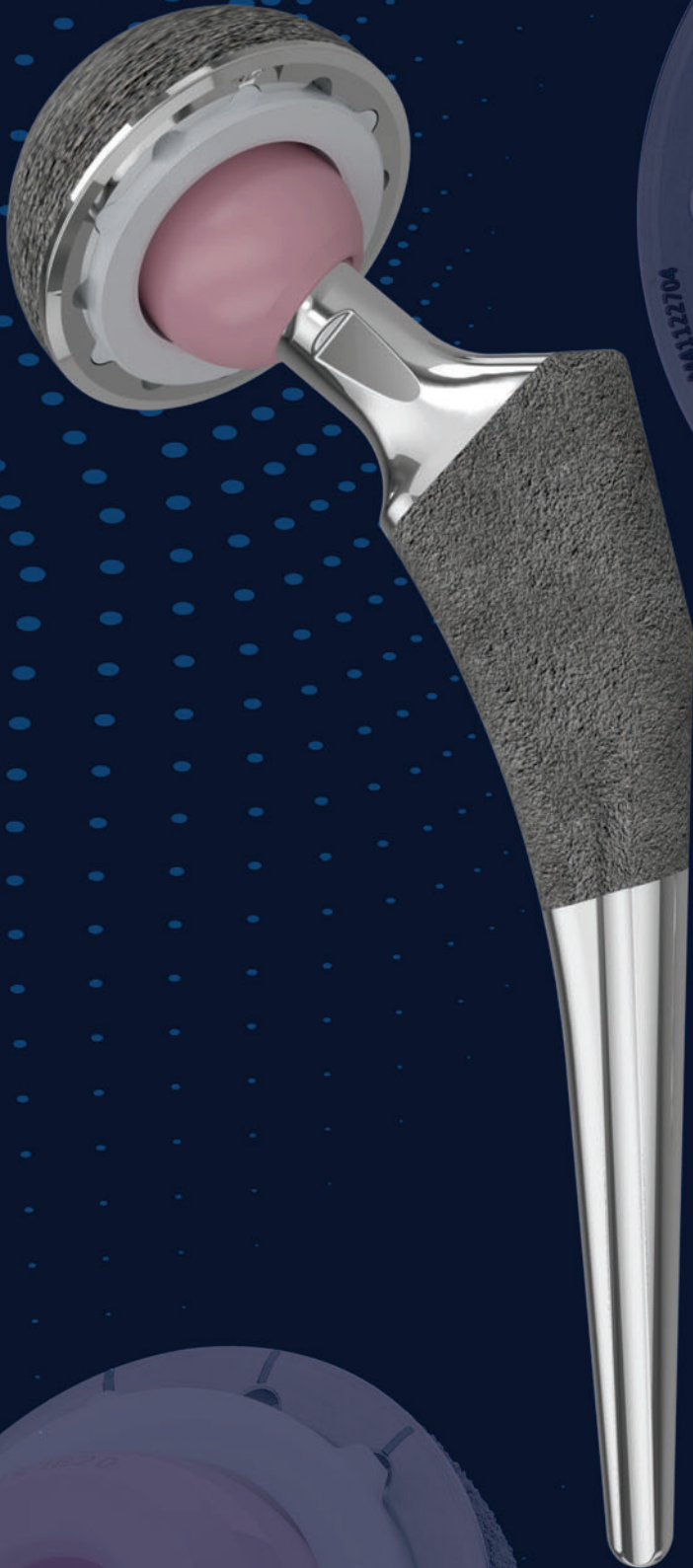


LIBERTAS®



HIP



maxx  
orthopedics



# INTRODUCTION TO THE LIBERTAS® HIP SYSTEM

- **Comprehensive range of implants for restoring hip biomechanics**
- **Facilitates congruent transfer of loads**
- **Designed for mechanical and biological stability**

The Libertas® Total Hip System offers a comprehensive range of modular implants that facilitates stable restoration of hip biomechanics across a varied range of patient demographics. The implants are designed to provide immediate mechanical stability while preserving bone. Longer term stability is aided by the advanced coatings on the implant surfaces which are designed for biological integration of the bone. The overall design geometry of the implants facilitates a congruent transfer of the weight load and restoring the range of motion.

