

UNITED Hip Sales Training Module

MC-04-00005 Rev C



UOC Hip Franchise Overview



U-Motion II PLUS



Conformity



UTF Reduced



UTS



U2 Hip



U2 Cemented



UCP



U2 Revision



Bipolar II



Full XPE Cup



Locking Cage



U-Motion II PLUS™ Cup

Acetabular Hip System

U-Motion II PLUS™

**For No-Hole and Cluster Hole Cup-
Titanium Plasma Spray PLUS (TPS PLUS) Coating**

**For Multi-Hole Cup-
TPS with Hydroxyapatite (HA) Coating**

-Designed to improve biological fixation

Laser Marks

- Helps provide surgeons with an identifying marker for screw hole locations

Multi-angle Screw Hole - 32°

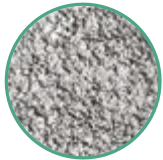
- Designed to allow optimized screw angulation

Multiple Cup Configurations

- No-hole, cluster-hole, and multi-hole cup configuration are available from 44 mm to 70 mm

Locking Ring for Poly Liner Locking

- The inner locking ring on the acetabular cup provides superior locking strength for polyethylene liner



Laser Mark



Cup Size (mm)
Ø 44
Ø 46
Ø 48
Ø 50
Ø 52
Ø 54
Ø 56
Ø 58
Ø 60
Ø 62
Ø 64
Ø 66
Ø 68
Ø 70



Ti Cancellous Screw, Ø 6.5 mm Length (mm)
15
20
25
30
35
40
45
50



Screw Hole Covers

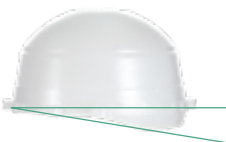
Screw hole covers are pre-assembled with multi-hole cup.

Various Bearing Options



Crown Tab on the 20° Lipped Liner

- Three tabs indicate the orientation of 20° lip



20° Lipped

- Designed to provide additional stability

XPE and E-XPE material

- Available in XPE and E-XPE material to meet the demand of both surgeon and patient



Anti-rotational Tabs

-Designed to provide anti-rotation

Two Femoral Head Material Are Available

-Cobalt Chrome (CoCr)
-BIOLOX® delta

Liner Size (mm)		
Ø 44	Standard	20° lipped
Ø 46	Standard	20° lipped
Ø 48	Standard	20° lipped
Ø 50	Standard	20° lipped
Ø 52	Standard	20° lipped
Ø 54	Standard	20° lipped
Ø 56	Standard	20° lipped
Ø 58	Standard	20° lipped
Ø 60	Standard	20° lipped
Ø 62	Standard	20° lipped
Ø 64	Standard	20° lipped
Ø 66	Standard	20° lipped
Ø 68	Standard	20° lipped
Ø 70	Standard	20° lipped

Femoral Head & Offset				
Cobalt Chrome (CoCr)		Diameter		
Size	28	32	36	
Offsets	(-3)	(-3)	(-3)	
	(+0)	(+0)	(+0)	
	(+2.5)	(+2.5)	(+2.5)	
	(+5)	(+5)	(+5)	
	(+7.5)	(+7.5)	(+7.5)	
	(+10)	(+10)	(+10)	
BIOLOX® delta		Diameter		
Size	28	32	36	40
Offsets	(-2.5)	(-3)	(-3)	(-3)
	(+1)	(+1)	(+1)	(+1)
	(+4)	(+5)	(+5)	(+5)
		(+9)	(+9)	(+9)

Wide Range of Motion

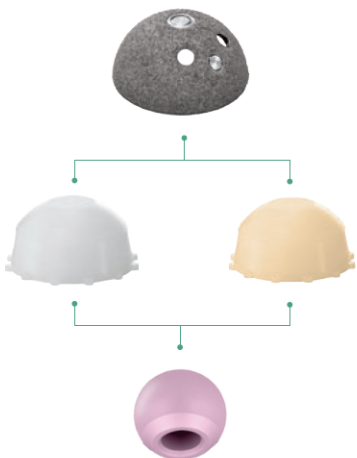
Large head combined with 12/14 stem taper, increasing range of motion and delaying impingement.



Cup Size	Head Size	Liner	Flexion/Extension	I/E Rotation	ABD-ADD
46 mm	Ø28 mm	0°	173°	198°	120°
50 mm	Ø32 mm	0°	192°	222°	133°
54 mm	Ø36 mm	0°	197°	229°	137°

Range of motion tested with a UTF reduced stem in accordance with ISO 21535 standard for a physiologically positioned cup and stem.

Quick Compatibility Guide














Ceramic Head with E-XPE, XPE

Cup Size (mm)	Ceramic Head Size (mm)			
44	28			
46		32		
48			36	
50				
52			36	
54				40
56				
58				
60				
62				
64			36	40
66				
68				
70				


A diagram showing the relationship between cup size, head size, and liner size for a CoCr head with E-XPE and XPE liner. At the top is a large dark sphere representing the cup. Below it are two smaller spheres, one white and one yellow, representing different head sizes. Below those are two even smaller spheres, one white and one yellow, representing different liner sizes. Lines connect the top sphere to the middle spheres, and the middle spheres to the bottom spheres, illustrating the compatibility options.

CoCr Head with E-XPE and XPE liner

Cup Size (mm)	CoCr Head Size (mm)		
44	28		
46		32	
48			36
50			
52			
54			
56			
58			
60			
62			
64			
66			
68			
70			

	 UNITED ORTHOPEDIC®  U-Motion II PLUS™	 ZIMMER BIOMET  G7®	 DePuy Synthes  EMPHASYS™	  Trident II	  R3[◇]
Configuration Size Range	44 to 70mm in 2 mm increments. 180° OD sphericity.	42 to 80mm in 2mm increments. 180° OD sphericity.	44 to 66mm in 2 mm increment. 180° OD sphericity.	44 to 72mm in 2 mm increment. 180° OD sphericity.	40 to 80mm in 2mm increments. 180° OD sphericity.
Cup Options	No Hole, Cluster & Multi-Hole.	No Hole, Cluster & Multi-Hole.	No Hole, 3-Hole & Multi-Hole.	No Hole, Cluster & Multi-Hole.	No Hole & Multi-Hole.
Head/Liner	28/42 32/46 36/48 40/54	28/42 - 44 32/46 - 48 36/ 50 - 52 40/54 - 60 44/62 - 72	28/44 32/48 40/50	28/42 32/44 36/48 40/52 44/56	22/44 28/46 32/48 36/52 40/56 & 44/60
Liner Options	XPE & E-XPE Neutral and 20° lipped. Delta Ceramic	Vivacit-E Neutral, High wall 10° face changing and +5. Delta Ceramic	AOX Neutral, +4 Neutral and Elevated. Delta Ceramic.	X3 Neutral, Lipped and +4, Delta Ceramic	XLPE Neutral, Oxinium Delta ceramic (32 & 36mm only)
Face changing liners	No	3.2 to 5.1 mm offset ¹ / 2.1 to 3.3mm lateralization ² .	10° 4mm laterization 15° 2mm laterization	10° +4 face changing.	0° +4 lateralized 10° +4 lateralized. 20° Lipped w or w/o +4 lateralized.
Dual Mobility	N/A	180° no elevation from size 42 with 22.2mm ID liner.	180°, 3mm elevated rim. Starting size 48/ 28mm ID liner	MDM	180° no elevation.
DM Liner ID	N/A	22, 28 & 36mm with DM liner ID size Dm Cup 32 - 60mm	22, 28 & 36mm with DM cup ³⁴ - 52mm	22, 26,28 and 32mm. Anatomic Femoral heads 36,40 & 44mm	22 and 28 with Oxinium heads DM Inner cup with Poly DM in between.
Surface Coating	Ti Plasma plus with HA in multi hole cup. 70µ porous coat.	Osseo Ti 3D printed Ti sintering.	Gription Ti 250µ porous coating	Tritanium 3D printed Cluster hole with HA coat.	STIKTITE porous coating
Porosity	40%	72%	58%	76%	N/A
Coefficient of friction	1.4	1.25	1.3	1.2	1.35
Liner removal instr.		Yes	Yes	Yes	Yes
Constrained Liner	N/A	Yes. Neutral, +5mm and 10° face changing liners for 46 - 80mm cups.	N/A	Yes	Yes
Taper° for Ceramic	18°	8°	10°	10°	12°

