



# C-STEM<sup>®</sup> AMT

Surgical Technique





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# Pre-operative Planning

## X-ray Templating

Make a thorough radiographic examination of the contralateral side, using both A/P and M/L projections, taking into consideration any anatomical anomalies, dysplasia or previous osteotomy. The radiographs should be at 20% magnification and the hips internally rotated to 15°. They should clearly demonstrate the acetabular configuration, the endosteal and the periosteal contours of the femoral head, neck and proximal femur.

### Templating Femoral Implant Size

The C-STEM AMT implant system offers a complete range of femoral templates. When the approximate size template is selected, overlay the outline above an A/P radiograph of the femur with the implant's centre line in line with the long axis of the femur. Position the template so that the centre of the central depth marking is level with the proposed neck resection and the cement mantle outline fills the proximal femoral canal. With the template positioned accurately, the centre of rotation of the head should overlay the centre of the femoral head (Figure 1).

If the patient has a higher than normal offset, consider the equivalent size high offset template. With C-STEM AMT this distance is increased by either 6 mm or 8 mm depending on size. The high offset option can also be used during revision surgery to optimise abductor tension.

### Limb Length Adjustment

Raise or lower the implant outline along the long axis of the femur to increase or decrease leg length, without adjusting the offset. Use the middle slot or hole in the template to mark the neck resection level.

### Sizing of the Cement Restrictor

Leave 20 mm space from the distal tip of the selected stem template when estimating the approximate diameter of the cement restrictor.

Centraliser sizing: see page 10.

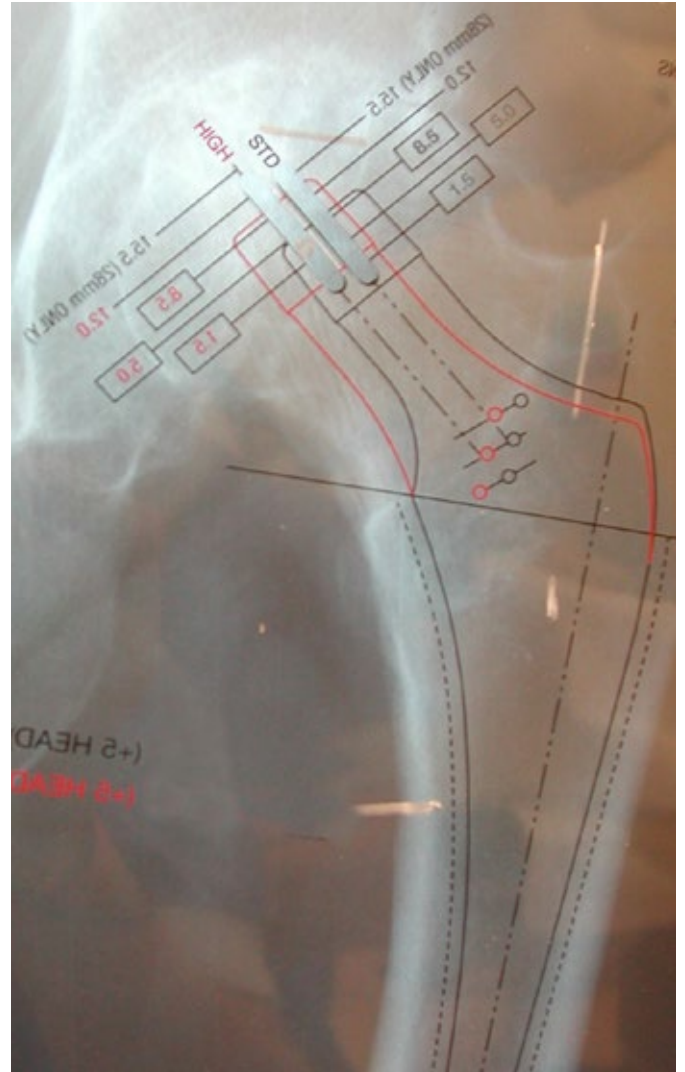


Figure 1.

# STEP 1

## Femoral Neck Resection

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Figure 2

Once the femoral head is exposed, align the neck resection guide against the long axis of the femur.\* Determine the resection level by aligning the top of the guide with the tip of the greater trochanter (Figure 2) or by referencing a measured resection level above the lesser trochanter, or from the superomedial aspect of the femoral head along the axis of the femoral neck as determined during templating.

\* Please note that the size 00 stem has a CCD angle of 125° (a resection angle of 55°). The rest of the C-STEM AMT size range have a CCD angle of 130° (a resection angle of 50°)

Confirm the resection level with the pre-operatively templated plan. Mark the resection line using diathermy. Resect the femoral head. The collarless stem enables proximal and distal adjustment regardless of neck resection level; however, orientation of the cut should be perpendicular to the neck axis in both planes in order to avoid impingement of the medial stem against the medial neck.

## STEP 2

# Opening the Femoral Canal

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Figure 3

### Clearing the Anatomical Calcar

In order to achieve an optimal cement mantle, clear the anatomical calcar (the cortical condensation overlying the endosteal entry into the lesser trochanter) using an osteotome or curette. Avoid excavating the lesser trochanter (Figures 3, 4).



Figure 4

### Femoral Alignment

Attach the Canal Probe to the T-Handle. Introduce the probe into the femoral canal, maintaining neutral orientation.

The C-STEM AMT Hip System is designed as a broach-only system, to maximise the strength of the bone / cement interface.

**Note:** C-STEM Canal reamers are available for surgeons who prefer to ream the intramedullary canal (see page 15).

# STEP 3

## Metaphyseal Preparation

### Femoral Broaching

Attach a broach – two sizes smaller than the size determined during pre-operative templating – to the broach handle. Carefully impact the broach down the long axis of the canal in neutral orientation. **Diamond tooth broaches should not be introduced aggressively.** When using the posterolateral approach, incorporate 5-15° of anteversion (Figure 5).

