

AESCULAP® MIOS®

Minimally Invasive Orthopaedic Solutions
Hip Instruments

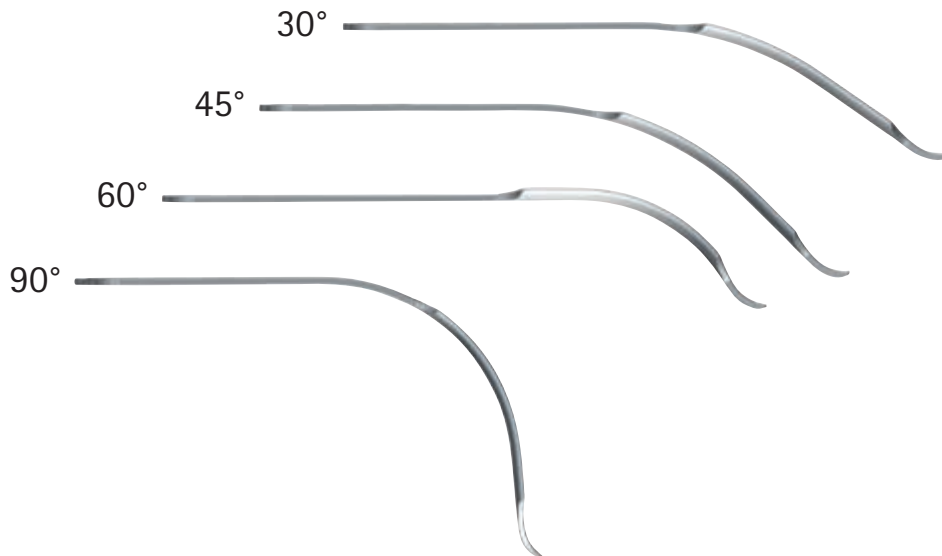


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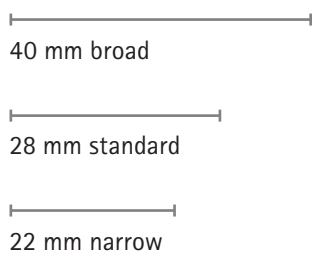
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Hip retractor design features

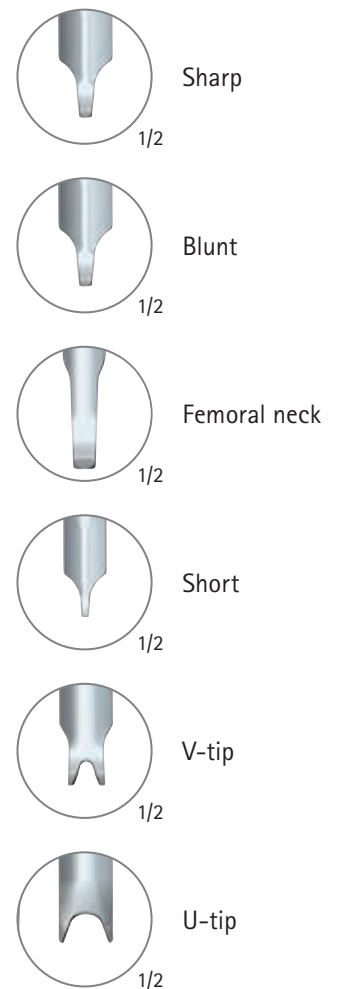
Angle



Width



Tip



- MIOS® hip retractors are available with bending angles ranging from 30° to 90°.
- Instruments with a greater curvature are specifically designed to facilitate exposure of the acetabulum, while straighter retractors are intended for femoral exposure and may also be advantageous in patients with increased soft tissue volume.
- Each MIOS® retractor tip is engineered with a corresponding bend to ensure optimal anatomical adaptation and surgical access.

Minimally invasive orthopaedic solutions

Art. no.	Angle	Width		Tip	Use
FK211R	90°	Narrow	22 mm	Sharp	Acetabular rim
FK212R	90°	Standard	28 mm	Sharp	
FK213R	90°	Broad	40 mm	Sharp	Acetabular rim*
FK214R	90°	Narrow	22 mm	Short	Acetabular rim for capsule preservation
FK215R	90°	Standard	28 mm	Short	
FK218R	90°	Standard	28 mm	Blunt	Acetabular rim
FK219R	90°	Broad	40 mm	Blunt	Acetabular rim*
FK221R	30°	Standard	28 mm	V-tip	Greater trochanter
FK222R	45°	Standard	28 mm	V-tip	
FK223R	60°	Standard	28 mm	V-tip	Posterior acetabular rim
FK224R	90°	Standard	28 mm	V-tip	Acetabular rim
FK243R	45°	Standard	28 mm	Sharp	Universal use*
FK244R	45°	Standard	28 mm	Blunt	
FK245R	45°	Broad	40 mm	Sharp	Acetabular rim*
FK246R	45°	Broad	40 mm	Blunt	
FK231R	30°	Standard	28 mm	U-tip	Lesser trochanter
FK241R	30°	Narrow	22 mm	Sharp	Greater trochanter
FK238R	30°	Narrow	22 mm	Femoral neck	Femoral exposure / osteotomy protection
FK239R	90°	Narrow	22 mm	Femoral neck	
FK248R	Straight	Retractor extension			
FK249R	60°	Retractor extension			

* The use of broad and 45° curved retractors may be beneficial in patients with increased adipose tissue or larger body habitus.