	 U-Motion II PLUS™	 EMPOWR®	 MPact®	 Legend®	 Procotyle®P
Configuration Size Range	44 to 70mm in 2mm increments. 180° OD sphericity.	42 to 70mm in 2mm increments. 180° OD sphericity.	46 to 66mm in 2mm increments. Up to 76 in Multi hole. 180° OD.	44 to 70mm in 2mm increments. 180° OD sphericity.	46 to 68mm in 2mm increments. 180° OD sphericity.
Cup Options	No Hole, Cluster & Multi-Hole.	No Hole, Cluster & Multi-Hole.	No Hole, Cluster & Multi-Hole.	No Hole, Cluster & Multi-Hole.	No Hole and 3 Hole ⁴
Head/Liner	28/42 32/46 36/48 40/54	28/42 32/46 36/50 40/54 44/60	28/46 32/28 36/52 40/56	28/44 32/46 36/50 40/54	28/42 32/50 36/50 ⁵ 56/32
Liner Options	XPE & E-XPE Neutral and 20° lipped. Delta Ceramic	Hxe+™ Neutral, 10° Hooded, +4 Neutral/ Hood. Poly only	X-Linked Neutral, Hood, +4mm Neutral/Hood. Delta Ceramic.	7.5Mrad X-Linked in 0 and +3 Neutral, 10° Hood. Poly only	X- Linked E-Class Vit E Neutral, Lipped +4 Lipped. Delta Ceramic.
Face changing liners	No	+4mm / 10° Face Change	10° hooded	+3 Laterization or Neutral with 10° hooded	10° Lipped
Dual Mobility	N/A	Neutral, 36 head	42 to 66mm with X-Link.	N/A	DM Liberty* (not in Prime)
DM Liner ID	N/A	22, 28 & 36mm DM liner ID DM Cup size 32 - 60mm	SensiTiN Metal sensitive liner. 22 & 28mm Liner ID	N/A	22 & 28mm Liner ID
Surface Coating	Ti Plasma plus with HA in multi hole cup. 70µ porous coat.	P2™ Ti Porous coating.	Mecta®Grip Ti Vacuum Plasma and Ti 3D Metal cups	Ti Sintered.	Biofoam® Ti and 3D printed
Coefficient of Friction	1.4	Yes	N/A	N/A	N/A
Porosity	40%	60%	N/A	60%	Biofoam 60-70%. 3D print 40-75%
Liner removal instr.	N/A	Yes	N/A	N/A	N/A
Constrained Liner Option	N/A	N/A	N/A	N/A	N/A
Cup Taper angle°	18°	N/A	18°	N/A	18°

	  U-Motion II PLUS™	  LIBERTAS®	  Alteon®	  LOGICAL® G-SERIES	  Bencox®
Configuration Size Range	44 to 70mm in 2mm increments. 180° OD sphericity.	40 to 70mm in 2mm increments. 180° OD sphericity	40 to 68mm in 2mm increments. 180° OD sphericity	44 to 68mm in 2mm increments. 180° OD sphericity	46 to 68mm in 2mm increments. 180° with flattened dome
Cup Options	No Hole, Cluster & Multi-Hole.	Cluster Hole	Cluster and Multi-Hole	Cluster Hole ¹	Cluster Hole
Head/Liner	28/42 28/46 32/48 36/48 40/54	22/42 28/44 32/48 36/52 40/60	22/40 28/44 32/46 36/50 40/54	28/44 32/48 36/50 40/56	28/46 32/48 36/52
Liner Options	XPE & E-XPE Neutral and 20° lipped. Delta Ceramic	X-Linked Neutral, Hood, Elevated and 10° Oblique. No Ceramic liner option	E-CiMa* XLE Neutral, Lipped and +5mm Lateralized. No Ceramic liner option	X-Linked Neutral, 10° Hooded, +4mm lateralized and Delta Ceramic	X-Linked Neutral, 15° Elevated and Delta Ceramic
Face changing liners	No	No	+5mm 10° Face Change	No	No
Dual Mobility	No	No	No	No	No
DM Liner ID	N/A	N/A	N/A	N/A	N/A
Surface Coating	Ti Plasma plus with HA in multi hole cup. 70µ porous coat.	Ti-Growth® Ti plasma spray coating	TAC irregular shape 3D structural lattice	Sintered Ti coating. 100-300µm coat	Grade 2 pure Ti. Cortinium DMT ² coat with 50-200µm pore size
Coefficient of Friction	1.4	N/A	N/A	N/A	N/A
Porosity	40%	N/A	N/A	45-65%.	50-70%
Liner removal instr.	No	No	No	No	No
Constrained Liner Option	No	No	No	22/44, 28/48, 32/52, 36/56 40/60	No
Cup Taper angle°	18°	N/A	N/A	N/A	N/A

Cluster Hole¹: Distributed by Exactech in the US

* E-CiMa (Trademark owned by Corin) - Vitamin E Cold Irradiated Mechanically Annealed. Ref: Oral, E, Muratoglu, O. "The effects of high dose irradiation on the cross-linking of vitamin E-blended ultrahigh molecular weight polyethylene," Biomaterials 29 (2008) 3557-3560 .

Cortinium DMT²: Produces layers of titanium deposition



Conformity™ Stem

Femoral Hip System

Conformity™ Stem

Total 92 stems

12/14 Neck Taper

- Accommodates a complete selection of femoral heads

5 Options for Neck Restoration

- High Offset
- Coxa Vara High Offset
- Coxa Vara Standard
- Standard
- Short Neck

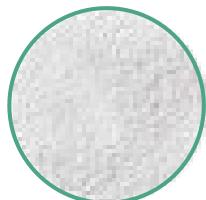


Collared / Collarless Options

- Allows surgeon preference to meet patient's needs

Medial Step Feature

- Designed to reduce hoop stress



Proximal Horizontal Grooves

- Designed to help avoid stem subsidence

Distal Vertical Grooves

- Improved rotational stability

Cemented options

- Designed for surgeons that are looking to utilize a single system for all primary hip indications

STD & High Offsets

- Provides direct lateralization without affecting leg length

Highly Polished

- Designed to minimize friction at the stem-cement interface and reduce the potential for cement failure.

