



TRD REVISION KNEE SYSTEM

ENG



TIPPSAN[®]

www.tipsan.com.tr

We produce
advanced
systems
for you



TRD REVISION KNEE SYSTEM

In TRD Knee Revision System There Are No Impossible Challenges

- The entire TRD Total Knee Replacement System is designed to preserve joint functionality without significantly altering its anatomy and kinematics, even in cases of severe ligament instability or massive bone defect.
- Thanks to TRD Revision's comprehensive options, the surgeon can choose the most appropriate solution for each patient under his or her care, without any compromise.
- The built-in TRD REVISION implant, together with easy-to-use instrumentation, helps the surgeon work with complete confidence every day, flawlessly handling every surgical scenario, from primary extensible cases to the most challenging knee revisions: with TRD REVISION, any challenge is possible.

① Distal and posterior femoral augmentation, mechanically attached to the femoral component, helps fill condylar bone defects, accurately manage joint line position and flexion/extension gaps. The TRD Revision femoral component is bone-sparing: the reduced box fits both posteriorly stabilized and semi-restrained infills, thus eliminating major bone loss.

② Tibial fillers are available in a fixed version featuring UHMWPE High Crosslink with different levels of restriction to provide maximum intraoperative flexibility.

③ In addition to the traditional symmetrical inner patella, TRD Revision also offers the asymmetrical resurfacing patella, which increases the patella-femur contact surface, reduces the pressure on the polyethylene, and increases stability.

④ It has a wide range of products for bone losses and defective areas, including TRD Revision tibial block augmentation, TRD Revision femoral distal block augmentation and femoral posterior block augmentation.

⑤ 360° adjustable tibial and femoral offsets maximize bone coverage without compromise, reducing the risk of sagging.

⑥ A full range of extension stems are available when intramedullary fixation is required. Stems are available in a wide range of sizes and uncemented or cemented and can be interchanged between the femur and tibia to minimize OR inventory.

All modular connections have been tested and special tools are available in the operating room to standardize the surgery and provide maximum safety for each patient.



TRD REVISION KNEE SYSTEM

OFFSET STEM ADAPTER



Fixation Screw to Femoral Component

EXTENSION STEM



Screw to Femoral & Tibia Component



FEMORAL POSTERIOR & DISTAL BLOCK AUGMENT

POSTERIOR



Fixation Screw to Femoral Component

DISTAL



Fixation Screw to Femoral Component

TIBIAL BLOCK AUGMENT



Fixation Screw to Tibial Metal Back

PATELLA COMPONENT



FEMORAL COMPONENT

POSTERIOR STABILIZED (PS)



FIXED TIBIAL COMPONENT



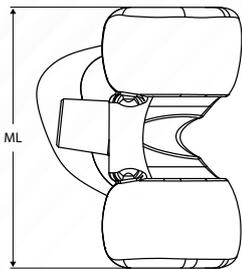
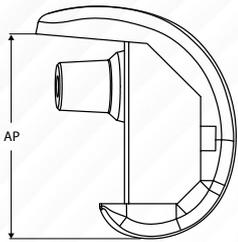
FIXED UHMWPE INSERT

POSTERIOR STABILIZED (PS)



TRD REVISION FEMORAL COMPONENT POSTERIOR STABILIZED (PS) CEMENTLESS

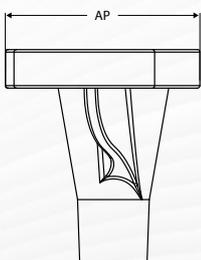
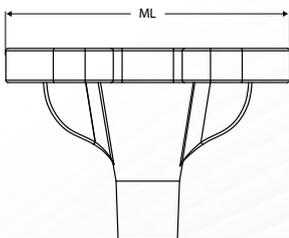
- 6 Sizes, Left & Right
- Cobalt-Chrome (CoCrMo ISO 5832-4)
- Cemented: 0.3 mm Deep Pockets



CoCrMo				
Size	Left	Right	AP	ML
1	10283223001	10283213001	48.78	60.65
2	10283223002	10283213002	52.74	64.50
3	10283223003	10283213003	55.88	68.50
4	10283223004	10283213004	59.56	72.50
5	10283223005	10283213005	62.77	76.50
6	10283223006	10283213006	66.88	80.50

TRD REVISION FIXED TIBIAL COMPONENT

- 6 Sizes
- Symmetric
- Cobalt-Chrome (CoCrMo ISO 5832-4)
- Cemented: 0.3 mm Deep Pockets



CoCrMo				
Size	Code	AP	ML	Height
1	10283613001	35.6	60	40.4
2	10283613002	39.2	65	40.4
3	10283613003	42.6	70	40.4
4	10283613004	45.7	75	40.4
5	10283613005	48.1	80	40.4
6	10283613006	51.2	85	40.4

TRD REVISION FIXED INSERT POSTERIOR STABILIZED (PS)

- UHMWPE High Crosslink
- 135° Flexion
- Increased Anterior and Posterior Edges
- No Movement On Fixed Design
- 6 Size Options
- 8 Different Thickness Sizes Are Available



UHMWPE High Crosslink										
Size	Thickness								Width	Length
	10 mm	12 mm	14 mm	17 mm	20 mm	23 mm	26 mm	29 mm		
1	10283557110	10283557112	10283557114	10283557117	10283557120	10283557123	10283557126	10283557129	59	34.6
2	10283557210	10283557212	10283557214	10283557317	10283557220	10283557223	10283557226	10283557229	64	38.2
3	10283557310	10283557312	10283557314	10283557417	10283557320	10283557323	10283557326	10283557329	68	41.6
4	10283557410	10283557412	10283557414	10283557517	10283557420	10283557423	10283557426	10283557429	72	44.7
5	10283557510	10283557512	10283557514	10283557617	10283557520	10283557523	10283557526	10283557529	76	47.1
6	10283557610	10283557612	10283557614	10282517515	10283557620	10283557623	10283557626	10283557629	81	51

TRD REVISION TIBIAL BLOCK AUGMENT

- 6 sizes
- Anatomical: Left and Right
- Ti6Al4Veli ISO 5832-3



Thickness	Size	Code
5 mm	1	10283652051
	2	10283652052
	3	10283652053
	4	10283652054
	5	10283652055
	6	10283652056

Thickness	Size	Code
10 mm	1	10283652101
	2	10283652102
	3	10283652103
	4	10283652104
	5	10283652105
	6	10283652106

TRD REVISION FEMORAL POSTERIOR BLOCK AUGMENT

- Mechanically attached to the femoral component (screw included)
- Interchangeable medial/lateral side
- Two thickness levels: 5, 10 mm
- Ti6Al4Veli ISO 5832-3



Titanium		
Thickness	Size	Code
5 mm	1	10283662051
	2	10283662052
	3	10283662053
	4	10283662054
	5	10283662055
	6	10283662056

Titanium		
Thickness	Size	Code
10 mm	1	10283662101
	2	10283662102
	3	10283662103
	4	10283662104
	5	10283662105
	6	10283662106

TRD REVISION FEMORAL DISTAL BLOCK AUGMENT

- Mechanically attached to the femoral component (screw included)
- Interchangeable medial/lateral side
- Three thickness levels: 4, 8, 12 mm
- Ti6Al4Veli ISO 5832-3



Titanium		
Thickness	Size	Code
4 mm	1	10283672041
	2	10283672042
	3	10283672043
	4	10283672044
	5	10283672045
	6	10283672046

Titanium		
Thickness	Size	Code
8 mm	1	10283672081
	2	10283672082
	3	10283672083
	4	10283672084
	5	10283672085
	6	10283672086

Titanium		
Thickness	Size	Code
12 mm	1	10283672121
	2	10283672122
	3	10283672123
	4	10283672124
	5	10283672125
	6	10283672126

TRD REVISION EXTENSION STEM

- Interchangeable femur/tibia
- Diameter: 11,13,15,17,19, 21mm
- Length: 65, 105, 125, 150mm
- Ti6Al4Veli ISO 5832-3



Titanium	
Size	Code
Ø11 - 65 mm	10283692001
Ø11 - 105 mm	10283692002
Ø11 - 125 mm	10283692005
Ø11 - 150 mm	10283692003
Ø13 - 65 mm	10283692011
Ø13 - 105 mm	10283692012
Ø13 - 125 mm	10283692015
Ø13 - 150 mm	10283692013
Ø15 - 65 mm	10283692046
Ø15 - 105 mm	10283692048
Ø15 - 125 mm	10283692049
Ø15 - 150 mm	10283692050

Titanium	
Size	Code
Ø17 - 65 mm	10283692026
Ø17 - 105 mm	10283692028
Ø17 - 125 mm	10283692029
Ø17 - 150 mm	10283692030
Ø19 - 65 mm	10283692031
Ø19 - 105 mm	10283692032
Ø19 - 125 mm	10283692035
Ø19 - 150 mm	10283692033
Ø21 - 65 mm	10283692056
Ø21 - 105 mm	10283692058
Ø21 - 125 mm	10283692059
Ø21 - 150 mm	10283692060

TRD REVISION OFFSET STEM ADAPTER

- Interchangeable femur/tibia
- 3 offset: 0, 3, 5 mm
- Ti6Al4Veli ISO 5832-3



Titanium	
Size	Code
0 mm	10283902000
3 mm	10283902003
5 mm	10283902005

PATELLA COMPONENT

- Symmetric Shape, One Central Fixation Peg Or 3 Fixation Peg
- 5 or 6 sizes
- Machined Ultra High Molecular Weight Polyethylene (UHMWPE ISO 5834-2)
- Cemented



Patella Component



Re-Surfacing
Patella Component

UHMWPE High Crosslinked			
Size	Thickness	Diameter	Patella Component
0	7	20	10281717000
1	7.5	24	10281717001
2	8	28	10281717002
3	8.5	32	10281717003
4	11	36	10281717004

UHMWPE High Crosslinked			
Size	Thickness	Diameter	Re-Surfacing Patella Component
0	7.8	30	10281737000
1	8.5	33	10281737001
2	9	36	10281737002
3	9.4	39	10281737003
4	10	42	10281737004
5	10.4	45	10281737005



TRD REVISION
KNEE SYSTEM

Surgical Technique

Entrance

TRD Revision Knee System; primary total knee replacement revision or feeding to the bone is necessary. It is used when seen. Primary total knee in arthroplasty; polyethylene wear, aseptic loosening, osteolysis (bone loss), infection, ligamentous instability and femur-patella complications. New surgical intervention due to many reasons including. It may be necessary.

The goals of a successful total knee revision include:
including;

- Mechanical alignment restoration,
- Reestablishment of the joint line
- Successful fixation of revision implant components
- Proper range of motion restoration
- Flexion/extension gap compensation

Determining whether the use is appropriate or not. Evaluation is the responsibility of the surgeon.

Use

TRD Revision knee prosthesis; placement of components. In cases where there is sufficient bone amount for the total. Designed for use with cement in knee arthroplasty has been made.

This knee replacement system can be used in the following cases: It is foreseen;

- Joint inflammation, traumatic inflammation, rheumatic joint. Severe pain and/or pain as a result of inflammation or polyarthritis problematic joint.
- Avascular necrosis in the femoral condyle.
- Post traumatic loss of joint tissue.
- Primary implantation errors.

Pre-Operation Planning

Pre-operative planning X-ray film (x-ray) and based on physical measurement.

With the help of x-ray, the surgeon; bone condition, primary calculate the alignment and fixation of the implant, patella status and joint line control can evaluate. X-ray imaging and if possible. The limb that will be subjected to the operation should be with a healthy limb. Correct alignment and implant comparison calculation of size, joint line position and femur/ It is possible to confirm the need for tibial feeding.

With the help of physical measurement, the surgeon; previous surgery can obtain information about the situation of the region, range, connective tissue stabilization, opening mechanism integrity and in general the entire neurovascular structure can calculate the conditions.

Removing the Primary Implant

The first aim in the removal of the primary implant is to remove the bone is to be protected as much as possible. Cutting process. Primer. It should be done by following the operation trace. primary implant, osteotome (bone chisel) and vibrating saws. It can be removed with the help of the special hand tools included. Separate bone-cement or bone-implant connections and insert the implant, being careful not to damage the bone. Remove gently. After implant removal then remove all the cement residue with drizzle or automatic submersibles. Clean and wash the joint properly.

Measuring Joint Line and Spacing

Modular test holder, insert thickness reference piece, minimum thickness insert thickness determination part and space by mounting it with the appropriate femoral spacer. Create the measuring apparatus. (Image on the right)

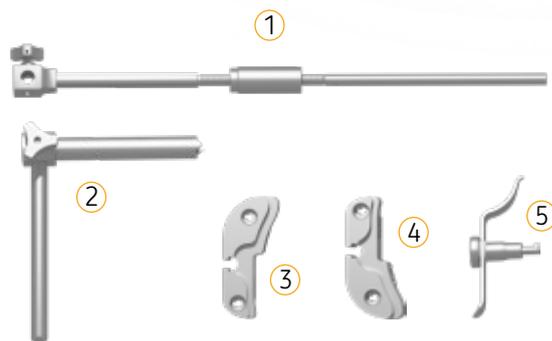


While the knee is in the flexed position, use the gap measurement apparatus. place it. Flexion range if necessary Use a thicker tibial spacer to fill it. Then bring the knee to the extension position and Repeat the gap measuring apparatus, which was verified in flexion. place it. Flexion and extension range if necessary posterior or distal wedges to balance the difference Plan your use.

