stryker

Triathlon® TS
Knee System

Surgical protocol | **Implants** | **Instruments**

Compatibility

This compatibility chart applies to the X3 inserts with catalog numbers ending with the letter E. Please reach out to your Stryker representative for the compatibility of other Triathlon tibial inserts.

Femoral component/ insert compatibility

Size matching: One up, one down, e.g., size 5 femur with size 4 or 6 insert/baseplate.

	Insert type				
Femoral components	**CR**	**CS**	**PS**	**PSR**	**TS**
TS cemented	**No**	**No**	✔	✔	✔

Femoral component/ patella compatibility

Size matching: Every patella articulates with every femur due to a common radius across all sizes.

	Patella type			
Femoral components	**Asymmetric**	**Asymmetric metal-backed**	**Symmetric metal-backed**	**Symmetric**
TS cemented	✔	✔	✔	✔

Tibial insert/baseplate compatibility

Size matching: Size specific, e.g., size 4 insert to be used only with size 4 baseplate.

- **Note:** TS insert can only be used with the cemented Universal Baseplate.
- **Note:** PS insert trial may be used to trial for PSR insert.

	Insert type				
Tibial Baseplates	**CR**	**CS**	**PS**	**PSR**	**TS**
Cemented Universal	✔	✔	✔	✔	✔

Triathlon TS Augments (for Triathlon PS and TS cemented femurs only)

Distal Augments are designed for use with both the medial and lateral portions of the side indicated, e.g., #4 right is used for medial and lateral compartments on a right femur.

Posterior Augments are universal size specific, e.g., size 4 posterior augments are for the size 4 femur.

Tibial Augments are size specific and come in left medial/right lateral or right medial/left lateral configurations and are only compatible with the cemented Universal Baseplate.

Indications and contraindications

Indications for US and Rest of World:

General Total Knee Arthroplasty (TKR) indications:

- Painful, disabling joint disease of the knee resulting from: noninflammatory degenerative joint disease (including osteoarthritis, traumatic arthritis or avascular necrosis) rheumatoid arthritis or post-traumatic arthritis.
- Post-traumatic loss of knee joint configuration and function.
- Moderate varus, valgus, or flexion deformity in which the ligamentous structures can be returned to adequate function and stability.
- Revision of previous unsuccessful knee replacement or other procedure.
- Fracture of the distal femur and/or proximal tibia that cannot be stabilized by standard fracture management techniques.

The Triathlon Tritanium Tibial Baseplate and Tritanium Metal-Backed Patella components are indicated for both uncemented and cemented use.

The Triathlon Total Knee System beaded and beaded with Peri-Apatite components are intended for uncemented use only.

The Triathlon All Polyethylene tibial components are indicated for cemented use only.

Additional indications for Posterior Stabilized (PS) and Total Stabilizer (TS) Components:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

Additional indications for Total Stabilizer (TS) Components:

- Severe instability of the knee secondary to compromised collateral ligament integrity or function.

Indications for Bone Augments:

- Painful, disabling joint disease of the knee secondary to degenerative arthritis, rheumatoid arthritis, or post-traumatic arthritis, complicated by the presence of bone loss.
- Salvage of previous unsuccessful total knee replacement or other surgical procedure, accompanied by bone loss.

Additional Indications for Cone Augments:

- Severe degeneration or trauma requiring extensive resection and replacement
- Femoral and tibial bone voids
- Metaphyseal reconstruction

The Triathlon Tritanium Cone Augment components are intended for cemented or cementless use.

Indications for EU, EMEA countries requiring CE mark, and Australia:

General Primary Total Knee Arthroplasty (TKA) Indications:

- Painful, disabling joint disease of the knee resulting from: noninflammatory degenerative joint disease.
- Moderate varus, valgus, or flexion deformity in which the ligamentous structures can be returned to adequate function and stability.

Additional Indications for Triathlon Cruciate Retaining (CR) cemented femoral component, CS X3 tibial inserts, Primary Cemented Baseplate, Universal Baseplate, Cemented Symmetric and Asymmetric X3 Polyethylene Patellar components include:

- Revision of previous unsuccessful knee replacement or other procedure.

Additional Indications for Posterior Stabilized (PS) Femoral component, distal fixation pegs and PS/PSR tibial inserts:

- Revision of previous unsuccessful knee replacement or other procedure (cemented PS femoral and PS X3 tibial insert only).
- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

Additional Indications for Posterior Stabilized (PS) Femoral components and PS/PSR tibial inserts when used with the Triathlon Tritanium Baseplate:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.

Indications for Total Stabilizer (TS) Components (TS femoral component, TS tibial inserts, and TS accessory components, including stems, extenders, and offset adapters):

- Revision of previous unsuccessful knee replacement or other procedure.

The following indications apply in complex primary and/or revision Total Knee Arthroplasty:

- Ligamentous instability requiring implant bearing surface geometries with increased constraint.
- Absent or non-functioning posterior cruciate ligament.
- Severe anteroposterior instability of the knee joint.
- Severe instability of the knee secondary to compromised collateral ligament integrity or function.

The Triathlon® Tritanium® Total Knee System Patellar and Tibial Baseplate components are indicated for both uncemented and cemented use in primary total knee arthroplasty.

The Triathlon® Total Knee System beaded with Peri-Apatite components are intended for uncemented use only in primary total knee arthroplasty.

The Triathlon® All Polyethylene tibial components are indicated for cemented use only in primary total knee arthroplasty.

Indications for Tibial and Femoral Bone Augments:

- Painful, disabling joint disease of the knee complicated by the presence of bone loss.
- Revision of previous unsuccessful knee replacement or other procedure, accompanied by bone loss.

Indications for Cone Augments (revision only):

- Severe degeneration requiring extensive resection and replacement.
- Femoral and Tibial bone voids.
- Metaphyseal reconstruction.

The Triathlon Tritanium® Cone Augment components are intended for cemented or cementless use with the Triathlon TS Femoral component and Universal Tibial baseplate. The Cone Augments are cemented to the femoral or tibial component; the bone interface may be cemented or cementless.

Contraindications

- Any active or suspected latent infection in or about the knee joint.
- Distant foci of infection which may cause hematogenous spread to the implant site.
- Any mental or neuromuscular disorder which would create an unacceptable risk of prosthesis instability, prosthesis fixation failure, or complications in postoperative care.
- Bone stock compromised by disease, infection or prior implantation which cannot provide adequate support and/or fixation to the prosthesis.
- Skeletal immaturity.
- Severe instability of the knee joint secondary to the absence of collateral ligament integrity and function.

See package insert for warnings, precautions, adverse effects, information for patients, and other essential product information.

Before using Triathlon instrumentation, verify:

- Instruments have been properly disassembled prior to cleaning and sterilization.
- Instruments have been properly assembled post-sterilization.
- Instruments have maintained design integrity.
- Proper size configurations are available.

For Instructions for Cleaning, Sterilization, Inspection and Maintenance of Orthopaedic Medical Devices, refer to LSTPI-B and SLI0001.

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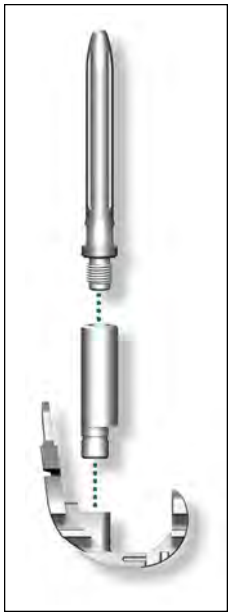
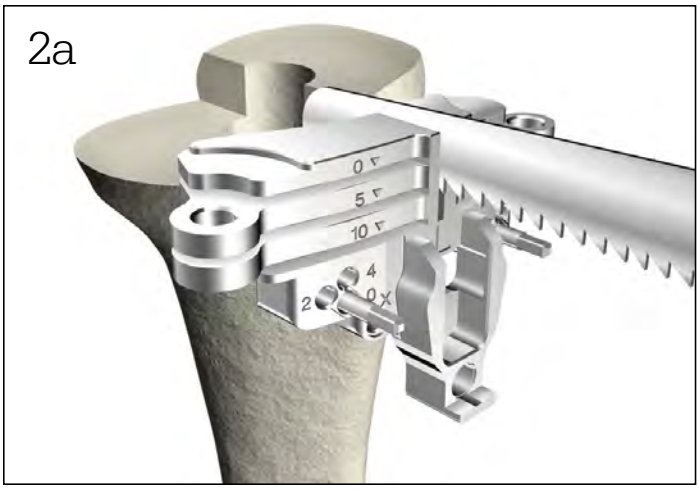
Triathlon TS Knee System with Trial Cutting Guide surgical protocol



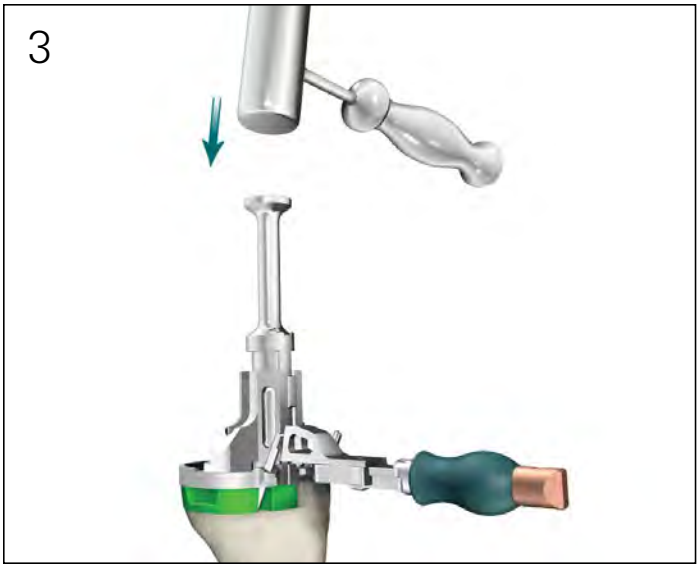
This publication sets forth detailed validated procedures for using the Triathlon TS Knee System. It offers instructions that you should heed, but, as with any such technical guide, each surgeon must consider the particular needs of each patient and make appropriate adjustments when and as required.

Surgical steps

Tibial preparation



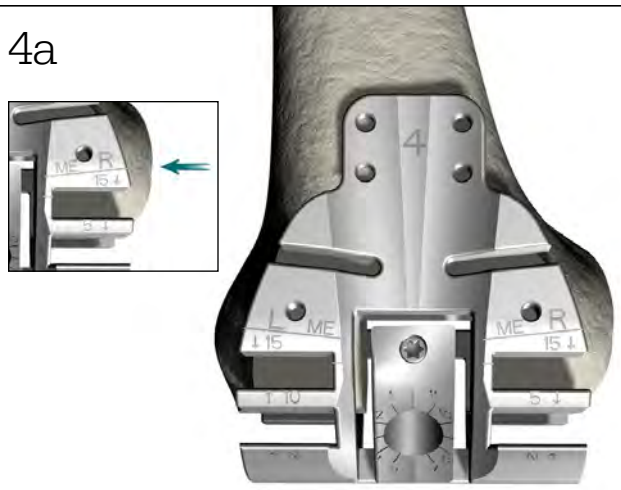
Tibial sizing



Keel Punch

Surgical steps

4a



4b

Femoral preparation

5a

5b

Trial assembly

6a

6b

Implant assembly

Acknowledgments

Stryker Orthopaedics extends its sincere thanks to the global Triathlon TS Knee System Surgeon Panel for their dedication to the development and refinement of the Triathlon Knee System and instrumentation.

Introduction

The Triathlon Knee System Instrumentation has been developed based on Stryker's 30-year orthopaedic history. The system combines the expertise of orthopaedic and human factors engineers with that of surgeons and OR staff worldwide.

Figure 1

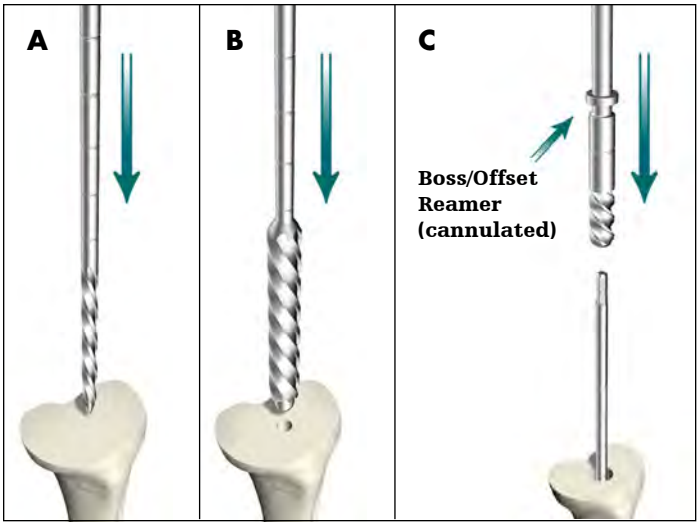


Figure 2

Stem	Tibia
100mm	125 1st groove
100mm w/Offset	150 2nd groove
150mm	175 3rd groove
150mm w/Offset	200 4th groove

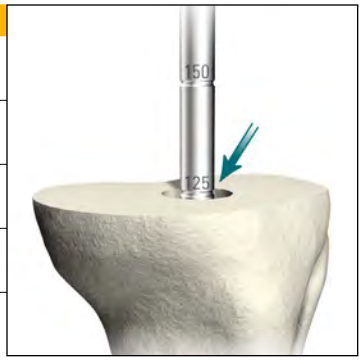


Figure 2D

NOTE:

When reaming with stem extenders, ream an additional 25mm or 50mm accordingly.

Tibial preparation

Preoperative templates

The surgeon may apply the outlines on the implant acetate template to an X-ray image to assist in preoperative sizing.

Exposure

- A standard anterior midline incision is utilized. Any previous incision can be used or incorporated to decrease the risk of skin slough. (**Figure 1**)
- The capsule is entered through a medial parapatellar approach.

Component removal

When removing the components to be revised, great care must be taken to preserve as much of the remaining bone stock as possible and to avoid the risk of fracture of the residual bone. Bone preservation can usually be achieved through the use of small flexible osteotomes, saws and high-speed burring instruments.

Tibial preparation

Tibial canal preparation

- Assemble the 8mm Starter Awl to either the T-handle or power unit using the Universal Driver.
- Ream the tibial intramedullary canal. (**Figure 2A**)
- Ream to the desired depth of stem or to a length of fixation preferred for tibial alignment. Grooves along the shank of the reamer indicate the depth of the reamer in the canal. (**Figure 2D**)
- Progressively ream, increasing diameter in 1mm increments until cortical chatter is achieved, and leave the final reamer in the tibial intramedullary canal. (**Figure 2B**).

Technical points

1. A minimum depth of 125mm, corresponding to the tibial boss and a 100mm stem, is recommended to achieve tibial intramedullary alignment.
2. Tap the final reamer gently with a mallet to assure that it is firmly seated.
3. A tibial offset can be planned for by reaming an additional 25mm, for a total of 50mm greater than the desired stem length (stem + 25mm boss + 25mm offset).
4. If the reamer diameter is less than 16mm, prepare for the boss or offset of the tibial component by reaming over the top of the IM Reamer shaft with the Boss/Offset Reamer (**Figure 2C**). Ream until the Boss/Offset Reamer bottoms out on the IM Reamer or until the depth groove lines up to the planned resected bone depth. (**Figure 2D**)

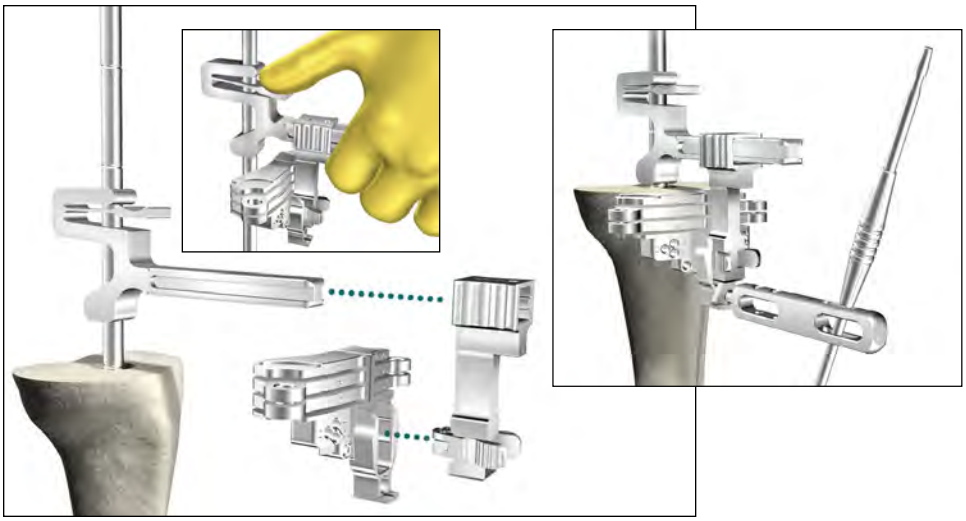


Figure 3

Proximal tibial cleanup resection

- Slide the Resection Guide Tower over top of the IM Reamer by depressing the finger tab as shown (**Figure 3 inset**). Assemble the Revision Tibial Resection Guide to the Support Arm Assembly. Slide the assembly on to the Resection Guide Tower. Set distal/proximal resection level and rotation by depressing the finger tab on the Resection Guide Tower.
- Use the Stop Plate or place the Bladerunner through the cutting slot to determine the resection level. When appropriate resection level and rotational alignment has been determined, pin the Revision Tibial Resection Guide to the proximal tibia. An Alignment Rod can be used to aid in setting the final component position.
- Make a cleanup cut to produce a resected surface with a neutral slope.

Note:

If an augment without offset is required, see page 14.

- Remove the Tibial Resection Guide.

Technical points

Stop Plate is calibrated to give 2mm resection.

Tip:

To help ensure easy removal of the Resection Guide Tower and Support Arm Assembly, place pins perpendicular to the bone.

Instrument bar

6541-4-801
Universal Driver

6543-7-508
8mm Starter Awl

6541-4-800
T-Handle Driver

See Catalog
IM Reamer

6543-7-527
Boss/Offset Reamer

6541-4-602
Universal Alignment Rods

6541-4-003
Headless Pins - 3″

6541-4-809
Headless Pin Driver

6541-4-804
Headless Pin Extractor

6541-4-515
Headed Nails - 1 1/2″

6541-4-575
Headed Nails - 3/4″

6541-4-300
Headed Nail Impactor/Extractor

6543-7-601
Resection Guide

6543-7-600
Support Arm Assembly

Left 6543-6-700
Right 6543-6-701
Revision Tibial Resection Guides - Slotted

6543-7-602
Stop Plate

6541-4-400
Bladerunner

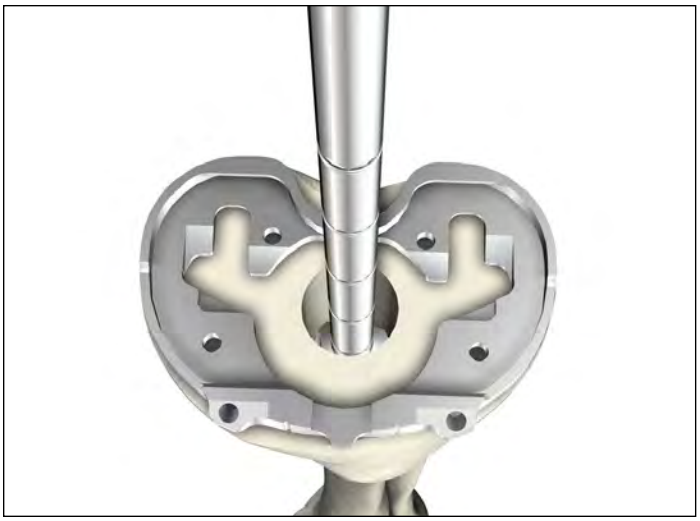


Figure 4

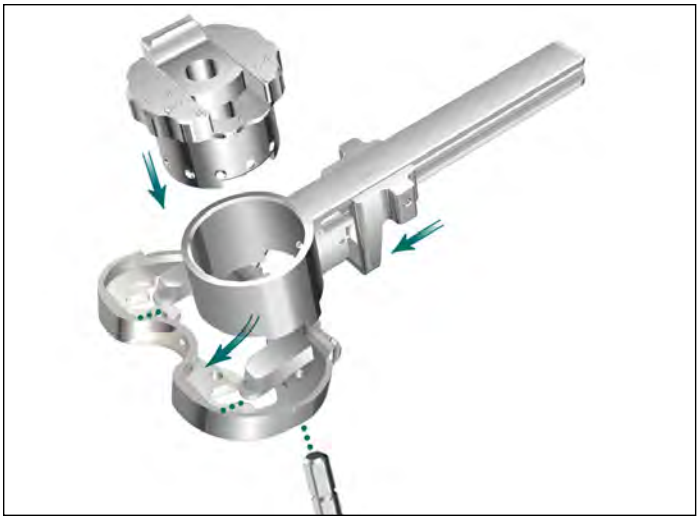


Figure 5

Tibial component sizing

- Size the proximal tibia with a Universal Tibial Template placed over the reamer and onto the resected surface of the tibia (**Figure 4**).
- Once sized, remove the Universal Tibial Template.

Note:

If offsetting between sizes 1, 2 and 3, maximum offset achievable is 6mm.

Offset determination

- Attach the Tibial Offset Bushing Guide to the appropriate size Universal Tibial Template. Assemble the Tibial Offset Bushing to the Tibial Offset Bushing Guide (**Figure 5**).
- Slide the entire assembly over the shaft of the IM Reamer.
- Rotate the offset dial and translate the slider on the Tibial Offset Bushing until optimal coverage of the proximal tibia is achieved with the Universal Tibial Template.
- Rotational alignment of the Universal Tibial Template should also be determined. An Alignment Rod can be used to aid in setting the final component position (**Figure 6**).
- Pin the Universal Tibial Template to the proximal tibia.
- Record the magnitude and position of the tibial offset from the Tibial Offset Bushing (e.g., 4mm offset at 3 o'clock) (**Figure 6**). An offset may not be required to attain optimal tibial coverage.
- Remove the Tibial Offset Bushing Guide and Universal Tibial Template.
- Use a T-handle to remove the IM Reamer.

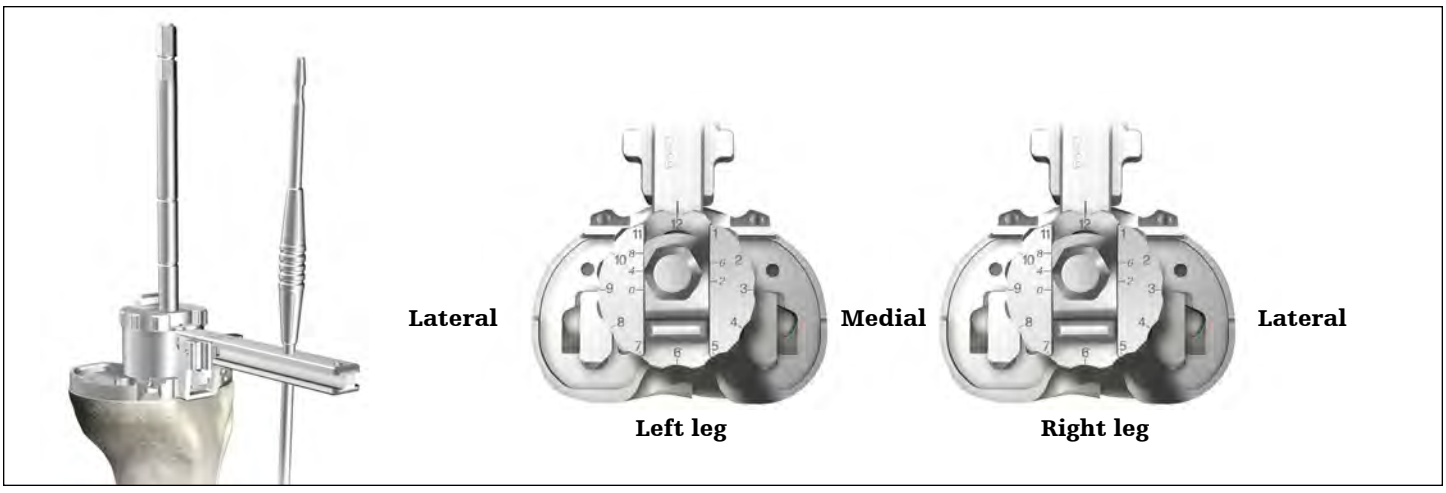


Figure 6

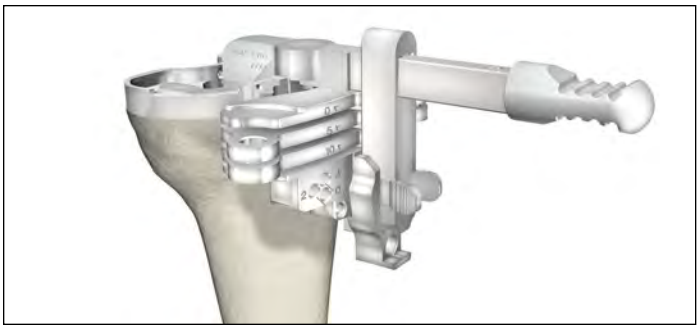


Figure 7

Tibial augment preparation

Option one

Augment preparation with offset

Note:

If no augments are needed, skip to the steps outlined in the section on keel preparation on page 16.

