

NEOSUPRA TIBIAL NAIL

NEOGEN II NAILS SYSTEM

SURGICAL TECHNIQUE



KANGHUI
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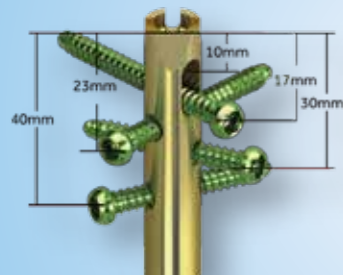
Warning

This description alone does not provide sufficient background for direct use of products. Instructions by an experienced surgeon in handling these products is highly recommended. Processing, Reprocessing, Care and Maintenance For general guidelines, function control and dismantling of multi-part instruments, as well as processing guidelines for implants, please contact your local sales representative..

STABLE INTERNAL FIXATION

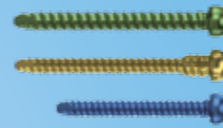
Herzog 10°, bend distance is at 38mm. Help reduce the risk of imping the posterior cortex.

Up to 7mm of active compression possible through proximal dynamization slot.

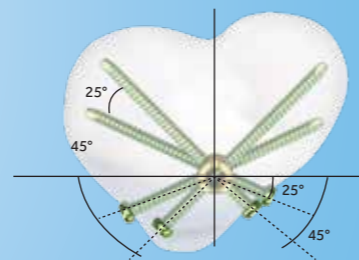


Proximal nail

Threaded hole design lowers the screw back out and promotes the healing.

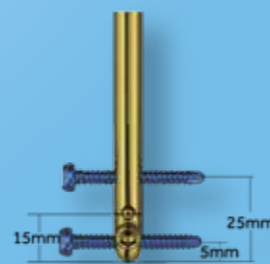


Low profile of locking screw lowers the risk of the soft tissue irritation.



Top view of nail

Multi-planar proximal locking hole configuration for proximal optimal fixation.



Distal nail (AP view)

Internally threaded distal locking hole located 5mm from nail tip for enhanced fixation of extreme distal fractures.

2° distal bend facilitates implant passage and fit within the distal tibia.

AP view

INDICATIONS

The NEOSUPRA tibial nail is indicated for fractures in the tibial shaft as well as for metaphyseal and certain intraarticular fractures of the tibial head and the pilon tibiae in adult:

- Extra-articular fractures in proximal tibia
- All shaft fractures
- Extra-articular fractures in distal tibia
- Combinations of these fractures
- Malunions and non-unions

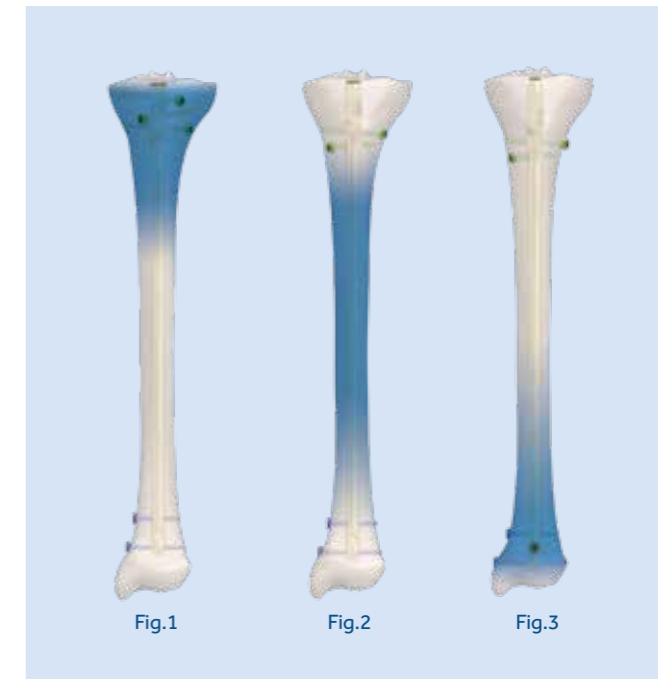


Fig.1

Fig.2

Fig.3

STANDARD APPROACH



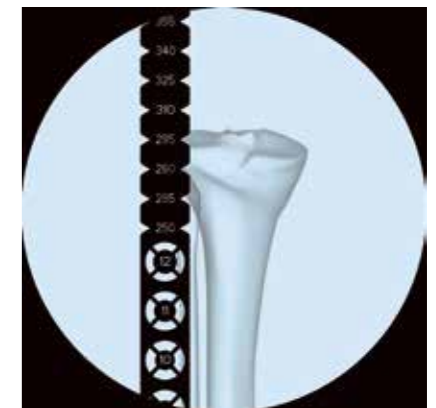
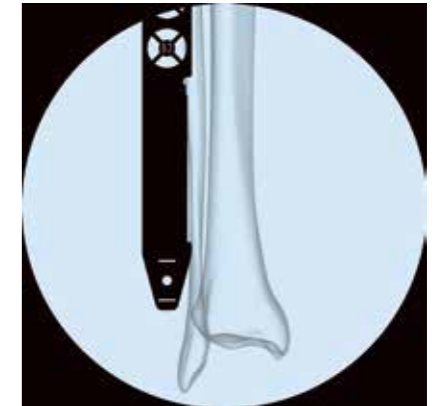
PREOPERATIVE PLANNING

To estimate nail diameter, place the **Radiographic Ruler (607420)** on the AP or lateral X-ray of the uninjured tibia and measure the diameter of the medullary canal to confirm nail length and diameter.

Position the C- arm for an AP view of the distal tibia. Hold the Radiographic Ruler along the leg, parallel to and at the same level as the tibia. Adjust the Radiographic Ruler until the distal tip is at the level of the physal scar or the desired nail insertion depth. Mark the skin at that site.

Move the C-arm to the proximal tibia, replace the distal end of the Radiographic Ruler at the skin mark, and take an AP image of the proximal tibia. Read nail length directly from the ruler image, selecting the measurement at or just below the level of the anterior edge of the tibial plateau.

Position the C-arm for an AP or lateral view of the tibia at the level of the isthmus. Hold the ruler over the tibia so that the diameter gauge is centered over the narrowest part of the medullary canal. Read the diameter measurement on the circular indicator that fills the canal.



Instrument



607420
Radiographic Ruler

APPROACH AND INCISION OF THE TIBIA

1. Position patient

Position the patient supine on the radiolucent table. Ensure that the knee of the injured leg can be flexed at least 90°. Position the image intensifier such that visualization of the tibia including the articular surface proximally and distally is possible in AP and lateral views.

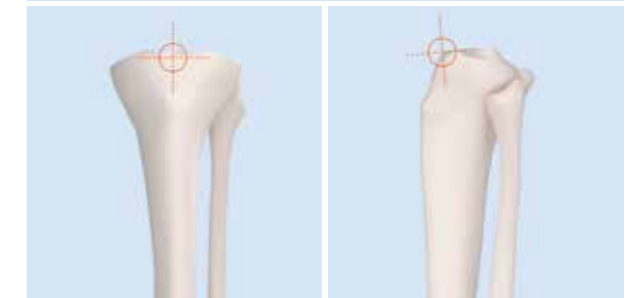
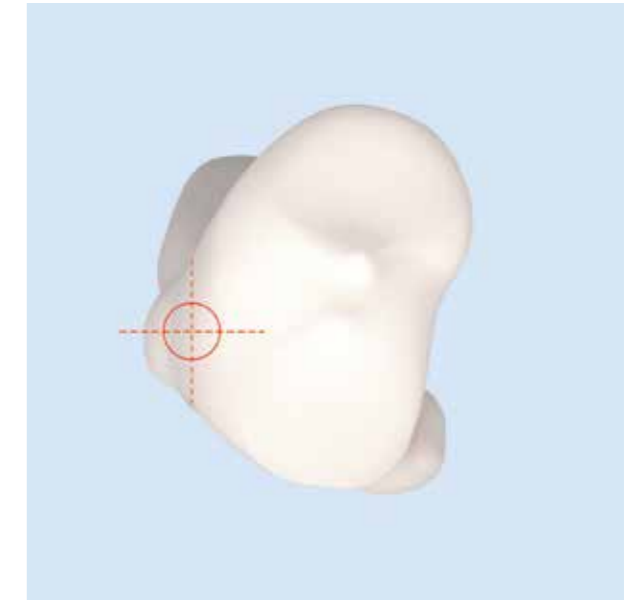


APPROACH AND INCISION OF THE TIBIA

2. Approach

Make a 2cm incision in line with the intramedullary canal. Orient the incision so that it is patellar-splitting, medial parapatellar;

Locate the entry point for the **Guide Wire with Threaded Tip, φ3.2mm (607849)** just medial to the lateral tibial eminence in the AP view, in line with the anterior cortex and intramedullary canal in the lateral view.



