

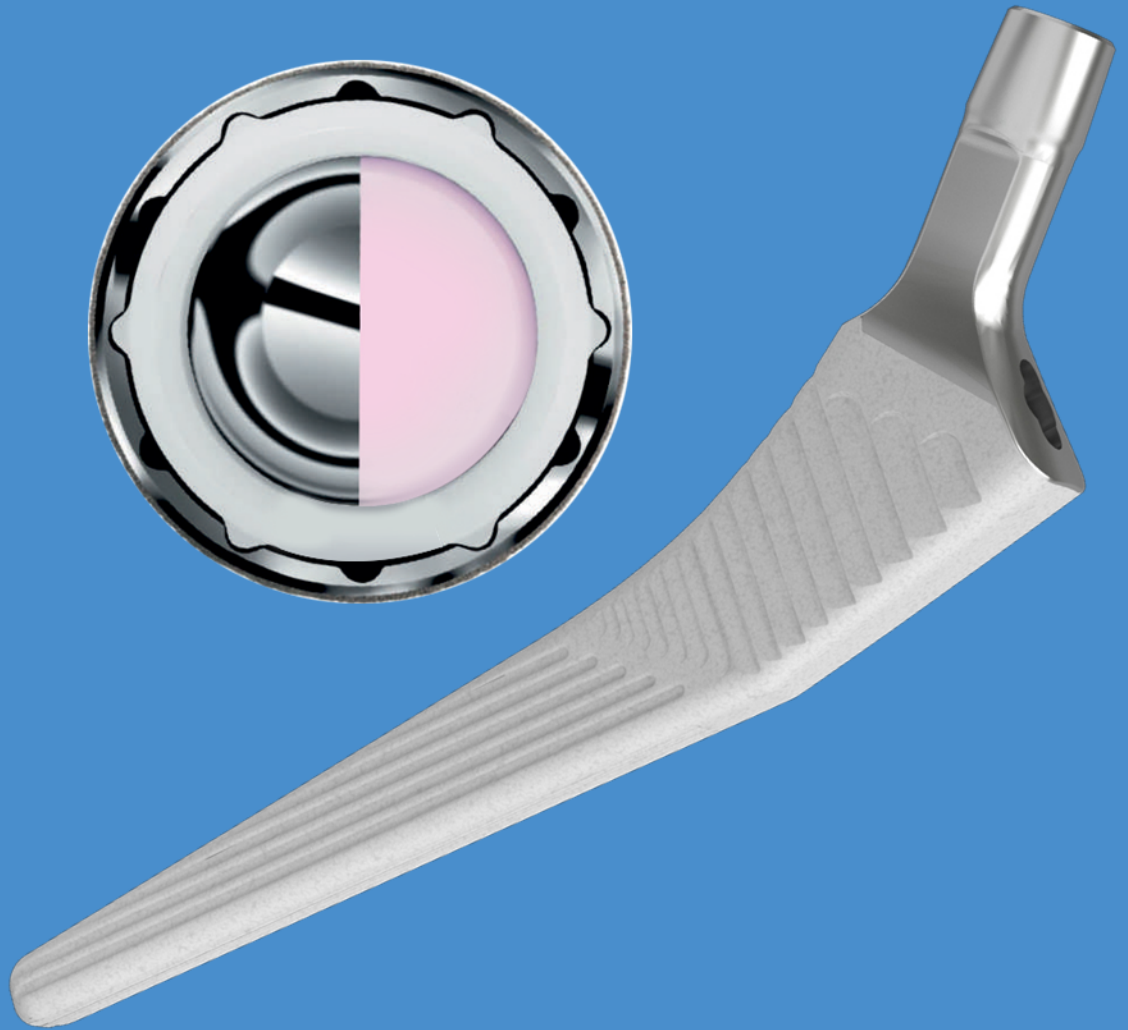
HIP SYSTEM



HIP SYSTEM

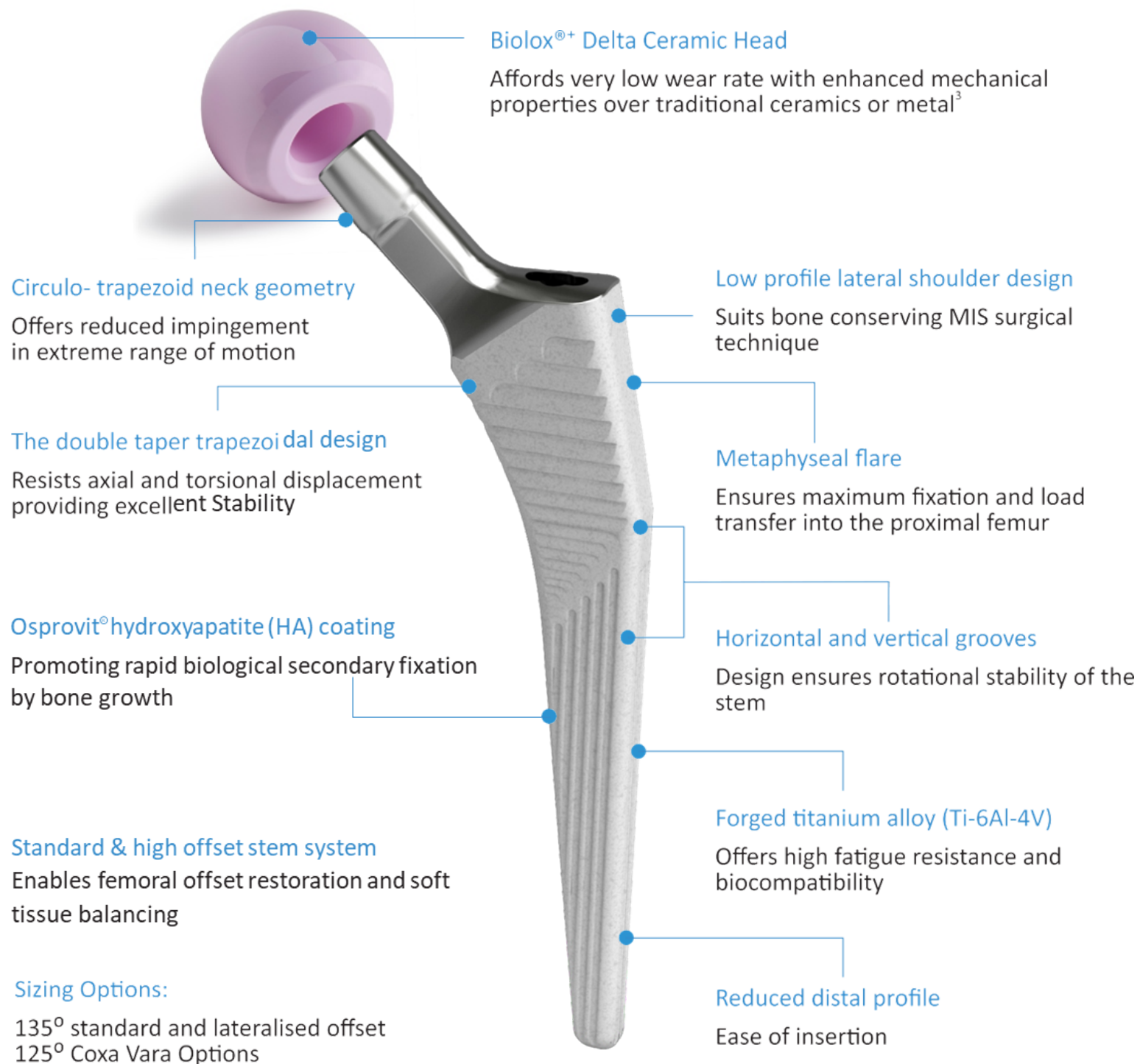
Orthopedics | HIP SYSTEM

In our hip system we are combining long-term clinically proven implant designs with a simple efficient and precise instrumentation along with versatile and optimized implants inventory. Our new hip system consist of both cementless and cemented femoral components along with cementless acetabular components and bipolar options. Operating surgeons have options of offering deltas ceramic or metal heads with clinically proven highly cross linked PE to their patients.