- If tibia augments are needed, assemble the Revision Tibial Resection Guide to the Tibial Resection Guide Link.
- Assemble the Tibial Resection Guide Link to the Universal Tibial Template.
- Pin the Revision Tibial Resection Guide to the proximal tibia (**Figure 7**).
- Remove the Resection Guide Link and Universal Tibial Template.

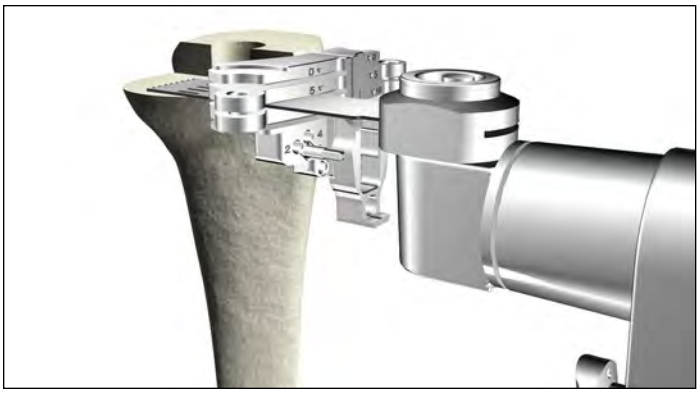


Figure 8

- Make the appropriate 5mm or 10mm tibial augment resections (**Figure 8**).
- Remove the Revision Tibial Resection Guide from the tibia.
- Assemble the appropriate Tibial Augment Trials to the distal surface of the Universal Tibial Template.
- Place the assembly on the resected tibial plateau and using the Headed Nails/Headless Pins, re-pin the Universal Tibial Template to the proximal tibia.

Instrument bar

See Catalog
Universal Tibial Template

Left 6543-6-700
Right 6543-6-701
Revision Tibial Resection Guides - Slotted

6543-2-703
Tibial Resection Guide Link

6543-7-600
Support Arm Assembly

6541-4-515
Headed Nails - 1 1/2″

6541-4-575
Headed Nails - 3/4″

6541-4-300
Headed Nail Impactor/Extractor

6543-2-600
Tibial Offset Bushing

6543-2-601
Tibial Offset Bushing Guide

6541-4-806
Universal Alignment Handle

6541-4-602
Universal Alignment Rods

6541-4-800
T-Handle Driver

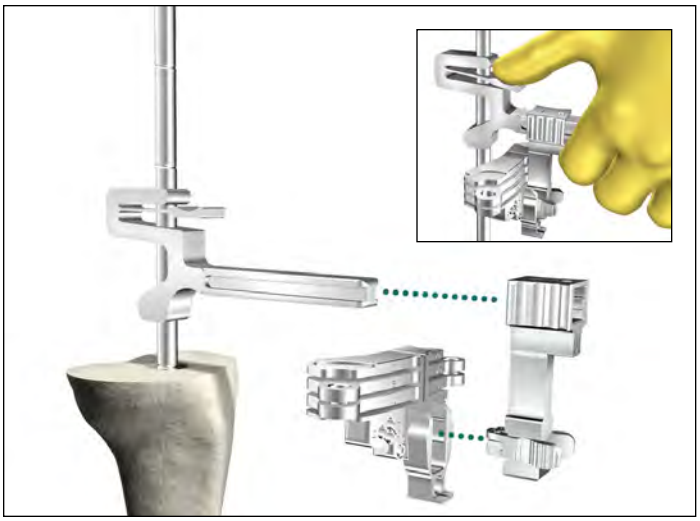


Figure 9

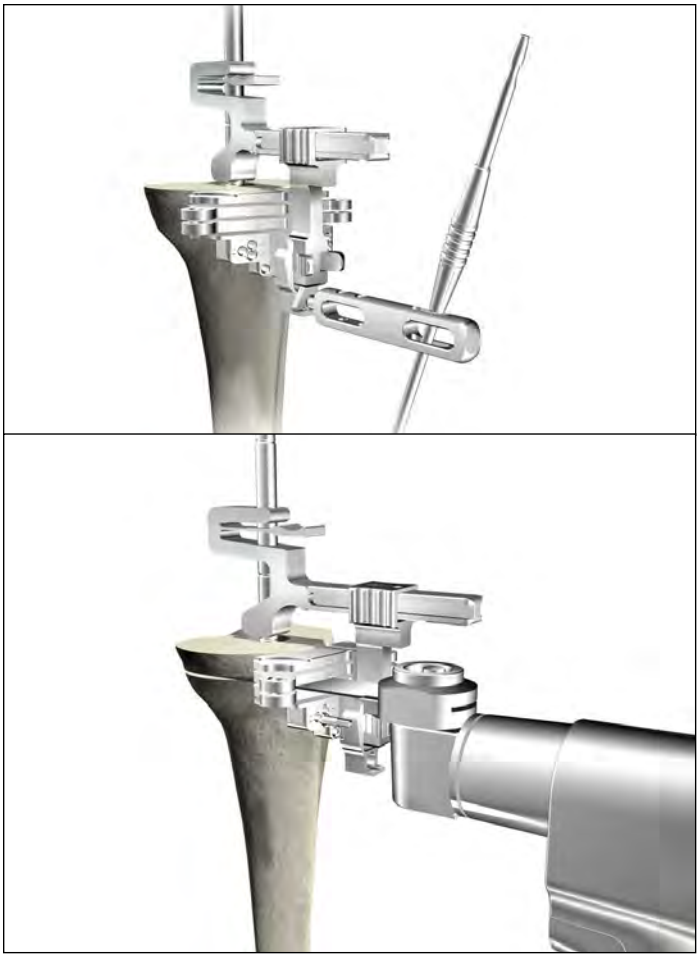


Figure 10

Tibial augment preparation

Option two

One-step cleanup and augment preparation without offset

Note:

Prior to completing the tibial augment resections, ensure that an offset is not required.

- In cases not needing an offset, an abbreviated cleanup and augment preparation may be performed.
- Slide the Resection Guide Tower over top of the IM Reamer by depressing the finger tab as shown (**Figure 9 inset**). Assemble the Revision Tibial Resection Guide to the Support Arm Assembly. Slide the assembly on to the Resection Guide Tower. Set distal/proximal resection level and rotation by depressing the finger tab on the Resection Guide Tower.
- Use the Stop Plate or place the Bladerunner through the cutting slot to determine the resection level. When appropriate resection level and rotational alignment has been determined, pin the Revision Tibial Resection Guide to the proximal tibia. An Alignment Rod can be used to aid in setting the final component position (**Figure 10**).
- Make a cleanup cut to produce a resected surface with a neutral slope.

Technical points

Stop Plate is calibrated to give 2mm resection.

Tip:

To help ensure easy removal of the Resection Guide Tower and Support Arm Assembly, place pins perpendicular to the bone.

- 5mm and 10mm tibial augment resections can be made at this point with the Revision Tibial Resection Guide.
- Using a narrow, 15mm - wide, 0.050" thick oscillating saw blade, make a 5mm or 10mm augment resection as appropriate (**Figure 10**).

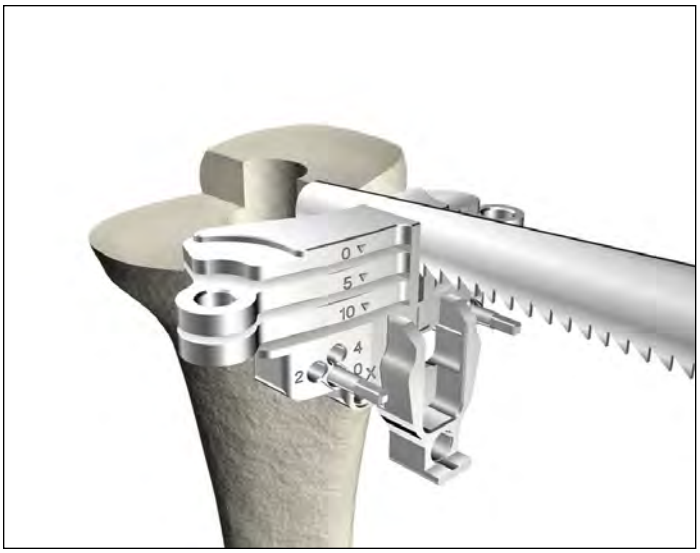


Figure 11

- Using a reciprocating saw blade through the Revision Tibial Resection Guide, complete the sagittal augment resection (**Figure 11**).

Technical points

- Surgeons who prefer a non-captured cleanup cut can use the top of the resection guide. The cleanup cut slot and 5mm slot can then be used for 5 and 10mm augment resections, respectively.

Note:

The 10mm slot should not be used in this case.

- If desired, the Support Arm Assembly, Resection Guide Tower and IM Reamer can be removed before completing the tibial resections. To do so, depress the tabs on the Support Arm Assembly to disengage it from the Revision Tibial Resection Guide. Slide the Support Arm Assembly anterior. Depress the tab on the Resection Guide Tower and slide it off the IM Reamer. Use a T-handle to remove the IM Reamer.

Instrument bar

6541-4-801
Universal Driver

6543-7-508
8mm Starter Awl

6541-4-800
T-Handle Driver

See Catalog
IM Reamer

6543-7-527
Boss/Offset Reamer

6543-7-601
Resection Guide Tower

6543-7-600
Support Arm Assembly

Left 6543-6-700
Right 6543-6-701
Revision Tibial Resection Guides - Slotted

6543-7-602
Stop Plate

6541-4-400
Bladerunner

6541-4-806
Universal Alignment Handle

6541-4-602
Universal Alignment Rods

6541-4-003
Headless Pins - 3″

6541-4-809
Headless Pin Driver

6541-4-804
Headless Pin Extractor

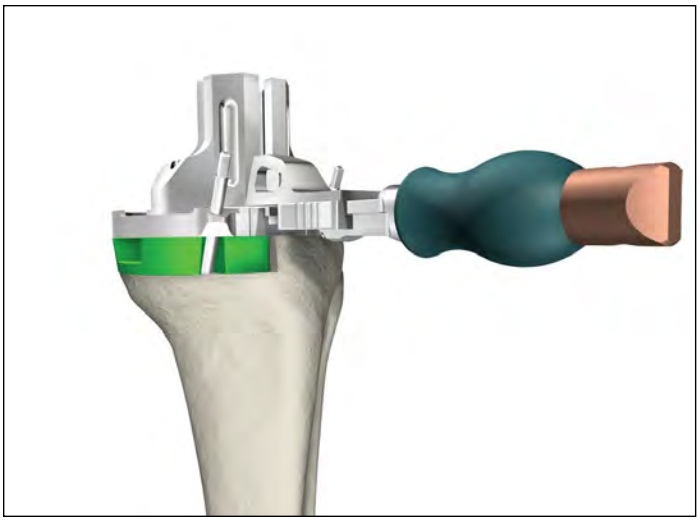


Figure 12

Keel preparation

- Assemble the appropriate size Keel Punch Guide to the Universal Tibial Template by inserting, at a slight angle to the top of the Universal Tibial Template, the two locating slots toward the posterior portion of the Universal Tibial Template. Allow the Keel Punch Guide to sit flat on the Universal Tibial Template and push forward on the handle to lock the Keel Punch Guide to the Universal Tibial Template (**Figure 12**).

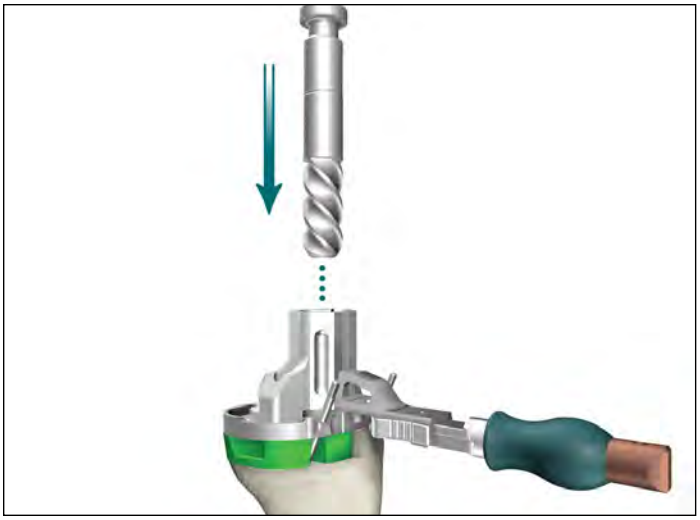


Figure 13

Offset boss reaming

If offset preparation is required, an additional reaming step is needed to prepare for the offset tibial boss.

- Attach the Boss Reamer to the Universal Driver. Place the Boss Reamer into the Keel Punch Guide. Ream to the appropriate depth marker indicated by the step on the Reamer shank (up to the step for Size 1-3 Keel Punch Guide and all the way to the stop for Size 4-8 Keel Punch Guide) (**Figure 13**).

Figure 14

- Place the appropriate Keel Punch into the Keel Punch Guide. Use a mallet to impact the punch. Advance the Keel Punch until it seats fully in the Keel Punch Guide (**Figure 14**).

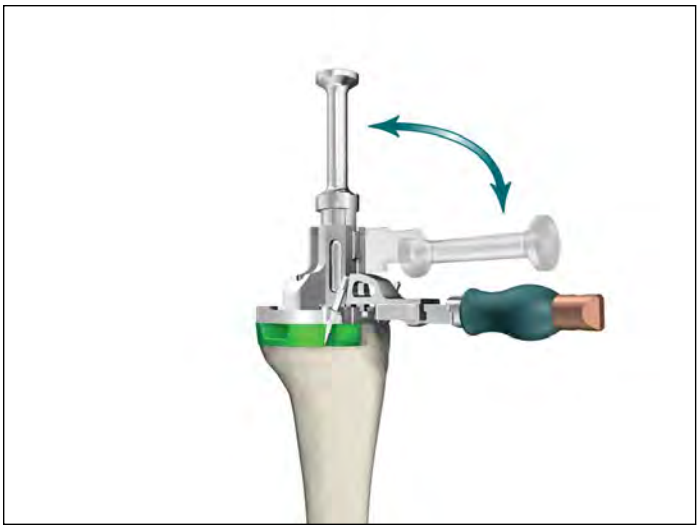


Figure 15

- To extract the Keel Punch, lift up on the Keel Punch Guide handle and pull the handle to cantilever the Keel Punch out of the tibia (**Figure 15**). Remove the Headless Pins with the Headless Pin Extractor (or Headed Nails with the Headed Nail Impactor Extractor) and remove the Universal Tibial Template.

Instrument bar

Left 6543-6-700
Right 6543-6-701
Revision Tibial Resection Guides - Slotted

See Catalog
Universal Tibial Template

Sizes 1, 2, 3 - **6541-2-013**
Sizes 4, 5, 6 - **6541-2-046**
Sizes 7, 8 - **6541-2-078**
Keel Punch

Sizes 1, 2, 3 - **6541-2-713**
Sizes 4, 5, 6, 7, 8 - **6541-2-748**
Keel Punch Guide

See Catalog
Tibial Augment Trial - LM/RL

6541-4-801
Universal Driver

6543-7-527
Boss/Offset Reamer

6541-4-003
Headless Pins - 3″

6541-4-809
Headless Pin Driver

6541-4-804
Headless Pin Extractor

6541-4-515
Headed Nails - 1 1/2″

6541-4-575
Headed Nails - 3/4″

6541-4-300
Headed Nail Impactor/Extractor

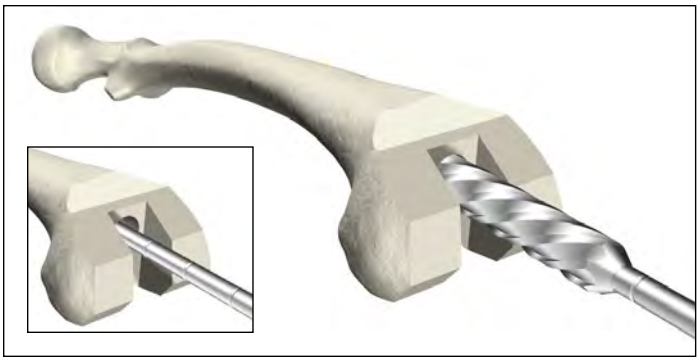


Figure 16

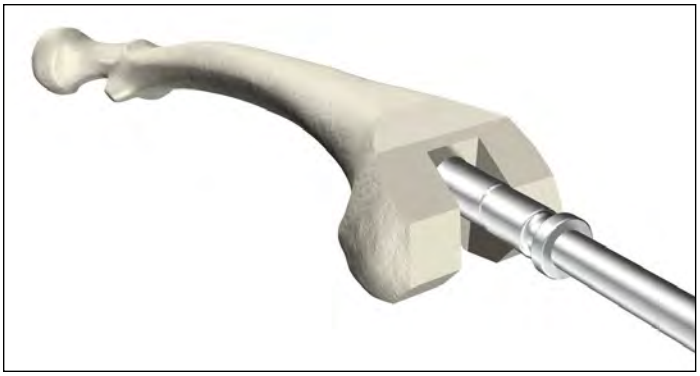
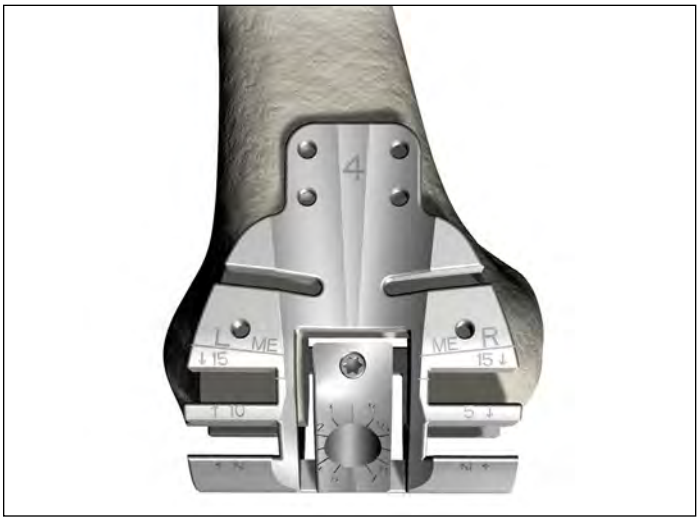


Figure 17



Femoral preparation

Femoral canal preparation

- Assemble the 8mm Starter Awl to either the T-handle or power unit using the Universal Driver.
- Ream the femoral intramedullary canal.
- Ream to the desired depth of stem or length of fixation preferred for femoral alignment. Grooves along the shank of the reamer indicate the depth of the reamer in the canal (**Figure 16**).
- Progressively ream, increasing diameter in 1mm increments until cortical chatter is achieved, and leave the final reamer in the femoral intramedullary canal.

Technical points

1. A minimum depth of 150mm, corresponding to the femoral boss and a 100mm stem, is recommended to achieve femoral intramedullary alignment.
2. Tap the final reamer gently with a mallet to assure that it is firmly seated.
3. A femoral offset can be planned for by reaming an additional 25mm, for a total of 75mm greater than the desired stem length (stem + 50mm from the joint line to the boss + 25mm offset).

Stem	Femur
100mm	150 2nd groove
100mm w/Offset	175 3rd groove
150mm	200 4th groove
150mm w/Offset	225 5th groove

Note:

When reaming with stem extenders, ream an additional 25mm or 50mm accordingly.

4. If the reamer diameter is less than 16mm, prepare for the boss of the Femoral Component by reaming over the top of the IM Reamer shank with the Boss/Offset Reamer. Ream until the step on the Boss/Offset Reamer lines up with the planned resected bone depth (**Figure 17**).

Triathlon Trial Cutting Guide

Trial and assess before resection:

The Trial Cutting Guide may be used to help address issues in TKR, such as absence of bony landmarks, joint line restoration and proper implant sizing and positioning.

To utilize this option for femoral preparation, refer to page 38 for complete surgical protocol.

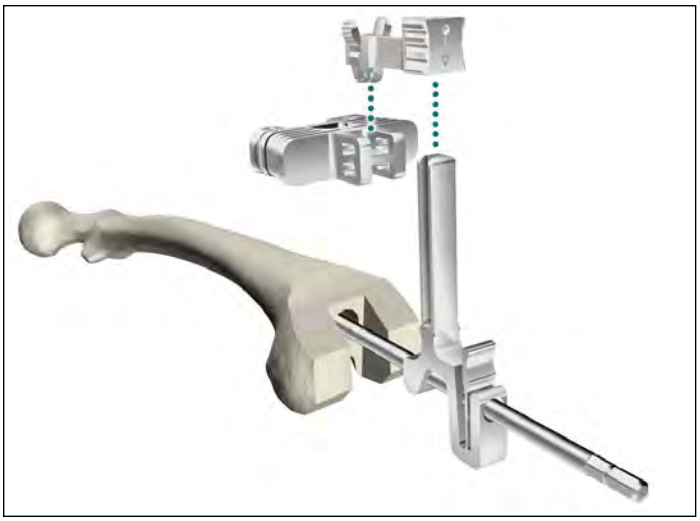


Figure 18

Distal femoral resection

- Slide the Resection Guide Tower over the top of the IM Reamer by depressing the finger tab. Assemble the Revision Distal Resection Guide to the Support Arm Assembly. Slide the assembly on to the Resection Guide Tower (**Figure 18**). Verify that the Revision Distal Resection Guide reads "Left" for left leg or "Right" for right leg on the side facing away from the femur.

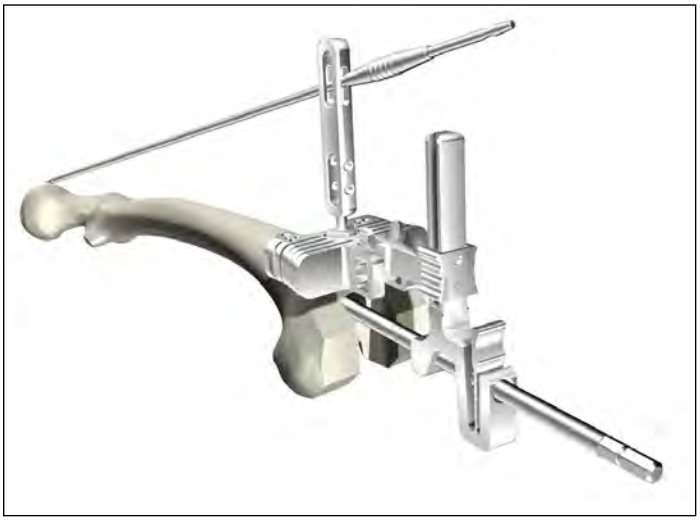


Figure 19

- Set distal/proximal resection level and orientation by depressing the finger tab on the Resection Guide Tower and moving the assembly accordingly.

