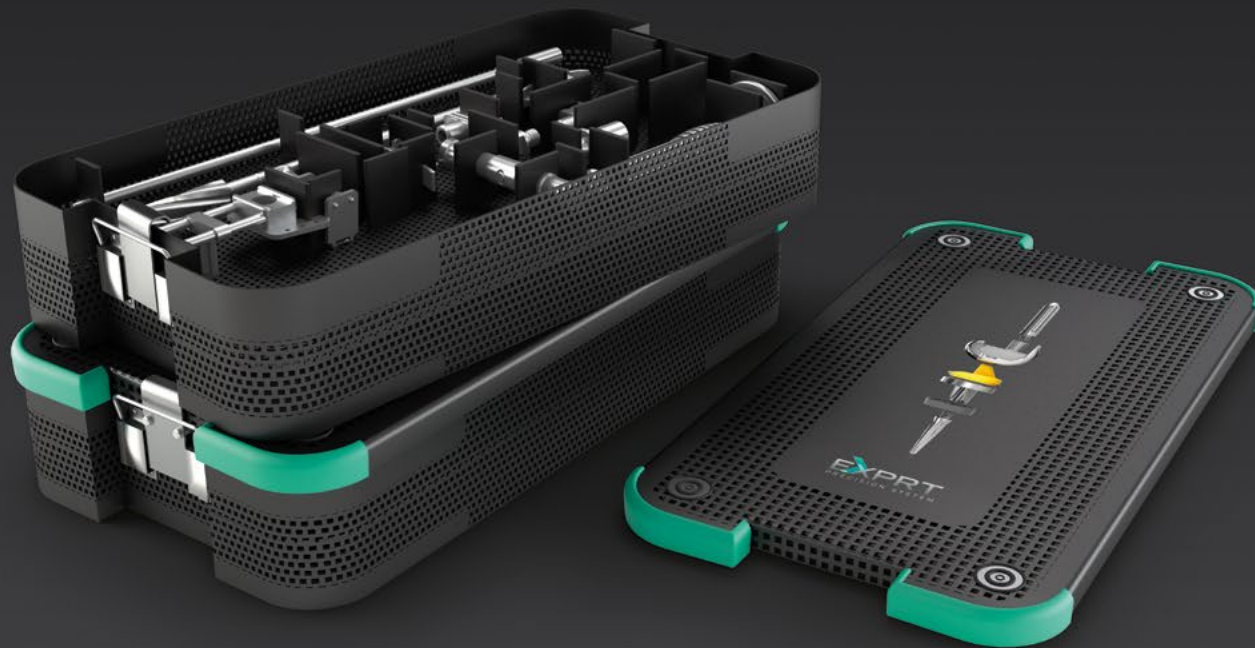


EXPERT

PRECISION SYSTEM

REVISION KNEE: REDEFINED



> Surgical Technique

djosurgical.

➤ Revision Knee Surgical Technique

DJO Surgical, as the manufacturer of this device, does not practice medicine and cannot recommend this or any other surgical technique for use on a specific patient. The choice of the appropriate surgical technique is the responsibility of the surgeon performing the operation.

➤ Indications

Joint replacement is indicated for patients suffering from disability due to:

- degenerative, post-traumatic or rheumatoid arthritis;
- avascular necrosis of the femoral condyle;
- post-traumatic loss of joint configuration, particularly when there is patellofemoral erosion, dysfunction or prior patellectomy;
- moderate valgus, varus or flexion deformities;
- treatment of fractures that are unmanageable using other techniques.
- The patient's joint must be anatomically and structurally suited to receive the selected implant(s).

This device may also be indicated in the salvage of previously failed surgical attempts. This system is to be used for cemented applications.

➤ Contraindications

Joint replacement is contraindicated where there is:

- infection (or a history of infection), acute or chronic, local or systemic;
- insufficient bone quality which may affect the stability of the implant;
- muscular, neurological or vascular deficiencies, which compromise the affected extremity;
- obesity;
- alcoholism or other addictions;
- materials sensitivity;
- loss of ligamentous structures;
- high levels of physical activity (e.g. competitive sports, heavy physical labor).

➤ Remove Primary Components

Remove the femoral and tibial components already implanted in the knee. Take care to preserve remaining bone stock. Loose cement and fibrous tissue should also be removed.

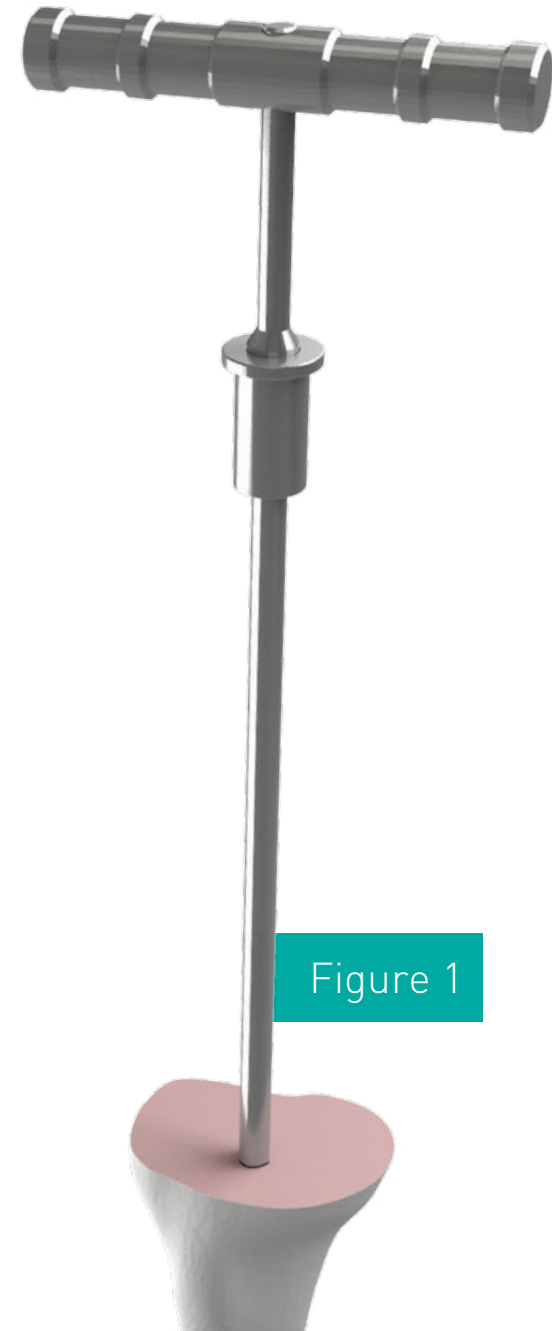
➤ Open Tibial Canal

Using the 8mm IM Drill, locate and drill a pilot hole into the tibial intramedullary canal.

➤ Ream Tibial Canal

Attach the Modular T-Handle to the Unicorn Reamer and introduce the Reamer into the tibial canal with hand pressure until it is stable. The Reamer will guide the intramedullary positioning of the tibial preparation instruments and open the tibial canal for a stem. For the tapered stem, the Reamer should be taken to the depth of the flutes. For the straight stem, the Reamer should be taken to the laser marked line, or further if deemed necessary. Avoid excessive reaming and do not force the Reamer. Leave the Reamer in place in the tibial canal.

