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High-quality Orthopedic Manufacturer

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XC Medico

PFNA(Gama) Intramedullary Nail

Operation Manual

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Short PFNA

Indications

Intertrochanteric femoral fracture(31-A1 and 31-A2)

Intertrochanteric femoral fracture(31-A3)

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Contraindications

Low subtrochanteric femoral fracture

Femoral shaft fracture

Isolated or combined medial femoral neck fracture

Long PFNA

Indications

Low and extended subtrochanteric femoral fracture

Combined ipsilateral greater trochanter fracture (proximal femur)

Pathological fracture

Contraindications

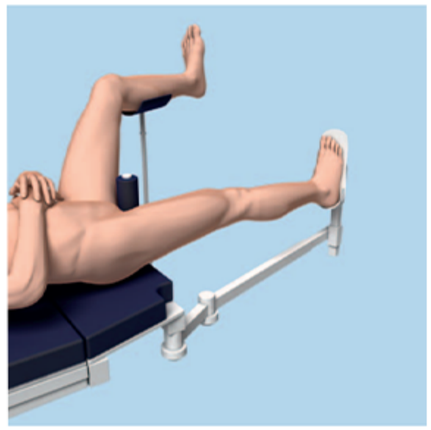
Isolated or combined medial femoral neck fracture

Preoperative Preparation and Surgical Procedures

Patient Positioning

Position the patient supine on an extension table or a radiolucent operating table. Abduct the unaffected leg as far as possible and place it on a leg support, so that allows free fluoroscopic examinations.This should be tested preoperativey.

For unimpeded access to the medullary cavity, abduct the upper body by about 10-15 ° to the unaffected side(or abduct the affected leg by 10-15°).



1.Reduce fracture

Perform closed reduction of the fracture under image intensifier control. If the result is not satisfactory, perform open reduction.

Note:

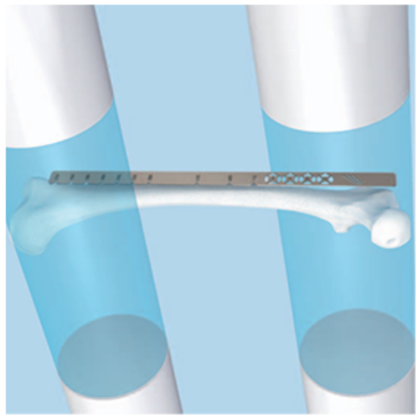
Exact anatomical reduction and secure fixation of the patient to theoperating table areessential for easy handling and a good surgical result.

2.Confirm nail length and diameter

Instrument:

Radiographic Ruler for PFNA

The required nail length must be determined after reduction of the femoral fracture.



- Position the C-arm for an AP view of the proximal femur. With long forceps, hold the ruler alongside the lateral thigh, parallel to and at the same level as the femur. Adjust the ruler until the proximal end is at the desired nail insertion position. Mark the skin at the proximal end of the ruler.

- Move the C-arm distally. Align the proximal end of the radio-graphic ruler to the skin mark, and take an AP image of the distal part.Verify fracture reduction going from proximal to the fracture to distal.

Read the nailength directly from the ruler image. For long nails, select the measurement at or just proximal to the epiphyseal scar, or at the chosen insertion position.

Important

It is recommended that all fractures are treated with the longest nail possible, taking into account patient anatomy or a previous implant.

Standard PFNA (length 240 mm) may be too long for small stature people.

For fractures extending below the lesser trochanter always use a long nail.

3.Approach

Palpate the trochanter major.

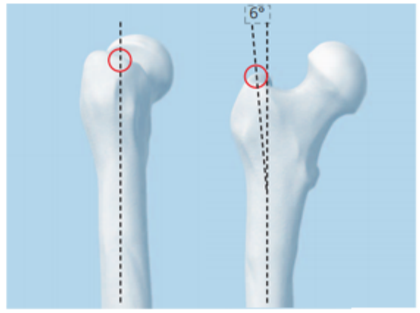
Make a 5 cm incision proximal from the tip of the greater trochanter. Make a parallel incision of the fasciae of the gluteus medius and split the gluteus medius in ine with the fibers.

Open Femur

1.Determine entry point

In AP view,the PFNA entry point is on the tip or slightly lateral to the tip of the greater trochanter in the curved extension ofthe medullary cavity, as the ML angle of the PFNA is 6°.

In lateral view the entry point is in line with the axis of the intramedullary canal.



2.Insert guide wire

Instruments:

Guide Wire 3.2 mm, for PFNA **Blade**
Universal Chuck with T-Handle
Protection Sleeve 20.0/17.0
Drill Sleeve 17.0/3.2

Secure the guide wire in the power tool. Altematively, the universal chuck with T-handle can be used to insert the guide wire manually.

Position both the protection sleeve and the drill sleeve at the insertion point. Insert the guide wire through the protection sleeve and the drill sleeve. Remove the power tool and the drill sleeve.

Note:

The correct entry point and angle are essential for a successful result. To ensure the correct position of the guide wire, position a guide wire ventrally on the femur and check under image intensifier control.