AP view

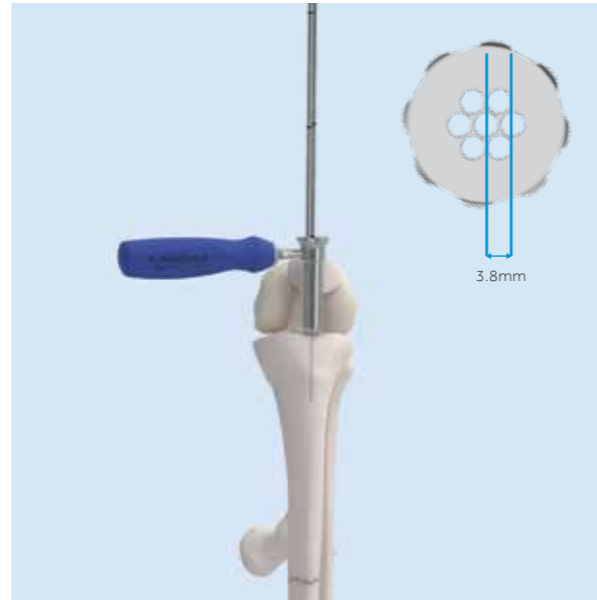
ML view

Attach a **Guide Wire with Threaded Tip, φ3.2mm** to the drill via the mini connector. Drill the Guide Wire until the black line. The Guide Wire should not touch the posterior cortex.

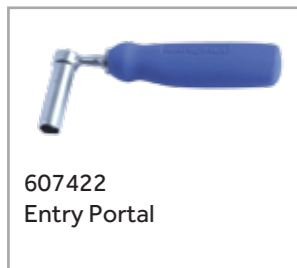


ENTRY POINT OF TIBIA

If suboptimal Guide Wire insertion occurs, rotate the **Center Sleeve (607423)** within the **Entry Portal (607422)** to the desired location and insert another Guide Wire.



Instrument



607422
Entry Portal



607423
Center Sleeve



607849
Guide Wire with
Threaded tip, ϕ 3.2mm

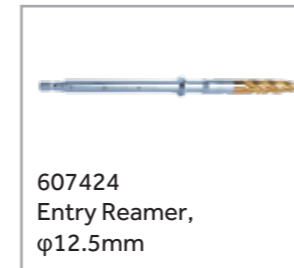
ENTRY POINT OF TIBIA

3. Open the medullary canal- drill bit

After the Guide Wire is in place, remove the Center Sleeve from the Entry Portal. Check the Guide Wire position via radiographic imaging. Advance the **Entry Reamer, ϕ 12.5mm (607424)** over the Guide Wire through the Entry Portal with the stop.



Instrument



607424
Entry Reamer,
 ϕ 12.5mm

Alternative technique: Awl

Place the **Awl, ϕ 12.5mm (607425)** over the Guide Wire and open the medullary canal. Use a twisting motion to advance the awl to a depth of approx. 5-8cm.



Instrument



607425
Awl, ϕ 12.5mm

REDUCE THE FRACTURE

Open the **Guide Rod Holder (269240)**, insert the **Ball Tip Guide Rod (607800)** into the front of the Guide Rod Holder.



Advance the **Reducer (607426)** into the intramedullary canal. Use the curved tip of the Reducer to reduce the fracture, advance the Ball Tip Guide Rod past the fracture into the region of the distal epiphyseal scar. The Ball Tip Guide Rod should be center-center in the AP and later views.

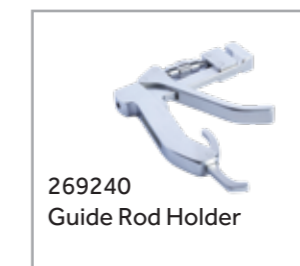
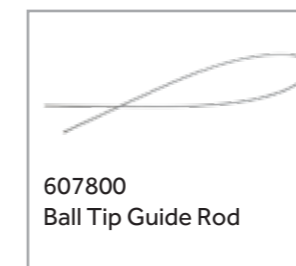
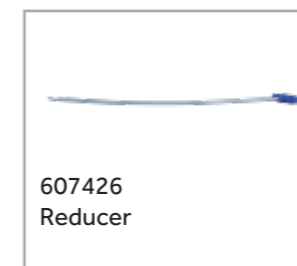


REDUCE THE FRACTURE

Once the **Ball Tip Guide Rod** is at the desired depth, detach the Guide Rod Holder and prepare to remove the Reducer from the tibial canal.



Instrument



REAMING TECHNIQUE

Use the **Reamer Head, ϕ 7.5mm (607806)** and **Flexible Reamer Shaft, ϕ 7mm (607802)** to ream the intramedullary canal sequentially in half-millimeter increments. Stop reaming while feeling resistance, choose the nail size 1.0-1.5mm smaller than the reamer.

Note: Periodically move the reamer back and forth in the canal to clear debris from the cutting flutes.



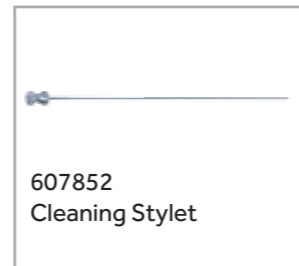
Flexible reamer shaft matches according reamer head.

Flexible Reamer Shaft-Mono Direction	Reamer Head
Flexible Reamer Shaft-Mono Direction, ϕ 7	ϕ 7.5, ϕ 8.0
Flexible Reamer Shaft-Mono Direction, ϕ 8	ϕ 8.5, ϕ 9, ϕ 9.5, ϕ 10, ϕ 10.5, ϕ 11, ϕ 11.5, ϕ 12

Prevent the Ball Tip Guide Rod recession, use the end or the tip of **Cleaning Stylet (607852)** against the Ball Tip Guide Rod.



Instrument

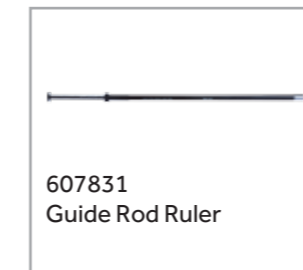


MEASURING THE LENGTH OF THE TIBIAL NAIL

After the Reducer has been removed, reconfirm the Ball Tip Guide Wire placement within the distal tibia.

Slide the **Guide Rod Ruler (607831)** over the Ball Tip Guide Rod until the metal tip contacts the proximal tibia, make sure the Guide Rode Ruler not into the intramedullary canal.

Instrument



ASSEMBLY OF TIBIA NAIL

Turn the Proximal Aiming Arm into "D" position while pressing the button on the arm. Use the **Connecting Screw (607428)** to attach the **Proximal Aiming Arm (607427)** to the nail. Tighten with the **Combination Wrench (607847)**.

The nail is correctly aligned. Use a twisting motion to advance the nail. Insert the nail until it is at or below the tibial opening.



DETERMINE THE IMPLANT LENGTH

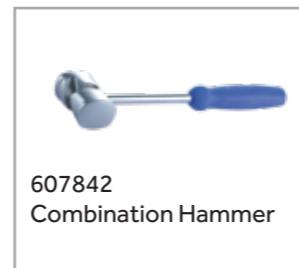
If needed, tighten the Connection Screw and **Impactor (607430)**, use light, controlled **Combination Hammer (607842)** blows to seat the nail under the X ray.

Before inserting the nail, it suggests that pre-assemble the distal aiming frame to check if the distal locking screw can be inserted by the distal aiming. Then remove the distal aiming frame.

Note: Please do not hammer the proximal aiming arm directly, it will have a risk of the accuracy of proximal aiming.



Instrument



DETERMINE THE IMPLANT LENGTH

1. Check proximal nail position

In the lateral view, confirm nail position by observing the nail/ Proximal Aiming Arm junction. Each circular groove on the Proximal Aiming Arm's insertion barrel represents a 5mm depth interval.

Note: If compression or dynamic locking is desired, countersink the nail approximately 10mm in order to avoid implant prominence. The dynamic travel distance is 7mm.



DETERMINE THE IMPLANT LENGTH

2. Check distal nail depth

In the AP and later views, confirm that the nail has been inserted to the desired depth.

Optimal insertion depth, which allow room for screw insertion below the fracture, is essential. Distal third tibial fractures require at least three locking screws to maintain stability.

