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Shandong ShinvaUnited Orthopedic Company Limited

渠道

ShinvaUnited Channel

SU-XU-B-H-PRI Rev.0/Oct.2024

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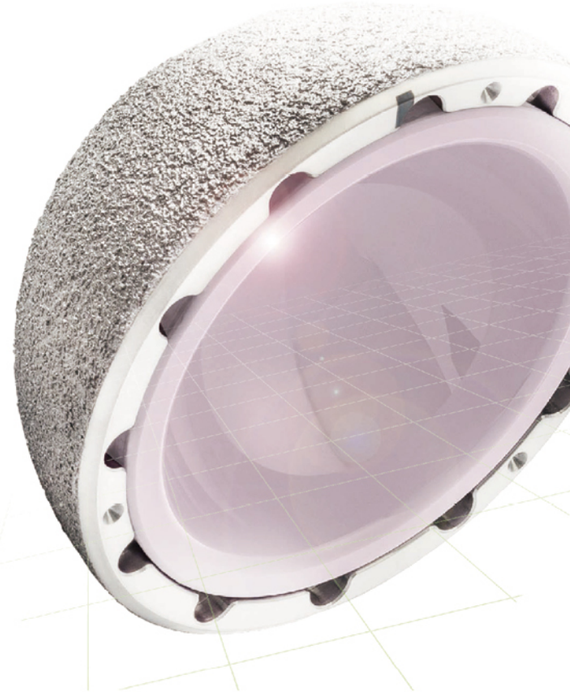
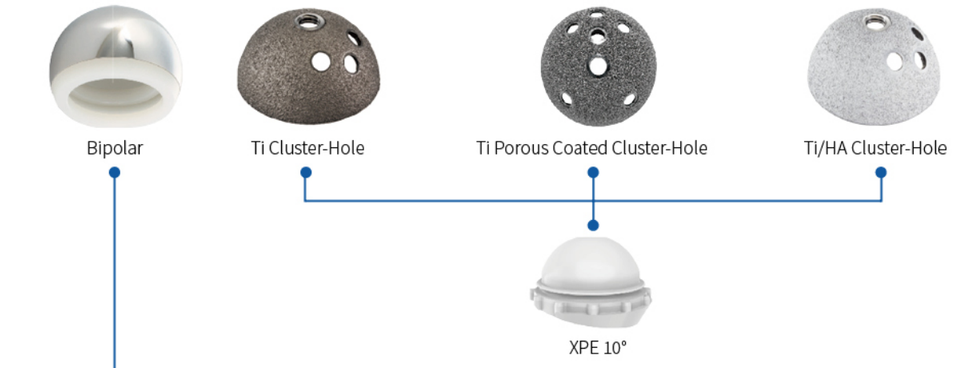


