

aMP™

Advance®
Medial-Pivot Knee System
The ACL-PCL Substituting Knee

SURGICAL TECHNIQUE ODYSSEY® Distal Cut First Instrumentation



 **MicroPort**
Orthopedics
Integrity In Motion™

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ODYSSEY® Distal Cut First Instrumentation for the ADVANCE® Medial-Pivot Knee System

Surgical Technique

MicroPort Orthopedics recognizes that proper surgical procedures and techniques are the responsibility of the medical professional. The following guidelines are furnished for information purposes only. Each surgeon must evaluate the appropriateness of the procedures based on his or her personal medical training, experience, and patient condition. Prior to use of the system, the surgeon should refer to the product Instructions For Use package insert (144580) for additional warnings, precautions, indications, contraindications and adverse effects. Instructions For Use package inserts are also available by contacting the manufacturer. Contact information can be found on the back of this surgical technique and the Instructions For Use package inserts are available on wmt.com under the link for Prescribing Information.

Please contact your local MicroPort Orthopedics representative for product availability.

Introduction

ODYSSEY® instrumentation is designed to be applicable to both less-invasive and standard total knee procedures. Therefore, surgeons should employ the technique they are most comfortable with; be it medial parapatellar, subvastus or midvastus.

With the ODYSSEY® instrumentation, the preparation of the femur and tibia can be performed independently. This choice is left to the surgeon's discretion.

Within this surgical technique two instrument kits are described.

The K100KT70 kit has to be used for implantation of the cemented ADVANCE® tibial components, with the option of implanting a cementless or cemented keel.

The K100KT74 kit has to be used for implantation of the BIOFOAM® (cementless) ADVANCE® tibial components.

The K100KT65 is a kit integration which can be added to the K100KT70 for the specific preparation and implantation of the ADVANCE® BIOFOAM® tibial components.

Refer to Appendix E of this document for ordering information and detailed kits composition.

Medial Parapatellar Approach

*The Surgical Approach of Philippe Van Overschelde, MD, MSc
Hip & Knee Clinic AZ Maria Middelaers, Gent, Belgium*

Preparation – Incision – Exposure

The knee in extension, the medial and lateral margin of the patella is marked. A straight longitudinal line is drawn through the medial one third of the patella starting from approximately 2cm from the upper patellar pole to 1cm medial of the tibial tubercle.

The skin incision is performed with the knee in flexion. The subfascial dissection of the subcutaneous tissue is performed laterally in order to free the dorsal aspect of the patella. On the medial side only limited subcutaneous dissection is performed. Careful coagulation of the subcutaneous venous system is performed at this stage.

The arthrotomy is performed starting proximally in the vastus medialis 3mm medial from the medial border of the quadriceps tendon. It is continued distally leaving a cuff of tissue on the patella to facilitate closure. The incision is carried distally to the medial side of the medial tubercle. Be careful at this stage not to violate the patellar tendon. The upper medial tibial border is exposed by subperiosteal blunt release of the medial collateral and capsular complex. In extreme varus deformity a subperiosteal deeper release can be performed using an osteotome taking care to protect the medial collateral attachment at all times.



The knee is brought into full extension and a portion of the fat pad is excised. This opens the space behind the patellar tendon and relieves tension on the extensor mechanism so it can safely be mobilized during further surgery. Proximally any adhesions or scar tissue in the suprapatellar pouch are released by gentle blunt manual dissection. At this stage the thickness of the patella is measured.

The knee is brought to flexion again with the patella everted. At this stage a measured patellar resection is performed freehand. Next the patella is turned back and shifted to the lateral side of the femur to decrease tension on the extensor mechanism.

LIA infiltration – Closure

The LIA infiltration with a cocktail of long-acting local anaesthetic is performed in three steps before cementing the different components.

The knee is brought to flexion and the back of the knee exposed by introducing a laminar distractor. The posterior capsule is infiltrated first. The second step involves the infiltration of the anterior and lateral structures except the subcutaneous tissue.

At the end the subcutaneous tissue is infiltrated with a cocktail without adrenaline.

Closure of the muscle – tendon – capsule - synovial complex is performed in flexion in one stage with a running knotless, self-anchoring resorbable suture. The subcutaneous tissue is closed with interrupted resorbable sutures. Next the skin is closed with staples.



Subvastus Approach

The Surgical Approach of Brad Penenberg, MD

The skin incision generally follows the course of the traditional curvilinear median parapatellar skin incision. It is marked out approximately 1cm medial to the edge of the patella and patellar tendon. It extends to approximately 2-3cm above the upper border of the patella and down to the medial border of the tibial tubercle.

After making the skin incision, the dissection is carried medially, raising a medial skin flap, and identifying the lower border of the vastus medialis obliques (VMO) muscle. A longitudinal capsular incision is then made at the medial edge of the patellar tendon. It extends from approximately 5mm inferior to the level of the VMO insertion into the patella to the level of the tibial tubercle. A tonsil-type clamp is placed within the joint, and the “subvastus limb” of the capsular incision is then made. The incision is carried from lateral to medial approximately 5mm below the edge of the muscle; taking care to avoid the origin of the medial collateral ligament.

Traditional upper-medial tibial exposure is then completed with resection of one third to one half of the anterior portion of the medial meniscus. An osteotome is used to raise a superosteal flap along the upper medial tibial border; taking care to preserve the medial collateral ligament attachment. The knee is brought into full extension and a portion of the fat pad is excised. This helps to open the space behind the patellar tendon and above the tibial tubercle. Next, with the knee held in maximum extension, the VMO and entire extensor mechanism are mobilized. A finger is placed within the joint with the knee in full extension to feel the first level of constraint, which is either the remaining lateral capsule inferior to the medial most edge of the VMO or the synovial reflection. As these structures are released, the VMO begins to mobilize. The next tethers along the border of the muscle are palpated from within and above. Care is taken as the muscle is freed from soft tissues medially and proximally. This is always performed with gentle blunt manual dissection and need not be carried very far proximally. The required mobilization should not extend anywhere near Hunter's canal. A right angle retractor is placed under the skin, but above the muscle, and the Scarpa's fascia is typically palpated at this point and released to further mobilize the extensor mechanism and allow translation of the patella. With the knee in full extension, once the patella can safely be mobilized along the lateral femoral condyle, adequate VMO mobilization has been achieved.

Midvastus Approach

The Surgical Approach of Michael Anderson, MD

Outline the superior aspect of the patella and its medial and lateral margins. In addition, mark the tibial tubercle and medial and lateral margins of the patellar tendon. With the knee extended, a transverse line is made at the superior pole of the patella. The knee is then flexed and a transverse line is drawn at the mid-lower aspect of the tibial tubercle. The skin incision runs between those two transverse lines slightly medial to the midline over the patella. Skin and subcutaneous tissue are divided, followed by the deep retinacular fascia. The arthotomy incision progresses from approximately the two o'clock position on the patella (for a left knee) to split the vastus medialis 1½ to 2cm in line with its fibers. The incision is then brought down the medial retinacular area; leaving a cuff of tissue on the patella medially to facilitate closure and improve tracking postoperatively. The incision is then carried distally to the tibial tubercle. The infrapatellar fat pad is removed as necessary for visualization. A deep MCL release is performed, and the anterior third of the medial meniscus is removed as needed for initial visualization. A "Z" retractor is placed on the proximal medial tibia to protect the MCL. At this point, any adhesions or scar tissue in the suprapatellar pouch are released to allow the patella to shift to the lateral side of the femur. A planned medial patellar facet excision is sometimes used to facilitate exposure of the distal femur.



Indications

MicroPort Orthopedics Total Knee Systems are indicated for use in knee arthroplasty in skeletally mature patients with the following conditions:

1. noninflammatory degenerative joint disease including osteoarthritis, traumatic arthritis, or avascular necrosis;
2. inflammatory degenerative joint disease including rheumatoid arthritis;
3. correction of functional deformity;
4. revision procedures where other treatments or devices have failed; and treatment of fractures that are unmanageable using other techniques.

ADVANCE® 913 Medial-Pivot Tibial Base and Insert Components are for use with bone cement.

Porous-Coated Total Knee Replacement Components are for use without bone cement.

Contraindications

Patients should be warned of these contraindications. Contraindications include:

1. overt infection;
2. distant foci of infections (which may cause hematogenous spread to the implant site);
3. rapid disease progression as manifested by joint destruction or bone absorption apparent on roentgenogram;
4. skeletally immature patients;
5. cases where there is inadequate neuromuscular status (e.g., prior paralysis, fusion and/or inadequate abductor strength), poor bone stock, or poor skin coverage around the joint that would make the procedure unjustifiable.

Use with stainless steel bone screws is contraindicated.

IMPORTANT: Please consult Instructions For Use package insert 144580 for additional risk information.

Device Description

Threaded Pins



Powered wire driver

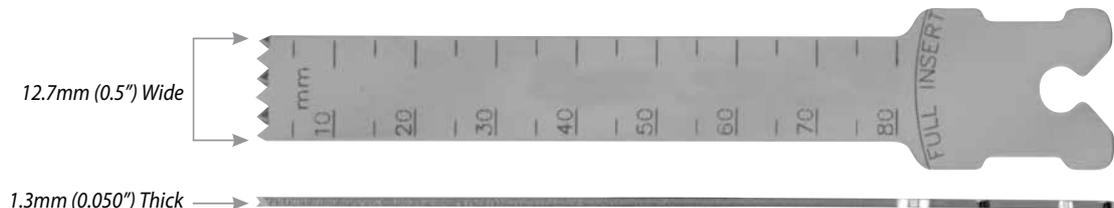
If 3.2mm (1/8") threaded pins (K0001288) are to be utilized, a powered wire driver is recommended to speed pin insertion and facilitate extraction. When utilizing the threaded pin driver (K0001205), load it into a high-speed drill instead of a reamer for faster pin insertion and extraction.



Threaded pin driver (K0001205)

Saw Blades

All ODYSSEY® femoral and tibial resection guides are designed for use with a 1.3mm (0.050") thick saw blade. Narrow MicroPort Orthopedics 12.7mm (1/2") wide saw blades are recommended (1871131).



MicroPort Orthopedics narrow saw blade

In case of a different connection with the available power system is required, please refer to the list of PNs below:

- FNMZ07123: de souter and linatec sawblade 19.5mm
- FNMZ07245: de souter and linatec sawblade 12.7mm
- FNMSO625127090: large saw stryker system 6
- FNMSO611127090: small sawblade stryker system 6

1. Patella Preparation

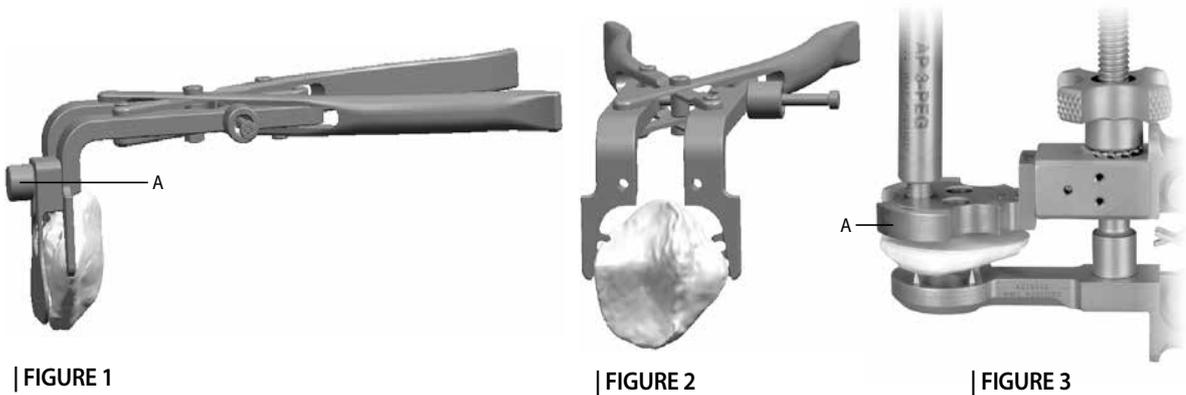
NOTE: Instead of utilizing a clamp for patellar resection some surgeons prefer a non-instrumented technique.

With the leg extended, the patella is tilted to almost a 90° angle. The thickness of the patella is measured with the patella sizing caliper (18410213). The 8mm resection depth gauge (K0031041) is attached to the top of the resection guide (K0031040) with the lock screw. | **A** in **FIGURE 1** Position the resection guide jaws parallel to the articular margin and securely clamp the guide to the bone; ensuring the gauge is contacting the apex of the articular surface. Remove the gauge and locking screw and make the patellar resection. The amount of bone to be resected is determined by trying to replicate with the patellar implant the thickness of the original patella and leaving at least 12mm of bone. | **FIGURE 2**

NOTE: The patellar peg holes may also be prepared after the tibial and femoral resections.

After having removed the resection guide, attach the appropriate drill guide (K0031002 for the tri-peg patella or K0031004 for the central peg patella) to the patellar clamp (K0031000). | **A** in **FIGURE 3** The drill guides have grooves on their surfaces indicating the patellar diameter options. The appropriate tri-peg (K0031013) or central peg reamer (K0031005) is used to prepare the peg hole(s).

NOTE: The tri-peg patellae have the same peg patterns between sizes and can be easily changed during trial reduction.



| FIGURE 1

| FIGURE 2

| FIGURE 3



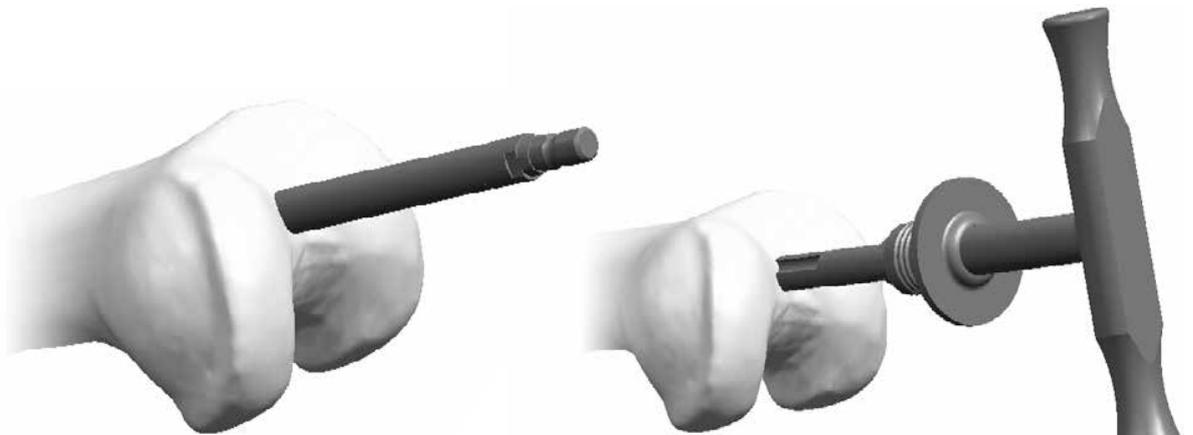
2. Preparation of the Distal Femur

Starter Hole Preparation

Initiate an opening in the femoral canal with the 9.5mm (3/8") diameter drill bit (K0001022). The hole may be placed slightly medial and anterior to the intercondylar notch. | **FIGURE 4**

Alignment Rod Insertion

Insert the fluted IM reamer/rod (K0001101) into the femoral canal, being sure to irrigate and aspirate several times to reduce the chance of a fat embolus. Turn the reamer during insertion with the T-handle (K0001016). | **FIGURE 5**



| **FIGURE 4**

| **FIGURE 5**


9.5mm (3/8") Diameter Drill Bit
K0001022


T-handle Reamer
K0001016


IM Reamer Rod
K0001101

Distal Femoral Resection

NOTE: All ODYSSEY® femoral resection slots are designed for use with a 1.3mm (0.050") thick saw blade. Narrow MicroPort Orthopedics 12.7mm (1/2") saw blades are recommended (18711131).