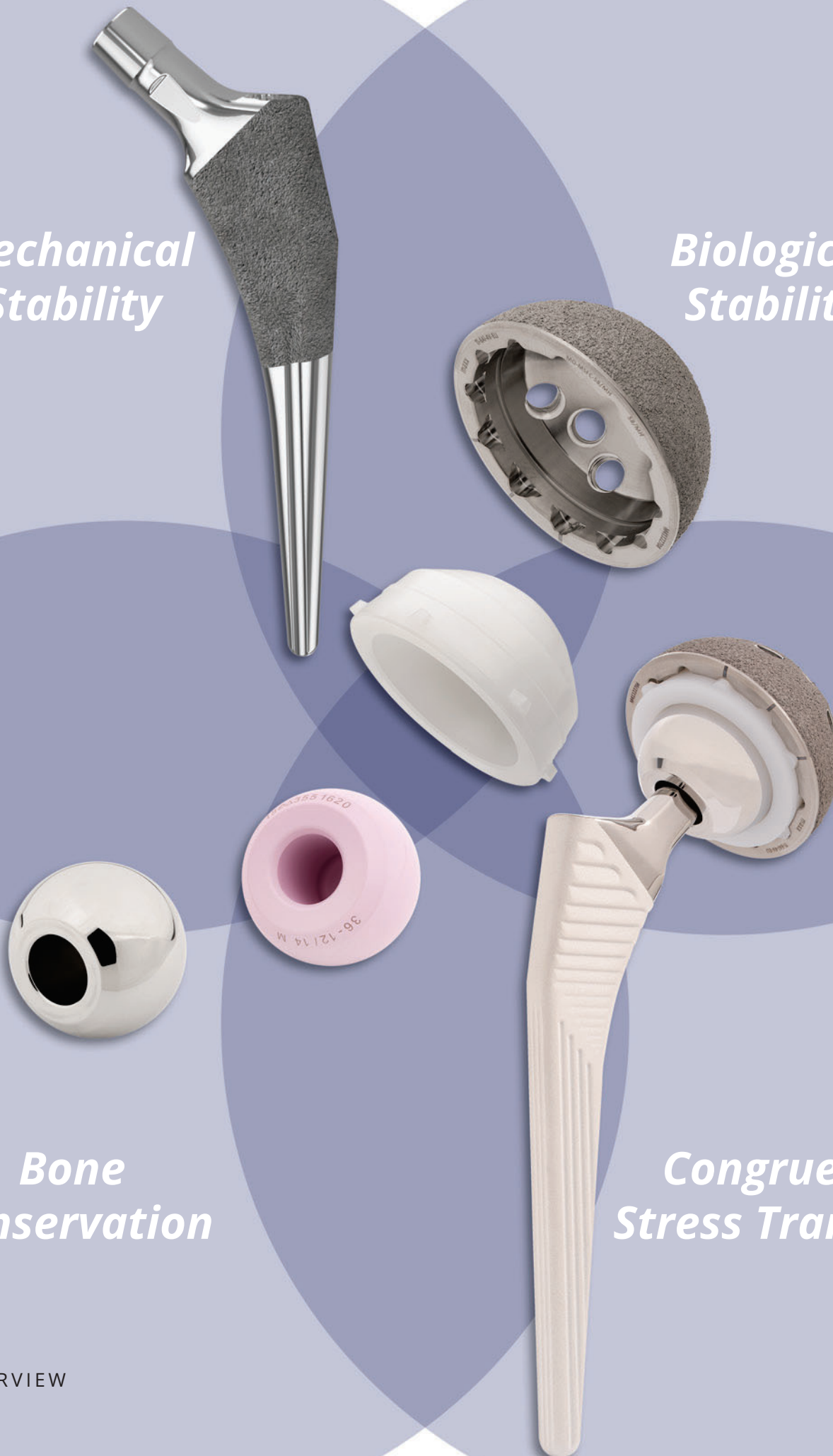
The system comprises of both cemented and uncemented femoral stems, cementless acetabular cups designed to be used with highly crosslinked polyethylene modular liners and a choice of either BioloX® or Cobalt Chrome head options in multiple head diameters and offset options. The variety of component and size options enable surgeons to provide patients with the best hip arthroplasty solutions without compromise.

