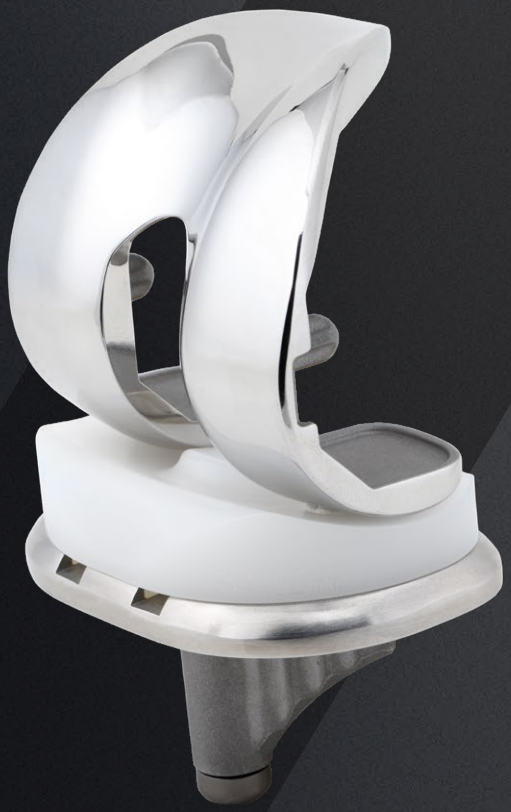
MADISON

TOTAL KNEE PROSTHESIS



SURGICAL TECHNIQUE

UC VERSION - FIXED TIBIAL BASEPLATE

serf

KNEE

INDICATIONS

Madison Knee components are for use in total knee arthroplasty to relieve pain and restore knee functions for indications such as:

- painful,
- disabling joint disease of the knee resulting from degenerative arthritis, rheumatoid arthritis or post-traumatic arthritis;
- and revision of previous unsuccessful knee replacement or other procedure.

Madison instrumentation is designed to adapt to a traditional surgical approach.

The surgeon is guided by bony landmarks to ensure optimal implant positioning.
The bone anchoring technique is cemented for femoral and tibial components.

CONTENTS

IMPLANTS

Femoral components

- 8 **MADISON** sizes
- Cobalt chrome
- Cruciate retaining (CR)
- Cemented
- Anatomical trochlea

Tibial inserts

- 8 sizes (1 to 8)
- UHMWPE high density polyethylene
- 4° built-in posterior slope
- Thicknesses of 10 to 20 mm (2 mm inc.) for Ultracongruent (UC)**

Tibial baseplates

- 8 sizes (1 to 8)
- Cobalt chrome
- Symmetrical
- Fixed bearing
- Cemented
- Delta keel design

Patella components

- 4 diameters: 30, 33, 36 and 39 mm
- 2 thicknesses: 8 and 10 mm
- UHMWPE high density polyethylene
- Resurfacing and cemented with 3 pegs

Optional Tibial extension rods

- Titanium alloy
- Diameter 11, L 35 & 55 mm*

* Please check product availability with your local representative.
** Some thicknesses are optional. For more details please contact your local representative.

DESIGN

Madison implants are designed to preserve the bone stock.

- 8 mm thickness for the femoral component (distal and posterior cuts)
- Trochlea with smooth anterior internal surface
- V-shaped fluted keel to maximise the contact area, without macrostructure and easy to remove in the event of revision surgery

Madison implants are designed to ensure long-term results.

- Large contact areas
- Single ML radius
- Severe mechanical testing

Madison instrumentation is designed to be precise.

- AP and ML size and external femoral rotation on the same instrument
- Real external femoral rotation
- Whiteside's line angle finder
- Unique design for the validated tibial extramedullary option with navigation
- Micrometric adjustment on the tibial cutting guide available for extramedullary or intramedullary alignment options

MADISON instrumentation is designed for a standard procedure.

- Optimised dimensions for each instrument:
  - Medialised distal femoral cutting guide
  - Medialised proximal tibial cutting guide with patellar tendon protection

MECHANICAL TESTING

Bibliography:

[1] Arima J., Whiteside A., Mac Carthy D.S - Femoral rotational alignment based on the anteroposterior axis, in total knee arthroplasty in a valgus knee. J.Bone Join Surgery Am 1995, 77 : 1331-1334.
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[7] Ranawat C.S., Komistek R.D., Rodriguez J.A., Dennis D.A., Anderle M. - In vivo kinematics for fixed and mobile-bearings posterior stabilized knee prosthesis. - Clin. Orthop. 2004 ; 418 :184-190.
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[10] Star M.J., Kaufman K.R., Irbyse Colwell C.W. - The effect of patellar thickness on patella femoral forces after resurfacing. - Clin. Orthop. 1996 ; 322, 279-2851.
[11] Kuster M.S., Horz S., Spalinger E., Stachowiak W., Gächter A. - The effects of conformity and load in total knee replacement. - Cli. Orthop. 2000 ; 375, 302-312
[12] Li S., Scuderi G., Furman B.D., Bhattacharyya S., Schmieg J.J., Insall J.N. - Assessment of backside wear from the analysis of 55 retrieved tibial inserts. - Cli. Orthop. 2002 ; 404, 75-82.
[13] Bartel D.L., Bicknell V.L., Ithaca , Wright T.M. - The effect of conformity, thickness and material on stresses in ultra-high molecular weight components for total joint replacement. - J. Bone and joint surg. 1986.

SURGICAL TECHNIQUE

The following surgical technique describes the steps of a **MADISON** traditional primary total knee prosthesis procedure.

The instrumentation is designed solely for inserting the **MADISON** total knee prosthesis.

The Manufacturer shall not be liable should a **MADISON** total knee prosthesis procedure be performed without the specific instruments.

Preoperative planning may be carried out using radiographic templates, enabling the surgeon to evaluate the size of the femoral and tibial components and the length of the tibial extension rod (if this option is considered).

Radiographic templates are available with a 1:1 or 1:1.15 scale.

Incision is performed according to the surgeon's preferred practice.

The operation may start independently with the tibia or the femur. The choice of the tibial intramedullary or extramedullary option also depends on the surgeon's preferred practice.

STEPS

Important:

a 1.27 mm-thick saw blade is recommended to ensure the quality of bone cuts.

1. Make a proximal tibial cut of at least 10 mm using the extramedullary or intramedullary alignment device and a right or left cutting guide with a 0 or 4º posterior slope.

2. Make a distal femoral cut of 8 mm (10 or 12 mm if necessary) using the distal cutting guide in left or right position, fixed on the alignment guide previously set to 3 to 9 degrees according to the HKS angle.

3. Measure the external rotation angle with the Whiteside's line angle finder.

4. Choose the AP and ML femoral size and set the external rotation based on the measurement performed in step 3.

5. Drill positioning holes for the 4-in-1 femoral cutting guide.

6. Make femoral cuts using the 4-in-1 guide selected in step 4: anterior cortex, posterior condyles, anterior and posterior chamfers.

7. Drilling of the femoral component distal pegs holes.

8. Femoral trial step.

9. Tibial size checking using the range of tibial base trials.

10. Total knee trial with a 10 to 20 mm trial insert locked on the selected tibial trial base.

11. Leg alignment and ligament balance checking in extension and flexion.

12. Tibial keel preparation.

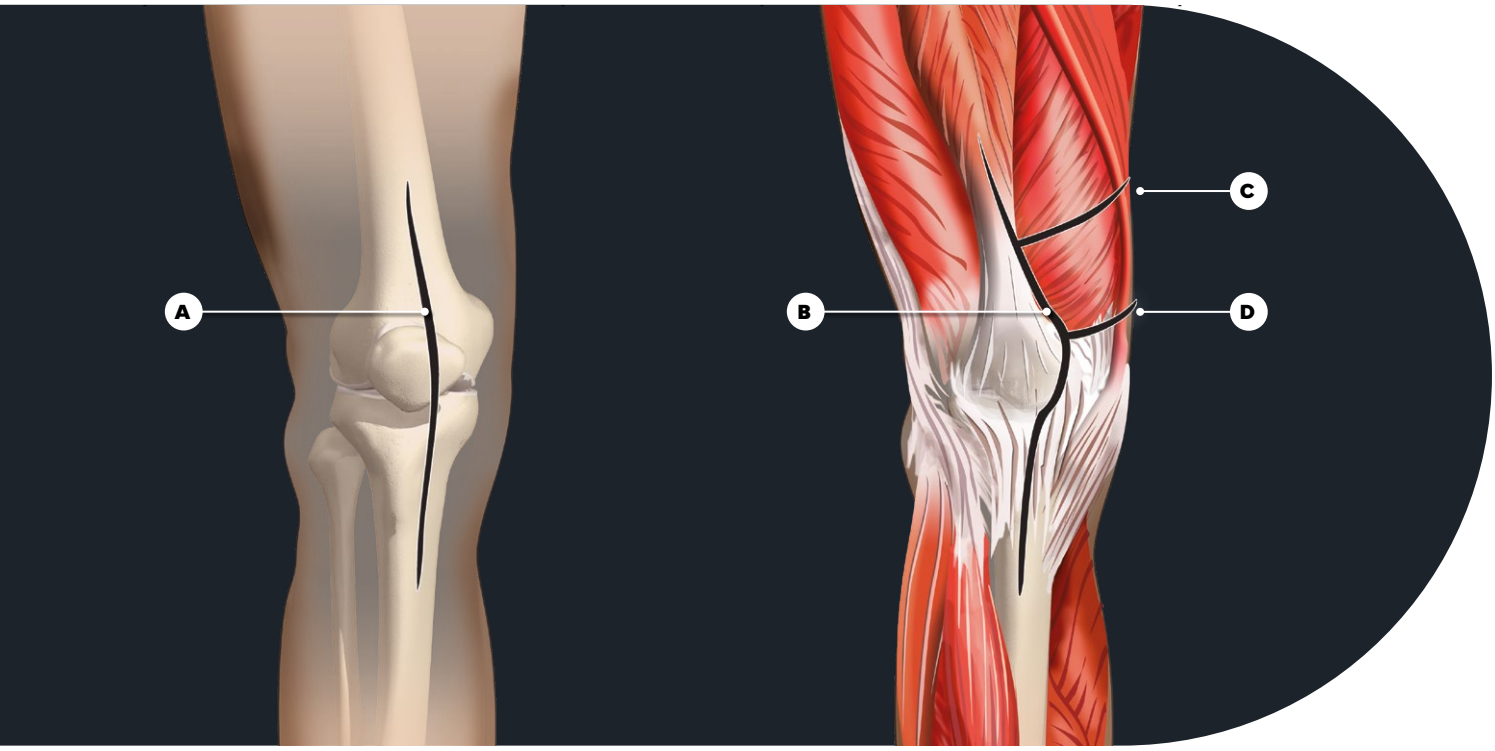
13. Patella preparation (if resurfacing is needed) with one of the two patella cutting options.

14. Patella size and thickness selection, and drilling of the 3 patella pegs holes and patella trial selected.

15. Implants (recommended sequence) : tibial component – femoral component – tibial insert - patella.

INCISION AND EXPOSURE

A An internal, vertical cut is made into the skin.



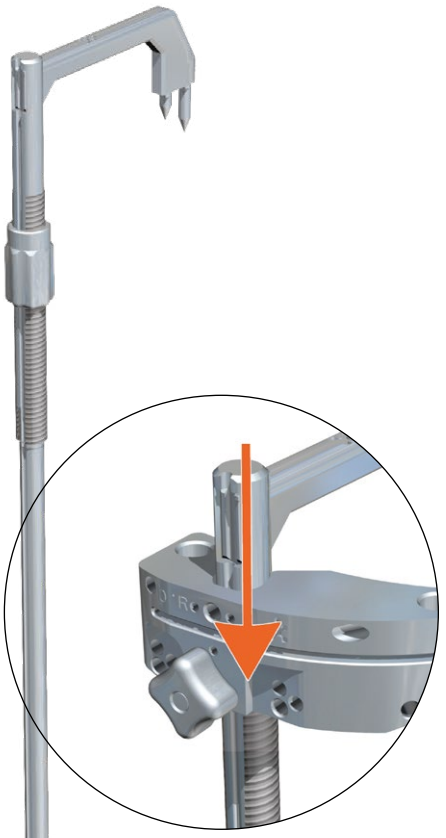
The surgeon has a choice of three types of surgical approach to insert the **MADISON** knee prosthesis:

- **B** Traditional internal parapatellar
- **C** Midvastus
- **D** Subvastus

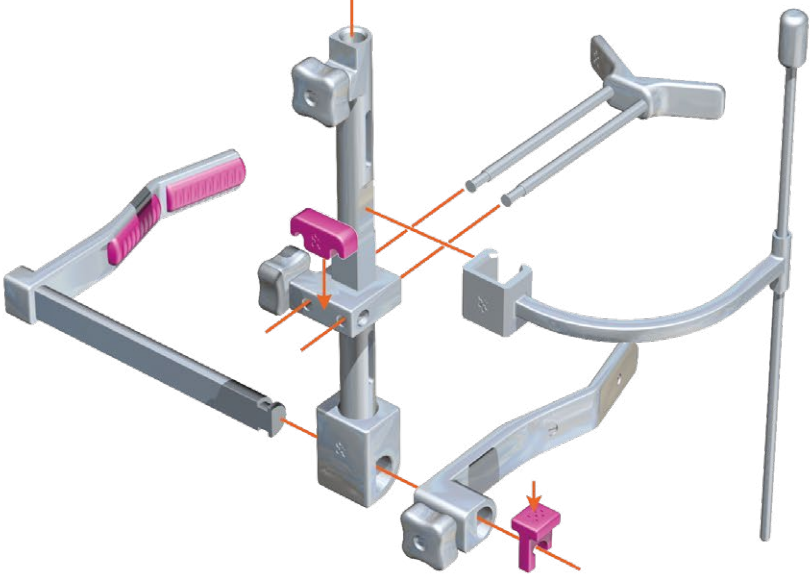
TIBIAL PREPARATION

EXTRAMEDULLARY OPTION

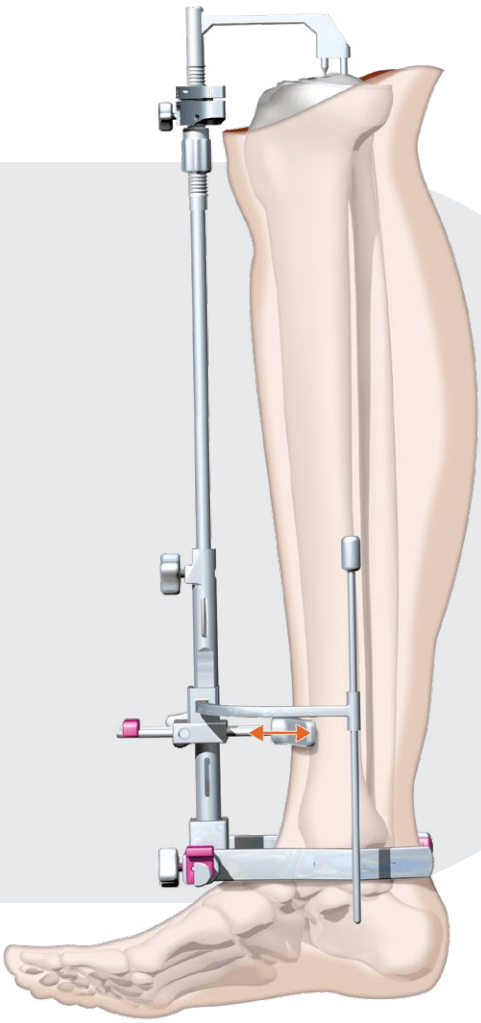
The extramedullary alignment guide is assembled as shown. **Do not forget to install the height adjustment knob on the pole before inserting it into the alignment support.**



Finally, the tibial cutting guide is inserted over the top of the pole.



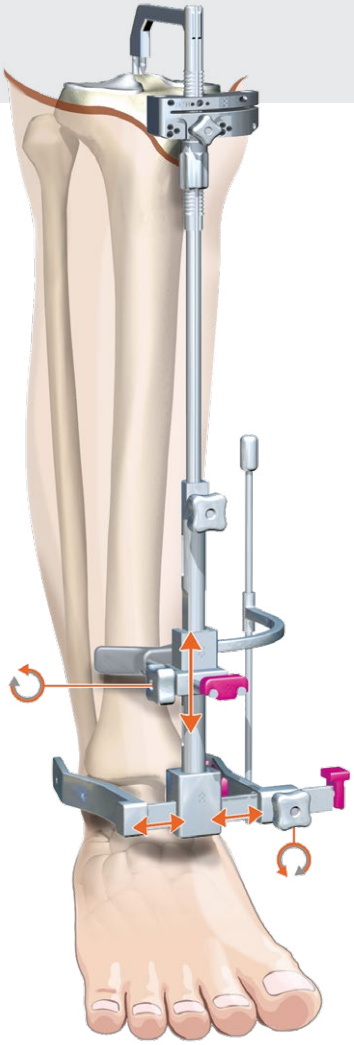
Option:
An alignment extension is available as an option for long tibias.



1 The extramedullary alignment guide is a rigid framework that must be set up according to the following instructions:

- Position the clamps on the two malleoli.
- Position the pole by inserting the long spike into the anterior cruciate ligament insertion (or behind).
- Position the V against the tibial crest.

The positioning of the guide eliminates tibial slope and rotation.

