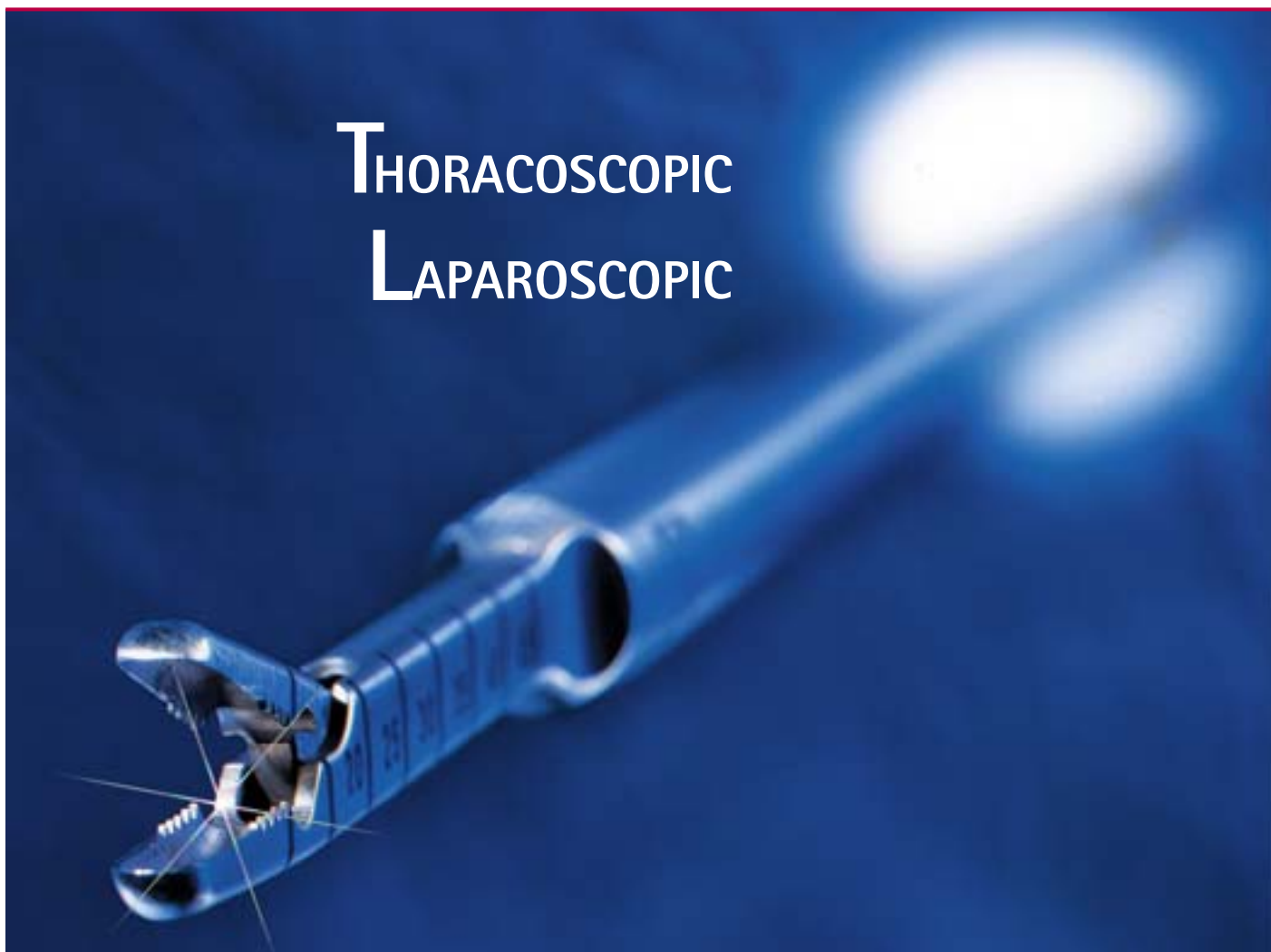


Aesculap Spine Miaspas TL

Spinal Microsurgical Endoscopy

THORACOSCOPIC
LAPAROSCOPIC





	PAGE
INTRODUCTION	3
RONGEURS AND NUCLEUS-GRASPING FORCEPS	5
BONE PUNCHES	6
APPLICATION OF THE SLIDING TUBE	7
DISSECTORS AND EXPLORATION HOOKS	8
SCOOPS	9
CURETTES, OSTEOTOMES AND IMPACTORS	10
LUNG SPATULA AND RIB ELEVATOR	11
SPECULUM, DILATOR ROD, BONE-GRAFT-HOLDER AND BONE GRAFT MEASUREMENT INSTRUMENT	12
DRILL, BURRS AND HAND PIECE	13
TROCARS COMPLETE	14
TROCAR SYSTEM	16
BIPOLAR FORCEPS	17
FURTHER ENDOSCOPIC INSTRUMENTS AND MOTOR LINE EQUIPMENT SEE FOLLOWING LEAFLETS	18
AESCULAP SPINE PRODUCTS	19

miaspas^{TL} SPINAL MICROSURGICAL ENDOSCOPY

The **miaspas^{TL}** instrument system was developed in co-operation with

Daniel Rosenthal, MD.
Praxisklinik Bad Homburg
Hessenring 128 A
61348 Bad Homburg
Germany

to safely perform microsurgical endoscopic surgery on the thoracic and lumbar spine.



