Ortho Max®
...the core of surgery
Since 1993

XLite® Tibia

Interlocking Nailing System with Multi Directional Proximal Jig

SURGICAL TECHNIQUE

30+ YEAR'S EXPERIENCE

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IMAGE INTENSIFIER CONTROL

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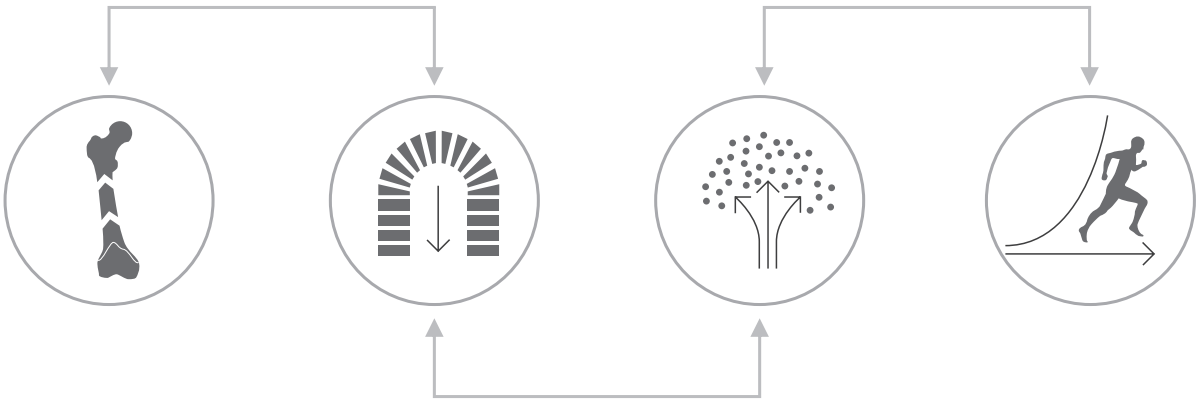
WARNINGS

AO PRINCIPLES

In 1958, the AO formulated four basic principles, which have become the guidelines for internal fixation.

AO PRINCIPLES



1

Anatomic reduction

Fracture reduction and fixation to restore anatomical relationships.

2

Early, active mobilization

Early and safe mobilization and rehabilitation of the injured part and the patient as a whole.

3

Stable fixation

Fracture fixation providing absolute or relative stability, as required by the patient, the injury, and the personality of the fracture.

4

Preservation of blood supply

Preservation of the blood supply to soft tissues and bone by gentle reduction techniques and careful handling.

INDICATIONS

The Xlite tibia nail is intended to stabilize fractures of the proximal fig. 2.1 and distal tibia fig. 2.3 and the tibial shaft, as shown in fig. 2.2 open and closed tibial shaft fractures, certain pre and postisthmic fractures, and tibial malunions andnon-unions.

Proximal Tibia
Fig. 2.1

Tibia Shaft
Fig. 2.2

Distal Tibia
Fig. 2.3

CONTRAINDICATIONS

There are no specific contraindications but do not use the Xlite tibia nail in cases of:

1. Inadequate bone quantity and/or bone quality.
2. Hypersensitivity to metal or allergic reaction.
3. Patients with limited blood supply.
4. Patient within whom co-operation or mental competence is lacking, thereby reducing patient compliance.

⚠ ADVERSE REACTIONS

1. Adverse reactions may include but are not limited to:
2. Clinical failure (i.e. pain or injury) due to bending, loosening, breakage of implant, loose fixation, dislocation and/or migration.
3. Pain, discomfort, and/or abnormal sensations due to the presence of the implant.
4. Primary and/or secondary infections.
5. Allergic reactions to implant material.
6. Necrosis of bone or decrease of bone density.
7. Injury to vessels, nerves and organs.
8. Elevated fibrotic tissue reaction around the surgical area.

SELECTION OF IMPLANTS

PREOPERATIVE PLANNING

Use the Radiographic ruler for the tibial nail to estimate nail diameter and nail length. To estimate nail diameter, place the ruler on AP or lateral x-ray of the uninjured tibia and measure the diameter of the medullary canal at the narrowest part that will contain the nail. (as shown in fig. 3.1)

To estimate nail length, place the template on the AP x-ray of the uninjured tibia and select the appropriate nail length based on patient anatomy.

When selecting nail size, consider canal diameter, fracture pattern, patient anatomy, and postoperative protocol.

Fig. 3.1

NOTE

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

Fig. 3.1 (A)

OPENING THE TIBIA

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 so that visualization of the tibia, including the articular surface proximally and distally, is possible in AP and lateral views. optionally, the procedure can be performed on a fracture table with the leg placed in traction. (Fig. 4.1)

Fig. 4.1

NOTE

The knee roll can be placed under the lower part of the thigh if it obstructs the view of the tibial plateau in the AP view.

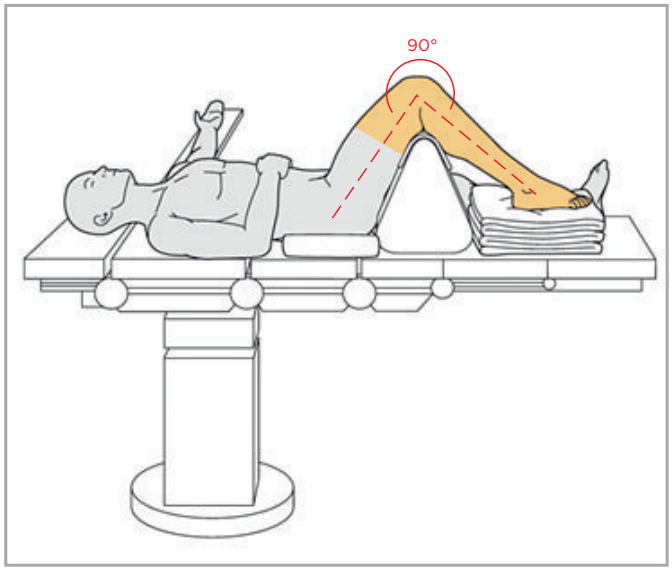


Fig. 4.1 (A)

OPENING THE TIBIA

REDUCE FRACTURE

Perform closed reduction manually by axial traction under image intensification.

