

Surgical technique

balanSys UNI

Spacer Block

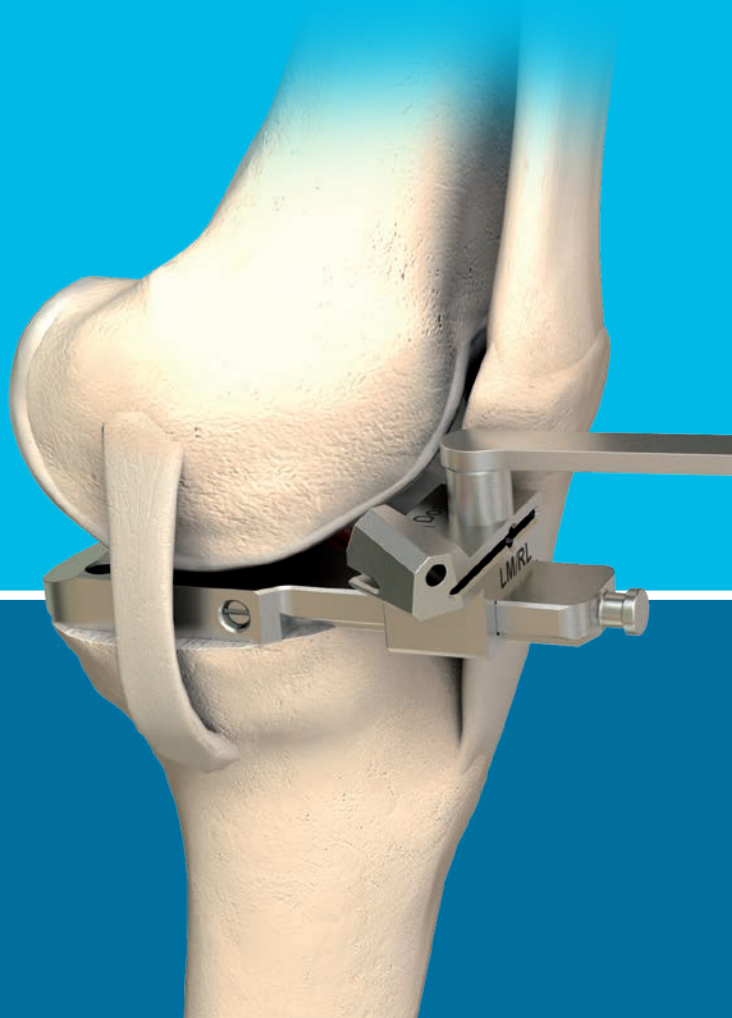


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Remarks

Please make yourself familiar with the handling of the instruments, the product-related surgical technique and the warnings, the safety notes as well as the recommendations of the instruction leaflet before using an implant manufactured by Mathys Ltd Bettlach. Make use of the Mathys user training and proceed according to the recommended surgical technique.

Introduction

Today, implantation of a unicondylar knee prosthesis is considered a standard procedure in case of isolated unicondylar osteoarthritis of the knee and intact ligaments. The goal of partial joint replacement is to eliminate pain and to restore the function and reconstruct the physiological anatomy of the knee joint. Compared to total knee replacement, unicondylar replacement is less invasive, the operating time is often shorter, and the patients' mobility, with good proprioception, restored sooner after surgery. Due to these factors, the numbers of unicondylar knee prostheses can be expected to increase further.

Improving the quality of life of patients of any age has been among the central maxims of Mathys since 1963. Research in the field of implant materials and their improvement, optimisation of prosthetic designs and improvement in the handling of instruments enable Mathys to meet these requirements. We see our main task in successful coping with this challenge. Mathys's many years of experience in these key areas of our activity are the basis for the success of our projects.

The balanSys UNI implants, instruments and surgical techniques were designed to meet the surgeons' requirements in terms of kinematics, balancing of ligaments, stability and durability.

1. Indications and contraindications

Indications

- Painful and/or disabling unicompartmental joint disease in the femorotibial compartment resulting from osteoarthritis, avascular necrosis or post-traumatic arthritis

Contraindications

- Local or general infection
- Any soft tissue, ligament, nerve or vessel insufficiency that might lead to an unacceptable risk of prosthesis instability, prosthesis fixation failure and/or complications in post-operative care
- Insufficiency of the extensor mechanism
- Compromised bone stock due to bone loss or bone defects and/or insufficient bone substance, which cannot provide adequate support and/or fixation for the prosthesis
- Hypersensitivity to materials used
- Insufficiency of the ACL and/or PCL
- Earlier valgus-producing osteotomy resulting in valgus $> 5^\circ$
- Extension deficiency of $> 10^\circ$
- Varus or valgus deformity of $> 10^\circ$
- Genu recurvatum
- Degenerative disease of other compartments
- Systemic inflammatory arthritis
- Progressive neoplastic disease
- Skeletal immaturity

For further information, please refer to the instructions for use or ask your Mathys representative.

2. Preoperative planning



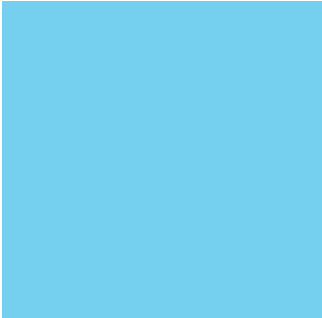
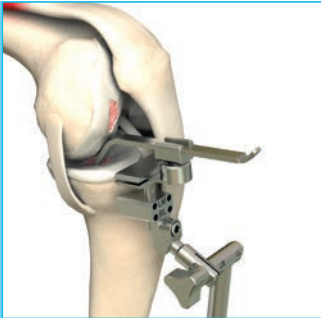
Preoperative X-rays should include an antero-posterior, a lateral and an axial patellar view. Choose the component size with reference to a lateral 1:1 X-ray image. Choose the component size in such a way that an optimum fit of the posterior femoral radius will be possible. Additionally a long leg X-ray to have an overview on the preoperative alignment is strongly recommended.


3. The surgical approach

- Make an antero-medial or antero-lateral skin incision. The incision for the medial, minimally invasive operation should start 1 cm proximal to the lower edge of the patella. It should reach a length of 6 to 10 cm, in a distal direction, running along the edge of the patellar tendon, and end 2 cm distal to the joint plane.
- Expose the damaged tibial plateau, if necessary partially resecting the Hoffa's fat pad.
- Resect all the remnants of the meniscus.
- Remove the osteophytes and, if necessary, perform a notchplasty as appropriate.

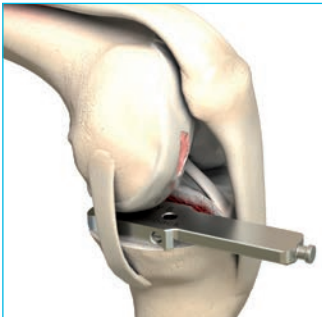

4. Overview of the surgical technique

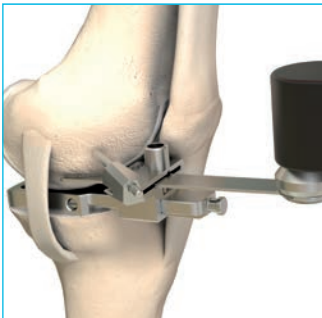
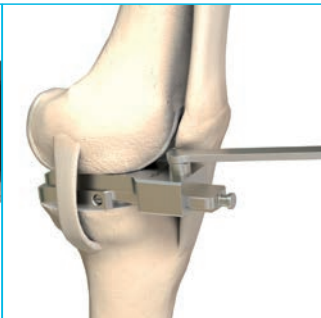
1. Tibial osteotomy

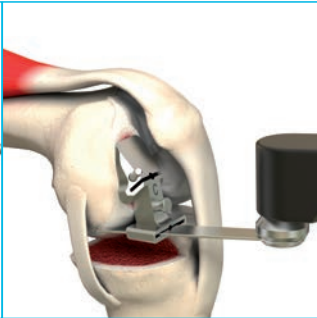
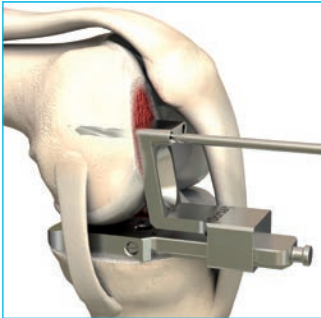
		<p>Determine the deepest point in the tibial defect.</p> <p>> Page 11</p>
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		<p>Resect the tibia 4–5 mm below the deepest point of the defect.</p> <p>> Page 12</p>
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2. Femoral osteotomy

		<p>Control of the tibial osteotomy and of the flexion and extension gap by means of the Spacer Block. Femoral cartilage defects must be compensated using Defect Plates.</p> <p>> Page 13</p>
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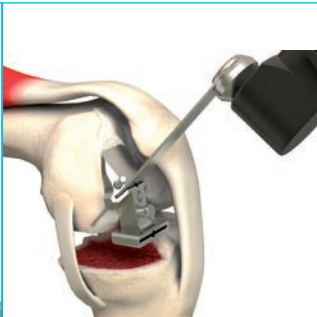
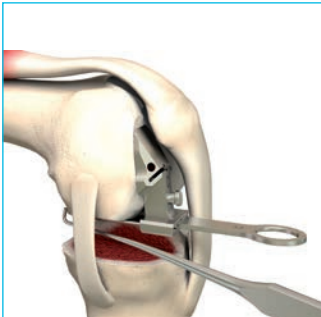
		<p>Slide Distal Cutting Block onto the Spacer Block, fixate and perform femoral osteotomy. Check the extension gap. If a Defect Plate was used, this is removed to this purpose.</p> <p>> Page 15</p>
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Slide Drill Guide onto the Spacer Block and define the position of the 3in1 Cutting Block. Perform the dorsal femoral osteotomy using the 3in1 Cutting Block.

At this stage, the size of the Femoral Cutting Block and the size of the femoral component can still be adjusted.