Microsurgical endoscopy - as the name suggests - is a technique based on two of the most minimally invasive or least traumatic current techniques for spinal surgery.

The **miaspas^{TL}** instruments are designed with the surgeon in mind, to facilitate spinal microsurgical endoscopic procedures.

Main advantages of the **miaspas^{TL}** instrument system:

- ▀▀▀▀ ➤ microsurgical endoscopic technique promotes minimal patient trauma
- ▀▀▀▀ ➤ suitable for both laparoscopic (using gas insufflation) and thoracoscopic (gasless) procedures
- ▀▀▀▀ ➤ well balanced instrument design ensures easy handling
- ▀▀▀▀ ➤ high quality reusable instruments ensure cost savings
- ▀▀▀▀ ➤ instrumentation is easily disassembled for cleaning prior to sterilisation
- ▀▀▀▀ ➤ depth marks on instruments allow the surgeon full control of the working depth at any time
- ▀▀▀▀ ➤ special design makes the instrumentation suitable for microsurgical tasks and at the same time strong enough to work on bone



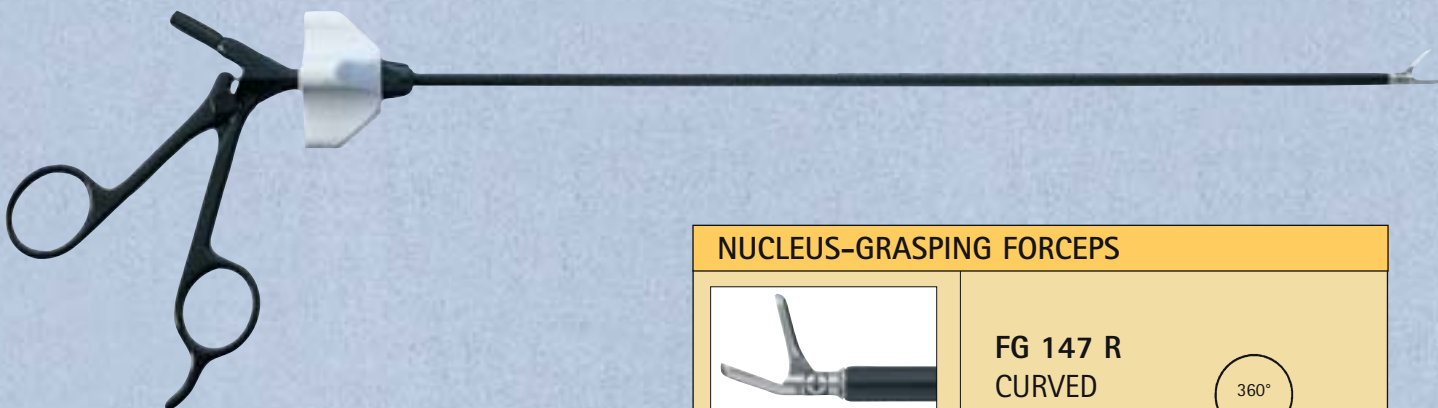


miaspas^{TL} RONGEURS AND NUCLEUS-GRASPING FORCEPS



- ◆ shaft length 310 mm
- ◆ shaft diameter 10 mm
- ◆ working length 50 mm
- ◆ can be disassembled
- ◆ shaft adjustable in 4 positions
- ◆ toothed jaw

RONGEURS		
		FF 839 R STRAIGHT 4x14 mm
		FF 840 R STRAIGHT 6x16 mm
		FF 851 R 30° CURVED 4 x14 mm
		FF 849 R 30° CURVED 5x14 mm
		FF 850 R 30° CURVED 6 x14 mm

