




acs®
Kniesystem
advanced coated system



ACS® SC
Fixed Bearing
Surgical technique

implantcast 

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Note: The described surgical technique is the suggested treatment for the uncomplicated procedure. In the final analysis the preferred treatment is that which addresses the needs of the individual patient.

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ACS®- advanced coated system

History

The clinical experience for decades of years makes the ACS®-system to a worldwide proven knee joint replacement. Beginning with the introduction of the ceramic coated primary mobile-bearing system continuous design optimizations were carried out in collaboration with several clinical partners. The developments of the fixed bearing and the unicondylar knee joint replacement, manufactured from an established orthopaedic implant material, followed. Finally the system is complemented by multiple options for revision cases.



Flexibility

The ACS®-system offers an optimal solution individually for every patient, whether mobile- or fixed-bearing version, for primary interventions to the point of complex revision cases. The components are each available as cemented or cementless as well as coated or uncoated version. The same geometry of the articulating surface of the femoral component from uni to revision, as well as an identical inner contour of the femoral component from primary to revision allow for a high degree of intraoperative flexibility and for maximum preservation of bone stock. The instrumentation guarantees a simple, intuitive surgical technique.

Modularity

The ACS®-system -a flexible, versatile system- has various femoral and tibial sizes available for an excellent fit of the components and an optimal bone coverage. Due to its modularity the system offers manifold options. The primary mobile-bearing and fixed-bearing tibia allow for the use of stem extensions. For revision cases a specific mobile-bearing SC tibial component is available, whereas the identical fixed-bearing tibia can be used in primary as well as revision cases. For the compensation of bone defects, femoral as well as tibial spacer of different thicknesses are available. Femorally and tibially it is possible to use stems of several lengths and different diameters as well as offsets via appropriate adapters.



ACS® FB SC compatibility

Patella component

PE-Patella

size:



26 mm 29 mm 32 mm 35 mm

compatible with all femoral sizes

Femoral Spacer

Height 5 mm and 10 mm



Offset adapter

0, 2, 4 and 6 mm



Stems

Ø12-22 mm
Length 100-200 mm



Femoral component



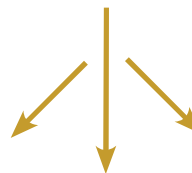
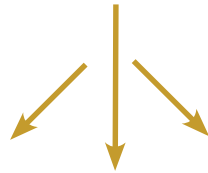
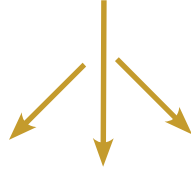
size 2

size 2.5 /
size 3 / S3

size 4
S4

size 5
S5

size 6
S6



Tibial-PE-insert*
symmetrical



size 2

size 3

size 4

size 5

size 6

* all PE-inserts are available in heights 10.0 mm, 12.5 mm, 15.0 mm, 17.5 mm and 20.0 mm



Tibial component
assymetrical



Size 2

Size 3 /
Size 3.5

Size 4

Size 5

Size 6

Tibial Spacer

Height 5mm and 10mm



Offset adapter

0, 2, 4 and 6 mm



Stems

Ø12-22 mm
Length 100-200 mm



→ compatible with



Pre-operative planning

For a pre-operative planning x-ray templates of the single components are available. The templates allow for an exact planning in terms of dimensioning of the prostheses as well as the positioning of the implant components in the bone.

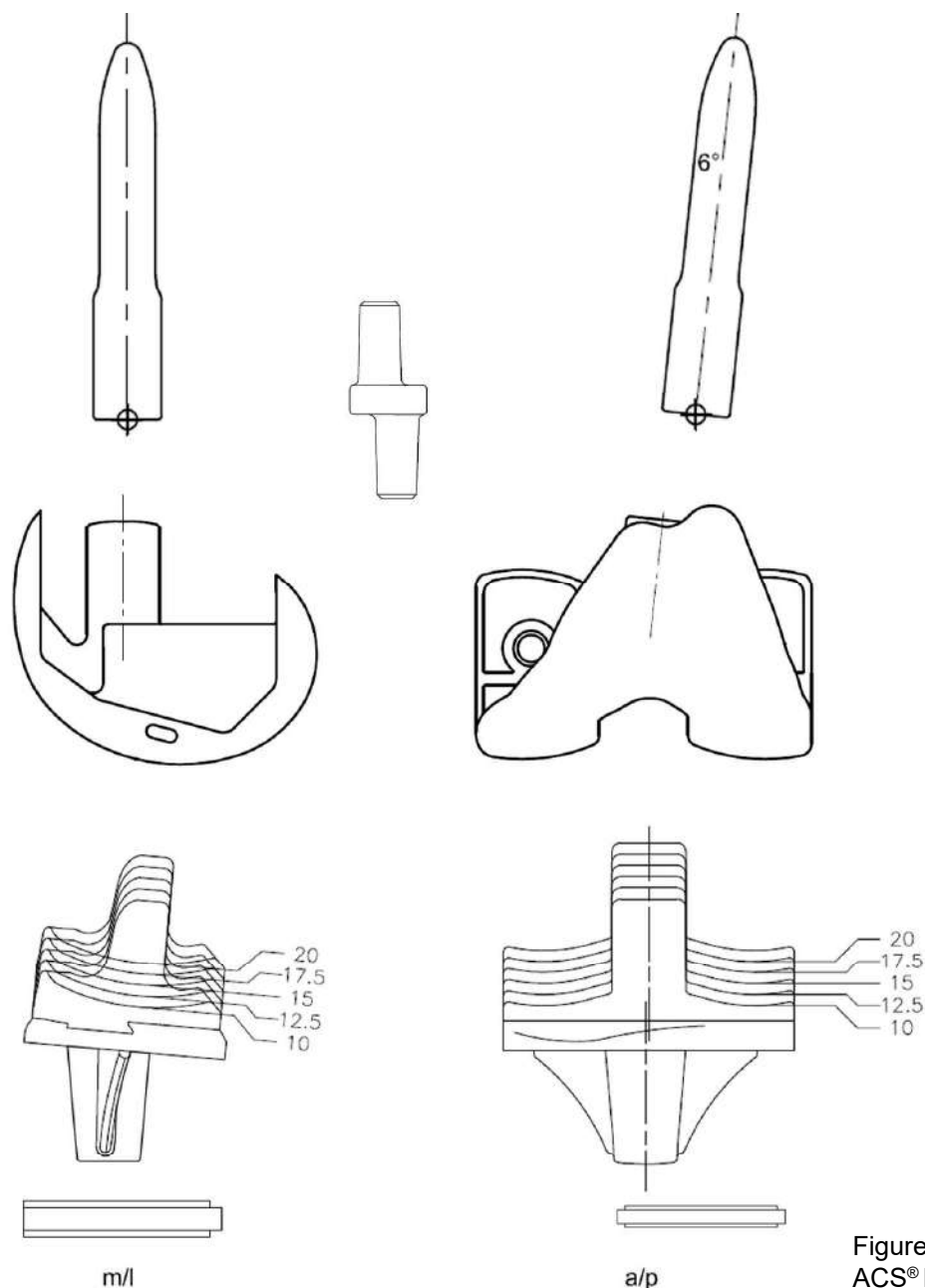


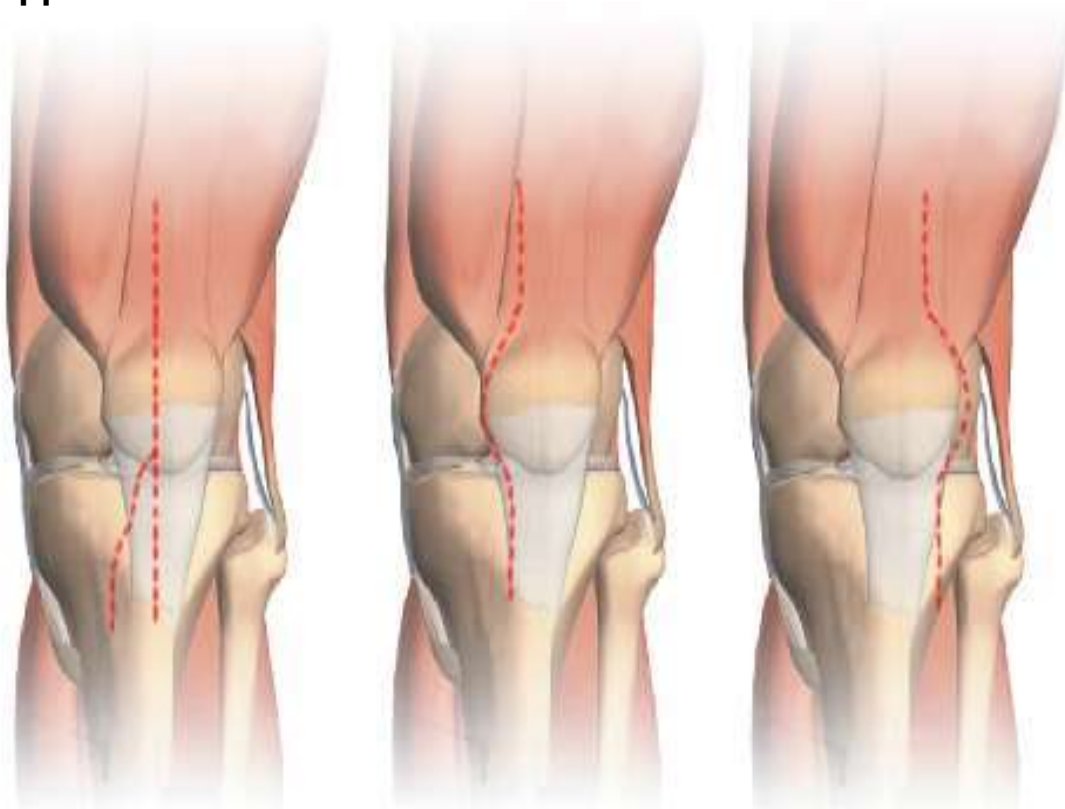
Figure A:
ACS® MB SC Implant in M/L view

Figure B:
ACS® MB SC Implant
in A/P view

Further prior to surgery the following should be ensured:

