S4® FRI distraction blades
- S4® FRI spindle distractor
- S4® FRI outer sleeve for reduction

- S4® FRI distractor



- S4® FRI distraction blade



- S4® FRI spindle distractor



- S4® FRI outer sleeve



For further details see brochure No. **O34002** and surgical technique No. **O26102.**

S4® SRI – Spondylolisthesis Reduction Instrument



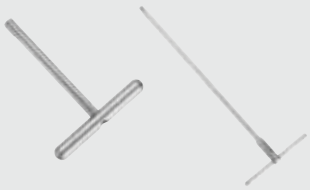
- The unique design of the S4® SRI facilitates simultaneous correction of transplantation.
- Safe reduction utilizing Aesculap's spondylolisthesis reduction instrument and the S4® Spinal System with TLIF.

Product overview:

- Reduction instrument



- T-handles



- Tightening keys



For further details see brochure No. **O32302.**

S4® Percutaneous



- Cannulated screws and instruments for minimally invasive surgery.

Instruments for percutaneous placement of pedicle screws and rods:

Clamping sheath



Monoaxial screwdriver



Polyaxial screwdriver



Instruments for percutaneous insertion of the set screw:

Lever threadpipe



Screwdriver



Spacer



Spine

For further details see brochure No. **O44602.**

PROSPACE® / TSPACE® / A-Space



Titanium implants with Plasmapore® coating

- 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 of implant sizes
  - Restoration of the natural lordosis and the spinal balance

PEEK implants

- 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

Implant overview:

PROSPACE® Ti
- 7-13 mm height
- 16-26 mm length
- 0°, 5° and 8° angle



PROSPACE® PEEK
- 7-13 mm height
- 19-25 mm length
- 0°, 5° and 8° angle



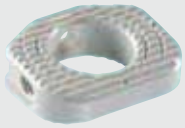
TSPACE® Ti
- 7-17 mm height
- 26 and 30 mm length
- 5° angle



TSPACE® PEEK
- 7-17 mm height
- 26 and 30 mm length
- 5° and 8° angle



A-Space PEEK
- 9-19 mm height
- 26x31 mm and 28x35 mm width
- 6° and 12° angle



For further details see brochures No. **012202, 029502** and **034502.**

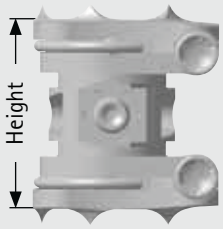
Hydrolift® – New Generation of Vertebral Body Replacement

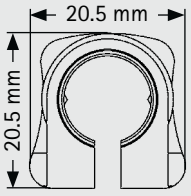


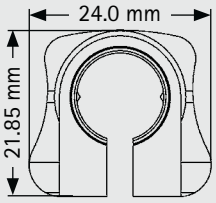
- **Continuous hydraulic distraction**
  - The continuous hydraulic distraction offers a very exact and safe height adaptation of the implant.
- **In-situ adaptable endplates**
  - For a perfect adjustment to the individual lordosis or kyphosis angles.
  - Reduction of danger of breaking into the adjacent vertebral body.
- **Slim implant body**
  - Only partial corpectomy necessary.
- **Modular concept**
  - Pre-assembled implants.
  - Exchangeable endplates for individual adaption.
- **Different approaches**
  - Open, mini-open or thoracoscopic approach.
  - 360° pivotable endplates for biggest flexibility for approach (anterior, antero-lateral as well as posterior and postero-lateral for implantation heights > 29 mm with endplates rotated by 90°).
- **Advanced primary and secondary fixation**
  - Spikes and Plasmapore® coating.

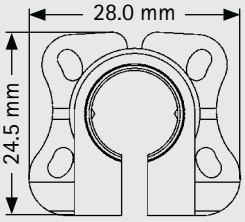
Implant overview:

Implants









Height*	**S** (20.5 x 20.5 mm)	**M** (21.85 x 24.0 mm)	**L** (24.5 x 28.0 mm)
Size 1 21.0–24.0 mm	SV001T		
Size 2 26.0–28.0 mm	SV004T	SV005T	
Size 3 26.0–33.5 mm	SV007T	SV008T	SV009T
Size 4 31.0–43.0 mm	SV010T	SV011T	SV012T
Size 4+ 35.5-52.0 mm	SV030T	SV031T	SV032T
Size 5 40.0–60.5 mm		SV014T	SV015T
Size 6 57.0–93.5 mm			SV018T

* Height implant including endplates, without spikes.

