

**Orthopaedics** 

# Trident<sup>®</sup> Tritanium<sup>®</sup> Acetabular System Surgical Protocol

**Sizes 74-80mm** 



# Surgical Protocol

#### **Sizes 74-80mm**

# Indications for Trident Polyethylene Insert with Metal or Ceramic Head

- Painful, disabling joint disease of the hip resulting from: degenerative arthritis, rheumatoid arthritis, post-traumatic arthritis or late stage avascular necrosis.
- Revision of previous unsuccessful femoral head replacement, cup arthroplasty or other procedure.
- Clinical management problems where arthrodesis or alternative reconstructive techniques are less likely to achieve satisfactory results.
- Where bone stock is of poor quality or inadequate for other reconstructive techniques as indicated by deficiencies of the acetabulum.

#### Contraindications for Trident Polyethylene Insert with Metal or Ceramic Head

- Any active or suspected latent infection in or about the hip joint.
- Any mental or neuromuscular disorder which would create an unacceptable risk of prosthesis instability, prosthesis fixation failure, or complications in post-operative care.
- Bone stock compromised by disease, infection or prior implantation which cannot provide adequate support and/or fixation to the prosthesis.
- Skeletal immaturity.

#### **Warnings and Precautions**

See package insert for warnings, precautions, adverse effects and other essential product information.

This publication sets forth detailed recommended procedures for using Stryker Orthopaedics devices and instruments. It offers guidance that you should heed, but, as with any such technical guide, each surgeon must consider the particular needs of each patient and make appropriate adjustments when and as required. See package insert for warnings, precautions, adverse effects and other essential product information.

# **Trident® Tritanium® Acetabular System**

Surgical Protocol Sizes 74-80mm

#### Introduction

The Trident Tritanium Acetabular System provides surgeons with a highly porous ingrowth surface.

The Trident Tritanium Acetabular System hemispherical shells are manufactured from Commercially Pure Titanium. The Trident Tritanium shells utilize the patented¹ Innerchange locking mechanism. This unique locking mechanism helps provide a secure interface between the polyethylene insert and shell. The Large Size shells are available in sizes 74mm-80mm, and offer the option of X3 or Crossfire polyethylene inserts. Refer to **Table 1** for insert and shell compatibility and sizing options.

The Trident Polyethylene Inserts are designed to lock into the shell by means of a circumferential ring that engages the shell's mating groove. Rotational stability may be achieved when the shell's anti-rotational barbs interlock with the insert's scallops.

The Trident Tritanium Acetabular System utilizes the Cutting *Edge* Total Hip Acetabular Instrumentation. This surgical technique is a guide to preparing the acetabulum for the Trident Tritanium Hemispherical Acetabular implants.



Trident Tritanium Acetabular Shell



X3 Polyethylene Insert and Crossfire Polyethylene Insert



Alumina Femoral Head



Biolox *delta* Femoral Head



LFIT Ion Implanted CoCr Femoral Head

**Table 1: Compatibility Table** 

Femoral Head, X3 Liner and Cup Compatibility Chart					
	Shell Size, Liner Alpha Code, and Liner Thickness (mm)				
Trident Tritanium Hemispherical Shell 74, 76, 78, 80					
Liner Alpha Code J					
Anatomic Femoral Heads	44mm	10.6			
	40mm	12.6			
	36mm	14.7			
	32mm	16.7			
Femoral Heads	28mm	18.7			
	26mm	19.7			
	22mm	21.6			

Trident Tritanium Hemispherical Shell						
Trident Tritanium Trident  Alpha Hemispherical Code Shell Size (mm)  Trident  Trident Eccentric Frident Friden						
J	74, 76, 78, 80	22, 26, 28, 32, 36, 40**, 44**	28, 32, 36	28, 32, 36	32	28

<sup>\*\*</sup>Available in X3 only and 0° only.

Surgical Protocol Sizes 74-80mm

#### **Pre-operative Planning and X-ray Evaluation**

Pre-operative planning and X-ray evaluation aids in the selection of the most favorable implant style and optimal size for the patient's hip pathology. Selecting potential implant styles and sizes can facilitate operating room preparation and assure availability of an appropriate size selection. X-ray evaluation may also help detect anatomic anomalies that could prevent the intra-operative achievement of the established preoperative goals.

#### James A. D'Antonio, M.D. Tip:

"Templating is an important step in the procedure because it allows surgeons to estimate the size of the implant to be used. Assess the center of rotation and offset of the hip to determine inferior location of the acetabular component relative to the tear drop."

#### **Acetabular Preparation**

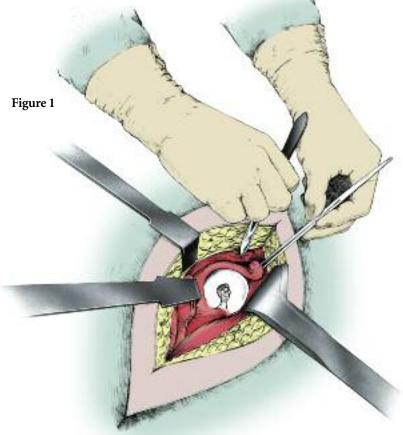
The acetabulum is prepared by the release and removal of soft tissue using the surgeon's preferred technique to gain adequate exposure for reaming. Excision of the labrum and osteophytes allows for proper visualization of the bony anatomy, and improves ease of reaming.

