



Trochanteric (PF) Nailing System Surgical Technique



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Introduction

The CarboFix™ Implants

The **CarboFix™** Trochanteric (PF) Nailing System is made of longitudinal continuous carbon fibers reinforced Polymer (PEEK).

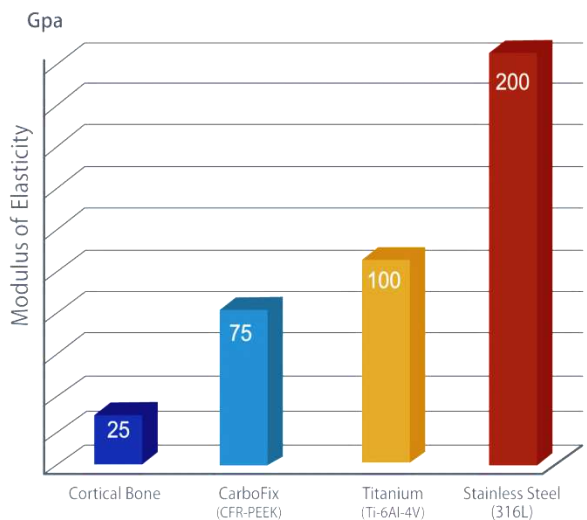
The Carbon Fibers are arranged in a unidirectional longitudinal orientation, as well as in a diagonal orientation, allowing multidirectional strength in all planes.

CarboFix™ is the first implant line to obtain FDA and CE clearance for orthopedic trauma implants made from carbon fiber composite material.

The Advantages of CarboFix™ Implants

Modulus of Elasticity

The **CarboFix™** implants have a modulus of elasticity which is close to that of cortical bone, lowering the risk for stress risers and secondary fractures.



Fatigue Strength

Composite materials are known for their significant fatigue strength. Carbon fiber composite materials are currently being used in critical load bearing structures of commercial airliners (e.g. the wings of the Boeing 787 “Dreamliner”), high performance automobiles and now orthopedic trauma implants.

During fatigue testing the **CarboFix™** Proximal Femur Nailing System withstood 1 million cycles without showing any sign of failure or damage to the nail.

Radiolucency

CarboFix™ implants allow for unparalleled intraoperative and post operative imaging.



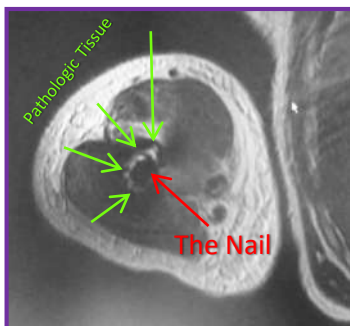
Metal Nail



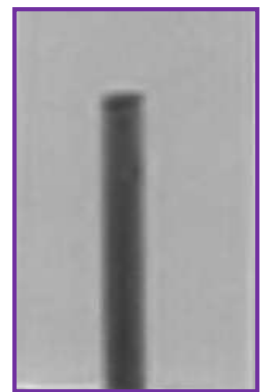
CarboFix™ Nail-clear view of the fracture

CT & MRI Imaging

The CarboFix™ implants enable CT and MRI scans with minimal artifacts interference allowing for clear images of the surrounding tissues and the bone. This is clearly an advantage in monitoring fracture healing and pathological tissue.



Titanium Rod Ø5mm in MRI field: demonstrates massive artifacts



Carbon Fibers Rod Ø5mm in MRI field: no artifacts

The Implants

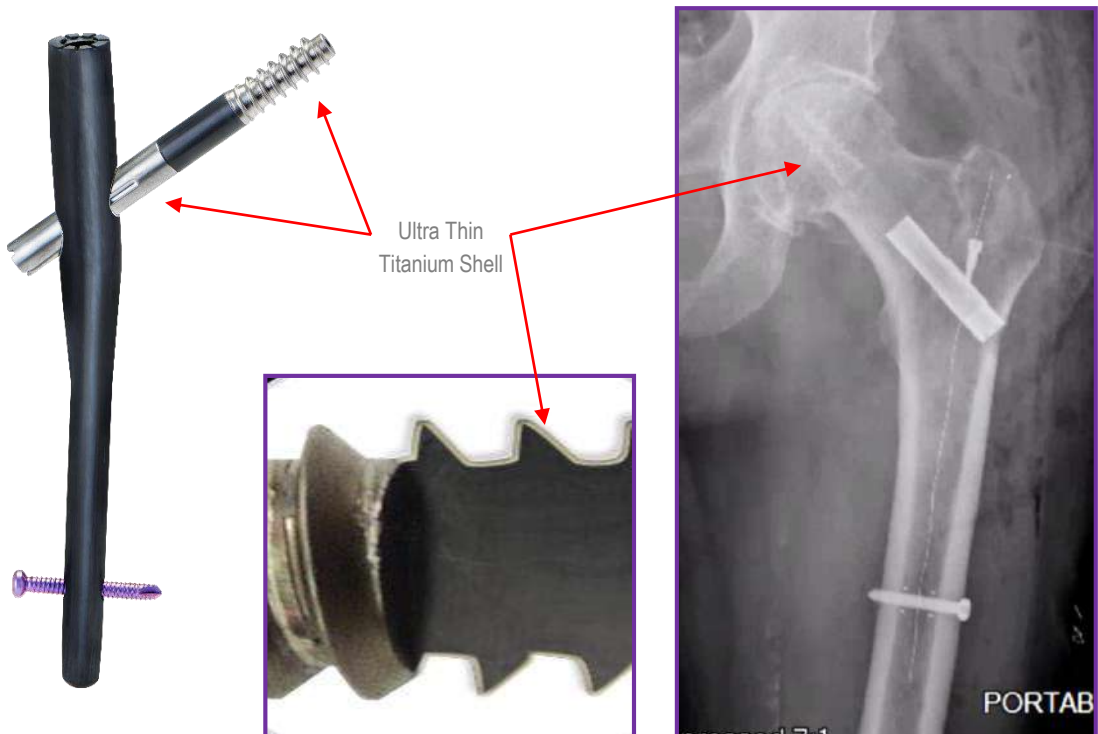
The Nail and Lag Screw are made of longitudinal continuous carbon fiber reinforced polymer (PEEK). The screws are made of Titanium-alloy (Ti-6Al-4V).

Features of the CarboFix Trochanteric (PF) Nailing System:

- Anatomically shaped Trochanteric (PF) Nail with a slight bend close to it's proximal end (M-L Bend) of 5 degrees, and a Caput-collum-diaphyseal angle (CCD) of 130 or 125 degrees.
- The Trochanteric (PF) nail is used in an antegrade approach.
- Lag Screw is intended for insertion through the Nail proximal screw-hole, into the femoral head. It is available in varying lengths.
- The Lag Screw is coated in it's threaded portion with an Ultra Thin Titanium Shell, to enable the following:
 - Better bone integration between the Lag Screw and the surrounding bone
 - Visualization under X-Ray

* For further information please refer to the product instructions for use.