Hybrid Broach Technology

- Hybrid broaches designed to maintain the philosophy of cancellous bone compaction and bone preservation while enhancing the surgeon experience during femoral canal preparation and ensuring proper fit of the femoral prosthesis

Lateral Cutting teeth

- Allows for adequate lateralization of the stem during femoral preparation

Intraoperative Flexibility

- Cementless and cemented options utilize the same set of broaches

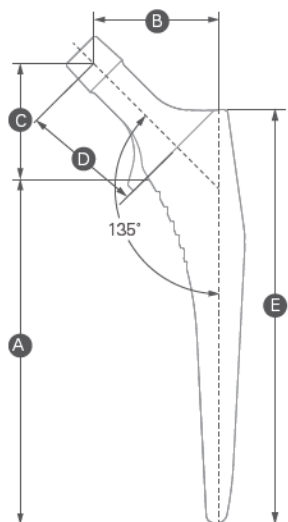
Fully HA Coated Surface

- The 155 µm HA coating allows for optimal osteointegration

Distal / Lateral Cut

- Designed to help facilitate stem insertion

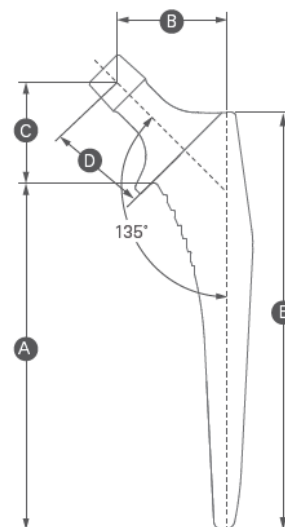
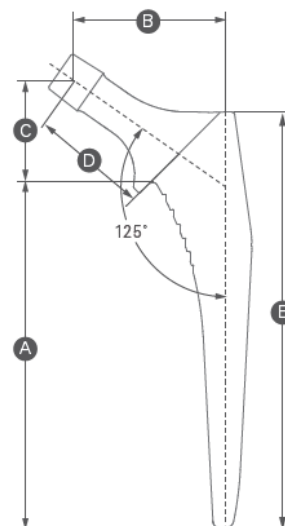
Conformity™ Stem



Collared, Collarless & Cemented

Size	A Medial Length	B Offset		C Vertical Height	D Neck Length		E Lateral Length
		Standard	High Offset		Standard	High Offset	
#1	95	36	43	34	35.5	40.5	115
#2	99.5	36.5	43.5	34	35.5	40.5	119.5
#3	104	37.5	44.5	34	35.5	40.5	124
#4	108.5	38	45	34	35.5	40.5	128.5
#5	113	39	46	34	35.5	40.5	133
#6	117.5	39.2	46.5	34	35.5	40.5	137.5
#7	122	40	47	34	35.5	40.5	142
#8	126.5	41	48	34	35.5	40.5	146.5
#9	131	41.5	48.5	34	35.5	40.5	151
#10	135.5	42.5	49.5	34	35.5	40.5	155.5
#11	140	43.5	50.5	34	35.5	40.5	160

Unit : mm



Coxa Vara







Size	A Medial Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
#2	99.5	43.5	29	37.5	119.5
#3	104	44.5	29	37.5	124
#4	108.5	45	29	37.5	128.5
#5	113	46	29	37.5	133
#6	117.5	46.5	29	37.5	137.5
#7	122	47	29	37.5	142
#8	126.5	48	29	37.5	146.5
#9	131	48.5	29	37.5	151
#10	135.5	49.5	29	37.5	155.5
#11	140	50.5	29	37.5	160

Unit : mm

Short Neck







Size	A Medial Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
#1	95	31	29	28.5	115
#2	99.5	31.5	29	28.5	119.5
#3	104	32.5	29	28.5	124

Unit : mm

					
Stem Options	92	71	68	73	H-MAX
HA Coating	155µ	155µ	HA 110µ TPS 50µ	HA 50µ TPS 180µ Ti 35µ	50µ
Neck Shaft Angle	135° 125° Coxa Vera in STD and Offset	135° 125° Coxa Vera in STD and Offset	135° 125° Coxa Vera	135° 126° (Valgus) Coxa Vera	134° and 131° with offset
Offset	Short STD High Offset Coxa Vera	Short STD High Offset Coxa Vera	STD High Offset Coxa Vera	STD High Offset Valgus	STD High Offset
Neck Length	Constant	Constant	Constant	Constant	Constant & Progressive
Coxa Vera	Yes	Yes	Yes	Yes	No
Neck Taper	12/14	12/14	12/14	12/14	12/14
Collared Option	Yes	Yes	Yes	Yes	No
Cemented Option	Yes	Yes	Yes	No	Yes
Stem Taper Design	Tri-Wedge	Tri-Wedge	Tri-Wedge	Tri-Wedge	Tri-Wedge
Size Range	12* Standard 11 high Offset	11 STD & High Offset	12 STD & High Offset	11 STD & High Offset	11 STD & High Offset
Stem Length	115 - 160mm (4.5mm increment)	115 - 190mm (4mm consistent)	115 - 151mm (4mm consistent)	125 - 167mm (4mm consistent)	130 - 180mm (5mm consistent)
Proximal Body Increment	Consistent (1.5mm increment)	Inconsistent (.75, 1.5, 1.25 & 2mm)	Inconsistent (.9.1, 1.1, 1.4, 1.5, 1.8, 2.2 & 2.3)	Consistent (1.3mm increment)	Consistent (1mm Lateral increment)
Stepped Geometry	Yes	Yes	Yes	Yes	Yes
Broaching Technique	Hybrid- Compaction and Retraction	Compaction	Compaction and Retraction	Compaction and Retraction	N/A
Distal Geometry	Straight Taper with lateral cut	Straight Taper	Straight Taper with lateral cut	Double tapered	Straight Taper

* Included size 0 (FDA cleared) optional stem

Stryker does not offer fully HA coated stem

					
Stem Options	92	96	61 OR 60?	66	60
HA Coating	155μ	155μ	80μ	180μ	80μ
Neck Shaft Angle	135° 125° Coxa Vera in STD and Offset	132° STD and Extended	135° 127° Lateral Offset	135° 127° Varus	131° STD and Extended
Offset	Short STD High Offset Coxa Vera	STD Extended* Offset	STD Lateral* Offset	Short STD Long Neck	STD and Extended
Neck Length	Constant	Progressive	Progressive inconsistent	Progressive (1mm increase)	Progressive inconsistent
Coxa Vera	Yes	No	No	No	No
Neck Taper	12/14	12/14	12/14	12/14	12/14
Collared Option	Yes	Yes	No	No	Yes
Cemented Option	Yes	No	Yes	No	Yes
Stem Taper Design	Tri-Wedge	Tri-Wedge	Tri-Wedge	Tri-Wedge	Tri-Wedge
Size Range	11 Standard 11 high Offset	13 Standard 14 Extended Offset	13 Standard 7 Lateral Offset	11	13 (+3 special order stems)
Stem Length	115 - 160mm (4.5mm increment)	95 - 160mm (5mm consistent)	-	112 - 190mm (inconsistent)	94 - 128mm (inconsistent)
Proximal Body Increment	Consistent	Consistent (1mm increment)	-	Inconsistent	Inconsistent
Stepped Geometry	Yes	Yes	Yes	Yes	Yes
Broaching Technique	Hybrid- Compaction and Retraction	Compaction	Compaction	Compaction	Compaction
Distal Geometry	Straight Taper with lateral cut	Straight Taper	Double Taper	Straight Taper	Straight Taper

