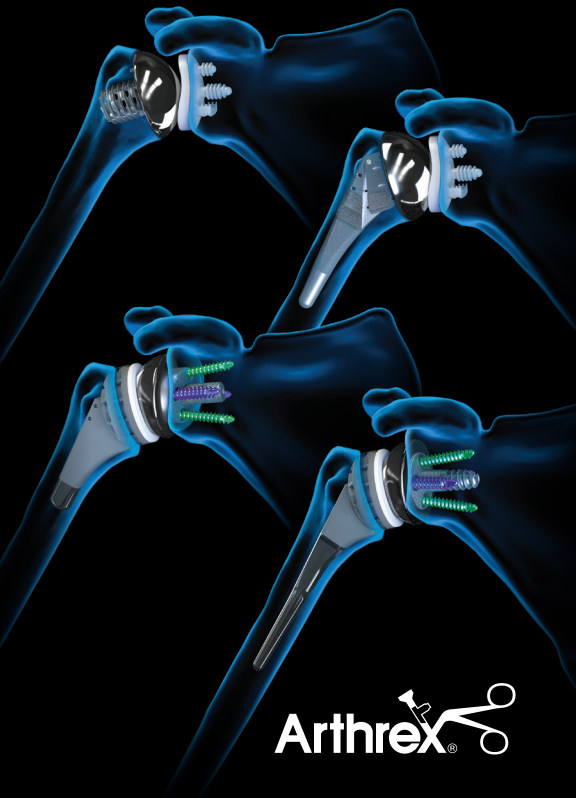


Shoulder Arthroplasty

Reference Guide



Arthrex® 

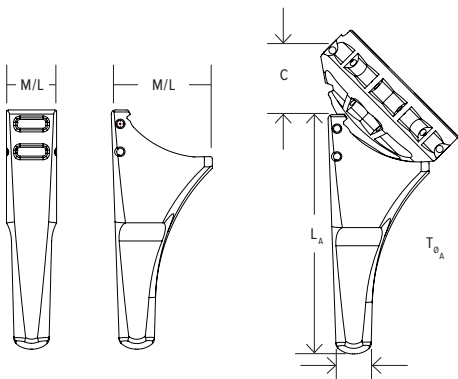
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Univers Revers™ Total Shoulder System



Univers Revers™ Apex Humeral Stem

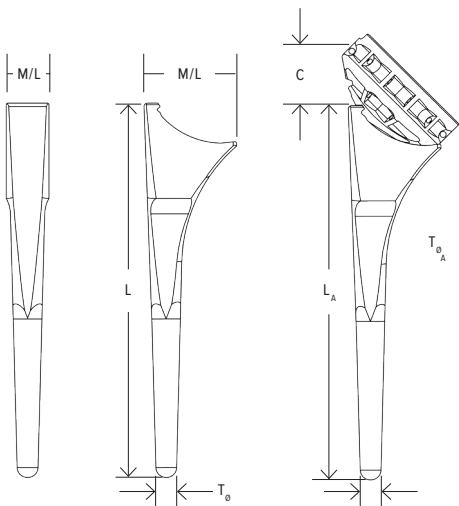


Humeral Stem Dimensions

Stem Size	Length, L_A (mm)	A/P (mm)	M/L (mm)	$T_{\theta A}$ (mm)
6	60	12.6	25.4	8.9
7	60	12.6	25.4	9.8
8	60	12.6	26.4	10.8
9	60	12.6	27.4	11.8
10	60	14.5	28.4	12.8
11	60	14.5	29.3	13.8
12	60	14.5	30.3	14.7
13	65	17.5	31.4	15.7
14	65	17.5	32.4	16.7
15	65	17.5	33.3	17.7

Note: Additional length (C) is 10 mm for a 155° construct, and 18 mm for a 135° construct.

Univers Revers™ Humeral Stem



Humeral Stem Dimensions

Stem Size	Length (mm)	A/P (mm)	M/L (mm)	T _{0A} (mm)	Additional Length, C (mm)
4 (mono)	78	10	17.4	5.7	C ¹³⁵ = 19
5 (mono)	95	12.6	20.5 (155°) 22 (135°)	5.5	C ¹⁵⁵ = 12 C ¹³⁵ = 19
5 (modular)	99	11.5	23.3	5.5	C ¹⁵⁵ = 10 C ¹³⁵ = 18
6	111	12.6	25.4	6	
7	115	12.6	25.4	7.8	
8	119	12.6	26.4	8.7	
9	123	12.6	27.4	9.5	
10	127	14.5	28.4	10.4	
11	131	14.5	29.3	11.2	
12	135	14.5	30.3	12	
13	139	17.5	31.4	13	
14	143	17.5	32.4	13.8	
15	147	17.5	33.3	14.6	

Revision length (180 mm) stems are available in stem sizes 6, 9, and 12.

SutureCups, Liners, and Spacers

- 33 mm, 36 mm, 39 mm, and 42 mm diameters.