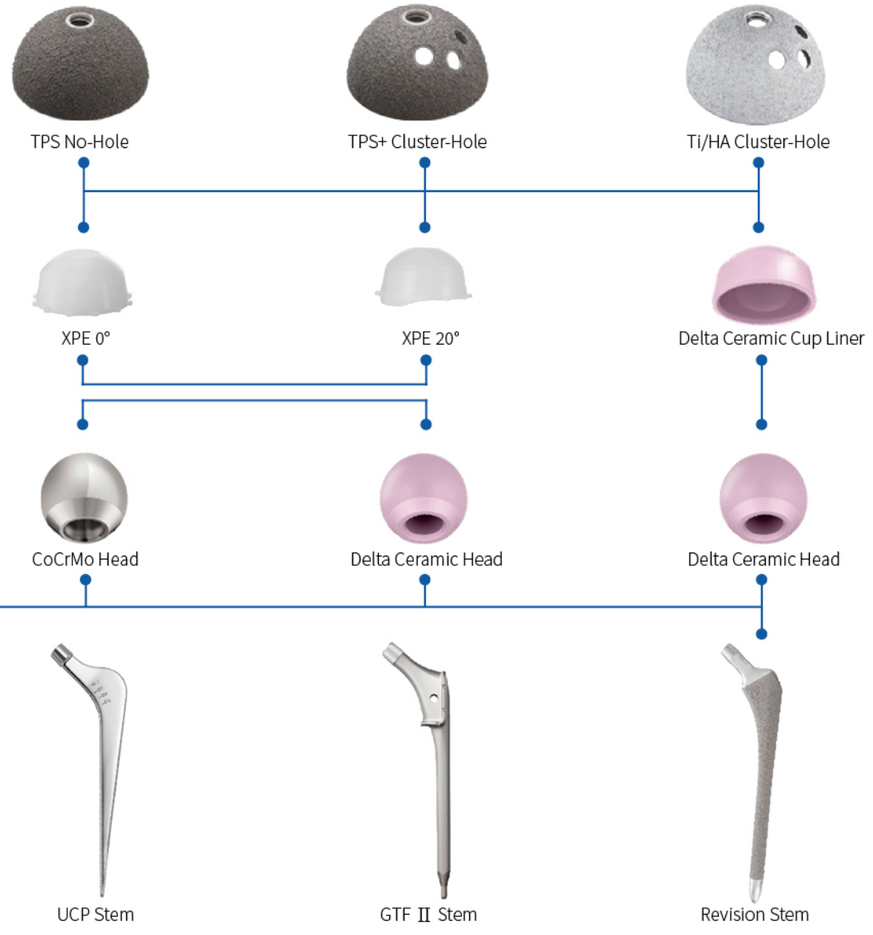
SHINVA

XU Hip System

XU Acetabular System

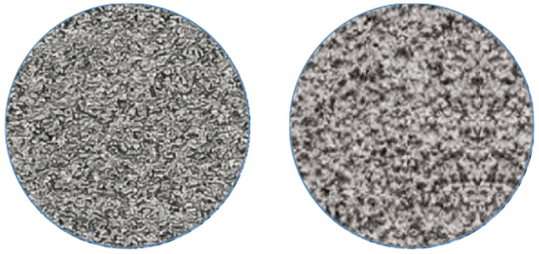


XU U-Motion Ⅱ Acetabular System



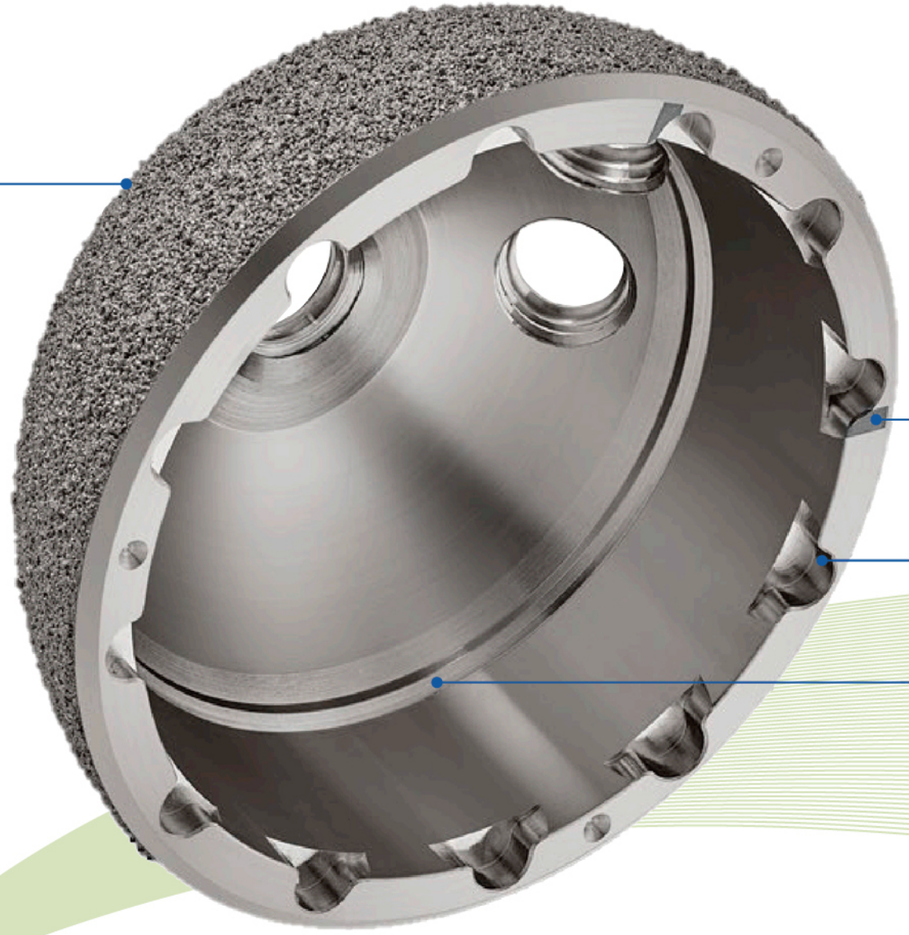
XU U-Motion Ⅱ Acetabular Implant

Titanium Plasma Spray Coating (TPS PLUS/TPS)



The thickness of TPS Plus coating is 600 µm.
The surface roughness is increased and the micromotion is reduced.

- The porosity, average pore intercept, and roughness of TPS PLUS coating is higher than TPS coating.
- Increased friction coefficient and shear resistance is beneficial to initial and long term stability.



Screw holes adapt to your angle needs

32° screw hole is easy to fix the screw on the optimal bone.