* Both Extended or Lateral offset are the same and it is called differently by each company



UTF™ Reduced Stem

Femoral Hip System

UTF™ Reduced

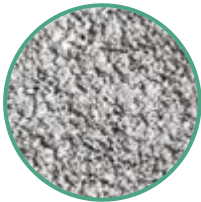


Standard and High Offset

- Designed to allow optimization of soft tissue tensioning and joint stability

Dual Taper Design

- Designed to provide excellent fixation and superior axial and rotational stability



Titanium Plasma Spray Coating

- Designed to improve biological fixation

12/14 Neck Taper

- Accommodate a complete selection of femoral heads



Insertion Hole

- Combines with quick connect holder for ease of use



Refined Proximal Width

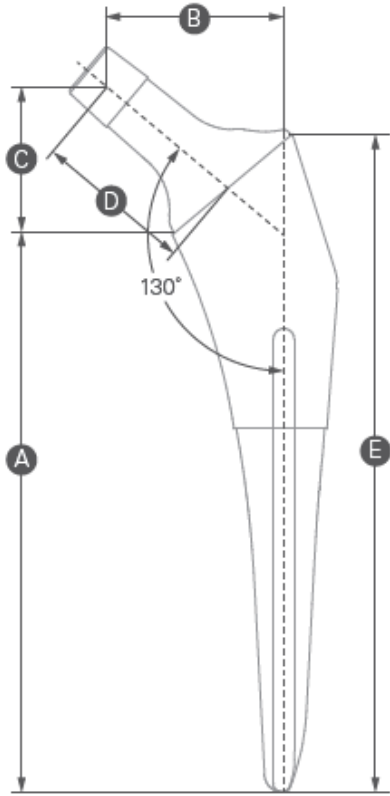
- 1.0 mm proximal width increments between commonly used sizes enables the surgeon to optimize between different metaphyseal widths

Curved Distal Tip

- Designed to facilitate stem insertion

Stem Size	Proximal Width	Increment
#00	22.8	-
#0	23.6	0.8
#1	25	1.4
#2	26.5	1.5
#3	27.5	1
#4	28.5	1
#5	29.5	1
#6	30.5	1
#7	31.5	1
#8	32.5	1
#9	34	1.5
#10	35.5	1.5
#11	37.5	2
#12	39.5	2
#13	41.5	2
#14	43.5	2

UTF™ Reduced



Size	A Medial Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
Standard					
#00	95	32	25.9	28	114
#0	100	32	26.2	28	120
#1	105	32	26.5	28	125
#2	107	33	27.6	29	128
#3	110	34	28.4	30	131
#4	113	35	29.3	31	134
#5	116	36	30.1	32	137
#6	118	37	31.0	33	140
#7	120	38	31.8	34	142
#8	122	39	32.6	35	144
#9	123	39	32.7	35	146
#10	126	41	34.3	37	149
#11	128	42	35.1	38	152
#12	131	43	36.0	39	155
#13	133	44	36.7	39.5	158
#14	135	45	37.2	40	161

Size	A Medial Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
High Offset					
#0	100	38	26.3	32	120
#1	105	38	26.6	32	125
#2	107	39	27.6	33	128
#3	110	40	28.5	34	131
#4	113	41	29.3	35	134
#5	116	43	30.1	37	137
#6	118	44	31.0	38	140
#7	120	45	31.8	39	142
#8	122	46	32.6	40	144
#9	123	47	32.7	40	146
#10	126	49	34.3	42	149
#11	128	50	35.1	43	152
#12	131	51	36.0	44	155
#13	133	52	36.7	45	158
#14	135	53	37.2	45.5	161

Unit:mm

	 UNITED ORTHOPEDIC®	 ZIMMER BIOMET Your progress. Our promise®	 ZIMMER BIOMET Your progress. Our promise®	 DePuy Synthes <small>PART OF THE Johnson & Johnson FAMILY OF COMPANIES</small>	 stryker	 Corin <small>Connected Orthopaedic Insight</small>
	UTF™	M/L Taper	Taperloc®	TRI-LOCK®	Accolade II	TriFit TS™
						
Total Stem Options	30	42	50	26	24	22
Standard Sizes Options	16	14	18	13	12	11
Neck Angle	130°	132°	133° & 123° XR	130°	132° & 127°	127°
Neck Offset	Standard & High Offset	Standard & High Offset	Standard & High Offset	Standard & High Offset	Standard & High Offset	Standard & lateralized Offset
Std Neck Lengths	28mm-40mm (1mm progressions in common sizes, 1-12)	32mm-38mm	34.3mm & 37.3mm (size 4-17 same 34.4 neck length) (Size 18-24 same 37.3 neck length)	27mm-35mm	27mm-40mm	32.4mm
Cross-Section	Taper wedge	Taper wedge	Taper wedge	Taper wedge	Taper wedge	Tri-taper
Coating	Titanium Plasma Spray	Titanium Plasma Spray	Titanium Plasma Spray	Gription	PureFix HA over Titanium Plasma Spray	Calcium Phosphate (CaP)
Proximal M/L Growth	.8mm - 2mm (1 mm increments in common sizes, 3-8)	Not Available	Not Available	Not Available	Not Available	Not Available
Stem length	114mm - 161mm	117mm-154mm (approximate sizes)	128mm - 167mm	105mm- 129mm (approximate sizes)	103mm-136mm (approximate sizes)	110mm - 130mm
Distal Geometry	Curved Lateral	Round Tip	Reduced Tip	Curved Lateral	Curved Lateral	Curved Lateral

						
						
						
Total Stem Options	31	24	32	37	34	24
Standard Sizes Options	16	12	16	12	17	12
Neck Angle	130°	131°	132°	135°, 127° & 122°	131°	132°
Neck Offset	Standard & High Offset	Standard & High Offset	Standard & Extended	Standard, Lateralized & Lateralized Plus	Standard & Extended	Standard & High Offset
Std Neck Lengths	28mm-40mm (1mm progressions in common sizes, 1-12)	28mm-37mm	27mm-38mm	Not Available	30mm-37.5mm	28mm-37mm
Cross-Section	Taper wedge	Taper wedge	Taper wedge	Taper wedge	Taper wedge	Taper wedge
Coating	Titanium Plasma Spray	Titanium Plasma Spray	Titanium Plasma Spray	Mectagrip (vacuum Plasma spray)	Titanium Plasma Spray	Titanium Plasma Spray
Proximal M/L Growth	.8mm - 2mm (1 mm increments in common sizes, 3-8)	1mm-2mm	1mm increments	Not Available	Not Available	1mm-2mm increments
Total Stem length	114mm - 161mm	110mm- 132mm (approximate sizes)	108mm- 152mm (approximate sizes)	Not Available	110mm-158mm (approximate sizes)	106mm-143mm (approximate sizes)
Distal Geometry	Curved Lateral	Round Tip	Round Tip	Round Tip	Curved Lateral	Curved Lateral

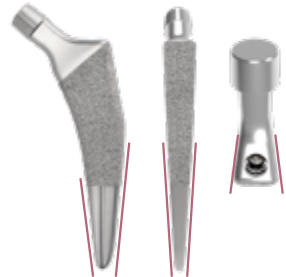
						
						
						
