



Z1[®]

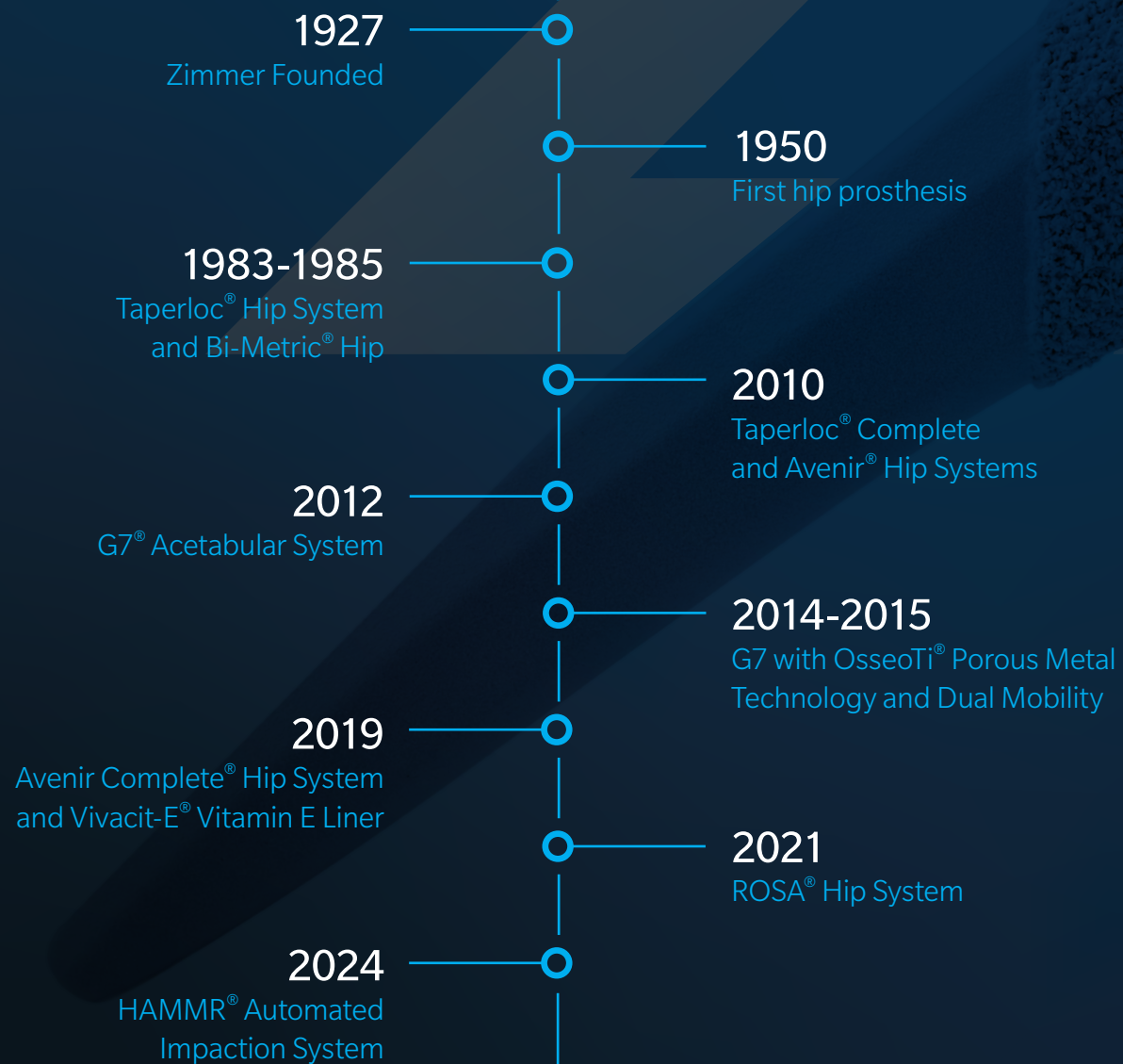
Femoral Hip System

ONE SYSTEM | ONE SOLUTION | ONE COMPANY



NEARLY A CENTURY OF ORTHOPEDIC INNOVATION

With a long history of clinically proven¹⁻³ hip implants, Zimmer Biomet has led the industry in innovation, fostering a seamless integration of implants and technology to meet the demands of modern hip arthroplasty procedures.



The **Z1[®] Femoral Hip System** simplifies total hip arthroplasty by building on the secure and stable fit of the triple-taper design with expansive innovations within a more comprehensive system, providing more solutions to treat more patients.

One System

Modern triple-taper design with collared and collarless options, for cementless and cemented applications, using a single, efficient instrumentation platform.

One Solution

With an expansive size range and three distinct neck options, Z1 provides confidence to manage a variety of patient anatomies and reconstructive needs.

One Company

Backed by nearly a century of orthopedic innovation, combined with Zimmer Biomet's world-class acetabular products and technologies, providing an enhanced total hip arthroplasty experience for surgeons and patients.



One System

Modern Triple-Taper Stem Design

The Z1 Stem is tapered in three planes, which is designed to provide initial and long-term axial and rotational stability.

The shape and size of the implant, as well as its modern instrumentation, are designed to accommodate all surgical approaches, including muscle-sparing anterior techniques.

To address a wider variety of patient anatomy and variations in bone quality, the Z1 System offers collared and collarless stem options in a cementless and cemented designs.