Figure 1



➤ Tibial Resection

Assemble the Cut Guide and Cut Block Together. Slide the 0 Degree Valgus Bushing over the shaft of the Unicorn Reamer. Set the Cut Block for the desired amount of bone removal and lock it in place by engaging the cam.

Figure 2 Typically a minimal cut is performed to produce a resected surface with zero degrees of slope. The Angel Wing may be placed on the open cut surface to help determine the resection level. A 10mm Full Tibial Augment is available to accommodate additional bone loss if necessary. Pin the Cut Block in place through the "0" holes using non-headed pins. Unlock the Cut Block cam and remove the remainder of the assembly from the tibia, leaving the Cut Block pinned to the bone. Remove the reamer. The cut depth may be adjusted by utilizing the additional pin holes on the Cut Block. Cross-pin holes are marked with an "X" on the Cut Block and may be utilized for further fixation. Make the tibial cut and remove the Pins and Cut Block.

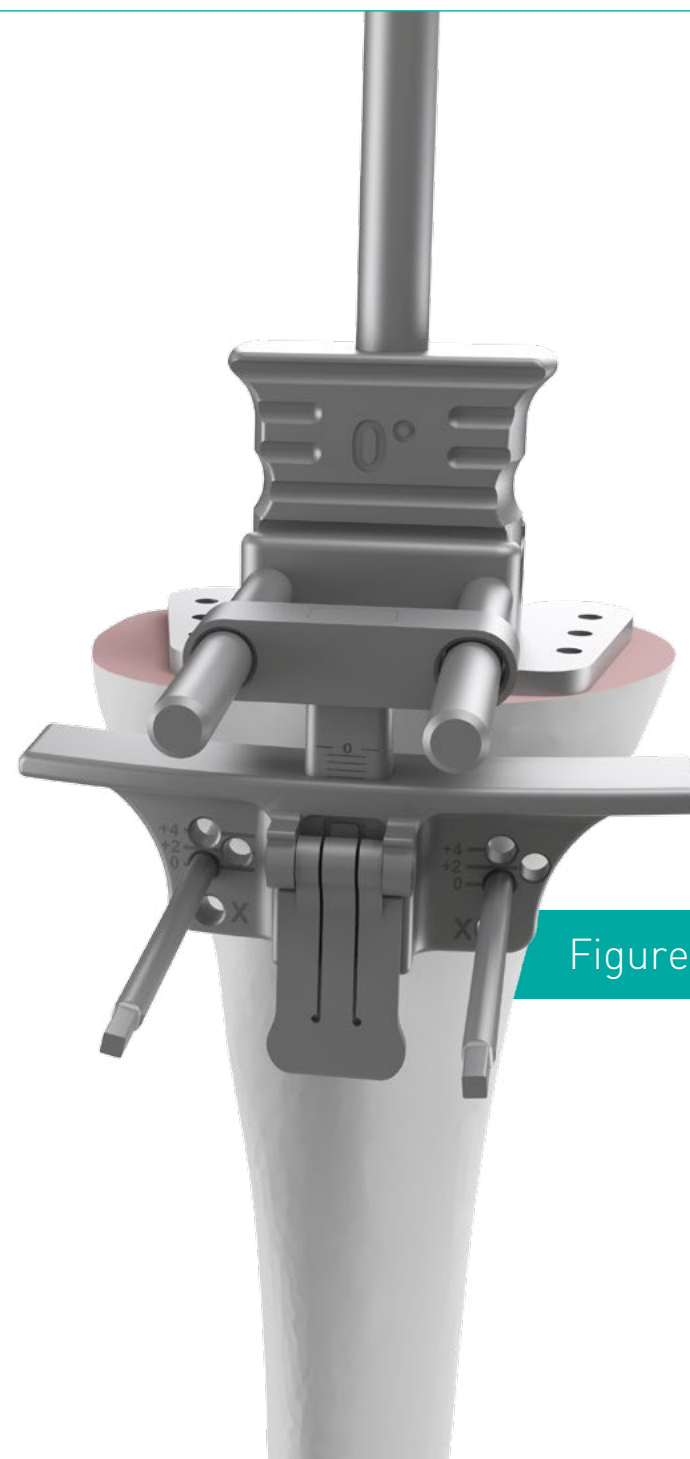


Figure 2



Figure 3



Figure 4

> Tibial Preparation

Use the Tibial Base Trials to assess the proper size for the proximal tibia. The Alignment Rod may be slid through the hole in the Tibial Base Handle to confirm proper alignment. Pin the Tibial Base Trial onto the proximal tibia with short Headed Pins. [Figure 3](#) Attach the Tibial Broach to the Modular Handle and broach for the tibial keel through the Tibial Base Trial. [Figure 4](#)