3.Open femur

Instruments:

Drill Bit 17.0 mm, cannulated, for PFNA
Protection Sleeve 20.0/17.0
Universal Chuck with T-Handle

Guide the cannulated drill bit through the protection sleeve over the guide wire and drill as far as the stop on the protection sleeve. Remove the drill bit, the protection sleeve and the guide wire.

Note:

It is recommended to open the femur by using a power tool at high speed or carefully by hand. To prevent dislocating the fracture fragments, avoid lateral movements or excessive compression forces.

4.Option: Ream

Instruments:

Intramedullary Reaming System
Holding Forceps for Reaming Rods

If necessary, enlarge the femoral canal to the desired diameter using the medullary reamer and the corresponding technique guide.

- Check fracture reduction underimage intensifier control.

Insert reaming rod

Insert the reaming rod into the medullary canal tothe desired insertion depth.The tip must be corectly positioned in the medullary canal since it determines the final distal position of the long PFNA.

Reaming

Starting with the 8.5 mm diameterreaming head. ream to a diameter of 0.5 to 1.5 mm greater than the nail diameter. Reamin 0.5 mm increments and advance the reamer with steady, moderate pressure. Do not force the reamer. Partially retract the reamer repeatedly to clear debris from the medullary canal.

Use the holding forceps to retain the reaming rod while reaming and to prevent it from rotating.

Insert Nail

1.Assemble PFNA instruments

Instruments:

Insertion Handle, radiolucent, for PFNA
Connecting Screw, cannulated, for PFNA
Screwdriver, hexagonal with spherical head SW8

Guide the connecting screw through the insertion handle and secure the desired PFNA to the insertion handle using the hexagonal screwdriver with spherical head.

Important:

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

2.Insert PFNA

Use image intensifier control to insert the PFNA.

Carefully insert the PFNA manually using slight bidirectional turns of the insertion handle as far as possible into the femoral opening. If the PFNA cannot be inserted, select a smaller size PFNA diameter or ream the medul lay cavity to a diameter that is at least 1 mm larger than that of the selected nail.

The correct PFNA insertion depth is reached as soon as the projected PFNA blade is positioned in the center of the femoral head. A too cranialor too caudal PFNA position should be avoided as it can lead to malposition of the PFNA blade.

The anteversion can be determined by inserting a guide wire ventral to the femoral neck in the femoral head. In the mediolateral view, place the insertion handle parallel to the guide wire to align the correct rotation ofthe PFNA.

Remove all guide wires. Do not reuse. Dispose of the guide wires.

Important:

Always ensure that the PFNA is firmly attached to the insertion handle.

Optional instruments

Connector for Insertion Handle for PFNA Combined Hammer 500 g, can be mounted Hammer Guide

Attach the connector on the insertion handle and use light hammer blows on the connector to insert the nail.

Remove the connector.

Optionally, instead of the connector, the hammer guide can be threaded into the insertion handle and the hammer can be used as a slide hammer.

Remove the hammer guide.

Important:

Use only light blows on the connector for insertion handle. Avoid unnecessary use of force to prevent loss of reduction or an iatrogenic fracture.

Proximal Locking

1.Choose aiming arm for PFNA blade insertion

Instruments:

Aiming Arm 130°, for PFNA Blade

Plug for Aiming Arm

Using the hexagonal screwdriver with spherical head, confrm that the connecting screw between the insertion handle and the PFNA is suficiently tightened.

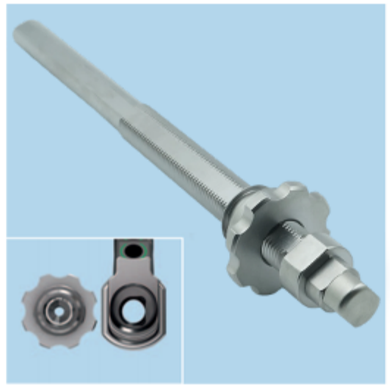
Mount the appropriate aiming arm based on the chosen CCD angle of the PFNA and fix it firmly to the insertion handle.

Insert the plug for aiming arm into the locking hole of the nail length that is NOT used in this case.

2.Prepare guide wire insertion

Instruments:

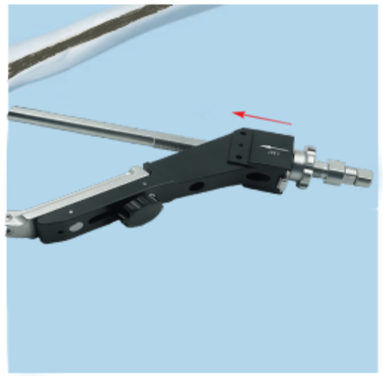
Buttress/Compression Nut, for PFNA Blade
Protection Sleeve 16.0/11.0,for PFNA Blade
Drill Sleeve 11.0/3.2, for PFNA Blade
Trocar 3.2 mm, for PFNA Blade



Screw the buttress nut on the protection sleeve for PFNA blade.

Insert the drill sleeve and the trocar through the protection sleeve.

Advance the entire sleeve assembly for PFNA blade through the aiming arm to the skin until clicks into the aiming arm. Adjust the position of the buttress nut if necessary.



Important:

Ensure that the sleeve assembly clicks into the aiming arm, otherwise it will not guarantee the exact position of the PFNA blade.

