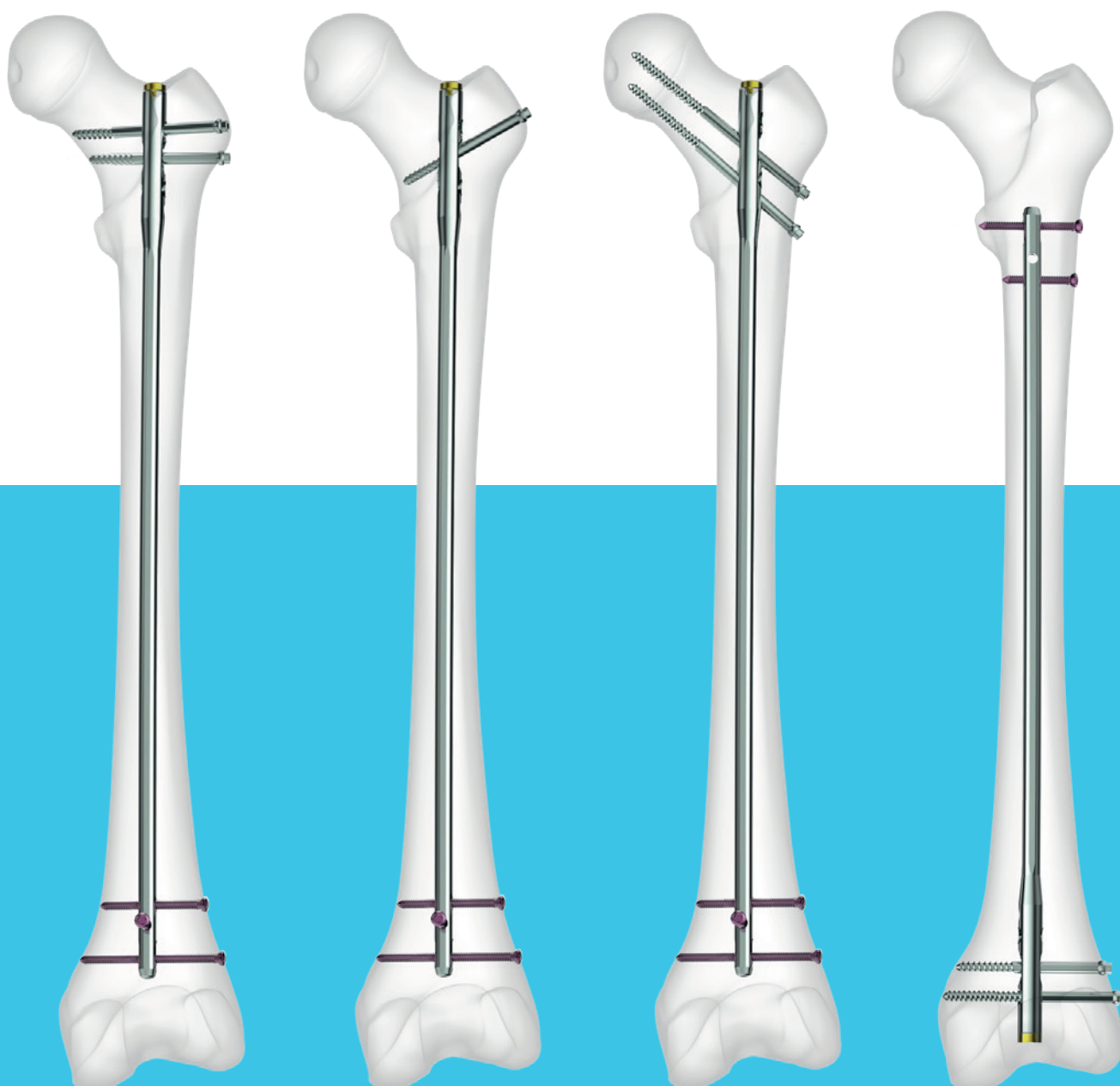


FEMUR INTRAMEDULLARY NAIL

Femur Intramedullary Nail



Multi-functional
Standard and Recon
Antegrade and Retrograde Application
Different Multi-Planner Locking Choices



| Medical Devices

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Warning:

This description is not sufficient by itself for direct and proper use of the instrument set intraoperatively. Instruction by a surgeon who is thoroughly trained and experienced in handling these instruments and in doing the procedure are highly recommended.

Introductions

The new, multifunctional intramedullary nail system has been developed in order to eliminate disadvantages of current intramedullary fixation techniques. This nail is produced for all types of femur fractures except femur head fractures. It has multiple locking systems.

Femur nail aims;

To be able to use the same nail for both right and left femur, antegrade and retrograde nailing applications,

To decrease the numbers of the surgical devices which will be used,

To be able to insert and extract easily and so to decrease the operation time,

To be capable of controlled compression,

To be able to perform the locking and secure multi-planar stability in both ends easily and eliminate the screw migration on the ends,

To eliminate the need of external support materials and to perform intramedullary fixation, which allows patients for early mobilization.

Indications

For all of the femoral fractures (except femoral head fractures)

Open, closed, simple, comminuted, segmental fractures

Collum femoris (femoral neck) fractures

Trochanteric - Subtrochanteric femoral fractures

Diaphyseal fractures

Supracondylar fractures

Condylar - intercondylar fractures

Ipsilateral multiple femoral fractures

In the events of malunion or nonunion (pseudoarthrosis)

Osteotomies for shortening

Tumor resection

Features

Ø 6.5 mm cannulated screws
for proximal locking



80 mm proximal part of nails
has two different diameters as Ø 12, Ø 13 mm

the diameters of distal part are Ø 8 mm and Ø 9 mm
for Ø 12 mm proximal diameter nails.

For Ø 13 mm proximal diameter nails,
the diameters of distal parts are
Ø 10 mm, Ø 11 mm, Ø 12 mm and Ø 13 mm.

the nail is compatible for right and left femur
and it can be inserted both antegrade and retrograde.

it has biocompatibility and uniform flexibility
with the bone structure by Titanium material.

femur Intramedullary Nail is solid,
cannulated and round.

it's adapted for reamed and unreamed application.

on the sagittal plane, the curve of the nail axle
has 150-200 cm radius and it is compatible
for the femur anatomic.

here are 8 different choices of nail length,
from 320 mm to 460 mm with 20 mm increments
(320, 340, 360, 380, 400, 420, 440, 460 mm).

for distal locking

for Ø 10, 11, 12, 13 mm nails
Ø 5 mm cortex screw.



for Ø 8 ve 9 mm nails
Ø 4.5 mm cortex screw

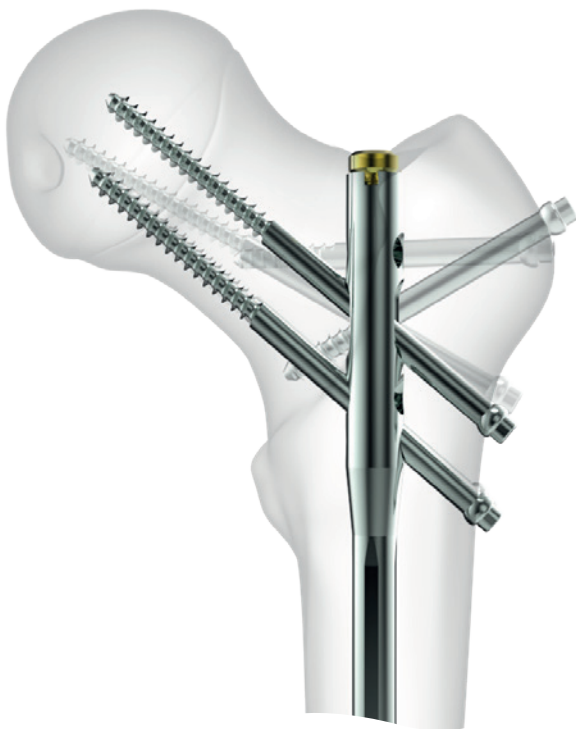
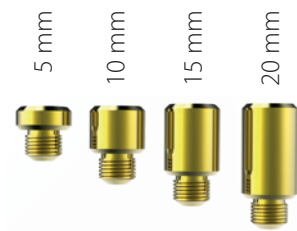


For Supracondylar fragments;
150 mm length
two different diameter Ø 12 mm - 13 mm

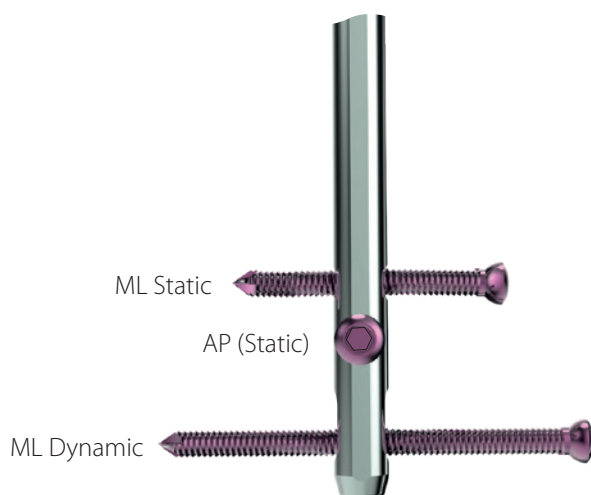
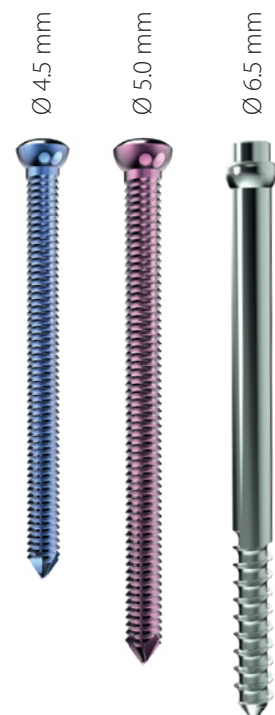




