



# Asnis III

## Cannulated Screw System

### Operative Technique

- 4.0mm
- 5.0mm
- 6.5/8.0mm



This publication sets forth detailed recommended procedures for using Stryker Osteosynthesis devices and instruments.

It offers guidance that you should heed, but, as with any such technical guide, each surgeon must consider the particular needs of each patient and make appropriate adjustments when and as required.

A workshop training is recommended prior to first surgery.

All non-sterile devices must be cleaned and sterilized before use. Follow the instructions provided in our reprocessing guide (L24002000). Multi-component instruments must be disassembled for cleaning. Please refer to the corresponding assembly/disassembly instructions.

See package insert (V15011 & V15013) for a complete list of potential adverse effects, contraindications, warnings and precautions. The surgeon must discuss all relevant risks, including the finite lifetime of the device, with the patient, when necessary.

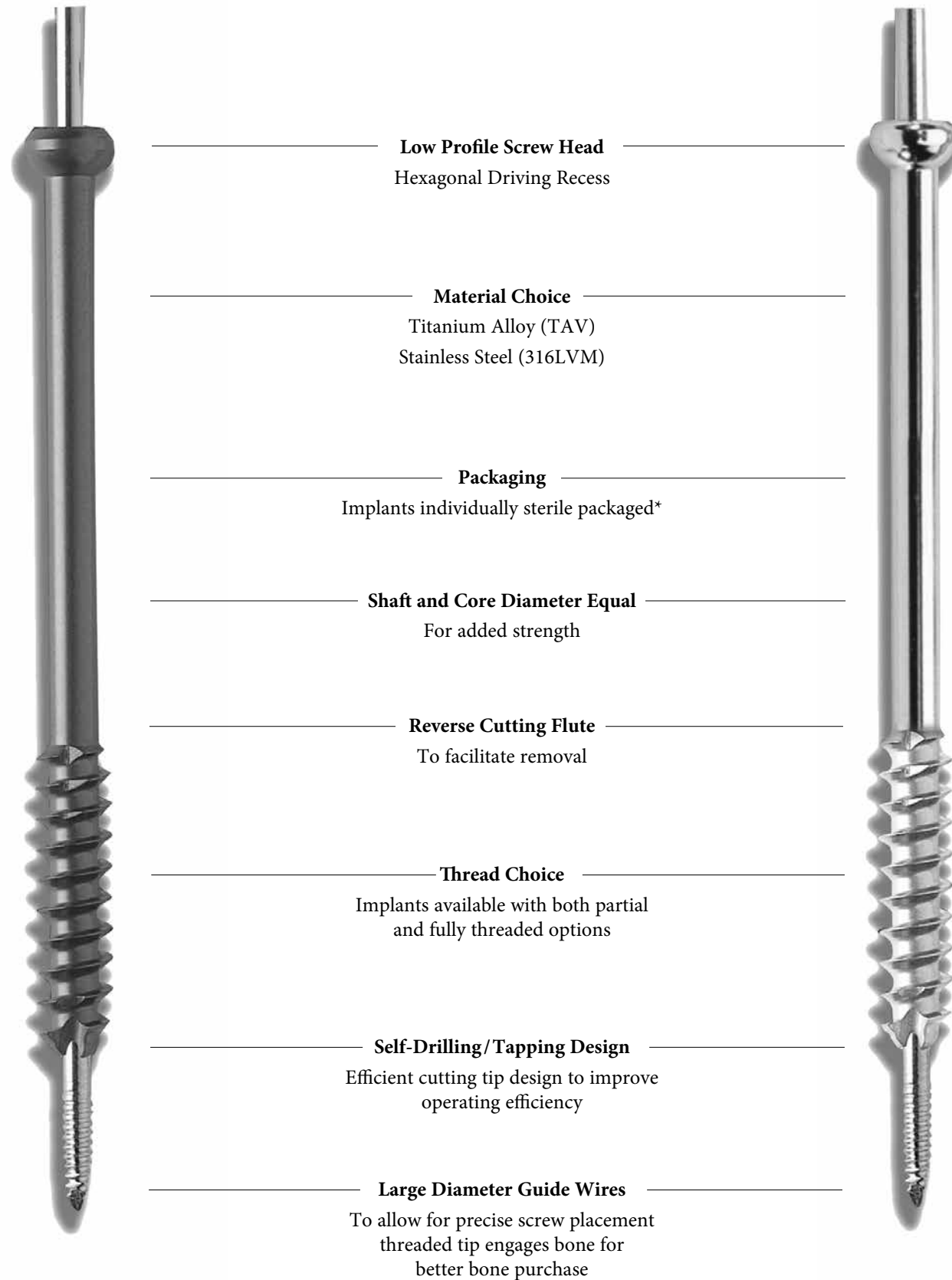
**Warning:**

**Fixation Screws:**  
**Stryker Osteosynthesis bone screws are not approved or intended for screw attachment or fixation to the posterior elements (pedicles) of the cervical, thoracic or lumbar spine.**

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# Features and Benefits

The Asnis III Cannulated Screw Systems incorporate several features intended to enhance screw placement, insertion, and removal as follows:



**Low Profile Screw Head**  
Hexagonal Driving Recess

**Material Choice**  
Titanium Alloy (TAV)  
Stainless Steel (316LVM)

**Packaging**  
Implants individually sterile packaged\*

**Shaft and Core Diameter Equal**  
For added strength

**Reverse Cutting Flute**  
To facilitate removal

**Thread Choice**  
Implants available with both partial and fully threaded options

**Self-Drilling/Tapping Design**  
Efficient cutting tip design to improve operating efficiency

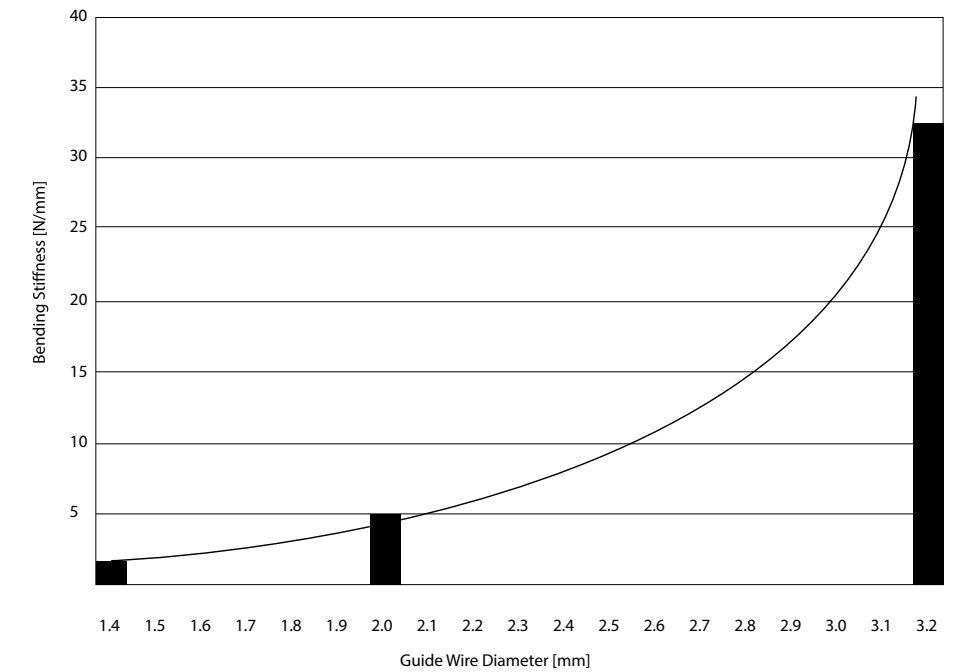
**Large Diameter Guide Wires**  
To allow for precise screw placement threaded tip engages bone for better bone purchase

# System Features

## Large Diameter Guide Wires

The Asnis III Systems feature larger diameter Guide Wires with tapered core. This design reduces potential for a stress riser at the thread/shank junction.