Screw Hole Mark

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

Anti Rotational Crown Tabs

- Improve rotational stability of the liner

Locking Ring for Poly Liner Locking

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

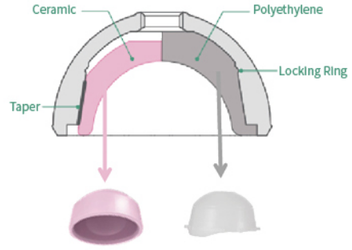
One-for-All Coupling

Delta Ceramic

XPE 0°

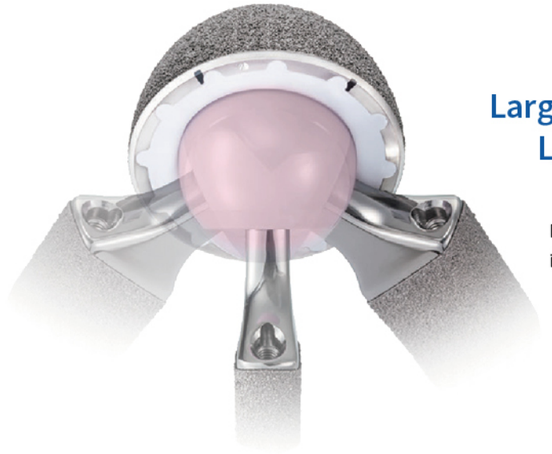
XPE 20°

One-for-All Coupling Schema



The feature of XPE liner

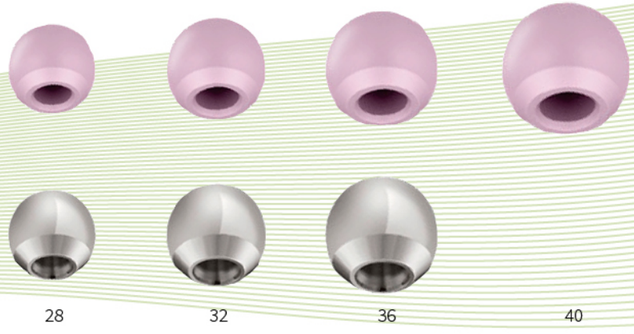
20° lipped prevent joint dislocation



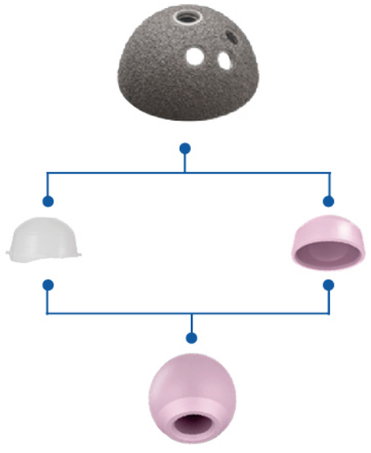
Larger Head
Larger Range of Motion

Larger head increases range of motion and delays impingement.

