

ASHCOM™ Shoulder

Anatomical Shoulder™ Stems meet Comprehensive® Reverse

Surgical Technique

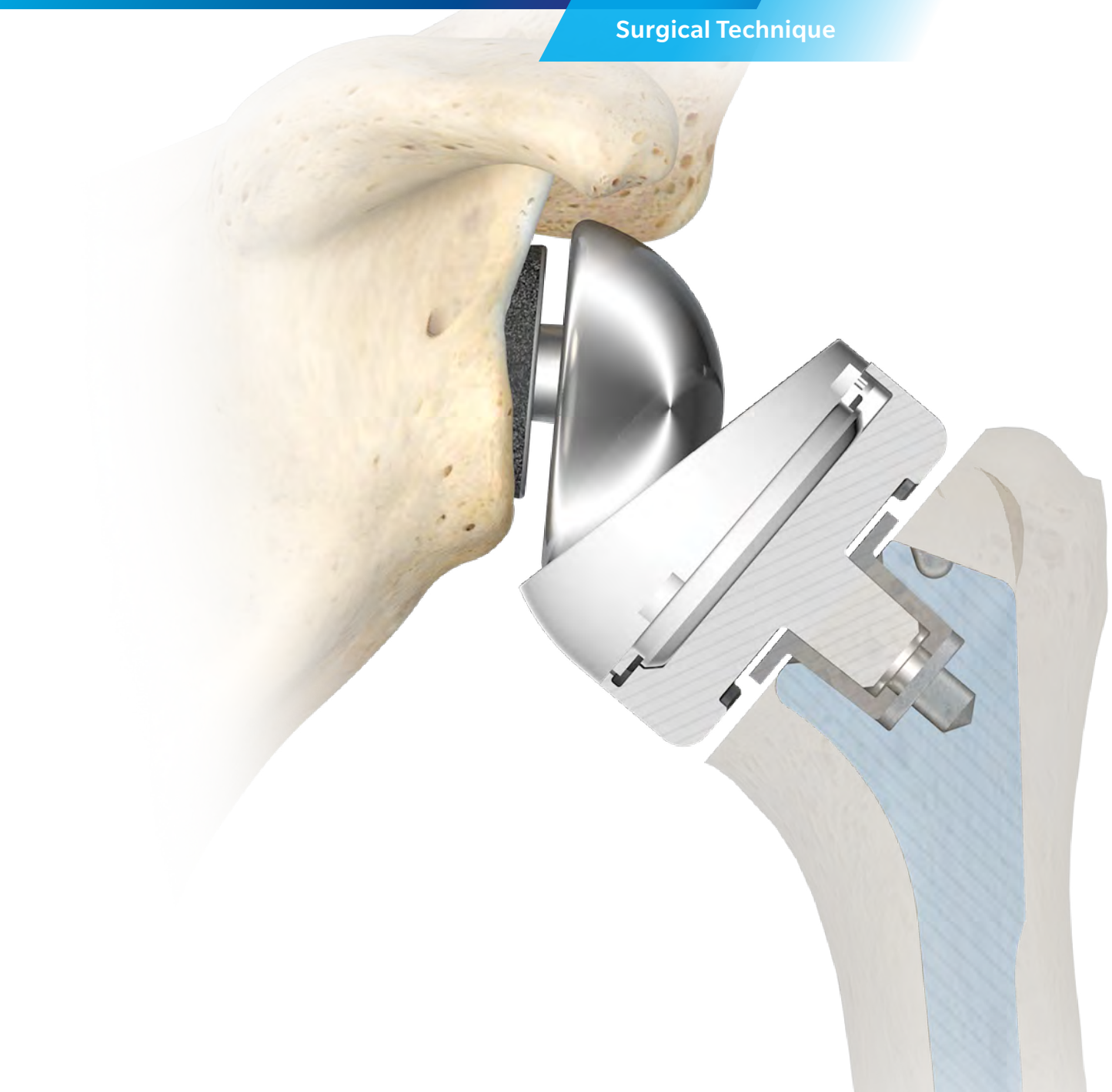


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You will need the following instrument sets:

#1 Instrument Set for ASHCOM Shoulder

KT-0444-101-10 (US), ZS01.04441.011 (EU) – ASHCOM Shoulder Instrument Set

#2 Instrument Set for Humeral preparation

KT-A2DL-001-00 (US), ZS01.04558.001 (EU) – Anatomical Shoulder Domelock® Instrument Set I

KT-A2DL-002-00 (US), ZS01.04558.002 (EU) – Anatomical Shoulder Domelock Instrument Set II

(This Instrument Set is needed if you want to do ASHCOM Shoulder with humeral stem sizes: 5 - 6 - 16 - 18)

KT-A2FX-001-00 (US), ZS01.04558.011 (EU) – Anatomical Shoulder Fracture Instrument set

#3 Instrument Set for Glenoid preparation

A further instrument set for a Zimmer Biomet Reverse Glenosphere solution which supports the ASHCOM Shoulder System. Please ask your Zimmer Biomet representative for further information. Please refer to the Zimmer Biomet Zone App to view the ASHCOM ORDERING INFORMATION.



Introduction

The ASHCOM Shoulder AC-Connector is a double tapered Adaptor that allows the combination of the Anatomical Shoulder Humeral Stems with the Comprehensive Trays. The male oval cone taper of the ASHCOM Shoulder AC-Connector is compatible with the cemented, uncemented and fracture Humeral Stems of the Anatomical Shoulder System. The female round taper is compatible with the Comprehensive Reverse Trays.

Indications & Contraindications

The Humeral Stems Cemented are intended for cemented use and the Humeral Stems Uncemented are intended for uncemented use.

Indications are: In combination with a compatible Zimmer Biomet glenoid the implant is intended for a reverse application and is indicated for primary, fracture or revision total shoulder replacement for the relief of pain and significant disability due to gross rotator cuff deficiency. The patient's joint must be anatomically and structurally suited to receive the selected implants and a functional deltoid muscle is necessary to use the device.

Contraindications are: Signs of infection, significant injury to the upper brachial plexus, Non-functional deltoid muscle, insufficient quality and/or quantity of glenoid or humeral bone, any neuromuscular or vascular disease compromising the affected limb that would endanger the success of the intervention.

For complete product information, including warnings, precautions and potential adverse events, see package insert and www.zimmerbiomet.com.

Surgical Technique Summary



Step 1
Head resection



Step 2
Stem size identification



Step 3
Stem implantation



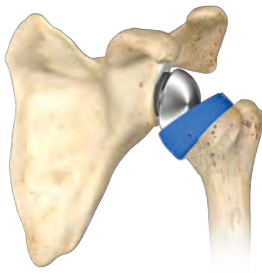
Step 4
Protection – Glenoid preparation



Step 5
Humeral reaming



Step 6
AC-Connector



Step 7
Trialing



Step 8
Implant assembly



Step 9
Final Implantation

Revision Steps



Step 10
Bearing removal



Step 11
Tray removal



Step 12
AC-Connector removal



Figure 1

Patient Positioning and Surgical Approach

The patient should be placed in a beach chair position on the edge of the operating table (Figure 1). The arm must be freely movable and it must be freely possible to extend it fully. An armrest is optional.

The ASHCOM Shoulder System may be implanted using either a transdeltoid or delto-pectoral approach. Superior-lateral or delto-pectoral approach depends mainly on surgeon preference and clinical parameters. Revision surgery, for instance, usually dictates a delto-pectoral approach as it allows a longer humeral incision when faced with a difficult removal of the humeral stem.

