stryker

ADM® X3®

Mobile Bearing Hip® System

Surgical protocol | **Implants** | **Instruments**

Surgical protocol

Contents

This publication sets forth detailed validated procedures for using the ADM X3 Mobile Bearing Hip System. It offers instructions 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.

Indications, contraindications and warnings

INDICATIONS for US and Rest of World

The indications for use for total hip arthroplasty include:

1. Noninflammatory degenerative joint disease including osteoarthritis and avascular necrosis;
2. Rheumatoid arthritis;
3. Correction of functional deformity;
4. Revision procedures where other treatments or devices have failed; and,
5. Treatment of nonunion, femoral neck and trochanteric fractures of the proximal femur with head involvement that are unmanageable using other techniques.
6. Dislocation risks

Restoration ADM Cups are intended for cementless use only.

INDICATIONS for EU, EMEA countries requiring CE Mark, and Australia

The indications for use for the MDM Liner and ADM/MDM UHMWPE Inserts in total hip arthroplasty include:

1. Noninflammatory degenerative joint disease including osteoarthritis and avascular necrosis;
2. Correction of functional deformity;
3. Revision procedures where other treatments or devices have failed; and,
4. Dislocation risks.

Restoration ADM Cups are intended for cementless use only.

Contraindications

1. Overt infection;
2. Distant foci of infections (which may cause hematogenous spread to the implant site);
3. Rapid disease progression as manifested by joint destruction or bone resorption apparent on roentgenogram;
4. Skeletally immature patients; and
5. Cases where there is a loss of abductor musculature, poor bone stock, or poor skin coverage around the hip joint which would make the procedure unjustifiable.

Conditions presenting increased risk of failure include:

1. Uncooperative patient or patient with neurologic disorders, incapable of following instructions;
2. Osteoporosis;
3. Metabolic disorders which may impair bone formation; and
4. Osteomalacia.

Warnings and precautions

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

The Restoration ADM cup is intended for use with the Restoration ADM insert only. It is not intended for use as a metal-on-metal or ceramic-on-metal articulation. No testing has been conducted to determine that these bearing couples produce favorable mechanical outcomes. Only Stryker 28mm femoral heads should be inserted into the ADM polyethylene inserts. Further, do not substitute another manufacturer's device for any component of the ADM Acetabular System. Any such use will negate the responsibility of Howmedica Osteonics Corp. for the performance of the resulting mixed component implant.

Before using Restoration ADM instrumentation, verify:

- Instruments have been properly disassembled prior to cleaning and sterilization
- Instruments have been properly assembled post-sterilization
- Instruments have maintained design integrity
- Proper size configurations are available
- Restoration ADM instruments are only compatible with Restoration ADM implants

For Instructions for Cleaning, Sterilization, Inspection and Maintenance of Orthopaedic Medical Devices, refer to LSTPI-B and SLI0001 (ifu.stryker.com).

Introduction

This surgical protocol is a guide to preparing the acetabulum for the Restoration ADM acetabular implants utilizing Restoration ADM acetabular instruments and CuttingEdge acetabular reamers.

The Restoration ADM acetabular system is a two-piece component design that is assembled intraoperatively. Restoration ADM acetabular cups have a peripheral self-locking (PSL) build-up at the rim that provides a 1.5mm press-fit. Reaming is performed line-to-line with the press-fit incorporated into the final implant (e.g., 52mm cup = 53.5mm periphery at the rim of the cup). Restoration ADM cups are available in left and right configurations ranging in sizes 46mm – 64mm OD, which are coupled with polyethylene inserts ranging in sizes 40mm – 58mm OD. There is a 6mm difference between the cup and insert. Inserts are available in 0° with 28mm ID.

▶ **Note:** The Restoration ADM acetabular system must be utilized with CuttingEdge acetabular reamers. Preparation of the acetabulum is required and spherical reaming is necessary to implant Restoration ADM.

Restoration ADM Cup	Restoration ADM X3 Insert*	
OD (mm)	OD/ID (mm)	Thickness (mm)
46	40/28	5.9
48	42/28	6.9
50	44/28	7.9
52	46/28	8.9
54	48/28	9.9
56	50/28	10.9
58	52/28	11.9
60	54/28	12.9
62	56/28	13.9
64	58/28	14.9

*ADM X3 Inserts are available for 28mm femoral heads only. Inserts are compatible with Stryker heads only.

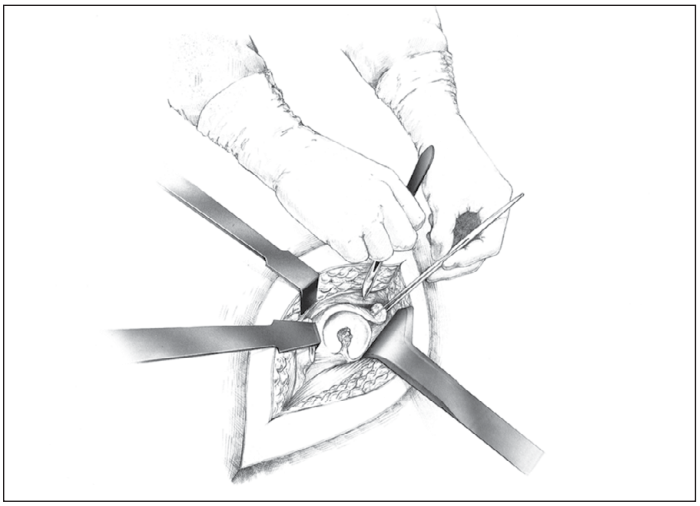


Figure 1

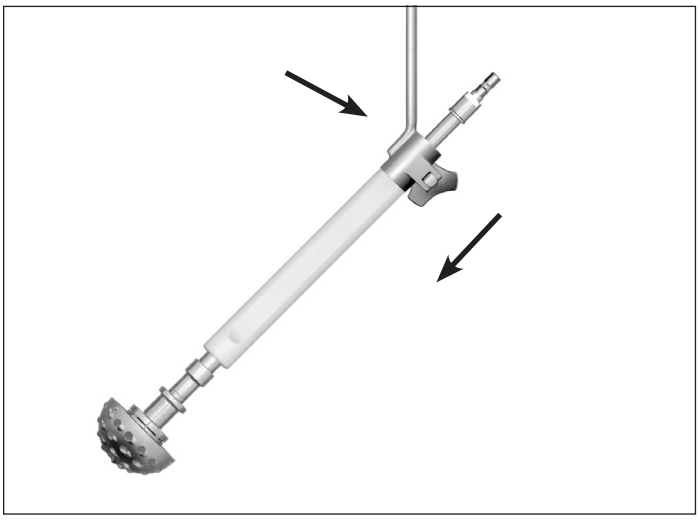


Figure 2

Step 1: Preoperative planning and X-ray evaluation

Preoperative planning is an essential part of the procedure, and templating should be performed prior to every case. The preoperative planning process should take qualitative and quantitative factors (including patient bone quality, density and morphology) into consideration in order to evaluate and select the appropriate instrument/implant system for the patient. X-ray evaluation may also help detect anatomic anomalies that could prevent the intraoperative achievement of the established preoperative goals. Selecting potential implant style and sizes can facilitate operating room preparation and assure availability of an appropriate selection. When it is done using X-rays that have been suitably scaled for magnification, templating allows the surgeon to predict the style, size and position of the implant that may help restore the correct anatomy of the individual patient.

