

EXACTECH | HIP

Operative Technique



ALTEON[®]

Tapered Wedge Femoral Stems
Primary Femoral Solutions

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INTRODUCTION

The goal of the surgical approach is to establish adequate visualization in order to evaluate stability and leg length and restore kinematic function of the joint. The surgical approach of choice is based upon the degree of surgical experience and preference. This technique provides key surgical steps to implant the Alteon® Tapered Wedge and Short Tapered Wedge Femoral Stems. For key surgical steps specific to the cup, refer to the appropriate acetabular technique.

OPERATIVE TECHNIQUE OVERVIEW



Figure A
Osteotomy of the Femur



Figure B
Opening of the Femoral Canal



Figure C
Femoral Preparation



Figure D
Calcar Preparation (Optional)



Figure E
Trial Reduction



Figure F
Final Component Placement

PRE-OPERATIVE PLANNING

TOOLS

- A/P radiograph of pelvis centered on the pubic symphysis
- Pencil that will not damage X-ray
- Straight edge
- Alteon® Short Tapered Wedge Template Set with 120 percent magnification rule
- Alteon® Tapered Wedge Template Set with 120 percent magnification rule (*Figure 1*)
- Goniometer/protractor

Traditional templating methods may be used. For an estimated determination of required offset, vertical limb length and stem size, the following detailed templating method may be used to help guide the surgeon in selecting a final implant choice.

ESTABLISHMENT OF REFERENCE POINTS

On the radiograph, a straight line is drawn across the bottom of the pelvis touching both ischial tuberosities equally. The line is extended far enough to reach each lesser trochanter. Such a line should be perpendicular to the vertically oriented pubic symphysis. If the line is not vertically oriented, it should be confirmed that the patient's pelvis was not tilted when the radiograph was taken. If the ischial tuberosities are poorly defined, the line should be drawn through the inferior portion of both obturator foramina or the inferior aspect of both teardrops. Templating is recommended to determine the unique anatomic and mechanical features of the patient, and to establish pre-operative reference points that assist in the reconstruction of the patient's natural femoral anatomy.

DETERMINATION OF LEG LENGTH

Select and position the appropriate **Alteon Tapered Wedge Template** over the X-ray so the central axis of the stem aligns with the central axis of the femoral canal and one of the available femoral head options creates the desired center of rotation. The Alteon Tapered Wedge Femoral Stems are designed for mediolateral cortical engagement within the tapered portion of the proximal femoral canal.

When the template is in the desired position, the level of the femoral neck cut and femoral head center of rotation is marked through the punch-outs provided on the template. Record the appropriate size, lateral offset (Standard or Extended), femoral head offset and level of the femoral neck resection.

Note: For digital templating, follow the software manufacturer's instructions for use while following the preceding instructions regarding placement and implant fit.

Note: Templating is an important part of pre-operative preparation, and should only serve as a guide. Final decision making concerning fit, size and soft-tissue tensioning occurs in the operating room using available options of stem offset, head offset and liner configuration.

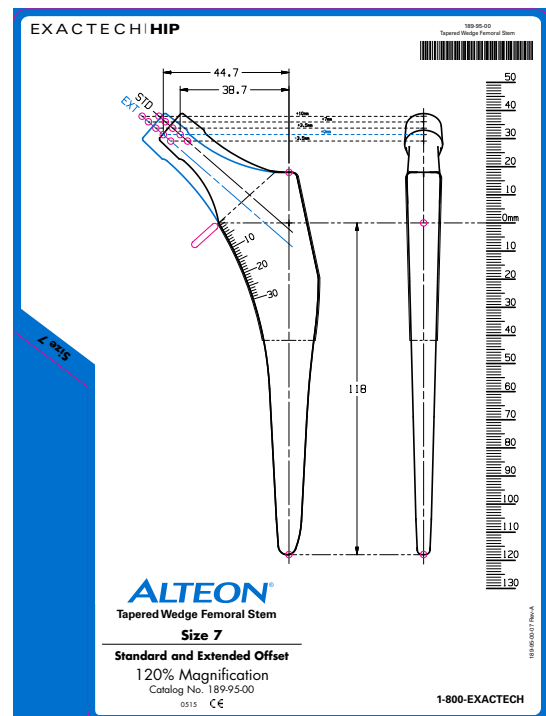


Figure 1

Alteon Tapered Wedge Stem Template

DETAILED OPERATIVE TECHNIQUE

APPROACH AND OSTEOTOMY



Figure 2
Osteotomy of the Femur



Figure 3
Opening of the Femoral Canal

APPROACH AND OSTEOTOMY

The surgical approach of choice is based upon the degree of surgical experience and preference. Align the **Osteotomy Guide** with the long axis of the femur and mark the level of the femoral osteotomy determined in the pre-operative templating exercise (*Figure 2*). Resect the femoral neck at this level in order to help re-establish the patient's limb length, lateral offset and center of rotation of the femoral head.