**Note:** The final broach should confirm the size templated pre-operatively and determine the final implant size. The C-STEM AMT broach system was designed to incorporate a circumferential 2 mm cement mantle. The 2 mm cement mantle does not include the additional cement mantle created by cement interdigitation into the cancellous bone structure.

**Note:** There is no starter broach so with size 00 and size 1 templated stems you should begin with that matching size.

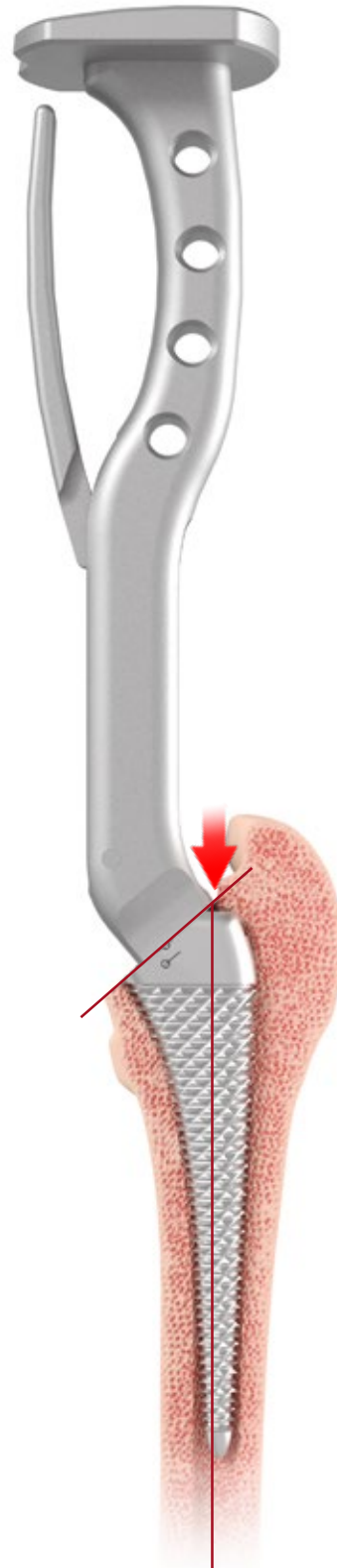


Figure 5

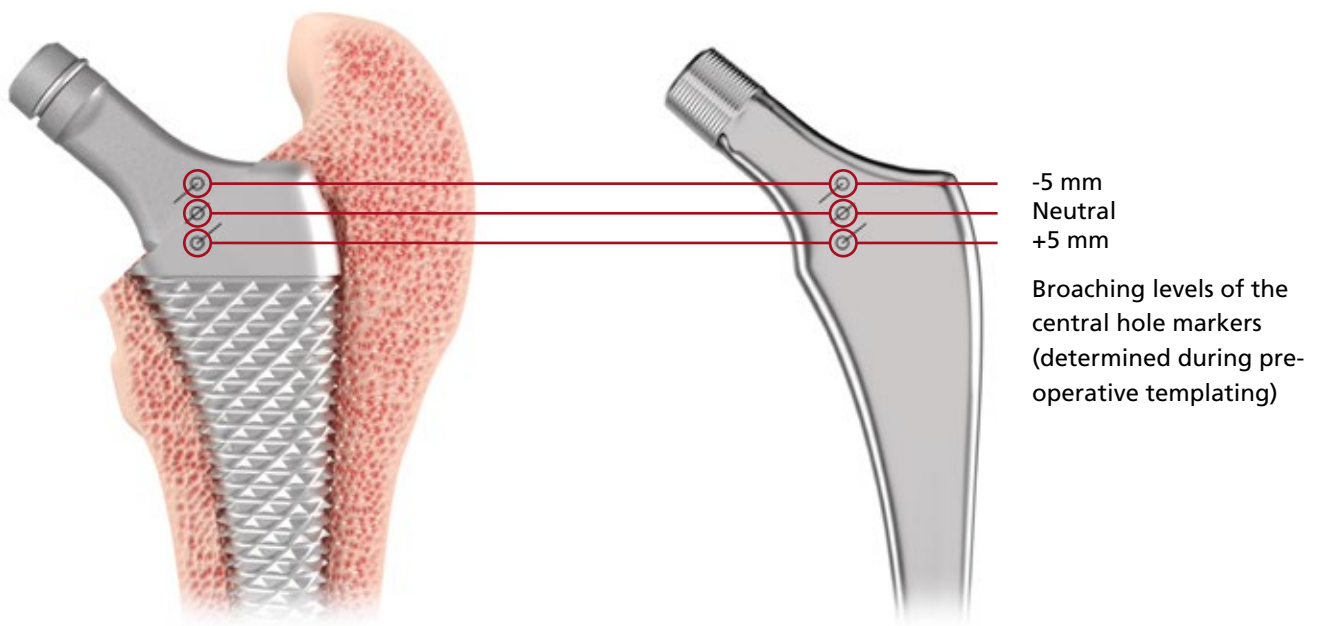


Figure 6

Ensure that any remaining superolateral femoral neck is cleared to avoid varus stem placement. If required, release a small portion of the gluteus medius to facilitate exposure and trim any overhanging trochanter. Sequentially increase the size of the broach until the final broach is fully seated in the femur with the upper surface of the broach level with the neck resection level, or at the level determined during pre-operative templating (Figure 6).

If the final seating position does not match the pre-operatively templated position, you can seat the broach further into the bone using the -5mm and +5mm markers.



## STEP 4

### Calcar Planing (Optional)

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Figure 7

Since the C-STEM AMT Stem is a collarless stem, it can be positioned proximally or distally to the neck cut. Therefore, calcar planing is not mandatory; however, it is advisable in order to facilitate seating the actual prosthesis to the same level as the broach. Position the centre hole of the planer over the broach trunnion and plane the bone until it is level with the proximal surface of the broach (Figure 7).