Total Stem Options	31	24	24	38	32	26
Standard Sizes Options	16	12	12	19	16	13
Neck Angle	130°	135° & 127°	135°	130°	135° & 132°	135° & 128°
Neck Offset	Standard & High Offset	Standard & lateralized Offset	Standard & High Offset	Standard & High Offset	Standard & lateralized Offset	Standard & lateralized Offset
Std Neck Lengths	28mm-40mm (1mm progressions in common sizes, 1-12)	27mm-35mm	Not Available	31.8mm-39.7mm	33.5mm-48.5mm	37mm-52mm
Cross-Section	Taper wedge	Taper wedge	Taper wedge	Taper wedge	Taper wedge	Taper wedge
Coating	Titanium Plasma Spray	Titanium Plasma Spray	Titanium Plasma Spray	Titanium Plasma Spray	Titanium Plasma Spray	Plasmapore
Proximal M/L Growth	.8mm - 2mm (1 mm increments in common sizes, 3-8)	1mm-2mm increments	Not Available	Not Available	.5mm-1mm increments	Not Available
Total Stem length	114mm - 161mm	109mm - 147mm	129mm - 166mm	92mm - 162.8mm	131.2mm - 157.8mm	131.4mm - 185.4mm
Distal Geometry	Curved Lateral	Rounded Point Tip	Round Tip	Curved Lateral	Round Tip	Curved Lateral

UTS™ Stem

Femoral Hip System



UTS™ Stem



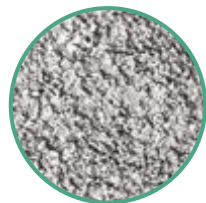
Tri-tapered Design

- Designed to help ensure primary fixation while providing rotational stability



Consistent Size Increment

- Consistent 1.5 mm increment in width enables surgeons to properly size the implant



Plasma Spray Coating

- TPS coating is intended to facilitate excellent bone on-growth

12/14 Neck Taper

- Accommodates a complete selection of femoral heads

Standard and High Offset

- Provide anatomical offset options to facilitate soft-tissue tensioning and restore joint mechanics



Insertion Hole

- Combines with quick connect holder for ease of use



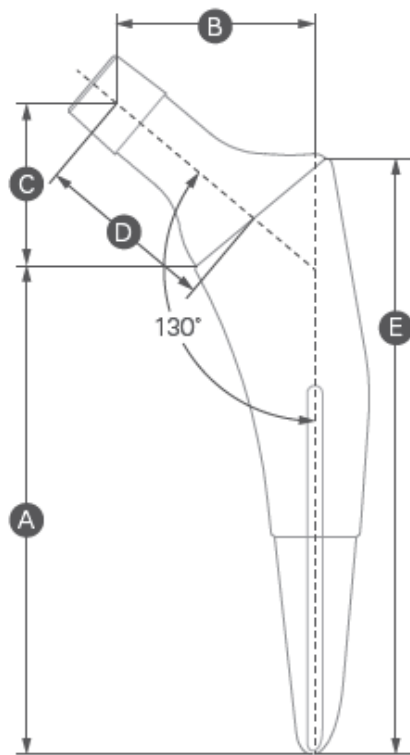
Bone Preservation

- Low profile and shorter length designs help bone conservation both in greater trochanter and distal canal



Stem Size	Proximal Width	Increment
#00	9.2	-
#0	10.7	1.5
#1	12.2	1.5
#2	13.7	1.5
#3	15.2	1.5
#4	16.7	1.5
#5	18.2	1.5
#6	19.7	1.5
#7	21.2	1.5
#8	22.7	1.5
#9	24.2	1.5
#10	25.7	1.5
#11	27.2	1.5
#12	28.7	1.5
#13	30.2	1.5
#14	31.7	1.5















UTS™ Stem



















Size	A Stem Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
Standard					
#00	73.5	30	23.9	25.9	91
#0	76.3	31	24.9	27.1	94
#1	77.8	32	25.9	28.3	96
#2	81.4	33	26.9	29.5	100
#3	83.7	34	27.9	30.6	103
#4	85.8	35	28.9	31.8	106
#5	88.0	36	29.9	32.9	109
#6	90.9	37	30.9	34.0	112
#7	93.3	38	31.9	35.1	115
#8	95.6	39	32.9	36.2	118
#9	98.2	40.5	34.2	37.8	121.3
#10	100.7	42	35.4	39.4	124.5
#11	103.3	43.5	36.7	41.0	127.8
#12	105.9	45	37.9	42.6	131
#13	108.3	46.5	39.2	44.2	134.3
#14	110.7	48	40.4	45.8	137.5

Size	A Stem Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
High Offset					
#1	77.8	39	25.9	32.9	96
#2	81.4	40	26.9	34.0	100
#3	83.7	41	27.9	35.2	103
#4	85.8	42	28.9	36.3	106
#5	88.0	43	29.9	37.5	109
#6	90.9	44	30.9	38.6	112
#7	93.3	45	31.9	39.7	115
#8	95.6	46	32.9	40.8	118
#9	98.2	47.5	34.2	42.4	121.3
#10	100.7	49	35.4	44.0	124.5
#11	103.3	50.5	36.7	45.6	127.8
#12	105.9	52	37.9	47.2	131
#13	108.3	53.5	39.2	48.8	134.3
#14	110.7	55	40.4	50.3	137.5

Unit: mm

	 UNITED ORTHOPEDIC®			 ZIMMER BIOMET Your progress. Our promise.®	
		Accolade II		Microplasty®	
					
Total Stem Options	30	24	26	50	32
Standard Sizes Options	16	12	13	18	16
Neck Angle	130°	132° & 127°	130°	133° & (123° XR)	132°
Neck Offset	Standard & High Offset	Standard	Standard & High Offset	Standard & High Offset	Standard & Extended
Std Neck Lengths	25.9mm-45.8mm	27mm-40mm	27mm-35mm	34.3mm & 37.3mm (size 4-17 same 34.4 neck length) (Size 18-24 same 37.3 neck length)	27mm-38mm
Cross-Section	Tri-taper	Taper wedge	Taper wedge	Taper wedge	Taper wedge
Coating	Titanium Plasma Spray	PureFix HA over Titanium Plasma Spray	Gription	Titanium Plasma Spray	Titanium Plasma Spray
Proximal M/L Growth	1.5mm increments	Not Available	Not Available	Not Available	1mm increments
Stem length	93mm-137.5mm	103mm-136mm (approximate sizes)	105mm-129mm (approximate sizes)	93mm - 132mm	84mm-115.5mm (approximate sizes)
Distal Geometry	Taper wedge	Curved Lateral	Curved Lateral	Reduced Lateral Tip	Curved Tip

					
					