MODERN DESIGN

Cementless

Standard, High-Offset and Coxa Vara Neck Options

Designed to support restoration of biomechanics across a wide range of anatomies

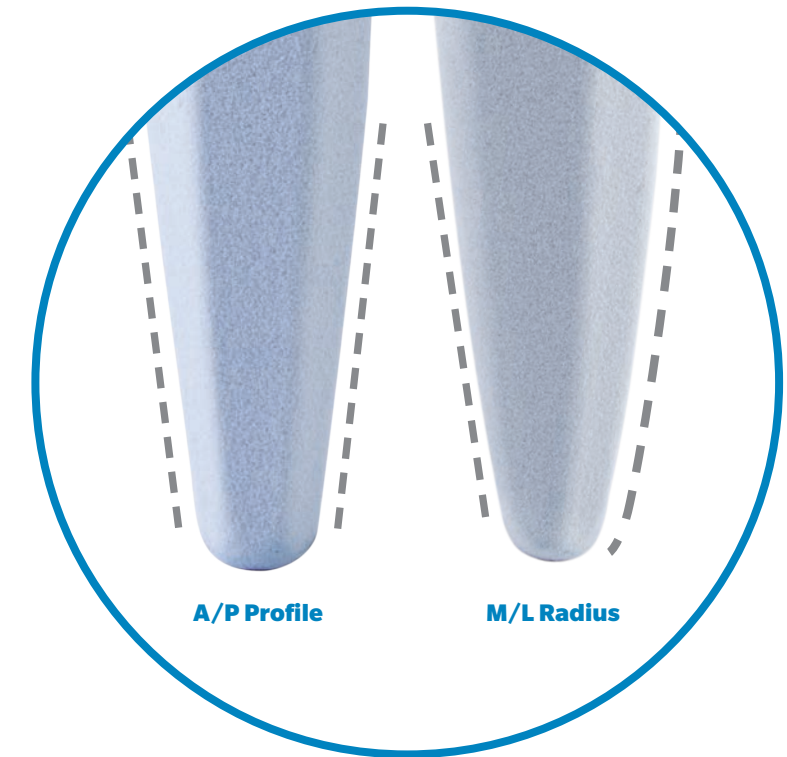
Highly Polished and Reduced Neck Geometry

Designed to help minimize wear debris and increase range of motion

Proximal Plasma Spray Coating

Allows for biological fixation

Fully HA Coated (75 µm)



Reduced Distal Profile & Lateral Radius

Distal tip and lateral radius designed to address a variety of femoral morphologies and distal potting

Cementless

Forged Titanium Alloy (Ti6Al4V)

Collared and Collarless

To meet individual patient and surgeon needs

12/14 Taper

Compatible with most Zimmer Biomet heads and adapters*



*Scan to visit the Zimmer Biomet Compatibility website

Collared Cemented

Collarless Cemented

Standard and High Offset Neck Options

Designed to support restoration of biomechanics across a wide range of anatomies

Traditional Cement Mantle

2 mm circumferential average thickness

Line-to-line Cement Mantle

Designed for enhanced interdigitation

Fully Highly Polished

Designed to help minimize wear debris

Highly Polished Neck

Designed to help minimize wear debris

12/14 Taper

Compatible with most Zimmer Biomet heads and adapters*

Medial Collar

Designed to provide initial stability

Satin Finish

Below the resection line

Stainless Steel Alloy

Collarless

Distal Centralizer

Distal tip designed for use with PMMA distal centralizers



Biomet Bone Cement R

- High viscosity bone cement
- Easy handling in modern vacuum mixing systems
- Green color for easy recognition during surgery
- Mechanical properties exceeding international standards⁴

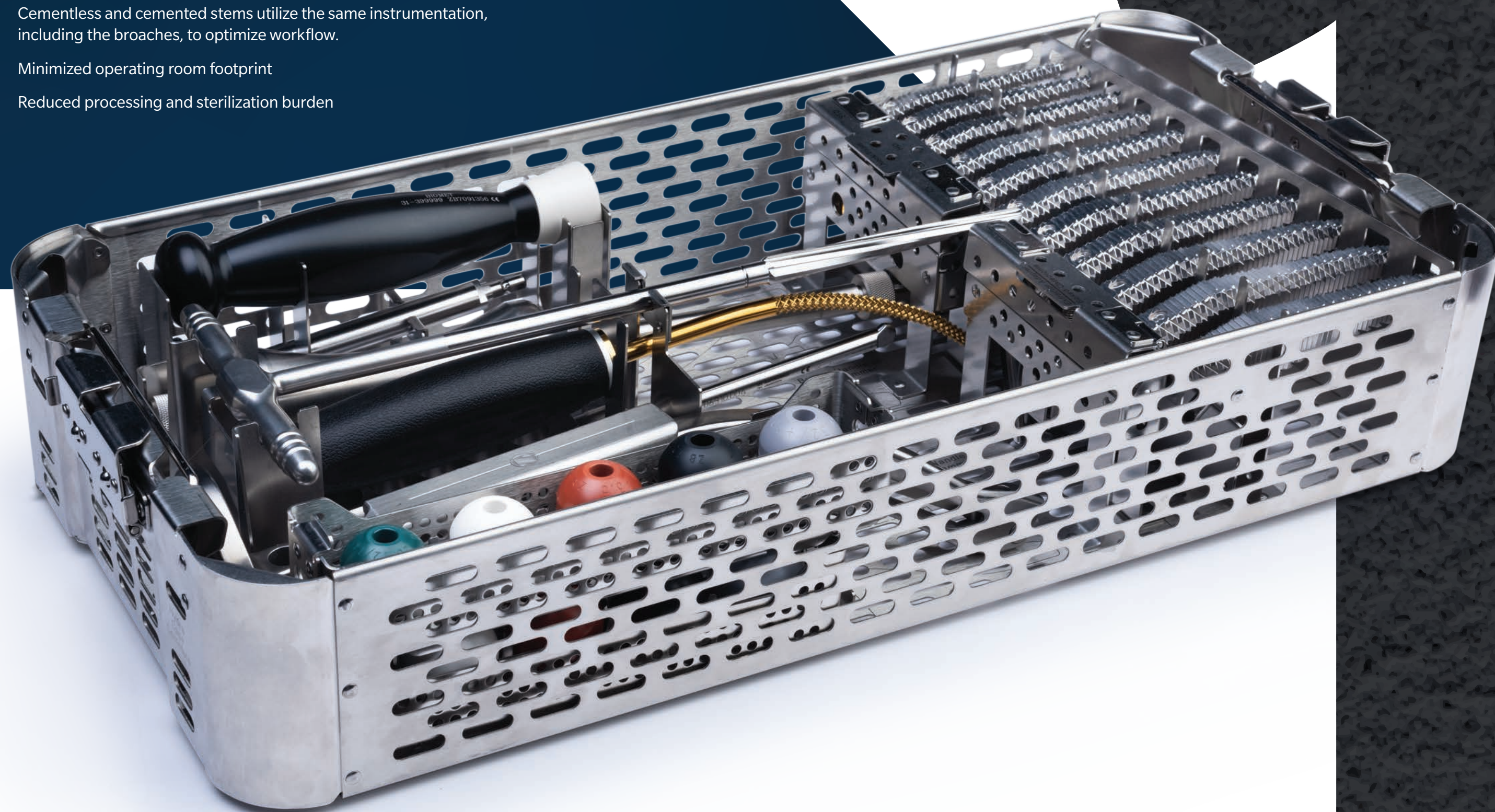


*Scan to visit the Zimmer Biomet Compatibility website

One Single, Streamlined Tray

The Z1 Femoral Hip System is specifically designed to provide maximum operative efficiency through its streamlined instrumentation.