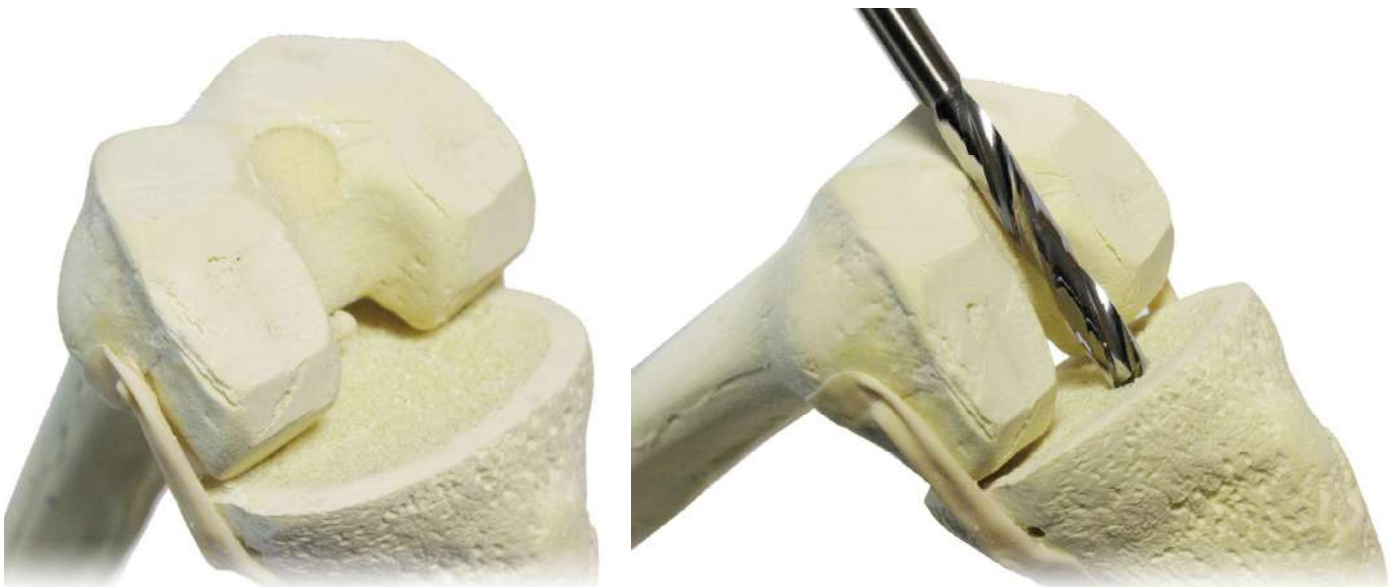
- all needed components are available during surgery. An adequate number of various implant components should be available for surgery. It should be determined whether the implantation should be done with or without the use of bone cement.
- All instruments for the implantation are present and are matching the corresponding implants. The insertion instruments must be adapted to the implant. The implants may only be used with the instruments of the implantcast GmbH. An exception are exclusively the standardized instruments used during surgery.

Surgical approach



Make a central skin incision across the patella. Then choose the preferred medial or lateral approach to open the knee joint. For the skin incision, take note of scarring of previous surgeries. Invert the patella and remove the medial respectively the lateral periosteal structures.

Tibial preparation



At first remove the femoral and tibial components of the prosthesis, which needs to be revised and flex the knee joint to 90° . If necessary, open the tibial medullary canal with the 9 mm initiator drill. The entry point should be set 1/3 ventrally and 2/3 dorsally relative to the eminentia intercondylaris to open the centre of the medullary canal.

Ream with the rigid drills till the preoperatively determined stem diameter and stem length is reached by sequentially increasing the drill diameter. For optimal anchorage of the stem in the medullary canal, you should drill till cortical contact occurs at the drill tip.

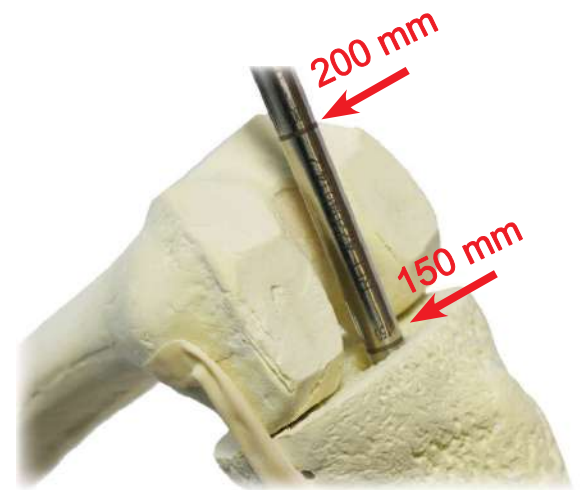
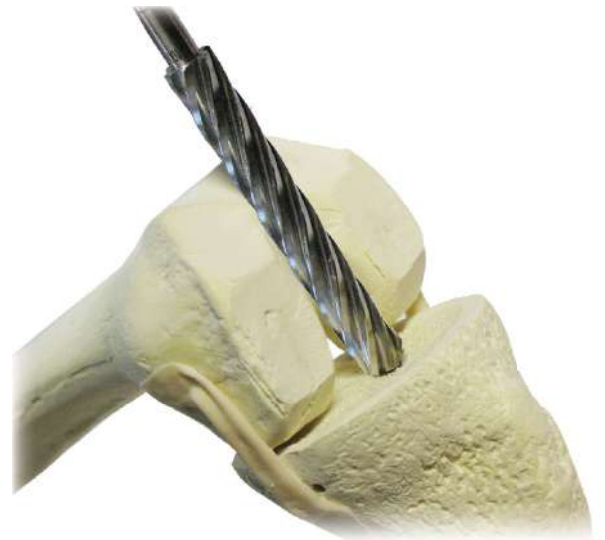
To ensure an adequate reaming depth, the marking on the drill should correspond with the upper tibial edge:

Stem	Depth
100mm	till the 115 mm mark
150 mm	till the 165 mm mark
200 mm	till the 215 mm mark

Important: In case of a cemented stem please ream 25 mm deeper, to ensure enough space for an intramedullary stopper.

Leave the lastly used rigid drill (the largest used drill diameter) in the medullary canal.

This drill indicates the implant diameter to choose for a cementless respectively a cemented stem implantation (table 1).



Fräser Ø	ACS® Schaft	
	zementpflichtig	zementfrei
12 mm	-	12 mm
14 mm	12 mm	14 mm
16 mm	14 mm	16 mm
18 mm	16 mm	18 mm
20 mm	18 mm	20 mm
22 mm	20 mm	22 mm

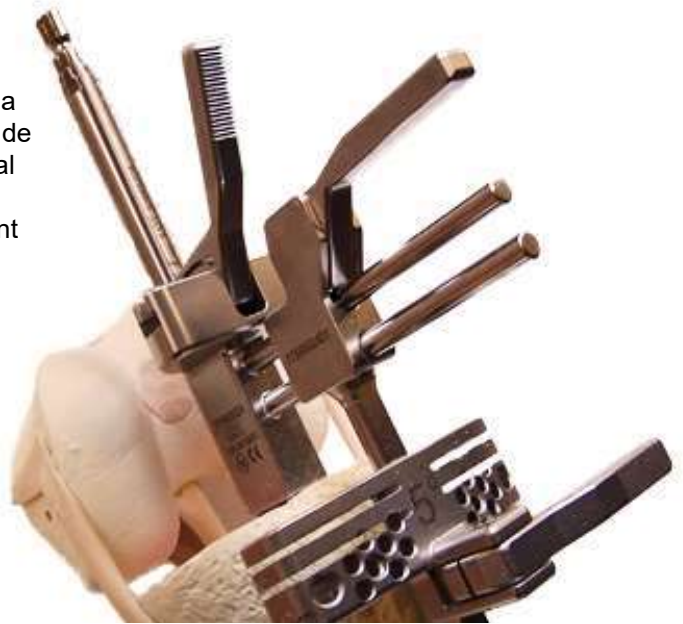


Fräser Ø	ACS® Schaft zementfrei HA
11 mm	12 mm
13 mm	14 mm
15 mm	16 mm
17 mm	18 mm
19 mm	20 mm
21 mm	22 mm



Tibial alignment

The tibial alignment is carried out intramedullary. Fix the tibia cutting block revision 5° to the I/M tibial alignment guide. Slide the tibial alignment guide over the drill in the medullary canal and adjust the desired rotation of the instruments. Fix the position by impacting the proximal pins of the tibial alignment guide into the tibial bone.



Alignment of the tibial cutting block



The tibial resection height is adjusted by means of the tibial stylus.

Use the stylus tip with the 2 mm marking **1** for gauging the tibial plateau to resect 2 mm below the pre-operated tibial surface. Attach the tibial stylus to the tibial cutting block; use the proximal slot of the cutting block.

The stylus and the connected cutting block need to be lowered till the tip of the stylus touches the deepest point of the tibial surface. The cutting block is fixed in this position to the alignment guide. Use the stylus tip with the 10mm marking **2** for gauging the highest tibial point of the less affected joint side in case of a primary implantation. Thus an adequate tibial resection height is ensured for primary implantation of the tibial component.

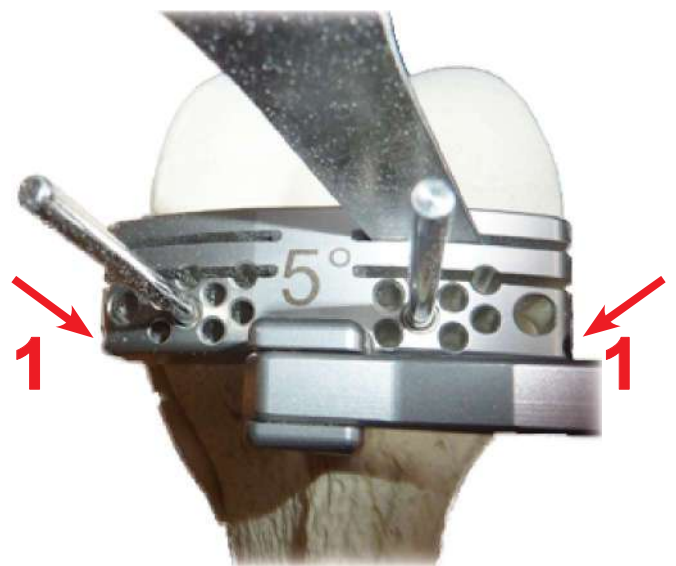


Tibial resection

Fix the cutting block to the tibial bone with two pins and remove the alignment guide and the rigid drill. It is recommended to use the two countersunk holes in the marked plane to allow for shifting of the block in both directions. That facilitates resection and accordingly decrease of the planned resection.