Template planning can be done using acetate templates for printed X-rays or preoperative planning software for digital studies.

Step 2: 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.

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.

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

Step 3: Spherical reaming

▶ **Caution:** Only the CuttingEdge Spherical Reamer should be used to prepare the acetabulum for Restoration ADM components.

To help obtain congruity in the reaming process, a 45°/20° Abduction/Anteversion Alignment Guide can be attached to the CuttingEdge Reamer Handle **(Figure 2)**.

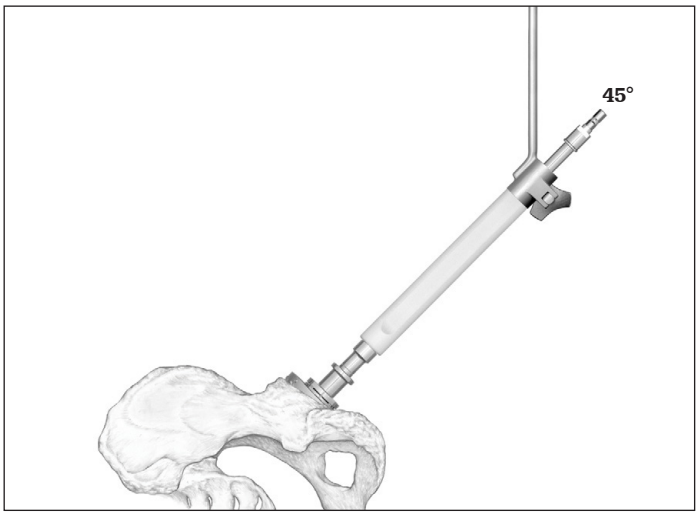


Figure 3

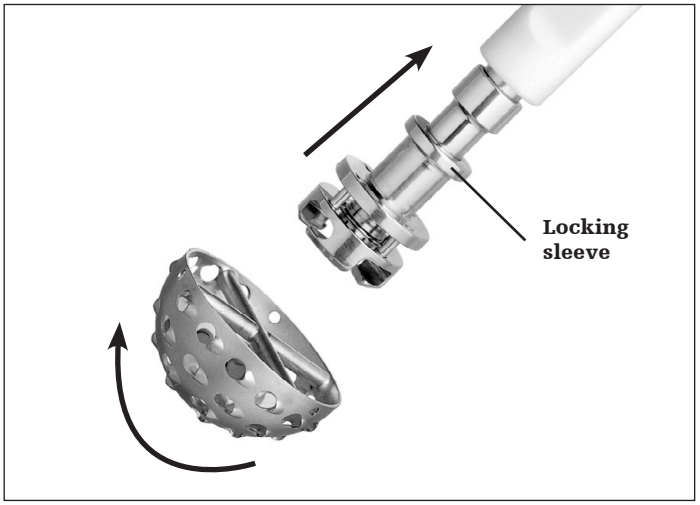


Figure 4

▶ **Note:** Restoration ADM acetabular cups contain a 1.5mm peripheral press-fit built into the implant as marked (e.g., 52mm cup = 53.5mm).

▶ **Note:** The CuttingEdge 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.

The Alignment Guide, when perpendicular to the long axis of the patient, is designed to 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 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 the patient being oriented in a lateral decubitus position

▶ **Note:** Changes in pelvic tilt and pelvic flexion caused by patient positioning on the table as well as disease in the contralateral hip, spine and pelvis may impact a surgeon's ability to achieve component placement at 45°/20° abduction/anteversion.

It is recommended that the initial reaming begin with a CuttingEdge 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 sizing is achieved. Ream line-to-line for Restoration ADM.

The Restoration ADM Cup periphery is 1.5mm larger than the stated size (e.g., 52mm cup = 53.5mm periphery at the rim of the cup). The size of the Restoration ADM Cup selected should be the same as the largest diameter of the CuttingEdge Spherical Reamer used.

Surgical judgment is used to assess bone stock, amount of interference and proper amount of under-reaming. When implanting Restoration ADM, 1.5mm of interference fit is not always necessary when dense, hard, sclerotic bone is encountered. In this situation it is recommended to over-ream by 1mm, thus leading to an interference fit of 0.5mm. This may reduce the potential for problems that typically occur in dense bone, such as acetabular fracture or failure to fully seat the implant.

▶ **Note:** The amount of interference fit should be determined intraoperatively based upon the patient's bone quality.

The full profile of the CuttingEdge 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. Ream to the unicortical plate to medialize the cup. Ream to the full depth of the CuttingEdge Spherical Reamer to seat the reamer in the socket.

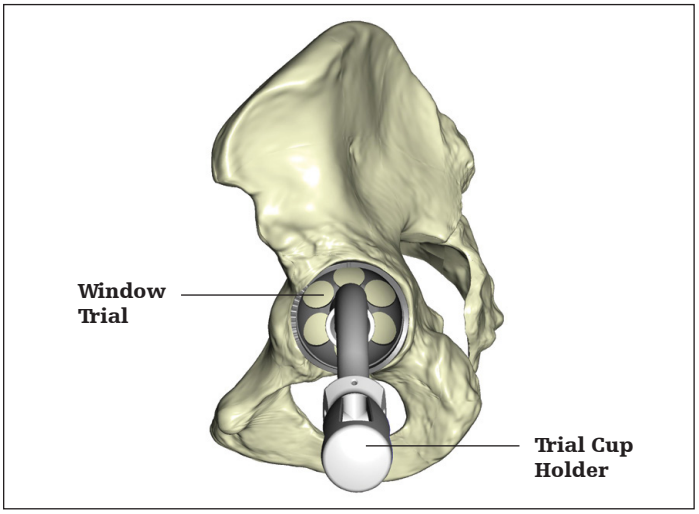


Figure 5

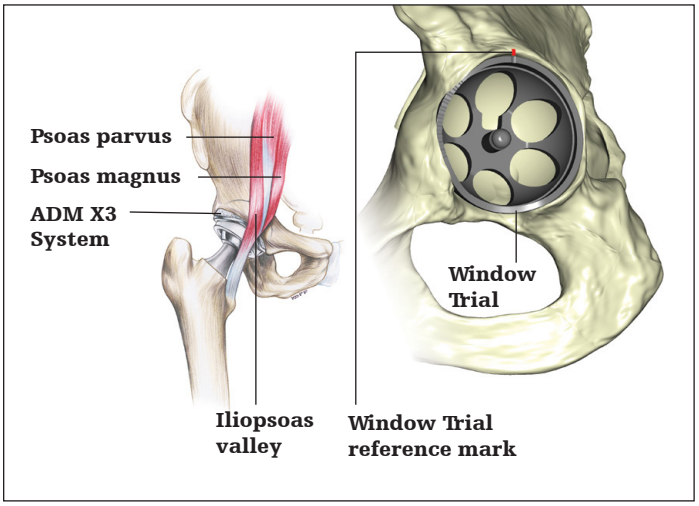


Figure 6

Step 4: Trial evaluation of the Restoration ADM Cup

Following the reaming procedure, the appropriate Restoration ADM Window Trial of the same diameter as the last spherical reamer used, either left or right, is locked onto the Restoration ADM Trial Cup Holder. This is done by pulling the locking mechanism and releasing it after the Window Trial is set. The Window Trial is then placed in the acetabulum to evaluate the size and congruity of the preparation **(Figure 5)**. The trial is "windowed" for visualization and assessment of fit, contact and congruency of the trial within the acetabulum.