*Mechanical  
Stability*

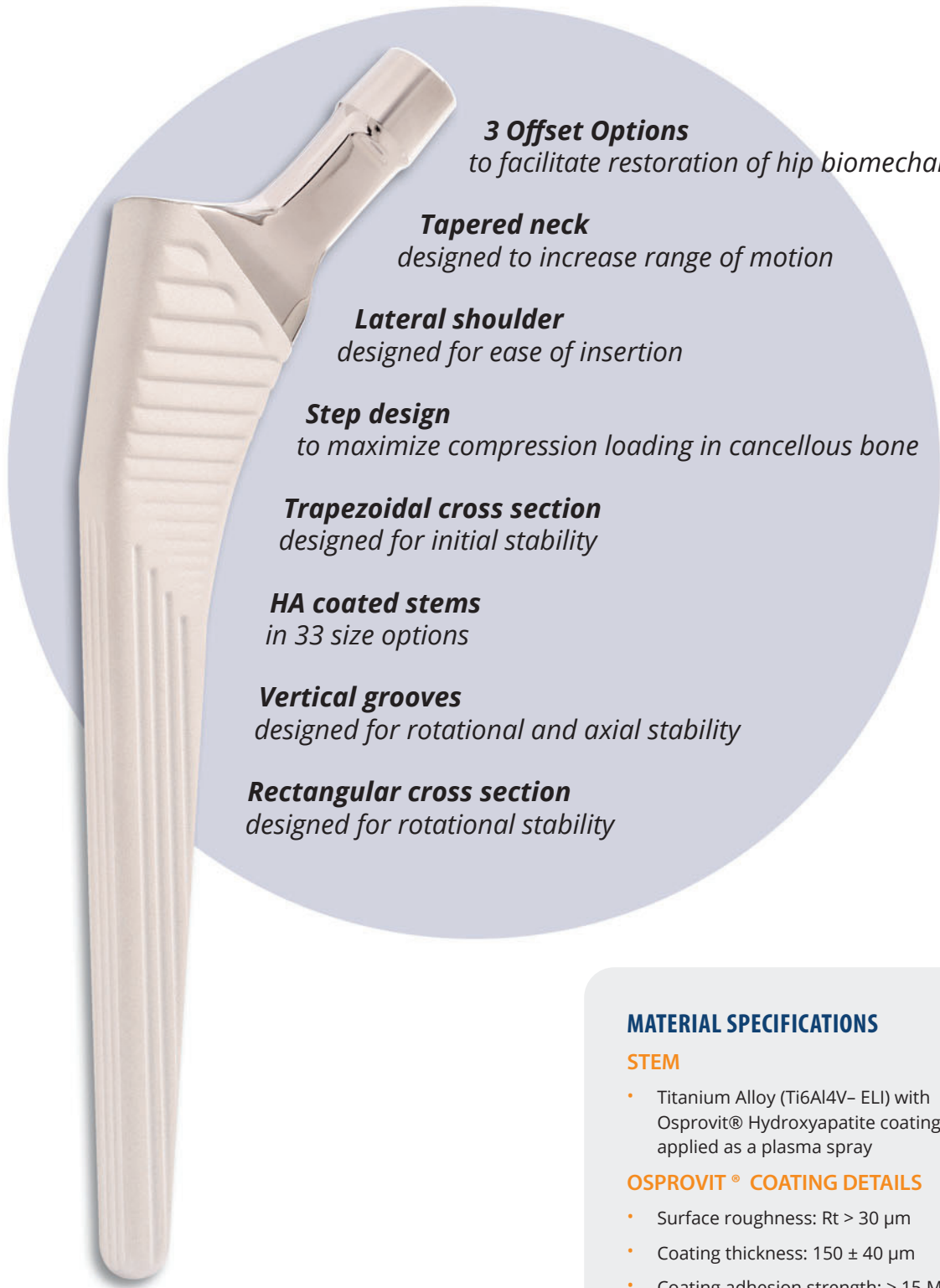
*Biological  
Stability*

*Bone  
Conservation*

*Congruent  
Stress Transfer*



# LIBERTAS HA UNCEMENTED STEM



**3 Offset Options**  
*to facilitate restoration of hip biomechanics*

**Tapered neck**  
*designed to increase range of motion*

**Lateral shoulder**  
*designed for ease of insertion*

**Step design**  
*to maximize compression loading in cancellous bone*

**Trapezoidal cross section**  
*designed for initial stability*

**HA coated stems**  
*in 33 size options*

**Vertical grooves**  
*designed for rotational and axial stability*