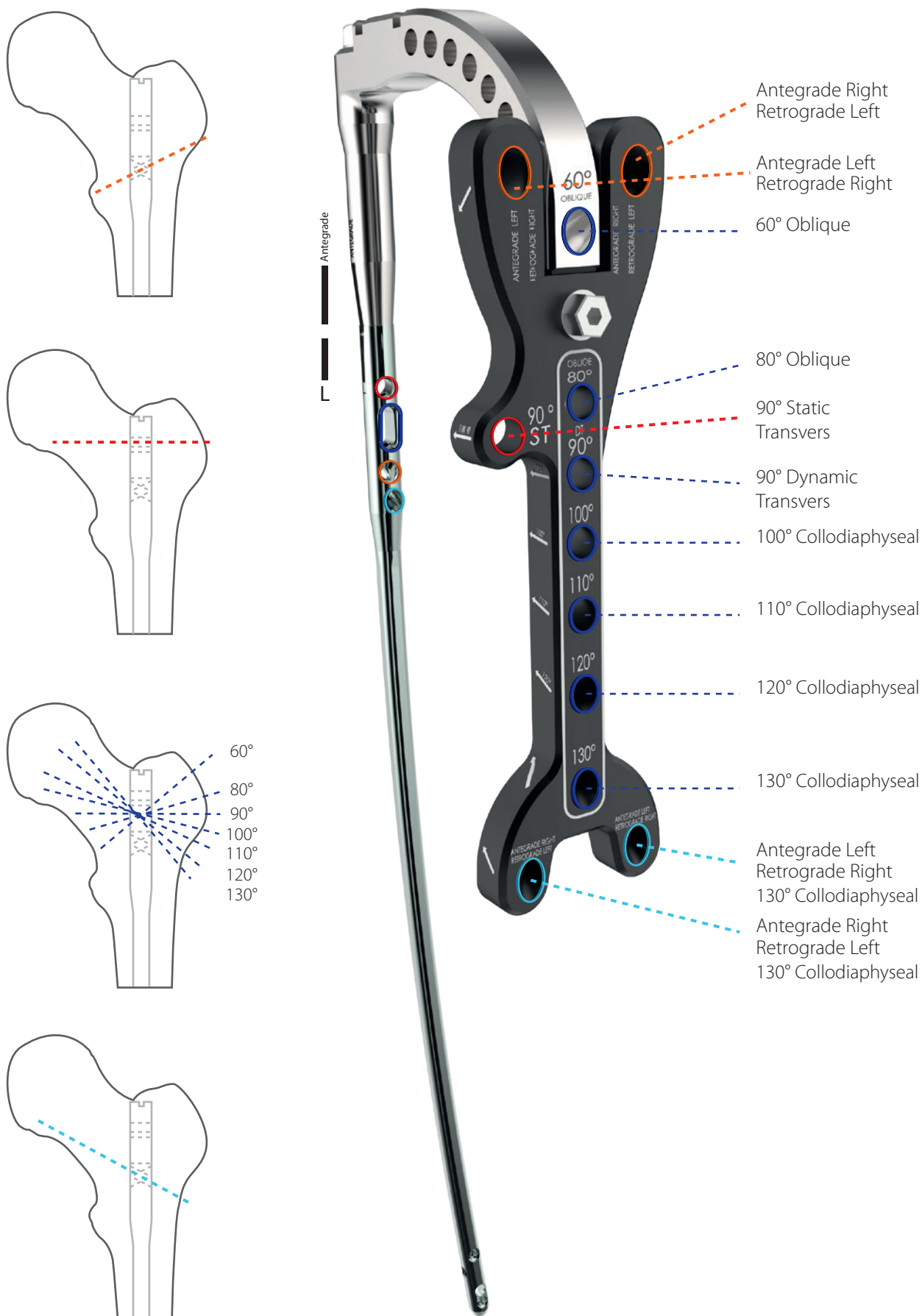
four locking holes at the proximal part of the nail for multi-planar fixation.



Static and dynamic locking dynamization or auto dynamization primer compression and multi-planar stabilization.



It has three multi-planar distal locking holes. One of them is AP (Static) and the others are ML (Static and Dynamic).

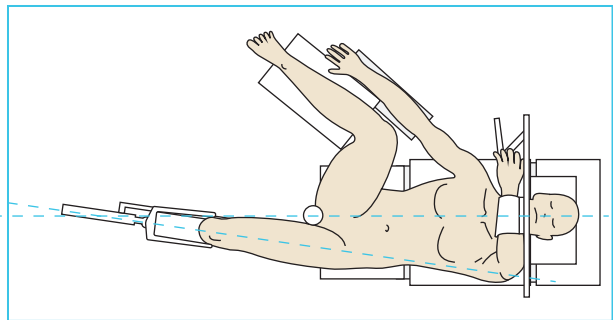
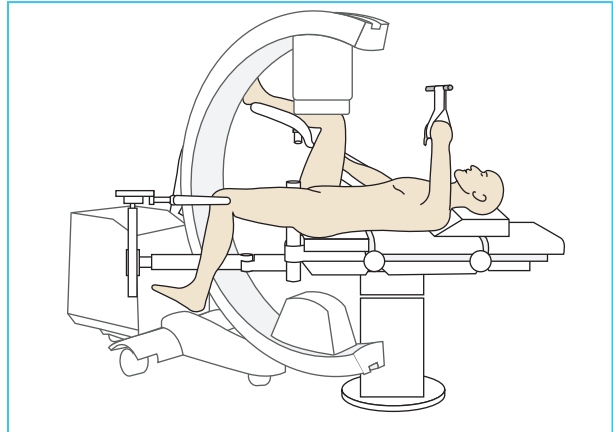


Surgical Technique

Antegrade Application

1 POSITIONS OF PATIENT

The patient should be supine position and the healthy extremity should be abducted position at the 90° angle to the hip on a leg holder.



2 DETERMINING THE NAIL DIAMETER

Two sided preoperative radiographs of the healthy femur are taken from 1 meter distance.

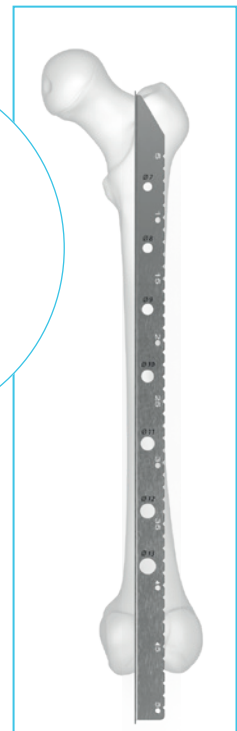
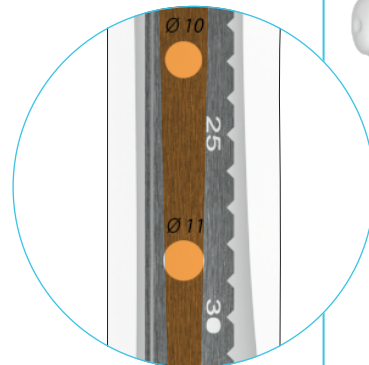
The diameter of the narrowest region of medullary cavity is measured, the enlargement ratio that is approximately 10 % is subtracted thus the diameter of the nail is determined.

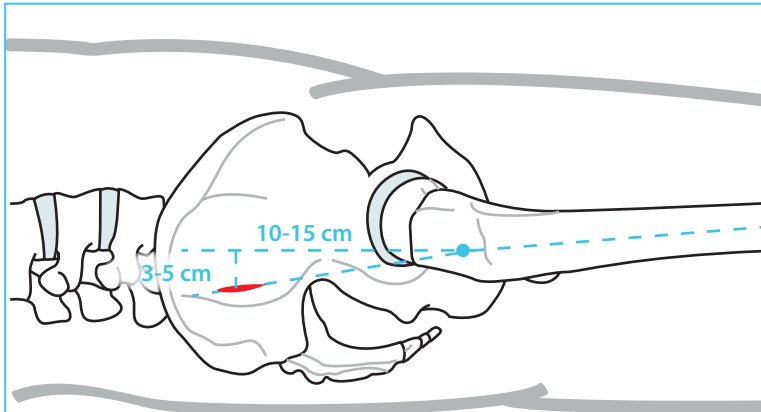
Femoral bone length is measured between the tip of trochanter major and knee joint surface. The length of the nail is determined as subtracting the enlargement ratio which is approximately 10 % and extra 3 cm.

The length of the nail is also determined when the distance between the tip of trochanter major of healthy femur and lateral femoral epicondyle of it is measured externally.

In an alternative technique; the length and diameter of the nail are determined by measuring the healthy femur or fractured femur after the reduction, with the **Radiographic Ruler** in AP plane. The holes on the **Radiographic Stainless Ruler** can be used for measuring the diameter of the nail. The narrowest region of the medullary cavity should be seen from one of the numbered holes on the ruler completely and with no overflow.

