



## XT REVISION

Ankle Replacement System

Surgical Technique



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### Note Bena

The following technique guide is intended for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate products and techniques, according to their own clinical judgment, for each of their patients. For more information on the product, including its indications for use, contraindications, and product safety information, please refer to the product's label and the Instructions for Use packaged with the product.

Prior to performing this technique, please consult the Instructions for Use documentation provided with each device for additional health and safety information, including indications, contraindications, warnings and precautions.

## Instrumentation Concept

The instrumentation is designed to achieve accurate and reproducible tibiotalar alignment while adapting to various anatomical conditions, depending on the lesions encountered in the ankle or a particular morphotype.

### 1. Patient Positioning

The patient is placed in a supine position with a bump under ipsilateral hip to reduce external rotation of the extremity.

The heel is placed near the end of the table. A bump under the calf should be used throughout the surgery to keep the heel off the table.

### 2. Removal of Current Implant

The failed implant must be removed with minimal bone loss and with care to avoid fracture of the medial or lateral malleolus.

Prophylactic pinning may be needed in the medial malleolus if excessive bone loss is expected.

Note: SALTO TALARIS<sup>®</sup> components are compatible with XT components.

### 3. Tibial and Talar Preparation

Using a free hand technique or supplied tibial and talar cut guides, minimal bone should be removed to allow for appropriate resections for the selected implants. The tibial and flat cut talar cuts should be parallel to the weight bearing surface and remove just enough bone to maintain good bone stock. The sloped talar dome provides extra posterior augmentation, and this cut should be 14 degrees off the weight bearing surface from anterior to posterior.

### 4. Final Trial Positioning

Both tibial and talar trials can be inserted together. Lateral fluoroscopy should be utilized to verify correct position in the Sagittal plane. Once correct poly size is chosen the tibial or talar component can be secured first then the ankle can be ranged to locate the corresponding implant based on the patient's own biomechanics.

### 5. Final Preparation

With the final positioning completed, finish prepping the tibial fin resections and then remove the trials. The XT tibial tray is inserted first followed by the talar component, and lastly the poly insert is installed.

The XT REVISION Total Ankle Replacement System is designed to achieve proper positioning of the tibial implant in relation to the talar implant for a successful arthroplasty.

### Preoperative Planning:

The preoperative planning for the XT REVISION Total Ankle Replacement System prosthesis is carried out using three standard weight-bearing radiological views:

- Anterior view;
- Anterior view with 30° internal rotation to expose the tibial-fibular joint space;
- Straight lateral.

Examination of the healthy side should be used for comparison.

**Complementary imaging may be requested to:**

- Confirm or reject the indication (CT scan examination for talar necrosis, a relative contraindication for prosthetic replacement);
- Discuss the need for an associated procedure (CT scan of the subtalar joint to determine if fusion is needed for this joint);
- Modify the technical details (assess the anterior deviation of the knee with panoramic X-ray).

**Special consideration should be given to two types of pre-existing conditions.**

- Malunions responsible for malalignment of the tibia or imbalance of the malleoli, which may require an initial correction.
- Major ligamentous instabilities demonstrated by an examination under stress will require specific intervention (release of the contracted side or possible need for an associated ligamentoplasty on the lengthened side).
- Previous ankle implant removal and subsequent bone loss.

**1) Key planning elements determined from the anterior view:**

- Choice of an implant size that does not impinge with the lateral malleolus;
- Determination of the ideal joint line level accommodating for articular wear.

Comparative images are often necessary to assess the prosthetic joint line, which should be located at the theoretical anatomic joint line. The thickness of the tibial resection depends on this determination.

**2) Key planning elements determined from the lateral view:**

- Confirmation of the implant size selected from the anterior view;
- Evaluation of the anterior osteophytic margin and assessment of the proposed bone resection required to expose the roof of the pilon;
- Evaluation of talar dome morphology, particularly its degree of convexity;
- Evaluation of talar positioning, which can be centered or retroplaced beneath the pilon. The relative positioning of the tibial and talar components should take into account a possible off-centered location with the understanding that the prosthesis adapts to this position and does not correct it.

In extreme cases, a pronounced anterior or posterior talar subluxation may preclude implantation of a prosthesis

**General Rules**

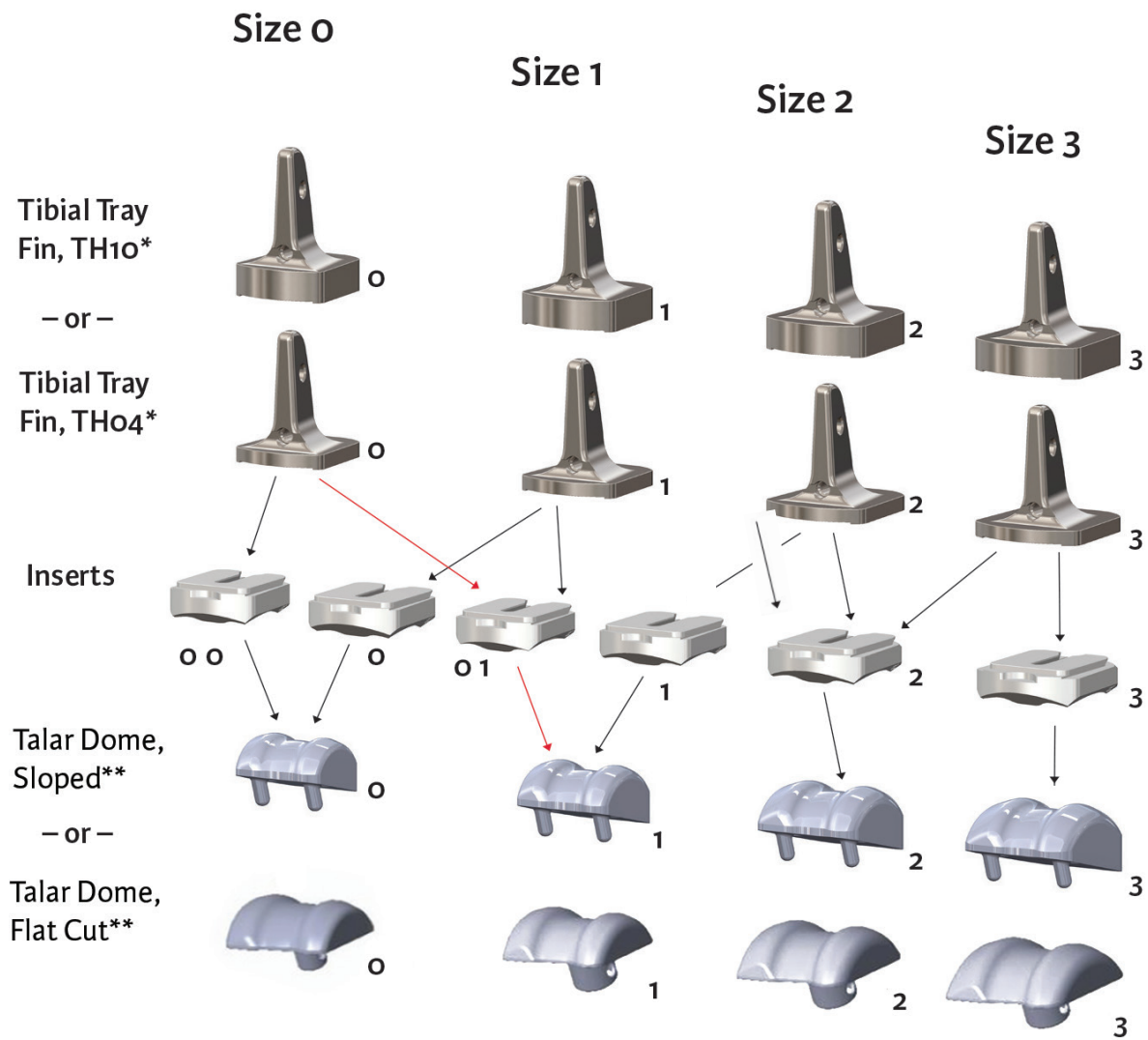
- The Tibial component size is the same or one size bigger than the Talar component size. Only in the case of the Size 01 Insert, the Size 0 Tibial Component is smaller to its mating Size 1 Talar Component.
- The polyethylene (PE) insert matches the Talar component. For the size 0 talar dome use either the size 0 or size 00 PE inserts. For the size 1 talar dome use either the size 01 or size 1 PE inserts.

**Additional information**

- The tibial implant comes in 4 symmetrical sizes and 2 thicknesses, that can all be implanted on either the right or the left ankle.
- The SALTO TALARIS<sup>®</sup> flat cut talar component and standard keeled tibial tray are compatible with the XT Revision System and surgical techniques for the flat cut talar dome and standard tibial tray are captured in the guide. Separate surgical techniques are available and should be referenced when implanting a SALTO TALARIS standard keeled Tibial Tray with a SALTO TALARIS flat or chamfer cut talar dome.

Recommendations about how to associate components with each other are mentioned in the following drawing:

Figure 1. Compatibility of components for XT REVISION Ankle Replacement System



\*Note – Only one tibial tray component should be selected.

\*\*Note – Only one talar dome component should be selected.

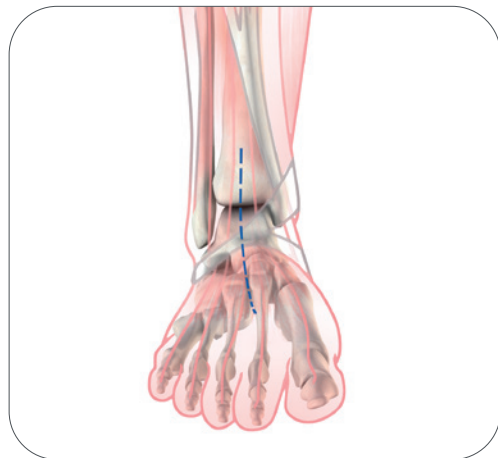


Figure 1-1

## Surgical technique

### Step 1 • Surgical Approach

**1-1** The ankle is opened with an extensive longitudinal anterior incision lateral to the anterior tibialis tendon. This allows for an anterior release and broad arthrolysis with resection of all the osteophytes. Care should be taken to ensure that all scar tissue surrounding the failed implant has been removed.

