Aesculap Orthopaedics

e.motion

Knee Endoprosthesis System

Manual operation technique

B BRAUN
SHARING EXPERTISE

Preoperative planning

The emotion knee system provides radiographic templates which help the surgeon in determining the following parameters:

- Angle between anatomic and mechanical femur axes
- Resection height of the intact tibia joint surface
- Entry point of the intramedullary alignment rod
- Implant sizes
- Position of the osteophytes

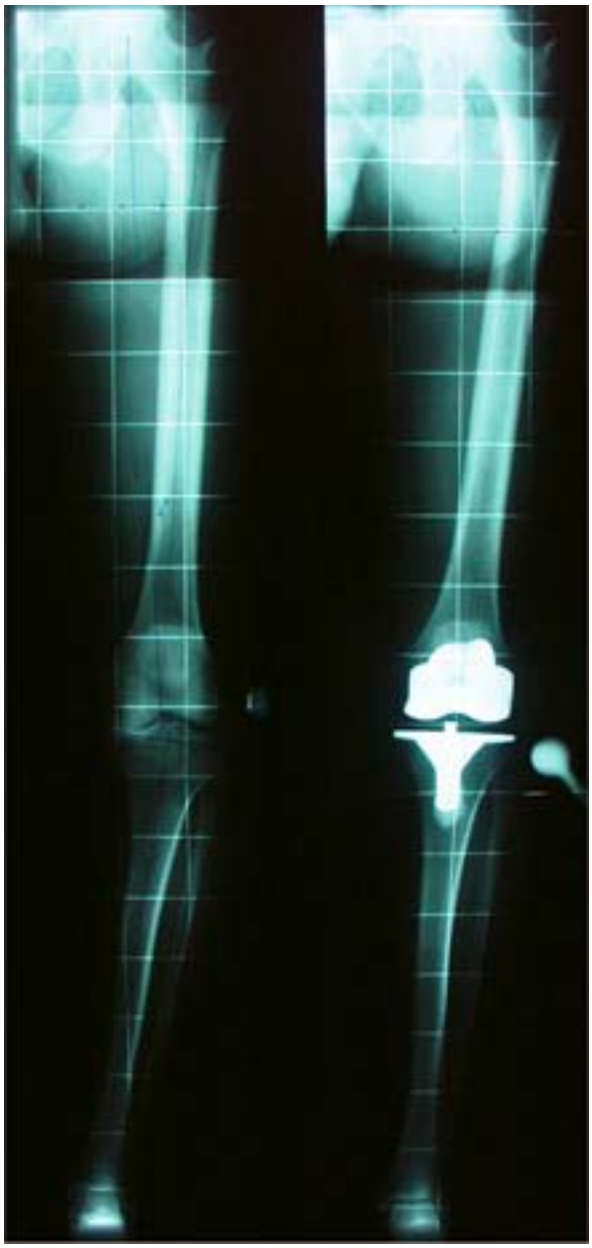
The following x-ray images are required to conduct the radiographic analysis:

- Knee joint in AP projection: knee extended, centred over the distal patella.
- Knee joint in lateral projection: knee in 30° flexion, centred above the distal patella.
- Image of the whole leg in supported monopodal stance.
- Patella-tangential image: knee in 30° flexion, caudocranial radiation, centred over the distal patella.

The e.motion x-ray templates must be used.

The angle between the mechanical and anatomic femur axes is measured with the combination template for axis measurements. The center of the joint, the joint line and the mechanical femur axis can be measured and drawn onto the ray slide. To determine the tibia resection, the template showing representations of tibial implants is superimposed over, and aligned with, the x-ray image. The resection height is given at a 10-20mm (FP, CS) and 10-24mm (PS) graduation. A complete set of radiographic templates is provided for the preoperative determination of the appropriate implant sizes. The localization of the osteophytes facilitates their removal, improving the mobility of the joint.

The results of preoperative planning should be documented in the patient's file.



Positioning the tibia cutting block

The extramedullary alignment system for the tibia cutting block is brought into position parallel to the tibia axis. The rotational alignment is carried out with the extension of the malleolary clamp, which is oriented to the second metatarsal bone.

The alignment instrument offers the possibility of adjusting the tibia cutting block in all planes:

- Height adjustment A
- Alignment in the sagittal plane B
- Varus-valgus alignment C

The surgeon can freely define the adjustment of the cutting block, according to the individual patient's requirements. However, we recommend a perpendicular position in relation to the mechanical tibia axis, both in the frontal and in the sagittal plane.

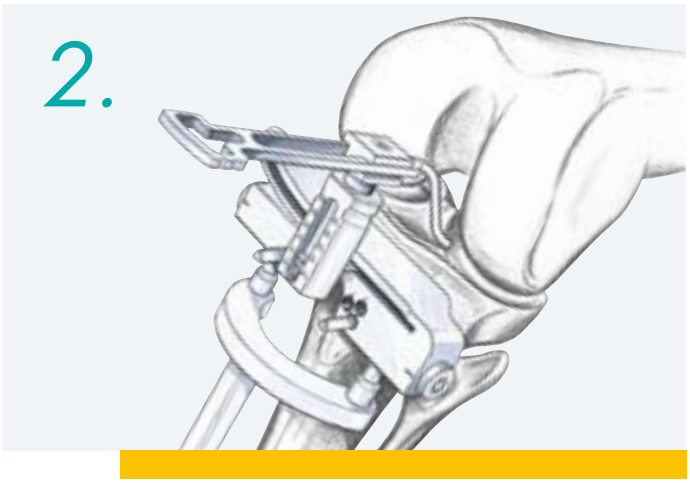
A Height adjustment

The resection height is determined in preoperative planning. The aim is to remove any defect on the tibial joint surface as completely as possible in order to create a bed for the tibia plateau on intact bone. Following this, the measured value is set on the stylus, which is then introduced into the cutting slot. The extramedullary alignment instrument is then lowered by pulling the lever 1 until the stylus comes into contact with a point corresponding to the joint line.

B Alignment of the sagittal plane

The alignment of the sagittal plane (parallel to the mechanical axis) is achieved by pulling the lever. 2 The distance between the lines on the malleolary clamp corresponds to a posterior slope of 1° for a tibia length of 40cm.

Please note:
The e.motion tibial implant has a 3° posterior slope in the plateau



C Varus-valgus alignment

Lifting the lever, 3 the slide in the malleolary clamp can be shifted towards mediolateral. The distance between the lines on the scale corresponds to a 1° alteration for a tibia length of 40cm.

Resecting the tibia plateau

The cutting block is fixed to the bone with four threaded pins as follows. Two headless threaded pins are introduced into the drill holes marked "0". Two other threaded pins with head are then inserted in the convergent holes to secure the cutting block against movement during resection.

After removing the extramedullary alignment instrument, the resection is performed with a 1.27mm thick saw blade. Extreme care must be taking at this step, since the posterior cruciate ligament must not be damaged in case of implantation of e.motion FP components. The resection is normally performed at a slope of 0°.

While the two convergent pins are removed, the two headless pins remain in place to allow a later corrective resection of 2 or 4mm, if necessary.

Checking the tibial implant size

To ensure that compatible sizes are chosen for the implant components, the size of the tibial implant is determined, with the help of the tibia preparation plateaus, at this point of the operation. The correct implant size should offer a complete coverage of the resected plane and avoid any overhang.
The femoral implant should be smaller, the same size or one size bigger than the tibial implant.

- *Please note:*
  Size of Meniscal Components correspond to size of femoral component.

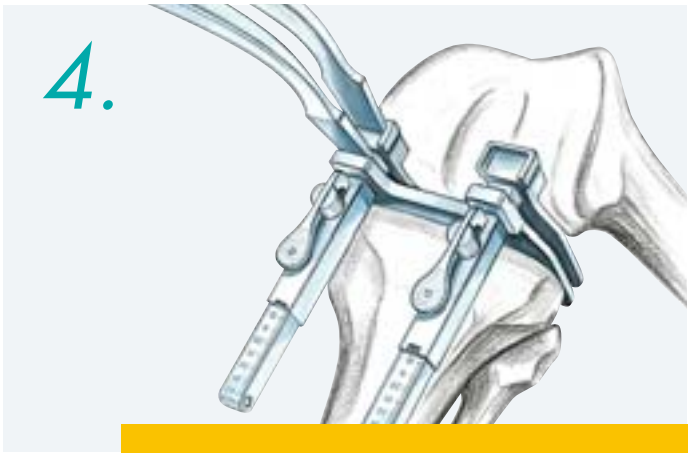
	F2	F3	F4	F5	F6	F7	F8
T1							
T2							
T3							
T4							
T5							
T6							
T7							
T8							

Combinations of implant sizes (tibia / femur) that are not possible

Possible combinations of implant sizes (tibia / femur)

Measuring the extension and flexion gaps

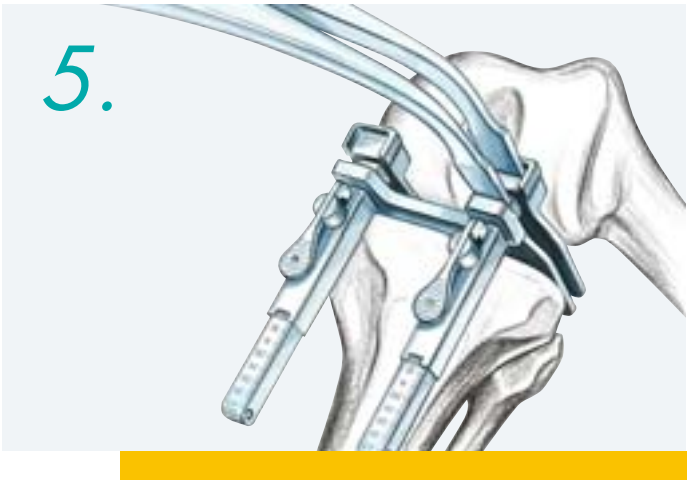
After resection of the tibia plateau, the ligament tension must be checked. The osteophytes on the tibia head and on the femoral condyles must be completely removed. The measurement makes it possible to calculate the resection height on the distal femur. The height to aim at is the thickness of the chosen implant size on the intact condyle.



The size of the flexion and extension gaps are read medially and laterally at the distractor in 90° flextion and 0° extension. The number read is the one on the movable shoe level with the end of the sleeve.