The resection plane is checked with the long resection check; perform the tibial cut. If required, insert a third oblique pin to secure the position of the tibial cutting block **1**.



The tibial cutting block allows for preparation for spacer to compensate tibial defects.

For 5 mm tibial spacer 5mm are resected accordingly; use the more distal one of both slots of the affected side for this.

For 10 mm tibial spacer the non slotted side of the tibial stylus needs to be applied afore (see page 6). Then the more distal one of both slots can be used to prepare for a 10mm tibial spacer.

After resection the pins and the tibial cutting are removed.

Femoral preparation

Open the femoral intramedullary canal by use of the 9mm initiator drill.

Ream with the rigid drills till the preoperatively determined stem diameter and stem length is reached by sequentially increasing the drill diameter. For optimal anchorage of the stem in the medullary canal, you should drill till cortical contact occurs at the drill tip.

To ensure an adequate reaming depth, the marking on the drill should correspond with the distal femoral bone surface:

100mm for 130 mm-stems

150mm for 180 mm-stems

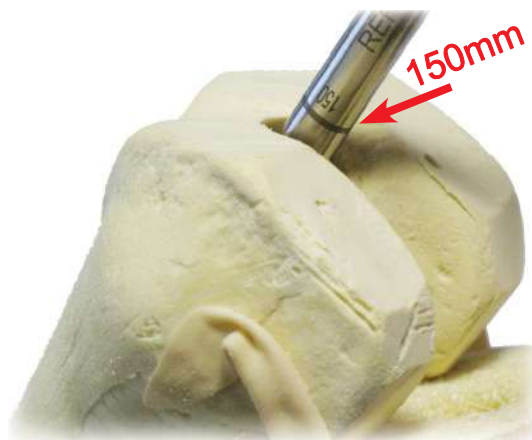
200mm for 230 mm-stems

In a primary case ream 10 mm deeper

In case of using a cemented stem please drill 25 mm deeper.

Leave the lastly used rigid drill (the largest used drill diameter) in the medullary canal.

This drill indicates the implant diameter to choose for a cementless respectively a cemented stem implantation (table 2).



Rigid drill Ø	ACS® Stem	
	cemented	cementless
12 mm	-	12 mm
14 mm	12 mm	14 mm
16 mm	14 mm	16 mm
18 mm	16 mm	18 mm
20 mm	18 mm	20 mm
22 mm	20 mm	22 mm

Rigid drill Ø	ACS® Stem cementless HA
11 mm	12 mm
13 mm	14 mm
15 mm	16 mm
17 mm	18 mm
19 mm	20 mm
21 mm	22 mm

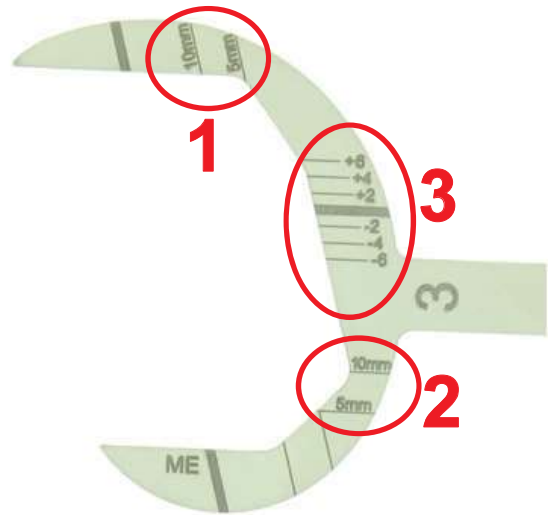


Determination of femoral size

For size determination of the femoral component the femoral sizing template of the supposed size is applied to the femoral bone. The inner as well as the outer contours of the template correspond to the femoral implant component of the respective size.

The femoral sizing template further allows for the evaluation if femoral spacer (distal **1** or posterior **2**) will be needed. Furthermore a potentially needed offset can be read off **3**; slide the offset indicator over the rigid drill for that. The indicator blade should point to medial and it should be aligned in parallel with the epicondylar line. The indicator blade points to the scale to read off the preliminary offset.

Remove the indicator and the sizing template afterwards.



Femoral alignment

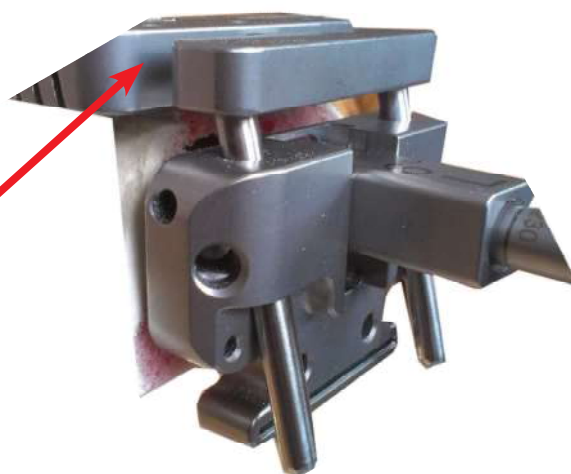
To set the valgus angle, push the adjusting lever of the femoral alignment guide to release the locking mechanism. For locking release the adjusting lever at the desired position. It is recommended to adjust a valgus angle of 6° of the side to operate on since the cone of the femoral component has a valgus of 6° implemented.



Attach the femoral alignment guide to the rigid drill/rod. By use of the ACS® SC rotation guide neutral the rotation can be adjusted by referencing the posterior condyles.



Optionally, the joint space gauge can be used for tibial rotational alignment. Afterwards attach the distal femoral cutting block to the alignment guide. The coupling is correct, when the implantcast logo (ic-cloverleaf) of the alignment guide is visible through the central hole on the anterior side of the distal femoral cutting block.



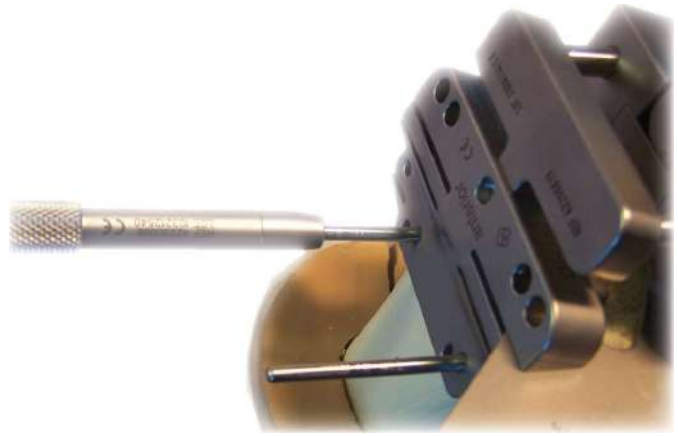
Lower the cutting block till it contacts the anterior femoral bone.

With the 4in1 femoral resection guide 1,5mm can be gauged to perform a distal refreshment resection. The resection guide is attached to the distal slot, whereas the „bone“ marked surface rests on the femoral bone and the „distal“ marked surface is visible.

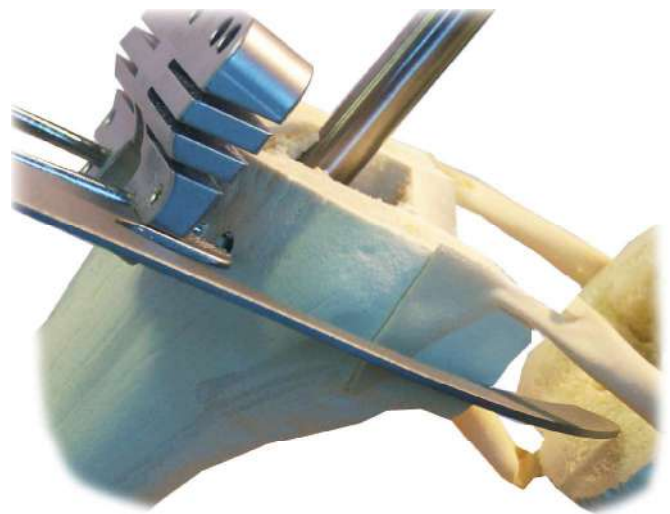


Distal femoral resection

Fix the distal cutting block with two pins to the anterior femur. Remove the rigid drill and the femoral alignment guide. For increased stability a third oblique pin should be inserted.

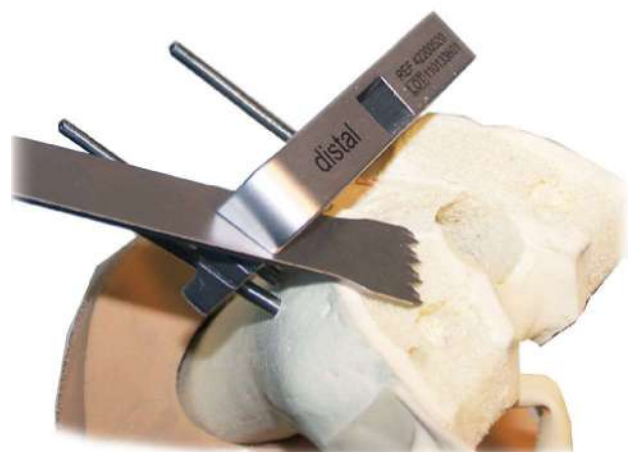


In the proximal slot the epicondylar line can be checked with help of the resection check.