Tibial Resection

Intramedullary alignment system:

- Revision intramedullary guide (1)
- Intramedullary rod guide (2)
- Revision right/left Tibial incision guide (3, 4)
- Tibial stylus (5)



Different reaming depths are marked on each reamer. Use the depth mark to accurately reach the appropriate depth. Be careful in aligning it to the existing tibial resection.

NOTE: Reamer diameter and reaming depth to be implanted The extension will determine the stem size. In the table below Appropriate extension stem dimensions are shown.

Titanium	
Size	Code
Ø11 - 65 mm	10283692001
Ø11 - 105 mm	10283692002
Ø11 - 125 mm	10283692005
Ø11 - 150 mm	10283692003
Ø13 - 65 mm	10283692011
Ø13 - 105 mm	10283692012
Ø13 - 125 mm	10283692015
Ø13 - 150 mm	10283692013

Titanium	
Size	Code
Ø15 - 65 mm	10283692046
Ø15 - 105 mm	10283692048
Ø15 - 125 mm	10283692049
Ø15 - 150 mm	10283692050
Ø17 - 65 mm	10283692026
Ø17 - 105 mm	10283692028
Ø17 - 125 mm	10283692029
Ø17 - 150 mm	10283692030

Titanium	
Size	Code
Ø19 - 65 mm	10283692031
Ø19 - 105 mm	10283692032
Ø19 - 125 mm	10283692035
Ø19 - 150 mm	10283692033
Ø21 - 65 mm	10283692056
Ø21 - 105 mm	10283692058
Ø21 - 125 mm	10283692059
Ø21 - 150 mm	10283692060

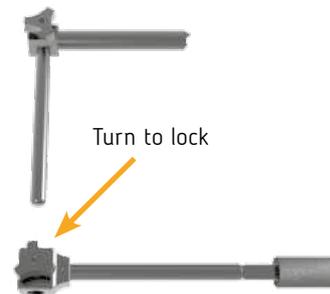
TRD REVISION KNEE SYSTEM

Surgical Technique

Intramedullar revision of tibial incision decay (right/left)
Insert it into the channel of the guide by pushing it upwards and Set the role.



Intramedullar rod guide and intramedullar revision guide assemble and turn the compression drum fix it.



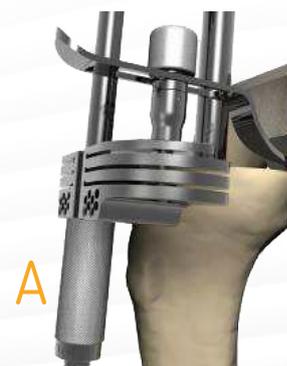
Place the assembled revision guide onto the reamer.
Use a tibial incision guide to determine the incision height. Add tibial stylus.



To adjust the position of the tibial incision block
Turn the nut (A).

NOTE: 1 turn of the nut corresponds to 1mm correction.
is coming.

- | The medial and lateral sides of the existing tibial incision are different. In some cases, the stylus is used less (in terms of the amount of remaining tissue). position on the worn side then on the heavily worn side Plan the use of the tibial feeding piece.
- In this way, more bone tissue is preserved.



- Tibial Incision
- 5mm Tibial feeding part
- 10mm Tibial feeding part
- angled hole

When the incision guide is placed in the desired position, the nailer Pins are hammered into two of the slots marked with the help of.

NOTE: Check the pins firmly and completely before using them. Make sure they are functional. Oblique and Defective pins should not be used and must be replaced with new ones. should be changed.

Incisions will be based on intramedullary reference.

OPTION: Rotation of tibial incision block, 2nd Metatarsal intramedullary using bone as a reference point extramedullary telescopic inserted into the revision guide Double control can be done with the help of rod.

Alignment once the tibial incision block is fixed to the bone Remove the system:

- Remove the tibial stylus (1)
- Loosen the nut (2)
- Loosen the drum of the rod guide (3,4).
- Frontal extraction of intramedullary revision guide Drag it until you reach the (subtraction) level (5)
- Remove the intramedullary rod guide (6)
- Remove the reamer with the T-handle (7)

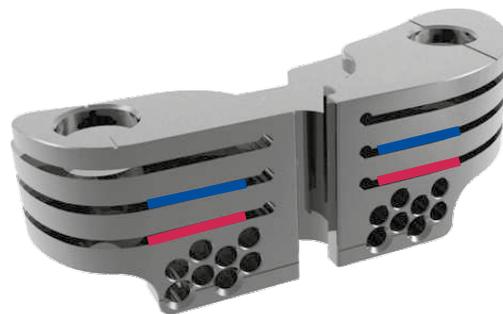
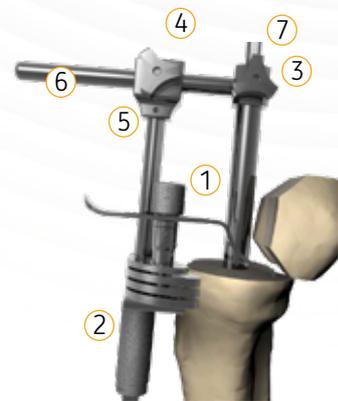
NOTE: During pin removal, pull the pin axially with pliers. Be careful to align it and remove it.

Tibial Feed Part (Optional)

In case of bone loss, the tibial component tibial feeding to lateral and/or medial sides parts can be placed. Table suitable tibial feeding summarizes its parts.

Horizontal incisions for tibial feeding parts, tibial incision through designated channels on the block realizable.

Thickness	Size	Code
5 mm	1	10283652051
	2	10283652052
	3	10283652053
	4	10283652054
	5	10283652055
	6	10283652056



5 mm tibial feeding part

10 mm tibial feeding part

If an X size tibial component is to be used, X and X-1 You can use the tibial feeding parts to measure the size. 2 pieces to obtain 10mm test tibial feeding part Attach the 5mm test piece together.

Thickness	Size	Code
10 mm	1	10283652101
	2	10283652102
	3	10283652103
	4	10283652104
	5	10283652105
	6	10283652106

Tibial Component Fixation (Tibial Without Offset)

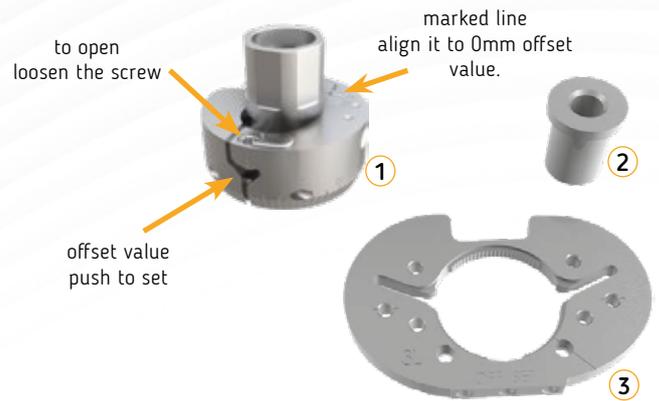
Set offset positioner to 0, open the locking lever. Use the offset locator (1), test tibial Assemble with component (2) and attach the reducing bushing (3). place it in the offset positioner and use a 3.5 screwdriver Secure it using the screwdriver.

Insert the reamer into the intramedullary canal, mount the reamer Attach it by sliding it over. Manually testing tibial the best tibial incision position by rotating the component. determine. Once proper positioning is achieved, the test is tibial Secure the component with 2 pins as shown in the picture.

NOTE: Bent and defective pins should not be used.
Do not use head pins for fixing.

OPTION: If the use of tibial feeding part is necessary remove the test tibial component and offset locator, Make an incision over the tibial incision block. then test the correct measurement on the correct side of the tibial component. Combine with test feed part and parallel pins Reassemble the mount on the tibia by sliding it over position it.

Finally, use the T-handle to tighten the reduction bushing, Remove the offset positioner and reamer.



Determining Tibial Offset (Optional)

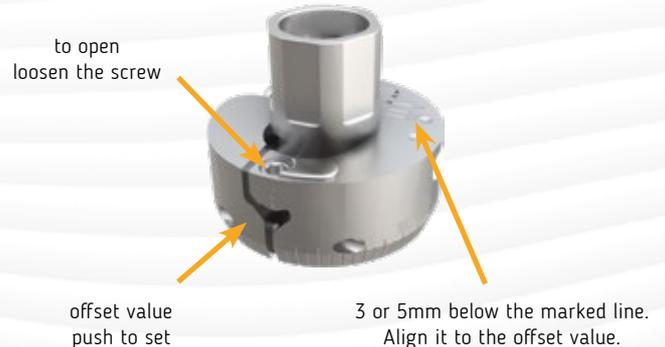
The ideal area of the tibial incision is achieved without offset. If this cannot be done, the best cortical bone is attached to the tibial component. 3mm or 5mm Tibial Offset to ensure support option would be appropriate.

Tibial Offset determination system content:

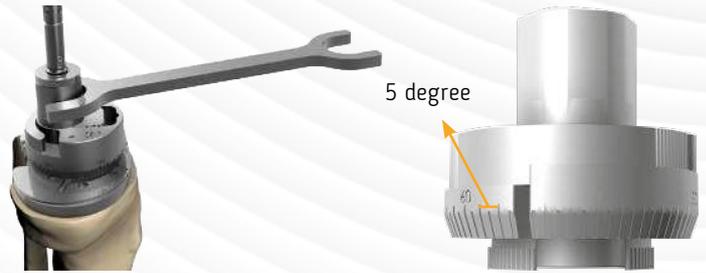
- Offset positioner (1)
- Offset positioner reducing bushing (2)
- Test tibial component (3)

By pressing the offset button, you can adjust the offset value by 3 or 5mm. Set as.

Test offset locator with tibial component assemble and adjust the reducing bushing into the offset positioner. place it inside. Insert the reamer into the intramedullary canal. position and slide the mount onto the reamer.



In determining the best tibial resection extent; Use the double-end wrench (by the offset positioner) to rotate the test tibial component (left image). The angle range marked on the offset positioner is 0-360 degrees.



Screwdriver via set screw when appropriate offset is provided Fix it by turning with , the offset position is fixed.



Read the value that corresponds to the marking on the test tibial component on the lateral surface of the offset positioner (orange line in the picture).

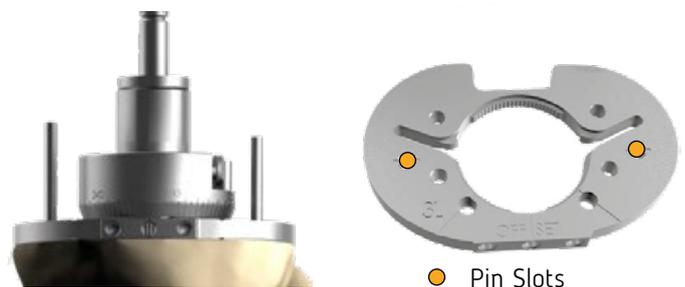


! The detected angle and the selected offset value should be noted. This values during the testing and final implant positioning stages. will be used again.

Tibial Component Fixation (Offset Optional)

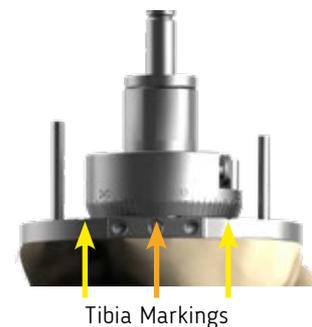
When proper testing tibial component position is ensured Insert 2 pins to fix it.

NOTE: Bent and defective pins should not be used. Fixing Do not use head pins for



Laser on bone test tibial component Create 3 lines corresponding to the markings

- 2 yellow lines position of final tibial component It will be used as a reference in the control.
- Red line tibial feeding piece need In case of vertical incision, the reference Can be used as.



Offset positioner reducer and offset Remove the positioner. Distal end of tibial stem For tibial resection, the appropriate "offset" sign is Advance the drill until it is aligned. This picture is 65mm mark the drilling depth and the appropriate offset mark. shows. Then reamer using T-handle take it out.



Tibial Offset Finishing (With Offset Option)

Set the offset to 0 by pressing the button on the offset positioner. Set it to mm. Install the offset positioner beforehand. test tibial at the rotation angle value you found. Reposition it on the component. Later screwdriver via set screw to fix the position Fix it by turning with..

Reamer bushing on 15.5mm tibial reamer swipe. By using this reamer, drill offset can be replaced. will create.

NOTE: 11mm in combination with offset or If a 13mm stem is to be used, use the offset positioner. 3mm or 5mm, which is the offset value you predetermined Adjust and reamer to create stem taper area Drill with a 15.5mm reamer without installing the bushing.

Turn the setdry counterclockwise with the screwdriver, offset Remove the locator and test tibial component.

Termination of Tibia (Offset and without offset)

Combine reamer sleeve with test tibia component following the order given below.

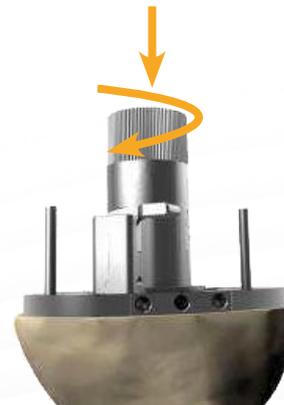
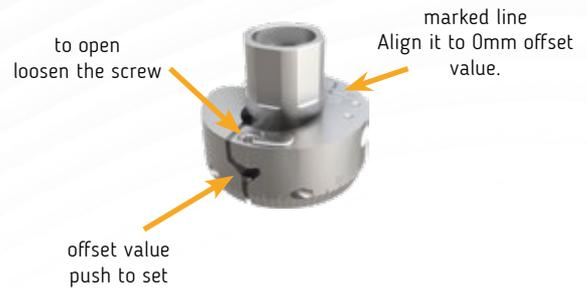
- Place the sleeve guide on the test tibial component.
- Rotate the sleeve guide on the test tibial component.
- Press the lever down to maintain the connection. (orange arrow)

Continue reaming until the stopper touches the sleeve.