The Restoration ADM Window Trial has an exact fit into the acetabulum (size for size), whereas the final implant has a press-fit of 1.5mm.

- **Important:** The design of the cup allows it to anatomically fit into the shape of the natural acetabulum, thereby helping to prevent impingement with the iliopsoas tendon. The Restoration ADM Window Trial incorporates grooves that must be positioned in regard to the iliopsoas tendon. Once the Window Trial is set, it is recommended to make a mark on the acetabulum at the level of the superior reference mark **(Figure 6)**. This reference mark will provide a guideline for placing the final implant. The Restoration ADM implant should be positioned so that the superior mark on the cup is aligned with the mark on the acetabulum.
- **Note:** A mark or series of marks can be made at the rim of the Window Trial to provide a depth reference for seating the implant.

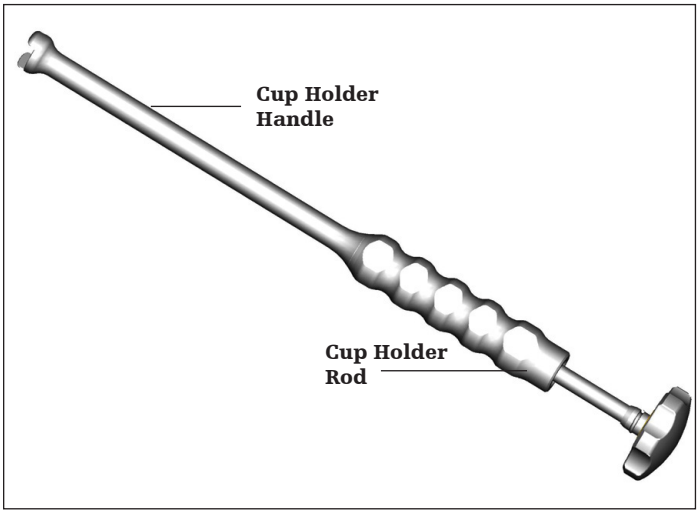


Figure 7

Step 5: Restoration ADM Cup implantation

Assess the acetabulum and surrounding soft tissue prior to cup introduction to ensure nothing is preventing cup implantation.

Select the appropriately sized, left or right, Restoration ADM cup 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.

To facilitate the insertion of the cup, the Restoration ADM Cup Holder must be assembled as detailed below. For each cup diameter (46mm – 64mm), there is a corresponding Expandable Coupler.

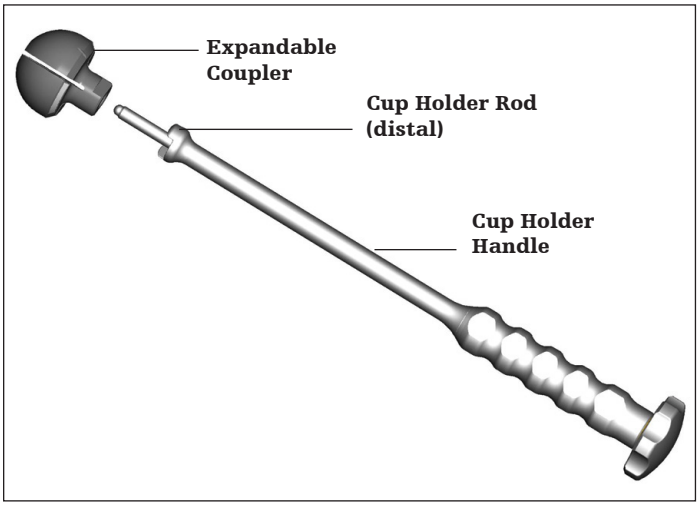


Figure 8

Cup impactor assembly

First, insert the Cup Holder Rod into the proximal end of the Cup Holder Handle, snapping the two components together **(Figure 7)**. Then, assemble the Expandable Coupler, corresponding to the size of the cup to be implanted, onto the distal portion of the Cup Holder Rod **(Figure 8)**. Once the Expandable Coupler is placed onto the Cup Holder Rod, insert the Wing Nut through the top of the Expandable Coupler (**Figure 9)**. To engage the Wing Nut and to ensure that all components are securely assembled, turn the Cup Holder Rod clockwise (holding it vertically).

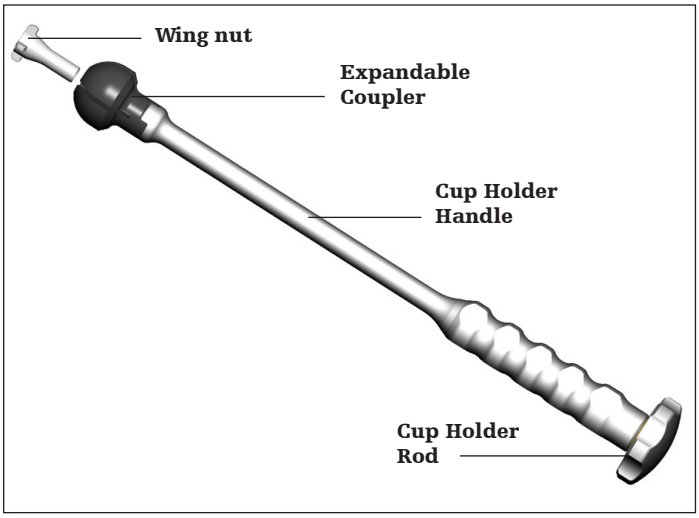


Figure 9

▶ **Note:** When securing all components, be sure to only turn the Cup Holder Rod several turns – just enough to lock all components together. Turning the Cup Holder Rod too much or until tightened will expand the coupler prematurely, preventing it from properly fitting onto the implant when preparing for implantation.