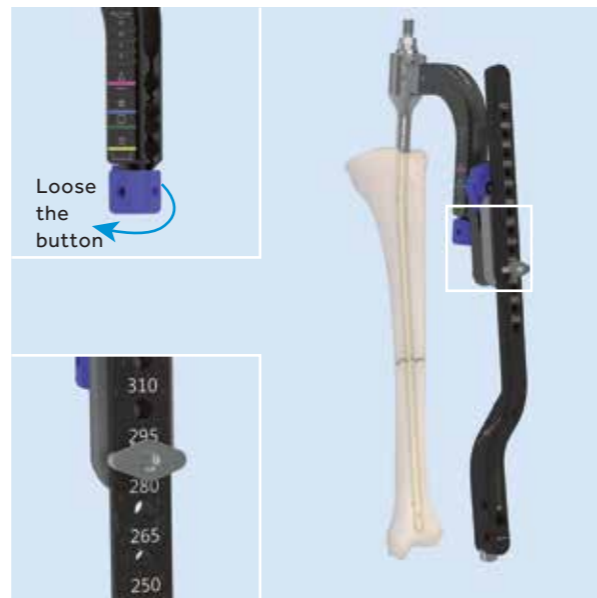


DISTAL LOCKING

1. Distal aiming frame assembly

Put the **Thumb Wheel Assembly (607431)** and the **Connection Bolt For Distal Aiming Arm (607432)** into the **Distal Aiming Bar (607433)**.

Note: The blue button turns anticlockwise to loose, before inserting the Thumb Wheel, then it turns clockwise to tight.



Instrument

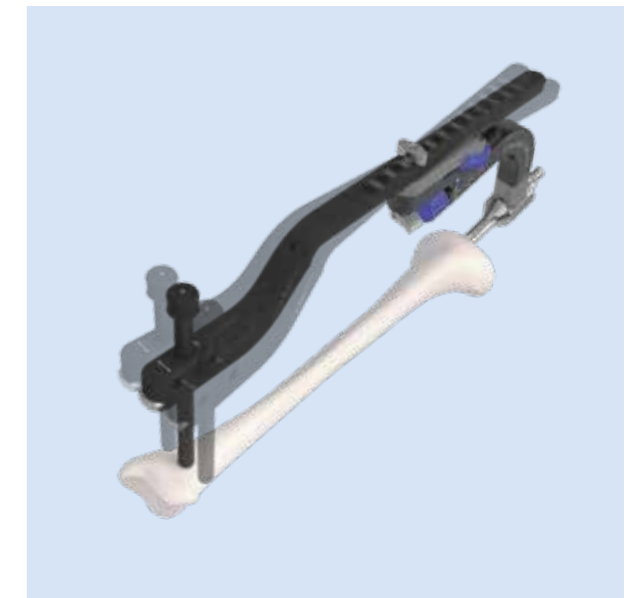
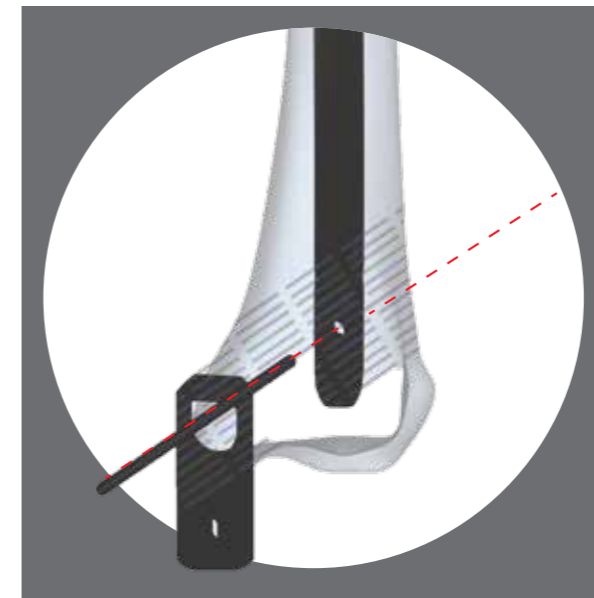


DISTAL LOCKING

2. Distal aiming- Position hole

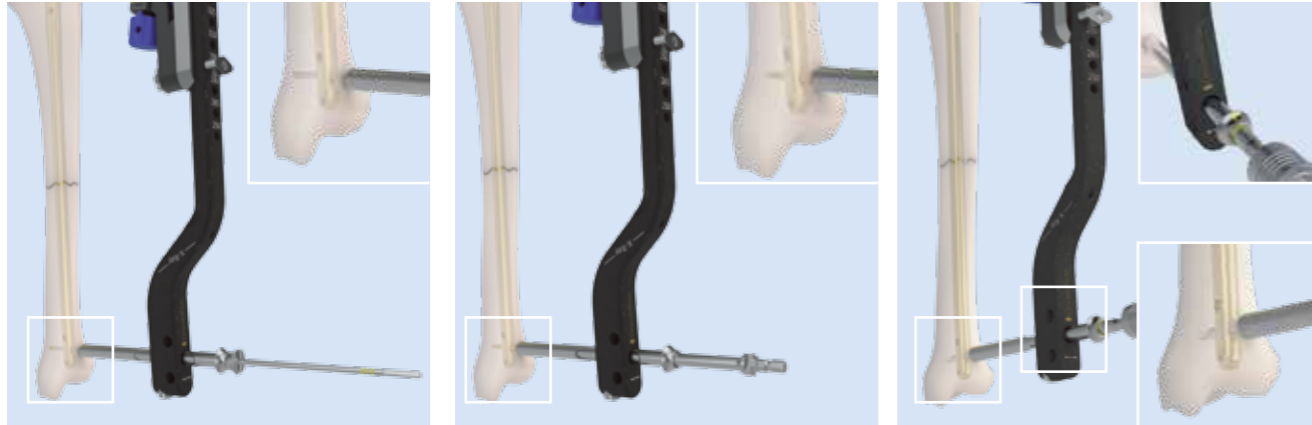
Insert to the **Guide Wire with Threaded tip, $\phi 3.2\text{mm}$ (607849)** into the C-arm guide hole to guide the position of C-arm, the C-arm should be positioned following the line of the Guide Wire. Put the **Radiolucent Rod (607845)** to the position hole of **Distal Aiming Arm**. After the placement of C-arm, remove the Guide Wire.

Verify if the extended line of **Radiolucent Rod (607845)** through the position hole with the **Template for Screen (607846)**. Adjust the thumb wheel until the extended line goes through the position hole.

