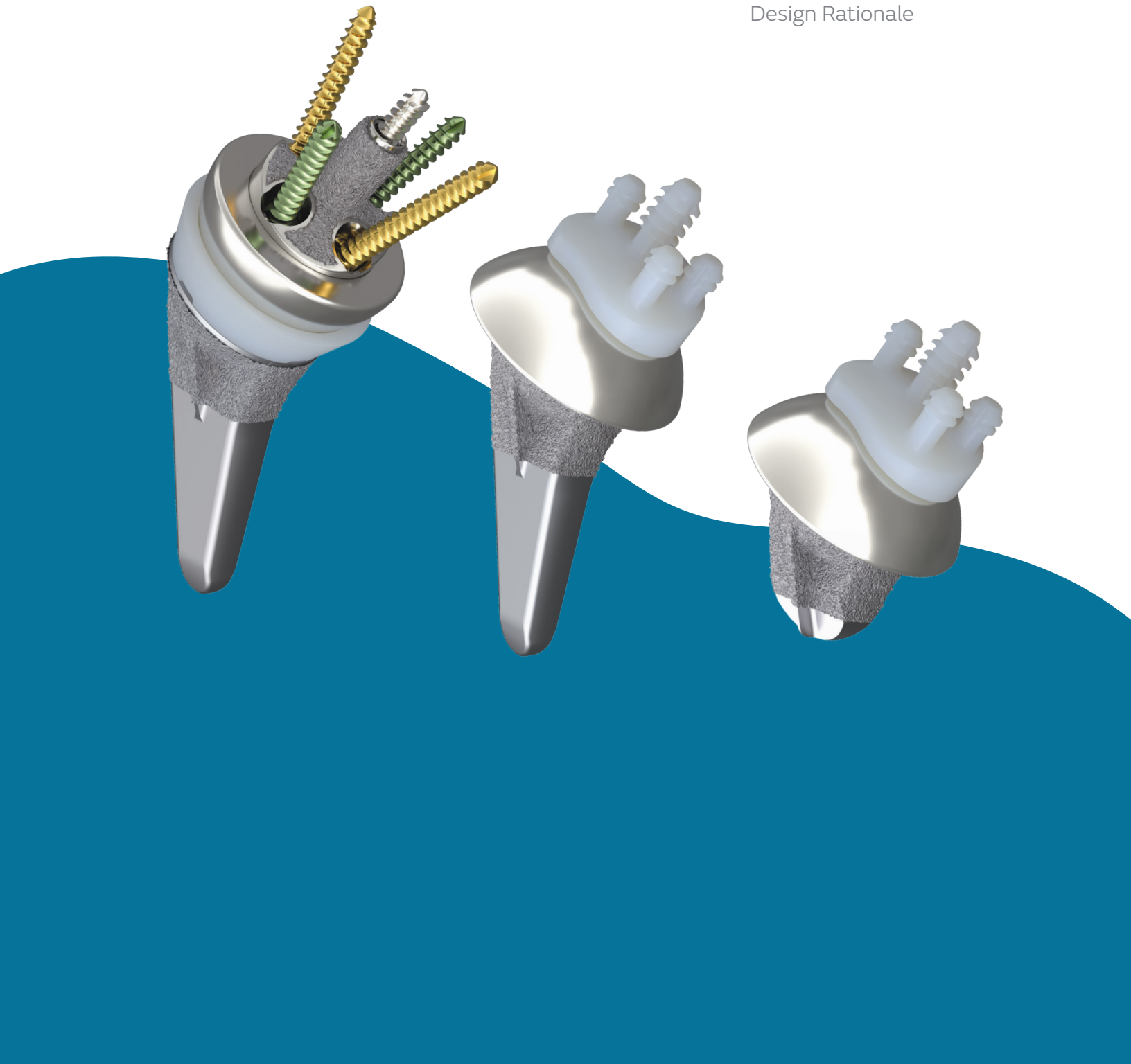
Smith+Nephew

AETOS◊
Shoulder System

Shoulder Arthroplasty
Design Rationale



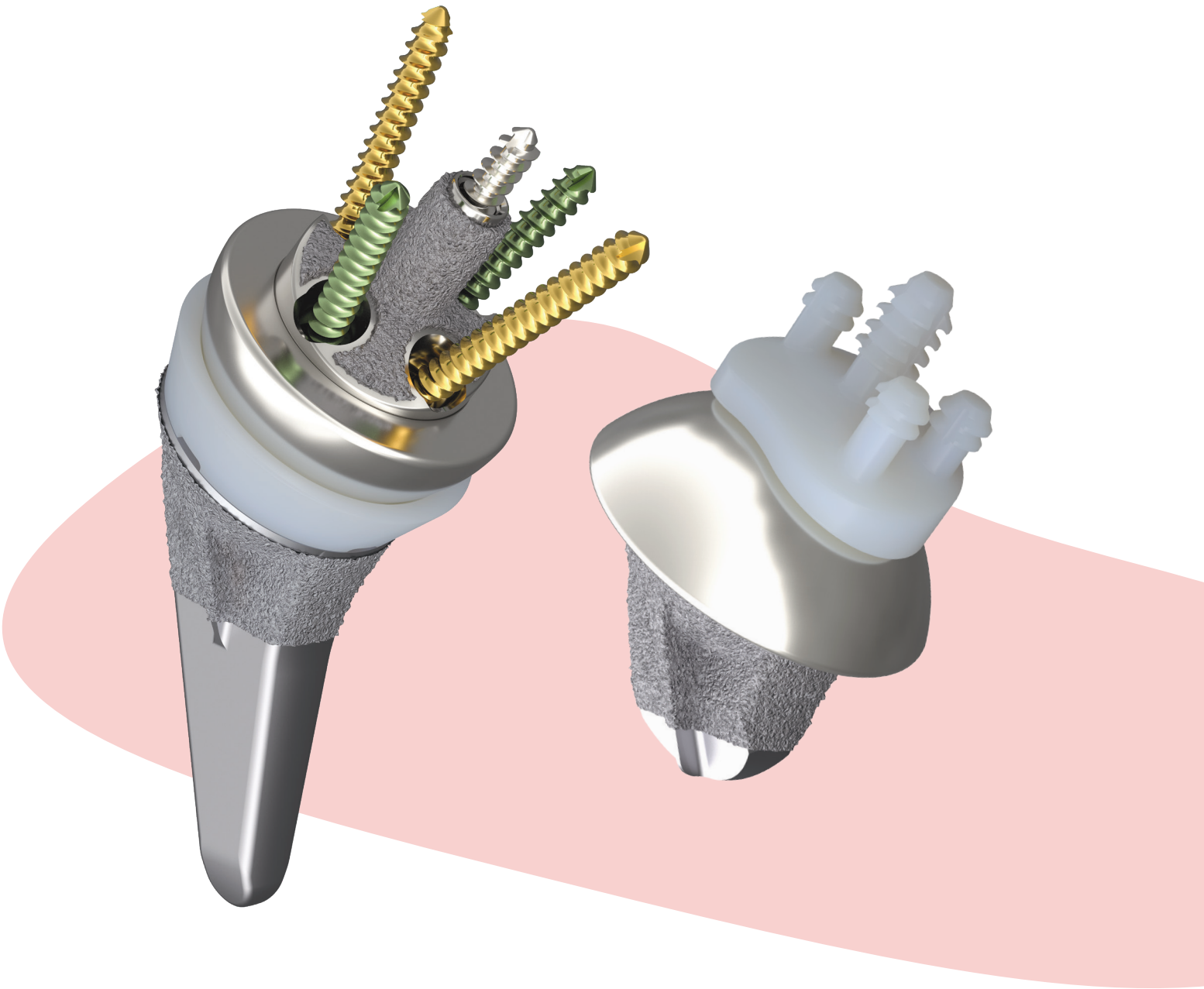
Design rationale

From experience and passion, AETOS Shoulder System is designed to be a bone preserving option for patients needing an anatomic or reverse shoulder arthroplasty.[1] Focusing on **morphological preservation**, the AETOS system maintains patient anatomy with anatomic humeral head cuts[2], and is focused on metaphyseal fixation, fit, and stability with an in-lay design[2] which can also minimize over-tensioning.[2]

The AETOS Shoulder System offers a compact yet comprehensive portfolio of solutions that allows for intraoperative flexibility[3] to elevate the surgical experience with **elegant simplicity.**[2,4,5]

System features

- Designed for stability
- Compact 3 tray system designed with smart instrumentation to streamline procedures[3]
- Intraoperative convertibility from Stemless to Meta Stem or TSA to RSA.[2,3]



Stemless ✚ Meta Stem

The difference a shape makes

The AETOS Stemless and Meta Stem implants have the same proximal geometry which allows for shared instrumentation and bone preparation.[3,6]