The larger diameter provides greater bending stiffness, to reduce deflection<sup>1</sup>. This should provide precise screw placement.



## Modular Case Design and Elastosil Handles

The modular case design offers improved aesthetics and better access to the instrumentation, thus simplifying the procedure further.

The inclusion of Elastosil allows for better surgeon grip as well as minimizing heat retention following sterilization.



	Screw Range – Titanium and Steel				
	4.0mm	5.0mm	6.5mm		8.0mm
<b>Partial</b>	1/3 Thread	1/3 Thread	20mm Thread	40mm Thread	25mm Thread
	14mm - 50mm* 55mm - 70mm**	20mm - 50mm* 55mm - 80mm**	40mm - 120mm**	40mm - 130mm**	40mm - 130mm** 135mm - 180mm***
<b>Full</b>	10mm - 50mm*	20mm - 50mm* 55mm - 70mm**	30mm - 150mm**		40mm - 150mm**

\* 2mm increments \*\* 5mm increments \*\*\* Steel only

<sup>1</sup>. Bending Stiffness  $K = (E \cdot \pi \cdot d^4) / 64$ .

\* 4.0, 5.0, 6.5, 8.0mm partially threaded screws available non-sterile and sterile; Ø8.0mm lengths 125mm-180mm available non-sterile for use in sterilization, case part # 901596.

# Indications, Precautions & Contraindications

## Indications

The Asnis III Cannulated Screw System is intended for fracture fixation of small and long bones and of the pelvis. The system is not intended for spinal use.

## Contraindications

The physician's education, training and professional judgment must be relied upon to choose the most appropriate device and treatment option. Conditions presenting an increased risk of failure include:

- Any active or suspected latent infection or marked local inflammation in or about the affected area
- Compromised vascularity that would inhibit adequate blood supply to the operative site
- Bone stock compromised by disease, infection or prior implantation that cannot provide adequate support and/or fixation of the devices
- Material sensitivity documented or suspected
- Obesity. An overweight or obese patient can produce loads on the implant which can lead to failure of the fixation of the device or to failure of the device itself
- Patients having inadequate tissue coverage over the operative site

## Precautions

Stryker Osteosynthesis systems have not been evaluated for safety and compatibility in MR environment and have not been tested for heating or migration in the MR environment, unless specified otherwise in the product labeling.

- Implant utilization that would interfere with anatomical structures or physiological performance
- Any mental or neuromuscular disorder which could create an unacceptable risk of fixation failure or complications in post-operative care
- Other medical or surgical conditions which would preclude the potential benefit of surgery

Surgeons should warn patients about these contraindications and limitations when appropriate

### Note:

**Contact of an Asnis III Screw with dense bone in a tangential direction may cause a deviation of the screw and/or a bending of the K-Wire, which may result in damage to the implant.**

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

# Operative Technique – 4.0mm

## Fractures of the tarsals and metatarsals

### Applications 4.0mm

- Fractures of the tarsals and metatarsals
- Fractures of the olecranon, distal humerus
- Fractures of the radius and ulna
- Patella fractures
- Distal tibia and pilon fractures
- Fractures of the fibula, medial malleolus, or calcaneus
- Tarso-metatarsal and metatarso-phalangeal arthrodesis
- Metatarsal and phalangeal osteotomies
- Osteochondritis dissecans
- Ligament fixation
- Fractures of the pelvic ring
- Other small fragment, cancellous bone fractures

### Step One

#### Insert Guide Wire

Using the Ø1.4 x 2.7mm double Drill Guide, insert a Ø1.4 x 150mm guide wire to the appropriate depth.

Use image intensification to control reduction and Guide Wire placement. Place additional Guide Wires as necessary. Remove the double Drill Guide.

### Note:

**In dense bone, puncturing the cortex with the Ø1.4 x 150mm drill bit to initiate the wire may reduce heat build-up and/or deflection of the wire.**

### Optional

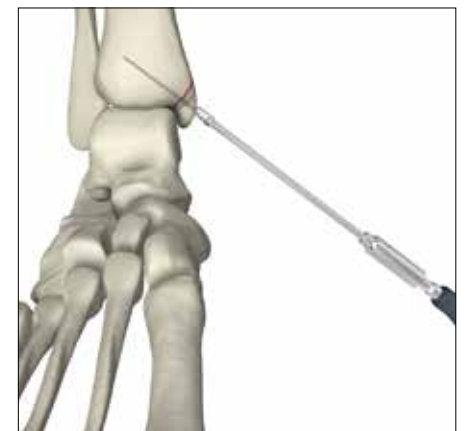
#### Countersink or Washer?

Where soft tissue coverage is minimal, use of the countersink to further recess the low profile screw head may be beneficial.

Washers can be applied to spread the load of the screw head over a greater area.

### Note:

**The countersink design does not require pre-drilling.**



## Operative Technique – 4.0mm

### Fractures of the tarsals and metatarsals

#### Step 2

##### Measure for Screw Length

Slide the direct measuring gauge over the Ø1.4 x 150mm Guide Wire. The direct measuring gauge measures direct to the tip of the Guide Wire. This allows the final screw position to correspond with the initial tip position of the Guide Wire.

Select appropriate screw length. Length adjustment is particularly important if the tip is near an articular surface.

#### Note:

**Care should be taken to ensure the direct measuring gauge tip engages the bone when a reading is taken.**



#### Step 3

##### Insert Screw

Using the cannulated screwdriver with Elastosil handle and the screw holding sleeve, insert the selected screw over the Guide Wire. Release the screw holding sleeve prior to final tightening.

Remove screwdriver and screw holding sleeve.

#### Note:

**Always verify both Guide Wire and screw position with periodic image intensification.**

The self-cutting and self-tapping tip of the Asnis 4.0mm screw is intended for cancellous bone. In dense cortical bone pre-drilling with the Cannulated Drill Ø2.7mm (702449) and use of the Cannulated Tap Ø4.0mm (702454) is recommended, especially when placing oblique screws.



#### Step 4

##### Verify Final Reduction

Verify the final position of the screw. Remove and discard the Guide Wire. Repeat as necessary for additional screws.



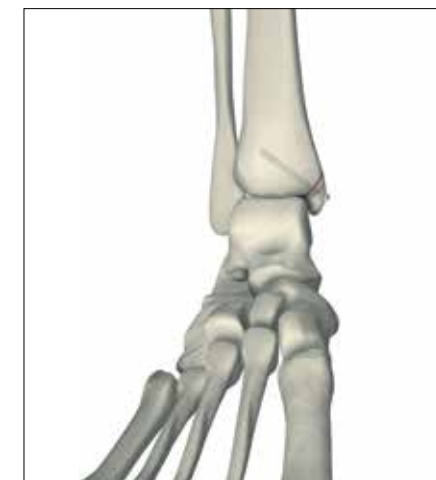
## Operative Technique – 5.0mm

### Medial and lateral malleolar and pilon fractures

#### Applications 5.0mm

Fixation of intermediate-sized fragments in fractures such as:

- Ligament fixation of the proximal humerus
- Proximal and distal humerus fractures
- Fractures of the olecranon process
- Fractures of the pelvis and acetabulum
- Proximal and distal femoral fractures
- Patellar fractures
- Tibial plateau fractures and metaphyseal fractures of the proximal Tibia
- Metaphyseal fractures of the distal tibia and pilon fractures
- Medial and lateral malleolar fractures
- Calcaneal and talar fractures
- Arthrodesis of the tarsals



#### Step 1

##### Insert Guide Wire

Using the Ø2.0 x 3.5mm double Drill Guide, insert a Ø2.0 x 150mm Guide Wire to the appropriate depth.