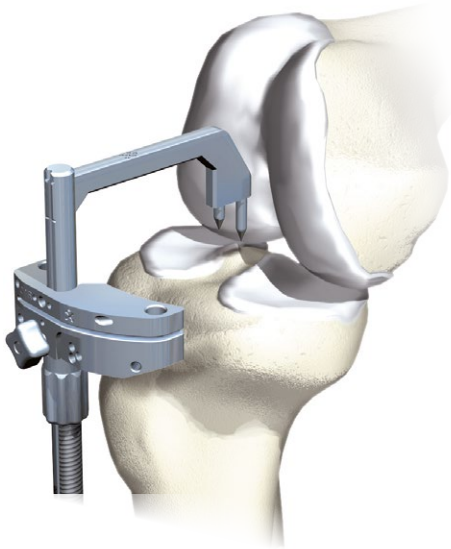


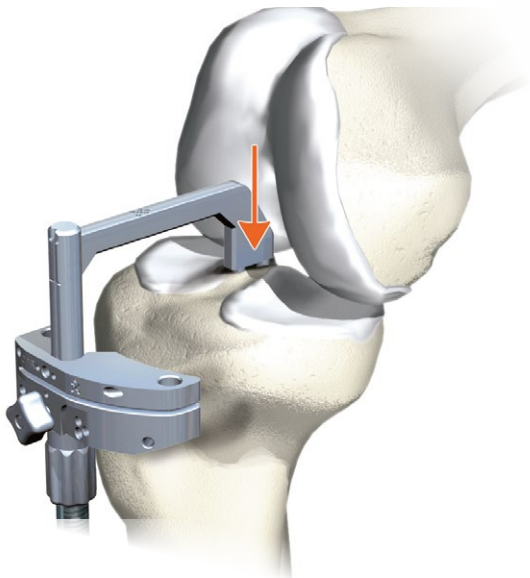
2 The surgeon chooses a cutting block with a 0° or 4° posterior tibial slope according to their desired final slope.

Reminder:
The **MADISON** tibial insert has a 4º built-in slope.
The selected tibial cutting block is inserted into the proximal part of the extramedullary guide.

3 The posterior slope is adjusted in relation to the parallelism between the tibia profile axis and the distal alignment rod mounted on the removable arch.

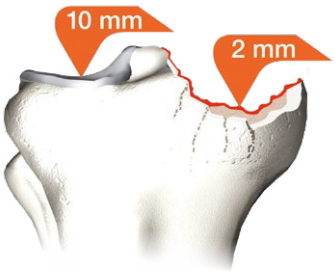
Once the position is defined, the pole is permanently fixed in place by impacting the two spikes into the tibial plateau.

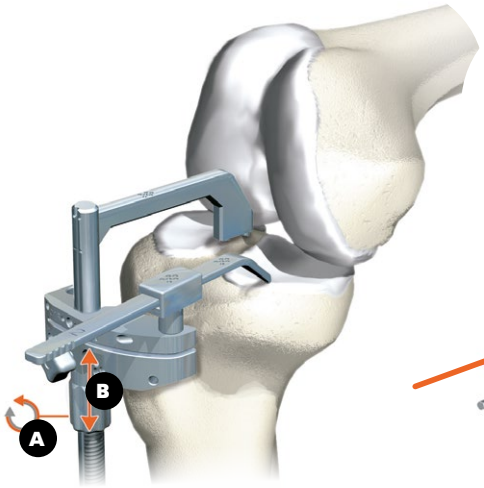


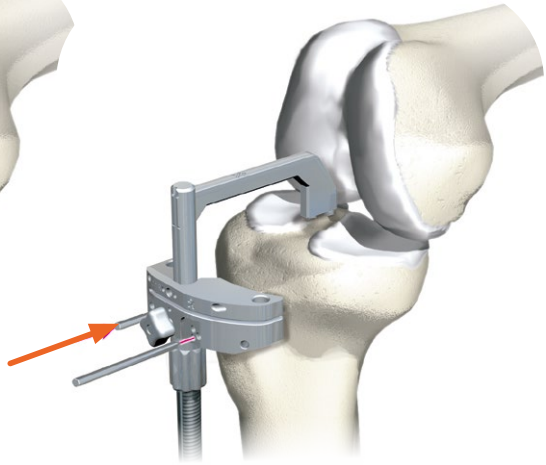


4 The cutting height is determined using one of the two styluses on the support and placed on the cutting guide:

- 2 mm stylus on the worn side
- 10 mm stylus on the healthy side



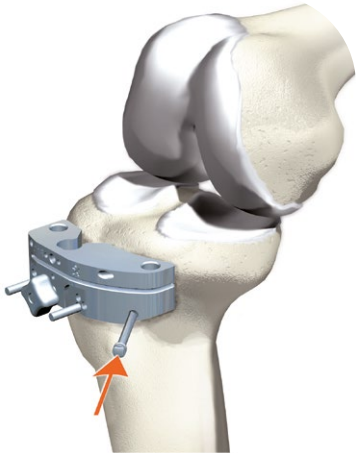




Adjust the stylus height using the height adjustment knob .
Lock the cutting block in position once the resection level is chosen.
Fix it into position by inserting two pins into the holes marked with "0".
It can be repositioned on the cutting guide by +2 or +4 mm.

5 After releasing all the knobs on the system and loosening the height adjustment knob, the pole can be extracted using the extractor then manually removed in order to avoid moving the cutting guide.

6 The cutting block is then brought into contact with the anterior surface of the tibia and fixed with a third headed pin.



TIBIAL PREPARATION

INTRAMEDULLARY OPTION

1 The proximal tibia is drilled using the 8 mm bit in the tibial spine in line with the canal.
The 8 mm centromedullary rod attached to the T-handle is inserted.

The T-handle is then removed.

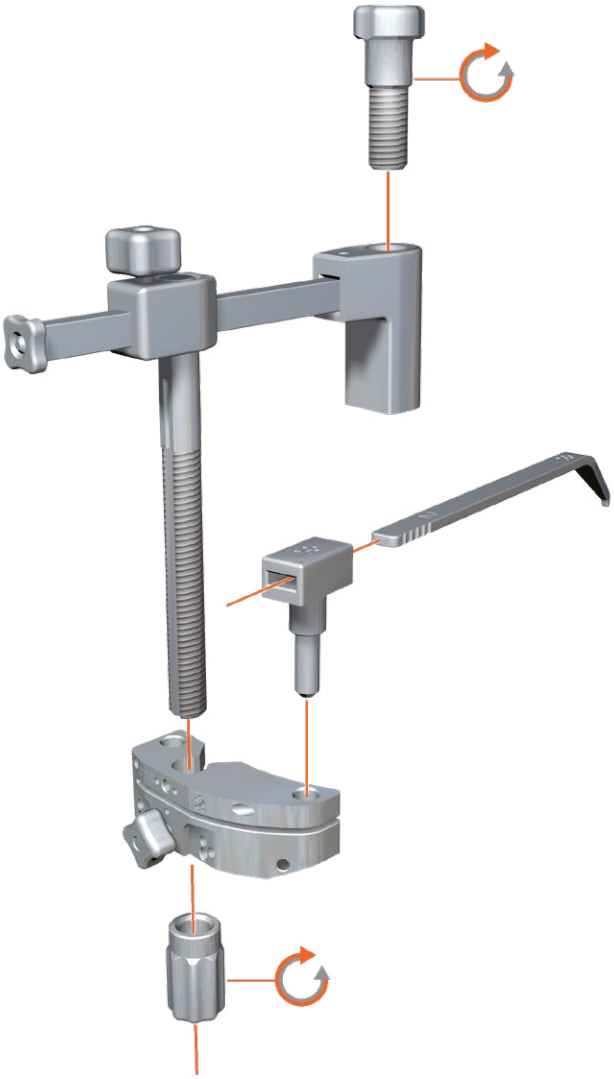
2 A cutting guide with a 0° or 4° posterior tibial slope is chosen according to the surgeon's desired slope.

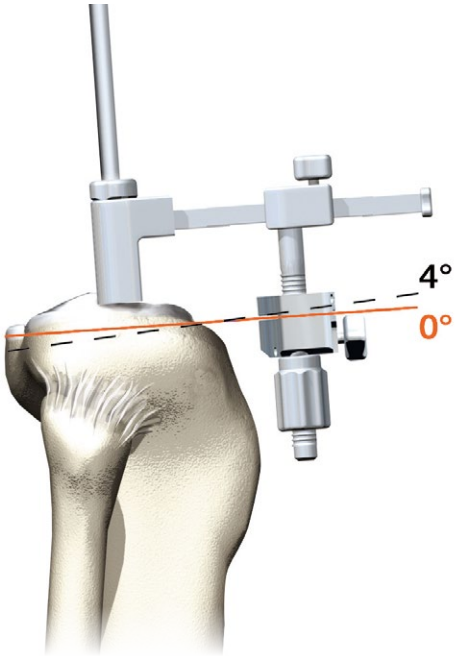
The 8 mm adapter is installed on the support.

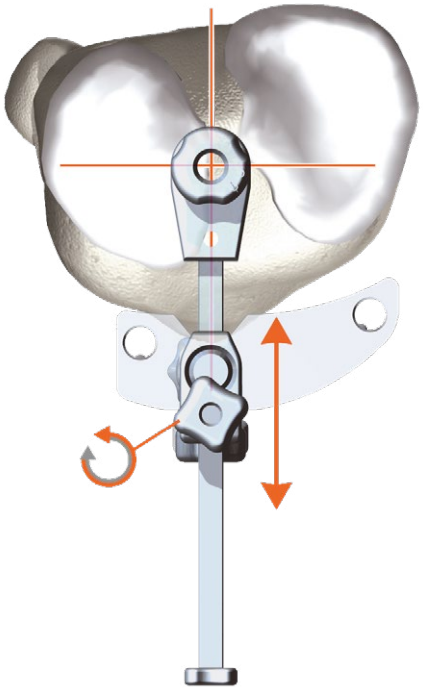
The tibial cutting guide is installed on the intramedullary support and the assembly is positioned on the intramedullary rod.

An optional fixing pin inserted on the front part of the support prevents it from rotating in the sagittal plane.

The cutting guide is brought as close to the anterior surface of the tibia as possible.

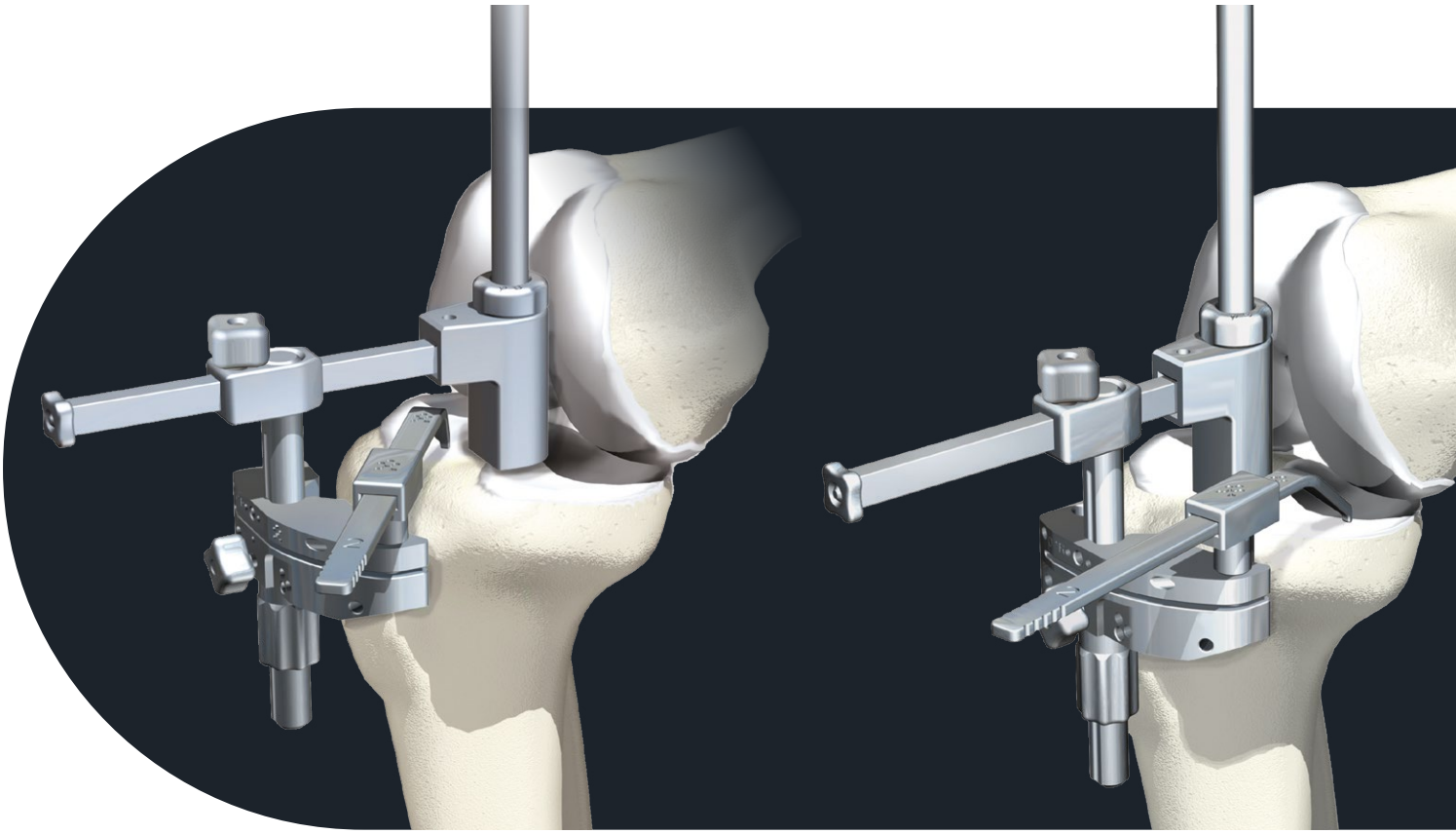






3 The cutting height is determined using one of the two styluses on the support placed on the cutting guide:

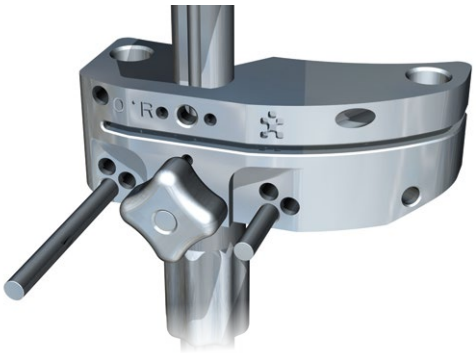
- 2 mm stylus on the worn side
- 10 mm stylus on the healthy side

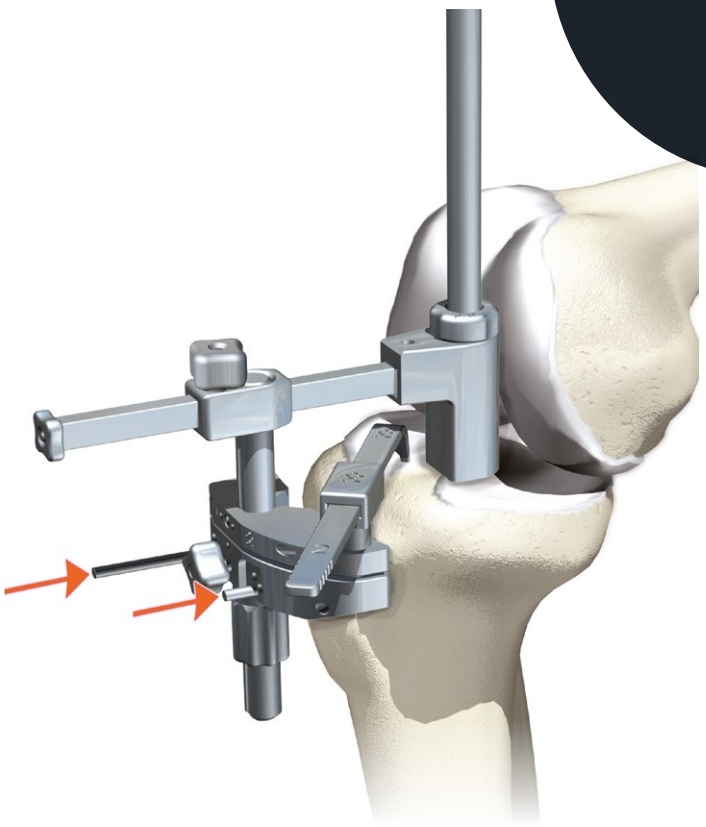


10 mm stylus

2 mm stylus

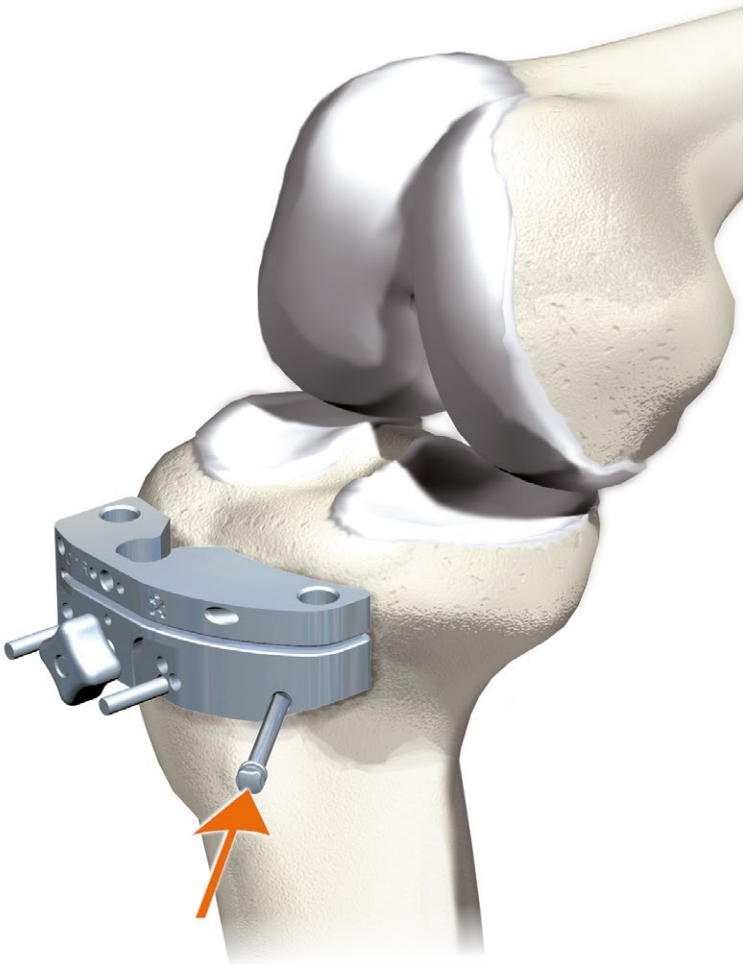
4 The guide is fixed into position using 2 pins inserted into the holes marked “0”.
If necessary, + 2 mm and + 4 mm holes are available for additional tibial cutting.





