

# USTAR II™

Hinge Knee & Limb Salvage System



### United Orthopedic Portfolio of Products –

The USTAR II Primary and & Revision Hinge Knee and Limb Salvage System is part of the United Orthopedic portfolio of arthroplasty and limb salvage products.

USTAR II was designed based on 20 years-experience with the previous USTAR system and is part of the United Orthopedic comprehensive family of primary knee, revision knee and limb salvage products featuring the following shared benefits:

**Platform-based approach.** The consistent design philosophy allows a platform-based approach to provide surgeons flexibility for a wide range of procedures.

**Demand-matching.** Includes a wide range of product options for demand-matching to optimize solutions based on patient need.

**Advanced surgical technologies.** Builds on proven design philosophies with advanced surgical technologies to help deliver reproducible clinical outcomes and a streamlined procedure.

### Overview –

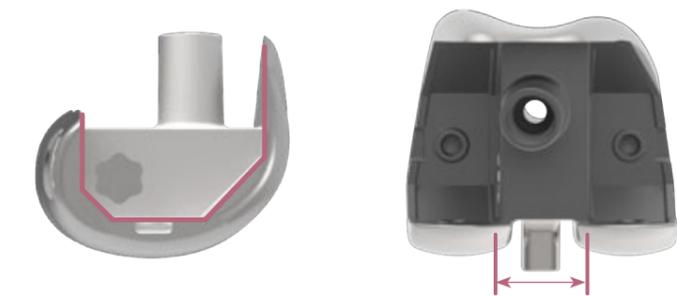
The USTAR II System is a next generation hinge knee and limb salvage system designed for extensive reconstruction of the hip and knee joint. The system is indicated for the procedures requiring the following implant systems:

- Primary & Revision Hinge Knee (HK)
- Distal Femoral Replacement (DFR)
- Total Femoral Replacement (TFR)
- Proximal Femoral Replacement (PFR)
- Proximal Tibial Replacement (PTR)



# USTAR II Primary & Revision Hinge Knee System

A next-generation, rotating-platform, hinge knee system.  
 Designed to have an optimal condylar loading design.  
 Features a small profile, pre-assembled hinge mechanism centered on the femur and tibia.  
 Connected intra-operatively by a single screw.  
 The system has a reduced femoral profile to preserve bone.



## Small Profile Allows a Smaller Resection

- Designed with the same AP, ML and chamfer resections as the U2 PS Primary and PSA Revision Knee Systems to preserve bone. It also has the same box width (the box height is varied).