The Nail and Lag Screw are supplied sterile.

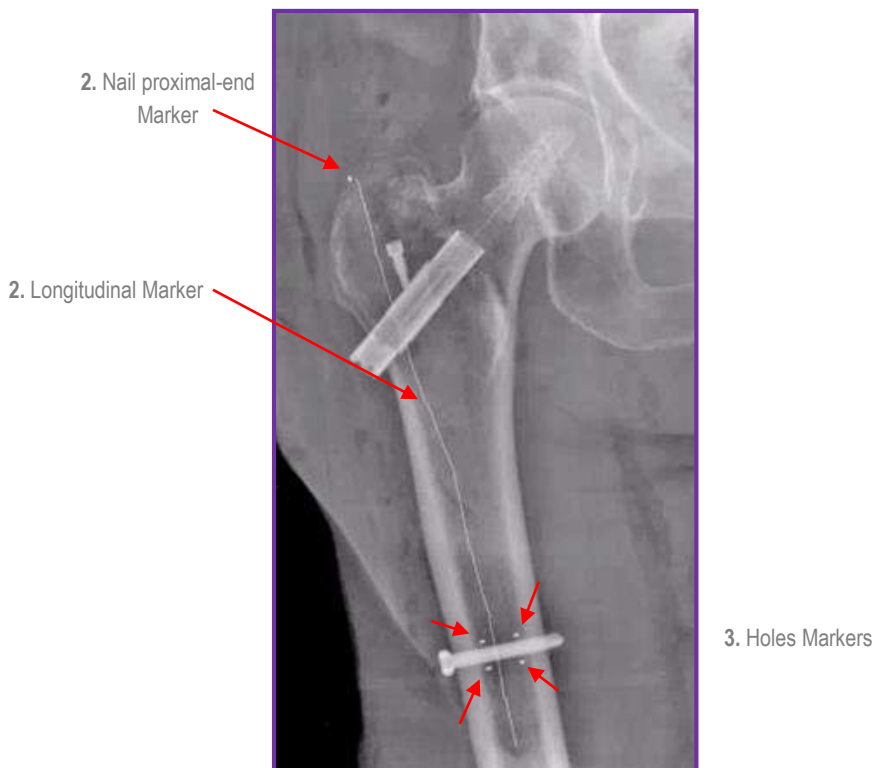


Cross section of the Lag Screw

The Radiolucent Implant

Radiopaque Markers

1. Radiopaque marker along the nail longitudinal axis enables nail visualization under fluoroscopy.
2. Marker at the nail proximal end of the nails indicating the terminal end (proximal end) of the nail.
3. Markers, which are located at both sides of each hole.
4. Nail Cap markers, embedded within the nail cap.



Set Screw

The CarboFix Trochanteric (PF) Nail is provided with a Set Screw. In the 180mm (Short) Nail, the Set Screw is pre-mounted in the nail. In the longer nails (320-420mm) the Set Screw is provided separately.

For **static locking** of the Lag Screw, tighten it using the proprietary screwdriver clockwise.

For **dynamization** of the Lag Screw, tighten it using the proprietary screwdriver clockwise until a stop is felt, and then rotate it a quarter of a turn counter-clockwise.



Set Screw

Available Sizes

Nail

Type	Diameter (mm)	Proximal Diameter (mm)	R/L	Length (mm)
Short	11.0 / 12.0	17.0	Unified	180
Long	11.0 / 12.0	17.0	Right	320, 340, 360, 380, 400, 420, 440*, 460*
Long	11.0 / 12.0	17.0	Left	320, 340, 360, 380, 400, 420, 440*, 460*

* Special Order



Lag Screw

Diameter (mm)	Core Diameter (mm)	Length (mm)
10.4	6.85	80, 85, 90, 95 100, 105, 110



Screws

Description	Diameter (mm)	Lengths (mm)	Screw color
Distal Screw	4.0	30-85 30-60mm: 2.5mm increments 65-85mm: 5.0mm increments	Purple



Instrumentation

Access Guide Wire (Ø3.2mm)

Marks the entry point and trajectory into the medulla canal.



Awl

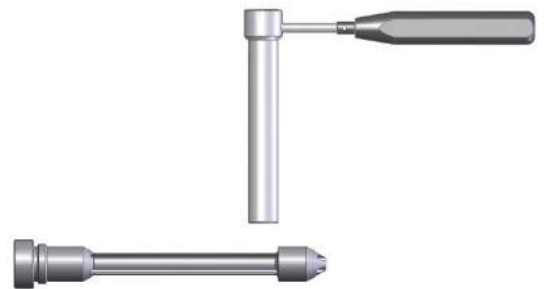
Used to access the medullary canal for insertion of the Nail. The Awl can be positioned over the Access Guide Wire.



Entry Portal & Trocar

The Entry Portal is a soft tissue protector used during soft tissue tunneling and reaming.

The Trocar is used for soft tissue tunneling at the access point. It accommodates a Ø3.2mm Access Guide Wire. The Trocar is locked to the Entry Portal by turning it clockwise.



Ø17x300mm Step Drill Bit

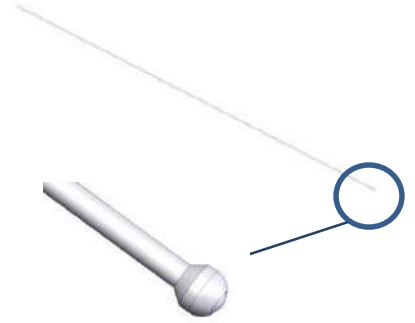
Used to access the medullary canal. It is to accommodate a Ø3.2mm Access Guide Wire.



Ball-Tip Guide Wire (Ø2.5mm)*

Assists in fracture reduction, reaming and medulla canal length measurement. Compatible with conventional reamer sets. Ball Tip diameter is 4.5mm. Supplied sterile, packed separately for single use.

* Optional



Lag Screw K-Wire (Ø2.85mm)

Marks the entry point and trajectory for Lag Screw insertion. Supplied sterile, packed separately.



K-Wire Depth Gauge (Ø2.85mm)

Measures the required Lag Screw length; for use with Lag Screw K-Wire.



Finger Tool*

Assists in fracture reduction and insertion of a Ball-Tip Guide Wire. It can accommodate standard Ball-Tip Guide Wires up to a diameter of 4.5mm.

* Optional



Insertion Handle

The Insertion Handle is connected to the Nail, and enables Nail insertion.



Connection Tube

The Insertion Handle is connected to the Nail, and enables Nail insertion



Striking Adapter

Connects to the Insertion Handle. During Nail insertion, the surgeon can tap on it using a Mallet, or connect it to the Slide Hammer.



Mallet

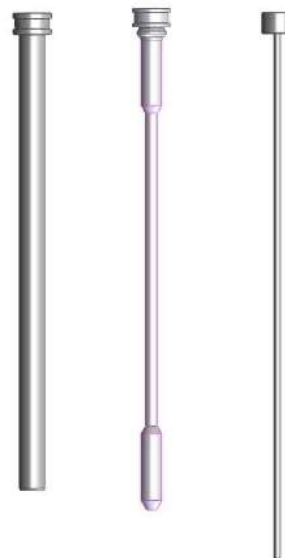
The Mallet may be used during Nail insertion. The plastic side of the Mallet should be used for tapping the Striking Adapter gently.