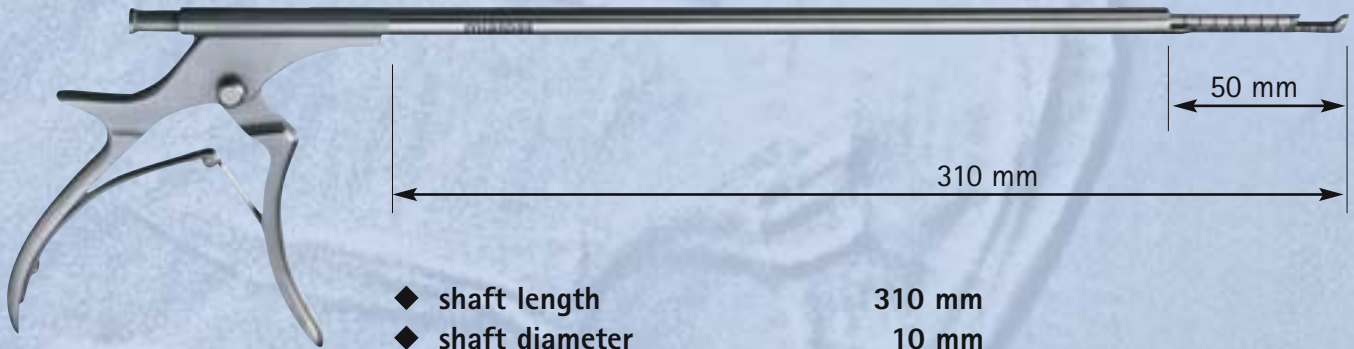


- ◆ shaft length 310 mm
- ◆ shaft diameter 5 mm
- ◆ can be disassembled
- ◆ shaft 360° rotatable
- ◆ oval cups

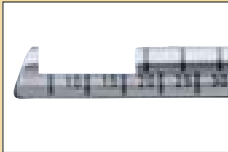
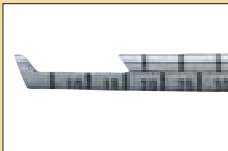
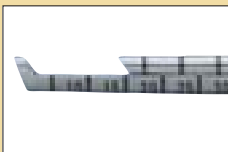
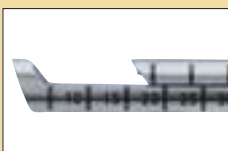

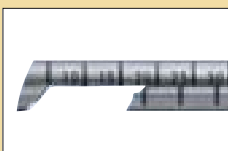
NUCLEUS-GRASPING FORCEPS		
	FG 147 R CURVED 3.5 mm	
	FG 148 R STRAIGHT 4.5 mm	



miaspas^{TL} BONE PUNCHES



- ◆ shaft length 310 mm
- ◆ shaft diameter 10 mm
- ◆ working length 50 mm
- ◆ can be disassembled

BONE PUNCH		90° upwards cutting	
	FG 894 R	width jaws open	2.5 mm 12.0 mm
BONE PUNCH		130° upwards cutting	
	FG 901 R	width jaws open	2.0 mm 9.0 mm
	FG 902 R	width jaws open	2.5 mm 9.0 mm
	FG 904 R	width jaws open	4.0 mm 12.0 mm
BONE PUNCH		130° downwards cutting	
	FG 912 R	width jaws open	2.5 mm 9.0 mm
	FG 914 R	width jaws open	4.0 mm 12.0 mm

miaspas^{TL} APPLICATION OF THE SLIDING TUBE

SLIDING TUBE



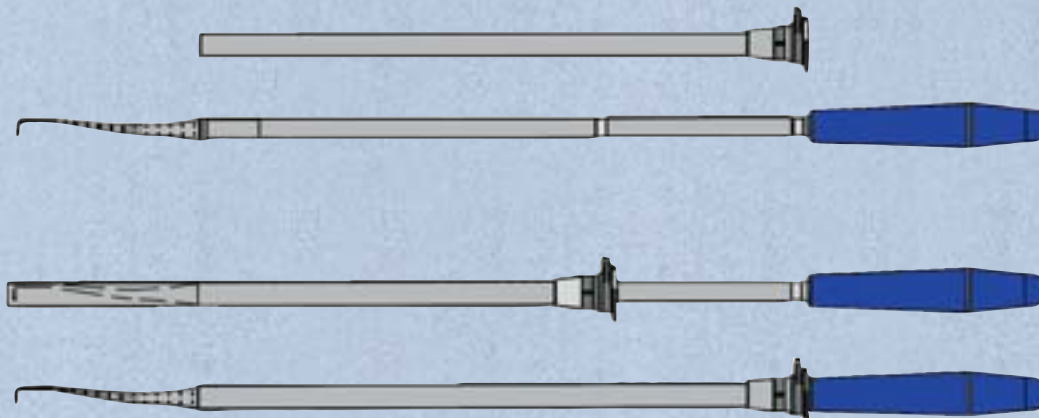
FL 079 R

length 256 mm
diameter 10 mm

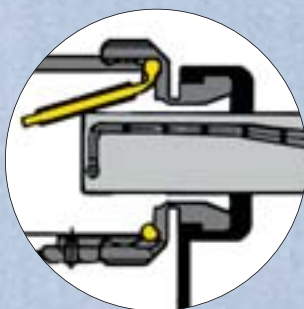
Laparoscopic Spinal Column Intervention:

During insertion and removal of the instruments through the trocar, the sliding tube prevents gas loss and protects soft tissue from injury by the sharp working ends. The following instruments require use of a sliding tube:

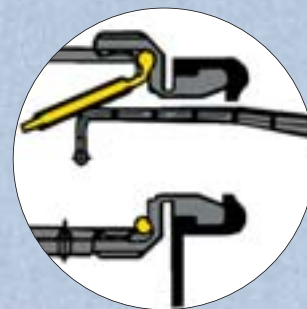
- scoops
- osteotomes
- exploration hooks (only **BT 096 R** and **BT 097 R**)
- dissectors (only **FF 335 R** and **FF 337 R**)
- impactors



EX: With sliding tube



EX: Without sliding tube



GAS LOSS!