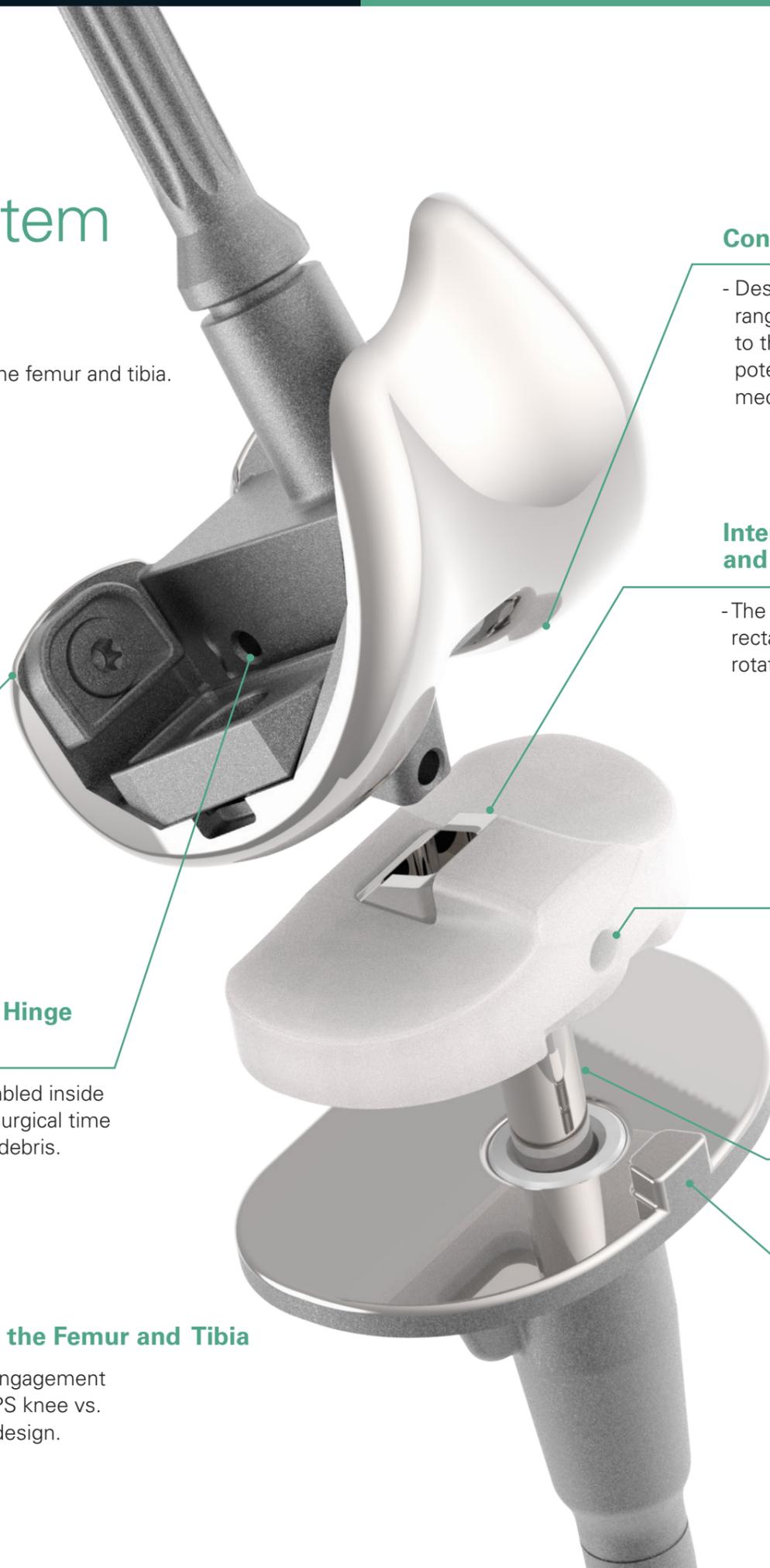
## Small Profile, Pre-assembled Hinge Mechanism

- The hinge mechanism is pre-assembled inside the femoral component to reduce surgical time and potential for wear and cement debris.



## Hinge Mechanism Centered on the Femur and Tibia

- Designed to provide a femoral-tibial engagement point more comparable to a primary PS knee vs. a traditional 'book-end' engagement design.



## Condylar Loading Design

- Designed to transfer  $\geq 95\%$  of the load during range of motion through the femoral condyles to the central portion of the tibia to reduce the potential for component loosening and hinge mechanism failure<sup>(1)</sup>.



## Interlocking Femoral Component and Tibial Insert

- The hinge assembly is connected with a rectangular inter-locking design to control the rotational movement of the tibial insert.



## Connected Intra-operatively by a Single Screw

- The set screw is pre-positioned in the tibial insert to reduce surgical time and is designed to prevent back-out.



## Forged Tibial Post

- The forged Cobalt Chromium (CoCrMo) Alloy post has a minimum jump-height of  $> 40$  mm.



## Rotating Platform

- Designed with a built-in tibial rotation stopper to allow  $\pm 25^\circ$  of tibial insert rotation for improved movement.

<sup>(1)</sup> Data held on file. United Orthopedic Corporation

# USTAR II Limb Salvage System

USTAR II has a comprehensive range of segment and stem options and is designed to offer soft-tissue 'friendly' components with a more secured connection.