Endplates	**S** (20.5 x 20.5 mm)	**M** (21.85 x 24.0 mm)	**L** (24.5 x 28.0 mm)
Endplate Size S	SV019T		
Endplate Size M		SV020T	
Endplate Size L			SV021T

For further details see brochure No. **O29302** and surgical technique No. **O37602.**

MACS II – Modular Anterior Construct System



- **Different approaches:**
  - Open, mini-open, thoracoscopic
- **Safety:**
  - Safe screw positioning through K-Wire and cannulated instruments and implants, safe locking mechanism
- **Easy instrumentation:**
  - Simplified guided instrumentation
- **Modular concept:**
  - Thoracic and lumbar elements
  - Thoracic, lumbar and XL screws
  - Plates and rods

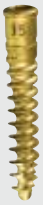
Implant overview:

- Polyaxial screws Ø 7.0 mm
- Stabilisation screws lumbar Ø 6.5 mm
- Stabilisation screws thoracic Ø 4.5 mm
- Clamping element TL
- Clamping element T
- Polyaxial screws XL Ø 10 mm
- Pre-mounted set screw with centralizing sleeve
- Fixation nut
- Plates
- Rods

Polyaxial screws Ø 7.0 mm
15, 20, 25, 30, 35, 40, 45, 50, 55 mm



Stabilisation screws lumbar Ø 6.5 mm
25, 30, 35, 40, 45, 50 mm



Stabilisation screws thoracic Ø 4.5 mm
15, 20, 25, 30 mm



Clamping element TL



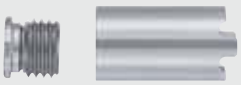
Clamping element T



Polyaxial screws XL Ø 10 mm
30, 40 mm



Pre-mounted set screw with centralizing sleeve



Fixation nut



Rods
100, 120, 150, 180, 200 mm



Plates
40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100 mm



For further details see brochure No. **O42702**.

activL®



- 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.

Implant overview:

- The implant is composed of a
  - superior plate
  - inlay and
  - inferior plate.
- Plate size in
  - S (26 x 31 mm)
  - M (28 x 34.5 mm)
  - L (30 x 39 mm)
  - XL (33 x 40 mm)
- 0°, 6° and 11° angulation
- Inlay height 8.5, 10, 12 and 14 mm



For further details see brochure No. **O27802** and surgical technique No. **O27902.**

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

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



For further details see brochure No. **O11202.**

CCR-XX Radiolucent Cervical Retractor System



PEEK blades with ridges giving good purchase against soft tissue

- completely radiolucent X-ray imaging
- without light reflection
- firm yet gentle grip with secure fit
- new generation PEEK - high stability

Double hinge retractors

- optimal intra-operative adaption
- basic retractor with tiltable
- butterfly screw

Side load mechanism

- easy and fast intra-operative handling
- handles for blades for a modular use as hand-held retractors
- 100% compatible to previous ball snap closure
- 100% compatible to standard stainless steel retractor

Product overview:

- 19 mm system for microsurgical techniques
- Blade lengths from 30 mm up to 70 mm with either toothed or blunt ends



CCR radiolucent
longitudinal counter retractor



CCR radiolucent
basic retractor



CCR radiolucent
basic counter retractor



Spine

For further details see brochure No. **O36602.**

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.

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



For further details see brochure No. **011402**.

CLR CASPAR Lumbar Retractor System

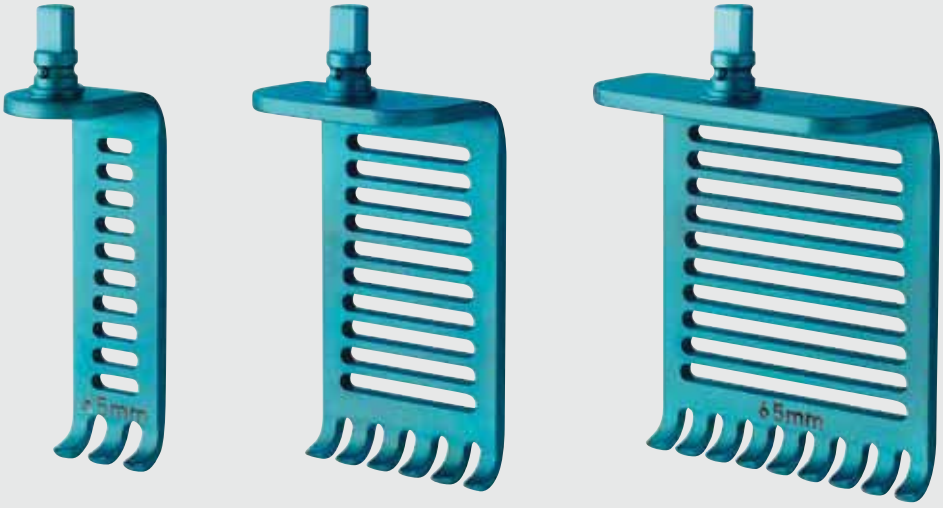


- Joints to improve retractor positioning
- Tissue-preserving tooth shape
- Strong and stable, yet radiolucent

Product overview:



- Blades



- Hooks



- CLR Retractor



For further details see brochure No. **O18702.**

activ O – The perfect retractor system for an easy and safe anterior, anterolateral or lateral approach for lumbar spine surgery



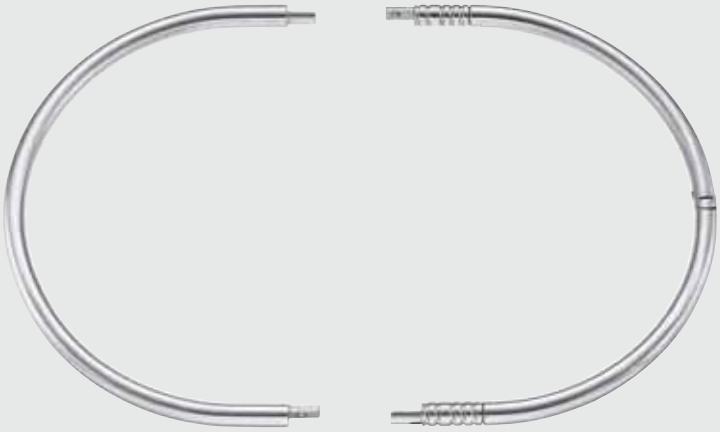
- Totally radiolucent blades
- Adjustable angulation of the blades
- Optional fixation to vertebral bodies
- Optional fixation to the table
- Tight and safe fixation to the ring