The sliding tube is already integrated in the instruments:

- BT 098 R and BT 099 R exploration hooks
- FF 339 R dissector



miaspas^{TL} DISSECTORS AND EXPLORATION HOOKS

DISSECTORS



Dissector, curved – shaft length 310 mm – working length 80 mm – curved			
		FF 340 R	4.5 mm shaft-Ø 4.0 mm slim metal handle
		FF 337 R*	2.0 mm shaft-Ø 9.0 mm
		FF 335 R*	4.5 mm shaft-Ø 9.0 mm
		FF 339 R	10.0 mm shaft-Ø 10.0 mm sliding tube integrated can be disassembled

* sliding tube FL 079 R for laparoscopic intervention should be ordered separately!

EXPLORATION HOOKS

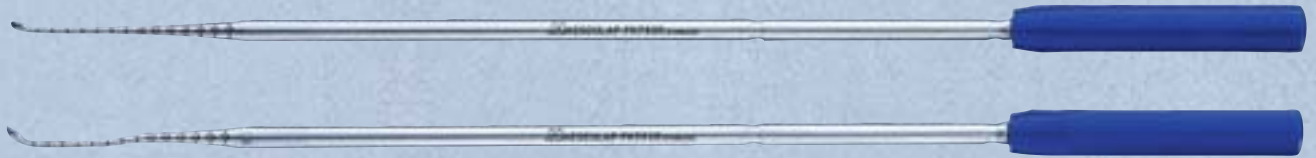


Exploration Hook – shaft length 310 mm – working length 80 mm – probe end		
	BT 070 R	medium , shaft-Ø 4.0 mm slim metal handle
	BT 096 R*	short shaft-Ø 9.0 mm
	BT 097 R*	medium shaft-Ø 9.0 mm
	BT 098 R	long , shaft-Ø 10.0 mm sliding tube integrated can be disassembled
	BT 099 R	angled , shaft-Ø 10.0 mm sliding tube integrated can be disassembled

* sliding tube FL 079 R for laparoscopic intervention should be ordered separately!

miaspas^{TL} SCOOPS

SCOOPS



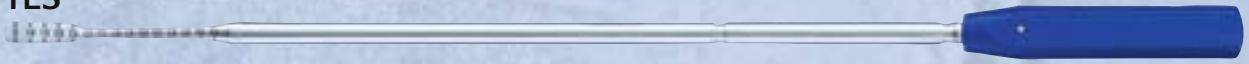
Scoop, straight – shaft length 310 mm – shaft diameter 9 mm – working length 80 mm			
		FK 779 R*	3.6 x 5.0 mm
		FK 780 R*	4.4 x 6.2 mm
		FK 781 R*	5.2 x 7.3 mm
Scoop, curved			
		FK 789 R*	3.6 x 5.0 mm
		FK 790 R*	4.4 x 6.2 mm
		FK 791 R*	5.2 x 7.3 mm
Scoop, 90° angled			
		FK 792 R*	4.4 x 6.2 mm

* sliding tube FL 079 R for laparoscopic intervention should be ordered separately!


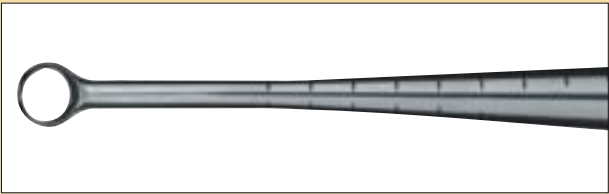


miaspas^{TL} CURETTES, OSTEOTOMES AND IMPACTORS

CURETTES



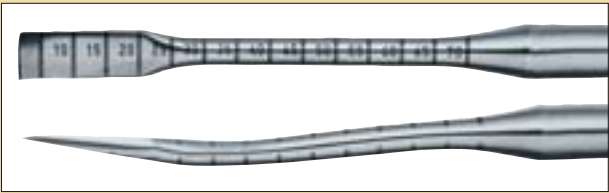
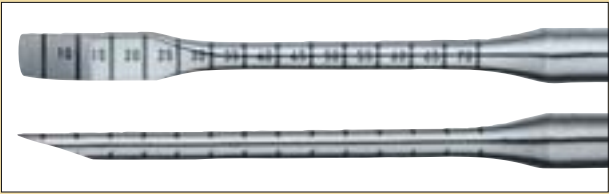
Curette – shaft length 310 mm – shaft diameter 10 mm – working length 80 mm