Superior-Lateral Approach

The incision is made from the anteriolateral acromial border downward approximately 4 cm. Following subcutaneous dissection, the anterior and middle deltoid muscle bundles are separated opposite the lateral margin of the acromion, using blunt dissection. Care should be taken to avoid any damage to the axillary nerve, which is located approximately 4 cm

distal to the acromion. When the subacromial bursa is visible, gentle longitudinal traction in line with the limb will allow a retractor to be placed in the subacromial space. The humeral head is dislocated by placing the arm in retroversion and internally rotated. To optimize the exposure, the anterior border and the rest of the superior cuff can be resected.

Delto-Pectoral Approach

Make a skin incision in a straight line starting from the lateral edge of the coracoid as far as the insertion of the deltoid muscle. Seek the cephalic vein between the deltoid muscle and the pectoralis major muscle. Make the approach medial to the vein, to open the delto-pectoral groove. The coracoid process is identified. The clavi-pectoral fascia is incised at the external border of the coracobrachialis. The axillary nerve is then identified before identification of the subscapularis. With adequate releases, the humeral head is dislocated into the deltopectoral interval by abduction of the arm and progressive external rotation and extension.

Information on assembly for scrub nurse

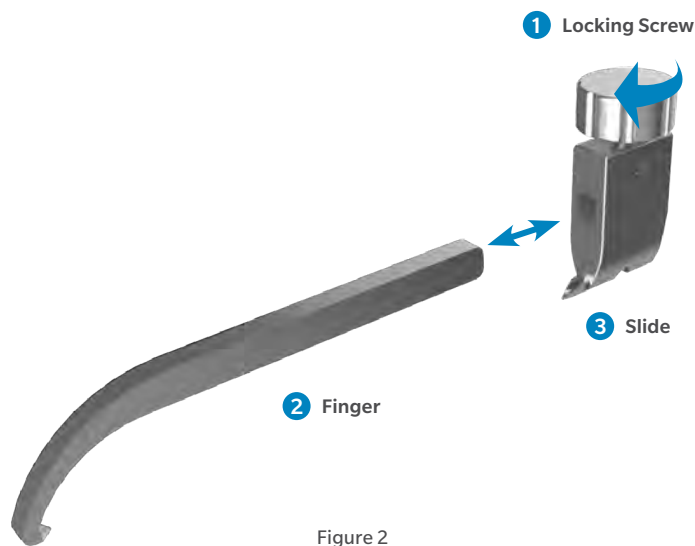


Figure 2
Assembly Steps



Figure 3
Assembled Guide

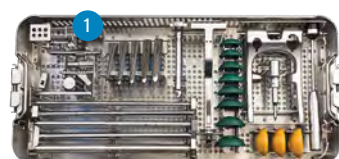
Alignment Guide Supraspinatus Assembly Instructions

- Push the Finger 2 into the Slide 3
- Screw the Locking Screw 1 into the Slide 3 (clockwise direction)
- End of assembly

Alignment Guide Supraspinatus Disassembly Instructions

- Unscrew the Locking Screw 1 (counterclockwise direction)
- Pull the Finger 2 out of the Slide 3
- End of disassembly

Note: The Alignment Guide Supraspinatus must be completely disassembled for cleaning and steam sterilization.



Assembly and disassembly instructions for scrub nurse



Figure 4
Assembly Steps

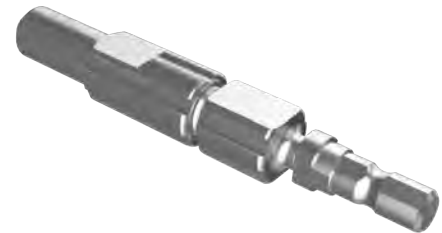


Figure 5
Assembled Pin Retractor

Pin Retractor Assembly Instructions

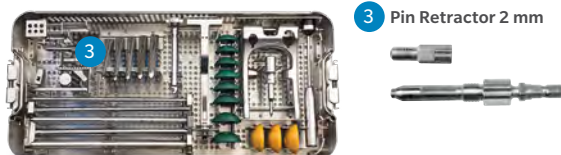
- Slide the Nut **1** over the Clamping Jaw **2**
- Screw the Nut **1** to the Clamping Jaw **2** (clockwise direction)
- End of assembly

Pin Retractor Disassembly Instructions

- Unscrew the Nut **1** (counterclockwise direction)
- Pull the Nut **1** from the Clamping Jaw **2**
- End of disassembly

ⓘ **Note:** The Pin Retractor must be completely disassembled for cleaning and steam sterilization.

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Anatomical Shoulder Domelock Instrument Set I



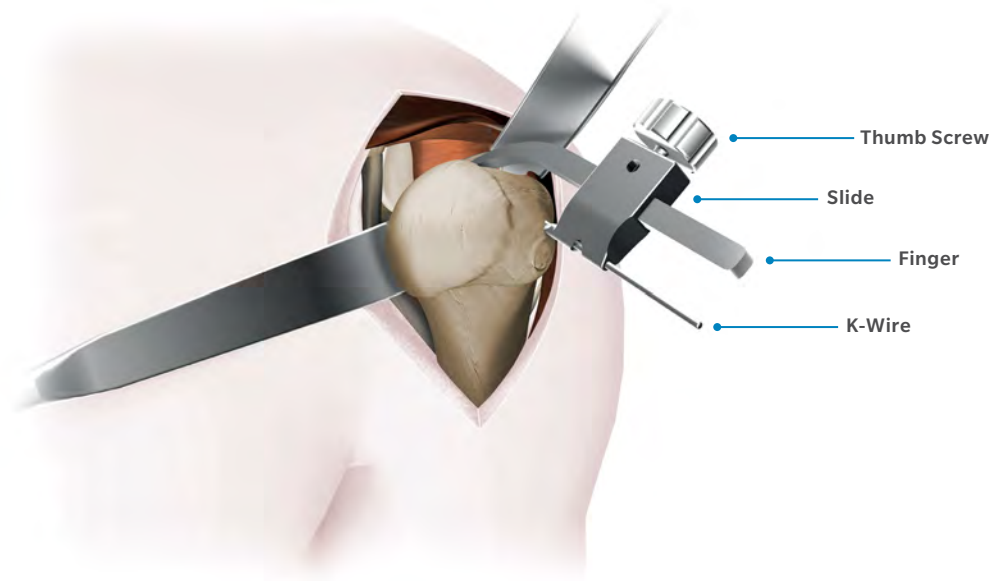


Figure 6
Attach Supraspinatus Alignment Guide

Humeral Head Identification, Preparation and Resection

Expose humeral head and identify anatomical neck landmarks

Two humeral head resection techniques are possible: a freehand cut and an alignment guide “Supraspinatus” resection technique (Figure 6).

- Fully expose the humeral head.
- Remove any unwanted osteophytes to restore the humerus to near native anatomy.
- The resection must start exactly on the cartilage.

Technique Tip:

The landmarks for the anatomical neck:

- In the superior and anterior superior aspects, the anatomical neck corresponds to the insertions of the tendons (Figure 6) of the cuff supraspinatus and uppermost section of the subscapularis.
- In the inferior aspect, there is a smooth transition between the cartilage of the head and the cortical bone of the Humerus.
- In the posterior aspect, in the region of the infraspinatus and teres minor, is the sulcus or “bare area,” which is a groove of 6 to 8 mm in length, without cartilage or attached tendons.