- Single instrument tray for core stem sizes (0-9)
- Cementless and cemented stems utilize the same instrumentation, including the broaches, to optimize workflow.
- Minimized operating room footprint
- Reduced processing and sterilization burden



One Solution

Standard

High-Offset

Coxa Vara

Extensive Options

The Z1 Femoral Hip System offers three neck options, including Standard, High-Offset and Coxa Vara, designed to support restoration of biomechanics across a wide range of patient anatomies.

Expansive Size Range & Consistent Growth

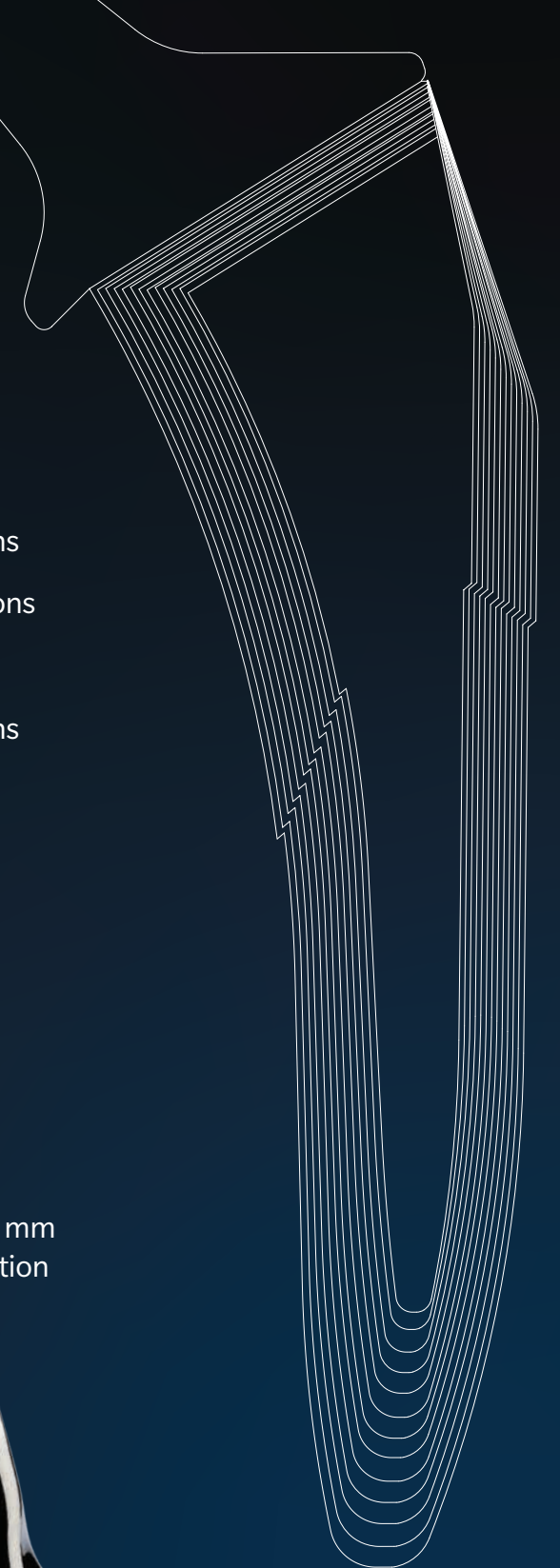
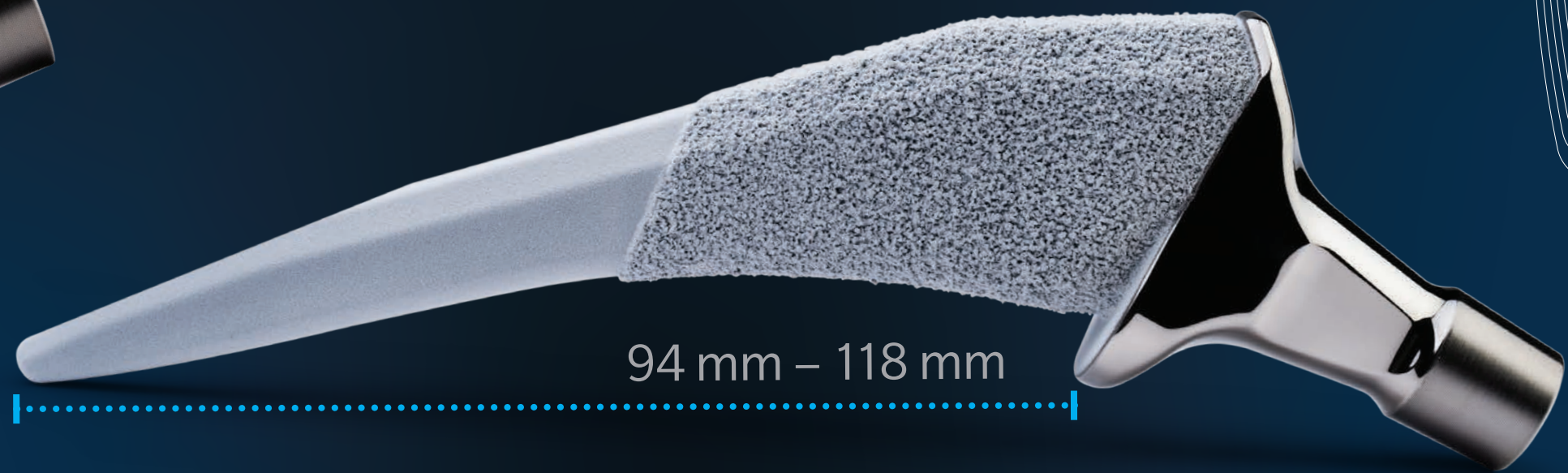
To address a variety of reconstructive needs and enable interchangeability, the Z1 Femoral Hip System features:

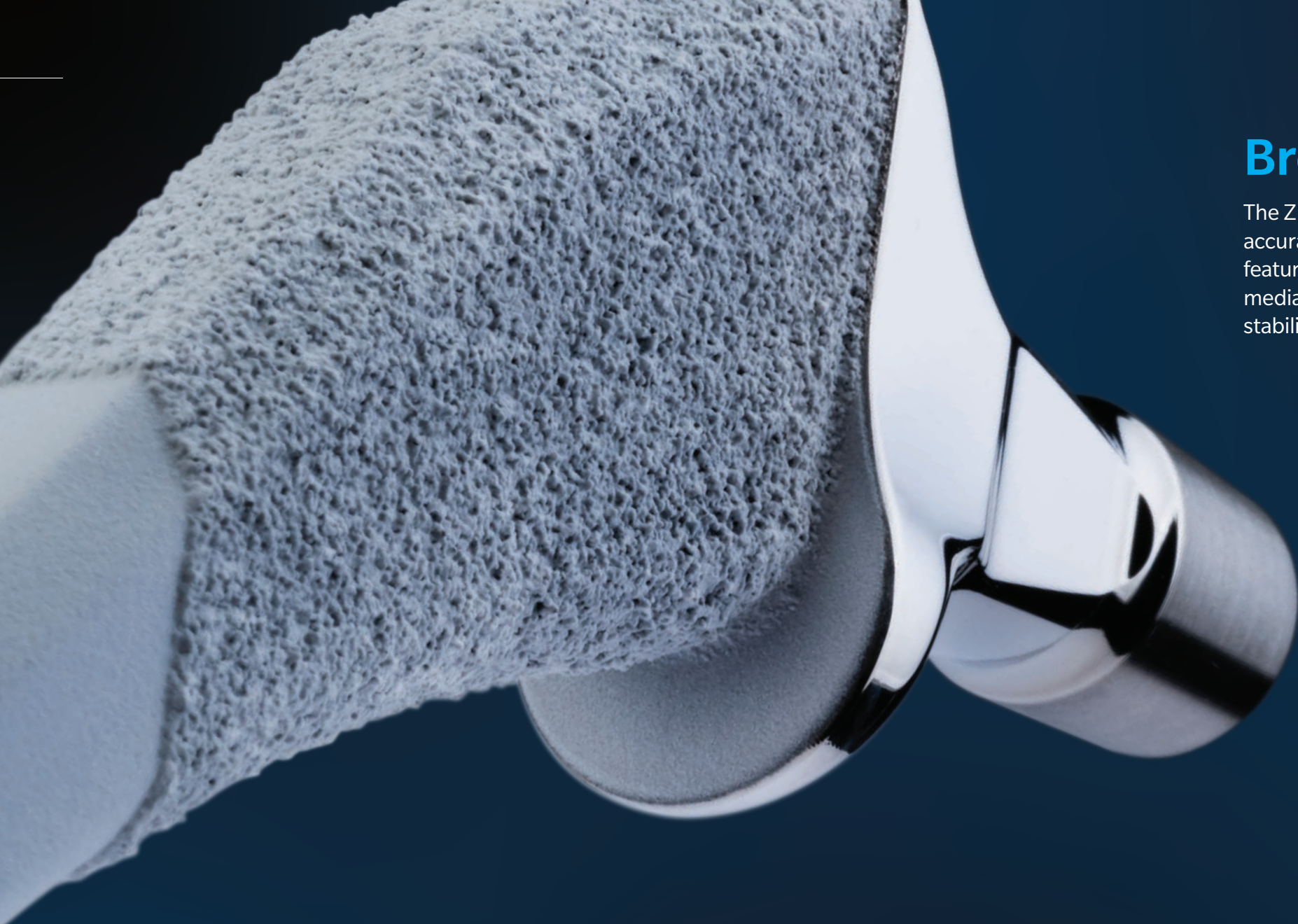
- 13 consistently sized cementless collared stem options
- 13 consistently sized cementless collarless stem options
- 6 consistently sized cemented collared stem options
- 13 consistently sized cemented collarless stem options

Optimized Length

The length of the Z1 Stem is optimized to facilitate insertion through muscle-sparing surgical approaches including the anterior approach. The stem length grows consistently by 2 mm increments with each size (measured from the medial resection line) and ranges from 94 -118 mm.