The nails which have the next smaller and the next bigger diameters and the lengths of the measured nail are prepared.





3 NAIL'S ENTRY POINT

A standard 5 cm longitudinal incision is made from the top of the anatomic curve of the femur, positioned at the 10-15 cm proximal of the greater trochanter to distally.

The entry hole is enlarged with the correct **Trochanteric Reamer** according to the nail's proximal diameter (12 mm, 13 mm). **The Reamer** should be forwarded through **K-Wire** with the **Trochanteric Tissue Protector**.



The medullary cavity is reached using **2.5x250 mm K-Wire** (Piriformis fossa). During this process two sided fluoroscopy control is made.

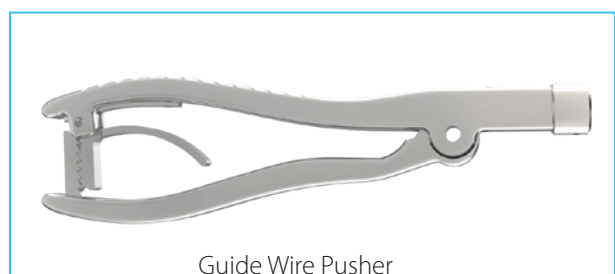
In the case of crossing to the cortex with the **K-Wire** is not possible, the entry point can be opened with the **Awl**.

Then **K-Wire** is inserted as slightly angled from this entry point to the medullary cavity. The entry point is enlarged with the **Cannulated Awl** till the medullary cavity. **2.5x250 mm K-Wire** is removed and in the place of this **3x900 mm Olive Headed K-Wire** is inserted through the entry point to medullary cavity.



4 REDUCTION

If the manual reduction could be made **K-Wire** is forwarded to the distal fragment as it can. If the manual reduction is not possible, reduction can be succeeded with the **Reducer** under image intensifier. If it is necessary small incision can be made. Then **the Olive Headed Guide Wire** is inserted as distal as it could. During this application control of the **Guide Wire** is made by **Guide Wire Pusher**.



Guide Wire Pusher

5 DETERMINING THE NAIL LENGTH

The nail length is determined with the **Nail Length Measuring Device (320-460 mm)** over the wire that stayed outside of the bone.

If the reamer free technique will be used the moderate nail with the **Guiding Device** assembly is advanced into the medullary canal.



6 REAMING

Reamer consists of two parts; **Flexible Shaft** and **Reamer Head**. There are 13 different diameters from 8 mm to 14 mm for **Reamer Heads**.

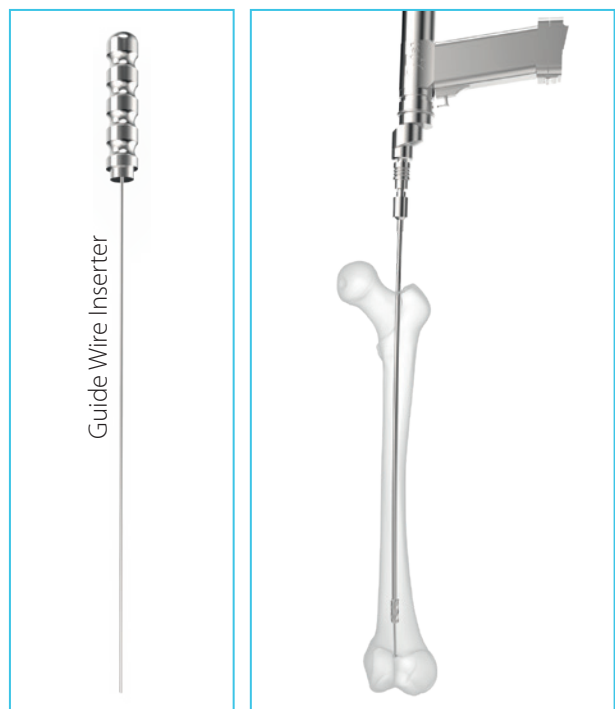
Reamer Head is attached to the tip of the flexible shaft as in visual and applied through **The Olive Head Guide** to medullary cavity.



While taking **Reamer** back, in order to prevent taking out of the wire, **Guide Wire Inserter** can be used from behind of the power drill.

The reaming process is continued until the cortex touch is felt. The diameter of the nail that we will use should be 1-1.5 smaller than the last **Reamer** we used. The reaming process begins with the smallest **Reamer (Ø 8 mm)** and **Reamer Sleeve** through **Guide Wire**. The operation proceeds by 0.5 mm increments on **Reamer Heads**.

Reaming process should be continued through **Olive Headed K-Wire**. During this process to use of the image intensifier is necessary. Eccentric reaming should be avoided. This can cause of weakening on the cortex.



7 ASSEMBLING THE NAIL AND THE NAIL INSERTER

The Nail which its diameter and length has been determined is connected to the **Guiding Device** (*Butterfly Guide* and *C Guide* assembly) by the **T-Screwdriver** with the **Connection Screw** as in the visual. The system is set up for "Antegrade Technique".

At this point, the "antegrade" sign at tip of the **Guide** should be on the same line with the "**R**" or "**L**" letters on the nail. For this nails; "**R**" indicates right femur applications and "**L**" indicates left femur applications.



8 INSERTING THE NAIL

The nail, attached to the **Aiming Guide**, is forwarded to the distal femur through **K-Wire** with controlled rotations. If it is necessary slight impacts with **Hammer** can be done.

Do not directly impact to do Aiming Guide

In this case, the **Nail Impactor**, which is connected to the **Guide-Nail Connection Screw**, should be used and **the Guide should not be harmed**. The **Connection Screw** should be tightened with **12 mm Wrench**. By this means the **Guiding Device** is prevented from possible damage.

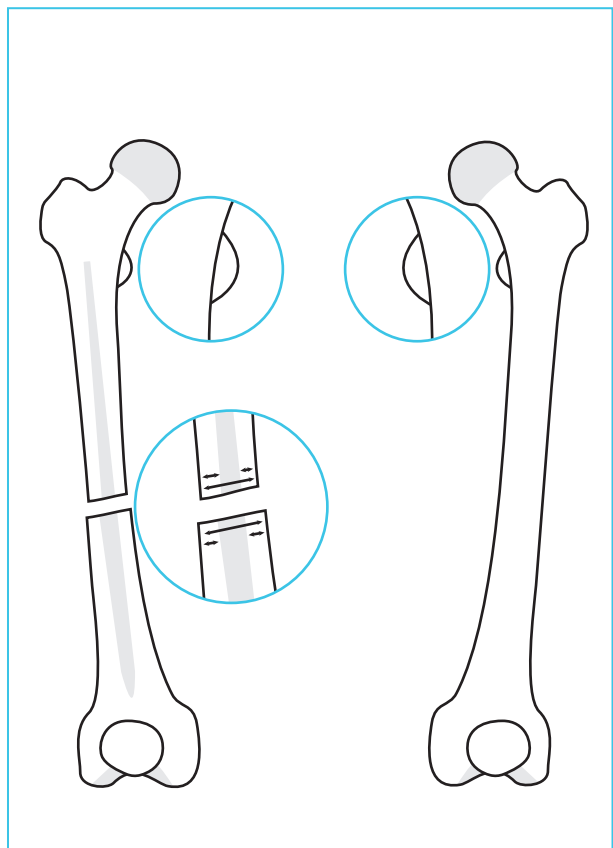
Despite the impacts if the nail can not be advanced, using of the image intensifier is necessary. It should be decided whether the smaller nail or larger reamer will be used after the image intensifier control. When the nail is being inserted to distal fragment of the bone, the reduction should be controlled. Distal tip of the Nail should be advanced till desired depth and after the nail is positioned distal locking process can begin.



9 DISTAL LOCKING

Before distal locking the **Guide Wire** should be extracted. Position of the Nail and femur should be checked. Cable method can be used for this procedure or while the patella is facing towards anterior, radiographic image of the lesser trochanter of the effected femur could be compared with the same image of the healthy femur. On the other hand signs of "cortical staging and diameter difference" should be considered.

There are two distal locking screw diameters according to two different diameters for this nail. 5 mm screws (Pink) for 10, 11, 12, 13 mm diameter nails and 4,5 mm screws (Blue) for 8 and 9 mm diameter nails. Each nail has one dynamic and one static holes in ML plane and one static hole in AP plane.





If the Freehand Technique will be used, a radiolucent table makes the procedure easier.

The position of the nail and shape of the distal locking hole is checked by means of image intensifier. Then the **C-arm** is positioned in lateral at the angle of 90° to the nail while the proximal static hole on the nail distal can be seen as a perfect circle. Metal ring in the **Freehand Distal Targeting Device** that held the **3.5x200 mm Steinmann** is positioned as a second circle on the distal hole of the nail. The projection of the **Steinmann** can be seen in the center of this circle as a dot.



At this point, the **Steinmann** is inserted to the bone surface through soft tissue after skin incision and dissection, till the cortex. It is stabbed with an impact. **The Steinmann** is advanced to the nail hole by means of the power drill. The Screw length is determined through the **Depth Gauge (20-100 mm)**.