Lag Screw Sleeve, K-Wire Sleeve, Lag Screw Trocar

The Sleeves provide working channel for Lag Screw insertion, and accommodate a \varnothing 2.85mm K-Wire and the \varnothing 10.0mm Drill Bit.

The Guide & Drill Sleeves lock to each other.



Distal Screw Guide & Drill Sleeves, Distal Screw Trocar

The Guide Sleeve is a working channel through which the Drill Sleeve and the Trocar are inserted. The Drill Sleeve accommodates the $\varnothing 4.2\text{mm}$ Drill Bit.

The Guide & Drill Sleeves lock to each other.



Distal Screw Depth Gauge

Used to measure the required Distal Screw length.



Free Hand Drill Sleeve

A working channel for the Short $\varnothing 4.0\text{mm}$ Drill Bit. It is radiolucent and being used for drilling, in free hand technique, the distal screw hole (if desired).



Drill Bits

There are several Drill Bits in the set:

- **$\varnothing 10.0\text{mm}$ Step Drill Bit** for drilling the hole for the Lag Screw. (A).
- **$\varnothing 4.2\text{mm}$ Step Drill Bit - Long** (L: 300mm) for drilling the Distal Screw hole through the Insertion Handle. It has markings along its shaft for measuring the required screw length. Marked **Purple (B)**.
- **$\varnothing 4.2\text{mm}$ Step Drill Bit - Short** (L: 180mm) for free hand drilling of the hole for the Distal Screw. Marked **Purple (C)**.



Screwdriver

Used to insert or remove the Screws and the Nail Cap.



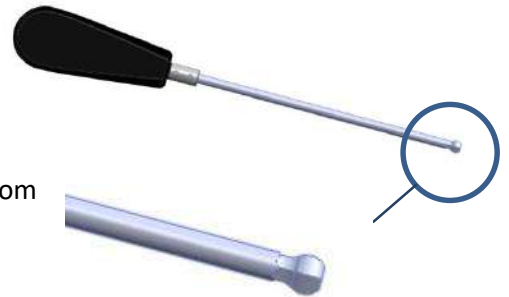
Power Drive Screwdriver

For use with a power drive.



Ball-Hex-Tip Screwdriver

Connects to the Nail Adapter for detaching the Insertion Handle from the Nail.



Lag Screw Driver (Lag Screw Insertion Handle Assembly)

A two-component insertion handle for the Lag Screw, combined of an outer tube and an inner rod. The driver distal end design prevents relative rotation between the Lag Screw and the driver.



Sliding Limit Driver

An instrument designed to limit Lag Screw sliding. It is inserted via the Connection Tube, to rotate a screw located within the Nail proximal end.



Tap

For Lag Screw hole tapping.



Nail Removal Adapter

For Nail removal; connects to the Nail proximal end as well as to the Slide Hammer.



Slide Hammer

Used for Nail removal by connecting it to the Nail Removal Adapter. Optionally, it may be used for Nail insertion. In such cases it is connected to the Striking Adapter.



Procedure Steps

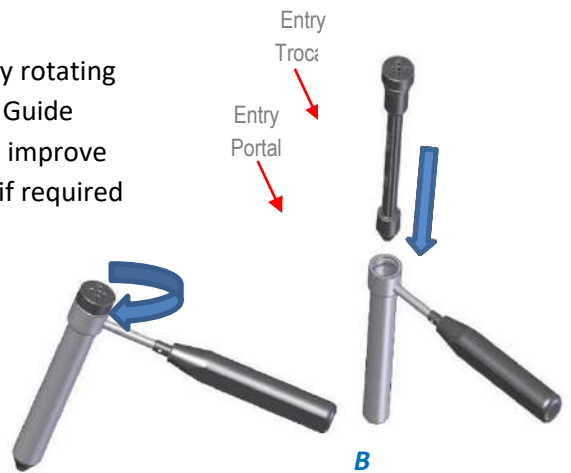
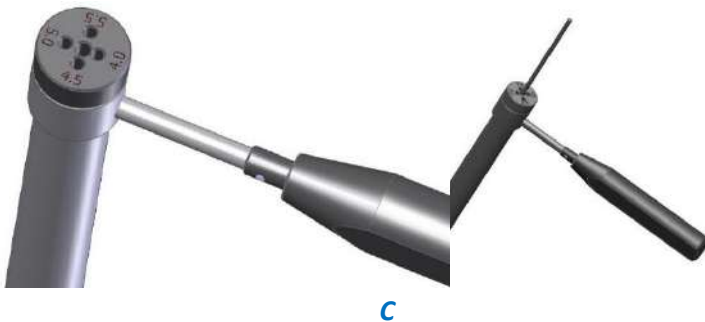
Entry & Canal Preparation

1. Make skin incision of approximately 2.5cm from the greater trochanter towards the iliac crest. Achieve access to the bone.
2. Use a $\varnothing 3.2\text{mm}$ Access Guide Wire to mark the entry point. The entry point should be located at the tip of the greater trochanter.

There are two ways to enter the bone:

A. Use the Awl over the Access Guide Wire to perforate an entry hole. The Awl diameter is 17mm, to fit the proximal end diameter of the Nail (A).

B. Insert the Entry Trocar into the Entry Portal, and lock it by rotating it clockwise (B). Insert The Portal Assembly over the Access Guide Wire. Use the adjacent holes of the Entry Trocar in order to improve Guide Wire position by inserting a new Access Guide Wire, if required (C). Remove the Trocar. Use the $\varnothing 17\text{mm}$ Drill Bit over the Guide Wire to access the bone (D).



3. Insert the Ball-Tip Guide Wire into the medulla canal past the fracture line, if desired, and if reaming is needed.

The Ball Tip Guide Wire can be used with any conventional intramedullary flexible femoral reaming system, and according to its instructions for use. The Guide Wire shaft diameter is 2.5mm, and the Ball Tip diameter is 4.5mm.

Final reaming should be 1–1.5mm larger than the selected Nail diameter.