					
Total Stem Options	30	24	55	38	27
Standard Sizes Options	16	12	41	19	13
Neck Angle	130°	135° & 127°	(A) 140°, (B) 137° & (C) 129°	130°	Not Available
Neck Offset	Standard & High Offset	Standard & High Offset	Standard & Extended (B only)	Standard & High Offset	Standard & Lateralized Offset
Std Neck Lengths	25.9mm–45.8mm	25mm–34mm	(A) 23.3mm Constant (B) 27.4mm Constant (C) 37.3mm Constant	31.8mm–39.7mm	37mm Constant
Cross-Section	Tri-taper	Taper wedge	Curved Tri-taper	Taper wedge	Taper wedge
Coating	Titanium Plasma Spray	Titanium Plasma Spray	(A) 27.4 mm Constant	Titanium Plasma Spray	Titanium Plasma Spray
Proximal M/L Growth	1.5mm increments	.5mm–1mm increments	(A) 27.4 mm Constant	Not Available	1mm increments
Stem length	93mm–137.5mm	75mm - 99mm	(A) 87mm–123mm (B) 90mm–129mm (C) 96mm–135mm	92mm - 162.8mm	104.5mm - 125mm
Distal Geometry	Taper wedge	Curved Rounded Tip	Reduced Lateral Tip	Curved Lateral	Curved Lateral

U2™ Hip Stem

Femoral Hip System



U2™ Hip Stem

Tri-Wedge Design

- Designed to help provide axial and rotational stability which helps achieve normal proximal load transfer and reduces the potential for stem subsidence

Sintered Titanium Bead, Porous Coating

- Designed for biological fixation

Distal Polish Design

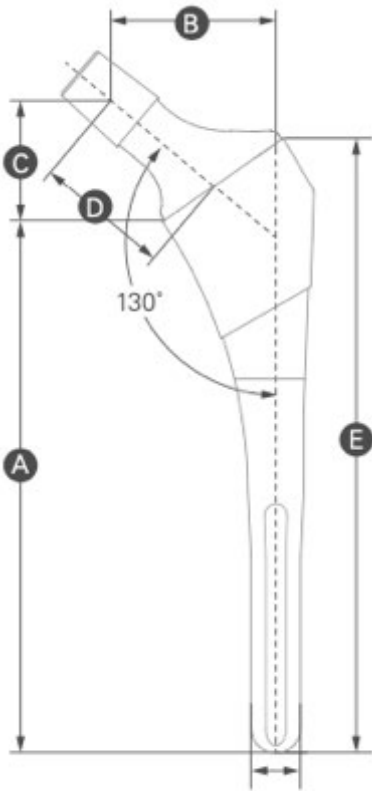
- Intended to prevent proximal stress shielding

Tear Drop Distal Tip

- Designed to help easy insertion and to prevent cortical impingement

12/14 Neck Taper

- Accommodate a complete selection of femoral heads



Distal Diameter

Size	Distal Diameter	A Medial Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
#0	8	106	30	22.7	27	120
#1	9	110	35	24.2	30	126
#2	10	115	36	24.3	30	132
#3	10	113	39	28.2	34	132
#2	11	121	36	24.3	30	138
#3	11	119	39	28.2	34	138
#4	11	118	39	29.3	34	138
#3	12	126	39	28.2	34	145
#4	12	125	39	29.3	34	145
#5	12	124	43	33.2	38	145
#5	13	131	43	33.2	38	152
#6	13	129	45	36.6	41	152
#6	14	135	45	36.6	41	158
#7	15	142	45	37.5	41	166

Unit: mm

U2™ Hip Stem



Collar Design

- Helps prevent stem subsidence

PMMA Spacer

- Spacer design helps maintain the appropriate cement mantle on each side of the stem

Shark Fin Design

Helps transfer hoop stress into compression forces

Centralizer

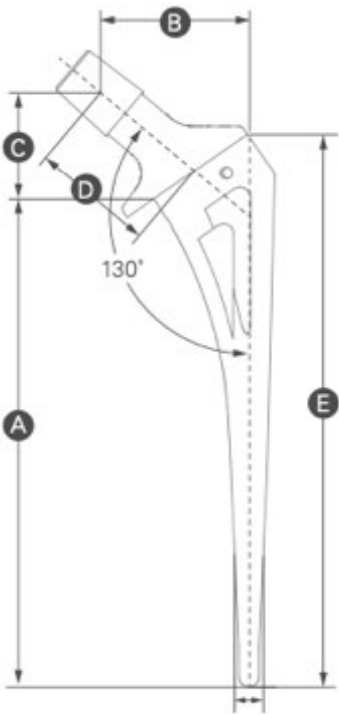
Intended to equalize cement mantle and optimizes correct stem alignment

Cement Restrictor

Helps prevents cement leakage

12/14 Neck Taper















- Accommodate a complete selection of femoral heads



Distal Diameter

Size	Distal Diameter	A Medial Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
#2	10	110	36	23.7	30	126
#3	11	115	39	27.3	34	132
#4	12	120	39	28.4	34	138
#5	13	125	43	32.4	38	144
#6	14	130	45	35.7	41	151

Unit: mm

					
					
					
Total Stem Options	21	53	19	71	38
Standard Sizes Options	8	10	11	23	12
Neck Angle	130°	130°	132° & 127°	131°	130°
Neck Offset	Standard Offset	Standard & High Offset	Standard & Extended Offset	Standard & High Offset	Standard & High Offset
Std Neck Lengths	Progressive	Progressive	Progressive	Progressive	Progressive
Stem Design	3° Conical Taper	3° Conical Taper	3° Conical Taper	3° Conical Taper	3° Conical Taper
Stem Options	Press-Fit & Cemented	Press-Fit & Cemented	Press-Fit	Press-Fit & Cemented	Press-Fit & Cemented
Technique	Ream & Broach	Ream & Broach	Ream & Broach	Ream & Broach	Ream & Broach
Coating	Sintered Titanium Beads Titanium Plasma Spray With HA	Porocoat & DuoFix	PureFix HA	Synergy Porous-Coating Synergy HA- Coating Synergy Porous Plus Synergy Ti-Press	Titanium Plasma Spray
Stem length	120mm - 166mm	135mm-180mm (approximate sizes)	100mm - 170mm	120mm - 190mm	100mm - 153mm
Distal Geometry	Tear Drop	Tear Drop	Round	Tear Drop	Tear Drop

UCP™ Stem

Femoral Hip System



UCP™ Stem

Tri-tapered Geometry

- Designed for optimal cement fixation and increased torsional stability

Adjustment Markers

- Assist the surgeon in adjusting insertion depth of the stem to help achieve optimal leg length

12/14 Neck Taper

- Accommodate a complete selection of femoral heads

Standard and High Offset

- Designed to allow optimization of soft tissue tensioning and joint stability



Polished Surface

- Helps minimize friction at the stem-cement interface and reduce the potential for cement failure.

