Addressing Common Surgeon Concerns and/or Stem Philosophies

Initial Fixation:
- Scratch fit of Trabecular Metal material
- Press fit area of the 14° proximal A/P Taper
- Increased proximal bone support from the 23.5° neck cut

Rotational Stability:
- Increased proximal bone support from the 23.5° neck cut
- Scratch fit of Trabecular Metal material
- Biologic ingrowth potential of Trabecular Metal material

Subsidence Prevention:
- Press fit of the 14° proximal A/P Taper
- Greater Speed gapping
- Scratch fit of Trabecular Metal material
- Biologic ingrowth potential of Trabecular Metal material

Stress Shielding:
- Press fit of the 14° proximal A/P Taper
- Promotes proximal loading
- Biologic ingrowth potential of Trabecular Metal material
- Promotes proximal loading
- Basic stem geometry promotes proximal loading

Long-term Fixation:
- Biologic ingrowth potential of Trabecular Metal material

Instrument Recommendations

Converting a non-VerSys Hip Surgeon
Case #1 – Core Instruments (Stem Sizes 11 – 14)
- Required Kit: R017800001-00 for Reamers, Osteotomy guides, & Core Prophylaxis
- Required Kit: R017800001-15 for Sz 15

Case #2 – General Instruments
- Required Kit: R017800002-00 for General Instruments
- Required Kit: R017800002-02 for Sz 12 & 14 Blade Tool
- Optional Kit: R017800002-01 for Sz 22 & 26 Head
- Tool: Limited Supply

Case #3 – Micro Sizes
- Optional Kit: R017800003-00 for Reamers, Osteotomy guides, & Core Prophylaxis
- Limited Supply

Case #4 – Macro Sizes
- Optional Kit: R017800004-00 for Reamers, Osteotomy guides, & Core Prophylaxis
- Limited Supply

Converting a VerSys® Hip Surgeon
Case #1 – Core Instruments (Stem Sizes 11 – 14)
- Required Kit: R017800001-00 for Reamers, Osteotomy guides, & Core Prophylaxis
- Required Kit: R017800001-15 for Sz 15

Case #2 – General Instruments
- Required Kit: R017800002-00 for General Instruments
- Limited Supply

Case #3 – Micro Sizes
- Optional Kit: R017800003-00 for Reamers, Osteotomy guides, & Core Prophylaxis
- Limited Supply

Case #4 – Macro Sizes
- Optional Kit: R017800004-00 for Reamers, Osteotomy guides, & Core Prophylaxis
- Limited Supply

Stem Part Numbers

Standard Offset
971946-001-00 sz 11 Standard Offset
971946-012-00 sz 12 Standard Offset
971946-013-00 sz 13 Standard Offset
971946-014-00 sz 14 Standard Offset
971946-015-00 sz 15 Standard Offset
971946-016-00 sz 16 Standard Offset
971946-017-00 sz 17 Standard Offset
971946-018-00 sz 18 Standard Offset

Extended Offset
971946-021-20 sz 11 Extended Offset
971946-022-20 sz 12 Extended Offset
971946-023-20 sz 13 Extended Offset
971946-024-20 sz 14 Extended Offset
971946-025-20 sz 15 Extended Offset
971946-026-20 sz 16 Extended Offset
971946-027-20 sz 17 Extended Offset
971946-028-20 sz 18 Extended Offset

Templates/Collaterals
971946-001-00 Brochure
971946-002-00 Surgical Technique
971946-006-00 Metalon® Overlay
971946-020-00 Multimedia Overview CD
971946-029-00 Templates

Please refer to package insert for complete product information, including contraindications, warnings, precautions, and adverse effects.

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Key Features & Benefits

Proximal Trabecular Metal Material
- The initial scratch R (75% greater than base) helps to provide initial fixation, rotational stability, solid stability (and prevent subsidence) [1-4].
- The biologic ingrowth potential (double the pore volume of beads) helps to provide long-term fixation, pseudo-loads (avoiding negative stress shielding), and subsidence prevention [5-7].

14° Proximal A/P Taper
- This geometry helps to provide initial fixation, rotational stability, pseudo-load (avoiding negative stress shielding) and subsidence prevention (45% greater resistance to subsidence compared to traditional geometry) [8].

23.5° Neck Cut
- This biologically active increases proximal bone support to the implant to provide enhanced cortical fixation and rotational stability [9].

A/P Relief
- This bone sparing neckcut increases proximal bone support to the implant to provide enhanced cortical fixation and rotational stability [10].

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This biologically active increases proximal bone support to the implant to provide enhanced cortical fixation and rotational stability [9].

This bone sparing neckcut increases proximal bone support to the implant to provide enhanced cortical fixation and rotational stability [10].

Thus, the initial scratch R (75% greater than base) helps to provide initial fixation, rotational stability, solid stability (and prevent subsidence) [1-4].

The biologic ingrowth potential (double the pore volume of beads) helps to provide long-term fixation, pseudo-loads (avoiding negative stress shielding), and subsidence prevention [5-7].