Note:

A groove on the Revision Distal Resection Guide marked "ME" can be used in conjunction with the Bladerunner to align the Revision Distal Resection Guide with the medial epicondyle in order to recreate the anatomical joint line (**Figure 20**).

Instrument bar

6541-4-801
Universal Driver

6543-7-508
8mm Starter Awl

6541-4-800
T-Handle Driver

See Catalog
IM Reamer

6543-7-527
Boss/Offset Reamer

6543-7-601
Resection Guide Tower

6543-7-600
Support Arm Assembly

6543-1-721
Revision Distal Resection Guide

6541-4-400
Bladerunner

6541-4-003
Headless Pins - 3"

6541-4-809
Headless Pin Driver

6541-4-804
Headless Pin Extractor

6541-4-806
Universal Alignment Handle

6541-4-602
Universal Alignment Rods

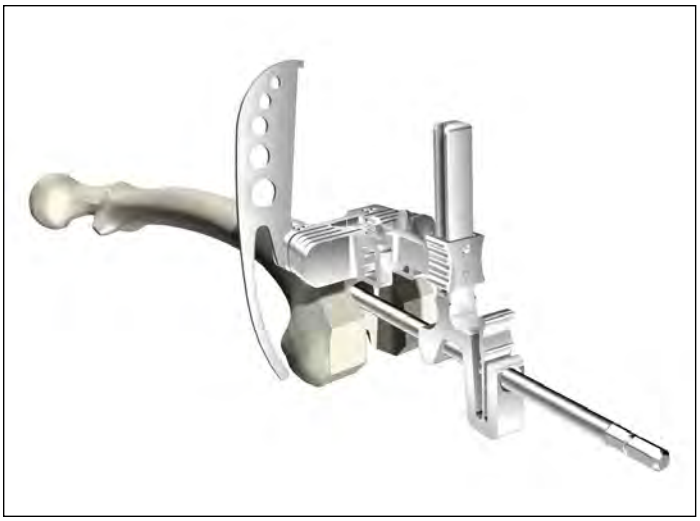


Figure 20

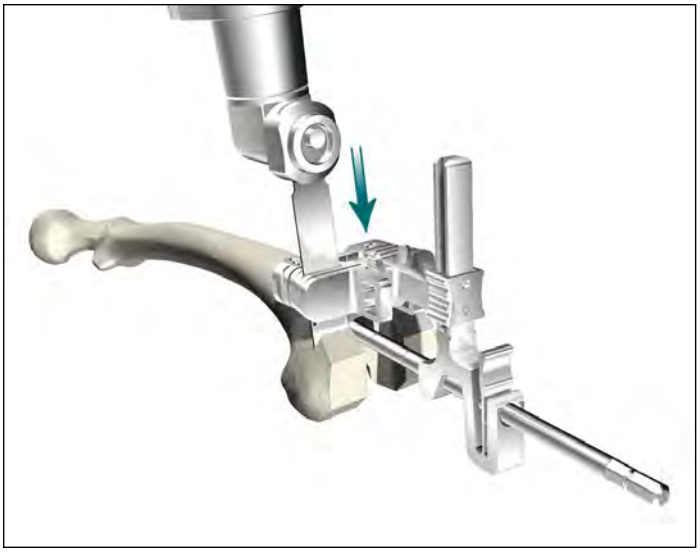


Figure 21

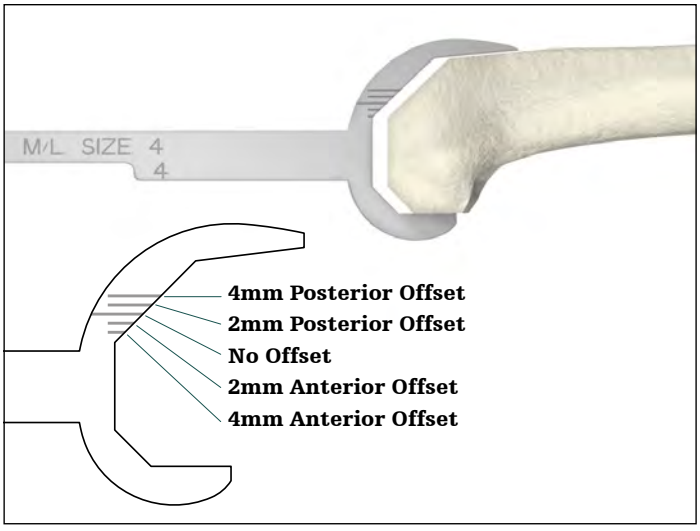


Figure 22

- Alignment can be verified using an Alignment Rod and the Universal Alignment Handle (**Figure 19**).
- Pin the Revision Distal Resection Guide to the distal femur.

Distal femoral deficiency evaluation and augment preparation

- Resect the distal femur. Five, 10 and 15mm distal augment resections can be made at this point with the Revision Distal Resection Guide (**Figure 21**).

Technical points

Surgeons who prefer a non-captured cleanup cut can use the top of the Revision Distal Resection Guide. The cleanup cut slot, 5mm and 10mm slot can then be used for a 5, 10 and 15mm augment resections, respectively.

Note:

In this scenario, do not use the 15mm cutting slot.

- If desired, the Support Arm Assembly, Resection Guide Tower and IM Reamer can be removed before completing the femoral resections. To do so, depress the tabs on the Support Arm Assembly to disengage it from the Revision Distal Femoral Resection Guide. Slide the Support Arm Assembly anterior. Depress the tab on the Resection Guide Tower and slide it off the IM Reamer. Use a T-handle to remove the IM Reamer.

Femoral sizing with templates

- To determine femoral size, match the appropriate Femoral Sizing Templates up to the femur (**Figure 22**).

Note:

Pay careful attention to match the femoral size to the planned restored joint line as opposed to flush with the surfaces of the femur. A long engraved line on the sagittal profile of the Femoral Sizing Templates is designed to indicate the boss position of the Femoral Component, while the shorter engraved lines above and below are designed to represent the boss position of the Femoral Component with 2mm and 4mm anterior and posterior offsets, respectively. In addition, along the handle of each Femoral Sizing Template are two additional tick marks, which are designed to represent the M/L width of the corresponding size Femoral Component.

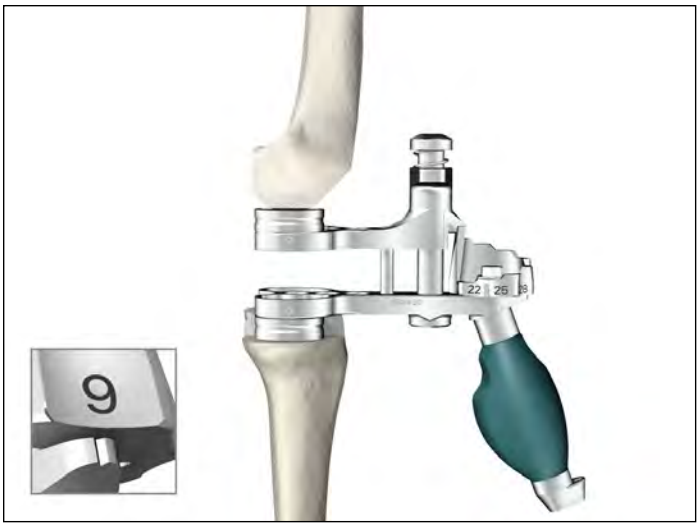


Figure 23A

Gap balancing

Flexion and extension gap balancing:

- Remove the Intramedullary Reamer from the femoral canal.

Extension gap

- Put the knee into extension (0°). If distal femoral and/or tibial augmentation has been prepared for, assemble the appropriate thickness of Adjustable Spacer Block Augments to the appropriate sides of the upper and/or lower paddle of the Adjustable Spacer Block. (**Figure 23B**)
- The numbers on the thumbwheel are designed to correspond to the implant insert thickness. Lift the upper paddle grip to free the adjustment wheel. Align the notch with the appropriate thickness (**Figure 23A**) and assess the gap space until the appropriate insert thickness is established. Read the measurement off of the knob to determine the tibial insert thickness. Remove the Adjustable Spacer Block from the joint space.

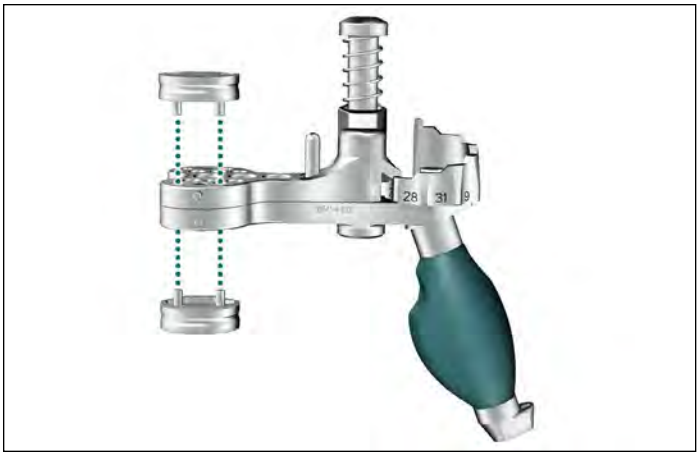


Figure 23B

Instrument bar

6543-7-527
Boss/Offset Reamer

6543-7-601
Resection Guide Tower

6543-7-600
Support Arm Assembly

6543-1-721
Revision Distal Resection Guide

6541-4-400
Bladerunner

6541-4-610
Adjustable Spacer Block

See Catalog
Adjustable Spacer Block Augment

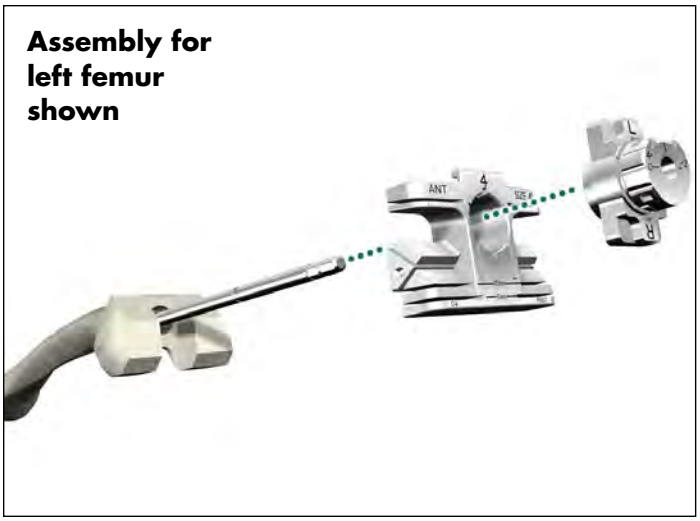


Figure 24

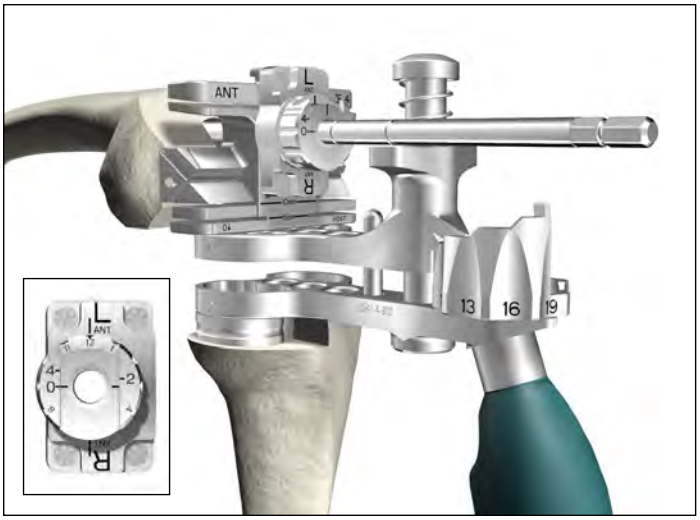


Figure 25

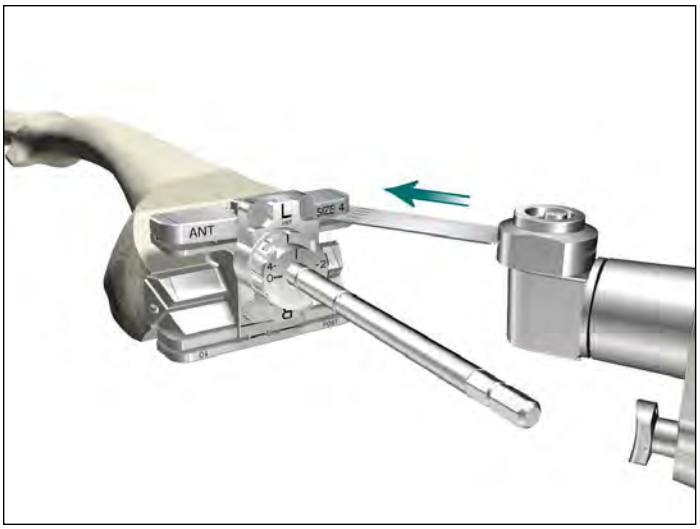


Figure 26

Gap balancing

Femoral resections/offsetting/flexion gap balancing

- If distal augments are required, assemble Distal Spacers to the distal surface of the appropriate size All-in-One Cutting Block corresponding to distal augmentation resections (5, 10, 15mm).
- Assemble the Femoral Offset Bushing to the appropriate size All-in-One Cutting Block, paying careful attention to clock in such that it reads either "Left" or "Right" depending on which is appropriate.
- Re-place the IM Reamer in the femoral canal. Slide the All-in-One Cutting Block and Femoral Offset Bushing over the shank of the IM Reamer (**Figure 24**).
- Put the knee into flexion (90°). If tibial augmentation has been prepared for, assemble the appropriate thickness Adjustable Spacer Block Augment to the lower paddle of the Adjustable Spacer Block. Set the Adjustable Spacer Block to match the measured extension gap. Place the Adjustable Spacer Block between the resected proximal tibia and the posterior surface of the All-in-One Cutting Block.
- Use the upper paddle of the Adjustable Spacer Block as reference for the restored flexion joint line. Rotate the offset dial and slide the slider on the Femoral Offset Bushing and adjust the internal/external rotation of the All-in-One Cutting Block until the posterior surface of the All-in-One Cutting Block is flush with the upper paddle of the Adjustable Spacer Block (**Figure 25**).

Note:

Vertical markings on either side of the All-in-One Cutting Blocks are designed to correspond to the M/L width of the Femoral Components.

- Once the position of the All-in-One Cutting Block is optimized, pin it to the distal femur.
- Record the magnitude and position of the femoral offset from the Femoral Offset Bushing (e.g., 2mm offset at 12 o'clock).
- Remove the Adjustable Spacer Block from the joint space.
- Pin the All-in-One Cutting Block.
- Complete the four femoral resections as well as any 5mm and 10mm posterior augment resections using a 15mm oscillation saw blade (**Figure 26**).

Note:

Posterior cleanup cut is made using the outer most posterior surface of the All-in-One Cutting Block.

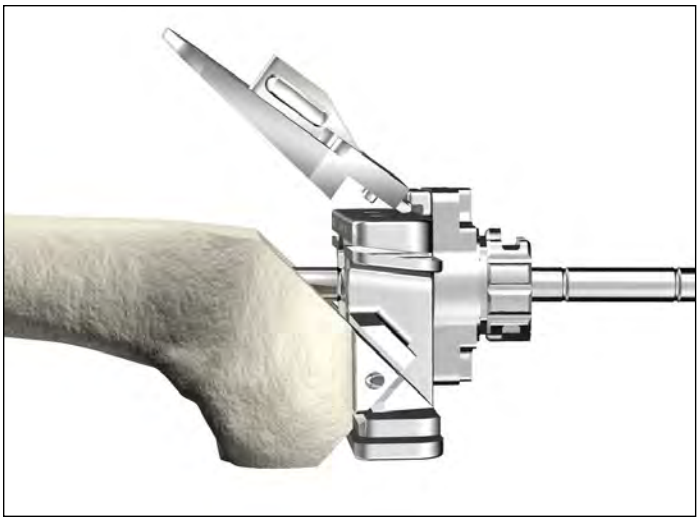


Figure 27A

Figure 27B

- Assemble the Revision Box Cutting Guide to the anterior of the All-in-One Cutting Block (**Figure 27A and 27B**).

Tip:

For added stability, make the anterior resection and anterior chamfer cut first. Then assemble the Revision Box Cutting Guide to the All-in-One Cutting Block. Pin the Revision Box Cutting Guide to the bone and complete the remaining femoral resections.

– Kirby Hitt, M.D.
Temple, Texas

Instrument bar

See Catalog

IM Reamer

See Catalog

All-in-One Cutting Block

6543-1-600

Femoral Offset Bushing

6541-4-610

Adjustable Spacer Block

See Catalog


Adjustable Spacer Block Augment

6543-1-710

Revision Box Cutting Guide

6541-4-003

Headless Pins - 3″

6541-4-809

Headless Pin Driver

6541-4-804

Headless Pin Extractor

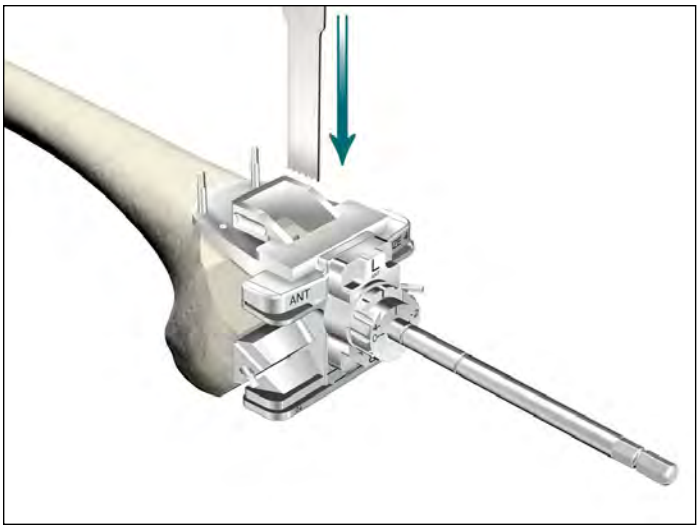


Figure 28

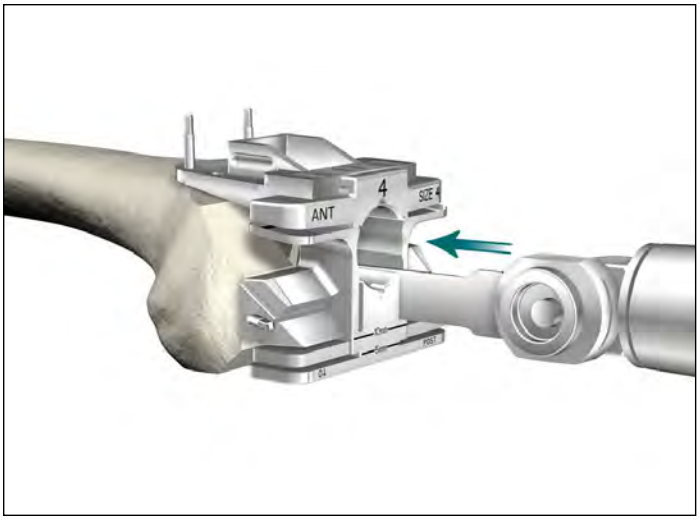


Figure 29

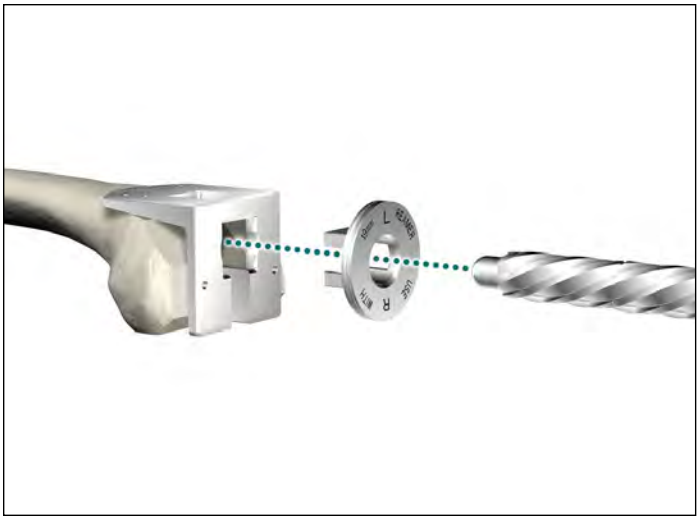


Figure 30

Trialing

- Pin the Revision Box Cutting Guide to the bone.
- Using a narrow 15mm-wide, 0.050" thick oscillating saw blade, resect for the M/L walls and score the distal wall of the femoral box through the Revision Box Cutting Guide (Anterior/Posterior) (**Figure 28**).
- Remove the Femoral Offset Bushing from the All-in-One Cutting Block and slide it off the shaft of the IM Reamer.
- Using a narrow 15mm-wide, 0.050" thick oscillating saw, score the M/L walls of the femoral box preparation through the distal face of the All-in-One Cutting Block (**Figure 29**).
- Using a T-handle, remove the IM Reamer by pulling it through the All-in-One Cutting Block.

Note:

If the IM Reamer cannot be pulled through the All-in-One Resection Guide, disassemble the All-in-One Cutting Block first. With the Revision Box Cutting Guide still pinned in place, remove the fixation pins from the All-in-One Cutting Block. Next remove the All-in-One Cutting Block by pulling/tilting the posterior end away from the distal femur.

- Once the All-in-One Cutting Block is out of the way, remove the IM Reamer and finish the box preparation using an oscillating saw.

Offset femoral boss preparation

- Remove the All-in-One Cutting Block assembly from the femur.
- Insert the Femoral Boss Reamer Bushing into the Femoral Boss Preparation Guide, paying careful attention to clock it such that it reads either "Left" or "Right" depending on which is appropriate (**Figure 30**).
- Place the assembly on to the distal femur and pin the anterior flange to the femur.

Note:

Femoral Boss Reamer Guide and Bushing provides a one-step conversion from Primary Posterior Stabilized to Total Stabilized.

- Prepare for a deeper box cut through the Boss Reamer Guide. An IM Reamer may also be utilized in preparation for a short cemented stem.

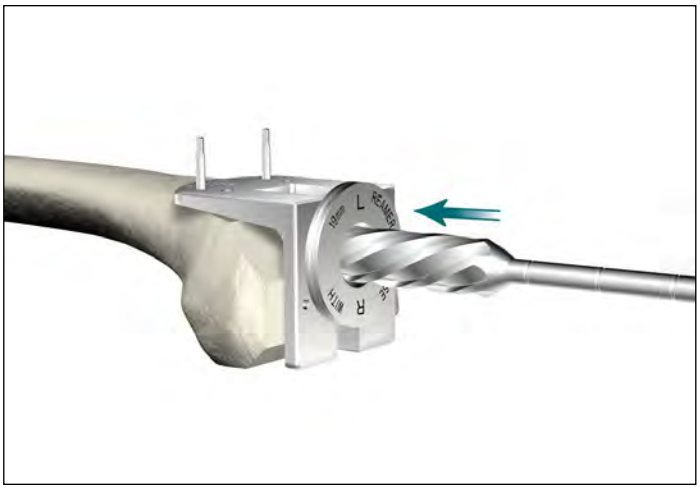


Figure 31

- Attach the 19mm IM Reamer to the Universal Driver.
- Place the 19mm IM Reamer into the Femoral Boss Reamer Bushing (**Figure 31**). Ream until the groove in the cutting teeth of the 19mm IM Reamer lines up with the face of the Femoral Boss Reamer Bushing. This clears for the femoral boss in the offset position.
- Remove the fixation pins and disassemble the Femoral Boss Preparation Guide from the femur.