94 mm – 118 mm



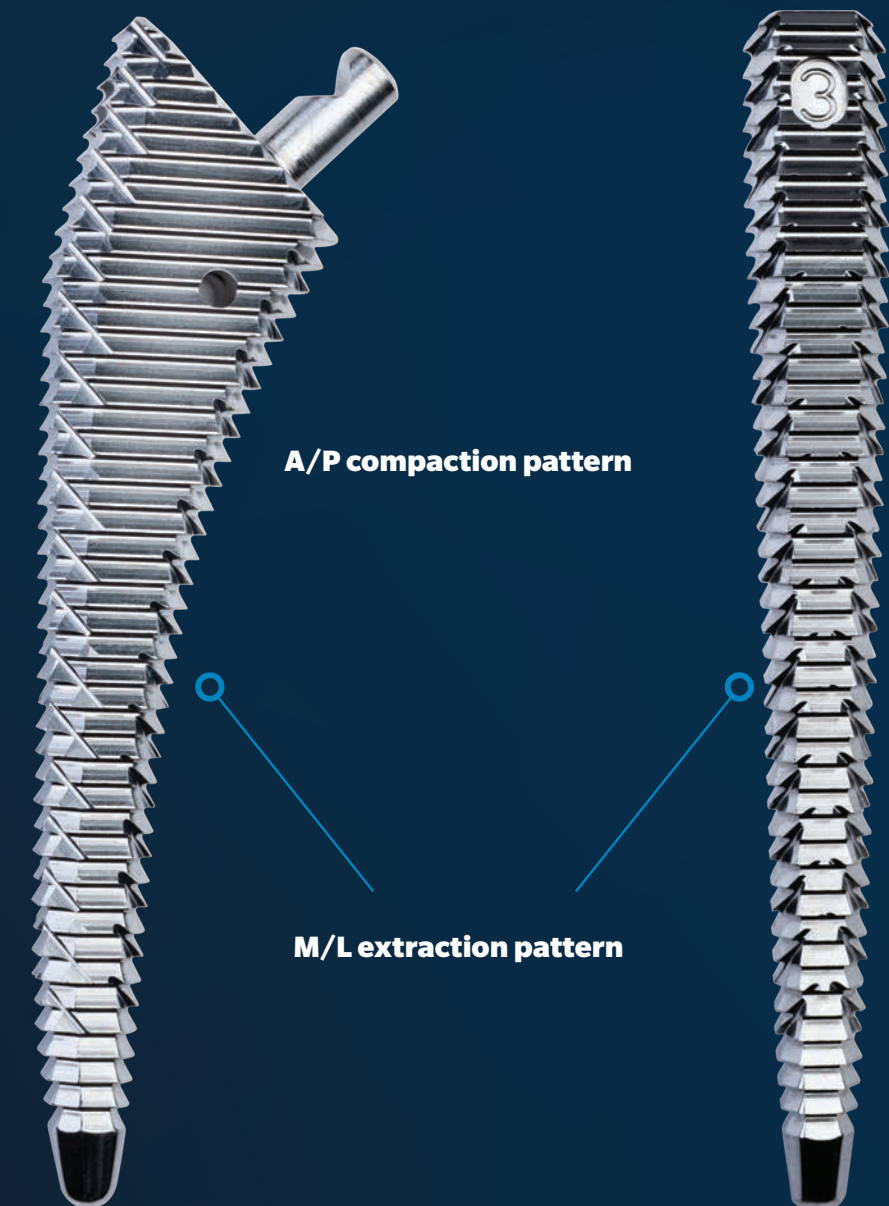


Broach Design and Stem Seating

The Z1 Femoral Hip Instrumentation offers a hybrid broach system designed to support accurate and precise stem seating relative to the position of the final broach. Hybrid broaches feature a compaction pattern on the anterior/posterior sides and extraction teeth on the medial/lateral sides of the broach. The hybrid broach system is designed to allow implant stability through cortical contact while preserving healthy bone.

Initial Stability

The Z1 Collared Stem is designed to provide initial stability and transfer stress to the calcar region, which may help address the potential for subsidence and periprosthetic fracture. The design of the Z1 Collar incorporates a consistent length to minimize the potential for overhang, which could result in iliopsoas impingement, and includes a grit-blasted HA-coated underside designed to provide secure contact with the medial cortical calcar.



Simple and Consistent

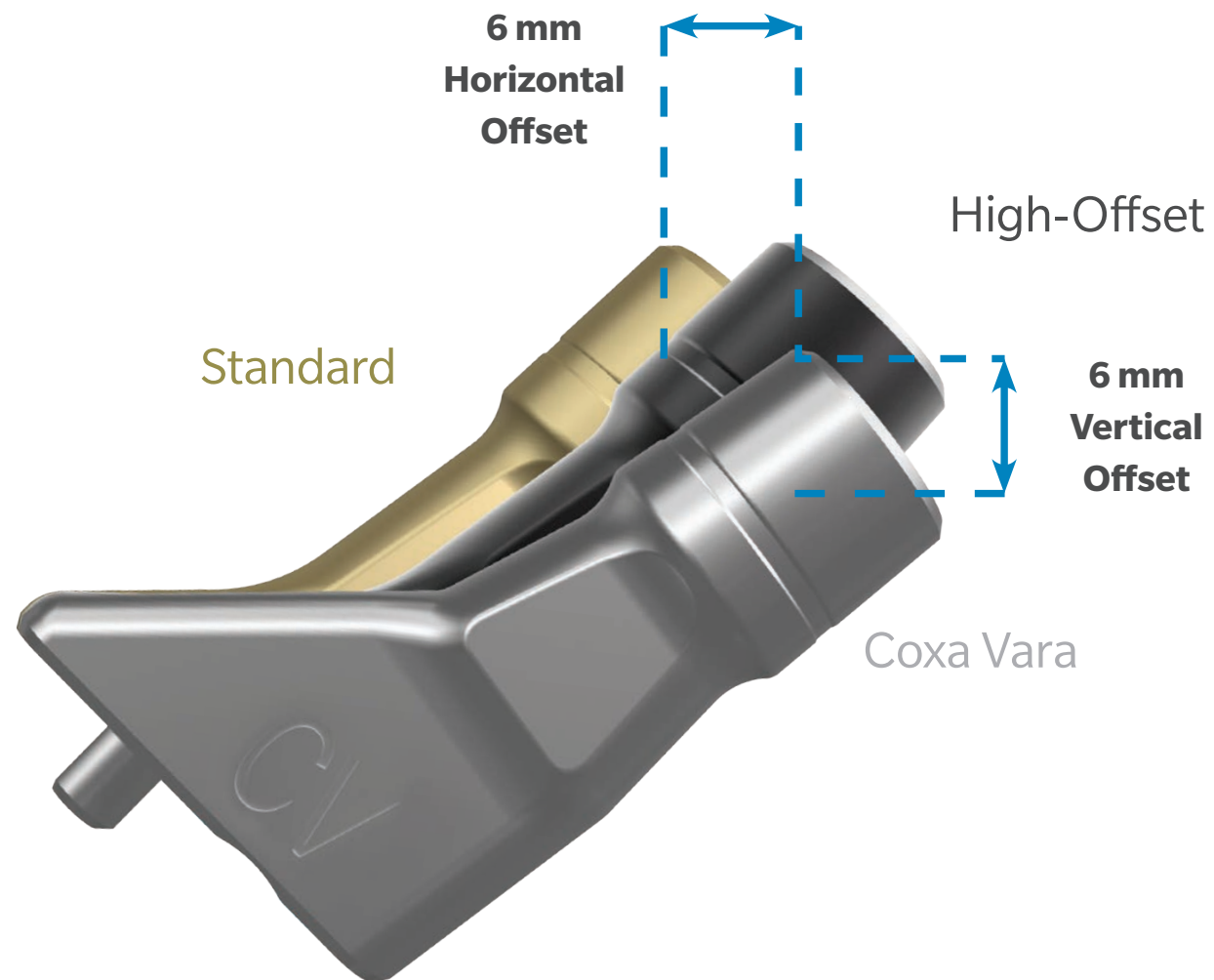
Z1 Femoral Hip System allows the surgeon to focus on the patient, not intra-operative calculations, with simple 6 mm offset management and consistent neck lengths across implant sizes.