> Page 17

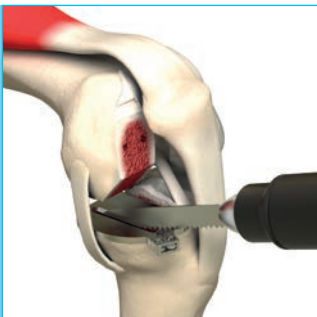


Dorsally referenced femoral size determination and selection of the appropriate 3in1 Cutting Block.

Perform the chamfer cuts.

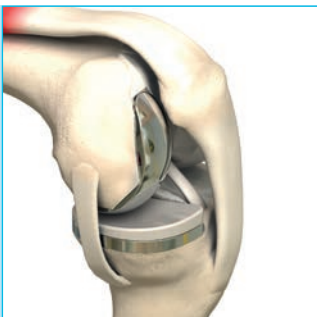
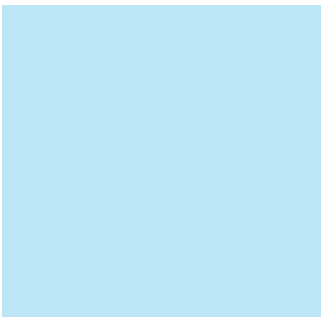
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3. Preparation and Implantation



Prepare the tibia and the femur, and introduce the trial components.

> Page 20



Implant the permanent prosthesis.

> Page 23

5. Surgical technique

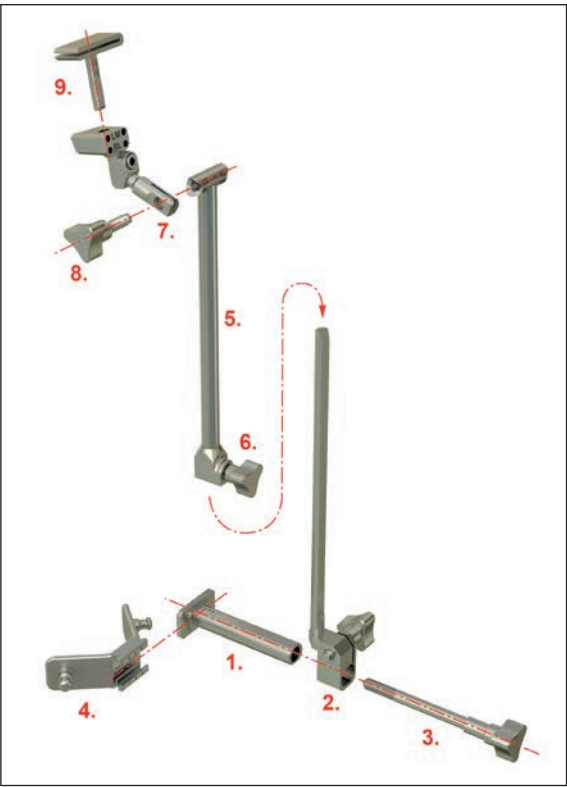


Fig. 1



Fig. 2

5.1 Tibial osteotomy Assembly of the Tibial Reference System with extramedullary alignment (Figs. 1 and 2)

Move the Distal Connector (1) onto the Ankle Holder (4).

Push the Distal Aiming Device (2) onto the Distal Connector (1) and secure it with the Tibial Locking Bolt (3).

Assemble the Distal Aiming Device (2) and the Proximal Aiming Device (5) and secure them to one another with the Connecting Screw (6).

Secure the LM/RL or LL/RM Tuberosity Attachment (7), as required, to the Proximal Aiming Device (5) with the Screw (8).

Push the Tibial Cutting Guide (9) onto the Tuberosity Attachment (7), set it to zero and secure it in place with the Hexagonal Screwdriver.

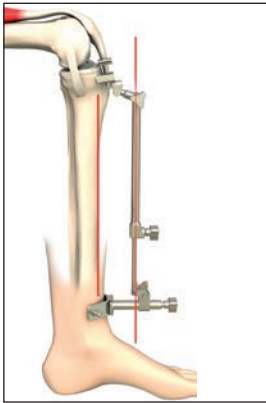


Fig. 3

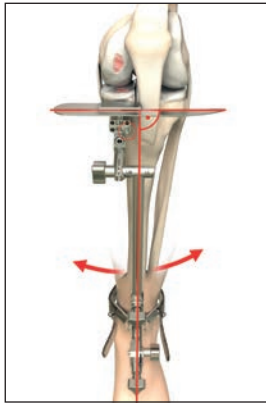


Fig. 4

Alignment of the Tibial Reference System

Put the Tibial Reference System into place parallel to the anterior edge of the tibia (Fig. 3). The Tibial Cutting Guide incorporates a posterior slope of 5°.

We recommend reconstructing the natural slope or a constant slope of 5°.

With the Tibial Reference System parallel to the longitudinal axis (Fig. 4) of the tibia, align the Distal Connector with the second metatarsophalangeal bone and fix it with the Rubber Band.

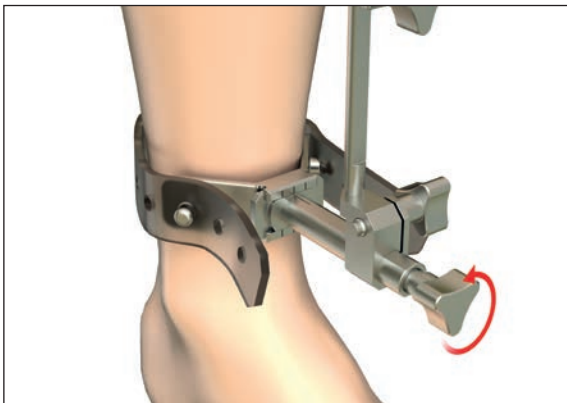


Fig. 5

Never tilt the Tibial Reference System medially or laterally. Instead, release the Tibial Locking Bolt and undertake the required adjustment on the frontal plane. Then tighten the Tibial Locking Bolt again.



Fig. 6

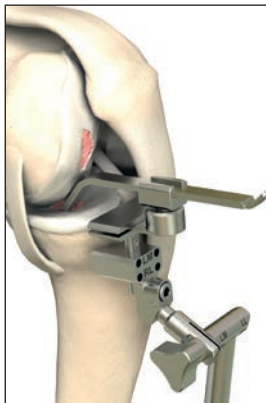


Fig. 7

Push the Reference Plate or the optional Tibial Stylus into the Tibial Cutting Guide and identify the deepest point of the tibial defect.

Fix the Connecting Screw.

Pre-drill the holes. Fix the Tibial Reference System with two Pins.

Check the posterior slope with the Reference Plate in the Tibial Cutting Guide.



When fixing the Tibial Reference System, take care that the holes are not drilled too close to the edge and are not overlapping one another as this might weaken the tibial plateau.

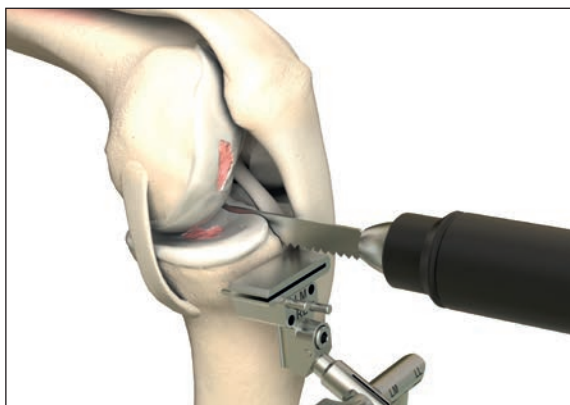


Fig. 8

Sagittal tibial osteotomy

For a sagittal osteotomy, the Tibial Cutting Guide can be lowered until the deepest possible point. The Tibial Reference System should not be displaced from now on.

Perform the sagittal tibial osteotomy using a Jig Saw.

! *Do not cut too deeply on the sagittal plane as this could lead to a fracture of the tibia.*



Fig. 9

Transversal tibial osteotomy

The Hexagonal Screwdriver can be used to shift the Tibial Cutting Guide.

When using a balanSys UNI System, resection 4–5 mm distally from the lowest point of the tibial defect is recommended.

With the Reference Plate pushed crosswise into the Tibial Cutting Guide, it is possible to check the angle to the longitudinal axis of the tibia.

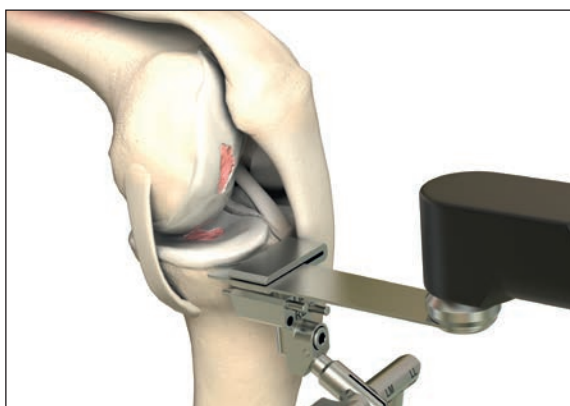


Fig. 10

Perform the transverse tibial osteotomy without damaging the soft tissues.

- !** *Protect ligaments by use of suitable retractors!*
- !** *At the junction of the sagittal and transverse cuts ensure there are no remnants of bone or ridges/steps.*
- !** *Perform the osteotomy using a 1.27 mm sawblade.*

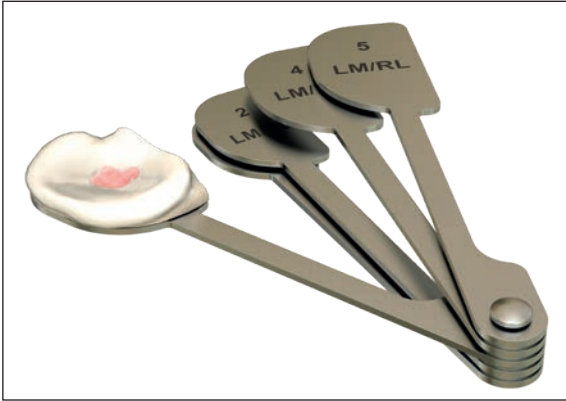


Fig. 11

Determine the implant size with the help of the Tibial Sizer. The medio-lateral dimension determines the size of the tibial plateau. Avoid any medial or AP overhangs.