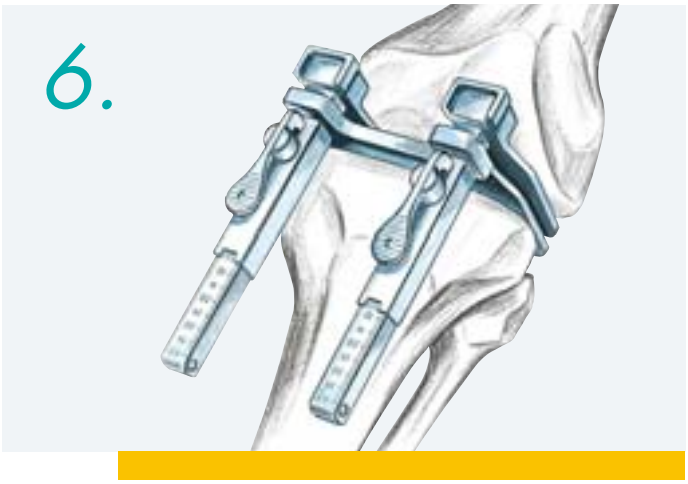
In cases of a medio-lateral asymmetry (of more than 3mm), ligament release should be performed on the narrower side (medial for varus deformities, lateral for valgus deformities). Following the ligament release the flexion and extension gaps should be re-measured, and the release procedure repeated if necessary. A mediolateral difference of 2mm is acceptable.

- *Please note:*
  External rotation of the femoral component influences the medio-lateral gaps in flexion.



Different solutions are possible to compensate a difference between extension and flexion gap. The extension gap can be adjusted to the flexion gap through changing the distal femoral resection height by up to + or -2mm. The flexion gap can be adjusted to the extension gap by choosing, a smaller or larger femoral implant (preferable as the joint line is preserved).

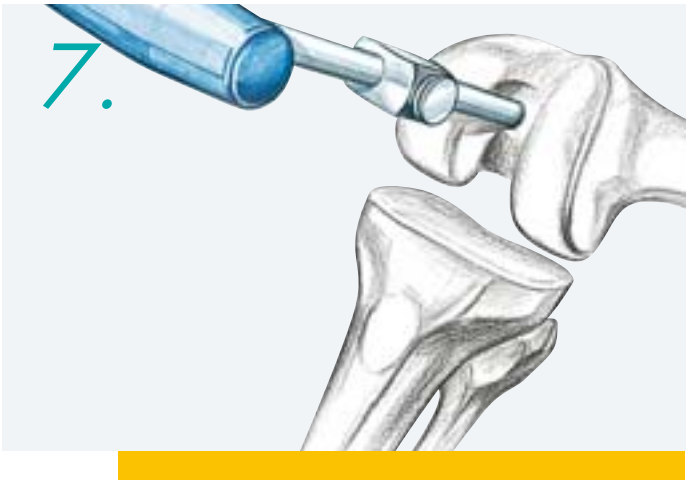
Further possibilities exist in building up the defective distal femoral condyle e.g. with bone.



Distal femur resection

The entry point into the femoral medullary cavity is prepared using a broach, according to preoperative planning.

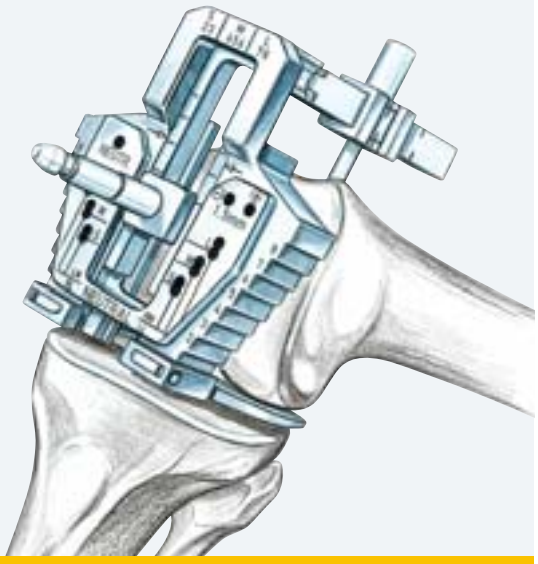
The medullary canal is opened up with a Ø 9mm drill. The Ø 8mm intramedullary femur rod has been specially designed for minimizing the risk of embolisms. The rod is carefully introduced into the medullary cavity using the T-shaped handle.



To adjust the varus/valgus angle into the femur orientation block, the appropriate angle block (5°, 6°, 7°, 8° or 9°) is introduced in the block according to preoperative planning. For a left leg, the side marked with an "L" must be the upper side; for a right leg, the side marked "R" must be on top.

The femur stylus is introduced into the block from the upper side; the mounted instrument is than fixed to the femur by means of the intramedullary rod. The posterior condylar plates of the orientation block must touch the posterior condyles and at least one distal condyle.

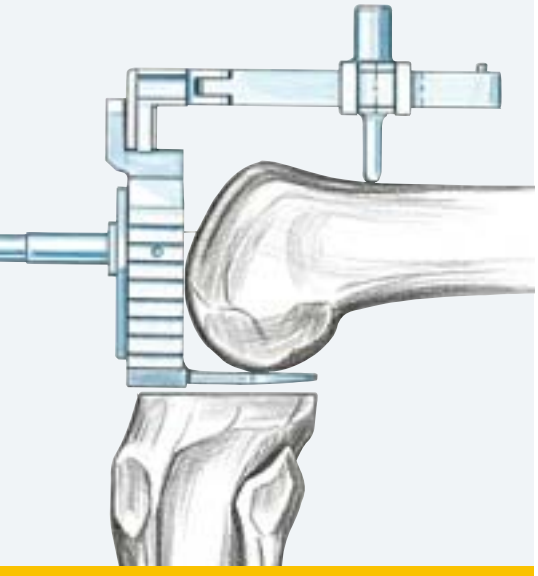
8.



The femur stylus must touch the anterior cortex. The point palpated at the antero-lateral cortex defines the anterior resection height and the position of the end of the femur shield. Using the graduation on the stylus, the appropriate size of the femoral implant can be defined with reference to the anterior shield. The stylus scale only correspond to the correct sizing before the distal resection has been performed.

A scale on the frontal side of the instrument shows the respective prosthesis size with reference to the AP dimension of the femur. The appropriate implant size with regard to the mediolateral width of the bone can be read from graduations on the outer ends of the femur orientation block.

9.



Having determined the appropriate femoral implant size, the anterior femur stylus is replaced by the holding device of the distal cutting block. The distal block is attached to the holding device in position S, M or L, depending on the implant size. (S = implant sizes 2 and 3; M = 4, 5 and 6; L = 7 and 8). This adjustment defines the thickness of the distal resection which is 7.0mm for size group S, 8.5mm for size group M and 10.0mm for size group L.

The distal cutting block must touch at least one anterior condyle. The block is then fixed onto the bone by two headless threaded pins inserted into the holes marked "0". If a different resection becomes necessary, the holes marked "-2" and "+2" and the cutting slit marked "4" and "8" allow to adapt the thickness of the distal resection by shifting the cutting block.

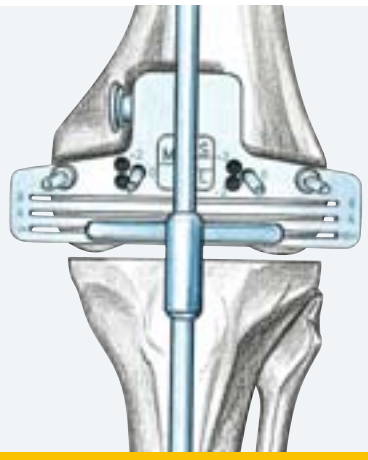
The stability of the fixation is ensured by screwing in two pins with head in the convergent holes on both sides of the cutting block.

The holding system and the intra-medullary femur rod are removed, leaving only the cutting block fixed to the bone.

10.

The axis can be checked by placing the measuring rod holder into the slit on the femoral cutting block. The measuring rod with the socket for the second measuring rod can then be inserted into the holder and the second measuring rod fixed into the socket. Before carrying out the distal resection with 1.27mm saw blade in the cutting slit marked by arrows, the resection depth must be checked with a cutting check device. The tibia protection plate prevents damage to the tibia plateau.

11.

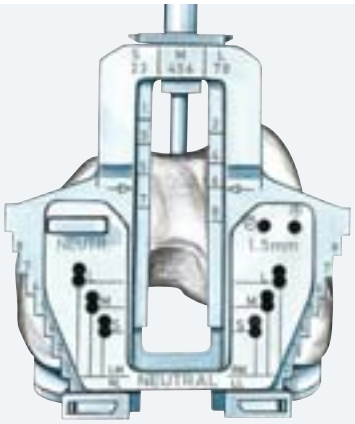


Determining the size of the femoral implant

After the distal resection, the femur orientation block with anterior stylus is placed on the distal resection surface, and the posterior condylar plates are brought into contact with the posterior condyles. The stylus must be positioned on the same point at the anterior cortex where it was prior to the distal resection.

The final size of the femoral implant is defined, according to the size readings of the AP and the mediolateral scale. If the result is a full size (e.g. 6), the fixation key must be positioned in the hole marked as "neutral". If it is an intermediate size (e.g. 5, 4), the fixation key may be positioned in one of the two holes marked "+" or "-" -1.5mm in order to prevent anterior femoral undercutting or any protrusion of the cortex. If "+" is chosen, the position of the drill holes for the fixation pins for the APC sawing block is shifted towards anterior by 1.5mm; if "-" is chosen, the same shift is applied towards posterior.
The box measure of the femoral implants increases by only 3mm from one size to the next, resulting in a maximum compromise of 1.5mm when choosing an intermediate size.

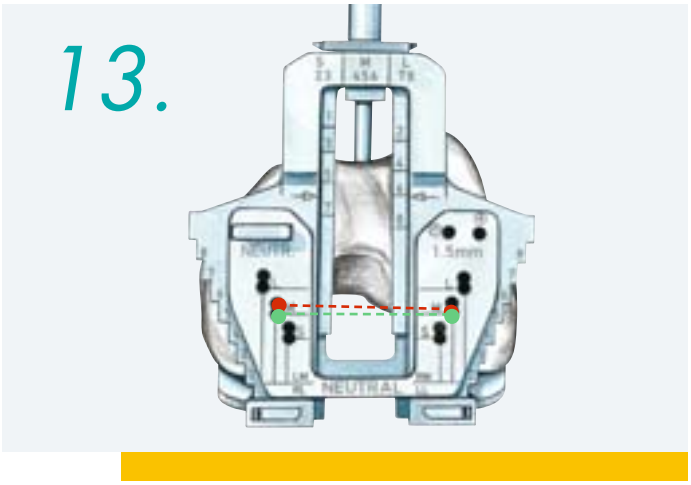
12.



Rotational alignment of the femur component

The two holes for the fixation pins of the APC cutting block can be drilled with the 2 drills with stop Ø 3.2mm (NE333R) parallel to the posterior condyles by choosing the lower holes (green points) for the respective size group (S, M or L).