3.Insert guide wire

Instruments:
Guide Wire 3.2 mm, for PFNA Blade

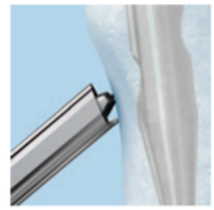
Make a stab incision in the area of the trocar tip. Advance the sleeve assembly through the soft tissues in direction of the lateral cortex.

Insert the sleeve assembly as far as the lateral cortex. Advance the protection sleeve to the lateral cortex using slight clockwise turns of the buttress nut. Prepare the passage of the protection sleeve by turning the internal drill sleeve.

Important:

The sleeve assembly must be in contact with the bone during the entire blade implantation. Do not tighten the buttress nut too firmly as this could impair the precision of the insertion handle and sleeve assembly.

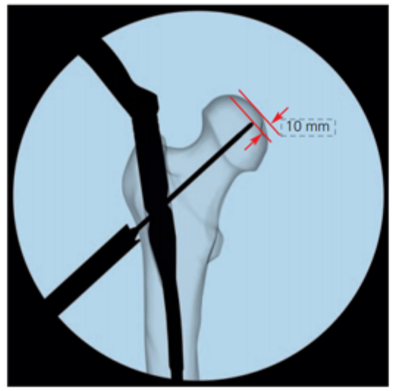
Incorrect position



Correct position

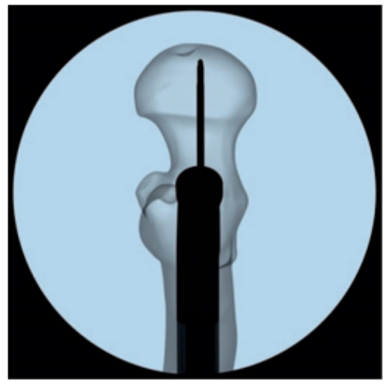
Remove the trocar. Insert a new guide wire through the drill sleeve into the bone. Verify both direction and position under image intensifier control in both AP and lateral view.

- In the AP and lateral view, the optimal postion of the guide wire is the exact center of the femoral head. Insert the guide wire subchondrally into the femoral head at a distance of 10 mm below the joint level. Minimal distance to the joint is 5 mm. The tip of the guide wire is positioned at the intended bladetip position.



Important:

If the PFNA or the guide wire requires repositioning; remove the guide wire, release the sleeve assembly with buttress nut from the aiming arm by pressing the button on the clamp device, and remove it. The PFNA can be repositioned only by rotation, deeper insertion or partial retraction. Reinsert the sleeve assembly and turn the buttress nut clockwise to posit ion the assembly on the bone. Reinsert the guide wire.



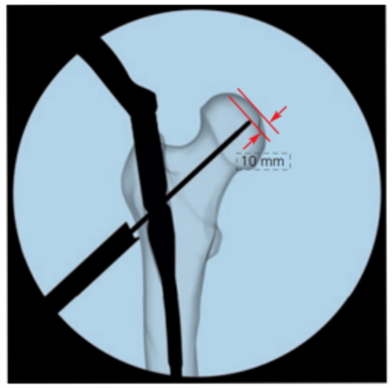
4.Measure the PFNA blade length

Instruments:
Direct Measuring Device for Guide Wire 3.2 mm

Verify the position of the guide wire in AP and lateral view before measuring the length.

Guide the measuring device over the guide wire. Advance the measuring device to the protection sleeve and determine the length of the required blade. The measuring device indicates the exact length of the guide wire in the bone.

In the AP and lateral view, he correct position of the PFNA blade is 10 mm below the joint level. Minimal distance to the joint is 5 mm. If the guide wire's position is subchondral, subtract 10 mm to measure the PFNA blade length correctly.



Remove the measuring device.

Carefully remove the drill sleeve without changing the position of the guide wire.

5.Open lateral cortex for PFNA blade

Instruments:

Drill Bit 11.0 mm, for PFNA Blade

Push the cannulated drill bit over the 3.2 mm guide wire.Drill to the stop. This opens the lateral cortex.

Important:

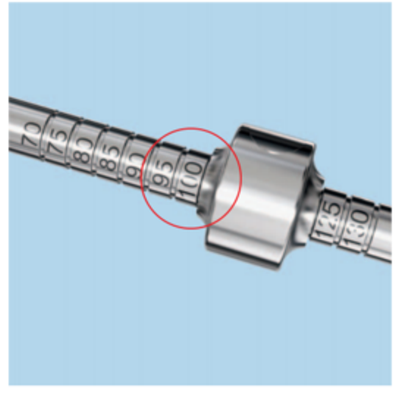
If the guide wire has been bent slight ly during insertion, guide the drill bit over the wire using carefully forward and backward movements. However if the wire has been bent to a greater extent reinsert it or replaceit by a new guide wire (see step 4). Otherwise, the guide wire may be advanced through the joint.

6.Drill hole for PFNA blade

Instruments:

Reamer 11.0mm, for PFNA Blade

Fixation Sleeve



Important:

Use reamer only in a situation with good bone quality.

Set the chosen blade length on the cannulated reamer by fixing the fixation sleeve in the corresponding position. Read off the correct length on the side of the fixation sleeve pointing towards the tip of the reamer.

Push the reamer over the guide wire. Monitor drilling under image intensiier control. Drill to the stop. The fixation sleeve prevents further drlling.