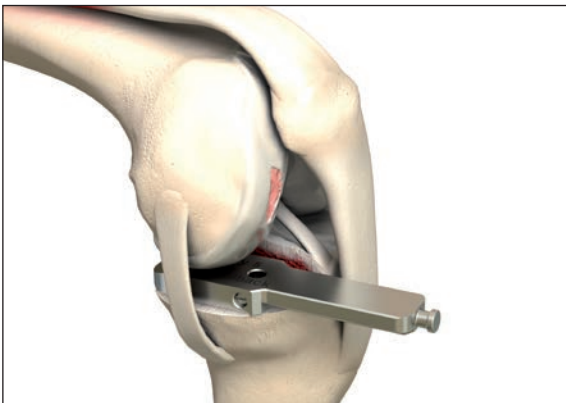


Fig. 12

Assessment of tibial cut and flexion gap

Assess the tibial cut, starting with the thinnest Spacer Block. This step determines the height of the Inlay using the following algorithm:

1. Stable situation = Flexion Gap is correct
= maintain Inlay thickness
2. Spacer Block is too loose = too much resection on the tibia = increase Inlay thickness (use a thicker Spacer Block)
3. Spacer Block is too tight (or does not fit into the gap) = not enough resection on the tibia = recut on the tibia

As soon as the Spacer Block is stable, the Inlay thickness and therefore the Spacer Block size for the whole procedure is determined. The same Spacer Block is used for the next steps.

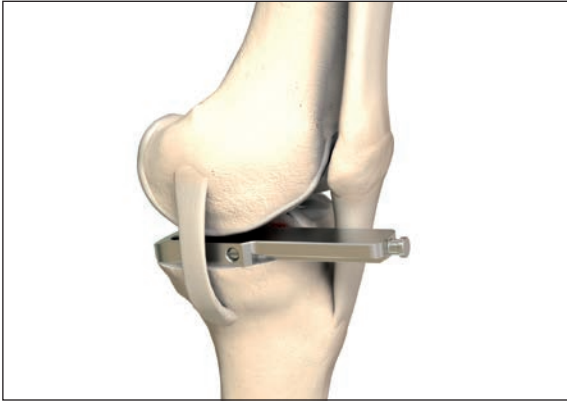


Fig. 13

Assessment of the extension gap

Assess the extension gap with the leg in full extension. Check the stability of the determined Spacer Block.

Your Spacer Block might be loose now, as very often a cartilage defect is located on the distal part of the femur. In order to restore the natural leg alignment, this defect has to be corrected using plates which compensate the worn cartilage.

If a Defect Plate is needed at this step, it will be kept in place for the distal femur cut.



Fig. 14

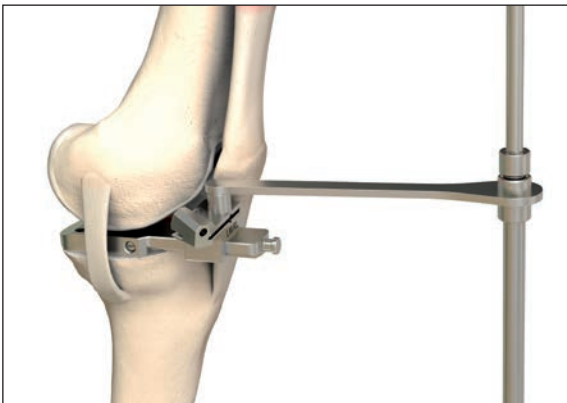


Fig. 15

Alignment check

Check the alignment before the distal femur cut. Use the Alignment Jig with the Alignment Rods to verify the Alignment.

Adjust the Alignment Rods to point to the second metatarsophalangeal bone. The proximal part should now point to the centre of the femoral head.

Avoid overstuffing of the compartment.

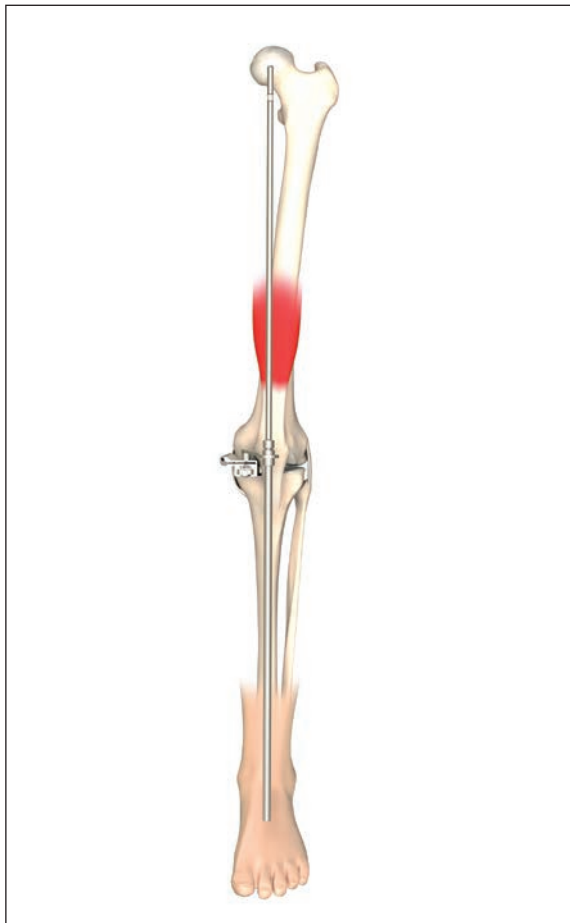


Fig. 16

If the Alignment Rod points too much medially, the joint line is too proximal and the mechanical axis is too lateral. You may consider the following possibilities:

- Check if the tibia cut is at 90 degrees to the mechanical axis of the tibia. If not recut the tibia at 90 degrees to the mechanical axis of the tibia.
- Reduce the thickness of the Inlay
- Lower the tibia cut

If the Alignment Rod points too much laterally, the joint line is too distal and the mechanical axis is too medial. You have the following possibilities:

- Check if the tibia cut is at 90 degrees to the mechanical axis of the tibia. If not, recut the tibia at 90 degrees to the mechanical axis of the tibia
- Increase the thickness of the Inlay

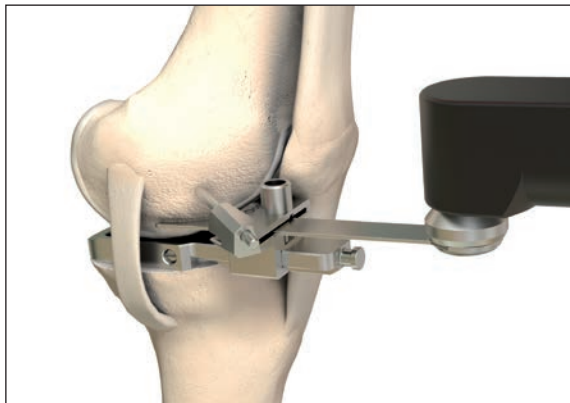


Fig. 17

5.2 Femoral osteotomy

Distal Femur Cut

Fix the distal cutting block with an oblique pin. Perform the distal femur cut through the cutting slot. If a defect plate was needed, keep it in place for the distal cut!

Avoid hyperextension, a slight flexion of 0–5 degrees is recommended.



Protect ligaments by use of suitable retractors!



Perform the osteotomy using a 1.27 mm sawblade.

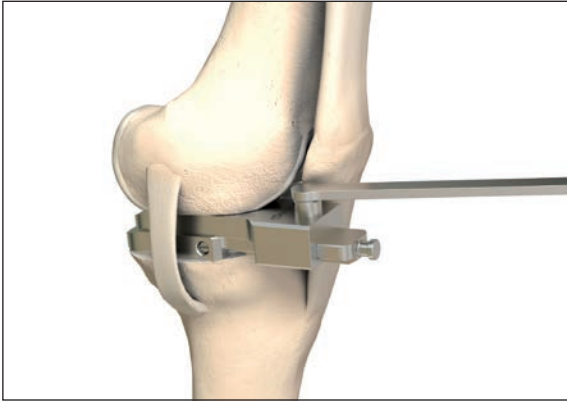


Fig. 18

Extension Gap

After removal of the bone use the Femur Spacer to check the extension gap.

The Defect Plate has to be removed for this step.

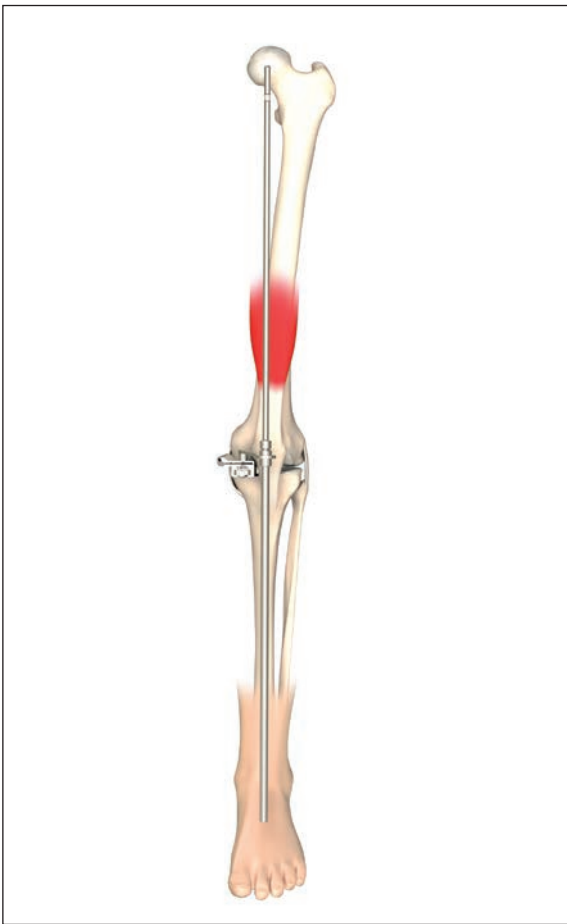


Fig. 19

Optional: Alignment check

Check the proper alignment of the extension gap. Use the Directional Guide with the Alignment Rods to verify the Alignment.