If the patient has a strong cortical bone structure that hole opened before could be widened with correct drill according to locking screws. For 5 mm diameter pink locking screws **4.2x250 mm Graduated Drill** and for 4.5 mm diameter blue locking screws **3.5x200 mm Graduated Drill** can be used. This procedure is made through **5x50 mm Screw Sleeve**. The length of the locking screw can be estimated by means of markers on the Graduated Drill Bit.

According to the nail diameter, Ø 5 mm or Ø 4.5 mm screw can be applied by means of the **3.5 mm Screwdriver**. If it is necessary more than one screw can be used for distal locking depending on the condition of the fracture.

Then the nail should be pulled slightly as if the nail is being extracted. Thus the fractured area is compressed and after that proximal locking can be made.

10

PROXIMAL LOCKING

There are some cases that proximal locking should be made first. For example; when the *External Aiming Guide* irritates to soft tissue or the leg should be abducted position, disconnecting the *Aiming Guide* can be useful for distal locking. In such cases proximal locking should be made first.

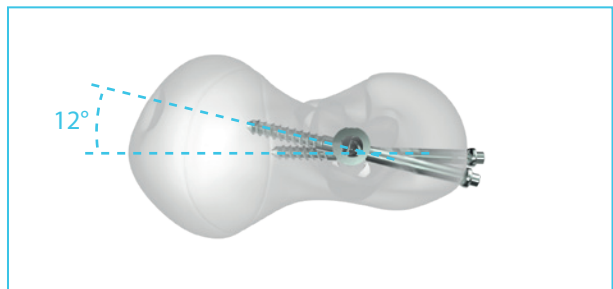
But in the case of the femur diaphysis needs to be compressed, distal locking should be made first. Then the nail should be pulled slightly as if the nail is being extracted. Thus the fractured area is compressed and after that proximal locking can be made.

There are various proximal locking types depending on the fractures, such as; **Standard**, **Oblique** or **Neck Locking** technique.

Standard Locking

This type of locking can be made transverse through dynamic and static holes. The margin of the static (Round) hole to the proximal end of the nail is 23 mm and that margin is 38 mm for dynamic (Oval) hole. These holes are marked and their angles are pointed out on the *Aiming Guide* as “S” for static and “D” for dynamic. These holes are parallel in AP plane and in the axial plane; they are at the angle of 12° to each other.

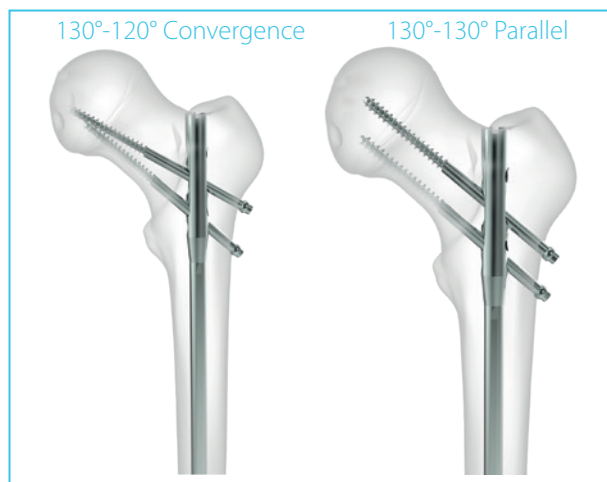
If compression is sought the oval hole or if static locking is sought the round hole should be used.



Oblique Locking

The locking can be made, from greater trochanter to lesser trochanter with the angle of 60° through oval hole of the nail.

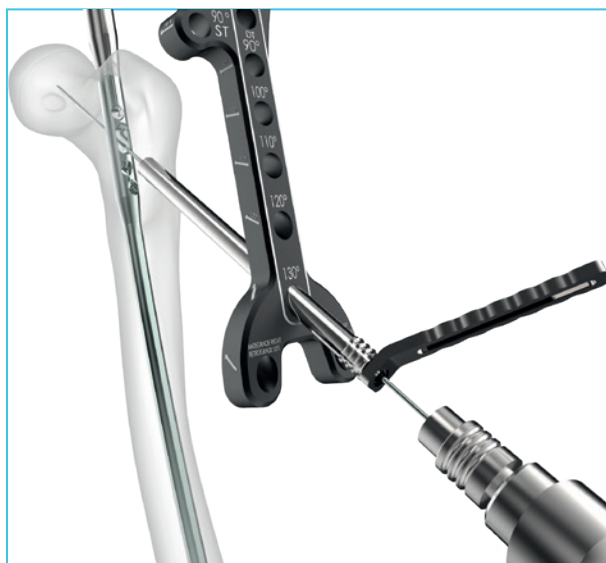
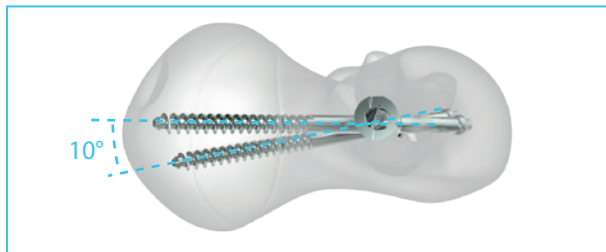




Neck Locking

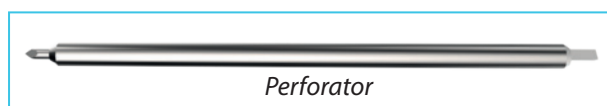
This type of locking can be made either with one screw at the angle of 100°-110°-120° and 130° oval holes on proximal of the nail or with two screws; one of the screws is from the oval hole and the other screw is from round hole. Double screw application can be made parallel with 130°-130° screws or convergence in 130°-120° screws in AP plane. These screws are at the angle of 10° to each other in the axial plane.

If standard transverse dynamic hole will be used, the neck screw is not used.



For proximal locking the connection with the **Aiming Guide** and the nail should be solid. Proximal locking is made through **K-Wire** by means of the guides depending on the position of the fracture. After the incision, the **Screw Sleeve** is forwarded to the cortex from inside of soft tissue by means of the **Trocar**. The cortex connection should be maintained until the screw fixation.

Trocar is removed from the **Screw Sleeve** and **K-Wire Sleeve** is placed instead. **2x340 mm Threaded Tipped K-Wire** is inserted over the sleeve as pointed to screw holes. At this point, if any problem occurs about entering to the cortex by **K-Wire**, **Ø 4 mm Cortex Perforator** can be used.



The screw length which will be used is measured by the **Length Measuring Device (30mm-120mm)** over the **K-Wire** at the confirmed position. After that, the **Drill Sleeve** is placed and guide holes are opened in determined length by means of the **Graduated Drill** over the **K-Wire**.

The Cannulated Proximal Screws in determined length are connected to the **Proximal Screw Inserter** as in the visual from the probe and inserted through **Sleeve** over the **K-Wire**. The screw is inserted until the marker on the **Inserter** is aligned with the sleeve, thus the proximal locking is completed. The probe on the **Screw Inserter** is released and the inserter is removed.

K-Wire in the screw is removed.



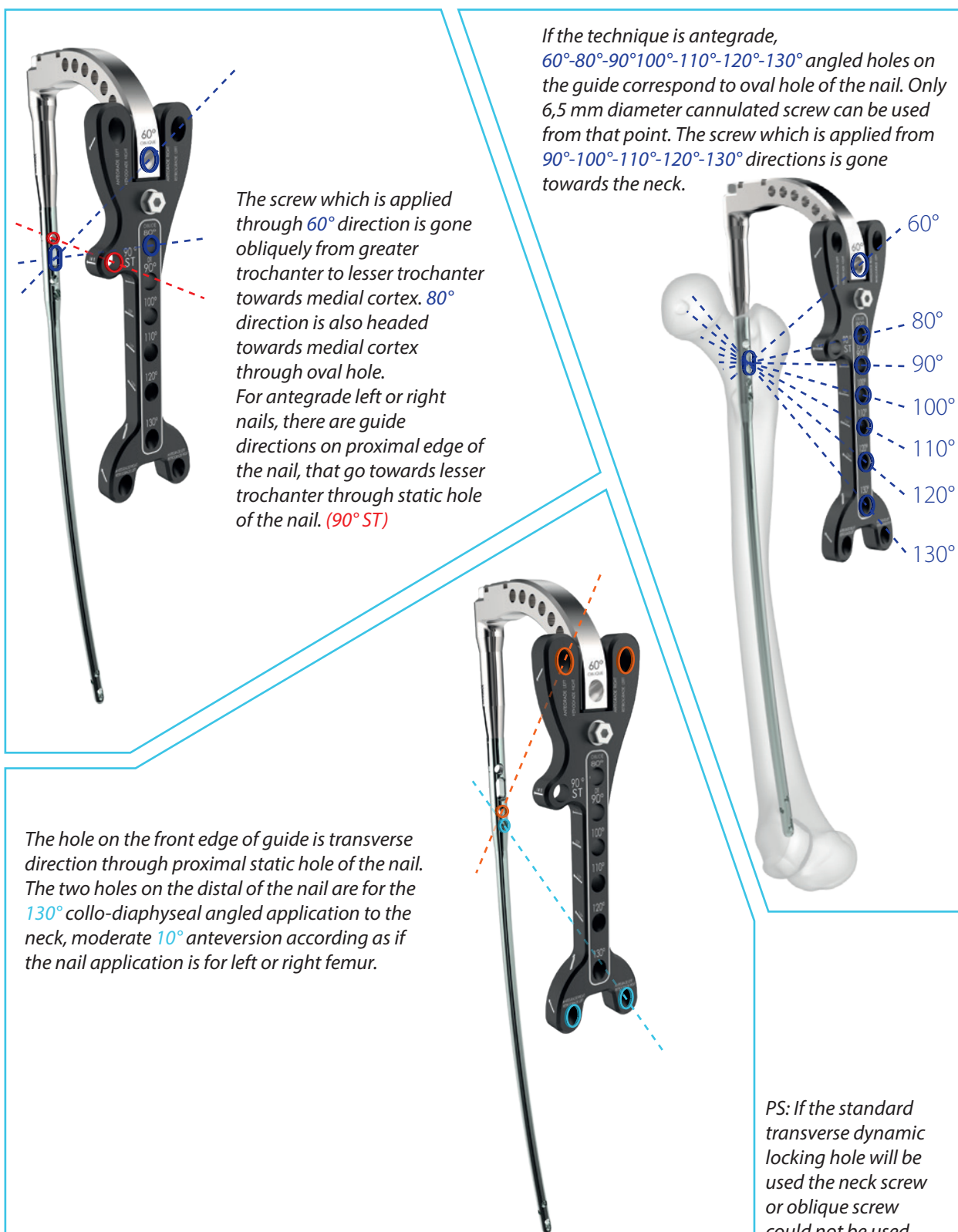
PS: If the compression for the fractured area on Intertrochanteric region or the neck is needed, a semi-threaded compression screw should be used with the **Proximal Screw Traction Inserter**. This screw is inserted by means of screwing the bolt nut which is close to the handler part of the **Proximal Screw Traction Inserter**, with the **14 mm Wrench**. The bolt nut should screw under the image intensifier. It reclines on the sleeve and compresses the fragment that is hold by the threaded part of the neck screw, to the main fragment. The second neck screw should be inserted at this point in order to rotational stability.



