

Zimmer® Continuum® Acetabular System





# The power to meet individual patient needs.

*Zimmer*<sup>®</sup> *Continuum*<sup>®</sup> Acetabular System provides highly flexible solutions for orthopaedic surgeons who treat a wide range of patients. The system combines the proven biologic fixation<sup>1,2</sup> of *Trabecular Metal*<sup>™</sup> technology with Zimmer advanced bearing options. With one comprehensive system, surgeons have the ability to address variations of anatomy and bone quality and choose the bearing technology that best meets the needs of each patient.

#### Highly porous *Trabecular Metal* Material with over eleven years of clinical history

- Initial stability<sup>3</sup>
- Long-term biologic fixation<sup>4,5</sup>
- Proven clinical history<sup>1,2</sup>

#### Power to choose advanced bearing technologies to match patient demands

Surgeons can chose from three liner types based on their patient needs. *Longevity*<sup>®</sup> Highly Crosslinked Polyethylene is highly resistant to wear<sup>6</sup> and aging<sup>7-15</sup> with over ten years of proven clinical history.<sup>16</sup> *Metasul*<sup>®</sup> Metal-on-Metal Material's has a very low wear rate<sup>17</sup> with over twenty years of clinical history.<sup>18-25</sup> *BIOLOX*<sup>®</sup> *delta* Ceramic<sup>†</sup> affords a very low wear rate in a material with improved mechanical properties compared to traditional ceramics.<sup>26</sup>



Trabecular Metal Cancellous-like Structure with Struts





Trabecular Metal Technology

# **Initial Stability**

#### .98 Coefficient of friction\*3

*Trabecular Metal* Technology offers a high coefficient of friction and scratch fit.

- Helps reduce or eliminate the need for supplemental screws or grafts
- Reduces micromotion, enabling tissue ingrowth

## **Long Term Fixation**

#### 80% Porosity<sup>4,5</sup>

*Trabecular Metal* Technology 3D construct provides a high level of porosity and potential for osteoconductivity.

- Allows for more rapid bone and soft tissue ingrowth
- Supports a vascularized structure to maintain healthy bone

## **Proven Clinical History**

#### 10+ years<sup>1,2</sup>

- More than 10 years of clinical history, with over 75 peer-reviewed journal publications.
- More than 250,000 *Trabecular Metal* Components have been implanted worldwide since 1997<sup>6</sup>

\* For non-machined surfaces such as the Trabecular Metal Modular Shell and Continuum Shell



# Longevity Highly Crosslinked Polyethylene

#### Highly reduced wear

#### 89% over standard Polyethylene<sup>6</sup>

Proprietary electron beam process delivers 10Mrad dosage for greater crosslinking, resulting in superior longterm polyethylene wear performance.

#### Highly resistant to aging

#### Over 10X fewer free radicals<sup>7,9,27-30</sup>

In contrast to warm-annealing, which leaves residual free radicals, meltannealing virtually eliminates free radicals and results in long-term mechanical strength.

#### Works as Predicted

10+ years of clinical experience.<sup>16</sup> More than 1 million Zimmer Highly Crosslinked Polyethylene Liners have been implanted worldwide.<sup>6</sup>





# **Metasul Technology**

#### **Improved Stability and Function**

• Larger head size leads to greater range of motion and a lower chance for impingement and its associated risks for dislocation.<sup>31,32</sup>

#### Lower wear characteristics

• *Metasul* wrought forged surface roughness is greatly reduced, which leads to a lower rate of wear in comparison to cast chromium-cobalt alloys<sup>33-39</sup>



• Optimized clearance provides enhanced lubrication and minimized wear<sup>40,41</sup>



#### **Proven Clinical History**

- 20+ years of published clinical history<sup>18-25</sup>
- Launched in 1988, with over 460,000 implantations worldwide<sup>6</sup>
- More than 50 independent publications have discussed the performance of *Metasul* Technology bearings

# BIOLOX delta Ceramic Technology

A high-performance material that meets the increased demands of young active patients and outperforms earlier versions of ceramic materials.<sup>26</sup>



#### Very Low wear

- Increased hardness offers resistance to scratching and subsequent wear
- Better wetting characteristics offer enhanced lubrication and lower wear<sup>26</sup>

#### High fracture resistance

 Optimum composite balance combines hardness with increased bending strength<sup>26,42</sup>



# Secure Liner Locking Mechanism

#### **Longevity Liners**

Threaded

The locking groove design, is designed to mate and lock with polyethylene liners.

*Tivanium*®

#### **Hard-Bearing Liners**

*Metasul* and *BIOLOX delta* Liners are secured by a taper locking mechanism consisting of a circumferential 18° taper around the outside rim of the liner. These liners are designed with a tapered radius for easier insertion.

Tapered for easier and more predictable insertion





# The Power to choose proven solutions that best meet your patient needs.

# **Shell Design Features**

#### **Shell Screw and Dome Hole Features**



Multi-hole

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