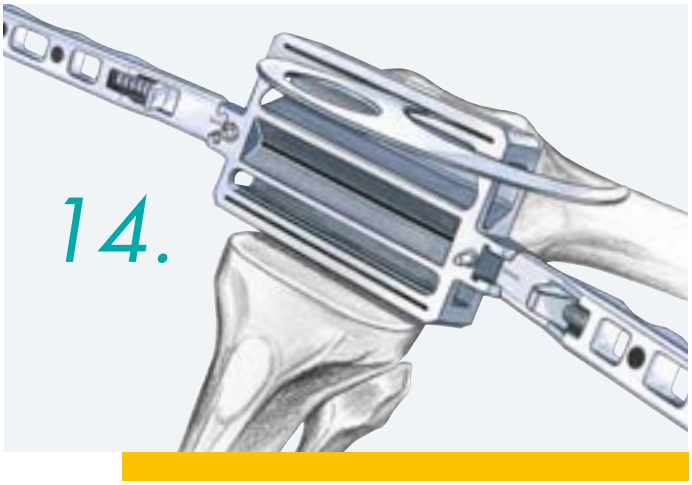
To achieve an external rotation of 3°, the surgeon may choose the lower hole on the lateral side and the upper hole on the medial side (red points).



Completing the femur resection

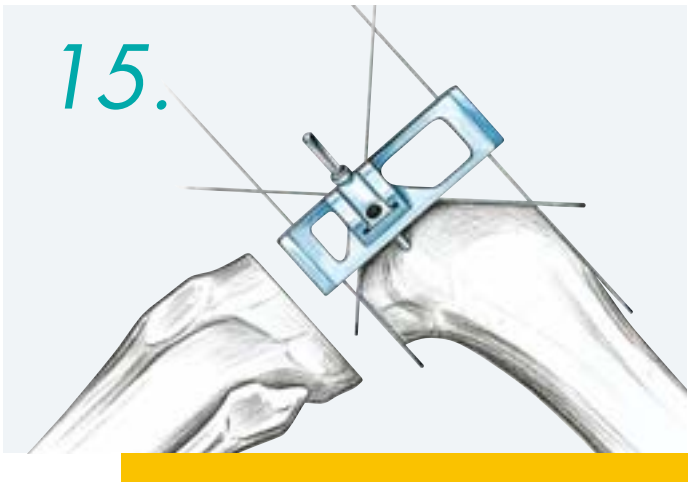
The pegs of the APC cutting block fixed in the two drill holes prepared previously, according to the femoral implant size chosen. The "ANT" marking for the anterior resection on the APC cutting block is visible. After this, the APC sawing block is fixed to the femur with the two universal handles and with two headed pins in the covergent holes.

Care must be taken that the APC sawing block is in good contact with the distal resection surface.



The cutting depth check plate is used for verfying the positioning and depth of the cuts prior to resection. It is advisable to use the tibia protection plate to avoid damaging the tibia plateau.

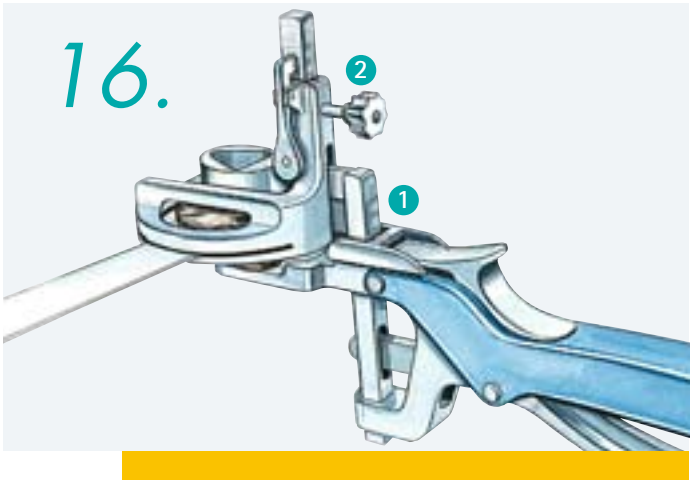
The four femur resections are carried out with a 1.27mm saw blade inserted into the cutting slits. The chamfer cuts are performed after the anterior and posterior cuts.



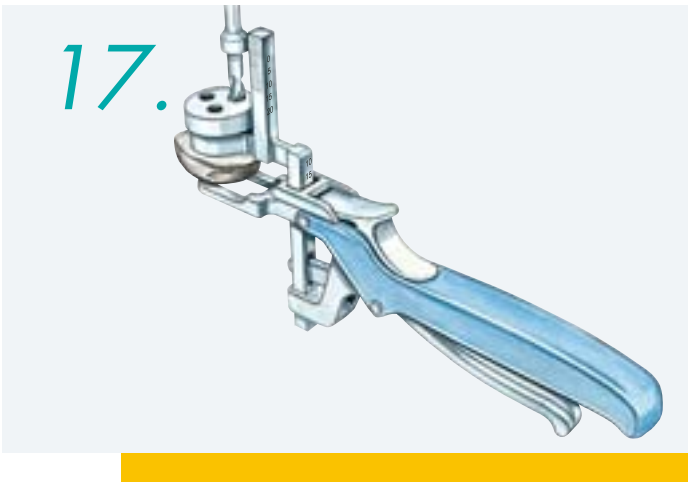
Patella preparation

1. With the patella forceps the thickness of the patella is measured.
2. After implanting the patella component, this thickness should not be exceeded. The choosen resection height can be adjusted at the forceps by means of a graduated scale.

The resection is performed through the cutting slit. The patella implant is chosen either with regard to the optimum bony coverage of the patella, or it is guided by the thickness of the resection performed. The original thickness should not be exceeded after implantation of the patella rear surface.



After resection the saw attachement is removed and the triple drilled sleeve is attached to the forceps. The holes for the pegs of the patella implant are drilled. The patella size is determined by using the trial patella implants as position and size of the patella pegs are the same for all sizes.

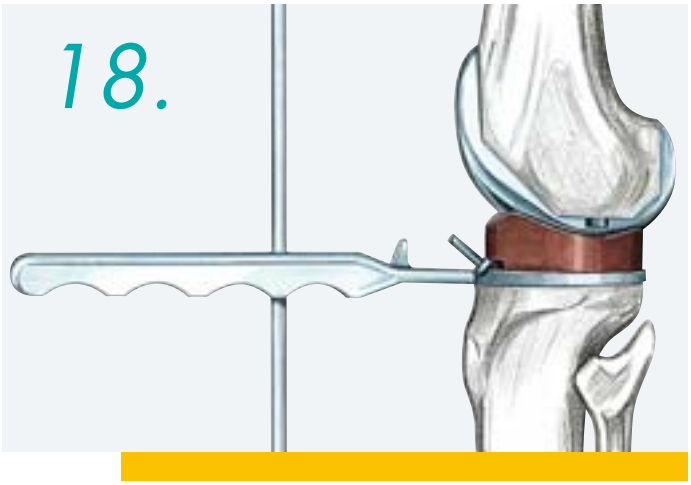


Trial reposition

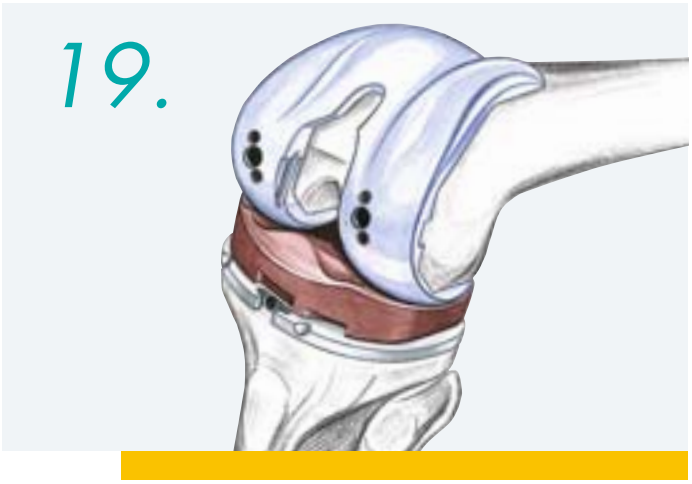
Initially, the tibia preparation plateau is coupled to the universal handle and positioned on the resection plane. After a meniscus component with size reference to the femur component is fixed on the tibia preparation plateau. Finally the femur implant is inserted and aligned mediolaterally.

Following this procedure it is advisable to test the entire joint function with the patella in its anatomical position or with a trial patella implant.

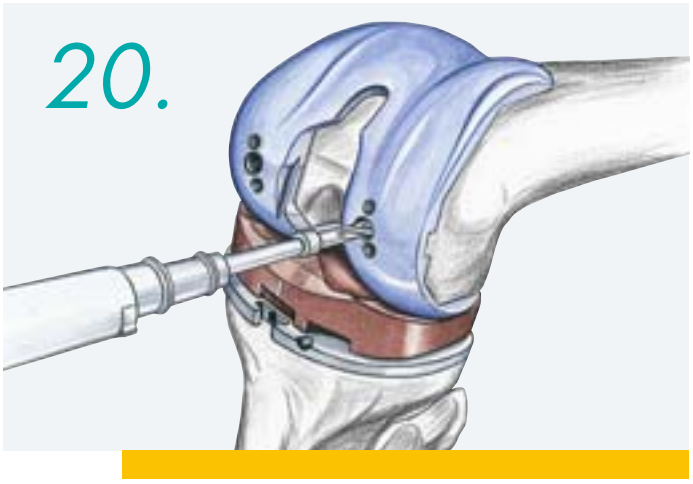
Alignment should be checked in flexion and extension by again inserting the extramedullary measuring rods into the handle attached to the tibial plateau. The position of the measuring rod is checked in relation to the midpoint of the femoral head and the ankle joint.



The rotational alignment of the tibia plateau is carried out with reference to the anterior marking. The latter should point to the medial third of the anterior tuberosity. The rotational alignment can also be carried out in a functional manner, with reference to the femur component, by moving the unfixed tibia plateau from extension to flexion. Internal rotation should be avoided under all circumstances.



Following the functional test of the joint, and the inspection of the medio-lateral position of the femoral trial implant, the peg holes of the final femoral implant can be drilled.



Tibia preparation

The tibia plateau is fixed in the desired position with short threaded pins with head. The correct size is chosen considering the best bony coverage of the resected plain. Additional stabilization is provided with the universal handle. The cylindrical drill guide with the desired diameter is positioned on the tibia preparation plateau. The holding clamp stabilizes the guide in position during the drilling process. The drill guides as well as the drills are available in diameter 10, 12, 14 and 16mm.

Tibia preparation without stem extension

The selection of the correct diameter of drill and drill guide depends on the size of the final tibia implant and the diameter of its wing stem.

Size Group S	(T1, T2, T3)	wing stem diameter of 12mm
Size Group M	(T3, T4, T5)	wing stem diameter of 14mm
Size Group L	(T7, T8)	wing stem diameter of 16mm

On the modular drills the first mark corresponds to the wing stem length. Please drill until the first mark is in line with the upper border of the drill guide.