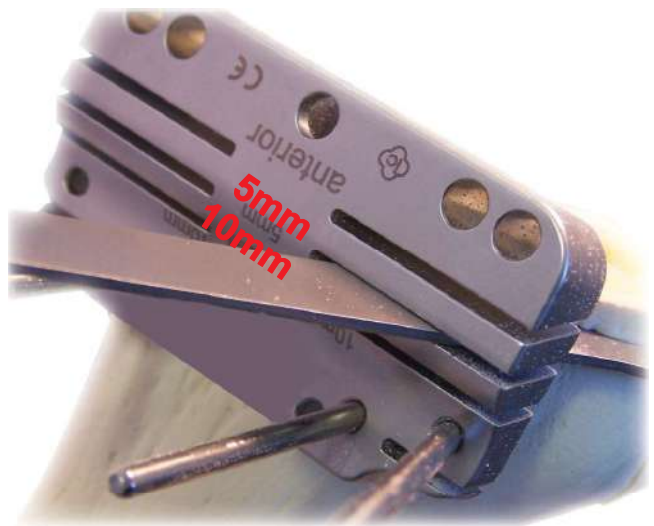


Resect the distal femur through the distal slot of the cutting block.

Note: It is recommended to use an ic sawblade of medium size (width 17 mm).

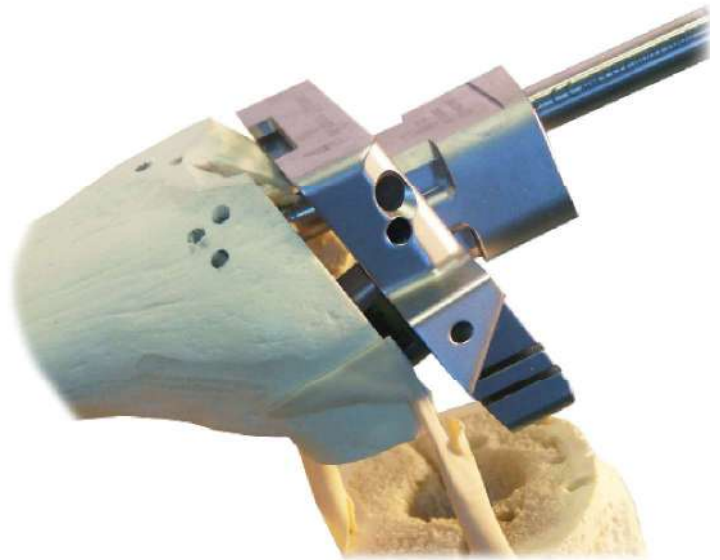


By use of the middle slot further 5mm can be resected to prepare the femur for distal spacer.
For 10 mm spacer the proximal one of the three slots is used.
In the shown case the femur is prepared medially for a 5mm distal spacer.
Afterwards the pins as well as the cutting block are removed.

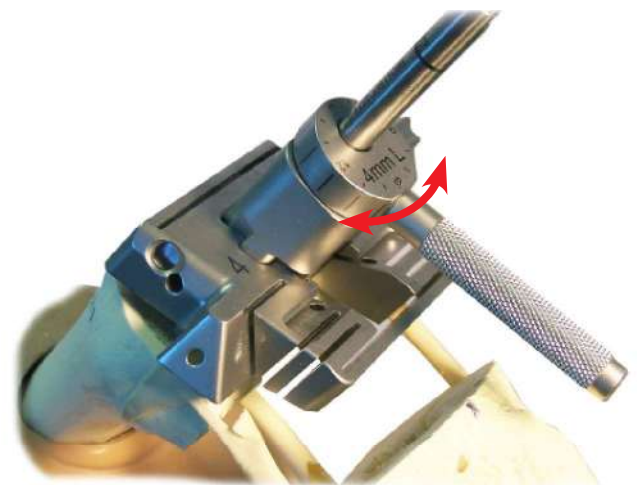


Determination of the femoral offset

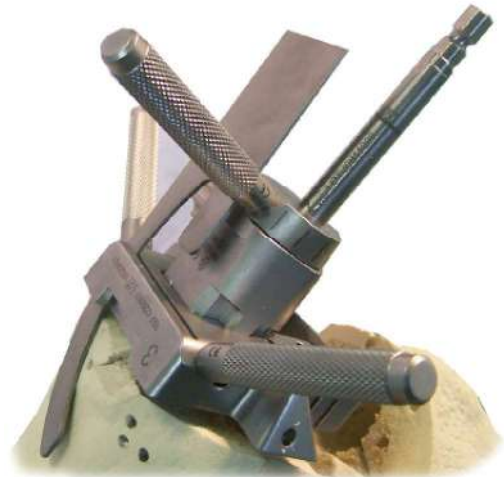
Reinsert the lastly used rigid drill and connect the 4in1 femoral cutting block of the afore determined size to the long stem sleeve offset. In doing so the etching for the affected side „left“ respectively „right“ of the long stem sleeve offset should be legible anteriorly in case of topview on the cutting block. Attach the cutting block and the sleeve to the rigid drill till the cutting block rests flush on the distal femur.
If the femur is prepared for femoral spacer the magnetic distal distance adapter can be attached for stabilisation.



Insert the ACS® SC offset sleeve 0, 2, 4 or 6 mm of the affected side into to the long stem sleeve offset. A „fast fix“ handle can be applied to the offset sleeve for manipulation. The position of the cutting block is adjusted by rotating the offset sleeve.



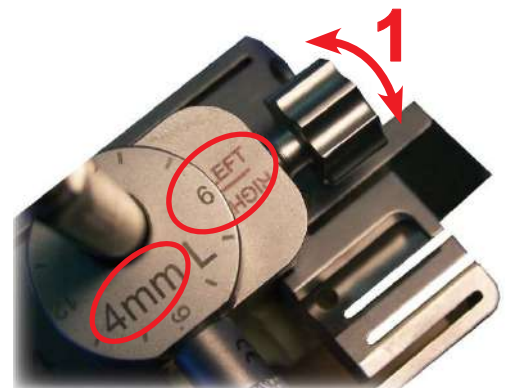
Check the anterior and posterior resection plane with the resection check.



With the femoral positioner the rotational alignment is adjusted in relation to the resected tibia. Attach the femoral positioner in the distal slot of the cutting block. Additional spacer shims are available, if no sufficient collateral ligament tension is achieved.



Is the optimal position of the 4in1 cutting block defined, fix the set-up with the lateral screw **1** of the long stem sleeve offset. Keep in mind the offset position and the offset sleeve (in the shown case 4mm offset sleeve and position 6) for assembling the trial as well as the implant components.



Fix the 4in1 cutting block with two pins to the femur; use the highlighted holes for that. The frontal holes are used if a change in femoral size is planned. Then the cutting block is removed via the two pins and afterwards the cutting block of another size is applied.



There are different holes available to secure the 4in1 block with pins on the femur . Whichever medullary drill and which offset is used , the 4in1 cutting block may need to be removed via pins temporarily to remove the drill and the offset sleeve. The table below indicates with which combination of offset sleeve and drill the 4in1 cutting block can be left on the bone (✓) or when it must be removed (✗) fixing the block with pins.

Offset 0 mm	Offset 2 mm	Offset 4 mm	Offset 6 mm	rigid drill Ø [mm]
✓	✓	✓	✓	10
✓	✓	✓	✓	11
✓	✓	✓	✓	12
✓	✓	✓	✗	13
✓	✓	✓	✗	14
✓	✓	✓	✗	15
✓	✓	✓	✗	16
✓	✓	✗	✗	17
✓	✓	✗	✗	18
✓	✓	✗	✗	19
✓	✓	✗	✗	20
✓	✗	✗	✗	21
✓	✗	✗	✗	22
✓	✗	✗	✗	23
✓	✗	✗	✗	24
✗	✗	✗	✗	25
✗	✗	✗	✗	26
✗	✗	✗	✗	27

If the 4 in 1 cutting block can rest on the bone (indicated by the table above), use the lateral oblique holes **1** to fix the cutting block .

If the block has to be removed , use the front-side holes **2** for fixation.

Femoral preparation 4in1

Resect the anterior and posterior femur through the corresponding slots of the cutting block.

If posterior spacer are needed, the cutting block allows for reresection of 5 mm respectively 10 mm.

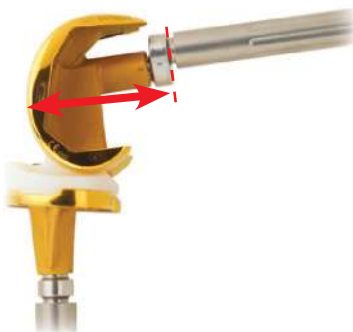
For 5 mm spacer use the middle one of the three posterior slots.

The shown case prepares for a 5 mm medial spacer.

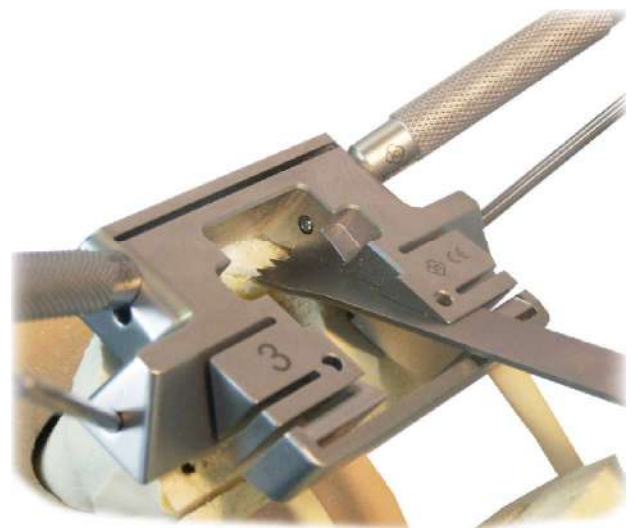
Note: It is recommended to use an ic sawblade of medium size (width 17mm).



Insert the femoral drill guide 16 mm into the long stem sleeve offset. Ream with the rigid drill Ø16 mm till the end of the cutting flutes is aligned with the femoral drill guide. This step prepares the transition stem-offset adapter.