Features a bone preserving implant design and reduced length segment options to allow the opportunity for reduced resections and the chance to preserve bone.

The USTAR II Limb Salvage System has the same novel hinge mechanism as the USTAR II Primary and Revision Hinge Knee System.



### 'Tissue Friendly' Component Design

- An expanded offering of suture/wire holes and extensive Titanium Plasma Spray (TPS) coating area is designed to provide expanded tissue and bone attachment options.



### Enhanced Junction Fixation

- Designed with dual set screws and anti-rotation hex connection. The set screws are designed for enhanced fixation vs. taper-fixation only designs. The anti-rotation hex connection is intended to prevent mal-connection.



### Smaller Profile Component Design

- Components are designed with a smaller profile to provide a minimal resection option for the DFR (61 mm minimal resection), the PFR (70 mm) and PTR (87 mm) implants when paired with the non-coated, low profile cemented stem.



### Comprehensive Segment Options

- 21 segment length options from 25 mm to 220 mm with suture/wire holes distributed adjacent to the components.

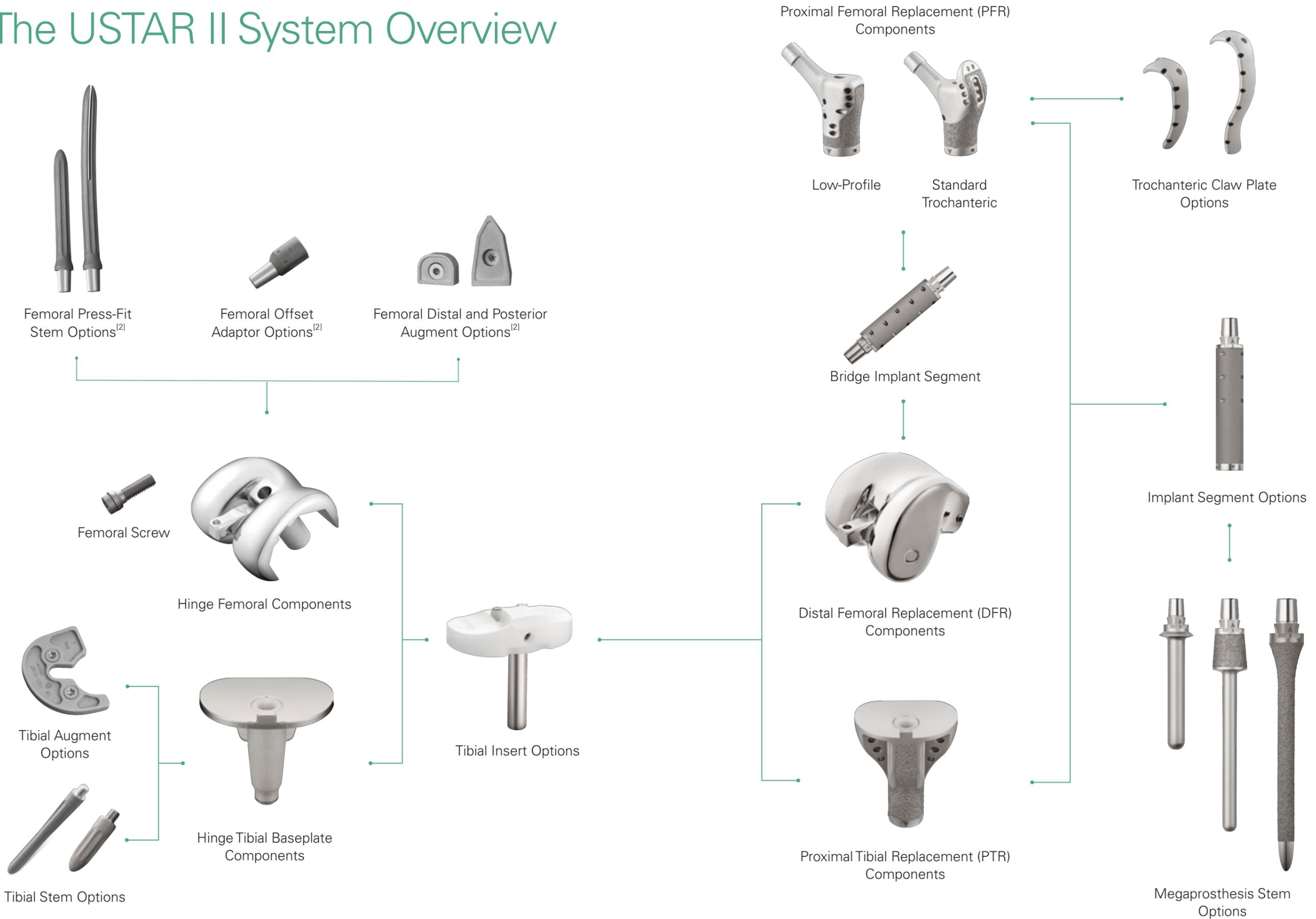


### Expanded Portfolio of Cemented and Press-Fit Stems

- USTAR II features over 50 different megaprosthesis stem options, including fixed and curved, coated and low-profile non-coated cemented stems and full-coated cementless, press-fit stems.



# The USTAR II System Overview



<sup>[2]</sup> These items only are the same used in PSA Revision Knee System

Special Order Items

