



# SURGICAL TECHNIQUE





## ANTEGRADE FEMORAL NAIL

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<b>Doc Name</b>	<b>Doc No</b>	<b>Issue No/Rev No</b>	<b>Dated</b>	<b>Page No</b>
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 1 of 23



## SYSTEM OVERVIEW

NAILS	
<p>INTER-LOCKING HUMERUS NAIL (SOLID) (6.0 mm)</p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 203 Titanium: TT 203</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 20cm to 30cm</li> <li>• Diameter: 6mm</li> </ul>	
<p>INTER-LOCKING HUMERUS NAIL (SOLID) (7.0 mm)</p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 203 Titanium: TT 203</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 20cm to 30cm</li> <li>• Diameter: 7mm</li> </ul>	
<p>INTER-LOCKING HUMERUS NAIL (CANNULATED) (6.0 mm)</p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 204 Titanium: TT 204</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 20cm to 30cm</li> <li>• Diameter: 6mm</li> </ul>	
<p>INTER-LOCKING HUMERUS NAIL (CANNULATED) (7.0 mm)</p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 204 Titanium: TT 204</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 20cm to 30cm</li> <li>• Diameter: 7mm</li> </ul>	



<p><b>INTER-LOCKING HUMERUS NAIL (CANNULATED) (8.0 mm)</b></p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 204 Titanium: TT 204</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 20cm to 30cm</li> <li>• Diameter: 8 mm</li> </ul>	
<p><b>CAP FOR HUMERUS NAIL</b></p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 200-01 Titanium: TT 200-01</li> </ul>	
<p><b>2.9 mm INTER-LOCKING SCREW</b></p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 212 Titanium: TT 212</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 16mm to 50mm</li> <li>• Diameter: 2.9mm</li> </ul>	
<p><b>3.4 mm INTER-LOCKING SCREW</b></p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 212 Titanium: TT 212</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 16mm to 50mm</li> <li>• Diameter: 3.4mm</li> </ul>	
<p><b>3.9 mm INTER-LOCKING SCREW</b></p> <ul style="list-style-type: none"> <li>• Catalogue Number: Stainless Steel: SS 213 Titanium: TT 213</li> <li>• Available in Stainless Steel 316L and Titanium Grade 5</li> <li>• Length: 16mm to 50mm</li> <li>• Diameter: 3.9mm</li> </ul>	



**GUIDE WIRE (SIMPLE)**

- Catalogue number-  
Stainless Steel 316L: SS 291-018
- Available in Stainless Steel 316L
- Diameter: 1.8mm



**INSTRUMENT SET DETAILS**

SIS 122-001	Trocar	SIS 122-038	Reamer Head 9.0mm
SIS 122-002	Drill Sleeve	SIS 122-039	Reamer Head 9.5mm
SIS 122-003	Hammer	SIS 122-040	Reamer Head 10.0mm
SIS 122-004	Guide Pin with Hook	SIS 122-041	Reamer Head 10.5mm
SIS 122-005	Blade Extractor	SIS 122-042	Reamer Head 11.0mm
SIS 122-006	Blade Anti-Rotation Wrench	SIS 122-043	Reamer Head 11.5mm
SIS 122-007	Blade Fixation Sleeve	SIS 122-044	Reamer Head 12.0mm
SIS 122-008	Blade Extractor Connect Rod	SIS 122-045	Reamer Head 12.5mm
SIS 122-009	Guide Lock Nut	SIS 122-046	Reamer Head Tray
SIS 122-010	Guide Pin Holder Device	SIS 122-047	Soft Tissue Protection Plate
SIS 122-011	Guide Pin Depth Gauge	SIS 122-048	Jia
SIS 122-012	Guide Pin Tube	SIS 122-049	Blade Locking Screwdriver
SIS 122-013	Guide Pin Sleeve	SIS 122-050	Wrench
SIS 122-014	Location Rod	SIS 122-051	Trocar
SIS 122-015	Location Drill Bit	SIS 122-052	Nail nut Cannulated Screwdriver
SIS 122-016	Location Rod Sleeve	SIS 122-053	Nail Nut Cannulated Sleeve
SIS 122-017	Location Rod Trocar	SIS 122-054	Marking Ruler
SIS 122-018	Location Drill Sleeve	SIS 122-055	Limit Block
SIS 122-019	Drill Bit	SIS 122-056	Wrench
SIS 122-020	Location Block	SIS 122-057	Distal Guide 90°
SIS 122-021	Reduction Tube	SIS 122-058	Distal Guide 170/200mm
SIS 122-022	Drill Bit	SIS 122-059	Distal Guide 240mm
SIS 122-023	Slip Hammer	SIS 122-060	Distal Screw Depth Gauge
SIS 122-024	Proximal Location Device	SIS 122-061	Distal Drill Sleeve Large
SIS 122-025	Proximal Reamer	SIS 122-062	Distal Drill Sleeve Small
SIS 122-026	Cannulated Reamer	SIS 122-063	Extra Nail Distal Guide Rod
SIS 122-027	Opening Wrench	SIS 122-064	Distal Guide Rod Connect Bolt
SIS 122-028	AWL	SIS 122-065	Distal Guide Rod Bolt
SIS 122-029	T Quick Coupling Handle	SIS 122-066	Distal Location Arm
SIS 122-030	Nail Connection Bolt	SIS 122-067	Location Arm Bolt
SIS 122-031	Hex Screwdriver	SIS 122-068	Extra Nail Proximal Connect Rod
SIS 122-032	Multi-Dirction Screwdriver	SIS 122-069	Nail Impactor
SIS 122-033	Threaded Guide Pin	SIS 122-070	Nail Extractor
SIS 122-034	Oliver Guide Pin Steel	SIS 122-071	Drill Bit Limit Block
SIS 122-035	Flexible Reamer Rod	SIS 122-072	Steel Guide Pin Oliver Head 2.5 X 1000mm
SIS 122-036	Reamer Head 8.0mm	SIS 122-073	Instrument Box
SIS 122-037	Reamer Head 8.5mm		

Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 4 of 23



## INDICATIONS:

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### AFN Standard locking

#### Standard Locking Indications:

- The Antegrade Femoral Nail with standard locking is indicated for fractures in the femoral shaft:
- 32-A/B/C (except subtrochanteric fractures)

## CONTRAINDICATIONS:

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- Isolated femoral neck fractures
- Supracondylar fractures
- Intertrochanteric fractures
- Pertrochanteric fractures

## ADVERSE REACTIONS:

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- Clinical failure (i.e. pain or injury) due to bending, loosening, breakage of implant,
- loose fixation, dislocation and/or migration
- Pain, discomfort, and/or abnormal sensations due to the presence of the implant.
- Primary and/or secondary infections.
- Allergic reactions to implant material.
- Necrosis of bone or decrease of bone density.
- Injury to vessels, nerves and organs.
- Elevated fibrotic tissue reaction around the surgical area.

## PRECAUTIONS:

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An implant shall never be reused. Previous stresses may have created imperfections which can lead to device failure. Instruments shall be inspected for wear or damage prior to usage. Protect implant appliances against scratching and nicking. Such stress concentrations can lead to failure.

## Single Brand Usage:

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Implant components from one manufacture should not be used with those of another. Implants from each manufacture may have metal, dimensions and design differences so that the use in conjunction with different brands of devices may lead to inadequate fixation or adverse performances of the devices.

Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 5 of 23



## SURGICAL TECHNIQUE:

### PREPARATION

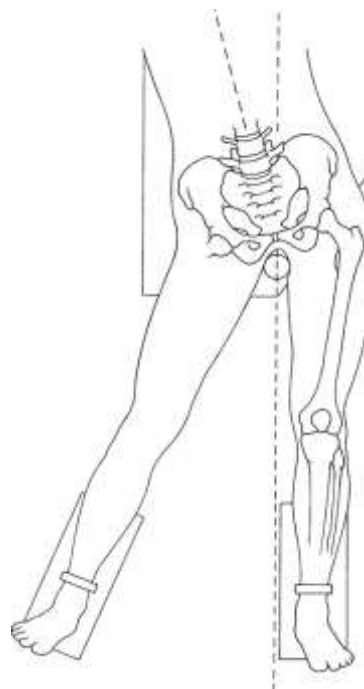
#### 1. Patient positioning:

Position the patient supine on a fracture or radiolucent operating table. Place the contralateral leg on a leg support, and orient it intraoperatively.

Position the C-arm of the image intensifier in such a way that true AP and lateral views of the proximal femur are possible, and check it pre-operatively.

To ensure unimpeded access to the medullary cavity, abduct the upper body approximately 10–15° to the contralateral side (or abduct the affected leg by 10–15°).

When selecting the nail size, consider canal diameter, fracture pattern, patient anatomy and post-operative protocol



#### 2. Fracture reduction on the fracture table

If possible, carry out a closed preoperative reduction of the fracture under image intensifier control. Exact reduction and secure fixation of the patient to the operating table are essential for easy handling and a good surgical result.

#### 3. Determine nail length:

Pos.1

Measure with the measuring device under image intensification:

Position the image intensifier for an AP view of the proximal femur. Use long forceps to hold the Measuring Device alongside the lateral aspect of the thigh parallel to and at the same level as the femur.

Adjust the C-arm of the image intensifier so that the beam is centred between the femur and the measuring device; this will prevent magnification errors. Adjust the measuring device until its proximal end is level with the tip of the greater trochanter.

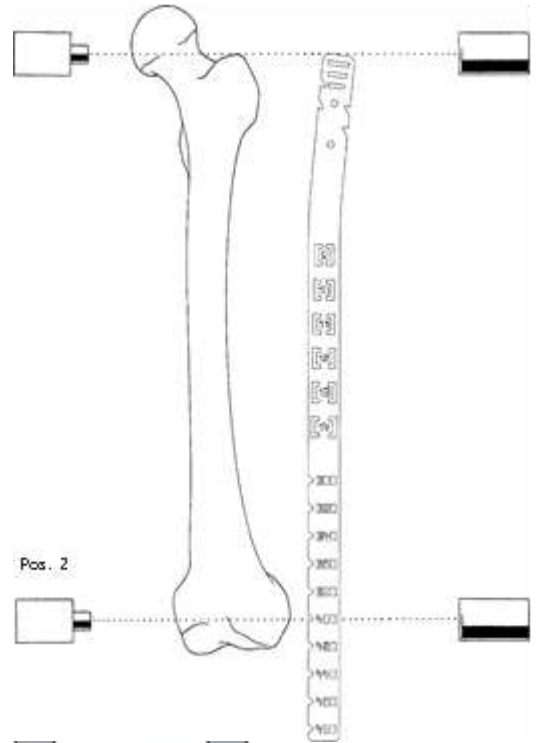
Mark the skin at the top of the measuring device.