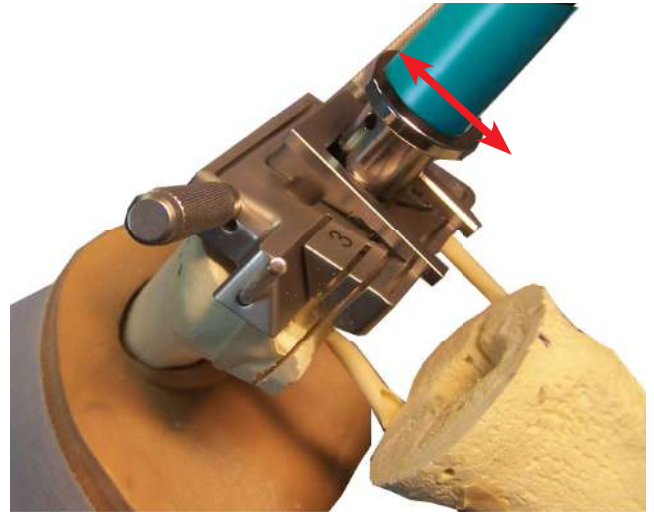


Remove the femoral drill guide and the long stem sleeve offset. Perform the posterior and anterior chamfer cuts through the corresponding slots of the 4in1 cutting block.

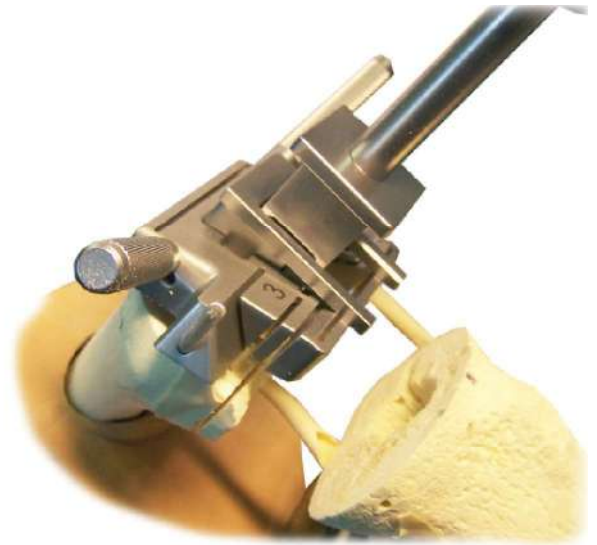


Femoral box preparation

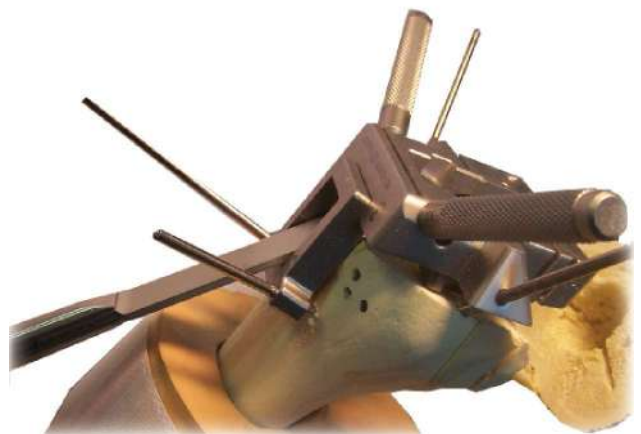
Attach the SC box reamer guide to the cutting block. Ream firstly anterior with the SC box reamer till the stop. Repeat the reaming process posteriorly and guide the reamer anteriorly and posteriorly to prepare the elongated box.



Finalize the box preparation by use of the box chisel. Apply the box chisel anteriorly and posteriorly through the reamer guide till the stop.



Attach the ACS® SC 4in1 notch preparation of the corresponding size to the cutting block and fix it with two pins to the femur. Use the osteotom to prepare the anterior notch.



Check of the joint space

1



2



Assemble the adapter and the joint space gauger **1** to check the joint space in case of a resected tibia and a resected femur by using a 10mm PE insert. For simulation of an increased PE thickness a spacer shim of the respective PE thickness can be assembled to the joint space gauger **2**. If tibial spacer are used tibial trial spacer can be applied to the joint space gauger.



Insert the spacer block into the flexion and extension gap to check the ligament situation and to make some corrections if necessary.

Final tibial preparation

Insert the lastly used rigid drill in the tibial medullary canal. Determine the size of the tibial component with help of the SC FB tibial reaming guide of supposed size. Position the reaming guide over the rigid drill onto the tibia. Use the SC tibial offset alignment (2 mm, 4 mm, 6 mm) to check for a potential tibial offset. For a neutral offset (0 mm) use the tibial drill sleeve 10 mm.

Keep in mind the used tibial offset alignment and the offset position, which is read off at the anterior edge of the tibial reaming guide (see marking). It is needed for the assembly of the trial as well as the implant components. If required tibial trial spacer can be attached to the tibial reaming guide.



Fix the position of the tibial reaming guide with two pins to the tibia. Afterwards remove the offset alignment and the rigid drill. Prepare the tibia with the ACS® SC FB drill for tibial offset preparation by reaming through the reaming guide till the stop.

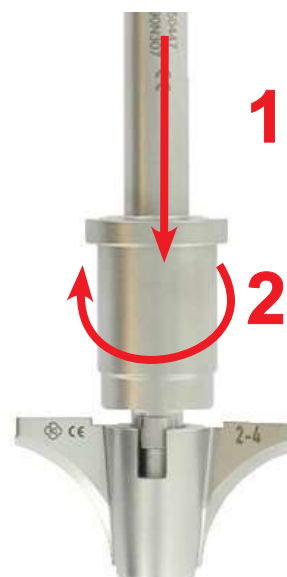
Then remove the offset alignment, and the rigid drill. Depending on which offset and which drill diameter is used, the tibial reaming guide must be temporarily removed and rigid drill can be taken out of the medullary canal. The table below indicates at what combination of offset and drills the reaming guide can be left (✓) or when it must be removed temporarily through the pins (✗)

Offset 0 mm	Offset 2 mm	Offset 4 mm	Offset 6 mm	rigid drill Ø [mm]
✓	✓	✓	✓	10
✓	✓	✓	✓	11
✓	✓	✓	✓	12
✓	✓	✓	✗	13
✓	✓	✓	✗	14
✓	✓	✓	✗	15
✓	✓	✓	✗	16
✓	✓	✗	✗	17
✓	✓	✗	✗	18
✓	✓	✗	✗	19
✓	✓	✗	✗	20
✓	✗	✗	✗	21
✓	✗	✗	✗	22
✓	✗	✗	✗	23
✓	✗	✗	✗	24
✗	✗	✗	✗	25
✗	✗	✗	✗	26
✗	✗	✗	✗	27

Fix the position of the guide with two pins on the tibia. Then remove the offset alignment, and the medullary drill. Ream then the tibia with the SC Tibiareamer till it is stopped by the guide



For the fin preparation connect the SC FB handle for fin punch to the FB tibial fin punch of the determined size (size 2-4 or size 5-6).



Punch till the stop through the tibial reaming guide.



The anterior markings of the tibial reaming guide can be used as reference for the rotational alignment. The markings are consistent with the anterior markings of the implant. The rotational alignment can be marked on the anterior edge of the tibia with Methylene Blue.

The bone preparation is herewith completed and fin punch, bone pins and tibial reaming guide are removed.



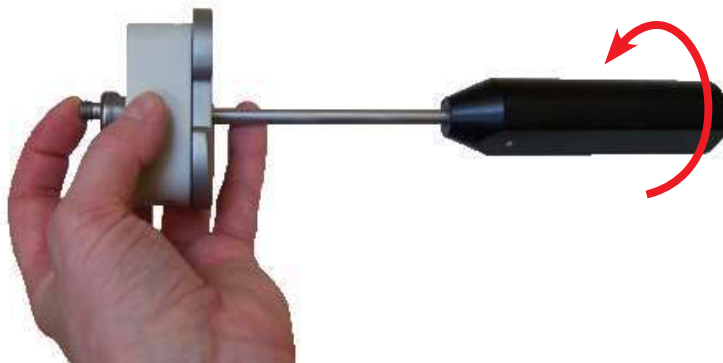
Trial reduction

For a trial reduction the components are assembled as followed.

Connect the FB tibial trial component and the trial offset adapter of the afore determined offset with help of the SC FB tibial offset alignment.

Pay attention to the correct position of the offset adapter.

The marking of the offset adapter should be consistent with the afore determined offset position.

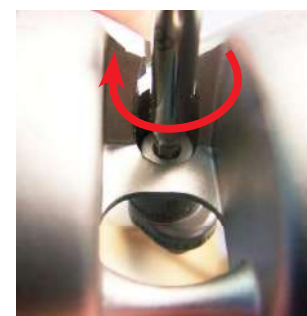


Fix the trial offset adapter with the hexagon screw driver short 3,5mm. Afterwards the trial stem of the determined diameter and length can be screwed to the trial offset adapter and the components can be inserted into the prepared tibia.

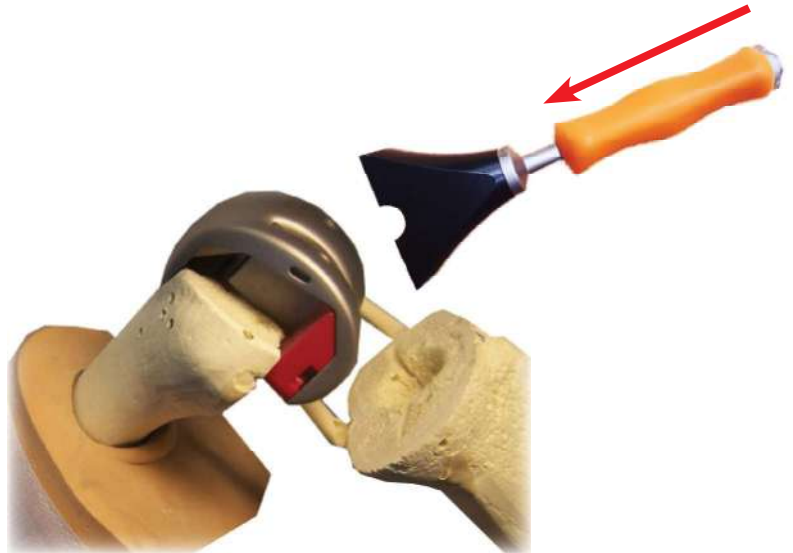
For simulation of spacer tibial trial spacer of the determined size can be attached to the tibial trial component.