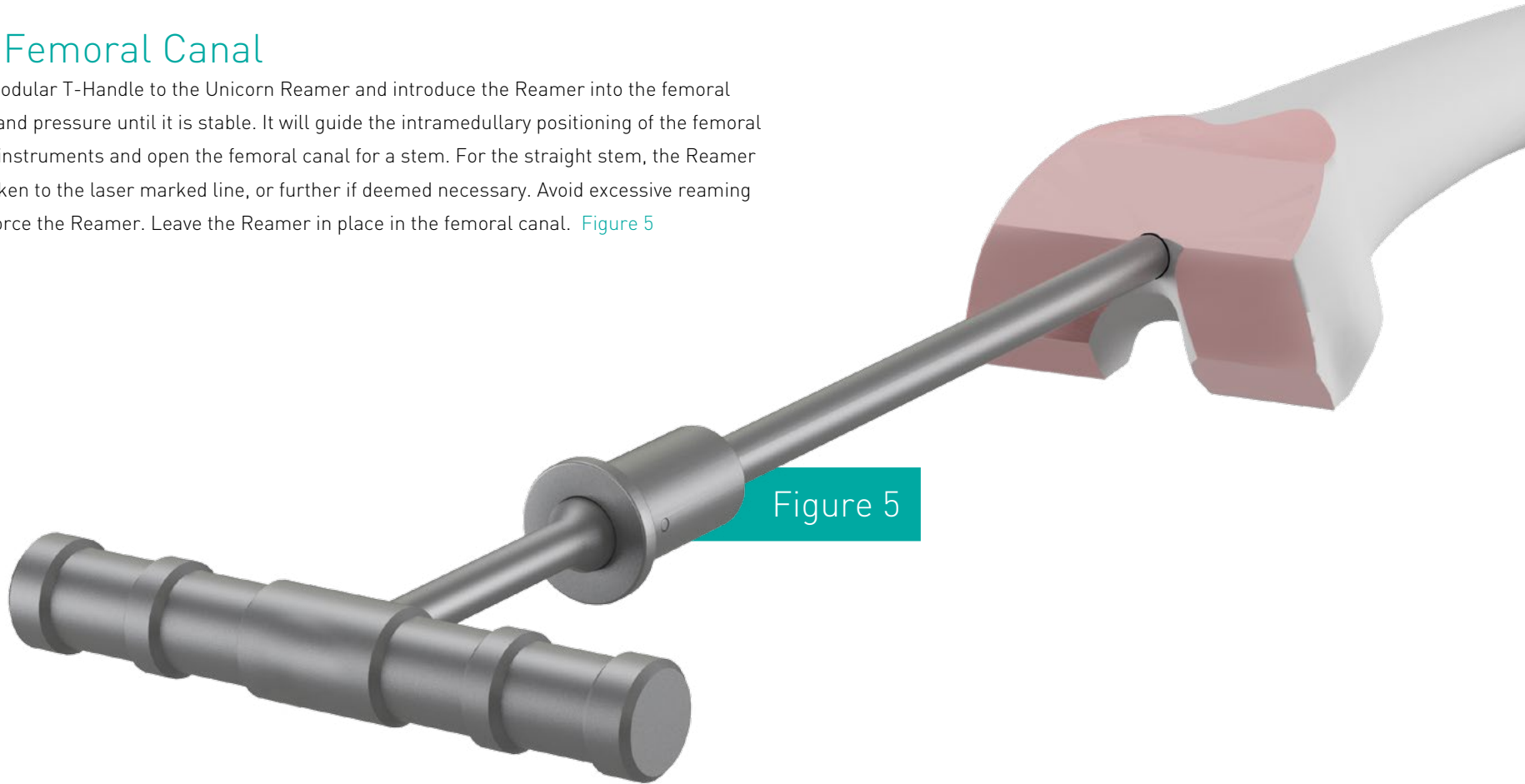
Open Femoral Canal

› Open Femoral Canal

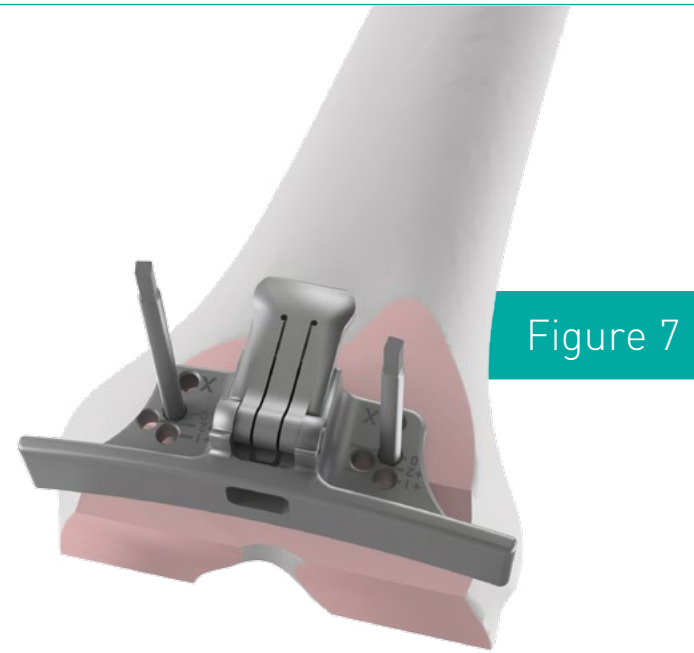
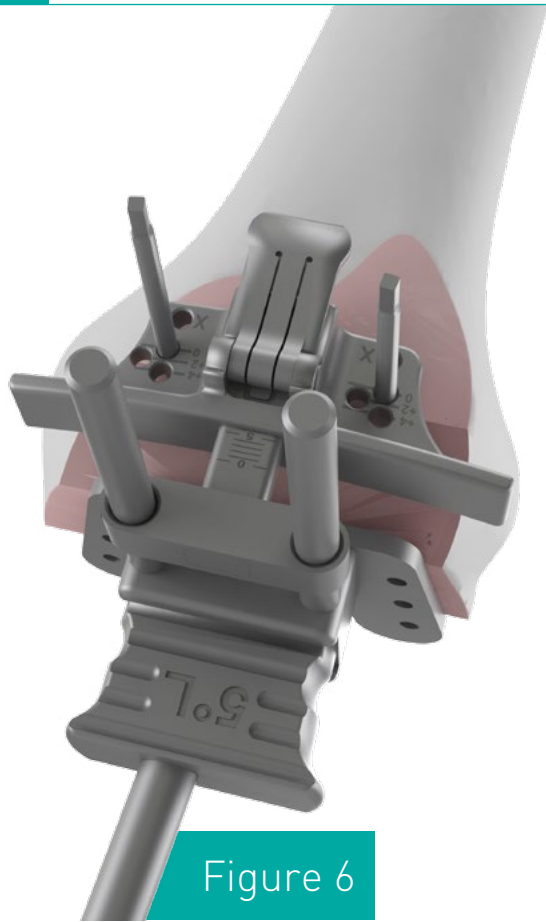
Using the 8mm IM Drill, locate and drill a pilot hole into the femoral intramedullary canal.

› Ream Femoral Canal

Attach the Modular T-Handle to the Unicorn Reamer and introduce the Reamer into the femoral canal with hand pressure until it is stable. It will guide the intramedullary positioning of the femoral preparation instruments and open the femoral canal for a stem. For the straight stem, the Reamer should be taken to the laser marked line, or further if deemed necessary. Avoid excessive reaming and do not force the Reamer. Leave the Reamer in place in the femoral canal. [Figure 5](#)



Distal Cut



> Distal Cut

Assemble the Cut Guide and Cut Block Together. Slide the 5 Degree Valgus Bushing over the shaft of the Reamer with the proper orientation of "R" or "L" facing up. Set the Cut Block for the desired amount of bone removal and lock it in place by engaging the cam. Typically a minimal cut is performed. The Angel Wing may be placed through the cutting slot to determine the resection level. Note that the distal femoral condyles of the implant are 12mm thick, approximately 4mm thicker than a typical primary component, to accommodate bone loss. Pin the Cut Block in place through the "0" holes using non-headed pins. [Figure 6](#) Unlock the Cut Block cam and remove the remainder of the assembly from the femur, leaving the Cut Block pinned to the bone. Remove the reamer. [Figure 7](#) The cut depth may be adjusted by utilizing the additional pin holes on the Cut Block. Cross-pin holes are marked with an "X" on the Cut Block and may be utilized for further fixation. Make the femoral cut and remove the Pins and Cut Block.