### Step 2 • Removal of Failed Prosthesis

General instruments may be used to remove failed prosthesis, i.e. an osteotome. If removing Salto components, follow below instructions:

Revision should begin by removing PE Insert. This is disassembled from the tibial base by inserting the Insert extractor blade between the base and the PE insert. A towel clamp holds the PE component for its extraction, after a lever maneuver using the extractor has separated the two components.

If necessary, the tibial base can then be removed as follows:

- To precut the bone around the tibial plug, use the osteotomes provided for this purpose in the instrumentation.
- Hook the posterior aspect of the tibial implant with the tibial component extractor.
- Insert the extractor plug by screwing the slap hammer on the tibial extractor.
- Push and pull vigorously with the slap hammer until the implant is fully removed.

The talar implant is separated from the talus with the thin osteotome.

Care should be taken to avoid any unnecessary bone loss while removing the prosthesis. Attention should be paid to the approach to avoid fracture of the malleoli. Prophylactic pinning may be needed in the medial malleolus if excessive bone loss is expected.

**Note:** Must remove all implant components for competitor replacement ankle systems, as the XT System is not compatible with competitor components.



Figure 3-1a

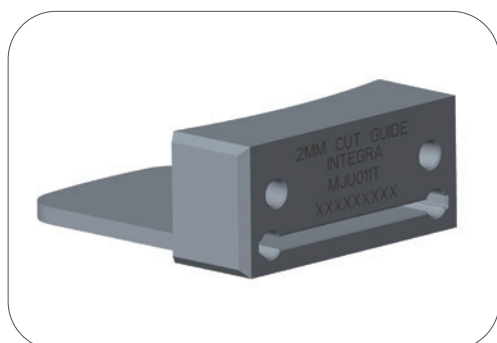


Figure 3-1b

## Step 3 • Positioning of Tibial Alignment Guide

**3-1a** As an option, the 2mm cut guide may be used if the process of removing the prior implant has left the tibial resection relatively flat and at the desired angle.

If 2mm of bone is needed to be resected use Step 3-1b, otherwise follow this step.

The guide should be aligned parallel to the tibia's mechanical axis; this is a determining factor in all the resections performed during the procedure.

If the 7 degree block is desired to maintain the prior SALTO TALARIS<sup>®</sup> tibial resection use the 7 degree block. It is recommended to use the 3 degree block and must be used for the talar resections later.

First check that all of the guide's set screws are unscrewed.

Drill a 110mm drill tip pin at the anterior tibial tubercle in the neutral hole of the guide parallel to the tibial crest.

Align the guide to position 0mm and place at the location of the tibia of the desired resection. In order to minimize bone loss a minimal resection is desired to maintain good quality tibial bone stock. The distal flange of the tibial alignment guide should rest on the anterior cortex of the tibia at the desired level of bone resection. The new resections should not be more than 2mm above the previous resection. Lateral fluoroscopy can assist in determining the desired level of resection.

Once the level of tibial resection is determined, tighten the extension screw located in the middle, then insert a second 110mm drill tip pin through the guide's medial hole, positioning the guides axis in the center of the inferior metaphysis.

**3-1b** Place the 2mm Cut Guide (Fig. 3-1b) in the joint space with the platform placed firmly against the resected tibial resection. The joint distractor (MJU928T or MJU929T) should be used to keep the platform flush to the tibial resection. Pin the 2mm Cut Guide to the distal tibia going through the two proximal holes using the 3mm self drilling pins (LJV527T). Insert two 75mm pins (LJV526T) into the distal medial and lateral holes of the guide to protect against saw excursion. Take a lateral fluoroscopic image to ensure the platform is flush to the tibial resection.

Perform the additional tibial resection extended carefully to the posterior cortex. A 1.27mm thick saw blade is recommended. Repeat this process as needed until the minimum amount of bone has been resected. Remove the 2mm Cut Guide and pins after the desired bone is resected. Place the tibial alignment guide appropriately and continue to Step 4.

**Note:** Check final position in ML and AP fluoroscopic views.

### Items Used:

MJV553T – Tibial Alignment Guide, No Block

MJU668T – 3 Degree Block, Tibial Alignment

LJV527T – 110mm Self-Drilling Pins

MJV552T – 7 Degree Block, Tibial Alignment

LJV526T – 75mm Pin

MJU928T/MJU929T – Joint Distractors





Figure 4-1b

## Step 4 - Adjusting the Alignment Guide

### 4-1 Frontal plane:

The axis of the tibial resection guide should be made parallel to the tibia's mechanical axis by choosing the proper hole of the proximal pin guide.

### Sagittal plane:

With both flanges in contact with the tibia, the resection guide is adjusted parallel to the anterior tibial crest. At this stage, a genu varum or a genu valgum deformation can be corrected by moving the proximal guide medially or laterally over the pin, making it possible to implant the prosthesis strictly perpendicular to the tibial axis to compensate for any axial defect. The timing and degree of this compensation should be discussed for each case as there may be a need for further compensation with additional intervention (i.e. secondary knee surgery or subtalar joint stiffening) to achieve horizontal axis. Once the guide is positioned in the frontal and sagittal planes, the set-up is finalized by tightening the set screw of the superior guide and then the set screw on the distal guide.

### Rotational and mediolateral positioning:

The tibial alignment jig, used for mediolateral and rotational adjustment of the implant, is attached to the tibial alignment guide.

Adjustments are made as follows.

- Hold the ankle in a neutral position.
- Rotational adjustment: insert a 110mm pin into the guide's adjustable arm; the pin in the adjustable arm should also be in line between the 2nd and 3rd metatarsal.

Once the rotational position has been adjusted, the guide's rotational adjustment set screw is tightened.

- Mediolateral adjustment: the tibial implant size planned preoperatively is confirmed through a series of lateral and medial holes on the guide.

The different implant sizes available (0, 1, 2, and 3) are on the guide; hence the size is confirmed by inserting two 75mm pins in the medial and lateral holes and by positioning them at the M-L joint spaces formed by the malleoli. Once the mediolateral position has been adjusted, the guide's mediolateral adjustment set screw is firmly tightened with the 3.5mm Hex Driver. Check final position in AP fluoroscopic view. Remove the Tibial Alignment Jig from the Tibial Alignment Guide.

**Note:** This does not commit you to the selected size.

**Caution:** Since this guide is not a cutting guide, do not drill through the holes. The pins inserted in the holes are used only to verify that the tibial plate is properly positioned. They are inserted in the holes but not drilled.

### Items Used:

MJU334T - Tibial Alignment Jig  
LJV526T - 75mm Pins

MLN113T - Hex Driver, 3.5mm  
LJV527T - 110mm Self-Drilling Pin



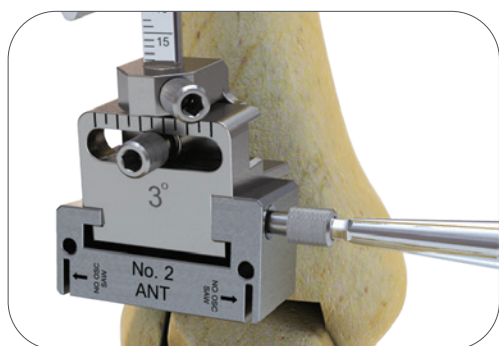


Figure 5-1

## Step 5 • Placing the Cutting Guide

**Note:** Skip this step if the 2mm Cut Guide is used.

**5-1** Depending on the size chosen at the preoperative planning stage and in accordance with the size determined from the tibial alignment jig, tibial cut guide number 0, 1, 2 or 3 is chosen. This unit is attached to the alignment guide by tightening the set screw.

**Caution:** Once all the adjustments have been made and before using the oscillating saw, make sure that the guide is sitting on the anterior tibia and all the set screws have been firmly tightened with the screwdriver provided in the instrumentation. An AP fluoroscopy image may be utilized to ensure proper alignment of the cut guide. A lateral fluoroscopy image can also confirm the level of resection of the tibia.

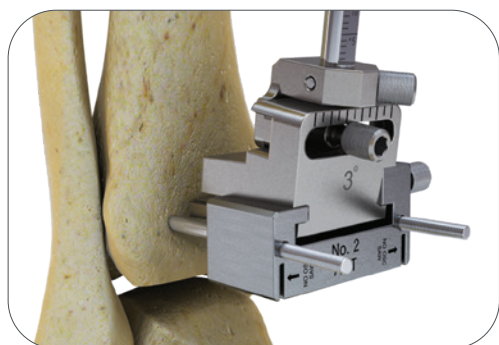


Figure 6-1

## Step 6 • Preparation for Tibial Bone Cut

**Note:** Skip this step if the 2mm Cut Guide is used.

**6-1** Drill the pin holes on the guide with 75mm pins. These converging pins protect the sweep of the oscillating saw blade during the horizontal cut as well as the proximal migration of the reciprocating saw blade during vertical cuts.

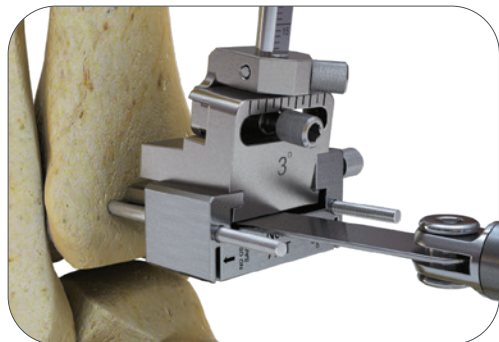


Figure 6-1

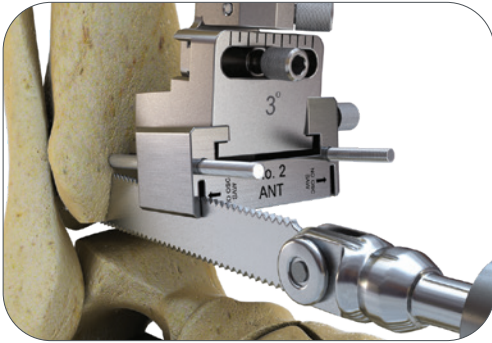


Figure 7-1

## Step 7 • Tibial Cut

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**Note:** Skip this step if the 2mm Cut Guide is used.

**Note:** If necessary, a pin pusher tool is available and can be used to further advance the pins through the guide after drilling.