Note: Careful identification and removal of osteophytes can help reduce the possibility of bone-to-bone or component-to-bone impingement.

Stryker Orthopaedics' Retractors can be utilized to gain acetabular exposure (**Figure 1**).

With the acetabulum exposed, bony defects, can be identified. If necessary, bone grafting options may be considered prior to reaming.





#### **Spherical Reaming**

Caution: Only the Cutting Edge Spherical Reamers should be used to prepare the acetabulum for the Trident Tritanium acetabular components.

To obtain congruity in the reaming process, an optional 45/20° Abduction/Anteversion Alignment Guide can be attached to the Cutting Edge Reamer Handle (Figure 2). The alignment guide, when perpendicular to the long axis of the patient, will orient the reamer handle at 45° of abduction, thereby placing the axis of the spherical reamer at 45° of inclination (Figure 3). The reamer handle may then be positioned at 20° of anteversion by aligning the left/right anteversion rod on the alignment guide so that it is parallel to the long axis of the patient.

Caution: All external alignment guides depend on knowing the patient is in a lateral decubitis position, therefore acceptable to anteversion.

Note: Changes in pelvic tilt and pelvic flexion caused by patient positioning on table as well as disease in contralateral hip, spine, and pelvis may impact achievement of 45/20 degree abduction/anteversion.

It is recommended that initial reaming begin with a Cutting Edge Spherical Reamer that is 4mm smaller than the templated or gauged size. The reamer is attached to the reamer handle by pushing down and applying a quarter-turn to lock in place. Reaming progresses in 1mm increments until final desired sizing is achieved. Due to the porous nature of the Tritanium coating, the outer diameter may be larger than the size indicated. The surgeon must consider this in the acetabular preparation.

Note: The amount of interference fit should be determined intra-operatively based on the patient's bone quality. When osteoporotic bone is encountered, it is recommended to under-ream by 1mm. When sclerotic bone is encountered, it may be

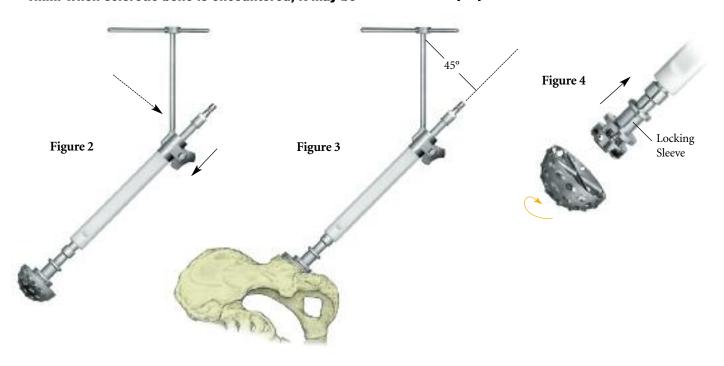
difficult to fully seat the shell with a 1mm interference fit. In this situation, it is recommended to ream less than 1mm, or line-to-line to reduce the potential for problems that may typically occur in dense bone. Potential challenges implanting acetabular shells may include: acetabular fracture, failure to fully seat the implant, or slight deformation of the titanium shell, making seating of the insert more difficult.

The full profile design of the Cutting *Edge* Spherical Reamer necessitates reaming to the full depth. The reamer head should be driven to the point where the rim/cross bar contacts the acetabular wall at the peripheral lunate region. Removal of the reamer from the handle is performed by pulling back on the locking sleeve and rotating the reamer head a quarter-turn in a clockwise direction (**Figure 4**).

Care should be taken so as not to enlarge or distort the acetabulum by eccentric reaming. Final acetabular reaming ideally shows the hemispherical acetabulum denuded of cartilage, with the subchondral plate preferably intact, and the anterior acetabular wall preserved.

It is believed that the subchondral plate functions as an important load-sharing and support mechanism. Preserving as much of the subchondral plate as possible may improve the qualities of the bone/metal composite.

Note: The Cutting Edge Spherical Reamers are very aggressive and perform best when sharp. Care should be taken to protect the reamer from unnecessary handling, as dull or damaged cutting teeth may cause improper reaming. Dull cutting teeth will deflect to cut softer bone and resist hard bone. This situation may result in an irregularly shaped or enlarged acetabulum preparation.



Surgical Protocol Sizes 74-80mm

#### **Trial Evaluation**

Following the reaming procedure, the appropriate Trident Tritanium Window Trial (Table 2) is threaded onto the Cutting Edge Shell Positioner/Impactor and placed in the acetabulum to evaluate the size and congruity of the preparation (Figure 5). The Trident Tritanium Window Trials are available in line-to-line sizes and sizes 1mm-2mm smaller than the implant OD so as not to destroy the press-fit. The trial is "windowed" for visualization and assessment of fit, contact and congruency of the trial within the acetabulum. By inserting the Trident Trial Insert into the Trident Tritanium Window Trial (Figures 6 & 7), joint mechanics can be evaluated. To ensure that the Trial Insert is well fixed to the Trident Tritanium Window Trial during the trial evaluation, an Acetabular Trial Insert Containment Screw can be used. The Containment Screw Kit (2230-0010) is optional (Figure 6). The containment screw has a Torx drive feature and is compatible with Torx screwdrivers.

To facilitate insertion/removal of the Trial Insert, holding forceps may be placed into the two holes in the plastic face.