! Only 11mm or 13mm stems without Tibial Offset is used.

Insert the 15.5mm reduction bushing into the reamer guide. place it. until the stop level on the reamer is reached. up to 15.5mm tibial reamer (without reamer bushing) Carve out the stem form using

Unlock the lever and reamer with 15.5mm reducing bush. Take out the sleeve.



Retainer intermediate adapter (1) on tibia socket opener (2) compress and hammer to form the wing form. test tibial component assembly using the extractor (3) Press on it.

In case of sclerotic bone, the tibia wing form test tibial component slots to help create It is recommended to empty it using special blades.is done..

After the wing form is created, test tibial tibia socket opener with the component and finally Remove the pins.



Test Tibial Component (Tibial Offset without)

Compress the appropriate size stem onto the tibia socket opener, then test the tibial socket opener (1) and the tibial component (2). place it on it. Retainer intermediate adapter (3) tibia socket Tighten it by turning it onto the opener and finally tighten it with the driver. Install it on the tibial bone using the extractor (4). penknife.

OPTION: In case of need for tibial feeding part (5), feeding The test piece should be mounted below the tibial component.



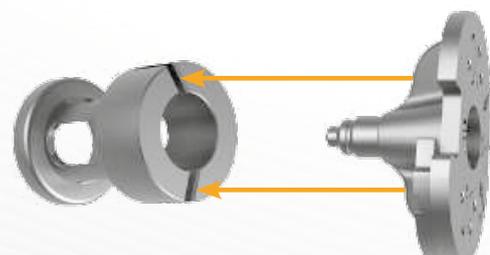
Test Tibial Component (With Offset Option)

The tibial test component must be determined before driving. offset should be used.

The Tibial Offset reuse system includes;

- Tibia socket opener (1)
- Test tibial component (2)
- Test offset, 3mm or 5mm (3)
- Tibial Offset reference (4)
- Offset adapter, 3mm or 5mm (5)

Assemble the test tibial component and the tibial socket opener. Place the mount within the Tibial Offset reference.



TRD REVISION KNEE SYSTEM

Surgical Technique

The test offset is applied to the compatible offset adapter (3mm or 5mm). Mounting into offset reference
Place the Tibial Offset onto the tibial socket opener.
Press to hold.

Indicated by the marking on the Tibial Offset reference line when determining the Tibial Offset. Turn the head to align the noted degree. Each The notch corresponds to 5 degrees.

Turn the inner screw (red circle) to secure the selected angle. tighten.

Tibia socket opener to fix offset position Tighten the screw inside firmly.



! Make sure that the angle setting does not change during tightening.



Offset adapter and Tibial Offset when the offset is fixed
Remove the reference.

Place the test stem (1) on the specified offset (2). tighten it, do not prevent offset rotation while tightening the stem. Use the double-ended wrench to



Slide the lock mechanism using the screwdriver Test tibial component with tibial socket opener by Ensure the connection between.

Tighten the holder adapter (1) onto the slot opener (2). and the entire tibia using the hammer extractor (3). Drive the implant onto the tibia bone.

OPTION: Use of tibial feeding piece (4) required The test should be added under the tibial component (5).



Gap Control

Test insert to check tibial component spacing Do not use the thickness reference piece.

Insert the string mount while in the flexed position. thicker if necessary to fill the flexion gap Use a blue tibial testing spacer. If necessary, to compensate for posterior condyle bone defects Assemble the posterior test feed parts.

Then keep the knee in extension position and If used, remove the posterior test feeding parts. remove it and reattach the spacers specified in flexion. place it. If necessary, compensate for condylar bone defects. Assemble the distal test feed parts to



Spacer + distal test wedges



Spacer + posterior test wedges

Femoral Distal Resection

Femoral distal incision system content:

- Distal Incision Determination Apparatus (1)
- Distal Incision Block (2)
- Distal Incision Locator (left/right) (3).



Open the intramedullary channel and, if necessary, mount it on the engine. Use a certified 9mm drill. 11mm guide reamer Assemble with T-holder and connect femoral intramedullary canal game manually. Intramedullary canal stability reamers of different diameters to maximize available.



Titanium	
Size	Code
Ø11 - 65 mm	10283692001
Ø11 - 105 mm	10283692002
Ø11 - 125 mm	10283692005
Ø11 - 150 mm	10283692003
Ø13 - 65 mm	10283692011
Ø13 - 105 mm	10283692012
Ø13 - 125 mm	10283692015
Ø13 - 150 mm	10283692013

Titanium	
Size	Code
Ø15 - 65 mm	10283692046
Ø15 - 105 mm	10283692048
Ø15 - 125 mm	10283692049
Ø15 - 150 mm	10283692050
Ø17 - 65 mm	10283692026
Ø17 - 105 mm	10283692028
Ø17 - 125 mm	10283692029
Ø17 - 150 mm	10283692030

Titanium	
Size	Code
Ø19 - 65 mm	10283692031
Ø19 - 105 mm	10283692032
Ø19 - 125 mm	10283692035
Ø19 - 150 mm	10283692033
Ø21 - 65 mm	10283692056
Ø21 - 105 mm	10283692058
Ø21 - 125 mm	10283692059
Ø21 - 150 mm	10283692060

NOTE: Reamer diameter and reaming depth determine the stem to be implanted. Suitable stems are shown in the table given.

TRD REVISION KNEE SYSTEM

Surgical Technique

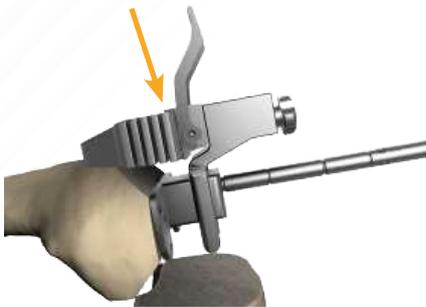


Place the distal incision adjustment device on the right or left distal incision. slide it onto the locator

This system connects the distal femur incision to the intramedullary axis. It is highly inclined.



Then attach the mount onto the reamer.



Place the distal incision block in the distal incision detection apparatus. Plug it through the field channel.



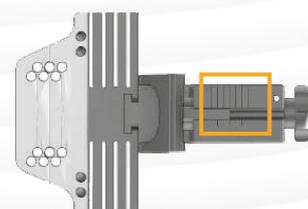
and the clamping lever on the distal incision detection apparatus. close it.

Position the distal incision block with the help of the drum. that is, adjust the amount of incision to be made.

NOTE: By turning the setting piece clockwise the distal incision block moves distally.



Setting piece movement distance from distance from +2mm to -10mm (orange rectangle).



Standard when setting piece is set to position 0 The distal incision is 0 mm. The figure below shows the pin slots and Shows standard incision channels.



When the distal incision guide position is adjusted, the pins Fix the block with the help of

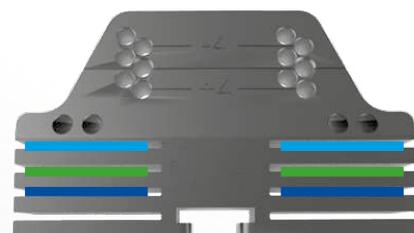
Femoral Distal Feeding Part (Optional)

The table below shows the distal femoral feeds that can be used. Shows the part dimensions.

Titanium		
Thickness	Size	Code
5 mm	1	10283662051
	2	10283662052
	3	10283662053
	4	10283662054
	5	10283662055
	6	10283662056

Titanium		
Thickness	Size	Code
10 mm	1	10283662101
	2	10283662102
	3	10283662103
	4	10283662104
	5	10283662105
	6	10283662106

Appropriate when necessary, when necessary, the distal femoral feedThe cutting process is done through channels on the distal incision block. It can be implemented via.



Determination of Femoral Measurement

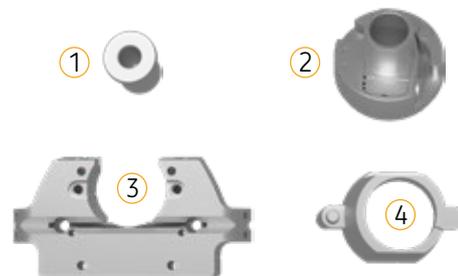
Operation using femoral component templates identified during pre-planning femoral Verify component size.

OPTION: Use of tibial feeding piece (4) required The test should be added under the tibial component (5).

Femoral Offset Determination (Optional)

Femoral Offset determination system content:

- Offset positioner reducing bushing (1)
- Offset positioner (2)
- Femur incision guide (6 sizes) (3)
- Offset tapered bushing (4).



Operation with an incision guide of the appropriate size for the femur Assemble the applied offset taper bushing and tighten the screw. tighten.



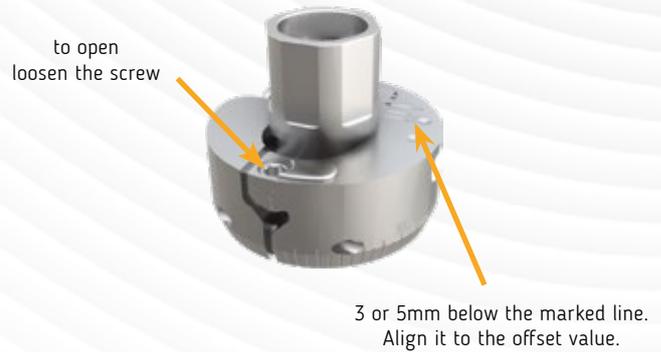
If a distal feeding piece is required, secure it on the femur. before positioning, under the incision block. must be mounted.

Insert the appropriate femoral reamer into the femoral intramedullary canal. reinsert it and slide it onto the mount. offset Insert the positioner into the tapered offset bushing and offset positioner reduction bushing, offset positioner Slide it over the reamer until it comes into contact with the.

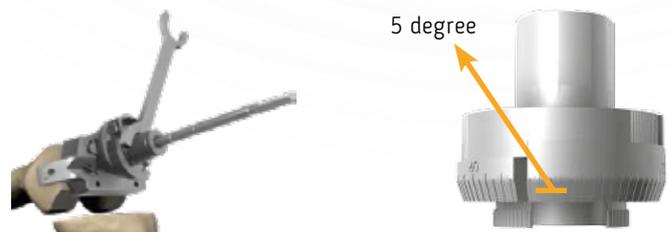


Set screw to turn the offset positioner Turn it counterclockwise with a screwdriver and By pressing the button on the side, you can change the offset value to 3mm.

! Operation planning with 5mm offset value in femur is appropriate not.



Best calculation of the area to be resected When adjusting the incision guide offset for (by offset locator) use (bottom left picture). Level the anterior incision using a control sheet. Please check. Marked on offset positioner Angle range is 0-360 degrees. Each notch corresponds to 5 degrees is coming.



When the incision guide is placed in the appropriate position, set screw tighten and fix the offset position



Cutting block on the drum of the offset positioner Read the value corresponding to the laser marking.

! Angle determined via offset positioner and selected offset should be noted. Femoral implant testing and final positioning These values will be used again in the following stages.



Determining Femoral Rotation

Without Femoral Offset:

Offset positioner, incision guide on reamer Used as an adapter to slide. incision While scrolling the block, visually before fixing the block. Check femoral rotation first.

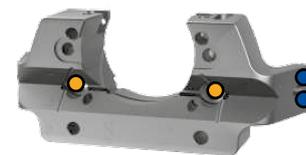
NOTE: Epicondylar axis, femoral rotation can be taken as reference in setting.

If 3mm Femoral Offset is used:

When the Femoral Offset is determined, the incision guide must be placed on the femoral Adjust the rotation manually.

NOTE : Epicondylar axis, femoral rotation can be taken as reference in setting.

Once the proper position is achieved, place the incision block with a hat. with pins or alternatively with cancellous bone screws fix it.



- Cancellous bone screws
- Hat pins

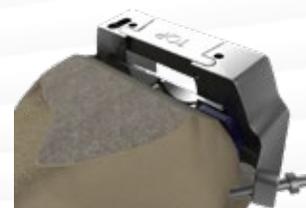
! *Cancellous bone screw fixation, distal test feed piece It is not compatible with its use.*

Offset' mark appropriate for the distal end of the stem Advance the drill until it is aligned with the incision level. More then remove the reamer using the T-handle.



Anterior, Posterior Resection and Angled Incisions

For the anterior incision, attach the upper bite onto the incision block. Thus, the stability of the cutting blade increases.



Incision to perform anterior and posterior incisions Place the blade guide on the block.

through the anterior and posterior channels in the incision block. Make angled incisions.



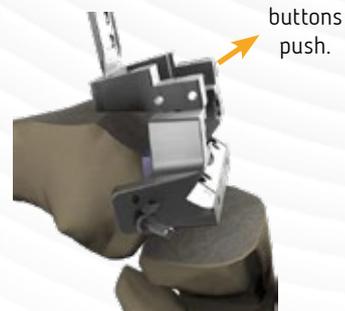
Termination of femur (Without femoral offset)

If an 11mm or 13mm stem is to be used, use the offset positioner. Set it to 0 mm and remount it on the incision guide. reamer Mount the bushing onto the 15.5 femoral reamer. this sleeve stage on the reamer to create the stem seat, using

- drill until it makes contact. Then the offset positioner take it out.