The use of the Femoral Large distractor may be appropriate in certain circumstances. (Fig. 4.2)

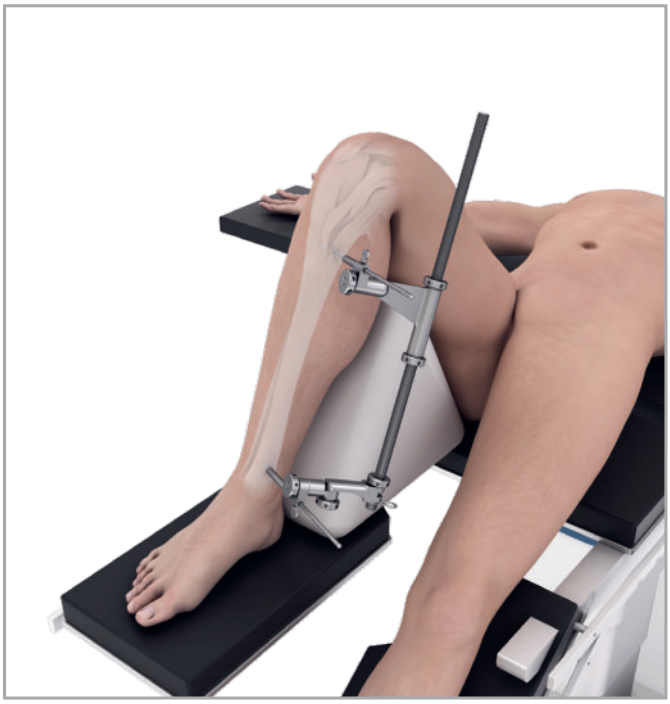


Fig. 4.2

NOTE

The reduction can be temporarily fixed with reduction clamps. In epiphyseal sractures the condyles or the pilon are fixed first in order to enable the nail insertion.

DETERMINATION OF LENGTH USING A RADIOGRAPHIC RULER

Alternatively, a radiographic ruler may be used. The tip of the ruler should be positioned where the distal end of the nail is intended to lie. Nail length is determined by the position of the nail entry point. (Fig. 4.3)

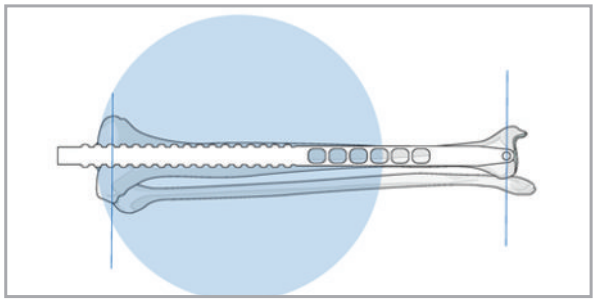


Fig. 4.3

When using the femoral large distractor, measure the distance from the inferior border of the distal pin to the superior border of the proximal pin to determine optimal nail length.

OPENING THE TIBIA

DETERMINATION OF DIAMETER

Nail diameter may be determined from the size of the last reamer used. The nail diameter is typically 1–1.5 mm smaller than the largest reamer used. Alternatively, a radiographic ruler may be used. It is important to measure the medullary diameter at the mid portion of the bone, which represents the narrowest segment of the medullary canal. (Fig. 4.4)

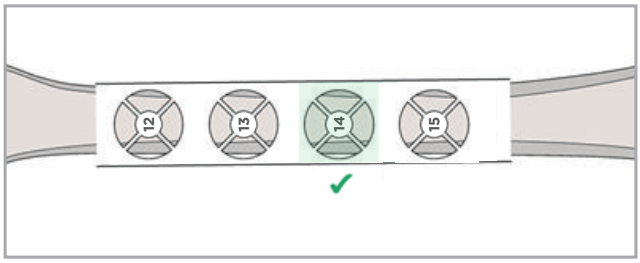


Fig. 4.4

Position the c-arm for an AP or lateral view of the tibia at the level of the isthmus. hold the radiographic 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. (Fig. 4.5)

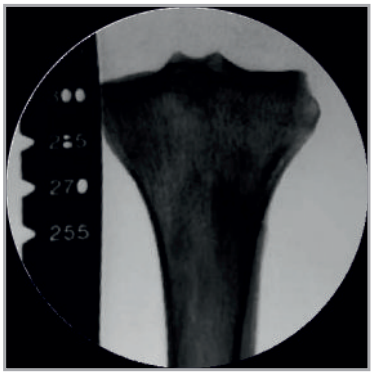


Fig. 4.5

The inner cortical edge should touch the inner numbered disk of the ruler aperture. In the illustration an inner cortical diameter of 12mm is shown. In this case, a 11 mm nail would be used. (Fig. 4.6)

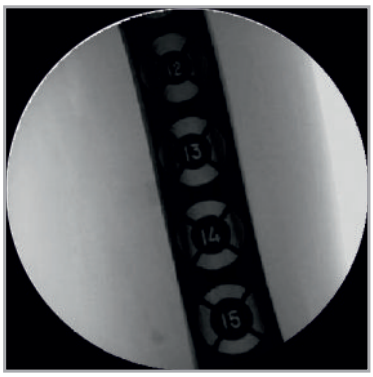


Fig. 4.6

NOTE

Compression or dynamization must be taken into account when determining the nail length. A shorter nail should be chosen when active compression is planned for the procedure.
The dynamic locking option allows for 7 mm of travel.