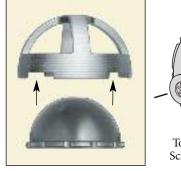
Table 2: Trident Tritanium Window Trial/Trial Insert Sizing

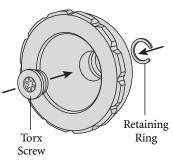
Catalog Numbers	Trident Tritanium Window Trial (mm)	Trident Trial Insert Compatibility Class
2208-4072	72	J
2208-4073	73	J
2208-4074	74	J
2208-4075	75	J
2208-4076	76	J
2208-4077	77	J
2208-4078	78	J
2208-4079	79	J
2208-4080	80	J

Figure 5

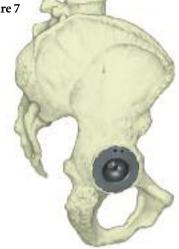


Figure 6









# **Trident Tritanium Hemispherical Shell Implantation**

Assess the acetabulum and surrounding soft tissue prior to shell introduction to ensure nothing is preventing shell implantation. During shell introduction into the acetabulum, minimize damage to the shell coating by instrumentation.

After completing the trial reduction, select the appropriately sized Trident Tritanium Acetabular shell as clearly identified on the product label. Ensure the patient is in the correct position. At this step it is prudent to reassess patient positioning in the surgical field.

If desired, the Cutting *Edge* Abduction/Anteversion Alignment Guide can be attached to the Cutting *Edge* Shell Positioner/Impactor to help establish the recommended 45° of abduction inclination and 20° of anteversion (**Figures 8 & 9**).

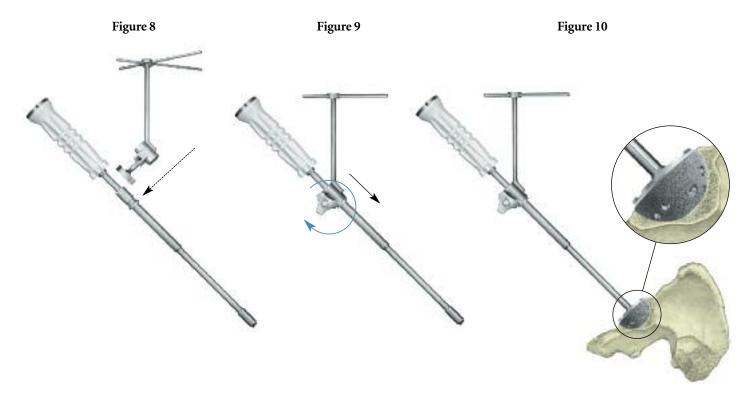
Caution: The Alignment Guide may yield inaccurate placement if the pelvis has moved from the original position during intraoperative manipulation. Small changes in pelvic flexion will greatly affect anteversion. The Alignment Guide is only one aid to assist with proper implant positioning. The surgeon

# must also rely on anatomic landmarks to avoid improper positioning of components.

The metal shell is threaded onto the impactor at the threaded hole in the dome of the metal shell. It is important to fully engage the threads and seat the impactor against the shell. Otherwise, the threads on the metal shell could become damaged, resulting in difficulty with the removal of the impactor from the shell.

The cluster screw hole pattern holes are intended to be oriented superiorly (**Figure 10**).

Note: Shell positioning must be carefully considered when selecting certain inserts as hooded options are not available in all sizes to adjust joint stability. Proper positioning of the Trident Tritanium Hemispherical Shell will minimize potential impingement and provide stability and articulation between the Insert and Head. As with any acetabular system, excessive vertical orientation and/or anteversion of the Shell should be avoided as this may lead to premature wear of the components' surfaces.



# Trident® Tritanium® Acetabular System

Surgical Protocol Sizes 74-80mm

# Trident Tritanium Hemispherical Shell Implantation (cont.)

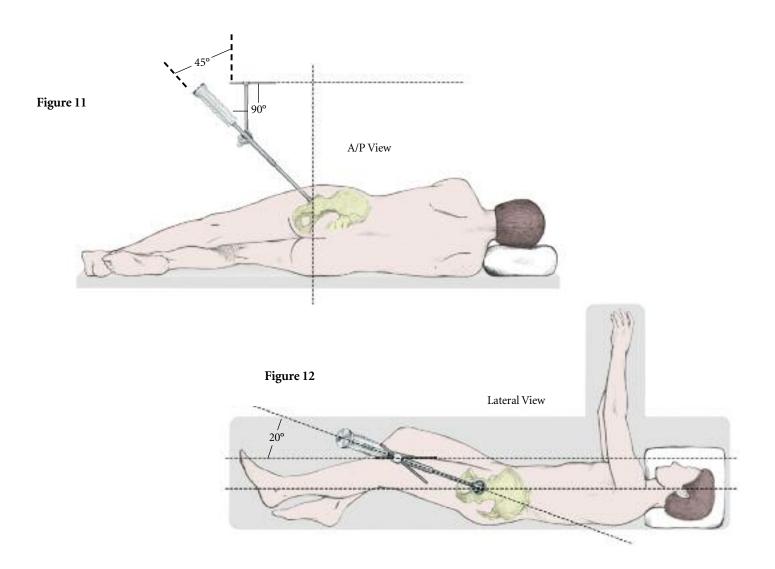
The recommended metal shell abduction angle of 45° is determined by positioning the alignment guide perpendicular to the long axis of the patient (**Figure 11**).