Forged Cobalt Chrome

- Designed to offer increased mechanical strength

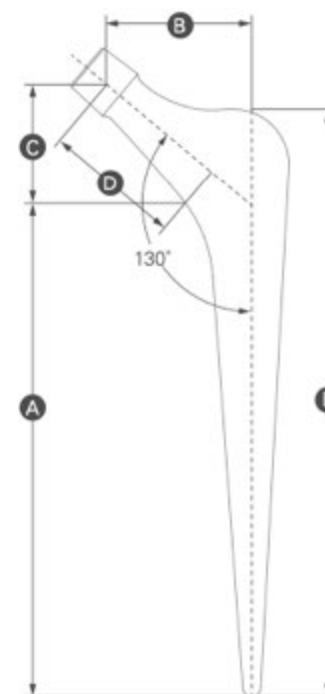
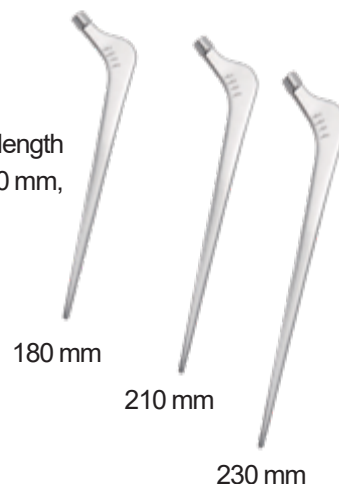
- For primary cases: Standard stem 125 mm length
- For revision cases: Long stem options in 180 mm, 210 mm, and 230 mm lengths

Centralizer

- Allows stem creeping to stable position



Cement Restrictor

- Prevents cement leakage



Size	A Medial Length	B Offset		C Vertical Height	D Neck Length		E Lateral Length
		Standard	High Offset		Standard	High Offset	
#0	110	32	37	29	41.8	48.3	132
#1	125	34	39	29	44.4	50.9	147
#2	125	36	41	29	47.0	53.5	147
#3	125	37	42	29	48.3	54.8	147
#4	125	38	43	29	49.6	56.1	147
#5	125	40	45	29	52.2	58.7	147
Long Stem							
#2	180	41		29	53.5		202
#3	180	42		29	54.8		202
#3	210	42		29	54.8		232
#3	230	42		29	54.8		252

Unit: mm

						
						
						
Neck Angle	130°	145°	130°	125°	131° / 125°	125°
Material	CoCr	CoCr	Stainless Steel	Stainless Steel	Forged CoCr / Stainless Steel	CoCr
Neck Length adjustments (depth markings)	15mm	15mm	10mm	8mm	11mm	8mm
Tapered Design	Triple	Double	Triple	Double	Triple	Triple
Primary Size	110, 125mm (12 sizes)	85, 95, 105, 130mm (18 sizes)	103, 106, 110.5, 115, 119.5, 124, 128.5, 133 & 137.5mm (21 sizes)	95, 115, 125 &150mm (25 sizes)	120 & 135mm (12 sizes)	127 & 149mm (9 Sizes)
Revision Size	180, 210 & 230mm (4 sizes)	180, 200, 230 & 260mm (7 sizes)	145.5, 148.5, 175.5 & 210.5mm (6 sizes)	205, 220, 240 & 260mm (6 sizes)	No Revision Options	No Revision Options
Offset Options	Standard/ High	Standard/ High/ Extra High	Standard/ High	Standard	Standard/ High	Standard



U2™ Revision Stem

Revision Femoral Hip System

U2™ Revision Stem

Shorter Offset Than Primary Implant Designs

- The shorter offset design helps facilitate joint reduction for patients with soft tissue scarring or contracture from previous surgeries

12/14 Neck Taper

- Accommodates a complete selection of femoral heads

Proximal Tri-Wedge

- Designed to provide rotational and axial stability

Fully Titanium Plasma Spray Coating

- Designed to promote biological fixation

Polished Bullet Tip

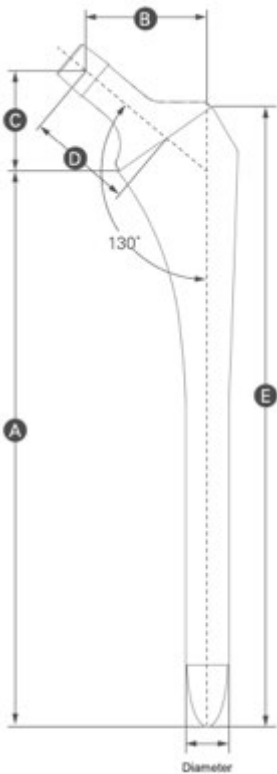
- Helps facilitate ease of insertion and reduce or prevent potential thigh pain

Straight 180 mm Length Stem

- Designed to enable diaphyseal fixation and avoid the risk of bone fracture, particularly for patients with a small femoral canal

Curved 230 mm Length Stem







- Designed to fit the anatomical shape of a femoral canal with increased bone deficiency and prevent potential cortical impingement and intraoperative shaft fracture



Diameter	A Medial Length	B Offset	C Vertical Height	D Neck Length	E Lateral Length
Straight					
Ø11	180	35	24.6	27	199
Ø12	180	35	25.6	27	200
Ø13	180	40	31.5	35	200
Ø14	180	40	32.9	35	203
Ø15	180	40	33.4	35	204
Ø16.5	180	45	37.0	41	204
Ø18	180	45	36.7	41	205
Curved					
Ø11	230	35	24.6	27	249
Ø12	230	35	25.6	27	250
Ø13	230	40	31.5	35	250
Ø14	230	40	32.9	35	252
Ø15	230	40	33.4	35	254
Ø16.5	230	45	37.0	41	254
Ø18	230	45	36.7	41	254

Unit: mm

Anterior Bowing

	 UNITED ORTHOPEDIC®	 ZIMMER BIOMET	 DePuy Synthes <small>PART OF THE Johnson & Johnson FAMILY OF COMPANIES</small>	 smith&nephew	 Exactech® <small>Surgeon focused. Patient driven.™</small>
	U2™ Revision	Arcos®	SOLUTION	REDAPT®	Alteon®
					
Total Stem Options	21	20	46	84	37
Standard Sizes Options	7	10	18	10	14
Neck Angle	130°	135° & 130°	135°	131° & 125°	131°
Neck Offset	Standard	Standard & High Offset	Standard	Standard & High Offset	Standard
Std Neck Lengths	Progressive, 35mm-45mm	Progressive	Constant, 36mm	Progressive, 33mm-35mm	Progressive, 36.8mm-40.6mm
Stem Design	Straight & Curved	Straight	Straight & Curved	Straight	Straight
Stem Options	Press-Fit	Press-Fit	Press-Fit	Press-Fit	Press-Fit
Diameters	11mm - 18mm	9.5mm - 22mm	10.5mm-22.5mm	12mm-27mm	14mm-30mm
Technique	Ream & Broach	Ream & Broach	Ream & Broach	Ream & Broach	Ream & Broach
Coating	Titanium Plasma Spray	Titanium Plasma Spray	Extensively Porous- Coated	Titanium with Rocktite Flutes	Titanium with Flutes
Stem length	180mm & 230mm	170mm & 220mm	203mm, 230mm & 254mm	240mm, 290mm & 300mm	195mm, 245mm & 295mm
Distal Geometry	Bullet Tip	Bullet Tip	Bullet Tip	Bullet Tip	Taper Flat