SutureCup	Liner	Spacer
Neutral, +2 mm R, +2 mm L	Std +3 mm, +6 mm Const +3 mm, +6 mm	+6 mm, +9 mm, +12 mm, +15 mm



Please note that spacers can only be used in conjunction with +3 liners.





Uniers Revers™ Combination Humeral Insert Matrix

		Glenosphere Size				
		33 mm	36 mm	39 mm	42 mm	45 mm
SutureCup Size	33 mm	Standard Liner	33/36 Combo Liner			
	36 mm	36/33 Combo Liner	Standard Liner	33/39 Combo Liner		
	39 mm			Standard Liner	39/42 Combo Liner	
	42 mm				Standard Liner	42/45 Combo Liner

■ For use only with the Modular Glenoid System

■ For use with the Modular Glenoid System and Universal Glenoid™ System

Univers Revers™ Implant Compatibility Matrix

	 <p>Stem</p>	<p>Univers Revers Apex (Short): 6 mm-15 mm Univers Revers (Standard): 4 mm*-15 mm Revision: 6 mm, 9 mm, 12 mm *4 mm – Monoblock 135° with 33 mm cup only 5 mm – Monoblock 135° and 155° options with 36 mm cup only</p>								
	 <p>Cup Can be fixed at inclination angle of 135° or 155°</p>	33 left	33 Right	36 Left	36 Right	39 Left	39 Right	42 Left	42 Right	42 Right
Optional	 <p>Spacer In combination with +3 mm liners only</p>	33 6, 9, 12, 15 mm (for 6 mm-15 mm stems) (for 5 mm Modular)		36 6, 9, 12, 15 mm (for 5 mm-15 mm stems)		39 6, 9, 12, 15 mm (for 6 mm-15 mm stems) (for 5 mm Modular)		42 6, 9, 12, 15 mm (for 6 mm-15 mm stems) (for 5 mm Modular)		
	 <p>Liner</p>	33 +3 +6	36 +3 +6	33 +3 +6	36 +3 +6	39 +3 +6	42 +3 +6	42 +3 +6	45 +3 +6	42 +3 +6

Univers Revers™ Modular Glenoid System (MGS)

Baseplates

- 24 mm and 28 mm diameters
- +0 mm, +2 mm, +4 mm lateral offset

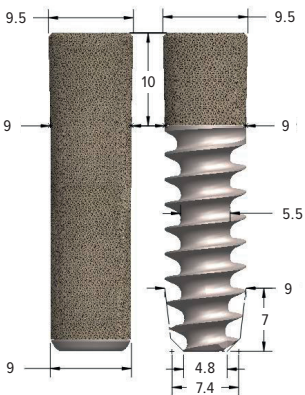
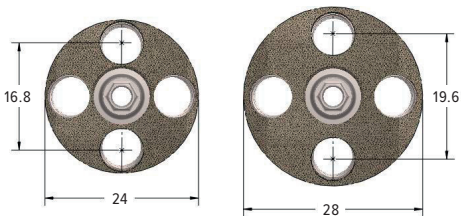


Central Fixation

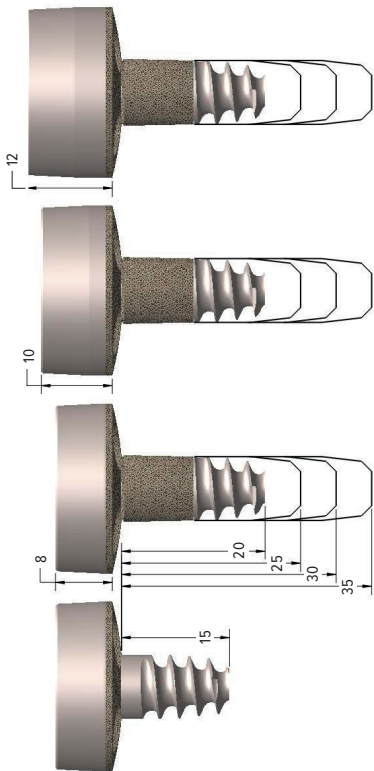
- Lengths (15-35 mm, 5 mm increments)
- 9.5 mm taper to 9 mm diameter (post)/7.4 mm diameter (screw)



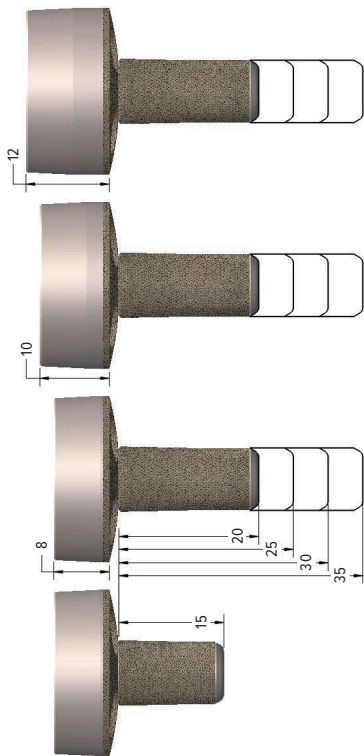
Key Dimensions



Note: Measurements in millimeters (mm).