# Order Information

## Proximal Femoral Replacement (PFR) Component

Offered in standard trochanteric and low-profile configurations. Each configuration has a Left and Right option. The component has 15° femoral ante-version and a 130° neck angle. The component length is 64 mm. The minimum proximal femoral resection is 70 mm. Made with Cobalt Chromium (CoCrMo) Alloy and 500-Micron Titanium Plasma Spray (TPS) coating.



Standard Trochanteric	
Left	Right
1115-9110	1115-9210



Low Profile	
Left	Right
1115-9120	1115-9220

\* Low Profile type is not CE Marked

## Hinge Femoral Component

Compatible with the Hinge Tibial Baseplate and Proximal Tibial Replacement components. Each size and has a Left and Right option. Made with Cobalt Chromium (CoCrMo) Alloy.



	Left	Right	A/P	M/L
#1	2115-1310	2115-1410	52	56
#2	2115-1320	2115-1420	56	60
#3	2115-1330	2115-1430	60	64
#4	2115-1340	2115-1440	64	68
#5	2115-1350	2115-1450	68	72
#6	2115-1360	2115-1460	72	76

Note :  
All sizes of Femoral Components fits all Tibial Inserts

## Distal Femoral Replacement (DFR) Component

The standard option is size Small. Includes Left and Right options. The component length is 55 mm. The minimum distal femoral resection is 61 mm. Made with Cobalt Chromium (CoCrMo) Alloy.



	Left	Right	A/P	M/L
S	2115-3310	2115-3410	52	56

# Order Information

## XPE Tibial Insert Options

Compatible with the Hinge Tibial Baseplate and Proximal Tibial Replacement components. Made with HXLPE (Highly-Cross Linked Polyethylene), Titanium (Ti6Al4V) Alloy screw and a forged Cobalt Chromium (CoCrMo) Alloy post.



	12 mm	14 mm	17 mm	20 mm	23 mm	26 mm	30 mm
S	2315-3211	2315-3212	2315-3213	2315-3214	2315-3215	2315-3216	2315-3217
M	2315-3241	2315-3242	2315-3243	2315-3244	2315-3245	2315-3246	2315-3247

Note :  
1. Size S match #1 - #3 Baseplate  
2. Size M match #4 - #6 Baseplate

## Hinge Tibial Baseplate

Compatible with the Hinge Femoral and Distal Femoral Replacement components. Made with Cobalt Chromium (CoCrMo) Alloy.