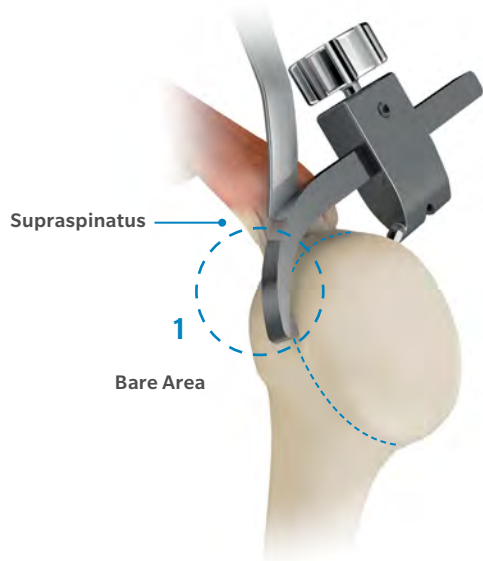


Figure 7
Posterior View

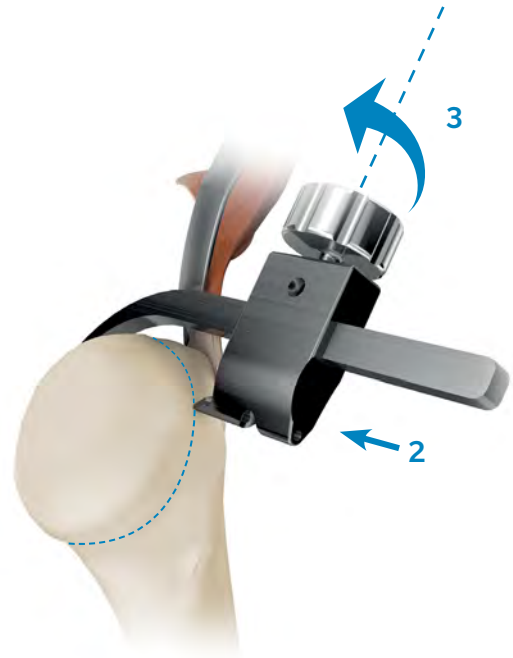


Figure 8
Anterior view

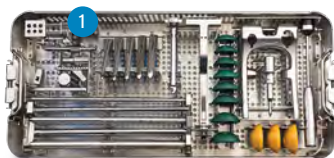
Attach Supraspinatus Alignment Guide around anatomical neck

- Place the sharp point of the Supraspinatus Alignment Guide Finger on the posterior side of the humeral head. Ensure it is exactly on the anatomic neck (Figure 7).
- Move the Slide towards the anterior edge of humeral head. Ensure Slide is exactly on the anatomic neck (Figure 8).
- Secure the Supraspinatus Alignment Guide by rotating the Thumb Screw clockwise (Figure 8).

ⓘ **Note:** Do not resect cartilage free area.

ⓘ **Note:** The superior part of the cut should be at the medial border of the insertion of the supraspinatus tendon.

ⓘ **Note:** The Kirschner Wire (K-Wire) should exit at the posterior edge of the cartilage medial to the bare area.



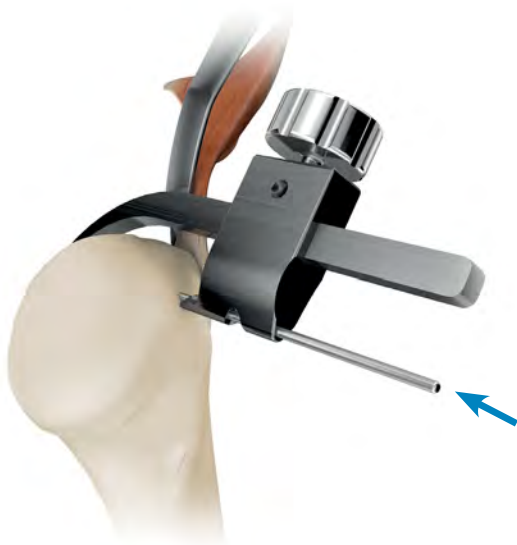


Figure 9
1st K-Wire sets version



Figure 10
Posterior View



Figure 11
Anterior View

Insert 1st K-Wire to set version

The first K-Wire 2x100 mm, the Supraspinatus-Pin, determines the retroversion (Figure 9, 10 and 11).

- Place the K-Wire 2x100 mm into the Alignment Guide “Supraspinatus”.
 - Use the Pin Retractor 2 mm and power tool.

- Remove the Alignment Guide “Supraspinatus”.
 - Rotate Thumb Screw counter-clockwise and retract Slide away from bone.

Technique Tip:

The insertion site of the Supraspinatus tendon to the proximal humerus will guide the position of your lateral pin.

KT-A2DL-001-00 (US), ZS01.04558.001 (EU) –
Anatomical Shoulder Domelock Instrument Set I



1 Supraspinatus
Alignment Guide



2 Kirschner-Wire 2x70 mm
and 2x100 mm



3 Pin Retractor 2 mm





Figure 12
Resection Guide sets inclination

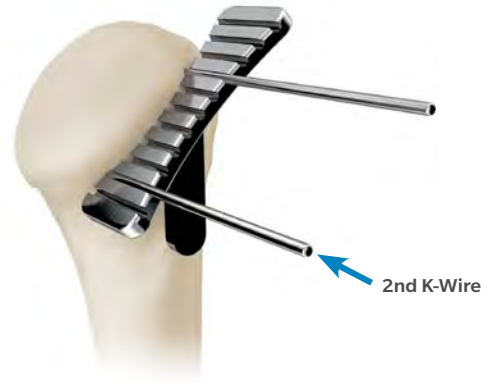


Figure 13
Place 2nd K-Wire

Attach Resection Guide to set inclination

- Slide the Resection Guide over the 1st K-Wire and swing the Guide until its inclination matches the anatomic neck angle (Figure 12).
- Insert 2nd K-Wire to secure the Resection Guide at this angle (Figure 13).
 - User the Pin Retractor 2 mm and power tool.

ⓘ **Note:** Due to patient requirements, there are 2 mm K-Wires in 100 mm and 70 mm lengths.

KT-A2DL-001-00 (US), ZS01.04558.001 (EU) –
Anatomical Shoulder Domelock Instrument Set I



2 K-Wires 2x70 mm
and 2x100 mm



3 Pin Retractor 2 mm



4 Resection Guide



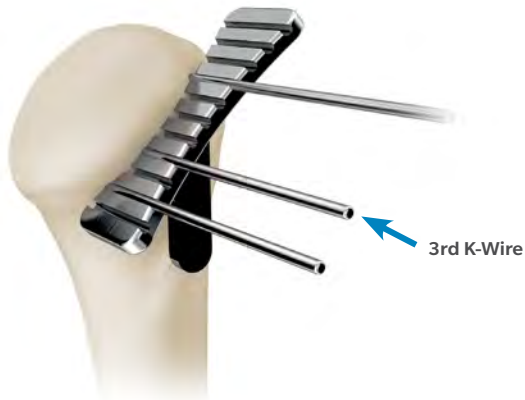


Figure 14
Set 3rd K-Wire

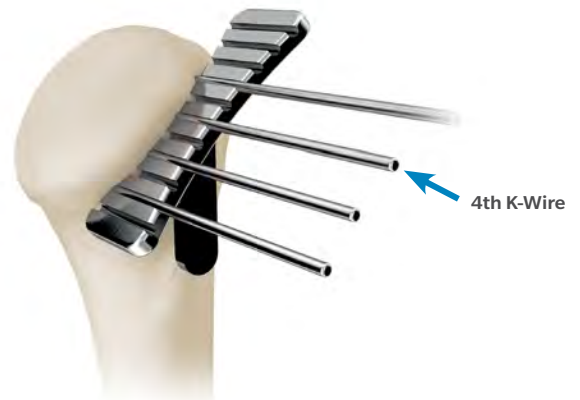


Figure 15
Set 4th K-Wire

Set additional K-Wires to secure Resection Guide

- Set additional 3rd and 4th K-Wire to your requirements (Figure 14 and 15).
 - Use the Pin Retractor 2 mm to place the K-Wire.