Note: 15 mm length screw is a monoblock construct.



Note: 15 mm length post is a monoblock construct.

Screw Angulation



Standard



+2 Lateral



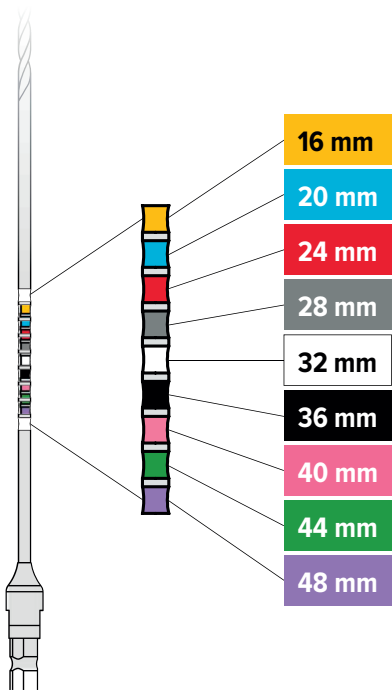
+4 Lateral

Baseplate	Nonlocking (°)	Locking (°)
24	20	10
28	20	10
24+2	16	8
28+2	20	10
24+4	12	6
28+4	18	9

Note: The screw angulation of nonlocking (variable-angle) and locking screws changes slightly based on the chosen baseplate. For specific angles, reference the chart above.

Sterile Drill Bit and Measurement Card

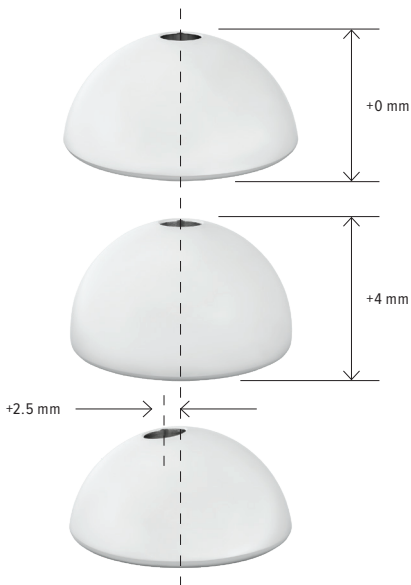
- 3.0 mm peripheral screw drill bit



Univers Revers™ MGS Glenospheres

Glenospheres

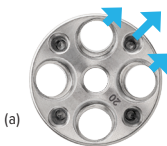
- 33 mm, 36 mm, 39 mm, 42 mm, 45 mm diameters
- +0 mm, +4 mm lateralized, +2.5 mm eccentric offset options
- Note that the 33/24 and 36/28 glenospheres do not have eccentric options



Univers Revers™ Augmented MGS

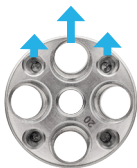
Baseplates

- 24 mm and 28 mm diameters
- +0 mm, +2 mm lateral offset
- Full-wedge: 10° and 20°
- Half-wedge: 15°, 25°, and 35°
- Standard and oblique



(a)

Orientation of the oblique augment (a)



(b)

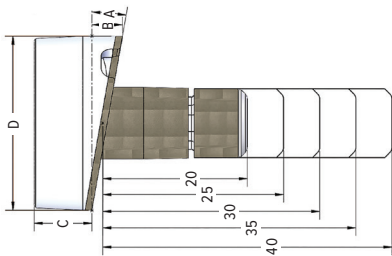
Orientation of the standard augment (b)

Central Fixation

- Various lengths (20 mm to 40 mm)
- 9.5 mm tapers to 9 mm diameter post

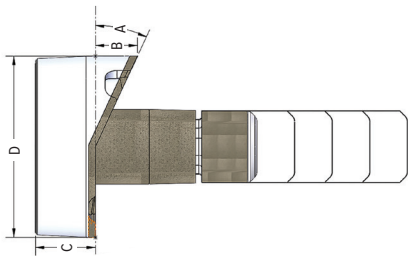
Full-Wedge Implants

Implant Description	A	B	C	D
24 mm Baseplate, 10° full-wedge	10°	4.2 mm	8 mm	24 mm
24 mm Baseplate, 20° full-wedge	20°	8.7 mm	8 mm	24 mm
24 mm Baseplate, 10° full-wedge, +2 lateralized	10°	4.2 mm	10 mm	24 mm
24 mm Baseplate, 20° full-wedge, +2 lateralized	20°	8.7 mm	10 mm	24 mm
28 mm Baseplate, 10° full-wedge	10°	4.9 mm	8 mm	28 mm
28 mm Baseplate, 20° full-wedge	20°	10.2 mm	8 mm	28 mm
28 mm Baseplate, 10° full-wedge, +2 lateralized	10°	4.9 mm	10 mm	28 mm
28 mm Baseplate, 20° full-wedge, +2 lateralized	20°	10.2 mm	10 mm	28 mm