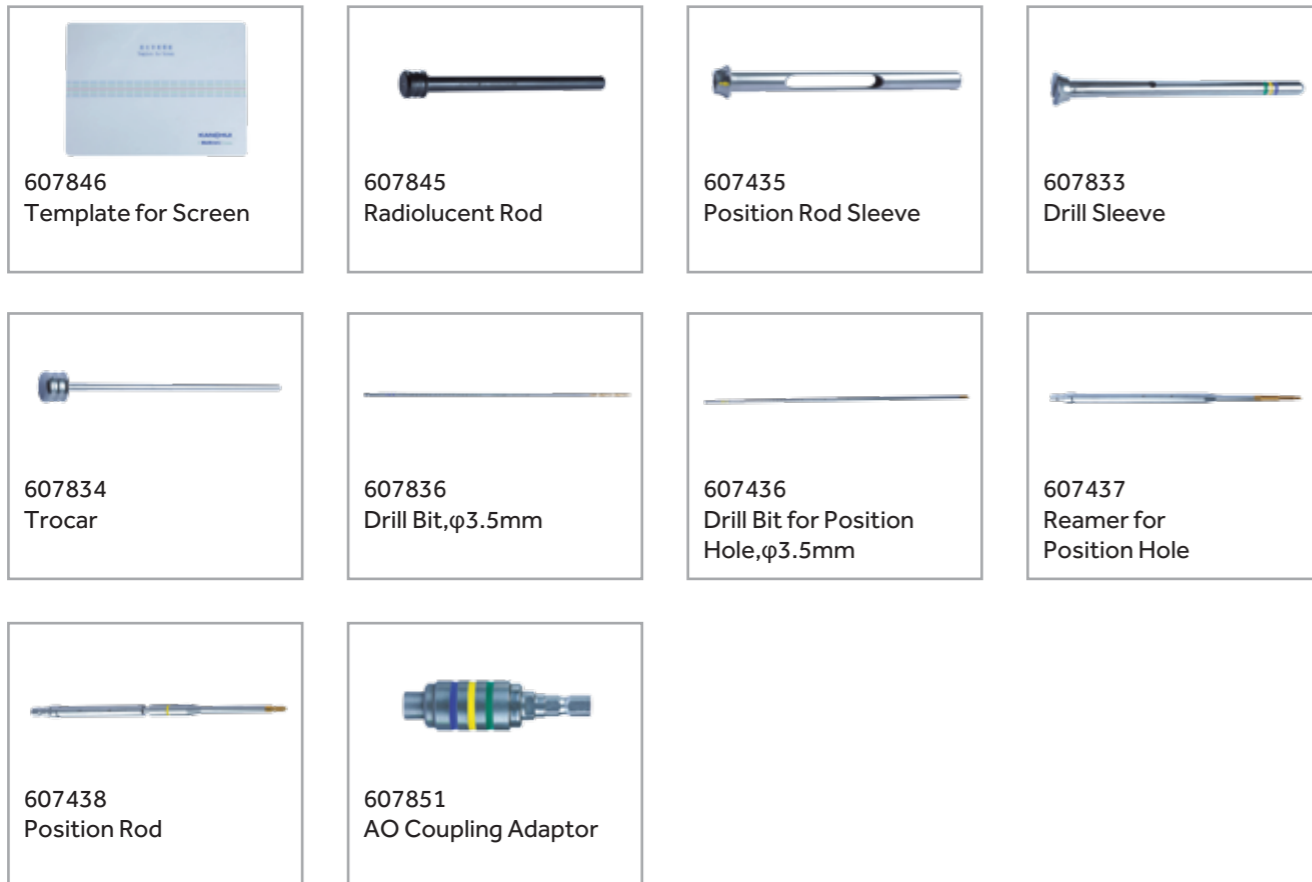


DISTAL LOCKING

The **Position Rod Sleeve (607435)**, **Drill Sleeve (607833)** and **Trocar (607834)** placed into the position hole. Advance the **Drill Bit for Position Hole, $\phi 3.5\text{mm}$ (607836)** into the position hole until posterior cortices. Drill the **Reamer for Position Hole (607437)** with the stopper, remove the **Drill Sleeve**, then place the **Position Rod (607438)** into the position hole. Align the yellow line on the **Position Rod Sleeve** with the yellow mark of Orientation, lock with a "Click" sound. Please do not remove the position rod before inserting ML locking screws.



Instrument



DISTAL LOCKING

3. Distal aiming- ML locking screws

Insert **Distal Targeter (607434)** into **Distal Aiming Bar**

Protector Sleeve (607832), **Drill Sleeve (607833)** and **Trocar (607834)** are placed into the distal media hole.

Remove the Trocar, Advance the **Drill Bit, $\phi 3.5\text{mm}$ (607836)** into the hole until far cortices.

Measure the screw length using the **Depth Gauge for Locking Screws (607838)**. Ensure the outer sleeve is in contact with the bone and the hook grasps the far cortex. Read the screw length directly from the measuring device at the back of the Protection Sleeve.

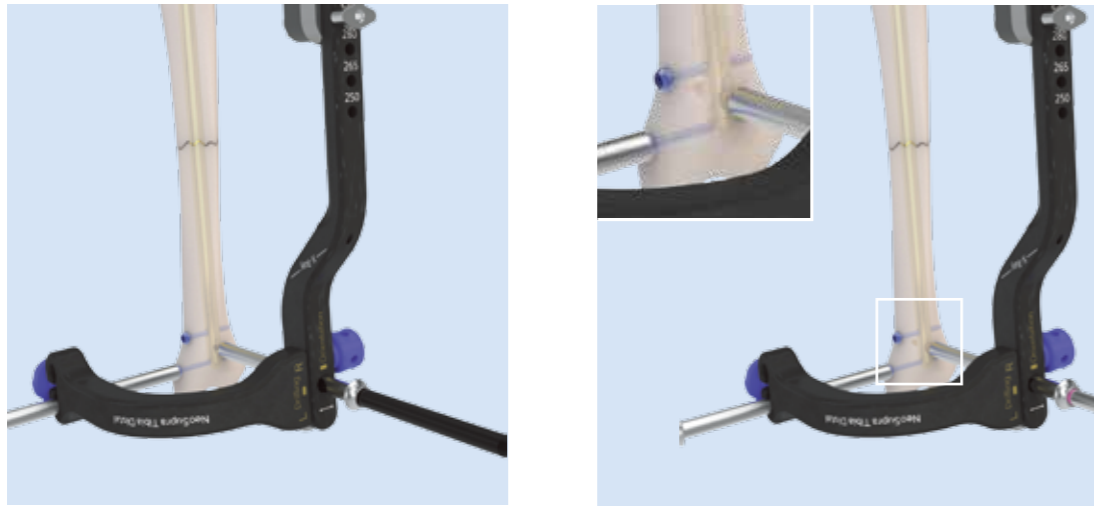
Insert the appropriate length locking screw using the **Screwdriver for Locking Screw, SW4.75 (607840)**.

Keep the first Reamer in the Protection Sleeve. Repeat drilling, length gauging and screw insertion in the other hole.

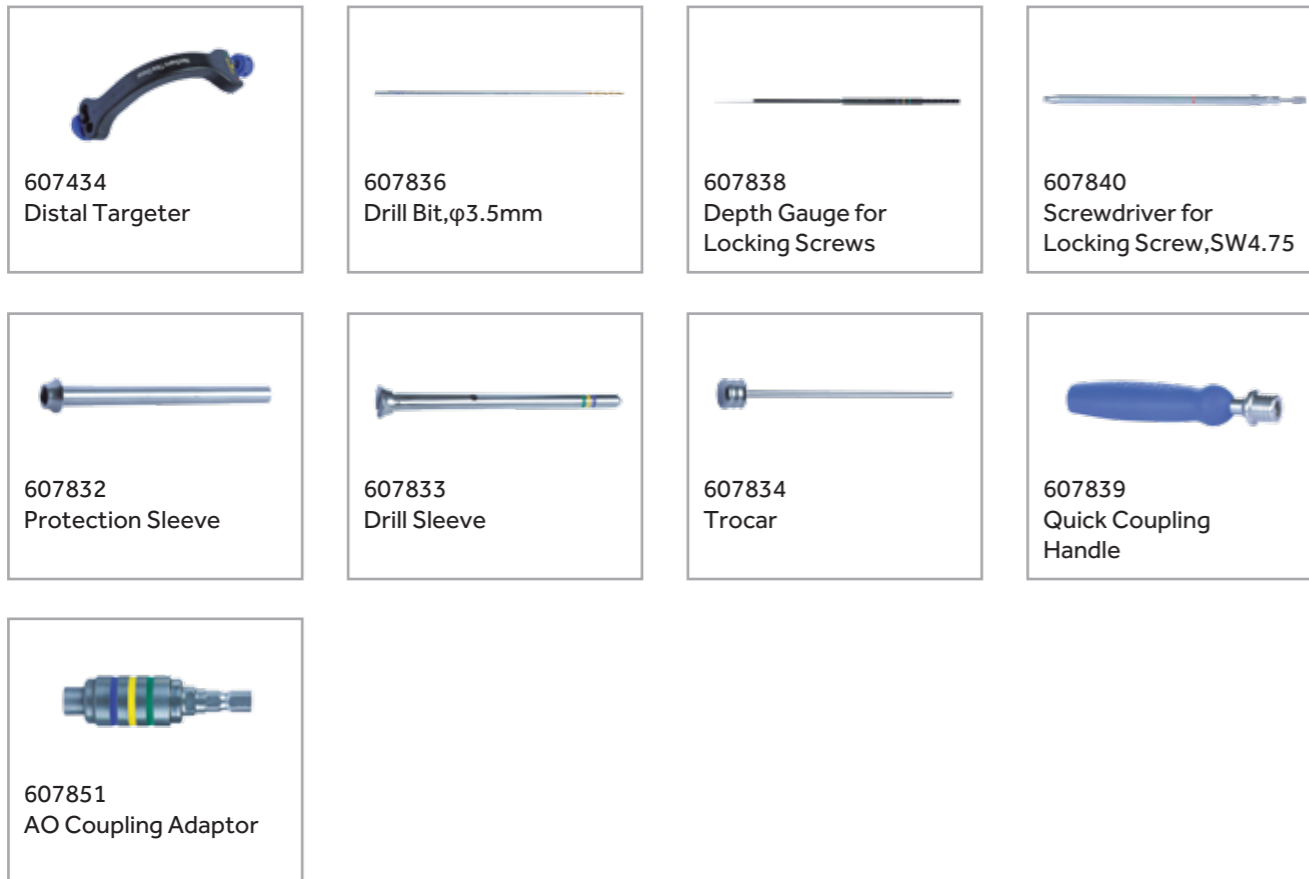


DISTAL LOCKING

For distal fractures, it is recommended to remove the Position Rod, then insert the 4.3mm locking screw.