Important: The ruler is not at the same level as the tibia. This affects the accuracy of the measurement, providing only an estimate of the canal diameter.

* Radiographic ruler is not part of the instruments set and is available on request.

OPENING THE TIBIA

MAKE INCISION

Make an incision in line with the central axis of the intramedullary canal. Depending on the anatomy of the patient, this incision can be transpatellar, medial or even lateral parapatellar. (Fig. 4.7)

The incision starts proximally at the third of the patella along the patellar ligament down to the tibial tuberosity.

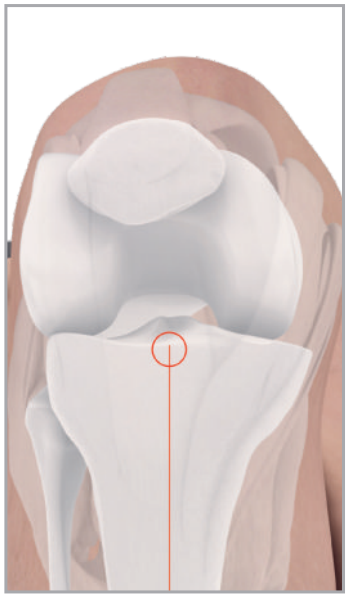


Fig. 4.7

Fig. 4.7 (A)

OPENING THE TIBIA

MOBILIZING THE FAT PAD

Mobilise the infrapatellar fat pad laterally and dorsally without opening the synovium. A free access of the nail to the insertion point must be guaranteed. Prepare the entry site of the nail on ventral edge of the tibial plateau.

The anterior edge of the tibial plateau is identified. The retro-patellar fat pad is released from the tibia and moved posteriorly without opening the knee joint. (Fig. 4.8)

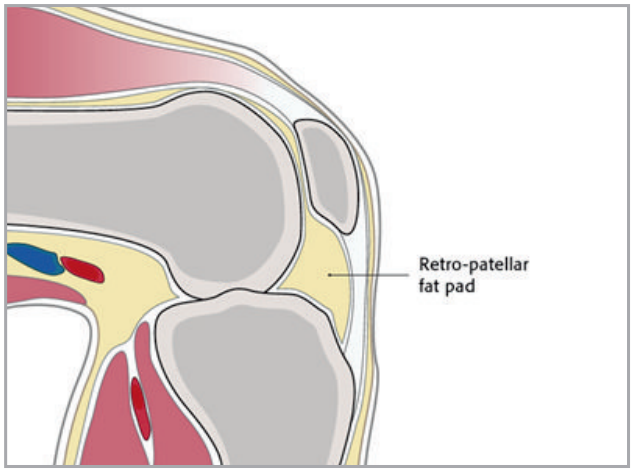


Fig. 4.8

OPENING THE TIBIA

DETERMINE ENTRY POINT

The entry point defines the optimal position of the nail in the intramedullary canal.

- In 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 lateral view, the entry point is at the ventral edge of the tibial plateau.
(Fig. 4.9)

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

Fig. 4.9

Fig. 4.9 (A)

OPENING THE TIBIA

OPEN MEDULLARY CANAL

Instruments	
639.002	Bone Awl - Curved

Slightly punch mark the insertion point at a 10° angle to the shaft axis in the lateral view.

Place the Tissue Protector and the Bone Awl curved (639.002) over the entry point of the bone. Insert Bone Awl to a depth of approximately 8 cm– 10 cm. The Bone awl tip should not touch the posterior cortex. (Fig. 4.10)

Remove Bone Awl.

Fig. 4.10

OPENING THE TIBIA

OPEN MEDULLARY CANAL

Instruments	
940.2530	Guide Wire
908.011	Tibia Proximal Sleeve
908.012	Tibia Proximal Reamer

Place the tibial proximal sleeve (908.011) and the tibial proximal reamer (908.012) over the guide wire and down to the drill.

Rim the proximal part of the tibial intramedullary canal to a depth of approx. 8–10 cm. with tibial proximal reamer (908.012).
(Fig. 4.11)

Remove tibial proximal sleeve and tibial proximal reamer.
(Fig. 4.12)

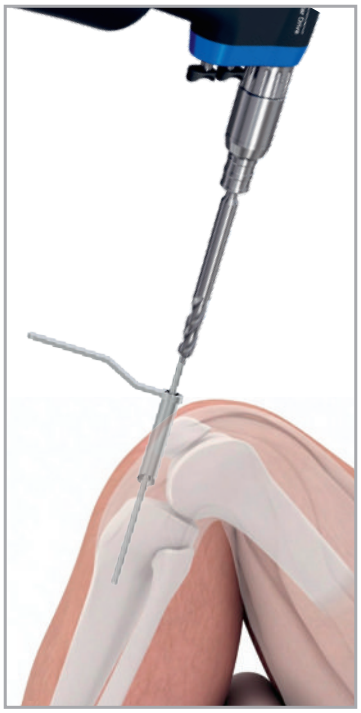


Fig. 4.11

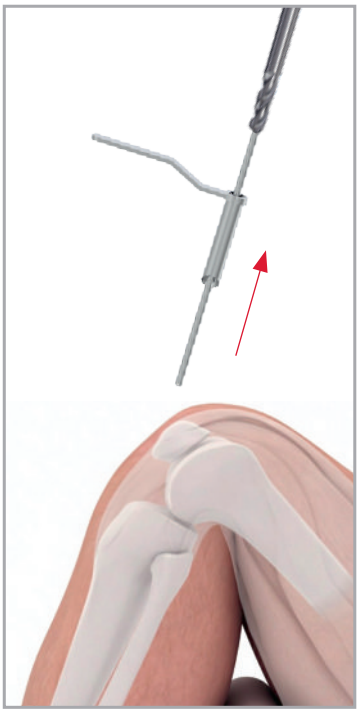


Fig. 4.12

OPENING THE TIBIA

INSERT GUIDE WIRE

Instruments	
940.2530	Guide Wire

Hold a nail on the side of the lower leg with its distal end parallel to the tibia shaft.