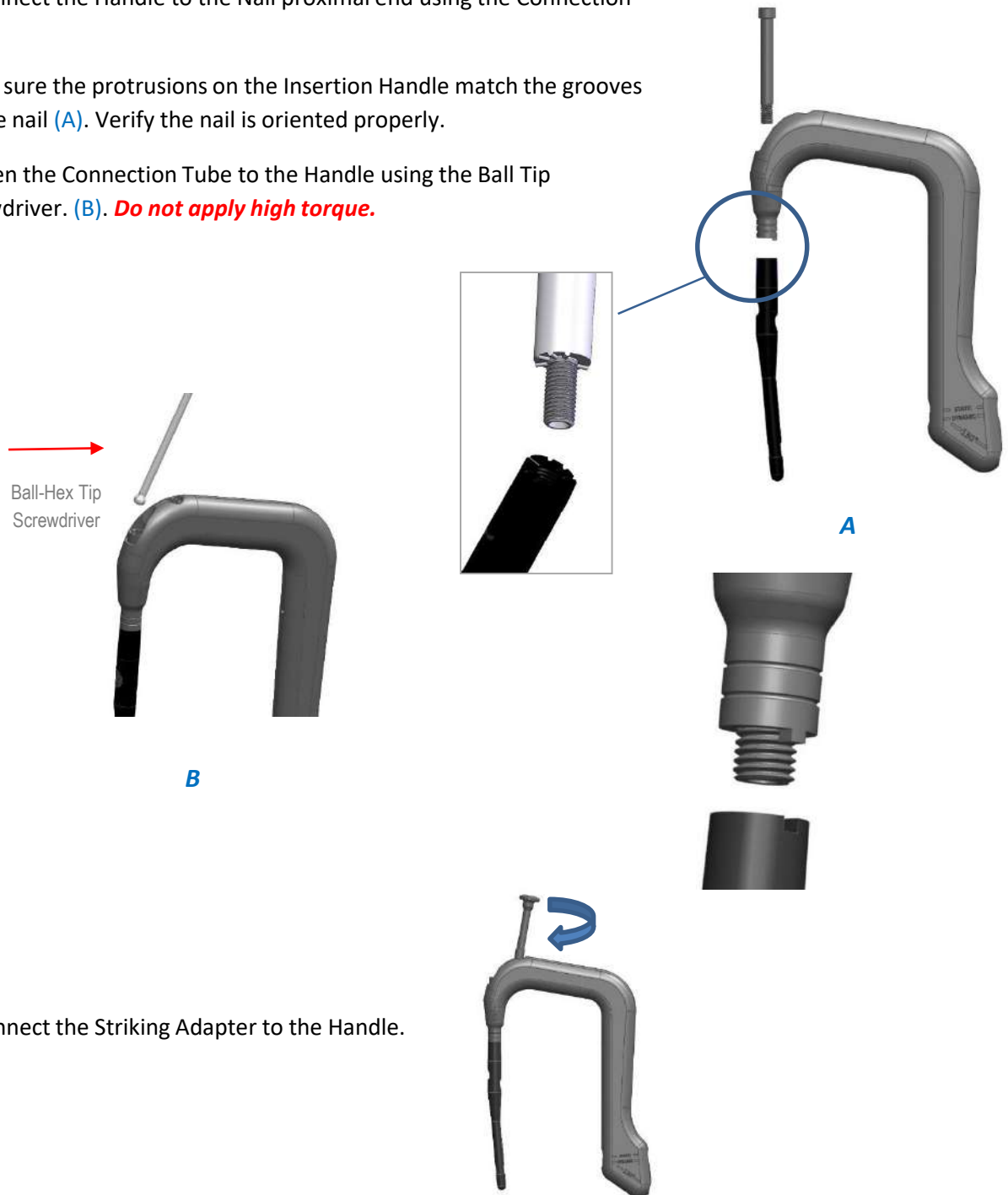
Remove the Ball-Tip Guide Wire.

Nail Insertion

5. Connect the Handle to the Nail proximal end using the Connection Tube.

Make sure the protrusions on the Insertion Handle match the grooves on the nail (A). Verify the nail is oriented properly.

Tighten the Connection Tube to the Handle using the Ball Tip Screwdriver. (B). **Do not apply high torque.**



6. Connect the Striking Adapter to the Handle.

7. Insert the Nail into the canal.

If needed, the Mallet can be used to insert the Nail. Use the plastic part of the Mallet to tap on the Striking Adapter.

Important: Do not use excessive force. Use slight strokes only to position the Nail. Do not use oscillating movements to insert the Nail. Tap on the Adapter only.

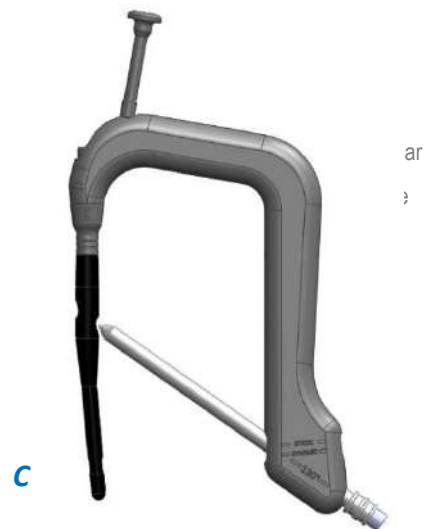
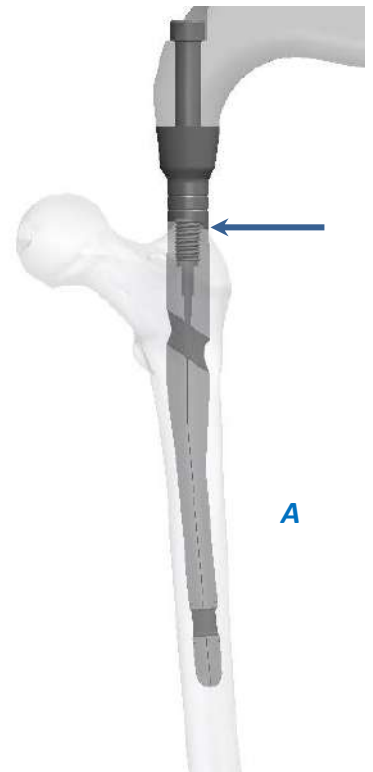
During Nail, assure fracture reduction using fluoroscopy.

The Nail is correctly located within the canal once the Nail proximal end (the area of connection of the Nail to the Insertion Handle, as can be seen using fluoroscopy) is aligned with the tip of the greater trochanter (A).

Lag Screw Insertion

8. Place the Lag Screw Sleeve, with the K-Wire Sleeve and K-Wire Trocar within it (B), inside the lag screw hole of the Handle (C). Make sure that the sleeve assembly is inserted to the right handle hole according to the nail/lag screw angulation 130° or 125°

Make skin incision where Lag Screw hole is located, and achieve access to the bone.

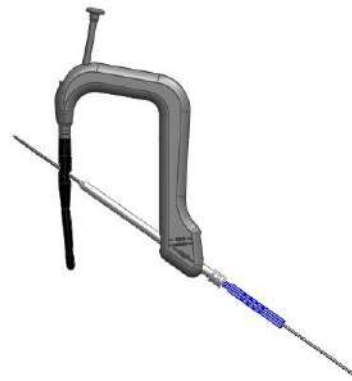
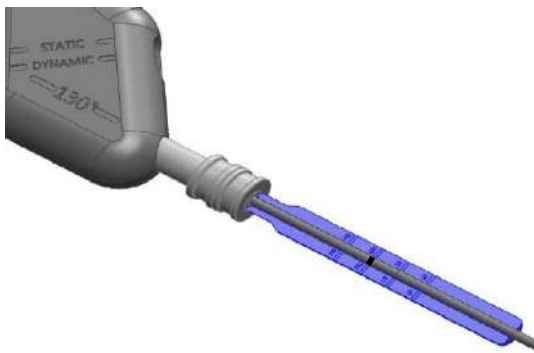


Remove the Trocar and insert a $\varnothing 2.85\text{mm}$ K-Wire through the K-Wire Sleeve.