5 Remove the rod using the T-handle then remove the support.

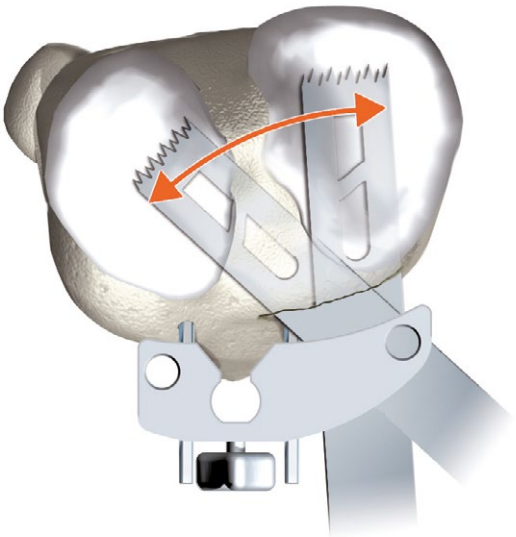
The tibial cutting block is brought close to the anterior surface of the tibia then locked using a headed pin.

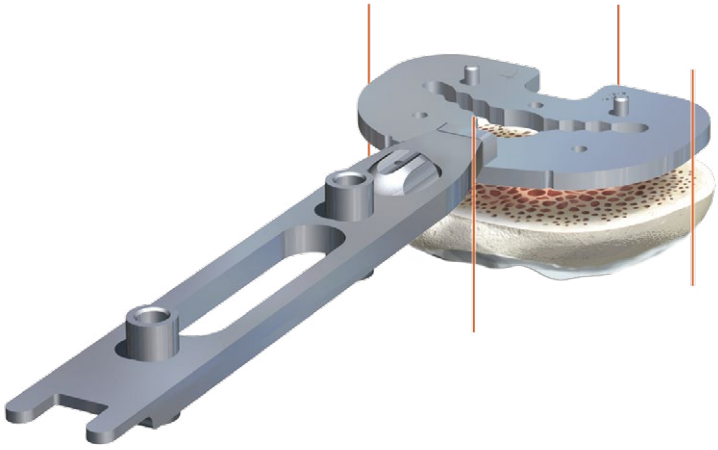


TIBIAL PREPARATION

PROXIMAL CUT

The proximal tibial cut is made following the extramedullary or intramedullary option.

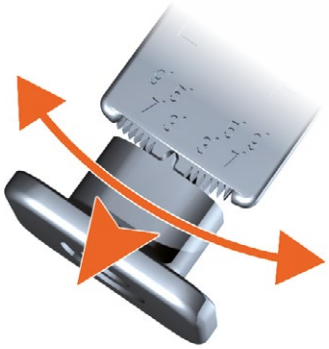




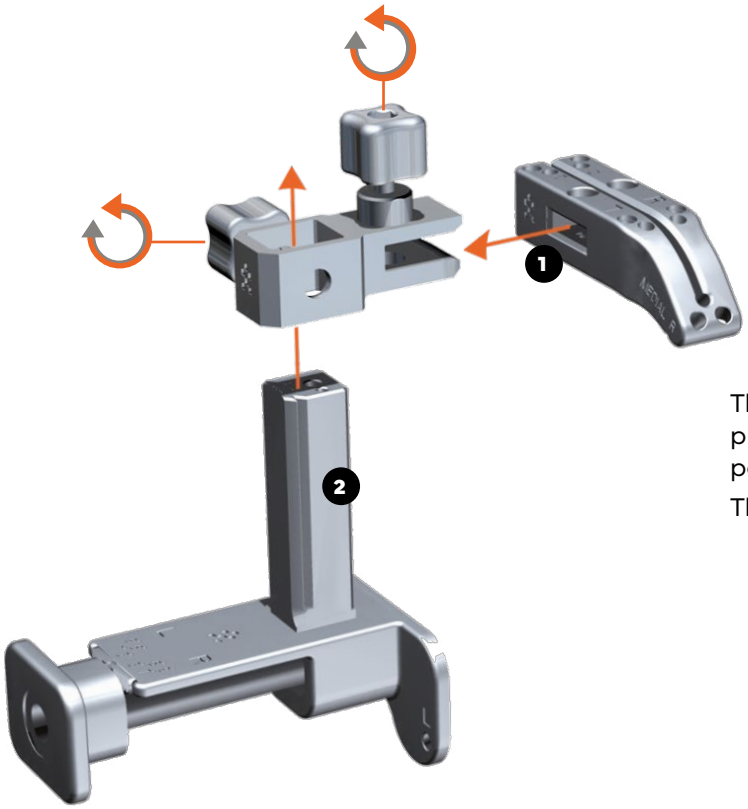
At this stage, the size of the tibial baseplate can be estimated using trial baseplates and by turning over the resected tibial section.

FEMORAL PREPARATION

DISTAL CUT



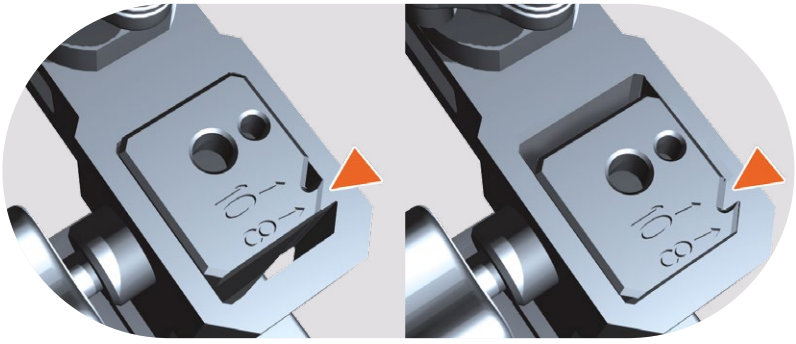
1 Set the degree of femoral valgus on the distal alignment guide (HKS angle calculated preoperatively): right or left side 3° to 9° (1° increments).



The 8 or 10 mm distal femoral cut can be selected by placing the cutting guide support in the 8 or 10 mm position on the alignment guide.

The recommended cut is 8 mm.

2 The distal femoral cutting block is assembled on its support then positioned on the alignment guide.



8 mm cut

10 mm cut

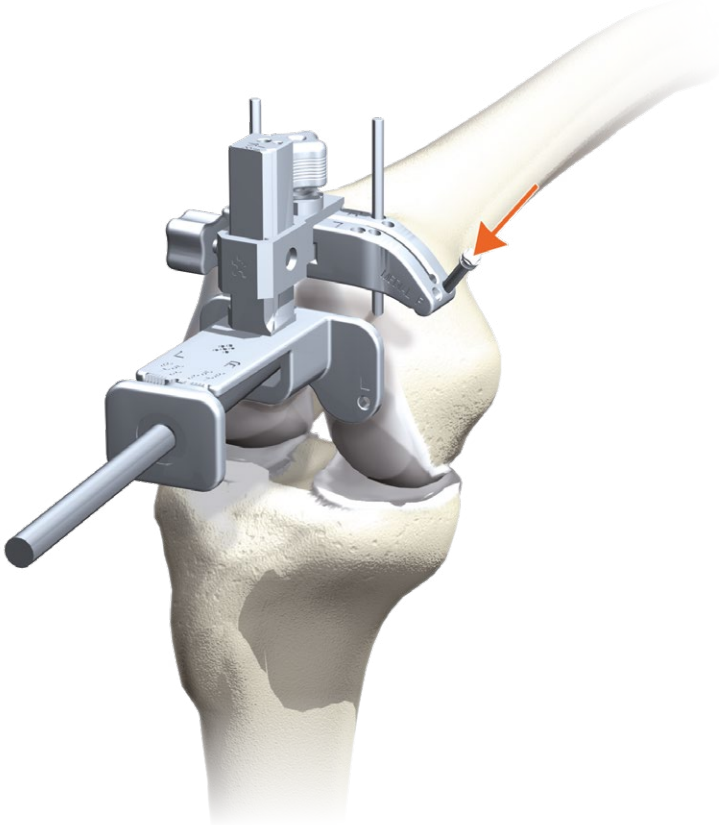
3 Drill the entrance hole into the notch using the 8 mm diameter bit, in line with the centromedullary femoral canal.

Insert the 8 mm diameter centromedullary rod using the removable T-handle, ensuring that at least 10 cm is left outside the bone.

Remove the T-handle and insert the distal femoral alignment guide on the rod until it comes into contact with at least one distal femoral condyle.

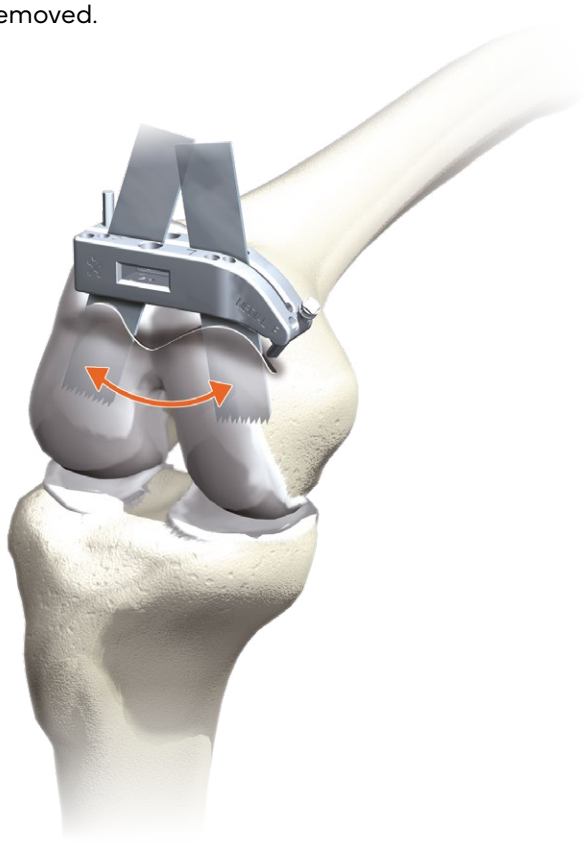
Fix the cutting block in position by inserting two pins into the "0" holes.

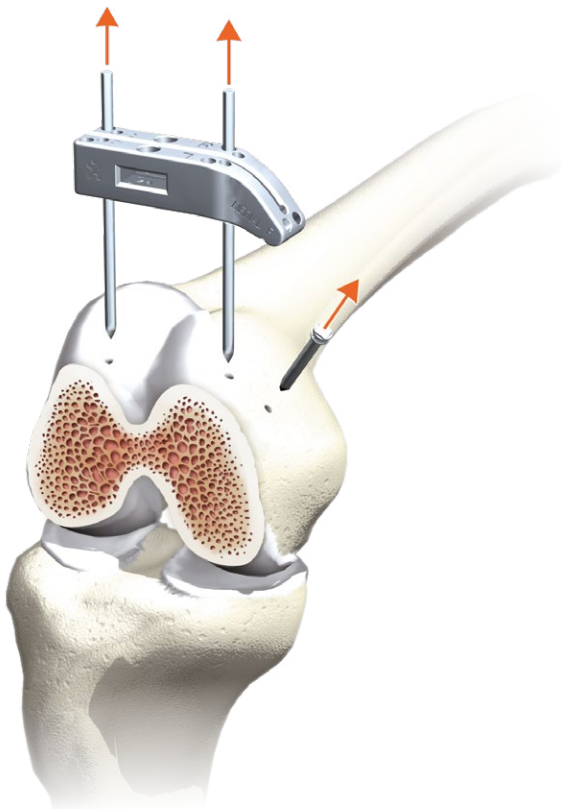
Loosen the knob on the femoral guide support, remove the centromedullary rod using the T-handle then remove the alignment guide.



4 The guide is brought as close as possible to the anterior part of the femur then locked with a headed pin.

The distal femoral cut is made then the guide is removed.





SPACERS OPTION

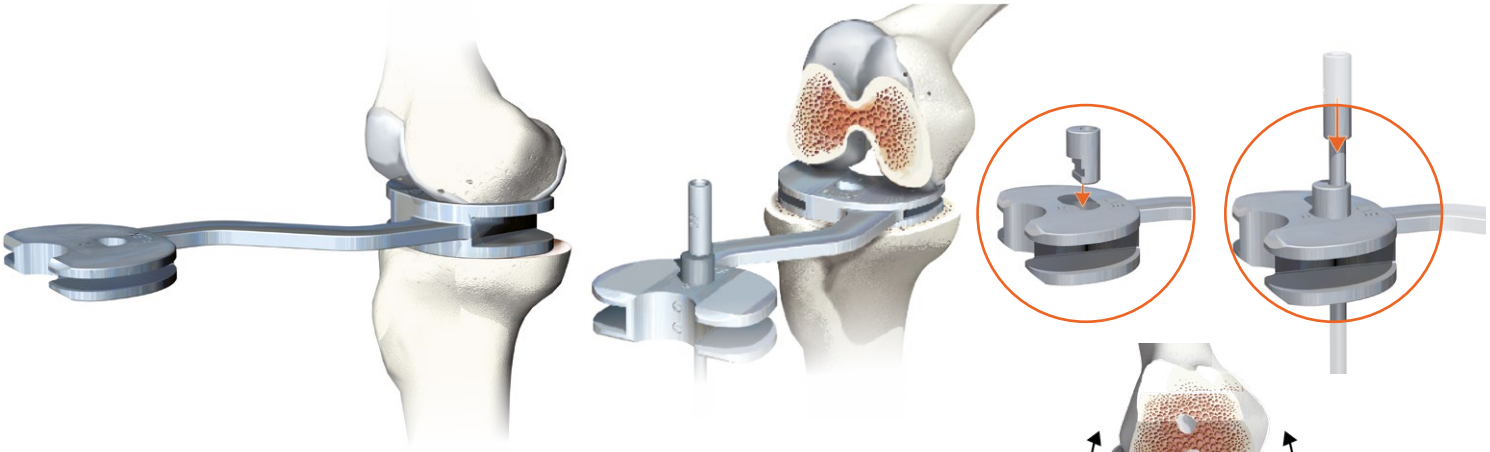
The Extension (EXT) base spacer represents the minimum space required for a **MADISON** prosthesis, which is 18 mm (8 mm femur + baseplate

and 10 mm insert).

The Extension (EXT) base spacer is used to check the space and full extension when the tibial proximal cut and distal femoral cuts are made.

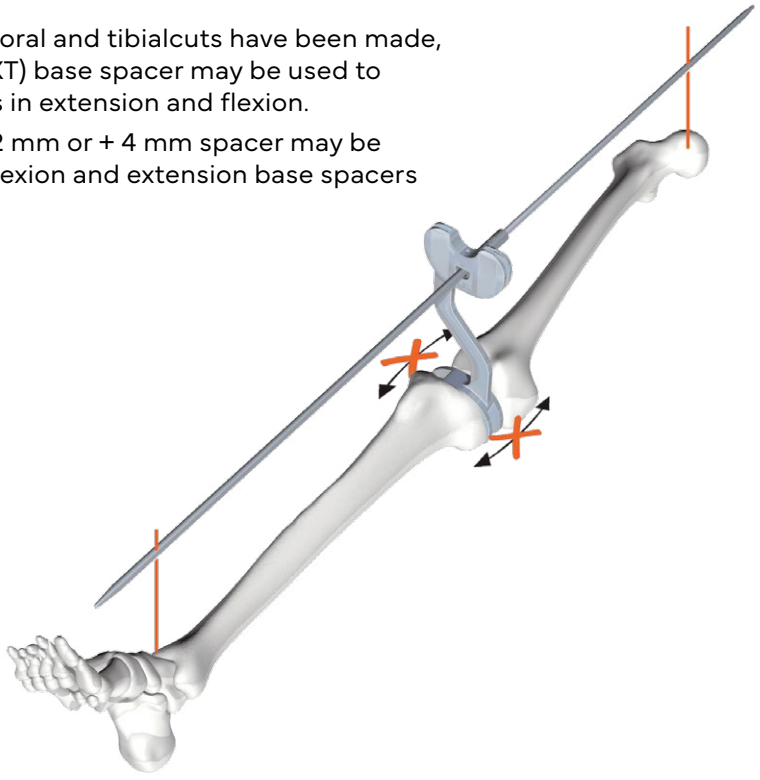
The Flexion (FLEX) base spacer represents the minimum space required for a tibial baseplate and the smallest insert thickness, which is 10 mm.

The Flexion (FLEX) base spacer is used at 90º flexion to check the space between the proximal tibial cut and the unresected posterior condyles.



When all the femoral and tibialcuts have been made, the extension (EXT) base spacer may be used to check the spaces in extension and flexion.

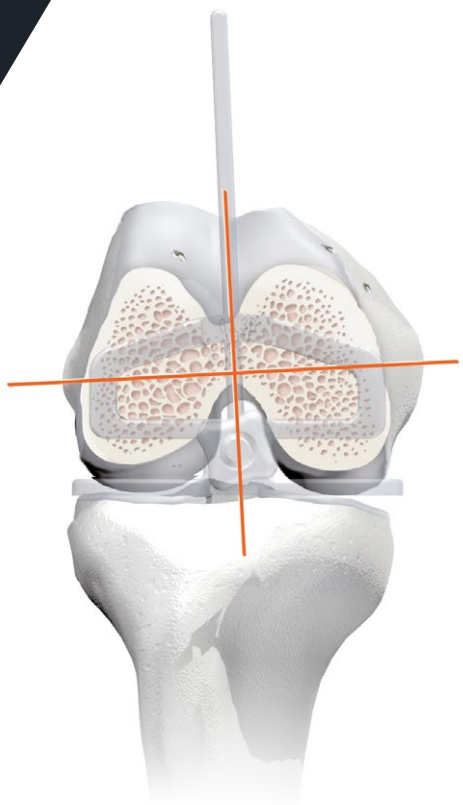
If necessary, a + 2 mm or + 4 mm spacer may be inserted on the flexion and extension base spacers (FLEX and EXT).