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Anatomical Shoulder Domelock Instrument Set I



2 K-Wires 2x70 mm
and 2x100 mm



3 Pin Retractor 2 mm



4 Resection Guide





Figure 16
Resect humeral head



Figure 17
Resect humeral head

Resect Humeral Head

- ⓘ **Note:** Do not use a saw blade with downward facing teeth.
- Slide blade on top of K-Wires and Resection Guide (Figures 16 and 17).

- Remove the Resection Guide and K-Wires.
 - Use Pin Retractor 2 mm and power tool.
- Clean the resection area.

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Anatomical Shoulder Domelock Instrument Set I



2 K-Wires 2x70 mm
and 2x100 mm



3 Pin Retractor 2 mm



4 Resection Guide



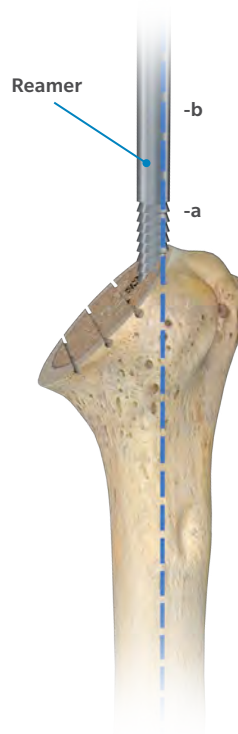


Figure 18

Humeral Stem Size Preparation

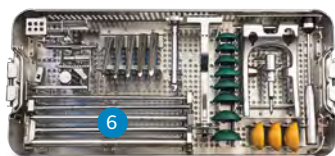
Reaming of the Humeral Canal

- Begin insertion of the Reamer just under the highest point of the resection, directly medial to the bicipital tendon (Figure 18), inline with the shaft axis.
 - For this purpose, the arm is externally rotated and extended, with the elbow resting on the body.
 - With the medullary cavity opened, start reaming with the smallest reamer.
- ⓘ **Note:** Standard Reamers available in sizes: 7-9-10.5-12-14; Optional additional Reamers sizes are: 5-6-16-18.

ⓘ **Note:** The depth of penetration is defined by the uppermost tooth (Figure 18, marking a).

ⓘ **Note:** Care should be taken to ensure that the uppermost tooth of the Reamer is fully inserted into the medullary cavity marking (Figure 18, marking a). If a Revision Stem is used, the additional marking (Figure 18, marking b) is used as reference.

KT-A2DL-001-00 (US), ZS01.04558.001 (EU) –
Anatomical Shoulder Domelock Instrument Set I



6 AS Humeral Reamers



Lever Arm



Figure 19a

 Rasp Handle
 movable cross-pin
 Rasp


Figure 19b

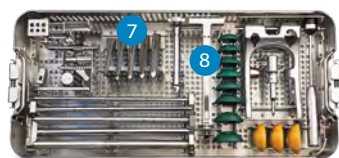
Rasping of the Humeral Canal

The proximal section of the humerus is prepared with the aid of modular rasps, prepared stepwise using the rasps up to the size of the previously used reamer.

- Connect the Rasp Handle with the Rasp (Figure 19b) and start rasping with the smallest Rasp.
- To connect or disconnect the Rasp from the Rasp Handle, press the lever arm (Figure 19a).

Note: The lateral fin of the Rasp is directed towards a point approximately 9 mm behind the sulcus.

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Anatomical Shoulder Domelock Instrument Set I



7 AS Humeral Rasps



8 AS Handle for Rasps



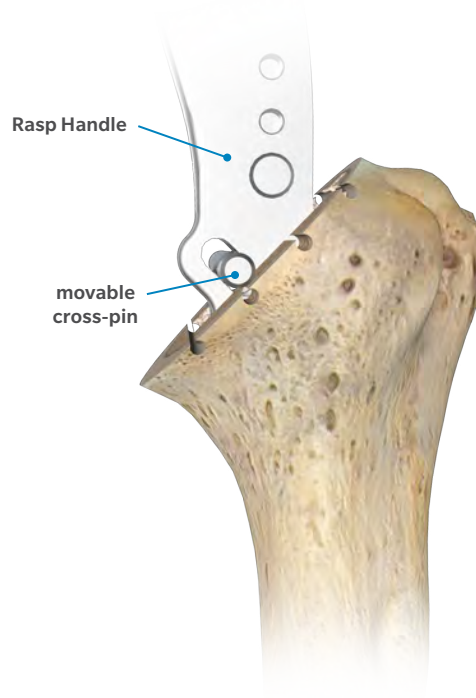


Figure 20

Humeral Stem Size Preparation (cont.)

Technique Tip:

The movable cross-pin of the Rasp Handle should ideally sit in the middle of the resection surface, anterior – posterior (Figure 20).

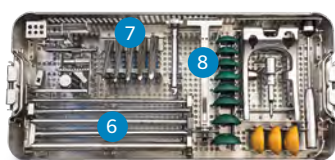
ⓘ **Note:** Standard Rasps available in sizes: 7-9-10.5-12-14. Optional additional Rasp sizes are: 5-6-16-18.

ⓘ **Note:** Care should be taken to ensure that the Rasps are fully inserted into the humerus, i.e. until the movable crosspin is visibly in contact with both anterior and posterior metaphyseal surfaces (Figure 20).

ⓘ **Note:** If full insertion of the Rasp to this extent is not possible, the definitive implant of this size may not be used. The last Rasp size which was placed successfully to the required depth is recommended.

- Remove the Rasp by using the Rasp Handle (Figure 20).
- The appropriate cemented or uncemented stem is determined by the last used modular Rasp.

KT-A2DL-001-00 (US), ZS01.04558.001 (EU) –
Anatomical Shoulder Domelock Instrument Set I



6 AS Humeral Reamers



7 AS Humeral Rasps



8 AS Handle for Rasps



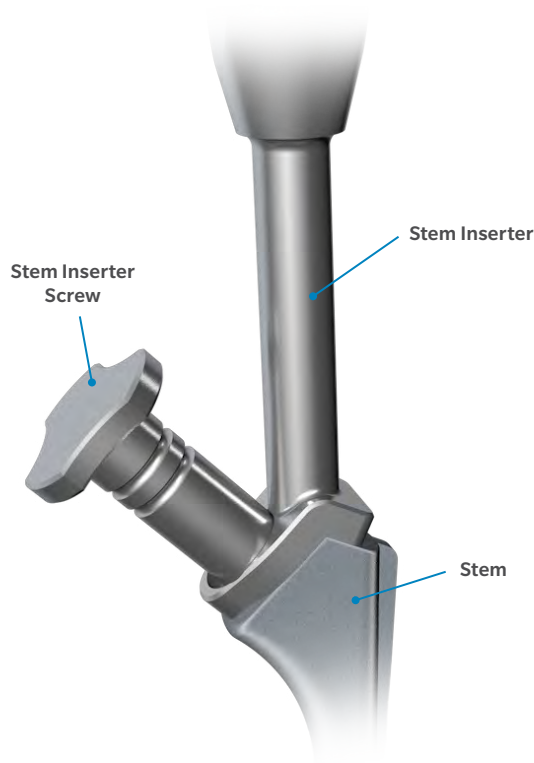


Figure 21

Humeral Stem Size Preparation (cont.)

- Connect the appropriate stem with the Stem Inserter (Figure 21).

Note: While using a cemented, uncemented (press-fit) or a slim Fx stem, connect the standard or Fx slim stem inserter. While using a standard Fx stem, connect the Fx Stem Inserter.

Note: Use the corresponding locking screw: For a cemented or uncemented (press-fit) stem use the Stem Inserter screw (cemented/uncemented), for a standard fracture or fracture slim stem use the Stem Inserter Screw Fx.