Distal resection blocks are available in 9mm, 11mm, and 13mm (K0012652/653/659). Load the appropriate distal resection block onto the distal resection paddle (K0017420) and lock them together by sliding the locking button to the right.

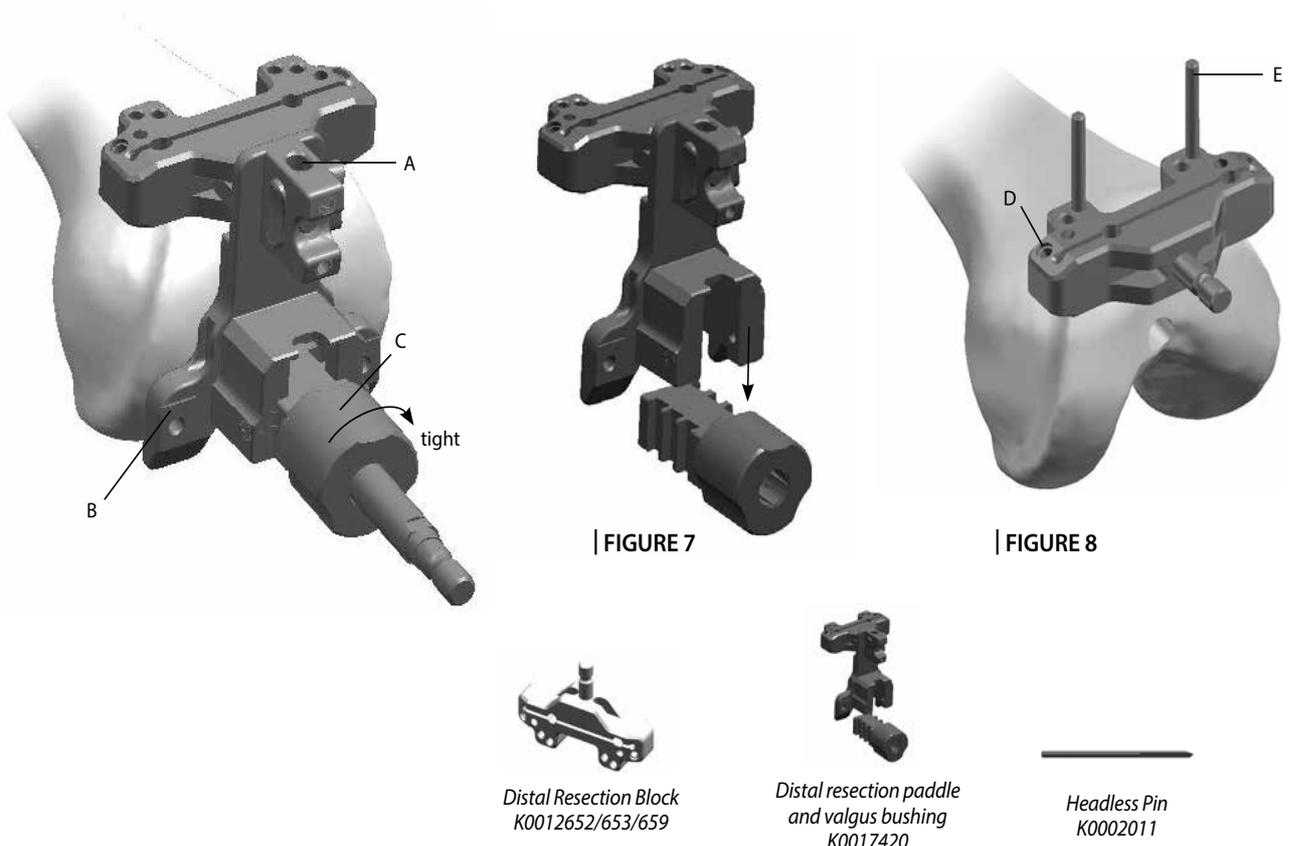
| **A in FIGURE 6** Insert the distal resection paddle onto the valgus bushing (K0017420). | **FIGURE 7** The valgus bushing has both a "Left" and "Right" side, and has three slots which allow 3°, 5°, or 7° of valgus. Ensure the "Left" side of the bushing is superior for a left knee and the "Right" side is superior for a right knee. Slide the valgus alignment bushing down the IM rod (K0001101) until the distal resection paddle rests against the unresected prominent distal condyle.

Although rotation is not critical at this step, the distal resection paddle features two lines which may be aligned with the epicondyles. | **B in FIGURE 6** Lock the valgus alignment bushing to the rod by turning the knurled knob until it is tight. The knurled knob is highly geared. Only 1/4 turn allows to lock the jig rod.

| **C in FIGURE 6**

Pin the block to the anterior cortex with two headless pins (K0002011) through the "Std" holes. Additional fixation pins may be added through the divergent holes. | **D in FIGURE 8** Slide left the locking button to detach the resection block and remove the IM rod, distal resection paddle and valgus bushing.

Instrument Tip: If the pins are left too proud, they may impinge on the saw and prevent full saw penetration (E in Figure 5).



Distal Resection Block
K0012652/653/659

Distal resection paddle
and valgus bushing
K0017420

Headless Pin
K0002011

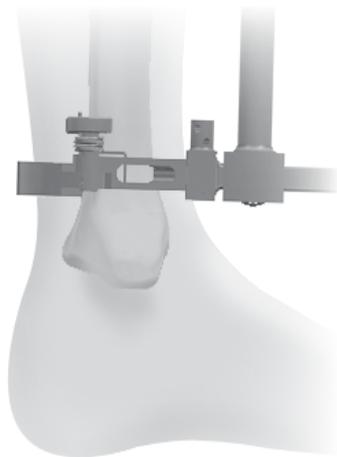
3. Tibial Preparation

NOTE: The ODYSSEY® tibial resection guides are designed for use with a 1.3mm (0.050") thick saw blade.

3a. Extramedullary Tibial Resection

Position the ankle clamp of the extramedullary (EM) tibial resection guide (K0040116) against the lower leg just proximal to the malleoli. | **FIGURE 9** In case a more stable initial fixation is required, the EM tibial resection guide can be assembled using the spiked component (K0040110). Slide the appropriate left or right tibial resection guide (K004007L/K004007R) onto the guide and adjust the guide until the resection slot is located a few millimeters below the lowest articular surface. | **FIGURE 10** When the vertical axis of the guide is parallel to the mechanical tibial axis, it is positioned for a 3° posterior sloped resection. Attach the external alignment guide (K0040052) and slide the alignment rod (K0000901) through the appropriate TL or TR (Tibia Left or Tibia Right) hole. If the rod is parallel to the tibia, 3° slope is confirmed. | **FIGURE 11**

For an anatomically sloped resection, place the dual reference gauge (K0014407) or a saw blade in the cutting slot and adjust the long axis of the EM guide by loosening the ankle screw and pulling the distal end of the guide away from the ankle. Adjust the guide until the cutting slot angle matches at least the anatomic slope of the tibia. | **FIGURE 11**



| **FIGURE 9**



| **FIGURE 10**



| **FIGURE 11**



EM Tibial Resection Guide
K0040116



Spiked Component
K0040110



Tibial Resection Guide
K004007L/K004007R



External Alignment Guide
K0040052



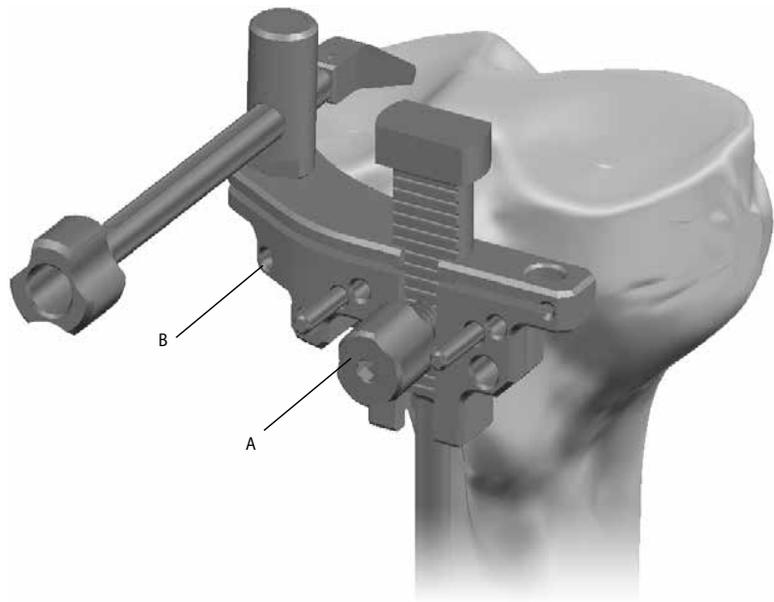
Dual Reference Gauge
K0014407



Alignment Rod
K0000901

Drop the 2mm/10mm stylus (K0040042) into one of the holes on the resection guide and turn the resection guide adjustment knob | **A in FIGURE 12** until the proper resection is found. | **FIGURE 12** Generally the stylus is set to resect 2mm from the most deficient side and/or 10mm from the most prominent. Pin the resection guide to the proximal tibia through the "std" holes. The alignment guide and rod can be used to check alignment to the ankle. If the resection guide is detached, it can be moved distally 2mm if headless pins are used. Use of a divergent pin is recommended to prevent the resection block from vibrating off the pins during resections. | **B in FIGURE 12**

NOTE: The top surface of the resection guide can be used to resect the tibia and is 4 mm proximal to the distal surface of the captured slot.



| **FIGURE 12**



*2mm/10mm Stylus
K0040042*

**option if additional
kit K913KT01
is used**

Extramedullary Tibial Resection (Optional)

Optional extramedullary tibial cutting instruments are available. The tibial guides within this additional set are available in both Left and Right crossheads and allow for an increased fine-tuning of the tibial crosshead resection depth.

Assemble the appropriate left or right tibial resection guide (APA02291/APA02290) into the ankle clamp (APA02295). Position the ankle clamp against the lower leg just proximal to the malleoli. The ankle clamp is asymmetrical: make sure it is oriented according to the operated side by having the Right or Left marking oriented upwards.

Check the alignment to the mechanical axis of the tibia and then adjust the guide until the resection slot is located few millimeters below the lowest articular surface.

| FIGURE 13

When the vertical axis of the guide is parallel to the mechanical tibial axis, it is positioned for a 0° posterior slope resection. For an anatomical sloped resection, place the dual reference gauge (K0014407) or a saw blade in the cutting slot and adjust the long axis of the guide by loosening the ankle screw and pulling the distal end of the guide away from the ankle. Adjust the guide until the cutting slot matches at least the anatomical slope of the tibia. | FIGURE 14



| FIGURE 13



| FIGURE 14

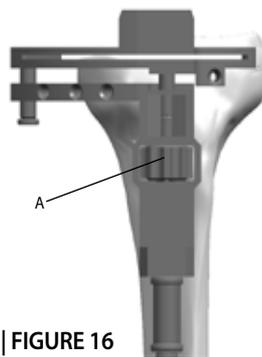


| FIGURE 15

The correct height of the cut is determined based on preoperative x-ray templating and intraoperative status of the ligaments. A stylus is also available to help in determining the resection level. Drop the stylus (APA02294) into the resection guide hole: the stylus is set to resect 2mm from the most deficient side when it is positioned with the 0mm arm towards the tibial plateaux. It also features a 10mm arm which can be used to check the most prominent side. | FIGURE 15

Set the guide to the 0mm position to start. The height of the cut can be further fine tuned by turning the proximal knob of the guide. | A in FIGURE 16 By rotating the knob clockwise, the guide moves down.

For a proper stabilization of the guide, the spiked fixator (APA02288) can also be used. | FIGURE 17



| FIGURE 16



| FIGURE 17



Stylus
APA02294



Spiked Fixator
APA02288

Pin the resection guide to the proximal tibia. An extra divergent pin can be used to prevent the resection block from vibrating off the pins during resections.