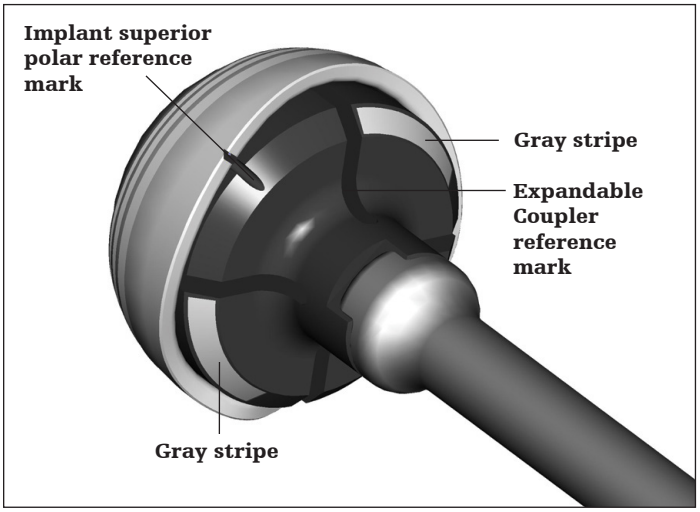


Figure 10

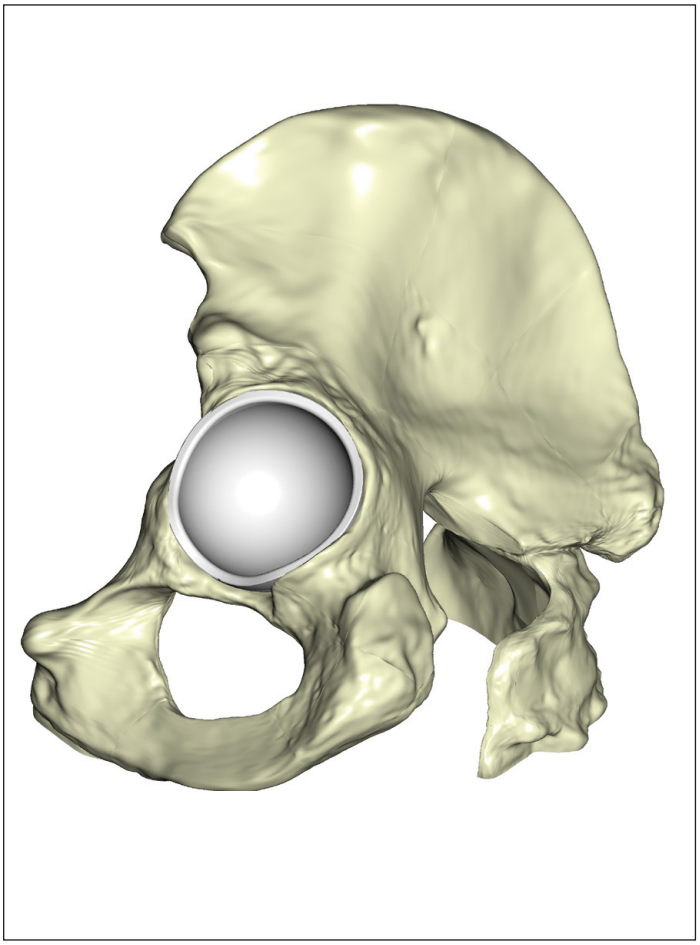


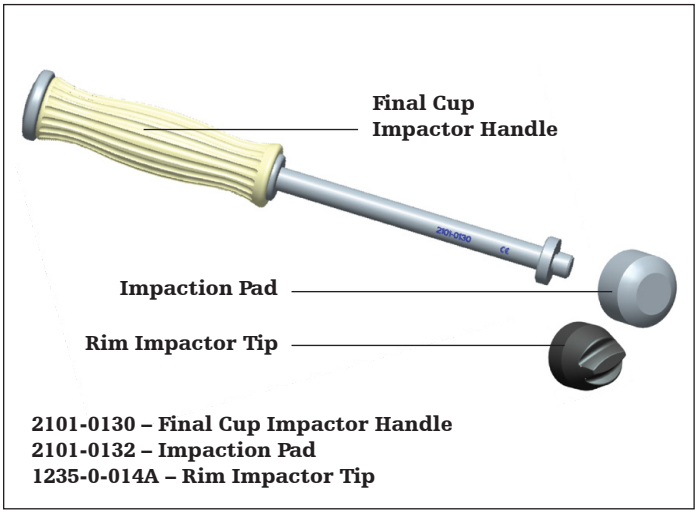
Figure 11

Notice that the Expandable Coupler has a reference mark (that lines up with the axis of the handle) that corresponds to the superior reference mark on the implant. The gray stripes engraved on either side of the reference mark on the Expandable Coupler indicate the position of the cup notch (right or left) for the iliopsoas tendon **(Figure 10)**.

While the implant is still in the packaging, place the Cup Holder vertically into it making certain to align the cup and the Expandable Coupler reference marks for proper Cup Holder/implant orientation and fit **(Figure 10)**. While maintaining the position of the cup, turn the Cup Holder Handle to tighten the cup onto the end of the Cup Holder and prepare it for placement into the acetabulum.

▶ **Note:** The Expandable Coupler must be fully seated within the implant before tightening. Fully seating the Expandable Coupler can be achieved by pressing it vertically into the cup while placed on a table. When fully seated, begin tightening the Expandable Coupler onto the cup for a secure fit. Following these instructions will help reduce the risk of the cup and Expandable Coupler/Cup Holder from disengaging during impaction.

Cup placement: Locate the reference mark made previously on the acetabulum. Position the cup according to the preset reference mark. Positioning the cup according to the preset reference mark will help to ensure proper anatomic cup placement **(Figure 11)**. Impact the cup into the acetabulum using a mallet. Once the cup is securely impacted, remove the Cup Holder from the cup by turning the Cup Holder Rod counterclockwise and pulling the Cup Holder backwards with minimal force.



2101-0130 – Final Cup Impactor Handle
2101-0132 – Impaction Pad
1235-0-014A – Rim Impactor Tip

Figure 12

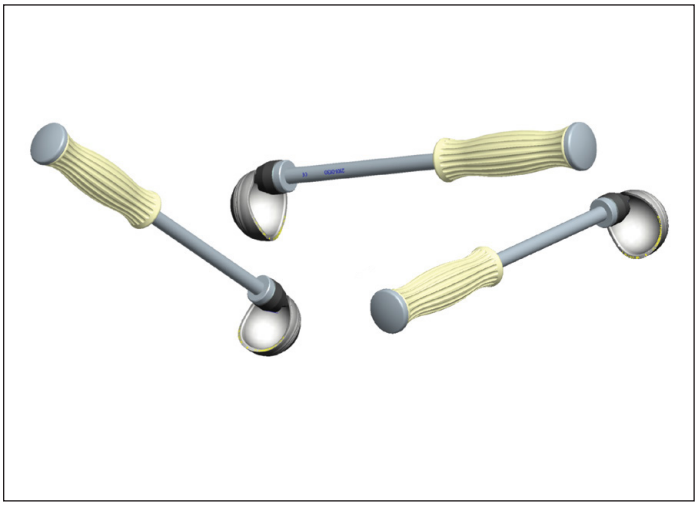


Figure 13

- **Caution:** Caution must be taken when using the Impaction Pad and/or Rim Impactor Tip to avoid compromising the initial stability of the cup. Ensure that the Impaction Pad and/or Rim Impactor Tip is fully threaded onto the Final Cup Impactor Handle during use.