**Rectangular cross section**  
*designed for rotational stability*

## MATERIAL SPECIFICATIONS

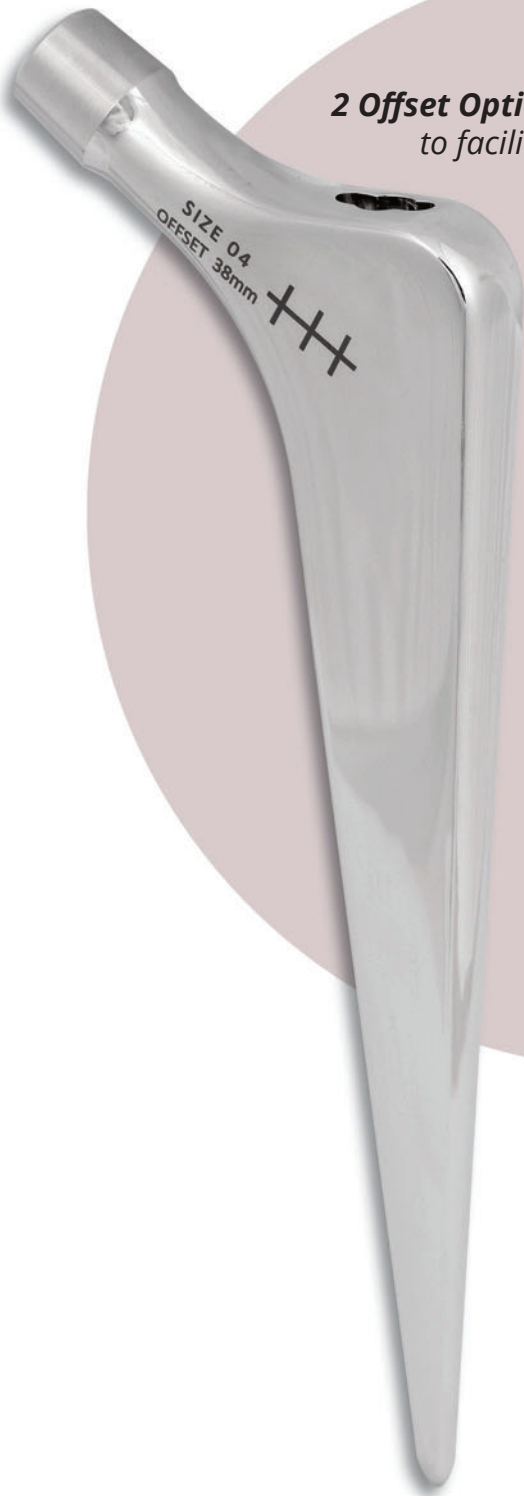
### STEM

- Titanium Alloy (Ti6Al4V- ELI) with Osprovit® Hydroxyapatite coating applied as a plasma spray

### OSPROVIT® COATING DETAILS

- Surface roughness: Rt > 30 µm
- Coating thickness: 150 ± 40 µm
- Coating adhesion strength: ≥ 15 Mpa
- Crystallinity: ≥ 60%

# CEMENTED STEM



**2 Offset Options**  
*to facilitate restoration of hip biomechanics*

**Polished, double tapered design**

**Stainless steel stems**  
*in 9 size options*

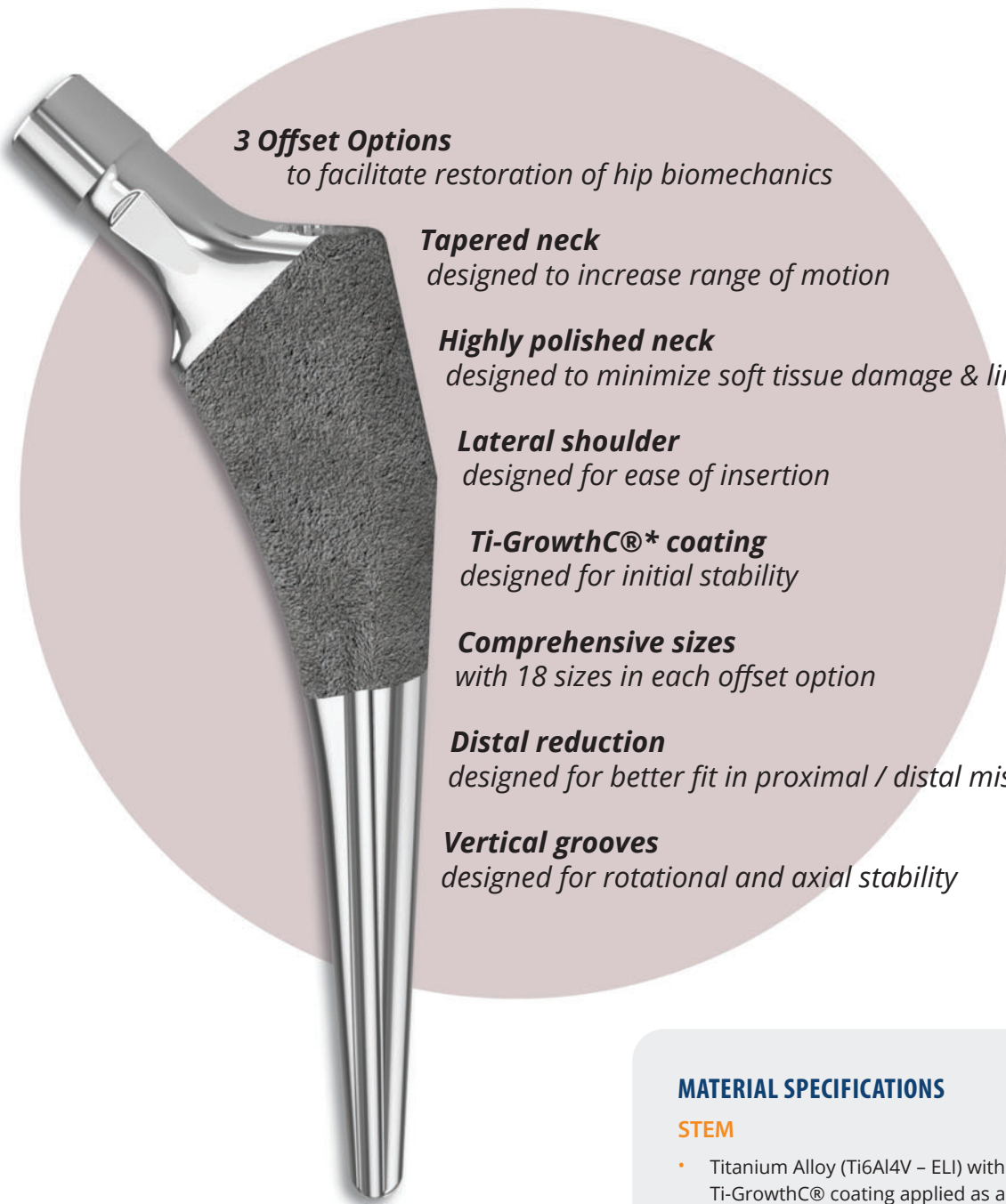
**Winged and non winged centralizer options**