Tibia preparation with stem extension

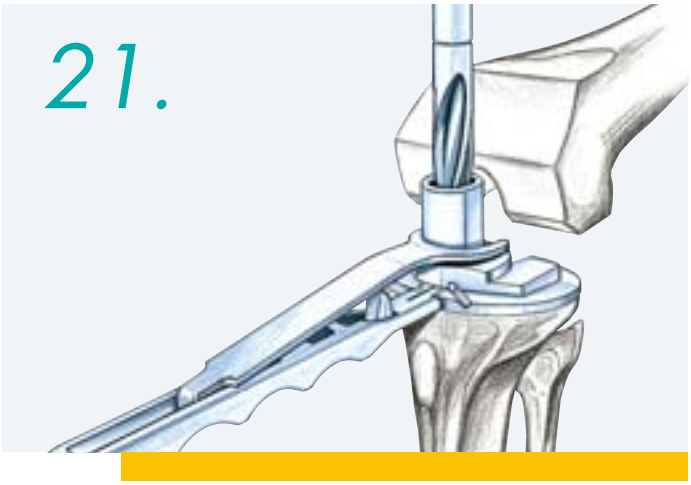
In case of a tibia preparation with the use of extension stems, the choice of the correct drill and drill guide diameter depends on the wing and the extension stem diameter. The e.motion product portfolio offers extension stems in 4 diameters (10, 12, 14 and 16mm) and 3 different lengths (Short: 52mm, Middle 92mm und Long 132mm).

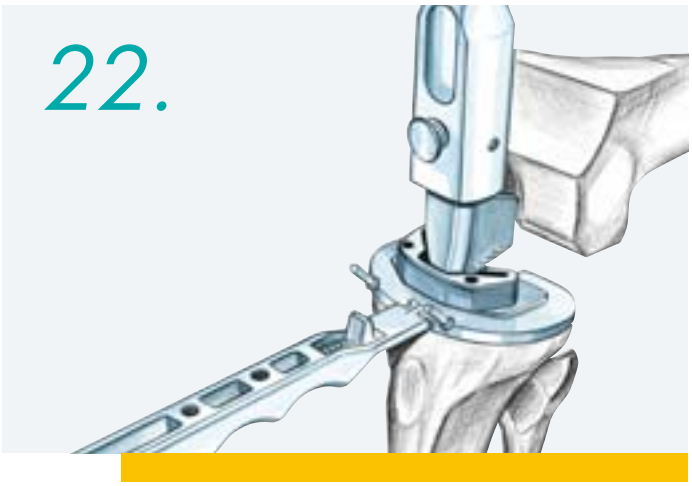
For the preparation of the wing stem (until the first mark) the diameter of drill and drill guide should correspond to the implant stem size. In cases where the intramedullary canal diameter is smaller, a drill with a smaller diameter is chosen to prepare the canal for the extension stem implantation. The drills have 4 different marks showing the wing stem, small, middle and long stem length.

- *Please note:*
  There is full interchangeability of stems and obturators between the sizes with reference to the threat connection.

For the preparation of the wings the size of the correct chisel is chosen and the corresponding chisel guide is positioned on the tibia preparation plateau. The wing chisel are available for the size group S (1, 2, 3), size group M (4, 5,6) and size group L (7, 8).

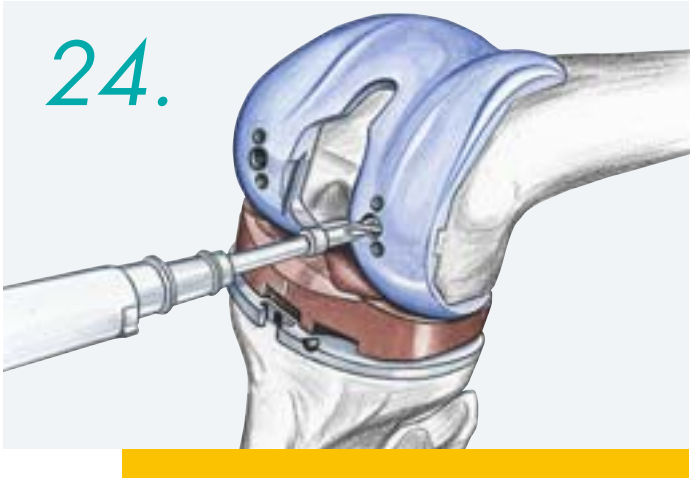
After the tibia preparation the modular trial implant can be inserted. The trial components consists of the trial plateau being suitable for left or right knees and the wing stem with the possibility to connect trial extension stem if needed. The modular trial implant is inserted with the help of an adapter that is fixed to the impaction handle.





Posterior stabilized PS version

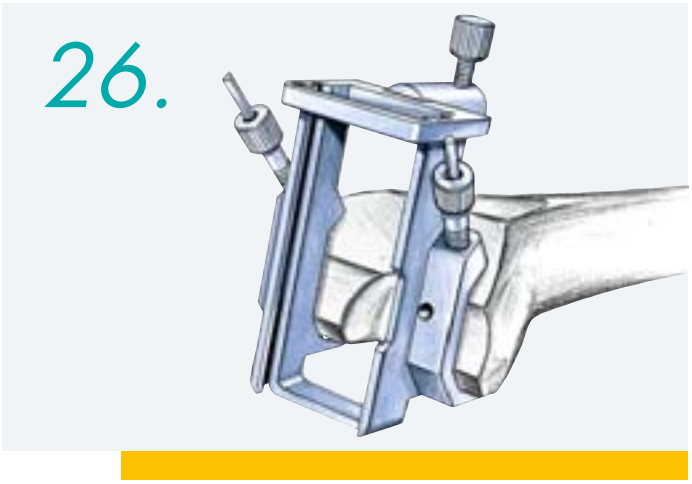
The holes drilled through the trial femur implant are used to fix the box preparation base to the femur. There is one box preparation base available for each femoral size group (S= 2,3 M= 4,5,6 L = 7,8). Before putting the base in place, the femur trial implant must be removed.



In case of the use of a posterior stabilized implant the medial-lateral orientation of the trial femur implant in the trial reposition step is decisive for the box preparation.

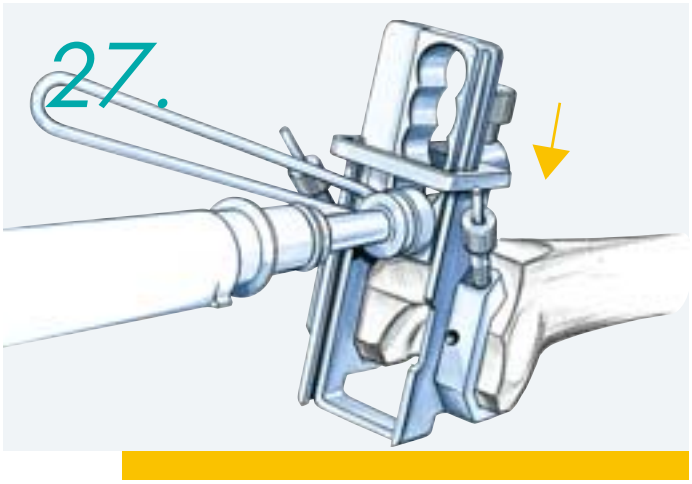
- *Please note:*
  For a proper alignment of the post-cam mechanism the final preparation of the tibia is recommended before the trial reposition and box preparation step.

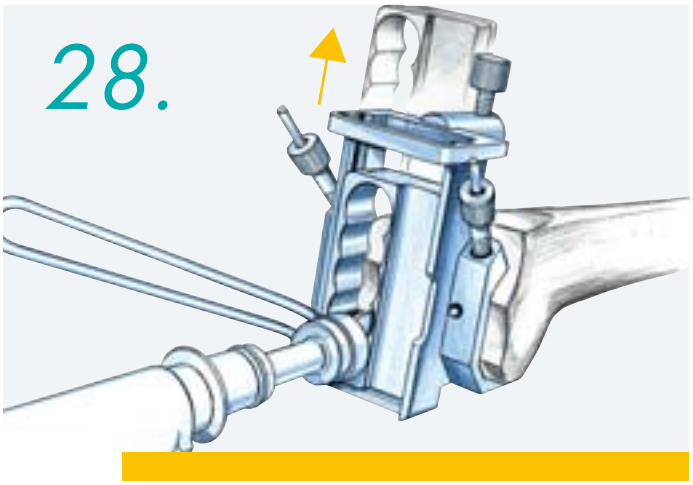
For fixation of the base to the femur the ventral clamping screw is fixed to the anterior cortex. Additional stability is obtained by introducing 2 convergent pins on the medial and lateral side of the base.



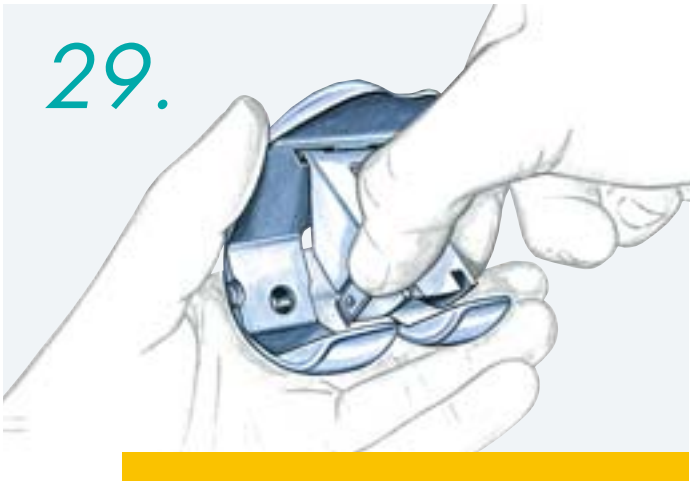
Milling templates are available for every femur size individually. The correct milling template is chosen and inserted into the preparation base. The milling procedure is done in two stages starting on the left stage. After performing the first stage, the milling template is removed, turned and inserted in the preparation base again. With the help of a guiding sleeve and the 15mm diameter cutter the box preparation can be performed directly cutting through the bone. In the case of hard or sclerotic bone several holes can be drilling before guiding the cutter directly through the prepared stage to smoothen the borders.

■ *Please note:*
When preparing and smoothening the box, the cutter must be guided in a clockwise direction.





For verification of the proper intercondylar preparation of the femur, the appropriated box is connected to the trial femur implant with the help of a special forceps or by pressing it in the foreseen space by hand.

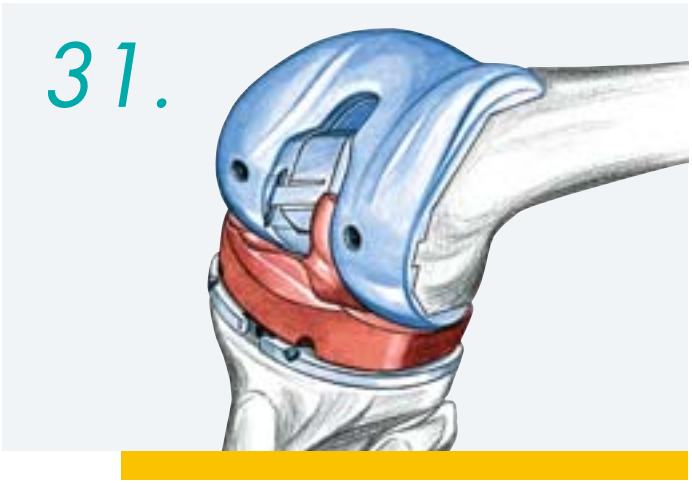


For the removal of the box from the femur trial implant the forceps is used.