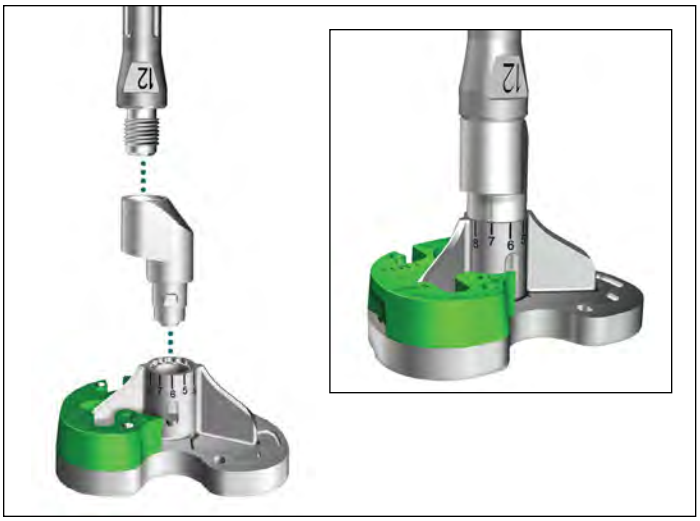


Figure 32

Tibial trial assembly

- **Without offset:** Assemble all Tibial Augment Trials to the appropriate size Tibial Baseplate Trial. Thread the appropriate size Stem Trial into the Tibial Baseplate Trial (**Figure 32**).
- **With offset:** Thread the appropriate size Stem Trial into the appropriate Offset Adapter Trial (**Figure 32**).

Instrument bar

See Catalog
IM Reamer

See Catalog
All-in-One Cutting Block

6543-1-600
Femoral Offset Bushing

6543-1-710
Revision Box Cutting Guide

6543-1-750
Femoral Boss Preparation Guide

6543-1-751
Femoral Boss Reamer Bushing

6541-4-801
Universal Driver

6541-4-003
Headless Pins - 3″

6541-4-809
Headless Pin Driver

6541-4-804
Headless Pin Extractor

See Catalog
Baseplate Trial

See Catalog
Triathlon Stem Trial

See Catalog
Triathlon Stem Extender Trial

See Catalog
Triathlon Offset Adapter Trial

See Catalog
Tibial Augment Trial

6543-4-516
Stem Extender Shaft

Figure 33

Figure 34

- Time the rotation of the Offset Adapter Trial to the position recorded from the Tibial Offset Bushing. Align the scribe line on the Offset Adapter Trial to the scribe line on the Tibial Baseplate boss and snap the Offset Adapter Trial into the Tibial Baseplate Trial.
- To disassemble the Offset Adapter Trial, insert the key on the Universal Counter Wrench into one of the three slots in the Offset Adapter Trial as shown.

- Assemble the tibial trial construct to the Tibial Baseplate Impactor/Extractor and impact onto the tibia (**Figure 33**).
- Assemble the appropriate size Tibial Insert Trial into the Tibial Baseplate Trial.

Femoral trial assembly

- **Without offset:** Assemble all Posterior and Distal Femoral Augment Trials prepared for to the appropriate size Femoral Trial. Ensure that both Distal Femoral Augment Trial tabs have engaged the undercuts of the Femoral Trial (**Figure 34**).
- Thread the appropriate size Stem Trial into the Femoral Trial.

Note:

Distal Femoral Augment Trials are size specific and are offered in 5mm, 10mm, and 15mm thicknesses. See catalog.

Figure 35

- **With offset:** Thread the appropriate size Stem Trial into the appropriate size Offset Adapter Trial (**Figure 35**).
- Time the rotation of the Offset Trial to the position recorded from the Femoral Offset Bushing. Align the scribe line on the Offset Adapter Trial to the scribe line on the femoral boss and snap the Offset Adapter Trial into the Femoral Trial.
- To disassemble the Offset Adapter Trial, insert the key on the Universal Counter Wrench into one of the three slots in the Offset Adapter Trial as shown (**Figure 36**).

Figure 36

Figure 37

- Assemble the femoral trial construct to the Femoral Impactor/Extractor and impact onto the femur (**Figure 37**).
- Perform the trial reduction.

Instrument bar

See Catalog
Baseplate Trial

See Catalog
Triathlon Stem Trial

See Catalog
Triathlon Stem Extender Trial

See Catalog
Triathlon Offset Adapter Trial

See Catalog
Tibial Augment Trial

6543-4-801
Universal Counter Wrench

6541-4-810
Impaction Handle

6541-4-805
Baseplate Impactor/Extractor

See Catalog
Triathlon TS Femoral Trial

See Catalog
Triathlon Femoral Distal Augment Trial

See Catalog
Triathlon Femoral Posterior Augment Trial

See Catalog
Triathlon TS Plus Tibial Insert Trial

6541-4-807
Femoral Impactor/Extractor

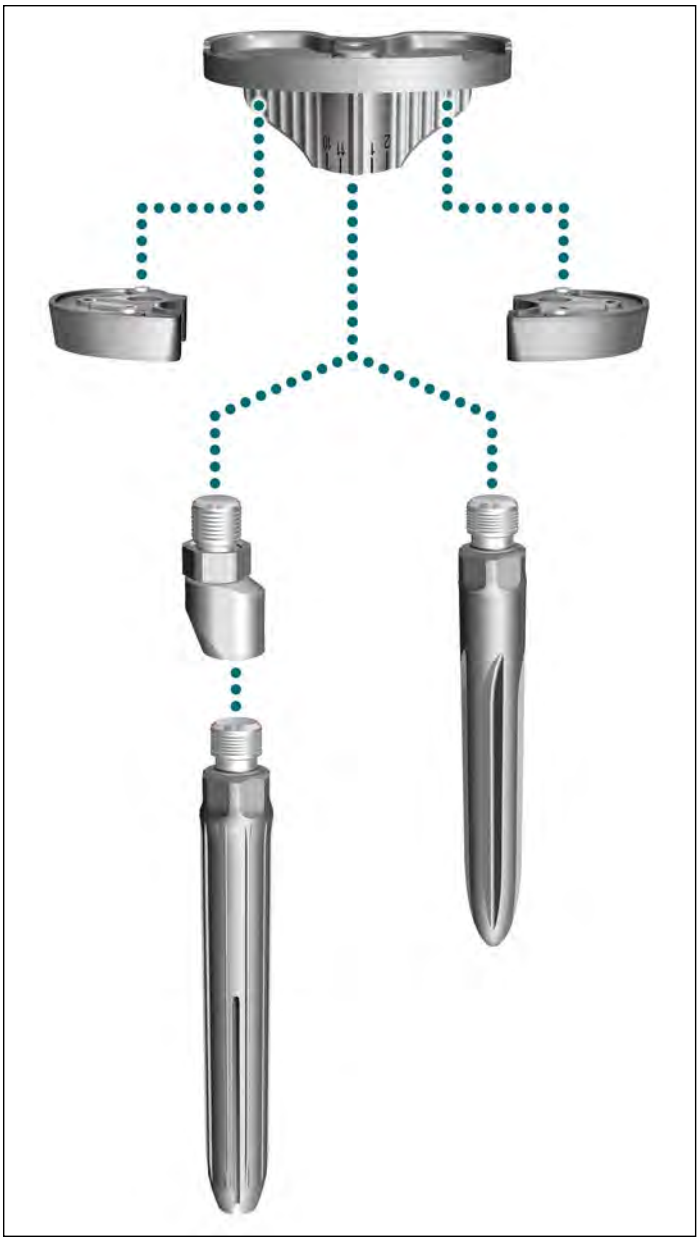


Figure 39

Figure 40

Component assembly

Tibial implant assembly

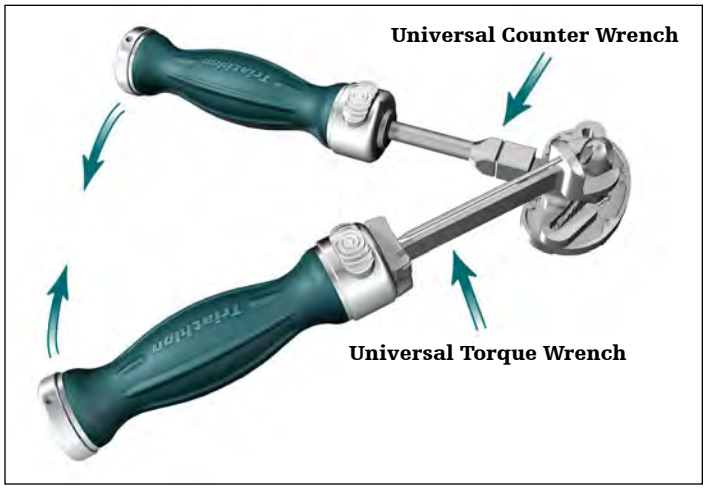


Figure 38

Note:

If not using a stem, re-torque end cap to 120 in-lbs using the Universal Torque Wrench as indicated in **Figure 41**.

Tibia with offset and stem

- Ensure jam nut is up against the Offset Adapter, exposing all of the threads.
- Thread the Offset Adapter into the Baseplate until the jam nut bottoms out on the Tibial Baseplate boss (**Figure 40**).
- Time the rotation of the Offset Adapter to the position recorded from the Tibial Offset Bushing by turning the Offset Adapter counterclockwise and aligning the scribe line on the Offset Adapter to the scribe line corresponding clockface mark on the Tibial Baseplate boss.
- Holding the Offset Adapter in place, turn the jam nut **counterclockwise** and hand tighten it against the Tibial Baseplate boss. This will hold its position for final tightening.

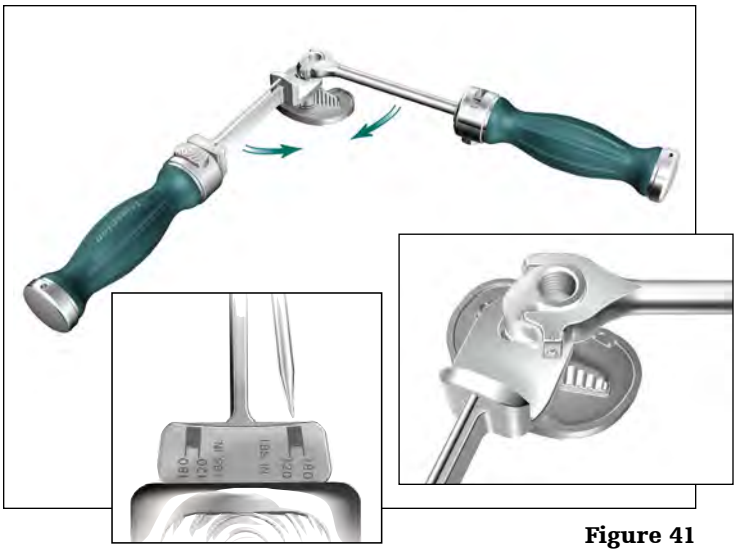


Figure 41

- Holding the Universal Torque Wrench in your **left hand**, place open face end of wrench on the flats of the jam nut.
- Next, holding the Offset Counter Wrench in your **right hand**, place the open face end of the wrench on the flats of the Offset Adapter.
- Tighten by pulling the wrenches **together**. Torque to 120 in-lbs as indicated on the Universal Torque Wrench. (**Figure 41**)

Instrument bar

See Catalog
Universal Tibial Baseplate

See Catalog
Triathlon Tibial Augment

See Catalog
Triathlon Cemented Stem

See Catalog
Triathlon Fluted Stem, Titanium

See Catalog
Triathlon TS Offset Adapter

See Catalog
Triathlon Stem Extender

6541-4-810
Impaction Handle

6543-4-803
Offset Counter Wrench

6543-4-818
Universal Torque Wrench

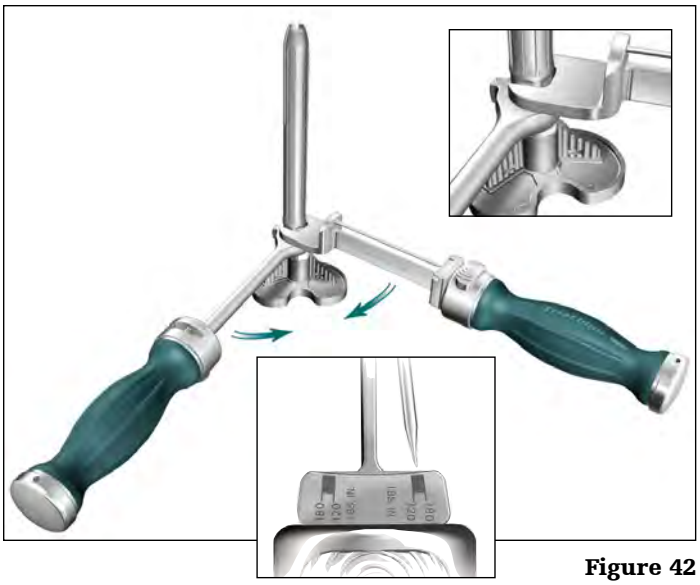


Figure 42

- Thread the appropriate size stem into the Offset Adapter.
- Now, holding the Universal Torque Wrench in your **right hand**, place the open face end of the wrench on the flats of the stem.
- Hold the Offset Counter Wrench in your **left hand** and place the open face end of the wrench on the flats of the Offset Adapter.
- Tighten by pulling the wrenches **together**. Torque stem to 120 in-lbs as indicated on the Universal Torque Wrench (**Figure 42**).

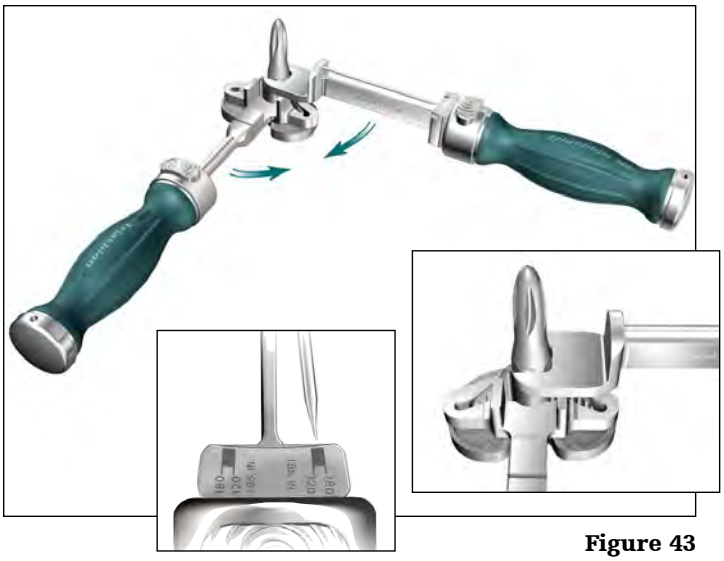


Figure 43

Tibial Baseplate with stem: no offset

- Using the Universal Counter Wrench with the **tibia** side up, hold the Baseplate in place by placing the keel fins into the slots.
- Thread the appropriate size stem into the Tibial Baseplate boss.
- Place the open face end of the Universal Torque Wrench on the flats of the stem.
- Tighten by pulling the wrenches **together**. Torque stem to 120 in-lbs as indicated on the Universal Torque Wrench (**Figure 43**).

Figure 44

Figure 45

Tibia with Stem Extender

- Using the Universal Counter Wrench with the **tibia** side up, hold the Baseplate in place by placing the keel fins into the slots. Thread the Stem Extender into the Tibial Baseplate Boss (**Figure 44**).
- Place the open face end of the Universal Torque Wrench on the flats of the Stem Extender. Tighten by pulling the wrenches **together**.
- Torque Stem to 120 in-lbs as indicated on the Universal Torque Wrench.
- Proceed with assembly of cemented or press-fit stem as described, maintaining position of the Universal Counter Wrench on the Tibial Baseplate.

Tibial augmentation

- Assemble the 1/8″ U Joint Hex Drive into the Slip Torque Handle (**Figure 45**).
- Place the Tibial Augment on the distal side of the Universal Baseplate. Verify both pins of the Tibial Augment are engaged into the slots on the underside of the Universal Baseplate and that the Tibial Augment is seated flush. Using the 1/8″ Universal Joint Hex Drive, torque the helical bolt captured within the tibial augment until the torque driver slips, at which time you will hear an audible click. Verify that the helical bolt is engaged into the slot on the keel of the Universal Baseplate. Repeat on a second augment if required on the other side.

Note:

Triathlon TS Augments are not cleared to cement together and stack to fill voids.

Femoral implant assembly

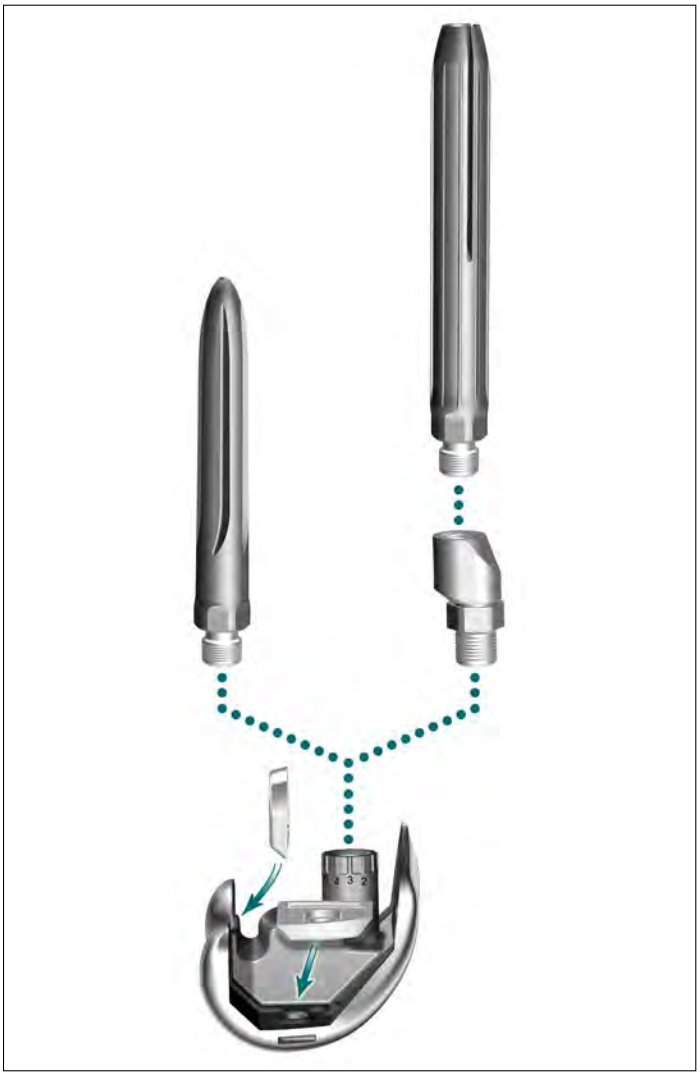


Figure 46

Instrument bar

See Catalog
Universal Tibial Baseplate

See Catalog
Triathlon Tibial Augment

See Catalog
Triathlon Cemented Stem

See Catalog
Triathlon Fluted Stem, Titanium

See Catalog
Triathlon TS Offset Adapter

See Catalog
Triathlon Stem Extender

6543-4-818
Universal Torque Wrench

6543-4-803
Offset Counter Wrench

6541-4-825
Slip Torque Handle

6541-4-802
1/8″ Hex Drive

6543-4-801
Universal Counter Wrench

See Catalog
Triathlon TS Femoral Component

Figure 47

Femoral implant assembly

Femoral augments

- Assemble the 1/8″ Universal Hex Driver into the Slip Torque Handle.
- Place the Femoral Augment on the appropriate (distal or posterior) surface of the Femoral Component.
- Assemble the Augment Screw through the Femoral Augment into the threaded hole in the Femoral Component (**Figure 47**).
- Torque the Augment Screw until the torque driver slips, at which time you will hear an audible click. Repeat this sequence on all required femoral augments.

Note:

If using the largest augments, assemble stem first.

Note:

Triathlon TS Augments are not cleared to cement together and stack to fill voids.

Figure 48

Femur with Offset Adapter

- Ensure jam nut is up against the Offset Adapter, exposing all threads.
- Thread the Offset Adapter into the Femoral Component until the jam nut bottoms out on the femoral boss (**Figure 48**).
- Time the rotation of the Offset Adapter to the position recorded from the Femoral Offset Bushing by turning the Offset Adapter counterclockwise and aligning the tick mark on Offset Adapter to the tick mark on the femoral boss.
- Holding the Offset Adapter in place, turn the jam nut **counterclockwise** and hand tighten it against the femoral boss. This will hold the construct in the appropriate position for final tightening.
- Holding the Universal Torque Wrench in **left hand**, place open face end of wrench onto the flats of the jam nut.
- Next, holding the Counter Wrench in your **right hand**, place the open face end of the wrench on the flats on the Offset Adapter.
- Tighten by pulling the wrenches **together**. Torque to 120 in-lbs as indicated on the Universal Torque Wrench (**Figure 49**).

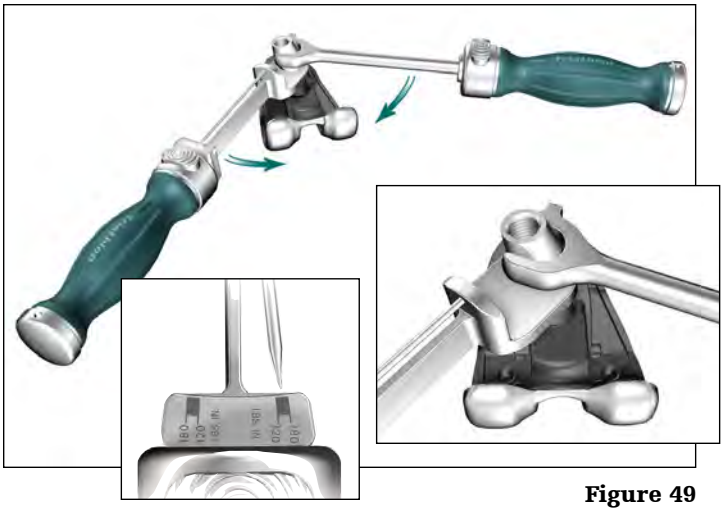


Figure 49

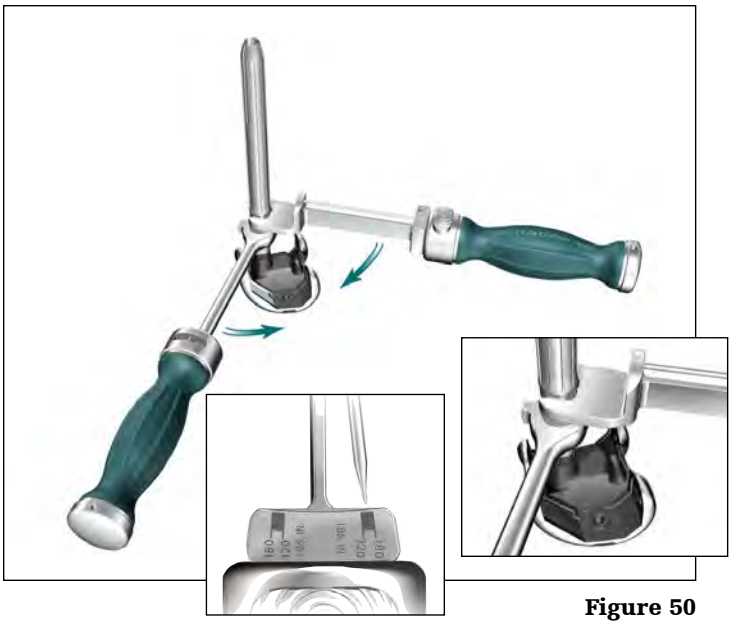


Figure 50

- Thread the appropriate size stem into the Offset Adapter.
- Now, holding the Universal Torque Wrench in your **right hand**, place the open face end of the wrench onto the flats of the stem.
- Hold the Offset Counter Wrench in your **left hand** and place the open face end of the wrench on the flats of the Offset Adapter.
- Tighten by pulling the wrenches **together**. Torque stem to 120 in-lbs as indicated on the Universal Torque Wrench (**Figure 50**).
- If Modular Femoral Distal Fixation Pegs are to be used, assemble the pegs to the Femoral Component using the 1/8" Hex Drive and the Slip Torque Handle prior to implantation.