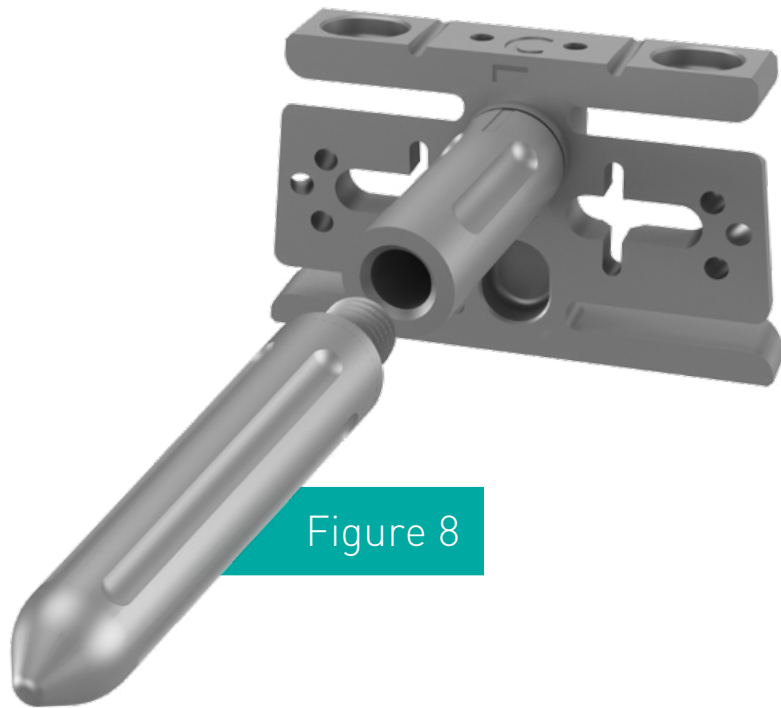
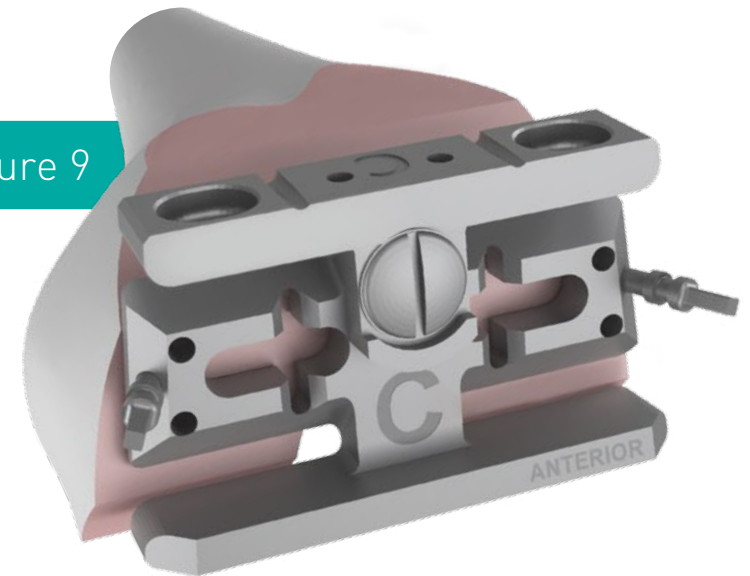


Figure 9



➤ Femoral Resections

Select the appropriately sized femoral Speedblock (as determined by preoperative templating or intraoperative assessment). Using the laser marked line, rotate the stem on the back of the Speedblock to left or right and attach the Straight or Tapered Stem Trial. **Figure 8** Insert the Stem Trial with attached Speedblock into the femoral canal. Rotate the Speedblock to the desired position using the epicondylar axis as a guide. **Figure 9** The Angel Wing should be used to assess proper anterior and posterior bone removal. Note that the Exprt™ posterior condyles are approximately 4mm thicker than a traditional primary knee. The Speedblock is the ML width of the final implant, and can be used as a secondary verification of proper sizing. Pin the Speedblock in place. Make AP and chamfer cuts. Leave the Speedblock in place to prepare for the box cut.

Figure 10

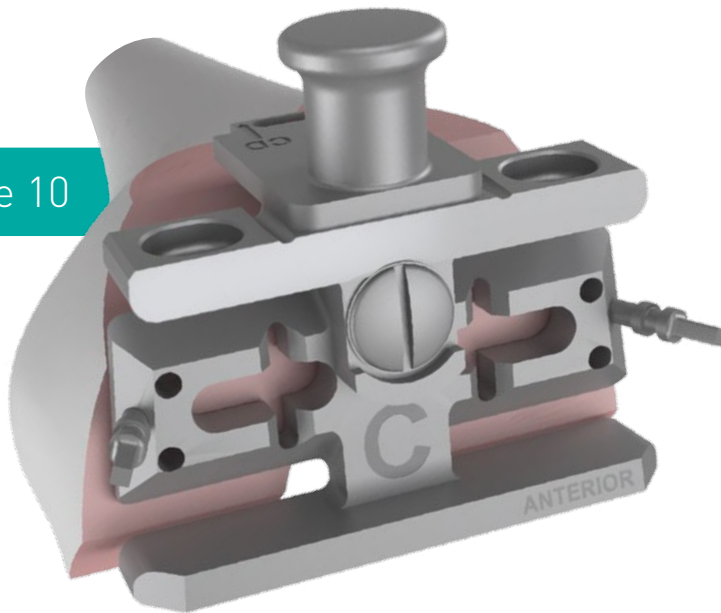
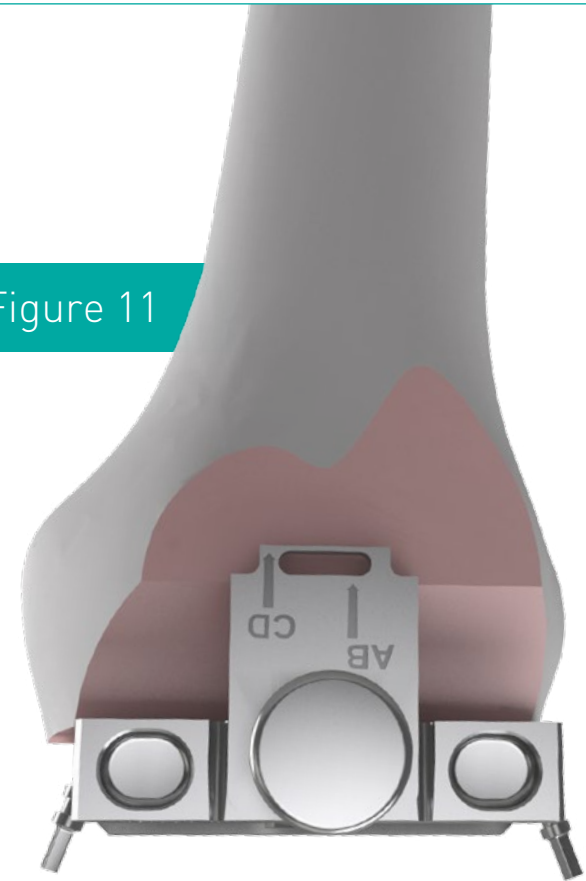


Figure 11



➤ Box Cut

Place the Box Cut Template on the anterior surface of the Speedblock. This Template, in combination with the vertical slots on the face of the Speedblock, are guides for the femoral box bone removal. **Figure 10** Use the inside slot of the Box Cut Template for sizes A and B, and the exterior of the Box Cut Template for sizes C and D. Mark the outline of the femoral box with a marking pen or bovie. **Figure 11** Resect the sides of the box through the vertical slots in the face of the Speedblock using a reciprocating or sagittal saw. Remove the Pins and Speedblock. Finish the Box Cut.