	Cat. No.	A/P	M/L
#1	2215-1410	42	63
#2	2215-1420	45	66
#3	2215-1430	47	69
#4	2215-1440	50	72
#5	2215-1450	53	76
#6	2215-1460	56	80

Note :  
No offset option for tibial baseplate

## Proximal Tibial Replacement (PTR) Component

Compatible with the Hinge Femoral and Distal Femoral Replacement components. The standard option is size Small. The component length is 81mm (with 12 mm thickness tibial insert). The minimum proximal tibial resection is 87 mm. Made with Cobalt Chromium (CoCrMo) Alloy and 500-Micron Titanium Plasma Spray (TPS) coating.



	Cat. No.	A/P	M/L
S	2215-3410	42	63

# Order Information

## Implant Segment Options

The component diameter is 22 mm. Made with Titanium (Ti6Al4V) Alloy.



25 mm	30 mm	40 mm	50 mm	60 mm	70 mm	80 mm
2915-1025	2915-1030	2915-1040	2915-1050	2915-1060	2915-1070	2915-1080
90 mm	100 mm	110 mm	120 mm	130 mm	140 mm	150 mm
2915-1090	2915-1100	2915-1110	2915-1120	2915-1130	2915-1140	2915-1150
160 mm	170 mm	180 mm	190 mm	200 mm	210 mm	220 mm
2915-1160	2915-1170	2915-1180	2915-1190	2915-1200	2915-1210	2915-1220

## Bridge Implant Segment

The component diameter is 22 mm. Made with Titanium (Ti6Al4V) Alloy.



80 mm
2915-3080

# Order Information

## Cemented Megaprosthesis Stem Options

Made with forged Cobalt Chromium (CoCrMo) Alloy. The stem with the coated proximal body includes a 500-Micron Titanium Plasma Spray (TPS) coating.



Coated Standard Cemented Stems

	Straight		Curved	
	100 mm	125 mm	125 mm	150 mm
Ø9	2715-1009	2715-1109	2515-1109	2515-1209
Ø11	2715-1011	2715-1111	2515-1111	2515-1211
Ø13	2715-1013	2715-1113	2515-1113	2515-1213
Ø15	2715-1015	2715-1115	2515-1115	2515-1215
Ø17	2715-1017	2715-1117	2515-1117	2515-1217



Non-Coated, Low Profile Cemented Stems

	Straight		Curved	
	100 mm	125 mm	125 mm	150 mm
Ø9	2715-3009	2715-3109	2515-3109	2515-3209
Ø11	2715-3011	2715-3111	2515-3111	2515-3211
Ø13	2715-3013	2715-3113	2515-3113	2515-3213
Ø15	2715-3015	2715-3115	2515-3115	2515-3215
Ø17	2715-3017	2715-3117	2515-3117	2515-3217

## Full-Coated Cementless Megaprosthesis Stem Options

Made with Titanium (Ti6Al4V) Alloy and 500-Micron Titanium Plasma Spray (TPS) coating.



	Straight		Curved	
	150 mm	200 mm	150 mm	200 mm
Ø11	1115-3211	1115-3411	1115-1211	1115-1411
Ø13	1115-3213	1115-3413	1115-1213	1115-1413
Ø15	1115-3215	1115-3415	1115-1215	1115-1415
Ø17	1115-3217	1115-3417	1115-1217	1115-1417

 Special Order Items

# Order Information

## Femoral Component Options

Made with Titanium (Ti6Al4V) Alloy unless otherwise noted.



	Distal Femoral Augment					
	4 mm LM / RL	4 mm LL / RM	8 mm LM / RL	8 mm LL / RM	12 mm	16 mm
#1	2603-5111	2603-5211	2603-5112	2603-5212	2603-5313	2603-5314
#2	2603-5121	2603-5221	2603-5122	2603-5222	2603-5323	2603-5324
#3	2603-5131	2603-5231	2603-5132	2603-5232	2603-5333	2603-5334
#4	2603-5141	2603-5241	2603-5142	2603-5242	2603-5343	2603-5344
#5	2603-5151	2603-5251	2603-5152	2603-5252	2603-5353	2603-5354
#6	2603-5161	2603-5261	2603-5162	2603-5262	2603-5363	2603-5364