	FK 822 R	width 7 x 5 mm
	FK 826 R	width 6.4 mm

OSTEOTOMES



Osteotomes – shaft length 310 mm – shaft diameter 9 mm – working length 80 mm

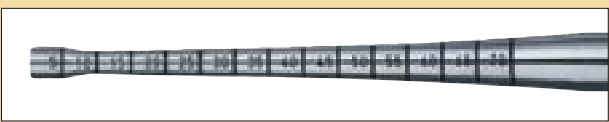
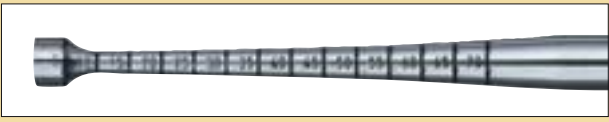

	FL 450 R*	width 8.0 mm 10° angled
	FL 451 R*	width 8.0 mm straight

* sliding tube FL 079 R for laparoscopic intervention should be ordered separately!

IMPACTORS



Impactor – shaft length 310 mm – shaft diameter 9 mm – working length 80 mm

	FL 080 R*	straight Ø 5.0 mm
	FL 081 R*	straight Ø 8.0 mm
	FL 082 R	6° angled Ø 5.0 mm

* sliding tube FL 079 R for laparoscopic intervention should be ordered separately!

miaspas^{TL} LUNG SPATULA AND RIB ELEVATOR

LUNG SPATULA



Lung Spatula – shaft length 310 mm – shaft diameter 10 mm



PL 671 R
width 12.5 mm

RIP ELEVATOR



RIB ELEVATOR – shaft length 310 mm – shaft diameter 10 mm



FK 380 R
width 9.5 mm

RIB HEAD RESECTOR



FK 389 R
120° curved,
sharp

RASPATORIUM




FK 392 R
width 8.0 mm



miaspas^{TL} SPECULUM, DILATOR ROD, BONE-GRAFT-HOLDER AND BONE GRAFT MEASUREMENT INSTRUMENT

SPECULUM		
	BV 935 R	short, 40 mm
	BV 936 R	long, 70 mm

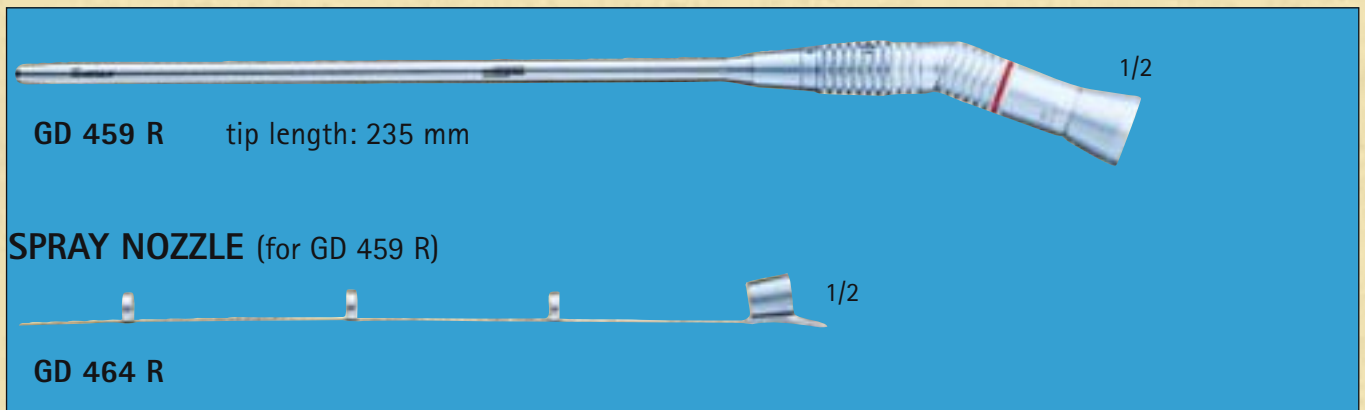
DILATOR ROD		
	EJ 430 R	ø 10.0 mm, length 400 mm

BONE-GRAFT-HOLDER		
	FG 044 R	shaft length 310 mm shaft diameter 10 mm working length 80 mm

BONE GRAFT MEASUREMENT INSTRUMENT		
	FG 045 R	shaft diameter 10 mm measuring range 8-65 mm

miaspas^{TL} DRILL, BURRS AND HAND PIECE

ANGULAR INTRA HAND PIECE



DRILL, BURRS

Drill			
		GC 868 R	LINDEMANN-Drill
Burr			
		GD 086 R	Barrel Burr size 24, ISO 070 Ø 7.0 mm
		GD 266 R	Cone Burr size 20, ISO 050 Ø 5.0 mm
		GD 267 R	Cone Burr size 24, ISO 070 Ø 7.0 mm
		GD 056 R	Diamond Burr size 14, ISO 035 Ø 3.5 mm
		GD 057 R	Diamond Burr size 22, ISO 060
		GD 058 R	ROSEN Burr size 14, ISO 035 Ø 3.5 mm
		GD 059 R	ROSEN Burr size 22, ISO 060 Ø 6.0 mm