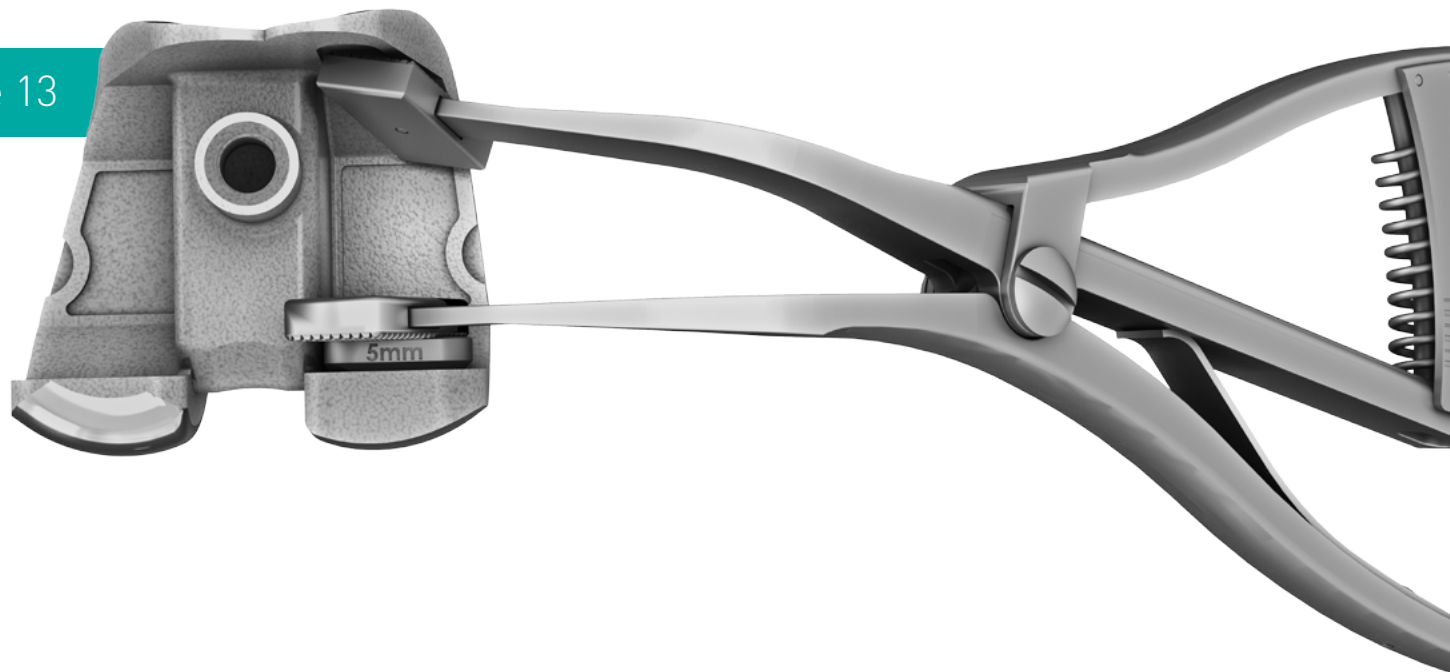
Figure 12

> Trial Reduction

Assemble the preferred Stem Trial (Tapered or Straight) to the Femoral and Baseplate Trials. Impact the Trials onto the bone, and assess the need for a Tibial Augment.

Figure 12 The surgeon should assess for gap balance and ligamentous stability, and choose the preferred thickness Insert Trial. Typically the knee is assessed first in 90 degrees of flexion. The extension gap is then assessed and adjusted. Further distal femoral resection or changes to the size of the femoral component may be required.

Figure 13



Augment Preparation

- Femoral Augments: Choose the corresponding size 5mm Augment for the Femoral Component. Two distal or posterior augments may be stacked creating a 10mm femoral augment. A maximum of three augments may be used between the distal surface and posterior condyle. Mix bone cement and place cement on the internal surface of the femoral component where the augment will be located. Place the augment over the bone cement. For distal augments, apply pressure until the cement has set. For posterior augments, expand the Lamina Spreader against the anterior and posterior surfaces of the femur to hold the augment in place while the cement cures. [Figure 13](#)

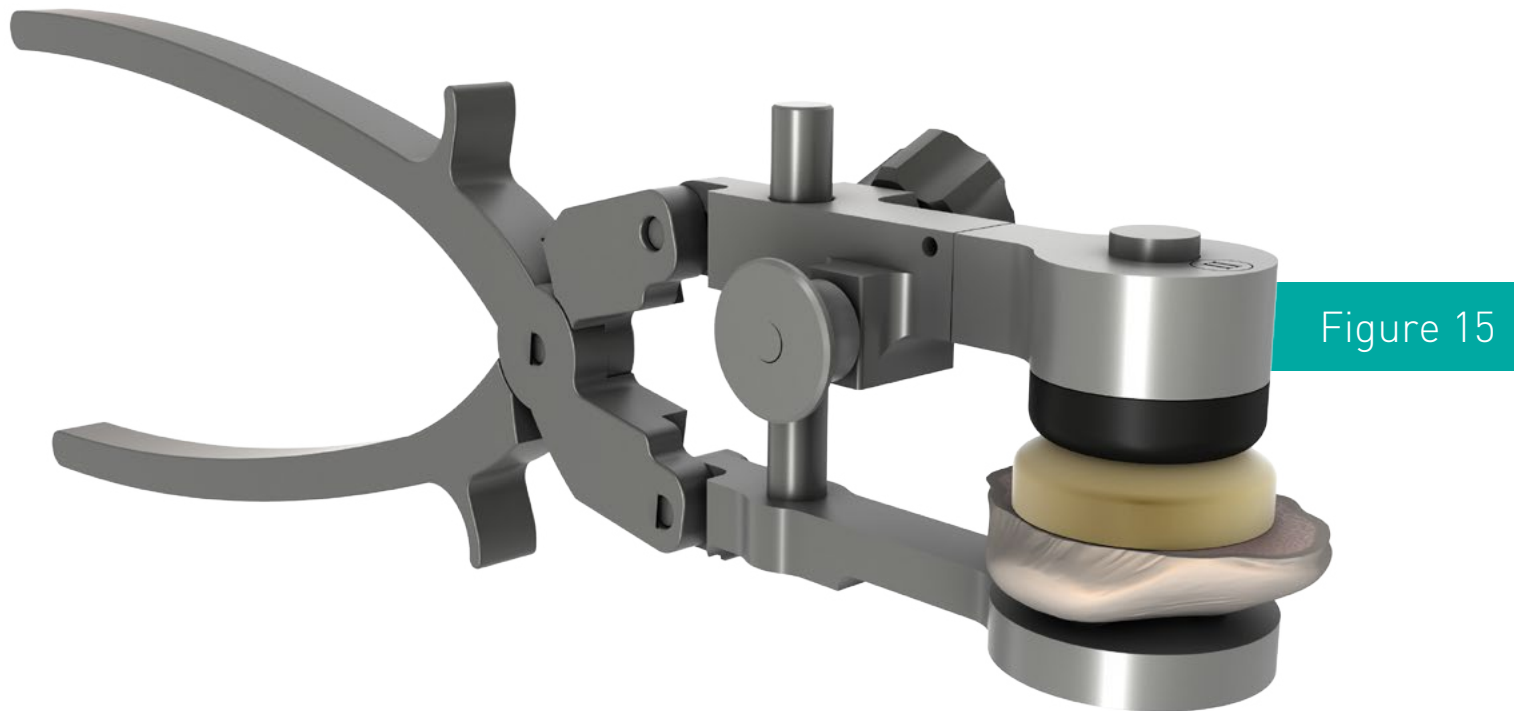
Tibial Augments: If a tibial augment is required, select the correct size tibial augment and cement it to the underside of the baseplate.