ZS01.04441.011 (EU), KT-0444-101-10 (US) –
ASHCOM Shoulder Instrument Set



1 ASHCOM Shoulder
Stem Inserter
Standard & Fx Slim



2 ASHCOM Shoulder
Stem Inserter Fx



3 ASHCOM Shoulder Stem Inserter
Screw Standard & ASHCOM
Shoulder Stem Inserter Screw Fx





Figure 22

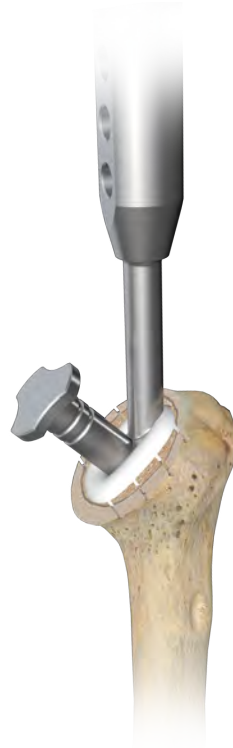


Figure 23

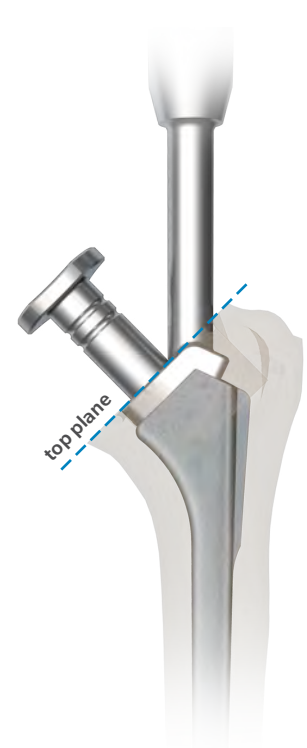


Figure 24

Cemented and Uncemented (Press-Fit) Stem Technique

Cemented Stem Technique

- With the cemented prosthesis, a cement restrictor can be inserted into the humerus, followed by the cement in a relatively fluid consistency.
 - The implant is now inserted into the humerus (Figure 22) by applying controlled force.
 - The stem is in final position, when the top plane of the Stem Inserter is in line with the Osteotomy surface (Figures 23 & 24).
 - The stem is now implanted below the osteotomy and in final position.
- ⓘ **Note:** No blows may be delivered to the Stem Inserter while the cement is hardening.
 - Carefully remove the excess cement immediately with a knife blade.
 - ⓘ **Note:** All exposed cement must be removed.
 - Remove the Stem Inserter from the implanted stem.

ZS01.04441.011 (EU), KT-0444-101-10 (US) –
ASHCOM Shoulder Instrument Set



1 ASHCOM Shoulder Stem Inserter Standard & Fx Slim



2 ASHCOM Shoulder Stem Inserter Fx



3 ASHCOM Shoulder Stem Inserter Screw Standard & ASHCOM Shoulder Stem Inserter Screw Fx





Figure 25

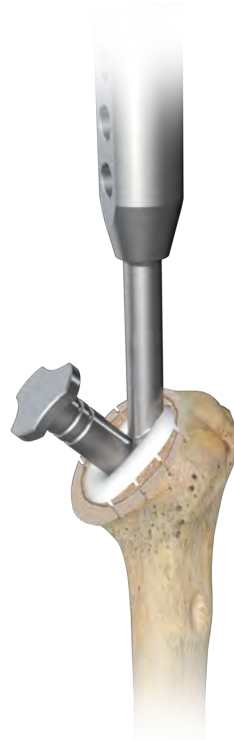


Figure 26

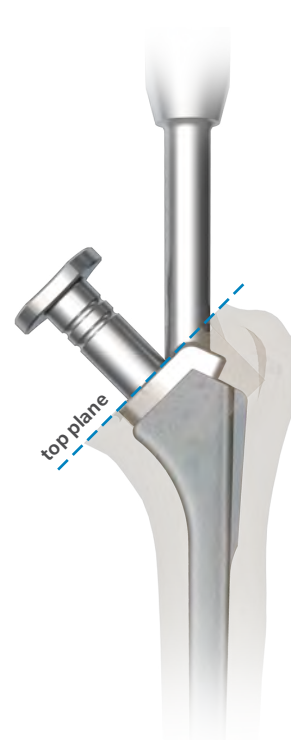


Figure 27

Uncemented (Press-Fit) Stem Technique

- The uncemented, press-fit prosthesis is now inserted into the humerus.
- Note:** If it is not possible to seat the implant with careful blows into final position, extract the implant and re-ream with the last rasp size used.
- The implant is now inserted into the humerus (Figure 25) by applying controlled force. The lateral stem fin is used as an orientation aid.
- The stem is in final position, when the top plane of the Stem Inserter is in line with the osteotomy surface (Figures 26 & 27).
- The stem is now implanted below the osteotomy and in final position.
- Remove the Stem Inserter from the implanted stem.

ZS01.04441.011 (EU), KT-0444-101-10 (US) –
ASHCOM Shoulder Instrument Set



1 ASHCOM Shoulder Stem Inserter Standard & Fx Slim



2 ASHCOM Shoulder Stem Inserter Fx



3 ASHCOM Shoulder Stem Inserter Screw Standard & ASHCOM Shoulder Stem Inserter Screw Fx





Figure 28

Humeral Protection

- The Humeral osteotomy must now be protected (Figure 28) with one of the three Protection Plates (40, 44, 48 mm).

Note: No blows may be delivered to the implanted stem or the cement interface, while the cement is hardening.

- **Now start the Glenoid preparation and implantation.** You can use one of the Zimmer Biomet Reverse Glenoid Systems. Please ask your Zimmer Biomet representative for further information.



4 Anatomical Shoulder
Protection Plate



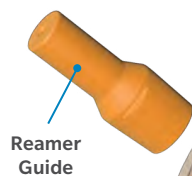


Figure 29

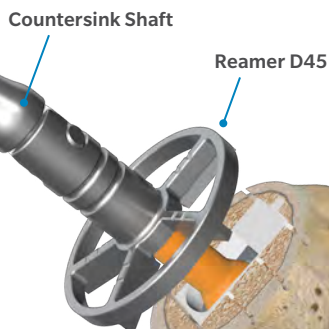


Figure 30

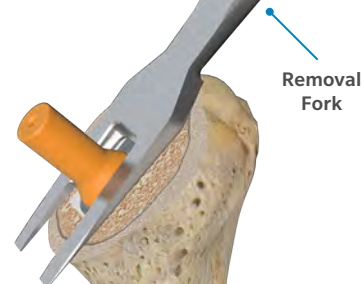


Figure 31

Final Humerus Preparation

- Remove the Protecting Plate and introduce the Reamer Guide into the oval female taper of the stem (Figure 29).
- Connect the Reamer D45 with the Countersink Shaft and start reaming over the Reamer Guide in the stem (Figure 30).

ⓘ **Note:** Care should be taken to ensure that reaming is continued as far as possible over the reamer guide in the stem.

- Remove the Reamer Guide if needed with support of the Removal Fork (Figure 31).

ⓘ **Note:** Remove generated milling particles and clean the open wound.