* These instruments have a limited life expectancy; deformation is expected and should be checked before each use. The Impaction Pad and Rim Impactor Tip must be changed if deformation or cracks are visible. Periodic replacement is required.

It is recommended to use a mallet for impacting the Impaction Pad and Rim Impactor Tip.

- **Important::** If re-impaction is required, be sure to use the same Expandable Coupler size as the final implant. Do not use a smaller Expandable Coupler size than the final implant as this will compromise the integrity of the coupler, and may cause it to break. When re-impacting the cup, the coupler must be contracted and then fully expanded in the cup prior to re-impaction. For the final option, an Impaction Pad may be used **(Figure 12)**. However, care must be taken to protect the inner surface of the cup.
- **Note:** Proper positioning of the Restoration ADM Cup will minimize potential impingement and help provide optimal stability and articulation between the cup, insert and head. As with any acetabular system, excessive vertical orientation and/or anteversion of the cup should be avoided as this may lead to premature wear of the components' surfaces.

To aid in proper cup positioning, a Rim Impactor Tip can be used to adjust version of the cup by impacting only on the rim **(Figure 13)**.

Please note that the Impaction Pad and Rim Impactor Tip need to be assembled onto the Final Cup Impactor Handle. Please unscrew the tip in order to assemble the Rim Impactor Tip or Impaction Pad **(Figure 12)**.

The Impaction Pad and Rim Impactor Tip must be disassembled and placed into the appropriate spots in the tray to ensure proper cleaning and sterilization. After cleaning, thread lubrication is recommended.

ADM/MDM Dual Articulating Trials

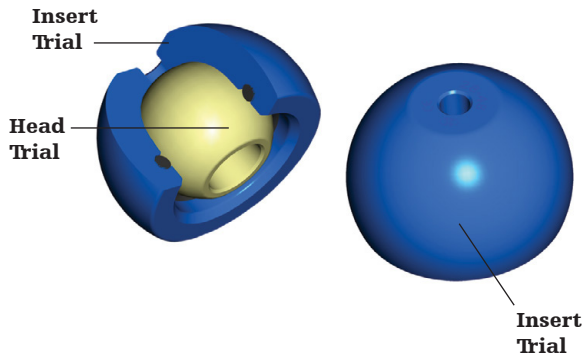


Figure 14a

ADM/MDM Monopolar Trials

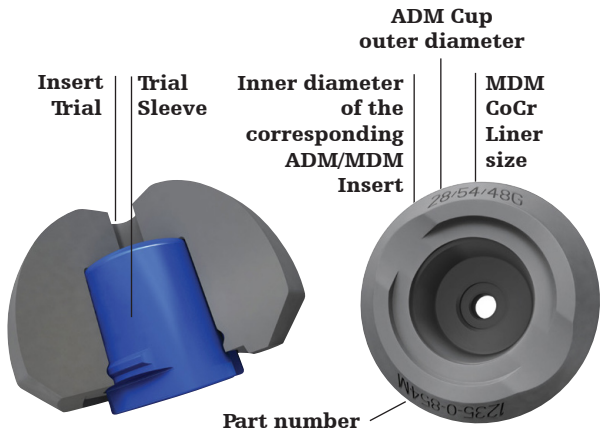


Figure 14b

Position of Kocher forceps for sleeve removal

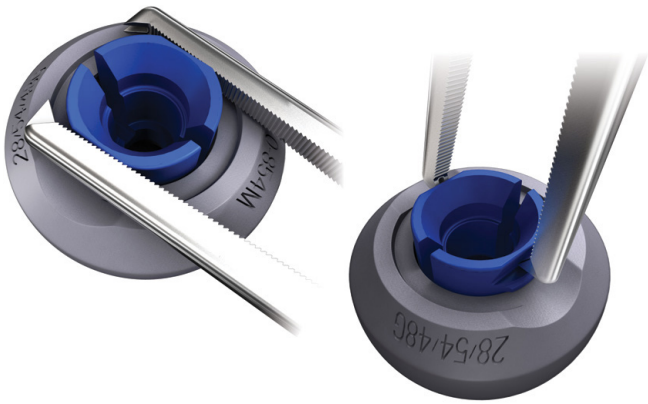


Figure 14c

Step 6: Insert/head trial reduction

After metal cup implantation, there is an option to use either the ADM/MDM Dual Articulating Trials or the ADM/MDM Monopolar Trials. Both trialing options are designed to facilitate a final check of hip mechanics to include range of motion consistent with the patient's normal daily activities. At this point joint laxity should also be assessed, taking into consideration the type of anesthetic used and its effects on soft tissue.

If using the ADM/MDM Dual Articulating Trials, place the 28mm Head Trial into the appropriate Insert Trial to mimic the final articulation function of the ADM System **(Figure 14a)**. The size of the insert trial will correspond with the cup being implanted **(Table 1)**. When implanting a 54mm shell for instance, a 54mm Insert Trial (28/54/48G) 28mm Head Trial should be used.

- **Note:** The Monopolar Trials are only available for V40 and C-Taper heads. Additionally, these trials are not compatible with the Definition and Meridian femoral stems from Japan.

If using the ADM/MDM Monopolar Trials, choose the Trial Sleeve that corresponds to the desired femoral head taper and offset and assemble it into the appropriate Insert Trial by firmly pushing the sleeve into the inner geometry of the Insert Trial **(Figure 14b, Tables 1-3)**. Correct assembly of the Trial Sleeve and Insert Trials will produce an audible click. The size of the Insert Trial will correspond with the cup being implanted **(Table 1)**.

Place the assembled Dual Articulating or Monopolar Trials onto the neck trial or stem trunnion component. Ensure that the Monopolar Trials are locked by firmly pushing the Insert Trial Sleeve assembly onto the neck trial or stem. Reduce the hip, checking for hip stability and the restoration of leg length. Fine-tuning of hip joint mechanics may be achieved with the use of different +/- offsets.

- **Note:** The Monopolar Trials are marked 'trial do not implant.' If there is any reason to believe that the trial has been accidentally implanted, the Monopolar Insert Trial is radiopaque and would be visible on an X-ray.

Once hip stability and leg length have been checked, the Dual Articulating or Monopolar Trial assembly can be removed from the neck trial or trunnion as one unit. If using the Monopolar Trials, the Trial Sleeve can then be removed from the Insert Trial with the assistance of standard Kocher forceps by squeezing the Trial Sleeve and pulling it out of the Insert Trial **(Figure 14c)**. This can also be accomplished by hand.

- **Note:** When using dual mobility implants, impingement should be carefully assessed and avoided during range of motion. Impingement can result in increased wear in metal polyethylene systems.

- **Tips:** When using the ADM/MDM Dual Articulating Trials, place the 28mm trial head onto the neck trial or stem trunnion and place the ADM/MDM Insert Trial into the cup. The smaller trial head can then be reduced into the Insert Trial for ease of reduction.