Half-Wedge Implants

Implant Description	A	B	C	D
24 mm Baseplate, 15° half-wedge	15°	3.2 mm	8 mm	24 mm
24 mm Baseplate, 25° half-wedge	25°	5.6 mm	8 mm	24 mm
24 mm Baseplate, 35° half-wedge	35°	8.4 mm	8 mm	24 mm
24 mm Baseplate, 15° half-wedge, +2 lateralized	15°	3.2 mm	10 mm	24 mm
24 mm Baseplate, 25° half-wedge, +2 lateralized	25°	5.6 mm	10 mm	24 mm
24 mm Baseplate, 35° half-wedge, +2 lateralized	35°	8.4 mm	10 mm	24 mm
28 mm Baseplate, 15° half-wedge	15°	3.8 mm	8 mm	28 mm
28 mm Baseplate, 25° half-wedge	25°	6.5 mm	8 mm	28 mm
28 mm Baseplate, 35° half-wedge	35°	9.8 mm	8 mm	28 mm
28 mm Baseplate, 15° half-wedge, +2 lateralized	15°	3.8 mm	10 mm	28 mm
28 mm Baseplate, 25° half-wedge, +2 lateralized	25°	6.5 mm	10 mm	28 mm
28 mm Baseplate, 35° half-wedge, +2 lateralized	35°	9.8 mm	10 mm	28 mm



Augment Disposable Reamer Sizing Guide

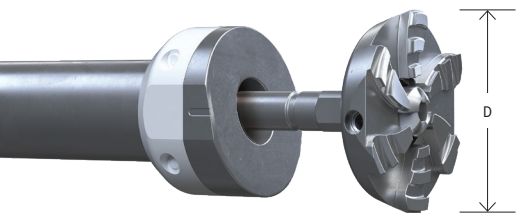
	24 mm	28 mm
10° Full-wedge	S	M
20° Full-wedge	S	L

	24 mm	28 mm
15° Half-wedge	S	M
25° Half-wedge	S	L
35° Half-wedge	L	XL

Augmented MGS Drill

Size	10° Full	20° Full	Half
20	20.3	19.1	21.6
25	25.3	24.1	26.6
30	30.4	29.1	31.6
35	35.5	34.1	36.6
40	40.6	39.1	41.6
	White Collar	Black Collar	

Glenoid Reaming



Diameter (D)	Part Number
29.4	AR-9675-S, AR-5410-AMGS-S
32.0	AR-9675-M, AR-5410-AMGS-M
35.4	AR-9675-L, AR-5410-AMGS-L
38.9	AR-9675-XL

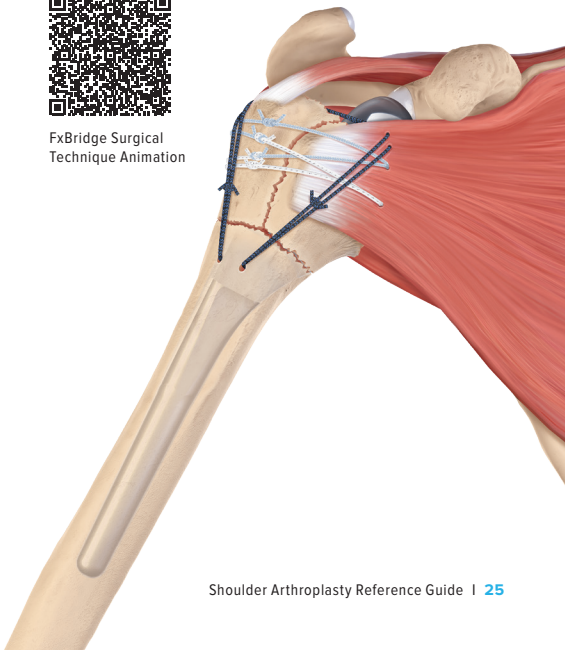
FxBridge™ Tuberosity Repair System

The FxBridge technique is an optimized repair of the greater and lesser tuberosities with the goal of anatomic tuberosity healing. Features 3 distinct suture colors for efficient suture management.

- #2 FiberLink™ and #2 TigerLink™ sutures
- FiberTape® and TigerTape® 1.7 mm sutures
- 1.3 mm SutureTape



FxBridge Surgical
Technique Animation



Bone Graft Set

MGS Bone Graft/Reamer Chart

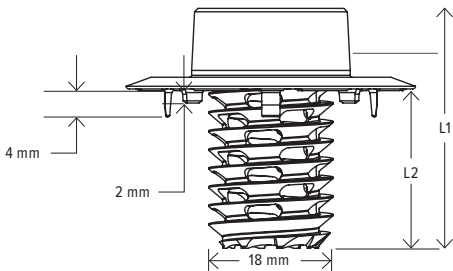
Angle (°)	(24 mm BP) 25 mm GRAFT	(28 mm BP) 30 mm GRAFT
10.0	S	M
12.5	S	M
15.0	S	L
17.5	S	L
20.0	S	L
22.5	M	L
25.0	M	L
27.5	M	XL
30.0	M	XL
32.5	L	XL
35.0	L	XL

Eclipse™ Total Shoulder System



Eclipse™ Total Shoulder Arthroplasty System

Key Dimensions



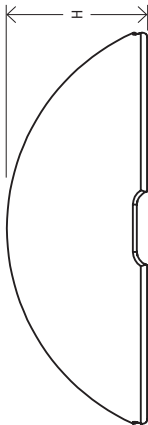
Eclipse Cage Screw and Trunnion

Cage Size	L1 (mm)	L2 (mm)
Small	30	18
Medium	35	23
Large	40	28
X-large	45	33

Note: Size corresponds to changes in length. Diameter remains constant (18 mm).