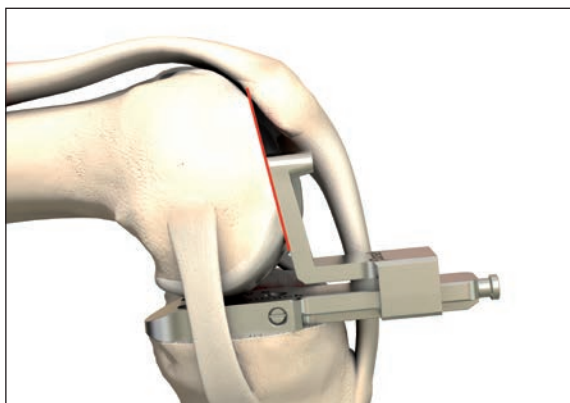


Fig. 20

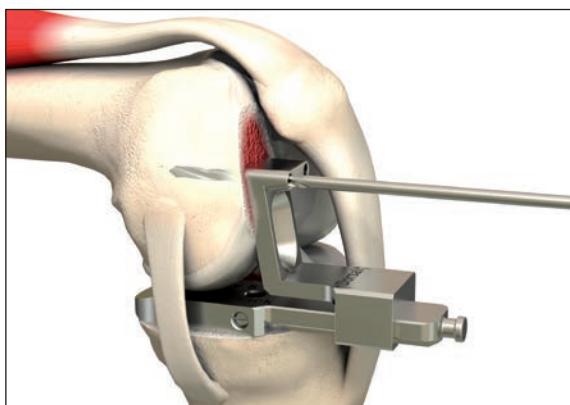


Fig. 21

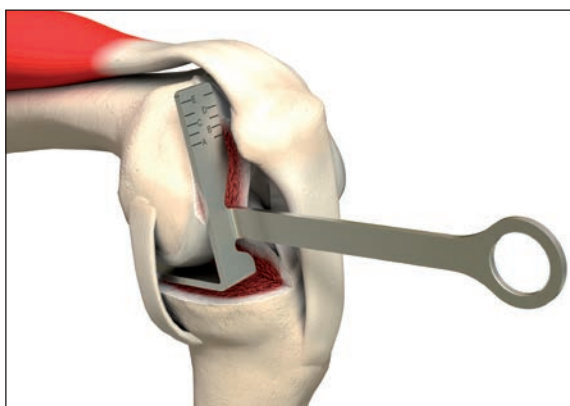


Fig. 22

Flexion Gap

Push the Drill Guide onto the Spacer Block.

With the knee in about 100° of flexion, insert the Spacer Block retaining the thickness setting used for the distal resection. The Spacer Block has to lie properly on the tibial resection. As in the majority of all cases the posterior cartilage is still intact, most often no Defect Plate is needed (generally a defect is located on the posterior part of the femur only in lateral cases).

Push the Drill Guide on the distal surface of the femur. Alter the flexion until the drill guide lies flush on the distal femoral osteotomy.

The Universal Hook can be used to perform an additional check whether there is a gap between the drill guide and the distal bone cut surface.

Drill the fixing holes for the Femoral Cutting Block with the 3.2 mm Drill Bit.

Preliminary femoral sizing

With the knee fully extended, check where the ventral curve of the femoral component should end. The anterior edge of the tibia will act as a reference for this purpose. Mark with the electro-surgical knife.

With the knee in flexion, align the Femoral Sizing Guide on the distal femoral cutting surface and on the posterior condyle in order to check the size defined during the preoperative planning.

Plan the femur size in the pre-operative stage with the help of the X-ray templates. The X-ray templates are available with a size scale of 1.05:1.
In case of doubt, start with the smaller femur size so that it is easy to exchange it for a larger component. The definitive size is determined in the next steps.

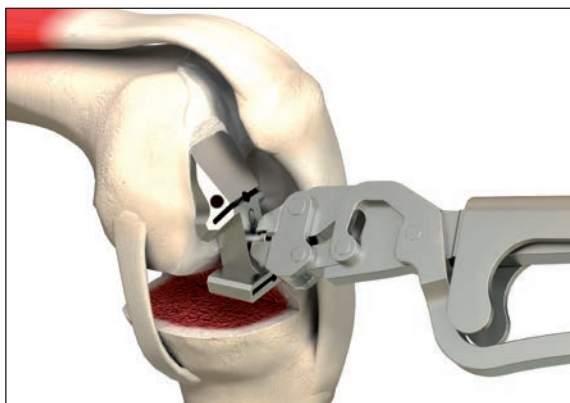


Fig. 23

Femoral Cutting Block

Position the Femoral Cutting Block in the previously drilled holes and impact it until the Femoral Cutting Block lies flush against the distal cutting surface.

- ⚠ *Protect ligaments by use of suitable retractors!*
- ⚠ *Perform the osteotomy using a 1.27 mm sawblade.*

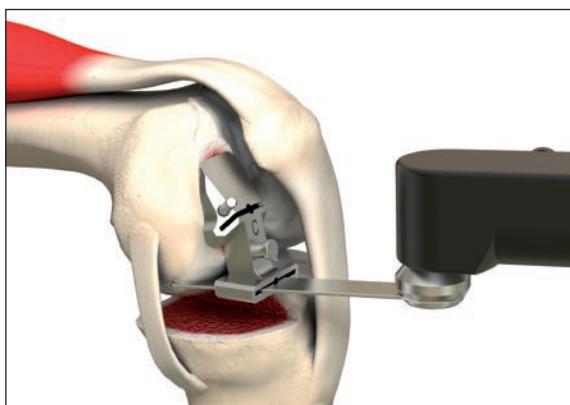


Fig. 24

Posterior femoral osteotomy

Perform the posterior cut through the posterior cutting slot of the 3in1 cutting block.

Posterior Referencing of the femoral size

At this stage the size of the Femoral Cutting Block and that of the femoral component can still be adjusted.

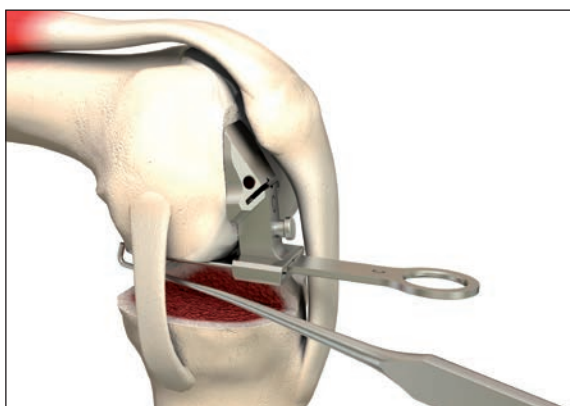


Fig. 25

With the corresponding Femoral Sizing Plate, the posterior length of the chosen implant is measured. Put the Femoral Sizing Plate into the posterior cutting slot of the 3in1 Cutting Block. Use the Universal Hook to verify the posterior length. The Femoral Sizing Plate has the same length as the according Implant.

The posterior length is crucial:

- A too long implant acts as a lever arm and can lead to loosening of the femoral implant.
- Whereas a too short implant can lead to early impingement and limited flexion.

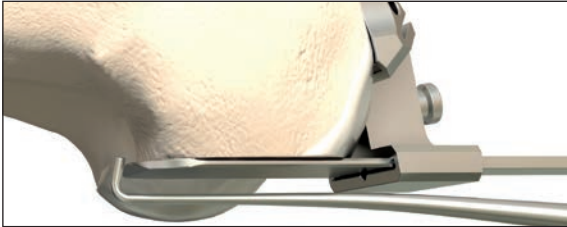


Fig. 26

The length of the Femur Sizing Plate extends the posterior cut. A smaller size has to be chosen.

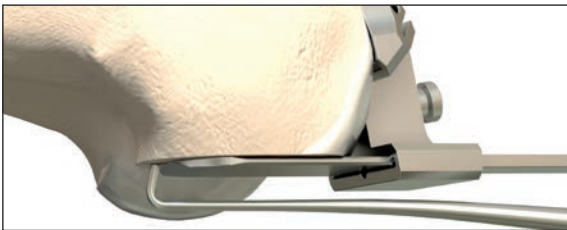


Fig. 27

The Femur Sizing Plate is shorter than the posterior cut. A bigger size has to be chosen.

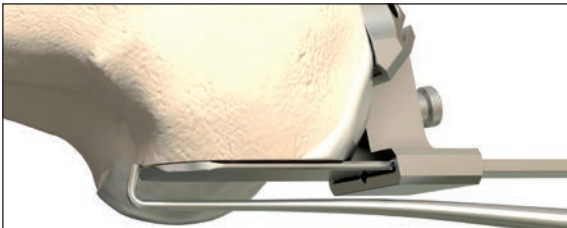


Fig. 28

The size of the Femur Sizing Plate corresponds with the posterior cut. The femoral size can be maintained.

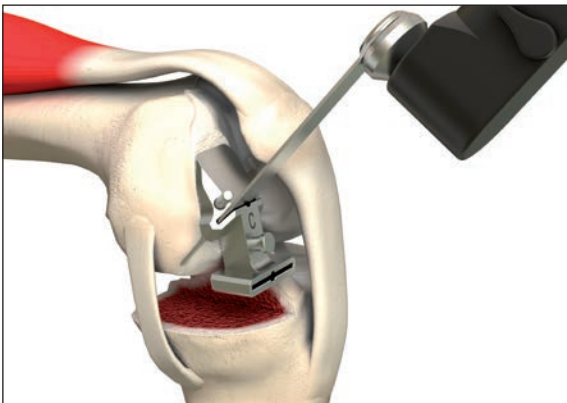


Fig. 29

Chamfer cut

If needed exchange the 3in1 Cutting Block according to the size determined the step before.

Now additionally, use a diagonal Pin to fix the cutting block correctly. Perform the chamfer cut using the antecedent determined size of 3in1 Cutting Block.