3b. Intramedullary Tibial Resection (Optional)

The 9.5mm (3/8") drill bit (K0001022) is used to penetrate the proximal tibia just posterior to the tibial ACL footprint. Insert the fluted IM reamer/rod (K0001101) into the tibial canal with the help of the T-handle (K0001016). | FIGURE 18 Irrigate and aspirate several times to reduce the chance of a fat embolus. The reamer/rod should be inserted to at least the mid isthmus. Slide the tibial alignment guide (K0027445) onto the IM reamer/rod and insert the appropriate tibial resection guide (K004007L/K004007R). | FIGURE 19 Turn the locking screw to lock the guide to the IM reamer/rod. | A in FIGURE 19 Use of a divergent pin is recommended to prevent the resection block from vibrating off the pins during resections. | B in FIGURE 19

9.5mm (3/8") Diameter Drill Bit
K0001022

IM Reamer Rod
K0001101

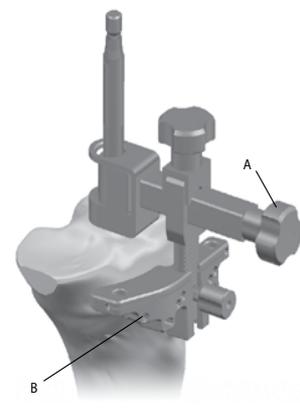
T-handle Reamer
K0001016

Tibial Alignment Guide
K0027445

Tibial Resection Guide
K004007L/K004007R

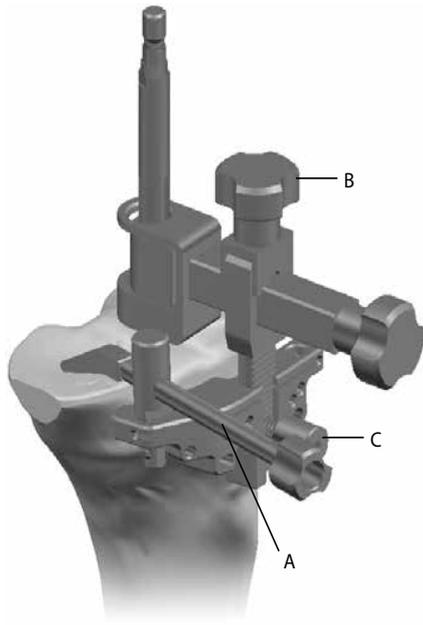


| FIGURE 18

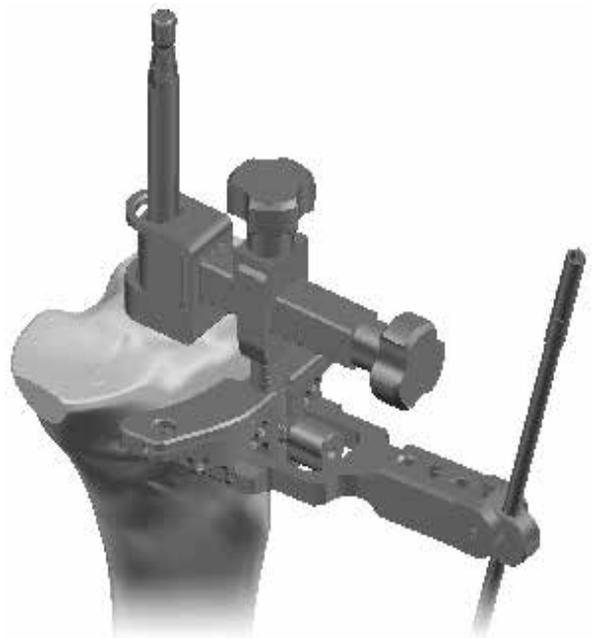


| FIGURE 19

Drop the 2mm/10mm stylus (K0040042) into one of the holes on the resection guide to set the desired level of tibial resection. | **A** in **FIGURE 20** Generally the stylus is set to resect 2mm from the most deficient side and/or 10mm from the most prominent. Pin the resection guide to the proximal tibia through the “std” holes. Before inserting a divergent pin, loosen the A/P adjustment knob and move the resection guide as close as possible to the tibia. | **B** in **FIGURE 20** To detach the guide, loosen the resection guide knob | **C** in **FIGURE 20** and extract the IM reamer/rod and alignment guide together. When the resection guide is detached from the guide, the block can be moved 2 mm distally if headless pins are used. Varus/valgus angulation can be checked to the ankle using the external alignment guide and rod (K0040052 and K0000901). | **FIGURE 21**



| **FIGURE 20**



| **FIGURE 21**



External Alignment Guide
K0040052



Alignment Rod
K0000901



2mm/10mm Stylus
K0040042

4. Extension Gap Measurement

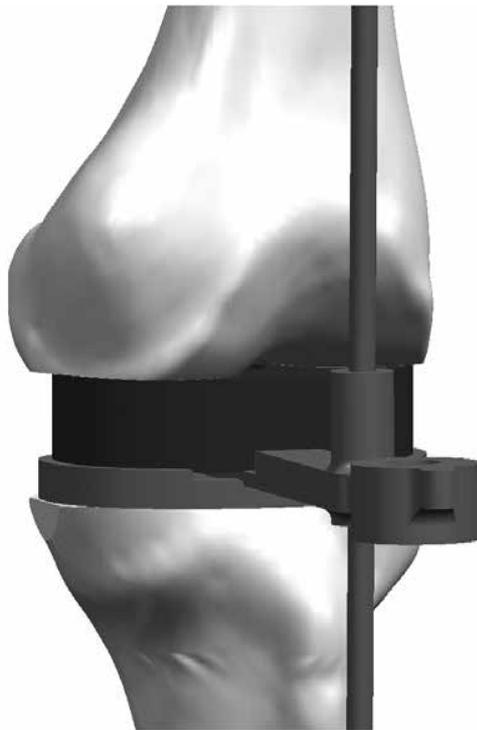
**option if
kit K100KT70
is used**

The extension gaps are measured following the tibial and the distal femoral resections. Select the appropriate tibial base (KTIBSL10-KTIBSL60) and mount it on the tibial base handle (K0021012). With the knee fully extended, insert the 10mm spacer block (K0003010) into the space between the femur and tibia. If the spacer block does not fit in extension additional bone resection might be required (see Figure 33). Use progressively thicker spacer blocks (K0003012-K0003025) until the appropriate tension is obtained. Slide the external alignment rod (K0000901) through the hole to check alignment.

| **FIGURE 22**

If the 10mm spacer block does not fit, use the minus 2mm spacer block (K0003002) to determine the amount of additional bone resection required to achieve full extension.

NOTE: The spacer block size indicates the thickness of the appropriate tibial insert. The thickness of the femoral condyles, tibial base and tibial insert are built into the spacer block and tibial tray assembly thickness.



| **FIGURE 22**



**option if
kit K100KT74
is used**

The extension gaps are measured following the tibial and distal femoral resections. With the knee fully extended, insert the 10mm spacer block (K0071012) into the space between the femur and tibia. If the spacer block does not fit in extension additional bone resection might be required (see Figure 33). Use progressively thicker spacer blocks (K0071012-K0071417) until the appropriate tension is obtained. Slide the external alignment rod (K0000901) through the hole to check alignment. | **FIGURE 23**

NOTE: The spacer blocks indicate the thickness of the appropriate tibial insert. The thickness of the femoral condyles, tibial base, and tibial insert are built into the spacer block thickness.



| **FIGURE 23**



*10/12mm and 14/17mm Spacer Blocks
K0071012-K0071417*



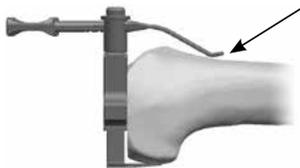
*Alignment Rod
K0000901*

5. Femoral Sizing and Rotation

NOTE: The caliper must be set for the appropriate knee. For example: If used on a right knee, the “Right” marking must be facing the observer and the “Left” marking should be against the bone. To set the caliper for the opposite knee, remove the posterior feet, rotate the caliper and reinsert the feet.

Place the sizing caliper (K0014627) flush against the resected distal femur. Adjust the size so the posterior feet rest against the posterior condyles. The stylus (K0012660) should be pushed proximally until it “clicks”. Each click represents one femoral size. The stylus should be pushed until the number of clicks equals the suspected femoral size (femoral size is presumed based on preoperative templating). The stylus size markings are read at the point where the stylus enters the back of the stylus holder. | **A** in **FIGURE 24**. The tip of the stylus should touch the most prominent aspect of the anterior cortex just proximal to the lateral anterior condyle. While performing this check, pay attention to not push on the caliper.

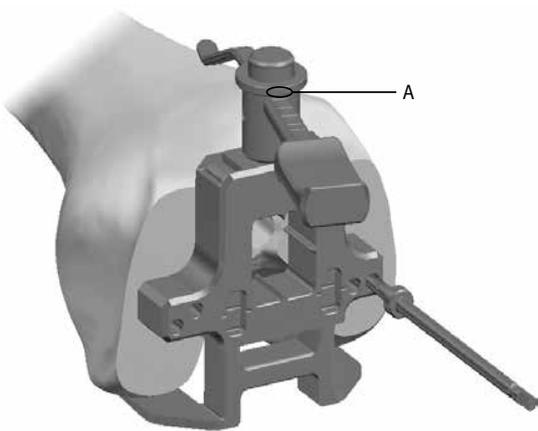
Precision Pointer



Make sure the caliper rests flat on the distal surface.

The femoral size is read through the windows in the anterior face of the sizing caliper. The resection block preparation holes are drilled through the 3° holes with the 3.2 mm (1/8”) drill bit (K0001017) which features a collar at the correct depth. | **FIGURE 25** This sets 3° of external rotation relative to the posterior condylar axis.

In the severe varus or valgus knee, the posterior condylar axis may not be a reliable reference for femoral rotation. Instead rotation may be set visually referencing the epicondylar line. If rotation must be set visually, the caliper features a central window with crosshairs. Remove the posterior feet and, with the caliper resting on the distal resection, the crosshair window should be aligned to the epicondylar line. | **FIGURE 26** Once aligned, the peg holes are drilled through the 0° holes. Once holes are drilled, remove the sizing caliper and stylus assembly.



| **FIGURE 24**



| **FIGURE 25**



Medial | **FIGURE 26** Lateral



Sizing Caliper
K0014627



3.2mm (1/8”) Drill Bit
K0001017



Sizing Stylus
K0012660

Precision Pointer



Ensure with the dual reference gauge that there is no anterior notching before resection.

6. Anterior and Posterior Resections

NOTE: Take care to protect the collateral ligaments during resections.

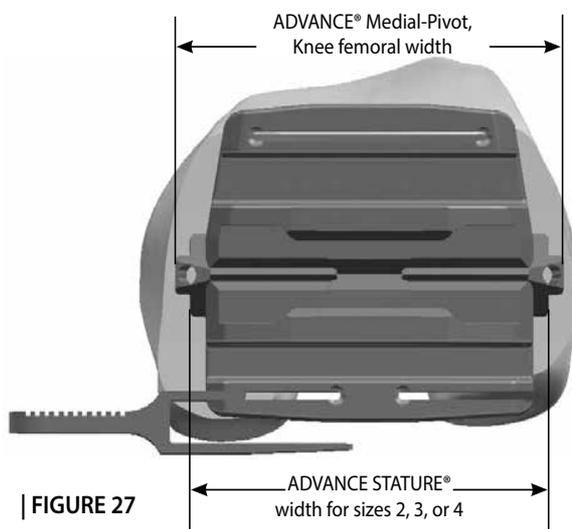
Select the femoral resection block (K0014381/K0014386) corresponding to the size indicated by the sizing caliper (K0014627). If the femoral size is found to be between sizes, the bigger size should be utilized, since this choice will not jeopardize the option of downsizing (see Appendix C). Place the pegs on the back of the femoral resection block into the holes drilled through the sizing caliper (K0014627).

The femoral resection blocks may be used to double-check the femoral size. The distance between the pin outriggers on the sides of the block is the same width as the corresponding femoral component. | **FIGURE 27** To confirm A/P size, an 8mm posterior resection gauge (K0014337) is available. It has the same thickness as the posterior condyles of sizes 1 through 5. When placed in the posterior slot of the resection block it is possible to determine if the proper amount of posterior condyle will be resected. | **FIGURE 27**

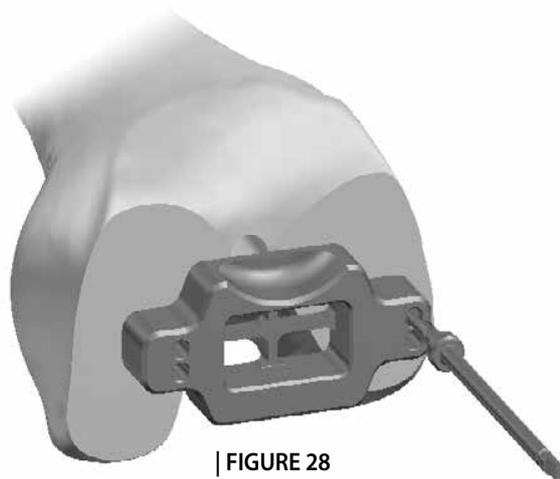
To check the risk of anterior notching the dual reference gauge (K0014407) should always be used.

If it appears too much or too little of the posterior condyles are being removed or there will be anterior notching, a 2mm re-drill guide (K0014700) is available.

| **FIGURE 28** This allows the block peg holes to be re-drilled 2mm above or below the existing holes. To utilize the guide, remove the femoral resection block and place the re-drill guide in the existing holes. While maintaining pressure on the guide, re-drill through the appropriate holes and re-insert the femoral resection block in the new drilled holes. These holes do not have to be in the same location as the final implant pegs, which will be prepared with the femoral trials.



| **FIGURE 27**



| **FIGURE 28**



Femoral Resection Block
K0014381/K0014386



Dual Reference Gauge
K0014407



Resection Gauge
K0014337



2mm Re-drill guide
K0014700

Precision Pointer



Ensure the resection block rests flat on the distal surface.

Stabilize the resection block against the bone using 3.2mm (1/8") diameter pins (K0001288) on the medial and lateral sides of the block. The tightening of the pins should be completed by using the T-handle (K0001016) in combination with the threaded pin driver (K0001205).

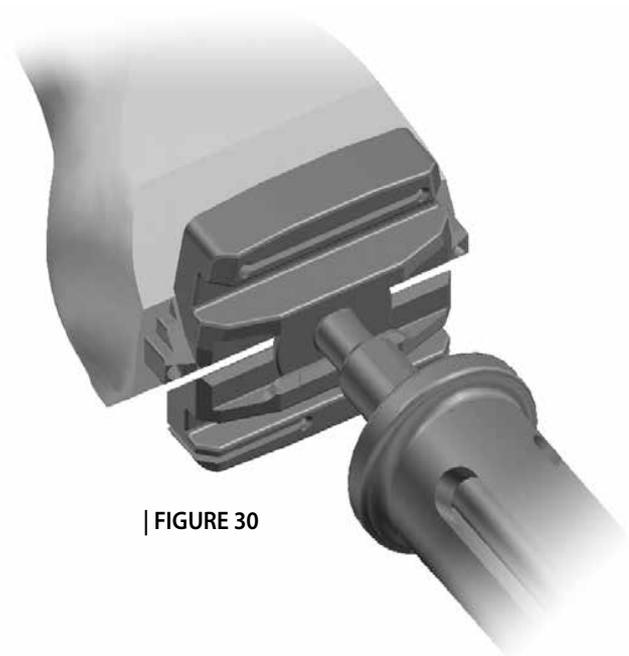
The resection is then performed in this recommended order: anterior cut **(1)**, then the posterior cut **(2)** followed by the posterior chamfer **(3)** and ending with the anterior chamfer **(4)**. | **FIGURE 29**

NOTE: A narrow saw blade (18711131, see page 7) must be used for the chamfer resections.

After resections have been made, the pins are withdrawn. Assemble the resection block/femoral trial extractor (K0017409) on the slaphammer (K0002008) and slide it on the resection block for extraction. | **FIGURE 30**



| **FIGURE 29**



| **FIGURE 30**



Threaded Pin Driver
K0001205



T-handle Reamer
K0001016



Slaphammer
K0002008



3.2mm (1/8") Diameter Pins
K0001288

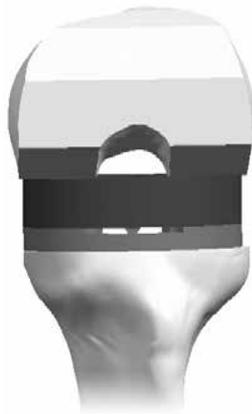


Resection Block/Femoral Trial Extractor
K0017409

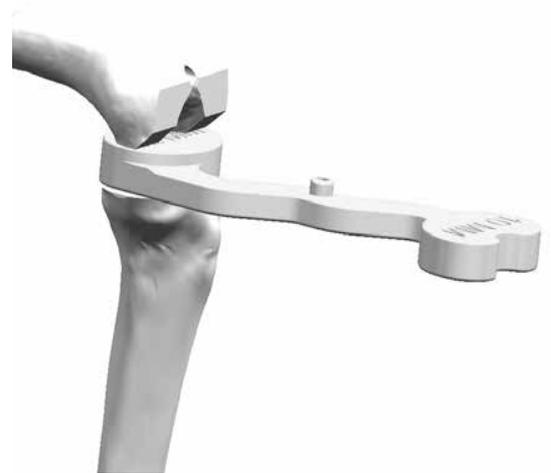
7. Flexion Gap

**option if
kit K100KT70
is used**

With the same instruments described at page 15, assure that the flexion gap at least equals the previously measured extension one. As detailed in | **FIGURE 33**, the ball-in-socket design accommodates for slight laxity in flexion | **FIGURE 31**



| **FIGURE 31**



| **FIGURE 32**

**option if
kit K100KT74
is used**

With the same instruments described at page 16, assure that the flexion gap at least equals the previously measured extension one. As detailed in | **FIGURE 33**, the ball-in-socket design accommodates for slight laxity in flexion | **FIGURE 32**

For more information on how to balance the flexion/extension gaps, refer to | **FIGURE 33** below.