Ensure that the sleeves are in contact with the lateral cortex, while verifying the anatomic position under fluoroscopy (AP and Lateral fluoroscopy): the K-Wire shall be positioned in the inferior $1/3^{\text{rd}}$ of the cervical femur, and shall enable drilling up to 1cm from the internal sub-chondral border.

9. Evaluate the required Lag Screw length using the Lag Screw Depth Gauge over the K-Wire.

Remove the K-Wire Sleeve.

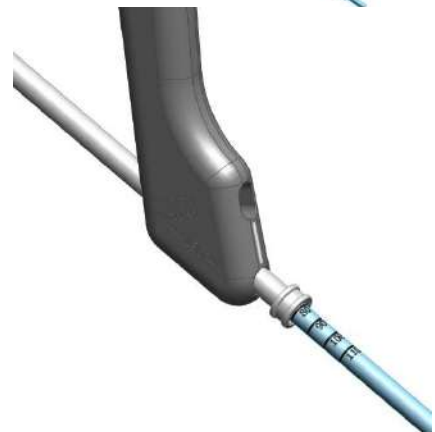


10. Under fluoroscopy drill a hole for the Lag Screw using the cannulated $\varnothing 10\text{mm}$ Step Drill Bit over the Lag Screw K-Wire.

The distal tip of the Step Drill Bit shall get as far as the Lag Screw distal tip shall be located. Verify that the sleeves are in contact with the bone.

Verify the Lag Screw length according to the Step Drill Bit scale. The distal part of the Step Drill Bit is marked with lines indicating the available Lag Screw lengths, at 5 mm steps, with the most proximal line corresponding to a 110 mm long Lag Screw.

Remove the Step Drill Bit.

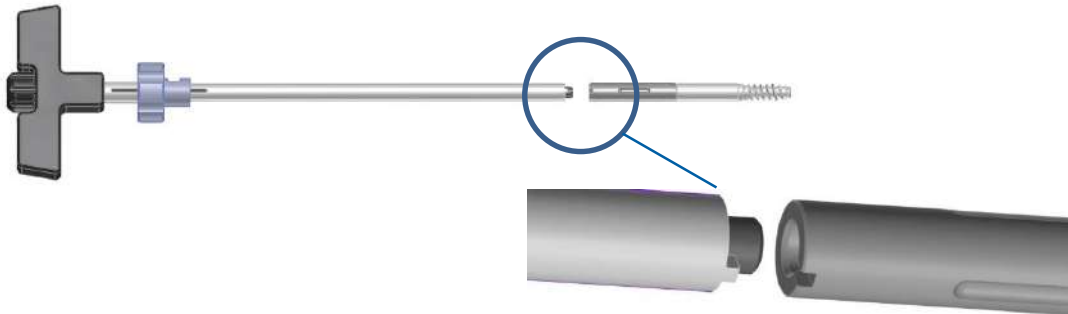


11. Prepare the hole created for Lag Screw insertion with the help of the appropriate cannulated Screw-Tap over the Lag Screw K-Wire.

Tapping is mandatory

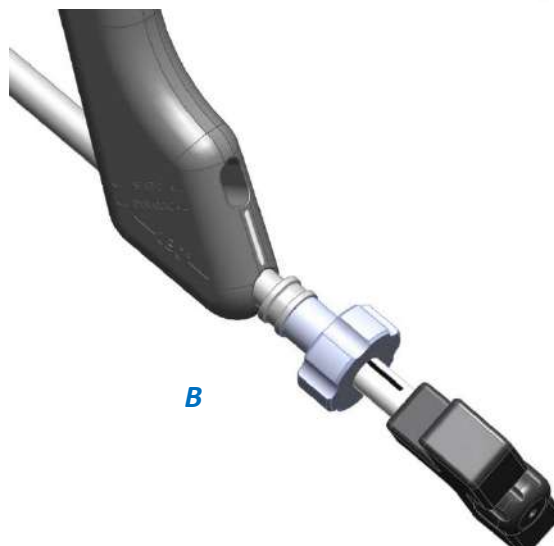
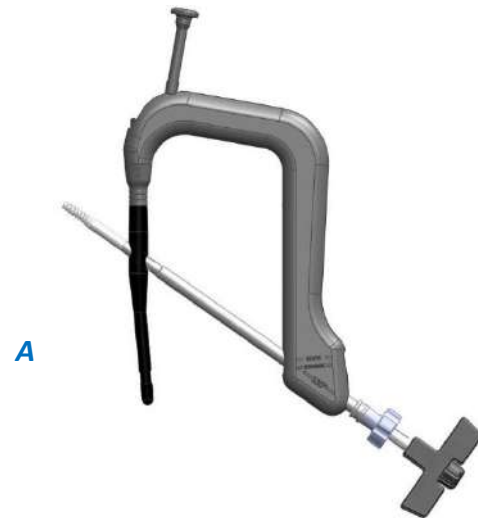
Remove the Screw-Tap.

12. Connect the Lag Screw Driver to the selected Lag Screw. Align the Lag Screw Driver tube with the recesses at the Lag Screw proximal end, and rotate its rod clockwise, to thread it into the Lag Screw.

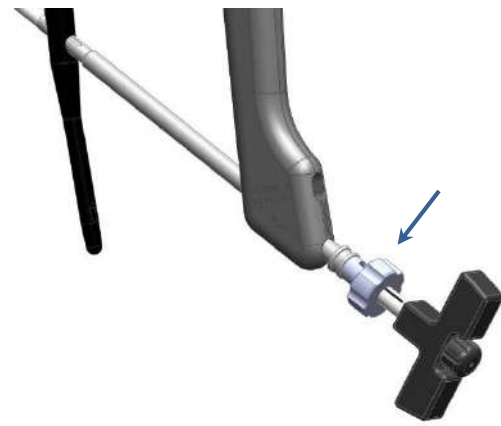


13. Insert the cannulated Lag Screw, over the K-Wire through the Lag Screw Sleeve, while verifying proper positioning of the fracture (A).

The Lag Screw Driver is marked with lines indicating insertion direction – make sure one of the marks are aligned with the mark on the Handle (B).