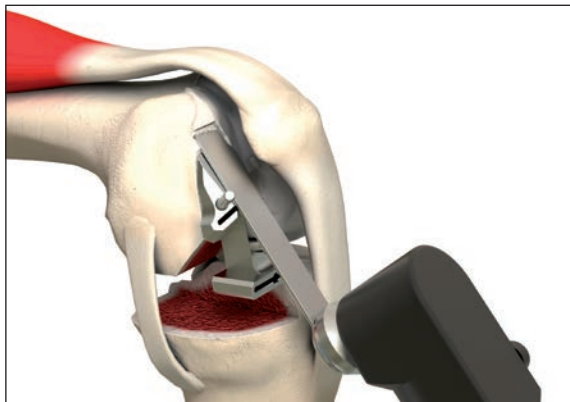


Fig. 30

Anterior cut

Resect max. 4–5 mm on the anterior surface. Use the anterior surface of the 3in1 Cutting Block as a guide for the anterior cut.



Fig. 31

5.3 Preparation and Implantation

Preparation of the tibia

Introduce the Tibial Template and check the tibial coverage, avoiding any overhanging. Impact the Tibial Template with the Tibial Impactor. Use a small hammer so as to avoid applying too much force.

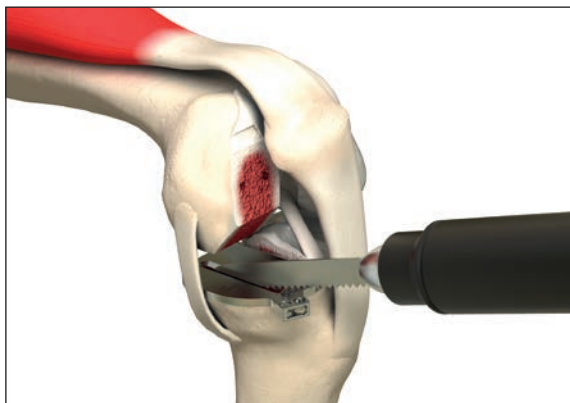


Fig. 32

Preparing of the tibial fin

Use a Jig Saw to precut the cavity of the tibial implant.



Always precut the tibial fin before using the chisel, as a direct use of the chisel can cause a fracture of the tibial plateau.

Remarks

Additionally the Tibial Template can be stabilized with the Femur Impactor or a small chisel.

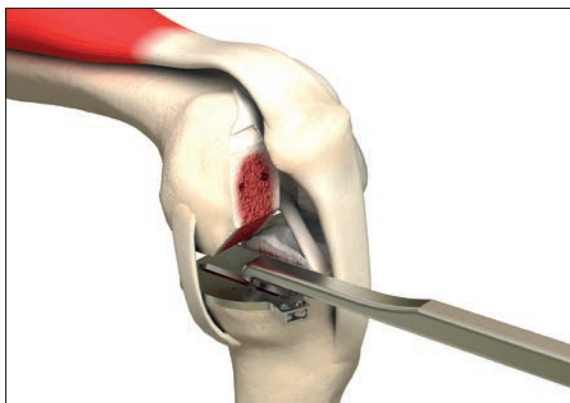


Fig. 33

Complete the final shaping with the Fin Chisel.

Remove the bone remnants using a small curette. Pay special attention to the posterior region of the recess for the tibial fin, using a small curette.

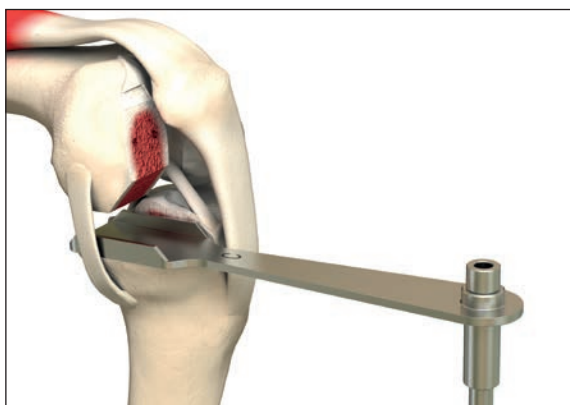


Fig. 34

Final control of the tibial preparation

Introduce the Trial Fin. The Trial Fin must lie flat on the tibial cut. Do not impact the Trial Fin as doing so could damage the tibia.

If the Trial Fin does not fit into the processed surface without applying any force, work the recess of the fin again with a curette.

Check alignment with the help of the alignment rod. Visually inspect the posterior slope.

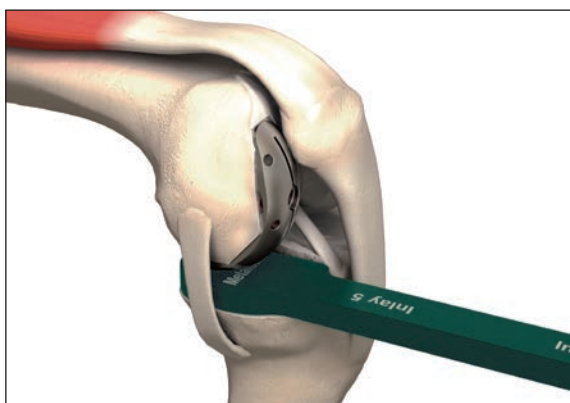


Fig. 35

Trial implants

- Position the Trial Femur with the help of the Femur Holder
- Introduce the appropriate Spacer Block
- Check the following:
 1. Tracking
 2. Ligament tension
 3. Medio-lateral position of the trial femur
- If necessary, adjust the position of the Trial Femur medio-laterally and secure in place with two Pins

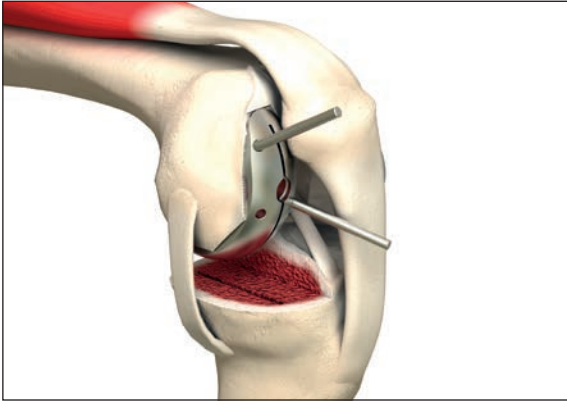


Fig. 36

Preparation of the femur

Determine the M/L position of your femur considering the following points:

- Avoid anterior overhang
- Avoid any conflict with the patella

Once the M/L position is determined fix the Trail Femur with two pins.

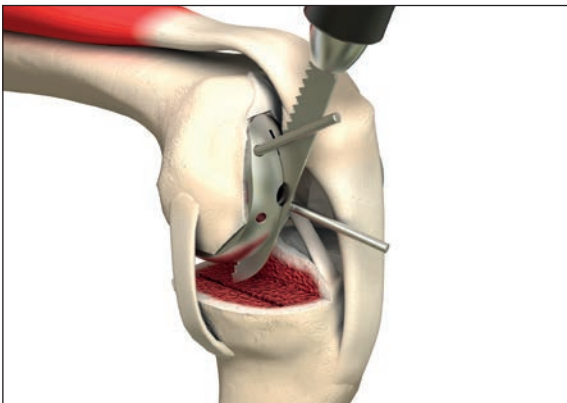


Fig. 37

Process the femoral fin with the Jig Saw.

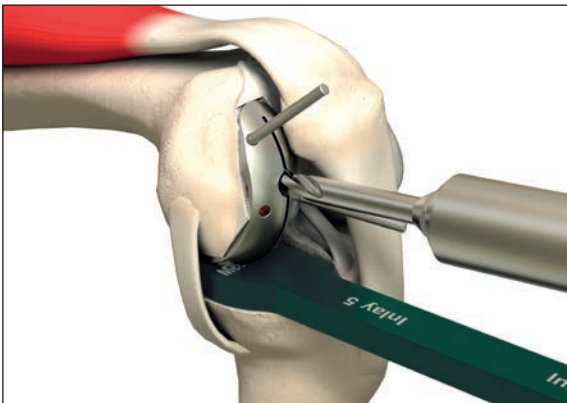


Fig. 38

Predrilling of the femoral peg

Drill a hole for the peg of the femur with the 6.5mm Drill Bit. Always use the Spacer Block to keep the trail femur in the correct position. Remove the Pins afterwards.

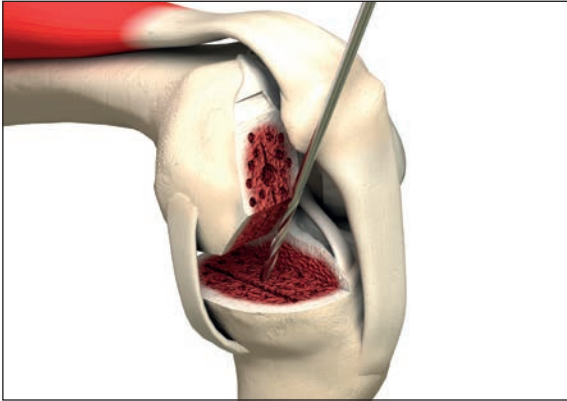


Fig. 39

Definitive implantation
Cementing technique

Drill small holes for a better cement anchoring (especially in hard and/or sclerotic bone).



Fig. 40



Fig. 41

Always exchange gloves before starting the cement preparation. Use clean and dry gloves for cementing.

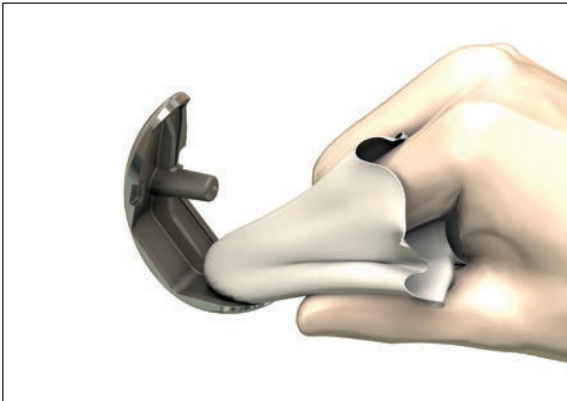


Fig. 42

Control the cement surface of the implants. If necessary clean and dry them before applying cement.