Metal shell anteversion is set at approximately 20° by moving the cup impactor so that the left/right anteversion rod is parallel to the long axis of the patient (**Figure 12**).

The metal shell is impacted into the acetabulum using a mallet until a tight, stable press-fit is achieved. The thumbscrew on the alignment guide is then loosened to remove the guide. After removing the guide, the impactor handle is carefully unthreaded from the shell.

The depth of the shell seating may now be determined by viewing through the threaded hole in the dome. If it is determined that the shell is not fully seated, the Cutting *Edge* Final Cup Impactor may then be required to assist in impacting the shell until it is completely seated in the prepared acetabulum.

If utilizing the optional dome hole plug, assess that the plug is fully threaded into the shell to prevent liner impingement.



#### **Optional Screw Utilization**

# Note: Trident Tritanium Acetabular Shells are not intended to be drilled through where existing screw holes are not provided.

Only Stryker Orthopaedics Cancellous 6.5mm Bone Screws can be used. Stryker Orthopaedics offers 6.5mm diameter cancellous bone screws for use in the shell dome, which are available in a variety of lengths (**Table 3**). The surgeon has the option of Hex or Torx screws as shown in **Table 3**. Stryker Orthopaedics Cancellous Bone Screws are designed to be inserted or removed only with the assistance of Stryker Orthopaedics screw instruments.

After determination of the proper site for screw placement, a 3.2mm diameter drill is passed through a drill guide to the desired depth (**Figure 13**). It is important to use the proper drill guide (6060-5-310 or 6060-5-300) to keep the pilot hole as straight and concentric as possible, so that the screw head fully seats. The screw hole is then sounded to determine the hole's depth. The properly sized screw is then selected and implanted into the bone using Stryker Orthopaedics Screw Drivers with a high torque configuration driver head (**Figure 14**).

Note: After screw implantation, assess that the screw head is seated flush against the shell to help prevent improper seating of the acetabular liner.

Note: In hard bone, the use of 6.5mm dome screws prepared in the usual fashion may be difficult. The use of a 4.0mm drill bit may make the utilization easier, without substantial compromise of screw purchase.

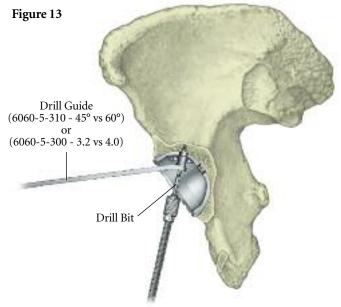
Caution: Do not pass a drill, screw or any other instrumentation beyond the inner table of the pelvis. Malposition of either the shell screw hole orientation, screw hole preparation or improper use of the screws themselves may contribute to detrimental clinical consequences.

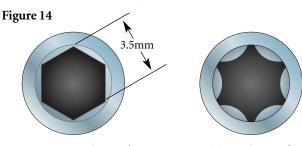
Table 3: Stryker Orthopaedics Cancellous 6.5mm Bone Screws

Screw Lengths (mm)	Hex Screw Catalog Number
12	5260-5-012
14	5260-5-014
16	5260-5-016
18	5260-5-018
20	5260-5-020
22	5260-5-022
24	5260-5-024
26	5260-5-026
28	5260-5-028
30	5260-5-030
35	5260-5-035
40	5260-5-040
45	5260-5-045
50	5260-5-050

Screw Lengths (mm)	Torx Screw Catalog Number
15	2080-0015
20	2080-0020
25	2080-0025
30	2080-0030
35	2080-0035
40	2080-0040
45	2080-0045
50	2080-0050
55	2080-0055
60	2080-0060

Caution: Do not use Trident 2030-65XX screws.





3.5mm Hex Drive Head

Torx Drive Head

Surgical Protocol Sizes 74-80mm

#### **Trial Insert Reduction**

After metal shell implantation, insert the Trident Trial liner into the Trident Tritanium shell. At this point the patient should be taken through a complete range of motion using the final selected implant sizes (**Table 4**). Careful assessment of impingement at the extreme range of motion should be performed. A final check of hip mechanics should be completed to include range of motion consistent with the patient's normal daily activities. At this point joint laxity should also be assessed, understanding the type of anesthetic used and its effects on soft tissue.

Note: Impingement should be carefully assessed and avoided during range of motion. Impingement can result in increased wear in metal-polyethylene systems.

Insert will provide a final check of hip mechanics.

#### **Table 4: Trident Insert Trials**

- $\bullet = 0^{\circ} (2200\text{-XXX}) \text{ and } 10^{\circ} (2210\text{-XXX})$
- = Elevated Rim (2600-XXX)
- **■** = Eccentric 0° (2240-XXX) and 10° (2250-XXX)
- $\Box$  = Constrained 0° (2270-XXX)
- $\triangle$  = Constrained 10° (2230-XXX)

Alpha Code	22mm	26mm	28mm	32mm	36mm	40mm	44mm
J	•	•	●○■▲	●○□■	●○■	• *	• *

<sup>\*</sup> Available in 0° only.

#### **Insert Implantation**

Impactor Handle (Figure 15).

Select the appropriate size Silicone Insert Positioner Tip. Load Silicone Insert Positioner Tip to Insert Positioner/

Load the polyethylene to Insert Positioner Tip. Press firmly to ensure insert is being securely held (**Figure 16**).