This geometry helps to provide initial fixation, rotational stability, pseudo-load (avoiding negative stress shielding) and subsidence prevention (45% greater resistance to subsidence compared to traditional geometry) [8].

This biologically active increases proximal bone support to the implant to provide enhanced cortical fixation and rotational stability [9].

This bone sparing neckcut increases proximal bone support to the implant to provide enhanced cortical fixation and rotational stability [10].
Proximal Trabecular Material

- The initial scratch N (75% greater than beads) helps to provide initial fixation, rotational stability, and absorb stress (and prevent subsidence) 1-10.
- The increased ingrowth potential (double the pore volume of beads) helps to provide long-term fixation, proximal loading (avoiding negative stress shiolding), and subsidence prevention 11-20.

23.5° Neck Cut

This highly angular design increases proximal bone support to the implant to provide enhanced initial fixation and rotational stability 20-25.

A/P Relief

This geometry helps to provide initial fixation, rotational stability, proximal loading (avoiding negative stress shiolding), and subsidence prevention (45% greater resistance to subsidence in biomechanical testing) 26-29.

Key Features & Benefits


2. **Friction Coefficients of Porous Tantalum and Cancellous & Cortical Bone** Presented at the 21st Annual American Society of Biomechanics, Clemson, SC, Sep 1997

3. **Interfacial Frictional Behavior: Cancellous Bone, Cortical Bone, and Atraumatic Markers, Clips, and Non-Trabecular Metal Material** Cranial Defects

4. **Flexural Rigidity of Laboratory and Surgical Substitutes for Human Bone with a 14˚ taper.**


14. **Clinical experience with porous tantalum cervical interbody implants** Presented in poster presentation format at 3rd World Congress of Spine Surgeons, New Orleans, LA 2005

15. **Proximal Trabecular Metal Acetabulum – 2 to 5 Year Results** Poster 1530, 50th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA 2004

16. **Bone Loss in Revision Total Knee Arthroplasty** JOA, Vol. 18, No. 3, Suppl. 1, April 2003 S. David Stulberg


Key Features & Benefits

Proximal Trabecular Material

- The initial scratch H (0.75% greater than base) helps to provide initial fixation, rotational stability, axial stability, and prevent subsidence.14-16

- The biology-improving potential (double the pore volume of beads) helps to provide long-term fixation, prosthetic loading (avoiding negative stress shielding), and subsidence prevention.17-20

23.5° Neck Cut

- This biologically active increases proximal bone support to the implant to provide enhanced osseous fixation and rotational stability.12,13-14

A/P Relief

- This geometry helps to provide initial fixation, rotational stability, prosthetic loading (avoiding negative stress shielding), and improved subsidence prevention (460% greater resistance to subsidence than typical stem geometries).18-22

4. Key Features & Benefits

- The reduced A/P relief of the stem geometry in the distal tip allows a 14° taper. Forces are distributed to a greater area across the proximal femur and the proximal femoral anatomy is optimally fit within the cross-section provides bone support to the implant to provide enhanced osseous fixation and rotational stability.6,18

- The reduced A/P relief of the stem geometry in the distal tip allows a 14° taper. Forces are distributed to a greater area across the proximal femur and the proximal femoral anatomy is optimally fit within the cross-section provides bone support to the implant to provide enhanced osseous fixation and rotational stability.6,18

Trabecular Metal Primary Hip Prosthesis Technology References and History - Chronological Order


- 9. Non-Trabecular Metal Material order from association 1999


Addressing Common Surgeon Concerns and/or Stem Philosophies

Initial Fixation:
• Scratch fit of Trabecular Metal material
• Press-fit area of the 14° proximal A/P Taper
• Increased proximal bone support from the 23.5° neck cut

Rotational Stability:
• Increased proximal bone support from the 23.5° neck cut
• Scratch fit of Trabecular Metal material
• Biologic ingrowth potential of Trabecular Metal material

Subsidence Prevention:
• Press-fit of the 14° proximal A/P Taper
• Greater Stem Mass
• Scratch fit of Trabecular Metal material
• Biologic ingrowth potential of Trabecular Metal material

Stress Shielding:
• Press-fit of the 14° proximal A/P Taper
• Greater Stem Mass
• Scratch fit of Trabecular Metal material
• Biologic ingrowth potential of Trabecular Metal material
• Basic stem geometry promotes proximal loading

Long-term Fixation:
• Biologic ingrowth potential of Trabecular Metal material

Instrument Recommendations

Converting a non-Versys® Hip Surgeon
Case #1 – Core Instruments (Stem Sizes 11 – 16)
Required Kit # 00-7865-001-00 for Rasps, Osteotomy Guides, & Cone Provisionals
Case #2 – General Instruments
Required Kit # 00-7865-002-00 General Instruments
Required Kit # 00-7865-002-02 for 18 and 32mm Head Tools
Optional Kit # 00-7865-002-01 for 22 and 26 Head Tools
• Std. – Standard Offset
Case #1 – Stems Sizes (11, 12, 13)
Optional Kit # 00-7865-003-00 for Receptacle, Obturator Guides, & Cone Provisionals – Limited Supply
Optional Kit # 00-7865-003-00 for Receptacle, Obturator Guides, & Cone Provisionals – Limited Supply
Case #1 – Stems Sizes (14, 15, 16)
Case #1 – Stems Sizes (17, 18)