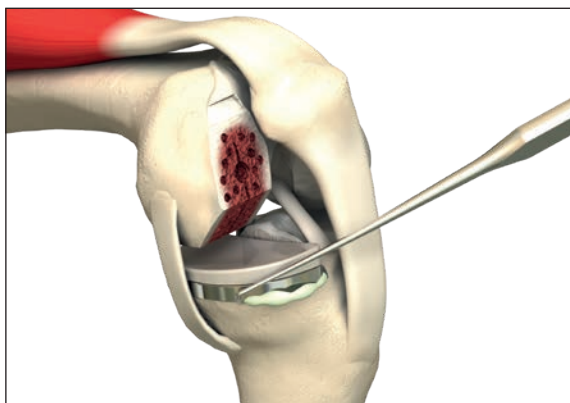


Fig. 43



When cementing, always make absolutely sure that the excess cement is removed. Foreign matter such as cement particles and/or bone residues can lead to a high wear rate or damage to the Inlay.

Use the Universal Hook to remove excess cement.

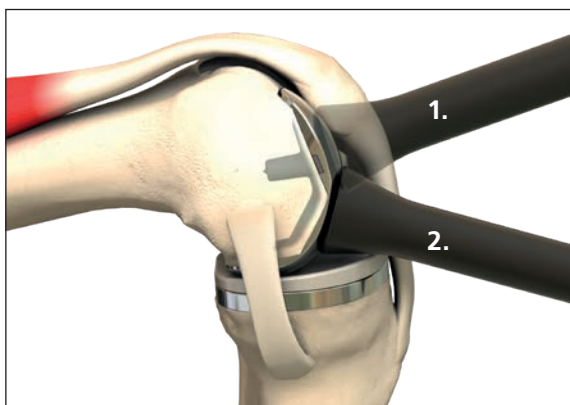


Fig. 44

Implantation balanSys UNI

Implant the prosthesis in the following order:

1. Tibial Plateau

Introduce the Tibial Plateau, giving it a steep posterior slope so that the cement can flow in an anterior direction, and spilling of the cement posteriorly is prevented.

2. Inlay

Verify that there are no bone residues or soft tissues on the tibial plateau, and insert inlay beginning with the dorsal lip. Then cause the inlay to latch by exerting pressure in the ventral area.

3. Femur

Mount femoral component onto femur holder. Neither fin nor positioning pin should be cemented in case of normal bone quality. Impact the femoral component with the femoral impactor. Impact the femoral implant from a location as far dorsal as possible. Do not strike the anterior part of the implant. Remove excess cement dorsally, if there should be any.

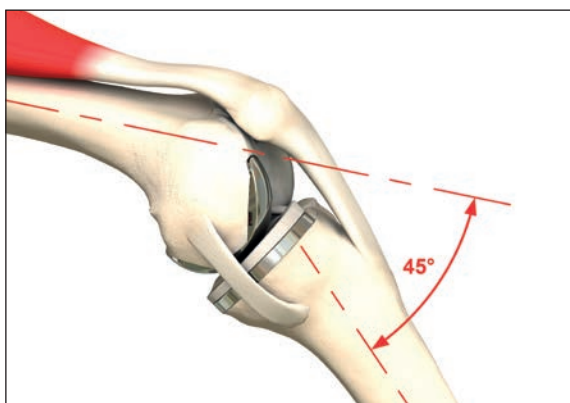


Fig. 45

Curing of the cement

Hold knee to the extent necessary under slight varus stress and at a flexion of 45°. Allow the cement to cure under pressure from distally.

6. Implants

6.1 Item numbers of the balanSys UNI Implants



balanSys UNI Femur, cemented

Item no.	Mediolat.	Size
77.15.0001	21 mm	A
77.15.0002	22.5 mm	B
77.15.0003	24 mm	C

Material: CoCrMo

Item no.	Mediolat.	Size
77.15.0004	26 mm	D
77.15.0005	28 mm	E

balanSys UNI vitamys Inlay Fix

Item no.	Mediolat.	Size
77.30.0400	26 mm	1/5 LM/RL
77.30.0401	26 mm	1/6 LM/RL
77.30.0402	26 mm	1/7 LM/RL
77.30.0403	26 mm	1/9 LM/RL
77.30.0404	28 mm	2/5 LM/RL
77.30.0405	28 mm	2/6 LM/RL
77.30.0406	28 mm	2/7 LM/RL
77.30.0407	28 mm	2/9 LM/RL
77.30.0408	30 mm	3/5 LM/RL
77.30.0409	30 mm	3/6 LM/RL
77.30.0410	30 mm	3/7 LM/RL
77.30.0411	30 mm	3/9 LM/RL
77.30.0412	32 mm	4/5 LM/RL
77.30.0413	32 mm	4/6 LM/RL
77.30.0414	32 mm	4/7 LM/RL
77.30.0415	32 mm	4/9 LM/RL
77.30.0416	34 mm	5/5 LM/RL
77.30.0417	34 mm	5/6 LM/RL
77.30.0418	34 mm	5/7 LM/RL
77.30.0419	34 mm	5/9 LM/RL

Material: VEPE

Item no.	Mediolat.	Size
77.30.0420	26 mm	1/5 LL/RM
77.30.0421	26 mm	1/6 LL/RM
77.30.0422	26 mm	1/7 LL/RM
77.30.0423	26 mm	1/9 LL/RM
77.30.0424	28 mm	2/5 LL/RM
77.30.0425	28 mm	2/6 LL/RM
77.30.0426	28 mm	2/7 LL/RM
77.30.0427	28 mm	2/9 LL/RM
77.30.0428	30 mm	3/5 LL/RM
77.30.0429	30 mm	3/6 LL/RM
77.30.0430	30 mm	3/7 LL/RM
77.30.0431	30 mm	3/9 LL/RM
77.30.0432	32 mm	4/5 LL/RM
77.30.0433	32 mm	4/6 LL/RM
77.30.0434	32 mm	4/7 LL/RM
77.30.0435	32 mm	4/9 LL/RM
77.30.0436	34 mm	5/5 LL/RM
77.30.0437	34 mm	5/6 LL/RM
77.30.0438	34 mm	5/7 LL/RM
77.30.0439	34 mm	5/9 LL/RM

balanSys UNI Tibial Plateau Fix, cemented

Item no.	ML/AP [mm]	Size
77.15.0011	26/43.4	1 LM/RL
77.15.0012	28/46.5	2 LM/RL
77.15.0013	30/49.6	3 LM/RL
77.15.0014	32/51.7	4 LM/RL
77.15.0015	34/53.8	5 LM/RL

Material: CoCrMo

Item no.	ML/AP [mm]	Size
77.15.0016	26/43.4	1 LL/RM
77.15.0017	28/46.5	2 LL/RM
77.15.0018	30/49.6	3 LL/RM
77.15.0019	32/51.7	4 LL/RM
77.15.0020	34/53.8	5 LL/RM



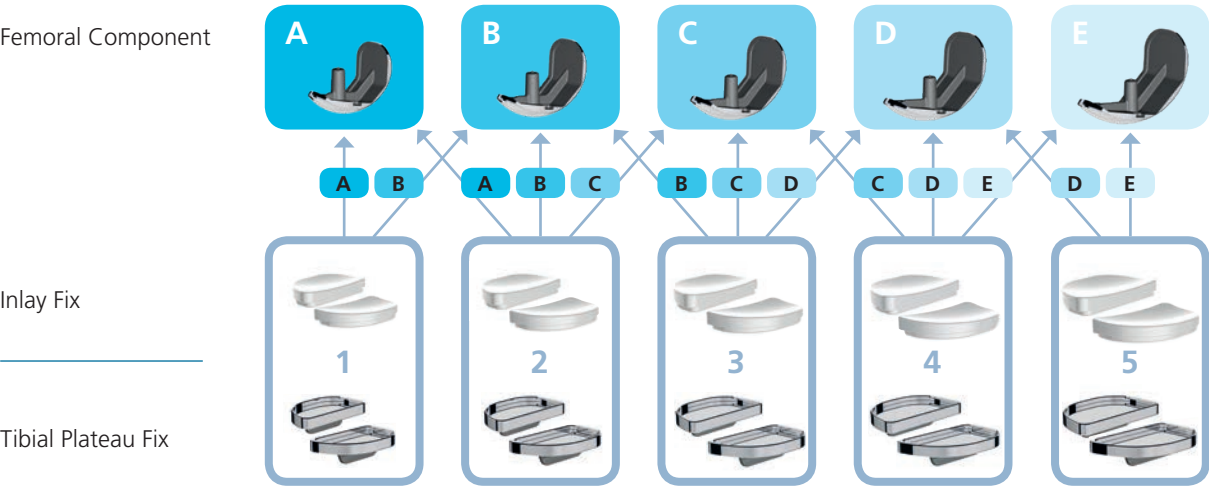
balanSys UNI PE Inlay Fix

Item no.	Mediolat.	Size
77.30.0011	26 mm	1/5 LM/RL
77.30.0012	26 mm	1/6 LM/RL
77.30.0013	26 mm	1/7 LM/RL
77.30.0014	26 mm	1/9 LM/RL
77.30.0021	28 mm	2/5 LM/RL
77.30.0022	28 mm	2/6 LM/RL
77.30.0023	28 mm	2/7 LM/RL
77.30.0024	28 mm	2/9 LM/RL
77.30.0031	30 mm	3/5 LM/RL
77.30.0032	30 mm	3/6 LM/RL
77.30.0033	30 mm	3/7 LM/RL
77.30.0034	30 mm	3/9 LM/RL
77.30.0041	32 mm	4/5 LM/RL
77.30.0042	32 mm	4/6 LM/RL
77.30.0043	32 mm	4/7 LM/RL
77.30.0044	32 mm	4/9 LM/RL
77.30.0051	34 mm	5/5 LM/RL
77.30.0052	34 mm	5/6 LM/RL
77.30.0053	34 mm	5/7 LM/RL
77.30.0054	34 mm	5/9 LM/RL