AESCULAP® MIOS® Hip Retractors

Retractor proposal for lateral patient position



Posterior – lateral approach

Proposal		Alternative	
FK239R	90° femoral neck		
FK212R	90° sharp	FK211R	90° sharp narrow
		FK214R	90° narrow short
		FK215R	90° short
		FK218R	90° blunt
FK223R	Acetabular rim posterior		

Note

Often used in combination with Steinmann pins or Charnley retractor frame.

Anterior – lateral approach

Proposal		Alternative	
FK239R	90° femoral neck		
FK212R	90° sharp	FK211R	90° sharp narrow
		FK214R	90° narrow short
		FK215R	90° short
		FK218R	90° blunt
		FK244R	45° blunt
FK223R	Acetabular rim posterior	FK230R	60° U-tip
FK231R	Lesser trochanter		

Note

- The instructions provided for the surgical application of MIOS® hip retractors are non-binding.
- The selection and positioning of the instruments are influenced by multiple factors, including the patient's positioning, the chosen surgical approach, the direction of the incision, and the intraoperative condition of the soft tissue.
- The responsibility for determining the appropriate selection, usage, and combination of MIOS® hip retractors with other surgical instruments lies solely with the operating surgeon.

AESCULAP® MIOS® Hip Retractors

Retractor proposal for supine patient position



Anterior – lateral approach

Proposal		Alternative	
FK238R	30° femoral neck		
FK239R	90° femoral neck		
FK212R	90° sharp	FK211R	90° sharp narrow
		FK214R	90° narrow short
		FK215R	90° short
		FK218R	90° blunt
FK231R	Lesser trochanter		
FK223R	Acetabular rim posterior	FK230R	60° U-tip

Direct – anterior approach

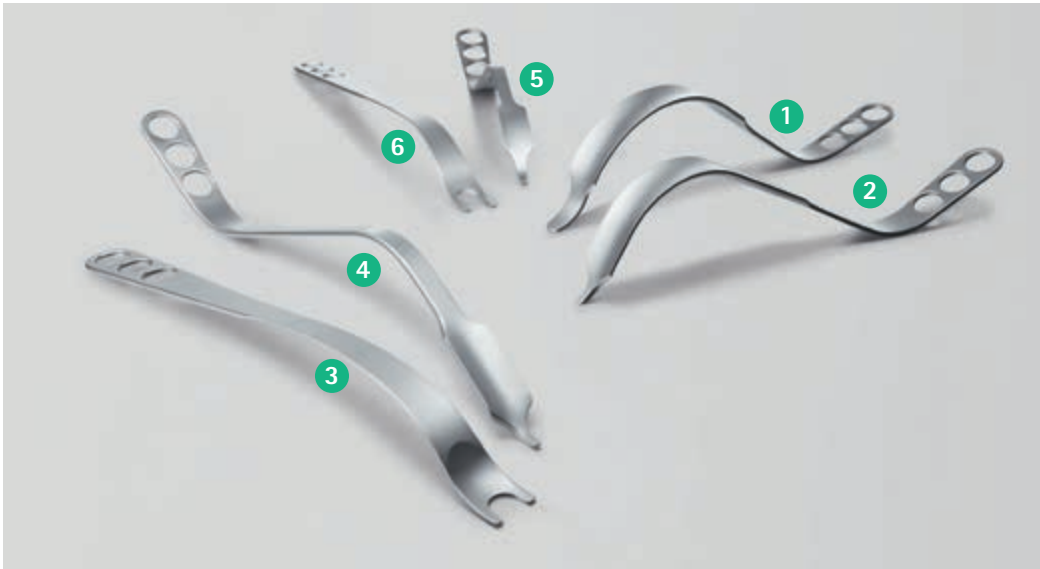
Proposal		Alternative	
FK237R	90° femoral neck		
FK217R	90° sharp		
FK247R	Acetabular rim medial	FK235R	Acetabular rim medial
FK230R	Acetabular rim posterior		
FK234R	Femoral elevation		

Note

- The instructions provided for the surgical application of MIOS® hip retractors are non-binding.
- The selection and positioning of the instruments are influenced by multiple factors, including the patient's positioning, the chosen surgical approach, the direction of the incision, and the intraoperative condition of the soft tissue.
- The responsibility for determining the appropriate selection, usage, and combination of MIOS® hip retractors with other surgical instruments lies solely with the operating surgeon.