SURGICAL TIP

Resect the anterior osteophytes from the acetabulum before using the Osteotomy Guide. At this point the center of the femoral head can be viewed.

OPENING OF THE FEMORAL CANAL

Use a **Box Osteotome** to remove a wedge of cancellous bone, creating a portal for entry into the femoral canal (*Figure 3*). This Box Osteotome may aid in establishing an axial position for insertion of broaches. Additional **Canal Entry Tools*** can be used to gain access to the femoral canal.

SURGICAL TIP

The Modular Box Osteotome and Canal Entry Tools are assembled with the Modular Handle prior to use. Ensure these tools properly lock into the Modular Handle.

FEMORAL PREPARATION

Broach Assembly/Disassembly

Assemble the **Broach Handle** to the **Broach** by releasing the locking mechanism, mating the body of the Broach Handle to the superior aspect of the Broach and then engaging the locking mechanism. Ensure the proper respective broach is utilized based on the desire to implant either the Alteon Tapered Wedge or the Alteon Short Tapered Wedge Femoral Stem. Check for proper orientation and full engagement. Care should be taken to ensure that the assembly of the instruments is correct.

***Note:** The Canal Entry Tools are very sharp and should be handled with caution.

Broaching

Broach up progressively, beginning with the smallest size. Insert the Broach into the femoral canal with the desired amount of anteversion. Alternate impaction and withdrawal of the Broach as the final size is approached. While referencing the femoral neck resection which was determined by pre-operative templating, impact the Broach Handle until the Broach reaches an axially-stable position.



Figure 4
Femoral Preparation

SURGICAL TIP

Tapered Wedge users have found that sinking the Broach 3 to 4mm below the neck resection provides an indication the next size Broach will be appropriate for the femur.

Should the Broach reach an axially-stable position (no longer advances) less than 3mm below the femoral neck resection, the current size Broach has been shown to be the appropriate size for the femur. Release the Broach Handle from the Broach for trialing (Figure 4).

SURGICAL TIP

If resistance is encountered while preparing the desired stem size, drop down a broach size and rebroach. The Canal Entry Tools may also be used throughout the procedure to aid in positioning of the subsequent Broaches or the final implant.

Note: While broaching, limit the lateral bending forces applied. Excessive bending forces in the lateral direction may cause the broach post to fracture.

DETAILED OPERATIVE TECHNIQUE

CALCAR PREPARATION (OPTIONAL)



Figure 5
Calcar Preparation



Figure 6
Trial Reduction

CALCAR PREPARATION (OPTIONAL)

Calcar Planing can be performed, if desired, in order to remove any bone that protrudes above the level of the impacted Broach by guiding the **Calcar Planer** onto the guidance surface feature of the Broach (Figure 5).

SURGICAL TIP

The assembled Calcar Planer (Figure 5) is created by threading the Calcar Planer Shaft into the Calcar Planer Broach Post Adaptor which captures the Calcar Planer Blade. The assembly is tightened, or loosened, using the supplied Calcar Planer Wrench.

Note: While calcar planing, ensure that the calcar planer blade remains parallel to the face of the broach. Excessive bending forces applied to the calcar planer tip may cause it to fracture or wear.

Note: The Calcar planer should be used on power, and the planing blade should be under power before clearing the calcar bone from the femur.

TRIAL REDUCTION

Trial Component Insertion

Place the appropriate **Femoral Neck Trial** onto the guidance surface feature of the Broach. Be sure the correct size and offset (Standard or Extended) Neck Trial is chosen. Make sure when inserting the Neck Trial, the size and offset etch markings are facing laterally. Select an appropriate Femoral Head Trial and assemble for trial reduction (Figure 6).

DETAILED OPERATIVE TECHNIQUE

FINAL COMPONENT PLACEMENT



Figure 7
Final Component
Placement

Trial Component Removal

Decide final components for implantation. Dislocate the hip, and remove the trial components. Reassemble the Broach Handle to the Broach and remove.

SURGICAL TIP

The Broaches and Neck Trials include design features to ensure only the designated size Broach will mate with the corresponding Neck Trial.

FINAL COMPONENT PLACEMENT

Final Stem Insertion

Select the appropriate femoral stem and impact using the desired Stem Inserter ensuring correct rotational alignment, version and depth. Shorter stems, like the Alteon Short Tapered Wedge, may have a tendency to align in a varus/valgus orientation during insertion and care should be taken to ensure neutral alignment. If necessary, allow the bone to adapt to the implant as it is being impacted (*Figure 7*). Another trial reduction can be performed with the final femoral stem and Femoral Head Trial.

Femoral Head Impaction

For CoCr heads: Clean and dry the taper of the femoral stem. Place the selected femoral head component onto the taper of the femoral stem and secure it using the

Femoral Head Impactor. Apply one or several moderate strikes of the mallet on the Femoral Head Impactor in alignment with the head axis to affix the femoral head to the stem taper.