ZS01.04441.011 (EU), KT-0444-101-10 (US) –
ASHCOM Shoulder Instrument Set



5 ASHCOM Shoulder Reamer Guide



6 ASHCOM Shoulder Reamer D45



7 Countersink Shaft



8 ASHCOM Shoulder Removal Fork





Figure 32

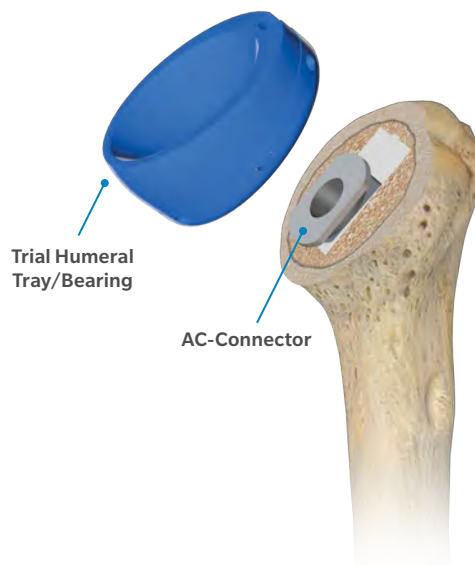


Figure 33

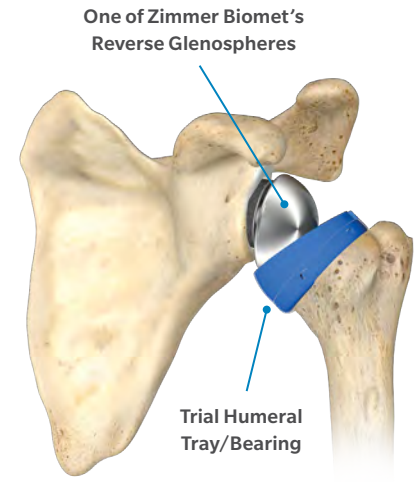


Figure 34

Humeral Tray and Bearing Preparation

ASHCOM Shoulder AC-Connector

- Clean and dry the oval female taper of the implanted stem (Figure 32).
- Unpack and place the AC-Connector into the oval female taper of the implanted stem (Figure 33).
- Select the appropriately sized one-piece Trial Humeral Tray/Bearing. Noting the “SUPERIOR” and “INFERIOR” markings on the Humeral Tray, place the Trial Humeral Tray/Bearing into the AC-Connector to the Stem (Figure 33) and perform a trial reduction to assess range of motion and implant size selection. The trial reduction should show very limited distraction (Figure 34).

ⓘ **Note:** In cases of extreme instability, +3 mm retentive humeral bearings are available. Retentive bearings capture more of the glenosphere and have polyethylene walls which are 2–3 mm higher than standard +3 mm bearings, but do not add any additional joint space.

ⓘ **Note:** Humeral bearings have been color coded to ensure curvatures, 36 in grey, 41 in blue.

Technique Tip:

The most common thickness of the tray and bearing is standard for each (STD-STD).

ZS01.04441.011 (EU), KT-0444-101-10 (US) –
ASHCOM Shoulder Instrument Set



10 Comprehensive Humeral
Bearing / Tray Trial – 36



9 Comprehensive Humeral
Bearing / Tray Trial – 41



ASHCOM AC Connector
Implant



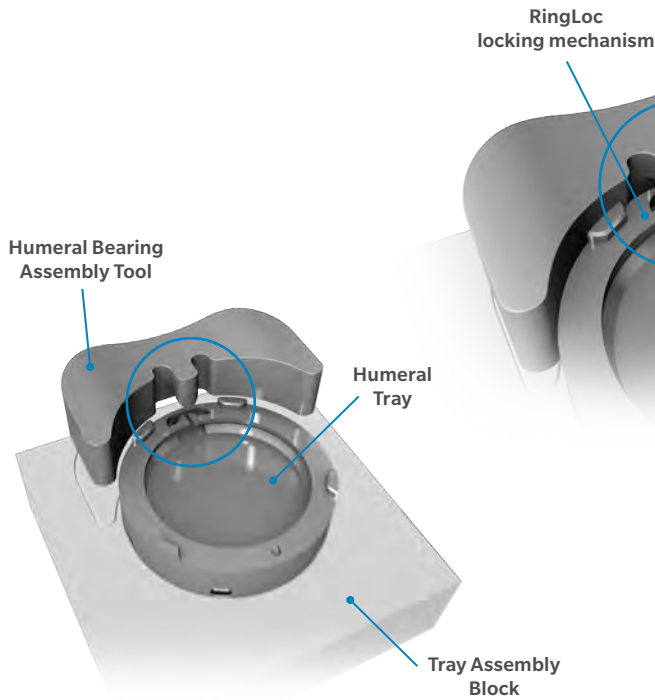


Figure 35

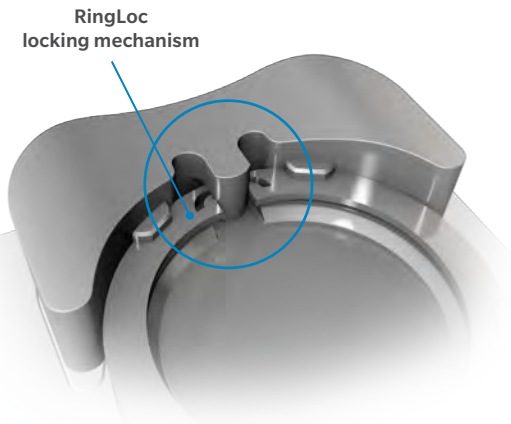


Figure 36

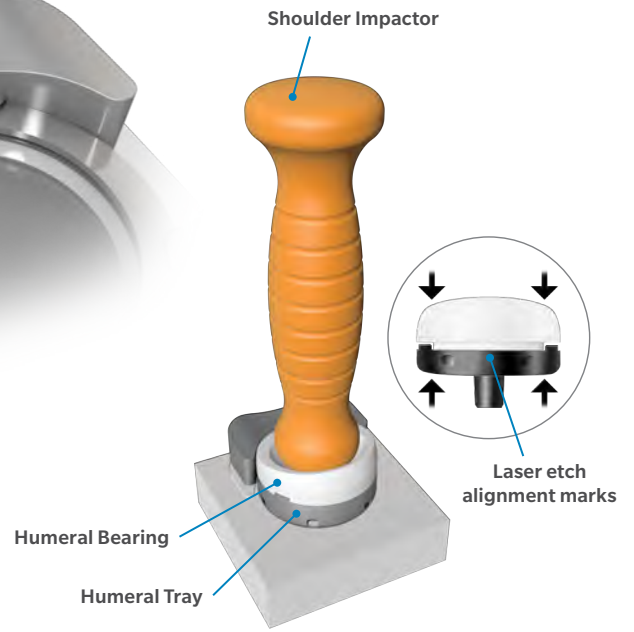


Figure 37

Humeral Tray and Bearing Assembly

- Place the definitive Humeral Tray into the Tray Assembly Block (Figure 35).
- Utilize the Humeral Bearing Assembly Tool to spread the RingLoc locking mechanism to the open position by fully seating the Bearing Assembly Tool on the Humeral Tray (Figure 36).

Note: An audible “click” will be heard when the Bearing Assembly Tool is properly engaged.

- Position the definitive Humeral Bearing in the definitive Humeral Tray, ensuring that the laser etching on the Bearing aligns with the laser etching on the Humeral Tray.

- Using the Impactor, apply downward pressure to the Bearing and remove the Bearing Assembly Tool continuing to apply downward pressure on the Bearing.
- With two firm strikes of the Impactor, impact the Humeral Bearing into the Humeral Tray (Figure 37).

Note: Following impaction, ensure the humeral bearing is fully seated within the humeral tray.