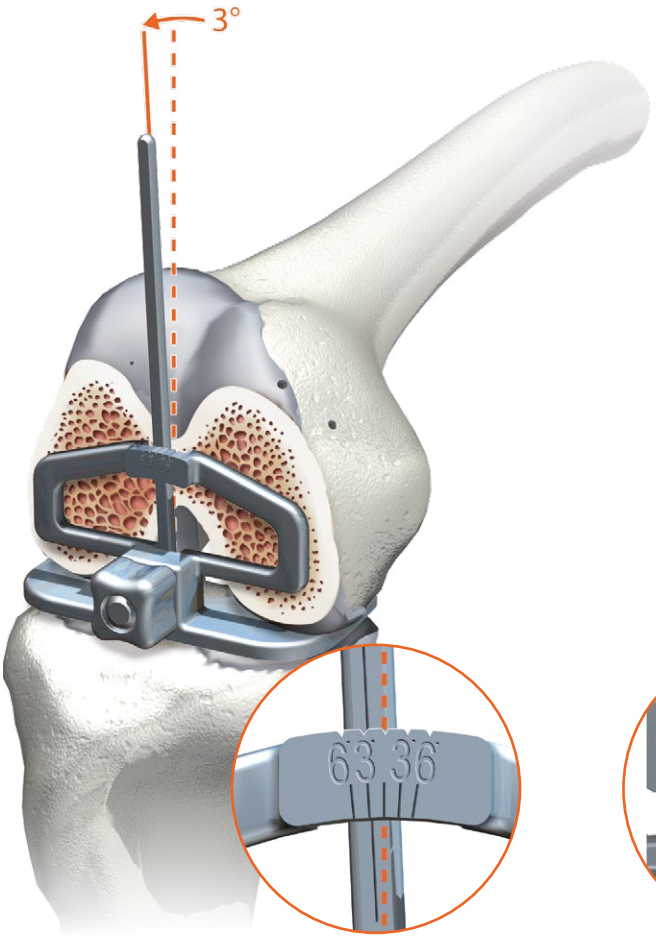
FEMUR PREPARATION

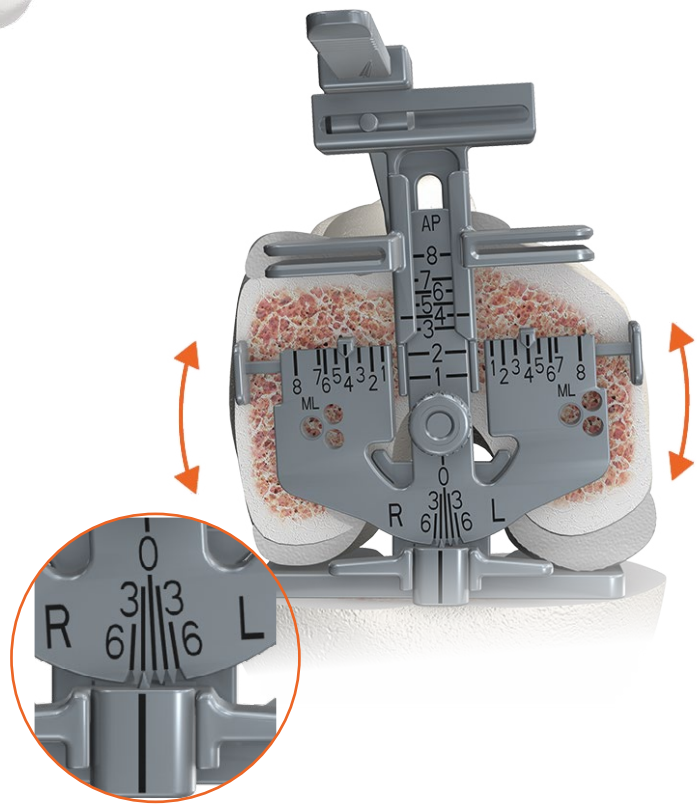
MEASUREMENT AND EXTERNAL ROTATION

1 An angle finder is used to determine the external femoral rotation angle, based on the Whiteside's line principle and in relation to the posterior bicondylar line.



Rotation angle/Whiteside's line.





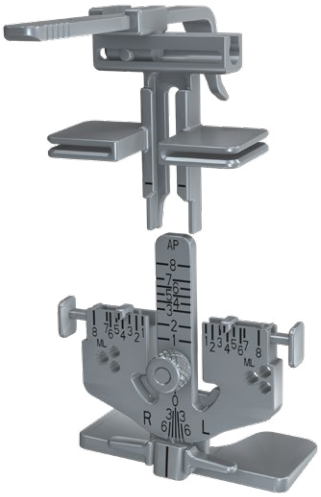
The calculated angle will be set on the Evo Sizer.

In this example, a 3° external rotation angle is read and set for a right knee.

2 The Evo Sizer instrument has 3 components:

- Femoral/rotation Evo Sizer - Base
- Femoral/rotation Evo Sizer - Support
- Femoral/rotation Evo Sizer - Stylus

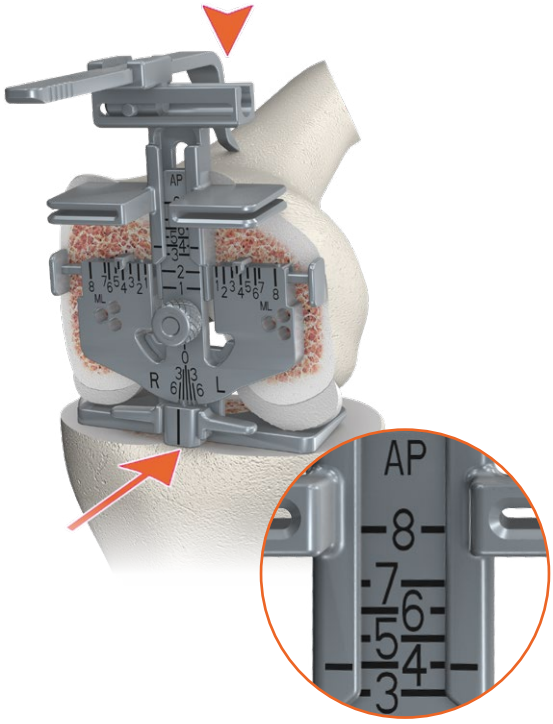
The stylus tip is flush with the notch.



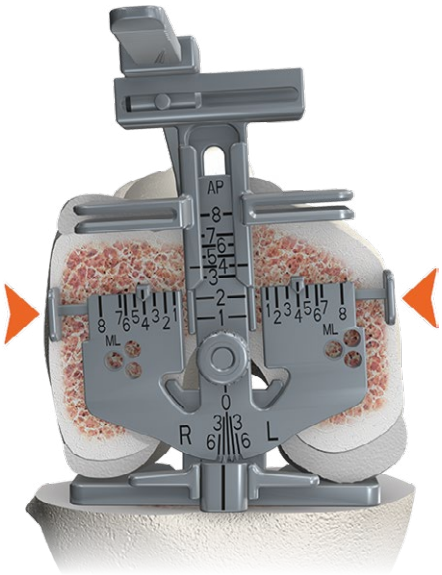
The stylus tip indicates the saw blade exit point.

1. Position of the Evo Sizer against the surface of the distal femoral cut with the knee in 90° flexion.

2. The Support foot is in contact with the posterior femoral condyles.



The AP size is determined when the stylus comes into contact with the anterior cortex, the line on the stylus support indicates the size in the upper window of the Evo Sizer base.

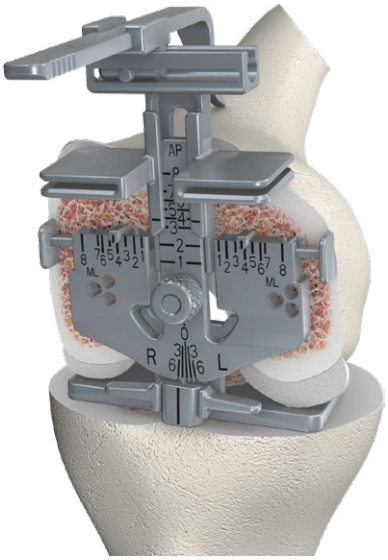


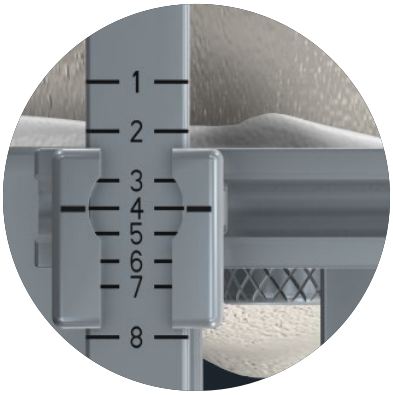
The ML size is checked by aligning the lateral arms with the bone edges. ML 1, 2, 3, ...8 indicate the ML size of the corresponding implant (ensure that each arm shows the same figure).

First case

ML = size 4 / AP = size 4

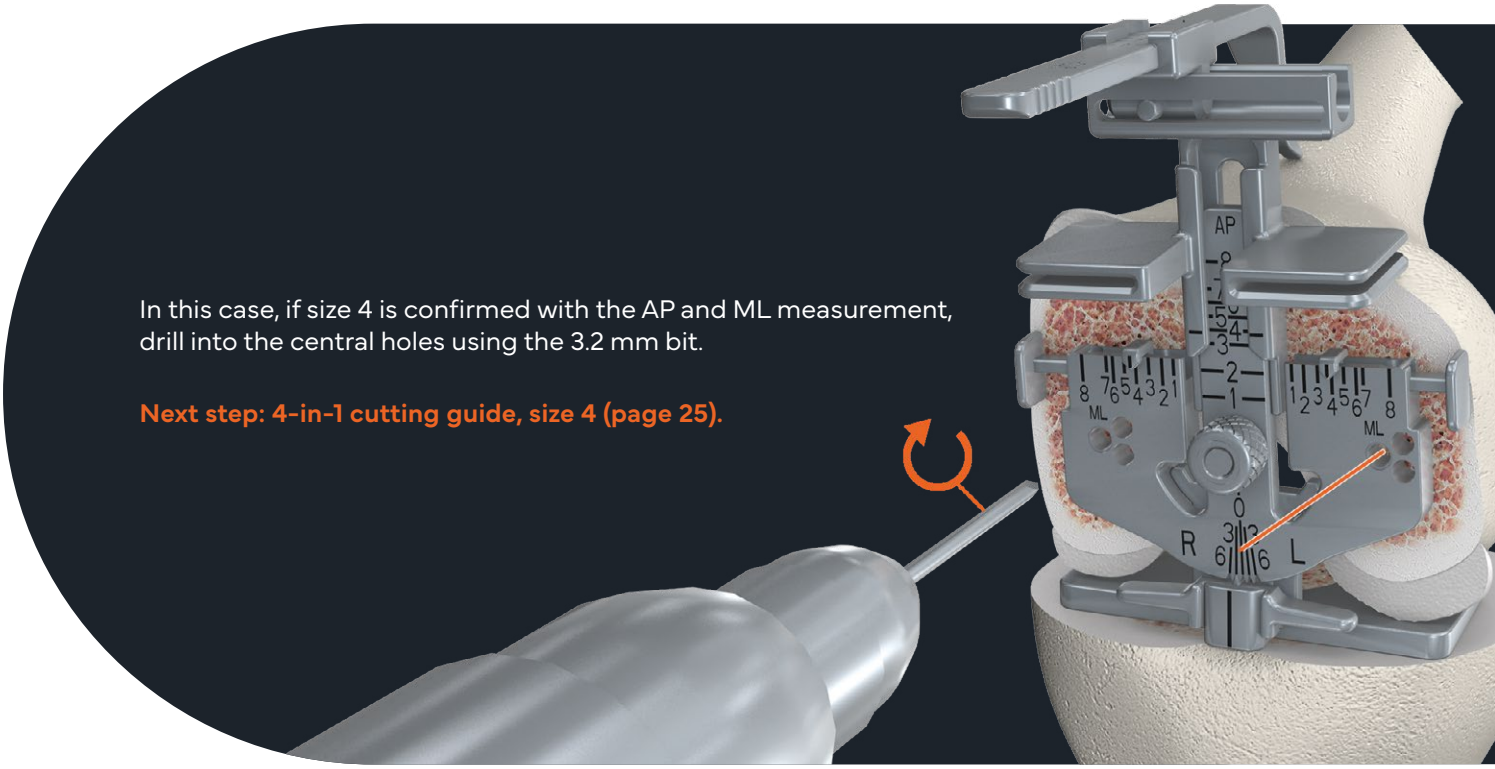
Set the stylus to position 4 and place the stylus + support assembly onto the Evo Sizer Base.





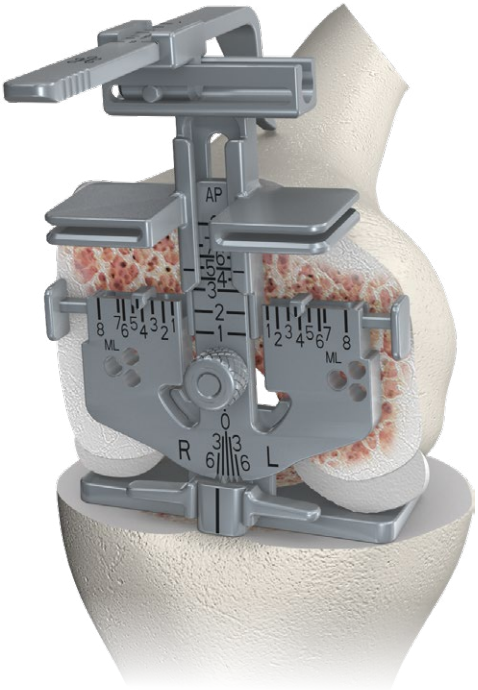
In this case, if size 4 is confirmed with the AP and ML measurement, drill into the central holes using the 3.2 mm bit.

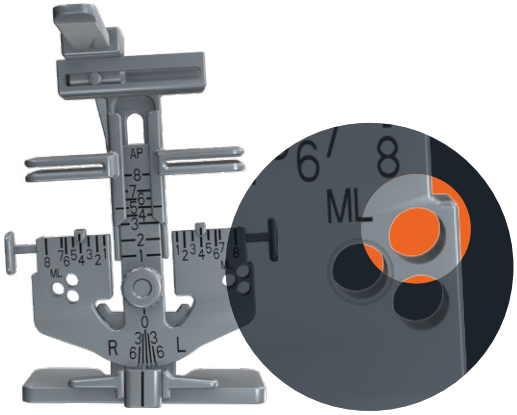
Next step: 4-in-1 cutting guide, size 4 (page 25).



Important:

This only applies to changing from size 3 up to 7 (2 mm increment between sizes).





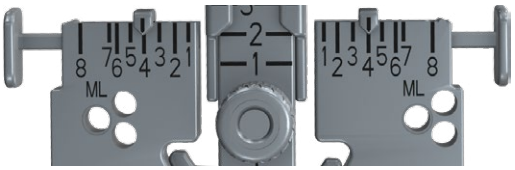
Second case

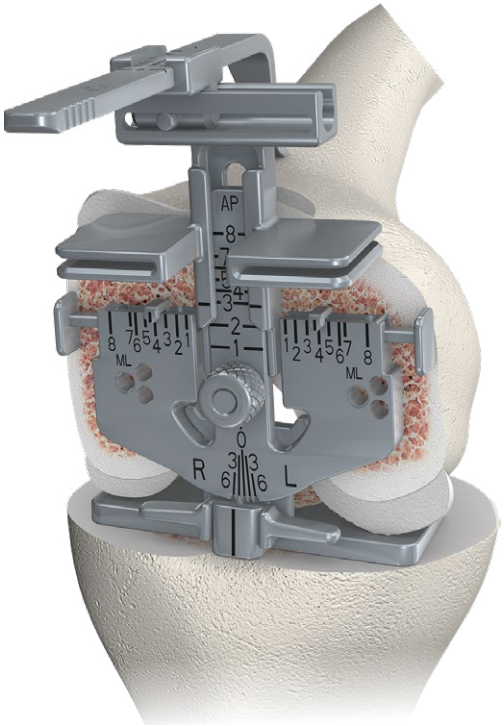
ML = size 4 / AP = size 5

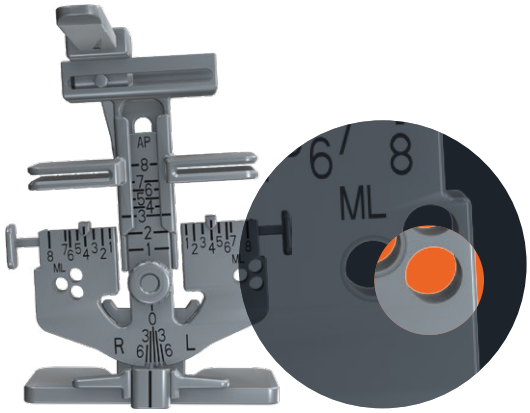
In this case, the AP measurement indicates size 5 but the ML measurement indicates size 4.

If the choice is made to maintain size 4, the holes will be drilled in the upper holes of the Evo Sizer base in order to avoid creating a notch in the anterior cortex.

Next step: 4-in-1 cutting guide, size 4.