Instructions About External Aiming Guide

The instructions on the guide should correspond to holes and instructions on the nail according to if the technique will be either antegrade or retrograde, or which femur is fractured.

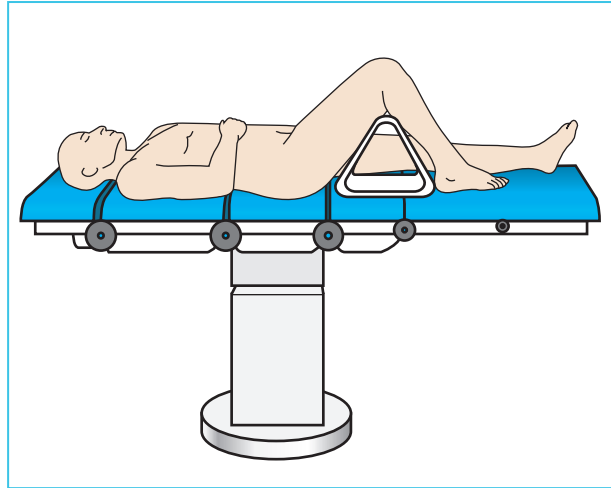
Antegrade Technique;



Retrograde Application

1 POSITION OF PATIENT

The patient is supine positioned and fractured extremity is 30° flexion.



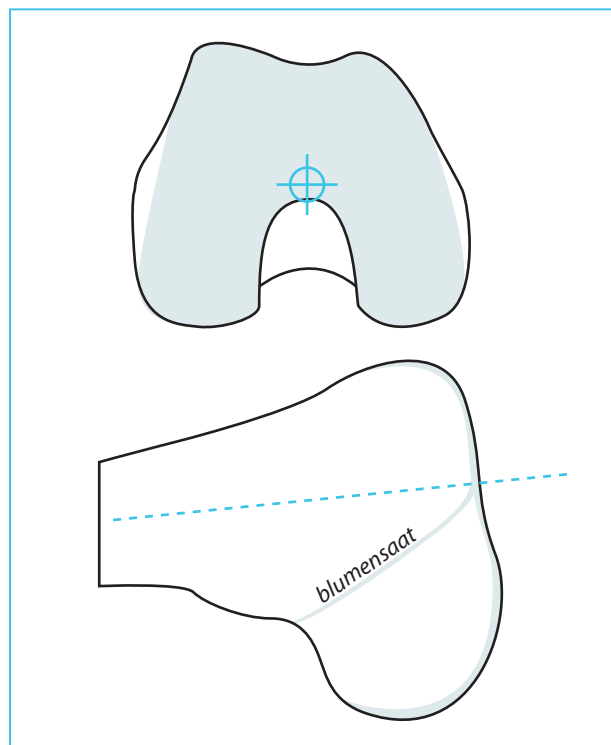
2 NAIL'S ENTRY POINT

After reduction of the bone the 5 cm medial parapatellar incision is made to reach the area. From this incision **2.5x250 mm K-Wire** takes place in. The **K-Wire** is placed intra-articularly just anteromedial to the femoral intercondylar notch.

The entry point should be the same line with the medullary cavity, on intercondylar fossa and in lateral view on the anterior edge of the blumensaat line.

The diameter of the entry point is enlarged to the medullary cavity with 12 mm or 13 mm diameter reamers depending on the distal diameter of the nail. The reamers are used through **Protection Sleeve**, over the **K-Wire**.

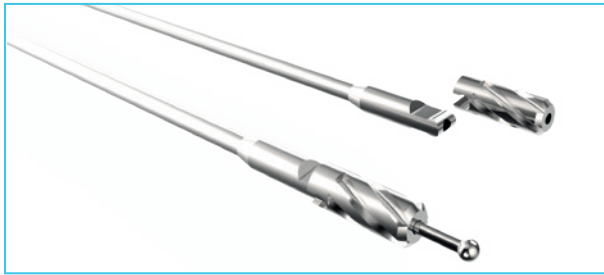
Then that **K-Wire** is removed and **3x900 mm Olive Headed K-Wire** is placed into the femur medullary cavity.



3 REDUCTION

If the manual reduction is managed long **K-Wire** is inserted till the proximal fragment. If this is not the case; the reduction can be made by means of the **Reducer** under the image intensifier. If it is necessary small incision can be made. After reduction, the **K-Wire** should be inserted into proximal of the bone as it possible. After the confirmation of nail's applicability, the length of the nail is determined with the **Length Measuring Device** over the **K-Wire**.



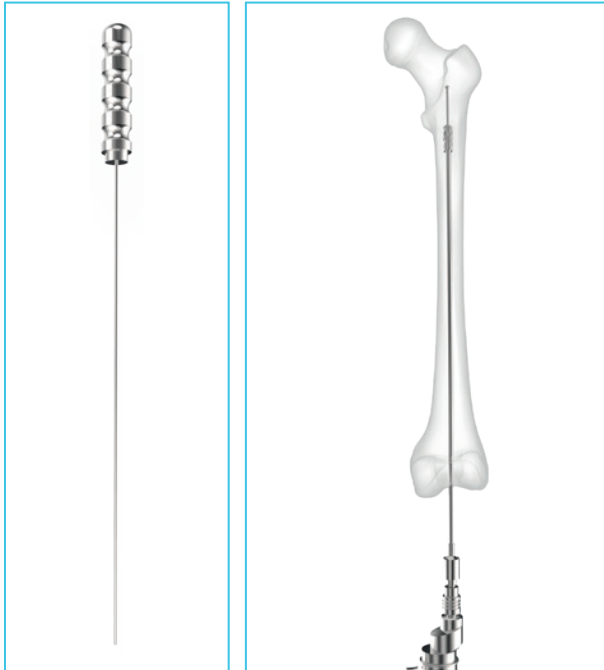


4 REAMING

Reamer consists of two parts; *Flexible Shaft* and *Reamer Head*. There are 13 different diameters from 8 mm to 14 mm for *Reamer Heads*.

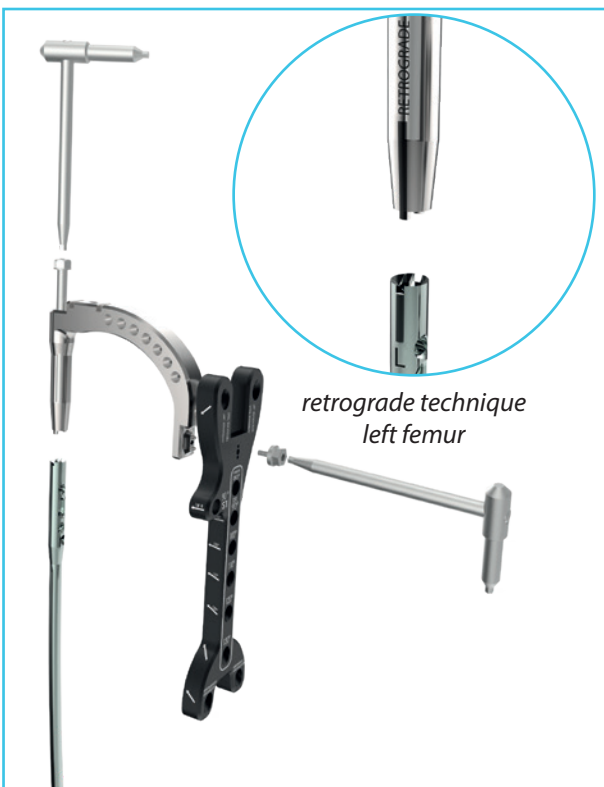
Reamer Head is attached to the tip of the flexible shaft as in visual and applied through *The Olive Head Guide* to medullary cavity.