**Calcar planing SHOULD NOT be used with the size 00 broach as the size 00 Stem has a CCD angle of 125° (other C-STEM AMT stems have a CCD angle of 130°).**

# STEP 5

## Trial Reduction

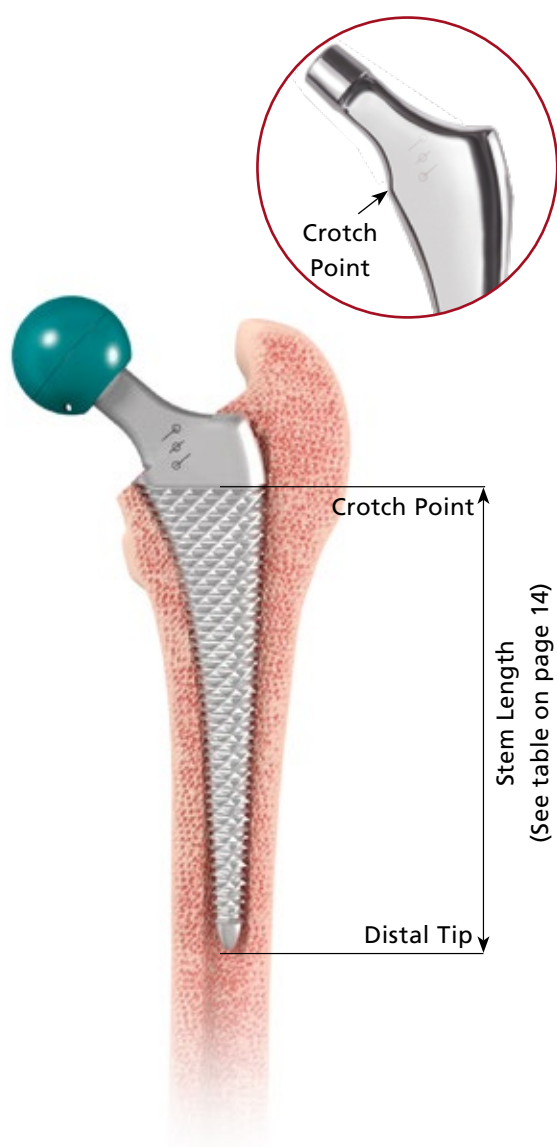


Figure 8

### Femoral Neck Trial Assembly

Attach the appropriate neck segment to the broach. Multiple trial heads are available to help with proper restoration of hip biomechanics (22.225 mm, 26 mm, 28 mm, 32 mm, 36 mm heads). The C-STEM AMT Stem offers dual (i.e. standard and high) offsets in many of its sizes, the rule of thumb being that offsets in sizes 1-3 are 6 mm more in the HO option, and that offsets in sizes 4-8 are 8 mm more in the HO option.

If the femoral neck resection level is correct for proper leg length restoration, but there is still inadequate soft tissue abductor muscle tension, consider a high offset neck segment.

Use a combination of neck segment and trial head sizes to restore joint stability with an adequate range of motion. To assess stability for each combination, check external rotation in extension to rule out anterior dislocation. Also perform a posterior dislocation test, bringing the hip up to 90° of flexion with internal rotation. Once adequate stability is achieved, note the neck segment (standard or high) and the trial head chosen (Figure 8).

### Broach Removal

Remove the broach using the broach handle. Clean the canal, to remove loose cancellous bone, using a curette.

# STEP 6

## Cement Restriction

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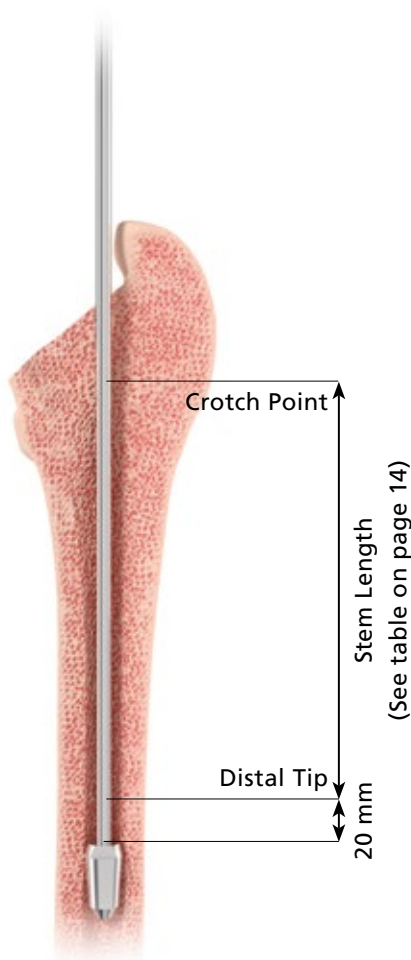


Figure 9



Figure 10

### Inserting the Cement Restrictor

Use pulsatile lavage to clear the femoral canal of debris and open the interstices of the bone.

Use the stem restrictor trial based on the size determined from pre-operative templating to establish the correct size (Figure 9). Attach the correct size of trial cement restrictor to the cement restrictor inserter and insert the trial to the planned depth (see table on page 14). Check that it is firmly seated in the canal. Remove the trial and replace it with the corresponding restrictor implant. Insert the PE cement restrictor implant at the same level as the restrictor trial (Figures 9, 10).

Irrigate the canal using pulsatile lavage with saline solution, ensuring that all debris is removed.

Pass a swab down the femoral canal to help dry and remove any remaining debris. The swab may also be pre-soaked in an epinephrine or hydrogen peroxide solution.

# STEP 7

## Centralisers and End Caps



Figure 11

Attaching the Void Centraliser.

Using the canal sizer trials, select the C-STEM Void Centraliser that corresponds to the diameter of the femoral canal (C-STEM Void Centralisers increase in 2 mm increments from 10 - 20 mm).

After selecting the right size of centraliser, slide it firmly over the distal tip of the stem and push the end over the tip of the stem, observing the correct orientation of one of the fins with the lateral edge. (Figure 11).

**Note:** Ensure that one of the fins is aligned with the lateral edge of the stem.

**Note:** The void centraliser should not be used if the smallest diameter of the femoral canal is less than 10 mm at the level of the stem tip. An end cap should be used with a C-STEM Centraliser code 961226000.