Move the image intensifier to the distal femur end (position 2), replace the proximal end of the measuring device at the skin mark and take an AP image of the distal femur. Verify the fracture reduction.

Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 6 of 23

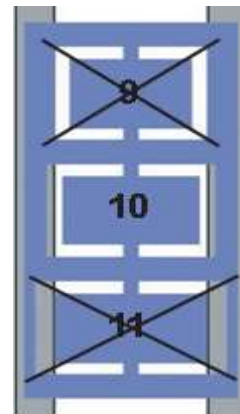


Read the nail length directly from the image of the measuring device, selecting the measurement at or just proximal to the epiphyseal scar, or at the chosen insertion depth.



#### 4. Determine nail diameter:

Under image intensifier control, place the Measuring Device on the femur, and position the square marking over the isthmus. The corresponding nail diameter may be used if the transition to the cortex is still visible both on the left and the right side of the marking.



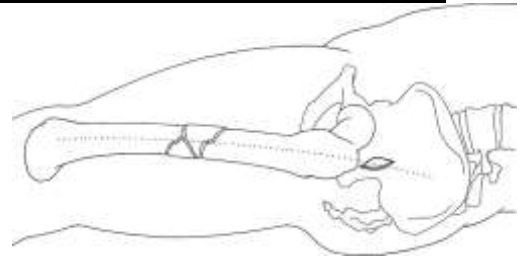
Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 7 of 23



## SURGICAL APPROACH:

### 1. Palpate the greater trochanter:

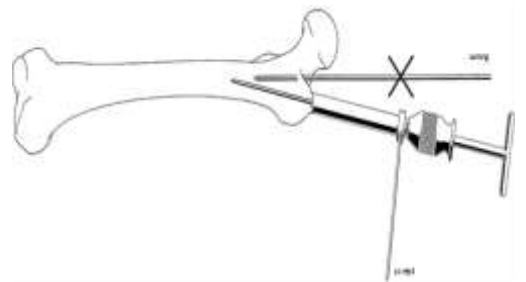
Make a 5cm incision approximately 5 to 10 cm proximal of the tip of the greater trochanter. Make a parallel incision in the fascia of the gluteus medius and split the gluteus medius in line with the fibres.



### 2. Determine nail insertion point and insert guide wire:

In the AP view, the nail insertion point is normally found on the tip or slightly lateral to the tip of the greater trochanter in the curved extension of the medullary cavity.

The mediolateral angle of the implant is  $6^\circ$ . This means that the 2.8 mm Guide Wire must be inserted laterally at an angle of  $6^\circ$  to the shaft. The guide wire can be inserted either manually with the Universal Chuck with T-Handle.



In lateral view, insert the guide wire in the centre of the medullary cavity to a depth of about 15 cm.

### 3. Open the Femur:

Depending on the selected nail diameter, guide the appropriate cannulated 14 mm, 16 mm, 18 mm Drill Bit through the Protection Sleeve 20.0/17.0 over the guide wire, and ream manually with the Universal Chuck with T-Handle to the stop on the protection sleeve. Remove both protection sleeve and guide wire. Do not reuse the guide wires, but dispose of them.



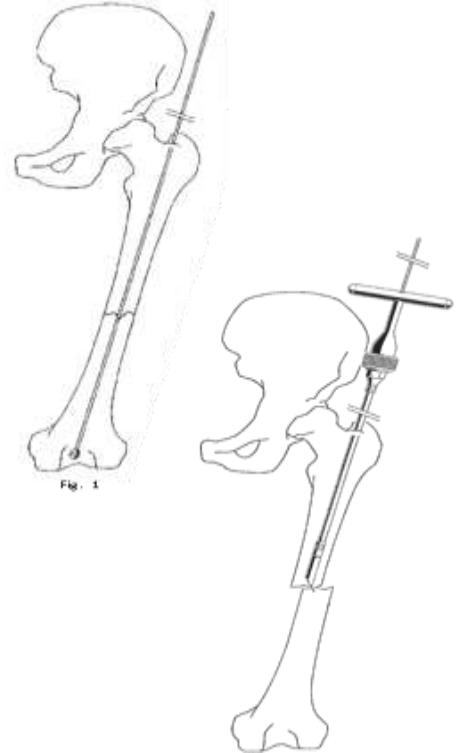
Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 8 of 23





#### 4. Ream shaft (Alternative):

In some cases, reaming of the shaft may be necessary. Open the femur and insert the reaming rod. Pass the fracture zone and position the reaming rod in the centre of medullary cavity end (Fig. 1). Start reaming with an 8.5 mm medullary reamer. Continue reaming using progressive size reamers in 0.5 mm increments. The diameter of the last reamer used should be 1–2 mm larger than that of the nail.



#### 5. Assemble instruments

Guide the Connecting Screw through the Insertion Handle and secure the nail tightly to the insertion handle using the Hexagonal Screwdriver

Diameter and length of the nail have already been determined during surgical preparation.

Ensure that the connection is tight (retighten, if necessary) to avoid deviations when inserting the screws through the insertion handle. Do not attach the aiming arm yet.