While taking *Reamer* back, in order to prevent taking out of the wire, *Guide Wire Insertor* can be used from behind of the power drill.



The reaming process is continued until the cortex touch is felt. The diameter of the nail that we will use should be 1-1.5 smaller than the last *Reamer* we used. The reaming process begins with the smallest *Reamer (Ø 8 mm)* and *Reamer Sleeve* through *Guide Wire*. The operation proceeds by 0.5 mm increments on *Reamer Heads*.

Reaming process should be continued through *Olive Headed K-Wire*. During this process to use of the image intensifier is necessary.



5 RETROGRADE ASSEMBLY

The Nail which its diameter and length has been determined is connected to the *Aiming Guide (Butterfly Guide and C Guide assembly)* by the *T-Screwdriver* with the *Connection Screw* as in the visual. The system is set up for "Retrograde Technique".

At this point, the "Retrograde" sign at tip of the *Guide* should be on the same line with the "R" or "L" letters on the nail. For this nails; "R" indicates right femur applications and "L" indicates left femur applications.

6 INSERTING THE NAIL

The nail, attached to the guide, is forwarded to the proximal femur through **K-Wire** with controlled twisting motion. During this insertion, an assistant should make traction to the lower extremity. Reduction of the bone should be checked as passing to proximal part.

After the last part of the nail is 5 mm below the bone cartilage, the locking process can begin. Before the locking, **K-Wire** should remove and the position of the nail and the femur should be checked.



7 DISTAL LOCKING

It is recommended that the distal locking should be made first. If the proximal locking would do first the setting the femur length could not be possible. Distal locking is made through **K-Wire** by means of the guides depending on the position of the fracture. After the incision, the **Screw Sleeve** is advanced to the cortex from inside of soft tissue by means of the **Trocar**. The cortex connection should be maintained until the screw fixation.

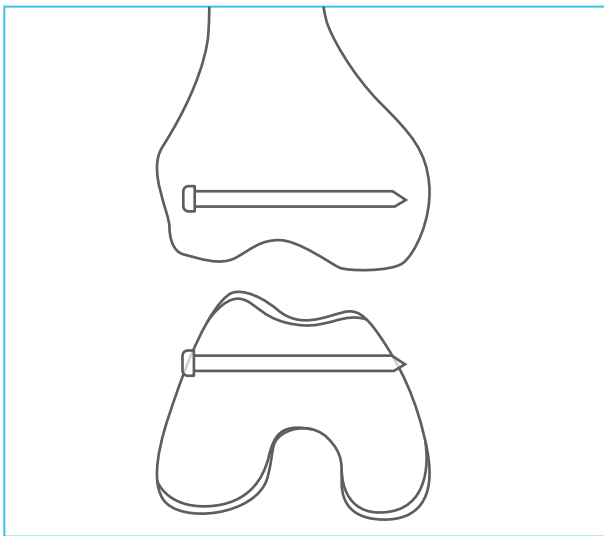
Trocar is removed from the **Screw Sleeve (Soft Tissue Protector)** and **K-Wire Sleeve** is placed instead. **K-Wire** is inserted over the sleeve as pointed to screw holes. The screw length is measured by the **Length Measuring Device (30-120 mm)** over the **K-Wire** at the confirmed position.





After that, the **Drill Sleeve** is placed and guide holes are opened in determined length by means of the **Graduated Drill** over the **K-Wire**. **Ø 6.5 mm Cannulated Screws** in determined length are connected to the **Screw Inserter** from the probe and inserted through **Sleeve** over the **K-Wire**.

The screw is inserted until the marker on the **Inserter** aligns with the sleeve and the distal locking of the nail is completed under the image intensifier. The probe on the **Screw Inserter** is released and the inserter is removed.



PS: Femur goes fine to posterior-anterior direction. So this issue should be taken into account during this process.

Distal locking of the nail can be dynamic or static locking, depending on the fracture type.

In most of the distal femur fractures both distal locking choices are used. But when both of the distal locking holes are used in the same time, dynamization can not be possible.

In retrograde technique, static and dynamic holes which are used for distal locking, are shown on the **Aiming Guide** as "**S**" and "**D**" letters.



8 PROXIMAL LOCKING

If the Freehand Technique will be used, a radiolucent table makes the procedure easier.

In retrograde application anterior-posterior planned screw should be applied first for proximal locking. The position of the nail and shape of the distal locking hole is checked by means of image intensifier. Then the **C-arm** is positioned in lateral at the angle of 90° to the nail while the proximal static hole can be seen as a perfect circle. Metal ring in the **Freehand Targeting Device** that held the **3.5x200 mm Steinmann** is positioned as a second circle on the distal hole of the Nail. The projection of the **Steinmann** can be seen in the center of this circle as a dot.

At this point, the **Steinmann** is inserted to the bone surface through soft tissue after skin incision and dissection, till the cortex. It is stabbed with an impact. The **Steinmann** is advanced to the nail hole by means of the power drill. The Screw length is determined through the **Depth Gauge (20-100 mm)**.

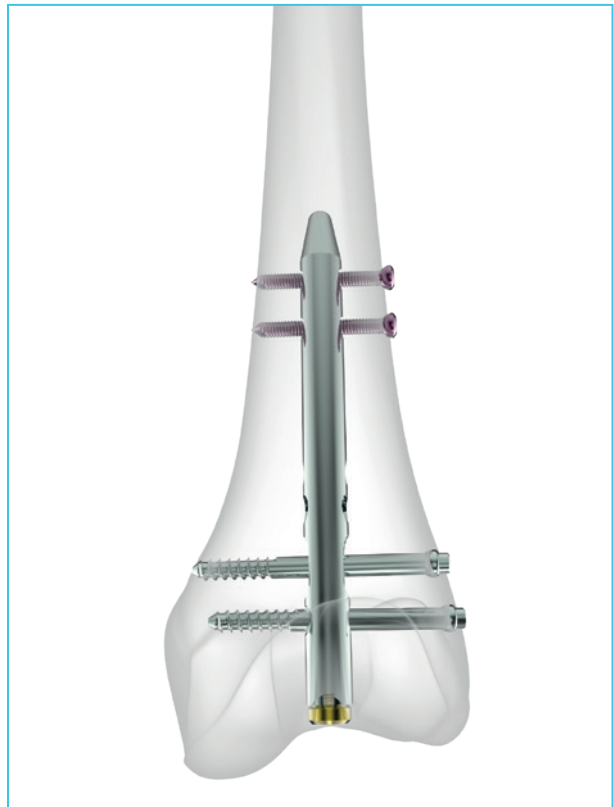
If the patient has a strong cortical bone structure that hole opened before could be widened with correct **Drill** according to locking screws. For 5 mm diameter pink locking screws 4.2x250 mm graduated drill and for 4.5 mm diameter blue locking screws 3.5x200 mm graduated drill can be used. This procedure is made through **5x50 mm Screw Sleeve**. The length of the locking screw can be estimated by means of markers on the **Graduated Drill Bit**.



If it is necessary more than one screw can be used for distal locking depending on the condition of the fracture.

When the short nail is used or the patient has large medullary canal structure, the second locking screw should be used. In that case it's recommended that the second screw should be perpendicular to the first nail.

There are 150 mm small nails in two different diameters (12 mm-13 mm) for supracondylar fractures. These nails are used with the **Aiming Guide** as it's been described above. 6.5 mm diameter screws are used for distal and 5 mm screws are used for proximal of condyle.



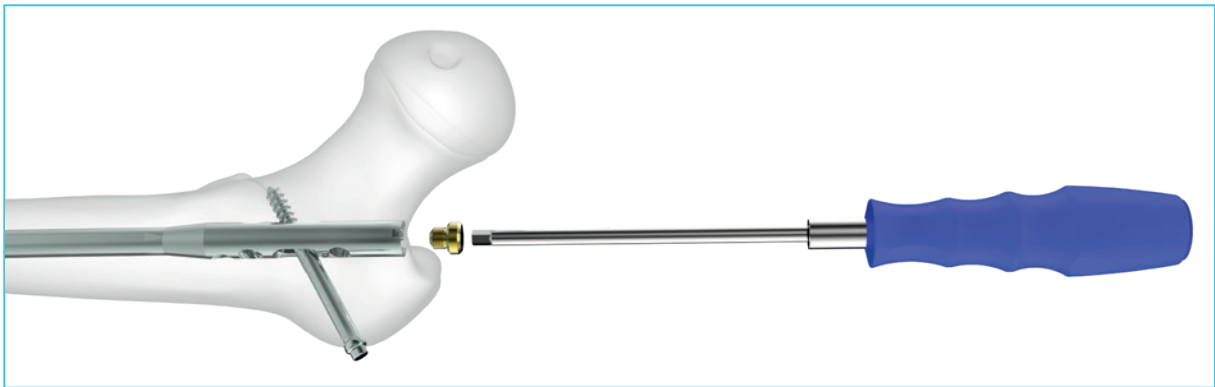
End Cap Application

All the guiding system equipments are removed from distal of the nail. The nail tip is closed by end cup with **Ø 5 mm Screwdriver**. There are 5, 10, 15, 20 mm length choices for the **End Cups**.