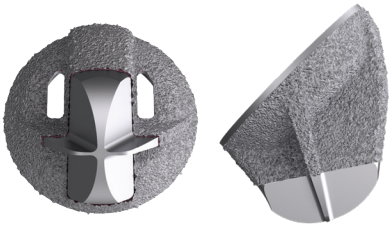
Shape

The AETOS Meta Stem is designed to provide metaphyseal fixation and stability with an in-lay collar.[2]

The large proximal tapered geometry of the in-lay collar allows for axial stability.[6] The in-lay design permits improved soft tissue tensioning.*

Inclination

AETOS Meta Stem is designed for anatomic neck resection.[2]



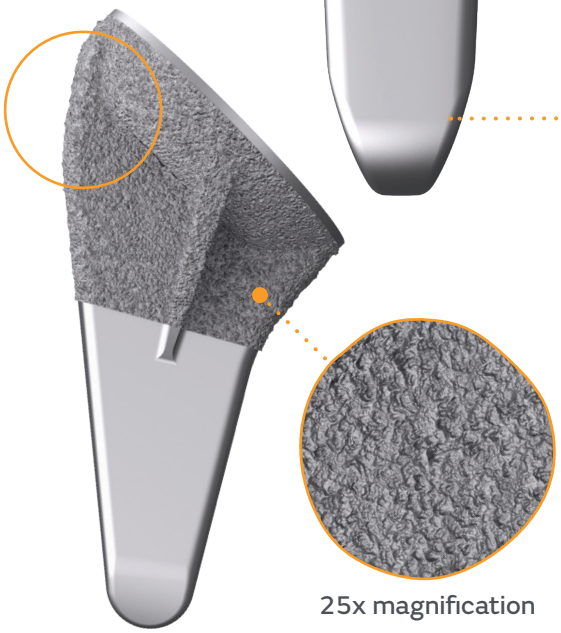
Cruciate fins

Fins to allow for metaphyseal centering while respecting posterior humeral offset. The fins also provide stability.

- Narrow, dual-taper Anterior/Posterior Fins are designed to provide rotational stability.[1]
- Medial/Lateral Fins are designed to prevent varus/valgus tilt and provide initial fixation.[1]

Lateral curve

Allows surgeons to respect the greater tuberosity during insertion.



25x magnification

Taper distal portion

AETOS Meta Stem provides the flexibility for anatomic placement.

The tapered distal portion of the AETOS Meta Stem minimizes cortical contact.[2,4]

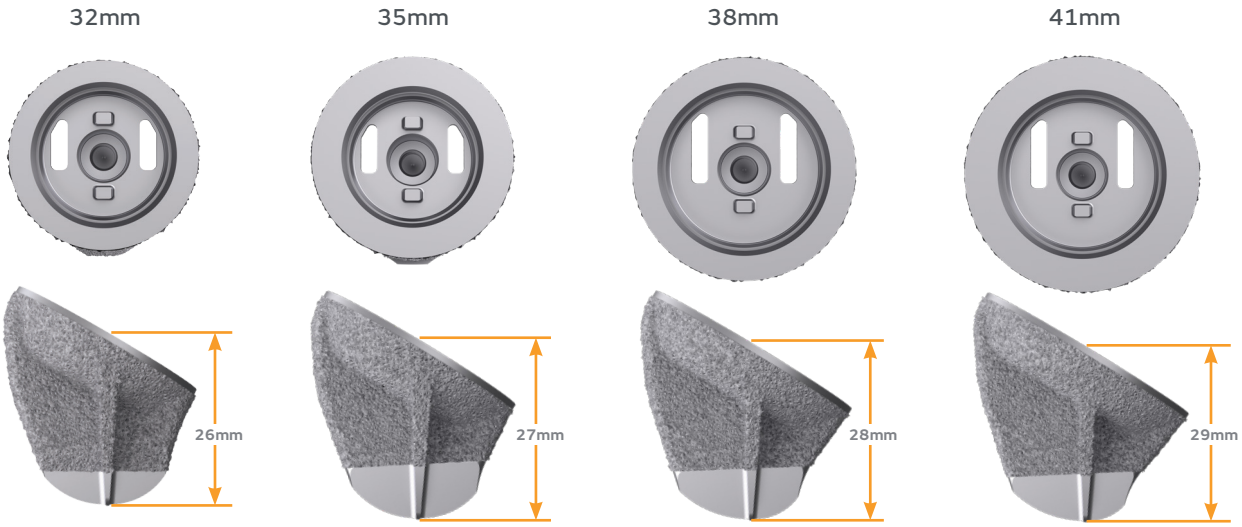
Plasma spray titanium coating

Textured titanium surface through plasma spray application.

