

# 6.5/8.0 mm Cannulated Screw System

Surgical Technique





## 6.5/8.0 mm Cannulated Screw System

The 6.5/8.0 mm Cannulated Screw System is part of a series of cannulated screws ranging from 4.0 to 8.0 mm. Matching a combination of screw options with necessary instrumentation, the systems provide convenience and flexibility for the orthopaedic surgeon and the OR staff. Consistent with all Zimmer Biomet Trauma implants, the screws offer TiMAX<sup>®</sup> benefits which has been shown in mechanical testing to have increased fatigue strength compared to unanodized Ti and 316L stainless steel.<sup>1</sup> Guide wire diameters have also been reduced allowing screw purchase. These systems are truly designed with the surgeon in mind.

## Subtalar Arthrodesis: 6.5 mm Cannulated Screw Surgical Technique



Figure 1



Figure 2

### Guide Wire Insertion

Position the guide wire end of the 2.8/4.8 mm Drill Guide (Cat. No. 110008428) at the entry point and insert a 2.8 mm Guide Wire (Cat. No. 110008397) to the desired depth and verify with fluoroscopy (Figure 1). The drill end of the drill guide can be positioned over the entry point if the drill will be utilized through the drill guide.

### Countersinking and Measurement

Remove the drill guide and insert the 6.5/8.0 mm Depth Gauge with Countersink (Cat. No. 110008465) over the inserted guide wire. Using the handle, rotate the depth gauge back and forth until sufficient countersinking has been achieved, and note the screw length measurement on the calibrated gauge (Figure 2).

**Note:** To prevent excessive bone removal, countersinking under power is not recommended.



Figure 3

## Pre-Drilling

Connect the 4.8 mm Cannulated Drill (Cat. No. 110008408) to a power adapter and slide the drill over the guide wire. Drill to appropriate depth and remove drill, leaving the guide wire in place (Figure 3).



Figure 4

## Screw Insertion

Advance the selected 6.5 mm screw over the guide wire using the BT30 Cannulated Hexolobular Screwdriver (Cat. No. 110008455) attached to the Screwdriver Handle (Cat. No. 110017412) until the head of the screw is completely seated in the bone (Figure 4).

A flat washer may be used in conjunction with the same screw diameter size for osteoporotic bone or where the cortex is thin, increasing the surface area of the screw head.

Washer	Cat. No.
6.5 mm Flat Washer	110008351
8.0 mm Flat Washer	110008353

**Note:** Screw removal or additional adjustment when not using a guide wire in the cannulation of the screw can be achieved by utilizing the BT30 SOLID Hexolobular Screwdriver (Cat. No. 110009967).

## Open Technique for Hip Fracture

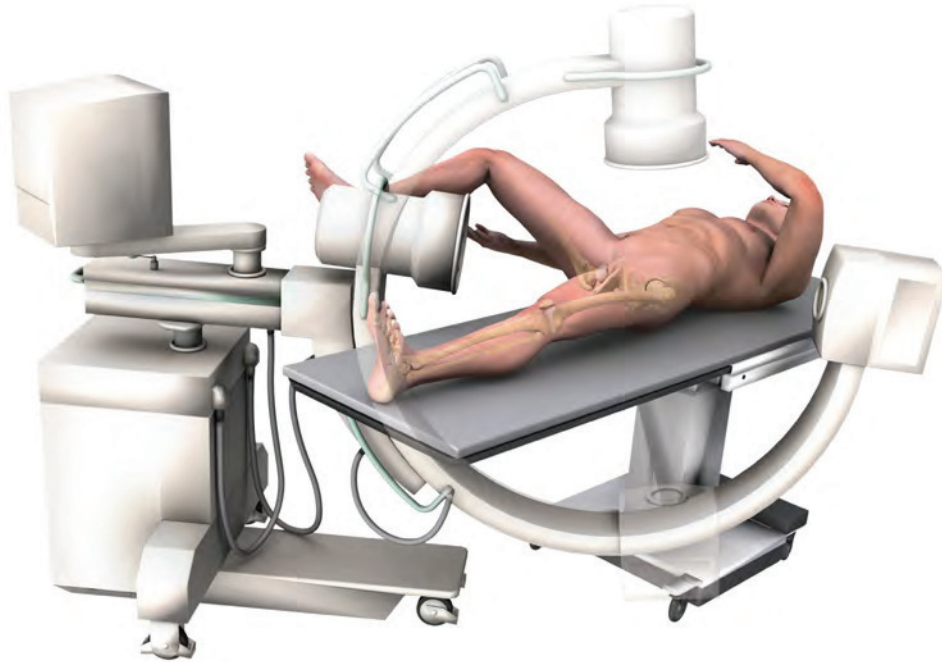


Figure 1

ⓘ **Note:** For the purposes of this technique, we will discuss only the technique and instrumentation as it relates to the 8.0 mm cannulated screw. However, the 6.5 mm cannulated screw may also be used in hip fracture applications.

### Patient Preparation

The patient is placed in the supine position on a standard fracture table (Figure 1). The patient may be given a general or spinal anesthetic prior to fracture reduction.

The fracture is reduced by gentle traction with the leg slightly rotated externally. The leg is then gently rotated at the knee approximately 45-60° internally. AP and lateral projections on image intensification should be used to ensure accurate reduction of the fracture. On reduction there should be no varus angulation, no more than 15° valgus angulation and no more than 10° of anterior or posterior angulation.

Once reduction is achieved the lateral aspect of the hip is prepared and draped in the usual manner using sterile technique.