After putting the trial femur and meniscal components implants in place, the quality of the preparation and the joint stability are checked in a functional test. The trial implants consists of the modular tibia implant (plateau, wing stem, extension stem if needed), the femur trial implant with connected box and the trial meniscal component in the desired height with post.

The trial PS meniscal components are available in 10, 12 and 14mm height. 2 additional complementary plate of 6 mm each can be connected to the trial PS meniscal components to reach the remaining heights of the available final PS meniscal component range.

meniscal component	complementary plate	trial component
10	1 x 6	16
14	1 x 6	20
12	2 x 6	24



Final Implantation

The e.motion femoral and tibial implants can be implanted with or without cement as desired. The surgeon makes the decision according to the bone quality of the patient.

Because of the precision and congruence of the resection surfaces and the implants, only a small amount of cement should be used. This is particularly important in the posterior regions of the femur and tibia implants e.motion FP and PS as well around the box in the case of e.motion PS to prevent cement getting into the periarticular gap.

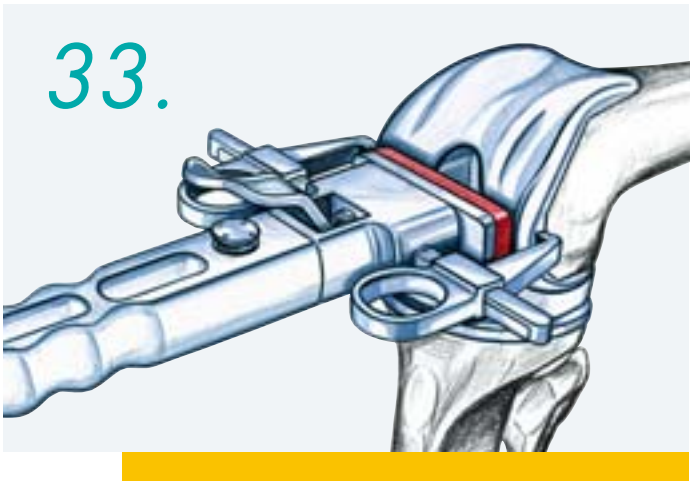
■ *Please note:*
In order to prevent third-body wear, any cement residues must be removed thoroughly.

The following implant sequence is recommended in the case of e.motion FP:

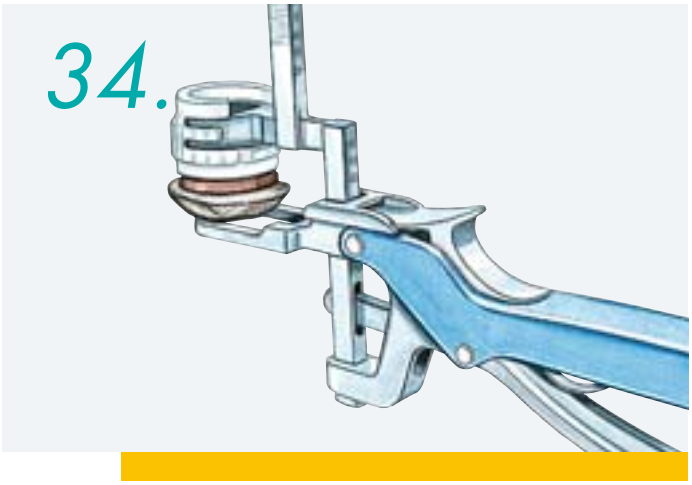
- Tibia implant
- Meniscal component
- Femoral component
- Patella implant

The tibia final implant is connected to the holding device and brought precisely into the predefined position using the impaction handle. The final positioning is done with the tibia impactor. After the meniscal component is placed in position.

With the same holding device using the correct insert, the femur final implant is brought into alignment and implanted. The femoral impactor is used to knock the implant into place. In case of no stem application for cemented PS femurs a closing clip for the femur box is available by request to prevent the leakage of cement into the joint articulation area (Art. No.: NB700P).



The patella is implanted using the patella preparation forceps and the concave plastic cap, which allows good transmission of forces during the cement hardening process.



The following implant sequence is recommended in the case of e.motion PS/CS:

- Tibia implant
- Femoral component
- Meniscal component
- Patella implant

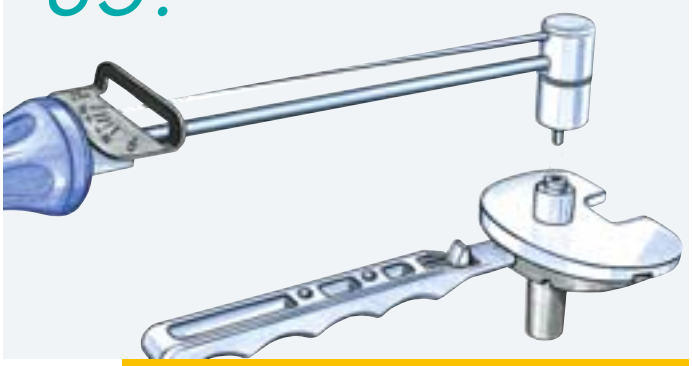
The modular tibia implant e.motion PS is connected to a obturator screw or an extension stem if needed. Screw and stem are fixed to the wing stem of the final implant with the tightening key in the appropriated diameter (10, 12, 14 or 16mm). Additionnally the bearing pin packed together with the meniscal component is screwed into the tibia plateau and fixed with a torque wrench applying 10 Nm. A scale at the instrument show the amount of force that is used.

In order to facilitate the handling, the tibia trial gliding surface mounted on the universal handle can be used as holding device for the final tibia implant assembling.

■ *Please note:*
The bearing pin is fixed to the tibia plateau with a torque wrench applying 10 Nm.

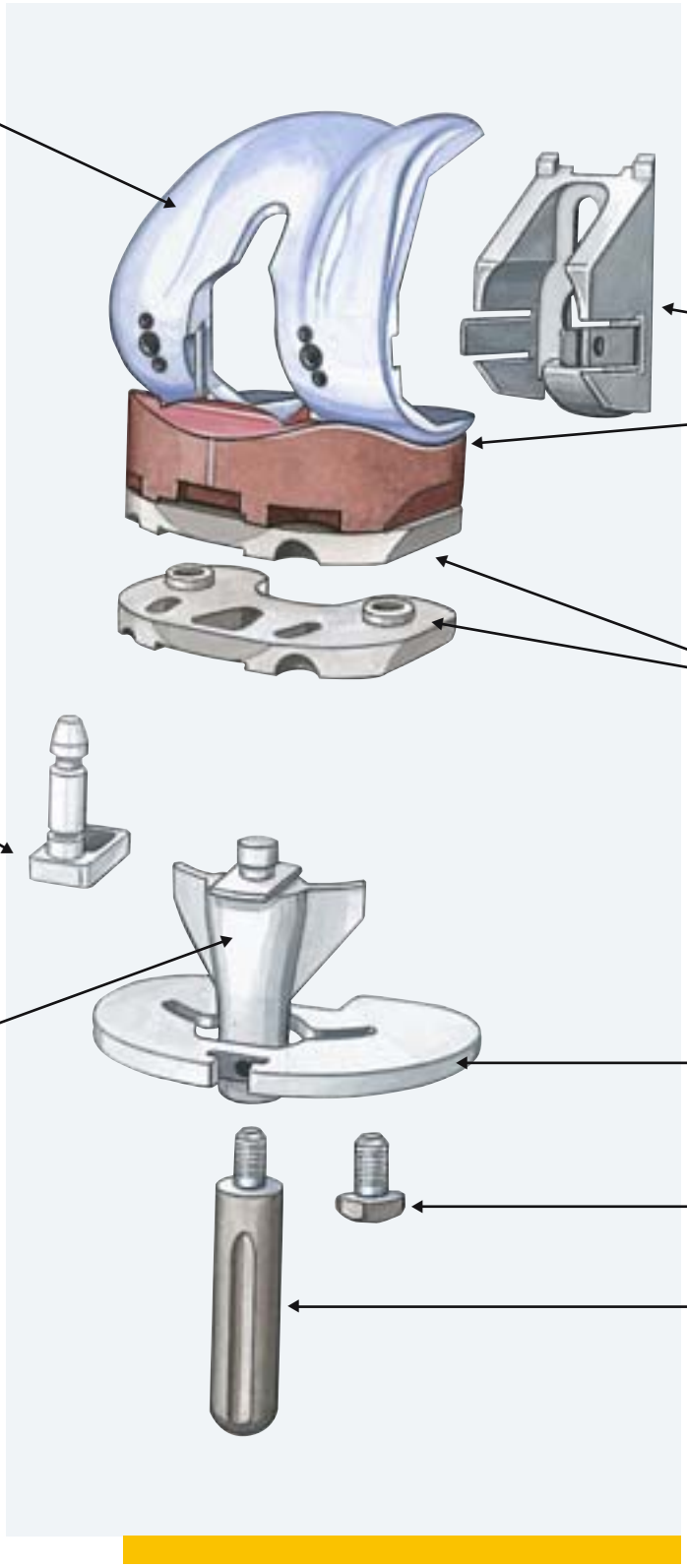
After the femoral implant is put into place with the help of the holding device and then the meniscal component.

35.



36.