It should be verified that the end cup is completely placed and made no tipping from the joint, by the means of image intensifier.

Before closing, the cartilage should be cleaned and irrigated. The operation is finished with closing fascia and skin separately.

Posture and rotational control of the leg are made for last time. The operated leg is set against the healthy leg.



Extracting the Nail

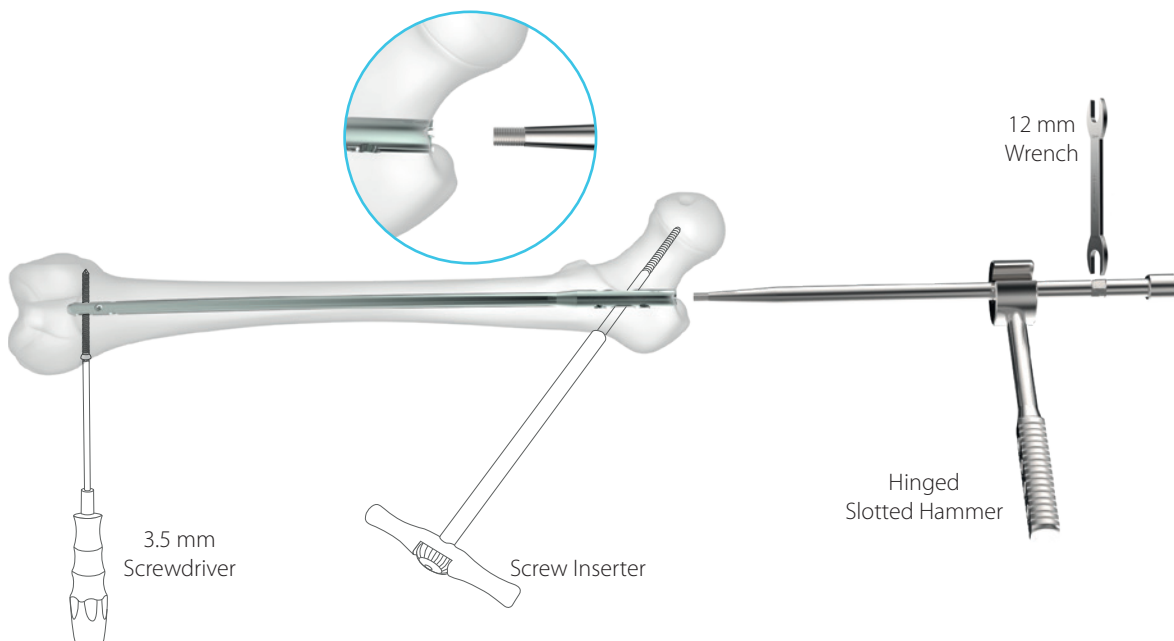
If it had been used, the **End Cup** is removed by means of **Ø 5 mm Screwdriver**.

External Aiming Guide is reset as it's been explained before according to Antegrade or Retrograde technique by means of **T-Handler Screwdriver**.

In this set up, The Antegrade mark on the connection tip of the guide should be corresponded to "R" letter for the right femur application and "L" letter for the left femur application, on the nail tip.

Stab incision is made by means of **Trocar** and **Screw Sleeves**. The cortex is reached. 6.5 mm cannulated screws are taken off through the **Screw Sleeve**. If it is necessary **K-Wires** can be used. **External aiming Guide** is removed away.

Then the **Nail Extractor** connected to the nail from threaded part of the nail with **12 mm Wrench**. After mounting the distal screws with **3.5 mm Screw Driver**, the nail is extracted from medullary canal with the **Hinged Slotted Hammer**.



| Set Detail

| Implant Tray 1 (Ø 8-9 mm)

705100	8699931017618	1.DESIGN TRAY	1
86023200812	8680858401765	FEMUR INTRAMEDULLER REKON NAIL Ø8X320 MM TI	1
86023400812	8680858401772	FEMUR INTRAMEDULLER REKON NAIL Ø8X340 MM TI	1
86023600812	8680858401789	FEMUR INTRAMEDULLER REKON NAIL Ø8X360 MM TI	1
86023800812	8680858401796	FEMUR INTRAMEDULLER REKON NAIL Ø8X380 MM TI	1
86024000812	8680858401802	FEMUR INTRAMEDULLER REKON NAIL Ø8X400 MM TI	1
86024200812	8680858401819	FEMUR INTRAMEDULLER REKON NAIL Ø8X420 MM TI	1
86023400912	8680858401826	FEMUR INTRAMEDULLER REKON NAIL Ø9X340 MM TI	1
86023600912	8680858401833	FEMUR INTRAMEDULLER REKON NAIL Ø9X360 MM TI	1
86023800912	8680858401840	FEMUR INTRAMEDULLER REKON NAIL Ø9X380 MM TI	1
86024000912	8680858401857	FEMUR INTRAMEDULLER REKON NAIL Ø9X400 MM TI	1
86024200912	8680858401864	FEMUR INTRAMEDULLER REKON NAIL Ø9X420 MM TI	1
86024400912	8680858401871	FEMUR INTRAMEDULLER REKON NAIL Ø9X440 MM TI	1



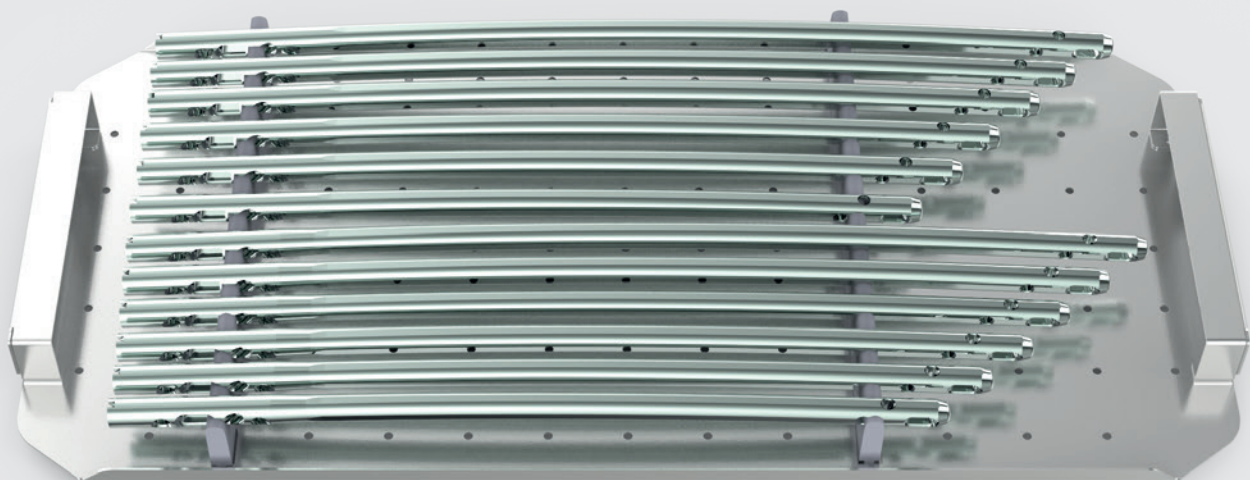
Implant Tray 2 (Ø 10-11 mm)

705200	8699931017625	2.DESIGN TRAY	1
86023401013	8680858401888	FEMUR INTRAMEDULLER REKON NAIL Ø10X340 MM TI	1
86023601013	8680858401895	FEMUR INTRAMEDULLER REKON NAIL Ø10X360 MM TI	1
86023801013	8680858401901	FEMUR INTRAMEDULLER REKON NAIL Ø10X380 MM TI	1
86024001013	8680858401918	FEMUR INTRAMEDULLER REKON NAIL Ø10X400 MM TI	1
86024201013	8680858401925	FEMUR INTRAMEDULLER REKON NAIL Ø10X420 MM TI	1
86024401013	8680858401932	FEMUR INTRAMEDULLER REKON NAIL Ø10X440 MM TI	1
86024601013	8680858401949	FEMUR INTRAMEDULLER REKON NAIL Ø10X460 MM TI	1
86023401113	8680858401956	FEMUR INTRAMEDULLER REKON NAIL Ø11X340 MM TI	1
86023601113	8680858401963	FEMUR INTRAMEDULLER REKON NAIL Ø11X360 MM TI	1
86023801113	8680858401970	FEMUR INTRAMEDULLER REKON NAIL Ø11X380 MM TI	1
86024001113	8680858401987	FEMUR INTRAMEDULLER REKON NAIL Ø11X400 MM TI	1
86024201113	8680858401994	FEMUR INTRAMEDULLER REKON NAIL Ø11X420 MM TI	1
86024401113	8680858402007	FEMUR INTRAMEDULLER REKON NAIL Ø11X440 MM TI	1
86024601113	8680858402014	FEMUR INTRAMEDULLER REKON NAIL Ø11X460 MM TI	1