		EXTENSION		
		TIGHT	OK	LOOSE
FLEXION	TIGHT	Downsize poly insert Cut more tibia	Femoral downsizing (see page 36) (Resulting in smaller femoral component)	Femoral downsizing (see page 36) (Resulting in smaller femoral component)
	OK	Recut distal femur (see page 35)	No adjustment necessary	Cut more posterior slope and use thicker poly
	LOOSE	Recut distal femur (see page 35) and use thicker poly (If necessary)	Change may not be necessary. Ball-in-socket design accommodates for slight laxity in flexion If necessary, recut distal femur and use thicker poly	Use of thicker poly In some cases changes may not be necessary. Ball-in-socket design accommodates for slight laxity in flexion

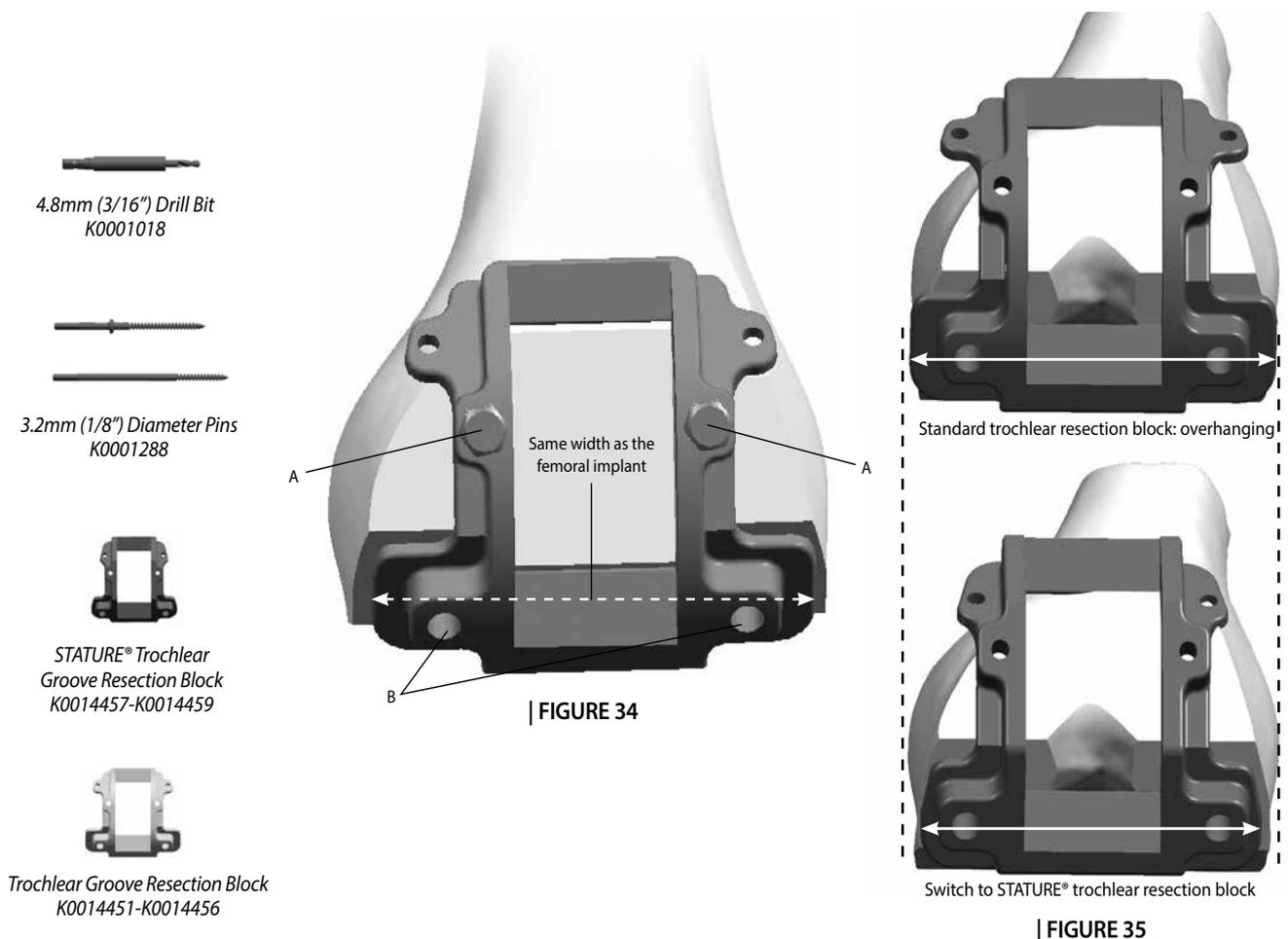
| **FIGURE 33**

8. Trochlear Groove Resection

Select the trochlear groove resection block corresponding to the size indicated by the sizing caliper. Place the trochlear groove resection block (K0014451-K0014456) on the femur. | **FIGURE 34** The width of the block is the same M/L width as the femoral implant and dictates the final implant location. If the trochlear groove resection block is indicating an overhanging, you'll need to switch to the corresponding STATURE® specific trochlear groove resection block (K0014457-K0014459). | **FIGURE 35**

Some surgeons place the guide along the lateral edge of the femur to reproduce the natural Q-angle. Stabilize the trochlear groove resection block against the bone using 3.2mm (1/8") pins (K0001288) before resection. | **A in FIGURE 34** The trochlear groove should be resected by using a 12.7mm (1/2") sawblade on the angled surface and along the sides of the central portion of the block. If your flexion/extension balance is correct, you can proceed with the preparation of the peg holes for the femoral implant. Using the 4.8mm (3/16") drill bits (K0001018) drill through the distal holes of the trochlear groove resection block. **B in FIGURE 34**

NOTE: The peg holes for the implant can also be prepared during the femoral trialing step. If the flexion/extension balance has not been properly achieved at this stage and a femoral re-cut is necessary, the femoral resection block cannot be re-mounted onto the femur due to the 3.2 mm (1/8") pegs on the back of the blocks once the 4.8mm (3/16") peg holes have been drilled.



9. Tibial Sizing and Trial Reduction

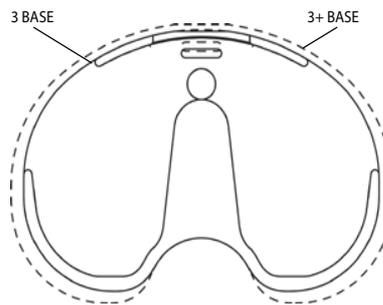
**option if
kit K100KT70 is used**

TABLE 1 | ADVANCE® Medial-Pivot

Femur	Insert	Tibia
1	1	1 or 1+
2	2	2 or 2+
3	3	3 or 3+
4	4	4 or 4+
5	5	5 or 5+
6	6	6

Care should be taken to ensure the tibial plateau is completely flat after the resection is made. A tibial base trial can be used to check the flatness of the surface.

NOTE: In all ADVANCE® Total Knee Inserts, the tibial insert size must match the femoral implant size (Table 1). There are two tibial base sizes that can be used with any one size femoral component. For example a size 3 femoral implant can be used with either a size 3 or 3+ tibial base. | FIGURE 36 and Table 1



| FIGURE 36

Assemble the appropriate trial tibial base (KTIBSL10-KTIBSL60) to the trial base handle (K0021012). The trial base is then placed onto the resected surface of the tibia and properly aligned (generally to the medial one-third of the tibial tubercle) to check overall coverage. If the tibial trial base size is too small, a “plus size” will provide additional tibial coverage.

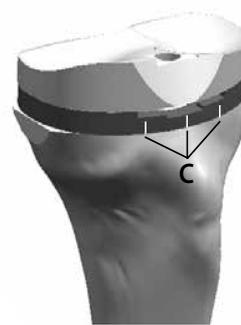
Place the appropriate size femoral trial (KFTCMR1L-6L/KFTCMR1R-6R) on the distal femur using the femoral holder/driver (K0011100). Insert the trial insert (KIPT110L-25L/KIPT110R-25R) of appropriate size and thickness onto the trial base (KTIBSL10-KTIBSL60). If not done during the patella preparation, prepare the patellar peg holes, as described in the Patella Preparation chapter.

Place the selected trial patella (KPTR****) in place and complete the trial reduction. With the trial implants in place, perform an evaluation of the full range of motion to determine the final implant position. | FIGURE 37

If the final implant position is decided, the lines on the anterior portion of the tibial base can be used for marking the tibia to aid with alignment of the tibial base component during final implantation. | C in FIGURE 38

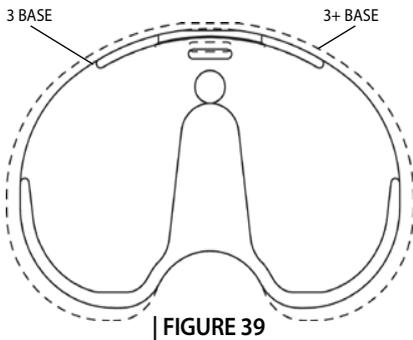


| FIGURE 37



| FIGURE 38

**option if
kit K100KT74 is used**



| FIGURE 39

TABLE 3 | ADVANCE® Medial-Pivot

Femur	Insert	Tibia
1	1	1 or 1+
2	2	2 or 2+
3	3	3 or 3+
4	4	4 or 4+
5	5	5 or 5+
6	6	6

NOTE: The ADVANCE® BIOFOAM® Tibial base is approximately 0.5mm thicker than a porous-coated base with beads. The trial tibial bases take into account this increased thickness.

Care should be taken to ensure the tibial plateau is completely flat after the resection is made. A tibial base trial can be used to check the flatness of the surface.

NOTE: The use of the K100KT74 or K100KT65 kits is mandatory for the implantation of the BIOFOAM® tibial trays.

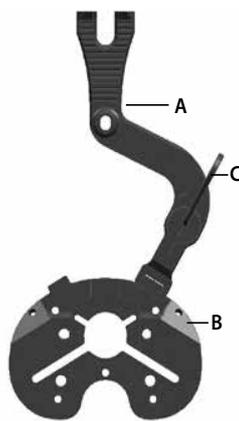
NOTE: The tibial base trial size must match the femoral trial size. There are two tibial base trial sizes that can be used with any one size femoral trial. For example a size 3 femoral trial can be used with either a size 3 or 3+ tibial trial base. | FIGURE 39 and Table 3

The tibial base trial handle (K0072101) | **A** in FIGURE 40 is assembled to the appropriate size tibial base trial (KTIBBF10-60) | **B** in FIGURE 40 by aligning the tabs on each. The lever on the handle | **C** in FIGURE 40 is then rotated 90° to the "LOCKED" position. The trial base is then placed onto the resected surface of the tibia and properly aligned (generally to the medial one-third of the tibial tubercle) to check the overall coverage. If the tibial trial base size is too small, a "plus size" will provide additional tibial coverage.

Place the appropriate size femoral trial (KFTCMR1L-6L/KFTCMR1R-6R) on the distal femur using the femoral holder/driver (K0011100). Insert the trial insert (KIPT110L-25L/ KIPT110R-25R) of appropriate size and thickness onto the trial base (KTIBBF10-60) If not done during the patella preparation, prepare the patellar peg holes, as described in the Patella Preparation chapter.

Place the selected trial patella (KPTR****) in place and complete the trial reduction. With the trial implants in place, perform an evaluation of the full range of motion to determine the final implant position. | FIGURE 41

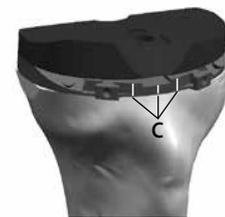
If the final implant position is decided, the lines on the anterior portion of the tibial base can be used for marking the tibia to aid with alignment of the tibial base component during final implantation. | **C** in FIGURE 42



| FIGURE 40



| FIGURE 41



| FIGURE 42



10. Femoral Preparation

Remove the tibial trials and reposition the retractors. If not done with the trochlear groove resection block in place, drill the final peg holes for the femoral implant by drilling through the distal holes on the femoral trial with the 4.8mm (3/16") drill bit (K0001018). The bit features a collar at the correct depth. Assemble the resection block/femoral trial extractor (K0017409) on the slaphammer (K0002008) and slide it on the femoral trial between the femoral condyles for extraction. | **FIGURE 43** During removal, keep one hand on the trial to control its extraction.