Select the void centraliser size that corresponds to the size of the PE cement restrictor:

### PE Cement Restrictors

Code	Description
546010000	PE Cement Restrictor Size 1
546012000	PE Cement Restrictor Size 2
546014000	PE Cement Restrictor Size 3
546016000	PE Cement Restrictor Size 4
546018000	PE Cement Restrictor Size 5
546020000	PE Cement Restrictor Size 6
546022000	PE Cement Restrictor Size 7

### End Caps and Void Centralisers

Code	Description
961226000	PMMA End Cap
961246000	C-STEM Centraliser
961210500	PMMA Void Centraliser Size 10
961212500	PMMA Void Centraliser Size 12
961214500	PMMA Void Centraliser Size 14
961216500	PMMA Void Centraliser Size 16
961218500	PMMA Void Centraliser Size 18
961220500	PMMA Void Centraliser Size 20

## STEP 8

# Cementing Technique

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Figure 12

Mix the bone cement using an appropriate mixing system and fill into a delivery syringe. Attach the syringe to the gun. Assess the viscosity of the cement. The cement is ready for insertion when it has taken on a dull, doughy appearance and does not adhere to the surgeon's glove. Start at the distal part of the femoral canal and inject the cement in a retrograde fashion, allowing the cement to push the nozzle gently back, until the canal is completely filled and the distal tip of the nozzle is clear of the canal (Figure 12).

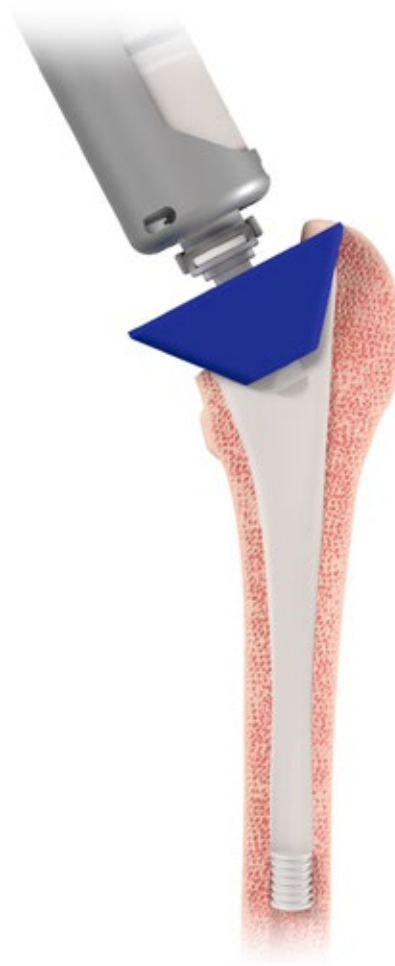


Figure 13

Cut the nozzle and place a femoral pressuriser over the end. The cement should be pressurised to allow good interdigitation of the cement into the trabecular bone. Continually inject cement during the period of pressurisation (Figure 13). Use the Femoral Prep Kit curettes to remove excess bone cement. Implant insertion can begin when the cement can be pressed together without sticking to itself.

# STEP 9

## Femoral Stem Implantation



Figure 14

To assemble the introducer to the stem, compress the lever and carefully locate the two forks behind the taper on the neck of the implant. Then insert the prong into the dimple on the lateral shoulder of the implant then gently release the lever. The stem should now be securely attached to the introducer. **DO NOT IMPACT THE INTRODUCER.**

Introduce the implant in line with the long axis of the femur. Its entry point should be lateral, close to the greater trochanter. During stem insertion maintain thumb pressure on the cement at the medial femoral neck ensuring the stem is in the middle of the prepared cavity (Figure 14).

In terms of implantation depth, the stem is “neutrally” seated when the middle marking on the stem is level with the neck resection (Figure 15). The additional lines allow the implant to be raised or lowered; to increase or decrease leg length without adjusting the offset.

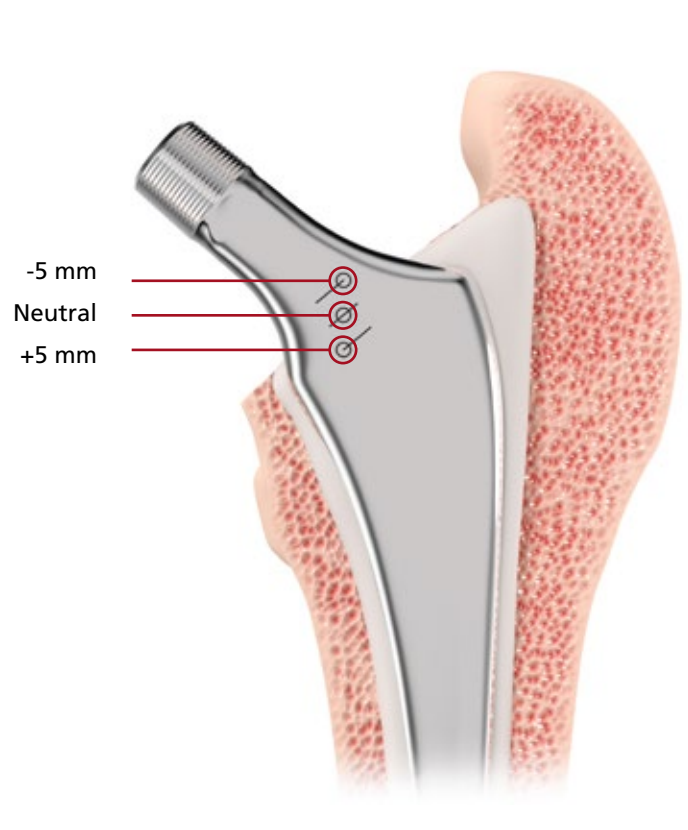


Figure 15

**Note:** The neutral seating level for the size 00 stem aligns to the broach resection level at the medial crotch.

Raising or lowering the stem with respect to the neck resection will increase or decrease the proximo-medial cement mantle thickness respectively. Remove excess cement with a curette. Maintain the position of the stem until the cement has completely polymerized.