Product overview:



- Ring



- Connecting clamp



- Handle for retractor blades with screw thread



- Retractor blades



For further details see brochure No. **O34302.**

Aesculap Neurosurgery



Storage

Storage & Reprocessing

Storages for Implant Systems and Application Instruments
YASARGIL Aneurysm Clip Trays

Clip tray 1/1
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

Art. No.	Dimensions L/W/H
FT007P	525 x 250 x 33 mm

Clip tray 1/2
for storage, transport and sterilization of
Aesculap YASARGIL Aneurysm Clips

- autoclavable plastic
- fits 1/2 standard container
- 15 storage compartments for Standard and Mini Clips
- 3 storage compartments for Long Clips
- with special identification tags for individual tray configuration



YASARGIL

Art. No.	Dimensions L/W/H
FT006P	250 x 250 x 33 mm

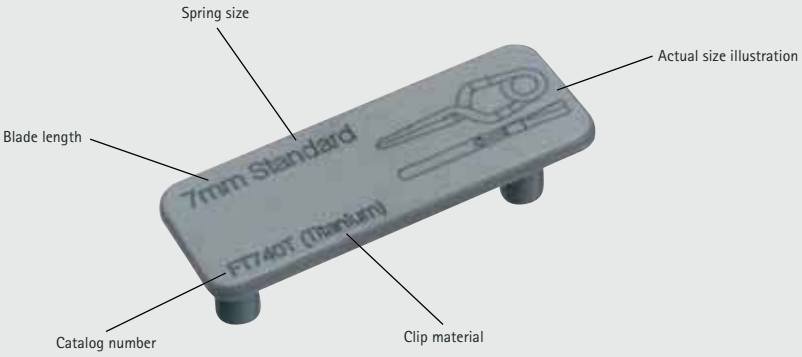


Identification tags for the clip tray

- 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



Storages for Implant Systems and Application Instruments
CranioFix®2 Tray



Art. No.	Dimensions L/W/H
FF094P	250 x 250 x 32 mm

CranioFix®2
Tray for
- 1 x FF494R CranioFix®2 Applier
- 1 x FF105R CranioFix®2 Holding forceps
- 1 x FF103R CranioFix®2 Pin cutter
- 1 x FF104R CranioFix®2 Removal forceps

(instruments not included)

Storages for Implant Systems and Application Instruments
Combi Tray CranioFix®2, ScalpFix®



Art. No.	Dimensions L/W/H
MD371	392 x 257 x 98 mm

Combination tray with lid
for ScalpFix® and CranioFix®2
(instruments not included)

- **Components:**
  - Lid
  - Tray element I
  - Tray element II
- **Important: The tray contents are not part of the delivery scope of this product. All contents must be ordered separately!**



Lid



Tray element I for
- 1 x FF494R CranioFix®2 Applier
- 1 x FF105R CranioFix®2 Holding forceps
- 1 x FF103R CranioFix®2 Pin cutter
- 1 x FF104R CranioFix®2 Removal forceps
- 1 x FF012R or FF007P ScalpFix®2 applier
- 1 x FF014R ScalpFix® Removing forceps



Tray element II for
- 1 x FF494R CranioFix®2 Applier
- 1 x FF012R or FF007P ScalpFix® Applier
- 1 x FF014R ScalpFix® Removing forceps

Storages for Implant Systems and Application Instruments
Combi Tray CranioFix®2, CranioPlate, ScalpFix®



Art. No.	Dimensions L/W/H
MD372	392 x 257 x 98 mm

Combination tray with lid
for CranioFix®2, ScalpFix® and CranioPlate
(instruments not included)

- Components:
  - Lid
  - Tray element I
  - Tray element II
  - Tray element III
- **Important: The tray contents are not part of the delivery scope of this product. All contents must be ordered separately!**



Lid



Tray element II for
- 1 x FF494R CranioFix®2 Applier
- 1 x FF012R or FF007P ScalpFix® Applier



Tray element I for
- 1 x FF494R CranioFix®2 Applier
- 1 x FF105R CranioFix®2 Holding forceps
- 1 x FF103R CranioFix®2 Pin cutter
- 1 x FF104R CranioFix®2 Removal forceps
- 1 x FF012R or FF007P ScalpFix® applier
- 1 x FF014R ScalpFix® Removing forceps



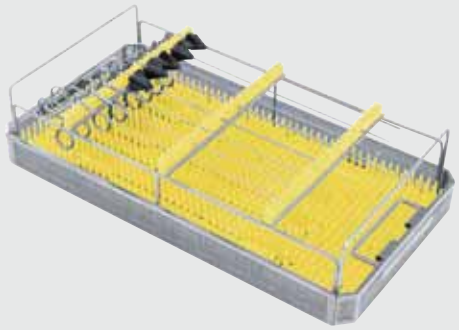
Tray element III for
- CranioPlate implants (selection of plates and screws)
- CranioPlate instruments
- 1 x FM915P
- 4 x FM911P or FM913P
  or combination