HIP SYSTEM

Cementless Stem System



“The combination of design and the HA coating of the Hip System has been proven to work with over 25 years of clinical evidences¹⁻²”

Clinical References:

1. Hallan G, Lie SA, Furnes O, Engesaeter LB, Vollset SE, Havelin L. Medium and long-term performance of 11 516 uncemented primary femoral stems from the Norwegian arthroplasty register. J. Bone Joint Surg. 2007;89-B:1574-1580.
2. Røkkum M, Brandt M, Bye K, Hetland KR, Waage S, Reigstad A. Polyethylene Wear, Osteolysis and Acetabular Loosening with an HA Coated Hip Prosthesis. J. Bone Joint Surg. 1999;81-B:582-589
3. Kurtz M. Validation of New High performance Alumina Matrix Composite for use in Total Joint replacement, Seminars in Arthroplasty, 2006; 17:141-145

+ Biolox[®] is registered trade mark of Ceramtec BV.

HIP SYSTEM

Cementless Acetabular System

Patented Transference Taper Lock ETST Technology

- **Polished Edge of the Shell**
To protect the psoas from irritation and prevent impingement
- **Taper Lock**
Liner holds shell without compromising on stress and strain in liner
- **Snap Fit Rim Locking**
Liner achieves press fit into shell for insertion and is resistant to extraction
- **Tab Locking**
Avoids anti-rotation and micro motion between shell and liner

Hemispherical Shape with Patented Porous Ti Growth[®]

Advance pure titanium coating technology with more than 20 years of clinical evidence^{1,2}

Forged Titanium Alloy (Ti-6Al-4V)

Offers high fatigue resistance and biocompatibility

Highly Cross-Linked UHMWPE

Exhibits a reduction in wear rates of up to 90% compared to conventional PE in prospective, randomised clinical studies

Acetabular components are available from size 40-70 with 2mm increments for optimal patients fit

Technical Features

- Surface roughness: Rt 300-600 μm
- Coating thickness: $500 \pm 100 \mu\text{m}$
- Coating adhesion strength: $\geq 35 \text{ Mpa}$
- Porosity: 30- 70%

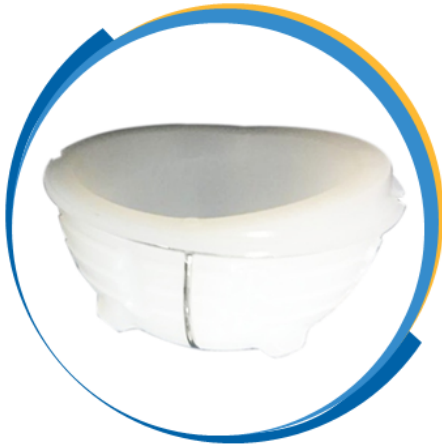
References:

1. Laurent M, Blanchard C, Yao JQ, et al. The wear of highly cross-linked UHMWPE in the presence of abrasive particles: Hip and knee simulator studies. In: Kurtz SM, Gsell R, Martell JM, editors. Cross-linked and Thermally Treated Ultra-High Molecular Weight Polyethylene for Joint Replacements. West Conshohocken, PA: ASTM International; 2003.
2. Muratoglu O, Bragdon C, O'Connor D, et al. The comparison of the wear behaviour of four different types of cross-linked acetabular components. 46th Annual Meeting, Orthopaedic Research Society. 2000.

HIP SYSTEM

Cemented Acetabular Cup

All-Poly Acetabular Cup System enhances cemented socket longevity through advanced design features



The design, incorporates our integrated spacers that assist in achieving a uniform, 2mm cement mantle.

The cup also features a 10 degree highwall for extended femoral head coverage.