*Compared to an onlay design

AETOS Stemless

4 stem sizes to address a variety of patients



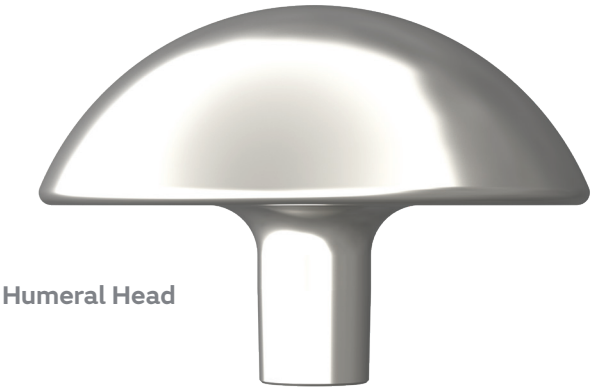
AETOS Meta Stem

4 stem sizes to address a variety of patients

Anatomic Humeral Head

Keeping anatomics, anatomic

Only concentric humeral heads are needed to restore the humeral head placement to native anatomic position due to the Meta Stem being a metaphyseal oriented stem and placed in the center of the humeral head osteotomy.[4] Compared to traditional shoulder systems, the AETOS Shoulder System is designed to reduce the inventory footprint required in the OR and facility.[3]



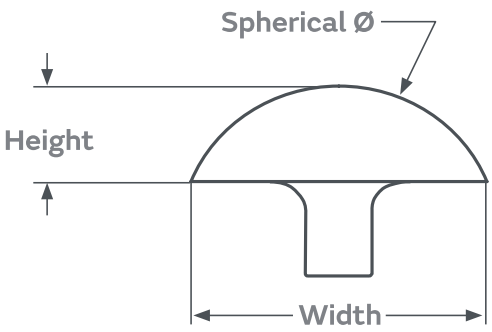
Humeral Head

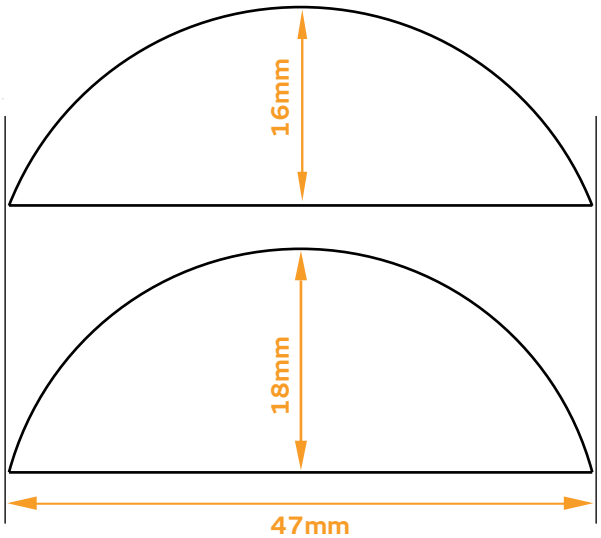
AETOS Humeral Head offerings

10 Concentric Heads

Size	Width	Height	Spherical ø
38-14	38mm	14mm	41mm
41-15	41mm	15mm	44.25mm
44-16	44mm	16mm	47.50mm
44-18	44mm	18mm	45.56mm
47-16	47mm	16mm	52.16mm
47-18	47mm	18mm	49.64mm
50-18	50mm	18mm	54mm
50-21	50mm	21mm	51.32mm
53-19	53mm	19mm	57.25mm
53-22	53mm	22mm	54.51mm

Designed to properly balance soft tissue in the shoulder





Base width same for each height

Anatomic Glenoid

AETOS Anatomic Glenoid

- 4 sizes to address a variety of patients

  Available in Standard, 5° & 10° full wedges to address varying patient bone loss.