To remove the alternative introducer (2522-00-503) from the stem, compress the lever slightly whilst gently pulling the instrument away from the implant taking care not to disturb the cement whilst it is curing.

**Note:** Due to the larger cross sectional area of the alternative introducer (2522-00-503) (Figure 16) there is an increased risk of soft tissue impingement. In cases where there is concern that the alternative introducer may impinge with soft tissue it is recommended that the original stem introducer (2522-00-502) is used.

## STEP 10

# Femoral Head Impaction



Figure 16

**Tip:** As well as the retained inserter there is also a straight, non-retaining introducer and a curved, non-retaining introducer.

Once the cement has completely set, place the trial head on the implant and perform a final trial reduction (Figure 16). Remove the trial head then irrigate, thoroughly clean and dry the taper, to remove any fluid or particulate debris.

Twist and push the definitive head onto the taper using the head taper, then impact firmly with head impactor. Reduce the hip to carry out a final assessment of joint mechanics and stability (Figure 17).

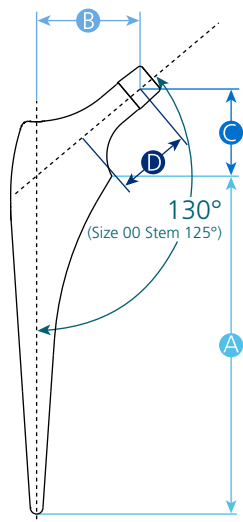


Figure 17

### Closure

Closure is based on the surgeon's preference and the individual case. The repair should be tested throughout the hip range of motion.

# Technical Specifications



## Cement Restrictor

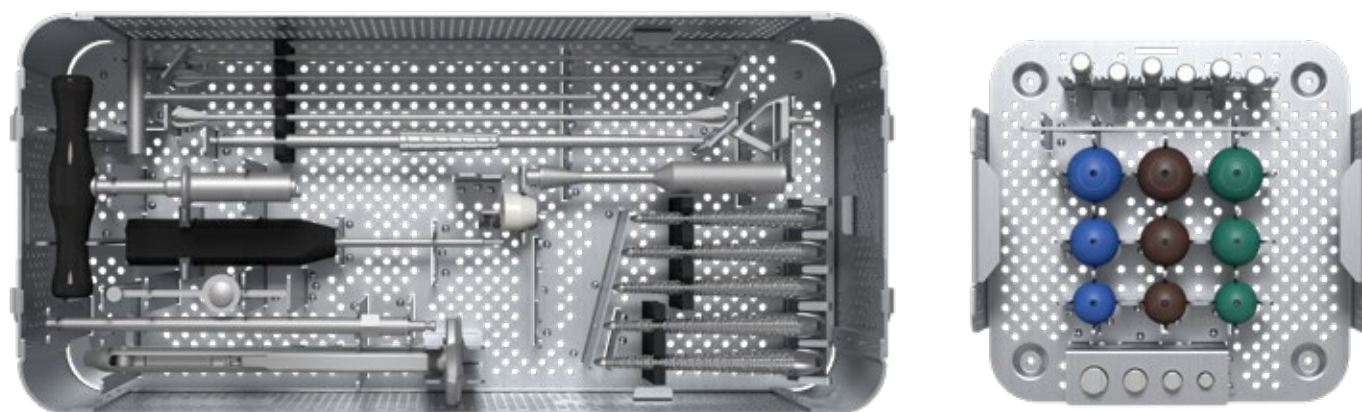


Ideally, the cement restrictor should be positioned 20 mm distal to stem tip (see column A below).

Size	A = Stem Length (mm)	B = Offset with head (mm)					C = Leg Adjustment Length with head (mm)					D = Neck Length with head (mm)				
		-2	+1.5	+5	+8.5	+12	-2	+1.5	+5	+8.5	+12	-2	+1.5	+5	+8.5	+12
00	103	20.5	23	26	29	31.5	17	19	21	23	25	18.5	22	25.5	29	32.5
1A	103.5	24.5	27.5	30	32.5	35.5	18.5	21	23	25.5	27.5	19.5	23	26.5	30	33.5
2A	106.5	26.5	29.5	32	34.5	37.5	21	23.5	25.5	28	30	23	26.5	30	33.5	37
3A	110.5	29.5	32.5	35	37.5	40.5	22.5	24.5	27	29	31.5	24.5	28	31.5	35	38.5
1 Standard	106	30.5	33	35.5	38.5	41	22	24	26.5	28.5	31	23.5	27	30.5	34	37.5
1 HO	106	36.5	39	41.5	44.5	47	22	24	26.5	28.5	31	27.5	31	34.5	38	41.5
2 Standard	110.5	32.5	35	37.5	40.5	43	23.5	26	28	30.5	32.5	25	28.5	32	35.5	39
2 HO	110.5	38.5	41	43.5	46.5	49	23.5	26	28	30.5	32.5	29	32.5	36	39.5	43
3 Standard	115	32.5	35	37.5	40.5	43	25	27.5	29.5	32	34	25	28.5	32	35.5	39
3 HO	115	38.5	41	43.5	46.5	49	25	27.5	29.5	32	34	29	32.5	36	39.5	43
4 Standard	119.5	34.5	37	39.5	42.5	45	27.5	29.5	32	34	36.5	27	30.5	34	37.5	41
4 HO	119.5	42.5	45	47.5	50.5	53	27.5	29.5	32	34	36.5	32.5	36	39.5	43	46.5
5 Standard	124	34.5	37	39.5	42.5	45	28.5	31	33	35.5	37.5	27	30.5	34	37.5	41
5 HO	124	42.5	45	47.5	50.5	53	28.5	31	33	35.5	37.5	32.5	36	39.5	43	46.5
6 Standard	128.5	36.5	39	41.5	44.5	47	30.5	33	35	37.5	39.5	29	32.5	36	39.5	43
6 HO	128.5	44.5	47	49.5	52.5	55	30.5	33	35	37.5	39.5	34	37.5	41	44.5	48
7 Standard	133	36.5	39	41.5	44.5	47	31.5	34	36	38.5	40.5	29	32.5	36	39.5	43
7 HO	133	44.5	47	49.5	52.5	55	31.5	34	36	38.5	40.5	34	37.5	41	44.5	48
8 Standard	137.5	38.5	41	43.5	46.5	49	33.5	35.5	38	40	42.5	31	34.5	38	41.5	45
8 HO	137.5	46.5	49	51.5	54.5	57	33.5	35.5	38	40	42.5	36	39.5	43	46.5	50
2 Long Std	144.5	32.5	35	37.5	40.5	43	23.5	26	28	30.5	32.5	25	28.5	32	35.5	39
2 Long HO	144.5	38.5	41	43.5	46.5	49	23.5	26	28	30.5	32.5	29	32.5	36	39.5	43
3 Long Std	148.5	32.5	35	37.5	40.5	43	25	27.5	29.5	32	34	25	28.5	32	35.5	39
3 Long HO	148.5	38.5	41	43.5	46.5	49	25	27.5	29.5	32	34	29	32.5	36	39.5	43
3 XL205	175.5	32.5	35	37.5	40.5	43	25	27.5	29.5	32	34	25	28.5	32	35.5	39
3 XL240	210.5	32.5	35	37.5	40.5	43	25	27.5	29.5	32	34	25	28.5	32	35.5	39