Note:

Use the reamer only after opening the lateral cortex. If the guide wire has been bent slightly during insertion, guide the reamer over the wire using carefully forward and backward movements.

However, if the wire has been bent to a greater extent, reinsert it or replaceit with a new guide wire (see step 4). Otherwise, the guide wire may be advanced through the joint.

7.Assemble PFNA blade on the impactor

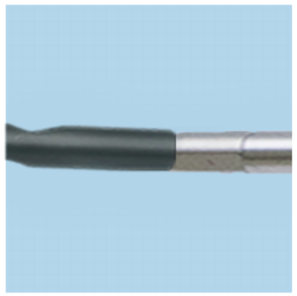
Instruments:
Impactor for PFNA Blade

The PFNA blade is supplied in a locked state.

While attaching the PFNA blade on the impactor, screw the impactor counterclockwise (note the mark“attach” on the impactor) into the end of the PFNA blade to unlock the blade. Push the PFNA blade gently towards the impactor while attaching the PFNA blade. Do not overtighten.

Important:

The tip ofthe PFNA blade must rotate freely after altaching it to the impactor. This is essential for the implantation ofthe PFNA blade. Otherwise remove and dispose of the blade. Do not over tighten the connection between the impactor and the PFNA blade.



8.Insert PFNA blade

Instruments:
Combined Hammer 500 g,can be mounted

Insert the blade impactor assembly over the guide wire. Push the button on the protection sleeve, align the blade (note marking on the protection sleeve) and advance the blade impactor assembly further through the protection sleeve.

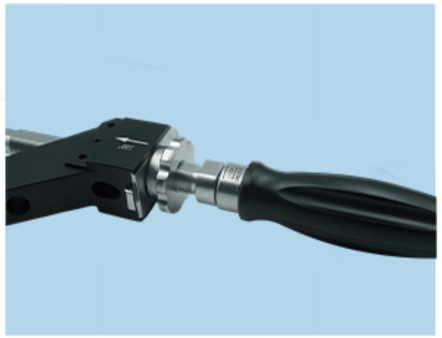
Manually insert the blade overthe guide wire advancing as far as possible into the femoral head.

Use monitoring during insertion of the PFNA blade.

Insert the PFNA blade to the stop by applying gentle blows with the hammer.

Important:
Inserting the blade to the stop is important, as the impactor must click into the protection sleeve. Do not use unnecessary force when inserting the PFNA blade.

9.Lock PFNA blade



To lock the PFNA blade, turn the impactor clockwise (note «lock» marking on the handle) and tighten the blade.

Verify PFNA blade locking intraoperatively. The PFNA blade is locked if all gaps are closed.

Important:
The gliding of the PFNA blade is guaranteed.

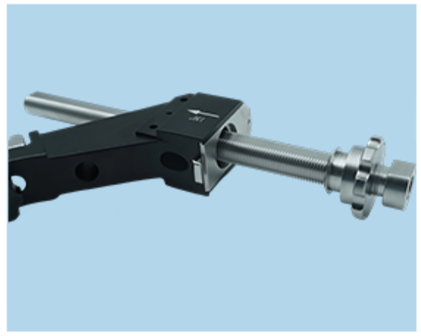
If the PFNA blade cannot be locked, remove it and replace it with a new PFNA blade (see implant removal, step 1).

PFNA blade unlocked

PFNA blade locked

Press the button on the protection sleeve to remove the impactor. Remove and dispose of the guide wire.

When proximal locking is complete, release and remove the protection sleeve and the buttress nut by pressing the button on the clamp device of the aiming arm in order to continue with distal locking or leave it in place to continue with intraoperative compression.



10.Option: Intraoperative compression

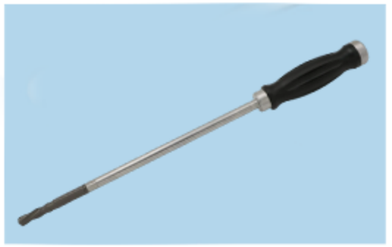
Instruments:
Compression Instrument for PFNA Blade

Warning:
Do not use intraoperative compression in osteoporotic bone.

Screw the compression instrument into the blade through the protection sleeve.

Turn the buttress nut counterclockwise to move the protection sleeve backwards until it is pushing towards the compression instrument.

Under image intensifier control, further turn the buttress nut counterclockwise to achieve intraoperative compression and close the fracture gap.

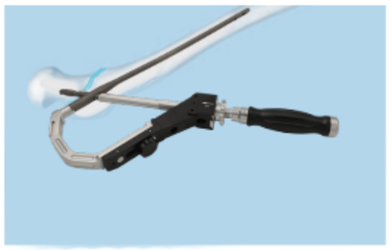


Important:

The blade must be locked to apply intraoperative compression.

Control compression under image intensifier control.

Do not use excessive force in order to avoid pulling out the blade from the femoral head.



Note:

The blade may be slightly overinserted before applying intraoperative compression (see correction of insertion depth of PFNA blade, page 51) to prevent it from sticking out laterally.

Release strain by turning the buttress nut clockwise.

Remove the compression instrument. Verify PFNA blade locking under image intensifier control. The PFNA blade is locked if all gaps are closed. If necessary, relock the blade using the extraction screw.