For Biolox®delta ceramic heads: Clean and dry the taper of the femoral stem. Confirm stem/head compatibility and confirm that the stem and head taper are free of damage. Fit the selected femoral head component onto the stem taper by exerting slight axial pressure on the head component while simultaneously twisting until fully seated. Place the polymer-faced Femoral Head Impactor on the pole of the femoral head and tap gently with a mallet in alignment with the head axis to secure the taper connection. Consult the Instructions for Use accompanying the ceramic femoral head for all installation instructions and warnings.

For Biolox®OPTION heads: After assuring the tapers are clean and dry, assemble the metal adapter and the femoral head per the instructions for use accompanying the Biolox®OPTION components. Clean and dry the taper of the femoral stem. Inspect the stem taper to determine its condition is undamaged or acceptable per the instructions for use accompanying the Biolox®OPTION components. Fit the selected femoral head component onto the stem taper by exerting slight axial pressure on the head component while simultaneously twisting until fully seated. Place the polymer-faced Femoral Head Impactor on the pole of the femoral head and tap gently with a mallet in alignment with the head axis to secure the taper connection. Consult the Instructions for Use accompanying the Biolox®OPTION component for all installation instructions and warnings.

SURGICAL TIP

The **Stem Inserters** and Femoral Head Impactor are assembled with the **Modular Handle** prior to use. Ensure these tools properly lock into the Modular Handle.

Final Reduction

Reduce the hip and perform a final check of leg length, range of motion and stability.

IMPLANT REMOVAL

If it is necessary to intraoperatively remove a prosthesis, the **Stem Extractor** may be assembled to the Broach Handle to facilitate removal.

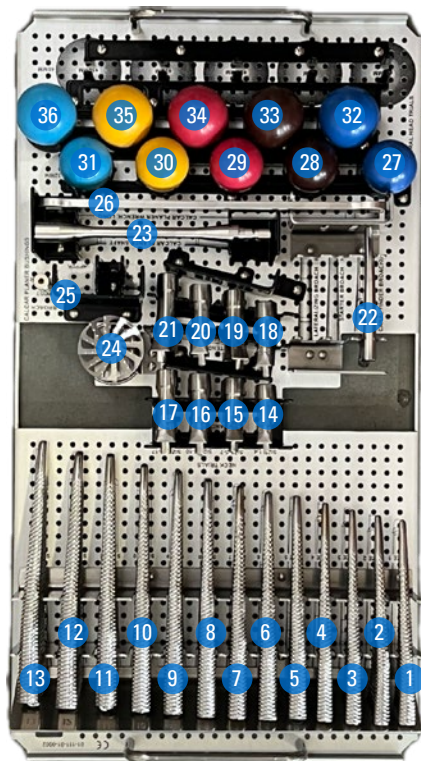
SURGICAL TIP

The **Anterior Extractor** must remain aligned with the mid-plane of the Femoral Stem so that it locks onto the neck flats. Should the Anterior Extractor disassociate from the neck of the Femoral Stem, confirm the Anterior Extractor is aligned with the mid-plane of the Femoral Stem.

CLOSURE

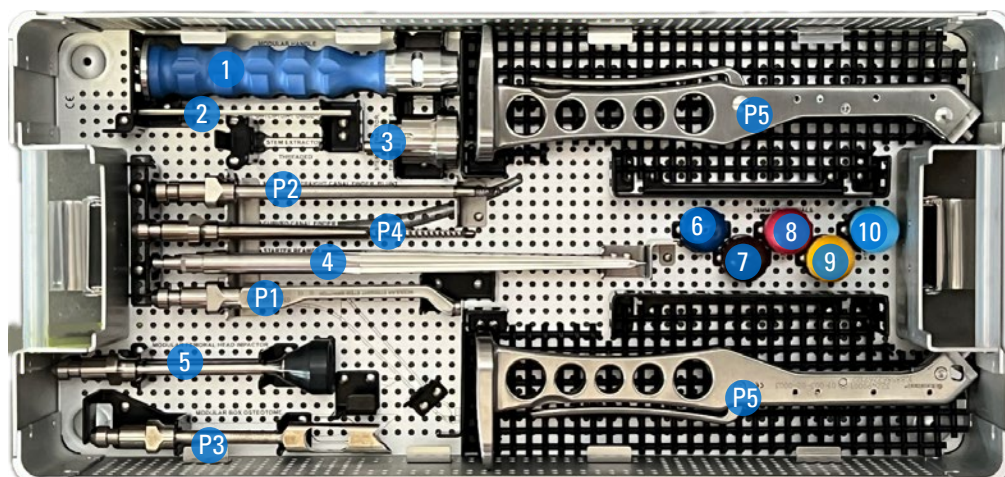
Close the wound according to the preferred method.