Two head materials are available: CoCrMo Alloy and Delta Ceramic



Size Matching Chart



Delta ceramic head matches XPE liner and delta ceramic liner

Acetabular cup size(mm)	Delta ceramic head size(mm)			
44	28			
46				
48		32		
50				
52			36	
54				
56			36	40
58				
60				
62				
64			only XPE liner	
66				
68				
70				

Delta ceramic head matches XPE liner and delta ceramic liner

Acetabular cup size(mm)	CoCrMo head size(mm)		
44	28		
46			
48		32	
50			
52			36
54			
56			
58			
60			
62			
64			
66			
68			
70			

Pre-assembled Bipolar Cap

- 22×(∅ 38-40,1mm increment)
- 26×(∅ 41-42,1mm increment)
- 28×(∅ 43-60,1mm increment)

1. Cobalt-Chromium-Molybdenum Alloy and highly polish surface

Micro-scale highly polish surface to reduce the wear of acetabulum.

2. Excellent Mechanical Design

Shear strength between the acetabular cartilage and the prosthesis are transferred from the outer cup of the bipolar to the liner, thus significantly reducing the relative motion of the bipolar prosthesis to the acetabular interface[5].

3. Snap and Go Anti-rotation Design

Minimize micromotion between the outer cup and liner.

Porous Stem

Sintered Titanium Bead,Porous Coating

- Proximal annular dual porous sintered coatings.
- Pore sizes of 250μm-400μm provides better proximal fixation and uniform bone ingrowth.

Sandblasting on surface

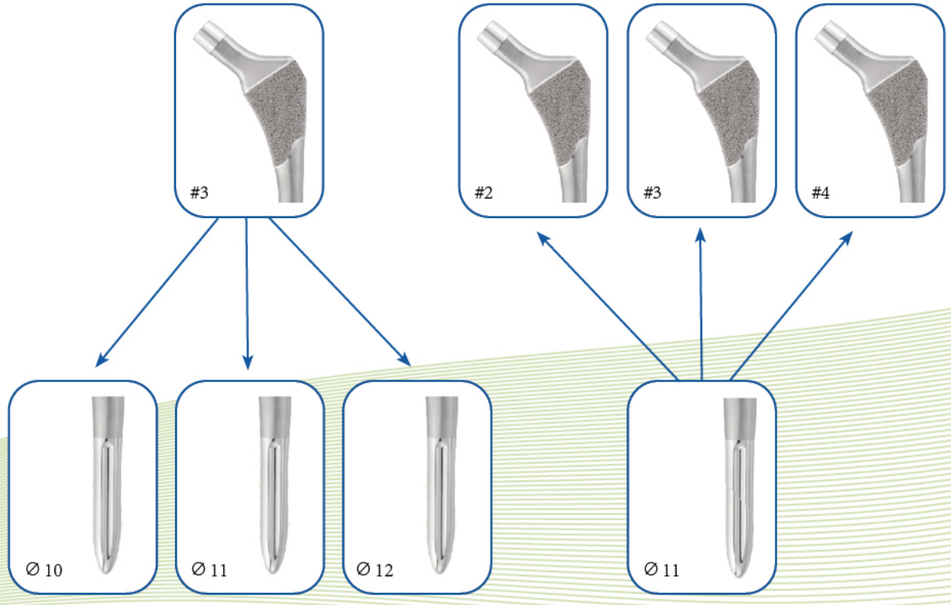
- Facilitates bone ongrowth.

Distal Polish Design and Tear Drop Distal Tip

- Avoid stress shielding.
- Prevents stress concentration, reduces incidence of thigh pain and facilitates implantation.

Novel Matrix Sizing Enables Optimal Fit and Fill

Matrix sizing design addresses both proximal and distal canal "fit-and-fill" in order to achieve optimal contact area and excellent initial stability in a variety of femoral canal shapes.



Examples of Matrix Size Distribution

Matrix Size Distribution

Stem Size (#)	9	10	11	12	13	14	15
#7							#7
#6					#6	#6	
#5				#5	#5		
#4			#4	#4			
#3		#3	#3	#3			
#2		#2	#2				
#1	#1						

Distal Diameter(∅ ,mm)

Revision Stem

Shorter Offset than Primary Implants Designs

•It is helpful for joint reduction in patients with soft tissue scar or contracture after previous surgery.

Proximal Tri-wedge Design

•Improve rotational stability.

Full Titanium Plasma Spray Coating Design

•Promote biological fixation.