Standard & High-Offset:

Consistent 135 degree neck angle with 6 mm high-offset lateralization across all sizes, allowing for additional offset without lengthening the leg.

Coxa Vara Offset

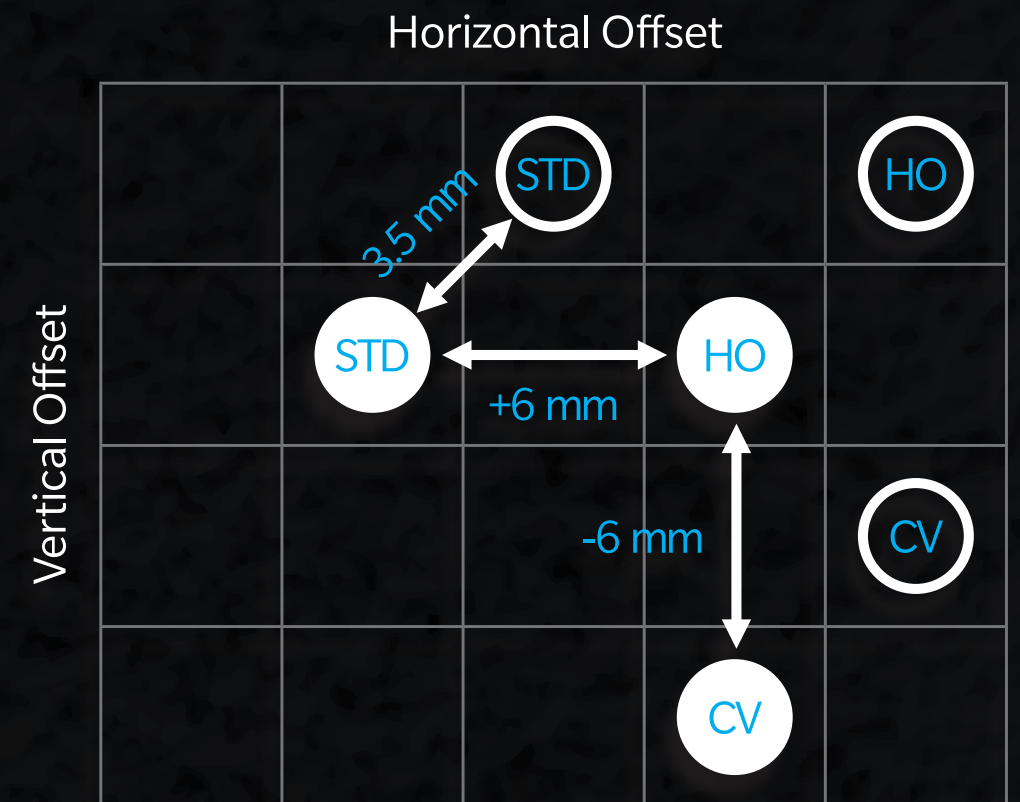
The Coxa Vara neck angle is 126.5 degrees with a 6 mm horizontal and vertical offset.



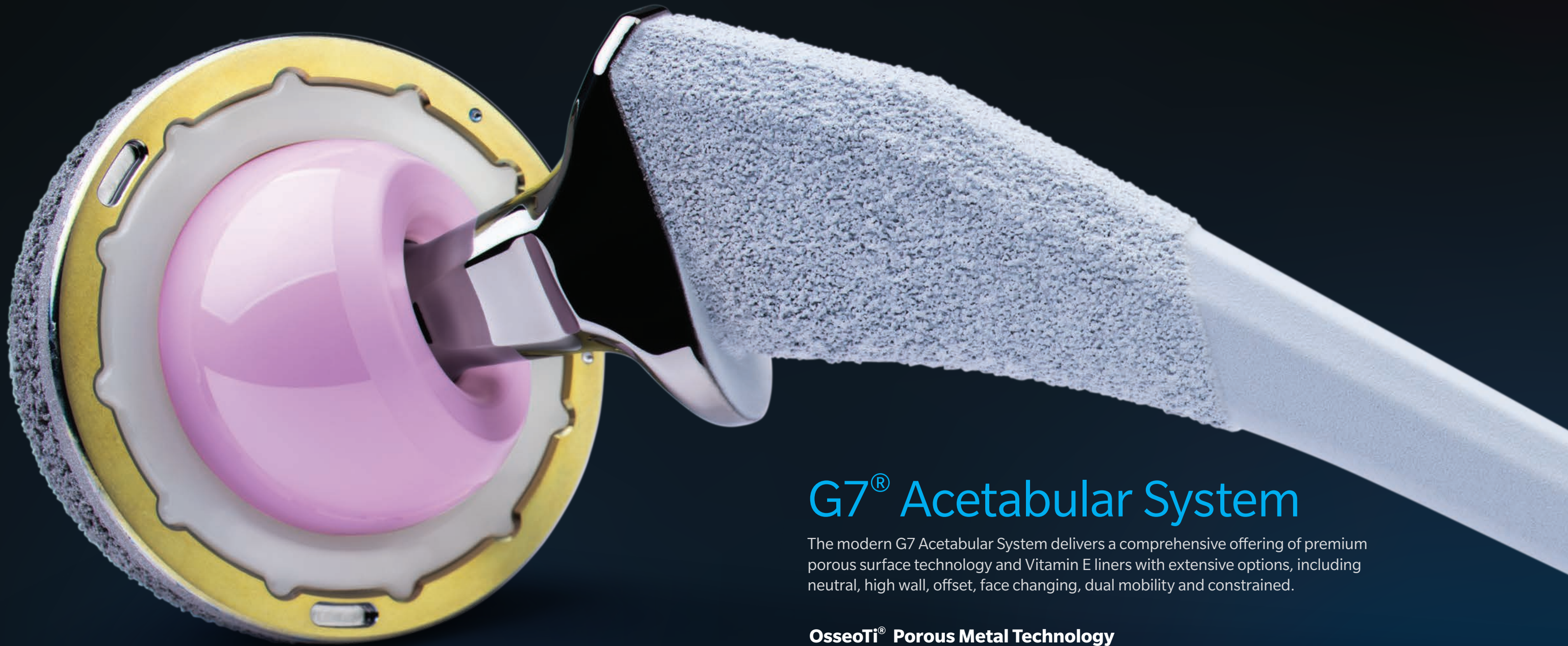
Constant Neck length

The neck length for Z1 remains constant through the core size range (0-9) to simplify leg length management.