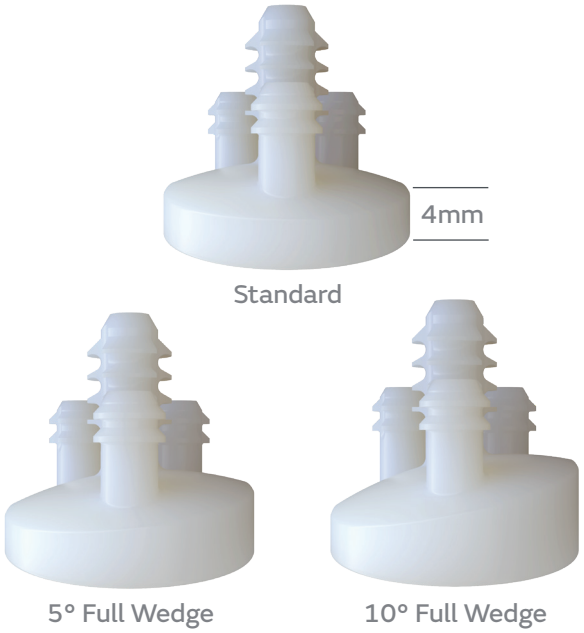
- Oval shape with 4-pegs

  Designed to provide stability and to resist rocking horse.[5,7]

- 9 longitudinal flutes

  Designed to evenly distribute and interdigitate cement across all 4-pegs.[7]

Cross-linked Polyethelene (XLPE)



Posterior augment poly thickness specifications

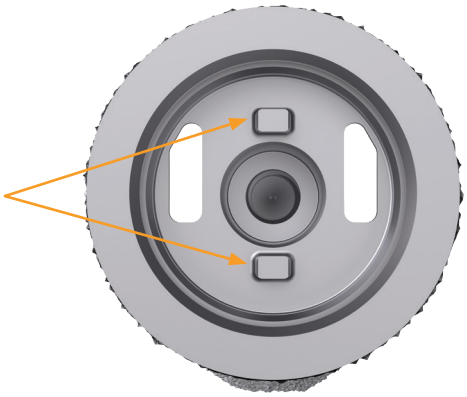
Glenoid base size	5° correction	10° correction
XS	4.4mm	6.2mm
S	4.8mm	6.4mm
M	5.2mm	6.5mm
L	5.6mm	6.8mm

Reverse Liner

Reverse Glenoid Liner offerings

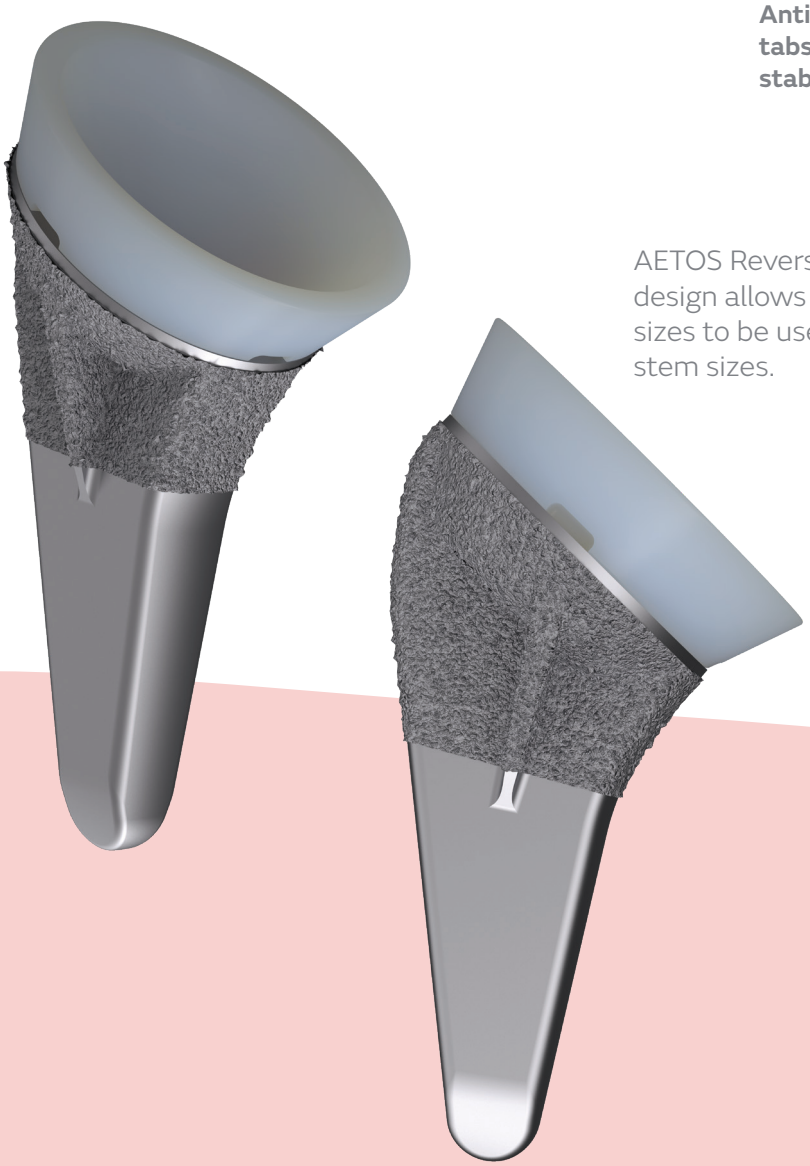
- Standard and Retentive options
- Thickness options: 0, +3, +6mm
- Material: Cross-linked Polyethelene (XLPE)