Use image intensification to control reduction and Guide Wire placement. Place additional Guide Wires as necessary. Remove the double Drill Guide.

#### Note:

**In dense bone, puncturing the cortex with the Ø2.0 x 150mm drill bit to initiate the wire may reduce heat build-up and/or deflection of the wire.**

#### Alternative:

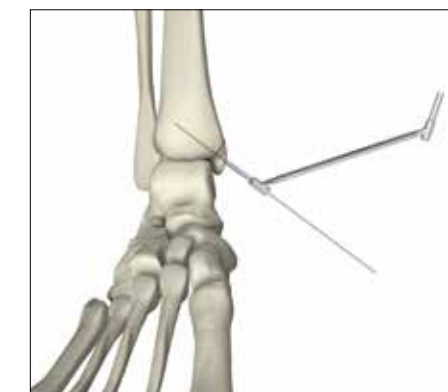
**Substitute the Ø2.0 x 150mm Guide Wire with a Ø2.0 x 150mm drill bit. Throughout the procedure it is possible to interchange the Guide Wire and drill bit.**

#### Note:

**Guide Wires are single use disposables. Do not reuse Guide Wires.**

#### Option:

**A parallel Drill Guide is available for parallel placement of Guide Wire.**



#### Optional

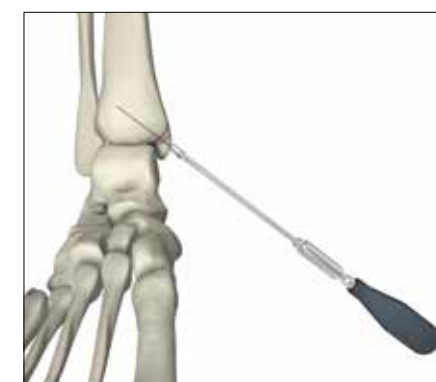
##### Countersink or Washer?

Where soft tissue coverage is minimal, use of the countersink to further recess the low profile screw head may be beneficial.

Washers can be applied to spread the load of the screw head over a greater area.

#### Note:

**The countersink design does not require pre-drilling.**



## Operative Technique – 5.0mm

### Medial and lateral malleolar and pilon fractures

#### Step 2

##### Measure for Screw Length

Slide the direct measuring gauge over the Ø2.0 x 150mm Guide Wire.

The direct measuring gauge measures direct to the tip of the Guide Wire.

This allows the final screw position to correspond with the initial tip position of the Guide Wire.

Select appropriate screw length. Length adjustment is particularly important if the tip is near an articular surface.

#### Note:

Care should be taken to ensure the direct measuring gauge tip engages the bone when a reading is taken.



#### Step 3

##### Insert Screw

Using the cannulated screwdriver with Elastosil handle and the screw holding sleeve, insert the selected screw over the Guide Wire. Release the screw holding sleeve prior to final tightening.

Remove screwdriver and screw holding sleeve.

#### Note:

Always verify both Guide Wire and screw position with periodic image intensification.



#### Step 4

##### Verify Final Reduction

Verify the final position of the screw. Remove and discard the Guide Wire. Repeat as necessary for additional screws.



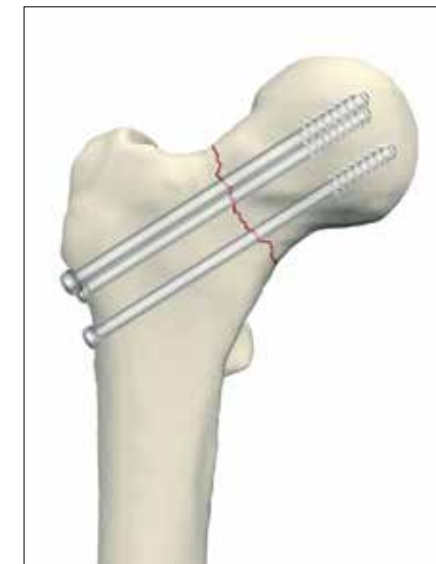
## Operative Technique – 6.5 & 8.0mm

### Intracapsular fractures of the femoral neck

#### Applications 6.5 & 8.0mm

Applications for 6.5 & 8.0mm screws include:

- Intracapsular fractures of the femoral neck
- Tibial plateau fractures
- Fractures of the dorsal pelvic ring
- Sacroiliac joint disruptions and other fractures of the pelvis
- Ankle arthrodesis
- Supplementary fixation for fractures of the proximal and distal femur



The original Asnis screw, with over 30 years of clinical history<sup>2</sup>, has been used in the treatment of intracapsular hip fractures.

The Asnis III Cannulated Screw offers greater simplicity to the procedure. Parallel guide pins are placed and the appropriate length cannulated screws are advanced over the guide pins. A full description of this procedure is presented to give the surgeon many of the details for successful intracapsular hip fixation.

The majority of displaced hip fractures can be reduced. Place the patient in a supine position on a fracture table. Traction is then applied with the leg in neutral flexion, 10 degrees abduction and neutral rotation. After the application of traction, the hip is internally rotated as far as possible using moderate force, then backed off to a position of approximately 20 degrees internal rotation. The reduction is then confirmed by fluoroscopy.

If good alignment but slight distraction of the fracture is present, proceed with the internal fixation and compress the

fracture with the compression screws. If the fracture is not reducible closed and if there is significant comminution of the posterior femoral neck, then the surgeon should consider open reduction or prosthetic replacement.

A six-centimeter straight lateral incision is made, starting at the flair of the greater trochanter and extending distally.

The fascia lata and vastus lateralis are then split in line with the incision.

Screw Size	Drills & Taps	Note
<b>6.5mm Screw</b>	a. Asnis III 4.9 mm Cannulated Drill – Cat. no. 702601 b. Asnis III 6.5 mm Cannulated Tap – Cat. no. 702602 c. Asnis III 6.5 mm Cannulated Drill – Cat. no. 702603	a. Used to drill for the length of the screw to be inserted. b. Used after drilling to tap for the screw to be inserted. c. Use to drill the near cortex only
<b>8.0mm Screw</b>	a. Asnis III 5.6 mm Cannulated Drill – Cat. no. 702601 b. Asnis III 8.0 mm Cannulated Tap – Cat. no. 702602 c. Asnis III 8.0 mm Cannulated Drill – Cat. no. 702603	a. Used to drill for the length of the screw to be inserted. b. Used after drilling to tap for the screw to be inserted. c. Use to drill the near cortex only.
<b>6.5/8.0mm Screw</b>	Asnis III Extractor – Cat. no. 702624	

<sup>2</sup> Intracapsular fractures of the femoral neck. Results of cannulated screw  
SE Asnis and L Wanek-Sgaglione  
*J Bone Joint Surg Am.* 1994;76:1793-1803.