Figure 14

➤ Implant Components

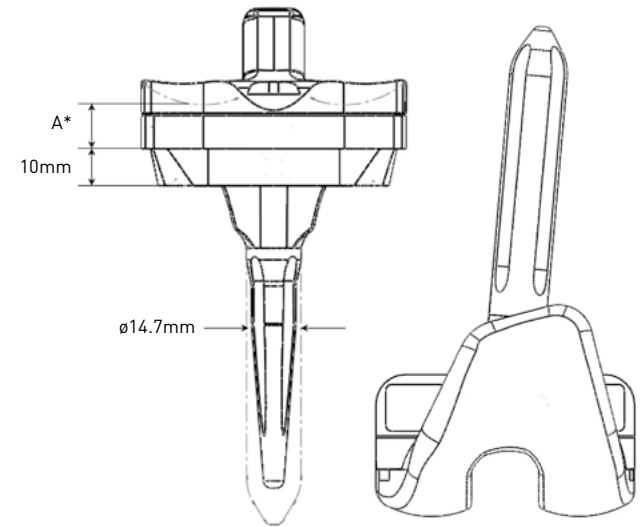
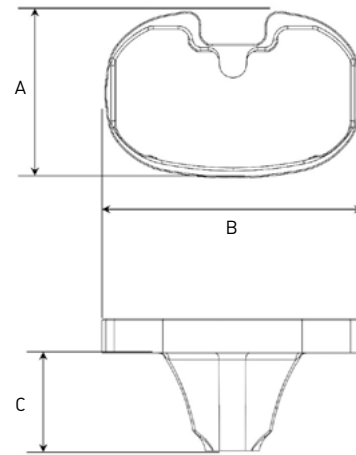
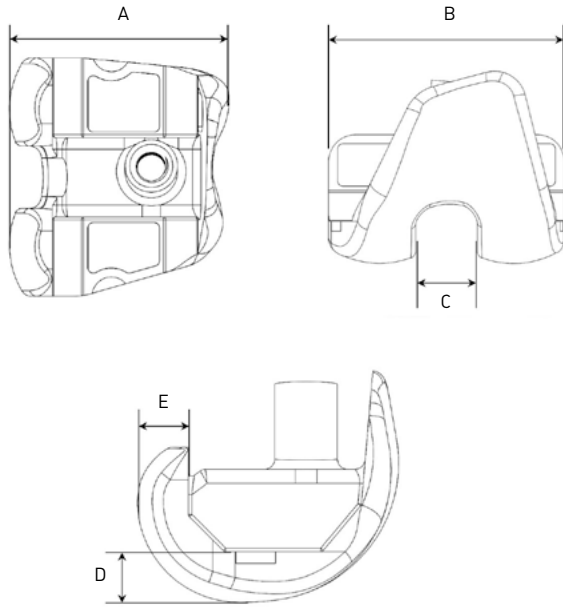
Prepare bone cement. Attach the appropriate implant stem to the Femoral and Tibial Components and tighten firmly with the wrench end of the Tibial Base Handle. Apply cement to the Femoral Component and Stem as well as the Tibial Baseplate and Stem. Position the implants and impact. Ensure the Tibial Baseplate is clear of debris and place the Tibial Insert into the Baseplate. Engage the Insert into the capture of the posterior portion of the Baseplate and impact it with the Insert Impactor. The anterior Insert captures will engage behind the anterior lip of the Baseplate. [Figure 14](#)



➤ Optional Patella Replacement

The EXPRT Revision Knee is only approved for use with DJO's Domed Patellas. If the existing patellar implant has been removed, five sizes of 10mm Domed Patellas are available for replacement. Measure the thickness of the patella (after removing the primary component) using a caliper. Determine if the amount of bone remaining is adequate to support a cleanup resection and patellar implantation. If the bone stock is adequate, make a clean-up resection. Using the Patella Sizer/Drill Guide, size the patella. Drill the patella peg holes using the Patella Stop Drill. Cement the Patella Implant in place and use the Patella Clamp to compress the Patella while cement is curing. [Figure 15](#) The EXPRT Revision Knee may also be used with DJO's primary domed patella implants if the patella was never resurfaced.

› Implant Dimensions



› Exprt Precision System Revision Knee Femur

Size	A/P (mm) Dim 'A'	M/L (mm) Dim 'B'	Dim 'C'	Dim 'D'	Dim 'E'
A	56.6	61.5	17.4	12	12
B	61.3	66.6	17.4	12	12
C	65.7	71.6	17.4	12	12
D	70.2	76.7	17.4	12	12

› Exprt Precision System Revision Knee Tibia Base

Size	A/P (mm) Dim 'A'	M/L (mm) Dim 'B'	Dim 'C'
A	43.4	66.6	26.9
B	46.7	71.7	26.9
C	49.9	76.7	26.9
D	52.8	81.8	26.9

› Exprt Precision System Revision Knee Construct Measures

Thickness (mm) Dim 'A'
12
14.5
17
19.5

*Tibial Base tray thickness is 5.9mm

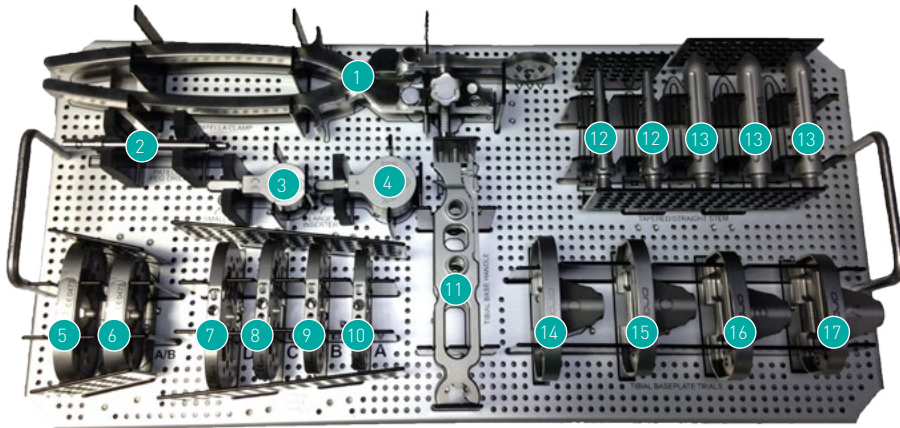
➤ EXPRT Revision Knee Sizing Chart



Femur	Femoral Augment	Tibial Baseplate	Tibial Insert				Tibial Augment
A	5mm A	A	A 12mm	A 14.5mm	A 17mm	A 19.5mm	10mm A/B
		B	B 12mm	B 14.5mm	B 17mm	B 19.5mm	10mm A/B
B	5mm B	A	A 12mm	A 14.5mm	A 17mm	A 19.5mm	10mm A/B
		B	B 12mm	B 14.5mm	B 17mm	B 19.5mm	10mm A/B
		C	C 12mm	C 14.5mm	C 17mm	C 19.5mm	10mm C/D
C	5mm C	B	B 12mm	B 14.5mm	B 17mm	B 19.5mm	10mm A/B
		C	C 12mm	C 14.5mm	C 17mm	C 19.5mm	10mm C/D
		D	D 12mm	D 14.5mm	D 17mm	D 19.5mm	10mm C/D
D	5mm D	C	C 12mm	C 14.5mm	C 17mm	C 19.5mm	10mm C/D
		D	D 12mm	D 14.5mm	D 17mm	D 19.5mm	10mm C/D