TRAY LAYOUT



KIT-1715TW EXACSETS ALTEON TAPERED WEDGE FEMORAL INSTRUMENTS (UPPER LEVEL TRAY)

| Site | Qty | Item | Item Description |
|------|-----|----------------|---|
| | 1 | 01-111-01-0002 | ExacSETS Hip Femoral Instrument Tray, Upper |
| 1 | 1 | 189-12-01 | Tapered Wedge Broach, Size 1 |
| 2 | 1 | 189-12-02 | Tapered Wedge Broach, Size 2 |
| 3 | 1 | 189-12-03 | Tapered Wedge Broach, Size 3 |
| 4 | 1 | 189-12-04 | Tapered Wedge Broach, Size 4 |
| 5 | 1 | 189-12-05 | Tapered Wedge Broach, Size 5 |
| 6 | 1 | 189-12-06 | Tapered Wedge Broach, Size 6 |
| 7 | 1 | 189-12-07 | Tapered Wedge Broach, Size 7 |
| 8 | 1 | 189-12-08 | Tapered Wedge Broach, Size 8 |
| 9 | 1 | 189-12-09 | Tapered Wedge Broach, Size 9 |
| 10 | 1 | 189-12-10 | Tapered Wedge Broach, Size 10 |
| 11 | 1 | 189-12-11 | Tapered Wedge Broach, Size 11 |
| 12 | 1 | 189-12-12 | Tapered Wedge Broach, Size 12 |
| 13 | 1 | 189-12-13 | Tapered Wedge Broach, Size 13 |
| 14 | 1 | 01-003-22-0104 | Alteon Neck Trial STD, Size 1-4 |
| 15 | 1 | 01-003-22-0507 | Alteon Neck Trial STD, Size 5-7 |
| 16 | 1 | 01-003-22-0810 | Alteon Neck Trial STD, Size 8-10 |
| 17 | 1 | 01-003-22-1117 | Alteon Neck Trial STD, Size 11-17 |
| 18 | 1 | 01-003-23-0104 | Alteon Neck Trial EXT, Size 1-4 |
| 19 | 1 | 01-003-23-0507 | Alteon Neck Trial EXT, Size 5-7 |
| 20 | 1 | 01-003-23-0810 | Alteon Neck Trial EXT, Size 8-10 |
| 21 | 1 | 01-003-23-1117 | Alteon Neck Trial EXT, Size 11-17 |
| 22 | 1 | 01-003-06-0006 | Canal Finder, Smooth Starter Broach |
| 23 | 1 | 01-003-04-0001 | Calcar Planer, Shaft |
| 24 | 1 | 01-003-04-0002 | Calcar Planer, 1.5" Blade |
| 25 | 1 | 01-003-04-0003 | Calcar Planer, Broach Post Adapter |
| 26 | 1 | 01-003-04-0007 | Calcar Planer Wrench, Long |
| 27 | 1 | 143-32-93 | Femoral Head Trial, 12/14 32 -3.5 |
| 28 | 1 | 143-32-00 | Femoral Head Trial, 12/14 32 +0 |
| 29 | 1 | 143-32-03 | Femoral Head Trial, 12/14 32 +3.5 |
| 30 | 1 | 143-32-07 | Femoral Head Trial, 12/14 32 +7 |
| 31 | 1 | 143-32-10 | Femoral Head Trial, 12/14 32 +10 |
| 32 | 1 | 143-36-93 | Femoral Head Trial, 12/14 36 -3.5 |
| 33 | 1 | 143-36-00 | Femoral Head Trial, 12/14 36 +0 |
| 34 | 1 | 143-36-03 | Femoral Head Trial, 12/14 36 +3.5 |
| 35 | 1 | 143-36-07 | Femoral Head Trial, 12/14 36 +7 |
| 36 | 1 | 143-36-10 | Femoral Head Trial, 12/14 36 +10 |


KIT-1715TW EXACSETS ALTEON TAPERED WEDGE FEMORAL INSTRUMENTS (LOWER LEVEL TRAY)

| Site | Qty | Item | Item Description |
|------|-----|----------------|---|
| | 1 | 01-111-01-0001 | ExacSETS Hip Femoral Instrument Tray, Lower |
| | 1 | 10-321-00-0001 | Instrument Tray Lid, Full Size |
| 1 | 1 | 01-001-00-0001 | Handle, Modular Generic |
| 2 | 1 | 189-00-00 | Wedge Osteotomy Guide |
| 3 | 1 | 01-003-10-0001 | Stem Extractor, Trunnion |
| 4 | 1 | 01-003-07-0001 | Starter Reamer |
| 5 | 1 | 01-001-03-0001 | Head Pusher, Modular Low Profile |
| 6 | 1 | 143-28-93 | Femoral Head Trial, 12/14 28 -3.5 |
| 7 | 1 | 143-28-00 | Femoral Head Trial, 12/14 28 +0 |
| 8 | 1 | 143-28-03 | Femoral Head Trial, 12/14 28 +3.5 |
| 9 | 1 | 143-28-07 | Femoral Head Trial, 12/14 28 +7 |
| 10 | 1 | 143-28-10 | Femoral Head Trial, 12/14 28 +10 |