Note: Polyethylene components are pre-sterilized and cannot be sterilized after opening.

Ensure that the inside of the shell is clean and free of soft tissue or any other debris, which could prevent the insert from properly sitting in the shell.

Figure 16



#### **Insert Implantation (cont.)**

Gently introduce the polyethylene insert making sure that the insert flange scallops are aligned with the slot at the rim of the shell (this allows seating the insert at the initial position supported by four indexing barbs). Once the insert is seated at the initial position, slowly turn and drop the insert into the final pre-locking position (**Figure 17**).

Note: Having a clear view of the rim of the acetabulum will allow easier visualization of the shell's slot and indexing barbs for proper positioning of the insert.

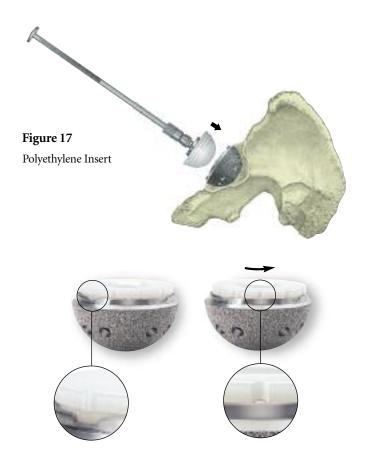
Remove Silicone Insert Positioner Tip from the Insert Positioner/Impactor Handle.

Select appropriate size Plastic Insert Impactor Tip. Load Plastic Insert Impactor Tip to Insert Positioner/ Impactor Handle. Position Insert Positioner/Impactor Handle into ID of insert. Take care to align handle with axis of shell. Strike handle with approximately four firm mallet blows to fully seat insert.

NOTE: In order to obtain a secure lock it is recommended to use only the hard plastic Insert Impactor Tips to impact the polyethylene inserts.

Verify insert is fully seated and properly aligned into the acetabular shell. Check the lock by running a small osteotome around the periphery of the shell/insert interface.

Note: As with any modular interface under load, there is a potential for micromotion and associated fretting and/or corrosion. When properly engaged, the Trident Innerchange locking mechanism is designed to minimize motion at the taper interface and risk of corrosion potential.



Surgical Protocol Sizes 74-80mm

#### **Head Assembly**

Prior to head assembly, neck length selection may be re-evaluated using a Stryker V40 or C-taper Trial Head. Place the Trial Head onto the stem neck taper and reduce the hip to verify that the mechanics have not been altered due to implant seating.

Remove the Trial Head and dry the implant trunnion with a laparatomy sponge or sterile towel.

Select the appropriate corresponding V40 or C-taper Femoral Head size and place it onto the dry trunnion of the femoral stem with a slight twist. Impact the head with two moderate blows using the Stem Head Impactor.

#### **Optional Step**

Note: When selecting a BIOLOX *delta* Anatomic and BIOLOX *delta* Universal Taper Ceramic Femoral Head for implantation, use of a Universal Adaptor Sleeve is necessary.

**Universal Adaptor Sleeves** 

Part Numbers	Taper	<b>Stem Material Compatibility</b>
19-0XXXT	C-taper	TMZF, Ti-6Al-4V, CoCr
6519-T-XXX	V40	TMZF, Ti-6Al-4V, CoCr

After completing the trialing process, intra-operatively assemble the Adaptor Sleeve to the femoral stem manually. The Universal Adaptor Sleeve must be fully seated on the stem trunnion before the head is assembled.

Note: In no instance should any attempt be made to pre-assemble the Adaptor Sleeve inside the BIOLOX *delta* Anatomic or BIOLOX *delta* Universal Ceramic Head.

Intra-operatively assemble the BIOLOX *delta* Anatomic or BIOLOX *delta* Universal Taper Ceramic head onto the sleeved femoral stem and set with one to three moderate blows using the Stem Head Impactor (1104-1000). Care must be taken to avoid excessive impact forces when assembling the Ceramic Head to the sleeved femoral component.

#### **Removal of the Cup Insert and Shell**

#### Polyethylene Insert Removal

Utilize a 3/16" (5mm) drill bit to create an off-center hole in the polyethylene insert. Use the "T" handle to thread the Polyethylene Insert Removal Tool into the insert, and advance the tool to the medial wall of the shell to dislodge the insert (**Figures 18 & 19**).

Note: Prior to performing a liner exchange, visually assess the shell's locking mechanism for damage. If damaged, shell should be replaced.

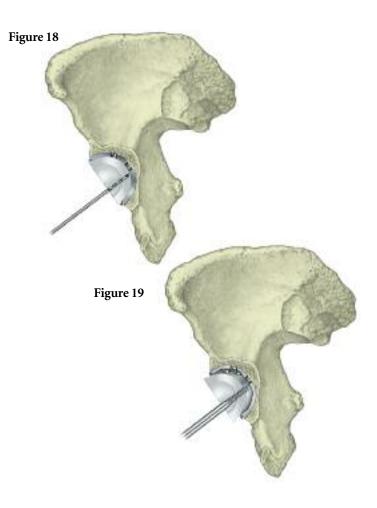
# Revising the Trident Tritanium Acetabular Shell with a Trident Polyethylene Insert

The Trident Insert Trials are used to evaluate the shell face position and provide a final check of hip biomechanics. The polyethylene inserts provide 12 different insert orientations within the shell to provide optimal joint stability.