Release and remove the protection sleeve and the buttress nut by pressing the button on the clamp device of the aiming arm to continue with distal locking.

Distal Locking for PFNA short

Distal Locking for PFNA Short (Length 180mm-240mm)

1.Choose aiming arm for dista locking

Distal locking of PFNA short is perfdrimed through the diting arm (see steps 2 and 3). Choose an appropriate aiming arm !according to the table below. Make sure the plug for aiming arm is inserted into the locking hole of the nail length that i is NOT used in this case.

Nail length	Locking	Aiming arm
180-240mm	Static	AimingArm130°,forPFNA Blade
180-240mm	Dynamic	AimingArm,for dynamic locking of PFNA

2.Option A:Static distal locking of PFNA

Instruments:

ProtectionSleeve11.0/8.0
Drill Sleeve8.0/4.0
Trocar 4.0mm

Using the hexagonal screwdriver with spherical head,confirm that the connecting screw between the insertion handle and the PFNA issufficiently tightened.

Insert the three-part trocar combination (protection sleeve,drill sleeve and trocar) through the hole in the aiming armthat corresponds with the nail length, make a stab incisionand insert the trocar to the bone.

Remove the trocar.

3.Drill

Option: Locking with ASLS

ASLS, the Angular Stable Locking System, can be used as an alternative to standard locking screws in any round hole of a Synthes cannulated titanium nail. For more details regarding the intramedullary fixator principle please consult the ASLS surgical technique and concept flyer. Please note that for the use of ASLS special instruments are required.

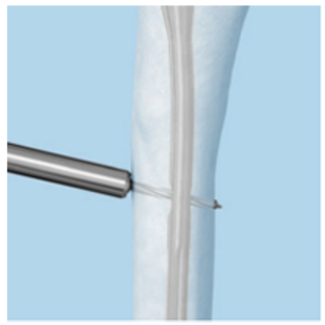
Instruments:

Drill Bit 4.0 mm with centering tip, length 148/122 mm, 3-flute, with Coupling for RDL

Use the drill bit to drill through both cortices. The tip of the drill bit should protrude by 2 to 4 mm.

Just after drilling both cortices, confm the drill bit position.

Ensure that the drill sleeve is pressed firmly to the near cortex and read the measurement from the calibrated drill bit at the back of the drill sleeve. This measurement corresponds to the appropriate length of the locking bolt.



Important:

Always make sure that no diastasis has occurred intraoperatively before beginning distal locking. Diastasis can cause delayed healing. Always ensure that the connection between PFNA, insertion handle and aiming arm is good,otherwise drilling for distal locking may damage the PFNA.

4.Determine length of the locking bolt and insert locking bolt

Instruments:

Measuring Device for Locking Bolt
Screwdriver, hexagonal, large, 3.5 mm, with Groove, length 300 mm
Holding Sleeve

Measure the locking bolt length using the measuring device.Ensure that the outer sleeve is in contact with the bone and the hook grasps the far cortex. Add 2 to 4 mm to the measured length in order to ensure that the locking bolt is well engaged in the opposite cortex.

Insert the locking bolt with the appropriate length using the hexagonal screwdriver and the holding sleeve, if required.

Verify the bolt length under image intensification. The bolt tip should be about 1–2 mm outside of the cortex. Exchange the locking bolt with the appropriate length if necessary.

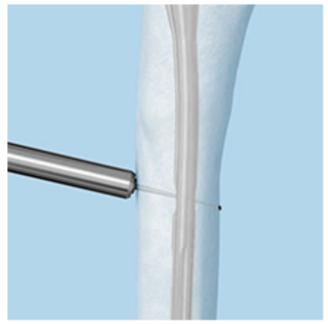
5.Determine length of the locking bolt

Instruments:

Measuring Device for Locking Bolt

After driling both cortices, remove the drill bit and the drill sleeve.

Advance the depth gauge through the protection sleeve and through both cortices. Draw back the hook until it engagesin the opposite cortex. Read the measurement from the depth gauge. Add 2 to 4 mm to the measured length to ensure good engagement ofthe locking bolt in the opposite cortex.



6.Insert locking bolt

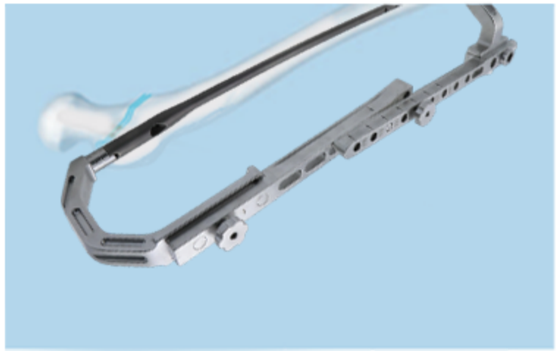
Instruments:

Screwdiver, hexagonal

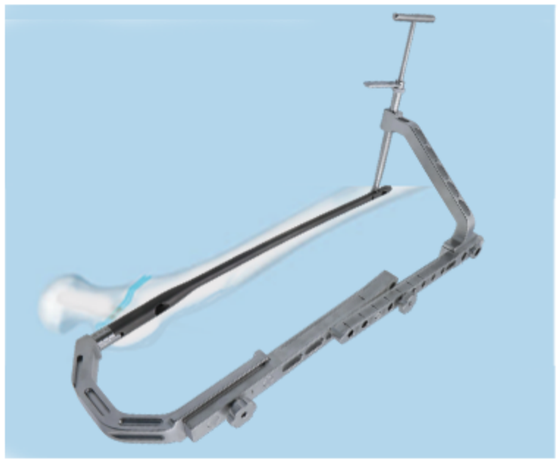
Insert a locking bolt ofthe measured length with the hexagonal screwdriver through the protection sleeve until the locking bolt head lies against the near cortex.The tip of the locking bolt should not project more than 1-2 mm beyond the far cortex.