Instrument



DISTAL LOCKING

4. Distal locking without distal aiming frame

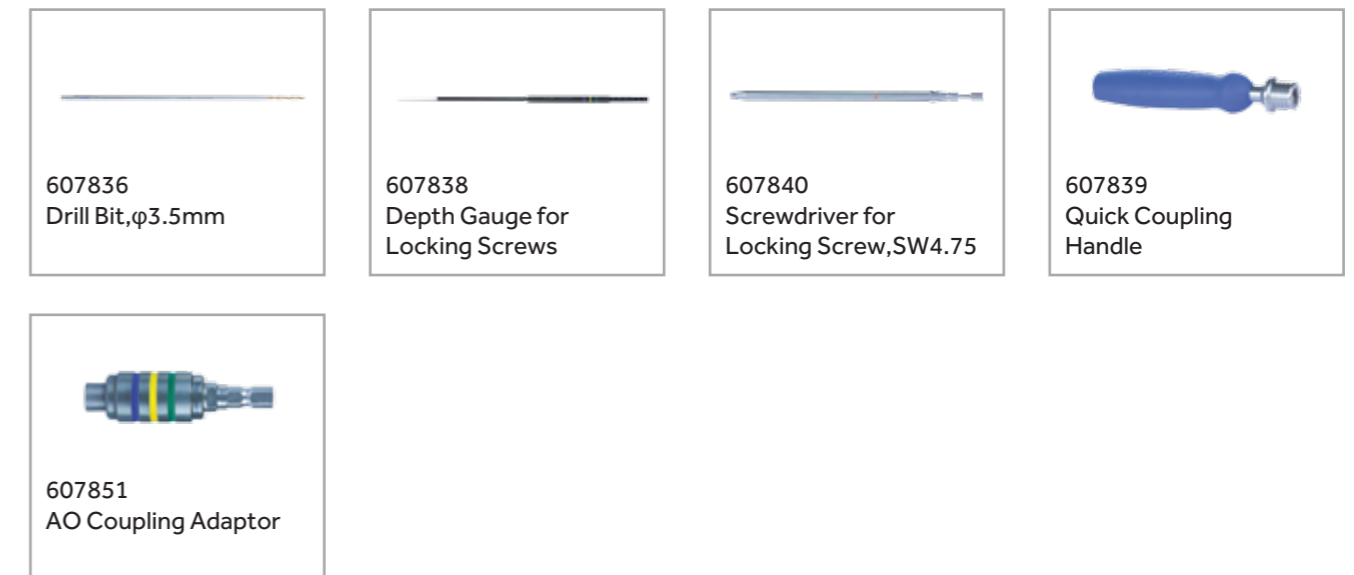
Place a scalpel blade on the skin over the center of the hole to mark the incision point and make a stab incision.

Insert the tip of the **Drill Bit, φ3.5mm (607836)** through bone cortices.

Place the **Depth Gauge for Locking Screws (607838)**, decide the length of screw.

Use the **Screwdriver for Locking Screw, SW4.5 (607840)** to insert the φ4.5 locking screw.

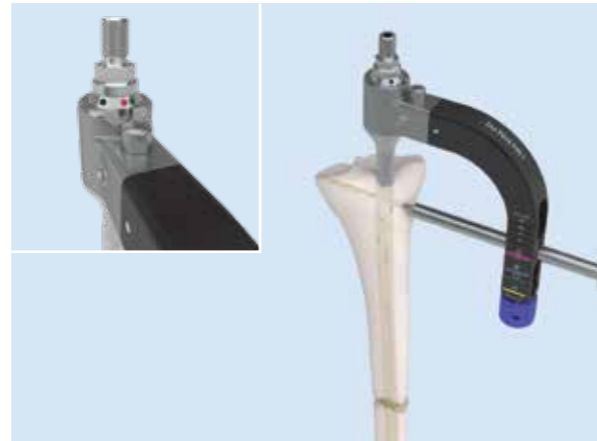
Instrument



PROXIMAL LOCKING

1. Insert compression screw

Remove the distal aiming arm. According to the classification of fracture, if the compression is needed, rotate the proximal arm into red button, insert the three-part trocar combination (protection sleeve, drill sleeve and trocar) through the dynamic hole, insert the trocar to the bone. Remove the trocar. Drill through compression hole with the **Drill Bit, φ 4.1mm (607835)**.



Measure the length with depth gauge and insert the corresponding screw.



PROXIMAL LOCKING

Insert the **Compress Rod (607429)** from the end of the connection screw, rotate the compress rod to compress the fracture, stop compressing while the fracture closed under image intensification.

NEOSUPRA allows for a maximum compression of 7mm. If more compression of fracture gap is needed, the conventional backstroke technique is recommended.

If there's no need for compression, no need to insert the locking screw into the dynamic hole.

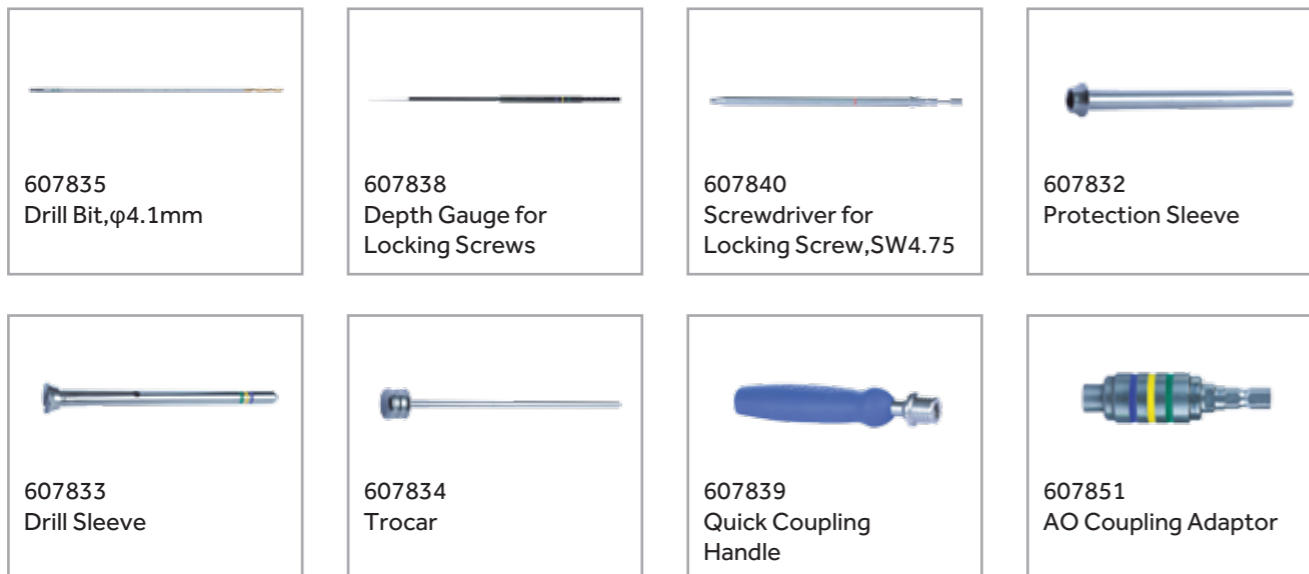


PROXIMAL LOCKING

Note: Monitor the drill bit if penetrate the tibial surface under image intensification before inserting the screw. If it shows that drill bit penetrate the tibial surface, It is not recommended to use compression hole.



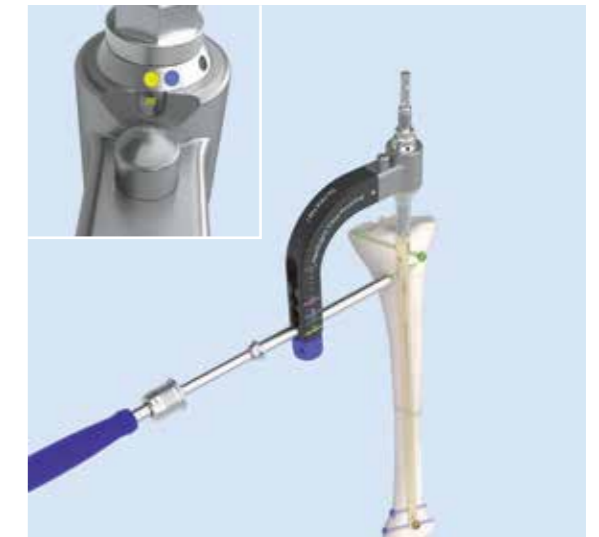
Instrument



PROXIMAL LOCKING

2. Insert proximal locking screw

Rotate the proximal arm into corresponding color. Insert the appropriate locking screw, verify locking screw length under image intensification. The tip of the locking screws should be not project more that 1-2mm beyond the far cortex.



Repeat the steps for the proximal locking screws.



Instrument



END CAP INSERTION

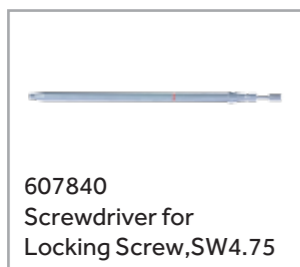
Before inserting the cap, it is recommended that keep the screwdriver in the protection sleeve.