4.8mm (3/16") Drill Bit
K0001018


Resection Block/Femoral
Trial Extractor
K0017409


Slaphammer
K0002008



| **FIGURE 43**

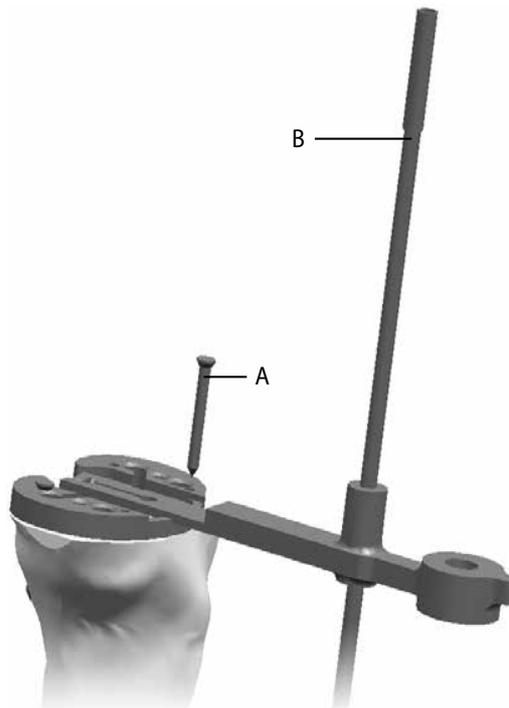
11. Keel Preparation

**option if
kit K100KT70 is used**

Reposition the tibial base trial and pin it to the tibia using short head anchoring pins (K0002007) through the anterolateral and posteromedial holes. | **A in FIGURE 44** The alignment rod (K0000901) can be inserted through the handle to check alignment to the ankle. | **B in FIGURE 44**


Short Head Anchoring Pins
K0002007


Alignment Rod
K0000901



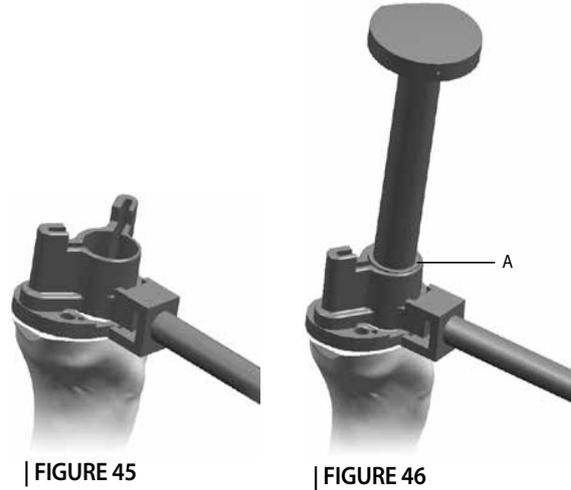
| **FIGURE 44**

Table 2 | Instrument Sizing Matrix

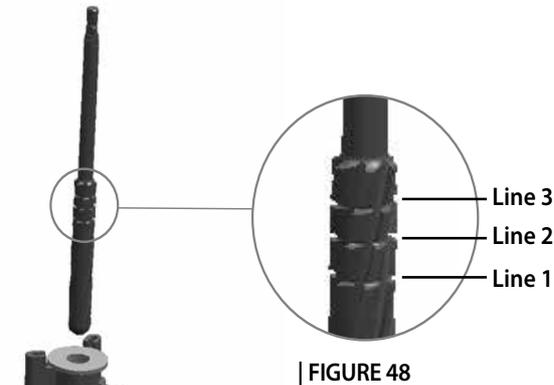
Tibial Base Trial	Reamer	Keel Punches
Size 1	Line 1	Size 1/1+/2
Size 1+/2	Line 1	Size 1/1+/2
Size 2+/3	Line 2	Size 2+/3/3+/4
Size 3+/4	Line 2	Size 2+/3/3+/4
Size 4+/5	Line 3	Size 4+/5/5+/6
Size 5+/6	Line 3	Size 4+/5/5+/6

Table 2 should be used to determine the sizing compatibility of the instrumentation.

Attach the keel punch guide (K0027440) to the keel punch handle (K0027101) and secure it to the trial base by turning the knurled handle. | **FIGURE 45** Using the threaded punch handle (K0001112) and appropriate press fit keel punch (K0027301-K0027303), plunge through the guide until the punch is fully seated and the punch collar is level with the edge of the guide. | **A in FIGURE 46**



In the event of hard tibial bone, before punching, prepare the entry hole for the tibial stem using the 15 mm drill guide (K0027104) and the press fit reamer (K0027102). | **FIGURE 47** Referring to | **FIGURE 48 and Table 2**, ream through the drill guide to the appropriate line indicated on the reamer.

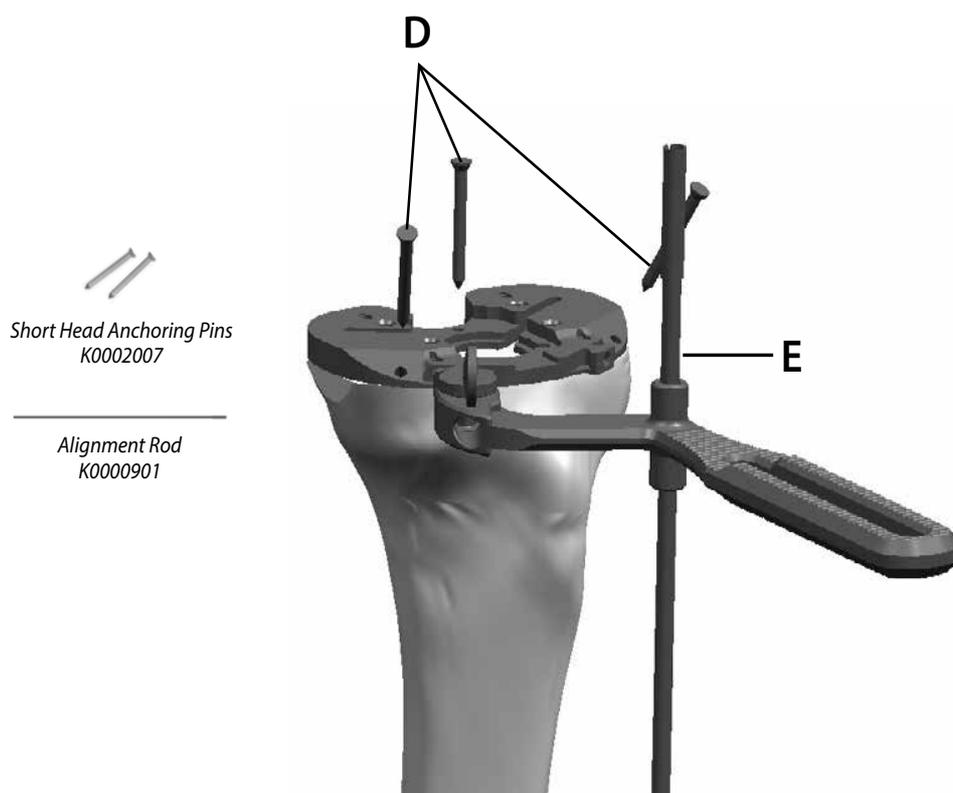


In the event of osteoporotic bone, the keel can be cemented either using press-fit or oversized reamers. If the oversized reamers option is preferred, prepare the entry hole for the tibial stem using the 17mm (K0027105) drill guide and oversized keel reamer (K0027103), followed by the appropriate oversized keel punch (K0027304-K0027306).

Remove the punch, the punch guide and the headed pins with the help of the slaphammer pin extractors (K0002008). The trial tibial base is then removed.

**option if
kit K100KT74 is used**

Reposition the tibial base trial and pin it to the tibia using short headed anchoring pins (K0002007) | **D** in FIGURE 49 through the anteromedial and posteromedial holes. The alignment rod (K0000901) can be inserted through the handle to check alignment to the ankle | **E** in FIGURE 49.



| FIGURE 49

Table 4 | Instrument Sizing Matrix

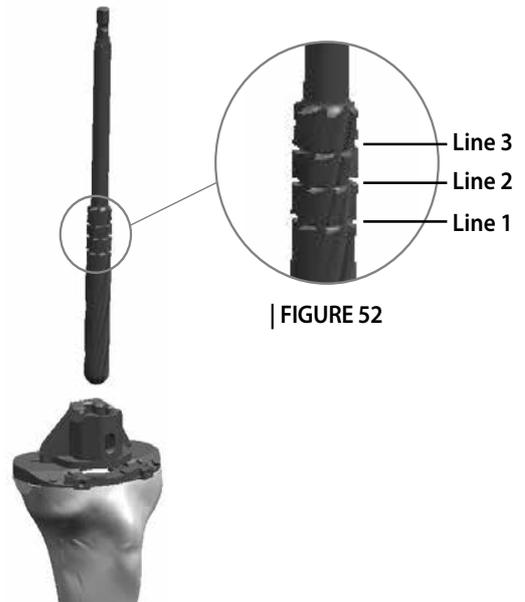
Tibial Base Trial	Reamer	Keel Punches
Size 1	Line 1	Size 1/1+2
Size 1+2	Line 1	Size 1/1+2
Size 2+3	Line 2	Size 2+/3/3+/4
Size 3+4	Line 2	Size 2+/3/3+/4
Size 4+5	Line 3	Size 4+/5/5+/6
Size 5+6	Line 3	Size 4+/5/5+/6



| FIGURE 50



Drill for Spikes



| FIGURE 51

Table 4 should be used to determine the sizing compatibility of the instrumentation.

As shown in | FIGURE 50, align the four spikes on the keel punch guide (K0072300) with the corresponding holes on the trial base and impact the guide with a mallet until flush with the surface of the trial base. | FIGURE 51

The press fit reamer (K0027102) can be used to prepare the medullary canal if needed. Referring to | FIGURE 52 and Table 4, ream through the keel punch guide to the appropriate line indicated on the reamer.

Assemble the appropriate size keel punch (K0072312-34-56) to the keel punch handle (K0072103) by pulling back on the trigger mechanism on the handle | A in FIGURE 53 and inserting it into the opening on the punch. The keel punch handle is impacted with a mallet until fully seated and the bottom edge of the handle aligns with the top of the punch guide. | B in FIGURE 54 The handle is disassembled from the punch by pulling back on the trigger mechanism and the punch guide is removed with a slaphammer (K0002008) and hook (K0002009). | FIGURE 55



| FIGURE 53



| FIGURE 54



| FIGURE 55

The punch handle (K0072103) is used to remove the keel punch and the headed pins are removed with the slaphammer (K0002008). The trial tibial base is then removed.

The recommended order for implantation is left to the discretion of the orthopaedic surgeon.

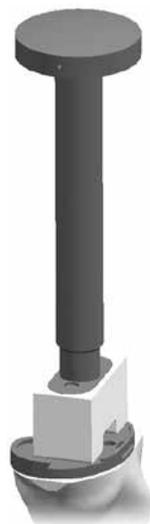
12. Tibial Base Insertion

**option if
kit K100KT70 is used**

The tibial bone bed is cleaned and bone cement is prepared and introduced according to standard recommendations. The inserter/extractor (K0027227) is utilized to implant the base by engaging the insert locking dovetail and impacting with a mallet until fully seated on bone. The monolithic tibial impactor (K0027225) can also be used to seat the tibial base. **FIGURE 56**

Optional: After the base has been inserted, the appropriate trial tibial insert (KIPT110R-KIPT625R/KIPT110L-KIPT625L) can be used to recheck ligament and soft tissue balancing. | **FIGURE 57** An additional trial insert pin (K0021009) may be placed through the trial insert into tibial base implant to provide a more secure construct during final assessment of joint stability. | **A in FIGURE 57**

NOTE: The trial insert only engages the central locking detail and a gap will be present along the anterior periphery of the insert. | **B in FIGURE 57**



| FIGURE 56



| FIGURE 57



**Option if
kit K100KT74 is used**

NOTE: Care should be taken when handling the tibial bases. The locking mechanism on proximal surface of the tibial base may contain sharp edges that could puncture surgical gloves.

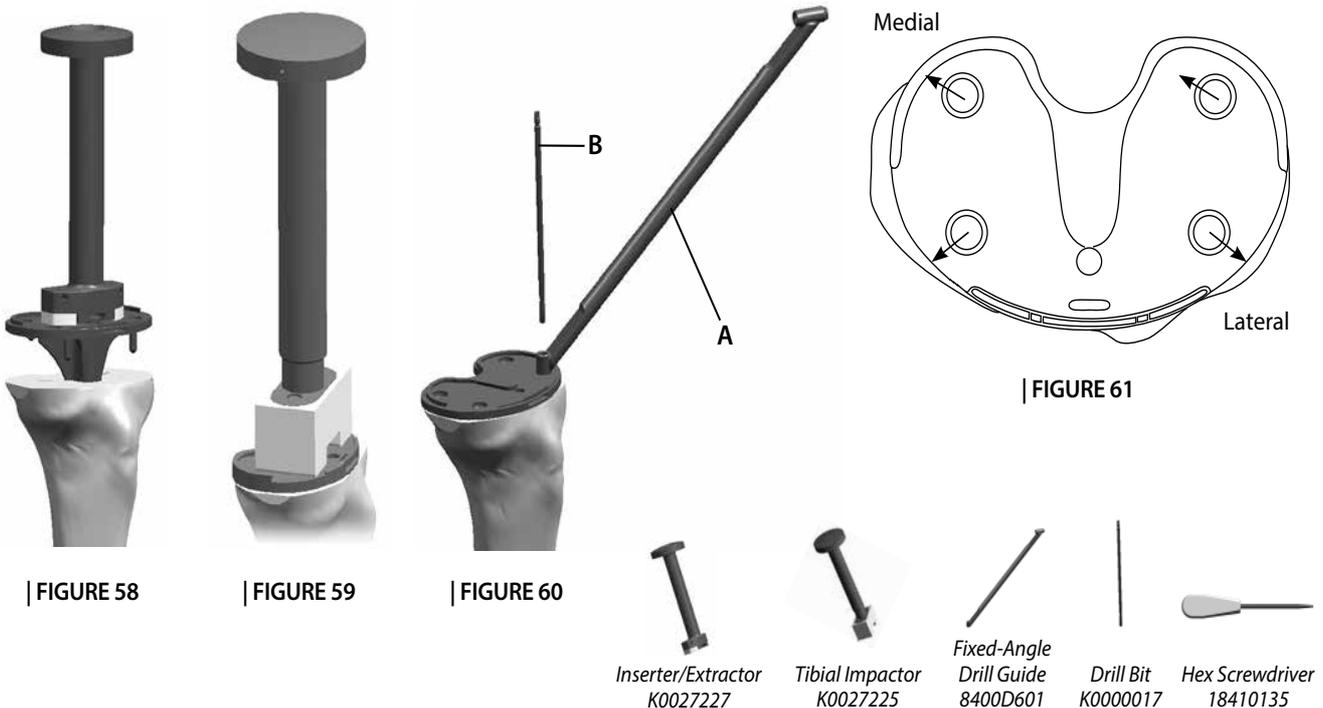
The proper size tibial base and keel is chosen and assembled by placing the stem onto the Morse taper of the base. Care should be taken to align the anterior tab and key. The stem is impacted with three or four strong blows from a mallet, ensuring the base is placed on a rigid surface during assembly.

NOTE: To assemble, do not cushion the mallet or base with any materials. The base should be placed directly on a firm surface, while the end of the stem is directly struck with the head of the mallet.

The inserter/extractor (K0027227) is utilized to implant the base by engaging the insert locking dovetail and impacting with a mallet until fully seated on the bone. | **FIGURE 58** The monolithic tibial impactor (K0027225) can also be used to seat the tibial base. | **FIGURE 59**

In case the Tibial Base option with screws is chosen, the holes have to be prepared. To prepare for the bone screws, each hole is drilled using the fixed-angle drill guide (8400DG01) | **A** in **FIGURE 60** and a 3.2mm (1/8") drill bit (K0001017). | **B** in **FIGURE 60** The recommended angulation of the screws is shown in | **FIGURE 61**. The posterolateral screw is angled toward the midline of the tibial to avoid the peroneal nerve. If the screws are to be angled outward, care should be taken when drilling through the cortical bone.