Storages for Neuroendoscopy Systems
Racks for MINOP® Instruments and PaediScope®



Art. No.	Dimensions L/W/H
FF358R	489 x 257 x 63 mm

Storage rack for MINOP® trocars and MINOP® scopes
with silicone protection cushioning
bottom and lid
(instruments not included)



Art. No.	Dimensions L/W/H
FF359R	485 x 253 x 120 mm

Storage rack for MINOP® instruments and electrodes
with silicone protection cushioning
bottom only, lid not necessary
(instruments not included)



Art. No.	Dimensions L/W/H
FF379R	489 x 257 x 63 mm

Storage rack for complete Paediscope system
with silicone protection cushioning
bottom and lid
(instruments not included)



Art. No.	Description
JK440	Container body 1/1 for FF358R and FF379R without base perforation Outside/Inside dimensions with lid: (L/W/H 592 x 285 x 112 mm) (L/W/H 544 x 258 x 75 mm)
JK444	Container body 1/1 for FF359R without base perforation Outside/Inside dimensions with lid: (L/W/H 592 x 285 x 209 mm) (L/W/H 544 x 258 x 172 mm)
JK486	Container lid 1/1 blue

Storages for Neuroendoscopy Systems
Racks for MINOP® Trend and PERNECZKY Neuroscopes



Art. No.	Dimensions L/W/H
JF324R	257 x 247 x 63 mm

Storage rack for two angled scopes
with silicone protection cushioning
bottom and lid
(angled scopes not included)



Art. No.	Dimensions L/W/H
FF357R	410 x 257 x 64

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



Art. No.	Description
JK740	Container body 3/4 for FF357R without base perforation Outside/Inside dimensions with lid: L/W/H 470 x 274 x 90 mm
JK786	Container lid 3/4 blue

Storages for Instruments
Racks for KAIRison Bone Punch, Rack for Micro Instruments

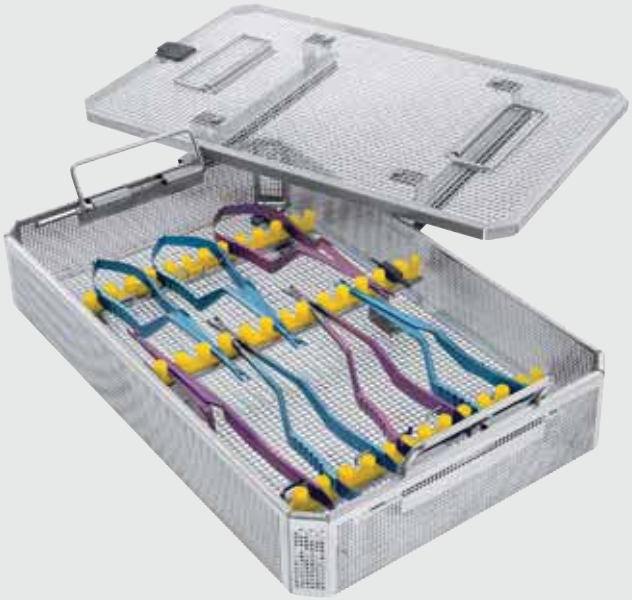


Storage rack for KAIRison handle and pressure reducer
(handle and pressure reducer not included)
consisting of:

Art. No.	Description
FK881R	Storage rack bottom Outside dimensions: (L/W/H 243 x 253 x 56 mm)
JF117R	Lid Outside dimensions: (L/W/H 247 x 257 x 18 mm)



Art. No.	Dimensions L/W/H
FK891R	406 x 253 x 36 mm Storage rack for KAIRison shafts (shafts not included)



Art. No.	Description
FM665R	Outside dimensions of basket bottom: (L/W/H 406 x 253 x 76 mm) Outside dimensions of lid: (L/W/H 410 x 257 x 18 mm)

Perforated basket with silicone cushioning racks and lid
for storage of bayonet-shaped micro instruments and clip appliers
(instruments not included)



3/4 Container (basis version)
for storage rack FM665R
consisting of:

Art. No.	Description
JK741	Container body 3/4 without base perforation Outside dimensions: (L/W/H 470 x 274 x 120 mm)
JK789	Container lid 3/4 silver Outside dimensions: (L/W/H 470 x 285 x 138 mm)



MÜLLER

Art. No.	Dimensions L/W/H
FM024R	270 x 124 x 23 mm

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

Art. No.	Dimensions L/W/H
FM026R	270 x 124 x 23 mm

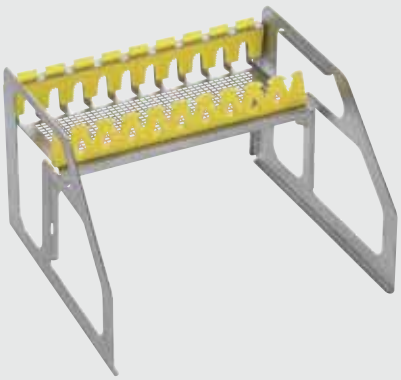
Rack with silicone pads and compartments for accessories provides organized and protective storage for the MÜLLER micro instruments **FM033R–FM061R**, applying forceps **FD568R** or **FD569R** and various micro vessel clips and approximators.
(Instruments not included)