Remove the screwdriver and the protection sleeve.

Assemble the long nail aiming arm. Use the handle to insert or tap the intramedullary nail along the ball-type guide wire into the femoral medullary canal. Attach the conversion bracket and guide rod according to the selected intramedullary nail specification.

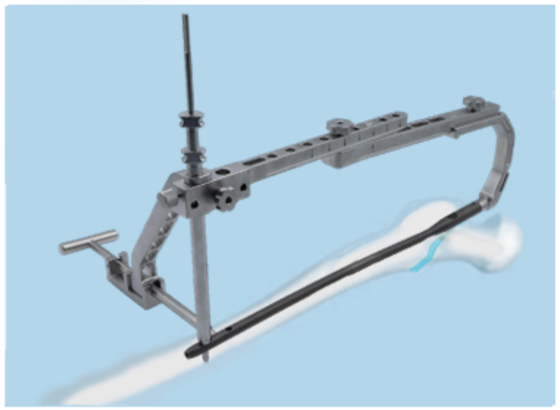


First, use a 5.2 drill bit (with drill bit sleeve and location sleeve) to drill for the location rod at the hole site of the distal location platform. Finally, ream the hole with a 5.2 T-type drill bit.

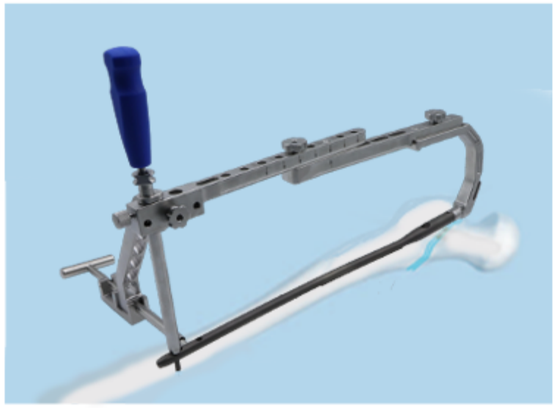


After drilling the location rod hole, use the stopper rod and matching block to position the intramedullary nail in the body.

After positioning, use a 4.3 drill bit (with locking screw sleeve and 4.3 drill sleeve) to create the bone tunnel for the locking screw hole.



After the bone tunnel is created, use a depth gauge to measure the bone diameter. Select the corresponding distal 4.7 locking screw according to the depth gauge measurement, and install it into the locking screw hole with a screw wrench.



Insert End Cap

1.Remove PFNA instruments

Instruments:

Screwdriver, hexagonal with spherical head SW8

Remove the aiming arm. Loosen the connection screw with the hexagonal screwdriver with spherical head. Remove the connecting screw and the insertion handle.

Tip:

The end cap with 0 mm extension can be inserted through the insertion handle barrel. Only remove the connecting screw and leave the insertion handle in place.

Implant Removal

1.Remove PFNA blade

Instruments:

Guide Wire 3.2 mm, for PFNA Blade
Extraction Screw for PFNA Blade
Combined Hammer 500 g, can be mounted
Key for PFNA Blade

Note:

Implant removal is an elective procedure.

After an incision through the old scars, locate the PFNA blade by palpation or under image intensifier control. Insert the guide wire trough the cannulated PFNA blade. Push the extracion screw over the guide wire and use gentle pressure to screw it counterclockwiseinto the PFNA blade (note "attach" marking on the extraction screw shaft).

Extract the PFNA blade by applying gentle blows with the hammer.

Tip:

If the extraction of the PFNA blade is difficult, remove the locking bolt and the end cap, screw the hammer guide into the PFNA and mobilize the nail to loosen the nail-blade connection.

To detach the blade from the bone use light hammer blows to slightly drive in the blade before removal of the blade.

Use the key for PFNA blade to detach the blade from the extraction screw if necessary.

Note:

If the removal of the PFNA blade is not possible with the standard instruments use the special instruments from the PFNA/PFNA-II Blade Extraction Set and the corresponding technique guide.

2.Remove end cap

Instruments:

Combination Wrench SW11

Fit the hollow hex sleeve over the end cap. Remove the end cap with the combination wrench.

3.Remove locking bolt and nail

Instruments:

Hammer Guide
Screwdriver, hexagonal
Holding Sleeve, large
Combined Hammer 500 g, can be mounted

Before removing the locking bolt, screw the hammer guide into the PFNA and tighten it.

Remove the locking bolt with the hexagonal screwdriver.Mount the large holding sleeve onto the hexagonal screw-driver to facilitate removal of the locking bolt.