## MATERIAL SPECIFICATIONS

### STEM

- High Nitrogen Stainless Steel conforming to ISO 5832-9:2007

# TAPER REDUCED STEM



## **3 Offset Options**

*to facilitate restoration of hip biomechanics*

## **Tapered neck**

*designed to increase range of motion*

## **Highly polished neck**

*designed to minimize soft tissue damage & liner wear*

## **Lateral shoulder**

*designed for ease of insertion*

## **Ti-GrowthC®\* coating**

*designed for initial stability*

## **Comprehensive sizes**

*with 18 sizes in each offset option*

## **Distal reduction**

*designed for better fit in proximal / distal mismatch*

## **Vertical grooves**

*designed for rotational and axial stability*

## **MATERIAL SPECIFICATIONS**

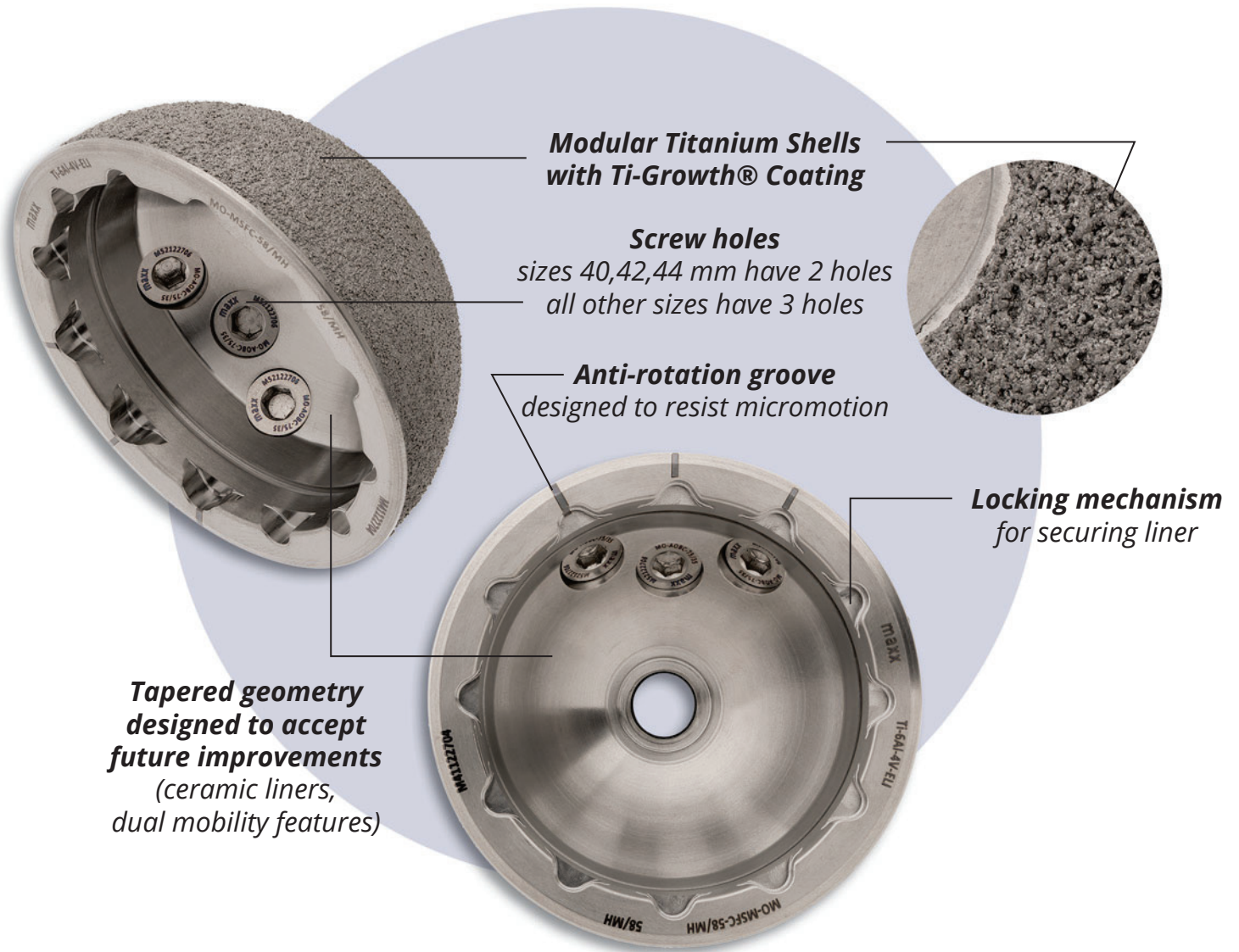
### **STEM**

- Titanium Alloy (Ti6Al4V – ELI) with Ti-GrowthC® coating applied as a plasma spray

### **Ti-GROWTHC® COATING DETAILS**

- Surface roughness: Rt 300 - 600 µm
- Coating thickness: 500 ± 127 µm
- Coating adhesion strength: > 20 Mpa
- Porosity 30 – 70%