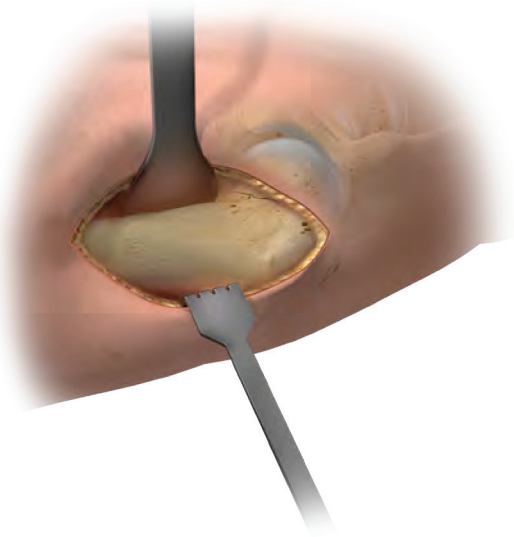


Figure 2

## Surgical Exposure

A guide pin placed externally on the anterior surface of the hip may be used as a template to determine the appropriate location for the incision. When viewed under image intensification this “template” guide pin should lay adjacent to the inferior aspect of the femoral neck advancing into the femoral head.

A 5 cm incision is made over the lateral aspect of the hip extending from the flare of the greater trochanter distally. The incision is carried sharply down through the skin and subcutaneous tissue to the vastus lateralis. The vastus lateralis is retracted laterally and split. Muscle tissue is stripped free from the femur and a Bennett retractor is placed around the femoral shaft exposing its lateral aspect (Figure 2).

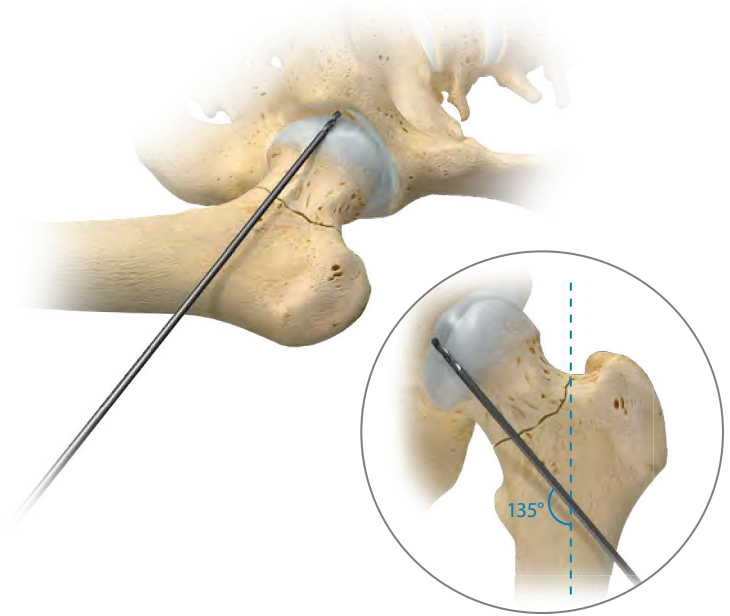


Figure 3

## Placement of the Guide Pins

A guide pin is placed on the anterior aspect of the femoral neck to act as a template. Image intensification is used to verify its correct orientation adjacent to the inferior cortex at an angle of 135° to the femoral shaft (Figure 3).

A 2.8 mm Guide Wire is drilled under power into the lateral cortex in the mid shaft of the femur parallel to the template guide pin. The guide wire is advanced adjacent to the inferior cortex at an angle of 135° to the femoral shaft. The 2.8 mm Parallel Wire Guide (Cat. No. 110008441) can be used through the Outer Sheath with Handle (Cat. No. 110008434) as a guide through soft tissue if needed.

### Guide Wire Options

Guide Wire Options	Cat. No.
2.8 x 300 mm Guide Pin Drill Tip	110008397
2.8 x 450 mm Guide Pin Drill Tip	110008399
2.8 x 300 mm Guide Pin Thd Troc Tip	110008445
2.8 x 450 mm Guide Pin Thd Troc Tip	110008446