Neck length is constant from sizes 0-9 and increases by 3.5 mm (one head center) for the three largest sizes 10-12. This provides a uniform system where sizes 0-9 can achieve a short neck length, while providing additional neck length where needed in the largest sizes.



- Size 0 to 9
- Size 10 to 12

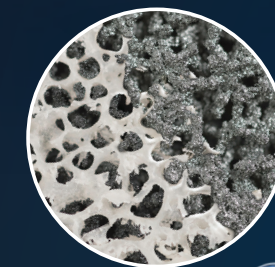


G7[®] Acetabular System

The modern G7 Acetabular System delivers a comprehensive offering of premium porous surface technology and Vitamin E liners with extensive options, including neutral, high wall, offset, face changing, dual mobility and constrained.

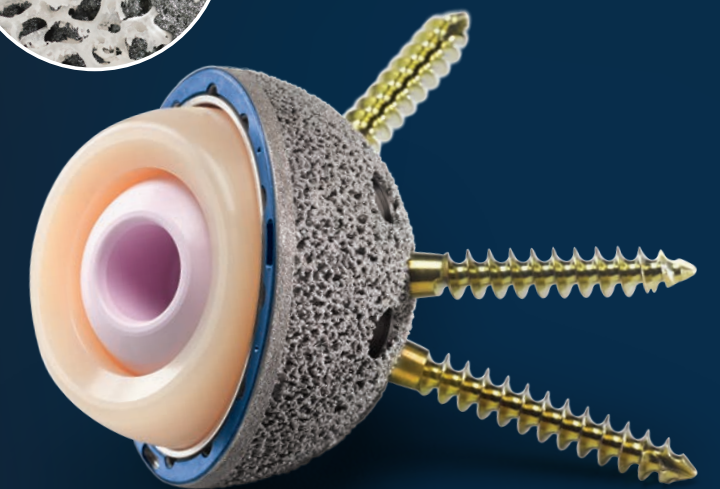
OsseoTi[®] Porous Metal Technology

Zimmer Biomet's OsseoTi Porous Metal Technology uses human CT data in combination with 3D printing technology to build a structure that directly mimics the architecture of human cancellous bone, while enabling surgeons to realize the benefits of highly porous technology without compromising head-to-shell ratio.



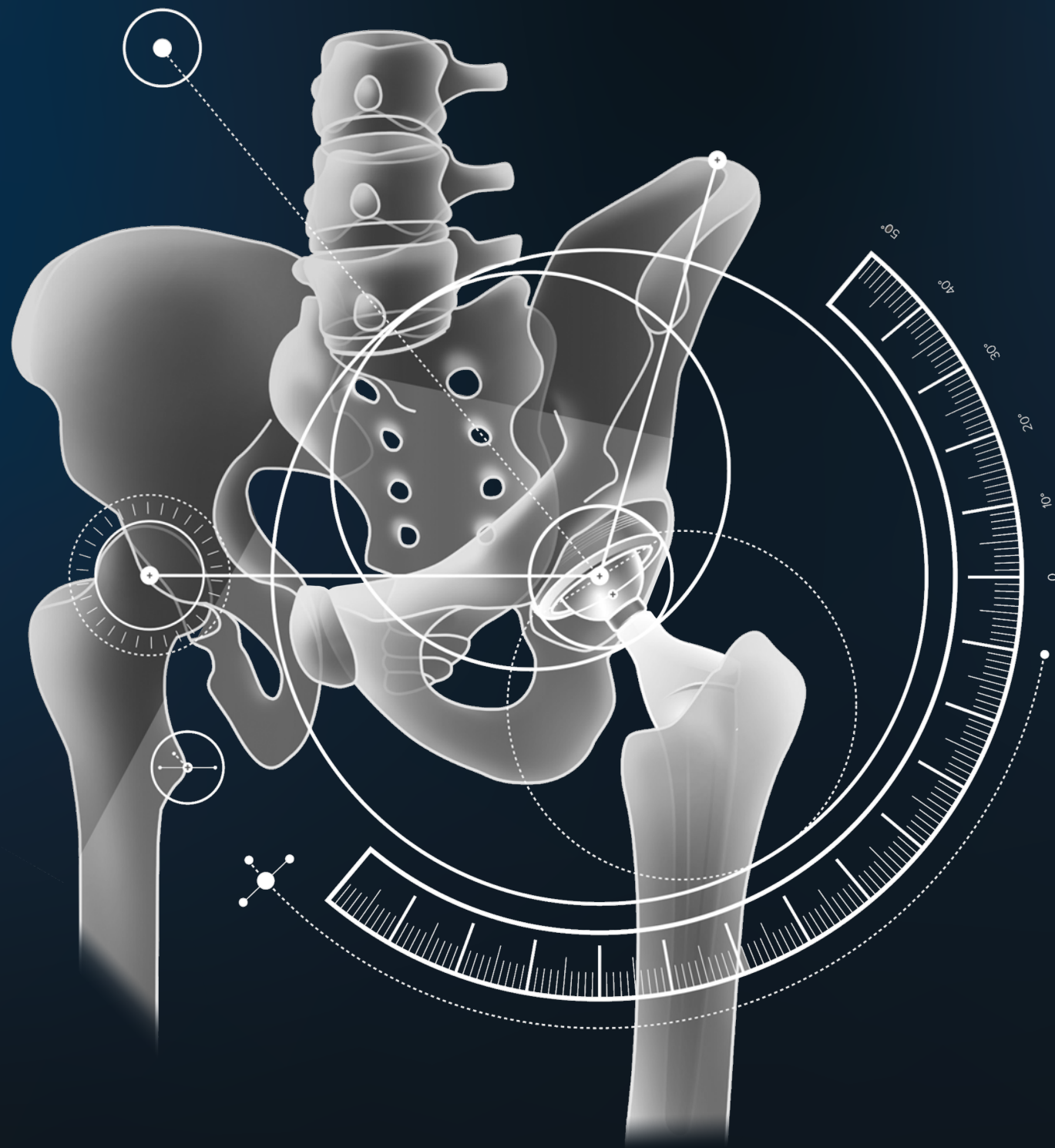
Vivacit-E[®] Vitamin E Highly Crosslinked Polyethylene