Connect the corresponding trial offset adapter of the determined offset to the femoral trial component. Pay attention to the correct position of the offset adapter and fix the adapter with the hexagon screwdriver short 3,5 mm. Afterwards the corresponding trial stem can be attached to the trial offset adapter.



Using femoral spacer attach the posterior femoral trial spacer first to the femoral trial component and than the distal femoral trial spacer of the determined size. Insert the femoral trial component with help of the femoral impactor.



Select the tibial trial PE insert of the corresponding size (the size corresponds to the size of the tibial component). Trial inserts in heights 10 mm and 12,5 mm are included as complete trial inserts in the instrument tray. For simulation of PE inserts with increased thickness there are corresponding adapters available, which need to be combined with the trial PE-insert of height 10 mm. Control the correct placement of the trial components and check the joint stability in flexion and extension.

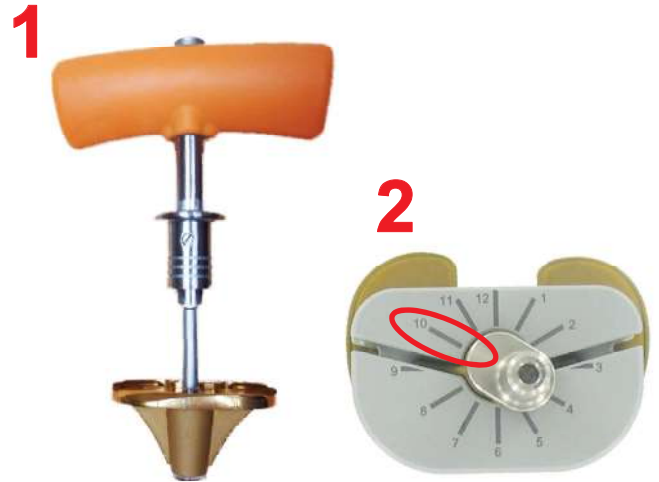


Afterwards all trial components are removed.

Assembly of the components

Depending on the choice of the implant components (cementless or cemented) an adequate amount of bone cement needs to be kept ready for the cemented components.

The tibial component should be implanted first. For use of offset adapter and stem extension the PMMA plug (cemented tibial component) respectively the extension (cementless tibial component) need to be removed with the taper extractor **1**. The adjustment of the offset adapter is carried out in the same as the trial components with help of the SC FB tibial offset alignment **2**. Place the offset alignment on the bottom side of the tibial component and align the offset adapter via the etched line to the correct number.



For fixation of the connection between tibial component and offset adapter the taper connector can be attached **1**. In the fitting block for stems the connection between offset adapter and stem can be fixed additionally **2**. For use of tibial spacer the PMMA plugs of the cemented tibial component need to be removed. Afterwards spacer of the corresponding size can be fixed to the tibial component via a screw. Note: The fixation of spacer is only possible for the cemented components.



Proceed the same way for the assembly of the femoral components. Femoral spacer are fixed with a screw to the cemented femoral component. For that purpose use the hexagon screw driver 3,5 mm respectively the flexible screw driver 3,5 mm.

Note: The fixation of spacer is only possible for the cemented components.



Implantation of the components

Screw the tibial impactor guide onto the tibial component of the determined size and impact with carefully strikes. Unlock and remove the impactor afterwards.



Insert the femoral component of the determined size with the femoral impactor.

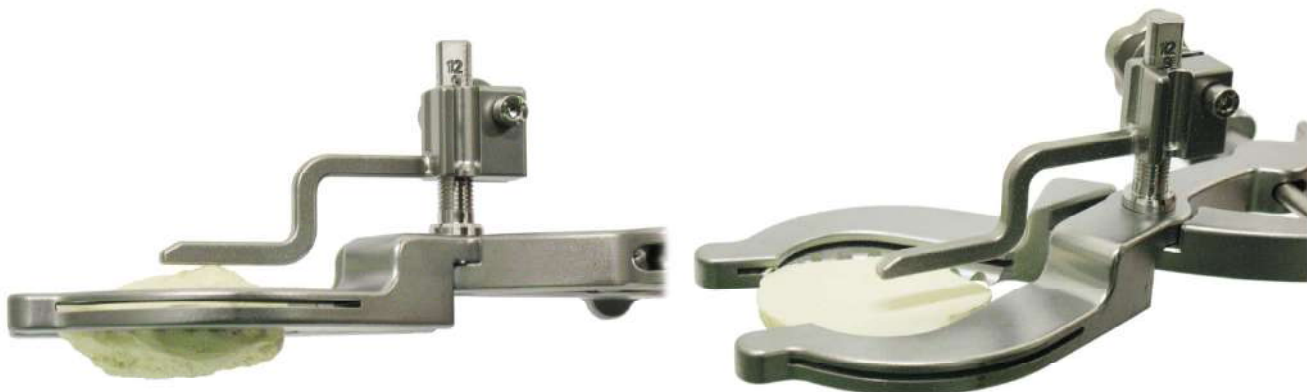


Insert the tibial PE insert of the determined size from anterior into the locking mechanism (dovetail) of the tibial component. Make sure that the insert is fully seated by using the impactor for tibial inserts.



Patella preparation for PE patella implant

Note: The description of the patella preparation is restricted to the preparation of the PE patella implants. The surgical technique for the rotating patella implants is available upon request.



Use the patella resection guide to prepare the patella dome. For preparation of the PE patella implants the resection height should be set to 9 mm, the thickness of all PE patella components. Resect the patella dome by using an ACS® Saw blade through the Saw capture of the guide. Remove the patella resection guide and determine the size of the patella implant by application of the patella drill guide.



Apply the patella drill guide to determine the size of the patella implant. If necessary vary the sizes (all sizes of the PE patella implants are compatible with all sizes of the femoral components) and drill with the patella drill till the stop to prepare the three anchorage holes.



Remove the patella drill guide and insert the trial patella for a trial reposition.



Insert the patella implant of the determined size with cement onto the prepared patella and fixate it with the ic-patella clamp. Leave the clamp fixated till hardening of the cement.

ACS® SC Implants



ACS® SC femoral component, cemented

implavit®, CoCrMo acc. to ISO 5832-4 with TiN-coating

size	Left	Right
2	4200-4302	4200-4312
2.5	4200-4308	4200-4318
3	4200-4303	4200-4313
4	4200-4304	4200-4314
5	4200-4305	4200-4315
6	4200-4306	4200-4316



ACS® SC femoral component, cementless porous coated

implavit®, CoCrMo acc. to ISO 5832-4 with TiN-coating and porous coating

size	Left	Right
2	4200-4202	4200-4212
2.5	4200-4208	4200-4218
3	4200-4203	4200-4213
4	4200-4204	4200-4214
5	4200-4205	4200-4215
6	4200-4206	4200-4216



ACS® FB tibial component, cemented

implavit®, CoCrMo acc. to ISO 5832-4 with TiN-coating

size	Left	Right
2	4201-0422	4201-0432
3	4201-0423	4201-0433
3.5	4201-0429	4201-0439
4	4201-0424	4201-0434
5	4201-0425	4201-0435
6	4201-0426	4201-0436



ACS® FB tibial component, cementless porous coated

implavit®, CoCrMo acc. to ISO 5832-4 with TiN-coating and porous coating

size	Left	Right
2	4201-0402	4201-0412
3	4201-0403	4201-0413
3.5	4201-0409	4201-0419
4	4201-0404	4201-0414
5	4201-0405	4201-0415
6	4201-0406	4201-0416

ACS® stems, femoral and tibial

implatan®, TiAl₆V₄ acc. to ISO 5832-3

diameter	L: 100 mm	L: 150 mm	L: 200 mm
12 mm	4208-1210	4208-1215	4208-1220
14 mm	4208-1410	4208-1415*	4208-1420*
16 mm	4208-1610	4208-1615*	4208-1620*
18 mm	4208-1810	4208-1815*	4208-1820*
20 mm	4208-2010	4208-2015*	
22 mm	4208-2210	4208-2215*	

* slotted stems



ACS® SC Implants



ACS® double taper

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3

0 mm	+2 mm	+4 mm	+6 mm
4201-0460	4201-0462	4201-0464	4201-0466



ACS® FB SC PE-insert

UHMW-PE acc. to ISO 5834-2

size	Implant height				
	10.0 mm	12.5 mm	5.0 mm	17.5 mm	20.0 mm
2	4240-3210	4240-3212	4240-3215	4240-3217	4240-3220
3	4240-3310	4240-3312	4240-3315	4240-3317	4240-3320
4	4240-3410	4240-3412	4240-3415	4240-3417	4240-3420
5	4240-3510	4240-3512	4240-3515	4240-3517	4240-3520
6	4240-3610	4240-3612	4240-3615	4240-3617	4240-3620



MK femoral spacer posterior (incl. MK screw) *S

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3

Size	5 mm		10 mm	
2	5722-2005	5722-2010		
2.5	5722-2505	5722-2510		
3	5722-3005	5722-3010		
4	5722-4005	5722-4010		
5	5722-5005	5722-5010		
6	5722-6005	5722-6010		



MK femoral spacer distal (incl. MK screw) *S

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3

Size	5 mm		10 mm	
	distal ll/rm		distal rl/lm	
2	5722-5205	5722-5200	5722-0205	5722-0200
2,5	5722-5255	5722-5250	5722-0255	5722-0250
3	5722-5305	5722-5300	5722-0305	5722-0300
4	5722-5405	5722-5400	5722-0405	5722-0400
5	5722-5505	5722-5500	5722-0505	5722-0500
6	5722-5605	5722-5600	5722-0605	5722-0600



MK screw for spacer

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3
5720-1216



ACS® Fixed Bearing tibial spacer

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3

size	5 mm		10 mm	
	lateral		medial	
2	4207-5052	4207-5102	4207-0052	4207-0102
3	4207-5053	4207-5103	4207-0053	4207-0103
3,5	4207-5059	4207-5109	4207-0059	4207-0109
4	4207-5054	4207-5104	4207-0054	4207-0104
5	4207-5055	4207-5105	4207-0055	4207-0105
6	4207-5056	4207-5106	4207-0056	4207-0106



ACS® FB screw for tibial spacer (2 pieces)