Third case

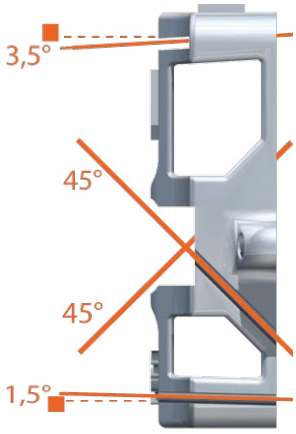
ML = size 4 / AP = size 3

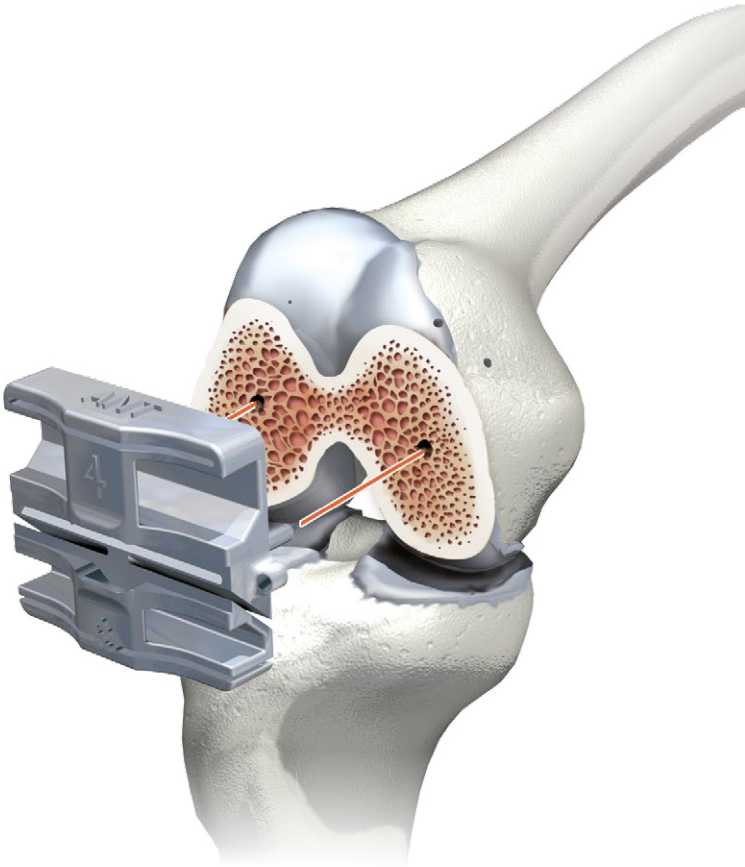
In this case, the AP measurement indicates size 3 but the ML measurement indicates size 4.

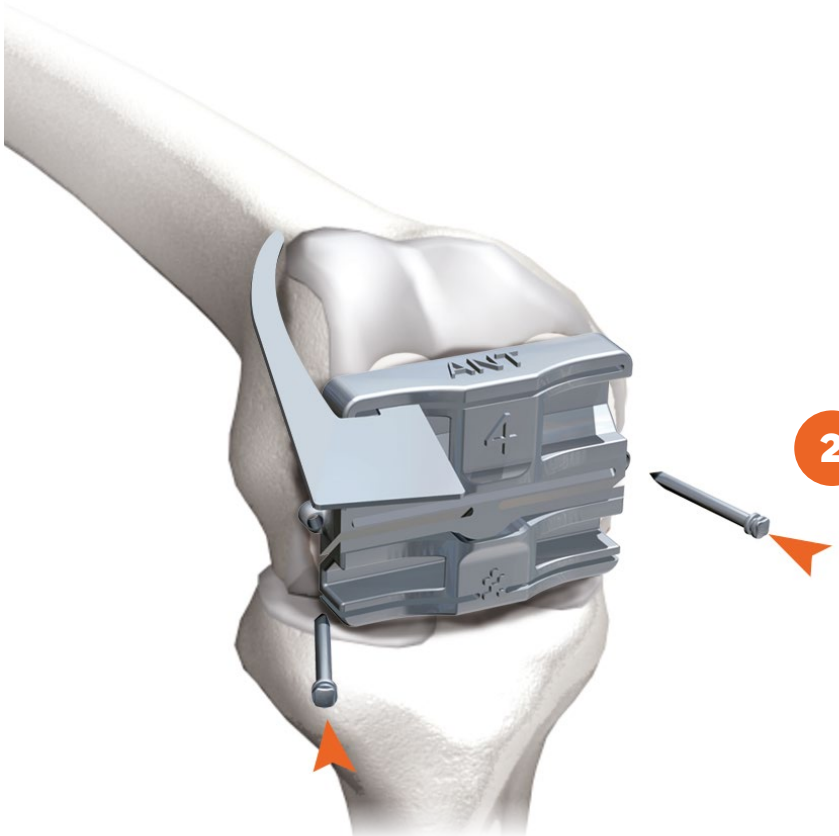
If the choice is made to maintain size 4, the holes will be drilled in the lower holes of the Evo Sizer Base in order to prevent the prosthesis being raised in relation to the anterior cortex.

4-IN-1 CUTTING GUIDE

1 The 4-in-1 cutting guide for the selected size is positioned in the previously created holes.







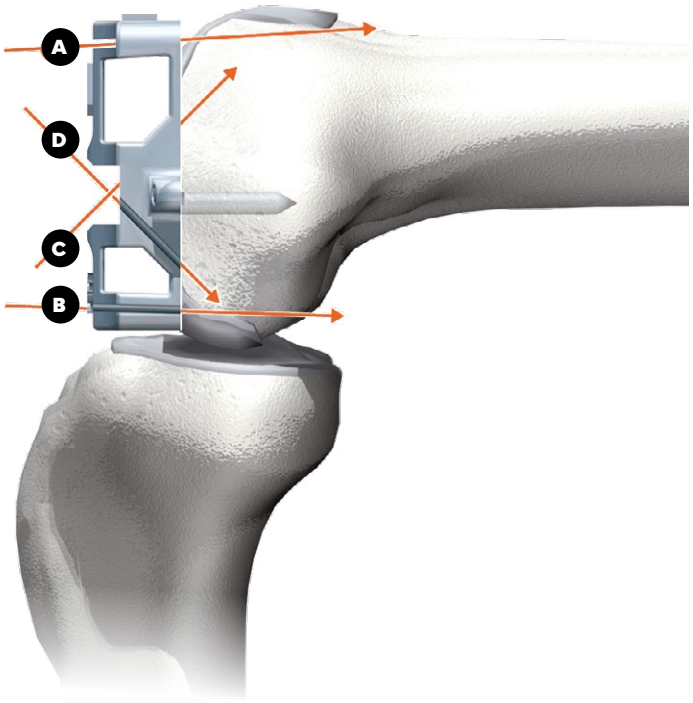
2 The guide is pushed into contact with the distal femoral cut.

A final check can be carried out on the anterior cortex using the test plate. Use two headed fixing pins in a convergent position to secure the guide in position.

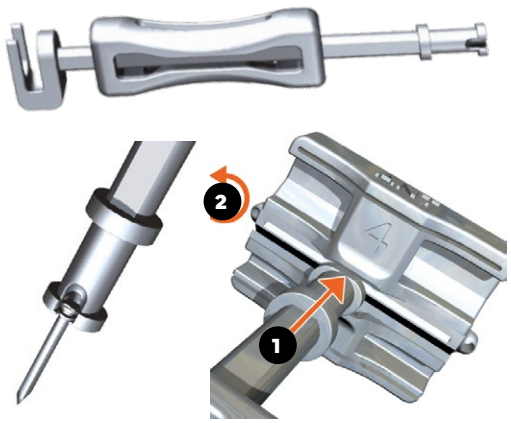
ANTERIOR, POSTERIOR AND CHAMFERED CUTS

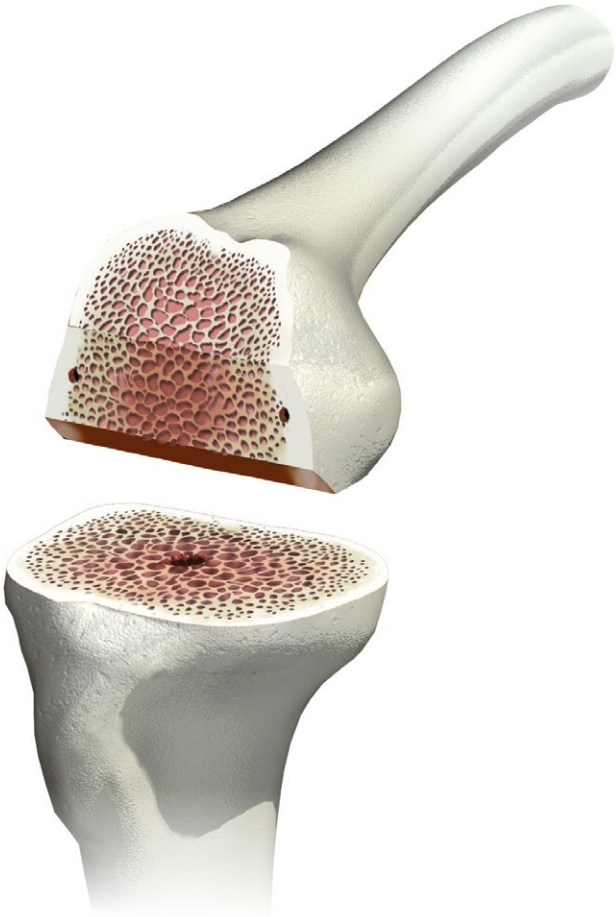
3 Cuts must be made using a saw blade 1.27 mm thick and ideally 25 mm wide and 90 mm long.
The following order is recommended:

- **A** anterior cut
- **B** posterior cuts
- **C** anterior chamfer
- **D** posterior chamfers



4 Remove the headed pins and cutting guide using the universal extractor.

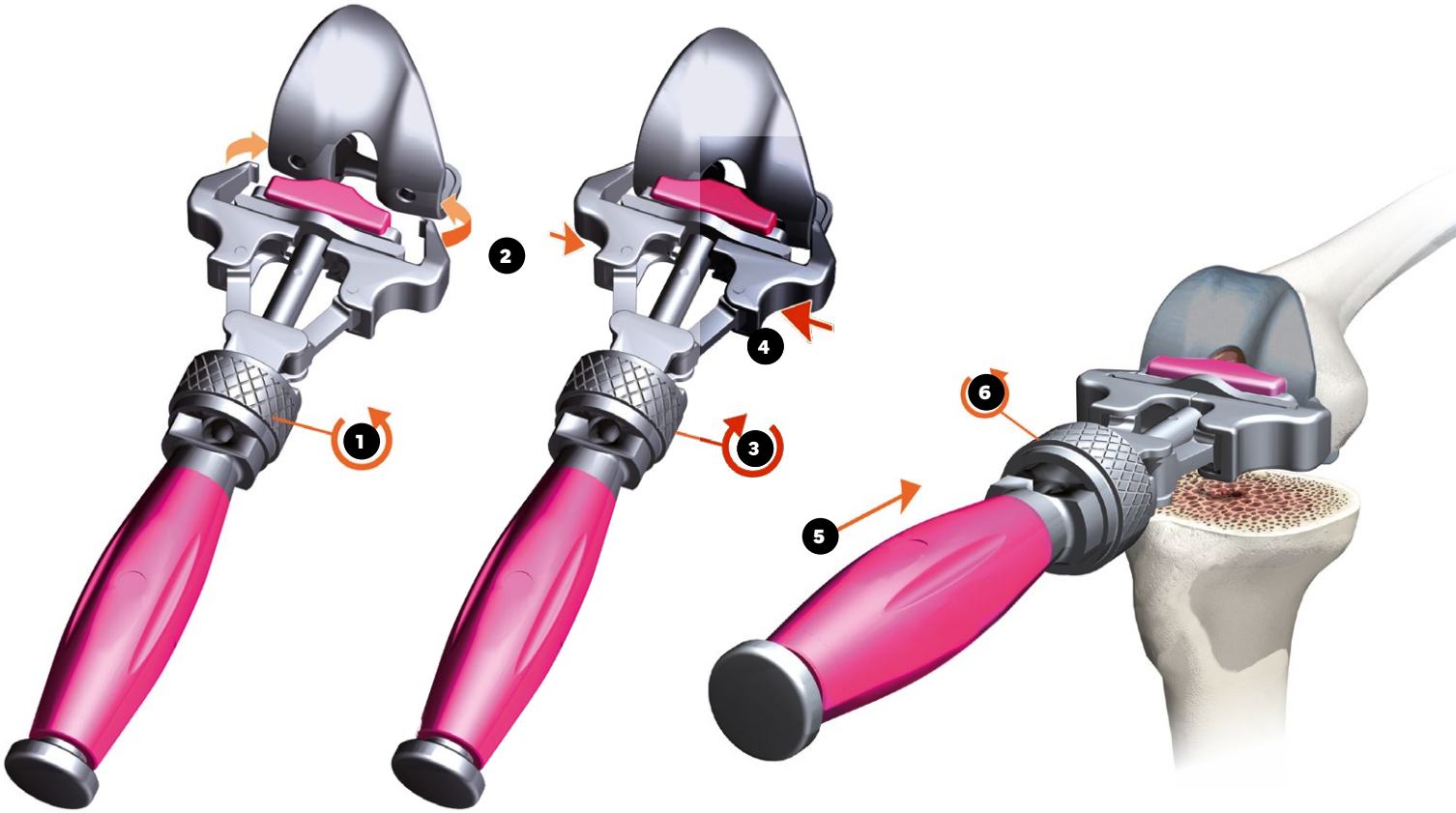




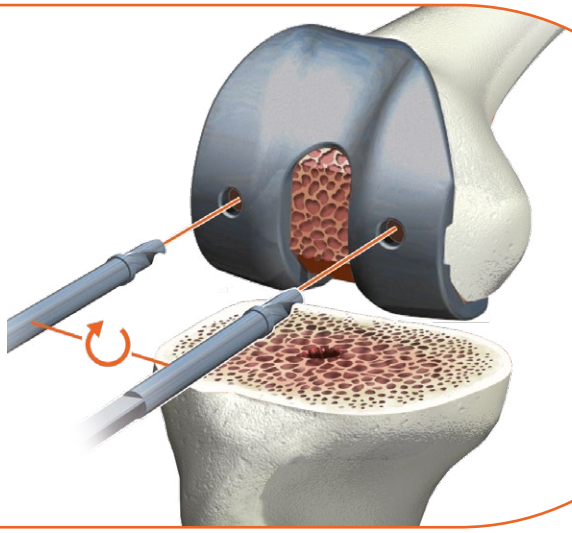
UC PROCEDURE

1 The trial CR femoral implant in the selected size is impacted using the femoral impactor.

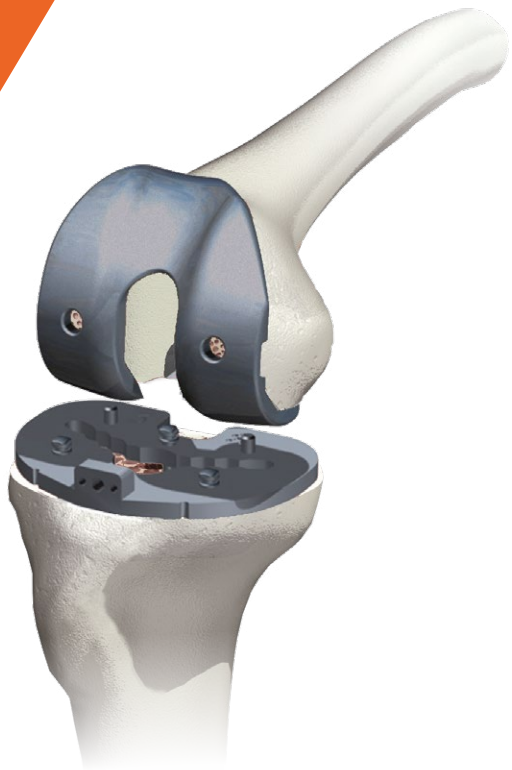
2 The impactor is removed when the ML positioning of the trial implant is determined.



3 Two holes for the femoral pegs are drilled through the trial implant using the 6 mm drill with stop.

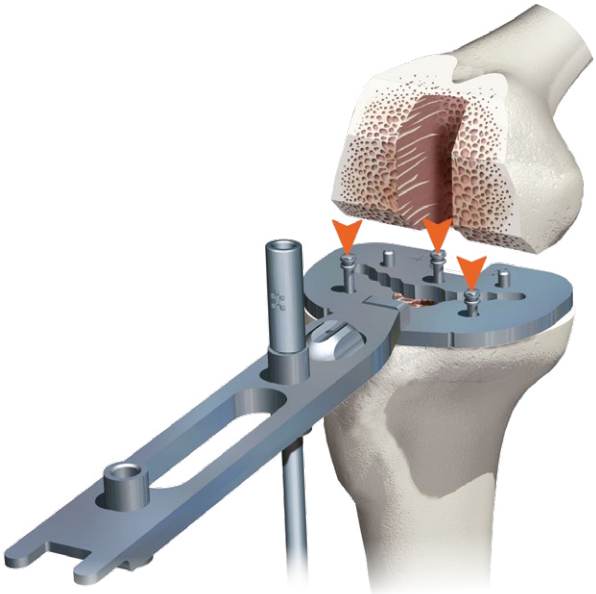


TESTS

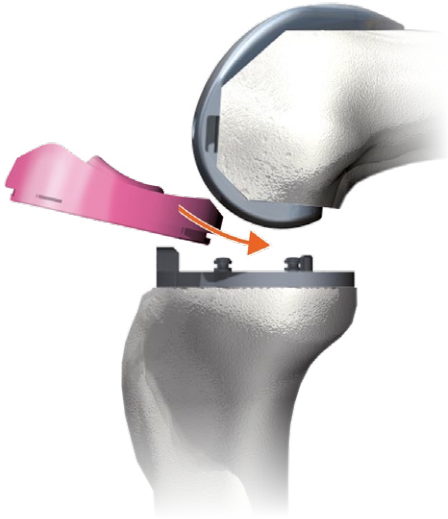


1 The selected trial tibial baseplate is temporarily fixed onto the tibial cut using three headed pins.

Rotation can be checked using the external rod inserted into the handle.