ZS01.04441.011 (EU), KT-0444-101-10 (US) – ASHCOM Shoulder Instrument Set



11 ASHCOM Shoulder Tray Assembly Block



12 Comprehensive Humeral Bearing Assembly Tool



13 ASHCOM Shoulder Impactor



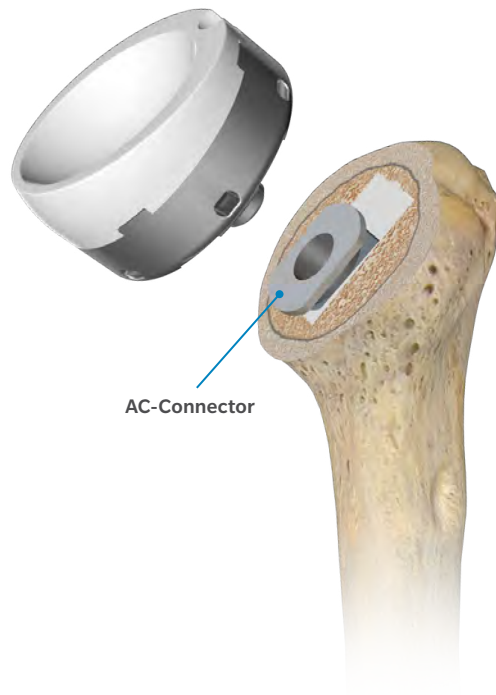


Figure 38

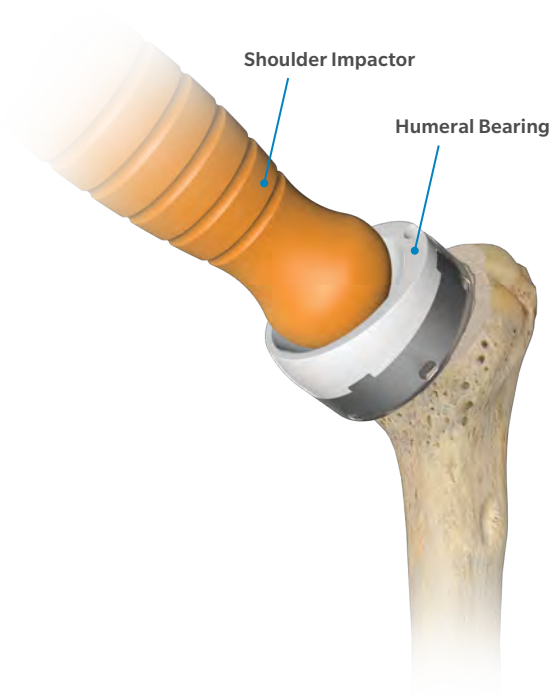


Figure 39

Final Humeral side implantation

- Clean and dry the inner Morse Taper of the AC-Connector (Figure 38).
 - With two firm strikes of Impactor, impact the assembled definitive Humeral Tray/Bearing into the AC-Connector (Figure 39).
- Note:** Ensure all cement and bone particles are removed.



13 ASHCOM Shoulder
Impactor



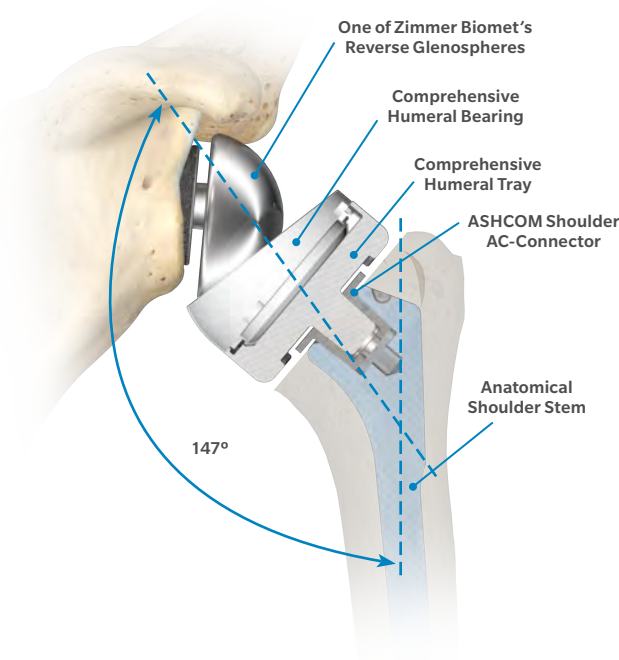


Figure 40

Final Humeral side implantation (cont.)

- ⓘ **Note:** A small gap between Humeral Tray and the humeral osteotomy will be seen and is necessary to guarantee that the individual components are locked together (Figure 40).
- ⓘ **Note:** The humeral tray is marked "SUPERIOR" to aid in positioning the tray/bearing with respect to the implanted stem.
- ⓘ **Note:** When inserted correctly, the thicker portion of the polyethylene bearing should be inferior.
- Reduce the joint and assess the final range of motion. The final reduction should show very limited distraction.

Technique Tip:

Impingement should not be present in either adduction or abduction. If there is impingement, it is recommended to adjust the glenosphere off set in translation and/or lateralization, or if necessary, increase glenosphere size to alleviate impingement. If impingement occurs in abduction, a greater tuberosity osteotomy or tuberplasty may be necessary.

- ⓘ **Note:** The Humeral Tray/Bearing assembly with the AC-Connector can also be impacted into one of the Anatomical Shoulder Stems, either in primary reverse cases, or when a humeral head replacement or total shoulder is converted to a reverse prosthesis.

Subscapularis Repair

When possible, the subscapularis should be repaired at the completion of the procedure, as long as it does not significantly reduce external rotation. If the tissue at the lesser tuberosity is poor, place sutures through the bone prior to implantation of the stem.

Salvage Hemi- Bipolar Head arthroplasty

ⓘ **Note:** In the event the reverse solution fails, a salvage hemi-arthroplasty may be the only option for a patient. A salvage reverse to hemi-arthroplasty or a big Bipolar Head conversion may be accomplished without removing the Anatomical Shoulder humeral component.

Please ask your Zimmer Biomet representative for further information.

Postoperative Treatment

It is the responsibility of the doctor to decide which postoperative treatment is appropriate depending on each patient's health condition. The following outlines recommendations which are generally made by doctors. The arm is put into a sling, but passive and active elevation to the front is not recommended. Weight lifting and active elevation with the extended elbow are not recommended for the first six weeks after the operation.

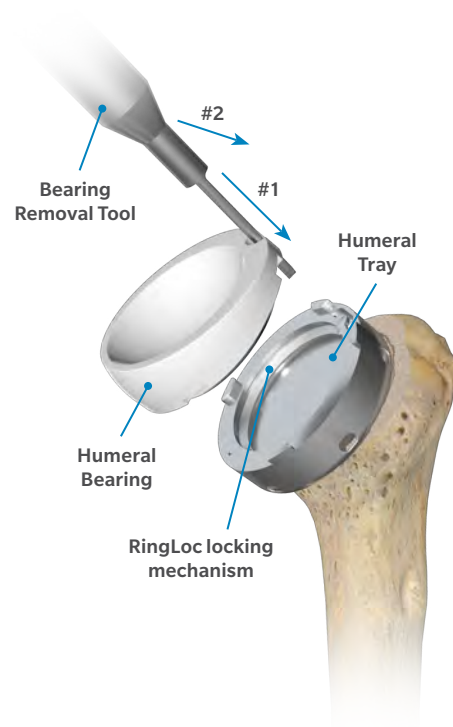


Figure 41

Revision/Removal of the Humeral Tray/Bearing and the ASHCOM Shoulder AC-Connector

Polyethylene Humeral Bearing Removal/Exchange

If a Humeral Bearing ever needs to be replaced, the RingLoc locking mechanism of the Humeral Tray will allow for exchange/revision of Bearings without Tray removal (Figure 41).

To remove a Humeral Bearing, simply expand the Locking Ring and lift the humeral bearing out of the tray by tilting the Bearing Removal Tool.

- Position the curved portion of the tip of the Bearing Removal Tool towards the Bearing and insert between the open portion of the locking ring. This will expand the ring.

- Once the ring has been expanded, slide the Removal Tool down and then underneath the Bearing. The Humeral Bearing is now released (Figure 41).