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3
4208-0002



ACS® SC Implants

ACS® stem cementless HA, femoral and tibial

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3 with HA-coating

diameter	L: 100 mm	L: 150 mm	L: 200 mm
12 mm	4209-1210	4209-1215	4209-1220*
14 mm	4209-1410	4209-1415	4209-1420*
16 mm	4209-1610	4209-1615	4209-1620*
18 mm	4209-1810	4209-1815	4209-1820*
20 mm	4209-2010	4209-2015	
22 mm	4209-2210	4209-2215	

* distal holes (Ø 5 mm) for possible screw fixation



ACS® extension stem male taper

implatan®, $TiAl_6V_4$ acc. to ISO 5832-3 with TiN-coating

4201-4225 14/25 mm



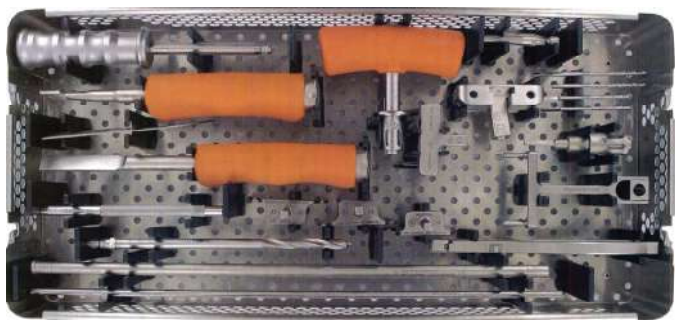
ACS® PE-patella cemented

UHMW-PE acc. to ISO 5834-2

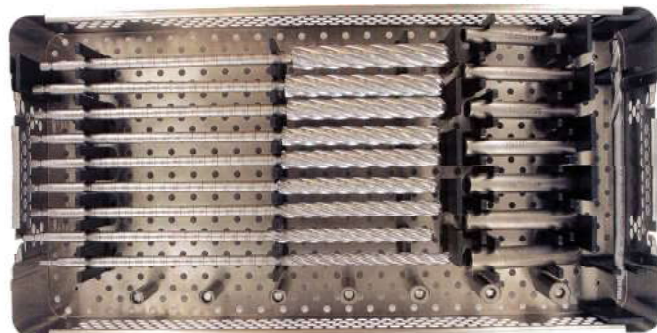
size	REF
26 mm	4203-0326
29 mm	4203-0329
32 mm	4203-0332
35 mm	4203-0335



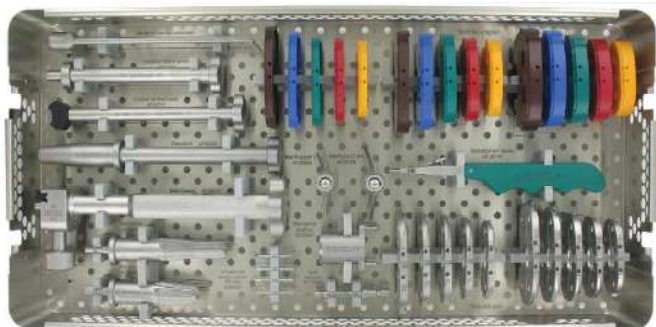
ACS® FB SC instrument container



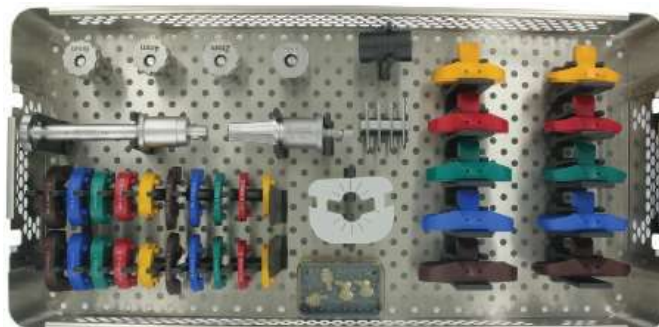
ACS® SC basic container
4223-0430



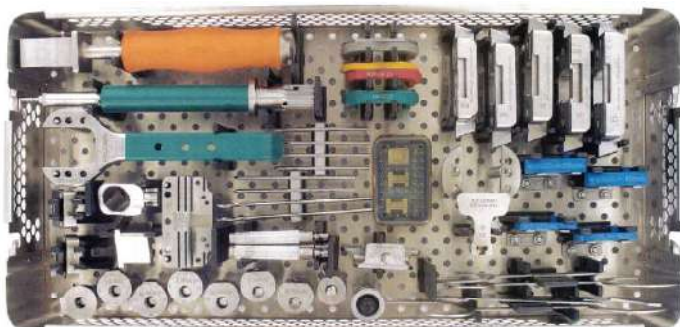
Rigid drill container 1
7999-5774



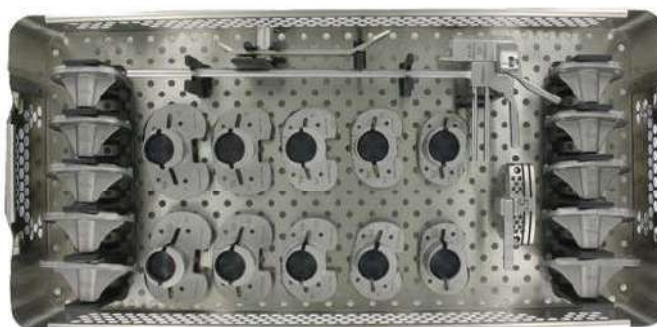
ACS® FB tibial container **incl. size 3.5**
4223-0412 4223-0512



ACS® FB SC tibia container 2 **incl. size 3.5**
4223-0462 4223-0562



ACS® SC 4in1 femoral container **incl. size 2.5**
4223-0434 4223-0534



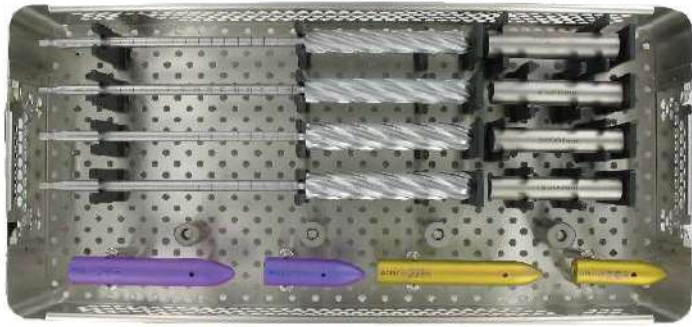
ACS® FB SC tibia container 3 **incl. size 3.5**
4223-0465 4223-0565



ACS® SC femoral trial container 1 **incl. size 2.5**
4223-0435 4223-0535



ACS® SC femoral trial container 2 **incl. size 2.5**
4223-0437 4223-0537

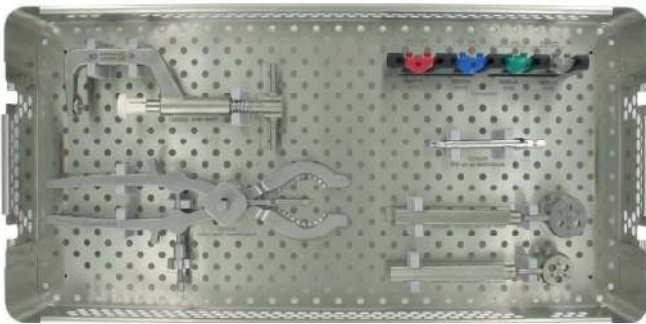


ACS® SC stem container 19-22mm
4223-1440



Stem assembly container
7999-5770

ACS® Patella instruments



ACS® PE patella resection container
4223-0410

ACS® FB SC instruments

ACS® SC basic container

4223-0430

4220-0318
ACS® resection check long



4220-0880
femoral alignment 6°



4220-0819
Distal cutting-block adapter



external rotation guide

4220-0820 neutral
4220-0824 3° right
4220-0825 3° left



4223-0004
external alignment host



4223-0006
pin inserter 3,2 mm



4223-0023
ic- T-handle Zimmer-Jakobs



4223-0031
slap hammer short



4223-0035
external alignment rod
6x400mm



4223-0036
femoral/tibial extractor



4223-0060
osteotom size 2-6



4223-0022
ic-adapter



7512-0800
pin extractor



ic pin-adapter
4220-0421



4224-0132
Drilling pin 3,2 x 77 mm



4224-0133
Drilling pin 3,2 x 97 mm



4220-0014
initiator drill 9 mm



Rigid drill container 1 7999-5774

4220-0014
initiator drill 9mm



Drill sleeves

4211-1512 12/150 mm
4211-1513 13/150 mm
4211-1514 14/150 mm
4211-1515 15/150 mm
4211-1516 16/150 mm
4211-1517 17/150 mm
4211-1518 18/150 mm



4211-2012 12/200 mm
4211-2013 13/200 mm
4211-2014 14/200 mm
4211-2015 15/200 mm
4211-2016 16/200 mm
4211-2017 17/200 mm
4211-2018 18/200 mm

Rigid drill

4220-3110 Ø10/330 mm
4220-3111 Ø11/330 mm
4220-3112 Ø12/330 mm
4220-3113 Ø13/330 mm
4220-3114 Ø14/330 mm
4220-3115 Ø15/330 mm
4220-3116 Ø16/330 mm
4220-3117 Ø17/330 mm
4220-3118 Ø18/330 mm



**ACS® FB tibia container
4223-0412 (4223-0512)**

4011-0029
handle for tibial trial component



4210-2213
ACS® FB impactor for tibial inserts



4210-2214
ACS® FB tibial impactor



4210-2215
ACS® tibial alignment handle



4212-2021
ACS® taper extractor



4215-0001
ACS® FB tibial reamer bushing



4215-0002
ACS® FB tibial punch



4215-0007
ACS® FB tibial stem reamer



4215-0003
ACS® FB tibial reamer



4215-0004
ACS® FB handle for tibial fin punch



ACS® FB tibial fin punch
4215-0005 size 2-4
4215-0006 size 5-6



4223-0257
fixation pin 3,2x32 mm with stop



ACS® FB tibial trial adapter
4215-0152 size 2 15 mm
4215-0153 size 3 15 mm
4215-0154 size 4 15 mm
4215-0155 size 5 15 mm
4215-0156 size 6 15 mm