Converting a Versys® Hip Surgeon
Case #1 – Core Instruments (Stem Sizes 11 – 16)
Required Kit # 00-7865-001-00 for Rasps, Osteotomy Guides, & Cone Provisionals
Case #2 – General Instruments
Required Kit # 00-7865-001-01 for Reamers
Case #3 – General Instruments
Not Required. Use Versys® General Instruments Already Placed
Optional Kit # 00-7865-003-00 for Receptacle, Obturator Guides, & Cone Provisionals – Limited Supply
Optional Kit # 00-7865-003-00 for Receptacle, Obturator Guides, & Cone Provisionals – Limited Supply
Case #1 – Stems Sizes (14, 15, 16)
Case #1 – Stems Sizes (17, 18)

Stem Part Numbers
Standard Offset
97-7864-009-00 Size 9 Standard Offset
97-7864-010-00 Size 10 Standard Offset
97-7864-011-00 Size 11 Standard Offset
97-7864-012-00 Size 12 Standard Offset
97-7864-013-00 Size 13 Standard Offset
97-7864-014-00 Size 14 Standard Offset
97-7864-015-00 Size 15 Standard Offset
97-7864-016-00 Size 16 Standard Offset
97-7864-017-00 Size 17 Standard Offset
97-7864-018-00 Size 18 Standard Offset
Extended Offset
97-7864-021-00 Size 11 Extended Offset
97-7864-022-00 Size 12 Extended Offset
97-7864-023-00 Size 13 Extended Offset
97-7864-024-00 Size 14 Extended Offset
97-7864-025-00 Size 15 Extended Offset
97-7864-026-00 Size 16 Extended Offset
97-7864-027-00 Size 17 Extended Offset
97-7864-028-00 Size 18 Extended Offset

Templates/Collaterals
97-7864-001-00 Brochure
97-7864-002-00 Surgical Technique
97-7864-006-00 Quick-Reference Guide
97-7864-020-00 Multimedia Overview CD
97-7864-050-00 Templates

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**Initial Fixation:**
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**Rotational Stability:**
- Increased proximal bone support from the 23.5° neck cut
- Press-fit area of the 14° proximal A/P Taper
- Scratch fit of Trabecular Metal material
- Biologic ingrowth potential of Trabecular Metal material

**Subsidence Prevention:**
- Press-fit of the 14° proximal A/P Taper
- Greater Speed Eight
- Scratch fit of Trabecular Metal material
- Biologic ingrowth potential of Trabecular Metal material

**Stress Shielding:**
- Press-fit of the 14° proximal A/P Taper promotes proximal loading
- Biologic ingrowth potential of Trabecular Metal material promotes proximal loading
- The A/P Relief helps avoid mid-stem loading, which promotes proximal loading
- Basic stem geometry promotes proximal loading

**Long-term Fixation:**
- Biologic ingrowth potential of Trabecular Metal material

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**Instrument Recommendations**

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- **Case #1 – Core Instruments (Stem Sizes 11 – 16)**
  - Required Kit # 00-7865-001-00 for Rasps, Osteotomy Guides, & Cone Provisionals

**Converting a VerSys® Hip Surgeon**
- **Case #1 – Core Instruments (Stem Sizes 11 – 16)**
  - Required Kit # 00-7865-001-00 for Rasps, Osteotomy Guides, & Cone Provisionals

**Stem Part Numbers**

- **Standard Offset**
  - # 87-76-001-00 – Size 9 Standard Offset
  - # 87-76-010-00 – Size 10 Standard Offset
  - # 87-76-011-00 – Size 11 Standard Offset
  - # 87-76-012-00 – Size 12 Standard Offset
  - # 87-76-013-00 – Size 13 Standard Offset
  - # 87-76-014-00 – Size 14 Standard Offset
  - # 87-76-015-00 – Size 15 Standard Offset
  - # 87-76-016-00 – Size 16 Standard Offset
  - # 87-76-017-00 – Size 17 Standard Offset
  - # 87-76-018-00 – Size 18 Standard Offset

- **Extended Offset**
  - # 87-76-011-20 – Size 11 Extended Offset
  - # 87-76-012-20 – Size 12 Extended Offset
  - # 87-76-013-20 – Size 13 Extended Offset
  - # 87-76-014-20 – Size 14 Extended Offset
  - # 87-76-015-20 – Size 15 Extended Offset
  - # 87-76-016-20 – Size 16 Extended Offset
  - # 87-76-017-20 – Size 17 Extended Offset
  - # 87-76-018-20 – Size 18 Extended Offset

**Templates/Collaterals**

- # 87-76-001-00 – Brochure
- # 87-76-002-00 – Surgical Technique
- # 87-76-003-00 – Quick-Reference Guide
- # 87-76-023-00 – Multimedia Overview CD
- # 87-76-034-00 – Templates

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