Remove the **Connecting Screw** with **Combination Wrench** only, the proximal aiming handling can remain to help align the end cap to the top of the nail. Attach the selected nail cap to **Flexible Screwdriver for End Cap (607841)**. Insert the nail cap into the top of the nail until it is tight.

Other sizes of end cap can't go through into the portal of Proximal Aiming Arm.



Instrument



IMPLANT REMOVAL

Remove all the locking screws, keep one static locking screw, avoid the risk of nail sinking.

Use the **Screwdriver for Locking Screw, SW4.75 (607840)** to remove the end cap.



Thread the **Extractor (607843)** into the top of the nail, connect the **Hammer Guide (607844)** to the Extractor, tight with **Combination Wrench (607847)**.

Remove the remaining locking screw.

Use the **Combination Hammer (607842)** with a back-slapping motion to the extract the nail.



IMPLANT REMOVAL



SUPRAPATELLAR APPROACH



Instrument



607843
Extractor



607844
Hammer Guide



607842
Combination Hammer



607847
Combination wrench



607841
Flexible Screwdriver
for End Cap, SW4.75

SUPRAPATELLAR APPROACH

Position the patient supine on the radiolucent table. Ensure that the knee of the injured leg can be flexed 10°-20°. Position the image intensifier so that visualization of the tibia, including the articular surface proximally and distally, is possible in AP and lateral views.



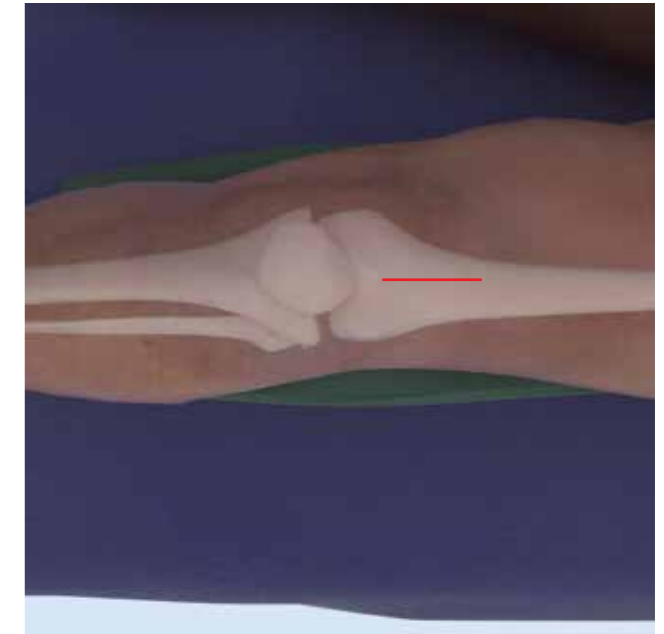
SUPRAPATELLAR APPROACH

With the knee in full extension, make a 2-4cm longitudinal skin incision 4cm proximal to the superior pole of the patella.

The deep incision, also longitudinal, splits the quadriceps tendon in its midsubstance, just above its insertion into the patella and enters the knee joint through the suprapatellar pouch.

Assemble **Outer Protection Sleeve for SPA (607401), Protection Sleeve for SPA (607402), Protection Sleeve Handle for SPA (607403), Trocar, φ12.5mm for SPA (607404)**

Blunt dissection can be used to loosen the patella in the suprapatellar pouch, allowing the patella to lift off. Displace the patella anteriorly.



Instrument



SUPRAPATELLAR APPROACH

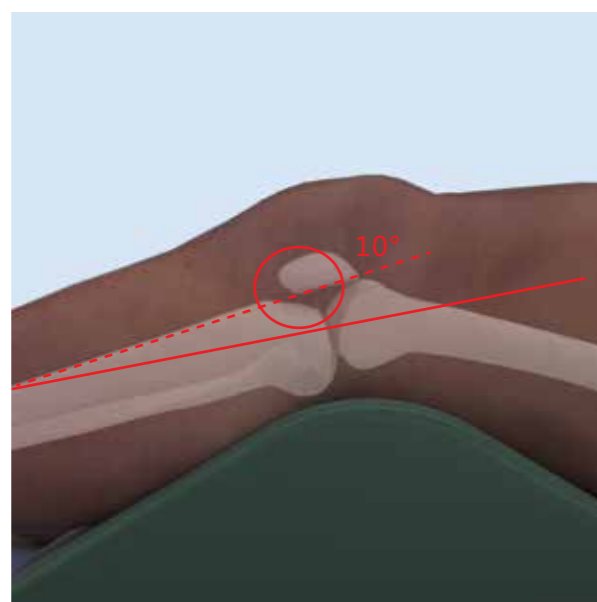
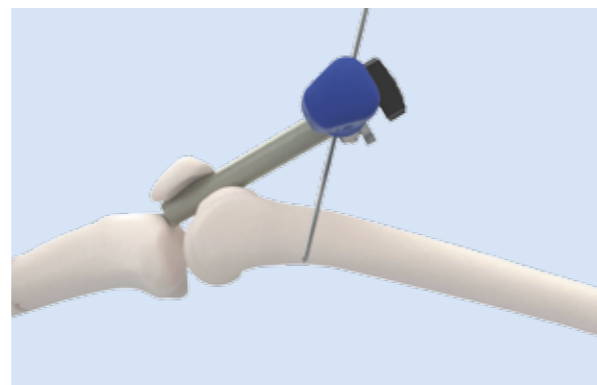
In the AP view the entry point is in line with the axis of the intramedullary canal and with the lateral tubercle of the intercondylar eminence.

In the lateral view the entry point is at the ventral edge of the tibial plateau.

Insert the Guide Wire into the Protection Sleeve Handle for SPA, check if the Guide Wire is vertical to the femur to ensure the entry point.

After removal of the Trocar, insert the **Center Sleeve for SPA (607405)** through the inner **Protection Sleeve**. Advance to the anterior surface of the tibia.

Slight adjustment of the knee flexion (between 10° and 20°) will provide the ideal radiographic location for the starting point and insertion of a guide wire.

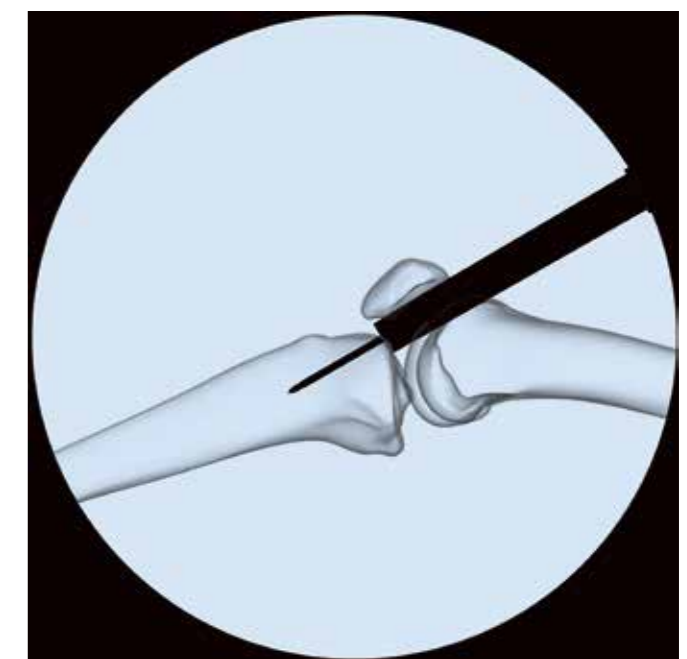
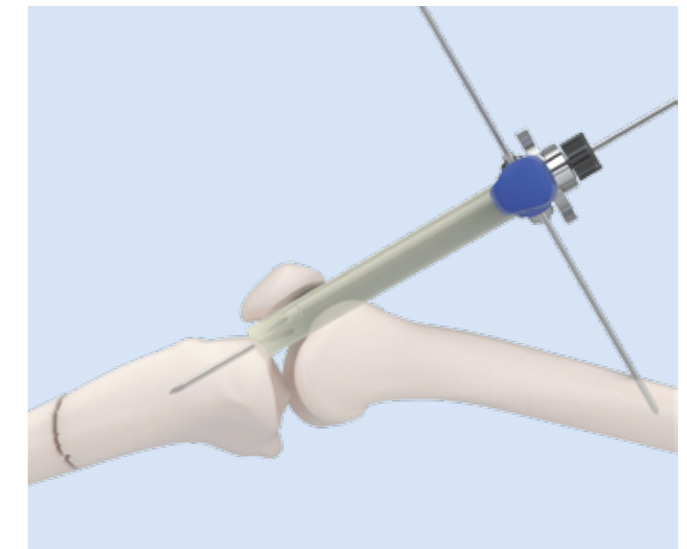


SUPRAPATELLAR APPROACH

Insert the Guide Wire approximately 4cm-6cm and check the position under imaging in the AP and lateral views.