Femoral block removal device (available in 3 different sizes) place on the incision block by pressing the buttons on it. Push it into the slots. Then remove it from the femur with an incision knife. Cut the block and finally press the same buttons to cut the femoral Remove the block removal device.

Then unscrew all the pins (screws) and then offset Remove the cutting block with the tapered bushing.



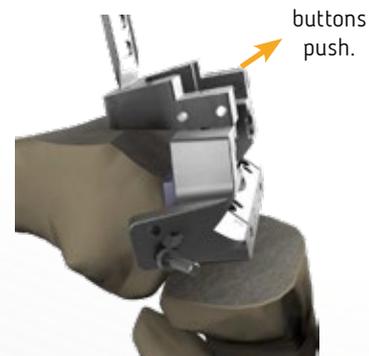
Termination of femur (3mm offset option)

Adjust the offset positioner to 0mm and press it on the incision guide. Reconnect it to the offset taper bushing. Reamer bushing 15.5 Insert it into the mm femoral reamer. Step offset on the reamer Continue drilling until it stops (left picture). Then remove the offset positioner.

11mm or 13mm stems only with Femoral Offset is used. Set the offset locator to 3mm. Stem until it reaches the stop point to prepare a slot for the connection. Drill with a 15.5 femoral reamer (without reamer bushing), until the stage in the reamer comes into contact to create You are crazy. Then remove the offset positioner.

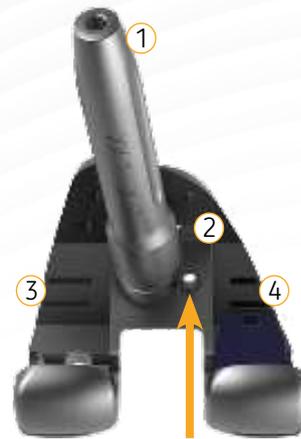
Femoral block removal device (available in 3 different sizes) place on the incision block by pressing the buttons on it. Push it into the slots. Then remove it from the femur with an incision knife. Cut the block and finally press the same buttons to cut the femoral Remove the block removal device.

Then unscrew all the pins (or screws) and then offset Remove the cutting block with the tapered bushing.



Femoral Test Component (Without Femoral Offset)

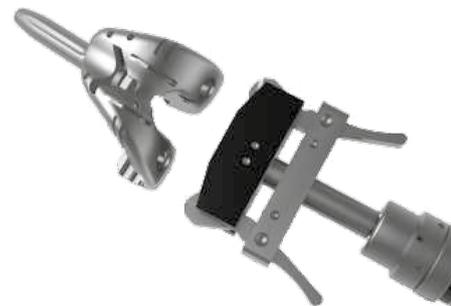
Femoral test core (2) (right/left) femoral test component Assemble with (3) and tighten the connecting screw (red in the picture). arrow) Fasten securely. Select the correct size test stem (1). Mount it on the femur test core (2).



When using the distal feeding part, remove the test feeding part. (4) test on the femoral component, attach the component to the femur Install before positioning.

Installation using driver extractor and femoral holder Position it on the femur.

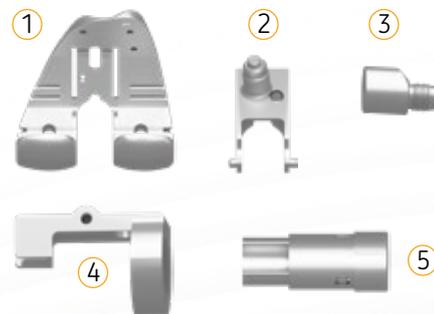
Test core during placement of the femoral test implant Impingement between the internal protrusion of the medial condyle and case, remove the femoral core using a bone chisel. Expand the canal in the bone from the medial side.



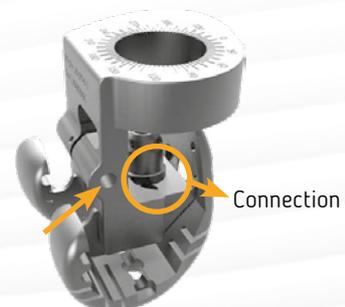
Femoral Test Component (With 3mm Offset Option)

Femoral Offset system content:

- Test Femoral Component (1)
- Femur Test Core (right/left) (2)
- Test Offset (Only 3mm) (3)
- Femur Offset Reference (right/left) (4)
- Offset Adapter (Only 3mm) (5)

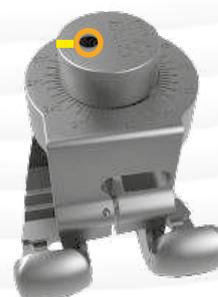


Femoral offset reference, on test femoral component mount then to secure the connection tighten the screw. (orange arrow)



Insert 3mm offset into the offset adapter. offset Determine the Femoral Offset notch on the adapter Turn it to align it to the angle determined during.

Each notch on the metal surface corresponds to 5 degrees is coming. Tighten the internal screw to secure the selected angle (orange circle).



Test femoral to fix offset position Tighten the screw on the component securely.

Make sure that the angle does not change during tightening.

Once the offset is fixed, the offset adapter and femur offset Remove the reference.

Mount the correct size stem onto the femur test core. (image on the right). Offset rotation when tightening the stem Use the double-ended wrench to prevent it.

Installation using driver extractor and femoral holder Position it on the femur.

If distal femoral feeding becomes necessary, remove the femoral testing component.

Test core during placement of the femoral test implant Impingement between the internal protrusion of the medial condyle and case, remove the femoral core using a bone chisel. Expand the canal in the bone from the medial side.



Femoral Posterior Feeding Part (Optional)

In case of deformation in the bone, the test femoral Test feeding on posterior consoles of the component parts can be installed. Appropriate sizes in the table Posterior feeding parts are seen.

Thickness	Size	Code
5 mm	1	10283652051
	2	10283652052
	3	10283652053
	4	10283652054
	5	10283652055
	6	10283652056

Thickness	Size	Code
10 mm	1	10283652101
	2	10283652102
	3	10283652103
	4	10283652104
	5	10283652105
	6	10283652106

TRD REVISION KNEE SYSTEM

Surgical Technique

Incisions for posterior feeding parts, test femur through special slots on the component They can be done.

! If necessary, stabilize the test femur with pins.

NOTE: Twisting should be avoided during pin removal. This is with axial alignment between pin and special remover It is possible.

! 12mm thickness distal feeding parts no posterior Cannot be used in combination with the feed part. All For TRD revision femoral feeding parts matches, please See Component Selection on pages 40-41.

Test Implant Measurement

! When implanting versions with posterior stabilizers, the femur Insert the posterior stabilization shaft. Posterior stabilization During implantation, also place the restriction bite on the test insert. Install it and tighten the screw.

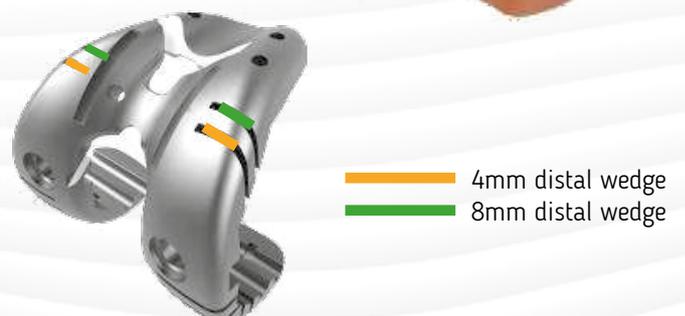
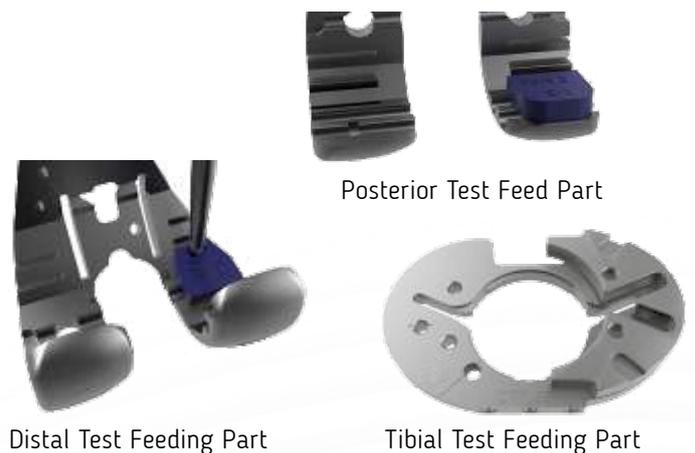
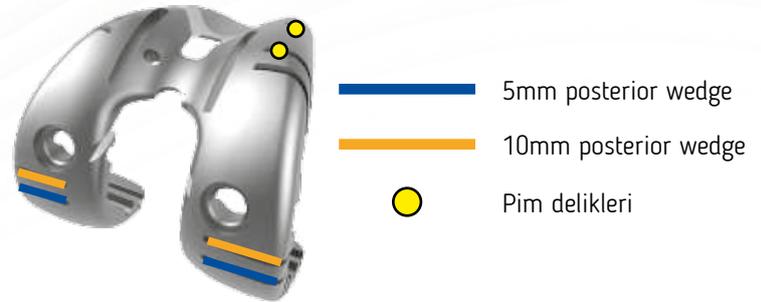
! Any previous, posterior/distal femoral feeding If part or tibial feeding part is planned, at this stage It must be mounted on suitable test components.

By positioning the tibial test implant, the tibial socket Install the insert plug on the opener (pictured left) and Place the test insert on it (image on the right).

Once the test components are in place, separate the patella and Test the mobility of the knee.

OPTION: Joint line after testing the joint If there is space in the distal direction of the position; test femur remove it and place a thicker distal test feed on it. Install the part.

Suitable correction feeding parts thickness: 2mm, 4mm, 6mm. Testing to implement fixes 2 special incision channels suitable for the femoral component available; 4mm is 8mm.



Tibial Implant Installation

Before final implant installation, ensure that all attachment surfaces are clean and dry. It is recommended to replace gloves with clean ones.

Use 12Nm torque wrench to tighten the stem on the offset. Please use

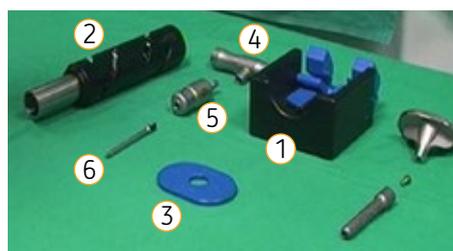
Damage to joint surfaces during final implant installation. Be careful not to give it away.

Without Tibial Offset

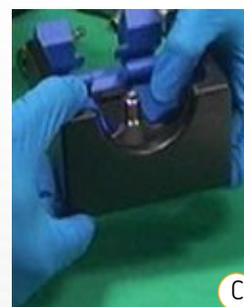
If a stem and tibial feed piece are to be used, the feed piece is necessary to assemble the stem before cementing its parts.

Combining system content:

- Implant mounting apparatus (1)
- Hammer (2)
- Tibia support bushing (3)
- T handle (4)
- 6 Nm torque limiter (5)
- 6 Nm torque wrench adapter (6).



Tibial component on implant mounting bracket position it in the designated slots (A). sign tibial For fastening, lean against the tibial component (B), this While in position, turn the assembly upside down (C).



TRD REVISION KNEE SYSTEM

Surgical Technique

Place the designated stem onto the tibial component tapered end. position (A) and use the nailer to pocket knife (B).

Before the nailing process, make sure that the cover on the nailer is tightened well. Make sure it is.

On the strongest side of the operating table during hammering. Make sure you are.

Keep the mounting apparatus steady while fastening.

NOTE: Be prepared for the sound that will occur during hammering.



With the tibial component in place, rotate the mount 90°. Turn it and remove the bushing.

Tighten the fixing screw of the stem with a 6Nm wrench.

NOTE: Packaged with screw stem.

12Nm torque wrench for fixing screw is strictly

When the correct torque value is reached, the torque wrench returns to neutral.



Then remove the assembled implant from the mounting bracket. Remove it.

OPTION: If the tibial feeding part is to be used, bone cement to the lower plane of the tibial component insert the feeding part under the tibial component. position it. Add cement under the feeding part. your herd Feeding part, tibial component and tibia Final fixations between the bones are provided by cement.

Nail the assembly onto the tibia and apply cement on the joint surface. carefully remove it from the bone, making sure there are no pieces left. Clean off any excess cement.

Tibial Offset (3mm or 5mm Optional)

Both a Tibial Offset and a tibial feed piece If it must be used, before cementing the feed part The final offset and stem must be assembled first.

Combining system content:

- Implant mounting apparatus (1)
- Hammer (2)
- Tibial support bushing (3)
- Nailor offset adapter (4)
- T handle (5)
- 6Nm torque limiter (6)
- 6Nm torque wrench adapter (7)
- 12Nm torque limiter (8)
- 12Nm torque wrench adapter (9)



Driver offset adapter suitable for offset (3mm or 5mm)(A) and the Holding mechanism Push it until it engages (B)



Tibial Offset reference on final tibial component position it. Orange arrows will center the wings shows.