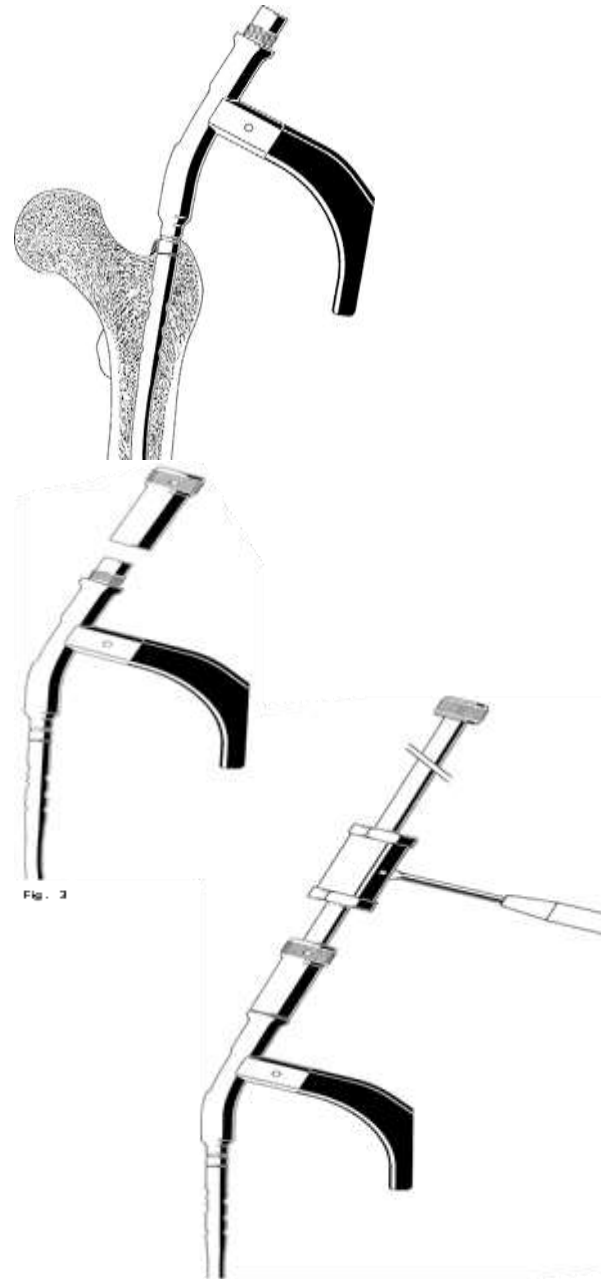
Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 9 of 23



Couple the insertion handle to the nail so that the handle is oriented laterally (the convex side of the nail bow marked "ANTERIOR" faces anteriorly)

Thread the Driving Cap onto the insertion handle and tighten it. Slide the Slide Hammer onto the Hammer Guide and turn the handle to lock it in place. Slide this assembly onto the proximal end of the driving cap and finger-tighten the assembly.

Mount the Slide Hammer onto the Hammer Guide

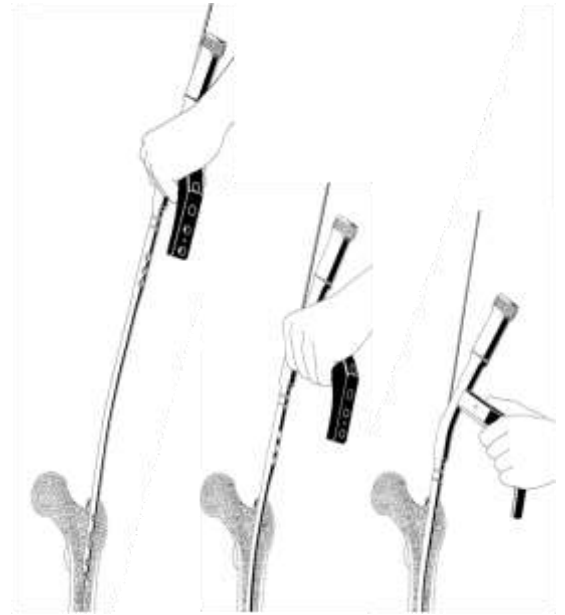


Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 10 of 23



### **Reamed technique:**

Once the guide wire rests securely in the distal main fragment, use slight rotational movements to insert the implant manually into the femur opening while the insertion handle points anteriorly. Continue the manual insertion of the implant; both the insertion handle and the nail will turn laterally. After a 90° rotation, the final position of the insertion handle will be in the LM plane. Use image intensification to verify the passage of the nail across the fracture zone.



### **Insert the nail (Un-reamed technique)**

Use slight rotational movements to insert the nail manually into the femur opening while the insertion handle points anteriorly. Push the implant manually to the fracture; both the insertion handle and the nail will turn laterally (compar. Insert the guide wire. Reduce the fracture using the nail and the insertion handle, and guide the guide wire across the fracture line.

Verify the position of the guide wire in the distal fragment and correct it, if necessary. Advance the nail to the desired position.

**Precaution:** If nail insertion is difficult, choose a smaller diameter nail or ream the intramedullary canal to a larger diameter.

Use light Hammer blows to seat the nail into the metaphysis, leaving the proximal nail end at or just below the level of the tip of the greater trochanter. To avoid locking inaccuracies, recheck whether the connecting screw is secured tightly to the nail.

If nail over-insertion into the medullary cavity is required to ensure optimal positioning of the locking implants, the surgeon may extend the nail length with an end cap.