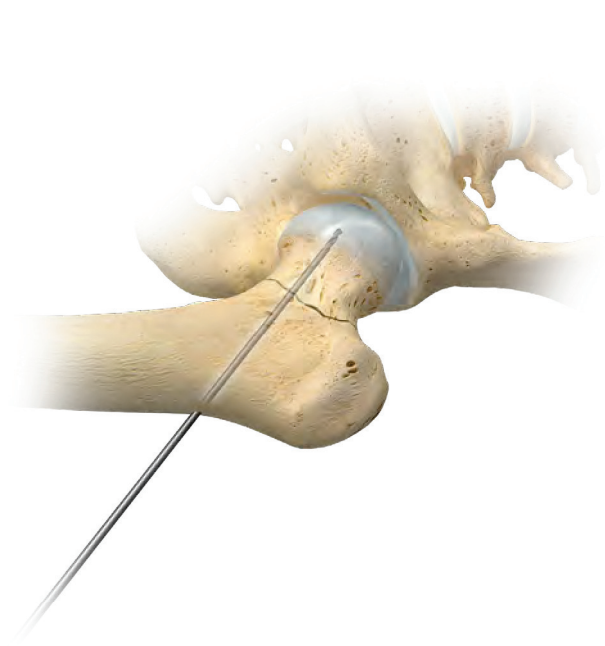


Figure 4

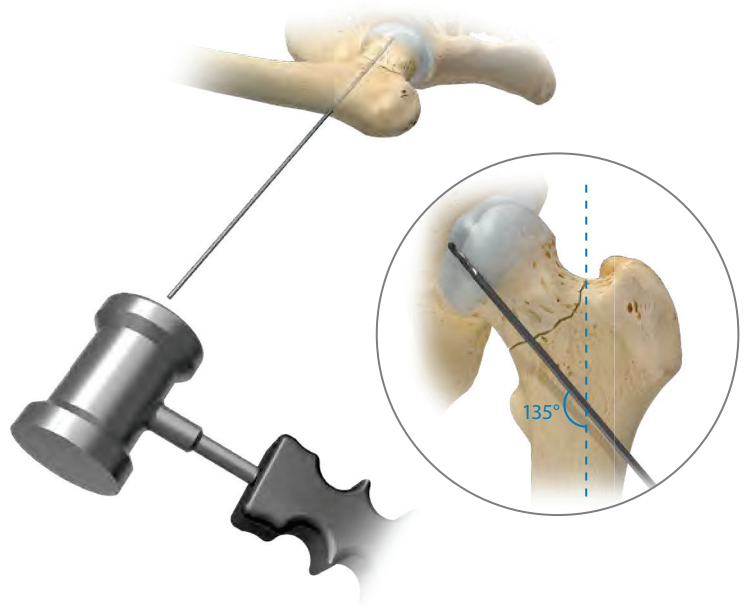


Figure 5

### Placement of the Guide Pins (cont.)

The correct position of the guide wire is confirmed under image intensification. Both AP and lateral images should be used to confirm that the guide wire is advancing towards the center of the femoral head. Once this has been determined, the guide wire is passed across the fracture site into the femoral head to within 1 cm of subchondral bone (Figure 4).

The guide pin should be tapped into its final position at an angle of 135° to the femoral shaft, adjacent to the inferior cortex of the femoral neck with its tip within 5 mm of subchondral bone (Figure 5).



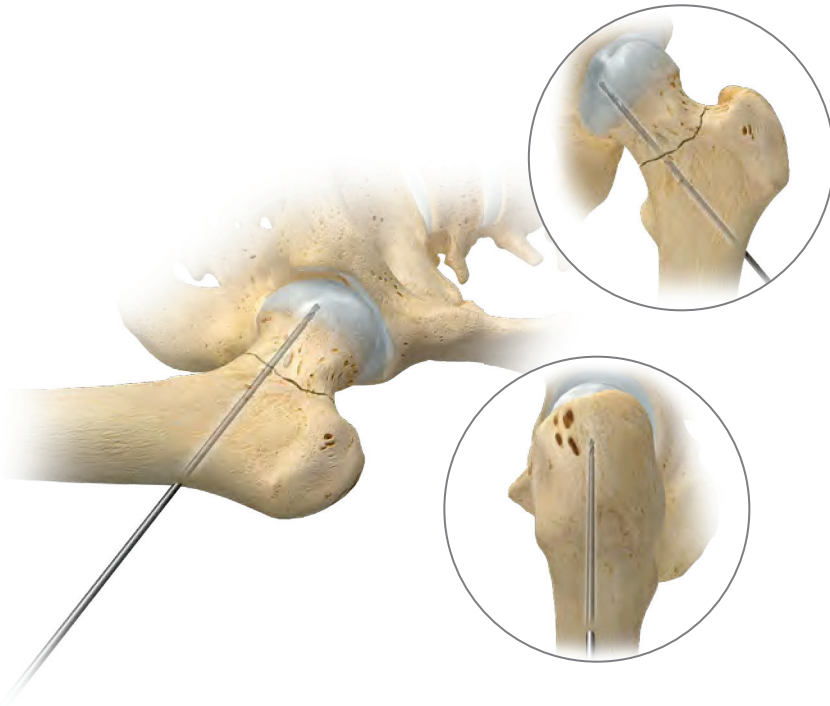


Figure 6



Figure 7

### Placement of the Guide Pins (cont.)

Both AP and lateral images should be used to confirm that the guide pin is appropriately placed and has not been bent during insertion (Figure 6).

ⓘ **Note:** The position of the first guide pin adjacent to the inferior cortex is important as the cannulated screw that is placed in this position acts as a buttress to support the femoral head, reducing the potential for varus deformity.

The Parallel Drill Guide (Cat. No. 110008441) is positioned on the femoral shaft by sliding the most distal hole over the first guide pin. The drill guide confirms the angle of the first guide pin and facilitates parallel placement of the following guide pins (Figure 7).