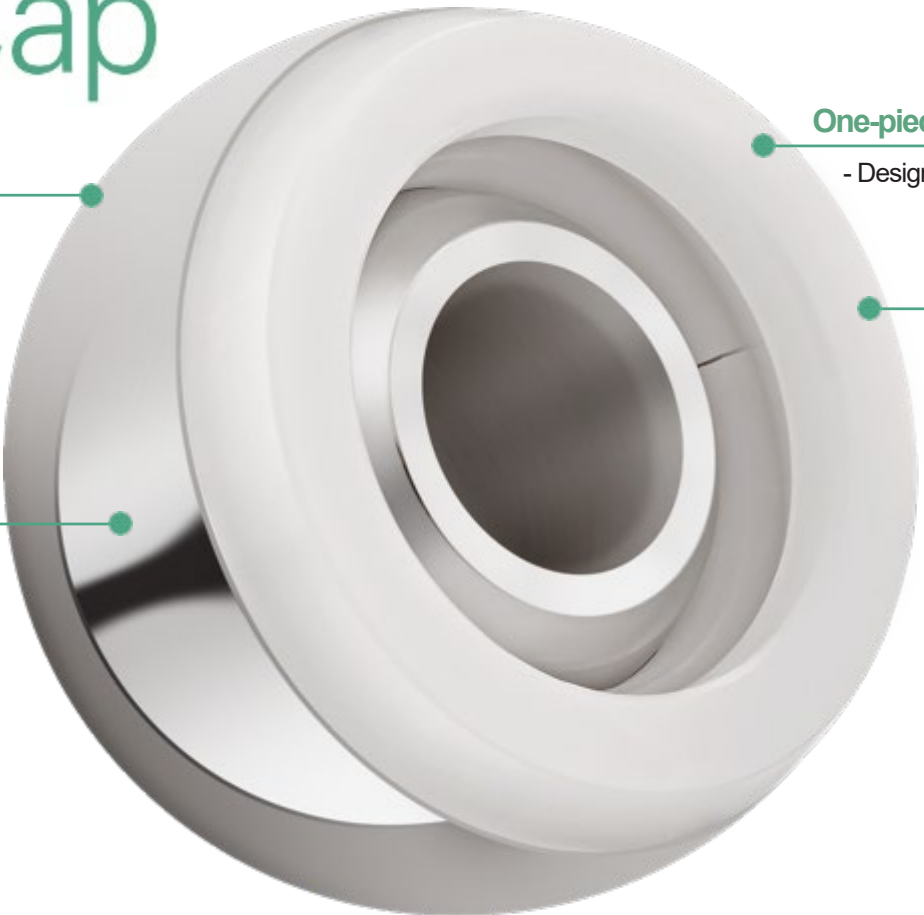


Bipolar II™ Cap

Hemi-Arthroplasty Hip System



Bipolar II™ Cap



- Metal surface roughness of $Ra \leq 0.02 \mu\text{m}$ exceeds the ISO Standard of $Ra \leq 0.5 \mu\text{m}$

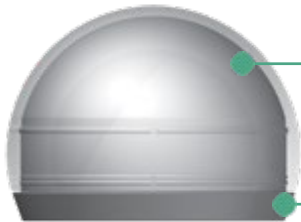
Highly Polished Surface

- Designed to reduce the wear of the acetabulum

One-piece Assembly with Simple Locking Ring Mechanism

- Designed to allow surgical efficiency while maintaining strength

- Minimum polyethylene thickness of 5 mm



Anti-rotation Design

- Helps minimize micromotion between the cap and the PE liner

Outer Beveled Lip Design

- Allows for easy reduction

Bipolar II Cap and Femoral Head Compatibility Chart

Outer Diameter	Head size
38 mm	22 mm
39 mm	
40 mm	
41 mm	22 or 26 mm
42 mm	
43 mm	28 mm
44 mm	
45 mm	
46 mm	
47 mm	
48 mm	
49 mm	
50 mm	
51 mm	
52 mm	
53 mm	
54 mm	
55 mm	
56 mm	



Bipolar II™

Modular Bipolar

RingLoc® Bi-polar

SELF-CENTERING™

TANDEM[®]
BIPOLAR



Size	19	26	17	23	20
Size Range	38 mm- 56 mm (1 mm increments)	38 mm - 70 mm (1 mm increments 38-60mm) (4 mm increments 60-70mm)	41 mm- 60 mm (1 mm increments 38-60mm)	38 mm - 70 mm (1 mm increments 38-61mm) (2 mm increments 61-65mm)	38 mm - 59 mm (1 mm increments 38-55mm) (2 mm increments 55-59mm)
Femoral Heads	22 mm, 26 mm & 28 mm	22mm & 26mm	28 mm	28 mm	22 mm & 28 mm
Femoral Head Offset	(-3, +0, +2.5, +5, +7.5,+10)	(-3.5 ~ +8)	(-6,-3,+3,+6,+9,+12)	(-3,+0,+5,+10)	(-3,+0)
Assembly	Pre-assembled	Self-assembled	Pre-assembled	Pre-assembled	Self-assembled

					
					
					
Size	19	23	19	23	19
Size range	38 mm- 56 mm (1 mm increments)	38 mm - 72 mm (1 mm increments 38-56mm) (4 mm increments 56-72mm)	42 mm- 60 mm (1 mm increments)	38 mm- 60 mm (1 mm increments)	40 mm - 61 mm (1 mm increments 40-55mm) (2 mm increments 55-61mm)
Femoral Heads	22 mm, 26 mm & 28 mm	28 mm	22 mm & 28 mm	22 mm & 28 mm	28 mm
Femoral Head Offset	(-3, +0, +2.5, +5, +7.5,+10)	(-2.5,-3, +0,+2.5,+5,+7.5,+10)	Not Available	(-6,-3,+0,+3,+6,+9)	(-3,+0,+3.5,+7,+10)
Poly Assembly	Pre-assembled	Pre-assembled	Self-assembled	Pre-assembled	Self-assembled



Full XPE™ Cup

Acetabular Hip System



Full XPE™ Cup

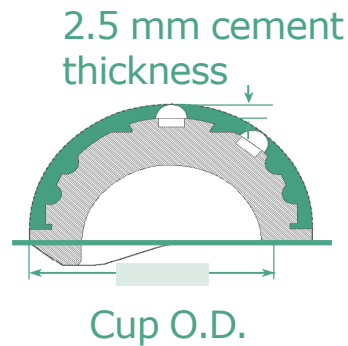
Ease of Handling

- A proprietary locking mechanism allows all cup options to be inserted with the same cup positioner



PMMA Spacer

- Helps to centralize the cup and create a uniform 2.5 mm cement thickness intended to evenly distribute the load transfer to the cement and bone



Horizontal & Vertical Groove

- Designed to enhance torque resistance and cement-implant fixation

Pressurizing Flange

- Designed to allow for optimal cement penetration and to help prevent cement extrusion.

X-ray Marker

- Metal ring for X-ray image identification

Full XPE Cup and Femoral Head Compatibility Chart



Cup Size (mm)	Head Size (mm)
42	26
44, 46	28
48, 50	32
52~62	36



Locking Cage™

Revision Acetabular Hip System

Locking Cage™

Multiple Screw Holes

- Facilitate the surgeon's ability to utilize a desired area for screw fixation

Pre-bent Flanges

- Designed to optimize fit with anatomy

Modular Ischial Flange

- Provides additional support options

Modular Hook

- Designed to provide additional prosthetic stability
- Available in 3 sizes

Poly-axial Screw

- Designed to secure the cage to the acetabulum
- Screws are available in 15-75 mm lengths



Locking Cage, Full XPE Cup Compatibility Guide

(Recommended maximum size, for 2.5 mm cement mantle)

Cage Size Cup Size	50 mm	54 mm	58 mm	62 mm	66 mm	70 mm
42 mm	●					
44 mm						
46 mm		●				
48 mm						
50 mm			●			
52 mm						
54 mm				●		
56 mm						
58 mm					●	
60 mm						
62 mm						●

THANK YOU