4215-0172 size 2 17,5 mm
4215-0173 size 3 17,5 mm
4215-0174 size 4 17,5 mm
4215-0175 size 5 17,5 mm
4215-0176 size 6 17,5 mm

4215-0202 size 2 20 mm
4215-0203 size 3 20 mm
4215-0204 size 4 20 mm
4215-0205 size 5 20 mm
4215-0206 size 6 20 mm

ACS® FB tibial trial plate
4215-0422 size 2L
4215-0423 size 3L
4215-0424 size 4L
4215-0425 size 5L
4215-0426 size 6L
4215-0429 size 3,5L



4215-0432 size 2R
4215-0433 size 3R
4215-0434 size 4R
4215-0435 size 5R
4215-0436 size 6R
4215-0439 size 3,5R

**ACS® FB SC tibia container 3
4223-0465 (4223-0565)**

ACS® SC FB tibial reaming guide

- 4215-0452 size 2L
- 4215-0453 size 3L
- 4215-0454 size 4L
- 4215-0455 size 5L
- 4215-0456 size 6L
- 4215-0459 size 3,5L



- 4215-0462 size 2R
- 4215-0463 size 3R
- 4215-0464 size 4R
- 4215-0465 size 5R
- 4215-0466 size 6R
- 4215-0469 size 3,5R

ACS® FB tibial trial component

- 4215-0502 size 2L
- 4215-0503 size 3L
- 4215-0504 size 4L
- 4215-0505 size 5L
- 4215-0506 size 6L
- 4215-0509 size 3,5L



- 4215-0512 size 2R
- 4215-0513 size 3R
- 4215-0514 size 4R
- 4215-0515 size 5R
- 4215-0516 size 6R
- 4215-0519 size 3,5R

4220-0418
tibial stylus 0-10 mm



7755-0024
I/M tibial alignment guid



7755-0055
tibia cutting block revision 5°



**ACS® FB SC tibia container 2
4223-0462 (4223-0562)**

4215-0447
ACS® SC FB handle for tibial fin punch



4215-0448
ACS® SC FB drill for tibial offset preparation



4210-4270
MK tibial offset sleeve 0 mm



4223-0259
fixation pin with stop 3,2x52 mm



**ACS® FB SC tibia container 2
4223-0462 (4223-0562)**

4201-0461
ACS® taper connector



ACS® SC tibial offset alignment
4210-4261 2 mm
4210-4263 4 mm
4210-4267 6 mm



ACS® FB trial PE insert SC
4214-4210 size 2/10 mm
4214-4212 size 2/12,5 mm
4214-4310 size 3/10 mm
4214-4312 size 3/12,5 mm
4214-4410 size 4/10 mm
4214-4412 size 4/12,5 mm
4214-4510 size 5/10 mm
4214-4512 size 5/12,5 mm
4214-4610 size 6/10 mm
4214-4612 size 6/12,5 mm



4215-0020
ACS® SC FB tibial offset alignment



ACS® FB tibial trial spacer
4215-0052 size 2/5 mm r/l/m
4215-0053 size 3/5 mm r/l/m
4215-0054 size 4/5 mm r/l/m
4215-0055 size 5/5 mm r/l/m
4215-0056 size 6/5 mm r/l/m
4215-0059 size 3,5/5 mm r/l/m



4215-0102 size 2/10 mm r/l/m
4215-0103 size 3/10 mm r/l/m
4215-0104 size 4/10 mm r/l/m
4215-0105 size 5/10 mm r/l/m
4215-0106 size 6/10 mm r/l/m
4215-0109 size 3,5/10 mm r/l/m

4215-5052 size 2/5 mm l/r/m
4215-5053 size 3/5 mm l/r/m
4215-5054 size 4/5 mm l/r/m
4215-5055 size 5/5 mm l/r/m
4215-5056 size 6/5 mm l/r/m
4215-5059 size 3,5/5 mm l/r/m

4215-5102 size 2/10 mm l/r/m
4215-5103 size 3/10 mm l/r/m
4215-5104 size 4/10 mm l/r/m
4215-5105 size 5/10 mm l/r/m
4215-5106 size 6/10 mm l/r/m
4215-5109 size 3,5/10 mm l/r/m

ACS® trial offset adapter
4215-0060 0 mm
4215-0062 2 mm
4215-0064 4 mm
4215-0066 6 mm



**ACS® SC 4in1 femoral Container
4223-0434 (4223-0534)**

4210-4300
ACS® joint space gauger



4210-4301
ACS® adapter for joint space gauger



ACS® spacer shim
4210-4312 12,5 mm
4210-4315 15 mm
4210-4317 17,5 mm
4210-4320 20 mm



ACS® SC spacer for femoral positioner
4211-1005 5 mm
4211-1010 10 mm



4214-0121 GenuX® MK Ø16 mm
femoral drill guide



ACS® SC distal distance adapter magnetic
4219-0505 5 mm
4219-0510 10 mm
4219-0515 5 mm



4220-0500
rotation guide revision neutral



ACS® SC 4in1 femoral cutting block
4220-0502 size 2
4220-0503 size 3
4220-0504 size 4
4222-0505 size 5
4220-0506 size 6
4220-0508 size 2,5



4220-0515
ACS® SC 4in1 femoral resection guide 1,5 mm



4220-0520
ACS® SC distal femoral cutting block



4220-0521
ACS® femoral positioner



4220-0522
ACS® SC long stem sleeve offset



ACS® SC 4in1 notch preparation
4220-0624 size 2-4
4220-0565 size 5-6



ACS® SC offset sleeve
4220-0530 0mm
4220-0532 left 2 mm
4222-0534 left 4 mm
4220-0536 left 6 mm
4220-1032 right 2 mm
4220-1034 right 4 mm
4220-1036 right 6 mm



4220-0533
ACS® SC offset indicator



ACS® SC femoral sizing template
4220-4020 size 2
4220-4032 size 2-2,5
4220-4033 size 3-4
4220-4035 size 5-6



4220-4050
ACS® SC box chisel



4220-4051
ACS® SC box reamer



4220-4052
ACS® SC box reamer guide



4221-0019
drill 126x3,2 mm



4223-0008
fixation pin 3,2x97 mm



4223-0017
modular handle „fast fix“



4223-0029
fixation pin 3,2x77 mm



**ACS® SC femoral trial container 1
4223-0435 (4223-0535)**

0270-1000
flexible screwdriver 3.5 mm short



0280-1007
hexagon screw driver short 3.5 mm



ACS® SC femoral trial component

4210-3602 size 2L
4210-3603 size 3L
4210-3604 size 4L
4210-3605 size 5L
4210-3606 size 6L
4210-3608 size 2,5L



4210-3612 size 2R
4210-3613 size 3R
4210-3614 size 4R
4210-3615 size 5R
4210-3616 size 6R
4210-3618 size 2,5R

ACS® trial offset adapter

4215-0060 0 mm
4215-0062 2 mm
4215-0064 4 mm
4215-0066 6 mm



4223-0044
ACS® femoral impactor short



**ACS® SC femoral trial container 2 4223-0437
(4223-0537)**

ACS® trial stem

4218-1210 12x100 mm
4218-1215 12x150 mm
4218-1220 12x200 mm
4218-1410 14x100 mm
4218-1415 14x150 mm
4218-1420 14x200 mm
4218-1610 16x100 mm
4218-1615 16x150 mm
4218-1620 16x200 mm
4218-1810 18x100 mm
4218-1815 18x150 mm
4218-1820 18x200 mm



**ACS® SC femoral trial container 2
4223-0437 (4223-0537)**

**MK trial femoral spacer
posterior**

7723-2005 2/5 mm
7723-2505 2,5/5 mm
7723-3005 3/5 mm
7723-4005 4/5 mm
7723-5005 5/5 mm
7723-6005 6/5 mm
7723-2010 2/10 mm
7723-2510 2,5/10 mm
7723-3010 3/10 mm
7723-4010 4/10 mm
7723-5010 5/10 mm
7723-6010 6/10 mm



**MK trial femoral spacer
distal ll/rm**

7724-2005 2/5 mm
7724-2505 2,5/5 mm
7724-3005 3/5 mm
7724-4005 4/5 mm
7724-5005 5/5 mm
7724-6005 6/5 mm
7724-2010 2/10 mm
7724-2510 2,5/10 mm
7724-3010 3/10 mm
7724-4010 4/10 mm
7724-5010 5/10 mm
7724-6010 6/10 mm



**MK trial femoral spacer
distal rl/lm**

7725-2005 2/5 mm
7725-2505 2,5/5 mm
7725-3005 3/5 mm
7725-4005 4/5 mm
7725-5005 5/5 mm
7725-6005 6/5 mm
7725-2010 2/10 mm
7725-2510 2,5/10 mm
7725-3010 3/10 mm
7725-4010 4/10 mm
7725-5010 5/10 mm
7725-6010 6/10 mm

4223-0033
adapter for sledge hammer



7801-0025
adapter for slap hammer M5



**Stem assembly container
7999-5770**

4223-4003
MK stem assembly block



**ACS® SC stem container 19-22 mm
4223-1440**

ACS® trial stem
4218-2010 20x100 mm
4218-2015 20x150 mm
4218-2210 22x100 mm
4218-2215 22x150 mm



rigid drill
4220-3119 Ø19/330 mm
4220-3120 Ø20/330 mm
4220-3121 Ø21/330 mm
4220-3122 Ø22/330 mm



drill sleeve
4211-1519 19/150 mm
4211-1520 20/150 mm
4211-1521 21/150 mm
4211-1522 22/150 mm



4211-2019 19/200 mm
4211-2020 20/200 mm
4211-2021 21/200 mm
4211-2022 22/200 mm

**ACS® PE patella resection container
4223-0410**

ACS® PE patella trial
4213-0326 size 26 mm
4213-0329 size 29 mm
4213-0332 size 32 mm
4213-0335 size 35 mm



4222-0002
patella resection guide 1,5 mm



ACS® patella drill guide
4222-0004 26/29 mm
4222-0005 32/35 mm



4223-0024
femoral patella drill with stop



7352-0001
ic- patella clamp





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