To avoid damage to surrounding soft tissue, do not plunge the drill bit through the cortex. The screw depth gauge (KMPR5176) is utilized to approximate the screw lengths to be used. For bi-cortical screw fixation, the inside "hook" is used to grasp the cortical bone. Additionally, trans-cortical screws can be measured by placing the end of the gauge into the bottom of the hole. The screw length is determined by reading the increments off the end of the gauge and the appropriate length screw is chosen. A 3.5mm hex screwdriver (18410135) is used to advance and fully seat the cancellous screws into the base.



| **FIGURE 61**

| **FIGURE 58**

| **FIGURE 59**

| **FIGURE 60**

Inserter/Extractor
K0027227

Tibial Impactor
K0027225

Fixed-Angle
Drill Guide
8400D601

Drill Bit
K0000017

Hex Screwdriver
18410135

13. Tibial Insert Insertion

Initial seating is accomplished by pushing the insert as far posterior as possible with hand pressure, paying special attention to engage the central dovetail and posterior captures of the tibial base. For final seating of the insert, two options are available. The 45° insert impactor (K0027211) may be utilized by placing the impactor tip in the anterior slot of the tibial insert. | FIGURES 62 and 63 The impactor handle should be at an angle slightly greater than 45°. Keeping the impactor tip in the slot, decrease the angle of the impactor handle until the tip is felt to impinge within the slot. This should be approximately 45°. While maintaining this 45° angle relative to the tibial base, apply several strong mallet blows directing the insert posteriorly. After the anterior edge of the insert has been pushed past the anterior capture of the tibial base, it will automatically drop behind the anterior capture and the insert face will be flush against the surface of the tibial base. | FIGURE 64

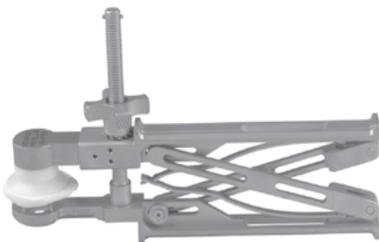


14. Femoral Component Insertion

The femoral bone bed is cleaned and bone cement is prepared and introduced according to standard recommendations. The femoral impactor (K0015100) is utilized for final seating of the femoral component. | FIGURE 65

15. Patella Component Insertion

The patellar implant can be held in place while the cement cures using the parallel patellar recessing clamp (K0031000) and plastic seater (K0031001). | FIGURE 66

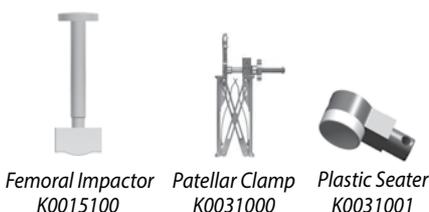


Explant Information

If the removal of the implant is required due to revision or failure of the device, the surgeon should contact the manufacturer using the contact information located on the back cover of this surgical technique to receive instructions for returning the explanted device to the manufacturer for investigation.

Postoperative Management

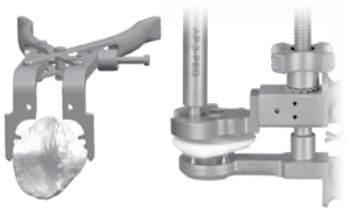
Postoperative care is the responsibility of the medical professional.



Technique Overview

chapter 5

K100KT70



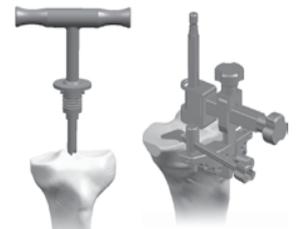
1. Patella Preparation



2. Distal Femur Preparation



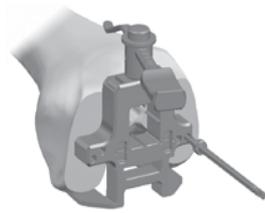
3a. Extramedullary Tibial Preparation



3b. Intramedullary Tibial Preparation



4. Extension Gap Measurement



5. Femoral Sizing



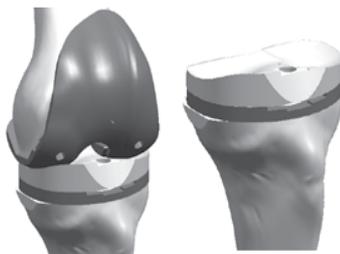
6. Femoral Resections



7. Flexion Gap Measurement



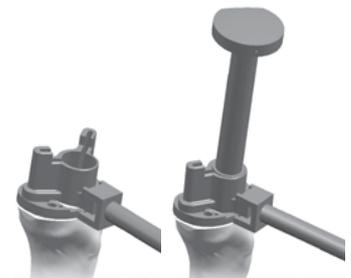
8. Trochlear Groove Resection



9. Tibial Sizing and Trial Reduction



10. Femoral Preparation



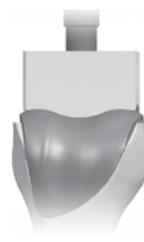
11. Keel Preparation



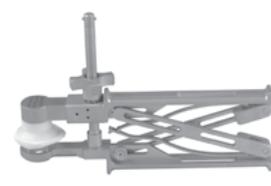
12. Tibial Base Insertion



13. Tibial Insert Insertion



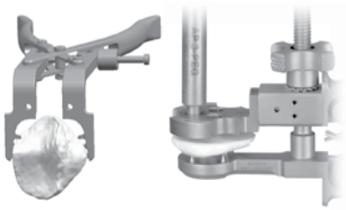
14. Femoral Component Insertion



15. Patella Component Insertion

Technique Overview

K100KT74



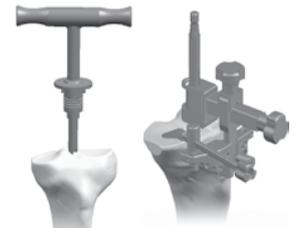
1. Patella Preparation



2. Distal Femur Preparation



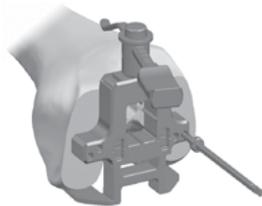
3a. Extramedullary Tibial Preparation



3b. Intramedullary Tibial Preparation



4. Extension Gap Measurement



5. Femoral Sizing



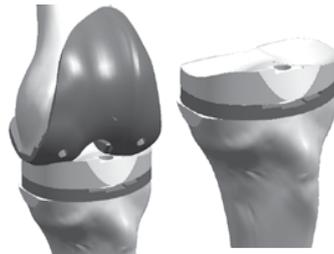
6. Femoral Resections



7. Flexion Gap Measurement



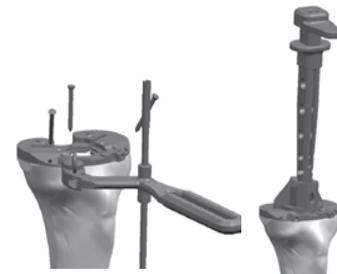
8. Trochlear Groove Resection



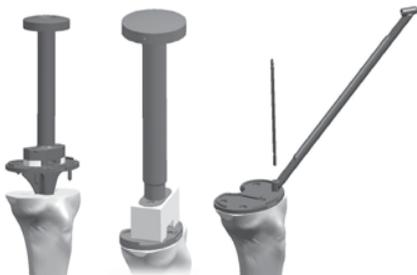
9. Tibial Sizing and Trial Reduction



10. Femoral Preparation



11. Keel Preparation



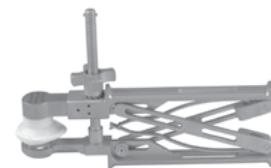
12. Tibial Base Insertion



13. Tibial Insert Insertion



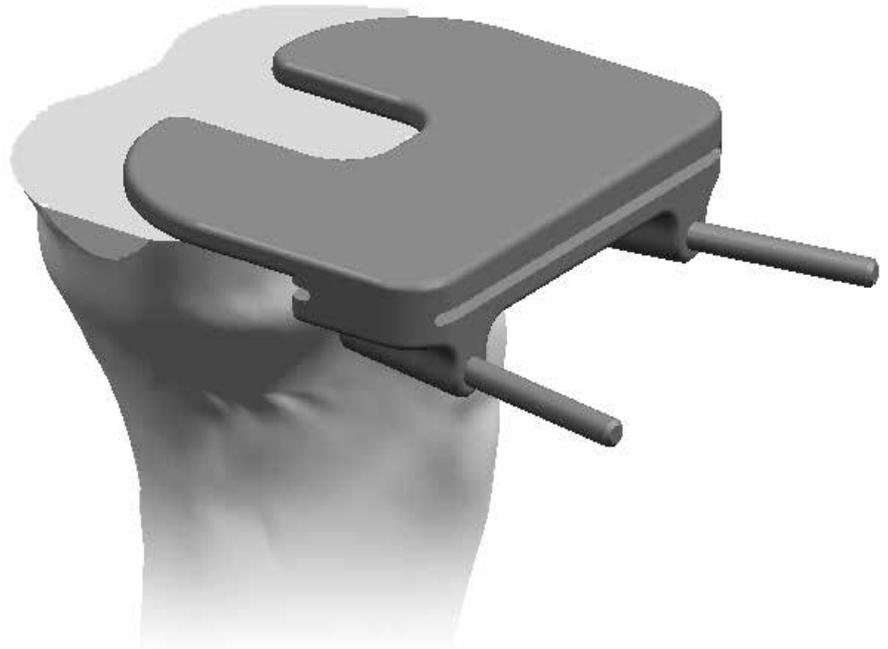
14. Femoral Component Insertion



15. Patella Component Insertion

2mm Resection Guide

The 2mm resection guide (K0071142) is generally employed for use on the distal femoral and proximal tibial resections. To position the guide, place the anterior wings on the resected surface with the resection slot abutting the edge of the surface. | **FIGURE 67** Two divergent pin holes are available for fixation.



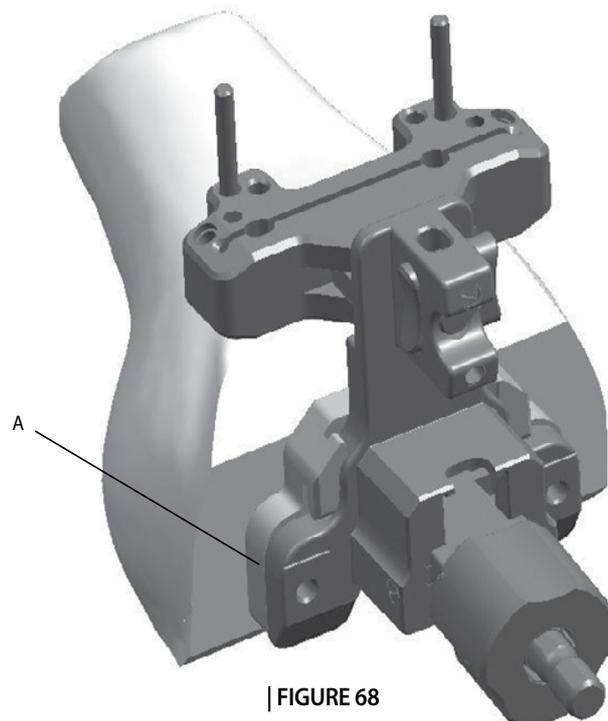
| **FIGURE 67**



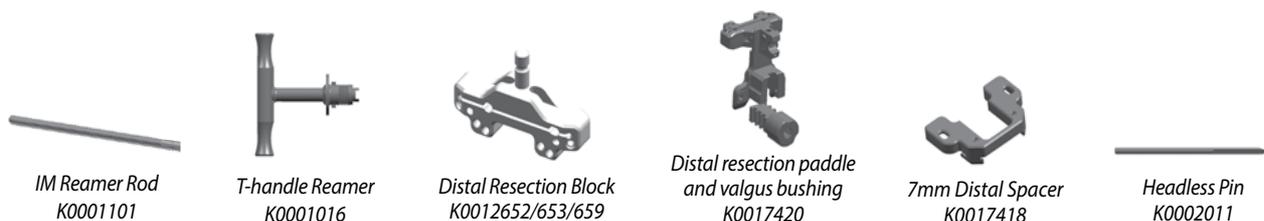
2mm Resection Guide
K0071142

Re-cutting the Distal Femur

Insert the fluted IM reamer/rod (K0001101) into the femoral canal with the help of the T-handle (K0001016). Load a distal resection block (available in 9mm, 11mm and 13mm K0012652/653/659) onto the distal resection paddle (K0017420) and lock them together. Insert the distal resection paddle onto the valgus bushing (K0017420). | **FIGURE 68** Slide the 7mm distal spacer (K0017418) against the interior face of the distal resection paddle until it clicks. | **A in FIGURE 68** When utilized, the distal spacer will reduce the distal resection made by 7mm. (For example, it will allow a 2mm distal resection when used with the 9mm distal resection guide.) Slide the reamer into the intramedullary canal until the distal spacer contacts the distal femur. Pin the resection block in place with two headless pins (K0002011). Slide left the locking mechanism to detach the resection block and remove the IM rod, distal resection paddle and valgus bushing. Perform the distal re-cut.



| FIGURE 68

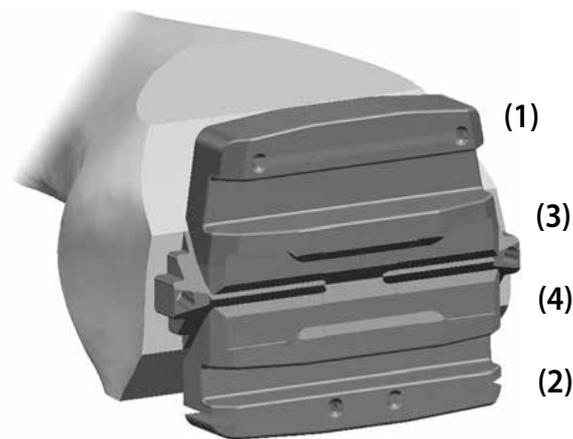


Femoral Downsizing

In case it is determined a femoral downsizing is necessary for a proper balancing, position on existing holes a smaller femoral resection block (K0014381-K0014386) than the one previously used.

The ADVANCE® femoral components are designed to maintain a common distance from stabilizer pegs to the anterior flange resection. Therefore you don't have to re-cut through the anterior slot.

Stabilize the resection block against the bone using 3.2mm (1/8") diameter pins (K0001288) on the medial and lateral sides of the block. Proceed with the resection of the posterior cut, followed by the posterior and anterior chamfer, as described in the "Anterior and Posterior Resections" chapter. | **FIGURE 69**



| **FIGURE 69**



3.2mm (1/8") Diameter Pins
K0001288



Femoral Resection Block
K0014381/K0014386

Option for Tibial Insert Insertion

As a second option, the ODYSSEY® Tibial Insert Seater (K0027214) may be utilized. After the tibial base has been implanted, load the appropriate insert implant onto the base, paying special attention to engage the central dovetail and posterior captures of the base with the insert. Push the insert as far posterior as possible with hand pressure.

Next, connect the Tibial Insert Seater (K0027214) to the tibia base implant by connecting the bottom jaw of the Insert Seater to the anterior slot of the tibia implant. | **FIGURE 70** To do this, pull the trigger which retracts the locking shims of the positioning platform. | **A in FIGURE 71** Insert the positioning platform into the anterior slot of the tibia base and line up the raised tip of the positioning platform with the proximal slot in the tibia base. | **FIGURE 72** Release the trigger to engage the locking shims, securing the locking gun to the tibial base implant. | **FIGURE 73** To seat the insert, squeeze the handle | **FIGURE 74** until the locking piston pushes the insert fully posterior and flush against the surface of the tibial base. | **FIGURE 75 and 76** Withdraw the locking shims to loosen the insert seater and remove from the operating field. Perform a visual check to be sure the insert is seated flush with the base before continuing the operation.