Instrument bar

6541-4-810
Impaction Handle

6543-4-818
Universal Torque Wrench

6543-4-803
Offset Counter Wrench

6541-4-825
Slip Torque Handle

6541-4-802
1/8" Hex Drive

See Catalog
Triathlon Cemented Stem

See Catalog
Triathlon Fluted Stem, Titanium

See Catalog
Triathlon TS Offset Adapter

See Catalog
Triathlon Stem Extender

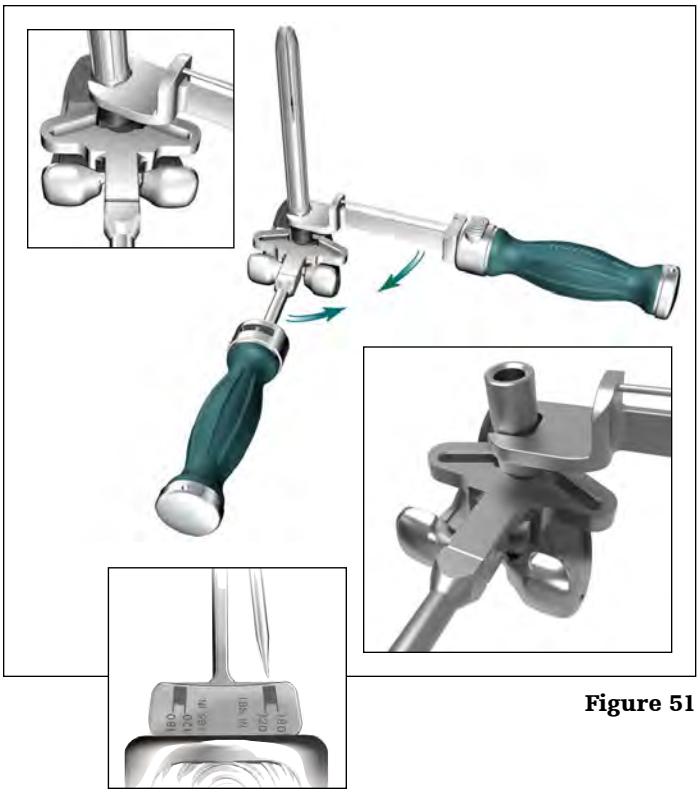


Figure 51

Femur with stem: no offset

- Using the Universal Counter Wrench with the **femur** side up, hold the Femoral Component in place by assembling the box into the gap.
- Thread the appropriate size stem into the Femoral Component.
- Place the open face end of the Universal Torque Wrench onto the flats of the stem.
- Tighten by pulling the wrenches **together**. Torque stem to 120 in-lbs as indicated on the Universal Torque Wrench.

Femur with Stem Extender

- Using the Universal Counter Wrench with the Femur side up, hold the femur in place by placing the box into the gap.
- Thread the Stem Extender into the Femoral Component.
- Place the open face end of the Universal Torque Wrench on the flats of the Stem Extender. Tighten by pulling the wrenches **together**.
- Torque Stem to 120 in-lbs as indicated on the Universal Torque Wrench (**Figure 51**).
- Proceed with assembly of cemented or press-fit stem as described, maintaining position of the Universal Counter Wrench on the Femoral Component.

Component implantation

If needed, further prepare resected bone surfaces using an osteotome, oscillating saw or bone file.

Tibial implant implantation

- Attach the Tibial Impactor/Extractor to the Impaction Handle. Assemble the Tibial Implant Assembly to the Tibial Impactor/Extractor. Apply cement to the appropriate sections of the Tibial Implant Assembly and the proximal tibia. Impact the Tibial Implant Assembly onto the tibia until fully seated and remove all excess cement.

Femoral implant implantation

- Attach the Femoral Impactor/Extractor to the Impaction Handle. Assemble the Femoral Implant Assembly to the Femoral Impactor/Extractor. Apply cement to the appropriate sections of the Femoral Implant Assembly and the cut surfaces of the femur. Impact the Femoral Implant Assembly onto the femur until fully seated and remove all excess cement.

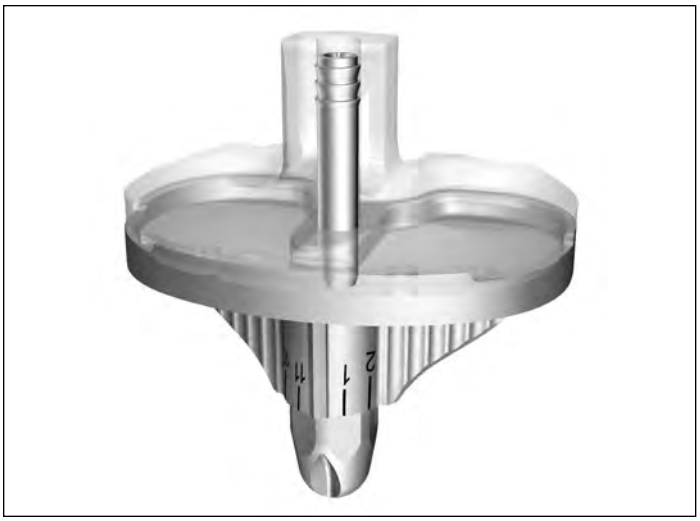


Figure 52

Tibial Insert

Prior to applying the TS Tibial Insert, the Tibial Insert Trial may be placed on the Universal Baseplate to once more assess joint stability and range of motion.

- Attach the Tibial Insert Impactor to the Impaction Handle. Ensure that the Universal Baseplate is completely free of debris. Angle the TS Tibial Insert posteriorly into the Universal Baseplate. Impact the insert to snap it into place anteriorly.

Stabilizer Pin

- Place the Insert Stabilizer Pin into Tibial Insert post "barbed" end up (**Figure 52**). Using the Stabilizer Post Impactor, tap the Insert Stabilizer Pin down until it is below the proximal surface of the Tibial Insert post.

Note:

The Insert Stabilizer Pin is packaged with the Tibial Insert.

Closure

- After cement polymerization and removal of all residual cement, thoroughly irrigate the joint. Hemostasis is achieved after deflation of the tourniquet. Close soft tissues in the normal, layered fashion.

Instrument bar

6543-4-818

Universal Torque Wrench

6543-4-803

Offset Counter Wrench

See Catalog

Triathlon Cemented Stem

See Catalog

Triathlon Fluted Stem, Titanium

See Catalog

Triathlon TS Offset Adapter

See Catalog

Triathlon Stem Extender

See Catalog

Triathlon TS Femoral Component

See Catalog

Universal Tibial Baseplate

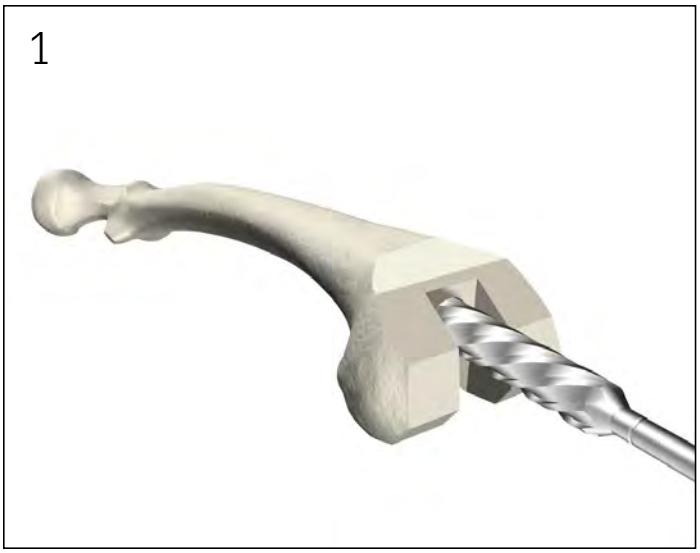
See Catalog

Triathlon TS Plus Tibial Insert - X3 Poly

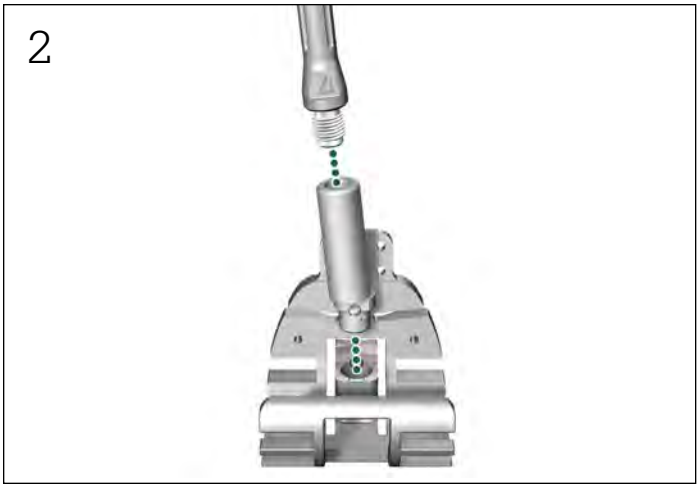
6543-4-600

Stabilizer Post Impactor

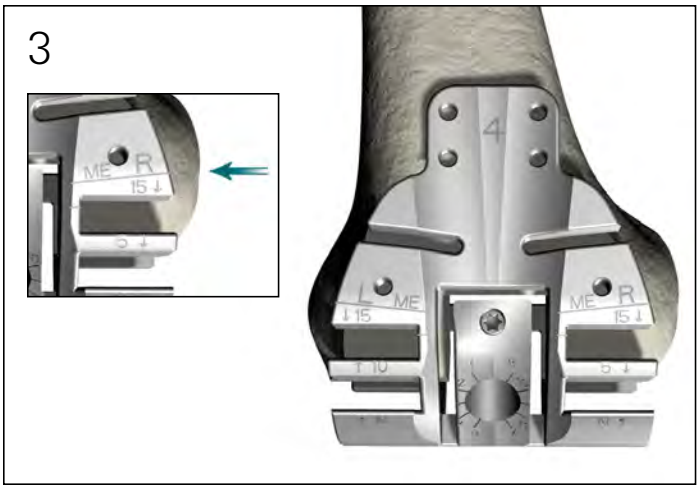
Surgical steps



Femoral preparation

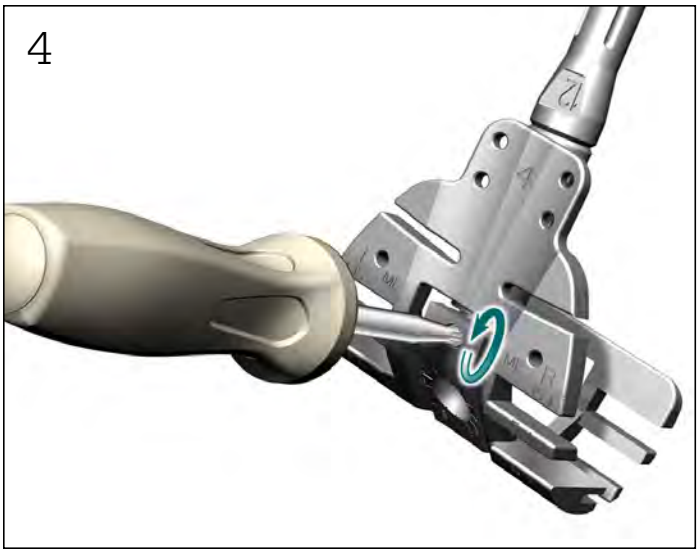


Assembly



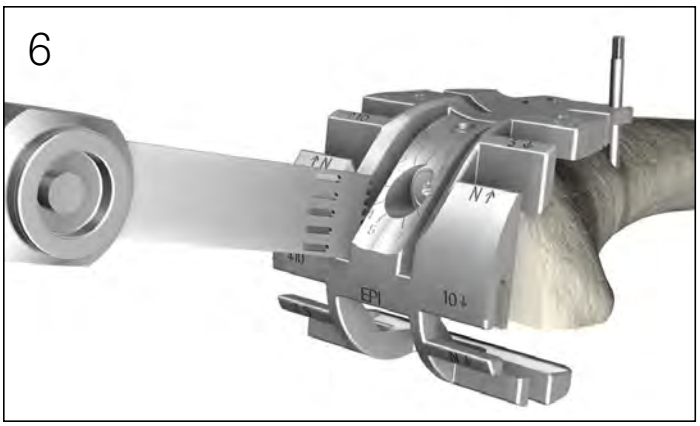
Trial Cutting Guide orientation

Surgical steps



Offset determination

Trial assessment



Femoral bone cuts

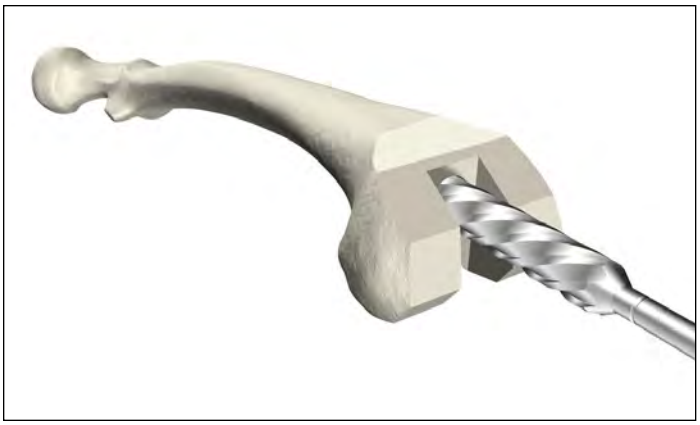


Figure 53

Category	Sizes
Femoral Cutting Guides	1, 2, 3, 4, 5, 6, 7, 8
Offset Adapter	Neutral, 2mm, 4mm, 6mm, 8mm
Tibial Insert Trial Sizes	1, 2, 3, 4, 5, 6, 7, 8
Tibial Insert Trial thickness	9mm, 11mm, 13mm, 16mm, 19mm, 22mm, 25mm, 28mm, 31mm

Figure 54

Trial Cutting Guides

Tibial and femoral canal preparation

Tibial preparation

- Prepare the tibia following the Tibial Preparation section of this surgical protocol. Insert the assembled trial into the tibia.

Note:

The Triathlon TS Trial Cutting Guide (TCG) is designed for use with The Triathlon TCG Tibial Insert Trials. The TCG Insert Trials do not have a post to allow for accurate assessment of the ligaments during surgery.

Femoral canal preparation

- Prepare the femoral canal to accept a stem as described on page 18 of this protocol.

Note:

If the reamer diameter is less than 16mm, prepare for the boss or offset of the femoral component by reaming over the top of the IM Reamer shaft with the Boss/Offset Reamer. Ream until the Boss/Offset Reamer bottoms out on the IM Reamer or until the depth groove lines up to the planned resected bone depth.

Femoral/tibial trial size selection

- Select the appropriate size femoral Trial Cutting Guide, Offset Adapter, and corresponding Tibial Insert Trial. Appropriate sizing can be achieved through the use of:
  - Previous operative notes
  - Size of the original implant removed
  - The opposite knee (radiographic templates)
  - X-ray templates

Assembly

- Assemble the Trial Cutting Guide, Offset Adapter and appropriate size trial stem (**Figure 54**).
- The neutral Offset Adapter may be used initially to construct the Trial Cutting Guide assembly until the need for a femoral offset is determined.
- The Triathlon TS Trial Cutting Guide (TCG) can be assembled for either a left or right knee. Assemble the Offset Adapter into the housing of the TCG so the Offset Adapter is flush with the Cutting Guide. Depending on the affected knee, the inscribing of L (left) or R (right) should be facing posteriorly.

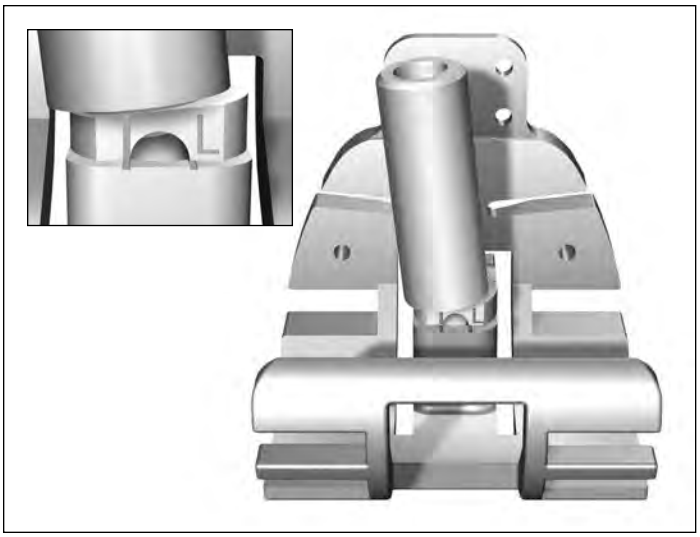


Figure 55

- The R or L must be visible once the TCG is assembled to verify the side used (**Figure 55**).

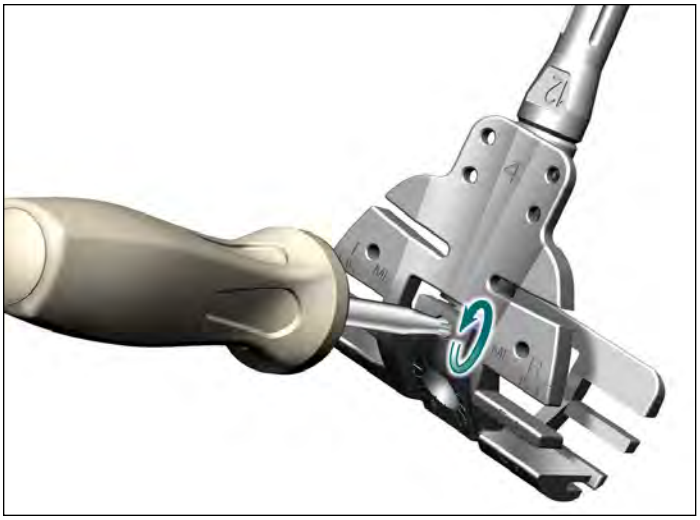


Figure 56

- First, assemble the trial stem to the neutral Offset Adapter and then assemble the neutral Offset Adapter into the Trial Cutting Guide housing. Secure the anterior screw to lock the Offset Adapter into the Cutting Guide housing with the Torx screwdriver (**Figure 56**).

Note:

The anterior screw is captured on both ends of the threaded hole. Do not attempt to remove the screw or tighten without an adapter in place. Doing so may cause the screw to bind.

Instrument bar

6541-4-801
Universal Driver

6543-7-508
8mm Starter Awl

6541-4-800
T-Handle Driver

See Catalog
IM Reamer

6543-7-527
Boss/Offset Reamer

See Catalog
Trial Cutting Guide

See Catalog
TCG Valgus Adapter

See Catalog
Triathlon Stem Trial

5100-3600
TCG T-20 Torx Driver Handle

6543-4-820
TCG T-20 Torx Driver

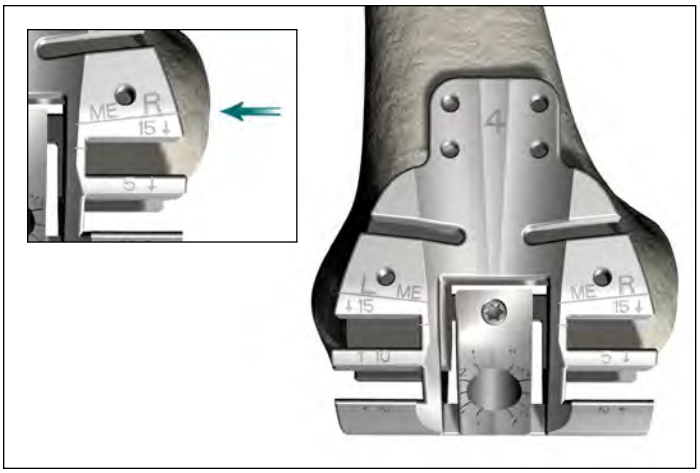


Figure 57

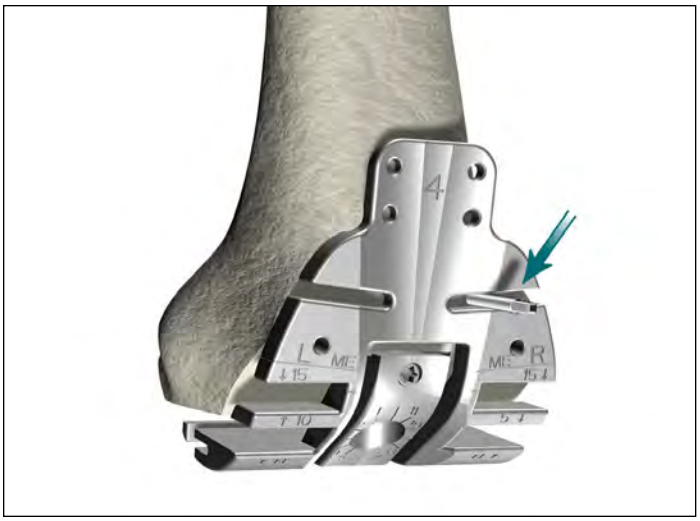


Figure 58

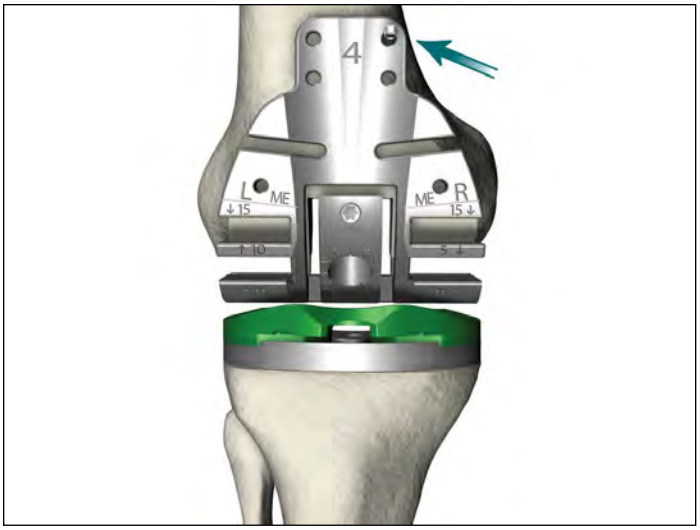


Figure 59

Trial Cutting Guide orientation

- Insert the TCG assembly into the femoral canal and align the TCG medial epicondyle (ME) scribe line reference mark with the medial epicondyle (**Figure 57**). The ME scribe line is 28mm from the distal surface of the TCG. When the ME scribe line is equal with the medial epicondyle, the distal surface of the TCG will be approximately located at the joint line. (The joint line can also be estimated using preoperative radiographs and anatomic landmarks.)

Note:

Right knee shown.

- Place an initial fixation pin in the middle of the medial slot on the anterior flange of the TCG (**Figure 58**). Pinning the medial slot will fix the proximal/distal position while allowing for slight internal and external rotation of the TCG.

Preliminary trial assessment/ gap balancing

Extension gap assessment

- With the joint line restored, a preliminary trial assessment should be conducted with the trial tibial components in place. Select the appropriate thickness TCG Tibial Insert Trial and place it onto the trial tibia (**Figure 59**). Select the insert that provides varus/ valgus stability in full extension.