Adjustments to the guide wire location can be "dialed-in" by rotating the centering sleeve to place a second Guide Wire while the first guide wire remains in place.

After correct placement of the second guide wire, remove the initial guide wire and Honeycomb Guide Sleeve.



SUPRAPATELLAR APPROACH

Use a **Guide Wire, φ3.2mm (607850)** to anchor the handle assembly to the femoral condyles, advance the Guide Wire until the far cortices, maintain the position of the handle assembly during the procedure.

This anchor prevents the cannula from backing out and off of the tibia.

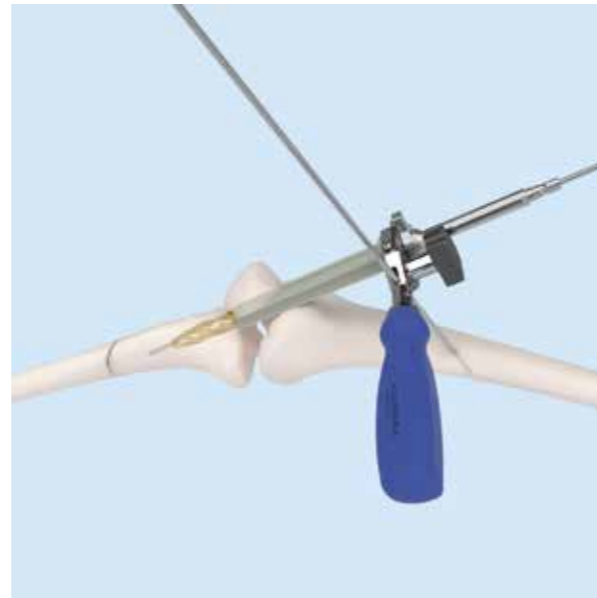
Place the **Entry Reamer for SPA, φ12.5mm (607406)** over the Guide Wire through the **Protection Sleeve for SPA (607402)** and down to the bone.

The Guide Wire and Entry Reamer should not reach the posterior cortex.

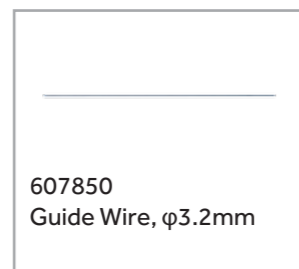
Remove the Entry Reamer and guide wire.

After opening medullary canal, please refer to the standard approach.

Note: it needs to remove the protect sleeve, when insert the nail.



Instrument



ATTENTION

The blue button turns clockwise to loose before inserting the Thumb Wheel, it turns anticlockwise to tighten. The component is inside the Proximal Aiming Arm.



Do not put the proximal arm this way while the black line aligned. The component will drop from the Proximal Aiming Arm, it causes the loss efficacy of the Proximal Aiming Arm rotation.



PRODUCT INFORMATION

NEOSUPRA Tibia Nails



Specification

Prox (mm)	12
Material	TC4

Code	Model No.	Size
35040025	JJD V	φ8.3X250mm
35040526	JJD V	φ8.3X265mm
35040028	JJD V	φ8.3X280mm
35040529	JJD V	φ8.3X295mm
35040031	JJD V	φ8.3X310mm
35040532	JJD V	φ8.3X325mm
35040034	JJD V	φ8.3X340mm
35040535	JJD V	φ8.3X355mm
35040037	JJD V	φ8.3X370mm
35040538	JJD V	φ8.3X385mm
35040040	JJD V	φ8.3X400mm
35040541	JJD V	φ8.3X415mm
35041025	JJD V	φ9X250mm
35041526	JJD V	φ9X265mm
35041028	JJD V	φ9X280mm
35041529	JJD V	φ9X295mm
35041031	JJD V	φ9X310mm
35041532	JJD V	φ9X325mm
35041034	JJD V	φ9X340mm
35041535	JJD V	φ9X355mm
35041037	JJD V	φ9X370mm
35041538	JJD V	φ9X385mm
35041040	JJD V	φ9X400mm
35041541	JJD V	φ9X415mm

Code	Model No.	Size
35042025	JJD V	φ10X250mm
35042526	JJD V	φ10X265mm
35042028	JJD V	φ10X280mm
35042529	JJD V	φ10X295mm
35042031	JJD V	φ10X310mm
35042532	JJD V	φ10X325mm
35042034	JJD V	φ10X340mm
35042535	JJD V	φ10X355mm
35042037	JJD V	φ10X370mm
35042538	JJD V	φ10X385mm
35042040	JJD V	φ10X400mm
35042541	JJD V	φ10X415mm
35043025	JJD V	φ11X250mm
35043526	JJD V	φ11X265mm
35043028	JJD V	φ11X280mm
35043529	JJD V	φ11X295mm
35043031	JJD V	φ11X310mm
35043532	JJD V	φ11X325mm
35043034	JJD V	φ11X340mm
35043535	JJD V	φ11X355mm
35043037	JJD V	φ11X370mm
35043538	JJD V	φ11X385mm
35043040	JJD V	φ11X400mm
35043541	JJD V	φ11X415mm

PRODUCT INFORMATION


NEOSUPRA Locking Screws



Specification

Core (mm)	4
Material	TC4

Code	Model No.	Size	Function Length
35063030	JSDIV	φ5.0X30mm	25mm
35063035	JSDIV	φ5.0X35mm	30mm
35063040	JSDIV	φ5.0X40mm	35mm
35063045	JSDIV	φ5.0X45mm	40mm
35063050	JSDIV	φ5.0X50mm	45mm
35063055	JSDIV	φ5.0X55mm	50mm
35063060	JSDIV	φ5.0X60mm	55mm
35063065	JSDIV	φ5.0X65mm	60mm
35063070	JSDIV	φ5.0X70mm	65mm
35063075	JSDIV	φ5.0X75mm	70mm
35063080	JSDIV	φ5.0X80mm	75mm
35063085	JSDIV	φ5.0X85mm	80mm
35063090	JSDIV	φ5.0X90mm	85mm
35063095	JSDIV	φ5.0X95mm	90mm


* Function Length: 



Specification

Core (mm)	3.4
Material	TC4

Code	Model No.	Size	Function Length
35062126	JSDVII	φ4.3X26mm	26mm
35062130	JSDVII	φ4.3X30mm	30mm
35062135	JSDVII	φ4.3X35mm	35mm
35062140	JSDVII	φ4.3X40mm	40mm
35062145	JSDVII	φ4.3X45mm	45mm
35062150	JSDVII	φ4.3X50mm	50mm

* Function Length: 

φ4.3 locking screw is for AP distal aiming position hole. Insert φ4.5 locking screw if use free hand.

Specification

Core (mm)	3.4
Material	TC4

Code	Model No.	Size	Function Length
35062030	JSDIV	φ4.5X30mm	25mm
35062035	JSDIV	φ4.5X35mm	30mm
35062040	JSDIV	φ4.5X40mm	35mm
35062045	JSDIV	φ4.5X45mm	40mm
35062050	JSDIV	φ4.5X50mm	45mm
35062055	JSDIV	φ4.5X55mm	50mm

* Function Length: 

NEOSUPRA End Caps



Specification

Material	TC4
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Code	Model No.	Size
35070005	JGMV	φ13,+5mm
35070010	JGMV	φ13,+10mm
35070015	JGMV	φ13,+15mm

PRODUCT INFORMATION

SupraPatellar Instrument

Code	Product Description	Qty.
607042	Suprapatellar Instruments Set	1
607044	Empty Box for Suprapatellar Instruments	1
607440	Empty Box for Locking Screw	1
607401	Outer Protection Sleeve for SPA	2
607402	Protection Sleeve for SPA	1
607403	Protection Sleeve Handle for SPA	1
607404	Trocar, ϕ 12.5mm for SPA	1
607405	Center Sleeve for SPA	1
607406	Entry Reamer for SPA, ϕ 12.5mm	1
607407	Proximal Aiming Arm for SPA	1
607408	Connection Screw for SPA	1
607409	Compress Rod for SPA	1
607410	Extended Rod, Cannulated, for SPA	1