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**7-1** The horizontal tibial resection is performed with an oscillating saw blade extending carefully to the back, just through the posterior cortex. If greater depth is needed, use the wide saw blade. Care should be taken to avoid over penetration of either oscillating or reciprocating saw blade beyond the posterior cortical bone. Be sure to use only the oscillating saw for the horizontal cut and only the reciprocating saw for the vertical cuts. If needed, the vertical resection is performed through the slots on the medial and lateral aspects of the guide with the provided end cutting reciprocating saw. Care needs to be taken to avoid unwanted contact to the talus when using the one-sided or two-sided reciprocating saw. If using the one-sided reciprocating saw, point the teeth distally. The cut should extend up to the pins that are seated in the guide. Once the cuts have been made, remove the guide and remove the anterior half of the distal bone. Care should be taken not to leverage the malleoli while completing the cuts and removing bone. At this stage, the goal is to be able to straighten the foot at a right angle below the tibia.

### Items Used:

MJU645T-MJU648T - Tibial Cut Guide, Size 0-3

Saw Blades - Listed on Pg. 24

MLN113T - 3.5mm Hex Driver

LJV526T - 75mm Pins

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**Caution:** Point the saw blade's teeth distally to prevent wear of the cut guide.

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**Caution:** Pins may dislodge while cutting and care must be taken to retain pin location.

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Figure 8-1

## Step 8 • Preparing the Talar Cut

**8-1** Select the sloped talar cutting guide or flat talar cutting guide.

First, make sure the cut block is labeled as 3 degrees.

The talar cutting guide is attached to the tibial alignment guide and positioned as close to the talus as possible. Dorsal excision of the talar head with general instrumentation may be necessary prior to attaching the talar cutting guide to achieve proper resection. The set screw is tightened. With the foot in neutral the level of resection can be adjusted based on the desired amount of talus to be removed utilizing the height adjustment of the tibial alignment guide. The resection should be at the level of the anterior border of the talar articular surface, or at the level of the previous chamfer. Place a free saw blade through the guide while taking a lateral fluoroscopic view to properly check the resection level. Make sure the foot maintains a neutral position. Joint distractors may be used to properly position the foot.



Figure 9-1

## Step 9 • Talar Cut

**9-1** With the desired resection level determined and the foot in a neutral position, pin the foot using two 75mm or 110mm pins.

Make sure foot is not in varus or valgus before setting pins.

Pin positioning will be variable depending on patient size and resection level. Check final position in ML fluoroscopic view, before cutting.

The resection is completed through the talar cutting guide utilizing the narrow oscillating saw blade.

To protect the malleoli from the sweep of the saw blade, a set of ribbon retractors are provided in the instrumentation.

After cutting the talus remove the tibial alignment guide and the sloped talar cutting guide or flat talar cutting guide and any optional joint distractors. Remove the resected bone. Ensure the talus has smooth posterior bony surface. General instrumentation may be used as needed.

### Items Used:

MJU985T – Sloped Talar Cutting Guide

LJV527T – 110mm Self-Drilling Pins

MJU086T – Ribbon Retractors

MJU928T – Joint Distractor, Right

MJU929T – Joint Distractor, Left

MJU910T – Talar Cut Guide, Flat Cut

Saw Blades – Listed on Pg. 24



LJV526T – Pin, 75mm

## Step 10 • Trialing and Tibial / Talar Prep

At this step the tibial alignment guide and cutting guides should be removed.

### Size Selection

To prevent any risk of medial malleolus fracture, please adhere to the following combinations: do not use thicker tibial baseplate (10mm) with a poly insert thickness higher than 15mm (see table below). While trialing select the appropriate thickness poly for an adequate fit. A 10mm Tibial Baseplate is recommended to increase medial and lateral area of titanium plasma coating.

|   |                         | Polyethelene Insert Thickness (mm) |   |    |    |    |    |             |    |    |
|---|-------------------------|------------------------------------|---|----|----|----|----|-------------|----|----|
|   |                         | 8                                  | 9 | 10 | 11 | 13 | 15 | 17          | 19 | 21 |
|  | Tibial baseplate - 4mm  | ✓                                  | ✓ | ✓  | ✓  | ✓  | ✓  | ✓           | ✓  | ✓  |
|  | Tibial baseplate - 10mm | ✓                                  | ✓ | ✓  | ✓  | ✓  | ✓  | Not Allowed |    |    |

The plastic trial insert is selected depending on:

- The size and side of the plastic trial insert should match the talar component. For a size 0 talar dome, use either the size 0 or size 00 insert based on tibial component size. For a size 1 talar dome, use either the size 01 or size 1 insert based on tibial component size. Please reference the chart on pg. 3 for complete component sizing compatibility.
- Thickness: they vary from 8 to 21mm and correspond to the accumulated thickness of the metallic base and the PE

### 10-1 When using the sloped or flat cut talar dome:

Insert the selected size of trials for the tibial trial, the PE insert trial, and the sloped or flat cut talar trial. The PE insert trial will snap into place on to the tibial trial. Articulate the foot to find the proper positioning of the trials. Use the handle attached to the talar trial to control rotation and medial/ lateral positioning. For sagittal plane reference use a lateral fluoroscopic view to ensure that the components are centered under the long axis of the tibia. Also check that the handle is pointing between the 2nd and 3rd ray. Once satisfied with the positioning use step **10-1a. for a sloped talar dome** and **10-1b. for flat cut talar dome**.

**10-1a** When using the sloped talar trial, drill one talar peg hole with a 4.5mm drill, drilling to hard stop, followed immediately by filling the hole with a stabilization peg by hand or with stabilization peg removal tool, then repeat for the second talar peg hole. Do not tamp the stabilization pegs too far (**Figure 10-2**). Leave the nail head above the surface of the dome to allow removal. Remove the talar trial handle. **For prepping the standard tibial trial**, drill a 75mm pin into the distal hole to hold the tibial trial base. Next, drill the proximal 3.0mm hole and leave empty. For the larger proximal hole, use the 7.9mm drill bit and drill to its stop.

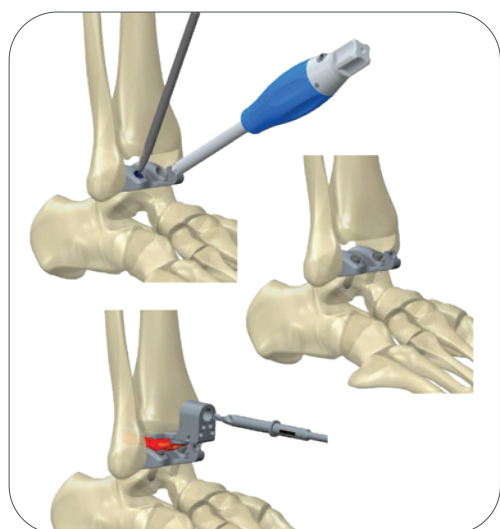


Figure 10-1

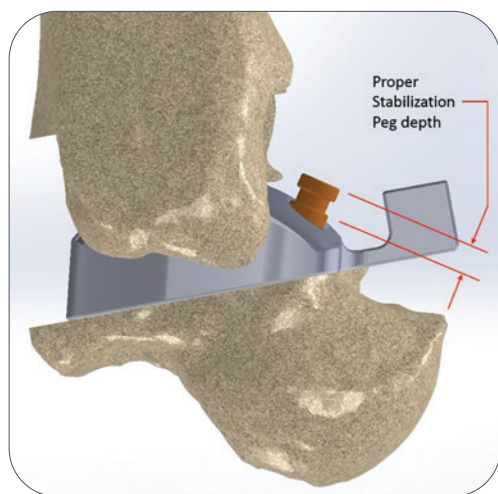


Figure 10-2

**Items Used:**

MJU983T – Drill, 4.5mm  
 MJV210T-MJV213T – Tibial Trial Jig, Size 0-3, Thick  
 MJU981T – Stabilization Peg  
 MJU960T-MJU963T – Sloped Talar Trial, Size 0-3, Right  
 MJU970T-MJU973T – Sloped Talar Trial, Size 0-3, Left  
 MJV200T-MJV203T – Tibial Trial Jig, Size 0-3  
 MJU342T – Handle, Lateral Chamfer Guide  
 Trial Inserts – Listed on Pg. 19  
 MJU939T – Drill, Tapered  
 DWD060T / LJV528T – 3mm Drill Bit  
 MJU380T, MJU384T-MJU386T – Standard Tibial Trials, Size 0-3  
 MJV500T-MJV503T – Extended Tibial Trials, Size 0-3  
 LJV525T – 45mm Pins  
 MWE044T – Remover, Stabilization Peg  
 MJU387T – Osteotome, Tibial Keel  
 MJV940T, MJU941T-MJU943T – Talar Trial, Flat Cut, Size 0-3, Right  
 MJV950T, MJU951T-MJU953T – Talar Trial, Flat Cut, Size 0-3, Left  
 LJV526T – 75mm Pins  
 MJU362T – Drill Bit, Size 0  
 MJU922T – Bell Saw Reamer, Flat Cut  
 MJU907T – Tibial Osteotome  
 MJU925T – Talar Flange Drill

**For prepping the finned tibial trial** use the four 3.0mm holes. Drilling unicortically, drill the two most proximal holes with 45mm pins, and drill the two distal holes with 75mm pins. The 45mm pins should be flush to the tibial trials anterior face to make room for the tapered drill. With the tibial trial secured, drill the large proximal hole with 5mm tapered drill.

**Note:** For size 0 flat cut talar preparation, the size 0 drill bushing (MJU662T) needs to be used along with the size 0 talar drill (MJU362T)

**10-1b** Remove the stabilization pegs with the stabilization peg remover, and remove all the trials and then skip to Step 11.

When using the Flat talar trial, drill the converging pins with a 75mm pin in the medial hole followed by another 75mm pin in the lateral hole. Remove the talar trial handle. **For prepping the standard tibial trial**, drill a 75mm pin into the distal hole to hold the tibial trial base. Next, drill the proximal 3.0mm hole and leave empty. For the larger proximal hole, use the 7.9mm drill bit and drill to its stop. **For prepping the finned tibial trial**, use the four 3.0mm holes. Drilling unicortically, drill the two most proximal holes with 45mm pins, and the two distal holes with 75mm pins. The 45mm pins should be flush to the tibial trials anterior face to make room for the tapered drill. With the tibial trial secured, drill the large proximal hole with 5mm tapered drill.

Remove only the tibial trial and insert trial. Finish prepping for the talar stem by plantar flexing the foot and inserting the appropriate drill guide for the stem. Next, drill for the stem using the appropriate stem drill to its hard stop. Next, drill for the talar flange using the Talar Flange Drill. Remove the flat cut trial and finish prepping the talar flange with the tibial keel osteotome to the approximate depth of the drill holes. Remove the pins and the talar trial, and then skip to Step 11.