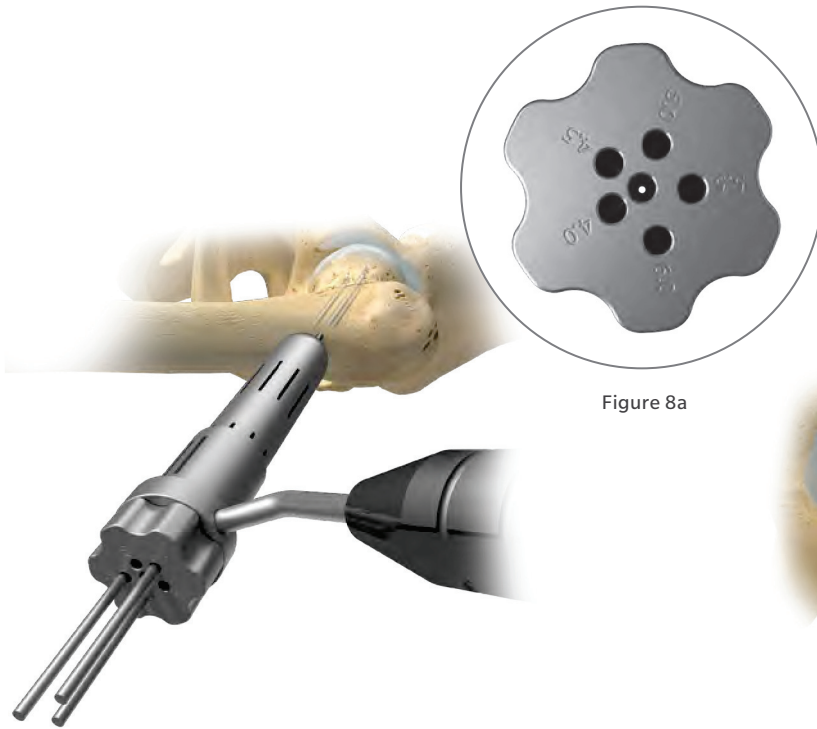


Figure 8a

Figure 8

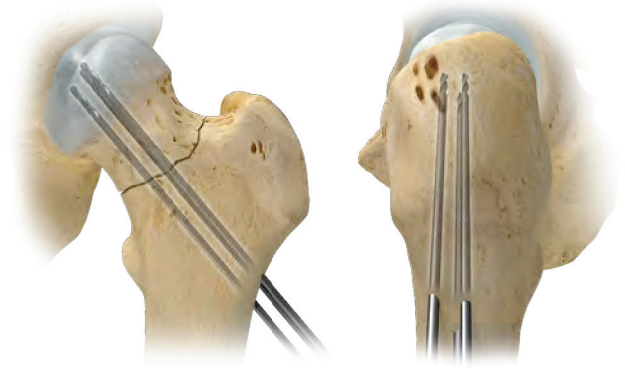


Figure 9

### Placement of the Guide Pins (cont.)

The anterior and posterior guide pins are positioned in the appropriate holes in the drill guide and advanced into the femoral head to within 5 mm of subchondral bone (Figure 8).

**Note:** If three screws are indicated, only an outer three hole triangle pattern may be used with the parallel drill guide due to the large diameter of this screw (Figure 8a).

When all of the guide pins are placed, the inferior pin should lay adjacent to the inferior cortex and the tips of the other pin(s) should be within 5 mm of subchondral bone (Figure 9).

Under image intensification the guide pins should not appear bent nor be in contact with one another.

**Caution:** Perforation of the femoral head with a guide pin must be avoided. Once a guide pin penetrates the joint space and a cannulated screw is inserted over the guide pin, there is a possibility that the cannulated screw will follow the path of the original guide pin and penetrate the joint space. A guide pin that has penetrated the joint space must be removed completely and be reinserted in a different position.

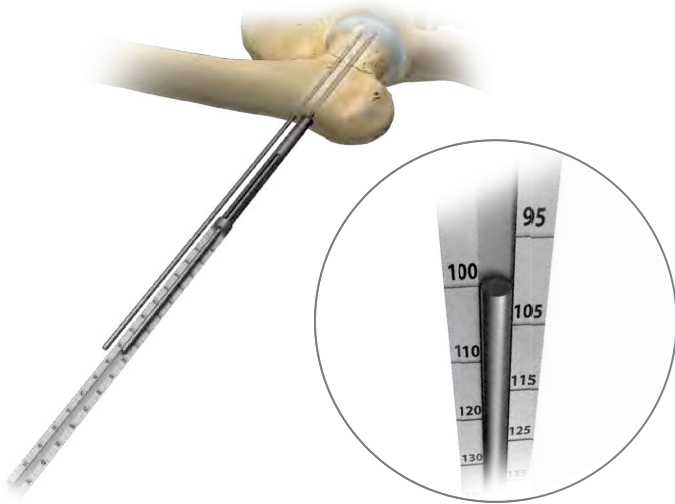


Figure 10

## Measurement

After correct placement of the guide pins within 5 mm of subchondral bone, the drill guide is removed and the guide pin Depth Gauge with Countersink (Cat. No. 110008465) is placed over each guide pin and advanced to the femoral cortex. If countersinking is desired, the depth gauge may be turned back and forth until the bone has been sufficiently countersunk. The length of the screw is then read directly off the gauge at the end of the guide wire (Figure 10).

If tapping is required, utilize a 6.5 mm (Cat. No. 110008466) or 8.0 mm (Cat. No. 110008467) Cannulated Tap, prior to screw insertion.

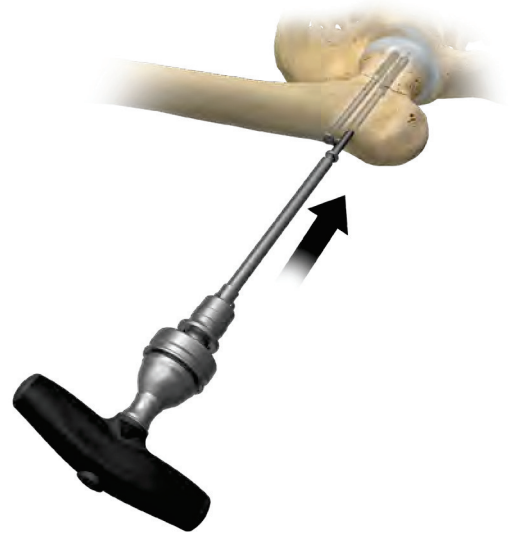


Figure 11

## Cannulated Screw Insertion

The appropriate length cannulated screw is placed over the guide wire and inserted either with power using the BT30 Long Cannulated Driver (Cat. No. 110008456) attached to a power adapter, or manually with the screwdriver shank attached to the Screwdriver Handle (Cat. No. 110017412). The T-Handle (Cat. No. 14-451560) can be used for additional torque if needed (Figure 11). A shorter BT30 Cannulated Driver (Cat. No. 110008455) is available for applications where a long driver is not necessary.

**Note:** The position of the guide wire must be frequently checked under image during screw insertion to ensure that the guide pin is not advancing with the screw.

The inferior screw adjacent to the inferior cortex is advanced first until the head of the screw is within 1 cm of the lateral cortex. The remaining screw(s) are then also inserted and advanced to within 1 cm of the lateral cortex.