Art. No.	Dimensions L/W/H
JG381R	273 x 176 x 30 mm

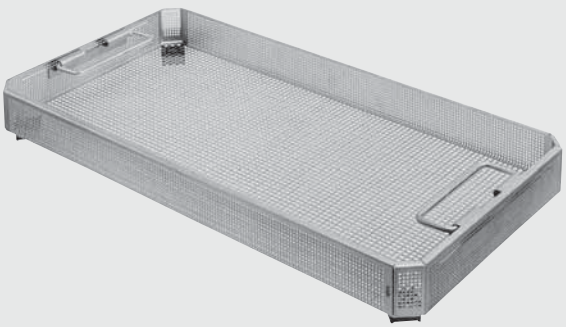
Perforated basket with instrument racks and lid for storage of AL MEFTY skull base instruments

Storages for Instruments
Rack for Bone Punches and Rongeurs, Micro Instrument Holder



Art. No.	Dimensions L/W/H
JF120R	240 x 225 x 161 mm

Rack for bone punches and rongeurs



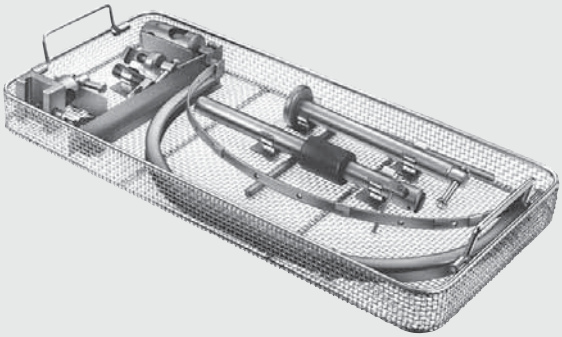
Art. No.	Description
JF212R	Outside dimensions: (L/W/H 485 x 253 x 56 mm)
JF112R	Outside dimensions: (L/W/H 243 x 253 x 56 mm)

Tray with feet, stainless steel



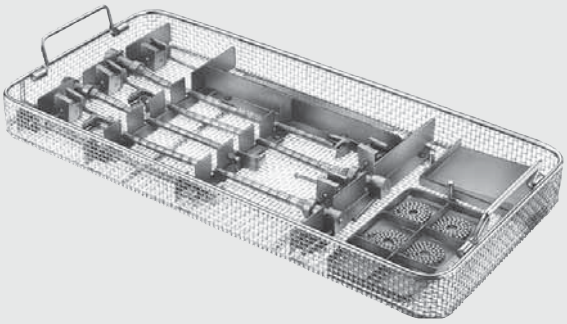
Art. No.	Dimensions L/W/H
GB613R	102 x 44 x 21 mm

Holding device
for Hilan & Hilan XS 2.35 mm low speed burrs



Art. No.	Dimensions L/W/H
FF148R	540 x 253 x 56 mm

Storage rack for basic unit
(instruments not included)



Art. No.	Dimensions L/W/H
FF149R	540 x 254 x 50 mm

Storage rack for flexible arms etc.
(instruments not included)



For further details see brochure No. **C81902**



For further details see brochure No. **C40402**

Aesculap Neurosurgery



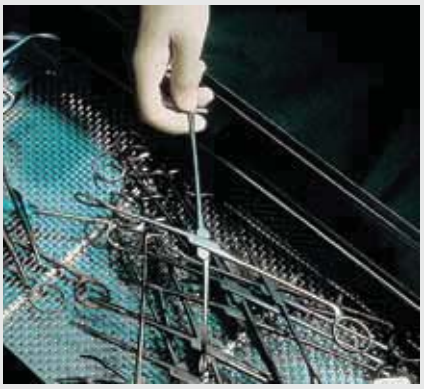
Tips

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.

Please also adhere to the individual Instructions For Use for every product and to national statutory regulations, national and international standards and directives, and local, clinical hygiene instructions for sterile processing.

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 dismantleable 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 ultra-sound. 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.
- 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

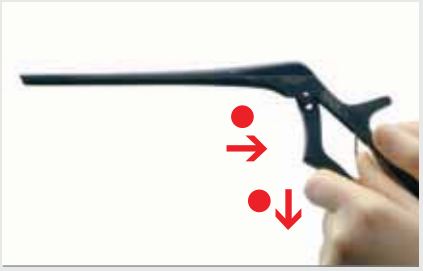
Care and Maintenance of Instruments

Detachable KERRISON Bone Punches

Disassembly



1. Remove spring from outer part of handle.



2. Close handle completely and pull down the inner part of the handle.



3. 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.
- Moving parts (hinges, latches and contact area of sliding part) should be lubricated with a sterilizable and moisture-permeable light weight machine oil (such as Aesculap® STERILIT® maintenance oil JG598).



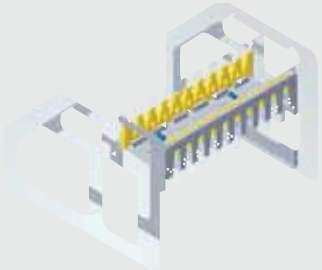


Lubricate the defined places on the instruments with Aesculap® STERILIT® Oil e. g. JG598 after each cleaning cycle.