The curved proximal nail end determines the angle of insertion for the guide wire. (Fig. 4.13)

Insert the 2.5mm dia. guide wire and check the position under image intensification in the AP and lateral views.

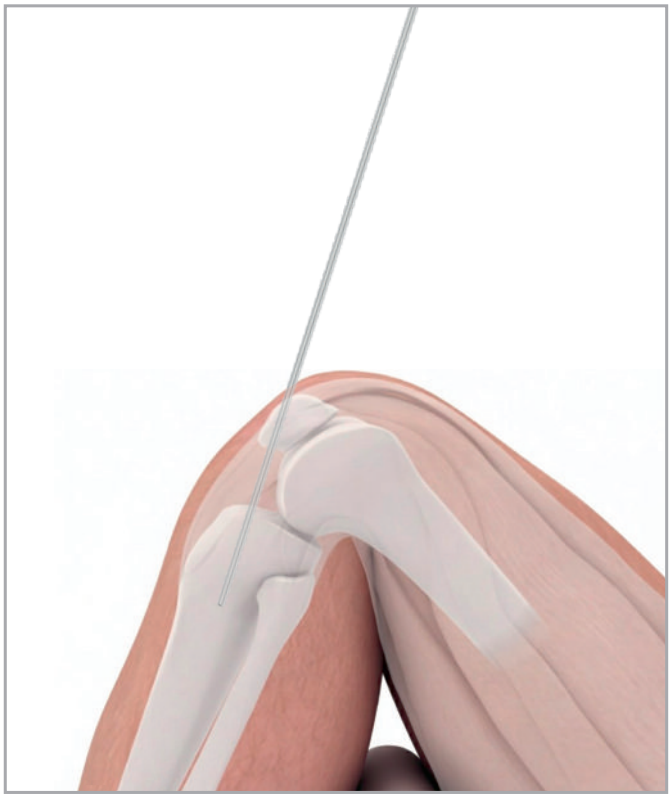


Fig. 4.13

OPENING THE TIBIA

REAMING MEDULLARY CANAL (OPTIONAL)

If necessary, enlarge the tibial canal with the flexible medullary reamer*, to the desired diameter. (Fig. 4.14)

IMPORTANT : NEVER USE FIXED MEDULLARY CANAL REAMERS IN TIBIAL SHAFT

Check fracture reduction under the image intensification.

Insert the Guide wire with a ball tip into the medullary canal, using the T Handle or any other holding device to the desired insertion depth. (Fig. 4.15)

Fig. 4.14

Fig. 4.15

REAMING

Starting with the 8mm diameter fixed reaming head, ream to a diameter of 1.0 mm greater than the nail diameter. Ream it 1 mm increments and advance the reamer with steady, moderate pressure.

Do not force the reamer.
Partially retract the reamer often to clear debris from the medullary canal.

NOTE

All nails in the Xlite Tibial Nail System should not be inserted over the Guide wire with ball tip. Guide wire with plain tip should be exchanged with ball tip before inserting the tibial nail.

* Flexible reamers are not part of Ortho Max Tibial Nailing System.

NAIL INSERTION

ASSEMBLY THE PROXIMAL JIG ASSEMBLY (AP & ML)

Instruments	
908.020	Tibia Nail & Jig Holder
908.008	Tibia Nail Holding Bolt
938.001	Impactor Head
937.001	Hexagonal Spanner with T Handle

1. Orient the Jig assembly anteriorly, and match the teeth on the Jig to the notch in the nail. (Fig. 5.1)

Fig. 5.1

Fig. 5.1 (A)

2. Place the tibial nail holding bolt (908.008) into the Jig holder and thread it into the proximal nail end, first manually and then using hexagonal spanner with T handle (937.001). Please take care while threading the nail, pull back the nail holding bolt if not fit smoothly. (Fig. 5.2)

3. Verify the nail is oriented properly on the Jig Assembly; secure the assembly with Hex. Spanner with T handle. Fix the Impactor Head on Nail Holding Bolt. The Impactor Head should sit firmly on nail holding bolt without leaving any gap in between. (Fig. 5.3)


Fig. 5.2


Fig. 5.3

NAIL INSERTION

INSERT NAIL

Instruments	
945.016	Combined Hammer

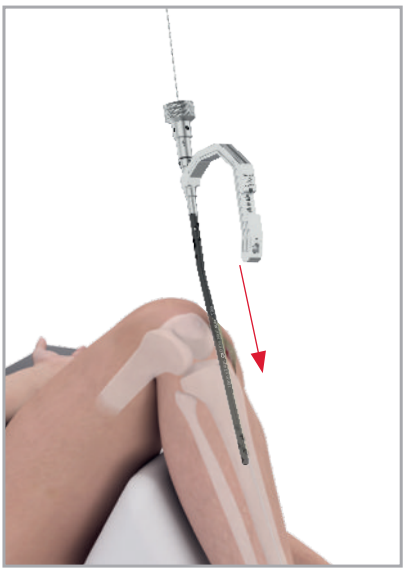


Fig. 5.4

NOTE

Hyperflex the knee to aid nail insertion into the medullary canal. Insert the nail into the intramedullary canal. Use a twisting motion to advance the nail. (Fig. 5.4)

Monitor the nail passage across the fracture; control in two planes to avoid malalignment. Insert the nail until it is at or below the tibial opening. Check final nail position in AP and lateral views. If needed, use light, controlled hammer on impactor head to set the nail. (Fig. 5.5)

Fig. 5.5

Note

If nail insertion is difficult, choose a smaller diameter tibial nail or ream the medullary canal to a larger diameter.