Protection and Sliding Tubes for GD 459

GD 468 R



Sliding Tube for miaspas TL hand piece GD 459 R to prevent gas loss during insertion of the handpieces

GD 469 R



Protection Tube for miaspas TL hand piece GD 459 R to protect soft tissue and surrounding vessels during drilling to be used in combination with sliding tube GD 468 R



Oscillating Saw Equipment for Rip Head Removal

GB 128 R

Small oscillating saw hand piece with key GB 020 R
Universal INTRA-coupling acc. to ISO 3964



GC 549 R

Hollow bone scoop saw blade for rip head removal,
working length 235 mm
to be used with GB 128 R



GC 582 R

Angled saw blade for rip head removal, working length 235 mm
to be used with GB 128 R



Thoracoscopic

Plastics / Teflon



Trocar complete

- without valve
- teflon trocar sleeve, 75 mm
- radiolucent
- plastic body
- sealing cap
- canulated obturator, blunt

EJ 347 P diameter 7.0 mm

EJ 352 P diameter 12.5 mm

EJ 342 P diameter 10.0 mm,
with blunt obturator, not canulated

Laparoscopic

Metal / Teflon



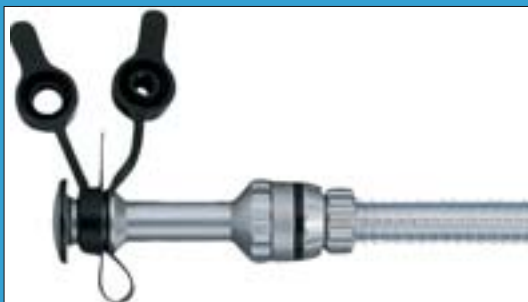
Trocar complete

- with valve
- teflon trocar sleeve, 100 mm, radiolucent
- metal body
- obturator, pointed
- sealing cap

EJ 800 R diameter 7.0 mm
without insufflation connection

EJ 820 R diameter 12.5 mm
with insufflation connection

Metal / Teflon



Trocar complete

- with valve
- teflon trocar sleeve, 100 mm, radiolucent
- lengthened metal body
- without insufflation connection
- converter
- lengthened obturator, pointed

EJ 822 R diameter 12.5 mm



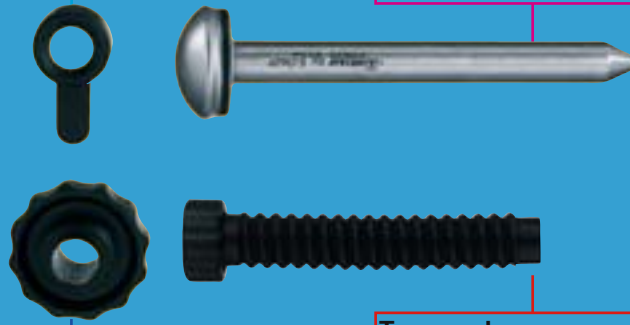
miaspas^{TL} TROCAR SYSTEM

Sealing cap (package with 20 pieces)

diam.	Ref. No.
7.0 mm	EJ 417 - 255
10.0 mm	EJ 449 - 255
12.5 mm	EJ 450 - 255

Obturator, blunt, not canulated

diam.	length of trocar sleeve	Ref. No.
7.0 mm	75 mm	EJ 359 R
10.0 mm	75 mm	EJ 361 R
12.5 mm	75 mm	EJ 364 R



THORACOSCOPIC

Trocar body, plastics, radiolucent

diam.	Ref. No.
7.0 mm	EJ 346 P
10.0 mm	EJ 341 P
12.5 mm	EJ 351 P

Trocar sleeve,

teflon, radiolucent (package with 3 pieces)

diam.	length	Ref. No.
7.0 mm	75 mm	EJ 804 P
10.0 mm	75 mm	EJ 814 P
12.5 mm	75 mm	EJ 824 P

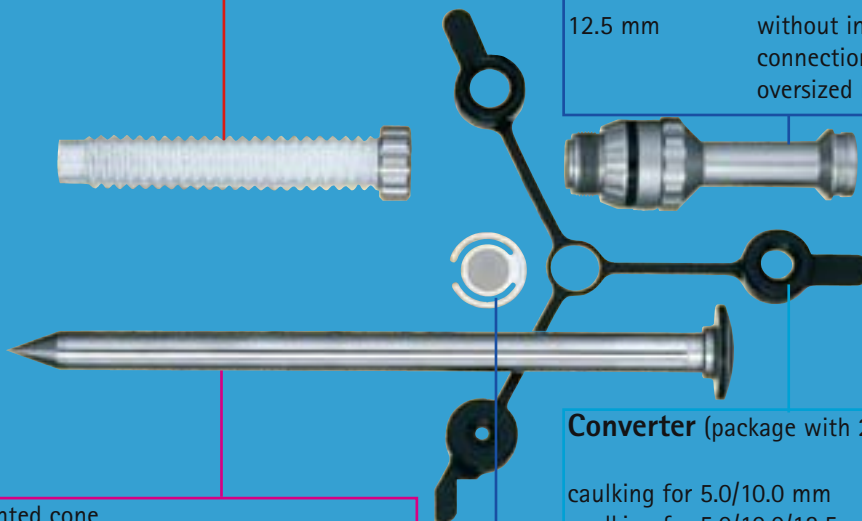
Trocar sleeve,

teflon, radiolucent (package with 3 pieces)