- 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.



Assembly



1. Put on sliding part and push it forward.



2. Press up inside part of handle and open handle.



3. Insert spring into outer part of handle.

For further informations please see our brochure:





Proper Maintenance of Instruments



C84802
Bone Punches



C24302
KAIRison



C81902
AIOS –
Aesculap Instrument Organisation System

Please find further information on the internet: **www.aesculap-neuro.com**

Care and Maintenance of Instruments
KAIRison® Pneumatic Bone Punch

Disassembly



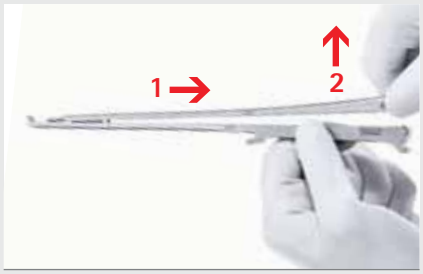
1. Pull back the locking mechanism to release the shaft.



2. Turn the shaft in the direction of the arrow.



3. Unhook the shaft and lift it off the handle.



4. 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).

For further informations please see our brochure:



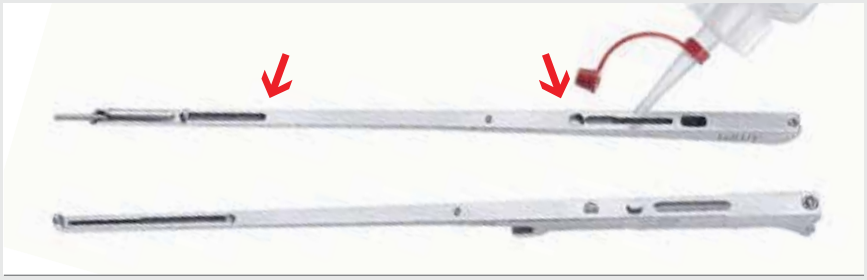
Proper Maintenance of Instruments



C24302
KAIRison®



C81902
AIOS –
Aesculap Instrument Organisation System



Lubricate the defined places on the instruments (instruments jaw and red toggle switch) with Aesculap® STERILIT® Oil e. g. JG598 after each cleaning cycle.

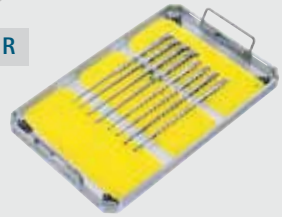
- Sterilization must be carried out in accordance with a validated steam sterilization procedure (e.g. in a sterilizer in conformance with EN 285/ANSI/AAMI/ISO 11134-1993, ANSI/AAMI/ST46-1993 and validated in conformance with EN 554/ISO 13683). If the fractionated vacuum procedure is used, sterilization 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.

Storage

- Keep the instrument in a suitable storage tray under low contamination conditions in a dry, dark and cool place.



FK881R



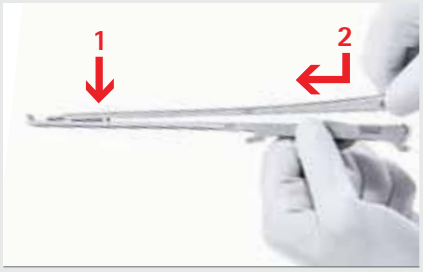
FK891R

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 Sales unit: PAK = Package of 10 tubes
GA466R	Pneumatic hose (5 m) with Aesculap-Dräger connection
GA468R	Pneumatic hose (5 m) with Aesculap-Schrader connection

Assembly



1. Insert the ejector (1), push forward until the ball clicks into place (2).



2. Check shaft position, hook shaft into handle.



3. Turn shaft towards handle.



4. Check correct shaft position before use.



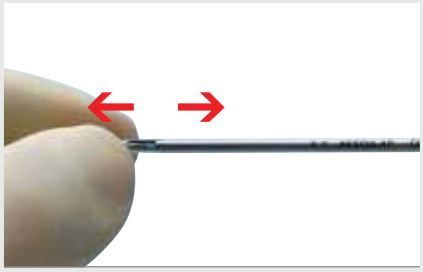
FK899R

Care and Maintenance of Instruments
Detachable MINOP® Instruments

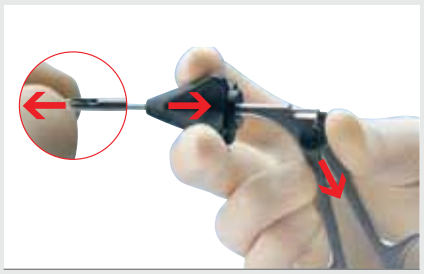
Disassembly



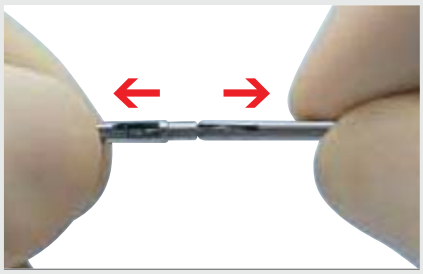
1. Push and hold down the black button. At the same time, slide off the moveable ring towards the lower end.