# ACETABULAR SHELL



**Modular Titanium Shells with Ti-Growth® Coating**

**Screw holes**  
sizes 40,42,44 mm have 2 holes  
all other sizes have 3 holes

**Anti-rotation groove**  
designed to resist micromotion

**Locking mechanism**  
for securing liner

**Tapered geometry**  
designed to accept  
future improvements  
(ceramic liners,  
dual mobility features)

## MATERIAL SPECIFICATIONS

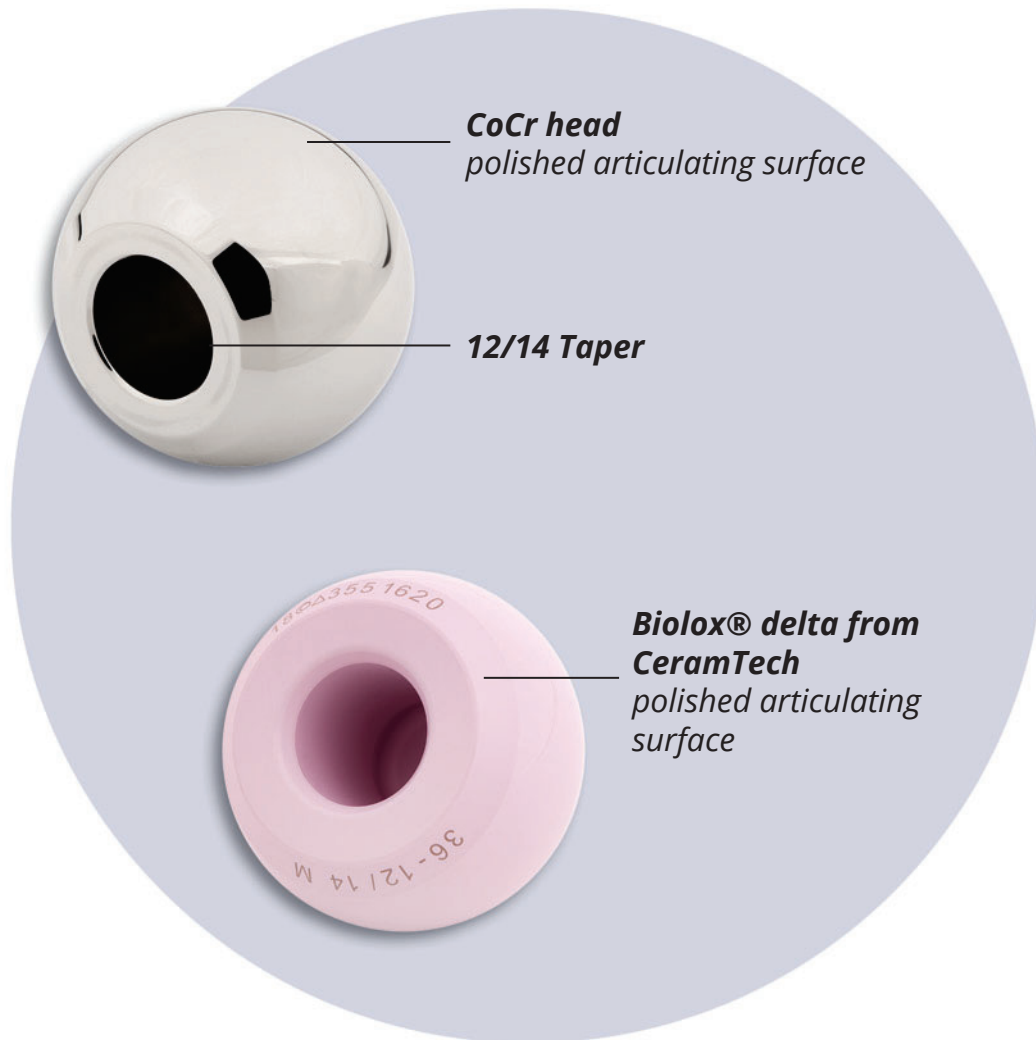
### SHELL

- Titanium Alloy (Ti6Al4V-ELI) with Ti-Growth® Titanium plasma spray coating

### Ti-GROWTH® COATING DETAILS

- Surface roughness: Rt 300– 600 µm
- Coating thickness: 500 ± 100 µm
- Coating adhesion strength: ≥ 20 Mpa