OPT-1715P SHOWN

| Site | Qty | Item | Item Description |
|------|-----|----------------|--------------------------------------|
| P1 | 1 | 01-001-01-0001 | Stem Insertor, Modular Straight |
| P2 | 1 | 01-001-01-0003 | Stem Insertor, Modular Threaded |
| P3 | 1 | 01-001-05-0001 | Box Osteotome, Modular Straight |
| P4 | 1 | 01-001-06-0001 | Canal Finder, Modular Straight Blunt |

OPT-189P SHOWN


| Site | Qty | Item | Item Description |
|------|-----|----------------|-------------------------|
| P5 | 2 | 01-003-02-0003 | Broach Handle, Straight |

OPTIONAL KITS


OPT-1715A

| Qty | Item | Item Description |
|-----|----------------|-------------------------------|
| 1 | 01-001-01-0002 | Stem Inserter, Modular Offset |
| 1 | 01-001-05-0003 | Box Osteotome, Modular Offset |
| 1 | 01-003-06-0003 | Canal Finder, Curved Blunt |

OPT-189A

| Qty | Item | Item Description |
|-----|----------------|---|
| 2 | 01-003-02-0001 | Broach Handle, Curved - Single Offset  |

OPT-189DO

| Qty | Item | Item Description |
|-----|----------------|---|
| 1 | 01-003-02-0004 | Broach Handle, Dual Offset - Left  |
| 1 | 01-003-02-0005 | Broach Handle, Dual Offset - Right |

OPT-1489STWD

| Qty | Item | Item Description |
|-----|----------------|---|
| 1 | 01-101-01-0030 | Alteon Wedge Broach Instrument Tray - Half Size |
| 1 | 10-322-00-0001 | Instrument Tray Lid, Half Size |
| 1 | 189-13-01 | Short Tapered Wedge Diamond Broach, Size 1 |
| 1 | 189-13-02 | Short Tapered Wedge Diamond Broach, Size 2 |
| 1 | 189-13-03 | Short Tapered Wedge Diamond Broach, Size 3 |
| 1 | 189-13-04 | Short Tapered Wedge Diamond Broach, Size 4 |
| 1 | 189-13-05 | Short Tapered Wedge Diamond Broach, Size 5 |
| 1 | 189-13-06 | Short Tapered Wedge Diamond Broach, Size 6 |
| 1 | 189-13-07 | Short Tapered Wedge Diamond Broach, Size 7 |
| 1 | 189-13-08 | Short Tapered Wedge Diamond Broach, Size 8 |
| 1 | 189-13-09 | Short Tapered Wedge Diamond Broach, Size 9 |
| 1 | 189-13-10 | Short Tapered Wedge Diamond Broach, Size 10 |
| 1 | 189-13-11 | Short Tapered Wedge Diamond Broach, Size 11 |
| 1 | 189-13-12 | Short Tapered Wedge Diamond Broach, Size 12 |
| 1 | 189-13-13 | Short Tapered Wedge Diamond Broach, Size 13 |



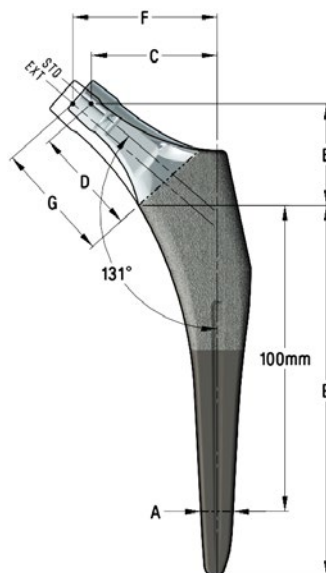
IMPLANT ORDERING INFORMATION

| Stem Size | Alteon Tapered Wedge | |
|-----------|----------------------|-----------------|
| | Standard Offset | Extended Offset |
| 1 | 188-00-01 | 188-01-01 |
| 2 | 188-00-02 | 188-01-02 |
| 3 | 188-00-03 | 188-01-03 |
| 4 | 188-00-04 | 188-01-04 |
| 5 | 188-00-05 | 188-01-05 |
| 6 | 188-00-06 | 188-01-06 |
| 7 | 188-00-07 | 188-01-07 |
| 8 | 188-00-08 | 188-01-08 |
| 9 | 188-00-09 | 188-01-09 |
| 10 | 188-00-10 | 188-01-10 |
| 11 | 188-00-11 | 188-01-11 |
| 12 | 188-00-12 | 188-01-12 |
| 13 | 188-00-13 | 188-01-13 |
| 14** | 188-00-14 | 188-01-14 |
| 15** | 188-00-15 | 188-01-15 |
| 16** | 188-00-16 | 188-01-16 |
| 17** | 188-00-17 | 188-01-17 |