PRODUCT INFORMATION

Conventional Instrument

Code	Product Description	Qty.
607041	Standard Instruments Set (With Distal Aiming)	1
607043	Empty Box for Standard Instruments	1
607439	Spare Parts Set	1
607420	Radiographic Ruler	1
607421	Tissue Protector	1
607422	Entry Portal	1
607423	Center Sleeve	1
607424	Entry Reamer, ϕ 12.5mm	1
607425	Awl, ϕ 12.5mm	1
607426	Reducer	1
607427	Proximal Aiming Arm	1
607428	Connecting Screw	1
607429	Compress Rod	1
607430	Impactor	1
269240	Guide Rod Holder	1
607800	Ball Tip Guide Rod	1
607802	Flexible Reamer Shaft, ϕ 7mm	1
607803	Flexible Reamer Shaft, ϕ 8mm	1
607806	Reamer Head, ϕ 7.5mm	1
607807	Reamer Head, ϕ 8.0mm	1
607808	Reamer Head, ϕ 8.5mm	1
607809	Reamer Head, ϕ 9.0mm	1
607810	Reamer Head, ϕ 9.5mm	1
607811	Reamer Head, ϕ 10.0mm	1
607812	Reamer Head, ϕ 10.5mm	1
607813	Reamer Head, ϕ 11.0mm	1
607814	Reamer Head, ϕ 11.5mm	1
607815	Reamer Head, ϕ 12.0mm	1
607831	Guide Rod Ruler	1
607832	Protetion Sleeve	2
607833	Drill Sleeve	2
607834	Trocar	2
607835	Drill Bit, ϕ 4.1mm	2
607836	Drill Bit, ϕ 3.5mm	2
607837	Drill stopper, ϕ 4.1mm	2
607838	Depth Gauge for Locking Screws	1
607839	Quick Coupling Handle	1
607840	Screwdriver for Locking Screw, SW4.75	2
607841	Flexible Screwdriver for End Cap, SW4.75	1

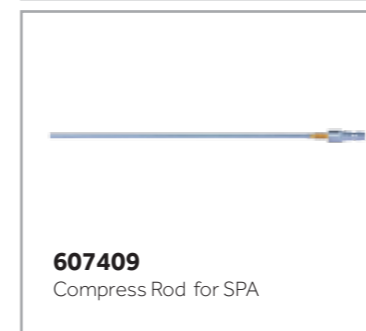


PRODUCT INFORMATION

Code	Product Description	Qty.
607842	Combination Hammer	1
607843	Extractor	1
607844	Hammer Guide	1
607847	Combination wrench	1
607848	Allen Key,SW4.75	1
607849	Guide Wire with Threaded tip,φ3.2mm	2
607850	Guide Wire,φ3.2mm	2
607851	AO Coupling Adaptor	1
607852	Cleaning Stylet	1
607431	Thumb Wheel Assembly (Distal Aiming)	1
607432	Connection Bolt for Distal Aiming Arm (Distal Aiming)	1
607433	Distal Aiming Bar (Distal Aiming)	1
607434	Distal Targeter (Distal Aiming)	1
607435	Position Rod Sleeve (Distal Aiming)	1
607436	Drill Bit for Position Hole,φ3.5mm (Distal Aiming)	2
607437	Reamer for Position Hole (Distal Aiming)	1
607438	Position Rod (Distal Aiming)	1
607845	Radiolucent Rod (Distal Aiming)	1
607846	Template for Screen (Distal Aiming)	1

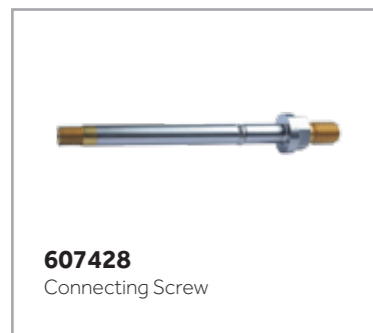
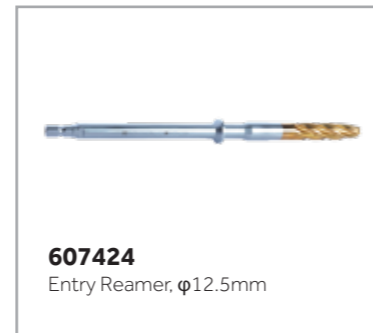
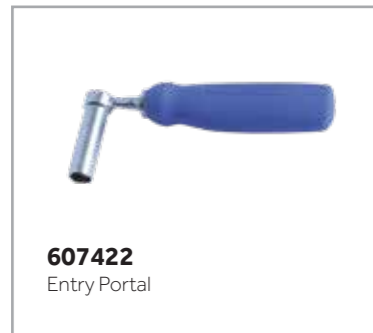
PRODUCT INFORMATION

SupraPatellar Instrument

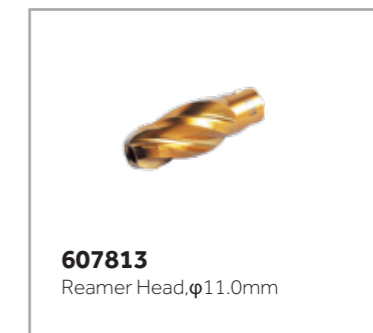
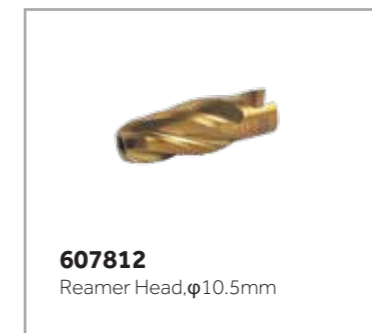
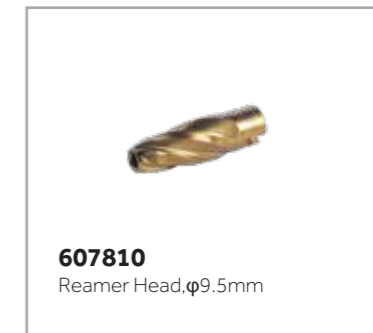
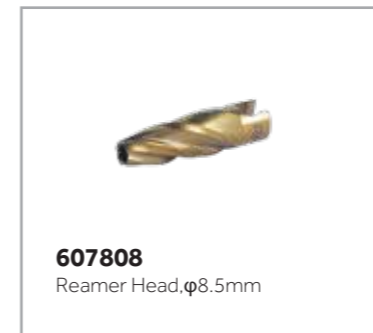
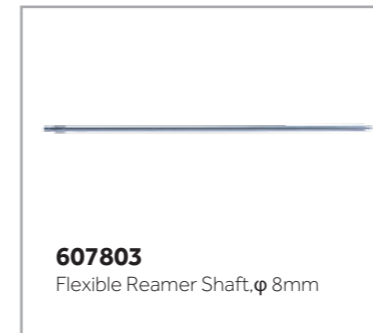
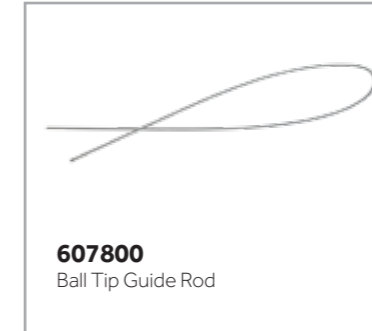


PRODUCT INFORMATION













Conventional Instrument















PRODUCT INFORMATION



PRODUCT INFORMATION

 <p>607814 Reamer Head,φ11.5mm</p>	 <p>607815 Reamer Head,φ12.0mm</p>	 <p>607831 Guide Rod Ruler</p>
 <p>607832 Protection Sleeve</p>	 <p>607833 Drill Sleeve</p>	 <p>607834 Trocar</p>
 <p>607835 Drill Bit,φ4.1mm</p>	 <p>607836 Drill Bit,φ3.5mm</p>	 <p>607837 Drill stopper,φ4.1mm</p>
 <p>607838 Depth Gauge for Locking Screws</p>	 <p>607839 Quick Coupling Handle</p>	 <p>607840 Screwdriver for Locking Screw, SW4.75</p>

PRODUCT INFORMATION

 <p>607841 Flexible Screwdriver for End Cap, SW4.75</p>	 <p>607842 Combination Hammer</p>	 <p>607843 Extractor</p>
 <p>607844 Hammer Guide</p>	 <p>607847 Combination wrench</p>	 <p>607848 Allen Key,SW4.75</p>
 <p>607849 Guide Wire with Threaded tip, φ3.2mm</p>	 <p>607850 Guide Wire,φ3.2mm</p>	 <p>607851 AO Coupling Adaptor</p>
 <p>607852 Cleaning Stylet</p>	 <p>607431 Thumb Wheel Assembly</p>	 <p>607432 Connection Bolt for Distal Aiming Arm</p>

PRODUCT INFORMATION



607433
Distal Aiming Bar



607434
Distal Targeter



607435
Position Rod Sleeve



607436
Drill Bit for Position Hole, φ3.5mm



607437
Reamer for Position Hole



607438
Position Rod



607845
Radiolucent Rod



607846
Template for Screen