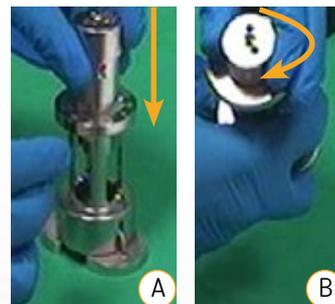
Tibial Offset driver offset adapter combined with offset Place the reference inside (A).

Implant the offset adapter to prevent premature offset connection. Do not squeeze it onto the cone.

Turn the head (B) to adjust the specified offset angle. Offset adapter top to fix offset rotation Gently hammer the part using the screwdriver handle.

Remove the offset system from the tibial component.

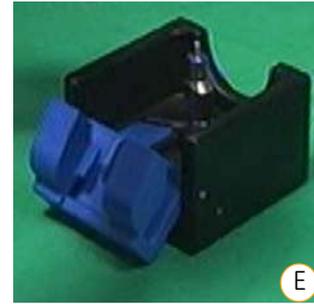
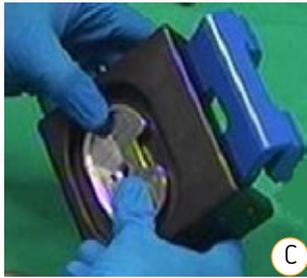
When removing the offset system, be careful not to damage the assembly. please.



TRD REVISION KNEE SYSTEM

Surgical Technique

on the mounting bracket to assemble the implant. Insert the tibial component into the designated slots (C). Place the bushing on the mounting bracket (D), this While in position, turn the assembly upside down (E).

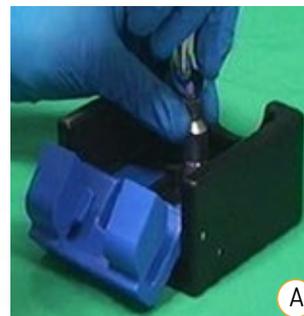


Use the offset adapter to mount the nailer on the offset place it (A) and hammer it in using the nailer (B).

Before the nailing process, make sure that the cover on the nailer is tightened well. Make sure it is.

On the strongest side of the operating table during hammering. Make sure you are.

Keep the mounting apparatus steady while fastening.



NOTE: Be prepared for the sound that will occur during hammering.

Finally, use the offset adapter to combine the nailer. loosen it.

Use the offset adapter to mount the nailer on the offset. place it (A) and hammer it in using the nailer (B).

NOTE: Packaged with screw stem.

12Nm torque wrench for fixing screw is strictly Do not use.

When the correct torque value is reached, the torque wrench returns to neutral.



With the tibial implant in place, rotate the mounting bracket again by 90°. rotate and place the bushing between the implant surface and the table. place it. Mount the stem by rotating it by hand on the offset Please check (C). On offset using 12Nm wrench Tighten the stem. (D).

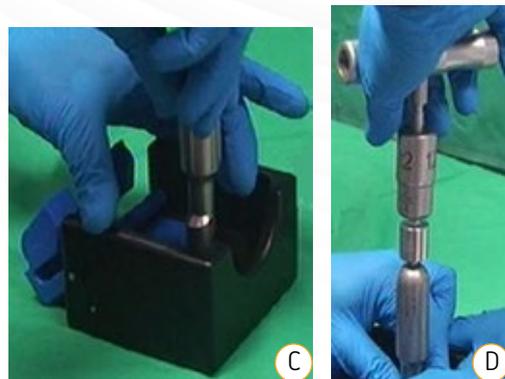
When the correct torque value is reached, the torque wrench returns to neutral.

OPTION: To keep the offset still while tightening the stem A double-ended wrench can be used.

Remove the assembled implant group from the mounting bracket. Remove it.

OPTION: If the tibial feeding part is to be used, bone cement to the lower plane of the tibial component insert the feeding part under the tibial component. position it. Add cement under the feeding part. your herd Feeding part, tibial component and tibia Final fixations between the bones are provided by cement.

Nail the assembly onto the tibia and apply cement on the joint surface. carefully remove it from the bone, making sure there are no pieces left. Clean off any excess cement.



Femoral Implant Installation

Before final implant installation, ensure that all attachment surfaces are Make sure it is clean and dry. Used It is recommended to replace gloves with clean ones.

Use 12Nm torque wrench to tighten the stem on the offset. Please use

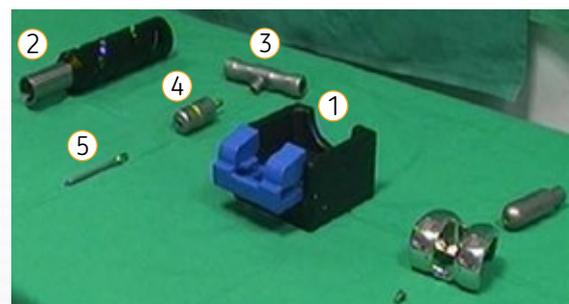
Damage to joint surfaces during final implant installation Be careful not to give it away.

Without Femoral Offset

If it is necessary to use a femoral feeding piece and stem, The stem must be tightened before tightening the feed parts.

Femoral joining system content:

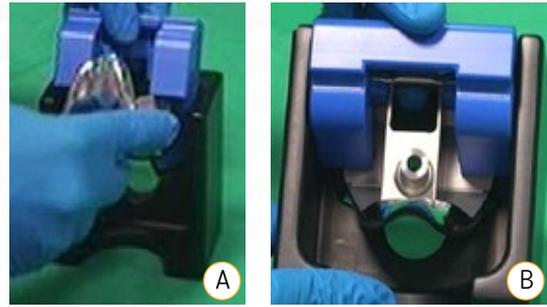
- Mounting bracket (1)
- Hammer (2)
- T sleeve (3)
- 6Nm torque limiter (4)
- 6Nm torque wrench adapter (5).



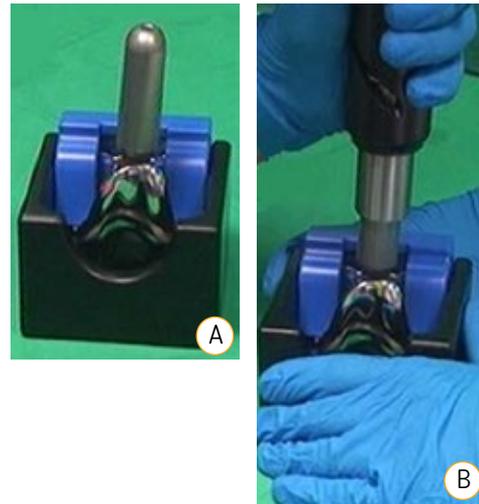
TRD REVISION KNEE SYSTEM

Surgical Technique

Open the blue mobile part of the mount, lift the femoral insert the posterior condyles of the component into the slots.(A) and close the blue part towards the base (B).



Place the designated stem on the femur component taper. (A) and use the hammer to drive the stem (B).



Before the nailing process, make sure that the cover on the nailer is tightened well. Make sure it is.

On the strongest side of the operating table during hammering. Make sure you are.

Keep the mounting apparatus steady while fastening.

NOTE: Be prepared for the sound that will occur during hammering.

With the femoral implant in place, rotate the mounting bracket 90° rotate. Assemble the 6Nm wrench and put it on the offset Tighten the fixing screw.

NOTE: The screw is packaged with an extension stem.

It is absolutely advisable to use a 12 Nm torque wrench for the fixing screw. it is forbidden.

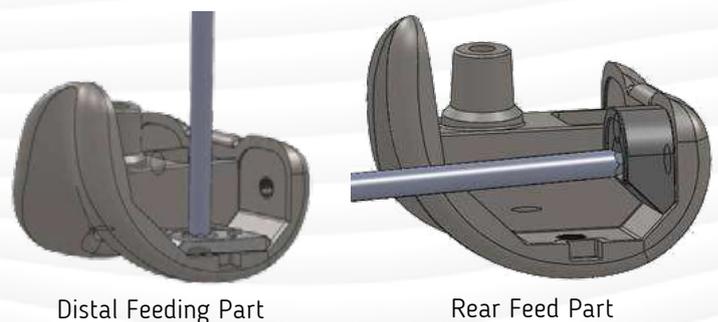
When the correct torque value is reached, the torque wrench returns to neutral.



Then, remove the assembled implant from the sheet.

OPTION: If the femoral feeding part is to be used, place the designated feed piece in its own packaging box. Mount it with the screw. On the femoral component position them both and use an allen key tighten the screw.

Contact surfaces of the femur component with the femur bone apply cement and nail the components onto the femur and carefully clean the cement coming out of the bone, Make sure that there is no cement piece left on the surface.

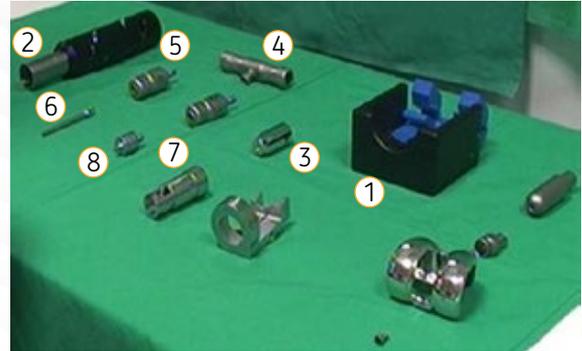


Femoral Offset (3mm Optional)

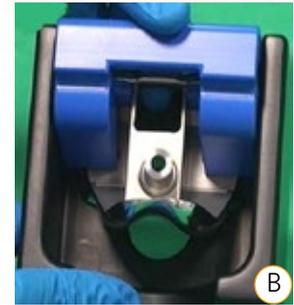
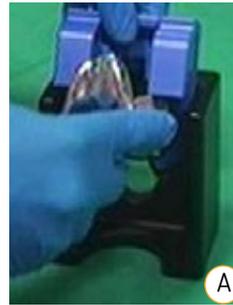
Use of both Femoral Offset and femoral feeding piece If necessary, final offset before screwing the feed parts and It is necessary to mount the stem.

Femoral montaj sistemi içeriği:

- Mounting bracket (1)
- Hammer (2)
- Driver Offset Adapter (3)
- T sleeve (4)
- 6Nm torque limiter (5)
- 6Nm torque wrench adapter (6)
- 12Nm torque limiter (7)
- 12Nm torque wrench adapter (8)



Open the blue mobile part of the mount, lift the femoral insert the posterior condyles of the component into the slots. (A) and close the blue part towards the base (B).



Place the 3mm offset into the appropriate offset adapter (C), Push until the holding mechanism engages (D).



Femoral offset reference on femoral component position it.



TRD REVISION KNEE SYSTEM

Surgical Technique

Femur offset adapter combined with offset Insert the reference into (A).

Implant the offset adapter to prevent premature offset connection. Do not squeeze it onto the cone.

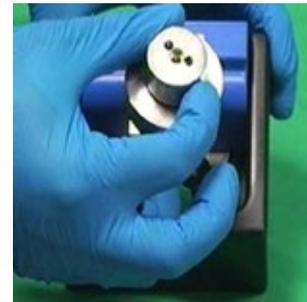


Then tighten the safety screw (B).



Turn the head to adjust the specified offset angle. Offset adapter to fix offset rotation Gently hammer the top part using the screwdriver handle. Remove the offset system from the femoral component.

When removing the offset system, be careful not to damage the assembly. please.



Use the offset adapter to mount the nailer on offset screw (A) and drive the offset using the nailer (B).

Before the nailing process, make sure that the cover on the nailer is tightened well. Make sure it is.

On the strongest side of the operating table during hammering. Make sure you are.

Keep the mounting apparatus steady while fastening.

NOTE : Be prepared for the sound that will occur during hammering.



With the femoral implant in place, rotate the mounting bracket 90° translate. Combine 6Nm wrench and on offset tighten the fixing screw.

NOTE : Packaged with screw stem.



12Nm torque wrench for fixing screw is strictly Do not use.

When the correct torque value is reached, the torque wrench returns to neutral.

With the implant in place, turn the mounting bracket again by 90°. translate. Screw the designated stem onto the offset thread.

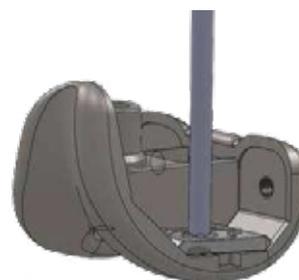


Combining 6Nm torque wrench and extension on offset Tighten the stem.

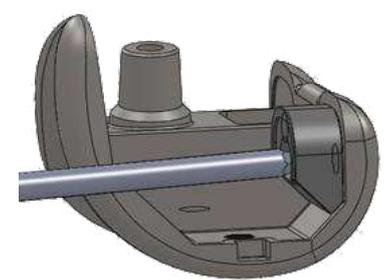
OPTION : Double-ended wrench adjusts the offset when screwing the stem. Can be used to hold still.

Then remove the mounted implant from the mounting apparatus.

OPTION: When a femoral feeding part is needed, suitable the feeding part together with the screw it was packaged with. Install it. Both on the femoral component and re-tighten the screw with the Allen key. tighten.



Distal Feeding Part



Posterior Feeding Part

Final Implant Measurement

Position the polyethylene insert and all components Separate the patella while it is attached and move the knee through its full range of motion. Please check.

Component Selection

Standard tibial inserts only fit tibial inserts of the same size. component and standard revision femoral component Can be paired with . Standard tibial insert X size, standard revision femoral component with sizes X+1, X and X-n can be matched (Table 1).