2 The trial femoral component is impacted again using the specific impactor.



UC

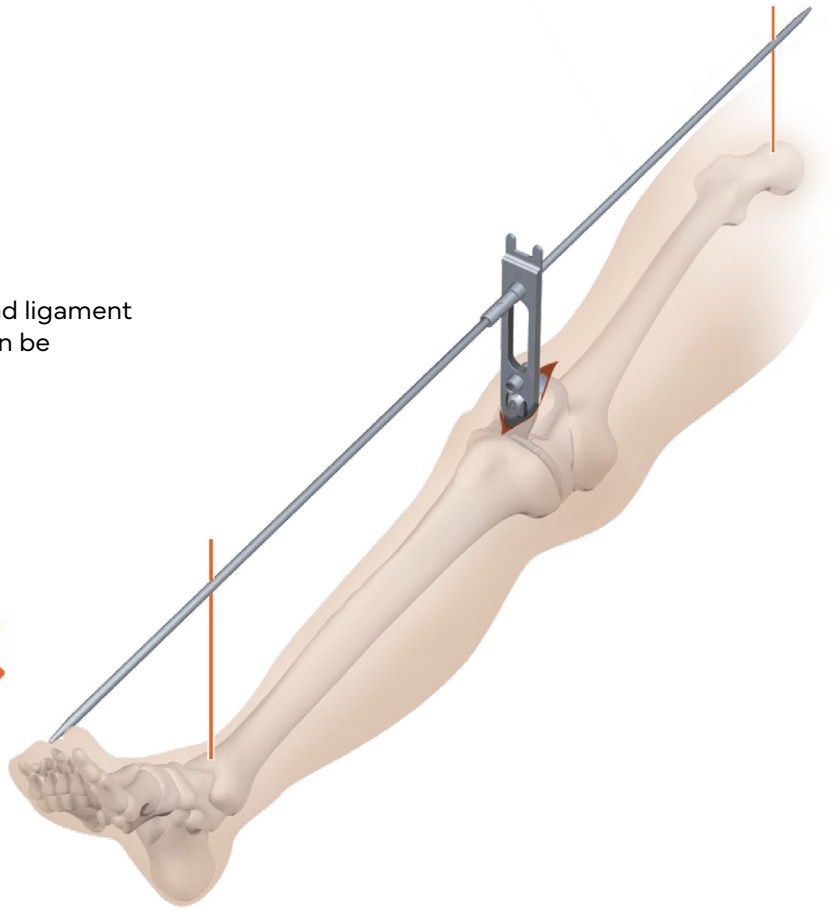
3 The trial insert corresponding to the chosen baseplate is snapped into position.

The thinnest trial insert is usually used first (10 mm). Depending on the required degree of stability, a 12 to 20 mm** insert for UC can be used.

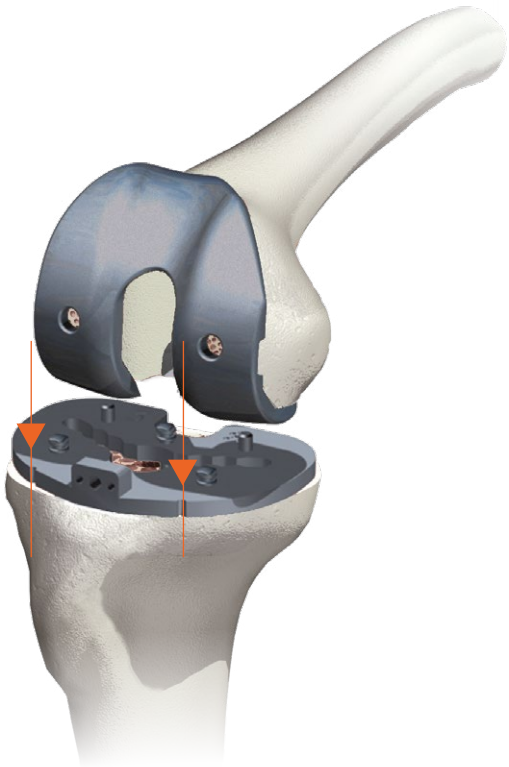
The trial insert may be removed using the gripper extractor tool inserted into the 2 slots.

** Some thicknesses are optional. For more details please contact your local representative.

4 The centre line of the lower limb and ligament stability in extension and flexion can be checked.



5 The definitive position of the trial tibial baseplate is marked on the anterior edge of the tibia using an electric scalpel.



TIBIA

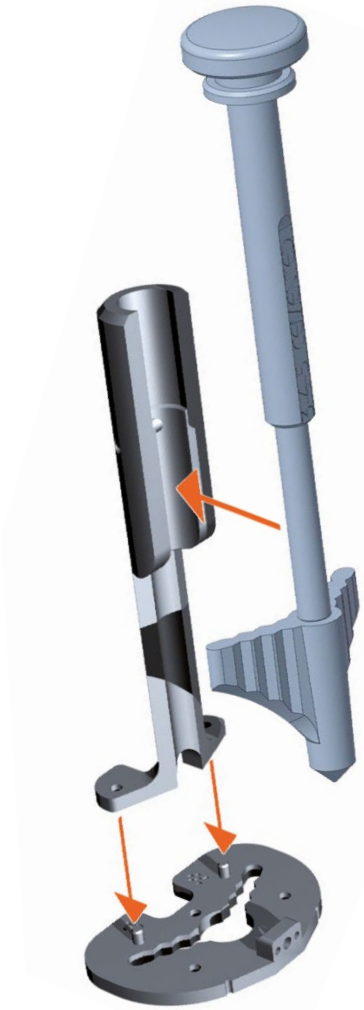
KEEL PREPARATION

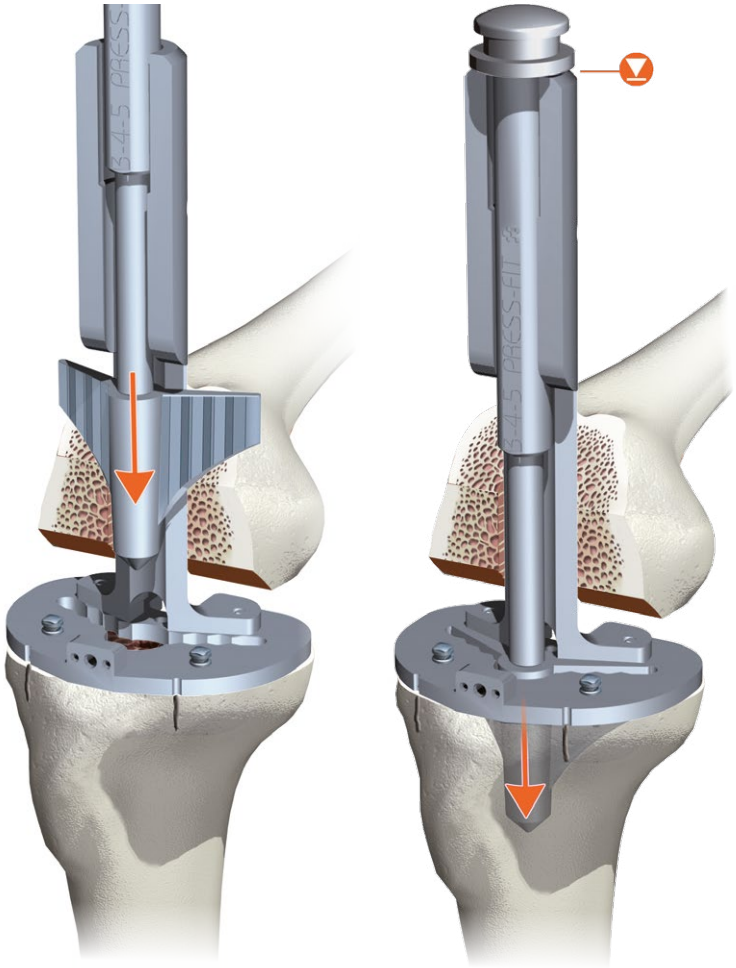
The insert and trial femur are removed.

The guide pillar is placed on the two trial baseplate pegs.

The selected keel impactor is inserted into the pillar and gently impacted up to the depth stop on the pillar.

Remove the impactor in a straight line using the universal extractor, enabling the three headed pins to be removed.





EXTENSION ROD OPTION

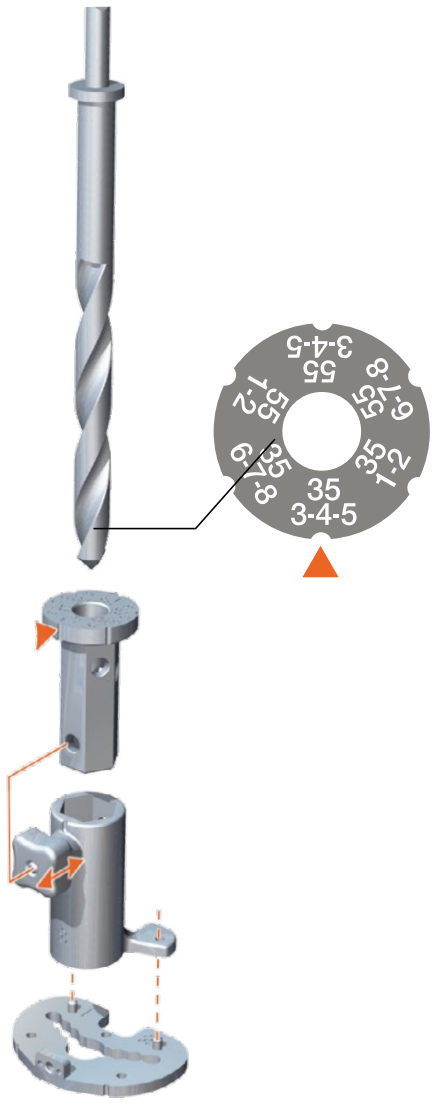
If a tibial extension rod is required, the specific drilling guide is positioned on the two trial baseplate pegs.

Insert the sleeve with the rod size marking.

Pull the knob out to fully to insert the sleeve then slowly lift the sleeve to lock it into the selected rod position.

In this example, we have selected a 35 mm-long rod for a size 3, 4 or 5 tibial baseplate.

Then drill up to the stop using the 11 mm diameter bit.



Positioning the definitive extension rod: unscrew the cap under the tibial keel using a 5 mm hex screwdriver and screw in the chosen extension.

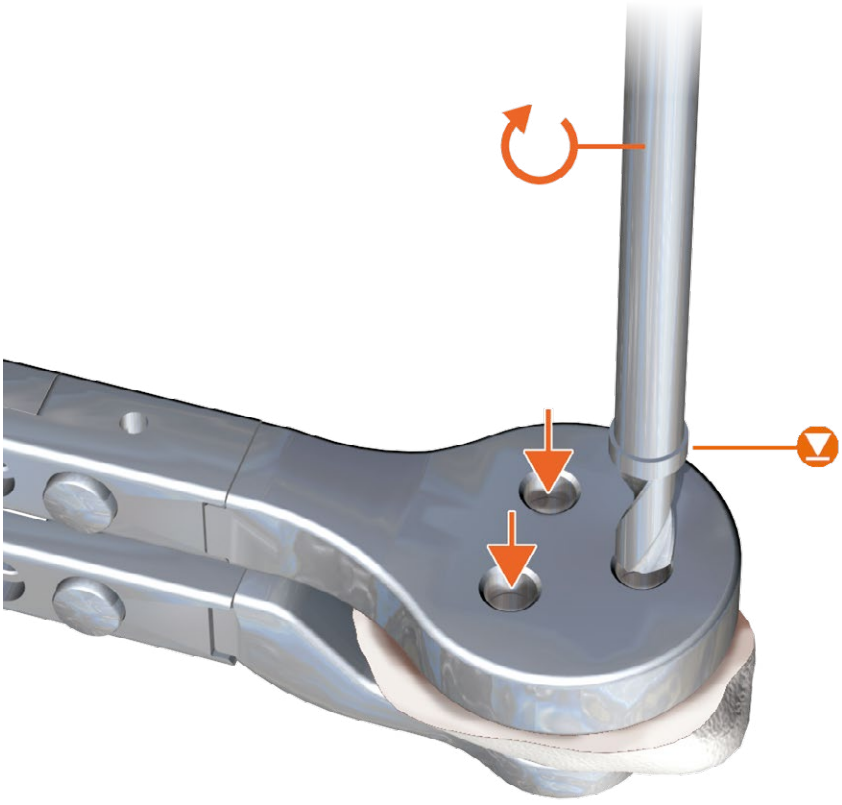
PATELLA

It is the surgeon's choice whether or not to resurface the patella.

The patella clamp is assembled and the resection level is set to 8 or 10 mm.

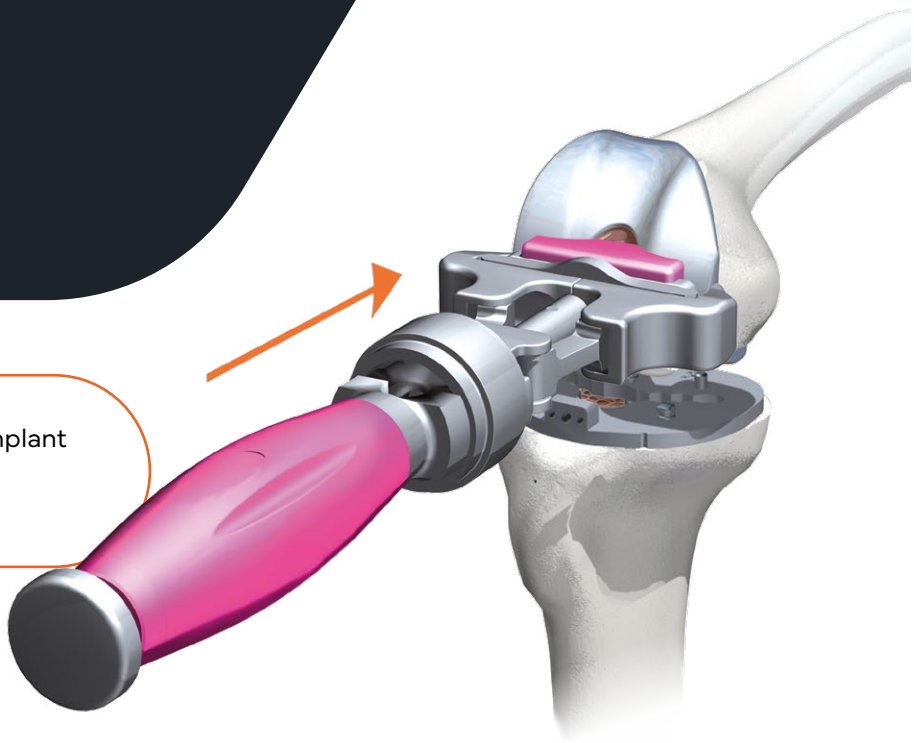
The clamp is firmly locked before cutting the patella.

The patella must be cut in one go as removing the blade during resection may alter the cutting level (pressure-responsive clamp).



IMPLANTS

The cement is applied to the implant or the bone cut according to the surgeon's usual practice.



Trial and implant femoral impactor

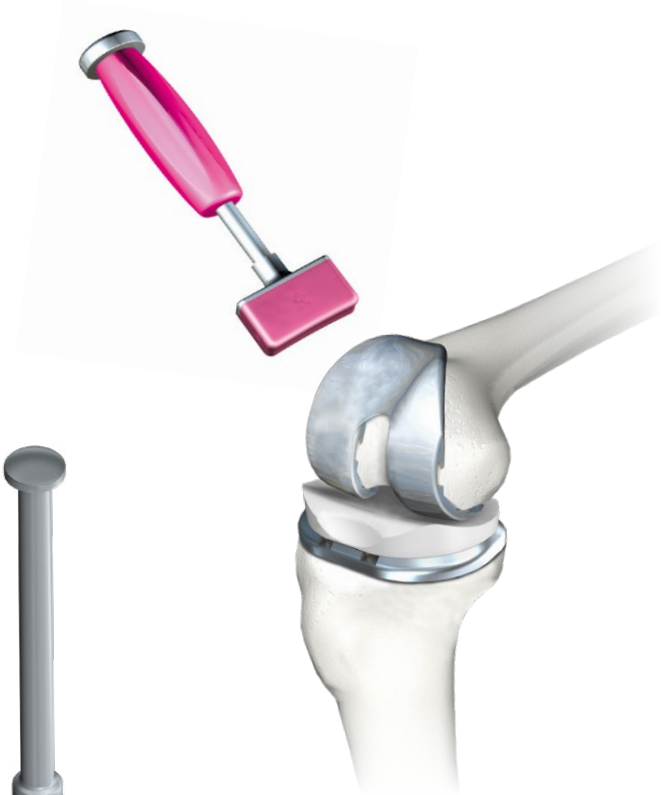
The recommended order for positioning implants is:

1. Tibial baseplate
2. Femoral component
3. Tibial insert
4. Patella

The knee is then placed in full extension which maintains pressure on the the femur and tibial baseplate to ensure correct impaction.

The patella is then placed in the three holes and pressure is applied using the patella clamp with cement nozzle.

The femoral impactor is used only to insert the trial and definitive implant.