diam.	length	Ref. No.
7.0 mm	100 mm	EJ 806 P
12.5 mm	100 mm	EJ 826 P

Trocar body, with valve

diam.	Ref. No.	
7.0 mm	without insufflation connection (without picture)	EJ 801 R
12.5 mm	with insufflation connection (without picture)	EJ 821 R
12.5 mm	without insufflation connection oversized neck (see picture)	EJ 823 R



LAPAROSCOPIC

Obturator, pointed cone

diam.	length of trocar sleeve	Ref. No.
7.0 mm	100 mm	EJ 807 R
12.5 mm	100 mm	EJ 827 R
12.5 mm	100 mm with lengthened trocar body	EJ 829 R

Converter (package with 20 pieces)

	Ref. No.
caulking for 5.0/10.0 mm	EJ 640 P
caulking for 5.0/10.0/12.5 mm	EJ 641 P

Silicone flap valve (package with 20 pieces)

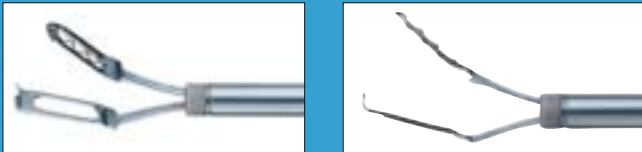
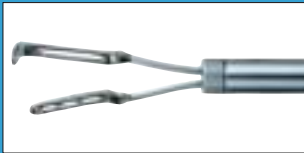
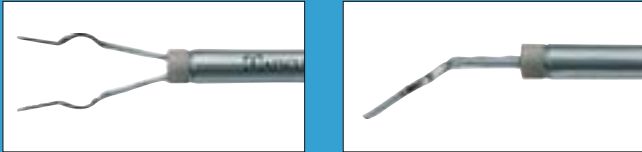
diam.	Ref. No.
7.0 mm	EJ 570 P
12.5 mm	EJ 571 P

miaspas^{TL} BIPOLAR FORCEPS

BIPOLAR FORCEPS

- shaft length 330 mm
- shaft diameter 5.0 mm
- can be disassembled



BIPOLAR Coagulation Forceps			
	GK 640 R	30° upwards curved	
BIPOLAR Coagulation Forceps			
	GK 630 R	straight	
Micro BIPOLAR Coagulation Forceps			
	GK 642 R	with olive 30° bended	



miaspas^{TL} FURTHER ENDOSCOPIC INSTRUMENTS AND MOTOR LINE EQUIPMENT SEE FOLLOWING LEAFLETS

X not available in U.S.A.