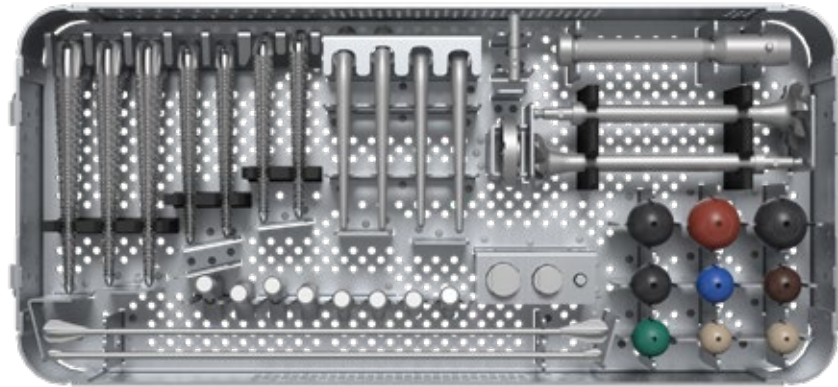
# Ordering Information



## C-STEM AMT Core Kit

2580-00-100	C-STEM AMT Core Tray	2570-01-600	SUMMIT Universal Neck Resection Guide
2570-23-000	Canal Sizers Size 14 – 15	2530-81-000	ARTICUL/EZE 28 mm Trial Head +1.5
2570-22-000	Canal Sizers Size 12 – 13	2530-82-000	ARTICUL/EZE 28 mm Trial Head +5
2570-21-000	Canal Sizers Size 10 – 11	2530-83-000	ARTICUL/EZE 28 mm Trial Head +8.5
5460-02-000	Cement Restrictor Inserter	2530-91-000	ARTICUL/EZE 32 mm Trial Head +1
2570-00-005	SUMMIT® Lateraliser	2530-92-000	ARTICUL/EZE 32 mm Trial Head +5
2709-05-002	T-Handle Hudson Driver	2530-93-000	ARTICUL/EZE 32 mm Trial Head +9
9751-90-000	Caliper	2531-51-000	ARTICUL/EZE 36 mm Trial Head +1.5
2522-00-502	ELITE Stem Introducer	2531-52-000	ARTICUL/EZE 36 mm Trial Head +5
2570-00-000	SUMMIT Universal Broach Handle	2531-53-000	ARTICUL/EZE 36 mm Trial Head +8.5
2354-10-000	Muller Awl Reamer with Hudson End	5460-32-000	SS Cement Restrictor Trial 2
2598-07-532	Modular Box Osteotome	5460-34-000	SS Cement Restrictor Trial 3
2001-65-000	Femoral Head Impactor	5460-36-000	SS Cement Restrictor Trial 4
2580-00-115	C-STEM AMT Broach Size 1	5460-38-000	SS Cement Restrictor Trial 5
2580-00-116	C-STEM AMT Broach Size 2		
2580-00-117	C-STEM AMT Broach Size 3	<b>Options</b>	
2580-00-118	C-STEM AMT Broach Size 4	2580-00-113	C-STEM AMT Broach Size 2A
2580-00-119	C-STEM AMT Broach Size 5	2580-00-114	C-STEM AMT Broach Size 3A
2570-04-000	C-STEM AMT Size 0/1 STD Neck Segment	2570-03-003	C-STEM AMT Size 2A Neck Segment
2570-04-050	C-STEM AMT Size 0/1 HO Neck Segment	2570-03-004	C-STEM AMT Size 3A Neck Segment
2570-04-105	C-STEM AMT Size 2/3 STD Neck Segment	2522-00-503	C-STEM AMT Curved Stem Introducer
2570-04-150	C-STEM AMT Size 2/3 HO Neck Segment	2522-00-504	C-STEM AMT Stem Introducer
2570-04-205	C-STEM AMT Size 4/5 STD Neck Segment		
2570-04-250	C-STEM AMT Size 4/5 HO Neck Segment		