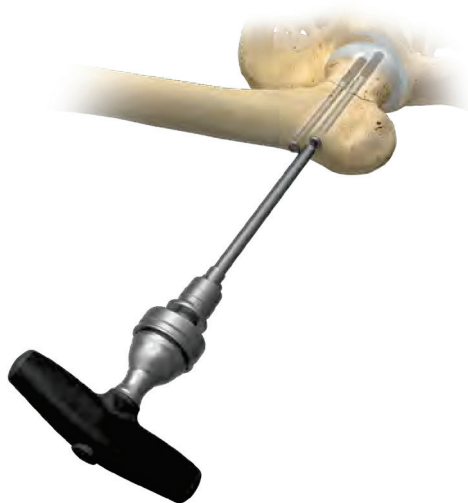


Figure 12

## Final Tightening

In order to prevent varus angulation, the anterior and posterior screws should be tightened before the inferior screw. The screws should be advanced alternately several turns at a time until they are completely seated tight. The inferior screw is then tightened.

Final seating of the screw should always be performed manually, one half turn at a time, alternating sequentially between each of the three until the head of each screw has made solid contact with the lateral cortex (Figure 12).

Once correct placement of the screws and reduction of the fracture has been confirmed under image intensification, traction is released and the hip is rotated through the full range of motion. This is performed while viewing the AP and lateral image to assure that there has been no penetration of the joint space.

The wound is then thoroughly irrigated and closed in the usual manner.

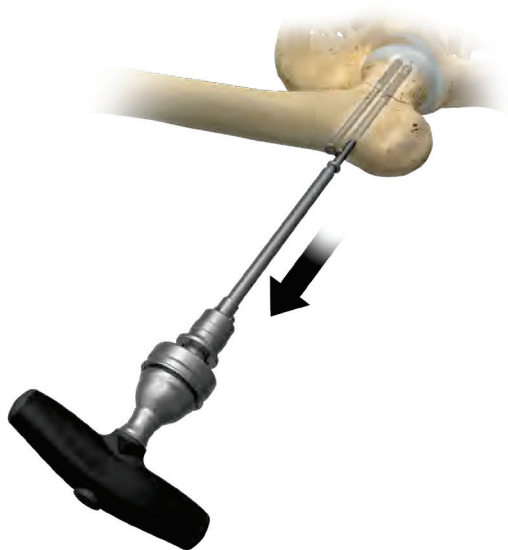


Figure 13

## Screw Removal

Screw removal should always be started manually. Once started, screws may be removed either with power using the BT30 Solid Screwdriver shank (Cat. No. 110009967) attached to the power adapter, or manually with the screwdriver shank attached to the screwdriver handle, or the T-Handle.

ⓘ **Note:** The BT30 Solid Driver will have a 5 mm black band to differentiate it from the BT30 Cannulated Driver.

**Caution:** Under no circumstances should pliers or similar devices be used to grip the screw head as this will damage the screw and could lead to breakage.

If the cannulated screw becomes damaged or removal becomes difficult, the Easy Out (Cat. No. 110008495) should be used for screw extraction. The Easy Out must be used manually in conjunction with the T-Handle. The tip of the Easy Out is inserted through the head and down the center of the cannulated screw. The Easy Out is turned counter-clockwise while applying firm forward pressure. The Easy Out cuts into the cannula of the screw shaft to facilitate removal. The Easy Out extractor may be used even if the head or shaft of the screw is not intact (Figure 13).

## Ancillary Components

Washers are available for use in osteoporotic bone.

Screw	Washer	Non-sterile	Sterile
6.5 mm	6.5 mm	110008351	110008363
8.0 mm	8.0 mm	110008353	110008364

## Equipment Maintenance

Special care should be exercised during the cleaning of cannulated instrumentation to ensure that all foreign material is removed from the inside of the instrument. Regular inspection and careful maintenance will increase the useful life of all instrumentation.

## Caution

Guide wires should be replaced after each surgery. Use of scored or bent guide wires increases the risk of unwanted guide wire advancement or breakage during screw insertion.

During cannulated screw insertion the surgeon must periodically check for undesired advancement of the guide wire.

The text and schematic drawings included in this protocol are general instructions for the use of Biomet instrumentation only. Placement of screws and plates for the stabilization of specific fractures must be determined using the best judgment of the surgeon.