Eclipse™ Humeral Heads

		Head Size (mm)										
		37	39	41	43	45	47	49	51	53	55	
H (mm)	Anatomic	16	16	16	16	17	18	18	19	20	21	23
	Extended		18	18	18	19	20	20	21	22	23	



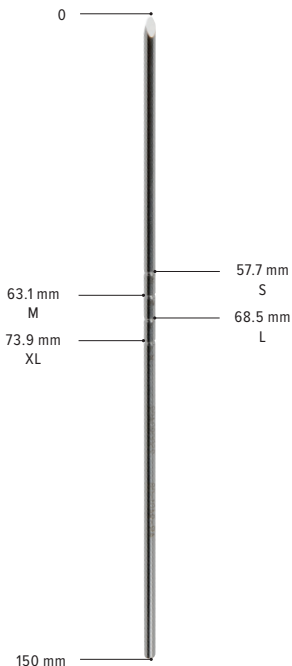
Glenoid Sizing Matrix - Radial Mismatch

Univers VaultLock[®], Convertible Universal Glenoid[™], and Keeled Glenoids

Eclipse [™] Total Shoulder Arthroplasty System	Head Size (mm)	Small (mm)	Medium (mm)	Large (mm)	XL (mm)
	37	9.9	11.4	12.9	14.4
	39	8.5	10	11.5	13
	41	7.25	8.75	10.25	11.75
	43	6	7.5	9	10.5
	45	4.5	6	7.5	9
	47	3.5	5	6.5	8
	49	2.5	4	5.5	7
	51	1.5	3	4.5	6
	53	0.5	2	3.5	5
55	-0.5	1	2.5	4	

Eclipse™ Cage Screw Sizing Pin

- If in between sizes, always size down from measured cage screw length
- Cage screw diameter is the same for all sizes (18 mm)



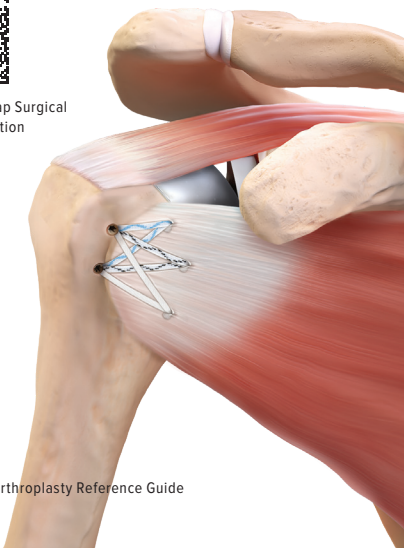
Eclipse™ SpeedScap Subscapularis Repair System

A thoughtfully designed repair kit to perform a knotless, subscapularis repair during stemless anatomic total shoulder arthroplasty using a peel technique.

- 3 x FiberTak DR anchors
- 2 x 3.9 mm SwiveLock® anchors
- 2 x 1.3 mm SutureTape
- SutureTape link and free needle included



Eclipse SpeedScap Surgical
Technique Animation



Univers VaultLock[®] Glenoid System



Uniers VaultLock® Glenoid System

Superior Peg (a)

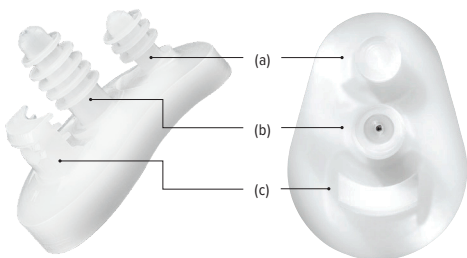
- Enhanced immediate fixation
- Self-pressurizing design
- 6.5 mm diameter flutes

Fluted Central Peg (b)

- Immediate fixation
- 7.5 mm diameter flutes, except most medial flute (6.5 mm)

Inferior Keel (c)

- Decreased cortical penetration compared to inferior pegs
- Multiple fixation features, including reverse barbs, flutes, and central cement fenestration