Item no.	Mediolat.	Size
77.30.0015	26 mm	1/5 LL/RM
77.30.0016	26 mm	1/6 LL/RM
77.30.0017	26 mm	1/7 LL/RM
77.30.0018	26 mm	1/9 LL/RM
77.30.0025	28 mm	2/5 LL/RM
77.30.0026	28 mm	2/6 LL/RM
77.30.0027	28 mm	2/7 LL/RM
77.30.0028	28 mm	2/9 LL/RM
77.30.0035	30 mm	3/5 LL/RM
77.30.0036	30 mm	3/6 LL/RM
77.30.0037	30 mm	3/7 LL/RM
77.30.0038	30 mm	3/9 LL/RM
77.30.0045	32 mm	4/5 LL/RM
77.30.0046	32 mm	4/6 LL/RM
77.30.0047	32 mm	4/7 LL/RM
77.30.0048	32 mm	4/9 LL/RM
77.30.0055	34 mm	5/5 LL/RM
77.30.0056	34 mm	5/6 LL/RM
77.30.0057	34 mm	5/7 LL/RM
77.30.0058	34 mm	5/9 LL/RM

Material: UHMWPE

6.2 Size compatibility of the balanSys UNI Implants



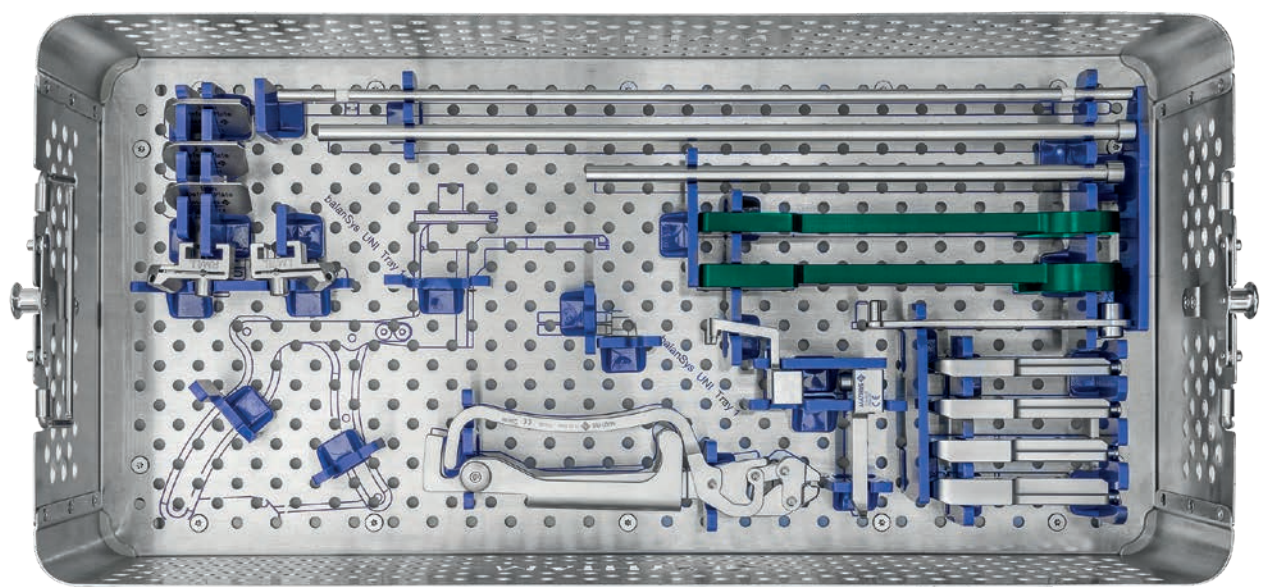
7. Instruments

7.1 balanSys UNI Instrumentation Set 71.34.0608A

balanSys UNI Instrumentation Set 71.34.0608A	
71.34.0625 balanSys UNI Tray 1	29
71.34.0626 balanSys UNI Insert Tray 1	31
71.34.0628 balanSys UNI Tray 2	33
71.34.0629 balanSys UNI Insert Tray 2	35

balanSys UNI Instrumentation Set 71.34.0608A

No image / 71.34.0627 **balanSys UNI Lid for tray 1**



71.34.0625 **balanSys UNI Tray 1**



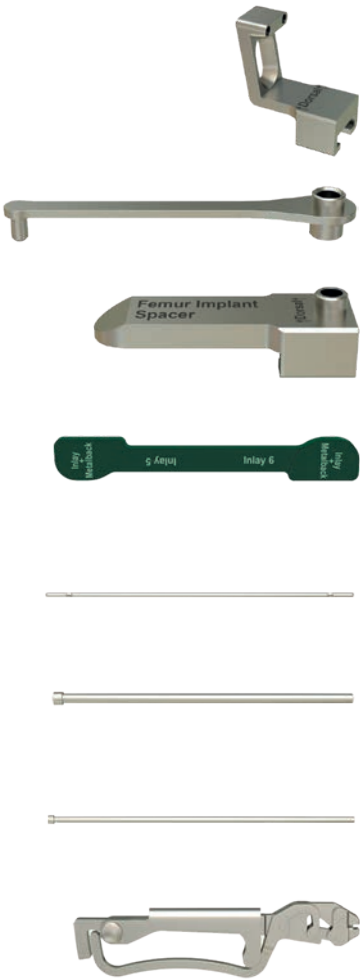
Item no.	Description	Qty.
71.34.0520	balanSys UNI SBT Spacer block 5	1
71.34.0521	balanSys UNI SBT Spacer block 6	1
71.34.0522	balanSys UNI SBT Spacer block 7	1
71.34.0523	balanSys UNI SBT Spacer block 9	1



Item no.	Description	Qty.
71.34.0524	balanSys UNI SBT Defect plate 1 mm	1
71.34.0525	balanSys UNI SBT Defect plate 2 mm	1
71.34.0526	balanSys UNI SBT Defect plate 3 mm	1



Item no.	balanSys UNI SBT	Qty.
71.34.0527	Distal cutting block LM	1
71.34.0528	Distal cutting block RM	1



Item no.	Qty.
71.34.0619	1

balanSys UNI SBT Drill Guide flat

Item no.	Qty.
71.34.0530	1

balanSys UNI SBT Directional guide

Item no.	Qty.
71.34.0531	1

balanSys UNI SBT Femur spacer block

Item no.	Description	Qty.
71.34.0620	balanSys UNI Spacer Block 5/6	1
71.34.0621	balanSys UNI Spacer Block 7/9	1

Item no.	Qty.
70.04.0109	1

balanSys alignment rod centre piece

Item no.	Qty.
70.04.0110	1

balanSys alignment rod short

Item no.	Qty.
70.04.0111	1

balanSys alignment rod long

Item no.	Qty.
71.02.3006	1

balanSys pliers

Optional instruments for the balanSys UNI Instrumentation Set

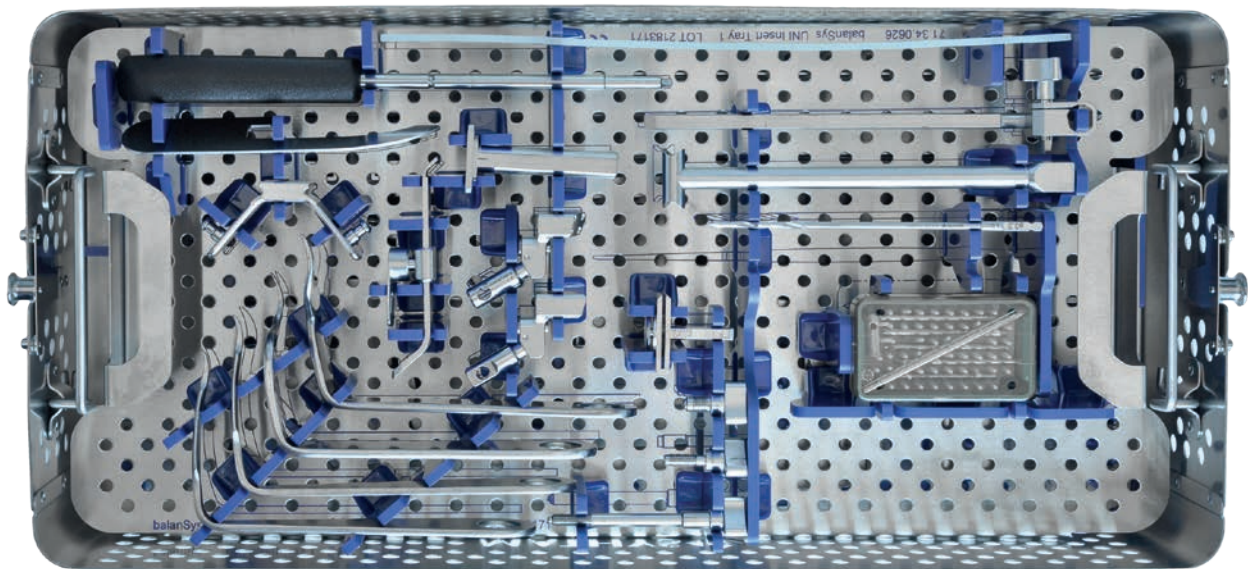
NOT part of the standard configuration and must be ordered separately:



Item no.	Qty.
71.02.3096	1

balanSys tibial stylus

balanSys UNI Instrumentation Set 71.34.0608A



71.34.0626 balanSys UNI Tray Insert 1



Item no.		Qty.
77.02.0031	balanSys reference plate 1.3	1

Item no.	Description	Qty.
71.02.3004	balanSys pin 3.2/55	5
71.02.3054	balanSys pin 3.2/80	2

Item no.		Qty.
315.310	AO Drill bit 3.2	1

Item no.		Qty.
77.02.0038	balanSys retractor rectangular	2



Item no.	Description	Qty.
77.02.0048	balanSys Hohmann retractor curved left	1
77.02.0049	balanSys Hohmann retractor curved right	1