Table 1: ADM Cup, X3 insert and femoral head compatibility.

Size (mm)	ADM Cup left	ADM Cup right	ADM/MDM X3 Insert (28mm ID)	Required femoral head size (mm)	ADM/MDM Dual Articulating Insert Trial (28mm ID)	ADM/MDM Monopolar Insert Trial
46mm	1235-2-462	1235-2-461	1236-2-846 or 7236-2-846	28mm	1235-0-846	1235-0-846M
48mm	1235-2-482	1235-2-481	1236-2-848 or 7236-2-848	28mm	1235-0-848	1235-0-848M
50mm	1235-2-502	1235-2-501	1236-2-850 or 7236-2-850	28mm	1235-0-850	1235-0-850M
52mm	1235-2-522	1235-2-521	1236-2-852 or 7236-2-852	28mm	1235-0-852	1235-0-852M
54mm	1235-2-542	1235-2-541	1236-2-854 or 7236-2-854	28mm	1235-0-854	1235-0-854M
56mm	1235-2-562	1235-2-561	1236-2-856 or 7236-2-856	28mm	1235-0-856	1235-0-856M
58mm	1235-2-582	1235-2-581	1236-2-858 or 7236-2-858	28mm	1235-0-858	1235-0-858M
60mm	1235-2-602	1235-2-601	1236-2-860 or 7236-2-860	28mm	1235-0-860	1235-0-860M
62mm	1235-2-622	1235-2-621	1236-2-862 or 7236-2-862	28mm	1235-0-862	1235-0-862M
64mm	1235-2-642	1235-2-641	1236-2-864 or 7236-2-864	28mm	1235-0-864	1235-0-864M

Table 2: Monopolar Trial Sleeve catalog numbers and V40 28mm Femoral Head options

V40 28mm Femoral Head offsets	Monopolar Trial Sleeve	LFIT CoCr	BIOLOX delta	BIOLOX delta Universal	Alumina
-4mm	1235-V-0040	✓	✓		
-2.7mm	1235-V-0027		✓		✓
-2.5mm	1235-V-0025				
+0mm	1235-V-1000	✓	✓	✓	✓
+4mm	1235-V-1040	✓	✓		✓
+6mm	1235-V-1060	✓			
+8mm	1235-V-1080	✓			
+12mm	1235-V-1120	✓			

Table 3: Monopolar Trial Sleeve catalog numbers and C-Taper 28mm Femoral Head options

C-Taper 28mm Femoral Head offsets	Monopolar Trial Sleeve	LFIT CoCr	BIOLOX delta	BIOLOX delta Universal	Alumina
-3mm	1235-C-0030	✓			
-2.5mm	1235-C-0025		✓		✓
+0mm	1235-C-1000	✓	✓	✓	✓
+2.5mm	1235-C-1025		✓		
+5mm	1235-C-1050	✓	✓		✓
+7.5mm	1235-C-1075				
+10mm	1235-C-1100	✓			

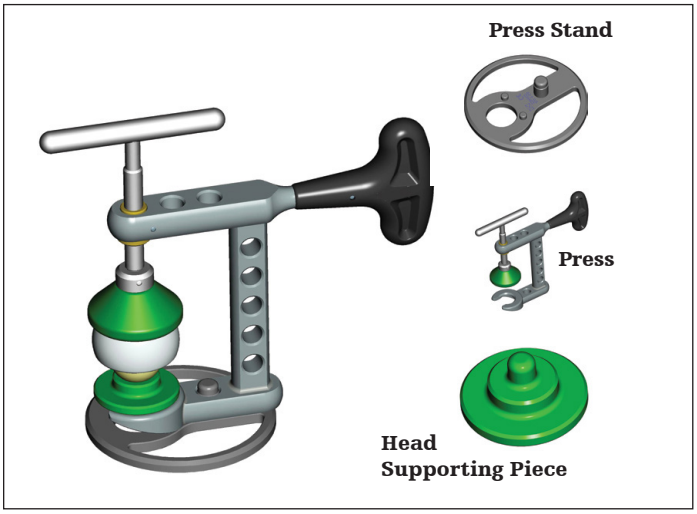


Figure 15

Step 7: Insert/head implantation

Back table assembly of the insert and corresponding V40 or C-Taper 28mm head is required. **(Figure 15)**

The following instructions must be carefully adhered to:

- Place the Press Stand flat on the table and place the Press onto the Press Stand pin.
- Put the Femoral Head Supporting Piece into the base of the Press.
- Open the Press by turning the T-Handle counterclockwise until the polyethylene insert fits above the femoral head and below the plastic cone portion of the press.
- Place the femoral head onto the Head Supporting Piece, and then place insert onto the femoral head.
- Once the femoral head and polyethylene insert are in a vertical position, tighten the Press until the head is fully lodged into the insert. After insertion, the air confi ned between the head and insert is usually released, resulting in a characteristic noise.
- After the head and insert are assembled, verify that the coupling has complete mobility.

▶ **Note:** Ensure that the inside of the shell is clean and free of soft tissue or other debris, which could prevent the insert from properly seating in the shell.

▶ **Warning:** A metal or ceramic head should not be used in place of the ADM polyethylene insert. The Restoration ADM Cup is not intended for use as a metal-on-metal or ceramic-on-metal articulation. No testing has been conducted to determine that these bearing couples produce favorable mechanical outcomes.

Only Stryker 28mm femoral heads should be inserted into the ADM polyethylene inserts.

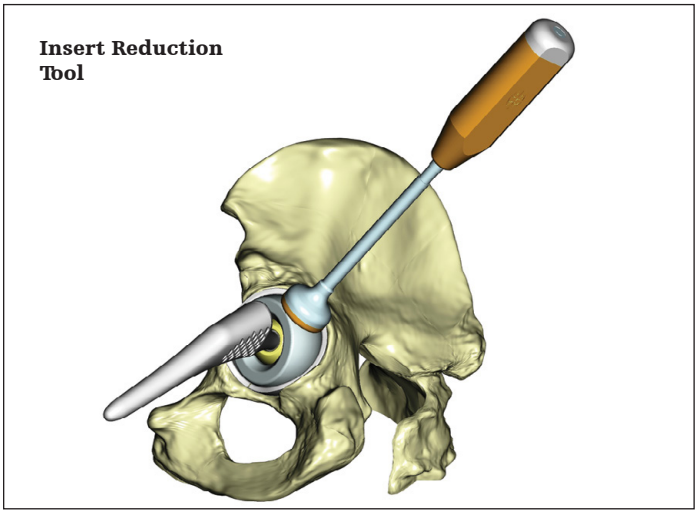


Figure 16

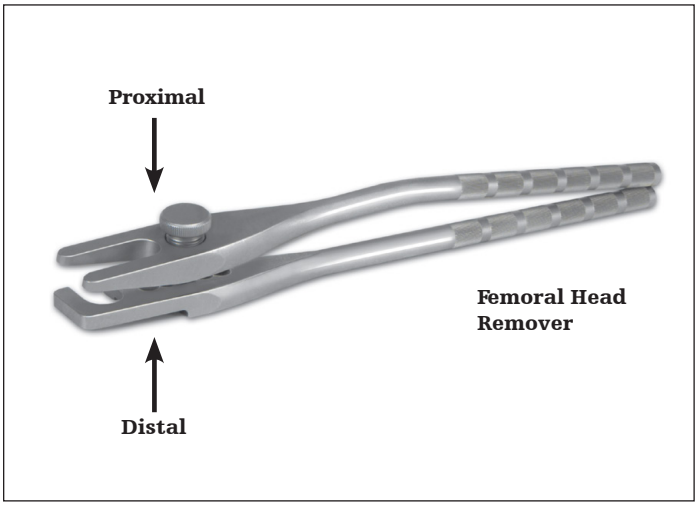


Figure 17

Step 8: Reduction and closure

Once the insert and head are assembled, the unit is ready for implantation and reduction.