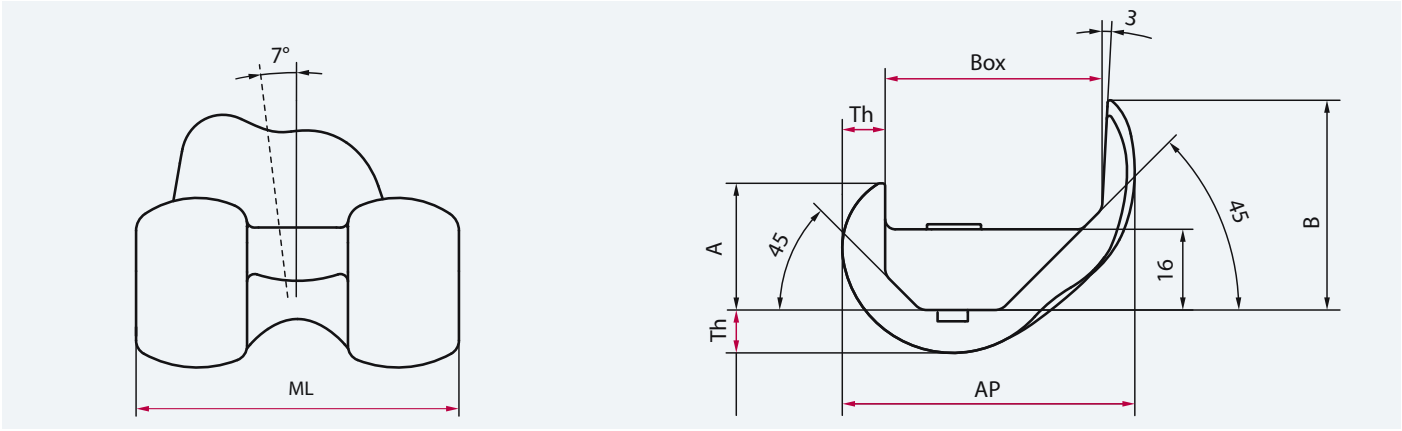
Overview trial implants



e.motion implant sizes

Femoral component

The table gives an overview on the most important dimensions of the e.motion femoral implants



Measurements in (mm)

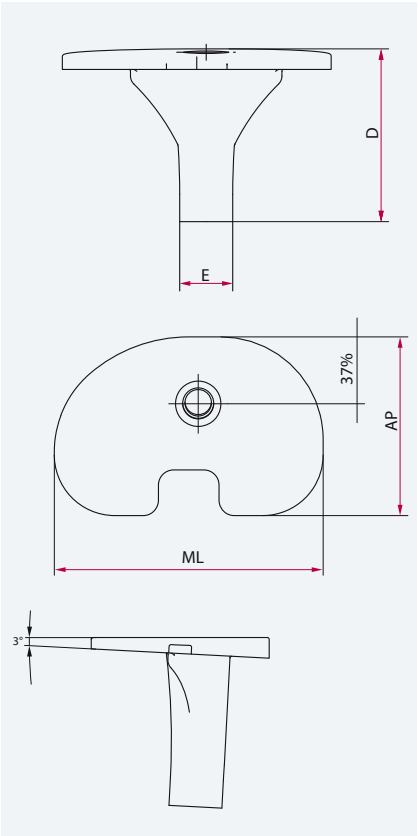
Size	ML	AP	Box	Th	Trochlear Depth
F2 L/R	56	49.9	37	7	4
F3 L/R	60	53.8	40	7	4.5
F4 L/R	64	58	43	8.5	4.5
F5 L/R	68	61.8	46	8.5	5
F6 L/R	72	65.6	49	8.5	5
F7 L/R	76	69.7	52	10	5.5
F8 L/R	80	73.8	55	10	6

Tibial component

The table gives an overview on the most important dimensions of the e.motion tibial implants

Measurements in (mm)

Size	ML	AP	AP/ML	D	E
T1 L/R	59	38	0.64	40	12
T2 L/R	63	41	0.65	40	12
T3 L/R	67	44	0.66	40	12
T4 L/R	71	47	0.66	45	14
T5 L/R	75	50	0.67	45	14
T6 L/R	79	53	0.67	45	14
T7 L/R	83	56	0.67	50	16
T8 L/R	87	59	0.68	50	16

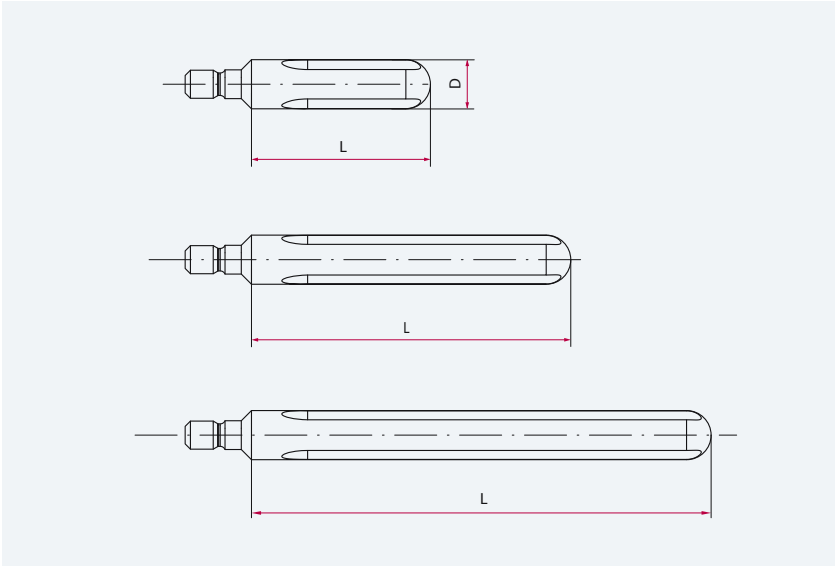


Tibia extension stem

The table gives an overview on the most important dimensions of the e.motion tibia extension stems

Measurements in (mm)

Size	L	D
Short	52	10, 12, 14, 16
Middle	92	10, 12, 14, 16
Long	132	10, 12, 14, 16

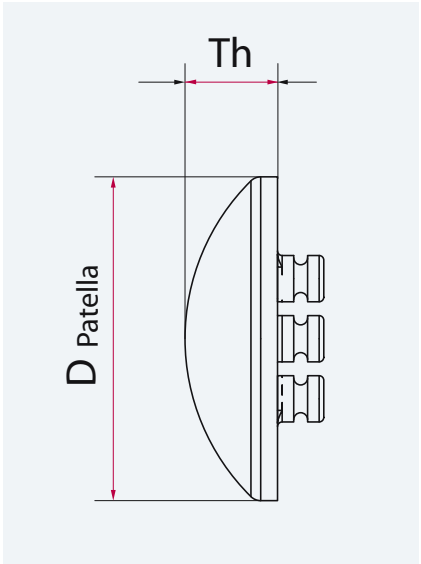


Patella component

The table gives an overview on the most important dimensions of the e.motion patella implants

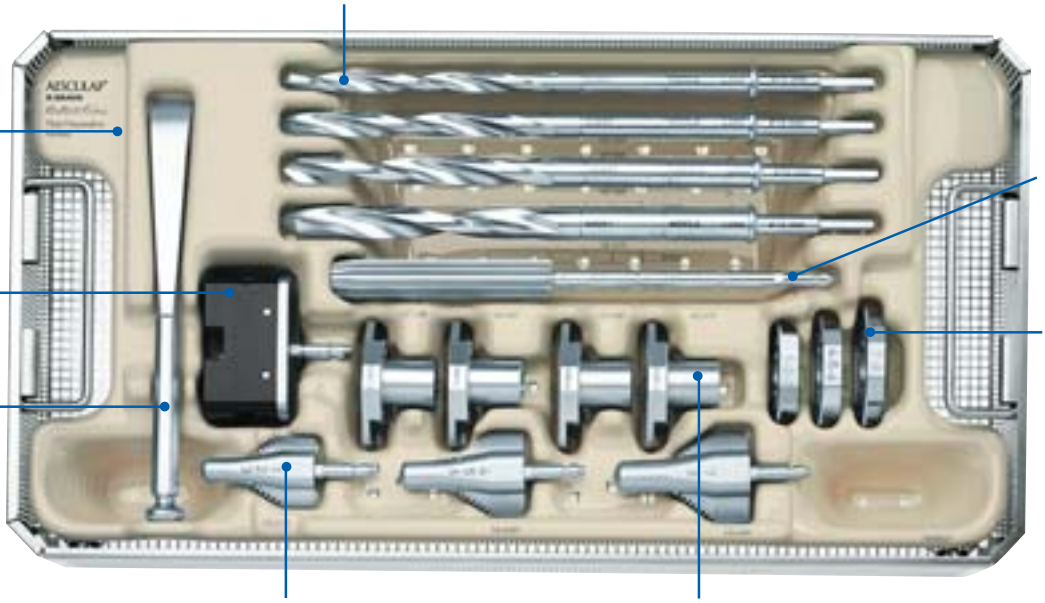
Measurements in (mm)

Size	D	Th
1	26	7
2	29	8
3	32	9
4	35	10
5	38	11
6	41	12



NE410 e.motion FP

NM982 Tibia Preparation Instruments



Drill
ø 10 mm: NE134R
ø 12 mm: NE135R
ø 14 mm: NE136R
ø 16 mm: NE137R

NM992P
Storage

NE382
Tibial impactor

FL556R
Chisel
20 x 203 mm

NE158R
Reamer ø 18 mm

Tibial winglet rasp guide
T1/T2/T3: NE434R
T4/T5/T6: NE435R
T7/T8: NE436R

Winglet rasp tibia
T1/T2/T3: NE437R
T4/T5/T6: NE438R
T7/T8: NE439R

Drilling guide
ø 10 mm: NE144R
ø 12 mm: NE145R
ø 14 mm: NE146R
ø 16 mm: NE147R

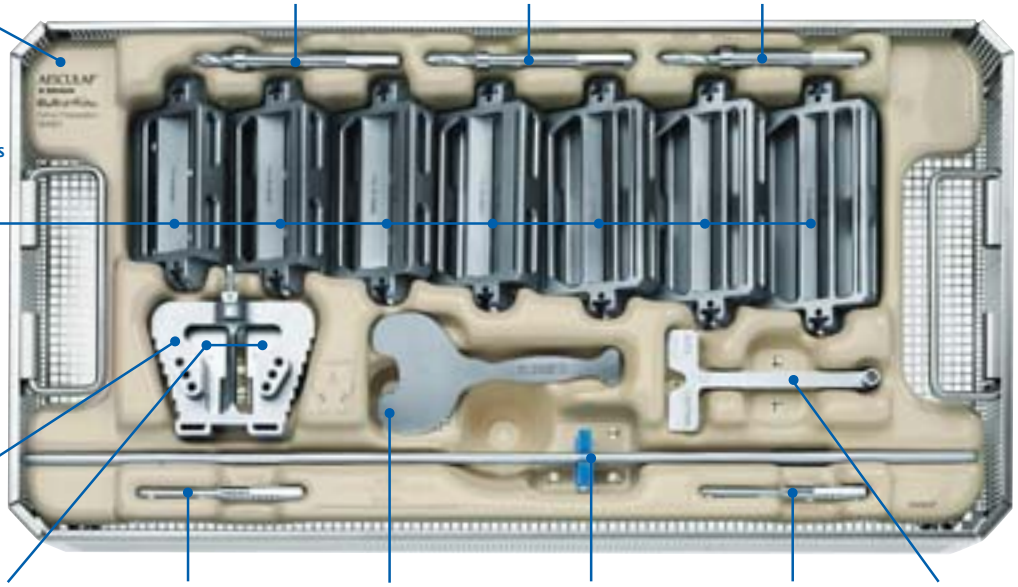
NM983 Femur Preparation Instruments

NM993P
Storage

NE457R
Drill with stop
ø 5 x 20mm
F1/F2/F3

NE458R
Drill with stop
ø 5 x 25 mm
F4/F5/F6

NE459R
Drill with stop
ø 5 x 30 mm
F7/F8



Cutting guides
A-P and chamfers
F2: NE512R
F3: NE513R
F4: NE514R
F5: NE515R
F6: NE516R
F7: NE517R
F8: NE518R