Note:

If removal of the locking bolt is not possible and/or incase of broken locking bolts, the Screw Extraction Set and the corresponding handling technique is recommended.

Extract the nail by applying gentle blows with the hammer.

Remove the locking bolt after screwing the hammer guide into the PFNA. Thereby a rotation of the PFNA in the bone will be avoided.

Implant Information

PFNA(Gama) Intramedullary Nail

REF	Material	Diameter	Lenght
RPFNA09180	TC4	Φ9	180
RPFNA09200	TC4	Φ9	200
RPFNA09220	TC4	Φ9	220
RPFNA09240	TC4	Φ9	240
RPFNA10180	TC4	Φ10	180
RPFNA10200	TC4	Φ10	200
RPFNA10220	TC4	Φ10	220
RPFNA10240	TC4	Φ10	240
RPFNA11180	TC4	Φ11	180
RPFNA11200	TC4	Φ11	200
RPFNA11220	TC4	Φ11	220
RPFNA11240	TC4	Φ11	240
RPFNA12180	TC4	Φ12	180
RPFNA12200	TC4	Φ12	200
RPFNA12220	TC4	Φ12	220
RPFNA12240	TC4	Φ12	240
RPFNA09320R	TC4	Φ9	320
RPFNA09340R	TC4	Φ9	340
RPFNA09360R	TC4	Φ9	360
RPFNA09380R	TC4	Φ9	380
RPFNA09400R	TC4	Φ9	400
RPFNA09420R	TC4	Φ9	420
RPFNA09440R	TC4	Φ9	440
RPFNA09320L	TC4	Φ9	320
RPFNA09340L	TC4	Φ9	340
RPFNA09360L	TC4	Φ9	360
RPFNA09380L	TC4	Φ9	380
RPFNA09400L	TC4	Φ9	400
RPFNA09420L	TC4	Φ9	420

REF	Material	Diameter	Lenght
RPFNA09440L	TC4	Φ9	440
RPFNA10320R	TC4	Φ10	320
RPFNA10340R	TC4	Φ10	340
RPFNA10360R	TC4	Φ10	360
RPFNA10380R	TC4	Φ10	380
RPFNA10400R	TC4	Φ10	400
RPFNA10420R	TC4	Φ10	420
RPFNA10440R	TC4	Φ10	440
RPFNA10320L	TC4	Φ10	320
RPFNA10340L	TC4	Φ10	340
RPFNA10360L	TC4	Φ10	360
RPFNA10380L	TC4	Φ10	380
RPFNA10400L	TC4	Φ10	400
RPFNA10420L	TC4	Φ10	420
RPFNA10440L	TC4	Φ10	440
RPFNA11320R	TC4	Φ11	320
RPFNA11340R	TC4	Φ11	340
RPFNA11360R	TC4	Φ11	360
RPFNA11380R	TC4	Φ11	380
RPFNA11400R	TC4	Φ11	400
RPFNA11420R	TC4	Φ11	420
RPFNA11440R	TC4	Φ11	440
RPFNA11320L	TC4	Φ11	320
RPFNA11340L	TC4	Φ11	340
RPFNA11360L	TC4	Φ11	360
RPFNA11380L	TC4	Φ11	380
RPFNA11400L	TC4	Φ11	400
RPFNA11420L	TC4	Φ11	420
RPFNA11440L	TC4	Φ11	440

Blade Screw

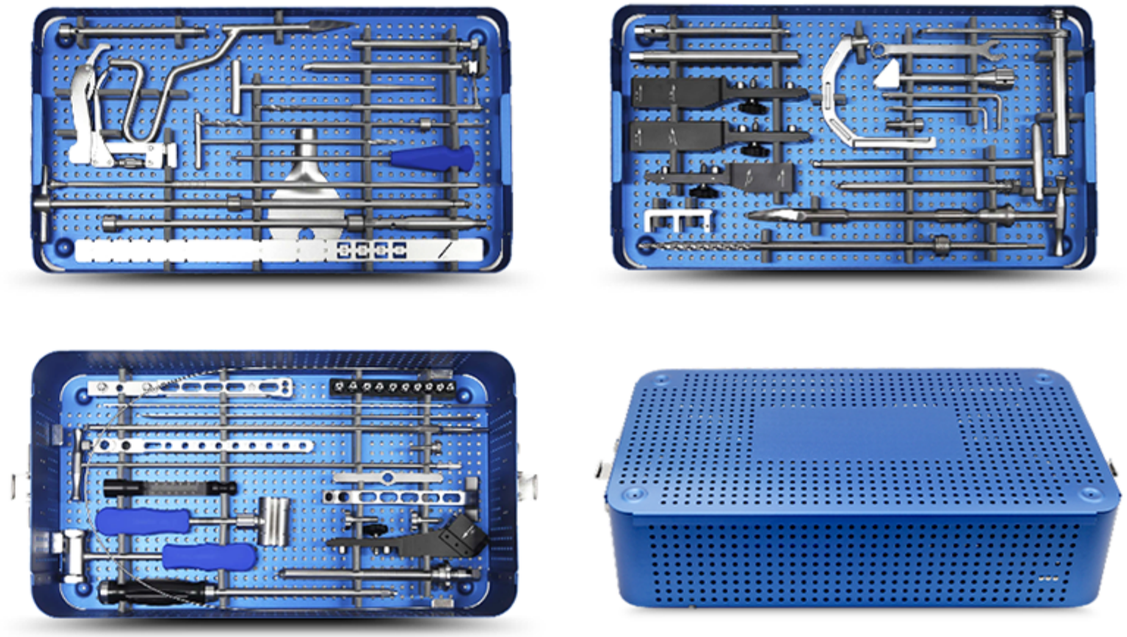
REF	Material	Diameter	Lenght
RSDPD10D470	TC4	Φ10.4	70
RSDPD10D475	TC4	Φ10.4	75
RSDPD10D480	TC4	Φ10.4	80
RSDPD10D485	TC4	Φ10.4	85
RSDPD10D490	TC4	Φ10.4	90
RSDPD10D495	TC4	Φ10.4	95
RSDPD10D4100	TC4	Φ10.4	100
RSDPD10D4105	TC4	Φ10.4	105
RSDPD10D4110	TC4	Φ10.4	110
RSDPD10D4115	TC4	Φ10.4	115
RSDPD10D4120	TC4	Φ10.4	120