## Operative Technique – 6.5 & 8.0mm

### Intracapsular fractures of the femoral neck

#### Step 1

##### Insert Guide Wire

Using fluoroscopy, a point is selected at, but not below, the level of the lesser trochanter (See Figure 1) midway between the anterior and posterior femoral cortices. In patients with dense cortical bone, the lateral femoral cortex can be opened with a 3.2mm drill bit. The guide pin for the most inferior screw is placed through the Drill Guide, then passed just above the calcar (inferior femoral neck), across the fracture and into the inferior femoral head.

In the lateral view, this guide pin should stay in the mid-line of the femoral neck and head. If fluoroscopy shows that this pin is not in a satisfactory position, then back it out to the cortex and re-direct it without making a new cortical hole. Two-plane fluoroscopy confirms the position of the guide pin.



Fig. 1

##### Multiple Guide Wire Insertion

One adjustable parallel pin guide is available (See Figure 2) and two fixed pin guides are available (See Figure 3). Of the two fixed pin guides, one contains a grid of different sized triangles, the other different sized diamonds.

Three screws using a triangle configuration (one screw distally and two proximally) are recommended for Garden I and II fractures, and four screws in a diamond or kite-shape configuration are used for the Garden III and IV fractures that require reduction.

The fixed diamond or triangle guide is then placed over the well positioned guide pin and two additional guide pins are placed.

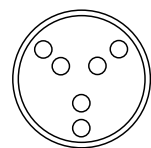
The guide pins can be power driven directly through the cortex, across the fracture and into the femoral head. Pre-drilling at this level is almost never necessary. Check the length and position of the guide pins with fluoroscopy.



Fig. 2



Fig. 3



## Operative Technique – 6.5 & 8.0mm

### Intracapsular fractures of the femoral neck

#### Technical Tip

The goal for positioning the screws should be to place three or four parallel screws around the periphery of the femoral neck, one in the inferior neck almost along the calcar, one along the mid-posterior neck and one along the mid-anterior neck. A fourth screw should be placed just below the superior neck in those fractures where a reduction was necessary. These will form the optimal triangle or diamond (kite) patterns, which are biomechanically sound.

The diamond is preferred over a rectangular pattern (two distal and two proximal screws) for two reasons: first, the diamond pattern fits best into the elliptical shape of the femoral neck; second, two holes at the same level, at or distal to the level of the lesser trochanter, can leave a weakness and potential for later iatrogenic subtrochanteric fracture. Likewise, when using the triangle pattern, a single screw should be used distally and two screws at the same level more proximally.

#### Step 2

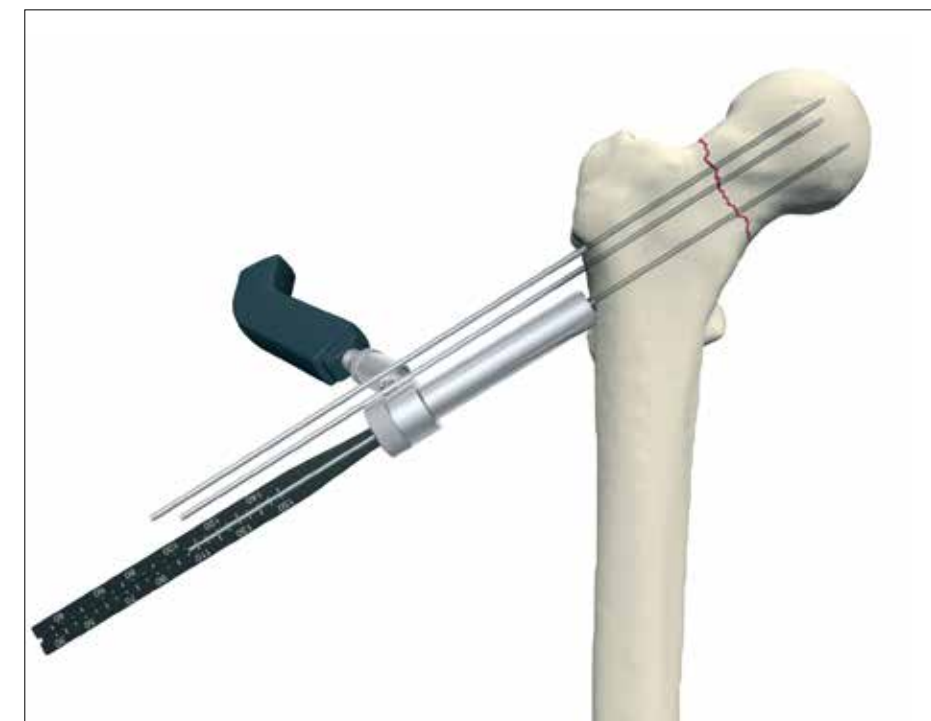
##### Measure for Screw Length

The screw length is determined by the direct reading depth gauge. If the measurement indicator is in-between lengths, use the shorter length. If the fracture is to be compressed, choose a screw 5mm to 10mm shorter than measured. This will leave room for the threads in the femoral head to advance as the screw lags and the fracture compresses.

#### Warning:

**When using a drill or a tap always verify both Guide Wire and drill or tap position with periodic image intensification.**

**If the Guide Wire is jammed in the cannulation of the drill or the tap due to any reason there is an increased risk of perforation of the Guide Wire into the small pelvis possibly causing life threatening injuries of internal organs.**



## Operative Technique – 6.5 & 8.0mm

### Intracapsular fractures of the femoral neck

#### Step 3 Insert Screw

A cannulated screw is then placed over each guide pin and driven with the cannulated power shaft (on the low-power setting) or hand screwdriver. With the self-cutting, self-tapping Asnis III screw tip, even hard cortical bone is readily penetrated. If a screw is not of ideal length, it can be removed, leaving the guide pin in place, and replaced with the appropriate length screw. The guide pins are removed and the incision closed.



#### Warning:

**Always verify both Guide Wire and screw position with periodic image intensification.**

**If the Guide Wire is jammed in the cannulation of the cannulated screw due to any reason there is an increased risk of perforation of the Guide Wire into the small pelvis possibly causing life threatening injuries of internal organs.**

#### Step 4 Verify Final Reduction and Position of Screws

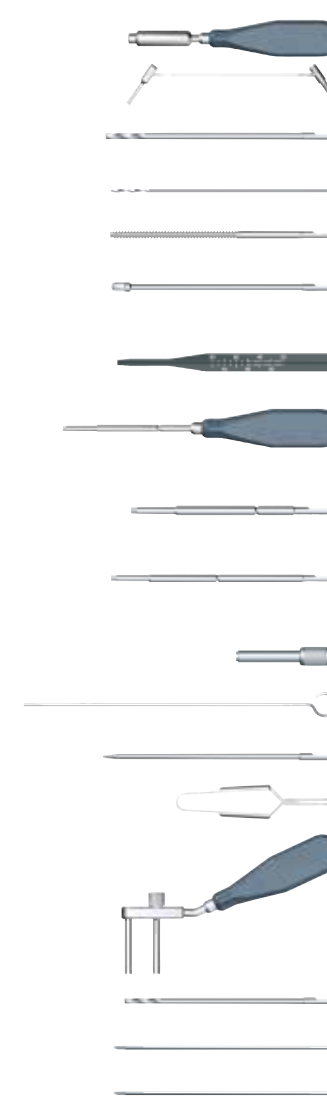
Verify the final position of all screws. Remove and discard all Guide Wires.



#### Step 5 Screw Removal

Never use a worn or damaged screwdriver to remove screws. In the removal of Asnis III screws after the healing of the intracapsular hip fracture, the screw must re-cut the femoral cortex from the inside out to allow for the passage of the threads. Reverse cutting flutes are present for this reason. If the oblique direction of the screw (approximately 135 degrees to the shaft) is not changed, then the reverse flutes are not in an opportune position to cut the cortex. If the screw head is placed under some traction and the angle of the screw is brought to a perpendicular position with the bone, cutting the cortex will progress and facilitate screw removal.