| Stem Size | Short Tapered Wedge | |
|-----------|---------------------|-----------------|
| | Standard Offset | Extended Offset |
| 1 | 188-30-01 | 188-31-01 |
| 2 | 188-30-02 | 188-31-02 |
| 3 | 188-30-03 | 188-31-03 |
| 4 | 188-30-04 | 188-31-04 |
| 5 | 188-30-05 | 188-31-05 |
| 6 | 188-30-06 | 188-31-06 |
| 7 | 188-30-07 | 188-31-07 |
| 8 | 188-30-08 | 188-31-08 |
| 9 | 188-30-09 | 188-31-09 |
| 10 | 188-30-10 | 188-31-10 |
| 11 | 188-30-11 | 188-31-11 |
| 12 | 188-30-12 | 188-31-12 |
| 13 | 188-30-13 | 188-31-13 |
| 14** | 188-30-14 | 188-31-14 |
| 15** | 188-30-15 | 188-31-15 |
| 16** | 188-30-16 | 188-31-16 |
| 17** | 188-30-17 | 188-31-17 |

***These implants are not included in standard offering.*

SYSTEM SPECIFICATIONS

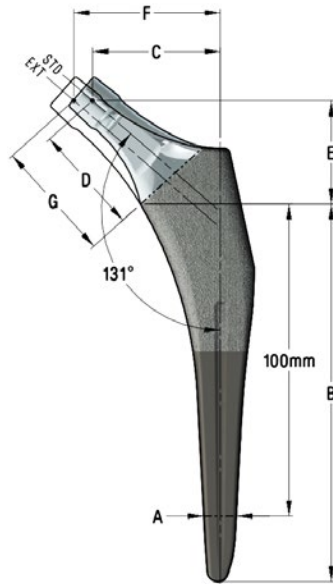


STANDARD OFFSET

| Size | A | B | | C | | | | | D | | | | | E | | | | |
|------|--------------------|---------------------|---------------------------|---|------|------|------|------|--|------|------|------|------|--|------|------|------|------|
| | M to L width | Stem Length (mm) | | Lateral Offset with the following head lengths (mm) | | | | | Neck Length with the following head lengths (mm) | | | | | Vertical Offset with the following head lengths (mm) | | | | |
| | | Tapered Wedge | Short Tapered Wedge | -3.5 | 0 | 3.5 | 7 | 10 | -3.5 | 0 | 3.5 | 7 | 10 | -3.5 | 0 | 3.5 | 7 | 10 |
| 1 | 4.5* | 100 | 74 | 31.4 | 34.1 | 36.7 | 39.4 | 41.6 | 26.5 | 30.0 | 33.5 | 36.9 | 39.9 | 27.2 | 29.5 | 31.8 | 34.1 | 36.1 |
| 2 | 5.25* | 103 | 75 | 31.9 | 34.6 | 37.2 | 39.9 | 42.1 | | | | | | | | | | |
| 3 | 6.0* | 106 | 76 | 32.4 | 35.1 | 37.7 | 40.4 | 42.6 | | | | | | | | | | |
| 4 | 6.75* | 109 | 77 | 32.9 | 35.6 | 38.2 | 40.9 | 43.1 | | | | | | | | | | |
| 5 | 7.5 | 112 | 79 | 35.1 | 37.7 | 40.3 | 43.0 | 45.2 | 29.0 | 32.5 | 36.0 | 39.4 | 42.4 | 29.1 | 31.4 | 33.7 | 36.0 | 38.0 |
| 6 | 8.5 | 115 | 81 | 35.6 | 38.2 | 40.8 | 43.5 | 45.7 | | | | | | | | | | |
| 7 | 9.5 | 118 | 83 | 36.1 | 38.7 | 41.3 | 44.0 | 46.2 | | | | | | | | | | |
| 8 | 10.5 | 121 | 86 | 38.3 | 40.9 | 43.6 | 46.2 | 48.5 | 31.5 | 35.0 | 38.5 | 41.9 | 44.9 | 30.9 | 33.2 | 35.5 | 37.8 | 39.8 |
| 9 | 11.5 | 124 | 89 | 38.8 | 41.4 | 44.1 | 46.7 | 49.0 | | | | | | | | | | |
| 10 | 12.5 | 127 | 92 | 39.4 | 42.0 | 44.7 | 47.3 | 49.6 | | | | | | | | | | |
| 11 | 13.5 | 130 | 95 | 41.9 | 44.6 | 47.2 | 49.9 | 52.1 | 34.0 | 37.5 | 41.0 | 44.4 | 47.4 | 32.7 | 35.0 | 37.3 | 39.6 | 41.6 |
| 12 | 14.75 | 133 | 98 | 42.7 | 45.4 | 48.0 | 50.7 | 52.9 | | | | | | | | | | |
| 13 | 16.0 | 136 | 101 | 43.7 | 46.4 | 49.0 | 51.7 | 53.9 | | | | | | | | | | |
| 14** | 17.25 | 139 | 104 | 44.7 | 47.4 | 50.0 | 52.7 | 54.9 | | | | | | | | | | |
| 15** | 18.5 | 142 | 107 | 45.7 | 48.4 | 51.0 | 53.7 | 55.9 | | | | | | | | | | |
| 16** | 19.75 | 145 | 110 | 46.7 | 49.4 | 52.0 | 54.7 | 56.9 | | | | | | | | | | |
| 17** | 21.0 | 148 | 113 | 47.7 | 50.4 | 53.0 | 55.7 | 57.9 | | | | | | | | | | |

*Measured diameter vs M/L width due to lateral relief.