# HEADS



## MATERIAL SPECIFICATIONS

### COCR HEAD

- Cobalt Chromium Alloy

### BILOX® HEAD

- High purity alumina matrix with Zirconia reinforcement —from CeramTech GmbH



# BIPOLAR HEAD

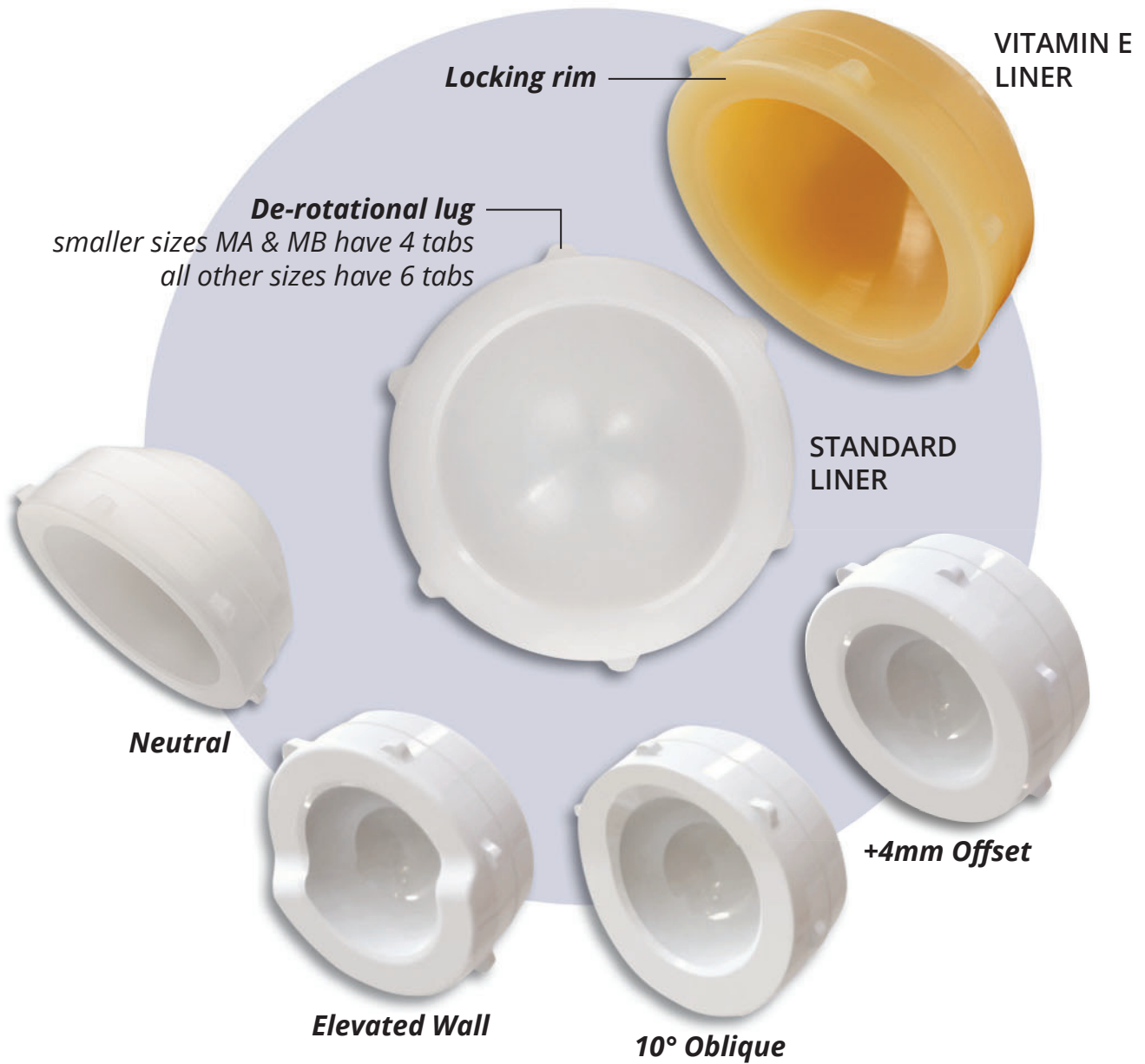


## MATERIAL SPECIFICATIONS

### INSERT

- UHMWPE Outer shell
- Stainless steel

# LINERS



## MATERIAL SPECIFICATIONS

### LINERS

- Highly cross-linked ultra-high molecular weight polyethylene (HXLPE-Grade GUR® 1020, cross linked at radiation dose of 75 kGy confirming to ASTM F684-14)
- E-XLPE (Vitamin E (α-Tocopherol) blended UHMWPE material irradiated at a radiation dose of 120 kGy confirming to ASTM F648-14)

## SYSTEM SIZING

MODULAR SHELL SIZES (MM)	MODULAR FEMORAL HEAD SIZES (MM)					MODULAR LINER SIZES
	22*	28	32	36	40	
40						MA
42						MA
44						MB
46						MB
48						MD
50						MD
52						MF
54						MF
56						MH
58						MH
60						MJ
62						MJ
64						MJ
66						MK
68						MK
70						MK

\* Not available in BioloX® delta Modular Femoral Head

**NOTE**

The Libertas® Acetabular Cup System has been designed to assemble with Modular Shell and Modular Liner assembly that utilize a 22mm, 28mm, 32mm, 36mm or 40mm Cobalt Chromium Alloy Modular Femoral Head or 28mm, 32mm, 36mm or 40mm BioloX® delta Modular Femoral Head.