Note :

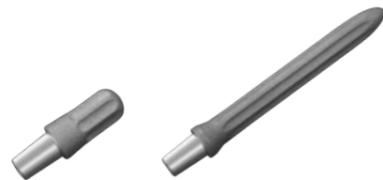
1. LM / RL : Left Medial or Right Lateral
2. LL / RM : Left Lateral or Right Medial
3. 12 mm and 16 mm augments are symmetrical shape, x2 shall be prepared for each surgery
4. 12 mm and 16 mm augments are unable to use together with posterior augments



	Posterior Femoral Augment	
	4 mm	8 mm
#1	2603-5011	2603-5012
#2	2603-5021	2603-5022
#3	2603-5031	2603-5032
#4	2603-5041	2603-5042
#5	2603-5051	2603-5052
#6	2603-5061	2603-5062



Offset Adaptor		
2 mm	4 mm	6 mm
2903-1010	2903-1020	2903-1030



	Straight Stem				
	30 mm	75 mm	100 mm	150 mm	200 mm
Ø10	NA	2703-5011	2703-5021	2703-5051	2703-5061
Ø12	NA	2703-5012	2703-5022	2703-5052	2703-5062
Ø14	2703-5003	2703-5013	2703-5023	2703-5053	2703-5063
Ø16	NA	2703-5014	2703-5024	2703-5054	2703-5064
Ø18	NA	2703-5015	2703-5025	2703-5055	2703-5065
Ø20	NA	2703-5016	2703-5026	2703-5056	2703-5066
Ø22	NA	2703-5017	2703-5027	2703-5057	2703-5067
Ø24	NA	2703-5018	2703-5028	2703-5058	2703-5068



	Curved Stem	
	150 mm	200 mm
Ø10	2703-5031	2703-5041
Ø12	2703-5032	2703-5042
Ø14	2703-5033	2703-5043
Ø16	2703-5034	2703-5044
Ø18	2703-5035	2703-5045
Ø20	2703-5036	2703-5046
Ø22	2703-5037	2703-5047
Ø24	2703-5038	2703-5048

# Order Information

## Tibial Baseplate Component Options

Made with Titanium (Ti6Al4V) Alloy unless otherwise noted.



	Tibial Augment			
	5 mm	10 mm	15 mm LM / RL	15 mm LL / RM
#1	2815-1011	2815-1012	2815-1113	2815-1213
#2	2815-1021	2815-1022	2815-1123	2815-1223
#3	2815-1031	2815-1032	2815-1133	2815-1233
#4	2815-1041	2815-1042	2815-1143	2815-1243
#5	2815-1051	2815-1052	2815-1153	2815-1253
#6	2815-1061	2815-1062	2815-1163	2815-1263

Note :

1. LM / RL : Left Medial or Right Lateral
2. LL / RM : Left Lateral or Right Medial
3. 5 mm and 10 mm augments are symmetrical shape, x2 shall be prepared for each surgery



	Cemented Tibial Stem					
	20 mm	45 mm	70 mm	95 mm	120 mm	145 mm
Ø9	2715-5109	2715-5209	2715-5309	2715-5409	2715-5509	2715-5609

Made with Cobalt Chromium (CoCrMo) Alloy.



	Press-Fit Tibial Stem			
	45 mm	70 mm	95 mm	120 mm
Ø12.5	2715-7212	2715-7312	2715-7412	2715-7512
Ø14	2715-7214	2715-7314	2715-7414	2715-7514

## Cement Restrictor, I-Type

Made with UHMWPE (Ultra High Molecular Weight Polyethylene).