## Ordering Information – 4.0mm Instruments



REF	Description	Set Quantity
<b>Cases</b>		
901576	Asnis III 4.0mm Plastic Lid – (3/4 Length)	1
901577	Asnis III 4.0mm System Tray Insert without Screw Rack	1
901578	Asnis III 4.0mm System Screw Rack with Lid	1
901591	Asnis III 4.0mm Metal Base	1
901557	Asnis III Plastic Base – (3/4 Length) (special order only)	1
702425	Asnis III 4.0mm, Elastosil Handle with AO Quick Coupling	1
702465	Asnis III 4.0mm, Double Drill Guide Ø1.4/2.7mm	1
702449	Asnis III 4.0mm, Cannulated Drill Ø2.7mm with AO Coupling	1
702448	Asnis III 4.0mm, Drill Bit Ø1.4 x 150mm	1
702454	Asnis III 4.0mm, Cannulated Tap Ø4.0mm with AO Coupling	1
702473	Asnis III 4.0mm, Cannulated Countersink for Ø4.0mm Screws with AO Coupling	1
702499	Asnis III 4.0mm, Direct Measuring Gauge for Wires Ø1.4/2.0 x 150mm	1
702478	Asnis III 4.0mm, Cannulated Screwdriver with Elastosil Handle – Hex 2.5mm	1
702482	Asnis III 4.0mm, Cannulated Screwdriver with AO Coupling – Hex 2.5mm	1
702485	Asnis III 4.0mm, Solid Screwdriver with AO Coupling – Hex 2.5mm	1
702489	Asnis III 4.0mm, Holding Sleeve for Screwdrivers	1
702492	Asnis III 4.0mm, Cleaning Stylet Ø1.4mm	1
702496	Asnis III 4.0mm, Extractor for Ø4.0mm Screws	1
900105	Screw Forceps	1
702443	Parallel Guide for Ø1.4mm Wires	1
702446	Cannulated Drill Ø4.0mm with AO Coupling	1
702459	Asnis III 4.0mm, Threaded Guide Wire Ø1.4 x 150mm	10
702459S	Asnis III 4.0mm, Threaded Guide Wire Ø1.4 x 150mm (sterile)	10

#### 4.0mm Implants, Guide Wires, and Washers



Steel	Titanium
390018	Asnis III Washer for 4.0mm Screws
390018S	Asnis III Washer for 4.0mm Screws (sterile)



# Ordering Information – 4.0mm Screws

## 4.0mm Implants – Partially Threaded Screws - Sterile & non sterile\*



Steel		Titanium
325014S*	Asnis III Cannulated Screw 4.0 x 14mm	604614S*
325016S*	Asnis III Cannulated Screw 4.0 x 16mm	604616S*
325018S*	Asnis III Cannulated Screw 4.0 x 18mm	604618S*
325020S*	Asnis III Cannulated Screw 4.0 x 20mm	604620S*
325022S*	Asnis III Cannulated Screw 4.0 x 22mm	604622S*
325024S*	Asnis III Cannulated Screw 4.0 x 24mm	604624S*
325026S*	Asnis III Cannulated Screw 4.0 x 26mm	604626S*
325028S*	Asnis III Cannulated Screw 4.0 x 28mm	604628S*
325030S*	Asnis III Cannulated Screw 4.0 x 30mm	604630S*
325032S*	Asnis III Cannulated Screw 4.0 x 32mm	604632S*
325034S*	Asnis III Cannulated Screw 4.0 x 34mm	604634S*
325036S*	Asnis III Cannulated Screw 4.0 x 36mm	604636S*
325038S*	Asnis III Cannulated Screw 4.0 x 38mm	604638S*
325040S*	Asnis III Cannulated Screw 4.0 x 40mm	604640S*
325042S*	Asnis III Cannulated Screw 4.0 x 42mm	604642S*
325044S*	Asnis III Cannulated Screw 4.0 x 44mm	604644S*
325046S*	Asnis III Cannulated Screw 4.0 x 46mm	604646S*
325048S*	Asnis III Cannulated Screw 4.0 x 48mm	604648S*
325050S*	Asnis III Cannulated Screw 4.0 x 50mm	604650S*
325055S*	Asnis III Cannulated Screw 4.0 x 55mm	604655S*
325060S*	Asnis III Cannulated Screw 4.0 x 60mm	604660S*
325065S*	Asnis III Cannulated Screw 4.0 x 65mm	604665S*
325070S*	Asnis III Cannulated Screw 4.0 x 70mm	604670S*

**\*Note:**  
For Non-Sterile Implants remove ‘S’ from REF.

## 4.0mm Implants – Fully Threaded Screws - Sterile Only



Steel		Titanium
325210S	Asnis III Cannulated Screw 4.0 x 10mm	604710S
325212S	Asnis III Cannulated Screw 4.0 x 12mm	604712S
325214S	Asnis III Cannulated Screw 4.0 x 14mm	604714S
325216S	Asnis III Cannulated Screw 4.0 x 16mm	604716S
325218S	Asnis III Cannulated Screw 4.0 x 18mm	604718S
325220S	Asnis III Cannulated Screw 4.0 x 20mm	604720S
325222S	Asnis III Cannulated Screw 4.0 x 22mm	604722S
325224S	Asnis III Cannulated Screw 4.0 x 24mm	604724S
325226S	Asnis III Cannulated Screw 4.0 x 26mm	604726S
325228S	Asnis III Cannulated Screw 4.0 x 28mm	604728S
325230S	Asnis III Cannulated Screw 4.0 x 30mm	604730S
325232S	Asnis III Cannulated Screw 4.0 x 32mm	604732S
325234S	Asnis III Cannulated Screw 4.0 x 34mm	604734S
325236S	Asnis III Cannulated Screw 4.0 x 36mm	604736S
325238S	Asnis III Cannulated Screw 4.0 x 38mm	604738S*
325240S	Asnis III Cannulated Screw 4.0 x 40mm	604740S*
325242S	Asnis III Cannulated Screw 4.0 x 42mm	604742S*
325244S	Asnis III Cannulated Screw 4.0 x 44mm	604744S*
325246S	Asnis III Cannulated Screw 4.0 x 46mm	604746S*
325248S	Asnis III Cannulated Screw 4.0 x 48mm	604748S*
325250S	Asnis III Cannulated Screw 4.0 x 50mm	604750S*

**\*Note:**  
Titanium screws from 38mm to 50mm are also available non-sterile, for non-sterile, please remove ‘S’ from REF