## Implants

### 6.5 mm Cannulated Screws (16 mm thread)

Non-Sterile No.	Sterile No.	Description	Quantity
110007733	110009929	Cann Screw 6.5 x 30 mm 16 mm Thd	2
110007735	110009930	Cann Screw 6.5 x 35 mm 16 mm Thd	2
110007737	110009931	Cann Screw 6.5 x 40 mm 16 mm Thd	2
110007739	110009932	Cann Screw 6.5 x 45 mm 16 mm Thd	2
110007741	110009933	Cann Screw 6.5 x 50 mm 16 mm Thd	2
110007743	110009934	Cann Screw 6.5 x 55 mm 16 mm Thd	2
110007745	110009935	Cann Screw 6.5 x 60 mm 16 mm Thd	2
110007747	110009936	Cann Screw 6.5 x 65 mm 16 mm Thd	2
110007749	110009937	Cann Screw 6.5 x 70 mm 16 mm Thd	3
110007751	110009938	Cann Screw 6.5 x 75 mm 16 mm Thd	3
110007753	110009939	Cann Screw 6.5 x 80 mm 16 mm Thd	3
110007755	110009940	Cann Screw 6.5 x 85 mm 16 mm Thd	3
110007757	110009941	Cann Screw 6.5 x 90 mm 16 mm Thd	3
110007759	110009942	Cann Screw 6.5 x 95 mm 16 mm Thd	3
110007761	110009943	Cann Screw 6.5 x 100 mm 16 mm Thd	3
110007763	110009944	Cann Screw 6.5 x 105 mm 16 mm Thd	2
110007765	110009945	Cann Screw 6.5 x 110 mm 16 mm Thd	2
110007767	110009946	Cann Screw 6.5 x 115 mm 16 mm Thd	2
110007769	110009947	Cann Screw 6.5 x 120 mm 16 mm Thd	2
110007771	110009948	Cann Screw 6.5 x 125 mm 16 mm Thd	2
110007773	110009949	Cann Screw 6.5 x 130 mm 16 mm Thd	2
-	110009950	Cann Screw 6.5 x 135 mm 16 mm Thd	0
-	110007775	Cann Screw 6.5 x 140 mm 16 mm Thd	0
-	110009952	Cann Screw 6.5 x 145 mm 16 mm Thd	0
-	110007777	Cann Screw 6.5 x 150 mm 16 mm Thd	0
-	110009954	Cann Screw 6.5 x 155 mm 16 mm Thd	0
-	110007779	Cann Screw 6.5 x 160 mm 16 mm Thd	0
-	110009956	Cann Screw 6.5 x 165 mm 16 mm Thd	0
-	110007781	Cann Screw 6.5 x 170 mm 16 mm Thd	0
-	110009958	Cann Screw 6.5 x 175 mm 16 mm Thd	0
-	110007783	Cann Screw 6.5 x 180 mm 16 mm Thd	0

## Implants (cont.)

### 6.5 mm Cannulated Screws (40 mm thread)

Non-Sterile No.	Sterile No.	Description	Quantity
110007803	110009969	Cann Screw 6.5 x 70 mm 40 mm Thd	2
110007805	110009970	Cann Screw 6.5 x 75 mm 40 mm Thd	2
110007807	110009971	Cann Screw 6.5 x 80 mm 40 mm Thd	2
110007809	110009972	Cann Screw 6.5 x 85 mm 40 mm Thd	2
110007811	110009973	Cann Screw 6.5 x 90 mm 40 mm Thd	2
110007813	110009974	Cann Screw 6.5 x 95 mm 40 mm Thd	2
110007815	110009975	Cann Screw 6.5 x 100 mm 40 mm Thd	2
110007817	110009976	Cann Screw 6.5 x 105 mm 40 mm Thd	2
110007819	110009977	Cann Screw 6.5 x 110 mm 40 mm Thd	2
110007821	110009978	Cann Screw 6.5 x 115 mm 40 mm Thd	2
110007823	110009979	Cann Screw 6.5 x 120 mm 40 mm Thd	2
110007825	110009980	Cann Screw 6.5 x 125 mm 40 mm Thd	2
110007827	110009981	Cann Screw 6.5 x 130 mm 40 mm Thd	2
-	110009982	Cann Screw 6.5 x 135 mm 40 mm Thd	0
-	110007829	Cann Screw 6.5 x 140 mm 40 mm Thd	0
-	110009984	Cann Screw 6.5 x 145 mm 40 mm Thd	0
-	110007831	Cann Screw 6.5 x 150 mm 40 mm Thd	0
-	110009986	Cann Screw 6.5 x 155 mm 40 mm Thd	0
-	110007833	Cann Screw 6.5 x 160 mm 40 mm Thd	0
-	110009988	Cann Screw 6.5 x 165 mm 40 mm Thd	0
-	110007835	Cann Screw 6.5 x 170 mm 40 mm Thd	0
-	110009990	Cann Screw 6.5 x 175 mm 40 mm Thd	0
-	110007837	Cann Screw 6.5 x 180 mm 40 mm Thd	0



## Implants (cont.)

### 6.5 mm Cannulated Screws (full thread)

Non-Sterile No.	Sterile No.	Description	Quantity
110007841	110009993	Cann Screw 6.5 x 30 mm Full Thd	2
110007843	110009994	Cann Screw 6.5 x 35 mm Full Thd	2
110007845	110009995	Cann Screw 6.5 x 40 mm Full Thd	2
110007847	110009996	Cann Screw 6.5 x 45 mm Full Thd	2
110007849	110009997	Cann Screw 6.5 x 50 mm Full Thd	2
110007851	110009998	Cann Screw 6.5 x 55 mm Full Thd	2
110007853	110009999	Cann Screw 6.5 x 60 mm Full Thd	2
110007855	110010000	Cann Screw 6.5 x 65 mm Full Thd	2
110007857	110010001	Cann Screw 6.5 x 70 mm Full Thd	2
110007859	110010002	Cann Screw 6.5 x 75 mm Full Thd	2
110007861	110010003	Cann Screw 6.5 x 80 mm Full Thd	2
110007863	110010004	Cann Screw 6.5 x 85 mm Full Thd	2
110007865	110010005	Cann Screw 6.5 x 90 mm Full Thd	2
110007867	110010006	Cann Screw 6.5 x 95 mm Full Thd	2
110007869	110010007	Cann Screw 6.5 x 100 mm Full Thd	2
110007871	110010008	Cann Screw 6.5 x 105 mm Full Thd	2
110007873	110010009	Cann Screw 6.5 x 110 mm Full Thd	2
110007875	110010010	Cann Screw 6.5 x 115 mm Full Thd	2
110007877	110010011	Cann Screw 6.5 x 120 mm Full Thd	2
110007879	110010012	Cann Screw 6.5 x 125 mm Full Thd	2
110007881	110010013	Cann Screw 6.5 x 130 mm Full Thd	2
-	110010014	Cann Screw 6.5 x 135 mm Full Thd	0
-	110007883	Cann Screw 6.5 x 140 mm Full Thd	0
-	110010016	Cann Screw 6.5 x 145 mm Full Thd	0
-	110007885	Cann Screw 6.5 x 150 mm Full Thd	0
-	110010018	Cann Screw 6.5 x 155 mm Full Thd	0
-	110007887	Cann Screw 6.5 x 160 mm Full Thd	0
-	110010020	Cann Screw 6.5 x 165 mm Full Thd	0
-	110007889	Cann Screw 6.5 x 170 mm Full Thd	0
-	110010022	Cann Screw 6.5 x 175 mm Full Thd	0
-	110007891	Cann Screw 6.5 x 180 mm Full Thd	0