Follow Insert Implantation, to insert the polyethylene insert.

#### **Trident Tritanium Shell Removal**

Should removal of the metal shell ever become necessary, an osteotome or small burr can be passed around the cup periphery to loosen the fixation interface. The Cutting *Edge* Shell Positioner can be threaded into the dome hole of the cup. A Slotted Mallet is slid over the positioner shaft to assist with the shell removal.



Surgical Protocol Sizes 74-80mm

#### **Head Disassembly**

The Head Disassembly Instrument is used to remove an impacted head. Inspect the stem neck trunnion to verify that no damage has occurred prior to impacting a replacement head. A replacement head may then be attached to the stem neck taper and secured using the Stem Head Impactor.

# Revision of V40 or C-Taper Alumina and BIOLOX *delta* Ceramic Heads

#### Revision to a Ceramic Head

If the ceramic head needs to be revised for any reason, a new ceramic head must not be affixed to the existing stem trunnion because the taper will have been deformed through assembly with the first ceramic head component. If the surgeon wishes to revise with a ceramic head, a Universal Adaptor Sleeve or V40 Adapter Sleeve must be used. This will allow for revision to a new ceramic femoral head on an unused trunnion. Refer to LCHS/DS for surgical protocol information.

#### Revision to a Metal Head

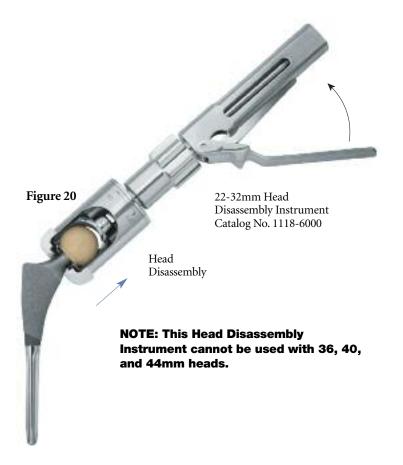
In the case of revision to a metal head, if the original stem and its trunnion appear intact, the original hip stem need not be replaced.

#### **Insert Compatibility**

Polyethylene Inserts are compatible with Alumina, BIOLOX *delta* and CoCr Heads.

# Revision of BIOLOX *delta* Universal Taper Ceramic Heads

If the ceramic head needs to be revised for any reason, remove the ceramic head with the Head Disassembly Instrument (1118-6000 or 6059-9-505 depending on femoral head size – **Figures 20 & 21**) and remove the Universal Adaptor Sleeve with the Ceramic Head Sleeve Disassembly Adaptor (1118-1005). If the surgeon wishes to revise with another BIOLOX *delta* Universal Taper Ceramic Head, place a new Universal Adaptor Sleeve onto the stem trunnion and then assemble the BIOLOX *delta* Universal Taper Ceramic Head onto the sleeved stem trunnion. In the case of revision to a metal head, if the original stem and its trunnion appear intact, the original hip stem need not be replaced and a compatible metal head can be used.





#### Sizes 74 - 80mm

Implant Catalog No.	Shell Size (mm)
509-02-74J	74
509-02-76J	76
509-02-78J	78
509-02-80J	80

#### **BIOLOX** delta Universal Taper **Ceramic Heads**

Catalog No.	Head Size (mm)	Offset
6519-1-028	28	+0mm
6519-1-032	32	+0mm
6519-1-036	36	+0mm
6519-1-040	40	+0mm
6519-1-044	44	+0mm

#### V40 Taper BIOLOX delta Ceramic Heads

Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
6570-0-028	28	-4	6264-8-028
6570-0-328	28	-2.7	6264-8-328
6570-0-128	28	+0	6264-8-128
6570-0-228	28	+4	6264-8-228
6570-0-032	32	-4	6264-8-032
6570-0-132	32	+0	6264-8-132
6570-0-232	32	+4	6264-8-232
6570-0-036	36	-5	6264-8-036
6570-0-436	36	-2.5	6264-8-436
6570-0-136	36	+0	6264-8-136
6570-0-536	36	+2.5	6264-8-536
6570-0-236	36	+5	6264-8-236
6570-0-736	36	+7.5	6264-8-736

#### **Universal Trial Heads**

Taper	Catalog No.	Diameter (mm)	Offset (mm)
C-Taper	1100-4497A	44	-2.5
C-Taper	1100-4425A	44	+2.5
V40	6264-8-728	28	-2.5
V40	6264-8-632	32	-2.5
V40	6264-3-236	36	+4.0
V40	6264-8-940	40	-2.5
V40	6264-8-944	44	-2.5

#### **Universal Adapter Sleeves - Titanium**

Taper	Catalog No.	Offset
C-Taper	19-0325T	-2.5mm
C-Taper	19-0000T	+0mm
C-Taper	19-0025T	+2.5mm
C-Taper	19-0005T	+5mm
V40	6519-T-025	-2.5mm
V40	6519-T-100	+0mm
V40	6519-T-204	+4mm

Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
06-2200	22	+0	1100-2200A
S-1400-HH22	22	+2.5	1100-2225A
06-2205	22	+5	1100-2205A
06-2210	22	+10	1100-2210A
06-2600	26	+0	1100-2600A
S-1400-HH62	26	+2.5	1100-2625A
06-2605	26	+5	1100-2605A
S-1400-HH64	26	+7.5	1100-2675A
06-2610	26	+10	1100-2610A
06-2898	28	-3	1100-2898A
06-2800	28	+0	1100-2800A
S-1400-HH82	28	+2.5	1100-2825A
06-2805	28	+5	1100-2805A
S-1400-HH84	28	+7.5	1100-2875A
06-2810	28	+10	1100-2810A
06-3299	32	-5	1100-3299A
S-1400-HH31	32	-2.5	1100-3297A
06-3200	32	+0	1100-3200A
S-1400-HH32	32	+2.5	1100-3225A
06-3205	32	+5	1100-3205A
S-1400-HH34	32	+7.5	1100-3275A
06-3210	32	+10	1100-3210A

#### **C-Taper LFIT CoCr Anatomic Heads**

Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
06-3699	36	-5	1100-3699A
06-3697	36	-2.5	1100-3697A
06-3600	36	+0	1100-3600A
06-3625	36	+2.5	1100-3625A
06-3605	36	+5	1100-3605A
06-3675	36	+7.5	1100-3675A
06-3610	36	+10	1100-3610A
06-4099	40	-5	1100-4099A
06-4097	40	-2.5	1100-4097A
06-4000	40	+0	1100-4000A
06-4025	40	+2.5	1100-4025A
06-4005	40	+5	1100-4005A
06-4075	40	+7.5	1100-4075A
06-4010	40	+10	1100-4010A
06-4499	44	-5	1100-4499A
06-4497	44	-2.5	1100-4497A
06-4400	44	+0	1100-4400A
06-4425	44	+2.5	1100-4425A
06-4405	44	+5	1100-4405A
06-4475	44	+7.5	1100-4475A

#### **C-Taper BIOLOX** delta Ceramic Heads

Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
18-28-3	28	-2.5	1100-2897A
18-2800	28	+0	1100-2800A
18-2825	28	+2.5	1100-2825A
18-2805	28	+5	1100-2805A
18-32-3	32	-2.5	1100-3297A
18-3200	32	+0	1100-3200A
18-3225	32	+2.5	1100-3225A
18-3205	32	+5	1100-3205A
18-36-5	36	-5	1100-3699A
18-36-3	36	-2.5	1100-3697A
18-3600	36	+0	1100-3600A
18-3625	36	+2.5	1100-3625A
18-3605	36	+5	1100-3605A
18-3675	36	+7.5	1100-3675A

#### **V40 Taper LFIT CoCr Heads**

40 Taper			
Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
6260-9-122	22	+0	6264-8-122
6260-9-222	22	+3	6264-8-222
6260-9-322	22	+8	6264-8-322
6260-9-026	26	-3	6264-8-026
6260-9-126	26	+0	6264-8-126
6260-9-226	26	+4	6264-8-226
6260-9-326	26	+8	6264-8-326
6260-9-426	26	+12	6264-8-426
6260-9-028	28	-4	6264-8-028
6260-9-128	28	+0	6264-8-128
6260-9-228	28	+4	6264-8-228
6260-9-328	28	+8	6264-8-328
6260-9-428	28	+12	6264-8-428
6260-9-032	32	-4	6264-8-032
6260-9-132	32	+0	6264-8-132
6260-9-232	32	+4	6264-8-232
6260-9-332	32	+8	6264-8-332
6260-9-432	32	+12	6264-8-432

#### **V40 Taper LFIT CoCr Anatomic Heads**

Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
6260-9-036	36	-5	6264-8-036
6260-9-136	36	+0	6264-8-136
6260-9-236	36	+5	6264-8-236
6260-9-336	36	+10	6264-8-336
6260-9-040	40	-4	6264-8-040
6260-9-140	40	+0	6264-8-140
6260-9-240	40	+4	6264-8-240
6260-9-340	40	+8	6264-8-340
6260-9-440	40	+12	6264-8-440
6260-9-044	44	-4	6264-8-044
6260-9-144	44	+0	6264-8-144
6260-9-244	44	+4	6264-8-244
6260-9-344	44	+8	6264-8-344
6260-9-444	44	+12	6264-8-444

#### **V40 Taper Alumina Ceramic Heads**

Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
6565-0-028	28	-2.7	6264-8-928
6565-0-128	28	+0	6264-8-128
6565-0-228	28	+4	6264-8-228
6565-0-032	32	-4	6264-8-032
6565-0-132	32	+0	6264-8-132
6565-0-232	32	+4	6264-8-232
6565-0-036	36	-5	6264-8-036
6565-0-136	36	+0	6264-8-136
6565-0-236	36	+5	6264-8-236

#### **C-Taper Alumina Ceramic Heads**

Catalog No.	Diameter (mm)	Offset (mm)	Trial Catalog No.
17-28-3E	28	-2.5	1100-2897A
17-2800E	28	+0	1100-2800A
17-2805E	28	+5	1100-2805A
17-32-3E	32	-2.5	1100-3297A
17-3200E	32	+0	1100-3200A
17-3205E	32	+5	1100-3205A
17-36-5E	36	-5	1100-3699A
17-3600E	36	+0	1100-3600A
17-3605E	36	+5	1100-3605A

The V40 Adapter Sleeve (catalog #17-0000E) enables the C-Taper Alumina Heads to be used with the existing Stryker V40 taper.