# Ordering Information – 5.0mm Instruments



## 5.0mm Implants, Guide Wires, and Washers



REF	Description	Set Quantity
<b>Cases</b>		
901556	Asnis III 5.0mm Plastic Lid – (3/4 Length)	1
901565	Asnis III 5.0mm System Tray Insert without Screw Rack	1
901560	Asnis III 5.0mm System Screw Rack with Lid	1
901591	Asnis III 5.0mm Metal Base	1
901557	Asnis III 5.0mm Plastic Base – (3/4 Length) (special order only)	1
702425	Asnis III 5.0mm, Elastosil Handle with AO Quick Coupling	1
702445	Asnis III 5.0mm, Double Drill Guide Ø2.0/3.5mm	1
702450	Asnis III 5.0mm, Cannulated Drill Ø3.5mm with AO Coupling	1
702453	Asnis III 5.0mm, Drill Bit Ø2.0 x 150mm	1
702455	Asnis III 5.0mm, Cannulated Tap Ø5.0mm with AO Coupling	1
702474	Asnis III 5.0mm, Cannulated Countersink for Ø5.0mm Screws with AO Coupling	1
702499	Asnis III 5.0mm, Direct Measuring Gauge for Wires Ø1.4/2.0 x 150mm	1
702480	Asnis III 5.0mm, Cannulated Screwdriver with Elastosil Handle – Hex 3.5mm	1
702486	Asnis III 5.0mm, Cannulated Screwdriver with AO Coupling – Hex 3.5mm	1
702488	Asnis III 5.0mm, Solid Screwdriver with AO Coupling – Hex 3.5mm	1
702490	Asnis III 5.0mm, Holding Sleeve for Screwdrivers	1
702493	Asnis III 5.0mm, Cleaning Stylet Ø2.0mm	1
702497	Asnis III 5.0mm, Extractor for Ø5.0mm Screws	1
900105	Asnis III Screw Forceps	1
702444	Asnis III 5.0mm, Parallel Guide for Ø2.0mm Wire	1
702447	Asnis III 5.0mm, Cannulated Drill Ø5.0mm with AO Coupling	1
702460	Asnis III Threaded Guide Wire Ø2.0 x 150mm	10
702460S	Asnis III Threaded Guide Wire Ø2.0 x 150mm (sterile)	10

	Steel	Titanium
390017	Asnis III Washer for 5.0mm Screws	619906
390017S	Asnis III Washer for 5.0mm Screws (sterile)	

## Ordering Information – 5.0mm Screws

### 5.0mm Implants – Partially Threaded Screws - Sterile & non-sterile\*



Steel		Titanium
325420S*	Asnis III Cannulated Screw 5.0 x 20mm	601620S*
325422S*	Asnis III Cannulated Screw 5.0 x 22mm	601622S*
325424S*	Asnis III Cannulated Screw 5.0 x 24mm	601624S*
325426S*	Asnis III Cannulated Screw 5.0 x 26mm	601626S*
325428S*	Asnis III Cannulated Screw 5.0 x 28mm	601628S*
325430S*	Asnis III Cannulated Screw 5.0 x 30mm	601630S*
325432S*	Asnis III Cannulated Screw 5.0 x 32mm	601632S*
325434S*	Asnis III Cannulated Screw 5.0 x 34mm	601634S*
325436S*	Asnis III Cannulated Screw 5.0 x 36mm	601636S*
325438S*	Asnis III Cannulated Screw 5.0 x 38mm	601638S*
325440S*	Asnis III Cannulated Screw 5.0 x 40mm	601640S*
325442S*	Asnis III Cannulated Screw 5.0 x 42mm	601642S*
325444S*	Asnis III Cannulated Screw 5.0 x 44mm	601644S*
325446S*	Asnis III Cannulated Screw 5.0 x 46mm	601646S*
325448S*	Asnis III Cannulated Screw 5.0 x 48mm	601648S*
325450S*	Asnis III Cannulated Screw 5.0 x 50mm	601650S*
325455S*	Asnis III Cannulated Screw 5.0 x 55mm	601655S*
325460S*	Asnis III Cannulated Screw 5.0 x 60mm	601660S*
325465S*	Asnis III Cannulated Screw 5.0 x 65mm	601665S*
325470S*	Asnis III Cannulated Screw 5.0 x 70mm	601670S*
325475S*	Asnis III Cannulated Screw 5.0 x 75mm	601675S*
325480S*	Asnis III Cannulated Screw 5.0 x 80mm	601680S*

**\*Note:**  
For Non-Sterile Implants remove ‘S’ from REF.

### 5.0mm Implants – Fully Threaded Screws - Sterile only



Steel		Titanium
325620S	Asnis III Cannulated Screw 5.0 x 20mm	601720S
325622S	Asnis III Cannulated Screw 5.0 x 22mm	601722S
325624S	Asnis III Cannulated Screw 5.0 x 24mm	601724S
325626S	Asnis III Cannulated Screw 5.0 x 26mm	601726S
325628S	Asnis III Cannulated Screw 5.0 x 28mm	601728S
325630S	Asnis III Cannulated Screw 5.0 x 30mm	601730S
325632S	Asnis III Cannulated Screw 5.0 x 32mm	601732S
325634S	Asnis III Cannulated Screw 5.0 x 34mm	601734S
325636S	Asnis III Cannulated Screw 5.0 x 36mm	601736S
325638S	Asnis III Cannulated Screw 5.0 x 38mm	601738S
325640S	Asnis III Cannulated Screw 5.0 x 40mm	601740S
325642S	Asnis III Cannulated Screw 5.0 x 42mm	601742S
325644S	Asnis III Cannulated Screw 5.0 x 44mm	601744S
325646S	Asnis III Cannulated Screw 5.0 x 46mm	601746S
325648S	Asnis III Cannulated Screw 5.0 x 48mm	601748S
325650S	Asnis III Cannulated Screw 5.0 x 50mm	601750S
325655S	Asnis III Cannulated Screw 5.0 x 55mm	601755S
325660S	Asnis III Cannulated Screw 5.0 x 60mm	601760S
325665S	Asnis III Cannulated Screw 5.0 x 65mm	601765S
325670S	Asnis III Cannulated Screw 5.0 x 70mm	601770S

## Ordering Information – 6.5 & 8.0mm Instruments



REF	Description	Set Quantity
<b>Cases</b>		
901584	Asnis III 6.5/8.0mm Plastic Lid (Full Length)	1
901587	Asnis III 6.5/8.0mm System Tray Insert without Screw Rack	1
901588	Asnis III 6.5/8.0mm System Screw Rack with Lid	1
901585	Asnis III 6.5/8.0mm Plastic Base (Full Length) (special order only)	1
901586	Asnis III 6.5/8.0mm Metal Base (Full Length)	1
901677	Asnis III 6.5/8.0mm Minimal Instrumentation Set (Lid)	1
901678	Asnis III 6.5/8.0mm Minimal Instrumentation Set (Base)	1
702601	Asnis III 6.5mm, Cannulated Drill Ø4.9mm with Large AO Fitting	1
702602	Asnis III 6.5mm, Cannulated Tap Ø6.5mm with Large AO Fitting	1
702604	Asnis III Holding Sleeve for 6.5mm Screws	1
702621	Asnis III 6.5/8.0mm, Cannulated Countersink for 6.5/8.0mm Screws with AO Fitting	1
702623	Asnis III 6.5/8.0mm, Solid Screwdriver with Large AO Fitting – Hex 5.0mm	1
702625	Asnis III 6.5/8.0mm, Cleaning Stylet Ø3.2mm	1
702628	Asnis III 6.5/8.0mm, Elastosil T-Handle with Large AO Coupling	1
702629	Asnis III 6.5/8.0mm, Cannulated Screwdriver with Elastosil Handle – Hex 5.0mm	1
702630	Asnis III 6.5/8.0mm, Elastosil Hammer-Handle with Large AO Coupling	1
702638	Asnis III 6.5/8.0mm, Protection Sleeve with Large AO Fitting	1
702639	Asnis III 6.5/8.0mm, Screw Insertion Sleeve	1
702640	Asnis III 6.5/8.0mm, Guide Wire Insertion Sleeve for Ø3.2mm Guide Wires	1
702495	Asnis III 6.5/8.0mm, Direct Measuring Gauge for Ø3.2mm Guide Wires	1
702634	Asnis III 6.5/8.0mm, Large AO Coupling - Hall Fitting	1