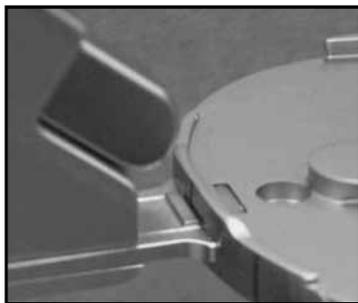
| FIGURE 70



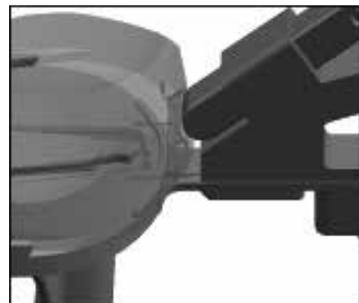
| FIGURE 71



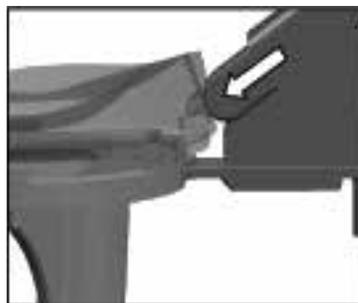
| FIGURE 74



| FIGURE 72



| FIGURE 73



| FIGURE 75

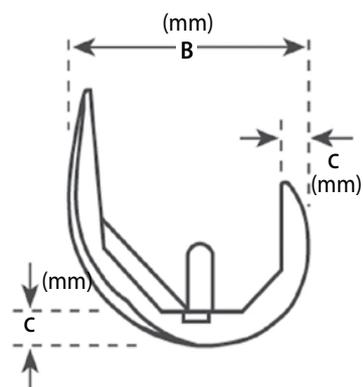
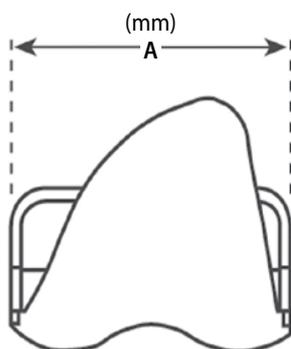


| FIGURE 76

Component Description

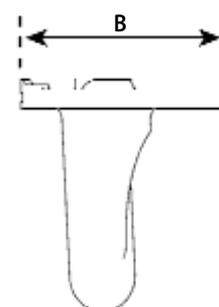
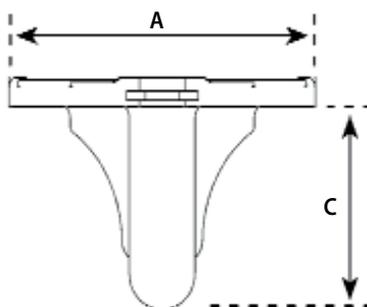
Primary Femoral Components

SIZE	A	B	C
1	60	52	8
2 – ADVANCE STATURE™	60	57	8
2	65	57	8
3 – ADVANCE STATURE™	65	62	8
3	70	62	8
4 – ADVANCE STATURE™	70	66	8
4	75	66	8
5	80	71	8



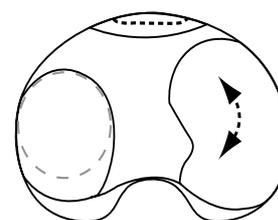
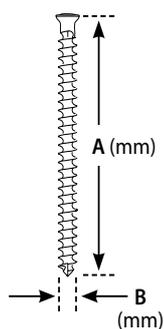
Tibial Component

TRAY SIZE	A	B	C
1	60	41	35
1+	65	44	35
2	65	44	35
2+	70	48	43
3	70	48	43
3+	75	51	43
4	75	51	43
4+	80	54	50
5	80	54	50
5+	85	58	50
6	85	58	50



6.5mm Cancellous Bone Screws

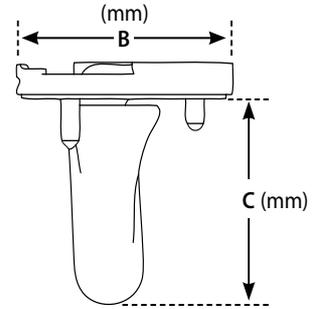
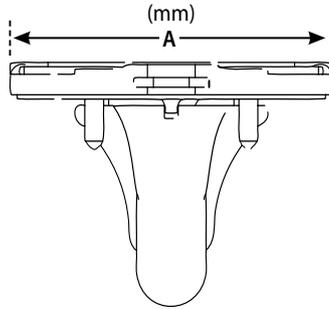
SIZE	A	Ø B
15mm	15	6.5
20mm	20	6.5
25mm	25	6.5
30mm	30	6.5
35mm	35	6.5
40mm	40	6.5
45mm	45	6.5
50mm	50	6.5
55mm	55	6.5



ADVANCE® MEDIAL-PIVOT INSERT
Available Thicknesses
10, 12, 14, 17, 20, 25mm

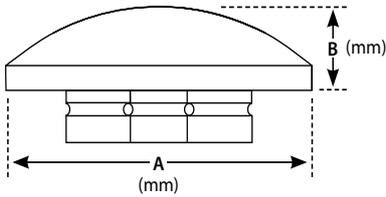
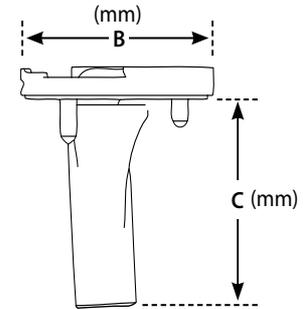
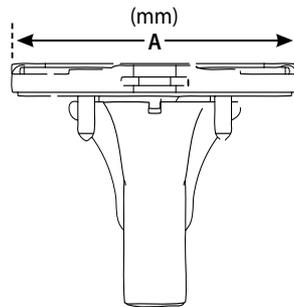
Primary Pressfit Keels

SIZE	A	B	C
1	60	41	34
1+	65	44	34
2	65	44	34
2+	70	48	41
3	70	48	41
3+	75	51	41
4	75	51	41
4+	80	54	49
5	80	54	49
5+	85	58	49



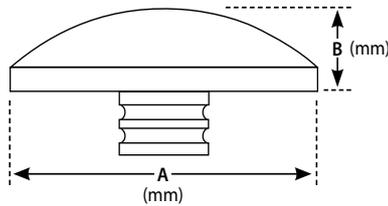
Modular Pressfit Keels

SIZE	A	B	C
1	60	41	47
1+	65	44	47
2	65	44	47
2+	70	48	47
3	70	48	47
3+	75	51	47
4	75	51	47
4+	80	54	47
5	80	54	47
5+	85	58	47



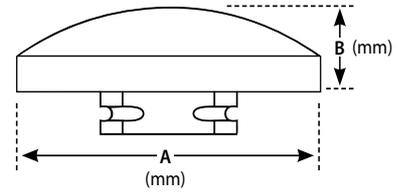
Onlay All-poly Tri Peg

A	B
26	8
29	8
32	8
35	8
38	10
41	11



Onlay All-poly Single Peg

A	B
32	8
35	8
38	10
41	11



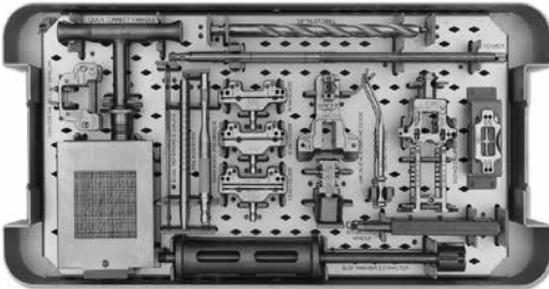
Recessed All-poly

A	B
25 Low	7
25 High	9
28 Low	7
28 High	9

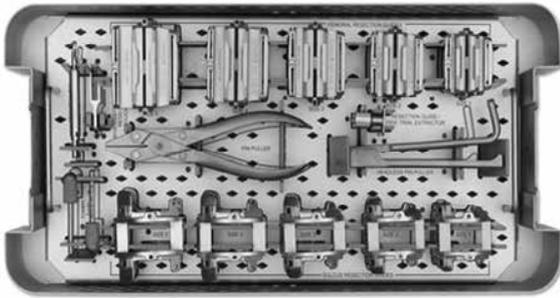
Ordering Information

K100KT70 ODYSSEY® DCF Knee Instrument Set

K100KT70 - Tray 1

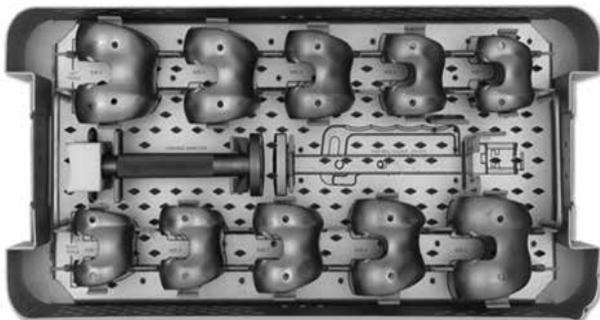


P/N	Description	Quantity
48020005	MINI STERILIZATION TRAY	1
K0001005	ADVANCE® DRILL BIT 1/8 IN	1
K0001006	ADVANCE® QUICK DISCONNECT FOR 1/8 IN DRILL BIT	1
K0001015	ADVANCE® DRILL BIT 1/8INX 100m W/ QUICK DISCONNECT	2
K0001017	ODYSSEY® 1/8 IN DRILL BIT W/ STOP	1
K0002006	ADVANCE® FLAT HEAD FIXATION PIN 45MM	6
K0002007	ADVANCE® TIBIAL BASE FIXATION PIN W/ TAPERED HEAD	6
K0002011	ADVANCE® FIXATION PIN, HEADLESS W/O GROOVE, 80MM	6
K0021003	ADVANCE® TIBIAL TRIAL INSERT PIN	2
KS001053	ODYSSEY® DCF FEMORAL GUIDE TRAY	1
K0017418	ODYSSEY® DCF VALGUS ALIGNMENT GUIDE SPACER 7MM	1
K0001016	ADVANCE® QUICK DISCONNECT T-HANDLE	1
K0014407	ADVANCE® DUAL REFERENCE GAUGE FOR POWER BURR GUIDE	1
K0001205	ODYSSEY® THREADED PIN DRIVER	1
K0002015	ADVANCE® PIN INSERTER	1
K0001022	ODYSSEY® 3/8 IN FULLY FLUTED DRILL W/ QUICK DISCONNECT	1
K0001101	ADVANCE® REAMER/ROD 11 IN W/ QUICK DISCONNECT	1
K0014700	ODYSSEY® DCF RE-DRILL GUIDE FOR ADVANCE® 4-IN-1 BLOCKS	1
K0012660	ODYSSEY® DCF FEMORAL STYLUS	1
K0014627	ODYSSEY® DCF FEM SIZING	1
K0001009	ADVANCE® THREADED STABILIZING HANDLE	1
K0002008	ADVANCE® SLAP HAMMER PIN EXTRACTOR	1
K0017420	ODYSSEY® DCF VALGUS ALIGN GUIDE W/ ANTERIOR CLEARANCE	1
K0012659	ODYSSEY® DISTAL RESECTION GUIDE 9MM	1
K0012652	ODYSSEY® DISTAL RESECTION GUIDE 11MM	1
K0012653	ODYSSEY® DISTAL RESECTION GUIDE 9MM & 13MM	1



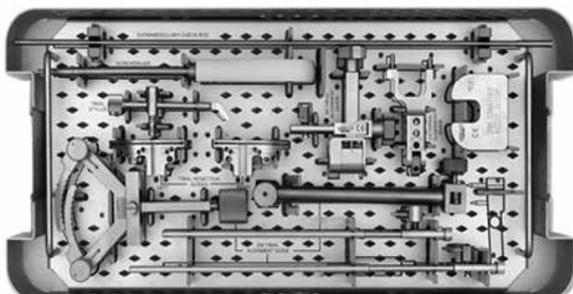
K100KT70 - Tray 2

P/N	Description	Quantity
KS001054	ODYSSEY® DCF 4 IN 1 & SULCUS TRAY	1
K0001018	ODYSSEY® 3/16 IN DRILL BIT W/ STOP	1
K0014381	ODYSSEY® DCF FEM RESECT BLOCK W/ WIDE ANT SLOT SZ 1	1
K0014382	ODYSSEY® DCF FEM RESECT BLOCK W/ WIDE ANT SLOT SZ 2	1
K0014383	ODYSSEY® DCF FEM RESECT BLOCK W/ WIDE ANT SLOT SZ 3	1
K0014384	ODYSSEY® DCF FEM RESECT BLOCK W/ WIDE ANT SLOT SZ 4	1
K0014385	ODYSSEY® DCF FEM RESECT BLOCK W/ WIDE ANT SLOT SZ 5	1
K0017409	ODYSSEY® FEM TRIAL RESECTION BLOCK EXTRACTOR FOR SLAPHAMMER	1
18770140	ORTHOLOC® PIN PULLER	1
K0014451	ODYSSEY® SULCUS CUT GUIDE SIZE 1	1
K0014452	ODYSSEY® SULCUS CUT GUIDE SIZE 2	1
K0014453	ODYSSEY® SULCUS CUT GUIDE SIZE 3	1
K0014454	ODYSSEY® SULCUS CUT GUIDE SIZE 4	1
K0014455	ODYSSEY® SULCUS CUT GUIDE SIZE 5	1
2271FA1200	KNEE IMPACTOR/EXTRACTOR TOMMY BAR	2
K0014337	ODYSSEY® 8MM GAUGE FOR 4-IN-1 RESECTION GUIDE	1
K0002010	ADVANCE® PIN PULLER	1



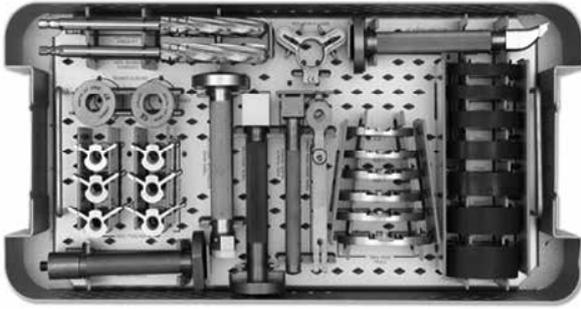
K100KT70 - Tray 3

P/N	Description	Quantity
KS001051	ODYSSEY® DCF FEMORAL TRIAL TRAY	1
KFTCMR1L	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 1L	1
KFTCMR2L	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 2L	1
KFTCMR3L	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 3L	1
KFTCMR4L	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 4L	1
KFTCMR5L	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 5L	1
KFTCMR1R	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 1R	1
KFTCMR2R	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 2R	1
KFTCMR3R	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 3R	1
KFTCMR4R	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 4R	1
KFTCMR5R	ADVANCE® FEMORAL TRIAL W/ SLOT SZ 5R	1
K0015100	ADVANCE® FEMORAL IMPACTOR MONOLITHIC	1