Consideration must be given to possible adjunct soft tissue balancing procedures at this stage (i.e. achilles tendon lengthening, ligament release and repair)

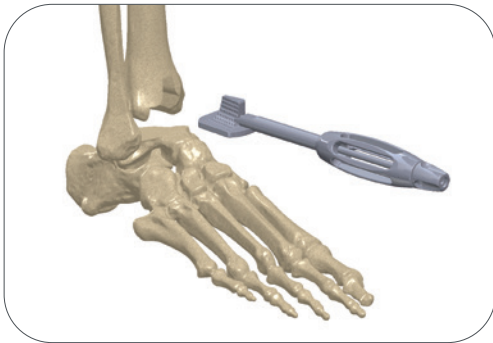


Figure 11-1

## Step 11 • Final Tibial Preparation - Finned Tibial Tray

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**Note:** If utilizing a standard tibial tray, skip to Step 15 for instructions on final preparation and implantation.

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**11-1** To complete the tibial preparation the tibial window is completed utilizing the thin osteotome to connect the drill holes through cortical bone and finalize distal shape for implant insertion. The tibial trial rasp is then utilized to prep the distal tibia for the final implant. It is inserted into the resection and impacted in and out utilizing the tibial holder and mallet. Care should be made to ensure that the tibial rasp is flush with the inferior and anterior aspect of the tibial resection.

It is recommended to use either the tibial osteotome or the optional Antrum Rasp to remove bone from the intramedullary canal.

Make sure the alignment of the tibial osteotome and the pointed end of the Antrum Rasp are in line with the tibial axis. If necessary, the angle of the Antrum Rasp allows for access to the anterior portion of the intramedullary canal.

To ensure bone removal up to the height of the finned tibial implant, the Antrum Rasp should be inserted until the end of the rasps teeth are at the level of the distal tibial resection.

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**Note:** The XT is indicated for cemented use only. Cement needs to be applied to the bone contact surfaces of the tibial and talar component: the cement is applied to the top of the tibial tray component and to the bottom surface of the talar dome.

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### Items Used:

MJU357T - Thin Osteotome

MJV100T-MJV103T - Tibial Trial Rasp, Size 0-3

400236 - Wiener Antrum Rasp

MJU907T - Tibial Osteotome



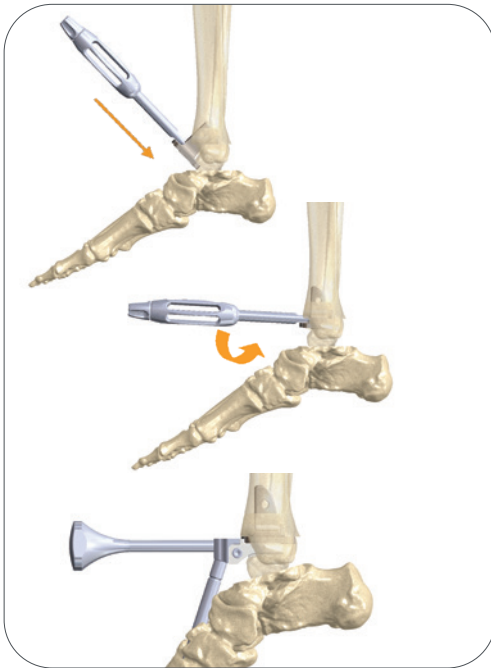


Figure 12-1

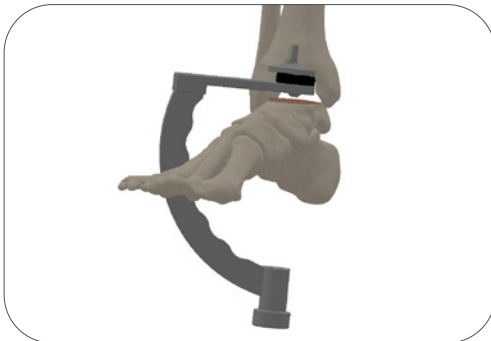


Figure 12-2

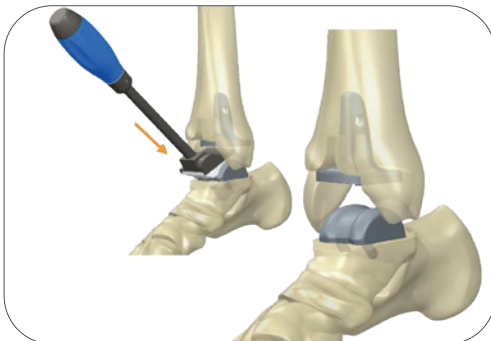


Figure 13-1

## Step 12 • Tibial Implant Insertion

### 12-1 The tibial implant must be inserted first.

To implant the tibial component, attach the tibial holder onto the tibial implant.

Position the fin of the tray in the intramedullary canal and rotate the tibial tray into the joint space. At the same time, insert proximally in the intramedullary canal as far as possible.

If a gap still remains between the tibial resection and tibial component use either the Tibial Impactor and Punching Tip Assembly (**Figure 12-1**) or the Optional Tibial Impactor (**Figure 12-2**) to impact the tray to its final position.

The tibial holder may be removed at this time or remain in place during impaction.

A hole is positioned in the middle of the tibial keel: it is useful for the surgeon in order to check a proper lateral view with X-rays.

#### Items Used:

MJU936T - Tibial Holder

MJU937T - Tibial Impactor

MJU938T - Punching Tip

MJU085T - Curette

1129 - Tibial Impactor

## Step 13 • Talar Implant Insertion

**13-1** When inserting the talar implant, care should be taken to avoid scratching or marking of the talar implant articulating surface. A dedicated instrument, the talar impactor, helps to protect the talar surfaces.

The talar component is then manually inserted into place. For the sloped talar dome, align the 4.5mm pegs into the predrilled holes and impact with the talar impactor.

Lateral fluoroscopy can be utilized to check for proper placement.

**Caution:** If contact is made with the surface of the talar dome, apart from the use of the talar impactor, replacement of the talar dome is recommended.

#### Item Used:

MJU351T – Talar Component Impactor



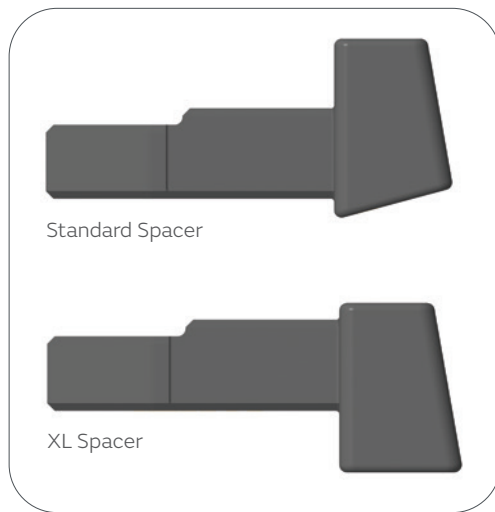


Figure 14-1a

#### Items Used:

MJU351T - Talar Impactor  
 MJU940T - In Situ Poly Inserter  
 MJU984T - XL Insert Spacer  
 MJU048T - Holding Clamp  
 MLN113T - 3.5mm Hex Driver

## Step 14 - Poly Insert Insertion

**14-1** The PE inserts may be retriased after the tibial tray and talar dome have been placed. Refer to the compatibility chart on **Pg. 10** and the sizing guide in **Step 10** to guide selection. The trial will not snap into place on to the tibial tray, as it does with the tibial trial. Once trialing is complete, the holding clamp may be used to remove the trial. If retriaging is performed, utilize lateral fluoroscopy to ensure implants have retained proper placement.

Adjust the thickness dial on the in situ poly inserter to the selected PE insert's thickness. Use the attached insert spacer for the 4mm thick tibial tray, but if using the 10mm thick tibial tray, switch this part to the XL insert spacer (to reference spacers, see Fig. 14-1a). (Note only change the spacer when the thickness dial is fully located to one position.) Manually insert the PE insert one third of the way into the tibial tray, making sure the dove tail of the poly is engaged. Attach the in situ poly inserter to the tibial component by threading the attachment screw to the center of the keel. Ensure this screw is tight.

The hex driver may be used to ensure that the attachment screw is tight.

**Note:** If the inserter does not attach to the tibial implant, check if additional bone removal is needed in the anterior tibial window.

**Caution:** If pressure is not maintained to keep the in situ poly inserter perpendicular while inserting the PE insert, it may bend the inserter's attachment screw or prevent proper poly insertion.

Place the foot against the belly to ensure a neutral position and place a hand on the top of the handle keeping pressure to maintain perpendicular attachment to the tray. Using the T-handle, advance the plastic spacer against the PE insert. Slowly advance the PE insert into the tibial tray while maintaining the pressure on the in situ poly inserter handle towards the foot to prevent the tool from bending on the tibial tray. Stop advancing when the face of the PE insert is flush to the anterior face of the tibial tray. At this point a small gap will exist between the tray and PE insert. Release pressure on the T-handle and remove the attachment screw, and then remove the in situ poly inserter. To close the gap, use thumb pressure or a bone tamp. Be careful to only impact on the anterior chamfer of the PE insert without touching the talar dome. The gap must be fully closed.

Fill in the tibial window with bone graft.

**Caution:** If the PE insert does not properly engage the dove tail, remove the PE insert and inspect the dove tail area for damage, and if acceptable, retry the insertion technique. Do no reinsert the PE insert more than twice.

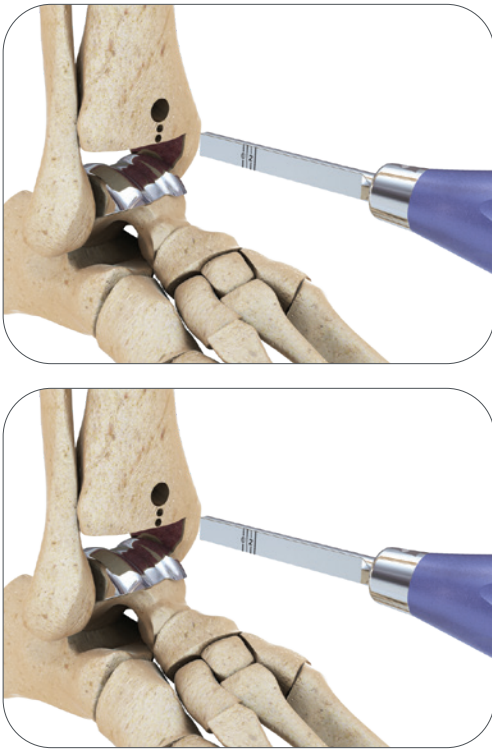


Figure 15-1

**Note:** Follow Steps 15 and 16 when utilizing a standard tibial tray with the sloped talar dome.

## Step 15 • Final Tibial Preparation - Standard Tibial Implant

**Note:** When using the tibial keel osteotome or tibial flange rasp, the depth markings are accurate for either standard or XL tibial trays.