Important: Confirm that the nail is securely connected to the proximal jig assembly, especially after hammering,

Important: Do not Hammer on Jig assembly directly.

NAIL INSERTION

CHECK PROXIMAL NAIL POSITION

Insert a 2.5mm K wire through the hole as shown in the image. The tip of the K wire indicates the exact proximal position of the tibial nail.

Remove the Impactor Head.

Check proximal nail position under image intensification in the lateral view. If primary compression or secondary dynamization are planned, it is recommended to over insert the nail by more than 7 mm, which corresponds to the maximum distance between the positions in static and dynamic modes.
(Fig. 5.6)

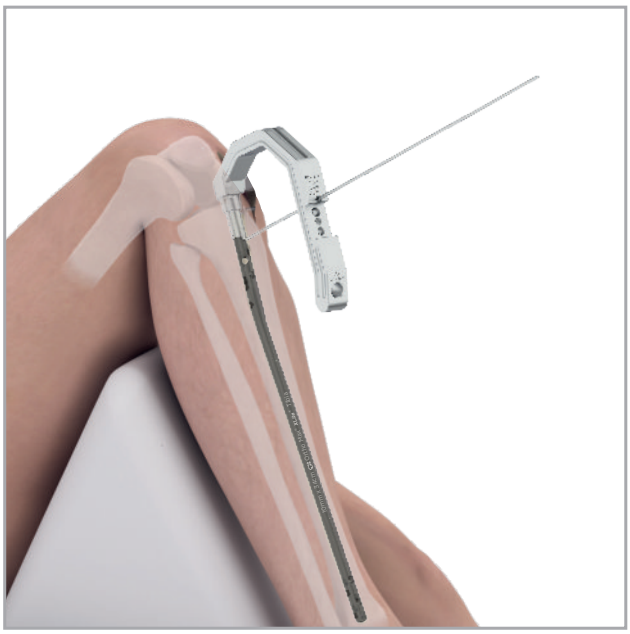


Fig. 5.6

TECHNIQUE TIP

For greater drill bit control, discontinue drill power after perforating the near cortex. Manually guide the drill bit through the nail before resuming power to drill the far cortex. (Fig. 6.1)

Measure the locking screw length using the Long Depth gauge 3.5mm or 4.9mm for Interlocking screws. Ensure the outer sleeve is in contact with the bone and the hook grasps the far cortex.

Read the Interlocking screw length directly from the depth gauge scale at the back of the outer sleeve.

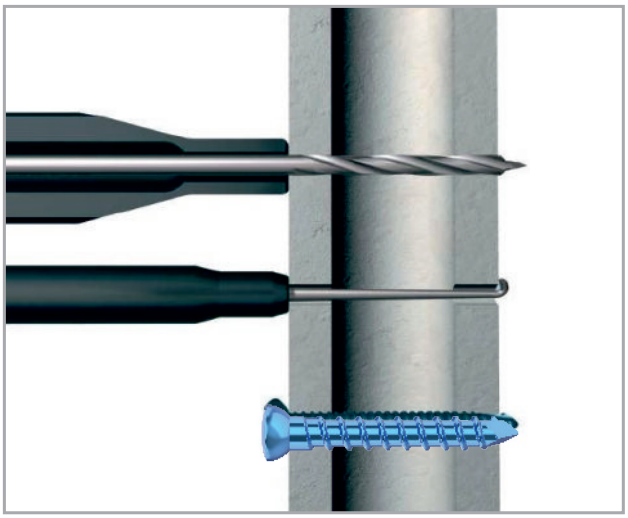


Fig. 6.1

DISTAL LOCKING

CHECK DISTAL NAIL POSITION

Check final nail position under image intensification in AP and lateral views.

Remove the guide wire.

Important: Confirm that the nail is securely connected to the Jig Assembly, especially after hammering. (Fig. 7.1)

Fig. 7.1

NOTE

Insertion depth is critical for distal third fractures where a minimum of two locking screws below the fracture line are required to stabilize the distal segment.

DISTAL LOCKING

Instruments	
908.014	Tibia Distal AP Jig
908.015	Tibia Distal ML Jig
908.009	Tibia Protection Sleeve
908.016	Tibia Jig Stabilisation Block
908.017	Tibia Jig Stabilisation T Handle
908.018	Tibia Drill Sleeve
941.001	Trocar Awl with T Handle
561.449	Depth Gauge - Long
569.249	Hexagonal Long Screw Driver

For distal locking, tibia distal AP jig (908.014) is attached to the nail & jig holder with the bolt.

Distal tibia ML jig (908.015) is then attached to the distal tibia (AP jig) & secured using bolt for distal tibia ML jig. (Fig. 7.2)

Fig. 7.2

Pass the ø 11/8.1 mm protection sleeve (908.009) through the hole in the distal tibia AP jig and advance it until it sits flush with the bone.

Through the protection sleeve (908.009, pass the Xlite tibia jig stabilisation T Handle (908.017) until it reaches the slot of the nail. Through the stabilisation T handle & distal tibia AP jig insert jig stabilisation block (908.016) & secure as it doesn't move. (Fig. 7.3)

Fig. 7.3

INSERTING DISTAL MEDIO-LATERAL SCREW

Insert protection sleeve ø 11/8.1 mm (908.009) in marked distal tibia (AP) jig as per nail insertion length indication & inside protection sleeve insert 8/4.1mm drill sleeve (908.018) & then trocar Awl with T handle (941.001).
(Fig. 7.4)

Fig. 7.4

NOTE

Stab incision is made in the skin for passing trocar, upper said assembly is advance through the skin incision until it sits flush with the bone.