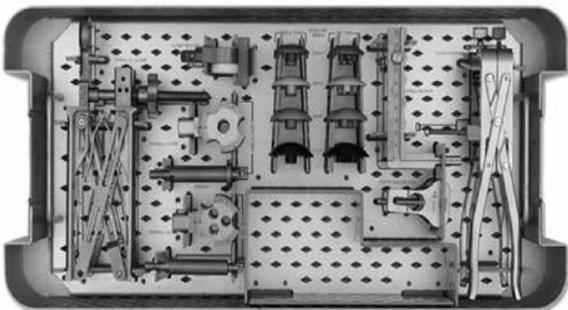
K100KT70 - Tray 4

P/N	Description	Quantity
KS001052	ODYSSEY® DCF EM TRAY	1
K0000901	ADVANCE® EXTERNAL CHECK ROD	1
18410135	SCREWDRIVER	1
K0040042	ODYSSEY® MIS TIB STYLUS W/ REDUCED TIP	1
K0027445	ODYSSEY® IM TIBIAL ALIGNMENT	1
K0040052	ODYSSEY® EXTERNAL ALIGNMENT GUIDE	1
K0071142	ODYSSEY® 2MM RECUT GUIDE	1
K0040117	ADVANCE® REPLACEMENT SHORT EM STANDARD COMPONENT	1
K0040116	EM TIBIAL RESECTION GUIDE W/ PROXIMAL ADJUSTMENT KNOB	1
K004007L	ODYSSEY® 3DG TIB GUIDE LEFT	1
K004007R	ODYSSEY® 3DG TIB GUIDE RIGHT	1



K100KT70 - Tray 5

P/N	Description	Quantity
KS001056	ODYSSEY® TIBIAL GUIDE TRAY	1
K0027102	ADVANCE® PRESS FIT KEEL REAMER	1
K0027103	ADVANCE® OVERSIZE KEEL REAMER	1
K0027104	ADVANCE® PRESS FIT REAMER SLEEVE	1
K0027105	ADVANCE® OVERSIZE REAMER SLEEVE	1
K0027440	ODYSSEY® KEEL PUNCH GUIDE	1
K0027211	ADVANCE® 45° ANGLED INSERT IMPACTOR	1
K0003002	ADVANCE® FLEXION / EXTENSION BLOCK MINUS 2MM	1
K0003010	ADVANCE® FLEXION / EXTENSION BLOCK 10MM	1
K0003012	ADVANCE® FLEXION / EXTENSION BLOCK 12MM	1
K0003014	ADVANCE® FLEXION / EXTENSION BLOCK 14MM	1
K0003017	ADVANCE® FLEXION / EXTENSION BLOCK 17MM	1
K0003020	ADVANCE® FLEXION / EXTENSION BLOCK 20MM	1
K0003025	ADVANCE® FLEXION / EXTENSION BLOCK 25MM	1
KTIBSL10	ADVANCE® UNIVERSAL TRIAL BASE SIZE 1	1
KTIBSL20	ADVANCE® UNIVERSAL TRIAL BASE SIZE 2/1+	1
KTIBSL30	ADVANCE® UNIVERSAL TRIAL BASE SIZE 3/2+	1
KTIBSL40	ADVANCE® UNIVERSAL TRIAL BASE SIZE 4/3+	1
KTIBSL50	ADVANCE® UNIVERSAL TRIAL BASE SIZE 5/4+	1
KTIBSL60	ADVANCE® UNIVERSAL TRIAL BASE SIZE 6/5+	1
K0021012	ADVANCE® TRIAL TIBIAL BASE HANDLE/DRILL GUIDE	1
K0027101	ADVANCE® KEEL PUNCH GUIDE HANDLE	1
K0027225	ADVANCE® MONOLITHIC TIBIAL IMPACTOR	1
K0027227	ADVANCE® II TIB BASE EXT/IMP	1
K0001112	ADVANCE® DRIVER HANDLE THREADED W/ CHAMFER	1
K0027301	ADVANCE® PRESS FIT KEEL BROACH SIZE 1-2	1
K0027302	ADVANCE® PRESS FIT KEEL BROACH SIZE 3-4	1
K0027303	ADVANCE® PRESS FIT KEEL BROACH SIZE 5-6	1
K0027304	ADVANCE® OVERSIZE KEEL BROACH SIZE 1-2	1
K0027305	ADVANCE® OVERSIZE KEEL BROACH SIZE 3-4	1
K0027306	ADVANCE® OVERSIZE KEEL BROACH SIZE 5-6	1

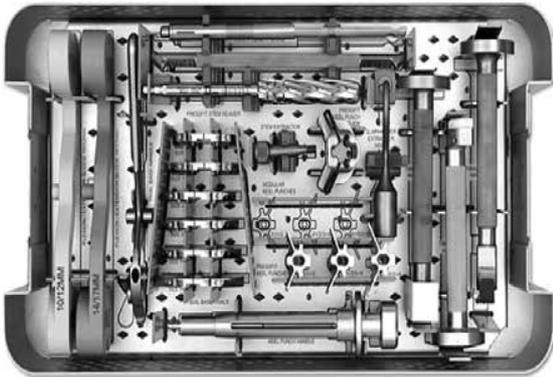


K100KT70 - Tray 6

P/N	Description	Quantity
KS001055	ODYSSEY® PATELLAR PREPARATION TRAY	1
KPTR32ST	ADVANCE® PATELLA TRIAL THIN SINGLE PEG 32MM	1
KPTR35ST	ADVANCE® PATELLA TRIAL THIN SINGLE PEG 35MM	1
KPTR38SP	ADVANCE® PATELLA TRIAL SINGLE PEG 38MM	1
KPTR41SP	ADVANCE® PATELLA TRIAL SINGLE PEG 41MM	1
KPTRTP32	ADVANCE® ALL POLY PATELLA TRIAL TRI-PEG 32MM	1
KPTRTP35	ADVANCE® ALL POLY PATELLA TRIAL TRI-PEG 35MM	1
KPTRTP38	ADVANCE® ALL POLY PATELLA TRIAL TRI-PEG 38MM	1
KPTRTP41	ADVANCE® ALL POLY PATELLA TRIAL TRI-PEG 41MM	1
K0031001	ADVANCE® PATELLAR CLAMP SEATER	1
K0031000	ADVANCE® PARALLEL PATELLAR CLAMP STREAMLINE	1
K0031002	ADVANCE® ALL POLY PATELLAR ENDMILL GUIDE TRI-PEG	1
K0031005	ADVANCE® ALL POLY PATELLAR ENDMILL SINGLE POST	1
K0031004	ADVANCE® ALL POLY PATELLAR ENDMILL SINGLE POST	1
K0031013	ADVANCE® ONLAY TRI-PEG ALL-POLY PATELLA ENDMILL	1
18410213	ORTHOLOC® PATELLAR/FEMORAL HEAD SIZING CALIPER	1
K0031040	ODYSSEY® PATELLA CLAMP FOR ADVANCE®	1
K0031041	ODYSSEY® ONLAY PATELLA DEPTH GAUGE FOR ADVANCE®	1

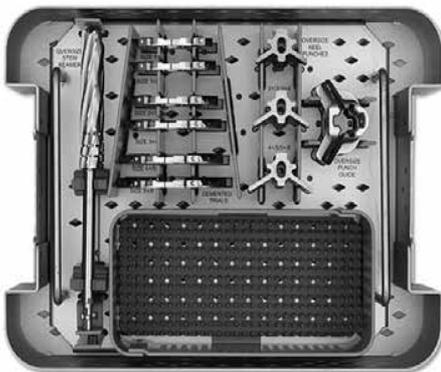
K100KT74 ODYSSEY® BIOFOAM® DCF Knee Instrument Set

This kit shares the same tray layout and content of K100KT70 for trays 1, 2, 3, 4 and 6. Tray 5 is different and its content is herewith described. The K100KT74 also contains the additional tray 7.



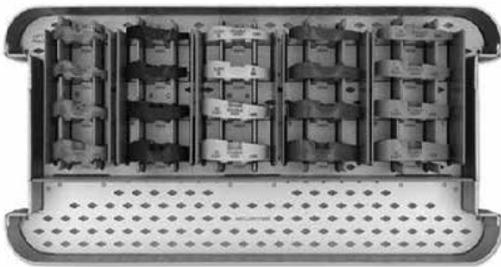
K100KT74 - Tray 5

P/N	Description	Quantity
K0071012	ODYSSEY® FLEXION / EXTENSION BLOCK 10/12MM	1
K0071417	ODYSSEY® FLEXION / EXTENSION 14/17MM	1
K0072101	ODYSSEY® TIBIAL TRIAL BASE HANDLE	1
KTIBBF10	ODYSSEY® BIOFOAM® TRIAL TIBIAL BASE SIZE 1	1
KTIBBF20	ODYSSEY® BIOFOAM® TRIAL TIBIAL BASE SIZE 1+/2	1
KTIBBF30	ODYSSEY® BIOFOAM® TRIAL TIBIAL BASE SIZE 2+/3	1
KTIBBF40	ODYSSEY® BIOFOAM® TRIAL TIBIAL BASE SIZE 3+/4	1
KTIBBF50	ODYSSEY® BIOFOAM® TRIAL TIBIAL BASE SIZE 4+/5	1
KTIBBF60	ODYSSEY® BIOFOAM® TRIAL TIBIAL BASE SIZE 5+/6	1
K0072103	ODYSSEY® BIOFOAM® KEEL PUNCH HANDLE	1
K0072312	ODYSSEY® PRESS FIT KEEL PUNCH SZ 1/1+/2	1
K0072334	ODYSSEY® PRESS FIT KEEL PUNCH SZ 2+/3/3+/4	1
K0072356	ODYSSEY® PRESS FIT KEEL PUNCH SZ 4+/5/5+/6	1
K0072412	ODYSSEY® MODULAR PRESS FIT KEEL PUNCH SZ 1/1+/2	1
K0072434	ODYSSEY® MODULAR PRESS FIT KEEL PUNCH SZ 2+/3/3+/4	1
K0072456	ODYSSEY® MODULAR PRESS FIT KEEL PUNCH SZ 4+/5/5+/6	1
K0027211	ADVANCE® 45° ANGLED INSERT	1
K0027102	ADVANCE® PRESS FIT KEEL REAMER	1
K0072300	ODYSSEY® PRESS FIT PUNCH GUIDE	1
K0027227	ADVANCE® II TIB BASE EXT/IMP	1
K0027225	ADVANCE® MONOLITHIC TIBIAL	1
K0001301	ADVANCE® SCREW DEPTH GAUGE	1
8400DG01	LINEAGE® FIXED ANGLE DRILL GUIDE	1
K0002009	ADVANCE® SLAP HAMMER	1
K0051005	ADVANCE® STEM IMPLANT EXTRACTOR/ADAPTOR	1



K100KT74 - Tray 7

P/N	Description	Quantity
KS001061	ODYSSEY® CEMENTED TIBIAL INSTR TRAY	1
KTBTRL10	ODYSSEY® UNIVERSAL TRIAL TIBIAL BASE SIZE 1	1
KTBTRL20	ODYSSEY® UNIVERSAL TRIAL TIBIAL BASE SIZE 1+/2	1
KTBTRL30	ODYSSEY® UNIVERSAL TRIAL TIBIAL BASE SIZE 2+/3	1
KTBTRL40	ODYSSEY® UNIVERSAL TRIAL TIBIAL BASE SIZE 3+/4	1
KTBTRL50	ODYSSEY® UNIVERSAL TRIAL TIBIAL BASE SIZE 4+/5	1
KTBTRL60	ODYSSEY® UNIVERSAL TRIAL TIBIAL BASE SIZE 5+/6	1
K0072200	ODYSSEY® OVERSIZE PUNCH GUIDE	1
K0072212	ODYSSEY® OVERSIZE KEEL PUNCH SIZES 1/1+/2	1
K0072234	ODYSSEY® OVERSIZE KEEL PUNCH SIZES 2+/3/3+/4	1
K0072256	ODYSSEY® OVERSIZE KEEL PUNCH SIZES 4+/5/5+/6	1
K0027103	ADVANCE® OVERSIZE KEEL REAMER	1



K100KIT7 ADVANCE® Medial-Pivot Trial Instrument Set

P/N	Description	Quantity
KS001007	ADVANCE® LEFT MED-PIV INSERT TRAY	1
KIPN110L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 LEFT 10MM	1
KIPN112L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 LEFT 12MM	1
KIPN114L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 LEFT 14MM	1
KIPN117L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 LEFT 17MM	1
KIPT210L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 LEFT 10MM	1
KIPT212L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 LEFT 12MM	1
KIPT214L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 LEFT 14MM	1
KIPT217L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 LEFT 17MM	1
KIPT310L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 LEFT 10MM	1
KIPT312L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 LEFT 12MM	1
KIPT314L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 LEFT 14MM	1
KIPT317L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 LEFT 17MM	1
KIPT410L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 LEFT 10MM	1
KIPT412L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 LEFT 12MM	1
KIPT414L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 LEFT 14MM	1
KIPT417L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 LEFT 17MM	1
KIPT510L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 LEFT 10MM	1
KIPT512L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 LEFT 12MM	1
KIPT514L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 LEFT 14MM	1
KIPT517L	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 LEFT 17MM	1
KS001008	ADVANCE® RIGHT MED-PIV INSERT TRAY	1
KIPN110R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 RIGHT 10MM	1
KIPN112R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 RIGHT 12MM	1
KIPN114R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 RIGHT 14MM	1
KIPN117R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 1 RIGHT 17MM	1
KIPT210R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 RIGHT 10MM	1
KIPT212R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 RIGHT 12MM	1
KIPT214R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 RIGHT 14MM	1
KIPT217R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 2 RIGHT 17MM	1
KIPT310R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 RIGHT 10MM	1
KIPT312R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 RIGHT 12MM	1
KIPT314R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 RIGHT 14MM	1
KIPT317R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 3 RIGHT 17MM	1
KIPT410R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 RIGHT 10MM	1
KIPT412R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 RIGHT 12MM	1
KIPT414R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 RIGHT 14MM	1
KIPT417R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 4 RIGHT 17MM	1
KIPT510R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 RIGHT 10MM	1
KIPT512R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 RIGHT 12MM	1
KIPT514R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 RIGHT 14MM	1
KIPT517R	ADVANCE® MEDIAL-PIVOT INSERT TRIAL SIZE 5 RIGHT 17MM	1

K913KT01 ADVANCE® Optional Tibial Cutting Blocks Kit

P/N	Description	Quantity
APA02290	Tibial cutting guide Right	1
APA02291	Tibial cutting guide Left	1
APA02295	Ankle clamp	1
APA02294	Stylus	1
APA02288	Spiked fixator	Optional
APA00296	Sliding mass	Optional

Notes

Notes

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