**These implants are not included in standard offering.



EXTENDED OFFSET

| Size | A | B | | C | | | | | D | | | | | E | | | | |
|------|--------------|------------------|---------------------|---|------|------|------|------|--|------|------|------|------|--|------|------|------|------|
| | M to L width | Stem Length (mm) | | Lateral Offset with the following head lengths (mm) | | | | | Neck Length with the following head lengths (mm) | | | | | Vertical Offset with the following head lengths (mm) | | | | |
| | | Tapered Wedge | Short Tapered Wedge | -3.5 | 0 | 3.5 | 7 | 10 | -3.5 | 0 | 3.5 | 7 | 10 | -3.5 | 0 | 3.5 | 7 | 10 |
| 1 | 4.5* | 100 | 74 | 37.5 | 40.1 | 42.7 | 45.4 | 47.6 | 30.6 | 34.0 | 37.5 | 41.0 | 44.0 | 27.2 | 29.5 | 31.8 | 34.1 | 36.1 |
| 2 | 5.25* | 103 | 75 | 38.0 | 40.6 | 43.2 | 45.9 | 48.1 | | | | | | | | | | |
| 3 | 6.0* | 106 | 76 | 38.5 | 41.1 | 43.7 | 46.4 | 48.6 | | | | | | | | | | |
| 4 | 6.75* | 109 | 77 | 39.0 | 41.6 | 44.2 | 46.9 | 49.1 | | | | | | | | | | |
| 5 | 7.5 | 112 | 79 | 41.1 | 43.7 | 46.3 | 49.0 | 51.2 | 33.0 | 36.5 | 40.0 | 43.5 | 46.4 | 29.1 | 31.4 | 33.7 | 36.0 | 38.0 |
| 6 | 8.5 | 115 | 81 | 41.6 | 44.2 | 46.8 | 49.5 | 51.7 | | | | | | | | | | |
| 7 | 9.5 | 118 | 83 | 42.1 | 44.7 | 47.3 | 50.0 | 52.2 | | | | | | | | | | |
| 8 | 10.5 | 121 | 86 | 44.3 | 46.9 | 49.5 | 52.2 | 54.4 | 35.5 | 39.0 | 42.5 | 45.9 | 48.9 | 30.9 | 33.2 | 35.5 | 37.8 | 39.8 |
| 9 | 11.5 | 124 | 89 | 44.8 | 47.4 | 50.0 | 52.7 | 54.9 | | | | | | | | | | |
| 10 | 12.5 | 127 | 92 | 45.4 | 48.0 | 50.6 | 53.3 | 55.5 | | | | | | | | | | |
| 11 | 13.5 | 130 | 95 | 48.0 | 50.6 | 53.2 | 55.9 | 58.1 | 38.1 | 41.5 | 45.0 | 48.5 | 51.5 | 32.7 | 35.0 | 37.3 | 39.6 | 41.6 |
| 12 | 14.75 | 133 | 98 | 48.8 | 51.4 | 54.0 | 56.7 | 58.9 | | | | | | | | | | |
| 13 | 16.0 | 136 | 101 | 49.8 | 52.4 | 55.0 | 57.7 | 59.9 | | | | | | | | | | |
| 14** | 17.25 | 139 | 104 | 50.8 | 53.4 | 56.0 | 58.7 | 60.9 | | | | | | | | | | |
| 15** | 18.5 | 142 | 107 | 51.8 | 54.4 | 57.0 | 59.7 | 61.9 | | | | | | | | | | |
| 16** | 19.75 | 145 | 110 | 52.8 | 55.4 | 58.0 | 60.7 | 62.9 | | | | | | | | | | |
| 17** | 21.0 | 148 | 113 | 53.8 | 56.4 | 59.0 | 61.7 | 63.9 | | | | | | | | | | |

*Measured diameter vs M/L width due to lateral relief.