The 10° inclined face option can be used to help prevent dislocation

An added flange to help pressurize cement

Two holes in the cup face accommodate the cup positioner during insertion

Stainless steel radiopaque wires on the pole and equator aid in assessing cup position

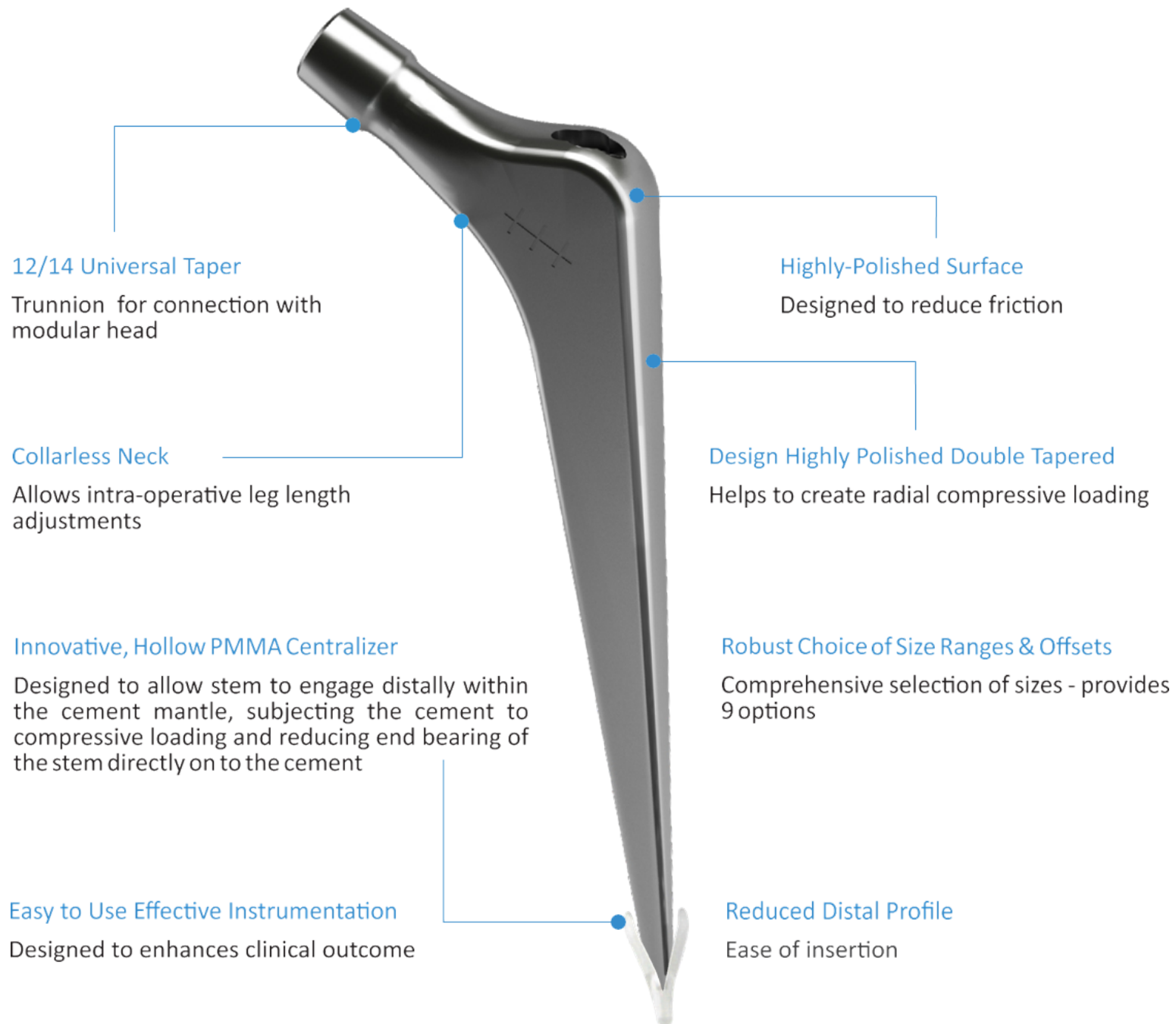
Notched circumferential grooves facilitate cement interdigitation

Four 2mm Integrated spacers, strategically positioned in loadbearing areas, help centralize the cup and create a uniform cement mantle



HIP SYSTEM

Cemented Stem System



“Cemented stems are the most commonly used type femoral implant in NJR-2015”

Cemented stems are recommended to be used with HNSS Metal heads or BioloX[®] Delta Ceramic heads.