AESCULAP® MIOS® Hip Retractors

Direct anterior approach



- Direct anterior approach
- Femoral neck exposure
- Acetabular exposure
- Femoral elevation

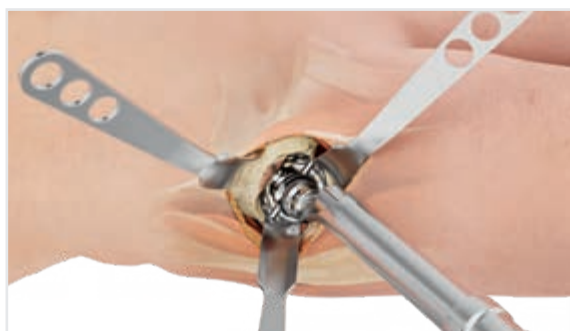
Art. no.	Code	Angle	Width		Tip	Use
FK237R	1	90°	Standard	28 mm	Femoral neck	Femoral neck Osteotomy protection
FK217R*	2	90°	Standard	28 mm	Sharp	Anterior/lateral acetabular rim Greater trochanter
FK230R	3	60°	Standard	28 mm	U-sharp	Posterior acetabular rim
FK247R**	4	60°	Standard	28 mm	Sharp	Medial acetabular rim Medial femoral preparation
FK235R**	5	45°	Narrow	22 mm	Sharp	Medial acetabular rim
FK234R	6	30°	Standard	28 mm	Flat U-tip	Femoral elevation

* Two or three FK217Rs are generally used for acetabular exposure.

** Either FK247R or FK235R is used on the medial acetabular rim.

AESCULAP® Reamers

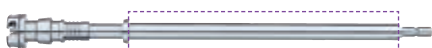
MIOS® curved reamer drivers



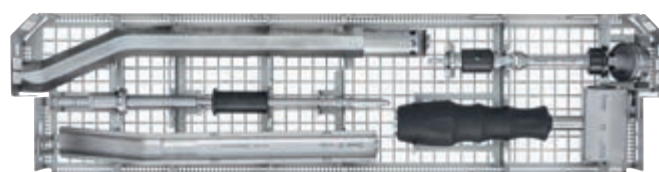
Curved reamer shanks	Art. no.
ENZTEC MIOS® reamer shank HARRIS	ENZTEC-4250-7105
ENZTEC MIOS® reamer shank AO-PROTEK	ENZTEC-4250-7090



Curved reamer shanks	Art. no.
HPF MIOS® reamer shank HARRIS	HPF-H0032102099
HPF MIOS® reamer shank AO-PROTEK	HPF-H0032101499



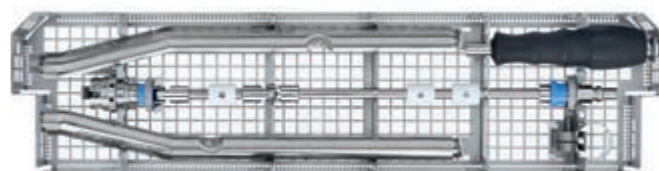
Straight reamer shanks, for navigation	Art. no.
Reamer shank ZIMMER	NF985R
Reamer shank HARRIS	NF986R
Reamer shank AO	NF987R



Tray NT633R

With supports for:

One curved reamer shank ENZTEC



Tray NT634R

With supports for:

One curved reamer shank HPF

Note

Please order all reamer components separately.

Straight reamer shanks, for navigation	Art. no.
OrthoPilot® navigation sleeve	FS939
Standard protection sleeve	FS974



TIP load: DAA

TIP load: antero-lateral, lateral

AXIAL load: DAA, antero-lateral, lateral

AXIAL load: posterior



Offset left

Offset right

Patient position	Surgical approach	Straight	Offset	
			left	right
Supine	Direct anterior (DAA)	NT008M	NT009M	NT010M
	Antero-lateral			
	Lateral			
	Antero-lateral	NT001M	NT004M	NT005M
Lateral	Lateral			
	Direct anterior (DAA)	NT003M	NT006M	NT007M
	Posterior	NT002M	NT010M	NT009M
	Antero-lateral	NT008M	NT009M	NT010M
	Lateral			
	Antero-lateral	NT001M	NT004M	NT005M
	Lateral			

AESCULAP® – a B. Braun brand

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Phone +49 7461 95-0 | www.bbraun.com

Manufacturer:

ENZTEC MIOS® reamer shank:

ENZTEC Ltd. | Print Place 3/17 | 8024 Christchurch | New Zealand

Notified Body: **CE** 2797

EC REP: Advena Ltd. | Tower Business Centre | 2nd Flr. Tower Street | Swatar, BKR 4013 | Malta

HPF MIOS® reamer shank:

HPF S.r.l. | Via A. Marcuzzi 2/5 | 33034 Fagagna (UD) | Italy

Notified Body: **CE** 0123

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