After removing trocar punch from the protection & drill sleeve. Refer below table for selecting drill bits which is inserted through the drill sleeve and the bone is drill through both cortex. (Fig. 7.5)
Remove drill bit & drill sleeve.

Drill size selection for Distal Screw

Drill Size	Drill Sleeve	Screw Size	8mm Nail	9mm Nail	10mm Nail	11mm Nail
2.7	2.7	3.5	✓	-	-	-
4.0 mm	4.0 mm	4.9 mm	-	✓	✓	✓

[Table No. 1]

Fig. 7.5

NOTE

For proximal hole every diameter nail will have 4mm drill size & ø 4.9mm screw size.

DISTAL LOCKING

Insert depth gauge - long (561.449) through the protection sleeve and note down the required ø 4.9mm and ø 3.5mm interlocking bolt length as per nail selection as mentions in [Table No. 1] and mark length on the measuring depth gauge. (Fig. 7.6)

Fig. 7.6

DISTAL LOCKING

Select the ø 4.9mm interlocking bolt of predetermined length & insert into predrilled hole using the hexagonal screw driver 4.9mm (569.249) same to be proceed with other holes drilling & screwing. (Fig. 7.7)

Fig. 7.7

Disassemble & remove tibia distal AP jig, distal tibia ML jig along with tibia protection sleeve, tibia jig stabilisation block & tibia jig stabilisation T handle. (Fig. 7.8)

Fig. 7.8

DISTAL LOCKING

INSERT INTERLOCKING SCREW

Insert the appropriate length of Interlocking screw using the Hex. Screw driver long ø 3.5mm OR ø 4.9mm.

Verify locking screw length under image intensification. If needed, a second locking screw may be inserted using the same technique. (Fig. 7.9)

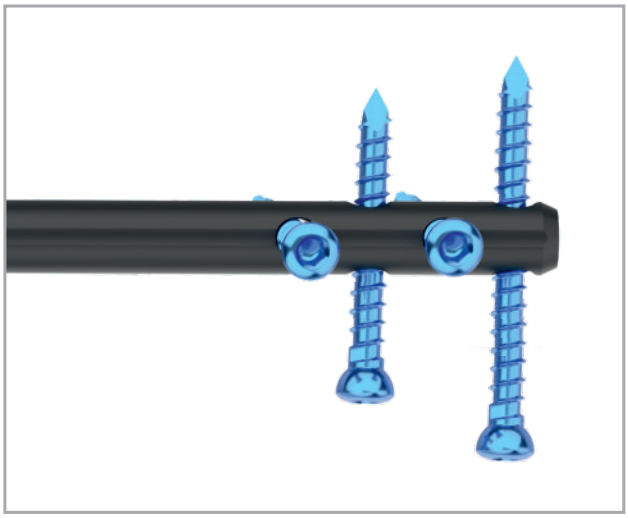


Fig. 7.9

PROXIMAL LOCKING

MOUNT THE PROXIMAL JIG

Instruments	
908.007	Tibia Proximal Jig

Confirm that the nail is securely connected to the nail & jig holder. Mount the proximal jig to the nail & jig holder. (Fig. 8.1)

Fig. 8.1

PROXIMAL LOCKING

CHOOSE INTERLOCKING SCREWS AND INSTRUMENTS

Use the correct Interlocking screw ø 4.9mm dia irrespective nail dia., Protection Sleeve & Drill sleeve 4mm, Trocar Awl with T handle and drill bit 4mm dia. (Fig. 8.2)

Two proximal ML locking options can be targeted using the ML proximal jig assembly:

1) The Dynamic locking option (DC) corresponds to the upper position of the proximal locking slot. This type of locking allows primary compression or secondary, controlled dynamization of the bone fragments.

2) Static (ST) corresponds to the lower position of the proximal locking slot. This type of locking does not allow primary compression or secondary controlled dynamization.

Fig. 8.2

Three proximal AP locking options can be targeted using the AP Proximal Jig assembly :

The AP jig has three corresponding holes showing Proximal oblique, Distal Oblique and Angled.

USE TROCAR AWL WITH T HANDLE

Insert the Trocar Awl with T handle through protection sleeve in the desired ML hole in the ML Jig assembly and make a stab incision to insert the trocar to the bone. (Fig. 8.3)

Remove the trocar awl with T handle.

Fig. 8.3

PROXIMAL LOCKING

DRILLING FOR SCREW

Ensure that the drill sleeve is pressed firmly to the near cortex, using the corresponding drill bit of 4mm for ø 4.9mm Interlocking screws, drill through both cortices until the tip of the drill bit penetrates the far cortex. (Fig. 8.4)

Remove drill bit and pass Long Depth Gauge 4.9mm into the protection sleeve to measure screw length.

Fig. 8.4

Ensure that the drill sleeve is pressed firmly to the near cortex and make sure that the hook grasps the far cortex and that the protection sleeve is on the bone. Read the measurement from the scale at the back of the Long Depth Gauge. This measurement corresponds to the appropriate length of Interlocking screw.

Remove the Long Depth Gauge.
(Fig. 8.5)

Fig. 8.5

INSERT INTERLOCKING SCREW 4.9MM

Insert the appropriate length of Interlocking screw ø 4.9mm through the protection sleeve using the Long Hex. Screw driver 4.9mm. Verify Interlocking screw length under image intensification. (Fig. 8.6)

The tip of the Interlocking screw should not project more than 1mm to 2mm beyond the far cortex.

Repeat Steps 2 to 4 for the second proximal ML Interlocking screw.