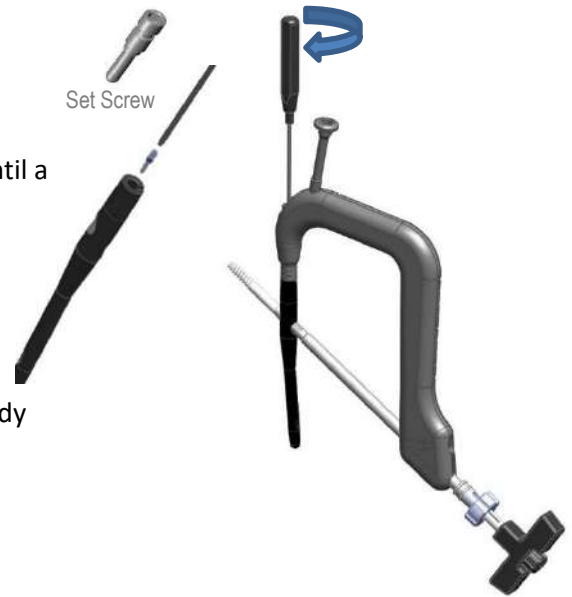


14. If desired – compaction may be performed; rotate the knob on the Lag Screw Driver to achieve the desired compaction.



15. Use the Sliding Limit Driver to insert the Set Screw through the Connection Tube into the nail proximal end. Gently rotate the Set Screw within the Nail proximal end clockwise to tighten the Set Screw; this will eliminate rotation and sliding of the Lag Screw.

- **For static locking** of the Lag Screw, tighten it clockwise until a stop is felt.
- **For dynamization** of the Lag Screw, tighten it using the clockwise until a stop is felt, and then rotate it a quarter of a turn counter-clockwise.



The Short Nail (180mm) is provided with the Set Screw already located within the Nail proximal end. In such case insert the Sliding Limit Driver through the Handle and Connection Tube and continue as above to achieve the desired locking of the Lag Screw.

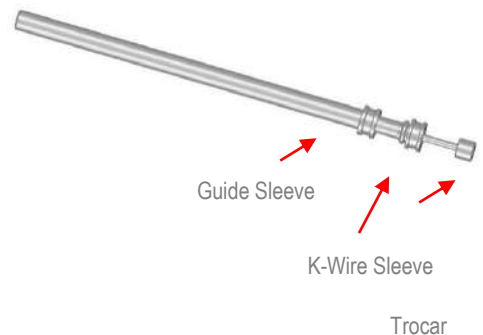
Remove the Lag Screw Driver by counterclockwise rotation of its rod. Remove the Lag Screw Sleeve.

Distal Screw

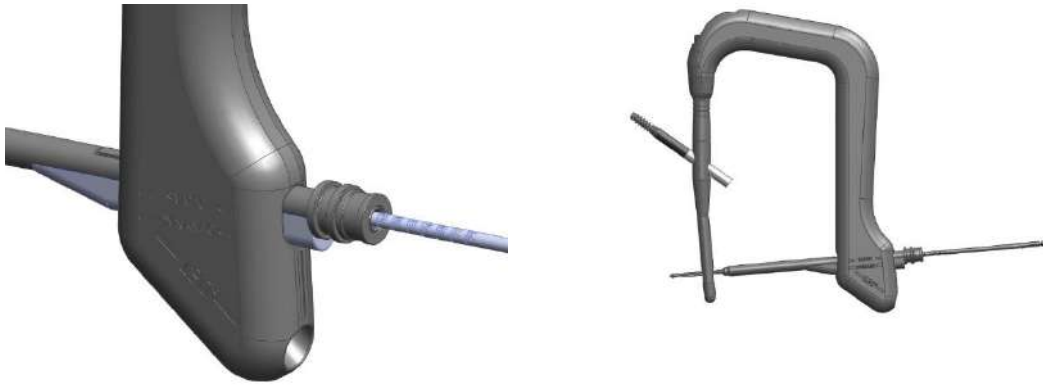
16. Place the Distal Screw Guide Sleeve, with the Drill Sleeve and Trocar within it, inside the appropriate Handle hole.

Make skin incision where Distal Screw hole is located, and achieve access to the bone.

Remove the Trocar.

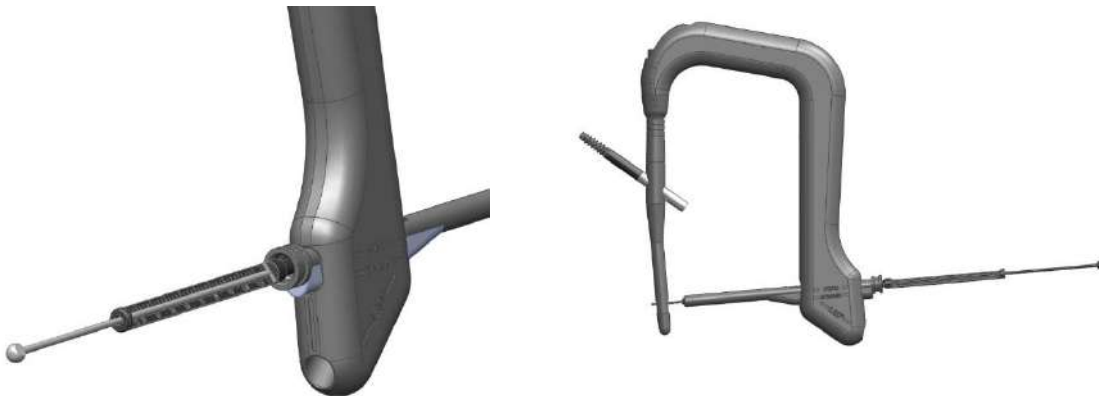


17. Drill a hole for the Screw using the long $\varnothing 4.2\text{mm}$ Drill Bit. Drill Bit graduation marks may be used to assess Screw length against the Drill Sleeve.



Remove the Drill Bit and Drill Sleeve.

18. Select the appropriate length of the $\varnothing 5.0\text{mm}$ Screw, by using the Distal Screw Depth Gauge and/or the Drill Bit graduation marks (as indicated above).



19. Insert the Screw through the Guide Sleeve, by using the Screwdriver (Power Screwdriver could also be used).

Remove the Screwdriver and Guide Sleeve.

Note: Alternatively, “free hand” drilling may be performed; in such case, Please Follow the next steps.



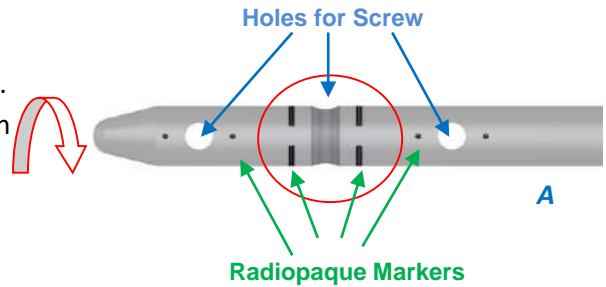
20. Distal drilling can be performed in “free hand” technique.

The tantalum mini rods markers, located near the distal holes, assist in locating the center of the holes (A).

Upon proper positioning, while the x-ray beam is perpendicular to the hole, the 2 radiopaque markers at each side of the hole should be aligned into a single dot. In proper positioning a single dot should be seen at each side of the hole (C).



The Nail distal part & radiopaque markers under X-Ray



Drill a hole for the Interlocking Screw using the **Green** marked Short \varnothing 4.2mm Step Drill Bit.