3. Remove the outer tube from the working insert.



2. 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.



4. Remove the inner tube from the working insert.

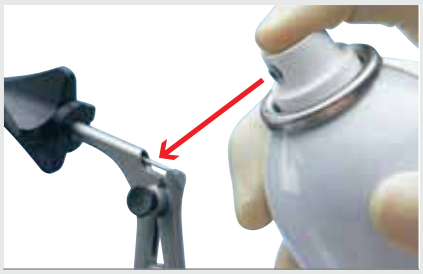
Processing-Accessories

- 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

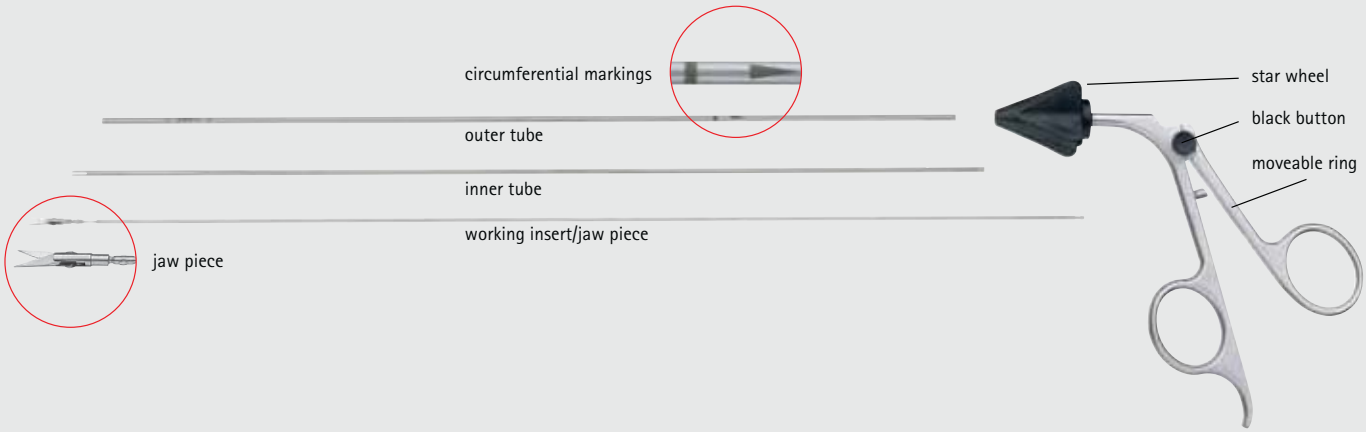




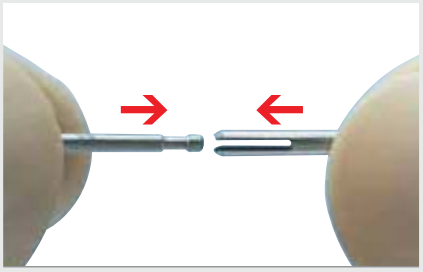
Care

Please oil the instruments at the movable parts with Aesculap® STERILIT® after each cleaning.

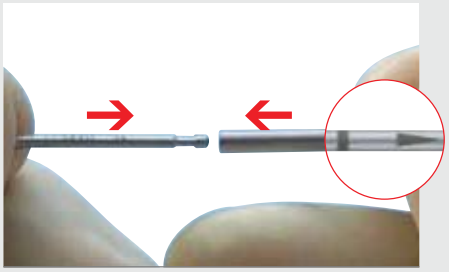
These instructions apply for all MINOP tube shaft instruments (FF385R-FF389R).



Assembly



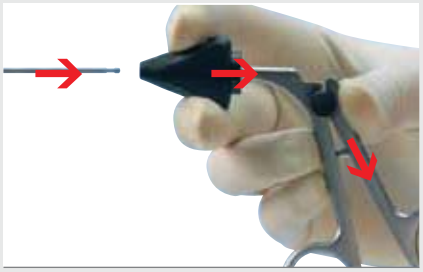
1. Push the inner tube towards the working end of the working insert and align the slots of the inner tube so they slide over the two nubbs of the working insert (see „Disassambling IV“)



2. Slide the outer tube over the inner tube with the working insert. Ensure that the arrows (circumferential markings) point towards the handle.



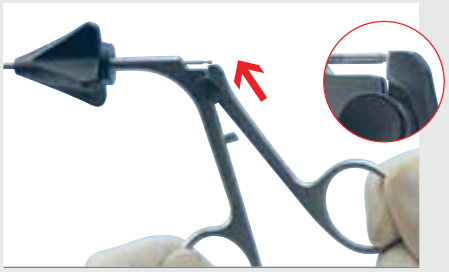
3. Hold the shaft at its closed working end. Ensure that the outer tube has been pushed over the inner tube with the working insert up to its positive stop.