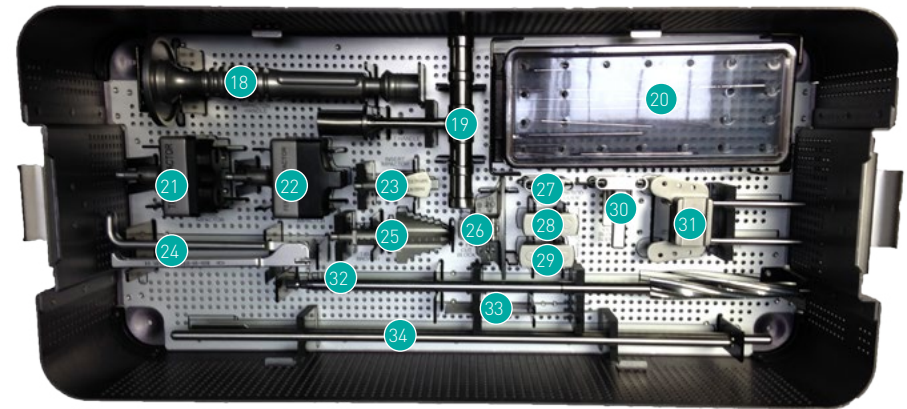
Stem		
Modular straight 75mm-15mm Universal	Modular tapered 65mm-15mm Universal	Modular straight 40mm-15mm Universal

> Instrument Guide



EXPRT Revision Knee Tray 1: Top Tray

#	Part No.	Description
1	802-01-064	Patella Clamp
2	802-01-092	Patella Stop Drill
3	802-01-070	Patella Inserter, Small
4	802-01-091	Patella Inserter, Large
5	801-01-739	Tibial Spacer Trial, Exprt, size C/D, 10mm
6	801-01-738	Tibial Augment Trial, Exprt, size A/B, 10mm
7	801-01-737	Tibial Base Trial, size D
8	801-01-736	Tibial Base Trial, size C
9	801-01-735	Tibial Base Trial, size B
10	801-01-734	Tibial Base Trial, size A
11	801-01-740	Tibial Base Trial Handle
12	801-01-741	Tapered Stem Trial, 65mm
13	801-01-742	Straight Stem Trial, 75mm
14	801-01-733	Tibial Base trial, size D
15	801-01-732	Tibial Base trial, size C
16	801-01-731	Tibial Base trial, size B
17	801-01-730	Tibial Base trial, size A

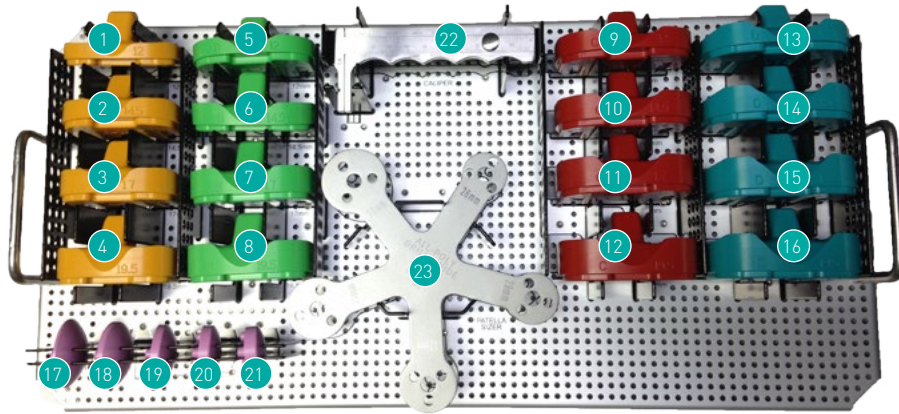


EXPRT Revision Knee Tray 1: Bottom Tray

#	Part No.	Description
18	800-01-451	Impactor Modular Handle
19	803-05-257	Quick Handle
20	800-01-462	Pin Box
-	800-02-303	2" Quick Release Headed Pin
-	800-01-338	Bone Pin
-	800-01-339	Fitting, Quick Release
-	801-01-020	Drill Bit, 1/8"
-	800-01-299	IM Drill
-	801-01-763	Straight Stem Trial, 40mm
21	801-01-743	Tibial impactor Head
22	800-01-452	Femoral Impactor
23	801-01-744	Insert Impactor

#	Part No.	Description
24	800-01-035	Pin Puller
25	801-01-745	Tibial Broach
26	800-01-457	Cut Block
27	800-01-455	Alignment Rod Slider
28	801-01-746	Valgus Bushing, 0 degree
29	800-01-454	Valgus Bushing, 5 degree
30	800-01-456	Cut Block Slider
31	800-01-453	Cut Guide Base
32	800-01-459	Unicorn Reamer
33	800-01-287	Angle Wing
34	800-01-001	EM rod

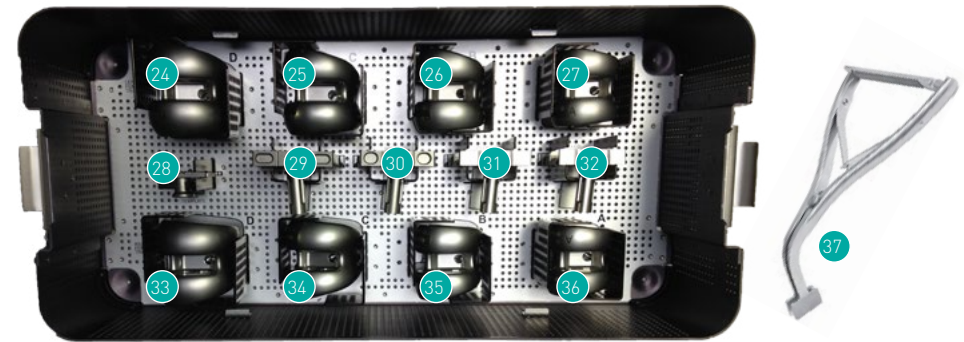
> Instrument Guide



EXPRT Revision Knee Tray 2: Top Tray

#	Part No.	Description
1	801-01-747	Tibial insert trial, Exprt, size A x 12mm
2	801-01-748	Tibial insert trial, Exprt, size A x 14.5mm
3	801-01-749	Tibial insert trial, Exprt, size A x 17mm
4	801-01-750	Tibial insert trial, Exprt, size A x 19.5mm
5	801-01-751	Tibial insert trial, Exprt, size B x 12mm
6	801-01-752	Tibial insert trial, Exprt, size B x 14.5mm
7	801-01-753	Tibial insert trial, Exprt, size B x 17mm
8	801-01-754	Tibial insert trial, Exprt, size B x 19.5mm
9	801-01-755	Tibial insert trial, Exprt, size C x 12mm
10	801-01-756	Tibial insert trial, Exprt, size C x 14.5mm
11	801-01-757	Tibial insert trial, Exprt, size C x 17mm

#	Part No.	Description
12	801-01-758	Tibial insert trial, Exprt, size C x 19.5mm
13	801-01-759	Tibial insert trial, Exprt, size D x 12mm
14	801-01-760	Tibial insert trial, Exprt, size D x 14.5mm
15	801-01-761	Tibial insert trial, Exprt, size D x 17mm
16	801-01-762	Tibial insert trial, Exprt, size D x 19.5mm
17	802-01-107	Domed Patella Trial 32x10mm
18	802-01-108	Domed Patella Trial 35x10mm
19	802-01-109	Domed Patella Trial 38x10mm
20	802-01-110	Domed Patella Trial 26x10mm
21	802-01-111	Domed Patella Trial 29x10mm
22	802-01-027	Caliper
23	802-01-033	Patella sizer