The Free Hand Drill Sleeve is radiolucent, and can be used for positioning the Drill Bit in the right trajectory, as well as protecting the soft tissue during drilling (D).

Select the appropriate length of the \varnothing 5.0mm Screw, by using the Depth Gauge.

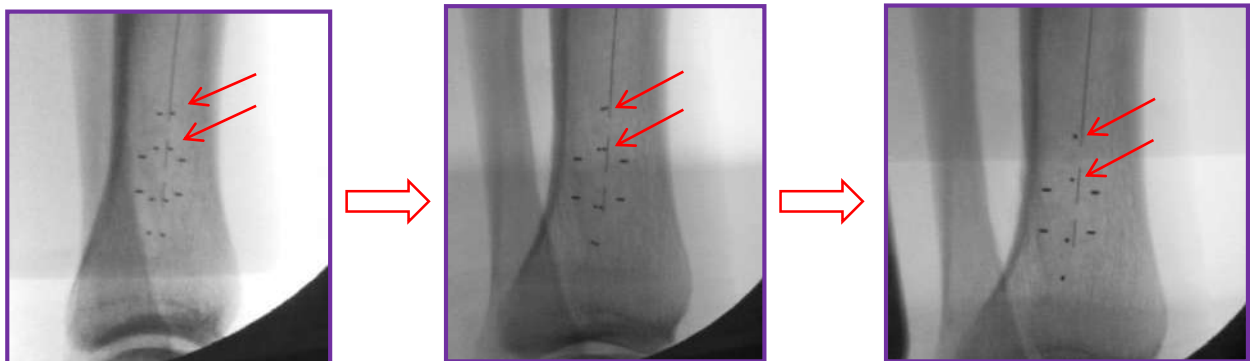
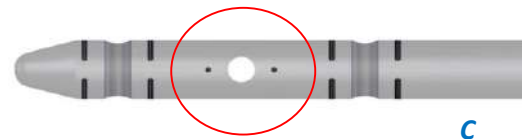


Incorrect Alignment of Markers for Distal Screws Insertion



Insert the Screw by using the Screwdriver (Power Screwdriver could also be used).

Correct Alignment of Markers



Alignment of Markers

Nail Cap Insertion

21. Nail Cap (supplied separately, packed sterile) can be inserted by using the Screwdriver. The Nail Cap is positioned after detachment of the Insertion Handle.

There are 3 available Nail Cap lengths: 0, 5 & 10mm

The Nail Cap is radiolucent, made out of composite material, and therefore there are two embedded radiopaque markers for visualization under fluoroscopy.

Close the bone penetration points according to the surgical procedure.



Nail Cap Visualization in X-ray
(Humeral Nail)

Nail Removal

1. Remove the Nail Cap and the Interlocking Screws by using the Screwdriver.

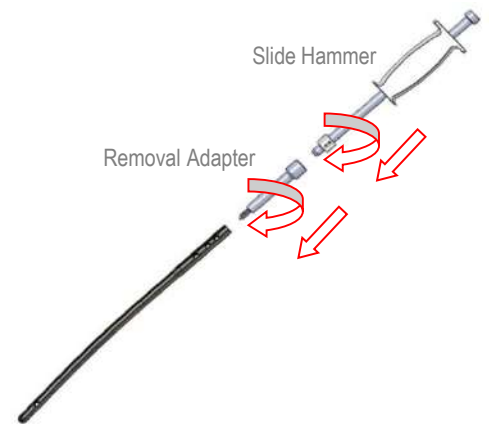
2. Where Lag Screw sliding was limited, use the Sliding Limit Driver to release the Lag Screw – rotate the Set Screw counterclockwise.

3. Connect the Lag Screw Driver to the Lag Screw and remove the Lag Screw by counterclockwise rotation.

4. Screw the Nail Removal Adapter onto the nail's proximal end.

5. Connect the Slide Hammer to the Nail Removal Adapter.

Use light strokes of the Slide Hammer to remove the Nail from the bone.



Pre-OP



Post-OP



Ordering Information

Proximal Femur Nail

Cat. No.	Description	Diameter (mm)	Length (mm)	Proximal Dia. (mm)	Right/Left
PPFN11180	CarboFix Proximal Femur Nail 11/180 130°	11.00	180	17	Bi-Lateral
PPFN111805	CarboFix Proximal Femur Nail 11/180 125°	11.00	180	17	Bi-Lateral
PPFL11300	CarboFix Proximal Femur Nail 11/300 Left 130°	11.00	300	17	Left
PPFL11320	CarboFix Proximal Femur Nail 11/320 Left 130°	11.00	320	17	Left
PPFL11340	CarboFix Proximal Femur Nail 11/340 Left 130°	11.00	340	17	Left
PPFL11360	CarboFix Proximal Femur Nail 11/360 Left 130°	11.00	360	17	Left
PPFL11380	CarboFix Proximal Femur Nail 11/380 Left 130°	11.00	380	17	Left
PPFL11400	CarboFix Proximal Femur Nail 11/400 Left 130°	11.00	400	17	Left
PPFL11420	CarboFix Proximal Femur Nail 11/420 Left 130°	11.00	420	17	Left
PPFL11440	CarboFix Proximal Femur Nail 11/440 Left 130°	11.00	440	17	Left
PPFL11460	CarboFix Proximal Femur Nail 11/460 Left 130°	11.00	460	17	Left
PPFR11300	CarboFix Proximal Femur Nail 11/300 Right 130°	11.00	300	17	Right
PPFR11320	CarboFix Proximal Femur Nail 11/320 Right 130°	11.00	320	17	Right
PPFR11340	CarboFix Proximal Femur Nail 11/340 Right 130°	11.00	340	17	Right
PPFR11360	CarboFix Proximal Femur Nail 11/360 Right 130°	11.00	360	17	Right
PPFR11380	CarboFix Proximal Femur Nail 11/380 Right 130°	11.00	380	17	Right
PPFR11400	CarboFix Proximal Femur Nail 11/400 Right 130°	11.00	400	17	Right
PPFR11420	CarboFix Proximal Femur Nail 11/420 Right 130°	11.00	420	17	Right
PPFR11440	CarboFix Proximal Femur Nail 11/440 Right 130° *	11.00	440	17	Right
PPFR11460	CarboFix Proximal Femur Nail 11/460 Right 130° *	11.00	460	17	Right
PPFL12320	Pic Prox Fem Nail ø12 320 Left 130°	12.00	320	17	Left
PPFL12340	Pic Prox Fem Nail ø12 340 Left 130°	12.00	340	17	Left
PPFL12360	Pic Prox Fem Nail ø12 360 Left 130°	12.00	360	17	Left
PPFL12380	Pic Prox Fem Nail ø12 380 Left 130°	12.00	380	17	Left
PPFL12400	Pic Prox Fem Nail ø12 400 Left 130°	12.00	400	17	Left
PPFL12420	Pic Prox Fem Nail ø12 420 Left 130°	12.00	420	17	Left
PPFR12320	Pic Prox Fem Nail ø12 320 Right 130°	12.00	320	17	Right
PPFR12340	Pic Prox Fem Nail ø12 340 Right 130°	12.00	340	17	Right
PPFR12360	Pic Prox Fem Nail ø12 360 Right 130°	12.00	360	17	Right
PPFR12380	Pic Prox Fem Nail ø12 380 Right 130°	12.00	380	17	Right
PPFR12400	Pic Prox Fem Nail ø12 400 Right 130°	12.00	400	17	Right
PPFR12420	Pic Prox Fem Nail ø12 420 Right 130°	12.00	420	17	Right