NE440R
Nav. femoral
orientating bloc

NE441RM
NE442RM
Posterior condylar
plate left and right

NE333R
Drill with stop,
ø 3,2 mm

NP741R
Tibia protect. plate

NP471R
NE331R (with shell)
Extramed. alignment
rod

NE333R
Drill with stop,
ø 3,2 mm

NE456R
Extramed. alignment
control plate

NM984 Trial Tibia Components (left/right)

NM994P
Storage

Trial modular tibial plateau
T2: NE612R
T3: NE613R
T4: NE614R
T5: NE615R
T6: NE616R
T7: NE617R
T8: NE618R

Tibial preparation plate, right
T2R: NE632R
T3R: NE633R
T4R: NE634R
T5R: NE635R
T6R: NE636R
T7R: NE637R
T8R: NE638R

Tibial preparation plate, left
T2L: NE532R
T3L: NE533R
T4L: NE534R
T5L: NE535R
T6L: NE536R
T7L: NE537R
T8L: NE538R

Trial keel
T1/T2/T3: NE187R
T4/T5/T6: NE188R
T7/T8: NE189R

Trial obturator
ø 12: NE105T
ø 14: NE106T
ø 16: NE107T

Trial extension stem short, middle and long
ø 10 mm, L 52 mm: NE114T
L 92 mm: NE094T
L 132 mm: NE124T
ø 14 mm, L 52 mm: NE116T
L 92 mm: NE096T
L132 mm: NE126T

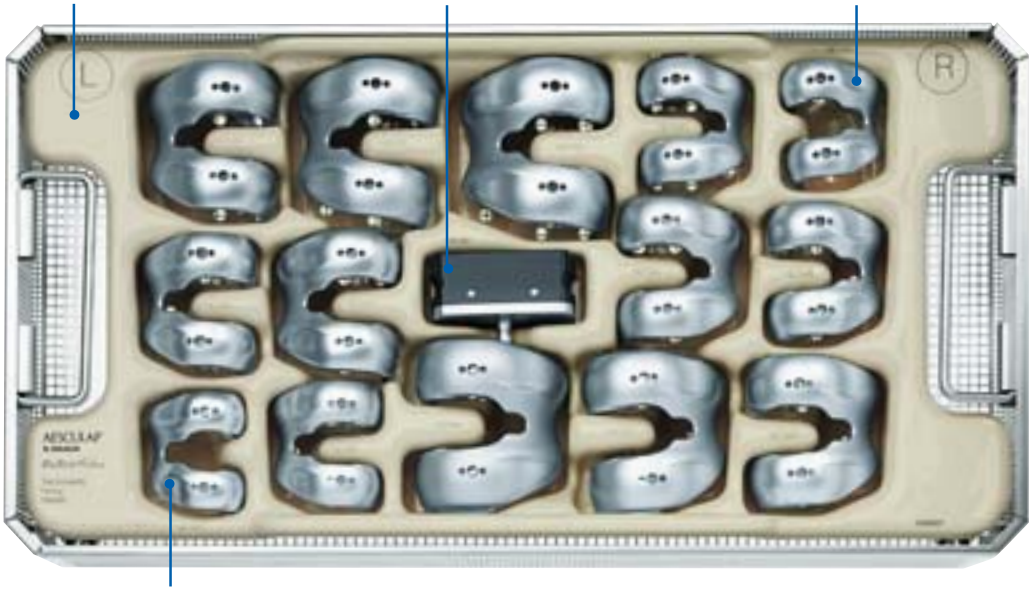
NP731R
Stem tightening key
ø 10 mm
ø 12 mm

NP732R
Stem tightening key
ø 14 mm
ø 16 mm

Trial extension stem short, middle and long
ø12 mm, L 52 mm: NE115T
L 92 mm: NE095T
L 132 mm: NE125T
ø 16mm, L 52 mm: NE117T
L 92 mm: NE097T
L132 mm: NE127T

NE186R
Impaction/extraction adapter

NM985 Trial Femur Components (left/right)



NM995P
Storage

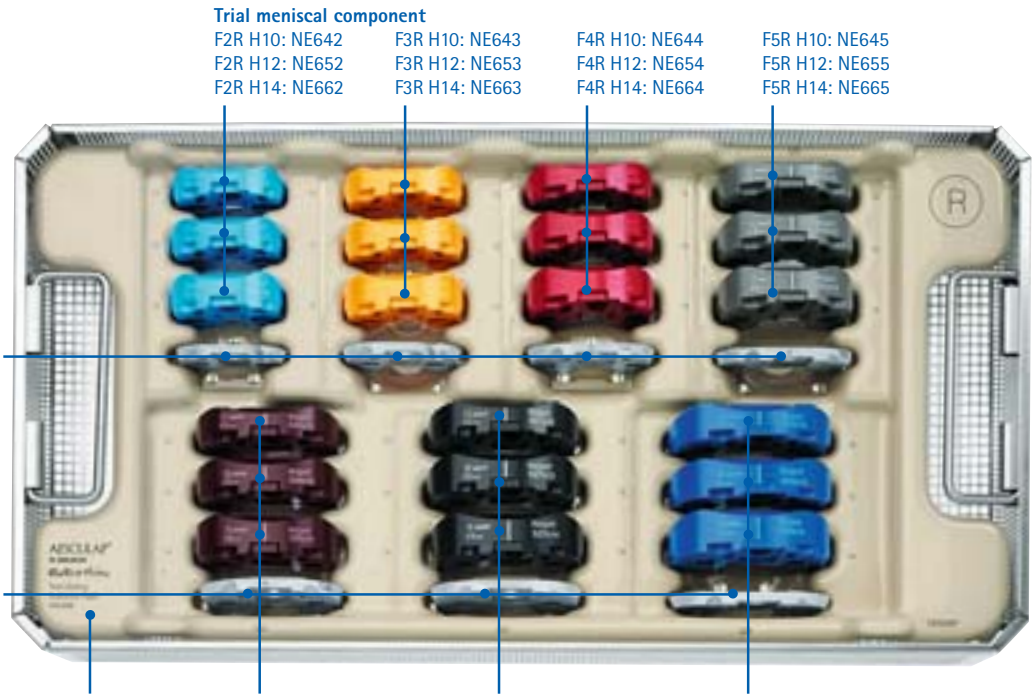
NE383
Femoral impactor

Trial femoral componant
F2R: NE752K
F3R: NE753K
F4R: NE754K
F5R: NE755K
F6R: NE756K
F7R: NE757K
F8R: NE758K

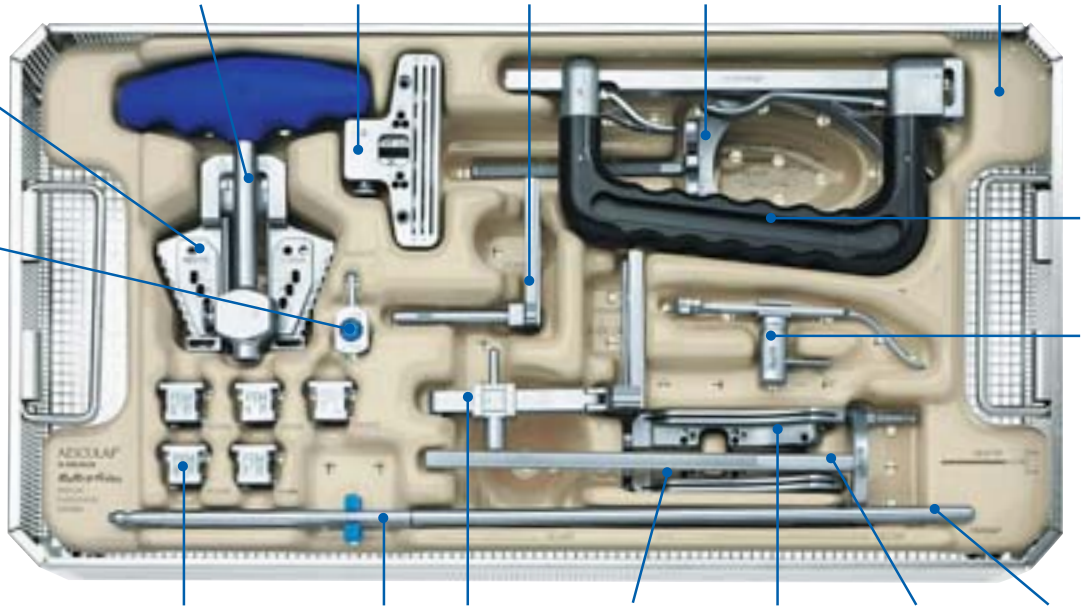
Trial femoral componant
F2L: NE702K
F3L: NE703K
F4L: NE704K
F5L: NE705K
F6L: NE706K
F7L: NE707K
F8L: NE708K

NM987 Trial Meniscal Components left

NM988 Trial Meniscal Components right



NM989 Manual Instruments



NE381 Modular T-handle

NE455R Femoral distal cutting guide

NE454R Holding device for distal cutting guide

NE421R Bimalleolar clamp

NM999P Storage

NE450R Femoral alignment block

NE451R Fixation key for femoral alignment block

NE420R Handle for extramed. alignment system

NE425R Tibial cutting guide stylus

Insert for femoral alignment block
5°: NE445R 7°: NE447R 9°: NE449R
6°: NE446R 8°: NE448R

NE443R Intramedullary drill ø 9 x 200 mm

NE453R Anterior femoral palpator

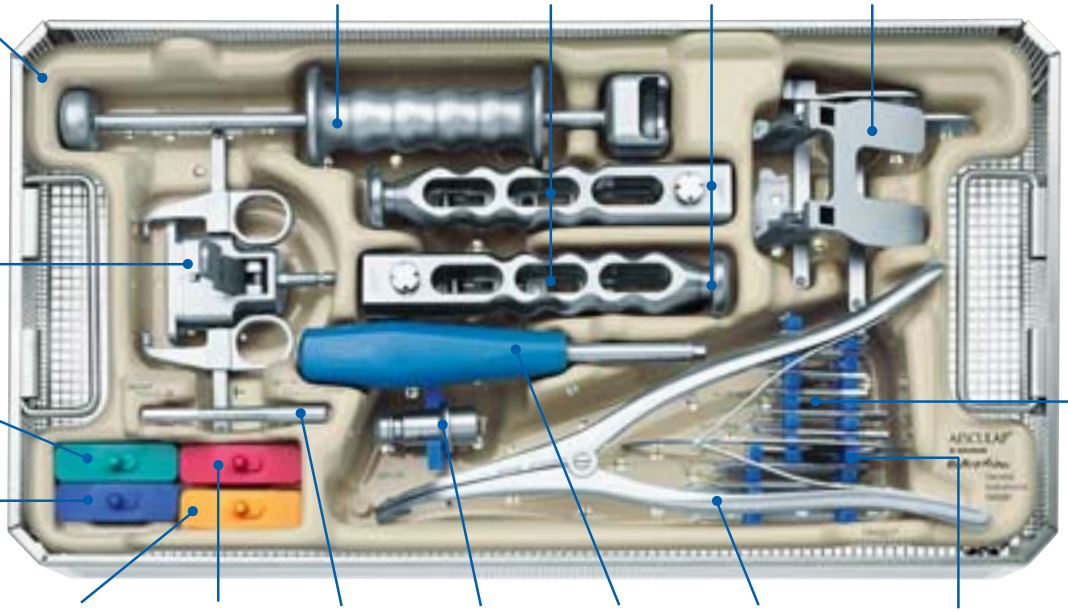
NE479R Asymmetric tibia cutting guide RM/LL

NE478R Asymmetric tibia cutting guide LM/RL

NE477R Holder f. asym. tibial cutting guide

NE376R Intramedullary rod ø 8 mm

NM990 General Instruments



NM991P Storage

NP684R Universal extractor

NE510R Removable handle

NE380T Impaction handle

NP604R Femoro-tibial distractor

NE330R Holding instrument

NE366 Femoral insert for holding instr. F1/F2/F3

NE368 Femoral insert for holding instr. F7/F8

NE369 Tibial insert for holding instr.