Cat. No.	Size	Canal size (mm)
1907-1008	#8	8-9
1907-1010	#10	10-11
1907-1012	#12	12-13
1907-1014	#14	14-15
1907-1016	#16	16-17
1907-1018	#18	18-19

# Order Information

## BIOLOX<sup>®</sup> *delta* Ceramic Femoral Head Options



	-3 mm	-2.5 mm	+1 mm	+4 mm	+5 mm	+8 mm	+9 mm
Ø28	NA	1203-5028	1203-5228	1203-5428	NA	NA	NA
Ø32	1203-5032	NA	1203-5232	NA	1203-5432	1203-5632	NA
Ø36	1203-5036	NA	1203-5236	NA	1203-5436	NA	1203-5636
Ø40	1203-1036	NA	1203-1136	NA	1203-1236	NA	1203-1436

\*BIOLOX<sup>®</sup> is a registered trademark of the CeramTec Group, Germany

## Cobalt Chromium (CoCrMo) Alloy Femoral Head Options



	-3 mm	-2 mm	+0 mm	+2.5 mm	+3 mm	+5 mm	+6 mm	+7.5 mm	+9 mm	+10 mm
Ø22	NA	NA	1206-1122	NA	1206-1322	NA	1206-1522	NA	1206-1722	NA
Ø26	NA	1206-1026	1206-1126	NA	1206-1326	NA	1206-1526	NA	1206-1726	NA
Ø28	1206-1028	NA	1206-1128	1206-1228	NA	1206-1428	NA	1206-1628	NA	1206-1828
Ø32	1206-1032	NA	1206-1132	1206-1232	NA	1206-1432	NA	1206-1632	NA	1206-1832
Ø36	1206-1036	NA	1206-1136	1206-1236	NA	1206-1436	NA	1206-1636	NA	1206-1836

# Order Information

## Trochanteric Claw Plate Options

Made with Cobalt Chromium (CoCrMo) Alloy.



Size	Cat. No.
Small	1915-1010
Large	1915-1020

\* Trochanteric Claws are not CE Marked

## Femoral Screw

Made with Titanium (Ti6Al4V) Alloy.



M5 x 14 mm	2903-1014
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# Extra Small (XS) Limb Salvage Options

Extra Small (XS) components are compatible only with each-other (E.g. a DFR component with a hinge tibial baseplate, or a hinge femur with a PTR component). Extra Small (XS) components are compatible with standard size implant segments and megaprosthesis stems.

## Extra Small (XS) Hinge Femoral Component

Includes a Left and Right option. Has a fixed femoral stem length. Distal and posterior femoral resections are 7 mm. No augment or offset options are available. Made with Cobalt Chromium (CoCrMo) Alloy.



Left	Right	A/P	M/L
2115-1300	2115-1400	45	50

## Extra Small (XS) Distal Femoral Replacement Component

Includes a Left and Right option. The component length is 50 mm. The minimum distal femoral resection is 56 mm. Made with Cobalt Chromium (CoCrMo) Alloy.



Left	Right	A/P	M/L
2115-3300	2115-3400	45	50

# Extra Small (XS) Limb Salvage Options

## Extra Small (XS) XPE Tibial Insert

Compatible with the Extra Small (XS) Hinge Tibial Baseplate and Extra Small (XS) Proximal Tibial Replacement component. Made with HXLPE (Highly-Cross Linked Polyethylene), Titanium (Ti6Al4V) Alloy screw and a forged Cobalt Chromium (CoCrMo) Alloy post.



12 mm
2315-3201

## Extra Small (XS) Proximal Tibial Replacement Component

Compatible with the Extra Small (XS) Hinge Femoral and Extra Small (XS) Distal Femoral Replacement components. The component length is 73 mm (with XS tibial insert). The minimum proximal tibial resection is 79 mm. Made with Cobalt Chromium (CoCrMo) Alloy and 500-Micron Titanium Plasma Spray (TPS) coating.



Cat. No.	A/P	M/L
2215-3400	38	58

## Extra Small (XS) Hinge Tibial Baseplate

Compatible with the Extra Small (XS) Distal Femoral Replacement component. Made with Cobalt Chromium (CoCrMo) Alloy.



Cat. No.	A/P	M/L
2215-1400	38	58

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