Remove the guide wire

<b>Doc Name</b>	<b>Doc No</b>	<b>Issue No/Rev No</b>	<b>Dated</b>	<b>Page No</b>
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 11 of 23



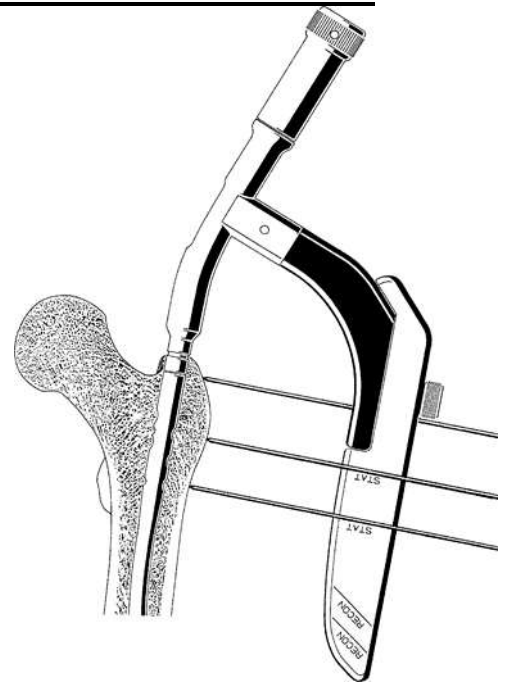
## PROXIMAL LOCKING:

### Standard locking:

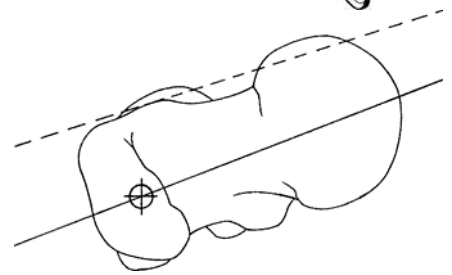
The Antegrade Femoral Nail (AFN) allows standard static locking for the fixation of femoral shaft fractures.

Mount the AFN Aiming Arm onto the insertion handle.

Insert two 4.9 mm locking bolts for static, transverse locking.



Use the image intensifier for AP and axial control

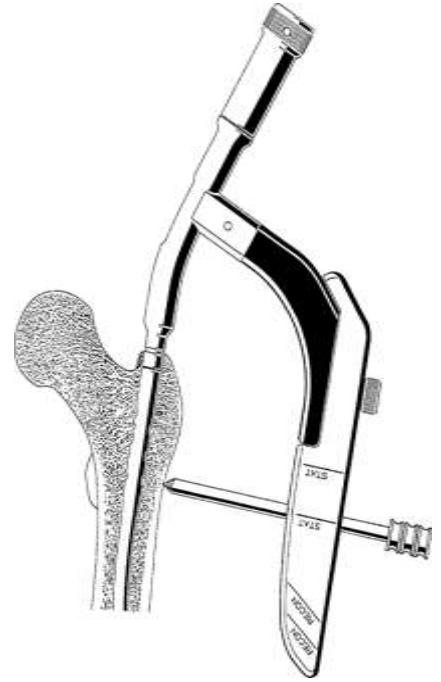


Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 12 of 23



Make a stab incision and insert the drill sleeve assembly consisting of Protection Sleeve 11.0/8.0, Drill Sleeve 8.0/4.0 and 4.0 mm Trocar, into the distal hole of the insertion handle and advance it to the bone.

Remove the trocar.



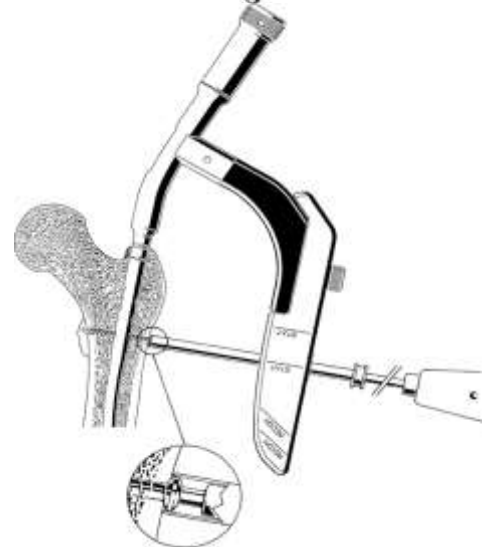
Drill through both cortices with the calibrated 4.0 mm Drill Bit, stopping the drill immediately after penetrating the far cortex. Confirm the drill bit position using the image intensifier.

Make sure that the drill sleeve is pressed firmly to the cortex, and read the length of the locking bolt directly from the calibrated drill bit protruding at the back of the drill sleeve.



To use the Depth Gauge for Locking Bolts, remove the drill sleeve, measure through the protection sleeve using standard depth gauge technique, and add 2–4 mm to the reading to ensure thread engagement in the far cortex. Use the hexagonal screwdriver to insert the locking bolt through the protection sleeve.

Repeat this procedure to insert the second proximal locking bolt.



Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 13 of 23



<b>Doc Name</b>	<b>Doc No</b>	<b>Issue No/Rev No</b>	<b>Dated</b>	<b>Page No</b>
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 14 of 23



## DISTAL LOCKING:

### Static locking:

Distal locking is usually performed using two locking bolts. There are two static interlocking possibilities. Position the locking bolt at the proximal end of the locking slot. Depending on the fracture line, it is then possible to occupy the caudal (Fig. 1) or the cranial (Fig. 2) hole.