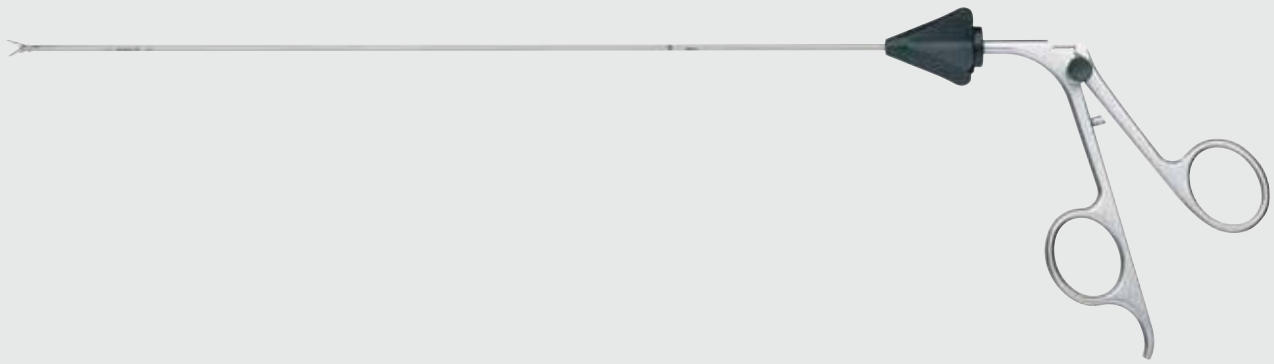
4. Slide back and hold the star wheel at its positive stop. At the same time, slide off the moveable ring towards the lower end. Hold the shaft at its closed working end and reinsert it to its positive stop.



5. Allow the star wheel to slide forward. (The shaft must be connected securely to the handle and must not come loose even when pulled.)



6. Slide the moveable ring upward until the button clicks into place.



Care and Maintenance of Instruments

Detachable XS Micro Instruments

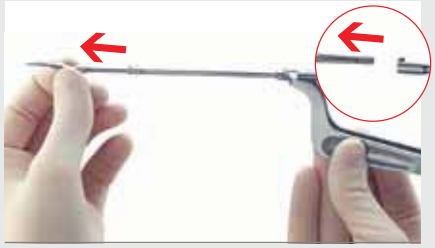
Disassembly



1. Turn the adjustment knob by approximately 180° until it engages.



2. With one hand, depress the handle branches, with the other hand, hold the jaw part.



3. Pull the jaw part out of the tubular shaft.



4. Turn the adjustment knob back into its original position.



5. 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.
- 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.

For further informations please see our brochure or on the internet:
www.aesculap-neuro.com



C77011
XS Mirco Instruments

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

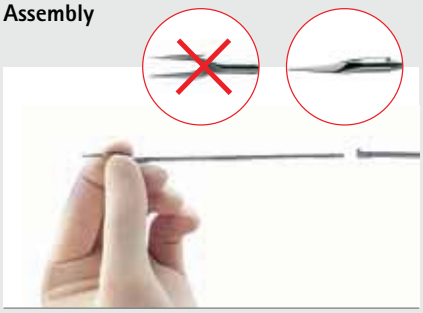
410 x 257 83,5 mm
Instrument racks and lid for storage of XS-Micro Instruments (instruments not included)



FM732800

Cleaning brush
for XS-Micro Instruments

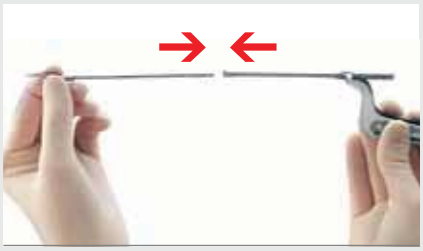
Assembly



1. Close the tip of the jaw part.



2. Depress the handle branches and hold them in this position.



3. 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).



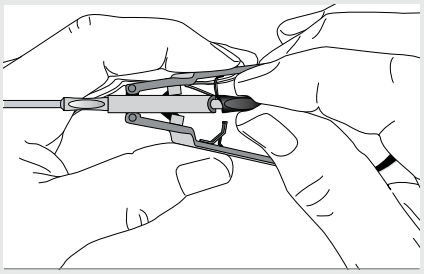
4. Push both components together until the jaw part engages (audible click!).



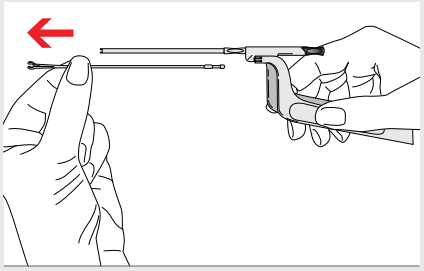
5. Test the function of the instrument.

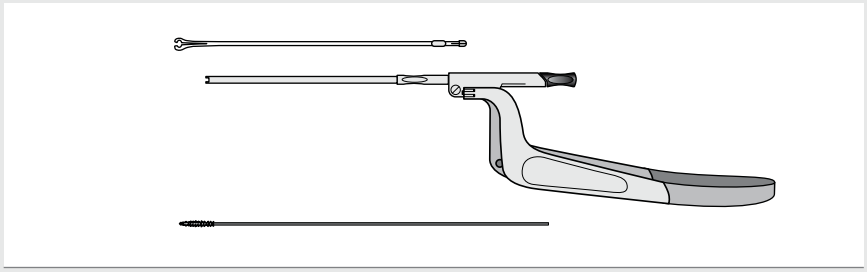
Care and Maintenance of Instruments
Detachable XS Clip Appliers

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.

Aesculap Neurosurgery



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