## Implants (cont.)

### 8.0 mm Cannulated Screws (16 mm thread)

Non-Sterile No.	Sterile No.	Description	Quantity
110007894	110010025	Cann Screw 8.0 x 30 mm 16 mm Thd	0
110007896	110010026	Cann Screw 8.0 x 35 mm 16 mm Thd	0
110007898	110010027	Cann Screw 8.0 x 40 mm 16 mm Thd	2
110007900	110010028	Cann Screw 8.0 x 45 mm 16 mm Thd	2
110007902	110010029	Cann Screw 8.0 x 50 mm 16 mm Thd	2
110007904	110010030	Cann Screw 8.0 x 55 mm 16 mm Thd	2
110007906	110010031	Cann Screw 8.0 x 60 mm 16 mm Thd	2
110007908	110010032	Cann Screw 8.0 x 65 mm 16 mm Thd	2
110007910	110010033	Cann Screw 8.0 x 70 mm 16 mm Thd	3
110007912	110010034	Cann Screw 8.0 x 75 mm 16 mm Thd	3
110007914	110010035	Cann Screw 8.0 x 80 mm 16 mm Thd	3
110007916	110010036	Cann Screw 8.0 x 85 mm 16 mm Thd	3
110007918	110010037	Cann Screw 8.0 x 90 mm 16 mm Thd	3
110007920	110010038	Cann Screw 8.0 x 95 mm 16 mm Thd	3
110007922	110010039	Cann Screw 8.0 x 100 mm 16 mm Thd	3
110007924	110010040	Cann Screw 8.0 x 105 mm 16 mm Thd	2
110007926	110010041	Cann Screw 8.0 x 110 mm 16 mm Thd	2
110007928	110010042	Cann Screw 8.0 x 115 mm 16 mm Thd	2
110007930	110010043	Cann Screw 8.0 x 120 mm 16 mm Thd	2
110007932	110010044	Cann Screw 8.0 x 125 mm 16 mm Thd	2
110007934	110010045	Cann Screw 8.0 x 130 mm 16 mm Thd	2
-	110010046	Cann Screw 8.0 x 135 mm 16 mm Thd	0
-	110007936	Cann Screw 8.0 x 140 mm 16 mm Thd	0
-	110010048	Cann Screw 8.0 x 145 mm 16 mm Thd	0
-	110007938	Cann Screw 8.0 x 150 mm 16 mm Thd	0
-	110010050	Cann Screw 8.0 x 155 mm 16 mm Thd	0
-	110007940	Cann Screw 8.0 x 160 mm 16 mm Thd	0
-	110010052	Cann Screw 8.0 x 165 mm 16 mm Thd	0
-	110007942	Cann Screw 8.0 x 170 mm 16 mm Thd	0
-	110010054	Cann Screw 8.0 x 175 mm 16 mm Thd	0
-	110007944	Cann Screw 8.0 x 180 mm 16 mm Thd	0

## Implants (cont.)

### 8.0 mm Cannulated Screws (40 mm thread)

Non-Sterile No.	Sterile No.	Description	Quantity
110007962	110010065	Cann Screw 8.0 x 70 mm 40 mm Thd	0
110007964	110010066	Cann Screw 8.0 x 75 mm 40 mm Thd	0
110007966	110010067	Cann Screw 8.0 x 80 mm 40 mm Thd	0
110007968	110010068	Cann Screw 8.0 x 85 mm 40 mm Thd	0
110007970	110010069	Cann Screw 8.0 x 90 mm 40 mm Thd	0
110007972	110010070	Cann Screw 8.0 x 95 mm 40 mm Thd	0
110007974	110010071	Cann Screw 8.0 x 100 mm 40 mm Thd	0
110007976	110010072	Cann Screw 8.0 x 105 mm 40 mm Thd	0
110007978	110010073	Cann Screw 8.0 x 110 mm 40 mm Thd	0
110007980	110010074	Cann Screw 8.0 x 115 mm 40 mm Thd	0
110007982	110010075	Cann Screw 8.0 x 120 mm 40 mm Thd	0
110007984	110010076	Cann Screw 8.0 x 125 mm 40 mm Thd	0
110007986	110010077	Cann Screw 8.0 x 130 mm 40 mm Thd	0
-	110010078	Cann Screw 8.0 x 135 mm 40 mm Thd	0
-	110007988	Cann Screw 8.0 x 140 mm 40 mm Thd	0
-	110010080	Cann Screw 8.0 x 145 mm 40 mm Thd	0
-	110007990	Cann Screw 8.0 x 150 mm 40 mm Thd	0
-	110010082	Cann Screw 8.0 x 155 mm 40 mm Thd	0
-	110007992	Cann Screw 8.0 x 160 mm 40 mm Thd	0
-	110010084	Cann Screw 8.0 x 165 mm 40 mm Thd	0
-	110007994	Cann Screw 8.0 x 170 mm 40 mm Thd	0
-	110010086	Cann Screw 8.0 x 175 mm 40 mm Thd	0
-	110007996	Cann Screw 8.0 x 180 mm 40 mm Thd	0