* Special Order

Lag Screws

Cat. No.	Description	Length (mm)
PPFLS10080	CarboFix Proximal Femur Lag Screw 80	80
PPFLS10085	CarboFix Proximal Femur Lag Screw 85	85
PPFLS10090	CarboFix Proximal Femur Lag Screw 90	90
PPFLS10095	CarboFix Proximal Femur Lag Screw 95	95
PPFLS10100	CarboFix Proximal Femur Lag Screw 100	100
PPFLS10105	CarboFix Proximal Femur Lag Screw 105	105
PPFLS10110	CarboFix Proximal Femur Lag Screw 110	110
TPPFLS10080	Titanium** Pic Proximal Femur Lag Screw 80	80
TPPFLS10085	Titanium** Pic Proximal Femur Lag Screw 85	85
TPPFLS10090	Titanium** Pic Proximal Femur Lag Screw 90	90
TPPFLS10095	Titanium** Pic Proximal Femur Lag Screw 95	95
TPPFLS10100	Titanium** Pic Proximal Femur Lag Screw 100	100
TPPFLS10105	Titanium** Pic Proximal Femur Lag Screw 105	105
TPPFLS10110	Titanium** Pic Proximal Femur Lag Screw 110	110

** Optional: Lag Screw fully made out of Titanium

Ordering Information

Nail Cap

Cat. No.	Description
PPFNC1700	CarboFix Proximal Femur Nail Cap 0mm
PPFNC1705	CarboFix Proximal Femur Nail Cap 5mm
PPFNC1710	CarboFix Proximal Femur Nail Cap 10mm

Screws

Ø 5.0 - Titanium

Cat. No.	Description	Diameter (mm)	Length (mm)	Number of Screws in Inst. Set
PCST50300	CarboFix Titanium Screw, 5.0mm, L30mm	5	30	4
PCST50325	CarboFix Titanium Screw, 5.0mm, L32.5mm	5	32.5	4
PCST50350	CarboFix Titanium Screw, 5.0mm, 35mm	5	35	6
PCST50375	CarboFix Titanium Screw, 5.0mm, L37.5mm	5	37.5	6
PCST50400	CarboFix Titanium Screw, 5.0mm, L40mm	5	40	6
PCST50425	CarboFix Titanium Screw, 5.0mm, L42.5mm	5	42.5	8
PCST50450	CarboFix Titanium Screw, 5.0mm, L45mm	5	45	8
PCST50475	CarboFix Titanium Screw, 5.0mm, L47.5mm	5	47.5	8
PCST50500	CarboFix Titanium Screw, 5.0mm, L50mm	5	50	8
PCST50525	CarboFix Titanium Screw, 5.0mm, L52.5mm	5	52.5	8
PCST50550	CarboFix Titanium Screw, 5.0mm, L55mm	5	55	6
PCST50575	CarboFix Titanium Screw, 5.0mm, L57.5mm	5	57.5	6
PCST50600	CarboFix Titanium Screw, 5.0mm, L60mm	5	60	6
PCST50650	CarboFix Titanium Screw, 5.0mm, L65mm	5	65	6
PCST50700	CarboFix Titanium Screw, 5.0mm, L70mm	5	70	4
PCST50750	CarboFix Titanium Screw, 5.0mm, L75mm	5	75	4
PCST50800	CarboFix Titanium Screw, 5.0mm, L80mm	5	80	4
PCST50850	CarboFix Titanium Screw, 5.0mm, L85mm	5	85	4

Miscellaneous

Cat. No.	Description
PFT912260	Access Guide Wire Ø3.2mmX350mm Single Use, Sterile
PFT912250	Ball-Tip Guide Wire Ø2.5mmX850mm Single Use, Sterile
PFT912240	Guide Wire Exchange Tube Single Use, Sterile
PFT912122	CarboFix Nitinol Guide Wire Rounded Tip Ø2.4x950mm Single Use, Sterile
PPF910460	Lag Screw K-Wire 450mm Single Use, Sterile
PPF910490	Lag Screw K-Wire 650mm Single Use, Sterile
PPF910230	Entry Drill Bit 17X300mm
PPF910470	Lag Screw Step Drill Bit (with no Stopper)
PPF942300	Drill Bit Ø4.2X300mm Single Use, Sterile
PPF942180	Drill Bit Ø4.2X180mm Single Use, Sterile

Instrumentation Set Components

Cat. No.	Description
PFT912260	Access Guide Wire Ø 3.2 mm
PPF910460	Lag Screw K-Wire 450mm
PPF910490	Lag Screw K-Wire 620mm [supplied separately, sterile]
PPF912010	Awl 17mm
PPF910210	Soft Tissue Protector
PPF910220	Trocar For Soft Tissue Protector
PPF910230	Entry Drill Bit 17x300mm
PPF910240	Insertion Handle
PPF910250	Connection Tube (Nail Adapter)
PFT912350	Ball Tip Screwdriver
PPF910510	Striking Adapter (Impactor)
Q9105110	Mallet
PFT912230	Slide Hammer
PPF910260	Lag Screw Guide Sleeve (12x10.5mm)
PPF910270	Lag Screw K-Wire Sleeve (10.3x3.3mm)
PPF910280	Lag Screw Trocar (3.2mm)
PPF910290	K-Wire Depth Gauge
PPF910470	Lag Screw Step Drill Bit
PPF910500	Lag Screw Step Drill Bit Stopper
PPF930140	Tap (Standard)
PPF910320	Lag Screw Insertion Handle
PPF910330	Sliding Limit Driver (Screwdriver Hex 2.5mm)
PPF910340	Guide Sleeve 10x8mm
PPF910350	Drill Sleeve 8x4.2mm
PPF910360	Trocar 4.0mm
PPF942180	Drill Bit 4. x180mm
PPF942300	Drill Bit 4.2x300mm
PPF910380	Screw Depth Gauge
PFT912010	Free Hand Drill Sleeve
PPF910520	Power Drive Screwdriver (Screwdriver Hex 3.5mm)
PFT912360	Screwdriver – Short (Screwdriver Hex 3.5mm)
PPF910530	Screwdriver - Long (Screwdriver Hex 3.5mm)
PPF910400	Removal Adapter
PFT912340	Guide Wire Holder



www.carbo-fix.com

For detailed procedure, indications, contraindications, possible adverse event, warnings and precautions, refer to the Instructions for Use

Caution: In the U.S.A., federal law restricts this device to sale by or on the order of a physician.

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Patents are pending