Reverse Poly Liner



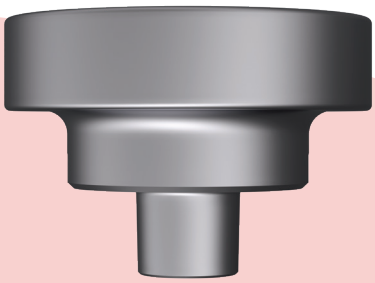
Anti-rotation tabs for rotational stability

AETOS Reverse Poly Liners' lead-in tip locks into the stem.



AETOS Reverse Poly Liners' design allows all glenosphere sizes to be used across all stem sizes.

A 9mm spacer can be used to properly tension the deltoid, providing additional offset of +9, +12, +15mm.



Baseplate

Shapes

Eccentric Baseplate allows for the post to be placed centrally similar to an anatomic glenoid prep.

Circular baseplate design allows for implantation flexibility.

Offerings

Centered, Eccentric
10° Full Wedge and
15° Full Wedge

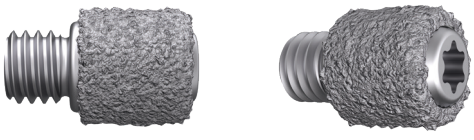
Centered | Eccentric | 10° Full Wedge | 15° Full Wedge

Central Post

- 8.75mm diameter
- 15mm length

Post Extension options

- 8.25mm diameter, available

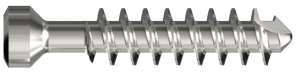


Baseplate *continued*

Central Screw

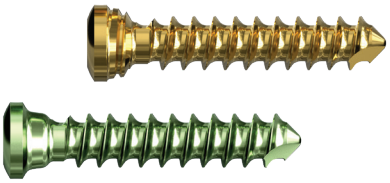
A central screw* provides compression independent of the baseplate orientation.

- 4.5mm diameter, available in 7 lengths



Peripheral Screw options

Variable angle, 4.5mm screws in 8 lengths allows flexibility to provide the best fixation in vary bone quality with locking or compression in baseplate peripheral hole.



Plasma spray titanium coating

Textured titanium surface through plasma spray application.

25x magnification

*Central screw cannot be used if post extension is used and cannot be used with eccentric baseplate

Glenosphere

Glenosphere offerings

- 3 Diameters
- 4 Soft-tissue Adjustment Offsets
- Taper and Retention Screw
- Integrated Rotation Control with insertion handle.

	Concentric	Concentric Lateralized 3mm	Eccentric 4mm	Eccentric 4mm & Lateralized 3mm
34		*		
38				
42				

*Lateralization +1mm

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Smith & Nephew, Inc.
1450 Brooks Road
Memphis, Tennessee 38116
USA

www.smith-nephew.com

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References

1. Harmer L, Throckmorton T, Sperling JW. Total shoulder arthroplasty: are the humeral components getting shorter? Curr Rev Musculoskelet Med. 2016;9(1):17-22. **2.** Smith+Nephew 2023. AETOS Inlay Design Features. Internal Report. ER-04-0990-0017. **3.** Smith+Nephew 2023. AETOS Instruments & Trays. Internal Report. ER-04-0990-0020. **4.** Smith+Nephew 2023. AETOS Anatomic Humeral Head Design. Internal Report. ER-04-0990-0019. **5.** Integra 2022. Aetos Anatomic Glenoid Loosening Report. Internal Report. ER-04-0990-0013 REV AA. **6.** Smith+Nephew 2024. AETOS Short Stem Stability Report. Internal Report. ER-04-0990-0008 REV AC. **7.** Smith+Nephew 2023. AETOS Glenoid Interdigitation Feature. Internal Report. ER-04-0990-0018.