**These implants are not included in standard offering.

OPTIONAL INSTRUMENTS

| ITEM | ITEM DESCRIPTION |
|----------------|---|
| 143-22-00 | Femoral Head Trial, 12/14 22 +0 |
| 143-22-03 | Femoral Head Trial, 12/14 22 +3.5 |
| 143-22-07 | Femoral Head Trial, 12/14 22 +7 |
| 143-22-10 | Femoral Head Trial, 12/14 22 +10 |
| 143-40-93 | Femoral Head Trial, 12/14 40 -3.5 |
| 143-40-00 | Femoral Head Trial, 12/14 40 +0 |
| 143-40-03 | Femoral Head Trial, 12/14 40 +3.5 |
| 143-40-07 | Femoral Head Trial, 12/14 40 +7 |
| 143-40-10 | Femoral Head Trial, 12/14 40 +10 |
| 4251-4080*** | Exactech Straight Anterior Broach Handle |
| 01-003-06-0007 | Canal Finder, Lateralizing Starter Broach |
| 01-003-06-0008 | Canal Finder, Toothed Starter Broach |
| 01-003-10-0002 | Stem Extractor, Threaded |



*** This instrument is not included in the Exactech Kits but can be ordered and shipped separately, which includes its own IFU and reprocessing instructions.

| ITEM | ITEM DESCRIPTION |
|-----------|--|
| 189-12-14 | Tapered Wedge Broach, Size 14 |
| 189-12-15 | Tapered Wedge Broach, Size 15 |
| 189-12-16 | Tapered Wedge Broach, Size 16 |
| 189-12-17 | Tapered Wedge Broach, Size 17 |
| 189-02-01 | Tapered Wedge Chip Breaker Broach, Size 1 |
| 189-02-02 | Tapered Wedge Chip Breaker Broach, Size 2 |
| 189-02-03 | Tapered Wedge Chip Breaker Broach, Size 3 |
| 189-02-04 | Tapered Wedge Chip Breaker Broach, Size 4 |
| 189-02-05 | Tapered Wedge Chip Breaker Broach, Size 5 |
| 189-02-06 | Tapered Wedge Chip Breaker Broach, Size 6 |
| 189-02-07 | Tapered Wedge Chip Breaker Broach, Size 7 |
| 189-02-08 | Tapered Wedge Chip Breaker Broach, Size 8 |
| 189-02-09 | Tapered Wedge Chip Breaker Broach, Size 9 |
| 189-02-10 | Tapered Wedge Chip Breaker Broach, Size 10 |
| 189-02-11 | Tapered Wedge Chip Breaker Broach, Size 11 |
| 189-02-12 | Tapered Wedge Chip Breaker Broach, Size 12 |
| 189-02-13 | Tapered Wedge Chip Breaker Broach, Size 13 |
| 189-02-14 | Tapered Wedge Chip Breaker Broach, Size 14 |
| 189-02-15 | Tapered Wedge Chip Breaker Broach, Size 15 |
| 189-02-16 | Tapered Wedge Chip Breaker Broach, Size 16 |
| 189-02-17 | Tapered Wedge Chip Breaker Broach, Size 17 |
| 189-13-14 | Short Tapered Wedge Diamond Broach, Size 14 |
| 189-13-15 | Short Tapered Wedge Diamond Broach, Size 15 |
| 189-13-16 | Short Tapered Wedge Diamond Broach, Size 16 |
| 189-13-17 | Short Tapered Wedge Diamond Broach, Size 17 |
| 189-03-01 | Short Tapered Wedge Chip Breaker Broach, Size 1 |
| 189-03-02 | Short Tapered Wedge Chip Breaker Broach, Size 2 |
| 189-03-03 | Short Tapered Wedge Chip Breaker Broach, Size 3 |
| 189-03-04 | Short Tapered Wedge Chip Breaker Broach, Size 4 |
| 189-03-05 | Short Tapered Wedge Chip Breaker Broach, Size 5 |
| 189-03-06 | Short Tapered Wedge Chip Breaker Broach, Size 6 |
| 189-03-07 | Short Tapered Wedge Chip Breaker Broach, Size 7 |
| 189-03-08 | Short Tapered Wedge Chip Breaker Broach, Size 8 |
| 189-03-09 | Short Tapered Wedge Chip Breaker Broach, Size 9 |
| 189-03-10 | Short Tapered Wedge Chip Breaker Broach, Size 10 |
| 189-03-11 | Short Tapered Wedge Chip Breaker Broach, Size 11 |
| 189-03-12 | Short Tapered Wedge Chip Breaker Broach, Size 12 |
| 189-03-13 | Short Tapered Wedge Chip Breaker Broach, Size 13 |

Exactech, Inc. is proud to have offices and distributors around the globe. For more information about Exactech products available in your country, please visit www.exac.com

For additional device information, refer to the Exactech Hip System—Instructions for Use for a device description, indications, contraindications, precautions and warnings. For further product information, please contact Customer Service, Exactech, Inc., 2320 NW 66th Court, Gainesville, Florida 32653-1630, USA. (352) 377-1140, (800) 392-2832 or FAX (352) 378-2617.

Exactech, as the manufacturer of this device, does not practice medicine, and is not responsible for recommending the appropriate surgical technique for use on a particular patient. These guidelines are intended to be solely informational and each surgeon must evaluate the appropriateness of these guidelines based on his or her personal medical training and experience. Prior to use of this system, the surgeon should refer to the product package insert for comprehensive warnings, precautions, indications for use, contraindications and adverse effects.

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