NE367 Femoral insert for holding instr. F4/F5/F6

NP613R Pin driver motor adapter

GB413R Hexagonal quick chuck

NP614R Manual pin driver

NP609R Distraction clamp

NM350R Cutting depth check plate

NP585R (4x) Threaded pin with head ø 3,2 x 30 mm

NP582R (4x) Threaded headless pin ø 3,2 x 38 mm

NP586R (4x) Threaded pin with head ø 3,2 x 50 mm

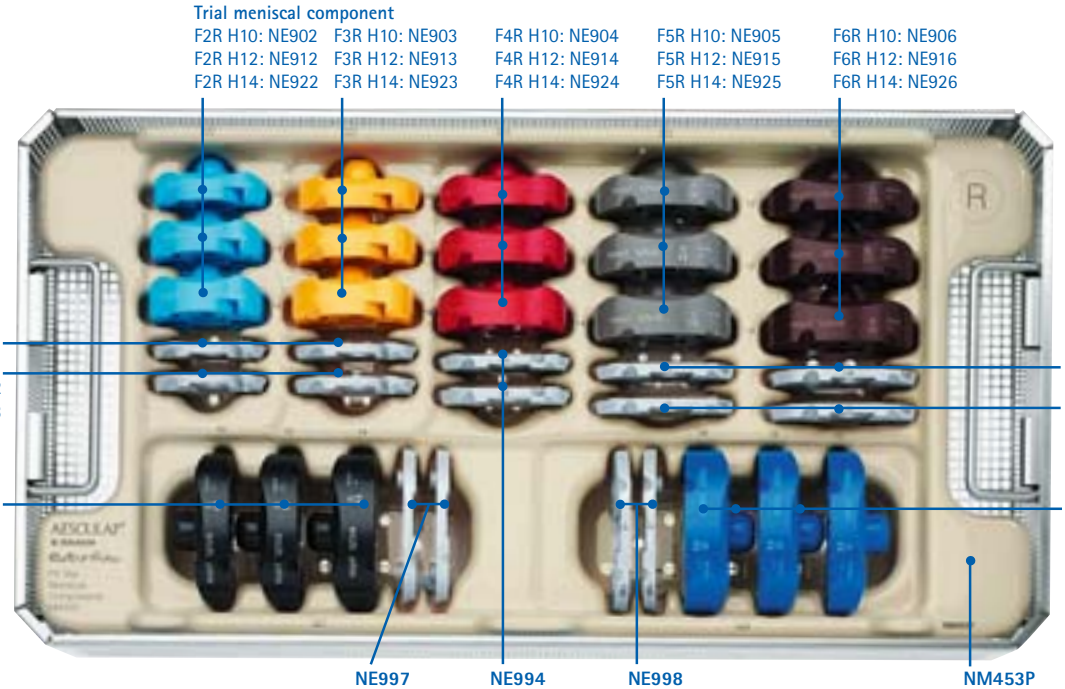
NP583R (6x) Threaded headless pin ø 3,2 x 63 mm

NP587R (2x) Threaded pin with head ø 3,2 x 75 mm

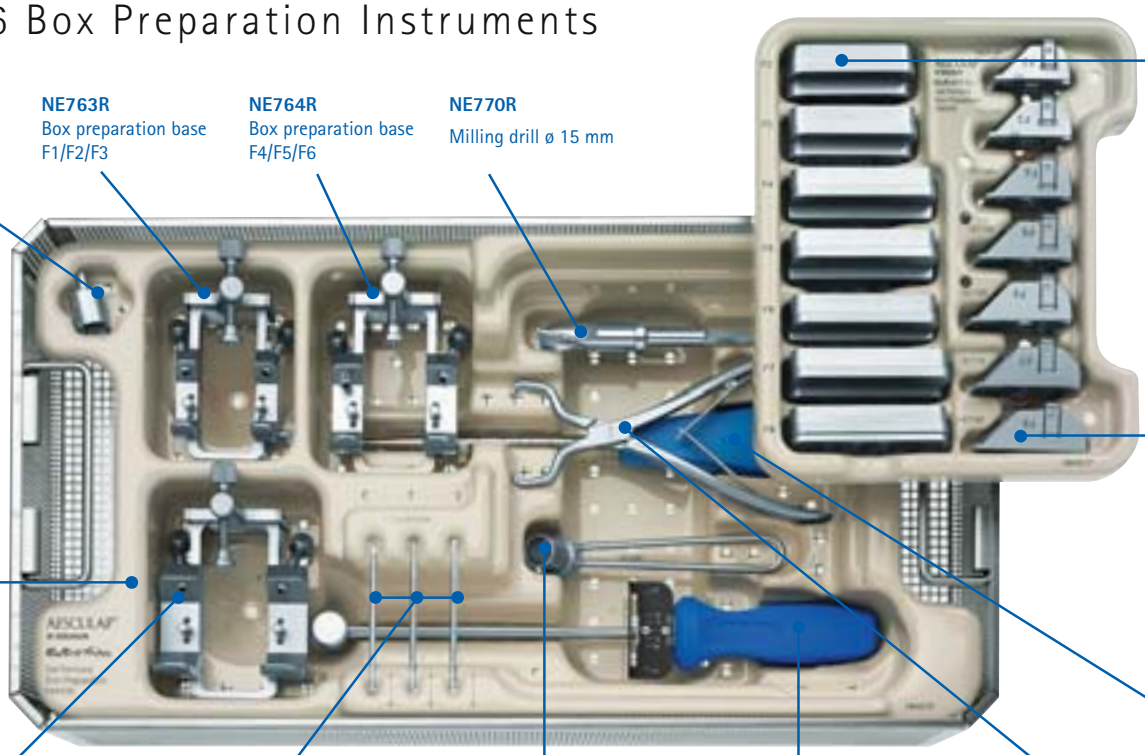
NM700 e.motion PS

NM450 Trial Meniscal Components left

NM450 Trial Meniscal Components right



NM456 Box Preparation Instruments



NE183R
Torque wrench adapter SW 3,5

NE763R
Box preparation base F1/F2/F3

NE764R
Box preparation base F4/F5/F6

NE770R
Milling drill ø 15 mm

Milling drill Template
Size 2: NE772R
Size 3: NE773R
Size 4: NE774R
Size 5: NE775R
Size 6: NE776R
Size 7: NE777R
Size 8: NE778R

Clickbox
F2: NE712R
F3: NE713R
F4: NE714R
F5: NE715R
F6: NE716R
F7: NE717R
F8: NE718R

NM457P
Storage

LS013R
Screw driver

NE765R
Box preparation base 7,8

NP583R
Threaded headless pin (3x) 3,2 mm x 63 mm

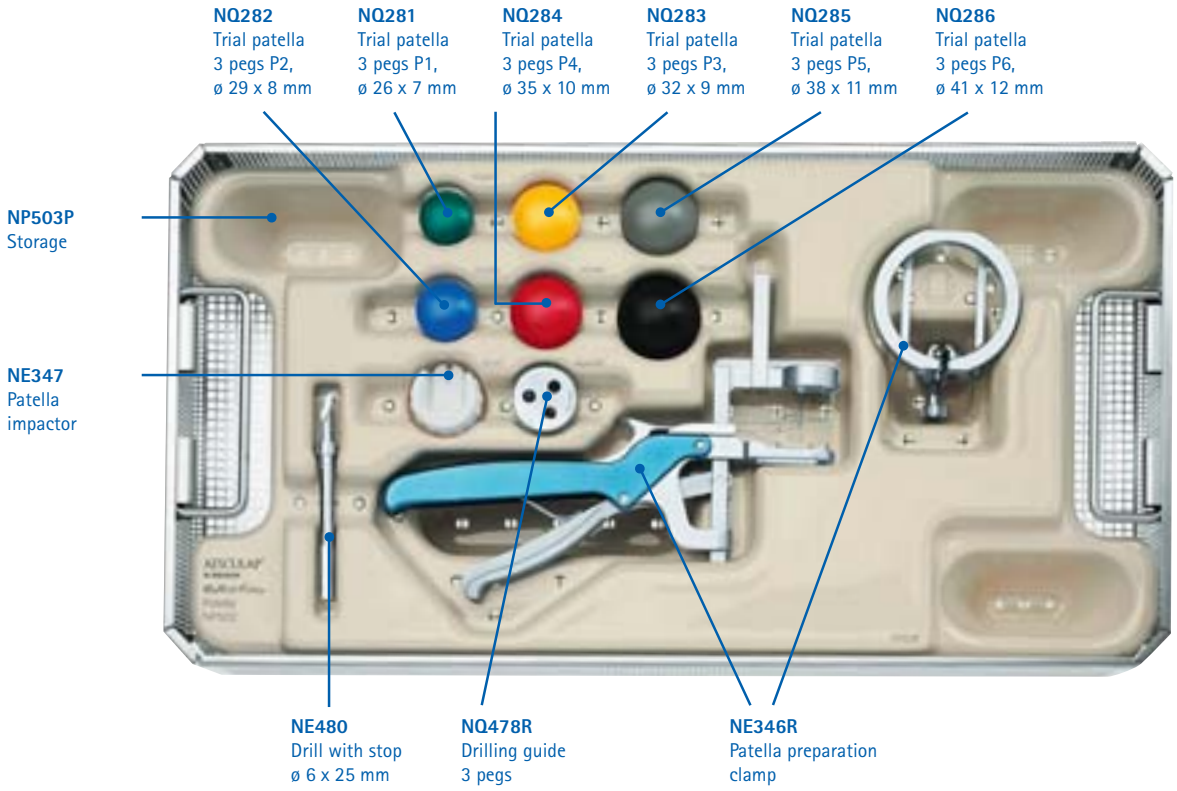
NE769R
Guiding sleeve ø 15 mm

NE184R
Torque wrench

NE710R
Forceps for clickbox

NP502 e.motion FP/PS

Patella Preparation Instruments



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