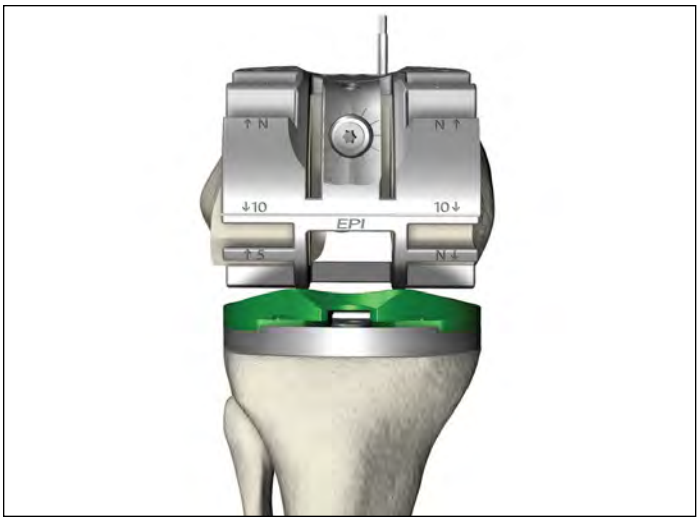


Figure 60

Flexion gap and rotation assessment

- With the knee flexed at 90°, appropriate external rotation can be set by positioning the TCG on the TCG Tibial Insert so that it is seated with no varus/valgus tilt (**Figure 60**). The transepicondylar axis or Whiteside's axis can be used to estimate rotation as well.
- If the anterior flange is not flush with the femur, choose an Offset Adapter at least as large as the gap between the flange and the femur. See page 42 for offset determination.

Note:

The flexion gap often feels "too loose" in the revision situation even when the appropriately sized femoral implant is positioned at the joint line. The Triathlon TS TCG allows the surgeon to upsize the Femoral Component and offset the next size femur to selectively fill the flexion gap that feels "too loose." However, if upsizing results in poor patella tracking and "overstuffing of the joint," the surgeon need only return to the previous size TCG and offset.

Instrument bar

See Catalog
Trial Cutting Guide

See Catalog
Offset TCG Valgus Adapter

See Catalog
Triathlon Stem Trial

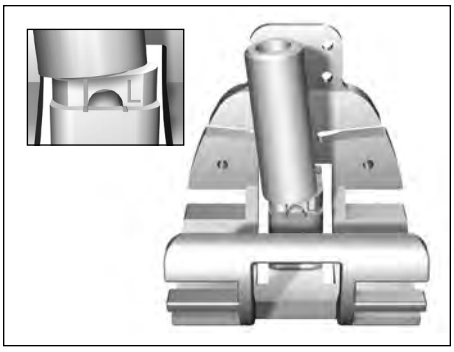
See Catalog
Baseplate Trial

See Catalog
TCG Trial Insert

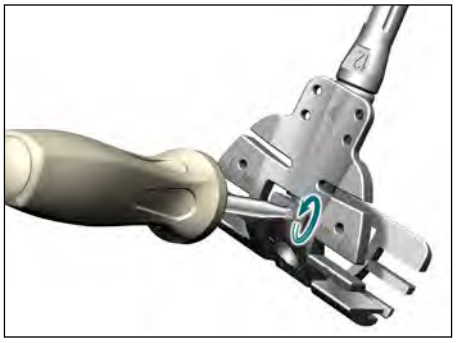
6541-4-003
Headless Pins - 3"

6541-4-809
Headless Pin Driver

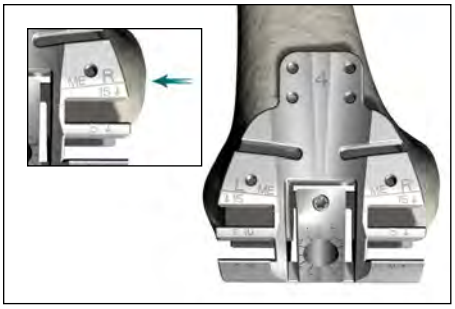
6541-4-400
Bladerunner



Repeat of Figure 55



Repeat of Figure 56



Repeat of Figure 57

Offset determination

There are a few scenarios where an Offset Adapter may be needed:

1. The flexion and extension gaps are not balanced.
2. The anterior flange of the TCG is not sitting flush on the anterior cortex of the femur.
3. The medial/lateral position of the TCG needs to be adjusted.

- If an offset is not required, proceed to trial assessment. If an offset is needed, remove the TCG assembly from the femur. Disassemble the stem trial and neutral Offset Adapter from the TCG. The femur must be prepared for the Offset Adapter using the TCG Offset Reamer. Place the final IM Reamer used initially back into the femoral canal. Assemble the TCG Reamer to the T-handle or power using the Universal Driver. Slide the TCG Reamer over the IM Reamer Shaft and ream the femur until the stop hits the distal femur. Remove the TCG Reamer and IM Reamer from the femoral canal.

Note:

The TCG Offset Reamer is 24mm in diameter and is designed to prepare for up to a 4mm offset in any radial position. If a 6 or 8mm offset is desired, it is suggested that the surgeon determine offset position using a 4mm offset and then remove bone in the desired offset region only in order to conserve bone. A reamer 8mm larger than the last reamer used and inserted only to the depth of the offset portion of the Offset Adapter can be used to prepare for the Offset Adapter instead of using the TCG Offset Reamer to conserve bone. A reamer can also be used with a rasping motion in the direction of the desired offset to conserve bone as well.

- Assemble the stem trial and the appropriate Offset Adapter – neutral, 2mm, 4mm, 6mm or 8mm. First, assemble the trial stem to the Offset Adapter and then assemble the Offset Adapter into the Trial Cutting Guide housing. The Triathlon TS Trial Cutting Guide (TCG) can be assembled for either a L (left) or R (right) knee. Assemble the Offset Adapter into the housing of the TCG so the Offset Adapter is flush with the Cutting Guide. Depending on the affected knee, the inscribing of L (left) or R (right) should be facing posteriorly. Secure the anterior screw into the distal face of the Cutting Guide housing with the Hex Driver. Then back off the screw half a turn to allow the Offset Adapter to rotate freely.
- Insert the TCG into the femoral canal and align the TCG medial epicondyle (ME) scribe line reference mark with the medial epicondyle. The ME scribe line is 28mm from the distal surface of the TCG. When the ME scribe line is equal with the medial epicondyle, the distal surface of the TCG will be approximately located at the joint line. (The joint line can also be estimated using preoperative radiographs and anatomic landmarks.) Place an initial fixation pin in the middle of the medial slot on the anterior flange of the TCG. Pinning the medial slot will fix the proximal/distal position while allowing for slight internal and external rotation of the TCG.
- With the knee in extension, choose the insert thickness which balances the extension gap.

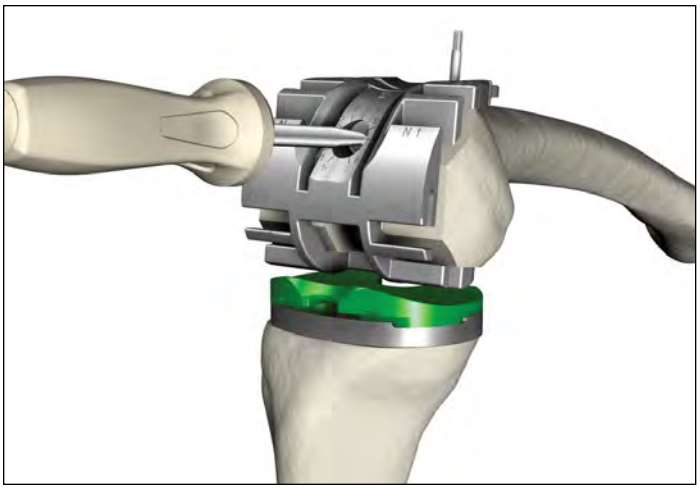


Figure 61

- To adjust the offset, insert the Hex Driver into the distal face of the Offset Adapter and rotate. After final offset position has been determined, tighten the anterior set screw to secure the offset position on the TCG (**Figure 61**). Record the final position of the offset by reading the location of the scribe mark on the Offset Adapter relative to the clock face on the TCG. The clock recording will be required when assembling the implant.
- One or more Headed Fixation Pins should then be placed in the TCG's anterior pin holes on the medial side (**Figure 61**). If the anterior flange is not flush with the femur, choose an Offset Adapter at least as large as the gap between the flange and the femur.

Note:

Short Headed Fixation Pins are suggested in order to facilitate joint reduction.

Trial assessment

- Once the TCG is fixed to the femur, a trial reduction may be conducted. Reduce the extensor mechanism and patella. The inferior pole of the patella should rest approximately 14mm above the joint line with the knee in 90° of flexion unless patella baja or patella alta was present preoperatively. Tracking of the patella can then be assessed. A full evaluation of stability and range of motion can be performed before making any resections on the distal femur. Adjustment of the implant position and size is possible before making any femoral bone cuts.

Instrument bar

See Catalog
Trial Cutting Guide

See Catalog
TCG Valgus Adapter

See Catalog
Triathlon Stem Trial

5100-3600
TCG T-20 Torx Driver Handle

6543-4-820
TCG T-20 Torx Driver

See Catalog
Baseplate Trial

See Catalog
TCG Trial Insert

6541-4-400
Bladerunner

Figure 62

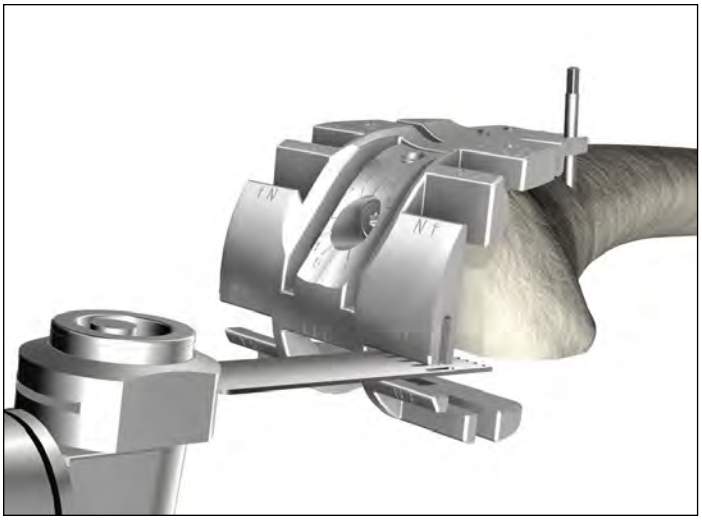


Figure 63

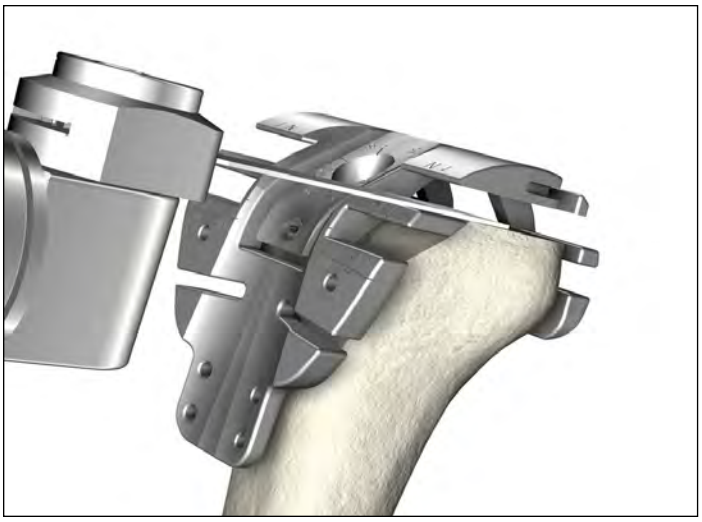


Figure 64

Femoral bone cuts

Note:

A Stryker 152 saw blade (narrow-thick) or a reciprocating saw blade are recommended for augment cuts and the box cut.

Augment cuts

With the TCG properly positioned, visually determine the appropriate posterior and distal resections required. A Bladerunner may be used to assess the level of resection if necessary (**Figure 62**). The appropriate cut is selected by resting the blade on the surface of the TCG apertures that will provide a cleanup cut (**Figure 63 and 64**).

Note:

If an augment cannot effectively "fill the gap," i.e., deficiencies greater than 15mm distally or 10mm posteriorly, a bone graft may be required.

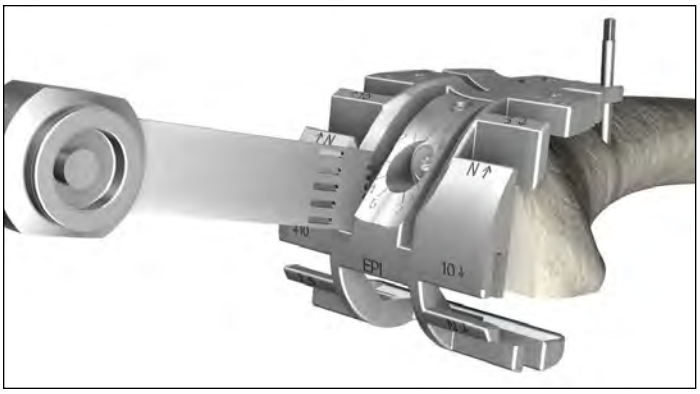


Figure 65

Box cut

- When making the box cut, cut along the outer sides of the box guide and cut completely through the femur. The anterior portion of the proximal box cannot be completed due to the presence of the stem (**Figure 65**).
- Complete the proximal anterior box cut after the TCG has been removed using the initial resection as the guide.

Note:

The sides of the box may be completed with a distal approach in addition to the anterior approach.
If cutting the box in flexion from anterior to posterior instead of from distal to proximal, the neurovascular bundle may be better protected.

Figure 66

Final trial assessment

- The trial is then assembled and used to verify the accuracy of the cuts and a final trial reduction is performed before opening the final implants. Refer to page 26 for femoral trial assembly.

Note:

Leave the trial assembled as the final implant is being prepared to help confirm accurate placement of all augments.

Note:

Anterior and chamfer resections are almost never necessary in the revision situation when the femur is appropriately positioned at the joint line. In rare situations with essentially no bone loss when the initial femur was positioned too distally or in cases when rotational deformity needs to be corrected, the saw can be placed along the inner surface of the TCG and the femur "trimmed" as required.

Instrument bar

See Catalog
Trial Cutting Guide

See Catalog
TCG Valgus Adapter

See Catalog
Triathlon Stem Trial

6541-4-400
Bladerunner

6541-4-807
Femoral Impactor/Extractor

6541-4-810
Impaction Handle

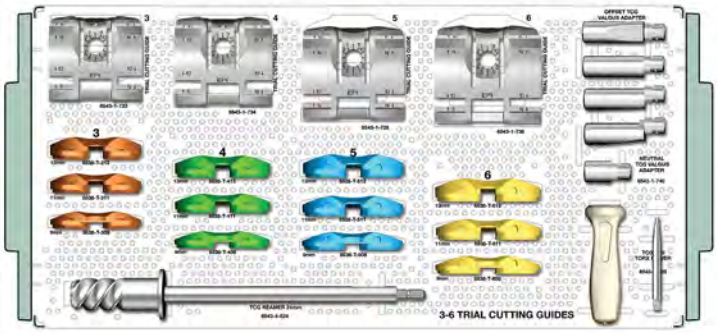
See Catalog
Triathlon TS Femoral Component

See Catalog
Triathlon Cemented Stem

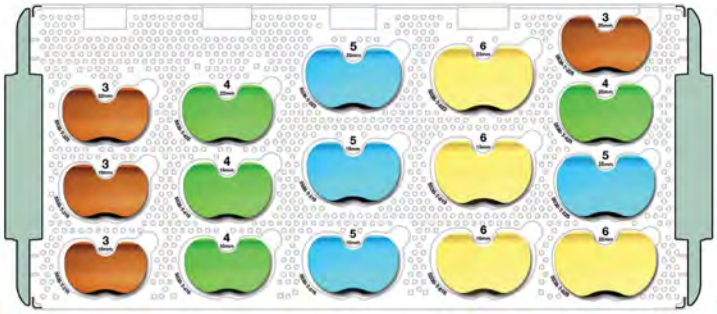
See Catalog
Triathlon Fluted Stem, Titanium

Catalog

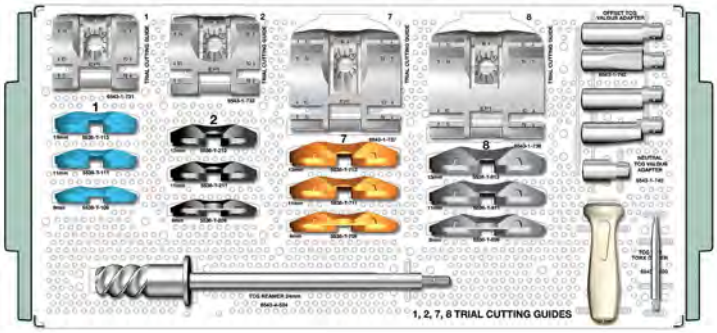
Tray layouts



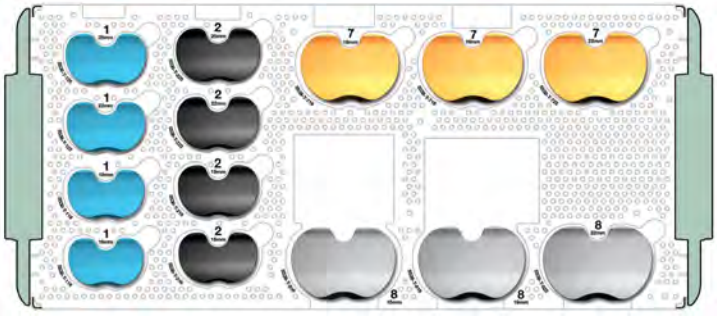
3 - 6 TCG Instrument & Trials Kit Contents - Upper Tray



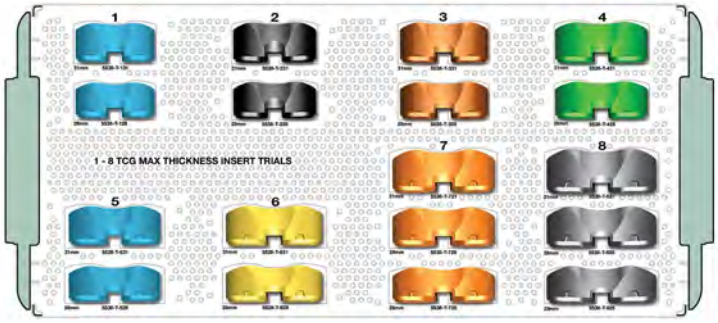
3 - 6 TCG Instrument & Trials Kit Contents - Lower Tray



1, 2, 7, 8 TCG Instrument & Trials Kit Contents - Upper Tray



1,2,7,8 TCG Instrument & Trials Kit Contents - Lower Tray



TCG Max Thickness Insert Trials 1 - 8 Kit Contents

Miscellaneous Upper Tray Kit contents

Catalog #	Description	
6541-4-810	Impaction Handle	2
6541-4-825	Slip Torque Handle	1
6543-7-601	Resection Guide Tower	1
6541-4-807	Femoral Impactor Extractor	1
6541-4-811	Femoral Impactor	1
6541-4-812	Tibial Baseplate Impactor	1
6541-4-813	Tibial Insert Impactor	1
6541-4-805	Tibial Baseplate Impactor Extractor	1
6543-4-516	Stem Extender Shaft	1
6541-4-806	Universal Alignment Handle	1
6543-7-600	Support Arm Assembly	1
6541-4-516	5/16″ IM Rod	0
6541-4-602	Universal Alignment Rod	1
6543-4-802	1/8″ Universal Hex Driver	1
6543-8-004	Miscellaneous Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 16

Miscellaneous Lower Tray Kit contents

Catalog #	Description	
6543-4-803	Offset Counter Wrench	1
6543-4-801	Universal Counter Wrench	1
6543-4-818	Universal Torque Wrench	1
6541-4-400	Bladerunner	1
6543-7-602	Stop Plate	1
6543-4-605	Adjustable Spacer Block Augment - 5mm	4
6543-4-610	Adjustable Spacer Block Augment - 10mm	4
6543-4-615	Adjustable Spacer Block Augment - 15mm	2
6541-4-610	Adjustable Spacer Block	1
6541-4-804	Headless Pin Extractor	1
6541-4-300	Headed Nail Impactor Extractor	1
6541-4-803	Slap Hammer	1
6541-4-515	Headed Nails - 1 1/2″	2
6541-4-575	Headed Nails - 3/4″	2
6543-8-104	Miscellaneous Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 25

3 - 6 Tibial Prep Upper Tray Kit contents

Catalog #	Description	
6543-2-600	Tibial Offset Bushing	1
6543-2-601	Tibial Offset Bushing Guide	1
6543-6-700	Revision Tibial Resection Guide L - Slotted	1
6543-6-701	Revision Tibial Resection Guide R - Slotted	1
6541-2-013	Size 1-3 Keel Punch	1
6541-2-046	Size 4-6 Keel Punch	1
6541-2-603	#3 Universal Tibial Template	1
6541-2-604	#4 Universal Tibial Template	1
6541-2-605	#5 Universal Tibial Template	1
6541-2-606	#6 Universal Tibial Template	1
6541-2-713	Size 1-3 Keel Punch Guide	1
6541-2-748	Size 4-8 Keel Punch Guide	1
6541-2-807	Tibial Alignment Handle	0
6543-2-703	Tibial Resection Guide Link	1
6543-8-002	3 - 6 Tibial Prep Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 15

3 - 6 Tibial Prep Lower Tray Kit contents

Catalog #	Description	
5521-T-300	TS Baseplate Trials #3	1
5521-T-400	TS Baseplate Trials #4	1
5521-T-500	TS Baseplate Trials #5	1
5521-T-600	TS Baseplate Trials #6	1
5545-T-301	Tibial Augment Trial #3 LM/RL - 5mm	1
5545-T-302	Tibial Augment Trial #3 RM/LL - 5mm	1
5545-T-401	Tibial Augment Trial #4 LM/RL - 5mm	1
5545-T-402	Tibial Augment Trial #4 RM/LL - 5mm	1
5545-T-501	Tibial Augment Trial #5 LM/RL - 5mm	1
5545-T-502	Tibial Augment Trial #5 RM/LL - 5mm	1
5545-T-601	Tibial Augment Trial #6 LM/RL - 5mm	1
5545-T-602	Tibial Augment Trial #6 RM/LL - 5mm	1
5546-T-301	Tibial Augment Trial #3 LM/RL - 10mm	1
5546-T-302	Tibial Augment Trial #3 RM/LL - 10mm	1
5546-T-401	Tibial Augment Trial #4 LM/RL - 10mm	1
5546-T-402	Tibial Augment Trial #4 RM/LL - 10mm	1
5546-T-501	Tibial Augment Trial #5 LM/RL - 10mm	1
5546-T-502	Tibial Augment Trial #5 RM/LL - 10mm	1
5546-T-601	Tibial Augment Trial #6 LM/RL - 10mm	1
5546-T-602	Tibial Augment Trial #6 RM/LL - 10mm	1
5570-T-020A	Triathlon Offset Adapter Trial - 2mm	1
5570-T-040A	Triathlon Offset Adapter Trial - 4mm	1
5570-T-060A	Triathlon Offset Adapter Trial - 6mm	1
5570-T-080A	Triathlon Offset Adapter Trial - 8mm	1
6543-8-102	3 - 6 Tibial Prep Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 26

9 - 21mm Reamer Upper Tray Kit contents

Catalog #	Description	
6543-7-527	Boss/Offset Reamer	1
6543-7-508	8mm Starter Awl	1
6541-4-518	1/8″ Drill	1
6541-4-800	T-Handle Driver	1
6541-4-801	Universal Driver	1
6541-4-809	Headless Pin Driver	1
6541-4-003 / 6541-4-003A	Headless Pins - 3″	1
6543-7-509	IM Reamer - 9mm	1
6543-7-510	IM Reamer - 10mm	1
6543-7-511	IM Reamer - 11mm	1
6543-7-512	IM Reamer - 12mm	1
6543-7-513	IM Reamer - 13mm	1
6543-7-514	IM Reamer - 14mm	1
6543-7-515	IM Reamer - 15mm	1
5560-T-112	12mm x 50mm Stem Trial	2
6543-8-001	9 - 21mm Reamer Upper Tray	1
6541-4-538	3/8″ IM Drill	1
6541-9-000	Triathlon Case	1
		Total quantity 19