### 15-1 Remove all trials and pins.

The tibial holes are rejoined using a small osteotome; then the thickness and depth of the resection is checked with the engraved lines of the tibial keel osteotome.

The distal part of the anterior groove of the tibia is beveled using the tibial flange rasp, so that the tibial implant lies flush on the resection.

With the different tibial implant sizes (0, 1, 2 and 3) marked on the upper surface of the rasp, the trimming done in this manner perfectly matches the length of the implant selected.

**Caution:** If the PE insert does not properly engage the dove tail, remove the PE insert and inspect the dove tail area for damage, and if acceptable, retry the insertion technique. Do no reinsert the PE insert more than twice.

### Items Used:

MJU357T – Thin Osteotome

MJU387T – Tibial Keel Osteotome

MJU350T – Tibial Flange Rasp

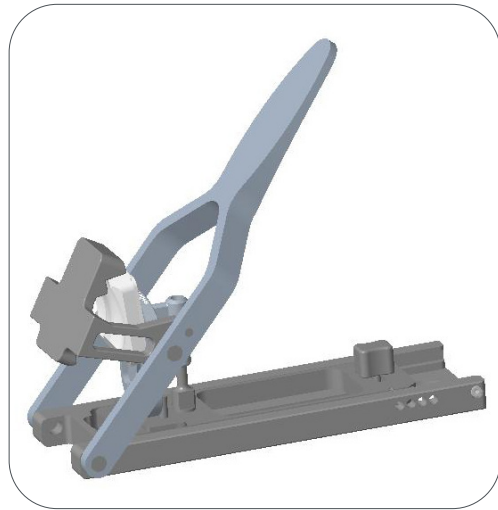


Figure 16-2

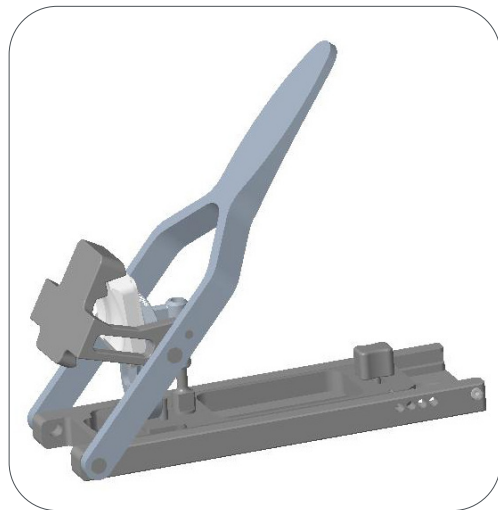


Figure 16-3

## Step 16 • Placing Final Implants - Standard Tibial Implant

**Note:** The SALTO TALARIS<sup>®</sup> is indicated for cemented use only. Cement must be applied to the bone contact surfaces of the tibial and talar component.

**16-1** The size and side selected during the implant trials must be retained.

The talar implant is placed first. When inserting the talar implant, care should be taken to avoid scratching or marking of the talar implant articulating surface. A dedicated instrument, the talar impactor, helps to protect the talar surfaces.

The talar component is then manually inserted into place. For the sloped talar dome, align the 4.5mm pegs into the predrilled holes and impact with the talar impactor. Lateral fluoroscopy can be utilized to check for proper placement.

**Caution:** If contact is made with the surface of the talar dome, apart from the use of the talar impactor, replacement of the talar dome is recommended.

### 16-2 Assembly of the insert on the tibial implant:

The polyethylene insert is assembled to the tibial implant with the insert assembly press.

The tibial implant is mounted onto the press. Adjust the metal bar on the base of the press to the appropriate poly thickness. The PE insert is positioned on the implant and manually pushed to engage approximately 1/3 of the depth. Close the press arm over the assembly and continue to press down until the PE is fully engaged. The tibial assembly must be visually checked by the operator. Generally, an audible “click” is heard.

### 16-3 Use of the tibial impactor and method of tibial impaction:

Using the tibial impactor, grasp the implant assembly between the metallic plug and the central anterior zone of the tibial tray.

The tibial component is impacted until the position of the tibial trial is reproduced.

During tibial implant impaction, maintain good contact between the superior side of the implant and the tibial resection to prevent any risk of a posterior gap between the tibial cut and the implant.

Flexion/Extension movements are applied to check the ankle kinematics. Apply bone graft to the tibial window.

### Items Used:

MJU351T - Talar Component Impactor

MJV549T - Insert Assembly Bench Press

MJU937T - Tibial Impactor

## Step 17 • Revising or Removing Implants

**17-1** If the implant must be revised, revision should begin by removing the PE insert. This is disassembled from the tibial base by inserting the blade of the insert extractor between the base and the PE. The Holding Clamp holds the PE component for its extraction, after a lever maneuver using the extractor has separated the two components.

The talar implant is separated from the talus with the thin osteotome.

### **For finned tibia:**

If necessary, the tibial base can then be removed first by loosening the tibial implant with general instruments. Then attach the Tibial Holder to the tibial implant and extract.

### **For standard tibia:**

To precut the bone around the tibial plug, use the osteotomes provided for this purpose in the instrumentation. Hook the posterior aspect of the tibial implant with the tibial component extractor. Tighten the screw on the tibial extractor to engage the tibial keel. Insert the extractor plug by screwing the slap hammer on the tibial extractor. Push and pull vigorously with the slap hammer until the implant is fully removed.

### **Items Used:**

MJV545T - Insert Extractor

MJU048T - Holding Clamp

MJU357T - Osteotome, Thin

MJU936T - Tibial Holder

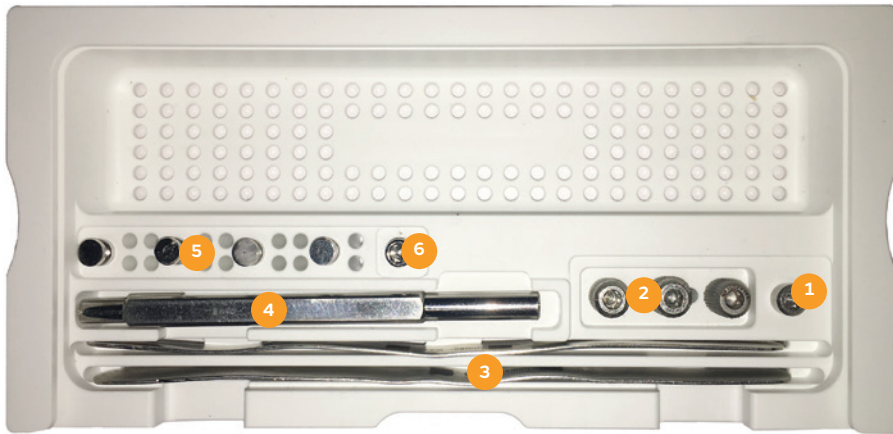
MJV556T - Tibial Implant Extractor

MJU356T - Osteotome, tibial barrel, revision

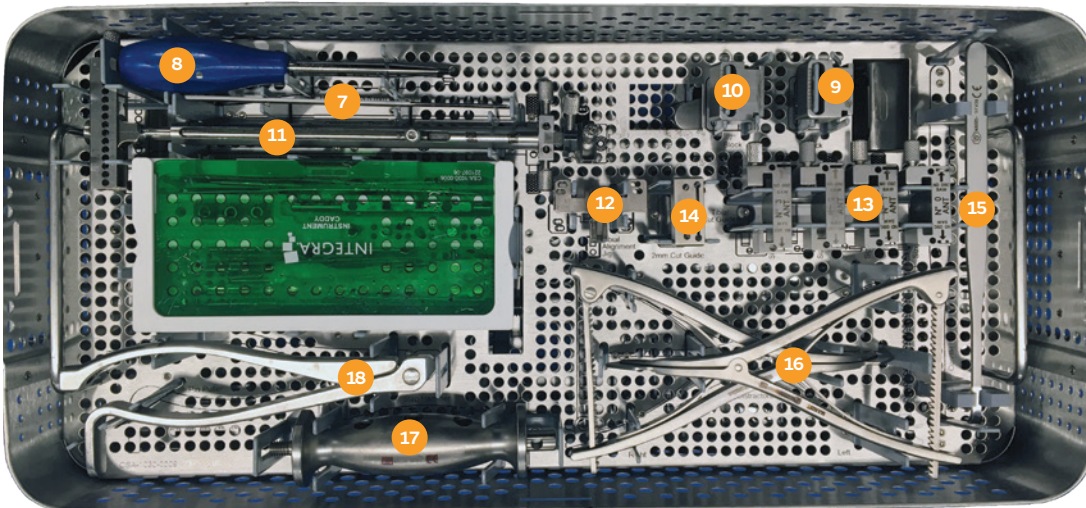
MJU358T - Slap hammer



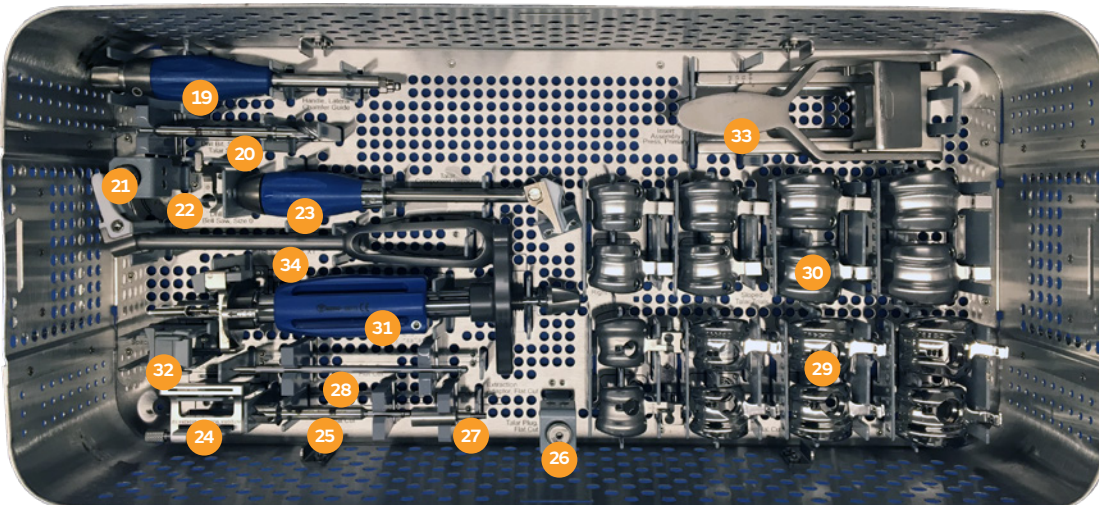
## Instrumentation Case Reference: XTREVB0X1