C 366



C-482



C 356

← general endoscopic instruments

← Thoracoscopy



C 467



C 738



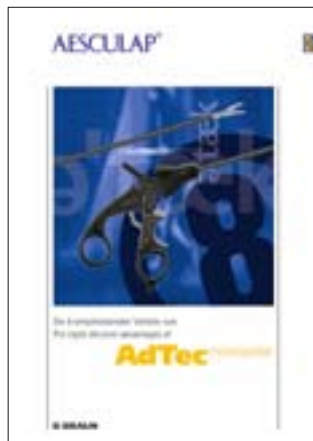
C 461

← endoscopic equipment

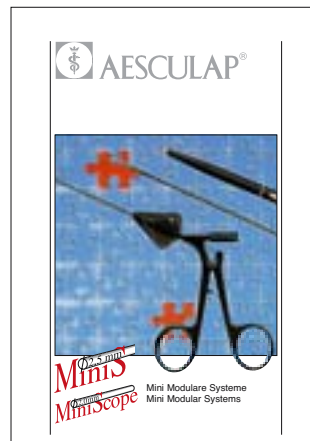
← 3 chip camera



C 758



C 766



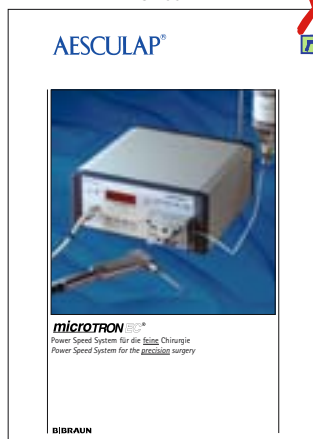
C 470

← specialities

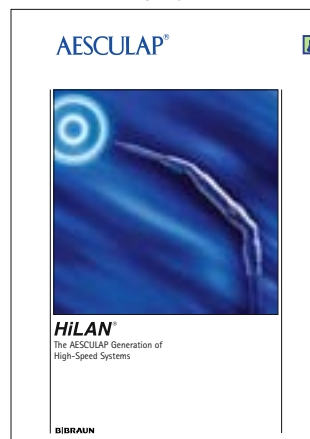
motor systems with accessories



O 079



O 106



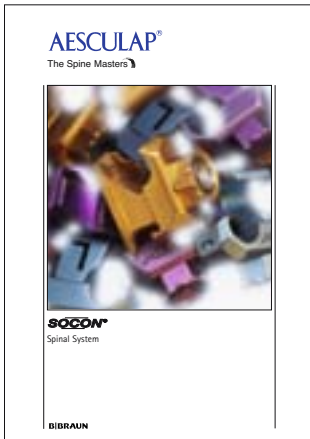
O 134



O 080



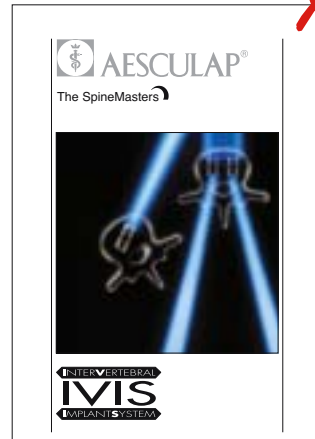
miaspas^{TL} AESCULAP SPINE PRODUCTS



0 066



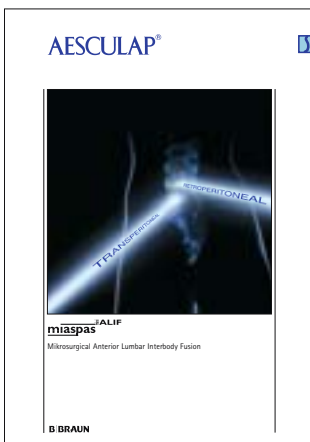
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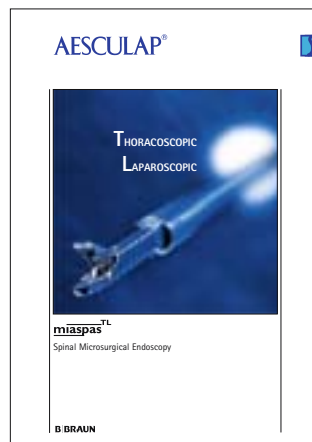
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0 126



0 139



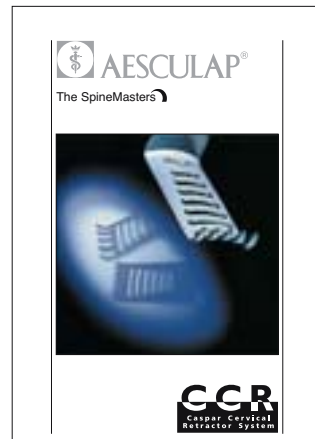
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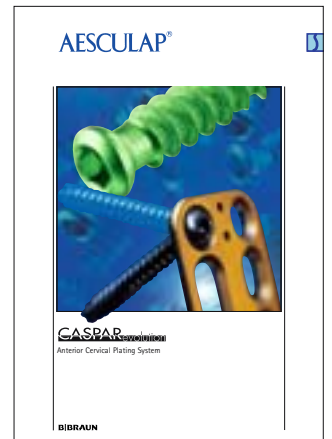
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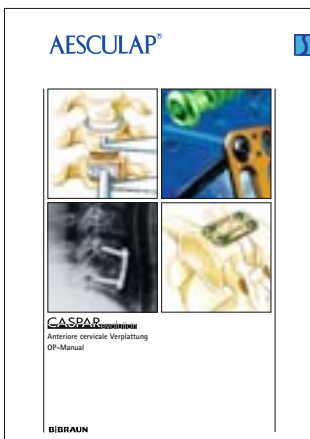
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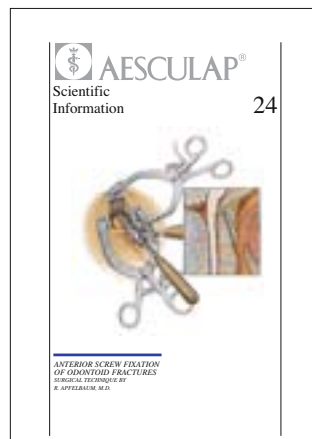
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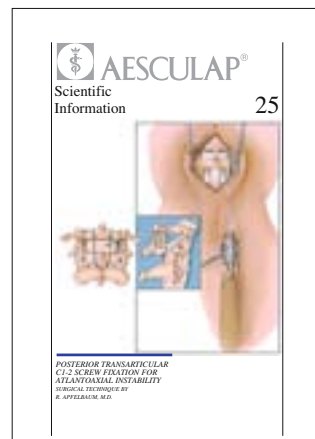
0 135



0 159



0 507



0 508





AESCULAP®

B | BRAUN
SHARING EXPERTISE

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