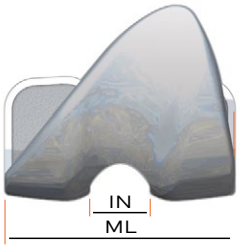


IMPLANT DIMENSIONS

Unit: mm

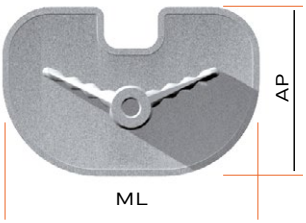
FEMUR

	1*	2	3	4	5	6	7	8
Anteroposterior (AP)	53,5	57,5	61,5	63,5	65,5	67,5	70	74
Mediolateral (ML)	53,5	57	61,0	65,0	68,5	72,0	74,0	81,5
Intercondylar notch (IN)	16,5	16,5	17,0	17,5	18,0	18,5	19,0	19,5



TIBIA

	1	2	3	4	5	6	7	8
Anteroposterior (AP)	40,5	43,5	46,5	49,5	52,5	54,0	56,0	59,5
Mediolateral (ML)	61,5	66,0	70,5	75,0	80,0	82,5	85,5	90,5

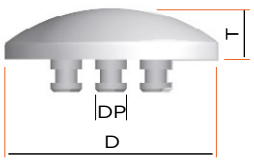


UC TIBIAL INSERTS

	1	2	3	4	5	6	7	8
Thickness (T)	10 12 14	10 12 14	10 12 14	10 12 14	10 12 14	10 12 14	10 12 14	10 12 14

PATELLA

DIAMETER	30	33	36	39
Peg diameter	5	5	5	5
Thickness (T)	8 10	8 10	8 10	8 10



TIBIAL RODS

DIAMETER	11
Length (L)	35 55

IMPLANT SIZES

Insert size

FIXED CONFIGURATION

FEMORAL COMPONENT SIZE

TIBIAL BASEPLATE SIZE	1*	2	3	4	5	6	7	8
1	1	1						
2	2	2	2					
3		3	3	3				
4			4	4	4			
5				5	5	5		
6					6	6	6	
7						7	7	7
8							8	8

*Size 1 is in the MADISON range

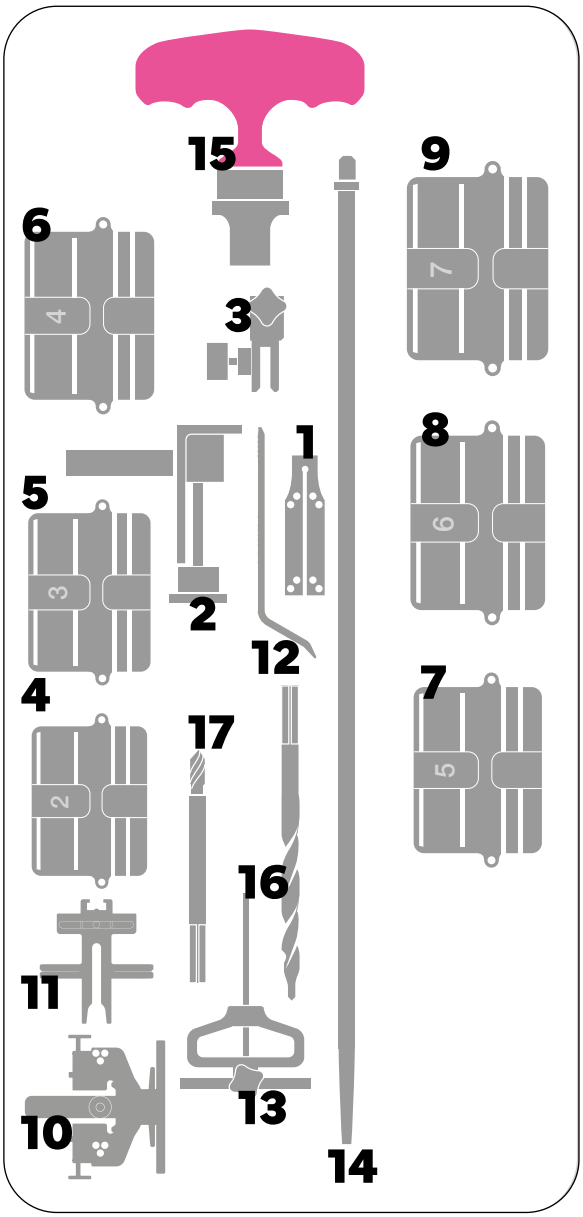
The patella components are all compatible with the range of femoral components.

7 INSTRUMENTATION

MADISON

BOX 1

NO	DESCRIPTION
1	540009 - Distal femoral cutting guide
2	**540010** - Distal femoral alignment guide
3	540011 - Distal femoral cutting guide support
4	**540376** - 4-in-1 semi-open cutting guide, S2
5	540377 - 4-in-1 semi-open cutting guide, S3
6	**540378** - 4-in-1 semi-open cutting guide, S4
7	540379 - 4-in-1 semi-open cutting guide, S5
8	**540380** - 4-in-1 semi-open cutting guide, S6
9	540381 - 4-in-1 semi-open cutting guide, S7
10	**540530** - Femoral/rotation Evo Sizer - Base
11	540531 - Femoral/rotation Evo Sizer - Support
12	**540532** - Femoral/rotation Evo Sizer - Stylus
13	540041 - Whiteside's line angle finder
14	**540043** - 8 mm canulated IM rod
15	540044 - Detachable T handle
16	**540396** - Hudson femoral drill, 8 mm
17	540398 - Hudson femoral peg drill, 6 mm



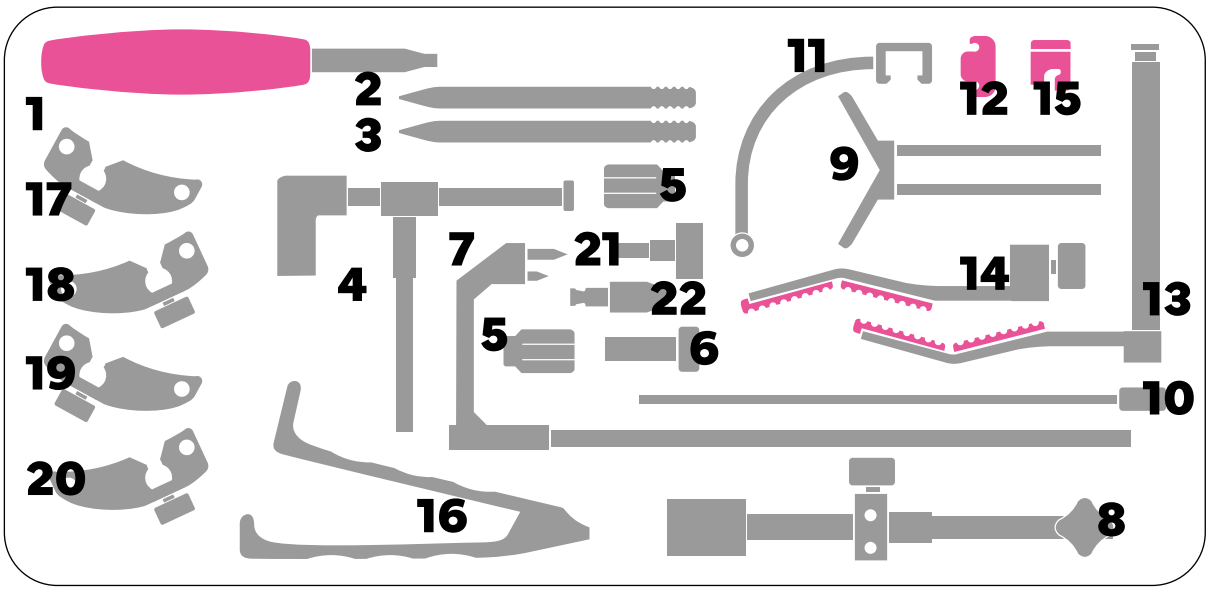
BOX 2 TOP

"ML cutting guide" composition

No	DESCRIPTION
1	540137 - Hex screwdriver, dia. 5 mm
2	540550 - EVO tibial stylus, 2 mm
3	540551 - EVO tibial stylus, 10 mm
4	540112 - Tibial intramedullary alignment
5	540113 - Level adjustment cylinder
6	540115 - Rod adaptor, dia. 8 mm
7	540124 - External tibial guide - Proximal shaft
8	540125 - Extramedullary alignment support
9	540126 - V-shaped extramedullary positioner
10	540127 - Short distal tibial alignment rod
11	540128 - Removable distal tibial alignment arch
12	540129 - V-shaped tibial positioner stop
13	540130 - Ankle clamp, part 1/2
14	540131 - Ankle clamp, part 2/2
15	540132 - Malleolar clamp stop
16	540173 - Fixing pin extractor
17	540403 - ML cutting guide, right, 0°
18	540404 - ML cutting guide, left, 0°
19	540405 - ML cutting guide, right, 4°
20	540406 - ML cutting guide, left, 4°
21	540549 - EVO tibial stylus support
22	540392 - Quick pin connector

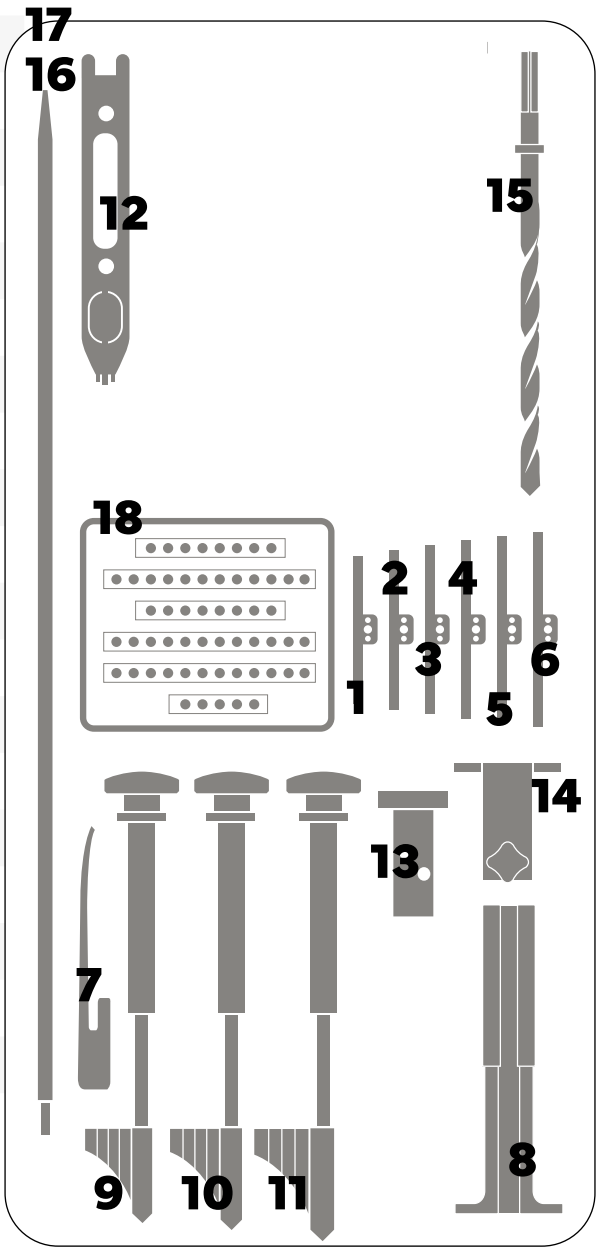
OR "HEMI GUIDE" composition

No	DESCRIPTION
1	540137 - Hex screwdriver, dia. 5 mm
2	540104 - Reference tibial stylus, 2 mm
3	540105 - Reference tibial stylus, 10 mm
4	540112 - Tibial intramedullary alignment
5	540113 - Level adjustment cylinder
6	540115 - Rod adaptor, dia. 8 mm
7	540124 - External tibial guide - Proximal shaft
8	540125 - Extramedullary alignment support
9	540126 - V-shaped extramedullary positioner
10	540127 - Short distal tibial alignment rod
11	540128 - Removable distal tibial alignment arch
12	540129 - V-shaped tibial positioner stop
13	540130 - Ankle clamp, part 1/2
14	540131 - Ankle clamp, part 2/2
15	540132 - Malleolar clamp stop
16	540173 - Fixing pin extractor
17	540111 - Tibial cutting guide, left, 4°
18	540108 - Tibial cutting guide, right, 0°
19	540109 - Tibial cutting guide, left, 0°
20	540110 - Tibial cutting guide, right, 4°
21	540106 - Tibial stylus guide
22	540392 - Quick pin connect



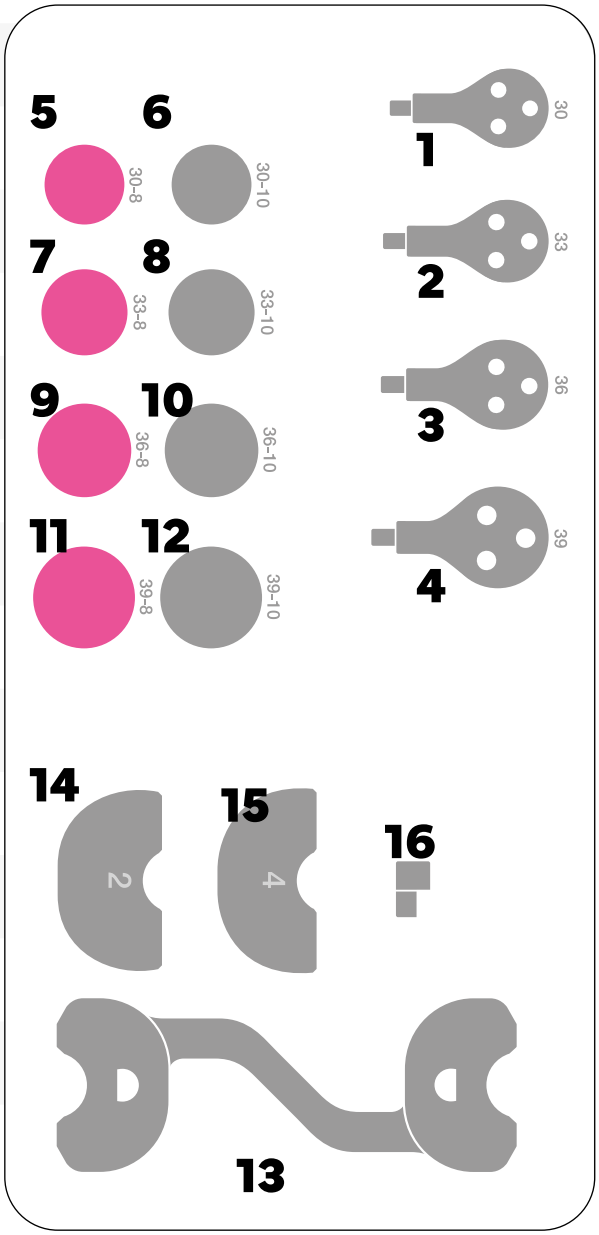
BOX 2 BOTTOM

No	DESCRIPTION
1	**540002** - Trial tibial baseplate, S2
2	**540003** - Trial tibial baseplate, S3
3	**540004** - Trial tibial baseplate, S4
4	**540005** - Trial tibial baseplate, S5
5	**540006** - Trial tibial baseplate, S6
6	**540007** - Trial tibial baseplate, S7
7	**540107** - Resection test plate
8	**540116** - Tibial keel impactor pillar
9	**540120** - Cemented pin impactor, S1-2
10	**540121** - Cemented pin impactor, S3-4-5
11	**540122** - Cemented pin impactor, S6-7-8
12	**540370** - Tibial trial gripper/extractor
13	**540138** - Tibial drill bushing
14	**540139** - Tibial drill bushing base
15	**540397** - Hudson femoral drill, 11 mm
16	**540141** - External alignment rod 1
17	**540282** - External alignment rod 2
18	**540283** - Pin box
	540284 - Pin box cover
	540162 - Fixing nail, dia. 3.2 mm, L1
	540163 - Fixing nail, dia. 3.2 mm, L2
	540165 - Fixing pin, dia. 3.2 mm, L2
	540393 - Quick connect twist pin, L1
	540394 - Quick connect twist pin, L2
	540395 - Quick connect twist pin, L3
	540402 - 3.2 mm Greatbatch drill (non present on the picture)



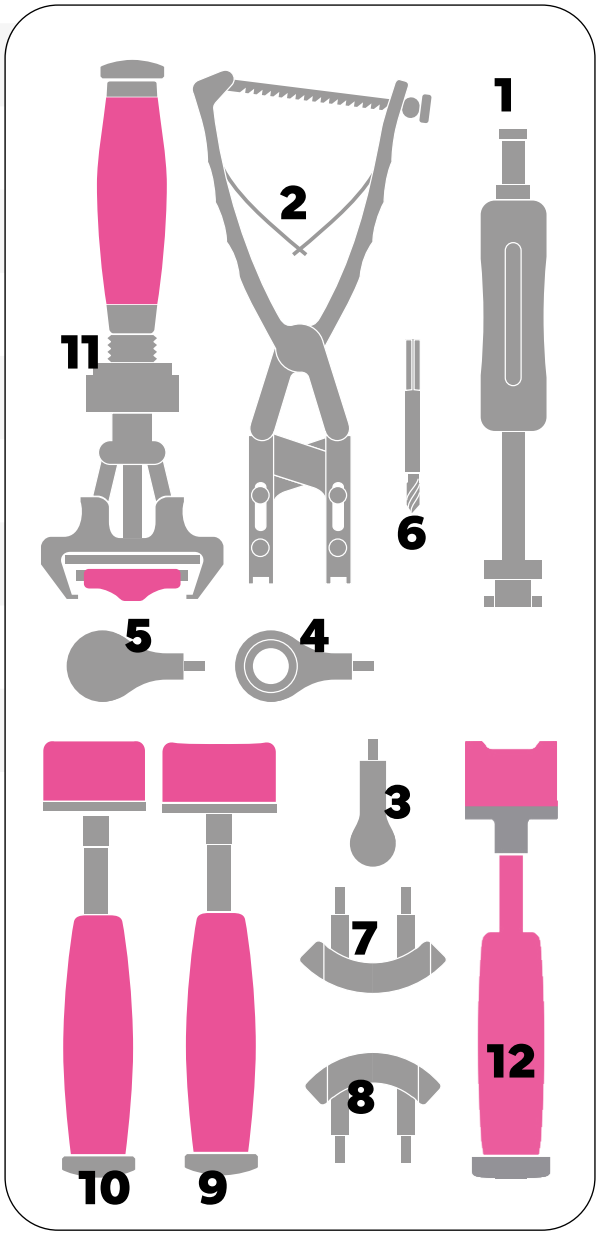
BOX 4 TOP

No	DESCRIPTION
1	540146 - Trial/drilling end fitting 1
2	**540147** - Trial/drilling end fitting 2
3	540148 - Trial/drilling end fitting 3
4	**540149** - Trial/drilling end fitting 4
5	540256 - Trial patella, 30/8 mm
6	**540257** - Trial patella, 30/10 mm
7	540258 - Trial patella, 33/8 mm
8	**540259** - Trial patella, 33/10 mm
9	540260 - Trial patella, 36/8 mm
10	**540261** - Trial patella, 36/10 mm
11	540262 - Trial patella, 39/8 mm
12	**540263** - Trial patella, 39/10 mm
13	540361 - Flex-ext base plate
14	**540362** - Spacer, 2 mm
15	540363 - Spacer, 4 mm
16	**540371** - Alignment rod sleeve