9 - 21mm Reamer Lower Tray Kit contents

Catalog #	Description	
6543-7-516	IM Reamer - 16mm	1
6543-7-517	IM Reamer - 17mm	1
6543-7-518	IM Reamer - 18mm	1
6543-7-519	IM Reamer - 19mm	1
6543-7-520	IM Reamer - 20mm	1
6543-7-521	IM Reamer - 21mm	1
5560-T-115	Cemented Stem Trial - 15mm x 50mm	2
5571-T-025	Triathlon Stem Extender Trial - 25mm	2
5571-T-050	Triathlon Stem Extender Trial - 50mm	2
6543-8-101	9 - 21mm Reamer Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 14

22 - 25mm Reamers and Stem Trials Tray Kit contents

Catalog #	Description	
6543-7-522	IM Reamer - 22mm	1
6543-7-523	IM Reamer - 23mm	1
6543-7-524	IM Reamer - 24mm	1
6543-7-525	IM Reamer - 25mm	1
5566-T-022A	Triathlon Stem Trial, 22 x 150mm	1
5566-T-023A	Triathlon Stem Trial, 23 x 150mm	1
5566-T-024A	Triathlon Stem Trial, 24 x 150mm	1
5566-T-025A	Triathlon Stem Trial, 25 x 150mm	1
5565-T-022A	Triathlon Stem Trial, 22 x 100mm	1
5565-T-023A	Triathlon Stem Trial, 23 x 100mm	1
5565-T-024A	Triathlon Stem Trial, 24 x 100mm	1
5565-T-025A	Triathlon Stem Trial, 25 x 100mm	1
6543-8-108	22 - 25mm Reamers and Stem Trials Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 14

3 - 6 Femoral Prep Upper Tray Kit contents

Catalog #	Description	
6543-1-005	Distal Spacer - 5mm	2
6543-1-010	Distal Spacer - 10mm	2
6543-1-015	Distal Spacer - 15mm	2
6543-1-600	Femoral Offset Bushing	1
6543-1-603	Size 1-8 Femoral Sizing Templates	1
6543-1-703	#3 All-in-One Cutting Block	1
6543-1-704	#4 All-in-One Cutting Block	1
6543-1-705	#5 All-in-One Cutting Block	1
6543-1-706	#6 All-in-One Cutting Block	1
6543-1-710	Revision Box Cutting Guide	1
6543-1-721	Revision Distal Resection Guide	1
6543-1-750	Femoral Boss Preparation Guide	1
6543-1-751	Femoral Boss Reamer Bushing	1
6543-4-400	Joint-Line Ruler	1
6543-8-003	3 - 6 Femoral Prep Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 19

3 - 6 TS Plus Insert Trial Tray Kit contents

Catalog #	Description	
5537-T-309	Triathlon TS Plus Tibial Insert Trial #3 - 9mm	1
5537-T-311	Triathlon TS Plus Tibial Insert Trial #3 - 11mm	1
5537-T-313	Triathlon TS Plus Tibial Insert Trial #3 - 13mm	1
5537-T-316	Triathlon TS Plus Tibial Insert Trial #3 - 16mm	1
5537-T-319	Triathlon TS Plus Tibial Insert Trial #3 - 19mm	1
5537-T-322	Triathlon TS Plus Tibial Insert Trial #3 - 22mm	1
5537-T-325	Triathlon TS Plus Tibial Insert Trial #3 - 25mm	1
5537-T-328	Triathlon TS Plus Tibial Insert Trial #3 - 28mm	1
5537-T-331	Triathlon TS Plus Tibial Insert Trial #3 - 31mm	1
5537-T-409	Triathlon TS Plus Tibial Insert Trial #4 - 9mm	1
5537-T-411	Triathlon TS Plus Tibial Insert Trial #4 - 11mm	1
5537-T-413	Triathlon TS Plus Tibial Insert Trial #4 - 13mm	1
5537-T-416	Triathlon TS Plus Tibial Insert Trial #4 - 16mm	1
5537-T-419	Triathlon TS Plus Tibial Insert Trial #4 - 19mm	1
5537-T-422	Triathlon TS Plus Tibial Insert Trial #4 - 22mm	1
5537-T-425	Triathlon TS Plus Tibial Insert Trial #4 - 25mm	1
5537-T-428	Triathlon TS Plus Tibial Insert Trial #4 - 28mm	1
5537-T-431	Triathlon TS Plus Tibial Insert Trial #4 - 31mm	1
5537-T-509	Triathlon TS Plus Tibial Insert Trial #5 - 9mm	1
5537-T-511	Triathlon TS Plus Tibial Insert Trial #5 - 11mm	1
5537-T-513	Triathlon TS Plus Tibial Insert Trial #5 - 13mm	1
5537-T-516	Triathlon TS Plus Tibial Insert Trial #5 - 16mm	1
5537-T-519	Triathlon TS Plus Tibial Insert Trial #5 - 19mm	1
5537-T-522	Triathlon TS Plus Tibial Insert Trial #5 - 22mm	1
5537-T-525	Triathlon TS Plus Tibial Insert Trial #5 - 25mm	1
5537-T-528	Triathlon TS Plus Tibial Insert Trial #5 - 28mm	1
5537-T-531	Triathlon TS Plus Tibial Insert Trial #5 - 31mm	1
5537-T-609	Triathlon TS Plus Tibial Insert Trial #6 - 9mm	1
5537-T-611	Triathlon TS Plus Tibial Insert Trial #6 - 11mm	1
5537-T-613	Triathlon TS Plus Tibial Insert Trial #6 - 13mm	1
5537-T-616	Triathlon TS Plus Tibial Insert Trial #6 - 16mm	1
5537-T-619	Triathlon TS Plus Tibial Insert Trial #6 - 19mm	1
5537-T-622	Triathlon TS Plus Tibial Insert Trial #6 - 22mm	1
5537-T-625	Triathlon TS Plus Tibial Insert Trial #6 - 25mm	1
5537-T-628	Triathlon TS Plus Tibial Insert Trial #6 - 28mm	1
5537-T-631	Triathlon TS Plus Tibial Insert Trial #6 - 31mm	1
6543-8-007	3 - 6 TS Plus Insert Trial Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 38

1, 2, 7, 8 Upper Tray Kit contents

Catalog #	Description	
6543-1-702	#2 All-in-One Cutting Block	1
6543-1-707	#7 All-in-One Cutting Block	1
6541-2-078	Size 7-8 Keel Punch	1
6541-2-602	#2 Universal Tibial Template	1
6541-2-607	#7 Universal Tibial Template	1
5521-T-200	#2 Baseplate Trial	1
5521-T-700	#7 Baseplate Trial	1
5512-T-201	#2 Femoral Trial Left	1
5512-T-202	#2 Femoral Trial Right	1
5512-T-701	#7 Femoral Trial Left	1
5512-T-702	#7 Femoral Trial Right	1
5540-T-200A	Triathlon Femoral Distal Augment Trial, 5mm - #2	2
5540-T-700A	Triathlon Femoral Distal Augment Trial, 5mm - #7	2
5541-T-200A	Triathlon Femoral Distal Augment Trial, 10mm - #2	2
5541-T-700A	Triathlon Femoral Distal Augment Trial, 10mm - #7	2
5542-T-200A	Triathlon Femoral Distal Augment Trial, 15mm - #2	2
5542-T-700A	Triathlon Femoral Distal Augment Trial, 15mm - #7	2
5543-T-200	Triathlon Femoral Posterior Augment Trial, 5mm - #2	2
5543-T-700	Triathlon Femoral Posterior Augment Trial, 5mm - #7	2
5544-T-200	Triathlon Femoral Posterior Augment Trial, 10mm - #2	2
5544-T-700	Triathlon Femoral Posterior Augment Trial, 10mm - #7	2
5545-T-701	Tibial Augment Trial #7 LM/RL - 5mm	1
5545-T-702	Tibial Augment Trial #7 RM/LL - 5mm	1
5546-T-701	Tibial Augment Trial #7 LM/RL - 10mm	1
5546-T-702	Tibial Augment Trial #7 RM/LL - 10mm	1
5545-T-201	Tibial Augment Trial #2 LM/RL - 5mm	1
5545-T-202	Tibial Augment Trial #2 RM/LL - 5mm	1
5546-T-201	Tibial Augment Trial #2 LM/RL - 10mm	1
5546-T-202	Tibial Augment Trial #2 RM/LL - 10mm	1
6543-8-009	1, 2, 7, 8 Upper Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 41

1, 2, 7, 8 Lower Tray Kit contents

Catalog #	Description	
6543-1-701	#1 All-in-One Cutting Block	1
6543-1-708	#8 All-in-One Cutting Block	1
6541-2-601	#1 Universal Tibial Template	1
6541-2-608	#8 Universal Tibial Template	1
5521-T-800	#8 Baseplate Trial	1
5521-T-100	#1 Baseplate Trial	1
5512-T-101	#1 Femoral Trial Left	1
5512-T-102	#1 Femoral Trial Right	1
5512-T-801	#8 Femoral Trial Left	1
5512-T-802	#8 Femoral Trial Right	1
5540-T-100A	Triathlon Femoral Distal Augment Trial, 5mm - #1	2
5540-T-800A	Triathlon Femoral Distal Augment Trial, 5mm - #8	2
5541-T-100A	Triathlon Femoral Distal Augment Trial, 10mm - #1	2
5541-T-800A	Triathlon Femoral Distal Augment Trial, 10mm - #8	2
5542-T-100A	Triathlon Femoral Distal Augment Trial, 15mm - #1	2
5542-T-800A	Triathlon Femoral Distal Augment Trial, 15mm - #8	2
5543-T-100	Triathlon Femoral Posterior Augment Trial, 5mm - #1	2
5543-T-800	Triathlon Femoral Posterior Augment Trial, 5mm - #8	2
5544-T-100	Triathlon Femoral Posterior Augment Trial, 10mm - #1	2
5544-T-800	Triathlon Femoral Posterior Augment Trial, 10mm - #8	2
5545-T-101	Tibial Augment Trial #1 LM/RL - 5mm	1
5545-T-102	Tibial Augment Trial #1 RM/LL - 5mm	1
5546-T-101	Tibial Augment Trial #1 LM/RL - 10mm	1
5546-T-102	Tibial Augment Trial #1 RM/LL - 10mm	1
5545-T-801	Tibial Augment Trial #8 LM/RL - 5mm	1
5545-T-802	Tibial Augment Trial #8 RM/LL - 5mm	1
5546-T-801	Tibial Augment Trial #8 LM/RL - 10mm	1
5546-T-802	Tibial Augment Trial #8 RM/LL - 10mm	1
6543-8-109	1, 2, 7, 8 Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 40

7, 8 TS Max Insert Trials Tray Kit contents

Catalog #	Description	
5537-T-722	#7 22mm TS Plus Insert Trial	1
5537-T-725	#7 25mm TS Plus Insert Trial	1
5537-T-728	#7 28mm TS Plus Insert Trial	1
5537-T-731	#7 31mm TS Plus Insert Trial	1
5537-T-822	#8 22mm TS Plus Insert Trial	1
5537-T-825	#8 25mm TS Plus Insert Trial	1
5537-T-828	#8 28mm TS Plus Insert Trial	1
5537-T-831	#8 31mm TS Plus Insert Trial	1
6543-8-013	7, 8 TS Max Insert Trials Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 10

3 - 6 Femoral Prep Lower Tray Kit contents

Catalog #	Description	
5512-T-301	TS Femoral Trials – #3 Left	1
5512-T-302	TS Femoral Trials – #3 Right	1
5512-T-401	TS Femoral Trials – #4 Left	1
5512-T-402	TS Femoral Trials – #4 Right	1
5512-T-501	TS Femoral Trials – #5 Left	1
5512-T-502	TS Femoral Trials – #5 Right	1
5512-T-601	TS Femoral Trials – #6 Left	1
5512-T-602	TS Femoral Trials – #6 Right	1
5570-T-020A	Triathlon Offset Adapter Trial - 2mm	1
5570-T-040A	Triathlon Offset Adapter Trial - 4mm	1
5570-T-060A	Triathlon Offset Adapter Trial - 6mm	1
5570-T-080A	Triathlon Offset Adapter Trial - 8mm	1
5540-T-300A	Triathlon Femoral Distal Augment Trial, 5mm - #3	2
5540-T-400A	Triathlon Femoral Distal Augment Trial, 5mm - #4	2
5540-T-500A	Triathlon Femoral Distal Augment Trial, 5mm - #5	2
5540-T-600A	Triathlon Femoral Distal Augment Trial, 5mm - #6	2
5541-T-300A	Triathlon Femoral Distal Augment Trial, 10mm - #3	2
5541-T-400A	Triathlon Femoral Distal Augment Trial, 10mm - #4	2
5541-T-500A	Triathlon Femoral Distal Augment Trial, 10mm - #5	2
5541-T-600A	Triathlon Femoral Distal Augment Trial, 10mm - #6	2
5542-T-300A	Triathlon Femoral Distal Augment Trial, 15mm - #3	2
5542-T-400A	Triathlon Femoral Distal Augment Trial, 15mm - #4	2
5542-T-500A	Triathlon Femoral Distal Augment Trial, 15mm - #5	2
5542-T-600A	Triathlon Femoral Distal Augment Trial, 15mm - #6	2
5543-T-300	Triathlon Femoral Posterior Augment Trial, 5mm - #3	2
5543-T-400	Triathlon Femoral Posterior Augment Trial, 5mm - #4	2
5543-T-500	Triathlon Femoral Posterior Augment Trial, 5mm - #5	2
5543-T-600	Triathlon Femoral Posterior Augment Trial, 5mm - #6	2
5544-T-300	Triathlon Femoral Posterior Augment Trial, 10mm - #3	2
5544-T-400	Triathlon Femoral Posterior Augment Trial, 10mm - #4	2
5544-T-500	Triathlon Femoral Posterior Augment Trial, 10mm - #5	2
5544-T-600	Triathlon Femoral Posterior Augment Trial, 10mm - #6	2
6543-8-103	3 - 6 Femoral Prep Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 54

9 - 21mm Stem Trial Tray Kit contents

Catalog #	Description	
5565-T-009A	Triathlon Stem Trial, 9 x 100mm	1
5565-T-010A	Triathlon Stem Trial, 10 x 100mm	1
5565-T-011A	Triathlon Stem Trial, 11 x 100mm	2
5565-T-012A	Triathlon Stem Trial, 12 x 100mm	2
5565-T-013A	Triathlon Stem Trial, 13 x 100mm	2
5565-T-014A	Triathlon Stem Trial, 14 x 100mm	2
5565-T-015A	Triathlon Stem Trial, 15 x 100mm	2
5565-T-016A	Triathlon Stem Trial, 16 x 100mm	2
5565-T-017A	Triathlon Stem Trial, 17 x 100mm	2
5565-T-018A	Triathlon Stem Trial, 18 x 100mm	2
5565-T-019A	Triathlon Stem Trial, 19 x 100mm	2
5565-T-020A	Triathlon Stem Trial, 20 x 100mm	2
5565-T-021A	Triathlon Stem Trial, 21 x 100mm	2
5566-T-009A	Triathlon Stem Trial, 9 x 150mm	1
5566-T-010A	Triathlon Stem Trial, 10 x 150mm	1
5566-T-011A	Triathlon Stem Trial, 11 x 150mm	2
5566-T-012A	Triathlon Stem Trial, 12 x 150mm	2
5566-T-013A	Triathlon Stem Trial, 13 x 150mm	2
5566-T-014A	Triathlon Stem Trial, 14 x 150mm	2
5566-T-015A	Triathlon Stem Trial, 15 x 150mm	2
5566-T-016A	Triathlon Stem Trial, 16 x 150mm	2
5566-T-017A	Triathlon Stem Trial, 17 x 150mm	2
5566-T-018A	Triathlon Stem Trial, 18 x 150mm	2
5566-T-019A	Triathlon Stem Trial, 19 x 150mm	2
5566-T-020A	Triathlon Stem Trial, 20 x 150mm	2
5566-T-021A	Triathlon Stem Trial, 21 x 150mm	2
6543-8-005	9 - 21mm Stem Trial Upper Tray	1
6543-8-105	9 - 21mm Stem Trial Lower Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 51

1, 2, 7, 8 TS Plus Insert Trials Tray Kit contents

Catalog #	Description	
5537-T-809	#8 9mm TS Plus Insert Trial	1
5537-T-811	#8 11mm TS Plus Insert Trial	1
5537-T-813	#8 13mm TS Plus Insert Trial	1
5537-T-816	#8 16mm TS Plus Insert Trial	1
5537-T-819	#8 19mm TS Plus Insert Trial	1
5537-T-709	#7 9mm TS Plus Insert Trial	1
5537-T-711	#7 11mm TS Plus Insert Trial	1
5537-T-713	#7 13mm TS Plus Insert Trial	1
5537-T-716	#7 16mm TS Plus Insert Trial	1
5537-T-719	#7 19mm TS Plus Insert Trial	1
5537-T-209	#2 9mm TS Plus Insert Trial	1
5537-T-211	#2 11mm TS Plus Insert Trial	1
5537-T-213	#2 13mm TS Plus Insert Trial	1
5537-T-216	#2 16mm TS Plus Insert Trial	1
5537-T-219	#2 19mm TS Plus Insert Trial	1
5537-T-222	#2 22mm TS Plus Insert Trial	1
5537-T-225	#2 25mm TS Plus Insert Trial	1
5537-T-228	#2 28mm TS Plus Insert Trial	1
5537-T-231	#2 31mm TS Plus Insert Trial	1
5537-T-109	#1 9mm TS Plus Insert Trial	1
5537-T-111	#1 11mm TS Plus Insert Trial	1
5537-T-113	#1 13mm TS Plus Insert Trial	1
5537-T-116	#1 16mm TS Plus Insert Trial	1
5537-T-119	#1 19mm TS Plus Insert Trial	1
5537-T-122	#1 22mm TS Plus Insert Trial	1
5537-T-125	#1 25mm TS Plus Insert Trial	1
5537-T-128	#1 28mm TS Plus Insert Trial	1
5537-T-131	#1 31mm TS Plus Insert Trial	1
6543-8-011	1, 2, 7, 8 TS Plus Insert Trials Tray	1
6541-9-000	Triathlon Case	1
		Total quantity 30

Triathlon TS Plus Tibial Insert part numbers

Catalog #	Description	
5537-G-109 or 5537-G-109-E	TS Plus Tibial Insert - X3 Poly	#1 - 9mm
5537-G-111 or 5537-G-111-E	TS Plus Tibial Insert - X3 Poly	#1 - 11mm
5537-G-113 or 5537-G-113-E	TS Plus Tibial Insert - X3 Poly	#1 - 13mm
5537-G-116 or 5537-G-116-E	TS Plus Tibial Insert - X3 Poly	#1 - 16mm
5537-G-119 or 5537-G-119-E	TS Plus Tibial Insert - X3 Poly	#1 - 19mm
5537-G-122 or 5537-G-122-E	TS Plus Tibial Insert - X3 Poly	#1 - 22mm
5537-G-125 or 5537-G-125-E	TS Plus Tibial Insert - X3 Poly	#1 - 25mm
5537-G-128 or 5537-G-128-E	TS Plus Tibial Insert - X3 Poly	#1 - 28mm
5537-G-131 or 5537-G-131-E	TS Plus Tibial Insert - X3 Poly	#1 - 31mm
5537-G-209 or 5537-G-209-E	TS Plus Tibial Insert - X3 Poly	#2 - 9mm
5537-G-211 or 5537-G-211-E	TS Plus Tibial Insert - X3 Poly	#2 - 11mm
5537-G-213 or 5537-G-213-E	TS Plus Tibial Insert - X3 Poly	#2 - 13mm
5537-G-216 or 5537-G-216-E	TS Plus Tibial Insert - X3 Poly	#2 - 16mm
5537-G-219 or 5537-G-219-E	TS Plus Tibial Insert - X3 Poly	#2 - 19mm
5537-G-222 or 5537-G-222-E	TS Plus Tibial Insert - X3 Poly	#2 - 22mm
5537-G-225 or 5537-G-225-E	TS Plus Tibial Insert - X3 Poly	#2 - 25mm
5537-G-228 or 5537-G-228-E	TS Plus Tibial Insert - X3 Poly	#2 - 28mm
5537-G-231 or 5537-G-231-E	TS Plus Tibial Insert - X3 Poly	#2 - 31mm
5537-G-309 or 5537-G-309-E	TS Plus Tibial Insert - X3 Poly	#3 - 9mm
5537-G-311 or 5537-G-311-E	TS Plus Tibial Insert - X3 Poly	#3 - 11mm
5537-G-313 or 5537-G-313-E	TS Plus Tibial Insert - X3 Poly	#3 - 13mm
5537-G-316 or 5537-G-316-E	TS Plus Tibial Insert - X3 Poly	#3 - 16mm
5537-G-319 or 5537-G-319-E	TS Plus Tibial Insert - X3 Poly	#3 - 19mm
5537-G-322 or 5537-G-322-E	TS Plus Tibial Insert - X3 Poly	#3 - 22mm
5537-G-325 or 5537-G-325-E	TS Plus Tibial Insert - X3 Poly	#3 - 25mm
5537-G-328 or 5537-G-328-E	TS Plus Tibial Insert - X3 Poly	#3 - 28mm
5537-G-331 or 5537-G-331-E	TS Plus Tibial Insert - X3 Poly	#3 - 31mm
5537-G-409 or 5537-G-409-E	TS Plus Tibial Insert - X3 Poly	#4 - 9mm
5537-G-411 or 5537-G-411-E	TS Plus Tibial Insert - X3 Poly	#4 - 11mm
5537-G-413 or 5537-G-413-E	TS Plus Tibial Insert - X3 Poly	#4 - 13mm
5537-G-416 or 5537-G-416-E	TS Plus Tibial Insert - X3 Poly	#4 - 16mm
5537-G-419 or 5537-G-419-E	TS Plus Tibial Insert - X3 Poly	#4 - 19mm
5537-G-422 or 5537-G-422-E	TS Plus Tibial Insert - X3 Poly	#4 - 22mm
5537-G-425 or 5537-G-425-E	TS Plus Tibial Insert - X3 Poly	#4 - 25mm
5537-G-428 or 5537-G-428-E	TS Plus Tibial Insert - X3 Poly	#4 - 28mm
5537-G-431 or 5537-G-431-E	TS Plus Tibial Insert - X3 Poly	#4 - 31mm