# Ordering Information

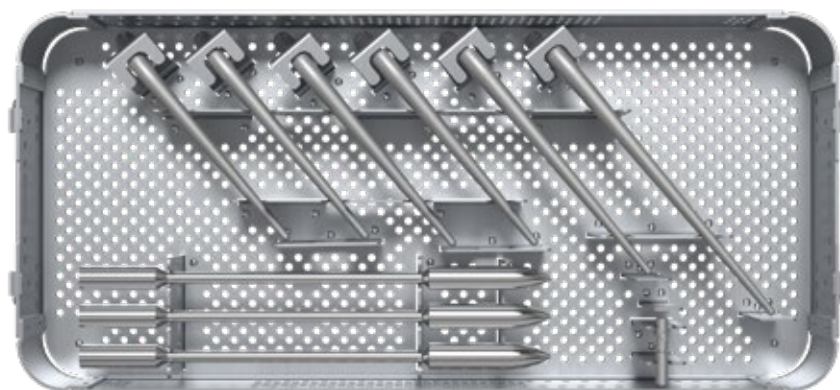


## C-STEM AMT Extended Kit

2580-00-102	C STEM AMT Extended Tray	5460-30-000	SS Cement Restrictor Trial 1
2580-00-122	C-STEM AMT Broach Size 8	5460-40-000	SS Cement Restrictor Trial 6
2580-00-121	C-STEM AMT Broach Size 7	5460-42-000	SS Cement Restrictor Trial 7
2580-00-120	C-STEM AMT Broach Size 6	2570-03-001	C-STEM AMT Size 00 Neck Segment
2580-00-114	C-STEM AMT Broach Size 3A	2570-03-002	C-STEM AMT Size 1A Neck Segment
2580-00-113	C-STEM AMT Broach Size 2A	2570-04-300	C-STEM AMT Size 6/7 STD Neck Segment
2580-00-112	C-STEM AMT Broach Size 1A	2570-04-350	C-STEM AMT Size 6/7 HO Neck Segment
2580-00-111	C-STEM AMT Broach Size 00	2570-04-400	C-STEM AMT Size 8/9 STD Neck Segment
2580-01-085	C-STEM AMT Stem Trial Size 1 STD	2570-04-450	C-STEM AMT Size 8/9 HO Neck Segment
2580-02-085	C-STEM AMT Stem Trial Size 1 HO	2570-03-003	C-STEM AMT Size 2A Neck Segment
2580-01-086	C-STEM AMT Stem Trial Size 2 STD	2570-03-004	C-STEM AMT Size 3A Neck Segment
2580-02-086	C-STEM AMT Stem Trial Size 2 HO	2570-24-000	Canal Sizers Size 16 – 17
9611-88-000	C-STEM AMT Trial Stem Peg	2570-20-000	Canal Sizers Size 8 – 9
2709-04-001	Flexible Osteotome Handle		
2570-04-100	SUMMIT Calcar Planer – Small	<b>Options</b>	
2570-04-200	SUMMIT Calcar Planer – Large	2580-00-119	C-STEM AMT Broach Size 5
2531-54-000	ARTICUL/EZE 36 mm Trial Head +12	2580-00-118	C-STEM AMT Broach Size 4
2531-50-000	ARTICUL/EZE 36 mm Trial Head -2	2580-01-023	C-STEM AMT Stem Trial Size 1A
2530-94-000	ARTICUL/EZE 32 mm Trial Head +13	2580-01-013	C-STEM AMT Size 00 Stem Trial
2530-84-000	ARTICUL/EZE 28 mm Trial Head +12	2570-04-205	C-STEM AMT SIZE 4/5 STD Neck Segment
2530-73-000	ARTICUL/EZE 26 mm Trial Head +10	2570-04-250	C-STEM AMT SIZE 4/5 HO Neck Segment
2530-72-000	ARTICUL/EZE 26 mm Trial Head +7		
2530-71-000	ARTICUL/EZE 26 mm Trial Head +4		
2530-70-000	ARTICUL/EZE 22.225 mm Trial Head +7		
2530-69-000	ARTICUL/EZE 22.225 mm Trial Head +4		

# Ordering Information

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## C-STEM AMT Revision Kit

2580-00-104	C-STEM AMT Revision Tray
2580-03-086	C-STEM AMT Stem Trial Size 2 Long Std
2580-04-086	C-STEM AMT Stem Trial Size 2 Long HO
2580-03-087	C-STEM AMT Stem Trial Size 3 Long Std
2580-04-087	C-STEM AMT Stem Trial Size 3 Long HO
2580-05-087	C-STEM AMT Stem Trial Size 3 XL205
2580-06-087	C-STEM AMT Stem Trial Size 3 XL240
9611-88-000	C-STEM AMT Trial Stem Peg
9611-83-000	C-STEM Canal Reamer 16 mm
9611-84-000	C-STEM Canal Reamer 17 mm
9611-85-000	C-STEM Canal Reamer 18 mm

# Ordering Information

## C-STEM AMT Femoral Implants

1570-24-095 C-STEM AMT Size 00 Standard Offset  
1570-24-091 C-STEM AMT Size 1A Standard Offset  
1570-24-092 C-STEM AMT Size 2A Standard Offset  
1570-24-093 C-STEM AMT Size 3A Standard Offset

1570-04-070 C-STEM AMT Size 1 Standard Offset  
1570-04-085 C-STEM AMT Size 2 Standard Offset  
1570-04-090 C-STEM AMT Size 3 Standard Offset  
1570-04-100 C-STEM AMT Size 4 Standard Offset  
1570-04-110 C-STEM AMT Size 5 Standard Offset  
1570-04-120 C-STEM AMT Size 6 Standard Offset  
1570-04-135 C-STEM AMT Size 7 Standard Offset  
1570-04-150 C-STEM AMT Size 8 Standard Offset

1570-14-070 C-STEM AMT Size 1 High Offset  
1570-14-085 C-STEM AMT Size 2 High Offset  
1570-14-090 C-STEM AMT Size 3 High Offset  
1570-14-100 C-STEM AMT Size 4 High Offset  
1570-14-110 C-STEM AMT Size 5 High Offset  
1570-14-120 C-STEM AMT Size 6 High Offset  
1570-14-135 C-STEM AMT Size 7 High Offset  
1570-14-150 C-STEM AMT Size 8 High Offset




1570-24-087 C-STEM AMT Long 2 Standard Offset  
1570-24-088 C-STEM AMT Long 3 Standard Offset  
1570-24-089 C-STEM AMT XL205 3 Standard Offset  
1570-24-094 C-STEM AMT XL240 3 Standard Offset  
1570-24-085 C-STEM AMT Long 2 High Offset  
1570-24-086 C-STEM AMT Long 3 High Offset