Caddy



Top Tray Contents



Bottom Tray Contents

## XTREVBBOX1 Contents

### Top Tray Contents

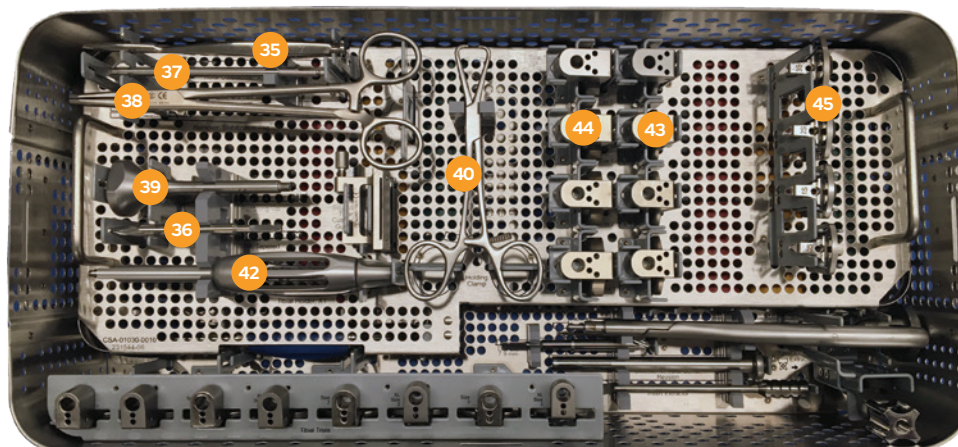
| Item | Reference     | Instrument                          |
|------|---------------|-------------------------------------|
| 1    | MJU291T       | Screw, M4                           |
| 2    | MJU073T       | Thumb Screw, M5                     |
| 3    | MJU086T       | Ribbon Retractors                   |
| 4    | MJU365T       | Pin Pusher                          |
| 5    | MJU981T       | Stabilization Peg                   |
| 6    | MJU944T       | Handle Screw, In Situ Poly Inserter |
| 7    | MJU357T       | Osteotome, Thin                     |
| 8    | MLN113T       | Hex Driver, 3.5mm                   |
| 9    | MJU668T       | 3 Degree Block, Tibial Alignment    |
| 10   | MJV552T       | 7 Degree Block, Tibial Alignment    |
| 11   | MJV553T       | Tibial Alignment Guide, No block    |
| 12   | MJU334T       | Tibial Alignment Jig                |
| 13   | MJU645T       | Tibial cut guide, Size 0            |
| 13   | MJU646T       | Tibial cut guide, Size 1            |
| 13   | MJU647T       | Tibial cut guide, Size 2            |
| 13   | MJU648T       | Tibial cut guide, Size 3            |
| 14   | MJU011T       | 2mm Cut Guide                       |
| 15   | MJU085T       | Curette                             |
| 16   | MJU928T       | Joint Distractor, Right             |
| 16   | MJU929T       | Joint Distractor, Left              |
| 17   | MJU358T       | Slap Hammer                         |
| 18   | MJU359T       | Pin Puller                          |
| -    | CSA-1030-0011 | Caddy, Revision                     |
| -    | CSA-1030-0006 | Caddy Lid                           |
| -    | CSA-1030-0009 | Revision Instrument Tray 1          |

### Bottom Tray Contents

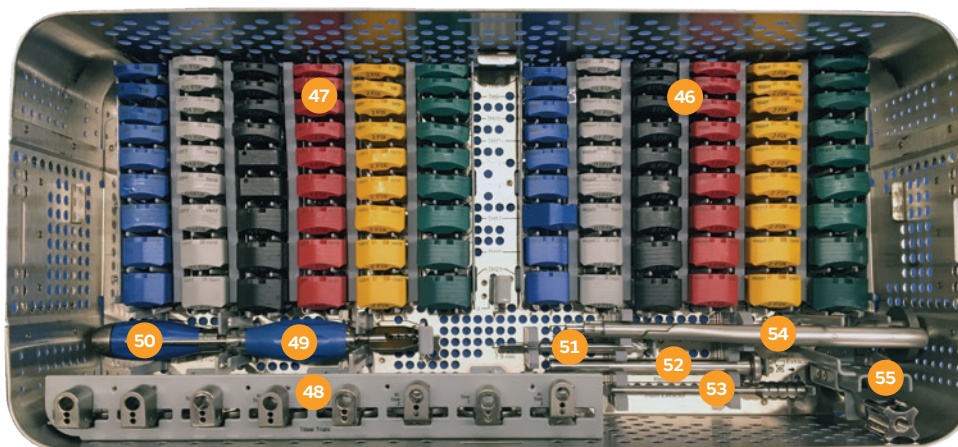
| Item | Reference         | Instrument                          |
|------|-------------------|-------------------------------------|
| 19   | MJU342T           | Handle, Lateral Chamfer Guide       |
| 20   | MJU362T           | Dill Bit, Size 0, Talar Stem        |
| 21   | MJV555T           | Fixation Plug, Size 0               |
| 22   | MJU662T           | Drill Guide, Bell Saw, Size 0       |
| 23   | MJU351T           | Talar component impactor            |
| 24   | MJU910T           | Talar Cut Guide, Flat Cut           |
| 25   | MJU922T           | Bell Saw Reamer, Flat Cut           |
| 26   | MJU924T           | Talar Plug, Flat Cut                |
| 27   | MJU930T           | Extraction adaptor, Flat Cut        |
| 28   | MJU925T           | Drill, Talar Flange, Flat Cut       |
| 29   | MJV940T           | Talar Trial, Flat Cut, Size 0, Rt   |
| 29   | MJU941T           | Talar Trial, Flat Cut, Size 1, Rt   |
| 29   | MJU942T           | Talar Trial, Flat Cut, Size 2, Rt   |
| 29   | MJU943T           | Talar Trial, Flat Cut, Size 3, Rt   |
| 29   | MJV950T           | Talar Trial, Flat Cut, Size 0, Left |
| 29   | MJU951T           | Talar Trial, Flat Cut, Size 1, Left |
| 29   | MJU952T           | Talar Trial, Flat Cut, Size 2, Left |
| 29   | MJU953T           | Talar Trial, Flat Cut, Size 3, Left |
| 30   | MJU960T           | Sloped talar trial Size 0, Right    |
| 30   | MJU961T           | Sloped talar trial Size 1, Right    |
| 30   | MJU962T           | Sloped talar trial Size 2, Right    |
| 30   | MJU963T           | Sloped talar trial Size 3, Right    |
| 30   | MJU970T           | Sloped talar trial Size 0, Left     |
| 30   | MJU971T           | Sloped talar trial Size 1, Left     |
| 30   | MJU972T           | Sloped talar trial Size 2, Left     |
| 30   | MJU973T           | Sloped talar trial Size 3, Left     |
| 31   | MJU940T           | In situ Poly inserter               |
| 32   | MJU984T           | XL Insert Spacer                    |
| 33   | MJU663T / MJV549T | Insert Assembly Bench Press         |
| 34   | MJU937T           | Tibial impactor                     |
| -    | CSA-1030-0007     | Revision Instrument Case 1          |



## Instrumentation Case Reference: XTREVBBOX2



Top Contents



Bottom Contents

## XTREVBBOX2 Contents

### Top Tray Contents

| Item | Reference     | Instrument                         |
|------|---------------|------------------------------------|
| 35   | MJU907T       | Tibial osteotome                   |
| 36   | MJU983T       | Drill, 4.5mm                       |
| 37   | MJU939T       | Drill, Tapered                     |
| 38   | MWE044T       | Remover, Stabilaztion Peg          |
| 39   | MJU938T       | Punching tip                       |
| 40   | MJU048T       | Holding Clamp                      |
| 41   | MJU985T       | Sloped talar cutting guide         |
| 42   | MJU936T       | Tibial holder                      |
| 43   | MJV200T       | Tibial trial jig Size 0            |
| 43   | MJV201T       | Tibial trial jig Size 1            |
| 43   | MJV202T       | Tibial trial jig Size 2            |
| 43   | MJV203T       | Tibial trial jig Size 3            |
| 44   | MJV210T       | Tibial trial jig Size 0, Thick     |
| 44   | MJV211T       | Tibial trial jig Size 1, Thick     |
| 44   | MJV212T       | Tibial trial jig Size 2, Thick     |
| 44   | MJV213T       | Tibial trial jig Size 3, Thick     |
| 45   | MJV100T       | Tibial trial rasp Size 0           |
| 45   | MJV101T       | Tibial trial rasp Size 1           |
| 45   | MJV102T       | Tibial trial rasp Size 2           |
| 45   | MJV103T       | Tibial trial rasp Size 3           |
| -    | CSA-1030-0010 | Revision Instrument Tray 2         |
| 46   | MJU545T       | Trial Insert, Size 00, Right, TH8  |
| 46   | MJU546T       | Trial Insert, Size 00, Right, TH9  |
| 46   | MJU547T       | Trial Insert, Size 00, Right, TH10 |
| 46   | MJU548T       | Trial Insert, Size 00, Right, TH11 |
| 46   | MJV412T       | Trial Insert, Size 00, Right, TH13 |
| 46   | MJV413T       | Trial Insert, Size 00, Right, TH15 |
| 46   | MJV414T       | Trial Insert, Size 00, Right, TH17 |
| 46   | MJV415T       | Trial Insert, Size 00, Right, TH19 |
| 46   | MJV416T       | Trial Insert, Size 00, Right, TH21 |
| 47   | MJU555T       | Trial Insert, Size 00, Left, TH8   |
| 47   | MJU556T       | Trial Insert, Size 00, Left, TH9   |
| 47   | MJU557T       | Trial Insert, Size 00, Left, TH10  |
| 47   | MJU558T       | Trial Insert, Size 00, Left, TH11  |
| 47   | MJV422T       | Trial Insert, Size 00, Left, TH13  |
| 47   | MJV423T       | Trial Insert, Size 00, Left, TH15  |