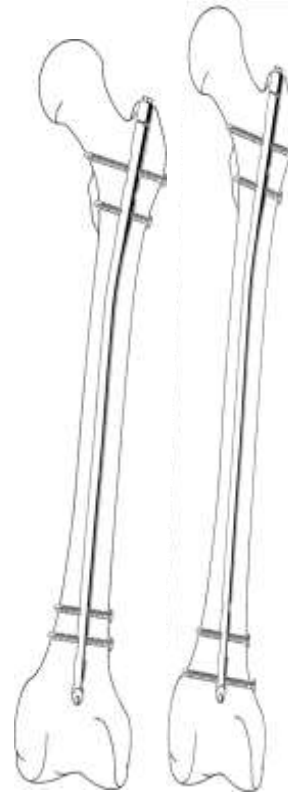


Fig 1

Fig. 2

### Dynamic locking:

If immediate dynamisation is required, use only the caudal locking slot distally. For secondary dynamisation, insert both locking bolts as described above, and remove the static bolt later. Reconfirm reduction of the distal fragment.

Align the image intensifier with the nail hole to be drilled until a perfect circle is visible in the centre of the screen. Make a stab incision at the incision point.

Use image intensifier control to insert the tip of the Drill Bit into the incision, and hold the drill bit oblique to the X-ray beam until the tip is centred in the locking slot. Tilt the drive until the drill bit is in line with the beam and appears as a radio-opaque, solid circle in the centre of the outer ring. The drill bit will nearly fill the locking-hole image. Hold the drill bit in this position and drill through both cortices. Measure the required locking bolt length using the Depth Gauge for Locking Bolts adding 2–4 mm to the reading to ensure locking bolt engagement in the far cortex.

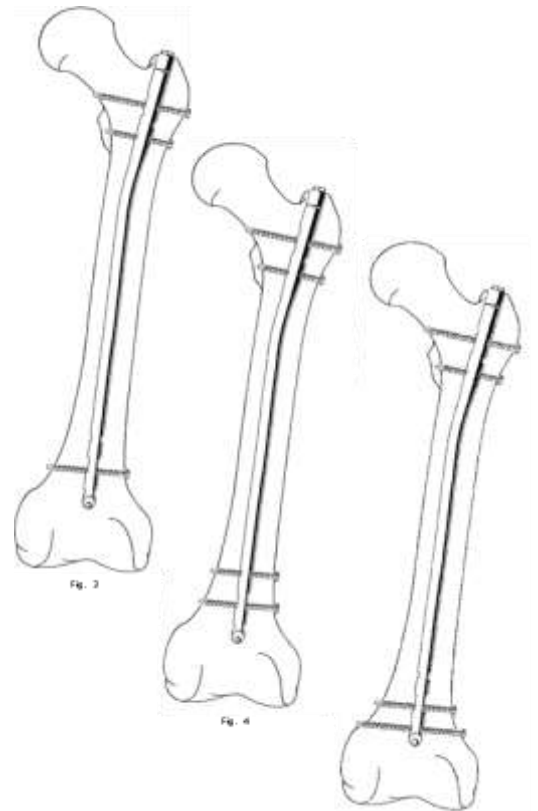


Fig. 3

Fig. 4

Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 15 of 23



Use the large Hexagonal Screwdriver to insert the bolt.  
Repeat the procedure for the second distal locking bolt.  
For static interlocking, position the caudal bolt at the proximal end of the locking slot, for dynamic interlocking at the distal end of the locking slot to allow dynamisation.

### **INSERT THE END CAPS:**

With the insertion handle in place, take an AP image intensification view of the position of the proximal nail end.

The nail end should be visible due to the difference in nail and insertion handle diameters.

If the nail end is level with the tip of the greater trochanter, select the green end cap with 0 mm extension.

If the proximal nail end is distal to the tip of the greater trochanter, determine the appropriate length of the end cap with the help of the indented notches.

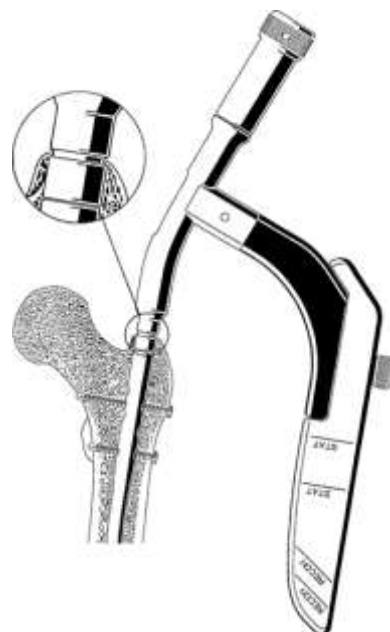
For additional orientation, insert a 2.5 mm guide wire through the appropriate hole of the insertion handle, and verify the guide wire position radiographically.

Loosen the connecting screw and remove the insertion handle.

Insert the hook of the Guide Wire with Hook through the selected end cap. Now guide the 11/11 mm Cannulated Hexagonal Socket over the guide wire to the end cap. The end cap is automatically secured as soon as this connection is made.

Guide the cannulated end cap to the proximal end of the nail. Tighten the end cap using the 11 mm Ratchet Wrench. Fully insert the end cap into the nail.

As the final threads of the end cap turn into the nail, you will feel increased resistance. Continue turning until the shoulder of the end cap contacts the proximal nail end. This prevents backout.



Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 16 of 23

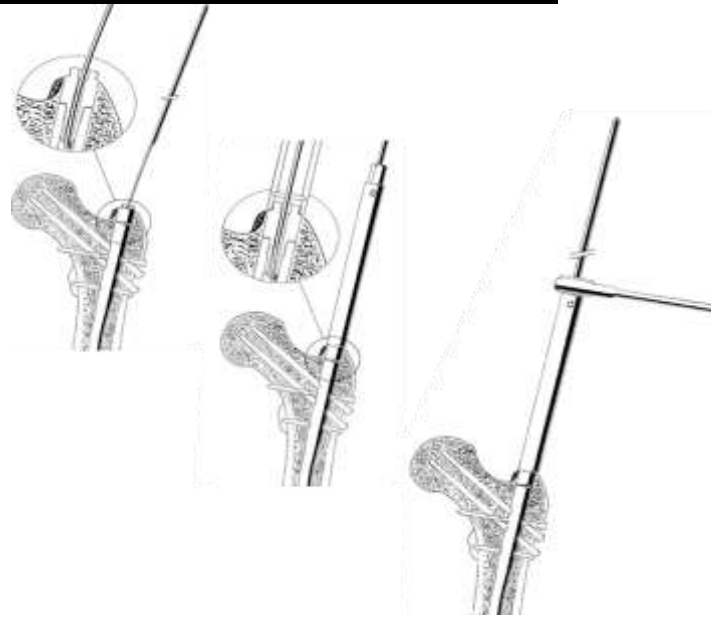




## IMPLANT REMOVAL:

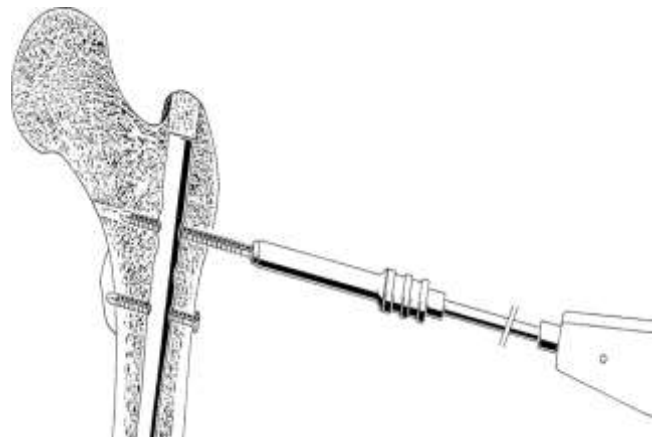
### Remove end cap:

Remove bone particles from the end cap. Push the 2.5 mm Guide Wire with Hook. Hook first through the end cap and take hold. Verify the hold of the guide wire. Use the 11/11 mm Cannulated Hexagonal Socket and the Ratchet Wrench for this procedure



### Remove locking bolts and hip screws:

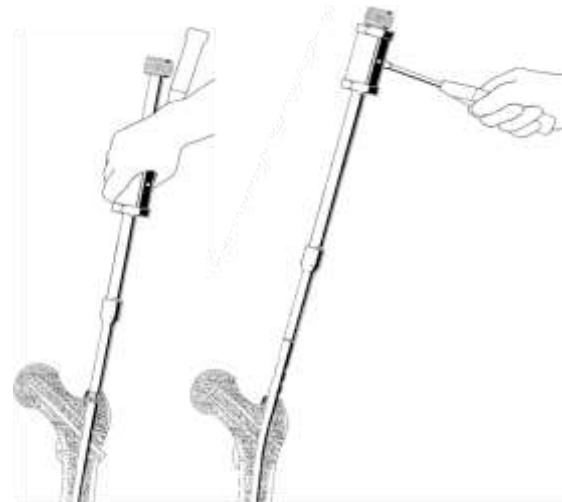
Remove the locking bolts or hip screws using the hexagonal 3.5 mm Screwdriver for AFN and the appropriate Holding Sleeve.



Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 17 of 23

**Remove nail:**

Thread the Hammer Guide and the Slide Hammer into the extraction screw. Thread the extraction screw into the proximal nail end, through the incision made for end cap removal. Finger-tighten the assembly. Remove the remaining locking bolts and extract the nail.

**CAUTION:****Used Implants:**

Used implants which appear un-damaged may have internal and/or external defects. It is possible that individual stress analysis of each part fail to reveal the accumulated stress on the metals as a result of use within the body. This may lead ultimately to implant failure after certain point of time due to metal fatigue. Therefore reuses of implants are strictly not recommended.

**Disposal of Used Implants:**

Every used or removed implant must be discarded after use and must never be re- used. It should be bent or scratched & then disposed of properly so that it becomes unfit for reuse. While disposing it off, it should be ensured that the discarded implant does not pose any threat to children, stray animals and environment. Dispose of the implants as per applicable medical practices and local, state and country specific regulatory requirement of Bio Medical Waste rules.

**MRI SAFETY INFORMATION:**

- Samay Surgical orthopaedic implants are manufactured from Titanium Gr.5, SS316L and SS316L material and both are non-magnetic material, hence it do not pose any safety risk.
- Patients should be directed to seek a medical opinion before entering potentially adverse environments that could affect the performance of the implants, such as electromagnetic or magnetic field or including a magnetic resonance environment.
- Doctor shall conduct a Risk Benefit Analysis before directing the patient to enter electromagnetic or magnetic fields or including a magnetic resonance environment.

Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 18 of 23



- Samay Surgical Implants has not been evaluated for safety and compatibility in the MR environment but on the basis of literature study below mentioned points can be taken care during MRI

The minimum recommended time after the implantation that allows patients to safely undergo MRI examination or allowing the patient or an individual to enter the MRI environment is 6 (six) weeks.

The maximum recommended time limit for MRI examination in patients implanted with the evaluated device is 30 min with a scanner operating at 1.5T (Tesla) or less.

### **PACKAGING MATERIAL DISPOSAL:**

The packaging material of this device is made of LDPE and therefore if swallowed, may cause choking Hazards. Therefore, it should be disposed of in such ways that keep out of reach of children and stray animals.