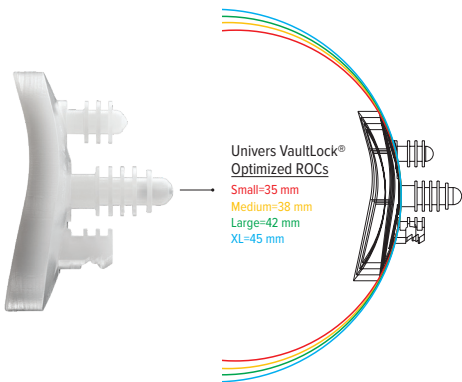


Inline Configuration

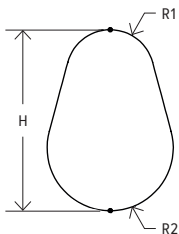
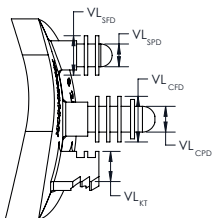
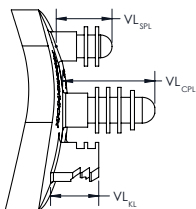
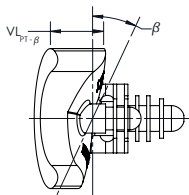
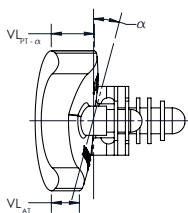
- Combines all advantages of pegged and keeled implants including stability and ease of preparation

Anatomic Backside Radius of Curvature (ROC)

- Matches glenoid poly to glenoid anatomy
- Bone-sparing reaming
- Simplified decision-making
- Anatomic solution with subchondral, bone-preserving design



Augmented VaultLock® Glenoid System



Glenoid Dimensions - VL and aVL

Size	H (mm)	R ₁ (mm)	R ₂ (mm)
Small	33	8	11.5
Medium	36	9.5	13
Large	39	11	14.5
Extra Large	42	12.5	16

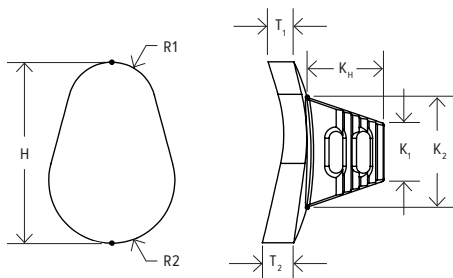
Augmented Specific Dimensions ($\alpha=15^\circ$ $\beta=25^\circ$)

Size	VL _{AT} (mm)	VL _{PT-α} (mm)	VL _{PT-β} (mm)
Small	4.6	7.1	8.8
Medium	4.7	7.6	9.5
Large	5	8.2	10.4
Extra Large	5.2	8.8	11.2

Peg Dimensions

VL _{CPL}	15.3 mm
VL _{SPL}	9 mm
VL _{KL}	8 mm
VL _{KT}	4.3 mm
VL _{SFD}	6.5 mm
VL _{SPD}	3.7 mm
VL _{CFD}	7.5 mm
VL _{CPD}	4.2 mm

Keeled Glenoids



Glenoid Dimensions

Size	H (mm)	R ₁ (mm)	R ₂ (mm)	T ₁ (mm)	T ₂ (mm)
Small	33	8	11.5	4.7	5.7
Medium	36	9.5	13	4.6	5.7
Large	39	11	14.5	4.5	5.6
Extra Large	42	12.5	16	4.4	5.5

Keel Dimensions, Same for All Sizes

K _H (mm)	K ₁ (mm)	K ₂ (mm)
14	10.6	20.1

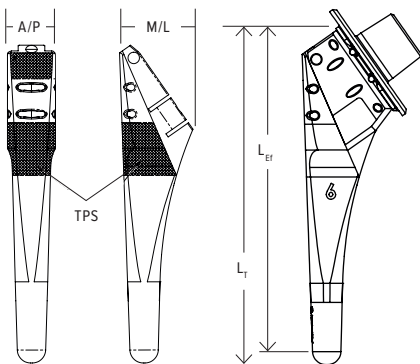
Note: Backside curvature for all sizes of keeled glenoids matches the backside curvature of the M-size VaultLock® glenoid.

Univers Apex OptiFit™ Total Shoulder System



Humeral Stem Dimensions

Stem Size	A/P (mm)	M/L (mm)	Total Length, L_T (mm)
5	11.5	22.9	87.48
6	12.6	19.2	88.38
7	12.6	19.3	88.55
8	12.6	19.7	89.42
9	12.6	20.7	89.91
10	14.5	22.5	90.43
11	14.5	23	90.90
12	14.5	23.5	91.14
13	17.5	25.3	91.69



Note: Titanium plasma spray (TPS) adds 0.7 mm to A/P dimension and adds 1.4 mm to M/L dimension for all sizes.

Univers™ II/Apex Total

Univers VaultLock® and Keeled Glenoids

Univers Apex OptiFit Total Shoulder System	Humeral Head	Small	Medium	Large	Extra-Large
	40	8.5	10	11.5	13
	42	7.5	9	10.5	12
	44	6.4	7.9	9.4	10.9
	46	5.3	6.8	8.3	9.8
	48	4.2	5.7	7.2	8.7
	50	3.1	4.6	6.1	7.6
	52	2.3	3.8	5.3	6.8
	54	1	2.5	4	5.5
	56	0.2	1.7	3.2	4.7

Note: Shaded region represents recommended sizes.