#### 2111-0000B

Insert Positioner/Impactor Handle

#### 1440-1300

Curved Positioner/Impactor Handle

#### **Silicone Insert Positioner Tips**

2111-0022	22mm	
2111-0026	26mm	
2111-0028	28mm	
2111-0032	32mm	
2111-0036	36mm	
2111-0040	40mm	
2111-0044	44mm	

#### **Plastic Insert Impactor Tips**

2111-3022	22mm
2111-3026	26mm
2111-3028	28mm
2111-3032	32mm
2111-3036	36mm
2111-3040	40mm
2111-3044	44mm

#### 1118-6000

22mm - 32mm Head Disassembly Instrument

#### 6059-9-505

36mm-44mm Anatomic Head Disassembly Instrument

#### 1118-1005

Ceramic Head Sleeve Disassembly Adapter

#### 1101-2100

T-Handle

#### 2102-0003

**Hudson to Stryker Adapter** 

#### 2102-0410

Acetabular Reamer Handle

#### 2112-0000

Ceramic Removal Tool

#### 2112-0010

Polyethylene Removal Tool

#### 2101-0200

Cutting Edge

Shell Positioner/Impactor Handle

#### 2101-0210

Cutting Edge

Abduction/Anteversion Alignment Guide

#### Cutting*Edge* Acetabular Reamers

0400 0400	20
2102-0438	38mm
2102-0439	39mm
2102-0440	40mm
2102-0441	41mm
2102-0442	42mm
2102-0443	43mm
2102-0444	44mm
2102-0445	45mm
2102-0446	46mm
2102-0447	47mm
2102-0448	48mm
2102-0449	49mm
2102-0450	50mm
2102-0451	51mm
2102-0452	52mm
2102-0453	53mm
2102-0454	54mm
2102-0455	55mm
2102-0456	56mm
2102-0457	57mm
2102-0458	58mm
2102-0459	59mm
2102-0460	60mm
2102-0461	61mm
2102-0462	62mm
2102-0463	63mm
2102-0464	64mm
2102-0465	65mm
2102-0466	66mm
2102-0467	67mm
2102-0468	68mm
2102-0469	69mm
2102-0470	70mm
2102-0471	71mm
2102-0472	72mm
2102-0473	73mm
2102-0474	74mm
2102-0475	75mm
2102-0476	76mm
2102-0477	77mm
2102-0478	78mm
2102-0479	79mm
2102-0480	80mm

#### **Templates:**

LTEM89 Trident Tritanium Hemispherical

#### Cases

#### 2402-4020

Trident Tritanium Window Trial Case

#### 2402-4040

**Top Tray** 

#### 2402-4060

**Bottom tray** 

#### 8000-0150

Lid

#### 2402-0020

Trident Instrument Case (not including lid and trays)

#### 2402-0090

тiд

#### 2402-0040

Top Tray: Insert Trials (0° & 10°)

#### 2402-0060

Middle Tray: Universal Window Trials

#### 2402-0080

**Bottom Tray: Preparation Tray** 

#### 2402-1000

LFIT Anatomic V40 Single Layer Sterilization Case

#### 2402-1020

LFIT Anatomic V40 Instrument Tray

#### 8000-0150

LFIT Anatomic Sterilization Case Lid

#### 2402-1010

LFIT Anatomic C-Taper Single Layer Sterilization Case

#### 2402-1030

LFIT Anatomic C-Taper Instrument Tray

#### 8000-0150

LFIT Anatomic Sterilization Case Lid

#### Cutting*Edge* Bone Screw Tray

2408-0000

#### System 12 Screw Tray

6060-9-090

#### 2230-0010

#### Acetabular Trial Insert Containment Screw Kit

Contains 5 screws and retaining rings. (Containment Screw Kit is optional - screws come pre-assembled with the Eccentric and Constrained trial inserts.)

### **Eccentric/Constrained Cases and Trays (for trials only)**

The system provides the option of either a Single Tier or Double Tier case. The Double Tier Case accommodates both the 10° Constrained Insert Trial Tray and the Eccentric Trial Tray.

#### 8000-0200

Double Tier Case

#### 8000-0100

Single Tier Case

#### 2402-1100

Trident 10° Constrained Insert Trial Tray

#### 2402-3020

Trident 0° and All-Poly Constrained Insert Trial Tray

#### 2402-3090

Trident 0° and All-Poly Constrained Insert Trial Lid

#### **References:**

US Pat. 6,475,243.



Joint Replacements
Trauma, Extremities & Deformities
Craniomaxillofacial
Spine
Biologics
Surgical Products
Neuro & ENT
Interventional Spine
Navigation
Endoscopy
Communications
Imaging
Patient Care & Handling Equipment
EMS Equipment

325 Corporate Drive Mahwah, NJ 07430 t: 201 831 5000

www.stryker.com

A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

The information presented is intended to demonstrate the breadth of Stryker product offerings. A surgeon must always refer to the package insert, product label and/or instructions for use before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your

Stryker Corporation or its divisions or other corporate affiliated entities own, use or have applied for the following trademarks or service marks: Crossfire, Cutting*edge*, LFIT, Stryker, and Trident, Tritanium, V40, X3. BIOLOX is a trademark of Cerasiv GmbH Innovatives Keramik-Engineering. All other trademarks are trademarks of their respective owners or holders.

NL10-BR-HP-922

Copyright © 2010 Stryker Printed in USA.