4.7mm Locking Screw

REF	Material	Diameter	Lenght
RSPFNALD4726	TC4	Φ4.7	26
RSPFNALD4728	TC4	Φ4.7	28
RSPFNALD4730	TC4	Φ4.7	30
RSPFNALD4732	TC4	Φ4.7	32
RSPFNALD4734	TC4	Φ4.7	34
RSPFNALD4736	TC4	Φ4.7	36
RSPFNALD4738	TC4	Φ4.7	38
RSPFNALD4740	TC4	Φ4.7	40
RSPFNALD4742	TC4	Φ4.7	42
RSPFNALD4744	TC4	Φ4.7	44
RSPFNALD4746	TC4	Φ4.7	46
RSPFNALD4748	TC4	Φ4.7	48
RSPFNALD4750	TC4	Φ4.7	50
RSPFNALD4752	TC4	Φ4.7	52
RSPFNALD4754	TC4	Φ4.7	54
RSPFNALD4756	TC4	Φ4.7	56
RSPFNALD4758	TC4	Φ4.7	58
RSPFNALD4760	TC4	Φ4.7	60
RSPFNALD4764	TC4	Φ4.7	64
RSPFNALD4768	TC4	Φ4.7	68
RSPFNALD4772	TC4	Φ4.7	72
RSPFNALD4776	TC4	Φ4.7	76
RSPFNALD4780	TC4	Φ4.7	80
RSPFNALD4784	TC4	Φ4.7	84

Instrument Information

PFNA Nail Instrument Set



NO.	Products	Qty.
1	Connector	1
2	AWL	1
3	Guider Wire Holder	1
4	Drill Sleeve	1
5	Drill Sleeve Pin	1
6	Drill Sleeve	1
7	Drill Sleeve, 4.3mm	1
8	Position Rod	1
9	Position Drill Bit	1
10	Drill Sleeve, 5.2mm	1
11	Drill Bit Ø4.3	1
12		1
13	Position Drill	1
14	Screwdriver Hex SW2.5	1
15	Tissue Protection Plate	1
16	Depth Gague 0-100mm	1
17	Blade Screw Device	1
18	Nail Removal Rod	1
19	Template for Development	1
20	Cannulated Screwdriver	1
21	Tail Cannulated Screwdriver	1
22	Distal Guider Device 90° 180/240	1
23	Distal Guider Device 240	1
24	Distal Guider Device 180	1
25	Distal Position Lock	1
26	Handle	1
27	Guider Sleeve	1
28	K-wire Sleeve	1
29	Open Wrench	1
30	Main Pin Impactor	1
31	Hex Key Large	1
32	Hex Key Small	1
33	Bolt	1
34	Nut Screwdriver	1
35	Drill Sleeve	1

NO.	Products	Qty.
36	Drill Sleeve Ø4.3	1
37	Drill Sleeve Pin 4.3mm	1
38	Proximal Hollow Drill	1
39	Quick Coupling T-handle	1
40	Proximal Hollow Position Stopper	1
41	Long Nail Distal Guider Bar	1
42	Reamer Head 9.0mm	1
43	Reamer Head 9.5mm	1
44	Reamer Head 10.0mm	1
45	Reamer Head 10.5mm	1
46	Reamer Head 11.0mm	1
47	Reamer Head 11.5mm	1
48	Reamer Head 12.0mm	1
49	Reamer Head 12.5mm	1
50	Reamer Head 13.0mm	1
51	Reamer Head13.5mm	1
52	End Cap Guider	1
53	Threaded K-Wire	3
54	Flexible Reamer Bar	1
55	Long Nail Distal Guider Bar	1
56	Bolt	1
57	Reduction Rod	1
58	Depth Gague 70-120mm	1
59	Wrench	1
60	ng Nail Distal Screw Location Dev	1
61	Bolt	1
62	Bolt	1
63	Proximal Guider Device	1
64	Guider Sleeve	1
65	Saw Blade Screwdriver	1
66	Hammer	1
67	Slide Hammer	1
68	Olive Guide Wire	1
69	Aluminium Box	1