Universal Glenoid™ Convertible Baseplate

Univers Apex OptiFit™ Total Shoulder System	Humeral Head	Small	Medium	Large
	40	8.5	10	11.5
	42	7.5	9	10.5
	44	6.4	7.9	9.4
	46	5.3	6.8	8.3
	48	4.2	5.7	7.2
	50	3.1	4.6	6.1
	52	2.3	3.8	5.3
	54	1	2.5	4
	56	0.2	1.7	3.2

Note: Shaded region represents recommended sizes.

Univers™ Apex/ Univers II Total Shoulder System



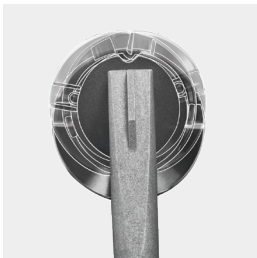
Implant Features



Inclination (125° - 140°)



Version ($\pm 10^{\circ}$)



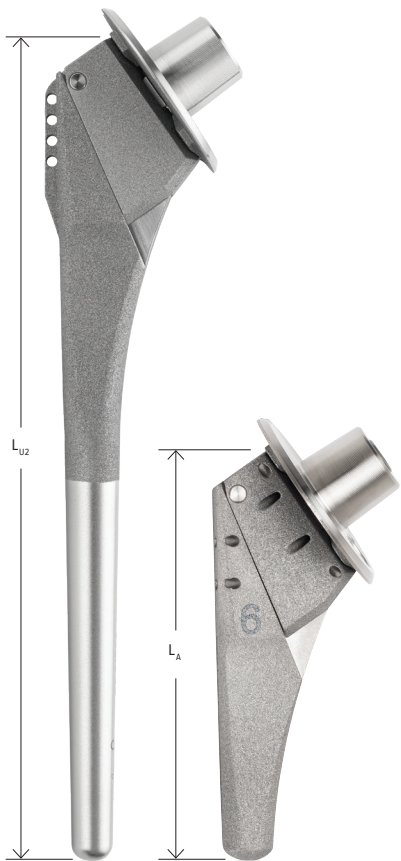
Offset (3.5 mm)

Humeral Stem Dimensions

Stem Size	Apex/UII A/P (mm)	Apex M/L (mm)	Univers II M/L (mm)
5	12.6	22.5	24.5
6	12.6	27	29
7	12.6	27	29
8	12.6	27.5	29.5
9	12.6	28.5	30.5
10	14.5	29.5	31.5
11	14.5	30	32
12	14.5	30.5	32.5
13	17.5	31.5	33.5
14	17.5	32	34
15	17.5	32.5	34.5

Humeral Length

	Apex	Univers™ II
Stem Size	Length, L_A (mm)	Length, L_{U2} (mm)
5	60	105
6	60	115
7	60	140
8	60	143
9	60	146
10	60	148
11	60	151
12	60	151
13	65	151
14	65	151
15	65	151



Humeral Head Sizes

Diameter (mm)	Height (mm)
40	17
42	17
44	17
44	19
46	18
46	20
48	19
48	21
50	19
50	21
52	20
52	22
54	21
54	23
56	22
56	24

Glenoid Sizing Matrix - Radial Mismatch (in mm)

Univers VaultLock® and Keeled Glenoids

Univers Apex / Univers II Total Shoulder System	Humeral Head	Small	Medium	Large	Extra Large
	40	8.5	10	11.5	13
	42	7.5	9	10.5	12
	44	6.4	7.9	9.4	10.9
	46	5.3	6.8	8.3	9.8
	48	4.2	5.7	7.2	8.7
	50	3.1	4.6	6.1	7.6
	52	2.3	3.8	5.3	6.8
	54	1	2.5	4	5.5
	56	0.2	1.7	3.2	4.7

Universal Glenoid™ Convertible Baseplate

Univers Apex / Univers II Total Shoulder System	Humeral Head	Small	Medium	Large
	40	8.5	10	11.5
	42	7.5	9	10.5
	44	6.4	7.9	9.4
	46	5.3	6.8	8.3
	48	4.2	5.7	7.2
	50	3.1	4.6	6.1
	52	2.3	3.8	5.3
	54	1	2.5	4
	56	0.2	1.7	3.2

Univers Revers™ Fracture Adapter



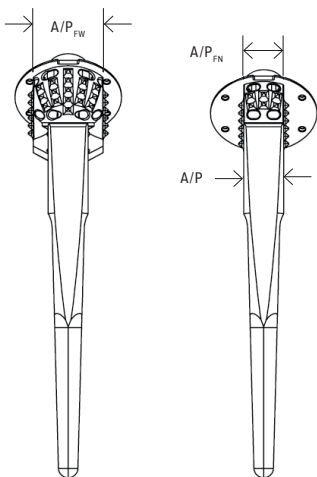
Univers Revers™ Stem Dimensions Compatible With Fracture Adapter

Stem Size	Length L	TØ	A/P	M/L
5 (modular)	99	5.5	11.5	23.3
6	111	6	12.6	25.4
7	115	7.8	12.6	25.4
8	119	8.7	12.6	26.4
9	123	9.5	12.6	27.4
10	127	10.4	14.5	28.4
11	131	11.2	14.5	29.3
12	135	12	14.5	30.3
13	139	13	17.5	31.4
14	143	13.8	17.5	32.4
15	147	14.6	17.5	33.3

Revision length (180 mm) stems are available in stem sizes 6, 9, and 12.