## Ordering Information – 6.5 & 8.0mm Instruments

REF	Description	Set Quantity
702603	Asnis III Cannulated Drill Ø6.5mm with Large AO Fitting	1
702611	Asnis III Cannulated Drill Ø5.6mm with Large AO Fitting	1
702612	Asnis III Cannulated Tap Ø8.0mm with Large AO Fitting	1
702613	Asnis III Cannulated Drill Ø8.0mm with Large AO Fitting	1
702614	Asnis III Holding Sleeve for 8.0mm Screws	1
702622	Asnis III 6.5/8.0mm, Cannulated Screwdriver with Large AO Fitting – Hex 5.0mm	1
702624	Asnis III Extractor for Ø6.5/8.0mm Screws	1
702626	Asnis III Drill Bit Ø3.2 x 300mm	1
702633	Asnis III Multiple Drill Guide with Large AO Fitting	1
702636	Asnis III Parallel Drill Guide with Large AO Fitting	1
900105	Asnis III Screw Forceps	1

REF	Description	Set Quantity
702632	Asnis III 6.5/8.0mm, Multiple Drill Guide with Elastosil Hammer-Handle	Optional
702635	Asnis III 6.5/8.0mm, Parallel Drill Guide with Elastosil Hammer-Handle	Optional
702637	Asnis III 6.5/8.0mm, Protection Sleeve with Elastosil Hammer-Handle	Optional
702641	Asnis III 6.5/8.0mm, Quick Release Driver with Hall Fitting (For 702627)	Optional
702642	Multiple Drill Guide - Diamond Pattern	Optional

### 6.5 & 8.0mm Implants and Guide Wires

REF	Description	Set Quantity
702462S	Threaded Guide Wire Ø3.2 x 300mm (Sterile)	Standard
702462	Threaded Guide Wire Ø3.2 x 300mm	Optional
702463	Asnis III Guide Wire without Thread Ø3.2 x 300mm	Optional
702463S	Asnis III Guide Wire without Thread (Sterile) Ø3.2 x 300mm	Optional
702627	Asnis III Guide Wire with Calibrations and Quick Release Fitting Ø3.2 x 300mm	Optional
702627S	Asnis III Guide Wire with Calibrations and Quick Release Fitting Ø3.2 x 300mm (Sterile)	Optional

### 6.5 & 8.0mm Washers



Steel	Titanium
390016	Asnis III Washer for 6.5/8.0mm Screws
390016S	Asnis III Washer for 6.5/8.0mm Screws (sterile)

## Ordering Information – 6.5mm Screws

### 6.5 Implants - 20mm Threaded Screws - Sterile & non-sterile\*



Steel		Titanium
326040S*	Asnis III Cannulated Screw 6.5 x 40mm	602640S*
326045S*	Asnis III Cannulated Screw 6.5 x 45mm	602645S*
326050S*	Asnis III Cannulated Screw 6.5 x 50mm	602650S*
326055S*	Asnis III Cannulated Screw 6.5 x 55mm	602655S*
326060S*	Asnis III Cannulated Screw 6.5 x 60mm	602660S*
326065S*	Asnis III Cannulated Screw 6.5 x 65mm	602665S*
326070S*	Asnis III Cannulated Screw 6.5 x 70mm	602670S*
326075S*	Asnis III Cannulated Screw 6.5 x 75mm	602675S*
326080S*	Asnis III Cannulated Screw 6.5 x 80mm	602680S*
326085S*	Asnis III Cannulated Screw 6.5 x 85mm	602685S*
326090S*	Asnis III Cannulated Screw 6.5 x 90mm	602690S*
326095S*	Asnis III Cannulated Screw 6.5 x 95mm	602695S*
326100S*	Asnis III Cannulated Screw 6.5 x 100mm	602700S*
326105S*	Asnis III Cannulated Screw 6.5 x 105mm	602705S*
326110S*	Asnis III Cannulated Screw 6.5 x 110mm	602710S*
326115S*	Asnis III Cannulated Screw 6.5 x 115mm	602715S*
326120S*	Asnis III Cannulated Screw 6.5 x 120mm	602720S*

**\*Note:**  
For Non-Sterile Implants remove ‘S’ from REF.

### 6.5mm Implants – 40mm Threaded Screws - Steril & non-sterile\*



Steel		Titanium
326255S*	Asnis III Cannulated Screw 6.5 x 55mm	602855S*
326260S*	Asnis III Cannulated Screw 6.5 x 60mm	602860S*
326265S*	Asnis III Cannulated Screw 6.5 x 65mm	602865S*
326270S*	Asnis III Cannulated Screw 6.5 x 70mm	602870S*
326275S*	Asnis III Cannulated Screw 6.5 x 75mm	602875S*
326280S*	Asnis III Cannulated Screw 6.5 x 80mm	602880S*
326285S*	Asnis III Cannulated Screw 6.5 x 85mm	602885S*
326290S*	Asnis III Cannulated Screw 6.5 x 90mm	602890S*
326295S*	Asnis III Cannulated Screw 6.5 x 95mm	602895S*
326300S*	Asnis III Cannulated Screw 6.5 x 100mm	602900S*
326305S*	Asnis III Cannulated Screw 6.5 x 105mm	602905S*
326310S*	Asnis III Cannulated Screw 6.5 x 110mm	602910S*
326315S*	Asnis III Cannulated Screw 6.5 x 115mm	602915S*
326320S*	Asnis III Cannulated Screw 6.5 x 120mm	602920S*
326325S**	Asnis III Cannulated Screw 6.5 x 125mm	602925S/**
326330S**	Asnis III Cannulated Screw 6.5 x 130mm	602930S/**

**Note:**  
\*For Non-Sterile Implants remove ‘S’ from REF  
\*\* Special Order

## Ordering Information – 6.5mm Screws

### 6.5mm Implants – Fully Threaded Screws - Sterile only (Except\*\*\* Non-Sterile only)



Steel		Titanium
326430S	Asnis III Cannulated Screw 6.5 x 30mm	606030S
326435S	Asnis III Cannulated Screw 6.5 x 35mm	606035S
326440S	Asnis III Cannulated Screw 6.5 x 40mm	606040S
326445S	Asnis III Cannulated Screw 6.5 x 45mm	606045S
326450S	Asnis III Cannulated Screw 6.5 x 50mm	606050S
326455S	Asnis III Cannulated Screw 6.5 x 55mm	606055S
326460S	Asnis III Cannulated Screw 6.5 x 60mm	606060S
326465S	Asnis III Cannulated Screw 6.5 x 65mm	606065S
326470S	Asnis III Cannulated Screw 6.5 x 70mm	606070S
326475S	Asnis III Cannulated Screw 6.5 x 75mm	606075S
326480S	Asnis III Cannulated Screw 6.5 x 80mm	606080S
326485S	Asnis III Cannulated Screw 6.5 x 85mm	606085S
326490S	Asnis III Cannulated Screw 6.5 x 90mm	606090S
326495S	Asnis III Cannulated Screw 6.5 x 95mm	606095S
326500S	Asnis III Cannulated Screw 6.5 x 100mm	606100S
326505S	Asnis III Cannulated Screw 6.5 x 105mm	606105S
326510S	Asnis III Cannulated Screw 6.5 x 110mm	606110S
326515S	Asnis III Cannulated Screw 6.5 x 115mm	606115S
326520S	Asnis III Cannulated Screw 6.5 x 120mm	606120S
326525S**	Asnis III Cannulated Screw 6.5 x 125mm	606125S**
326530S**	Asnis III Cannulated Screw 6.5 x 130mm	606130S**
-	Asnis III Cannulated Screw 6.5 x 135mm	606135**/**
-	Asnis III Cannulated Screw 6.5 x 140mm	606140**/**
-	Asnis III Cannulated Screw 6.5 x 145mm	606145**/**
-	Asnis III Cannulated Screw 6.5 x 150mm	606150**/**