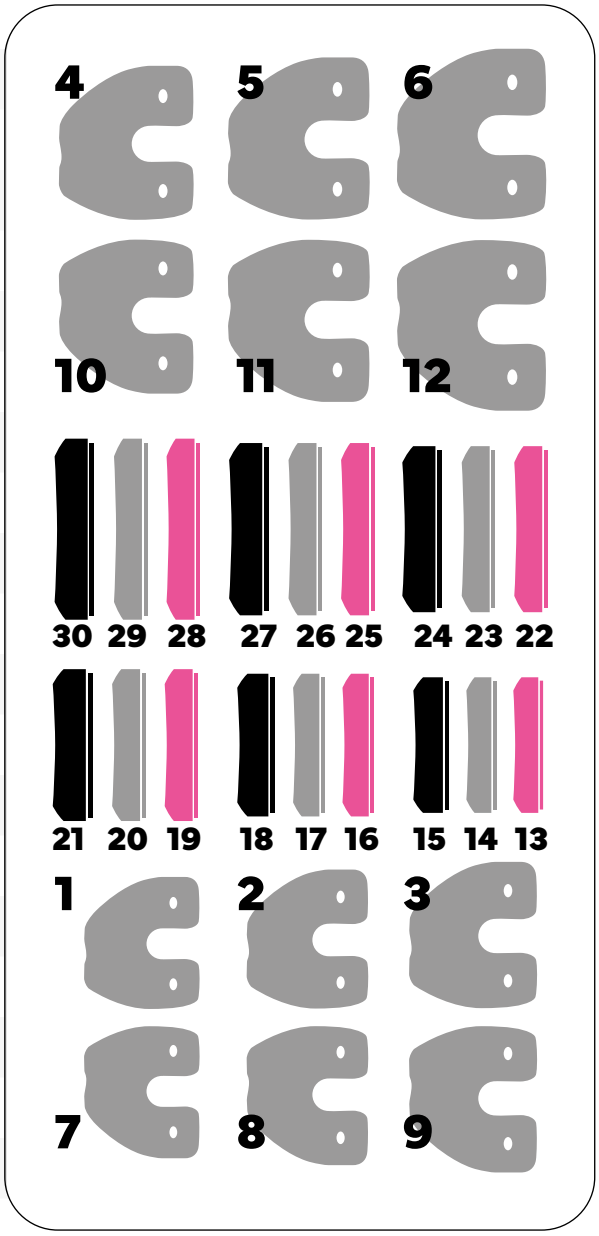
BOX 4 BOTTOM

No	DESCRIPTION
1	540172 - Universal extractor
2	**540142** - Patella clamp
3	540143 - Plate with central pin
4	**540150** - Plate for patella cementing
5	540153 - Patella plate with pins
6	**540399** - Hudson patella peg drill, 5 mm
7	540158 - Resection block, 8 mm
8	**540159** - Resection block, 10 mm
9	540135 - Femoral impactor
10	**540133** - Baseplate impactor and tibial insert
11	540045 - Trial and implant femoral impactor
12	**540134** - Universal impactor



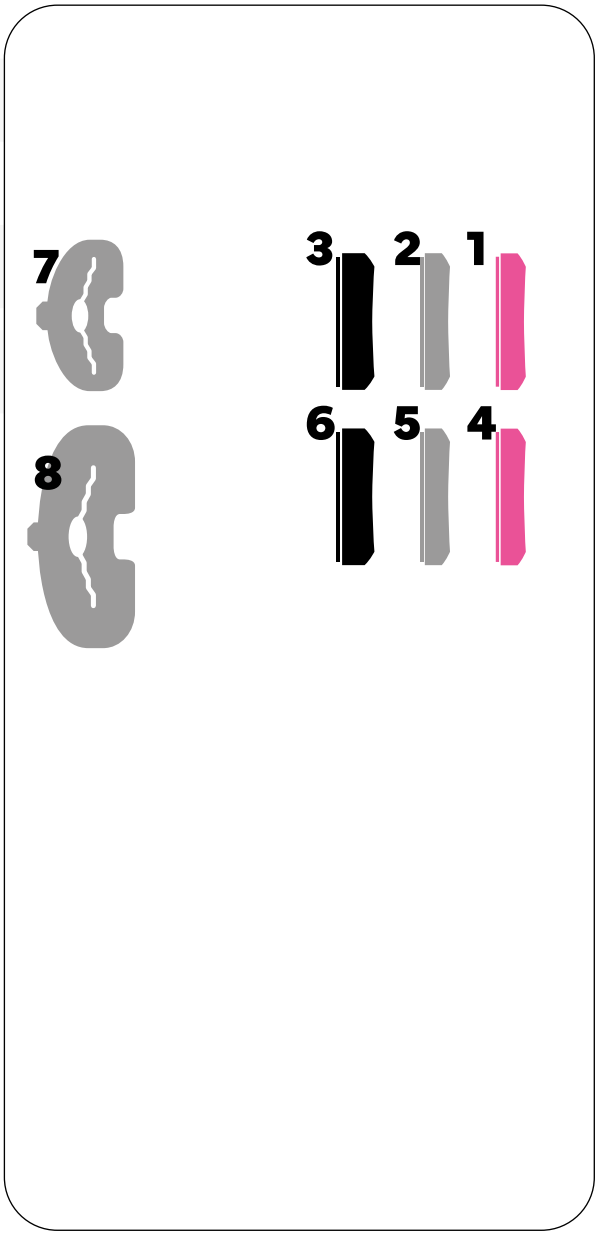
BOX 5

No	DESCRIPTION
1	540514 - CR trial EVO femur, S2, Right
2	540515 - CR trial EVO femur, S3, Right
3	540516 - CR trial EVO femur, S4, Right
4	540517 - CR trial EVO femur, S5, Right
5	540518 - CR trial EVO femur, S6, Right
6	540519 - CR trial EVO femur, S7, Right
7	540521 - CR trial EVO femur, S2, Left
8	540522 - CR trial EVO femur, S3, Left
9	540523 - CR trial EVO femur, S4, Left
10	540524 - CR trial EVO femur, S5, Left
11	540525 - CR trial EVO femur, S6, Left
12	540526 - CR trial EVO femur, S7, Left
13	540288 - UC trial insert, S2 - 10 mm
14	540289 - UC trial insert, S2 - 12 mm
15	540290 - UC trial insert, S2 - 14 mm
16	540291 - UC trial insert, S3 - 10 mm
17	540292 - UC trial insert, S3 - 12 mm
18	540293 - UC trial insert, S3 - 14 mm
19	540294 - UC trial insert, S4 - 10 mm
20	540295 - UC trial insert, S4 - 12 mm
21	540296 - UC trial insert, S4 - 14 mm
22	540297 - UC trial insert, S5 - 10 mm
23	540298 - UC trial insert, S5 - 12 mm
24	540299 - UC trial insert, S5 - 14 mm
25	540300 - UC trial insert, S6 - 10 mm
26	540301 - UC trial insert, S6 - 12 mm
27	540302 - UC trial insert, S6 - 14 mm
28	540303 - UC trial insert, S7 - 10 mm
29	540304 - UC trial insert, S7 - 12 mm
30	540305 - UC trial insert, S7 - 14 mm



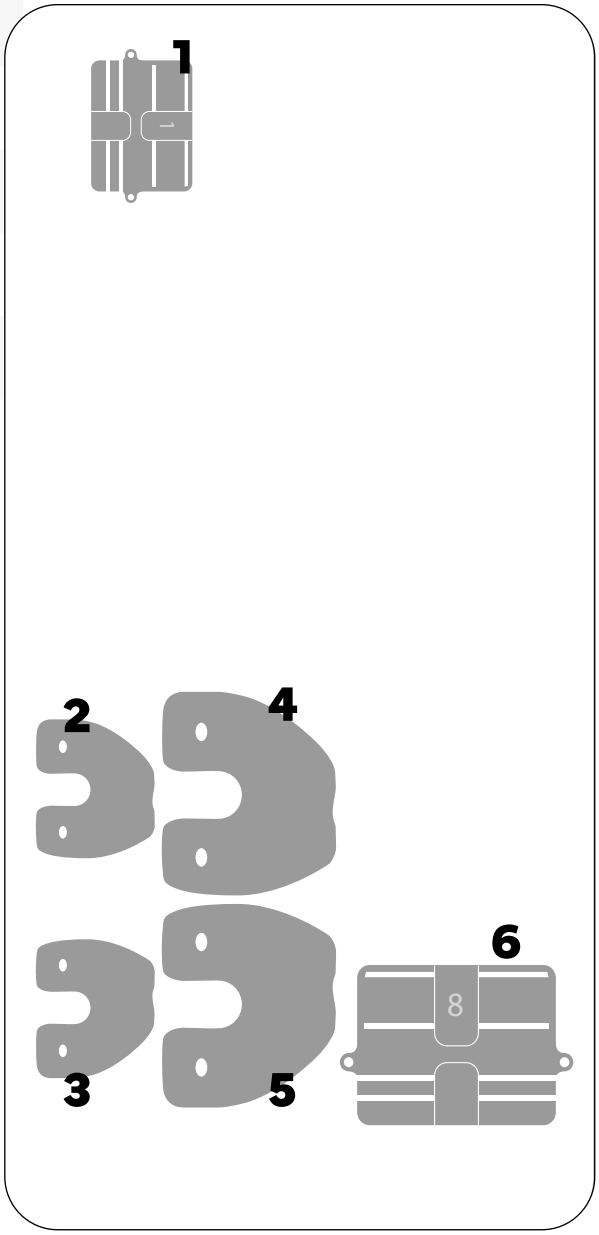
BOX 6 TOP

No	DESCRIPTION
1	540285 - UC trial insert, S1, t. 10 mm
2	**540286** - UC trial insert, S1, t. 12 mm
3	540287 - UC trial insert, S1, t. 14 mm
4	**540306** - UC trial insert, S8, t. 10 mm
5	540307 - UC trial insert, S8, t. 12 mm
6	**540308** - UC trial insert, S8, t. 14 mm
7	540001 - Trial tibial baseplate, S1
8	**540008** - Trial tibial baseplate, S8



BOX 6 BOTTOM

No	DESCRIPTION
1	**540375** - EL semi-open femoral cutting guide, S1
2	**540200** - CR trial femur, S1, Left
3	**540192** - CR trial femur, S1, Right
4	**540527** - CR trial EVO femur, S8, Left
5	**540520** - CR trial EVO femur, S8, Right
6	**540382** - EL semi-open femoral cutting guide, S8



ADDITIONAL EQUIPMENT

REF.	DESCRIPTION
540610	Fixed insert impactor
Box 1 - Femur preparation	
540171	6mm femoral peg drill w.stop
540556	EVO femoral sizer 5-8
540390	LB femoral sizer 1-4
540389	LB femoral stylus
540557	EVO jumber 2-4
540558	EVO jumber 6-8
540374	Extended femoral sizing stylus stand
540600	Curved osteotome
Box 2 - Tibia preparation	
540140	Tibial preparation drill
540434	Varus-valgus tibial alignment
540435	IM tibial alignment slope
540436	Quick tibial knob
540407	Tibial ML stylus stand
540408	Pin extractor

REF.	DESCRIPTION
Box 6 - UC trials 1 and 8	
540333	UC trial insert, S1, t. 16 mm
540334	UC trial insert, S1, t. 18 mm
540335	UC trial insert, S1, t. 20 mm
540354	UC trial insert, S8, t. 16 mm
540355	UC trial insert, S8, t. 18 mm
540356	UC trial insert, S8, t. 20 mm

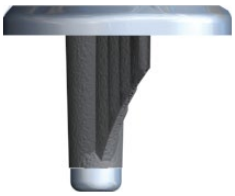
REF.	DESCRIPTION
Box 4 - Patella	
540409	Tibial extractor
540452	Rotating patella end fitting
540601	4-in-1 cutting guide impactor
540528	Patella stylus
540529	Patella resection guide
540144	Resection clamp 1
540145	Resection clamp 2
540452	Articulated patellar tip
Box 5 - UC trials	
540336	UC trial insert, S2 - 16 mm
540337	UC trial insert, S2 - 18 mm
540338	UC trial insert, S2 - 20 mm
540339	UC trial insert, S3 - 16 mm
540340	UC trial insert, S3 - 18 mm
540341	UC trial insert, S3 - 20 mm
540342	UC trial insert, S4 - 16 mm
540343	UC trial insert, S4 - 18 mm
540344	UC trial insert, S4 - 20 mm
540345	UC trial insert, S5 - 16 mm
540346	UC trial insert, S5 - 18 mm
540347	UC trial insert, S5 - 20 mm
540348	UC trial insert, S6 - 16 mm
540349	UC trial insert, S6 - 18 mm
540350	UC trial insert, S6 - 20 mm
540351	UC trial insert, S7 - 16 mm
540352	UC trial insert, S7 - 18 mm
540353	UC trial insert, S7 – 20 mm

IMPLANTS

FEMORAL COMPONENTS

	REF.	DESCRIPTION
LEFT		**Cemented**
	340048	Cemented CR femur, S1 L
	340328	Cemented CR femur, S 2 L
	340329	Cemented CR femur, S 3 L
	340330	Cemented CR femur, S 4 L
	340331	Cemented CR femur, S 5 L
	340332	Cemented CR femur, S 6 L
	340333	Cemented CR femur, S 7 L
	340334	Cemented CR femur, S 8 L

	REF.	DESCRIPTION
RIGHT		**Cemented**
	340056	Cemented CR femur, S 1 R
	340335	Cemented CR femur, S 2 R
	340336	Cemented CR femur, S 3 R
	340337	Cemented CR femur, S 4 R
	340338	Cemented CR femur, S 5 R
	340339	Cemented CR femur, S 6 R
	340340	Cemented CR femur, S 7 R
	340341	Cemented CR femur, S 8 R



FIXED-BEARING TIBIAL BASEPLATE

REF.	DESCRIPTION
Cemented	
340096	Cemented fixed-bearing tibial baseplate, S1
340097	Cemented fixed-bearing tibial baseplate, S2
340098	Cemented fixed-bearing tibial baseplate, S3
340099	Cemented fixed-bearing tibial baseplate, S4
340100	Cemented fixed-bearing tibial baseplate, S5
340101	Cemented fixed-bearing tibial baseplate, S6
340102	Cemented fixed-bearing tibial baseplate, S7
340103	Cemented fixed-bearing tibial baseplate, S8

UC INSERTS

REF.	DESCRIPTION
Thickness 10 mm	
340203	Universal UC insert, S 1, t. 10 mm
340206	Universal UC insert, S 2, t. 10 mm
340209	Universal UC insert, S 3, t. 10 mm
340212	Universal UC insert, S 4, t. 10 mm
340215	Universal UC insert, S 5, t. 10 mm
340218	Universal UC insert, S 6, t. 10 mm
340221	Universal UC insert, S 7, t. 10 mm
340224	Universal UC insert, S 8, t. 10 mm
Thickness 12 mm	
340204	Universal UC insert, S 1, t. 12 mm
340207	Universal UC insert, S 2, t. 12 mm
340210	Universal UC insert, S 3, t. 12 mm
340213	Universal UC insert, S 4, t. 12 mm
340216	Universal UC insert, S 5, t. 12 mm
340219	Universal UC insert, S 6, t. 12 mm
340222	Universal UC insert, S 7, t. 12 mm
340225	Universal UC insert, S 8, t. 12 mm
Thickness 14 mm	
340205	Universal UC insert, S 1, t. 14 mm
340208	Universal UC insert, S 2, t. 14 mm
340211	Universal UC insert, S 3, t. 14 mm
340214	Universal UC insert, S 4, t. 14 mm
340217	Universal UC insert, S 5, t. 14 mm
340220	Universal UC insert, S 6, t. 14 mm
340223	Universal UC insert, S 7, t. 14 mm
340226	Universal UC insert, S 8, t. 14 mm

PATELLA COMPONENTS

REF.	DESCRIPTION
340144	Cemented patella, Ø30/10
340145	Cemented patella, Ø33/10
340146	Cemented patella, Ø36/10
340147	Cemented patella, Ø39/10
340148	Cemented patella, Ø30/8
340149	Cemented patella, Ø33/8
340150	Cemented patella, Ø36/8
340151	Cemented patella, Ø39/8

TIBIAL EXTENSION RODS*

REF.	DESCRIPTION
340153	Tibial rod, Ø11 mm, l. 35
340154	Tibial rod, Ø11 mm, l. 55

UC** INSERTS / option

REF.	DESCRIPTION
Thickness 16 mm	
340251	Universal UC insert, S1, t. 16 mm
340254	Universal UC insert, S 2, t. 16 mm
340257	Universal UC insert, S 3, t. 16 mm
340260	Universal UC insert, S 4, t. 16 mm
340263	Universal UC insert, S 5, t. 16 mm
340266	Universal UC insert, S 6, t. 16 mm
340269	Universal UC insert, S 7, t. 16 mm
540272	Universal UC insert, S8, t. 16 mm
Thickness 18 mm	
540252	Universal UC insert, S1, t. 18 mm
340255	Universal UC insert, S 2, t. 18 mm
340258	Universal UC insert, S 3, t. 18 mm
340261	Universal UC insert, S 4, t. 18 mm
340264	Universal UC insert, S 5, t. 18 mm
340267	Universal UC insert, S 6, t. 18 mm
340270	Universal UC insert, S 7, t. 18 mm
540273	Universal UC insert, S8, t. 18 mm
Thickness 20 mm	
340253	Universal UC insert, S1, t. 20 mm
340256	Universal UC insert, S2, t. 20 mm
340259	Universal UC insert, S3, t. 20 mm
340262	Universal UC insert, S4, t. 20 mm
340265	Universal UC insert, S5, t. 20 mm
340268	Universal UC insert, S6, t. 20 mm
340271	Universal UC insert, S7, t. 20 mm
340274	Universal UC insert, S8, t. 20 mm

* Please check product availability with your local representative.
** Some thicknesses are optional. For more details please contact your local representative.

NOTES

CAUTION: Federal Law (USA) restricts this device to sale by or on the order of a physician.

Only for distribution within the USA.
Before using any MADISON products, make sure to read the instructions for use and the surgical technique. Refer to the labels and instruction leaflets for the complete list of indications, risks, warmings, precautions ans restrictions for use.
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