PS tibial inserts can only be used with tibial inserts of the same size. components and PS revision femoral components Can be paired with . PS tibial insert X size, PS revision femoral components with dimensions X+1, X and X-n can be matched (Table 2).

TRD PS İnsertler – TRD Tibial Komponent							
		#1	#2	#3	#4	#5	#6
TRD PS Revizyon Femoral Komponent	#1	✓	✓	✓	✓	✓	✓
	#2	✓	✓	✓	✓	✓	✓
	#3	✗	✓	✓	✓	✓	✓
	#4	✗	✗	✓	✓	✓	✓
	#5	✗	✗	✗	✓	✓	✓
	#6	✗	✗	✗	✗	✓	✓

Table 2: PS Tibial inserts ve PS revizion mating possibilities for femoral components;

Tibial feeding parts are fixed to the Tibia Component with screws. Matching possibilities are shown in table 3.

5mm ve 10mm kalınlıkta TRD Tibial Besleme Parçası								
		#0	#1	#2	#3	#4	#5	#6
TRD Tibial Komponent	#1	✓	✓	✗	✗	✗	✗	✗
	#2	✗	✓	✓	✗	✗	✗	✗
	#3	✗	✗	✓	✓	✗	✗	✗
	#4	✗	✗	✗	✓	✓	✗	✗
	#5	✗	✗	✗	✗	✓	✓	✗
	#6	✗	✗	✗	✗	✗	✗	✓

Table 3: Matching possibilities for TRD Tibial Component and TRD Tibial Supply Part.

Distal and posterior femoral feeding parts only Can be paired with the TRD Revision femoral component. Distal and posterior feeding part sizes, femoral The revision must be the same as the components. Bone In cases where there is loss, only one layer each is distal. femoral feeding part and posterior femoral feeding part can be implanted. In Table 4; need at the same time between the distal and posterior feeding parts when Matching opportunities are listed.

TRD Revizyon Femoral Komponent																			
		#1			#2			#3			#4			#5			#6		
	Posterior Femoral Besleme Parçası	0 mm	5 mm	10 mm	0 mm	5 mm	10 mm	0 mm	5 mm	10 mm	0 mm	5 mm	10 mm	0 mm	5 mm	10 mm	0 mm	5 mm	10 mm
Distal Femoral Feeding Part	4 mm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	8 mm	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	12 mm	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗

Table 4: TRD Revision femoral feeding parts matching possibilities

- All revision stems, all Tibial components and Can be implanted with revision femoral components.
- 3mm and 5mm offset pieces; Can be used with components. Only 3mm offset piece can be used with revision femoral component available.
- Offset pieces are implanted without using a stem It cannot be done.

“
*the key in
orthopaedic
sciences*
”



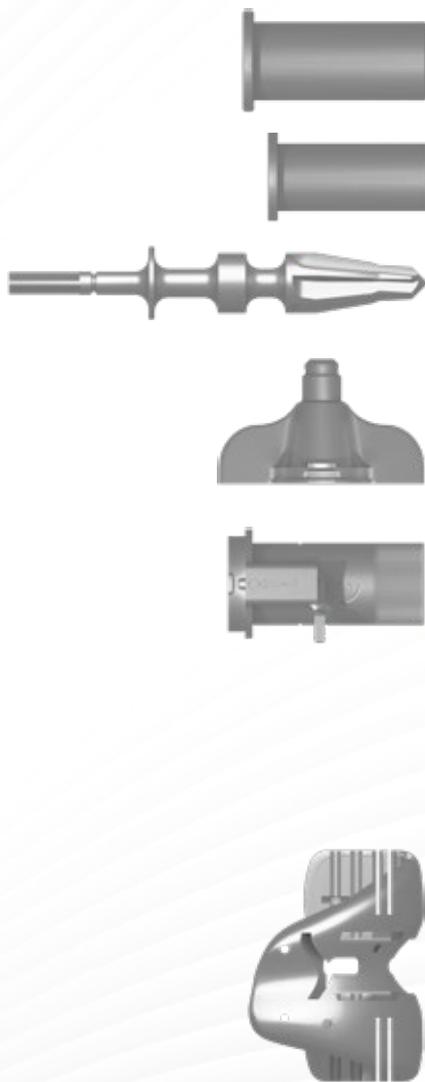
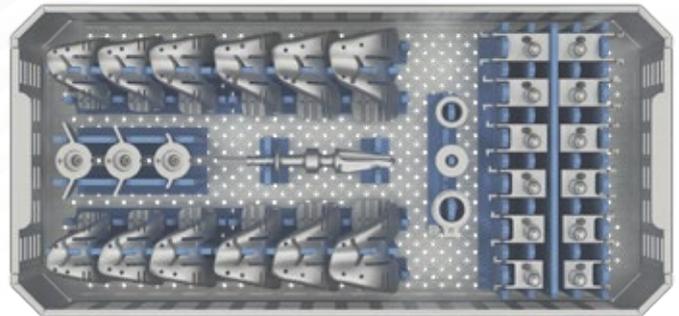
TRD REVISION
KNEE SYSTEM
Instrumentation Set

TRD REVISION KNEE SYSTEM

Instrumentation Set

TRAY 1

28011030001-3010



Code	Description	Unit
10685031003	TRD PRIMARY STEM DRILL BIT GUIDE	1
10685031004	TRD SAFE GUIDE REAMER REDUCTION BUSH	1
10685031021	TRD REAMER FOR TIBIAL KEEL	1
10685321001	TRD PUNCHER / SIZE 1 & 2	1
10685321003	TRD PUNCHER / SIZE 3 & 4	1
10685321005	TRD PUNCHER / SIZE 5 & 6	1
10685331001	TRD REAMER GUIDE	1
10685353101	TRD TRIAL FEMUR / SIZE - 1 LEFT	1
10685353102	TRD TRIAL FEMUR / SIZE - 2 LEFT	1
10685353103	TRD TRIAL FEMUR / SIZE - 3 LEFT	1
10685353104	TRD TRIAL FEMUR / SIZE - 4 LEFT	1
10685353105	TRD TRIAL FEMUR / SIZE - 5 LEFT	1
10685353106	TRD TRIAL FEMUR / SIZE - 6 LEFT	1
10685353201	TRD TRIAL FEMUR / SIZE - 1 RIGHT	1
10685353202	TTRD TRIAL FEMUR / SIZE - 2 RIGHT	1
10685353203	TRD TRIAL FEMUR / SIZE - 3 RIGHT	1
10685353204	TTRD TRIAL FEMUR / SIZE - 4 RIGHT	1
10685353205	TRD TRIAL FEMUR / SIZE - 5 RIGHT	1
10685353206	TRD TRIAL FEMUR / SIZE - 6 RIGHT	1



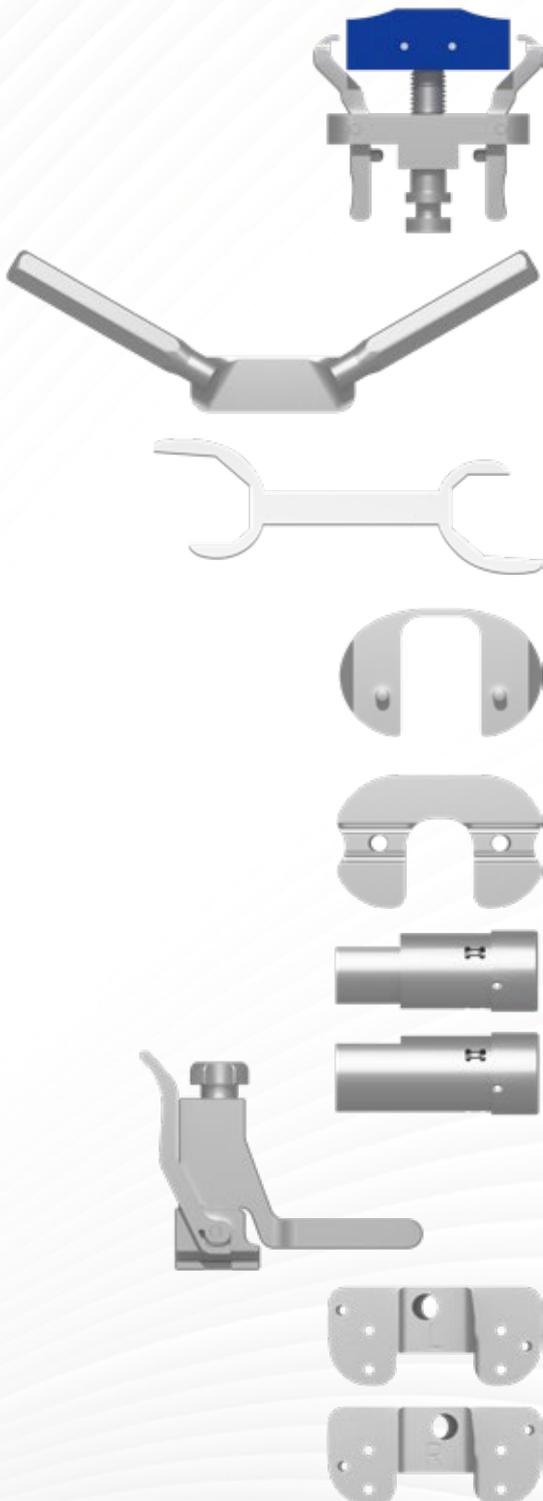
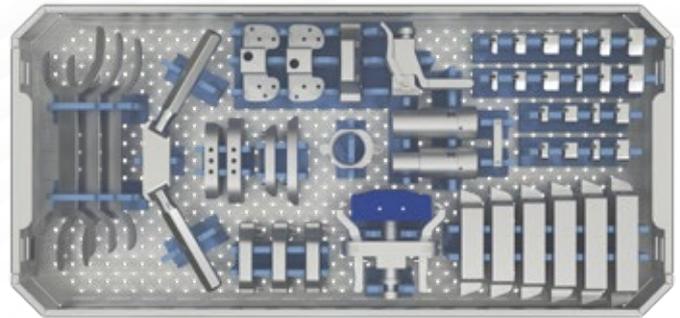
Code	Description	Unit
10685361001	TTRD TRIAL FEMORAL BOX / SIZE - 1 LEFT	1
10685361002	TRD TRIAL FEMORAL BOX / SIZE - 2 LEFT	1
10685361003	TRD TRIAL FEMORAL BOX / SIZE - 3 LEFT	1
10685361004	TRD TRIAL FEMORAL BOX / SIZE - 4 LEFT	1
10685361005	TRD TRIAL FEMORAL BOX / SIZE - 5 LEFT	1
10685361006	TRD TRIAL FEMORAL BOX / SIZE - 6 LEFT	1
10685361101	TRD TRIAL FEMORAL BOX / SIZE - 1 RIGHT	1
10685361102	TRD TRIAL FEMORAL BOX / SIZE - 2 RIGHT	1
10685361103	TRD TRIAL FEMORAL BOX / SIZE - 3 RIGHT	1
10685361104	TRD TRIAL FEMORAL BOX / SIZE - 4 RIGHT	1
10685361105	TRD TRIAL FEMORAL BOX / SIZE - 5 RIGHT	1
10685361106	TRD TRIAL FEMORAL BOX / SIZE - 6 RIGHT	1

TRD REVISION KNEE SYSTEM

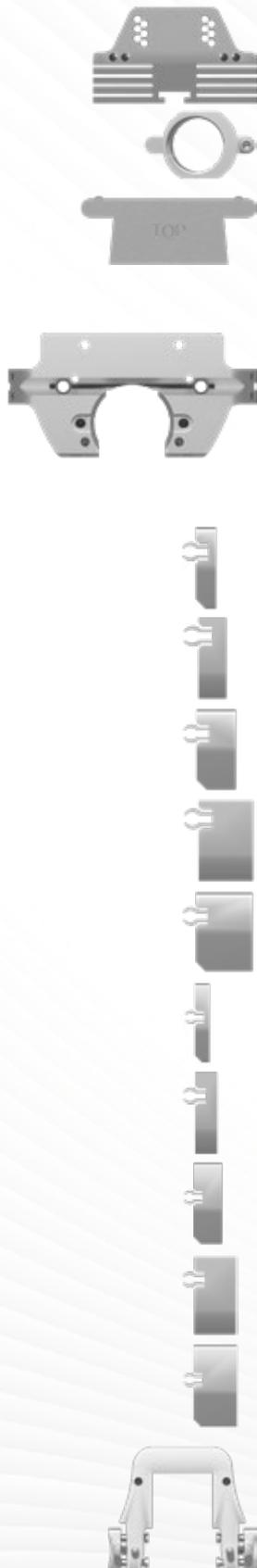
Instrumentation Set

TRAY 2

28011030001-3020



Code	Description	Unit
10685091105	TRD FEMORAL IMPACTOR/EXTRACTOR	1
10685101001	TRD SAW BLADE GUIDE	1
10685111001	TRD FEMORAL COMPONENT TEMPLATE / SIZE - 1/2	1
10685111003	TRD FEMORAL COMPONENT TEMPLATE / SIZE - 3/4	1
10685111005	TRD FEMORAL COMPONENT TEMPLATE / SIZE - 5/6	1
10685121001	TRD FEMORAL SPACER / SIZE - 1-3	1
10685121004	TRD FEMORAL SPACER / SIZE - 4-6	1
10685131001	TRD FEMORAL SPACER-TIBIA IN PLACE / SIZE - 1-3	1
10685131004	TRD FEMORAL SPACER-TIBIA IN PLACE / SIZE - 4-6	1
10685171003	TRD OFFSET ADAPTER / 3 MM	1
10685171005	TRD OFFSET ADAPTER / 5 MM	1
10685261001	TRD MICROMETRIC DISTAL CUT POSITIONER	1
10685271001	TRD DISTAL CUT POSITIONER / LEFT	1
10685271002	TRD DISTAL CUT POSITIONER / RIGHT	1