Fracture Adapter Dimensions (mm)

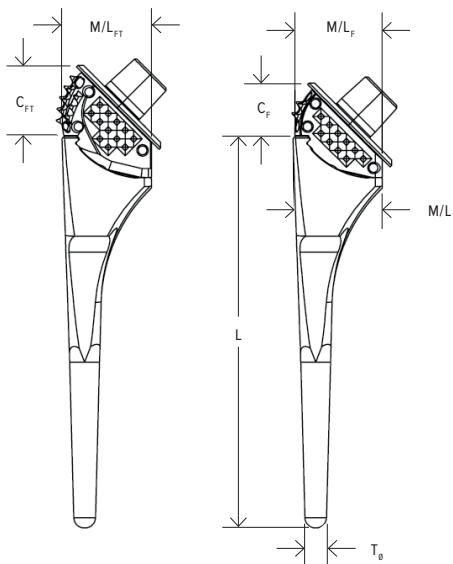
Size	Height C_F , C_{FT}	Width M/L_F , M/L_{FT}	Thickness A/P_{FN} , A/P_{FW}
5	14.5,-	22.8,-	11.5, 22
6-9	14.8, 19.8	24.9, 25.4	12.6, 22
10-15	14.8, 19.8	27.7, 27.7	14.5, 22



Note: Size 5 Fracture Adapter not available in tall.

Fracture Adapter Dimensions (mm)

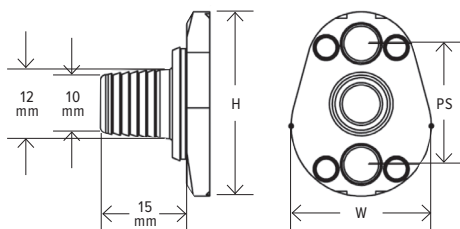
Size	Height C_F , C_{FT}	Width M/L_F , M/L_{FT}	Thickness A/P_{FN} , A/P_{FW}
5	14.5,-	22.8,-	11.5, 22
6-9	14.8, 19.8	24.9, 25.4	12.6, 22
10-15	14.8, 19.8	27.7, 27.7	14.5, 22



Convertible Universal Glenoid™ Implant System

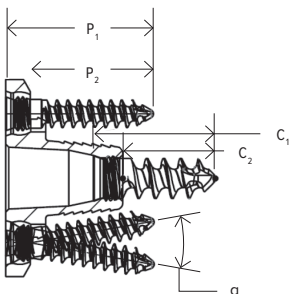


Key Dimensions



Baseplate Dimensions

Size	H (mm)	W (mm)	PS (mm)
S	32	24.4	21.0
M	35	27.4	22.0
L	38	30.4	23.0



Baseplate Screw Options and Dimensions

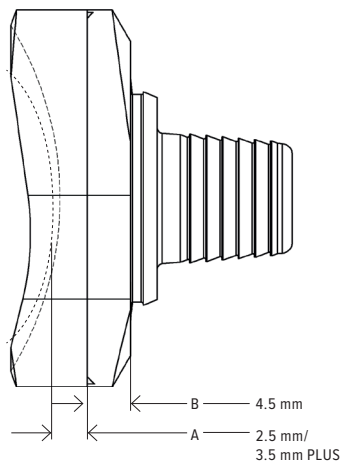
P1 (mm)	P2 (mm)	C1 (mm)	C2 (mm)	a (°)
24	20	15	10	18
30	26	20	15	-
36	32	25	20	-
42	38	-	-	-
48	44	-	-	-

Note: All screws available in locking and nonlocking configurations.

Anatomic Construct

Implant Thickness

Poly Insert	A To Articular Surface (mm)	B Baseplate (mm)	Total (mm)
Small	2.5	4.5	7
Small Plus	3.5		8
Medium	2.5		7
Medium Plus	3.5		8
Large	2.5		7
Large Plus	3.5		8

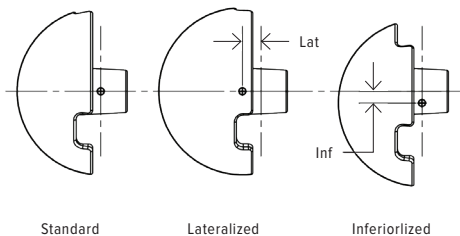


Reverse Construct

Implant Sizing Matrix

Baseplate Size	Glenosphere (mm)
Small	36, 39, 42
Medium	39, 42
Large	42

Note: Glenospheres are available in standard, +4 lateralized, and +2.5 eccentric options.





Arthrex manufacturer, authorized representative,
and importer information (Arthrex eIFUs)



US patent information



This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience, and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level and/or outcomes.

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