# XTREVBBOX2 Contents, continued

## Bottom Tray Contents

| Item | Reference | Instrument                         |
|------|-----------|------------------------------------|
| 47   | MJV424T   | Trial Insert, Size 00, Left, TH17  |
| 47   | MJV425T   | Trial Insert, Size 00, Left, TH19  |
| 47   | MJV426T   | Trial Insert, Size 00, Left, TH21  |
| 46   | MJV300T   | Trial Insert, Size 01, Right, TH8  |
| 46   | MJV301T   | Trial Insert, Size 01, Right, TH9  |
| 46   | MJV302T   | Trial Insert, Size 01, Right, TH10 |
| 46   | MJV303T   | Trial Insert, Size 01, Right, TH11 |
| 46   | MJV304T   | Trial Insert, Size 01, Right, TH13 |
| 46   | MJV305T   | Trial Insert, Size 01, Right, TH15 |
| 46   | MJV306T   | Trial Insert, Size 01, Right, TH17 |
| 46   | MJV307T   | Trial Insert, Size 01, Right, TH19 |
| 46   | MJV308T   | Trial Insert, Size 01, Right, TH21 |
| 47   | MJV310T   | Trial Insert, Size 01, Left, TH8   |
| 46   | MJV311T   | Trial Insert, Size 01, Left, TH9   |
| 47   | MJV312T   | Trial Insert, Size 01, Left, TH10  |
| 47   | MJV313T   | Trial Insert, Size 01, Left, TH11  |
| 47   | MJV314T   | Trial Insert, Size 01, Left, TH13  |
| 47   | MJV315T   | Trial Insert, Size 01, Left, TH15  |
| 47   | MJV316T   | Trial Insert, Size 01, Left, TH17  |
| 47   | MJV317T   | Trial Insert, Size 01, Left, TH19  |
| 47   | MJV318T   | Trial Insert, Size 01, Left, TH21  |
| 46   | MJU565T   | Trial Insert, Size 0, Right, TH8   |
| 46   | MJU566T   | Trial Insert, Size 0, Right, TH9   |
| 46   | MJU567T   | Trial Insert, Size 0, Right, TH10  |
| 46   | MJU568T   | Trial Insert, Size 0, Right, TH11  |
| 46   | MJV219T   | Trial Insert, Size 0, Right, TH13  |
| 46   | MJV220T   | Trial Insert, Size 0, Right, TH15  |
| 46   | MJV221T   | Trial Insert, Size 0, Right, TH17  |
| 46   | MJV222T   | Trial Insert, Size 0, Right, TH19  |
| 46   | MJV223T   | Trial Insert, Size 0, Right, TH21  |
| 47   | MJU575T   | Trial Insert, Size 0, Left, TH8    |
| 47   | MJU576T   | Trial Insert, Size 0, Left, TH9    |
| 47   | MJU577T   | Trial Insert, Size 0, Left, TH10   |
| 47   | MJU578T   | Trial Insert, Size 0, Left, TH11   |
| 47   | MJV229T   | Trial Insert, Size 0, Left, TH13   |
| 47   | MJV230T   | Trial Insert, Size 0, Left, TH15   |
| 47   | MJV231T   | Trial Insert, Size 0, Left, TH17   |
| 47   | MJV232T   | Trial Insert, Size 0, Left, TH19   |

| Item | Reference | Instrument                        |
|------|-----------|-----------------------------------|
| 47   | MJV233T   | Trial Insert, Size 0, Left, TH21  |
| 46   | MJU585T   | Trial Insert, Size 1, Right, TH8  |
| 46   | MJU586T   | Trial Insert, Size 1, Right, TH9  |
| 46   | MJU587T   | Trial Insert, Size 1, Right, TH10 |
| 46   | MJU588T   | Trial Insert, Size 1, Right, TH11 |
| 46   | MJU589T   | Trial Insert, Size 1, Right, TH13 |
| 46   | MJU590T   | Trial Insert, Size 1, Right, TH15 |
| 46   | MJU591T   | Trial Insert, Size 1, Right, TH17 |
| 46   | MJV242T   | Trial Insert, Size 1, Right, TH19 |
| 46   | MJV243T   | Trial Insert, Size 1, Right, TH21 |
| 47   | MJU595T   | Trial Insert, Size 1, Left, TH8   |
| 47   | MJU596T   | Trial Insert, Size 1, Left, TH9   |
| 47   | MJU597T   | Trial Insert, Size 1, Left, TH10  |
| 47   | MJU598T   | Trial Insert, Size 1, Left, TH11  |
| 47   | MJU599T   | Trial Insert, Size 1, Left, TH13  |
| 47   | MJU600T   | Trial Insert, Size 1, Left, TH15  |
| 47   | MJU601T   | Trial Insert, Size 1, Left, TH17  |
| 47   | MJV252T   | Trial Insert, Size 1, Left, TH19  |
| 47   | MJV253T   | Trial Insert, Size 1, Left, TH21  |
| 46   | MJU605T   | Trial Insert, Size 2, Right, TH8  |
| 46   | MJU606T   | Trial Insert, Size 2, Right, TH9  |
| 46   | MJU607T   | Trial Insert, Size 2, Right, TH10 |
| 46   | MJU608T   | Trial Insert, Size 2, Right, TH11 |
| 46   | MJU609T   | Trial Insert, Size 2, Right, TH13 |
| 46   | MJU610T   | Trial Insert, Size 2, Right, TH15 |
| 46   | MJU611T   | Trial Insert, Size 2, Right, TH17 |
| 46   | MJV262T   | Trial Insert, Size 2, Right, TH19 |
| 46   | MJV263T   | Trial Insert, Size 2, Right, TH21 |
| 47   | MJU615T   | Trial Insert, Size 2, Left, TH8   |
| 47   | MJU616T   | Trial Insert, Size 2, Left, TH9   |
| 47   | MJU617T   | Trial Insert, Size 2, Left, TH10  |
| 47   | MJU618T   | Trial Insert, Size 2, Left, TH11  |
| 47   | MJU619T   | Trial Insert, Size 2, Left, TH13  |
| 47   | MJU620T   | Trial Insert, Size 2, Left, TH15  |
| 47   | MJU621T   | Trial Insert, Size 2, Left, TH17  |
| 47   | MJV272T   | Trial Insert, Size 2, Left, TH19  |
| 47   | MJV273T   | Trial Insert, Size 2, Left, TH21  |
| 46   | MJU625T   | Trial Insert, Size 3, Right, TH8  |

| Item | Reference     | Instrument                         |
|------|---------------|------------------------------------|
| 46   | MJU626T       | Trial Insert, Size 3, Right, TH9   |
| 46   | MJU627T       | Trial Insert, Size 3, Right, TH10  |
| 46   | MJU628T       | Trial Insert, Size 3, Right, TH11  |
| 46   | MJU629T       | Trial Insert, Size 3, Right, TH13  |
| 46   | MJU630T       | Trial Insert, Size 3, Right, TH15  |
| 46   | MJU631T       | Trial Insert, Size 3, Right, TH17  |
| 46   | MJV282T       | Trial Insert, Size 3, Right, TH19  |
| 46   | MJV283T       | Trial Insert, Size 3, Right, TH21  |
| 47   | MJU635T       | Trial Insert, Size 3, Left, TH8    |
| 47   | MJU636T       | Trial Insert, Size 3, Left, TH9    |
| 47   | MJU637T       | Trial Insert, Size 3, Left, TH10   |
| 47   | MJU638T       | Trial Insert, Size 3, Left, TH11   |
| 47   | MJU639T       | Trial Insert, Size 3, Left, TH13   |
| 47   | MJU740T       | Trial Insert, Size 3, Left, TH15   |
| 47   | MJU741T       | Trial Insert, Size 3, Left, TH17   |
| 47   | MJV292T       | Trial Insert, Size 3, Left, TH19   |
| 47   | MJV293T       | Trial Insert, Size 3, Left, TH21   |
| 48   | MJU380T       | Tibial Trial, Size 0               |
| 48   | MJU384T       | Tibial Trial, Size 1               |
| 48   | MJU385T       | Tibial Trial, Size 2               |
| 48   | MJU386T       | Tibial Trial, Size 3               |
| 48   | MJV500T       | Tibial Trial, XL, Size 0           |
| 48   | MJV501T       | Tibial Trial, XL, Size 1           |
| 48   | MJV502T       | Tibial Trial, XL, Size 2           |
| 48   | MJV503T       | Tibial Trial, XL, Size 3           |
| 49   | MJU387T       | Osteotome, Tibial Keel             |
| 50   | MJU350T       | Rasp, Tibial Flange                |
| 51   | MJU353T       | Drill Bit, 7.9mm                   |
| 52   | MJU356T       | Osteotome, Tibial Barrel, Revision |
| 53   | MJV545T       | Insert Extractor                   |
| 54   | MJU361T       | Tibial Impactor                    |
| 55   | MJV556T       | Tibial Implant Extractor           |
| -    | CSA-1030-0008 | Revision Instrument Case 2         |

## Implants



### Tibial Components

| Tibial Baseplate | Size   | Reference |
|------------------|--------|-----------|
| TH4              | Size 0 | LJV160T   |
|                  | Size 1 | LJV161T   |
|                  | Size 2 | LJV162T   |
|                  | Size 3 | LJV163T   |
| TH10             | Size 0 | LJV170T   |
|                  | Size 1 | LJV171T   |
|                  | Size 2 | LJV172T   |
|                  | Size 3 | LJV173T   |



### Tibial Components

| Side  | Type   | Size   | Reference |
|-------|--------|--------|-----------|
| Right | Sloped | Size 0 | LJV180T   |
|       |        | Size 1 | LJV181T   |
|       |        | Size 2 | LJV182T   |
|       |        | Size 3 | LJV183T   |
| Left  | Sloped | Size 0 | LJV190T   |
|       |        | Size 1 | LJV191T   |
|       |        | Size 2 | LJV192T   |
|       |        | Size 3 | LJV193T   |



### Tibial Components

| Reference - Left | Reference - Right | Size   |
|------------------|-------------------|--------|
| LJU820T          | LJU810T           | Size 0 |
| LJU821T          | LJU811T           | Size 1 |
| LJU822T          | LJU812T           | Size 2 |
| LJU823T          | LJU813T           | Size 3 |

**Note:** The SALTO TALARIS<sup>®</sup> standard implants are ordered separately and implant descriptions are found in accompanying surgical techniques.