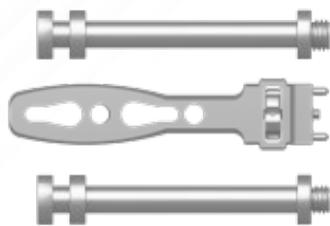
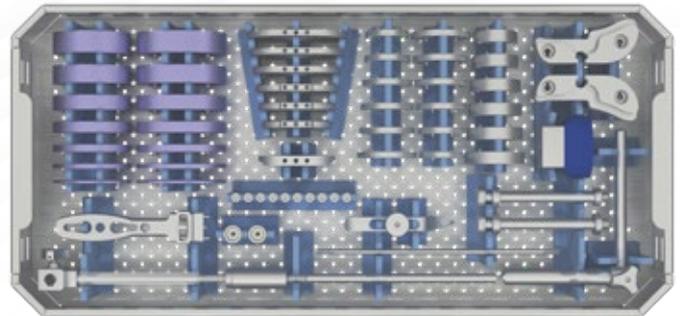
Code	Description	Unit
10685281001	TRD DISTAL CUTTING BLOCK	1
10685291001	TRD OFFSET TAPERED BUSH	1
10685301001	TRD CUTTING BLOCK UPPER COVERAGE	1
10685301051	TRD CUTTING BLOCK / SIZE - 1	1
10685301052	TRD CUTTING BLOCK / SIZE - 2	1
10685301053	TRD CUTTING BLOCK / SIZE - 3	1
10685301054	TRD CUTTING BLOCK / SIZE - 4	1
10685301055	TRD CUTTING BLOCK / SIZE - 5	1
10685301056	TRD CUTTING BLOCK / SIZE - 6	1
10685312304	TRD TRIAL DISTAL WEDGE / SIZE 1-3 H = 4 mm	2
10685312305	TTRD TRIAL POSTERIOR WEDGE / SIZE 1-3 H = 5 mm	2
10685312308	TRD TRIAL DISTAL WEDGE / SIZE 1-3 H = 8 mm	2
10685312310	TRD TRIAL POSTERIOR WEDGE / SIZE 1-3 H = 10 mm	2
10685312312	TRD TRIAL DISTAL WEDGE / SIZE / SIZE 1-3 H = 12 mm	2
10685312404	TRD TRIAL DISTAL WEDGE / SIZE 4-6 H = 4 mm	2
10685312405	TRD TRIAL POSTERIOR WEDGE / SIZE 4-6 H = 5 mm	2
10685312408	TRD TRIAL DISTAL WEDGE / SIZE 4-6 H = 8 mm	2
10685312410	TRD TRIAL POSTERIOR WEDGE / SIZE 4-6 H = 10 mm	2
10685312412	TRD TRIAL DISTAL WEDGE / SIZE 4-6 H = 12 mm	2
10685341001	TRD FEMORAL BOX CUTTING GUIDE / SIZE 1 & 2	1
10685341003	TRD FEMORAL BOX CUTTING GUIDE / SIZE 3 & 4	1
10685341005	TTRD FEMORAL BOX CUTTING GUIDE / SIZE 5 & 6	1

TRD REVISION KNEE SYSTEM

Instrumentation Set

TRAY 3

28011030001-3050



Code	Description	Unit
10607221001	TRD ADAPTOR FOR IMPACTOR/EXTRACTOR	1
10685041001	TRD TRIAL BASE HANDLE	1
10685051001	TRD IMPACTOR/EXTRACTOR HANDLE FOR TIBIAL TRIAL KEEL	1
10685061310	TRD TIBIAL SPACER / SIZE 1-3 - THICKNESS 10 mm	1
10685061312	TRD TIBIAL SPACER / SIZE 1-3 - THICKNESS 12 mm	1
10685061314	TRD TIBIAL SPACER / SIZE 1-3 - THICKNESS 14 mm	1
10685061317	TRD TIBIAL SPACER / SIZE 1-3 - THICKNESS 17 mm	1
10685061320	TRD TIBIAL SPACER / SIZE 1-3 - THICKNESS 20 mm	1
10685061323	TRD TIBIAL SPACER / SIZE 1-3 - THICKNESS 23 mm	1
10685061326	TRD TIBIAL SPACER / SIZE 1-3 - THICKNESS 26 mm	1
10685061410	TRD TIBIAL SPACER / SIZE 4-6 - THICKNESS 10 mm	1
10685061412	TRD TIBIAL SPACER / SIZE 4-6 - THICKNESS 12 mm	1
10685061414	TRD TIBIAL SPACER / SIZE 4-6 - THICKNESS 14 mm	1
10685061417	TRD TIBIAL SPACER / SIZE 4-6 - THICKNESS 17 mm	1
10685061420	TRD TIBIAL SPACER / SIZE 4-6 - THICKNESS 20 mm	1
10685061423	TRD TIBIAL SPACER / SIZE 4-6 - THICKNESS 23 mm	1
10685061426	TRD TIBIAL SPACER / SIZE 4-6 - THICKNESS 26 mm	1
10685071001	TRD INDEPENDENT CUTS REFERENCE SPACER	1
10685081205	TRD TIBIAL IMPACOR FIXED BASE	1

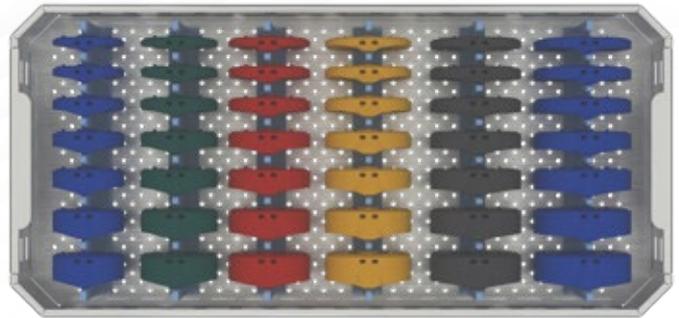
Code	Description	Unit
10685212001	TRD TIBIAL SPACER / 5mm / SIZE - 1	2
10685212002	TRD TIBIAL SPACER / 5mm / SIZE - 2	2
10685212003	TRD TIBIAL SPACER / 5mm / SIZE - 3	2
10685212004	TRD TIBIAL SPACER / 5mm / SIZE - 4	2
10685212005	TRD TIBIAL SPACER / 5mm / SIZE - 5	2
10685212006	TRD TIBIAL SPACER / 5mm / SIZE - 6	2
10685212101	TRD TIBIAL SPACER / 10mm / SIZE - 1	1
10685212102	TRD TIBIAL SPACER / 10mm / SIZE - 2	1
10685212103	TRD TIBIAL SPACER / 10mm / SIZE - 3	1
10685212104	TRD TIBIAL SPACER / 10mm / SIZE - 4	1
10685212105	TRD TIBIAL SPACER / 10mm / SIZE - 5	1
10685212106	TRD TIBIAL SPACER / 10mm / SIZE - 6	1
10685221001	TRD TIBIAL CUTTING GUIDE / LEFT	1
10685221010	TRD TIBIAL CUTTING GUIDE / RIGHT	1
10685231000	TRD TIBIAL PALPATOR-FAST COUPLING / 0 mm	1
10685241001	TRD TRIAL BASEPLATE / SIZE - 1	1
10685241002	TRD TRIAL BASEPLATE / SIZE - 2	1
10685241003	TRD TRIAL BASEPLATE / SIZE - 3	1
10685241004	TRD TRIAL BASEPLATE / SIZE - 4	1
10685241005	TRD TRIAL BASEPLATE / SIZE - 5	1
10685241006	TRD TRIAL BASEPLATE / SIZE - 6	1
10685251001	TRD INSERT PUNCHER FIXING SCREW	2
10685421001	TRD TELESCOPE FOR INTRAMEDULLARY GUIDE/ Ø5	1
10685432015	TRD TIBIAL WEDGE SCREW / Ti - 15 mm	10
10608021057	REVISION KNEE INTRAMEDULAR GUIDE	1
10608021058	TRD INTRAMEDULLARY GUIDE	1

TRD REVISION KNEE SYSTEM

Instrumentation Set

TRAY 4

28011030001-3060



Code	Description	Unit
10685150110	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 1 - STD & PS - 10 mm	1
10685150112	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 1 - STD & PS - 12 mm	1
10685150114	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 1 - STD & PS - 14 mm	1
10685150117	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 1 - STD & PS - 17 mm	1
10685150120	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 1 - STD & PS - 20 mm	1
10685150123	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 1 - STD & PS - 23 mm	1
10685150126	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 1 - STD & PS - 26 mm	1
10685150210	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 2 - STD & PS - 10 mm	1
10685150212	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 2 - STD & PS - 12 mm	1
10685150214	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 2 - STD & PS - 14 mm	1
10685150217	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 2 - STD & PS - 17 mm	1
10685150220	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 2 - STD & PS - 20 mm	1
10685150223	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 2 - STD & PS - 23 mm	1
10685150226	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 2 - STD & PS - 26 mm	1
10685150310	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 3 - STD & PS - 10 mm	1
10685150312	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 3 - STD & PS - 12 mm	1
10685150314	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 3 - STD & PS - 14 mm	1
10685150317	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 3 - STD & PS - 17 mm	1
10685150320	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 3 - STD & PS - 20 mm	1
10685150323	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 3 - STD & PS - 23 mm	1
10685150326	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 3 - STD & PS - 26 mm	1



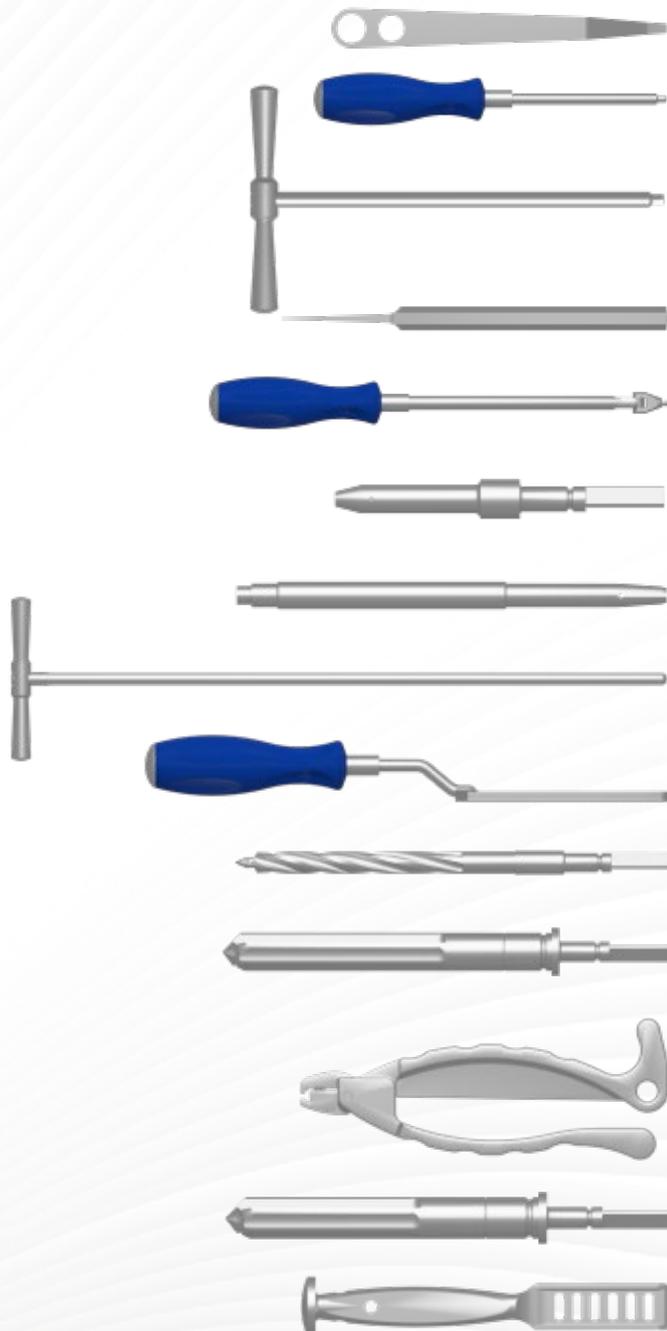
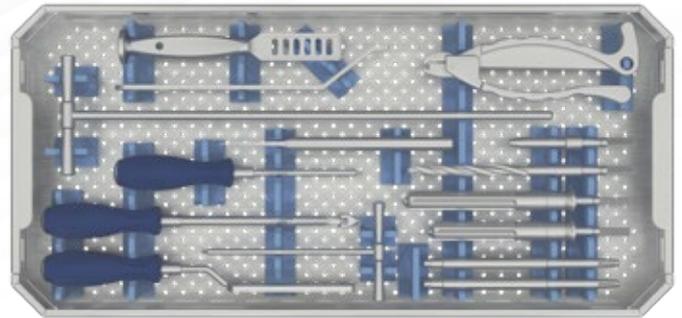
Code	Description	Unit
10685150410	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 4 - STD & PS - 10 mm	1
10685150412	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 4 - STD & PS - 12 mm	1
10685150414	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 4 - STD & PS - 14 mm	1
10685150417	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 4 - STD & PS - 17 mm	1
10685150420	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 4 - STD & PS - 20 mm	1
10685150423	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 4 - STD & PS - 23 mm	1
10685150426	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 4 - STD & PS - 26 mm	1
10685150510	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 5 - STD & PS - 10 mm	1
10685150512	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 5 - STD & PS - 12 mm	1
10685150514	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 5 - STD & PS - 14 mm	1
10685150517	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 5 - STD & PS - 17 mm	1
10685150520	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 5 - STD & PS - 20 mm	1
10685150523	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 5 - STD & PS - 23 mm	1
10685150526	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 5 - STD & PS - 26 mm	1
10685150610	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 6 - STD & PS - 10 mm	1
10685150612	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 6 - STD & PS - 12 mm	1
10685150614	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 6 - STD & PS - 14 mm	1
10685150617	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 6 - STD & PS - 17 mm	1
10685150620	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 6 - STD & PS - 20 mm	1
10685150623	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 6 - STD & PS - 23 mm	1
10685150626	TRD TRIAL FIXED TIBIAL INSERTS / SIZE - 6 - STD & PS - 26 mm	1