**Note:**

\*\*\*Titanium screws from 135mm to 150mm are only available non-sterile

\*\* Special Order

## Ordering Information – 8.0mm Screws

### 8.0mm Implants – Partially Threaded Screws - Sterile & non-sterile



Steel		Titanium
326640S*	Asnis III Cannulated Screw 8.0 x 40mm	611040S*
326645S*	Asnis III Cannulated Screw 8.0 x 45mm	611045S*
326650S*	Asnis III Cannulated Screw 8.0 x 50mm	611050S*
326655S*	Asnis III Cannulated Screw 8.0 x 55mm	611055S*
326660S*	Asnis III Cannulated Screw 8.0 x 60mm	611060S*
326665S*	Asnis III Cannulated Screw 8.0 x 65mm	611065S*
326670S*	Asnis III Cannulated Screw 8.0 x 70mm	611070S*
326675S*	Asnis III Cannulated Screw 8.0 x 75mm	611075S*
326680S*	Asnis III Cannulated Screw 8.0 x 80mm	611080S*
326685S*	Asnis III Cannulated Screw 8.0 x 85mm	611085S*
326690S*	Asnis III Cannulated Screw 8.0 x 90mm	611090S*
326695S*	Asnis III Cannulated Screw 8.0 x 95mm	611095S*
326700S*	Asnis III Cannulated Screw 8.0 x 100mm	611100S*
326705S*	Asnis III Cannulated Screw 8.0 x 105mm	611105S*
326710S*	Asnis III Cannulated Screw 8.0 x 110mm	611110S*
326715S*	Asnis III Cannulated Screw 8.0 x 115mm	611115S*
326720S*	Asnis III Cannulated Screw 8.0 x 120mm	611120S*
326725S**	Asnis III Cannulated Screw 8.0 x 125mm	611125S**/**
326730S**	Asnis III Cannulated Screw 8.0 x 130mm	611130S**/**

**Note:**

\*For Non-Sterile Implants remove 'S' from REF

\*\* Special Order

### 8.0mm Implants – Fully Threaded Screws - Sterile only (Except\*\*\* Non-Sterile only)



Steel		Titanium
326840S	Asnis III Cannulated Screw 8.0 x 40mm	611240S
326845S	Asnis III Cannulated Screw 8.0 x 45mm	611245S
326850S	Asnis III Cannulated Screw 8.0 x 50mm	611250S
326855S	Asnis III Cannulated Screw 8.0 x 55mm	611255S
326860S	Asnis III Cannulated Screw 8.0 x 60mm	611260S
326865S	Asnis III Cannulated Screw 8.0 x 65mm	611265S
326870S	Asnis III Cannulated Screw 8.0 x 70mm	611270S
326875S	Asnis III Cannulated Screw 8.0 x 75mm	611275S
326880S	Asnis III Cannulated Screw 8.0 x 80mm	611280S
326885S	Asnis III Cannulated Screw 8.0 x 85mm	611285S
326890S	Asnis III Cannulated Screw 8.0 x 90mm	611290S
326895S	Asnis III Cannulated Screw 8.0 x 95mm	611295S
326900S	Asnis III Cannulated Screw 8.0 x 100mm	611300S
326905S	Asnis III Cannulated Screw 8.0 x 105mm	611305S
326910S	Asnis III Cannulated Screw 8.0 x 110mm	611310S
326915S	Asnis III Cannulated Screw 8.0 x 115mm	611315S
326920S	Asnis III Cannulated Screw 8.0 x 120mm	611320S
326925S	Asnis III Cannulated Screw 8.0 x 125mm	611325S**
326930S**	Asnis III Cannulated Screw 8.0 x 130mm	611330S**
326935**/**	Asnis III Cannulated Screw 8.0 x 135mm	611335**/**
326940**/**	Asnis III Cannulated Screw 8.0 x 140mm	611340**/**
326945**/**	Asnis III Cannulated Screw 8.0 x 145mm	611345**/**
326950**/**	Asnis III Cannulated Screw 8.0 x 150mm	611350**/**

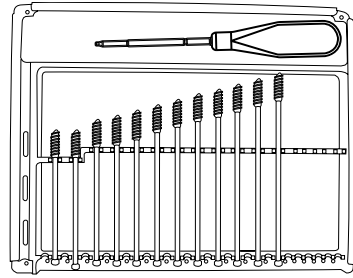
**Note:**

\*\*\*Steel & Titanium screws from 135mm to 150mm are only available non-sterile

\*\* Special Order

## Ordering Information – 8.0mm Screws

### 8.0mm Long Screw Kit



Steel		Quantity
326725	Asnis III Cannulated Screw 8.0 x 125mm	2
326730	Asnis III Cannulated Screw 8.0 x 130mm	2
326735	Asnis III Cannulated Screw 8.0 x 135mm	2
326740	Asnis III Cannulated Screw 8.0 x 140mm	2
326745	Asnis III Cannulated Screw 8.0 x 145mm	2
326750	Asnis III Cannulated Screw 8.0 x 150mm	2
326755	Asnis III Cannulated Screw 8.0 x 155mm	2
326760	Asnis III Cannulated Screw 8.0 x 160mm	2
326765	Asnis III Cannulated Screw 8.0 x 165mm	2
326770	Asnis III Cannulated Screw 8.0 x 170mm	2
326775	Asnis III Cannulated Screw 8.0 x 175mm	2
326780	Asnis III Cannulated Screw 8.0 x 180mm	2
390016	Asnis III Washer for 6.5/8.0mm Screws	6
702626	Asnis III 6.5/8.0mm, Drill Bit Ø3.2 x 300mm	3
702495	Asnis III 8.0mm Direct Measuring Guide for Ø3.2mm Guide Wires	1
702629	Asnis III 6.5/8.0mm, Cannulated Screwdriver with Elastosil Handle - Hex 5.0mm	1
901596	Asnis III 8.0mm Plastic Base with Lid	1
702462*	Threaded Guide Wire Ø3.2 x 300mm	1
702463*	Asnis III Guide Wire without Thread Ø3.2 x 300mm	1
702627*	Asnis III Guide Wire with Calibrations and Quick Release Fitting Ø3.2 x 300mm	1

#### \*Optional Instruments

## Additional Information

### Options:

Tap/Drill - In hard or sclerotic bone, pre-drilling and pre-tapping may be necessary.

Cannulated screwdriver with AO fitting - This can be used with either the Elastosil handle with AO coupling or a power tool. If a power tool is selected, final tightening must be carried out by hand to prevent stripping.

### Cleaning:

Care should be taken to utilize the cleaning stylet for inter and post-operative cleaning of cannulations. Correct inter-operative use of this instrument prevents accumulation of debris.

### Removal

It is recommended that the solid screwdriver be used for screw removal.

This can apply greater torque and will reduce the potential for damaging the hex tip on the screwdriver.

### Single use items

Discard all single-use implants and instruments utilized during the procedure.

### Warning

Bone screws referenced in this material are not FDA approved for screw attachment or fixation to the posterior elements (pedicles) of the cervical, thoracic or lumbar spine.





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