**WARNING AND PRECAUTIONS**

The Libertas® Acetabular Cup System, when used along with LIBERTAS Cemented Femoral Stem, is not recommended for use with the Cobalt-Chromium Alloy Modular Femoral Head above 28mm and BioloX® delta Modular Femoral Head above 28mm.

## HEAD OFFSET OPTIONS

12/14 HEAD	CoCr					BioloX® delta – CeramTec				
	HEAD SIZES (MM)									
OFFSET	22	28	32	36	40	22	28	32	36	40
-4										
-3.5										
+0										
+3.5										
+4										
+7										
+8										

# Pursue Life™

For more information about Libertas® Hip, please contact your local representative.

LEARN MORE ABOUT MAXX PRODUCTS WITH OUR APP:



SEARCH: Maxx Ortho

## Libertas® Hip System

Rx only



Maxx Orthopedics, Inc.  
2460 General Armistead Ave, Ste 100  
Norristown, PA 19403 USA



Carefully read all instructions and be familiar with the surgical techniques prior to use.

Please see the package insert for complete device description, product selection information, indications, contraindications, precautions, adverse effects, warnings, materials, sterilization and patient guidance associated with the Libertas® Total Hip System.

**CAUTION:** THIS DEVICE IS RESTRICTED TO SALE BY OR ON THE ORDER OF A LICENSED PHYSICIAN

**WARNINGS:** THE LIBERTAS® CEMENTED FEMORAL STEM IS INTENDED FOR CEMENTED USE ONLY.  
THE LIBERTAS® HA UNCEMENTED FEMORAL STEM IS INTENDED FOR UNCEMENTED USE ONLY.

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