Fig. 8.6

OPTIONS FOR OTHER PROXIMAL SCREWS

Additional three proximal oblique Interlocking screws can be added for proximal fractures and highly unstable fractures through the AP jig by following same technique. (Fig. 8.7)

Fig. 8.7

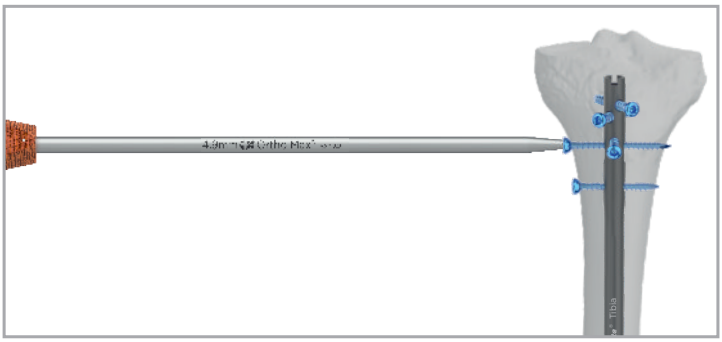


Fig. 8.7 (A)

REMOVAL OF ATTACHED INSTRUMENTS

REMOVAL OF OTHER INSTRUMENTS

Remove protection sleeve & proximal jig from nail & jig holder (Fig. 9.1)

Fig. 9.1

INSERTION AND REMOVAL OF END CAP

INSERTION OF END CAP

Engage the end cap with the screwdriver by exerting axial pressure. To prevent cross threading, align the end cap with the nail axis and turn the end cap counter clockwise until the thread of the end cap aligns with that of the nail.

Turn the end cap clockwise to thread the end cap into the nail. (Fig. 10.1)

Remove the guide wire and screwdriver.

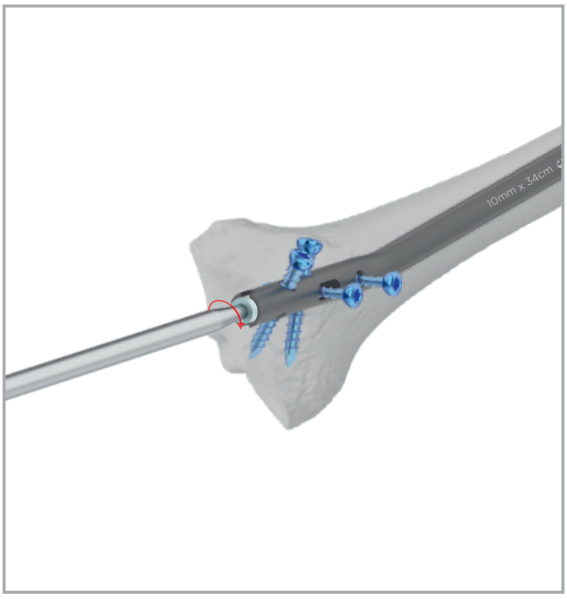


Fig. 10.1

REMOVE END CAP

The end caps are cannulated for use over a guide wire if necessary. (Fig. 10.2)

Remove the nail insertion instruments.

NOTE

The patient's leg should be positioned in flexion to facilitate end cap insertion.

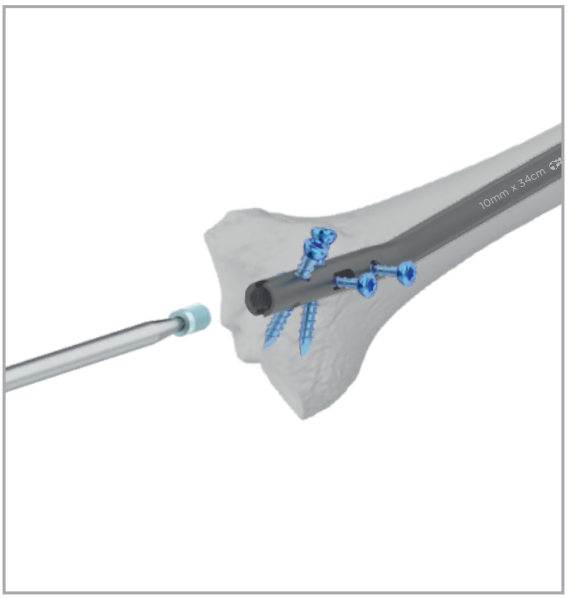


Fig. 10.2

NAIL REMOVAL

Implant removal is an optional procedure. Clear the Hex. socket of the end cap for of any tissue ingrowth. Remove the end cap with the Hex. long screw driver 4.9mm.

Remove all Interlocking screws except one of the proximal locking screws, using the Hex long screwdriver 4.9mm.
(Fig. 11.1)

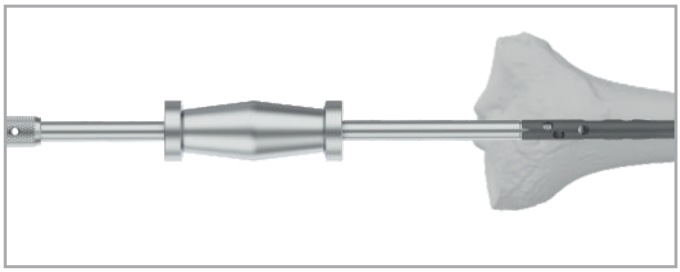


Fig. 11.1

ATTACH EXTRACTOR ROD WITH HEAD AND RAM

Instruments	
939.001	Extractor Set - Rod
939.003	Extractor Set - Ram

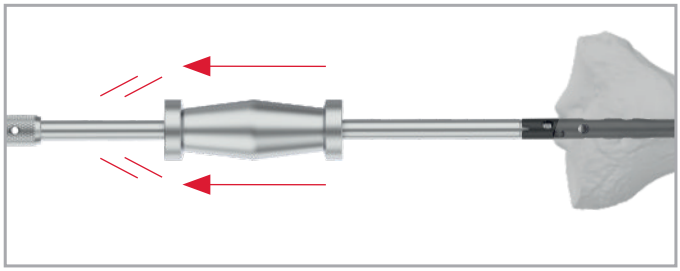


Fig. 11.2

Before removing the final Interlocking screw, screw the Nail Holding Bolt and Extractor rod with ram inside and head at other end into the tibial nail and tighten it to prevent rotation or displacement of the nail posteriorly below the tibial plateau. (Fig. 11.2)

Remove the remaining Interlocking screw with the Hex. long screwdriver 4.9mm.