- Place insert/head unit onto the trunnion of the femoral stem and slightly impact with Insert Reduction Tool.
- Then, by exerting axial traction on the limb and pressure on the insert using the Insert Reduction Tool **(Figure 16)**, reduce the hip and check for laxity and range of motion. The surgical site is then closed according to surgeon preference.

Removal of cup

Should removal of the metal cup become necessary, an osteotome or small burr can be passed around the cup periphery to loosen the fixation interface.

Removal of insert and head unit

▶ **Note:** Once the insert and femoral head are assembled, the two components cannot be disassembled. However, the assembled insert and femoral head unit can be removed from the trunnion of the stem.

If the Restoration ADM insert and head unit need to be revised for any reason, remove the insert and head unit with the Femoral Head Remover instrument **(6059-9-505 – Figure 17)**.

Place distal portion of the Femoral Head Remover over the neck of the stem, while placing the proximal portion of the instrument under the insert and head unit.

Once the instrument is in position, squeeze the handles together to pry the insert and head unit off of the trunnion of the stem.

Catalog information

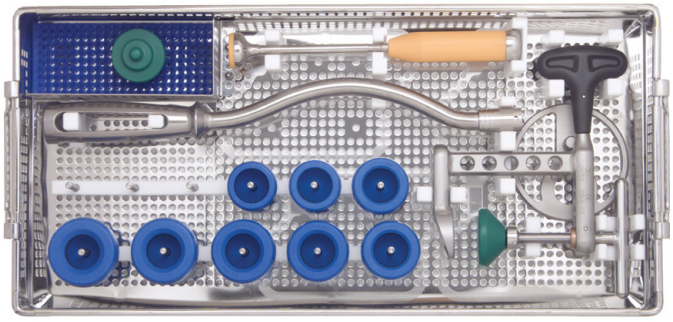
ADM Cup, X3 insert and femoral head compatibility.

Size (mm)	ADM Cup left	ADM Cup right	ADM/MDM X3 Insert (28mm ID)	Required femoral head size (mm)
46mm	1235-2-462	1235-2-461	1236-2-846 or 7236-2-846	28mm
48mm	1235-2-482	1235-2-481	1236-2-848 or 7236-2-848	28mm
50mm	1235-2-502	1235-2-501	1236-2-850 or 7236-2-850	28mm
52mm	1235-2-522	1235-2-521	1236-2-852 or 7236-2-852	28mm
54mm	1235-2-542	1235-2-541	1236-2-854 or 7236-2-854	28mm
56mm	1235-2-562	1235-2-561	1236-2-856 or 7236-2-856	28mm
58mm	1235-2-582	1235-2-581	1236-2-858 or 7236-2-858	28mm
60mm	1235-2-602	1235-2-601	1236-2-860 or 7236-2-860	28mm
62mm	1235-2-622	1235-2-621	1236-2-862 or 7236-2-862	28mm
64mm	1235-2-642	1235-2-641	1236-2-864 or 7236-2-864	28mm

Catalog information

Restoration ADM General Instrument Tray

Catalog no.	Part description
1235-0-300	General Instrument Tray
1235-0-000	Trial Cup Holder
1235-0-011	Restoration ADM Monolithic Stem Adapter
1235-0-020	Insert Reduction Tool
1235-0-008	Press
1235-0-012	Press Stand
1235-0-009	Head Supporting Piece

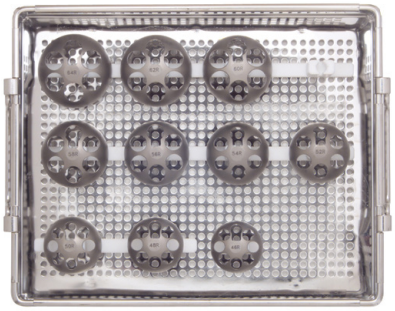


Replacement O-ring for Dual Articulating Insert Trials

Catalog no.	Part description
1235-0-022	22.2mm trial
1235-0-028	28mm trial

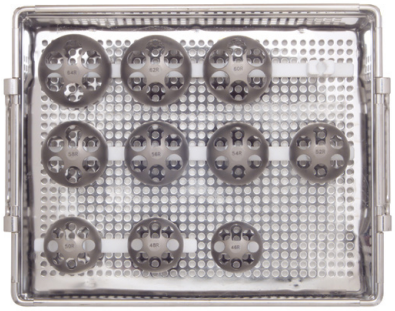
Restoration ADM Right Instrument Tray

Catalog no.	Part description
1235-0-301	Restoration ADM Right Cup Instrument Tray
1235-0-461	Restoration ADM Window Trial Right 46mm
1235-0-481	Restoration ADM Window Trial Right 48mm
1235-0-501	Restoration ADM Window Trial Right 50mm
1235-0-521	Restoration ADM Window Trial Right 52mm
1235-0-541	Restoration ADM Window Trial Right 54mm
1235-0-561	Restoration ADM Window Trial Right 56mm
1235-0-581	Restoration ADM Window Trial Right 58mm
1235-0-601	Restoration ADM Window Trial Right 60mm
1235-0-621	Restoration ADM Window Trial Right 62mm
1235-0-641	Restoration ADM Window Trial Right 64mm



Restoration ADM Left Instrument Tray

Catalog no.	Part description
1235-0-302	Restoration ADM Left Cup Instrument Tray
1235-0-462	Restoration ADM Window Trial Left 46mm
1235-0-482	Restoration ADM Window Trial Left 48mm
1235-0-502	Restoration ADM Window Trial Left 50mm
1235-0-522	Restoration ADM Window Trial Left 52mm
1235-0-542	Restoration ADM Window Trial Left 54mm
1235-0-562	Restoration ADM Window Trial Left 56mm
1235-0-582	Restoration ADM Window Trial Left 58mm
1235-0-602	Restoration ADM Window Trial Left 60mm
1235-0-622	Restoration ADM Window Trial Left 62mm
1235-0-642	Restoration ADM Window Trial Left 64mm