# Ordering Information

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## ARTICUL/EZE 12/14 BIOLOX® *delta* Head 28 mm

1365-28-310	28 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +1.5	
1365-28-320	28 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +5	
1365-28-330	28 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +8.5	



## ARTICUL/EZE 12/14 BIOLOX *delta* Head 32 mm

1365-32-310	32 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +1	
1365-32-320	32 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +5	
1365-32-330	32 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +9	




## ARTICUL/EZE 12/14 BIOLOX *delta* Head 36 mm

1365-36-310	36 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +1.5	
1365-36-320	36 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +5	
1365-36-330	36 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +8.5	
1365-36-340	36 mm 12/14 ARTICUL/EZE BIOLOX <i>delta</i> Head Neck Length +12	





## ARTICUL/EZE 12/14 Cobalt Chrome Head 22.225 mm

136529000	ARTICUL/EZE Cobalt Chrome 22.225 mm Modular Head +4	
136530000	ARTICUL/EZE Cobalt Chrome 22.225 mm Modular Head +7	






## ARTICUL/EZE 12/14 ULTAMET™ Head 28 mm

1365-11-500	28 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length +1.5	
1365-12-500	28 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length +5	
1365-13-500	28 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length +8.5	

## ARTICUL/EZE 12/14 Metal Head 32 mm

1365-21-000	32 mm 12/14 ARTICUL/EZE Metal Head Neck Length +1	
1365-22-000	32 mm 12/14 ARTICUL/EZE Metal Head Neck Length +5	
1365-23-000	32 mm 12/14 ARTICUL/EZE Metal Head Neck Length +9	
1365-24-000	32 mm 12/14 ARTICUL/EZE Metal Head Neck Length +13 Skirted	

## ARTICUL/EZE 12/14 ULTAMET Head 36 mm

1365-50-000	36 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length -2	
1365-51-000	36 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length +1.5	
1365-52-000	36 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length +5	
1365-53-000	36 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length +8.5	
1365-54-000	36 mm 12/14 ARTICUL/EZE ULTAMET Head Neck Length +12	

For Complete Code Listings for PINNACLE® please use 9080-10-000 PINNACLE Reference Guide

# Ordering Information

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## ARTICUL/EZE Ball 22.225 mm

9113-112	22.225 mm ARTICUL/EZE Ball +5
9113-113	22.225 mm ARTICUL/EZE Ball +9

## ARTICUL/EZE Ball 28 mm

1365-11-000	28 mm ARTICUL/EZE Ball +1.5 GR
1365-12-000	28 mm ARTICUL/EZE Ball +5 BR
1365-13-000	28 mm ARTICUL/EZE Ball +8.5 BL
1365-14-000	28 mm ARTICUL/EZE Ball +12 BLK
1365-15-000	28 mm ARTICUL/EZE Ball +15.5 WH

## ARTICUL/EZE Ball 32 mm

1365-21-000	32 mm ARTICUL/EZE Ball +1 GR
1365-22-000	32 mm ARTICUL/EZE Ball +5 BR
1365-23-000	32 mm ARTICUL/EZE Ball +9 BL
1365-24-000	32 mm ARTICUL/EZE Ball +13 BLK
1365-25-000	32 mm ARTICUL/EZE Ball +17 WH

## Hip Ball BIOLOX 28 mm

9111-121	28 mm 12/14 Hip Ball BIOLOX +1.5
9111-122	28 mm 12/14 ARTICUL/EZE BIOLOX +5
9111-123	28 mm 12/14 ARTICUL/EZE BIOLOX +8.5

## Hip Ball BIOLOX 32 mm

9111-131	32 mm 12/14 Hip Ball BIOLOX +1
9111-132	32 mm 12/14 Hip Ball BIOLOX +5
9111-133	32 mm 12/14 Hip Ball BIOLOX +9

## C-STEM AMT Cement Restrictor Kit

5460-02-000	Cement Restrictor Inserter
5460-30-000	SS Cement Restrictor Trial 1
5460-32-000	SS Cement Restrictor Trial 2
5460-34-000	SS Cement Restrictor Trial 3
5460-36-000	SS Cement Restrictor Trial 4
5460-38-000	SS Cement Restrictor Trial 5
5460-40-000	SS Cement Restrictor Trial 6
5460-42-000	SS Cement Restrictor Trial 7

## End Caps and Centralisers

9612-26-000	C-STEM End Cap (PMMA)
9612-46-000	C-STEM Centraliser

## Void Centralisers

9612-10-500	C-STEM Void Centraliser Size 10
9612-12-500	C-STEM Void Centraliser Size 12
9612-14-500	C-STEM Void Centraliser Size 14
9612-16-500	C-STEM Void Centraliser Size 16
9612-18-500	C-STEM Void Centraliser Size 18
9612-20-500	C-STEM Void Centraliser Size 20

## X-ray Templates

2580-00-056	C-STEM AMT X-ray Templates
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Johnson & Johnson Medical Limited, Baird House, 4 Lower Gilmore Bank, Edinburgh, EH3 9QP, United Kingdom.  
Incorporated and registered in Scotland under company number SC132162.

**DePuy Orthopaedics, Inc.**  
700 Orthopaedic Drive  
Warsaw, IN 46582  
USA  
Tel: +1 (800) 366 8143  
Fax: +1 (800) 669 2530

**DePuy International Ltd**  
St Anthony's Road  
Leeds LS11 8DT  
England  
Tel: +44 (0)113 270 0461

**DePuy (Ireland)**  
Loughbeg  
Ringaskiddy  
Co. Cork  
Ireland  
Tel: +353 21 4914 000  
Fax: +353 21 4914 199

**DePuy Ireland UC**  
Loughbeg  
Ringaskiddy  
Co. Cork  
Ireland  
Tel: +353 21 4914 000  
Fax: +353 21 4914 199

**Symmetry Medical  
Manufacturing, Inc.**  
486 West 350 North  
Warsaw, IN 46582  
USA  
Tel: +1 (574) 267 8700

[www.jnjmedicaldevices.com](http://www.jnjmedicaldevices.com)