### **Inter-Locking Humerus Nail**

Note: Define Code for S.S. 316L/SS 204, Titanium/TT 204, S.S. 316LVM/LM 204  
Screw Places : 3.9mm/3.4mm/2.9mm

Code No. S.S. 316L	Code No. Titanium	Length
Dia. (6.0mm) Solid	Dia. (7.0mm) Cannulated	
SS 204-020	SS 204-120	20cm
SS 204-022	SS 204-122	22cm
SS 204-024	SS 204-124	24cm
SS 204-026	SS 204-126	26cm
SS 204-028	SS 204-128	28cm
SS 204-030	SS 204-130	30cm



PRODUCT NAME	SS316L CATALOG NO.	TITANIUM GRADE 5 CATALOG NO.	LENGTH (MM)	DIAMATER (MM)
<b>Inter-Locking Humerus Nail (Solid) (6.0 mm)</b> 	SS 203-020	TT 203-020	20 cm	ø 6.0
	SS 203-022	TT 203-022	22 cm	ø 6.0
	SS 203-024	TT 203-024	24 cm	ø 6.0
	SS 203-026	TT 203-026	26 cm	ø 6.0
	SS 203-028	TT 203-028	28 cm	ø 6.0
	SS 203-030	TT 203-030	30 cm	ø 6.0
<b>Inter-Locking Humerus Nail (Solid) (7.0 mm)</b> 	SS 203-120	TT 203-120	20 cm	ø 7.0
	SS 203-122	TT 203-122	22 cm	ø 7.0
	SS 203-124	TT 203-124	24 cm	ø 7.0
	SS 203-126	TT 203-126	26 cm	ø 7.0
	SS 203-128	TT 203-128	28 cm	ø 7.0
	SS 203-130	TT 203-130	30 cm	ø 7.0
<b>Inter-Locking Humerus Nail (Solid) (8.0 mm)</b> 	SS 203-220	TT 203-220	20 cm	ø 8.0
	SS 203-222	TT 203-222	22 cm	ø 8.0
	SS 203-224	TT 203-224	24 cm	ø 8.0
	SS 203-226	TT 203-226	26 cm	ø 8.0
	SS 203-228	TT 203-228	28 cm	ø 8.0
	SS 203-230	TT 203-230	30 cm	ø 8.0



### Guide wire (Simple)

Code No. S.S. 316L	Dia	Length
SS 291-010	1.0mm	225mm
SS 291-012	1.2mm	225mm
SS 291-015	1.5mm	225mm
SS 291-018	1.8mm	225mm
SS 291-020	2.0mm	225mm
SS 291-025	2.5mm	225mm



### 3.9mm Inter-Locking Screw

Code No. S.S. 316L	Code No. Titanium	Length
SS 213-018	TT 213-018	18mm
SS 213-020	TT 213-020	20mm
SS 213-022	TT 213-022	22mm
SS 213-024	TT 213-024	24mm
SS 213-026	TT 213-026	26mm
SS 213-028	TT 213-028	28mm
SS 213-030	TT 213-030	30mm
SS 213-032	TT 213-032	32mm
SS 213-034	TT 213-034	34mm
SS 213-036	TT 213-036	36mm
SS 213-038	TT 213-038	38mm
SS 213-040	TT 213-040	40mm
SS 213-042	TT 213-042	42mm
SS 213-044	TT 213-044	44mm
SS 213-046	TT 213-046	46mm
SS 213-048	TT 213-048	48mm
SS 213-050	TT 213-050	50mm



## 2.9mm Inter-Locking Screw

Code No. S.S. 316L	Code No. Titanium	Length
SS 212-118	TT 212-118	18mm
SS 212-120	TT 212-120	20mm
SS 212-122	TT 212-122	22mm
SS 212-124	TT 212-124	24mm
SS 212-126	TT 212-126	26mm
SS 212-128	TT 212-128	28mm
SS 212-130	TT 212-130	30mm
SS 212-132	TT 212-132	32mm
SS 212-134	TT 212-134	34mm
SS 212-136	TT 212-136	36mm
SS 212-138	TT 212-138	38mm
SS 212-140	TT 212-140	40mm
SS 212-142	TT 212-142	42mm
SS 212-144	TT 212-144	44mm
SS 212-146	TT 212-146	46mm
SS 212-148	TT 212-148	48mm
SS 212-150	TT 212-150	50mm




## 3.4mm Inter-Locking Screw

Code No. S.S. 316L	Code No. Titanium	Length
SS 212-018	TT 212-018	18mm
SS 212-020	TT 212-020	20mm
SS 212-022	TT 212-022	22mm
SS 212-024	TT 212-024	24mm
SS 212-026	TT 212-026	26mm
SS 212-028	TT 212-028	28mm
SS 212-030	TT 212-030	30mm
SS 212-032	TT 212-032	32mm
SS 212-034	TT 212-034	34mm
SS 212-036	TT 212-036	36mm
SS 212-038	TT 212-038	38mm
SS 212-040	TT 212-040	40mm
SS 212-042	TT 212-042	42mm
SS 212-044	TT 212-044	44mm
SS 212-046	TT 212-046	46mm
SS 212-048	TT 212-048	48mm
SS 212-050	TT 212-050	50mm







Implants Certified by :   
XXXX

Instruments Certified by Self Declaration : 



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Doc Name	Doc No	Issue No/Rev No	Dated	Page No
Antegrade Femoral Nail System	SS/ST/AFNS	01/00	26/09/2019	Page 23 of 23