REMOVE NAIL

Extract the nail by applying gentle blows with the Ram.
Check nail holding Bolt securely fitted with the nail in between extraction process.

NOTE

The final decision of removing the Nail shall be taken by the operating surgeon only. It is recommended that the implant used as an aid for healing should be removed once its service is over after proper consultation and examination by the operating surgeon in final follow up, particularly in younger and more active patients.

END OF SURGICAL TECHNIQUE

CAUTION:

USED IMPLANTS:
Used implants which appear un-damaged may have internal and/or external defects. It is possible that individual stress analysis of each part fail to reveal the accumulated stress on the metals as a result of use within the body.

This may lead ultimately to implant failure after certain point of time due to metal fatigue. Therefore reuses of implants are strictly not recommended.

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

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

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

MRI SAFETY INFORMATION
- Ortho Max Mfg. Co. Pvt. Ltd. implants are manufactured from Titanium.
- Titanium is generally recognized in medical standards and literature as a non-ferromagnetic material, and is considered compatible with MRI environments. However, this compatibility is based on established material properties and is not specifically claimed or certified by Ortho Max Mfg. Co. Pvt. Ltd. for its individual products.
- Patients are advised to seek medical consultation prior to undergoing MRI or entering environments involving strong electromagnetic or magnetic fields.
- The treating doctor should perform a risk–benefit analysis before permitting the patient to undergo MRI or exposure to such environments.
- Ortho Max Mfg. Co. Pvt. Ltd. implants have not been specifically tested or evaluated for safety and compatibility in MR environments. Any considerations regarding MRI should be based on available scientific literature and clinical judgment.

IMPLANTS

REFERENCE NO.	PRODUCT NAME
1801.828 to 1801.1140 T1801.828 to T1801.1140	Interlocking Nails for Tibia (Cannulated)

Material : SS 316L & Titanium

184.3524 to 184.4980 238.3524 to 238.4980	Interlocking Screws

Material : SS 316L & Titanium

185.005 239.005	Nails End Cap

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INSTRUMENTS

REFERENCE NO.	PRODUCT NAME	
942.001	Tommy Bar	
908.008	Tibia Nail Holding Bolt	
908.009	Tibia Protection Sleeve	
908.018	Tibia Drill Sleeve	
939.001	Extractor Head - Rod	
939.002	Extractor Head - Head	
939.003	Extractor Head - Ram	

INSTRUMENTS

REFERENCE NO.	PRODUCT NAME	
908.012	Tibia Proximal Reamer	
938.001	Impactor Head	
552.270	Drill Bits	
561.335	Depth Gauge Long	
569.249	Hexagonal Long Screw Driver (4.9mm)	
940.2530	Guide Wire	
908.017	Tibia Jig Stabilisation T Handle	

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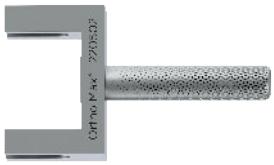
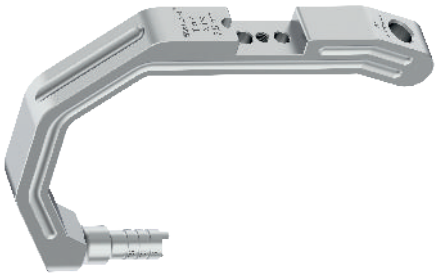
INSTRUMENTS

REFERENCE NO.	PRODUCT NAME	
908.016	Tibia Jig Stabilisation T Handle	
937.001	Hexagonal Spanner with T Handle	
941.001	Trocar Awl with T Handle	
908.011	Tibia Proximal Sleeve	
639.002	Bone Awl - Curved	

INSTRUMENTS

REFERENCE NO.	PRODUCT NAME	
908.020	Tibia Nail & Jig Holder	
908.014	Tibia Distal AP Jig	
908.015	Tibia Distal ML Jig	
908.007	Tibia Proximal Jig	

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30+ YEAR'S EXPERIENCE

The surgical techniques described herein are provided for informational and educational purposes only and are intended to serve as a general guideline for the use of the product.

The treating surgeon must always rely on their own clinical judgment, experience, and training when deciding the appropriate surgical approach, technique, and patient-specific treatment. Variations in patient anatomy, bone quality, fracture pattern, and overall medical condition may require modifications to the described technique.

Ortho Max Mfg. Co. Pvt. Ltd. does not practice medicine and does not recommend or mandate any specific surgical procedure.
The responsibility for proper patient selection, surgical planning, execution of the procedure, and post-operative care lies solely with the operating surgeon.

While every effort has been made to ensure the accuracy of the information provided,
Ortho Max Mfg. Co. Pvt. Ltd. shall not be held liable for any adverse outcomes, complications, or damages resulting from the use or misinterpretation of the information contained in this material.

Always refer to the product's Instructions for Use (IFU), relevant clinical guidelines, and applicable regulatory requirements before performing any procedure.

Ortho Max® Mfg. Co. Pvt. Ltd.

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