Note: Whenever a Bearing is removed, a new locking ring (size 21, #106021) should be placed into the Humeral Tray before the new Bearing is locked in place. A correctly positioned locking ring should open towards the superior/lateral portion of the humeral tray.



8 ASHCOM Shoulder
Removal Fork



14 ASHCOM Shoulder
Bearing Removal Tool



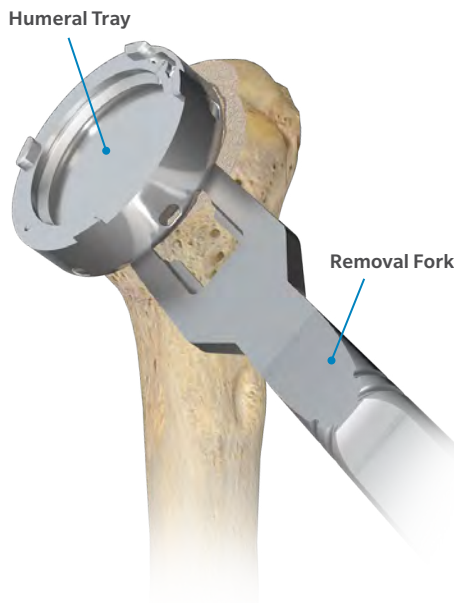


Figure 42

Removal of the Humeral Tray/Bearing

ⓘ **Note:** The Humeral Tray/Bearing assembly may be removed with the dedicated ASHCOM Shoulder Removal Fork.

- As the Humeral Tray sits very near the resected surface of the humerus and the AC-Connector lies within the counter-bore geometry of the Humeral Tray, it is preferable to place the dedicated ASHCOM Shoulder Removal Fork arms between the Humeral Tray and AC-Connector collar, which will act as a wedge and disengage the taper (Figure 42).



8 ASHCOM Shoulder
Removal Fork



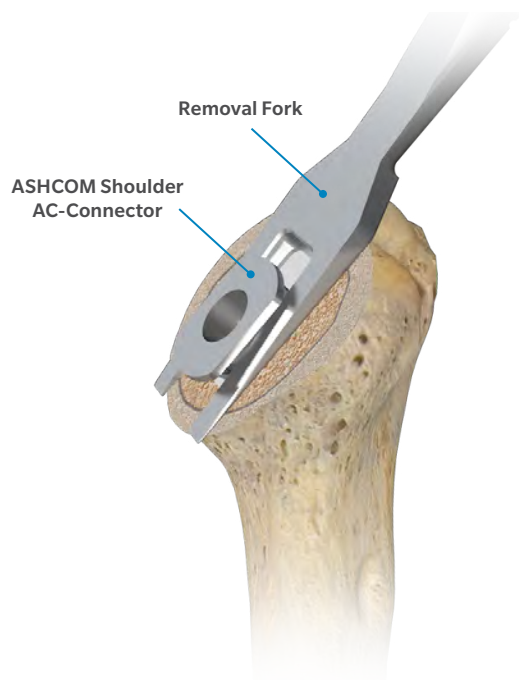


Figure 43



Figure 44

Removal of the ASHCOM Shoulder AC-Connector

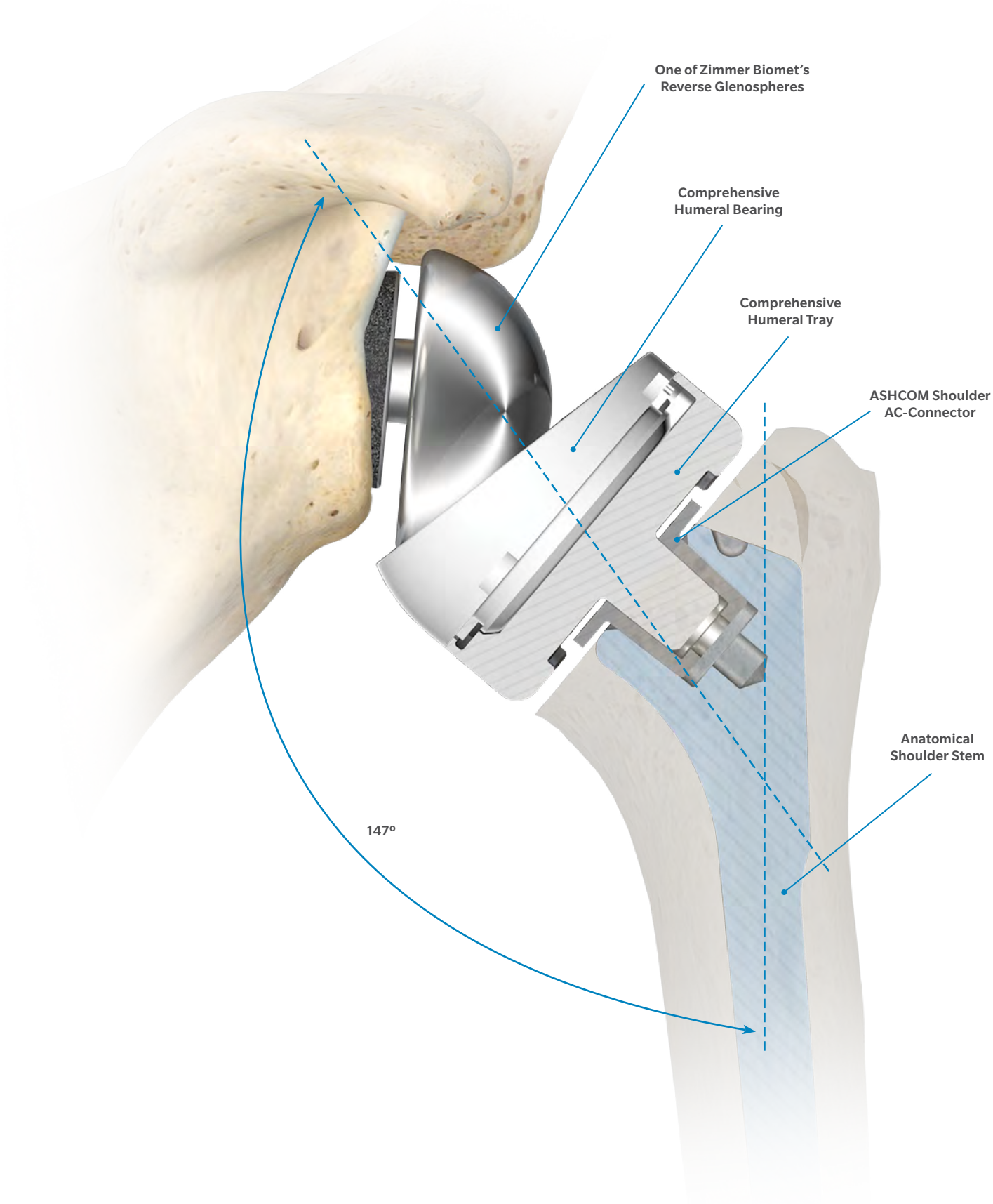
- The AC-Connector may be removed with the dedicated ASHCOM Shoulder Removal Fork.
- Guide the Removal Fork as shown in (Figure 43) and glide it under the collar of the AC-Connector.
- Move the removal fork further until the AC-Connector get loose and remove it (Figure 44).

- ⓘ **Note:** If you have to remove the implanted stem, please follow the Anatomical Shoulder Revision Surgical Technique steps and ask your Zimmer Biomet representative for further information.
- ⓘ **Note:** If you want to know further possibilities with the implanted Anatomical Shoulder Stem, please ask your Zimmer Biomet representative for further information.



8 ASHCOM Shoulder
Removal Fork





For complete product information, including indications, contraindications, warnings, precautions and potential adverse events, see the package insert and www.zimmerbiomet.com

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