## Implants (cont.)

### 8.0 mm Cannulated Screws (full thread)

Non-Sterile No.	Sterile No.	Description	Quantity
110007998	110010089	Cann Screw 8.0 x 30 mm Full Thd	0
110008000	110010090	Cann Screw 8.0 x 35 mm Full Thd	0
110008002	110010091	Cann Screw 8.0 x 40 mm Full Thd	2
110008004	110010092	Cann Screw 8.0 x 45 mm Full Thd	2
110008006	110010093	Cann Screw 8.0 x 50 mm Full Thd	2
110008008	110010094	Cann Screw 8.0 x 55 mm Full Thd	2
110008010	110010095	Cann Screw 8.0 x 60 mm Full Thd	2
110008012	110010096	Cann Screw 8.0 x 65 mm Full Thd	2
110008014	110010097	Cann Screw 8.0 x 70 mm Full Thd	2
110008016	110010098	Cann Screw 8.0 x 75 mm Full Thd	2
110008018	110010099	Cann Screw 8.0 x 80 mm Full Thd	2
110008020	110010100	Cann Screw 8.0 x 85 mm Full Thd	2
110008022	110010101	Cann Screw 8.0 x 90 mm Full Thd	2
110008024	110010102	Cann Screw 8.0 x 95 mm Full Thd	2
110008026	110010103	Cann Screw 8.0 x 100 mm Full Thd	2
110008028	110010104	Cann Screw 8.0 x 105 mm Full Thd	2
110008030	110010105	Cann Screw 8.0 x 110 mm Full Thd	2
110008032	110010106	Cann Screw 8.0 x 115 mm Full Thd	2
110008034	110010107	Cann Screw 8.0 x 120 mm Full Thd	2
110008036	110010108	Cann Screw 8.0 x 125 mm Full Thd	2
110008038	110010109	Cann Screw 8.0 x 130 mm Full Thd	2
–	110010110	Cann Screw 8.0 x 135 mm Full Thd	0
–	110008040	Cann Screw 8.0 x 140 mm Full Thd	0
–	110010112	Cann Screw 8.0 x 145 mm Full Thd	0
–	110008042	Cann Screw 8.0 x 150 mm Full Thd	0
–	110010114	Cann Screw 8.0 x 155 mm Full Thd	0
–	110008044	Cann Screw 8.0 x 160 mm Full Thd	0
–	110010116	Cann Screw 8.0 x 165 mm Full Thd	0
–	110008046	Cann Screw 8.0 x 170 mm Full Thd	0
–	110010118	Cann Screw 8.0 x 175 mm Full Thd	0
–	110008048	Cann Screw 8.0 x 180 mm Full Thd	0

### Washers

Non-Sterile No.	Sterile No.	Description	Quantity
110008351	110008363	Flat Washer 6.5 mm	3
110008353	110008364	Flat Washer 8.0 mm	3

## Disposables

Non-Sterile No.	Sterile No.	Description	Quantity
–	110008397	2.8 x 300 mm Guide Pin Drill Tip	2
–	110008399	2.8 x 450 mm Guide Pin Drill Tip	1
–	110008445	2.8 x 300 mm Guide Pin Thd Troc Tip	2
–	110008446	2.8 x 450 mm Guide Pin Thd Troc Tip	1
–	110008408	4.8 x 200 mm Cann Drill w/ ZH	2
–	110008410	4.8 x 300 mm Cann Drill w/ ZH	2
–	110008466	6.5 mm Cannulated Tap	1
–	110008467	8.0 mm Cannulated Tap	1

## Instruments

Non-Sterile No.	Sterile No.	Description	Quantity
110008428	–	2.8 / 4.8 mm Drill Guide	1
110008455	–	BT30 Cann Hexalobular Driver ZH	2
110009967	–	BT30 Solid Hexalobular Driver ZH	1
110008456	–	BT30 Long Hexalobular Cannulated Driver ZH	1
110008465	–	6.5 / 8.0 mm Depth Gauge w/ Countersink	1
110008434	–	Outer Sheath w/ Handle	1
110008441	–	Parallel Wire Guide 2.8 mm	1
110008484	–	Offset Delta Wire Guide 2.8 mm	1
110017410	–	Standard Ratchet Handle ZH	1
110017412	–	T Ratchet Handle ZH	1
14-451560	–	Guide Wire Pusher 2.8 mm	1
13571	–	Screw Forceps	1
110008496	–	Easy Out Small Tip	1

## Case/Tray

Non-Sterile No.	Sterile No.	Description	Quantity
110008481	–	Cann Screw Case 6.5 / 8.0 mm	1

## Indications & Contraindications

### INDICATIONS

Large Cannulated Screws (5 mm and larger in diameter) are intended for use in:

1. Fixation of fractures in long bones and long bone fragments.
2. Long bone osteotomies (femur, tibia, foot, ankle, olecranon).
3. Arthrodesis, and fracture fixation of the foot and ankle, such as Jones fractures of the fifth metatarsal, and Calcaneal fractures.

Large Cannulated Screws (6.5 mm and larger in diameter) are intended for use in:

1. Slipped capital femoral epiphysis
2. Pediatric femoral neck fractures
3. Tibial plateau fractures
4. SI joint disruptions
5. Intercondylar femur fractures
6. Subtalar arthrodesis
7. Fixation of pelvis and iliosacral joint.

### CONTRAINDICATIONS

1. Infections.
2. Patient conditions including blood supply limitations, insufficient quantity or quality of bone.
3. Patients with mental or neurologic conditions who are unwilling or incapable of following postoperative care instructions.
4. Foreign body sensitivity where material sensitivity is suspected or unknown, testing is to be completed prior to implantation of the device.



## References

1. Data on file at Biomet. Test# DVA-107504-DVER.

Mechanical testing not necessarily indicative of clinical performance.

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