EXPRT Revision Knee Tray 2: Bottom Tray

#	Part No.	Description
24	800-01-442	Femoral trial, Exprt, size D, Left
25	800-01-441	Femoral trial, Exprt, size C, Left
26	800-01-440	Femoral trial, Exprt, size B, Left
27	800-01-439	Femoral trial, Exprt, size A, Left
28	800-01-458	Box Cut Template, Exprt
29	800-01-450	Speed Block, Exprt, size D
30	800-01-449	Speed Block, Exprt, size C
31	800-01-448	Speed Block, Exprt, size B
32	800-01-447	Speed Block, Exprt, size A
33	800-01-446	Femoral trial, Exprt, size D, Right
34	800-01-445	Femoral trial, Exprt, size C, Right
35	800-01-444	Femoral trial, Exprt, size B, Right
36	800-01-443	Femoral trial, Exprt, size A, Right
37	800-01-461	Lamina spreader

› Implant Part Numbers



EXPRT Revision Knee Femurs

Part No.	Description	Size
215-0A-004	Femur, Revision Exprt Knee, Left	A
215-0B-006	Femur, Revision Exprt Knee, Left	B
215-0C-008	Femur, Revision Exprt Knee, Left	C
215-0D-010	Femur, Revision Exprt Knee, Left	D
215-0A-104	Femur, Revision Exprt Knee, Right	A
215-0B-106	Femur, Revision Exprt Knee, Right	B
215-0C-108	Femur, Revision Exprt Knee, Right	C
215-0D-110	Femur, Revision Exprt Knee, Right	D



EXPRT Revision Knee Tibia

Part No.	Description	Size
315-0A-004	Baseplate, Revision Exprt, Universal	A
315-0B-006	Baseplate, Revision Exprt, Universal	B
315-0C-008	Baseplate, Revision Exprt, Universal	C
315-0D-010	Baseplate, Revision Exprt, Universal	D



EXPRT Revision Knee Insert

Part No.	Description	Size
315-0A-712	Insert, Revision Exprt, 12mm, e-plus	A
315-0A-714	Insert, Revision Exprt, 14.5mm, e-plus	A
315-0A-717	Insert, Revision Exprt, 17mm, e-plus	A
315-0A-719	Insert, Revision Exprt, 19.5mm, e-plus	A
315-0B-712	Insert, Revision Exprt, 12mm, e-plus	B
315-0B-714	Insert, Revision Exprt, 14.5mm, e-plus	B
315-0B-717	Insert, Revision Exprt, 17mm, e-plus	B
315-0B-719	Insert, Revision Exprt, 19.5mm, e-plus	B
315-0C-712	Insert, Revision Exprt, 12mm, e-plus	C
315-0C-714	Insert, Revision Exprt, 14.5mm, e-plus	C
315-0C-717	Insert, Revision Exprt, 17mm, e-plus	C
315-0C-719	Insert, Revision Exprt, 19.5mm, e-plus	C
315-0D-712	Insert, Revision Exprt, 12mm, e-plus	D
315-0D-714	Insert, Revision Exprt, 14.5mm, e-plus	D
315-0D-717	Insert, Revision Exprt, 17mm, e-plus	D
315-0D-719	Insert, Revision Exprt, 19.5mm, e-plus	D

› Implant Part Numbers



All-Poly Domed Patella, e+

Part No.	Description	Size
160-10-726	All-Poly Domed Patella, e+	10 x 26mm
160-10-729	All-Poly Domed Patella, e+	10 x 29mm
160-10-732	All-Poly Domed Patella, e+	10 x 32mm
160-10-735	All-Poly Domed Patella, e+	10 x 35mm
160-10-738	All-Poly Domed Patella, e+	10 x 38mm



EXPRT Revision Knee Stems

Part No.	Description	Size
214-12-040	Stem, Modular straight	15 x 40mm
215-12-075	Stem, Modular straight	15 x 75mm
215-12-175	Stem, Modular tapered	15 x 65mm



EXPRT Revision Knee Tibial Augment

Part No.	Description	Size
315-10-00A	Augment, Tibial, Exprt 10mm	A/B
315-10-00C	Augment, Tibial, Exprt 10mm	C/D



EXPRT Revision Knee Femoral Augments

Part No.	Description	Size
215-0A-005	Femur, Revision Exprt Knee, Left	A
215-0B-005	Femur, Revision Exprt Knee, Left	B
215-0C-005	Femur, Revision Exprt Knee, Left	C
215-0D-005	Femur, Revision Exprt Knee, Left	D

Reference Guide

➤ Cement and Cement Accessories



Cobalt® HV Bone Cement

Part No.	Description	Size
402282	Cobalt HV Bone Cement	40g
402282	Cobalt HV Bone Cement with Gentamicin	40g



Cobalt® MV Bone Cement

Part No.	Description	Size
402438	Cobalt MV Bone Cement	40g
402439	Cobalt MV Bone Cement with Gentamicin	40g



Optivac® Vacuum Mixing System

Part No.	Description
417100	40g Single Mix Kit
417200	80g Double Mix Kit
417300	120g Triple Mix Kit

Part No.	Description
418100	40g Max Capacity Single Mix (80g TOT)
418200	80g Max Capacity Double Mix (120g TOT)
418300	120g Max Capacity Triple Mix (160g TOT)



Optitwist® Vacuum Mixing Bowl

Part No.	Description
419100	Max Capacity 120g (3 units) High Viscosity (Pk of 20)



Optigun® Cement Gun

Part No.	Description
419300	Optigun Cement
419500	Optigun Ratchet



Optivac® Foot Pump

Part No.	Description
422800	Vacuum Foot Pump for Optivac Pump



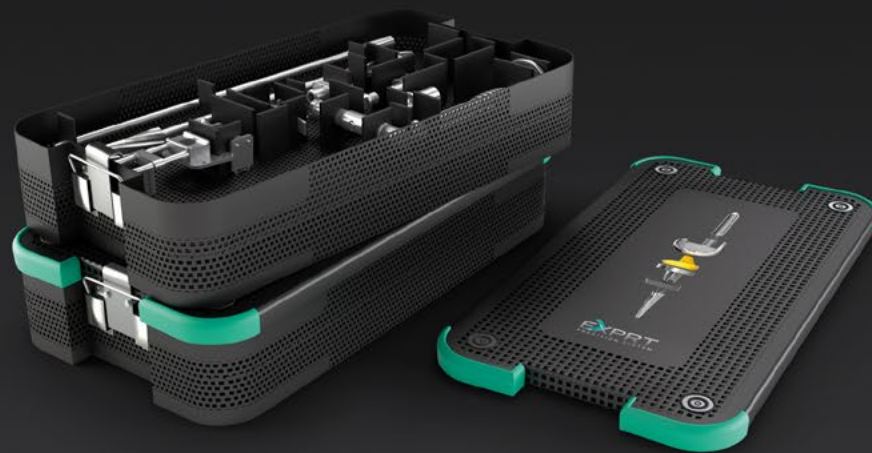
Optivac® Hose

Part No.	Description
422801	Optivac Hose for Optivac Pump

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PRECISION SYSTEM

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