Straight 180mm Length Stem

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

Curved 230mm 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.

Polished Bullet Tip Design

•Prevent stress concentration,reduce or prevent potential thigh pain and facilitate ease of insertion.

Ti Coated Stem

Standard and High Offsets

Dual Taper Design[14-16]

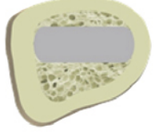
- The taper-fit concept is intended to engage the cortex in the stem corners to provide excellent fixation and superior axial and rotational stability.

Equal Proximal Width Increments

- 1mm width increment
- Fine proximal width realizes better matching with patients.

Titanium Plasma Spray Coating

- 0.5mm press-fit facilitates initial stability;
- Provide excellent bone ongrowth surface and improve osseointegration.



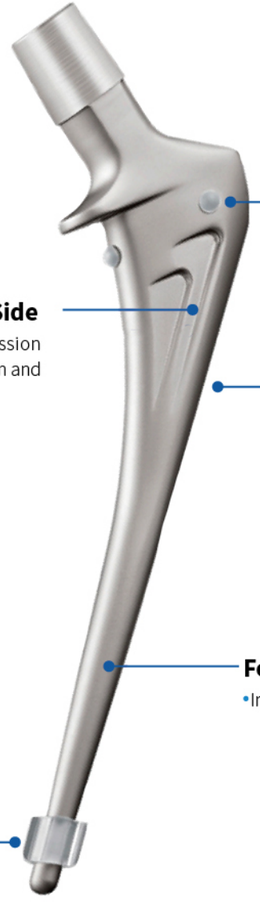
Rectangular Section-Anti-rotation[16-17]

Shorten the Width of Distal M/L direction

- Avoid stress shielding in contacting, reduces incidence of thigh pain and intraopertive fracture.

Curved distal tip is designed to facilitate stem insertion.

Cemented Stem



PMMA Spacer

- Maintains the appropriate cement mantle on each side of the stem.

Shark Fin Design at The Side

- Transfer hoop stress to compression stress. Compact cement in insertion and increase initial stability[19-20].

Tri-Wedge Design

- Decentralize proximal cement press.

Forged CoCrMo Alloy

- Improve fatigue resistance[21].

Centralizer

Cemented Polished Stem

Standard and High Offsets

Adjustment Makers

- Provide more choices to adjust leg length.

Forged CoCrMo Alloy

- Improve fatigue resistance[21].

High Polished Surface

- It's cement-friendly design minimizes friction at the stem-cement interface and cement failure to improve the survival rate of implants[22].

Tri-tapered Geometry[25]

- Increase cement fixation and realize secondary fixation in the process of natural subsidence with tighter and tighter press[23-24].
- Increase torsional stability and reduce shear strength.
- Optimize proximal cement stress transfer and prevent stress shielding[25].

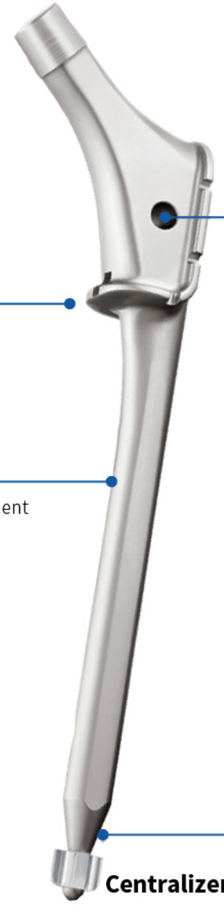
Cement Restrictor

180mm 210mm

Two lengths of stem are suitable for primary and revision hip arthroplasty.

Centralizer

Cemented Ⅱ Stem



Inner Wingspan Design

Tapered Design Trapezoidal Cross-section Design[26].

- Reduce stress on the cement mantle.

45mm 55mm

2 resection levels to adjust resection position.

Cutouts and Open Through-hole

- Designed for additional wire fixation options.

Multiple Configurations

- 2 stem lengths(130mm and 160mm)
- 2 stem diameters(Φ9mm and Φ11mm)
- 2 resection levels(45mm and 55mm)

Total 2×2×2=8 sizes

Cement Restrictor

Tapered Distal Tip Design

- Prevent stress concentration and avoid cement failure.

Centralizer

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