“Hip cemented stems double tapered design philosophy and highly polished surface allows it to free micro-subside at the stem-cement interface and thus act as a self-locking taper, effectively and continually tightening step by step throughout the life of the hip”

References:

1. www.njrcentre.org.uk, 12th annual report 2015, National joint registry for England, Wales, Northern Ireland and the Isle of Man Surgical data to 31 December 2014, ISSN 2054-183X (Online).

HIP SYSTEM

Mono Block Bipolar System

Highly Polished SS Outer Shell

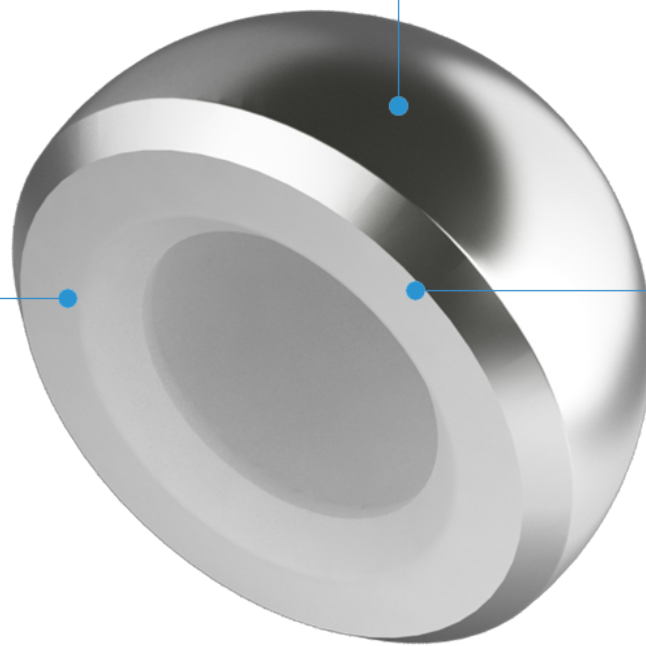
Designed to reduce friction

UHMWPE Inner Liners

Helps to reduce wear

Pre-assembled Mono Block Construct

Prevents micro-motion & allows intra-operative ease of use



Easy to Use Effective Instrumentation

Designed to enhance OR efficiency

Comprehensive Choice of Size Ranges

OD 37 to 51mm in 1mm increment

OD 53 to 63mm in 2mm increment

Multiple Neck Length Head Options

To optimally restore joint biomechanics intra-op

“Partial THA or Hemi Hip Arthroplasty using bipolar system can be reliable and effective treatment option for hip fractures and diseased femoral heads and/or necks. The Bipolar shell articulates against the host Acetabular cartilage, preserving Acetabular bone stock for future considerations”

HIP SYSTEM

Femoral Modular Heads

Hip's Femoral Heads available with variable offsets and diameters

Hip Modular CoCr
Femoral Head



Modular femoral heads are manufactured from Cobalt-Chromium alloy (Co-Cr) conforming to ASTM F1537 -11, Cobalt-Chromium-Molybdenum alloy (Co-Cr-Mo) – ISO 5832-12.

Co-Cr alloys have high specific strength and are hard, tough, corrosion resistant, biocompatible materials.

Hip Modular HNSS
Femoral Head



Modular femoral heads are manufactured from High Nitrogen Stainless steel as per ISO -5832 -9 to mate with 12/14 taper of femoral stems.

BioloX Delta Ceramic
Femoral Head



Extremely hard, very high fracture resistant and wear resistant composite ceramic material based on Aluminium and Zirconium oxide, chemically stable & biologically inert with diamond-like hardness of the material.