## Size 00 Fixed Inserts

| Insert                       | Reference |
|------------------------------|-----------|
| Insert, Size 00, Right, TH8  | LJU408T   |
| Insert, Size 00, Right, TH9  | LJU409T   |
| Insert, Size 00, Right, TH10 | LJU410T   |
| Insert, Size 00, Right, TH11 | LJU411T   |
| Insert, Size 00, Right, TH13 | LJU412T   |
| Insert, Size 00, Right, TH15 | LJU413T   |
| Insert, Size 00, Right, TH17 | LJU414T   |
| Insert, Size 00, Right, TH19 | LJU415T   |
| Insert, Size 00, Right, TH21 | LJU416T   |
| Insert, Size 00, Left, TH8   | LJU418T   |
| Insert, Size 00, Left, TH9   | LJU419T   |
| Insert, Size 00, Left, TH10  | LJU420T   |
| Insert, Size 00, Left, TH11  | LJU421T   |
| Insert, Size 00, Left, TH13  | LJU422T   |
| Insert, Size 00, Left, TH15  | LJU423T   |
| Insert, Size 00, Left, TH17  | LJU424T   |
| Insert, Size 00, Left, TH19  | LJU425T   |
| Insert, Size 00, Left, TH21  | LJU426T   |

## Size 1 Fixed Inserts

| Insert                      | Reference |
|-----------------------------|-----------|
| Insert, Size 1, Right, TH8  | LJU235T   |
| Insert, Size 1, Right, TH9  | LJU236T   |
| Insert, Size 1, Right, TH10 | LJU237T   |
| Insert, Size 1, Right, TH11 | LJU238T   |
| Insert, Size 1, Right, TH13 | LJU239T   |
| Insert, Size 1, Right, TH15 | LJU240T   |
| Insert, Size 1, Right, TH17 | LJU241T   |
| Insert, Size 1, Right, TH19 | LJU242T   |
| Insert, Size 1, Right, TH21 | LJU243T   |
| Insert, Size 1, Left, TH8   | LJU245T   |
| Insert, Size 1, Left, TH9   | LJU246T   |
| Insert, Size 1, Left, TH10  | LJU247T   |
| Insert, Size 1, Left, TH11  | LJU248T   |
| Insert, Size 1, Left, TH13  | LJU249T   |
| Insert, Size 1, Left, TH15  | LJU250T   |
| Insert, Size 1, Left, TH17  | LJU251T   |
| Insert, Size 1, Left, TH19  | LJU252T   |
| Insert, Size 1, Left, TH21  | LJU253T   |

## Size 0 Fixed Inserts

| Insert                      | Reference |
|-----------------------------|-----------|
| Insert, Size 0, Left, TH8   | LJU225T   |
| Insert, Size 0, Left, TH9   | LJU226T   |
| Insert, Size 0, Left, TH10  | LJU227T   |
| Insert, Size 0, Left, TH11  | LJU228T   |
| Insert, Size 0, Left, TH13  | LJU229T   |
| Insert, Size 0, Left, TH15  | LJU230T   |
| Insert, Size 0, Left, TH17  | LJU231T   |
| Insert, Size 0, Left, TH19  | LJU232T   |
| Insert, Size 0, Left, TH21  | LJU233T   |
| Insert, Size 0, Right, TH8  | LJU215T   |
| Insert, Size 0, Right, TH9  | LJU216T   |
| Insert, Size 0, Right, TH10 | LJU217T   |
| Insert, Size 0, Right, TH11 | LJU218T   |
| Insert, Size 0, Right, TH13 | LJV219T   |
| Insert, Size 0, Right, TH15 | LJV220T   |
| Insert, Size 0, Right, TH17 | LJV221T   |
| Insert, Size 0, Right, TH19 | LJV222T   |
| Insert, Size 0, Right, TH21 | LJV223T   |

## Size 2 Fixed Inserts

| Insert                      | Reference |
|-----------------------------|-----------|
| Insert, Size 2, Right, TH8  | LJU255T   |
| Insert, Size 2, Right, TH9  | LJU256T   |
| Insert, Size 2, Right, TH10 | LJU257T   |
| Insert, Size 2, Right, TH11 | LJU258T   |
| Insert, Size 2, Right, TH13 | LJU259T   |
| Insert, Size 2, Right, TH15 | LJU260T   |
| Insert, Size 2, Right, TH17 | LJU261T   |
| Insert, Size 2, Right, TH19 | LJU262T   |
| Insert, Size 2, Right, TH21 | LJU263T   |
| Insert, Size 2, Left, TH8   | LJU265T   |
| Insert, Size 2, Left, TH9   | LJU266T   |
| Insert, Size 2, Left, TH10  | LJU267T   |
| Insert, Size 2, Left, TH11  | LJU268T   |
| Insert, Size 2, Left, TH13  | LJU269T   |
| Insert, Size 2, Left, TH15  | LJU270T   |
| Insert, Size 2, Left, TH17  | LJU271T   |
| Insert, Size 2, Left, TH19  | LJU272T   |
| Insert, Size 2, Left, TH21  | LJU273T   |

## Size 01 Fixed Inserts

| Insert                       | Reference |
|------------------------------|-----------|
| Insert, Size 01, Right, TH8  | LJV300T   |
| Insert, Size 01, Right, TH9  | LJV301T   |
| Insert, Size 01, Right, TH10 | LJV302T   |
| Insert, Size 01, Right, TH11 | LJV303T   |
| Insert, Size 01, Right, TH13 | LJV304T   |
| Insert, Size 01, Right, TH15 | LJV305T   |
| Insert, Size 01, Right, TH17 | LJV306T   |
| Insert, Size 01, Right, TH19 | LJV307T   |
| Insert, Size 01, Right, TH21 | LJV308T   |
| Insert, Size 01, Left, TH8   | LJV310T   |
| Insert, Size 01, Left, TH9   | LJV311T   |
| Insert, Size 01, Left, TH10  | LJV312T   |
| Insert, Size 01, Left, TH11  | LJV313T   |
| Insert, Size 01, Left, TH13  | LJV314T   |
| Insert, Size 01, Left, TH15  | LJV315T   |
| Insert, Size 01, Left, TH17  | LJV316T   |
| Insert, Size 01, Left, TH19  | LJV317T   |
| Insert, Size 01, Left, TH21  | LJV318T   |

## Size 3 Fixed Inserts

| Insert                      | Reference |
|-----------------------------|-----------|
| Insert, Size 3, Right, TH8  | LJU275T   |
| Insert, Size 3, Right, TH9  | LJU276T   |
| Insert, Size 3, Right, TH10 | LJU277T   |
| Insert, Size 3, Right, TH11 | LJU278T   |
| Insert, Size 3, Right, TH13 | LJU279T   |
| Insert, Size 3, Right, TH15 | LJU280T   |
| Insert, Size 3, Right, TH17 | LJU281T   |
| Insert, Size 3, Right, TH19 | LJU282T   |
| Insert, Size 3, Right, TH21 | LJU283T   |
| Insert, Size 3, Left, TH8   | LJU285T   |
| Insert, Size 3, Left, TH9   | LJU286T   |
| Insert, Size 3, Left, TH10  | LJU287T   |
| Insert, Size 3, Left, TH11  | LJU288T   |
| Insert, Size 3, Left, TH13  | LJU289T   |
| Insert, Size 3, Left, TH15  | LJU290T   |
| Insert, Size 3, Left, TH17  | LJU291T   |
| Insert, Size 3, Left, TH19  | LJU292T   |
| Insert, Size 3, Left, TH21  | LJU293T   |

## Disposables - Sterile Single Use Only

### Saw Blades

| S+N Number | SAW5944T/<br>SAW6944T | SAW5945T/<br>SAW6945T | SAW5946T/<br>SAW6946T | SAW5947T/<br>SAW6947T | SAW5948T/<br>SAW6948T | SAW5949T/<br>SAW6949T | SAW5950T/<br>SAW6950T | SAW6951T  |
|------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Depth      | 70.0mm                | 85.0mm                | 80.0mm                | 90.0mm                | 75.0mm                | 90.0mm                | 70.0mm                | 70.0mm    |
| Width      | 13.0mm                | 21.0mm                | 13.0mm                | 21.0mm                | 13.0mm                | 21.0mm                | 12.5mm                | 12.5mm    |
| Mtl Thk    | 1.24mm                | 1.24mm                | 1.24mm                | 1.24mm                | 1.24mm                | 1.24mm                |                       |           |
| Cut Thk    | 1.27mm                | 1.27mm                | 1.27mm                | 1.27mm                | 1.27mm                | 1.27mm                | 0.94mm                | 0.94mm    |
| Hub        | Stryker<br>System 7   | Stryker<br>System 7   | Hall<br>Versipower    | Hall<br>Versipower    | Hall<br>Power Pro     | Hall<br>Power Pro     | Brasseler             | Brasseler |



### Pin Pack: LJV529T Includes:

| Description                  | Reference |
|------------------------------|-----------|
| 3 x 110mm Self-drilling Pins | LJV527T   |
| 5 x 75mm Self-drilling Pins  | LJV526T   |
| 3 x 45mm Self-drilling Pins  | LJV525T   |
| Reamer                       | LJU097T   |



### Drill Bit

| Description | Reference |
|-------------|-----------|
| 3mm x 220mm | DWD060T   |
| 3mm x 135mm | LJV528T   |

### Optional Instruments

| Description        | Reference |
|--------------------|-----------|
| Wiener Antrum Rasp | 400236    |
| Tibial Impactor    | 1129      |

\*Optional instruments are not included in the standard instrument set - special order only

## Surgical technique



Smith+Nephew does not provide medical advice and does not recommend this or any other surgical technique for use on a specific patient. The surgeon who performs any implant procedure is responsible for determining and using the appropriate techniques for implanting the device in each patient.

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