Tested for a lifetime of wear resistance, Vivacit-E HXLPE is specifically designed to maximize performance through a proprietary process, providing exceptional oxidative stability^{5,6}, Ultra-low wear^{5,7} and improved mechanical strength.^{6,8,9}



One Company

The Z1 Hip System, combined with Zimmer Biomet's world-class acetabular portfolio and innovative technologies, offers a total hip solution and enhanced surgical experience.

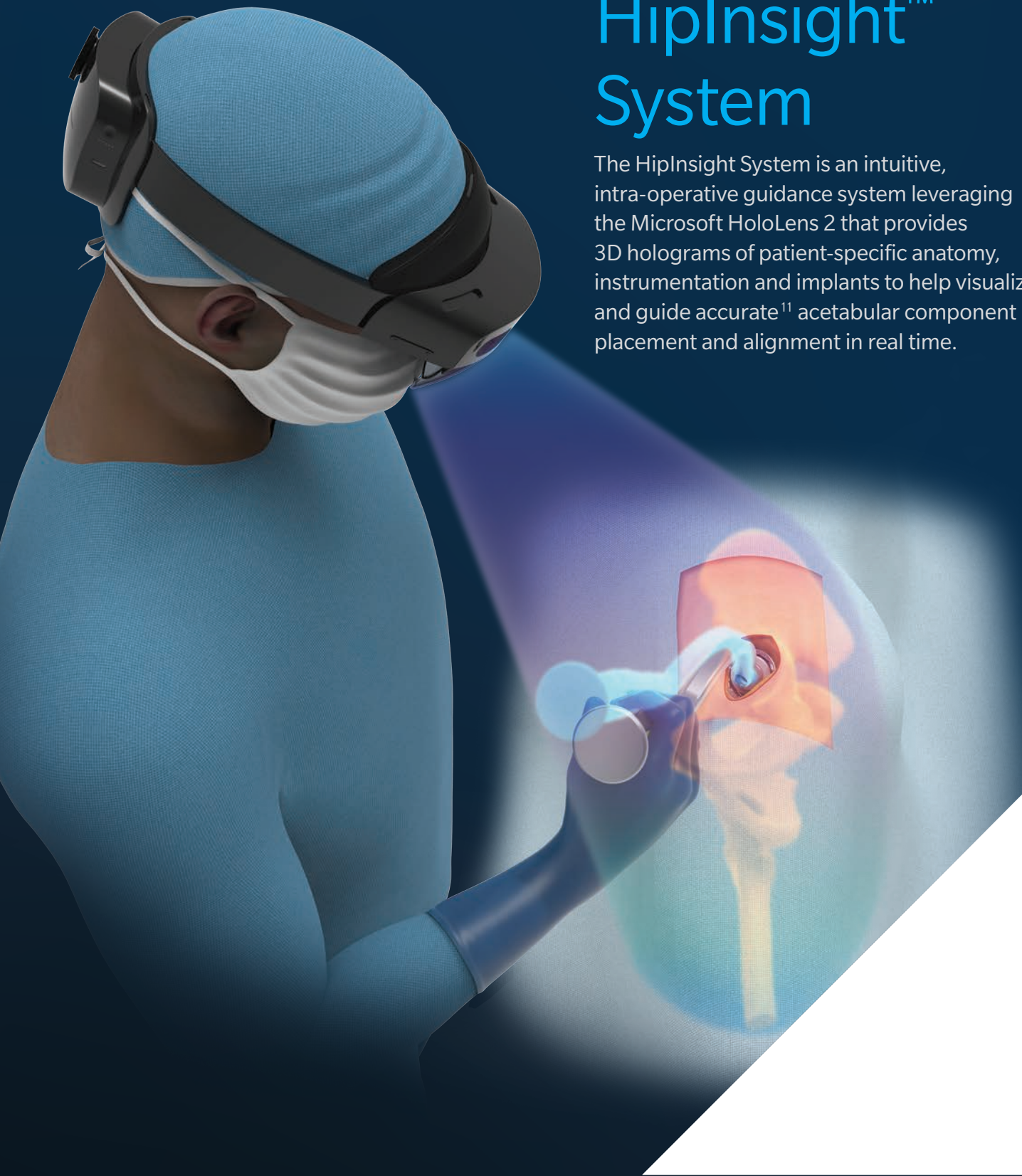


OrthoGrid Hip AI[®]

OrthoGrid Hip AI is an open platform, AI-powered technology that provides direct anterior (DA) hip surgeons with intuitive and instantaneous intra-operative tools to achieve desired surgical outcomes, including functional pelvic plane tracking, offset and precise leg length and cup positioning.¹⁰

HipInsight™ System

The HipInsight System is an intuitive, intra-operative guidance system leveraging the Microsoft HoloLens 2 that provides 3D holograms of patient-specific anatomy, instrumentation and implants to help visualize and guide accurate¹¹ acetabular component placement and alignment in real time.



HAMMR® Automated Impaction System

The HAMMR Automated Impaction System is designed to address surgeon strain, fatigue and repetitive motion associated with the traditional mallet, while offering three adjustable energy levels to address bone quality variation in the femur and acetabulum.





One System
One Solution
One Company

Z1[®] Femoral Hip System

References

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*Laboratory testing is not necessarily indicative of clinical performance.

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