TRD REVISION KNEE SYSTEM

Instrumentation Set

TRAY 5

28011030001-3070



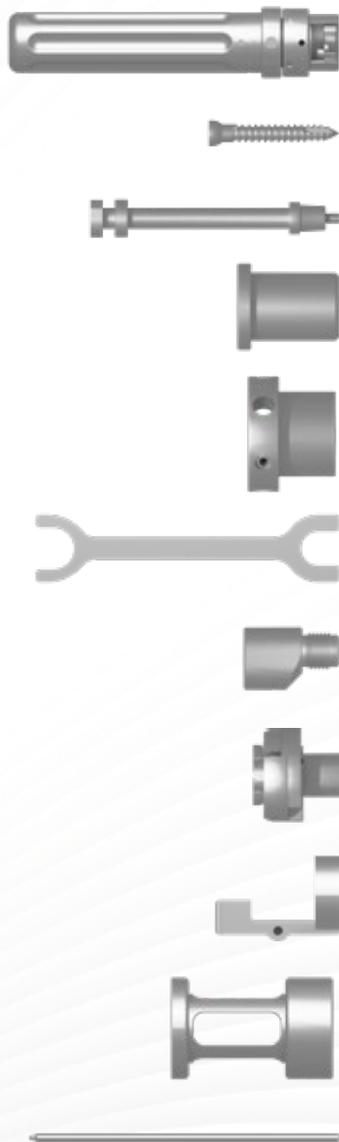
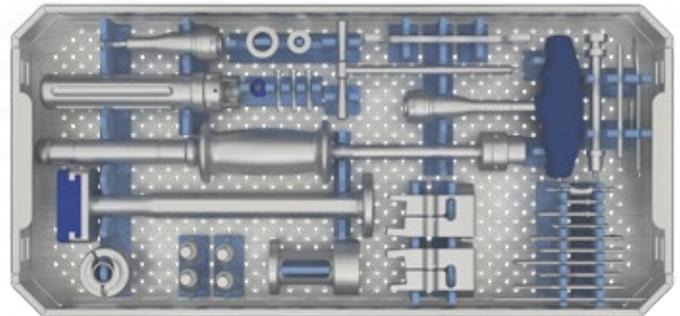
Code	Description	Unit
10602101201	RETRACTOR WITH ANGLED/ 30 °	1
10604010065	T07 SCREW DRIVER / 3,5	1
10604031535	TRD T ALLEN WRENCH / 3.5	1
10605011001	LAMBOTTE OSTEOTOME FOR ILIZAROV / 10 X 190	2
10604100009	TRD HINGED SCREWDRIVER / 3,5	1
10606511005	TRD PIN ADAPTER	1
10607151001	TRD PINS IMPACTOR	2
10608021055	T07 INTRAMEDULLARY ROD FOR TIBIAL	1
10610100001	FLAT RASP FOR BONE	1
10685021009	TRD DRILL BIT / Ø9 X 162	1
10685031001	TRD FEMUR DRILL BIT / Ø15,5	1
10601101051	T08 PENS	1
10685031002	TRD TIBIA DRILL BIT / Ø15,5	1
10685201001	TRD OSTEOTOME	1

TRD REVISION KNEE SYSTEM

Instrumentation Set

TRAY 6

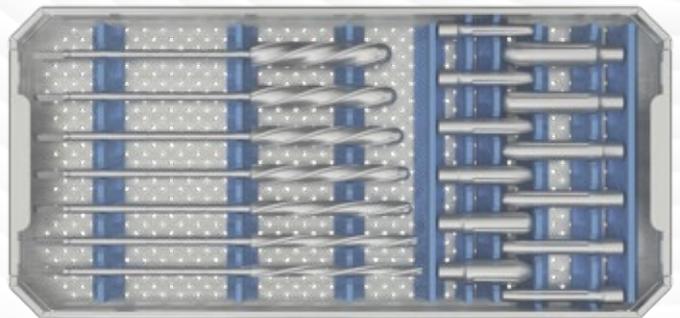
28011030001-3070



Code	Description	Unit
10608521032	T07 SLIDE HAMMER	1
10608581005	T08 4+1 SYSTEM FEMORAL CUTTING BLOCK FIXING SCREW	3
10611081001	EXTRACTION ADAPTER FOR TRD STEM	1
10685011001	TRD OFFSET POSITIONER REDUCTION BUSH	1
10685031011	TRD OFFSET FORK WRENCH	1
10685011002	TRD TRIAL OFFSET / 3 MM	1
10685161003	TRD TRIAL OFFSET / 5 MM	2
10685161005	TRD OFFSET POSITIONER REDUCTION BUSH	2
10685181001	TRD FEMUR OFFSET REFERENCE / LEFT	1
10685191001	TRD FEMUR OFFSET REFERENCE / RIGHT	1
10685191010	TRD TIBIAL OFFSET REFERENCE	1
10685191021	DRILL WITH ROUND SHAFT / Ø3,2 X 130 X 50	1
10809011007	DRILL / CrNi - Ø3,2 X 130 X 50	1

TRAY 7

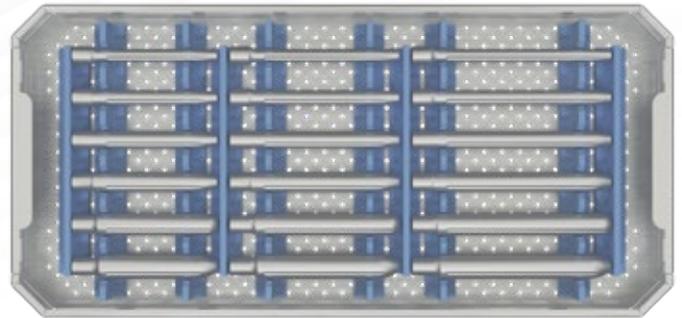
28011030001-3040



Code	Description	Unit
10606551009	TRD SAFE GUIDING REAMER / Ø9 mm	1
10606551011	TRD SAFE GUIDING REAMER / Ø11 mm	1
10606551013	TRD SAFE GUIDING REAMER / Ø13 mm	1
10606551015	TRD SAFE GUIDING REAMER / Ø15 mm	1
10606551017	TRD SAFE GUIDING REAMER / Ø17 mm	1
10606551019	TRD SAFE GUIDING REAMER / Ø19 mm	1
10606551021	TRD SAFE GUIDING REAMER / Ø21 mm	1
10685141101	TRD TRIAL EXTENSION / Ø11 - 65 mm	1
10685141301	TRD TRIAL EXTENSION / Ø13 - 65 mm	1
10685141501	TRD TRIAL EXTENSION / Ø15 - 65 mm	1
10685141701	TRD TRIAL EXTENSION / Ø17 - 65 mm	1
10685141901	TRD TRIAL EXTENSION / Ø19 - 65 mm	1
10685142101	TRD TRIAL EXTENSION / Ø21 - 65 mm	1

TRAY 8

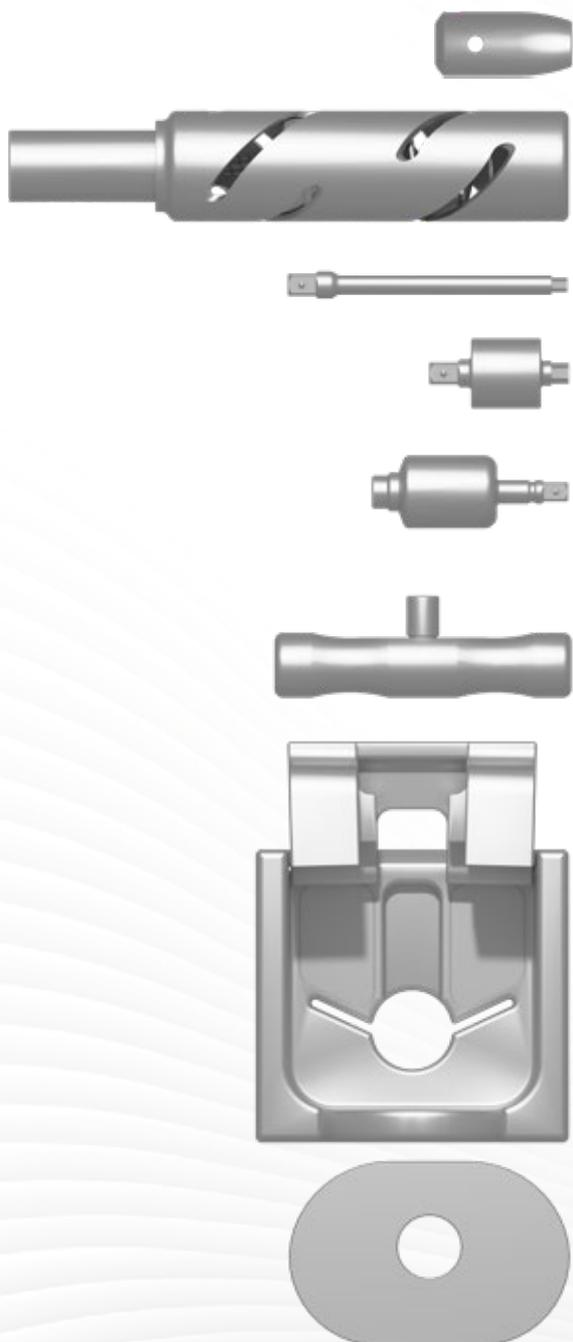
28011030001-3070



Code	Description	Unit
10685141102	TRD TRIAL EXTENSION / Ø11 - 105 mm	1
10685141302	TRD TRIAL EXTENSION / Ø13 - 105 mm	1
10685141502	TRD TRIAL EXTENSION / Ø15 - 105 mm	1
10685141702	TRD TRIAL EXTENSION / Ø17 - 105 mm	1
10685141902	TRD TRIAL EXTENSION / Ø19 - 105 mm	1
10685142102	TRD TRIAL EXTENSION / Ø21 - 105 mm	1
10685141105	TRD TRIAL EXTENSION / Ø11 - 125 mm	1
10685141305	TRD TRIAL EXTENSION / Ø13 - 125 mm	1
10685141505	TRD TRIAL EXTENSION / Ø15 - 125 mm	1
10685141705	TRD TRIAL EXTENSION / Ø17 - 125 mm	1
10685141905	TRD TRIAL EXTENSION / Ø19 - 125 mm	1
10685142105	TRD TRIAL EXTENSION / Ø21 - 125 mm	1
10685141103	TRD TRIAL EXTENSION / Ø11 - 150 mm	1
10685141303	TRD TRIAL EXTENSION / Ø13 - 150 mm	1
10685141503	TRD TRIAL EXTENSION / Ø15 - 150 mm	1
10685141703	TRD TRIAL EXTENSION / Ø17 - 150 mm	1
10685141903	TRD TRIAL EXTENSION / Ø19 - 150 mm	1
10685142103	TRD TRIAL EXTENSION / Ø21 - 150 mm	1

TRAY 9

28011030001-3040



Code	Description	Unit
10685371001	TRD OFFSET ADAPTER FOR ASSEMBLING HAMMER	1
10685371002	TRD ASSEMBLING HAMMER	1
10685381006	TRD TORQUE WRENCH ADAPTER / 6 NM	1
10685381012	TRD TORQUE WRENCH ADAPTER / 12 NM	1
10685381106	TRD TORQUE LIMITER / 6 NM	1
10685381112	TRD TORQUE LIMITER / 12 NM	1
10685391001	TRD HANDLE FOR TORQUE LIMITER	1
10685401001	TRD BASE FOR IMPLANT ASSEMBLING	1
10685411001	TRD BUSH FOR TIBIAL IMPACTION	1

“

*the key in
orthopaedic
sciences*

”

We produce
advanced
systems
for you



“
the key in
orthopaedic
sciences
”

Revision 02 / Printed in Türkiye - 08/23 - Tıpsan Design



TİPSAN Tıbbi Aletler San. ve Tic. A.Ş.

Yunus Emre Mahallesi,
7404/1 Sokak No:3, 35060
Pınarbaşı, Bornova / İzmir - Türkiye

Tel : +90 232 479 5654

+90 232 479 8785

Fax : +90 232 479 5827

E-posta : pazarlama@tipsan.com.tr
export@tipsan.com.tr

www.tipsan.com.tr