Item no.		Qty.
77.02.0001	balanSys UNI Trs. aiming device proximal	1



Item no.		Qty.
77.02.0002	balanSys UNI Trs. aiming device distal	1



Item no.	Description	Qty.
77.02.0003	balanSys UNI Trs. tuber. attachm. RM/LL	1
77.02.0004	balanSys UNI Trs. tuber. attachm. LM/RL	1



Item no.		Qty.
77.02.0005	balanSys UNI Trs. tibial cutting guide	1



Item no.	Qty.
77.02.0019 balanSys Trs. screw	1



Item no.		Qty.
77.02.0041	balanSys Trs. connecting screw	1



Item no.		Qty.
77.02.0042	balanSys UNI Trs. distal connector	1



Item no.		Qty.
77.02.0043	balanSys Trs. locking bolt	1



Item no.	Qty.
77.02.0044 balanSys UNI Trs. ankle holder	1



Item no.		Qty.
314.270	Screwdriver, hex., 3.5	1



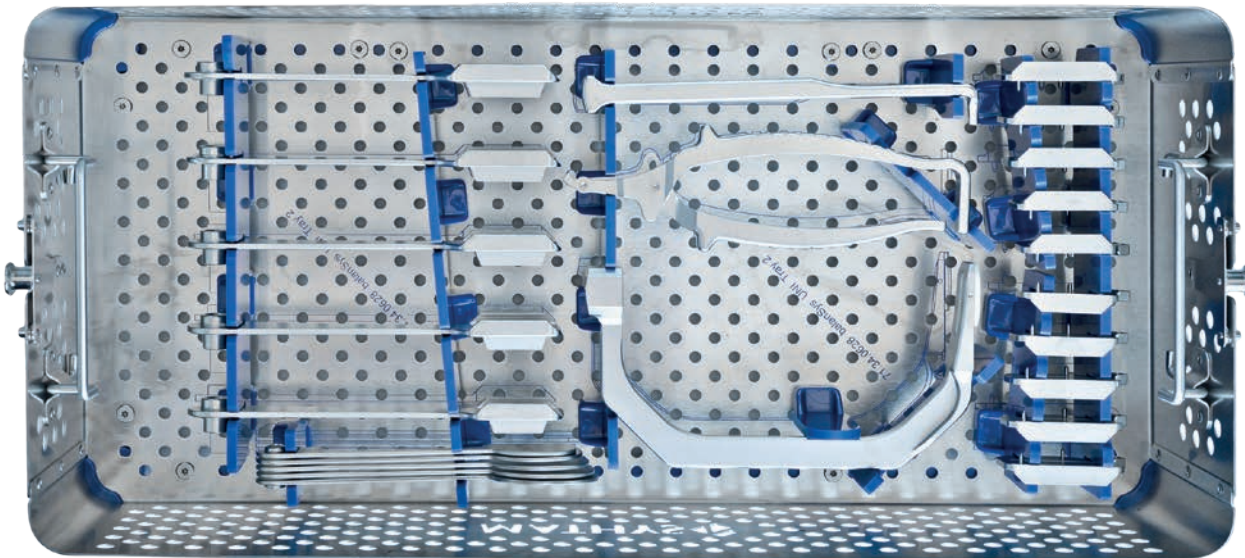
Item no.	Qty.
71.34.0017 balanSys UNI Universal Hook	1



Item no.		Qty.
71.02.1005	balanSys Trs. rubber band 3x25x300	1

balanSys UNI Instrumentation Set 71.34.0608A

No image / 71.34.0630 balanSys UNI Lid for tray 2



71.34.0628 balanSys UNI Tray 2



Item no.	Description	Qty.
77.02.0175	balanSys UNI Tibial Template 1 LM/RL	1
77.02.0176	balanSys UNI Tibial Template 2 LM/RL	1
77.02.0177	balanSys UNI Tibial Template 3 LM/RL	1
77.02.0178	balanSys UNI Tibial Template 4 LM/RL	1
77.02.0179	balanSys UNI Tibial Template 5 LM/RL	1
77.02.0180	balanSys UNI Tibial Template 1 LL/RM	1
77.02.0181	balanSys UNI Tibial Template 2 LL/RM	1
77.02.0182	balanSys UNI Tibial Template 3 LL/RM	1
77.02.0183	balanSys UNI Tibial Template 4 LL/RM	1
77.02.0184	balanSys UNI Tibial Template 5 LL/RM	1



Item no.		Qty.
77.02.0185	balanSys UNI Holder tibia trial prosth.	1



Item no.		Qty.
77.02.0009	balanSys UNI fin chisel	1

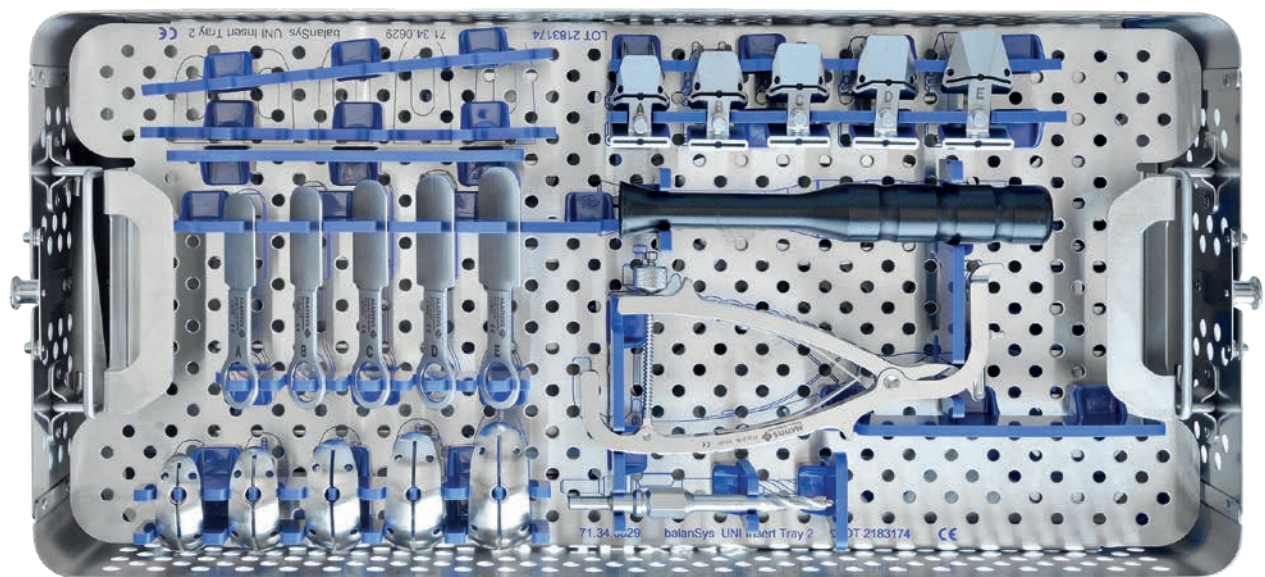


Item no.	Description	Qty.
77.02.0091	balanSys UNI trial fin size 1	1
77.02.0092	balanSys UNI trial fin size 2	1
77.02.0093	balanSys UNI trial fin size 3	1
77.02.0094	balanSys UNI trial fin size 4	1
77.02.0095	balanSys UNI trial fin size 5	1

Item no.	Qty.
77.02.0167 balanSys UNI Tibial Impactor	1

Item no.	Qty.
71.34.0016 balanSys UNI Tibia Sizing Template	1

balanSys UNI Instrumentation Set 71.34.0608A



71.34.0629 balanSys UNI Tray Insert 2



Item no.	Description	Qty.
77.02.0160V	balanSys UNI Femoral Cutting Block A	1
77.02.0161V	balanSys UNI Femoral Cutting Block B	1
77.02.0162V	balanSys UNI Femoral Cutting Block C	1
77.02.0163V	balanSys UNI Femoral Cutting Block D	1
77.02.0164V	balanSys UNI Femoral Cutting Block E	1

Item no.		Qty.
77.02.0046	balanSys UNI femoral sizing guide	1

Item no.	Qty.
77.02.0022 Drill bit 6.5	1



Item no.	Description	Qty.
77.02.0169	balanSys UNI femoral sizing plate A	1
77.02.0170	BalanSys UNI femoral sizing plate B	1
77.02.0171	balanSys UNI femoral sizing plate C	1
77.02.0172	balanSys UNI femoral sizing plate D	1
77.02.0173	balanSys UNI femoral sizing plate E	1



Item no.		Qty.
77.02.0045	balanSys UNI femoral impactor	1

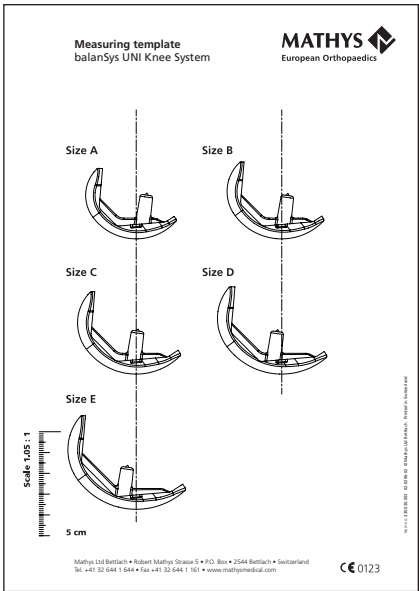


Item no.		Qty.
77.02.0186	balanSys UNI femur holder	1







Item no.	Description	Qty.
77.02.0051	balanSys UNI trial femur A	1
77.02.0052	balanSys UNI trial femur B	1
77.02.0053	balanSys UNI trial femur C	1
77.02.0054	balanSys UNI trial femur D	1
77.02.0055	balanSys UNI trial femur E	1

7.2 Measuring template



Item no.	
330.030.003	balansys UNI Template

8. Symbols

-  Manufacturer
-  Correct
-  Incorrect
-  Caution

Notes

[illegible]

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