Catalog information

Monopolar Trial Sleeve catalog numbers and V40 28mm Femoral Head options

V40 28mm Femoral Head offsets	Monopolar Trial Sleeve	LFIT CoCr	BIOLOX *delta*	BIOLOX *delta* Universal	Alumina
-4mm	1235-V-0040	✓	✓		
-2.7mm	1235-V-0027		✓		✓
-2.5mm	1235-V-0025			✓	
+0mm	1235-V-1000	✓	✓	✓	✓
+4mm	1235-V-1040	✓	✓	✓	✓
+6mm	1235-V-1060	✓			
+8mm	1235-V-1080	✓			
+12mm	1235-V-1120	✓			

Monopolar Trial Sleeve catalog numbers and C-Taper 28mm Femoral Head options

C-Taper 28mm Femoral Head offsets	Monopolar Trial	LFIT CoCr	BIOLOX *delta*	BIOLOX *delta* Universal	Alumina
-3mm	1235-C-0030	✓			
-2.5mm	1235-C-0025		✓	✓	✓
+0mm	1235-C-1000	✓	✓	✓	✓
+2.5mm	1235-C-1025	✓	✓	✓	
+5mm	1235-C-1050	✓	✓	✓	✓
+7.5mm	1235-C-1075	✓			
+10mm	1235-C-1100	✓			

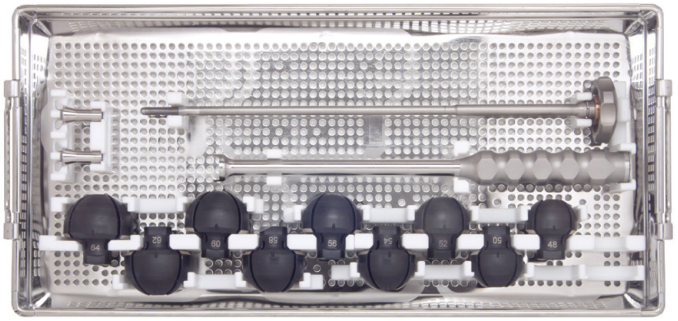
Note: Either the Dual Articulating or Monopolar Trials will fit in this tray (1235-0-300). Only one system will fit in the tray at one time.

ADM/MDM Dual Articulating Insert Trial 28mm ID	Required femoral head size (mm)	ADM/MDM Monopolar Insert Trial
1235-0-846	28mm	1235-0-846M
1235-0-848	28mm	1235-0-848M
1235-0-850	28mm	1235-0-850M
1235-0-852	28mm	1235-0-852M
1235-0-854	28mm	1235-0-854M
1235-0-856	28mm	1235-0-856M
1235-0-858	28mm	1235-0-858M
1235-0-860	28mm	1235-0-860M
1235-0-862	28mm	1235-0-862M
1235-0-864	28mm	1235-0-864M

Instruments

Restoration ADM Impaction Instrument Tray

Catalog no.	Part description
1235-0-303A*	Impaction Set Tray
1235-0-305A*	Additional Fixture for Impaction Set Tray Fixture for Impaction Set Tray
1235-4-465	46mm Expandable Coupler
1235-4-485	48mm Expandable Coupler
1235-4-505	50mm Expandable Coupler
1235-4-525	52mm Expandable Coupler
1235-4-545	54mm Expandable Coupler
1235-4-565	56mm Expandable Coupler
1235-4-585	58mm Expandable Coupler
1235-4-605	60mm Expandable Coupler
1235-4-625	62mm Expandable Coupler
1235-4-645	64mm Expandable Coupler
1235-0-003	Straight Cup Holder Handle
1235-0-006A	Wing Nut For Straight Cup Holder
1235-0-007	Rod For Straight Cup Holder

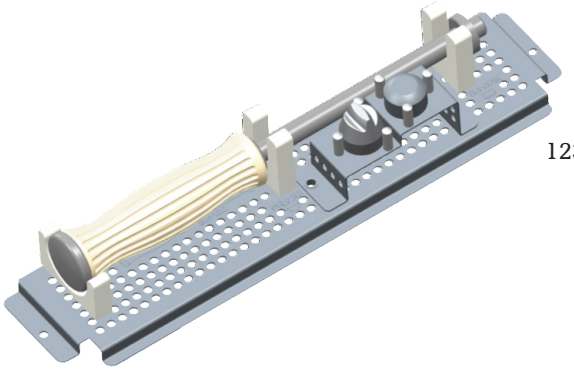


1235-0-303A

* Please note that the Impaction Set Tray (1235-0-303A) has space for an additional tray (1235-0-305A) to hold the Final Cup Impactor Handle along with the Impaction Pad and Rim Impactor Tip.
* Please note that the Impaction Pad and Rim Impactor Tip need to be assembled onto the Final Cup Impactor Handle.

Additional instruments

Catalog no.	Part description
2101-0130	Final Cup Impactor Handle
2101-0132	Impaction Pad
1235-0014A	Rim Impactor Tip
6147-3-102	Trident & Tritanium General Tray
2101-0210	Abduction/Anteversion Guide



1235-0-305A*

CuttingEdge Acetabular Reamers

Catalog no.	Part description
6147-3-101	Trident & Tritanium Reamers Tray (36mm-66mm)
2102-0410	Straight Reamer Handle
2102-0442	42mm Acetabular Reamer
2102-0443	43mm Acetabular Reamer
2102-0444	44mm Acetabular Reamer
2102-0445	45mm Acetabular Reamer
2102-0446	46mm Acetabular Reamer
2102-0447	47mm Acetabular Reamer
2102-0448	48mm Acetabular Reamer
2102-0449	49mm Acetabular Reamer
2102-0450	50mm Acetabular Reamer
2102-0451	51mm Acetabular Reamer
2102-0452	52mm Acetabular Reamer
2102-0453	53mm Acetabular Reamer
2102-0454	54mm Acetabular Reamer
2102-0455	55mm Acetabular Reamer
2102-0456	56mm Acetabular Reamer
2102-0457	57mm Acetabular Reamer
2102-0458	58mm Acetabular Reamer
2102-0459	59mm Acetabular Reamer
2102-0460	60mm Acetabular Reamer
2102-0461	61mm Acetabular Reamer
2102-0462	62mm Acetabular Reamer
2102-0463	63mm Acetabular Reamer
2102-0464	64mm Acetabular Reamer
2102-0465	65mm Acetabular Reamer

CE 2797

This document is intended solely for healthcare professionals.

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's global product offerings. A surgeon must always refer to the package insert, product label and/or instructions for use before using any of Stryker's products. This surgical technique may depict products that are not currently CE marked according to the Medical Device Regulation 2017/745 or the Medical Device Directive 93/42/EEC. Please refer to the product label for CE mark information (if applicable). 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 sales representative if you have questions about the availability of products in your area.

ADMX3-SP-1_Rev-3_34552

Howmedica Osteonics Corp.
325 Corporate Drive
Mahwah, NJ 07430, USA
A subsidiary of Stryker Corporation
t: 201 831 5000

stryker.com