Continued

Triathlon TS Plus Tibial Insert part numbers - continued

Catalog #	Description	
5537-G-509 or 5537-G-509-E	TS Plus Tibial Insert - X3 Poly	#5 - 9mm
5537-G-511 or 5537-G-511-E	TS Plus Tibial Insert - X3 Poly	#5 - 11mm
5537-G-513 or 5537-G-513-E	TS Plus Tibial Insert - X3 Poly	#5 - 13mm
5537-G-516 or 5537-G-516-E	TS Plus Tibial Insert - X3 Poly	#5 - 16mm
5537-G-519 or 5537-G-519-E	TS Plus Tibial Insert - X3 Poly	#5 - 19mm
5537-G-522 or 5537-G-522-E	TS Plus Tibial Insert - X3 Poly	#5 - 22mm
5537-G-525 or 5537-G-525-E	TS Plus Tibial Insert - X3 Poly	#5 - 25mm
5537-G-528 or 5537-G-528-E	TS Plus Tibial Insert - X3 Poly	#5 - 28mm
5537-G-531 or 5537-G-531-E	TS Plus Tibial Insert - X3 Poly	#5 - 31mm
5537-G-609 or 5537-G-609-E	TS Plus Tibial Insert - X3 Poly	#6 - 9mm
5537-G-611 or 5537-G-611-E	TS Plus Tibial Insert - X3 Poly	#6 - 11mm
5537-G-613 or 5537-G-613-E	TS Plus Tibial Insert - X3 Poly	#6 - 13mm
5537-G-616 or 5537-G-616-E	TS Plus Tibial Insert - X3 Poly	#6 - 16mm
5537-G-619 or 5537-G-619-E	TS Plus Tibial Insert - X3 Poly	#6 - 19mm
5537-G-622 or 5537-G-622-E	TS Plus Tibial Insert - X3 Poly	#6 - 22mm
5537-G-625 or 5537-G-625-E	TS Plus Tibial Insert - X3 Poly	#6 - 25mm
5537-G-628 or 5537-G-628-E	TS Plus Tibial Insert - X3 Poly	#6 - 28mm
5537-G-631 or 5537-G-631-E	TS Plus Tibial Insert - X3 Poly	#6 - 31mm
5537-G-709 or 5537-G-709-E	TS Plus Tibial Insert - X3 Poly	#7 - 9mm
5537-G-711 or 5537-G-711-E	TS Plus Tibial Insert - X3 Poly	#7 - 11mm
5537-G-713 or 5537-G-713-E	TS Plus Tibial Insert - X3 Poly	#7 - 13mm
5537-G-716 or 5537-G-716-E	TS Plus Tibial Insert - X3 Poly	#7 - 16mm
5537-G-719 or 5537-G-719-E	TS Plus Tibial Insert - X3 Poly	#7 - 19mm
5537-G-722 or 5537-G-722-E	TS Plus Tibial Insert - X3 Poly	#7 - 22mm
5537-G-725 or 5537-G-725-E	TS Plus Tibial Insert - X3 Poly	#7 - 25mm
5537-G-728 or 5537-G-728-E	TS Plus Tibial Insert - X3 Poly	#7 - 28mm
5537-G-731 or 5537-G-731-E	TS Plus Tibial Insert - X3 Poly	#7 - 31mm
5537-G-809 or 5537-G-809-E	TS Plus Tibial Insert - X3 Poly	#8 - 9mm
5537-G-811 or 5537-G-811-E	TS Plus Tibial Insert - X3 Poly	#8 - 11mm
5537-G-813 or 5537-G-813-E	TS Plus Tibial Insert - X3 Poly	#8 - 13mm
5537-G-816 or 5537-G-816-E	TS Plus Tibial Insert - X3 Poly	#8 - 16mm
5537-G-819 or 5537-G-819-E	TS Plus Tibial Insert - X3 Poly	#8 - 19mm
5537-G-822 or 5537-G-822-E	TS Plus Tibial Insert - X3 Poly	#8 - 22mm
5537-G-825 or 5537-G-825-E	TS Plus Tibial Insert - X3 Poly	#8 - 25mm
5537-G-828 or 5537-G-828-E	TS Plus Tibial Insert - X3 Poly	#8 - 28mm
5537-G-831 or 5537-G-831-E	TS Plus Tibial Insert - X3 Poly	#8 - 31mm

Triathlon Universal Tibial Baseplate part numbers

Catalog #	Description	
5521-B-100	Universal Tibial Baseplate	#1
5521-B-200	Universal Tibial Baseplate	#2
5521-B-300	Universal Tibial Baseplate	#3
5521-B-400	Universal Tibial Baseplate	#4
5521-B-500	Universal Tibial Baseplate	#5
5521-B-600	Universal Tibial Baseplate	#6
5521-B-700	Universal Tibial Baseplate	#7
5521-B-800	Universal Tibial Baseplate	#8

Triathlon TS Femoral Component part numbers

Catalog #	Description	
5512-F-101	TS Femoral Component	#1 Left
5512-F-201	TS Femoral Component	#2 Left
5512-F-301	TS Femoral Component	#3 Left
5512-F-401	TS Femoral Component	#4 Left
5512-F-501	TS Femoral Component	#5 Left
5512-F-601	TS Femoral Component	#6 Left
5512-F-701	TS Femoral Component	#7 Left
5512-F-801	TS Femoral Component	#8 Left
5512-F-102	TS Femoral Component	#1 Right
5512-F-202	TS Femoral Component	#2 Right
5512-F-302	TS Femoral Component	#3 Right
5512-F-402	TS Femoral Component	#4 Right
5512-F-502	TS Femoral Component	#5 Right
5512-F-602	TS Femoral Component	#6 Right
5512-F-702	TS Femoral Component	#7 Right
5512-F-802	TS Femoral Component	#8 Right

Triathlon TS Stems - Cemented - part numbers

Catalog #	Description	
5560-S-109	Triathlon Cemented Stem	9mm x 50mm
5560-S-209	Triathlon Cemented Stem	9mm x 100mm
5560-S-309	Triathlon Cemented Stem	9mm x 150mm
5560-S-112	Triathlon Cemented Stem	12mm x 50mm
5560-S-212	Triathlon Cemented Stem	12mm x 100mm
5560-S-312	Triathlon Cemented Stem	12mm x 150mm
5560-S-115	Triathlon Cemented Stem	15mm x 50mm
5560-S-215	Triathlon Cemented Stem	15mm x 100mm
5560-S-315	Triathlon Cemented Stem	15mm x 150mm

All items are made of CoCr unless otherwise stated.

Triathlon TS Stems - Fluted - part numbers

Catalog #	Description	
5565-S-010	Triathlon Fluted Stem, Titanium	10mm x 100mm
5565-S-011	Triathlon Fluted Stem, Titanium	11mm x 100mm
5565-S-012	Triathlon Fluted Stem, Titanium	12mm x 100mm
5565-S-013	Triathlon Fluted Stem, Titanium	13mm x 100mm
5565-S-014	Triathlon Fluted Stem, Titanium	14mm x 100mm
5565-S-015	Triathlon Fluted Stem, Titanium	15mm x 100mm
5565-S-016	Triathlon Fluted Stem, Titanium	16mm x 100mm
5565-S-017	Triathlon Fluted Stem, Titanium	17mm x 100mm
5565-S-018	Triathlon Fluted Stem, Titanium	18mm x 100mm
5565-S-019	Triathlon Fluted Stem, Titanium	19mm x 100mm
5565-S-020	Triathlon Fluted Stem, Titanium	20mm x 100mm
5565-S-021	Triathlon Fluted Stem, Titanium	21mm x 100mm
5565-S-022	Triathlon Fluted Stem, Titanium	22mm x 100mm
5565-S-023	Triathlon Fluted Stem, Titanium	23mm x 100mm
5565-S-024	Triathlon Fluted Stem, Titanium	24mm x 100mm
5565-S-025	Triathlon Fluted Stem, Titanium	25mm x 100mm
5566-S-010	Triathlon Fluted Stem, Titanium	10mm x 150mm
5566-S-011	Triathlon Fluted Stem, Titanium	11mm x 150mm
5566-S-012	Triathlon Fluted Stem, Titanium	12mm x 150mm
5566-S-013	Triathlon Fluted Stem, Titanium	13mm x 150mm
5566-S-014	Triathlon Fluted Stem, Titanium	14mm x 150mm
5566-S-015	Triathlon Fluted Stem, Titanium	15mm x 150mm
5566-S-016	Triathlon Fluted Stem, Titanium	16mm x 150mm
5566-S-017	Triathlon Fluted Stem, Titanium	17mm x 150mm
5566-S-018	Triathlon Fluted Stem, Titanium	18mm x 150mm
5566-S-019	Triathlon Fluted Stem, Titanium	19mm x 150mm
5566-S-020	Triathlon Fluted Stem, Titanium	20mm x 150mm
5566-S-021	Triathlon Fluted Stem, Titanium	21mm x 150mm
5566-S-022	Triathlon Fluted Stem, Titanium	22mm x 150mm
5566-S-023	Triathlon Fluted Stem, Titanium	23mm x 150mm
5566-S-024	Triathlon Fluted Stem, Titanium	24mm x 150mm
5566-S-025	Triathlon Fluted Stem, Titanium	25mm x 150mm

Triathlon TS Tibial Augment part numbers

Catalog #	Description	
5545-A-101	Triathlon Tibial Augment - 5mm	#1 LM/RL
5545-A-201	Triathlon Tibial Augment - 5mm	#2 LM/RL
5545-A-301	Triathlon Tibial Augment - 5mm	#3 LM/RL
5545-A-401	Triathlon Tibial Augment - 5mm	#4 LM/RL
5545-A-501	Triathlon Tibial Augment - 5mm	#5 LM/RL
5545-A-601	Triathlon Tibial Augment - 5mm	#6 LM/RL
5545-A-701	Triathlon Tibial Augment - 5mm	#7 LM/RL
5545-A-801	Triathlon Tibial Augment - 5mm	#8 LM/RL
5545-A-102	Triathlon Tibial Augment - 5mm	#1 RM/LL
5545-A-202	Triathlon Tibial Augment - 5mm	#2 RM/LL
5545-A-302	Triathlon Tibial Augment - 5mm	#3 RM/LL
5545-A-402	Triathlon Tibial Augment - 5mm	#4 RM/LL
5545-A-502	Triathlon Tibial Augment - 5mm	#5 RM/LL
5545-A-602	Triathlon Tibial Augment - 5mm	#6 RM/LL
5545-A-702	Triathlon Tibial Augment - 5mm	#7 RM/LL
5545-A-802	Triathlon Tibial Augment - 5mm	#8 RM/LL
5546-A-101	Triathlon Tibial Augment - 10mm	#1 LM/RL
5546-A-201	Triathlon Tibial Augment - 10mm	#2 LM/RL
5546-A-301	Triathlon Tibial Augment - 10mm	#3 LM/RL
5546-A-401	Triathlon Tibial Augment - 10mm	#4 LM/RL
5546-A-501	Triathlon Tibial Augment - 10mm	#5 LM/RL
5546-A-601	Triathlon Tibial Augment - 10mm	#6 LM/RL
5546-A-701	Triathlon Tibial Augment - 10mm	#7 LM/RL
5546-A-801	Triathlon Tibial Augment - 10mm	#8 LM/RL
5546-A-102	Triathlon Tibial Augment - 10mm	#1 RM/LL
5546-A-202	Triathlon Tibial Augment - 10mm	#2 RM/LL
5546-A-302	Triathlon Tibial Augment - 10mm	#3 RM/LL
5546-A-402	Triathlon Tibial Augment - 10mm	#4 RM/LL
5546-A-502	Triathlon Tibial Augment - 10mm	#5 RM/LL
5546-A-602	Triathlon Tibial Augment - 10mm	#6 RM/LL
5546-A-702	Triathlon Tibial Augment - 10mm	#7 RM/LL
5546-A-802	Triathlon Tibial Augment - 10mm	#8 RM/LL

LM/RL = Left medial/Right lateral
RM/LL = Right medial/Left lateral

Triathlon TS Femoral Augment part numbers

Catalog #	Description	
5540-A-101	Triathlon Femoral Distal Augment - 5mm	#1 Left
5540-A-201	Triathlon Femoral Distal Augment - 5mm	#2 Left
5540-A-301	Triathlon Femoral Distal Augment - 5mm	#3 Left
5540-A-401	Triathlon Femoral Distal Augment - 5mm	#4 Left
5540-A-501	Triathlon Femoral Distal Augment - 5mm	#5 Left
5540-A-601	Triathlon Femoral Distal Augment - 5mm	#6 Left
5540-A-701	Triathlon Femoral Distal Augment - 5mm	#7 Left
5540-A-801	Triathlon Femoral Distal Augment - 5mm	#8 Left
5540-A-102	Triathlon Femoral Distal Augment - 5mm	#1 Right
5540-A-202	Triathlon Femoral Distal Augment - 5mm	#2 Right
5540-A-302	Triathlon Femoral Distal Augment - 5mm	#3 Right
5540-A-402	Triathlon Femoral Distal Augment - 5mm	#4 Right
5540-A-502	Triathlon Femoral Distal Augment - 5mm	#5 Right
5540-A-602	Triathlon Femoral Distal Augment - 5mm	#6 Right
5540-A-702	Triathlon Femoral Distal Augment - 5mm	#7 Right
5540-A-802	Triathlon Femoral Distal Augment - 5mm	#8 Right
5541-A-101	Triathlon Femoral Distal Augment - 10mm	#1 Left
5541-A-201	Triathlon Femoral Distal Augment - 10mm	#2 Left
5541-A-301	Triathlon Femoral Distal Augment - 10mm	#3 Left
5541-A-401	Triathlon Femoral Distal Augment - 10mm	#4 Left
5541-A-501	Triathlon Femoral Distal Augment - 10mm	#5 Left
5541-A-601	Triathlon Femoral Distal Augment - 10mm	#6 Left
5541-A-701	Triathlon Femoral Distal Augment - 10mm	#7 Left
5541-A-801	Triathlon Femoral Distal Augment - 10mm	#8 Left
5541-A-102	Triathlon Femoral Distal Augment - 10mm	#1 Right
5541-A-202	Triathlon Femoral Distal Augment - 10mm	#2 Right
5541-A-302	Triathlon Femoral Distal Augment - 10mm	#3 Right
5541-A-402	Triathlon Femoral Distal Augment - 10mm	#4 Right
5541-A-502	Triathlon Femoral Distal Augment - 10mm	#5 Right
5541-A-602	Triathlon Femoral Distal Augment - 10mm	#6 Right
5541-A-702	Triathlon Femoral Distal Augment - 10mm	#7 Right
5541-A-802	Triathlon Femoral Distal Augment - 10mm	#8 Right

Continued

Triathlon TS Femoral Augment part numbers - continued

Catalog #	Description	
5542-A-101	Triathlon Femoral Distal Augment - 15mm	#1 Left
5542-A-201	Triathlon Femoral Distal Augment - 15mm	#2 Left
5542-A-301	Triathlon Femoral Distal Augment - 15mm	#3 Left
5542-A-401	Triathlon Femoral Distal Augment - 15mm	#4 Left
5542-A-501	Triathlon Femoral Distal Augment - 15mm	#5 Left
5542-A-601	Triathlon Femoral Distal Augment - 15mm	#6 Left
5542-A-701	Triathlon Femoral Distal Augment - 15mm	#7 Left
5542-A-801	Triathlon Femoral Distal Augment - 15mm	#8 Left
5542-A-102	Triathlon Femoral Distal Augment - 15mm	#1 Right
5542-A-202	Triathlon Femoral Distal Augment - 15mm	#2 Right
5542-A-302	Triathlon Femoral Distal Augment - 15mm	#3 Right
5542-A-402	Triathlon Femoral Distal Augment - 15mm	#4 Right
5542-A-502	Triathlon Femoral Distal Augment - 15mm	#5 Right
5542-A-602	Triathlon Femoral Distal Augment - 15mm	#6 Right
5542-A-702	Triathlon Femoral Distal Augment - 15mm	#7 Right
5542-A-802	Triathlon Femoral Distal Augment - 15mm	#8 Right
5543-A-100	Triathlon Femoral Posterior Augment, 5mm - Size 1	
5543-A-200	Triathlon Femoral Posterior Augment, 5mm - Size 2	
5543-A-300	Triathlon Femoral Posterior Augment, 5mm - Size 3	
5543-A-400	Triathlon Femoral Posterior Augment, 5mm - Size 4	
5543-A-500	Triathlon Femoral Posterior Augment, 5mm - Size 5	
5543-A-600	Triathlon Femoral Posterior Augment, 5mm - Size 6	
5543-A-700	Triathlon Femoral Posterior Augment, 5mm - Size 7	
5543-A-800	Triathlon Femoral Posterior Augment, 5mm - Size 8	
5544-A-100	Triathlon Femoral Posterior Augment, 10mm - Size 1	
5544-A-200	Triathlon Femoral Posterior Augment, 10mm - Size 2	
5544-A-300	Triathlon Femoral Posterior Augment, 10mm - Size 3	
5544-A-400	Triathlon Femoral Posterior Augment, 10mm - Size 4	
5544-A-500	Triathlon Femoral Posterior Augment, 10mm - Size 5	
5544-A-600	Triathlon Femoral Posterior Augment, 10mm - Size 6	
5544-A-700	Triathlon Femoral Posterior Augment, 10mm - Size 7	
5544-A-800	Triathlon Femoral Posterior Augment, 10mm - Size 8	

Triathlon TS Stem Extender part numbers

Catalog #	Description	
5571-S-025	Triathlon Stem Extender	25mm
5571-S-050	Triathlon Stem Extender	50mm

Triathlon TS Offset Adapter part numbers

Catalog #	Description	
5570-S-020	Triathlon TS Offset Adapter	2mm
5570-S-040	Triathlon TS Offset Adapter	4mm
5570-S-060	Triathlon TS Offset Adapter	6mm
5570-S-080	Triathlon TS Offset Adapter	8mm

Triathlon TS Trial Cutting Guide part numbers

Catalog #	Description
5538-T-109	Triathlon TCG Tibial Insert Trial #1 - 9mm
5538-T-111	Triathlon TCG Tibial Insert Trial #1 - 11mm
5538-T-113	Triathlon TCG Tibial Insert Trial #1 - 13mm
5538-T-116	Triathlon TCG Tibial Insert Trial #1 - 16mm
5538-T-119	Triathlon TCG Tibial Insert Trial #1 - 19mm
5538-T-122	Triathlon TCG Tibial Insert Trial #1 - 22mm
5538-T-125	Triathlon TCG Tibial Insert Trial #1 - 25mm
5538-T-128	Triathlon TCG Tibial Insert Trial #1 - 28mm
5538-T-131	Triathlon TCG Tibial Insert Trial #1 - 31mm
5538-T-209	Triathlon TCG Tibial Insert Trial #2 - 9mm
5538-T-211	Triathlon TCG Tibial Insert Trial #2 - 11mm
5538-T-213	Triathlon TCG Tibial Insert Trial #2 - 13mm
5538-T-216	Triathlon TCG Tibial Insert Trial #2 - 16mm
5538-T-219	Triathlon TCG Tibial Insert Trial #2 - 19mm
5538-T-222	Triathlon TCG Tibial Insert Trial #2 - 22mm
5538-T-225	Triathlon TCG Tibial Insert Trial #2 - 25mm
5538-T-228	Triathlon TCG Tibial Insert Trial #2 - 28mm
5538-T-231	Triathlon TCG Tibial Insert Trial #2 - 31mm
5538-T-309	Triathlon TCG Tibial Insert Trial #3 - 9mm
5538-T-311	Triathlon TCG Tibial Insert Trial #3 - 11mm
5538-T-313	Triathlon TCG Tibial Insert Trial #3 - 13mm
5538-T-316	Triathlon TCG Tibial Insert Trial #3 - 16mm
5538-T-319	Triathlon TCG Tibial Insert Trial #3 - 19mm
5538-T-322	Triathlon TCG Tibial Insert Trial #3 - 22mm
5538-T-325	Triathlon TCG Tibial Insert Trial #3 - 25mm
5538-T-328	Triathlon TCG Tibial Insert Trial #3 - 28mm
5538-T-331	Triathlon TCG Tibial Insert Trial #3 - 31mm
5538-T-409	Triathlon TCG Tibial Insert Trial #4 - 9mm
5538-T-411	Triathlon TCG Tibial Insert Trial #4 - 11mm
5538-T-413	Triathlon TCG Tibial Insert Trial #4 - 13mm
5538-T-416	Triathlon TCG Tibial Insert Trial #4 - 16mm
5538-T-419	Triathlon TCG Tibial Insert Trial #4 - 19mm
5538-T-422	Triathlon TCG Tibial Insert Trial #4 - 22mm
5538-T-425	Triathlon TCG Tibial Insert Trial #4 - 25mm
5538-T-428	Triathlon TCG Tibial Insert Trial #4 - 28mm
5538-T-431	Triathlon TCG Tibial Insert Trial #4 - 31mm
5538-T-509	Triathlon TCG Tibial Insert Trial #5 - 9mm
5538-T-511	Triathlon TCG Tibial Insert Trial #5 - 11mm
5538-T-513	Triathlon TCG Tibial Insert Trial #5 - 13mm
5538-T-516	Triathlon TCG Tibial Insert Trial #5 - 16mm
5538-T-519	Triathlon TCG Tibial Insert Trial #5 - 19mm
5538-T-522	Triathlon TCG Tibial Insert Trial #5 - 22mm
5538-T-525	Triathlon TCG Tibial Insert Trial #5 - 25mm
5538-T-528	Triathlon TCG Tibial Insert Trial #5 - 28mm
5538-T-531	Triathlon TCG Tibial Insert Trial #5 - 31mm
5538-T-609	Triathlon TCG Tibial Insert Trial #6 - 9mm
5538-T-611	Triathlon TCG Tibial Insert Trial #6 - 11mm

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Triathlon TS Trial Cutting Guide part numbers - continued

Catalog #	Description
5538-T-613	Triathlon TCG Tibial Insert Trial #6 - 13mm
5538-T-616	Triathlon TCG Tibial Insert Trial #6 - 16mm
5538-T-619	Triathlon TCG Tibial Insert Trial #6 - 19mm
5538-T-622	Triathlon TCG Tibial Insert Trial #6 - 22mm
5538-T-625	Triathlon TCG Tibial Insert Trial #6 - 25mm
5538-T-628	Triathlon TCG Tibial Insert Trial #6 - 28mm
5538-T-631	Triathlon TCG Tibial Insert Trial #6 - 31mm
5538-T-709	Triathlon TCG Tibial Insert Trial #7 - 9mm
5538-T-711	Triathlon TCG Tibial Insert Trial #7 - 11mm
5538-T-713	Triathlon TCG Tibial Insert Trial #7 - 13mm
5538-T-716	Triathlon TCG Tibial Insert Trial #7 - 16mm
5538-T-719	Triathlon TCG Tibial Insert Trial #7 - 19mm
5538-T-722	Triathlon TCG Tibial Insert Trial #7 - 22mm
5538-T-725	Triathlon TCG Tibial Insert Trial #7 - 25mm
5538-T-728	Triathlon TCG Tibial Insert Trial #7 - 28mm
5538-T-731	Triathlon TCG Tibial Insert Trial #7 - 31mm
5538-T-809	Triathlon TCG Tibial Insert Trial #8 - 9mm
5538-T-811	Triathlon TCG Tibial Insert Trial #8 - 11mm
5538-T-813	Triathlon TCG Tibial Insert Trial #8 - 13mm
5538-T-816	Triathlon TCG Tibial Insert Trial #8 - 16mm
5538-T-819	Triathlon TCG Tibial Insert Trial #8 - 19mm
5538-T-822	Triathlon TCG Tibial Insert Trial #8 - 22mm
5538-T-825	Triathlon TCG Tibial Insert Trial #8 - 25mm
5538-T-828	Triathlon TCG Tibial Insert Trial #8 - 28mm
5538-T-831	Triathlon TCG Tibial Insert Trial #8 - 31mm
6541-9-000	Triathlon Case
6543-1-731	#1 Trial Cutting Guide
6543-1-732	#2 Trial Cutting Guide
6543-1-733	#3 Trial Cutting Guide
6543-1-734	#4 Trial Cutting Guide
6543-1-735	#5 Trial Cutting Guide
6543-1-736	#6 Trial Cutting Guide
6543-1-737	#7 Trial Cutting Guide
6543-1-738	#8 Trial Cutting Guide
6543-1-740	Neutral TCG Valgus Adapter
6543-1-742	2mm Offset TCG Valgus Adapter
6543-1-744	4mm Offset TCG Valgus Adapter
6543-1-746	6mm Offset TCG Valgus Adapter
6543-1-748	8mm Offset TCG Valgus Adapter
6543-4-524	TCG Reamer - 24mm
6543-4-820	TCG T-20 Torx Driver
6543-8-014	3 - 6 TCG Upper Tray
6543-8-015	1, 2, 7, 8 TCG Upper Tray
6543-8-016	1 - 8 Max Thickness TCG Insert Trial Tray
6543-8-114	3 - 6 TCG Lower Tray
6543-8-115	1, 2, 7, 8 TCG Lower Tray
5100-3600	Torque Limiting Driver
LTEMK39	Acetate Templates

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