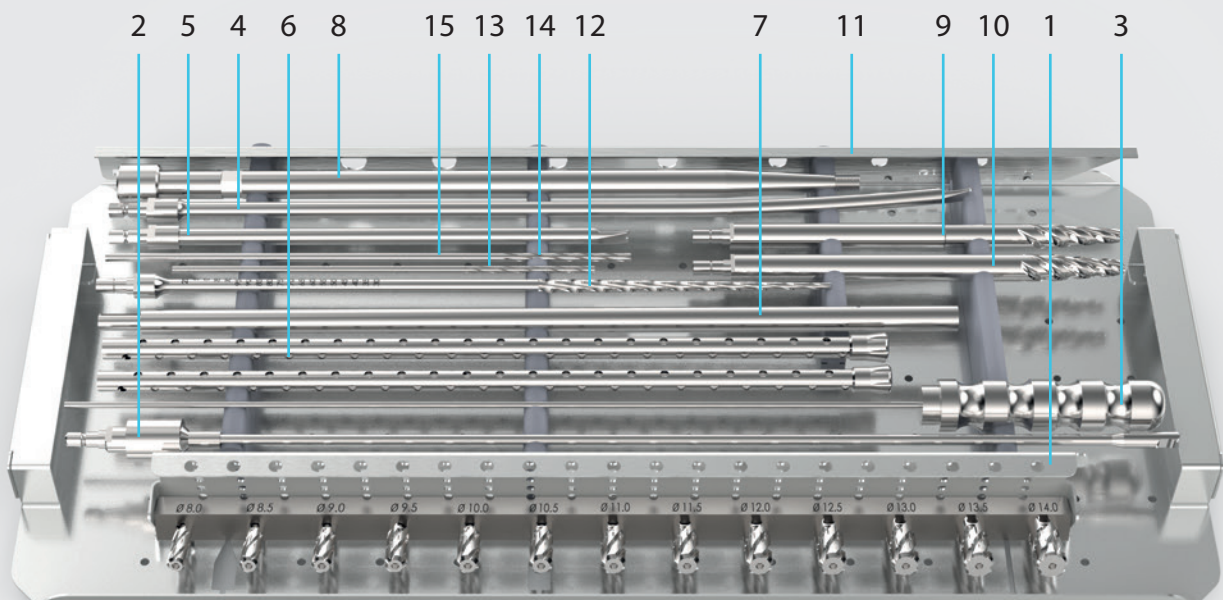
Implant Tray 3 (Ø 12-13 mm)

705300	8699931017632	3.DESIGN TRAY	1
86023601213	8680858402021	FEMUR INTRAMEDULLER REKON NAIL Ø12X360 MM TI	1
86023801213	8680858402038	FEMUR INTRAMEDULLER REKON NAIL Ø12X380 MM TI	1
86024001213	8680858402045	FEMUR INTRAMEDULLER REKON NAIL Ø12X400 MM TI	1
86024201213	8680858402052	FEMUR INTRAMEDULLER REKON NAIL Ø12X420 MM TI	1
86024401213	8680858402069	FEMUR INTRAMEDULLER REKON NAIL Ø12X440 MM TI	1
86024601213	8680858402076	FEMUR INTRAMEDULLER REKON NAIL Ø12X460 MM TI	1
86023601313	8680858402083	FEMUR INTRAMEDULLER REKON NAIL Ø13X360 MM TI	1
86023801313	8680858402090	FEMUR INTRAMEDULLER REKON NAIL Ø13X380 MM TI	1
86024001313	8680858402106	FEMUR INTRAMEDULLER REKON NAIL Ø13X400 MM TI	1
86024201313	8680858402113	FEMUR INTRAMEDULLER REKON NAIL Ø13X420 MM TI	1
86024401313	8680858402120	FEMUR INTRAMEDULLER REKON NAIL Ø13X440 MM TI	1
86024601313	8680858402137	FEMUR INTRAMEDULLER REKON NAIL Ø13X460 MM TI	1



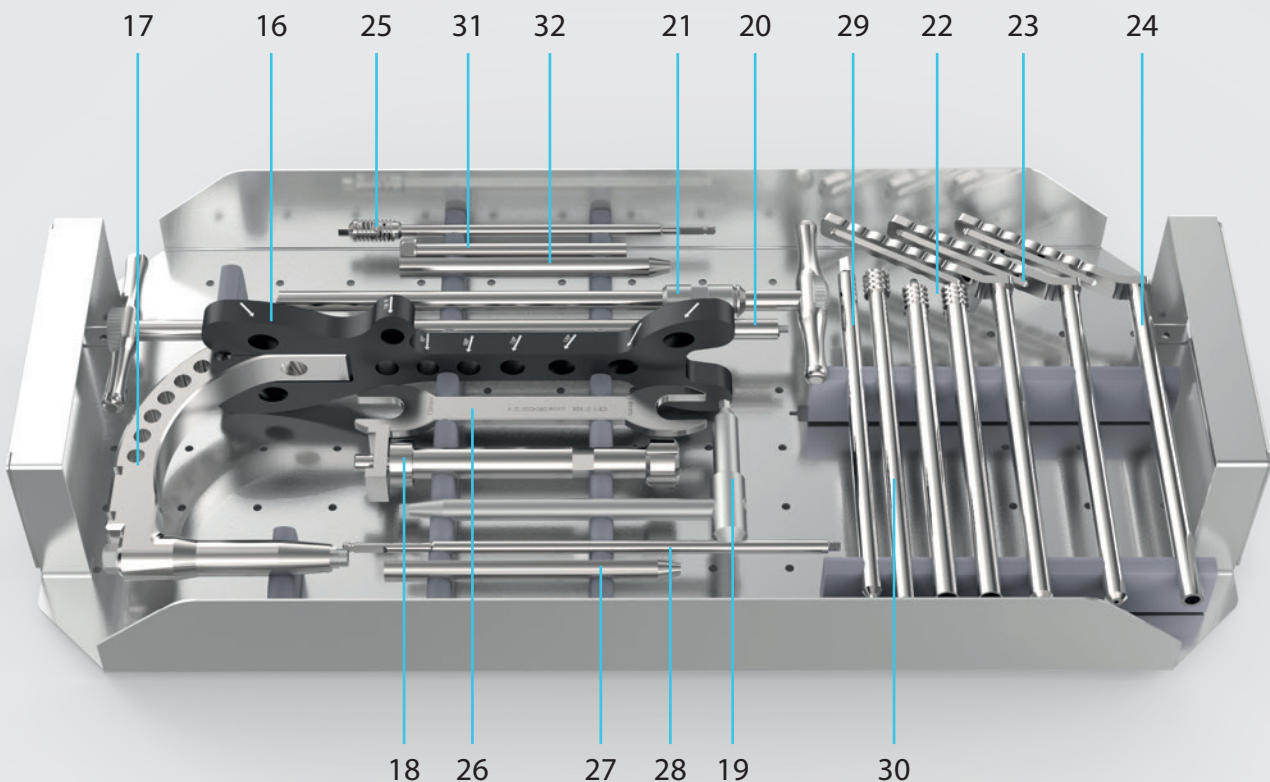
Instrument Tray 1

	Code	Barcode	Description	Qty
	705400	8699931017649	4. DESIGN TRAY	1
1	00000803100	8680858431267	REAMING HEADS TRAY	1
	08010200080	8680858432196	REAMER HEAD 8.0 MM	1
	08010200085	8680858432202	REAMER HEAD 8.5 MM	1
	08010200090	8680858432219	REAMER HEAD 9.0 MM	1
	08010200095	8680858431359	REAMER HEAD 9.5 MM	1
	08010200100	8680858432226	REAMER HEAD 10.0 MM	1
	08010200105	8680858432233	REAMER HEAD 10.5 MM	1
	08010200110	8680858432240	REAMER HEAD 11.0 MM	1
	08010200115	8680858432257	REAMER HEAD 11.5 MM	1
	08010200120	8680858432264	REAMER HEAD 12.0 MM	1
	08010200125	8680858432271	REAMER HEAD 12.5 MM	1
	08010200130	8680858432288	REAMER HEAD 13.0 MM	1
	08010200135	8680858432295	REAMER HEAD 13.5 MM	1
	08010200140	8680858432301	REAMER HEAD 14 MM	1
2	08021046050	8680858432325	FLEXIBLE REAMER SHAFT 5X460 MM	1
3	08011000000	8680858432318	PUSH ROD	1
4	08301000001	8699931021721	FIN REDUCER DEVICE	1
5	08301030001	8699931030501	FIN REDUCER DEVICE SHORT	1
6	04551000350	8699931030686	K-WIRE TUBE Ø10XØ8X350 MM	2
	23410340120	8699931013993	KIRSCHNER WIRE TROCAR POINT 2X340 MM	5
	23412340020	8699931014099	KIRSCHNER WIRE THREADED POINT 2X340 MM	5
7	08301320460	8699931021769	LENGTH MEASURING DEVICE - FIN LENGTH (320-460 MM)	1
8	08061000006	8699931017335	FEMUR INTRAMEDULLARY NAIL EXTRACTOR	1
9	08300000120	8699931030518	FIN TROCHANTERIC REAMER Ø12 MM	1
10	08300000035	8699931017366	FIN TROCHANTERIC REAMER Ø13 MM	1
11	08050050011	8680858432349	500 MM S.S SURGICAL RULER	1
12	08302000020	8699931021615	FIN PROXIMAL SCREW DRILL	1
13	22313525035	8680858429554	GRADUATED DRILL 3.5X250 MM (Blue)	1
14	22313525035	8680858429554	GRADUATED DRILL 3.5X250 MM (Blue)	1
15	01210250042	8699931030853	GRAD.DRILL BIT Ø4.2X250MM	2



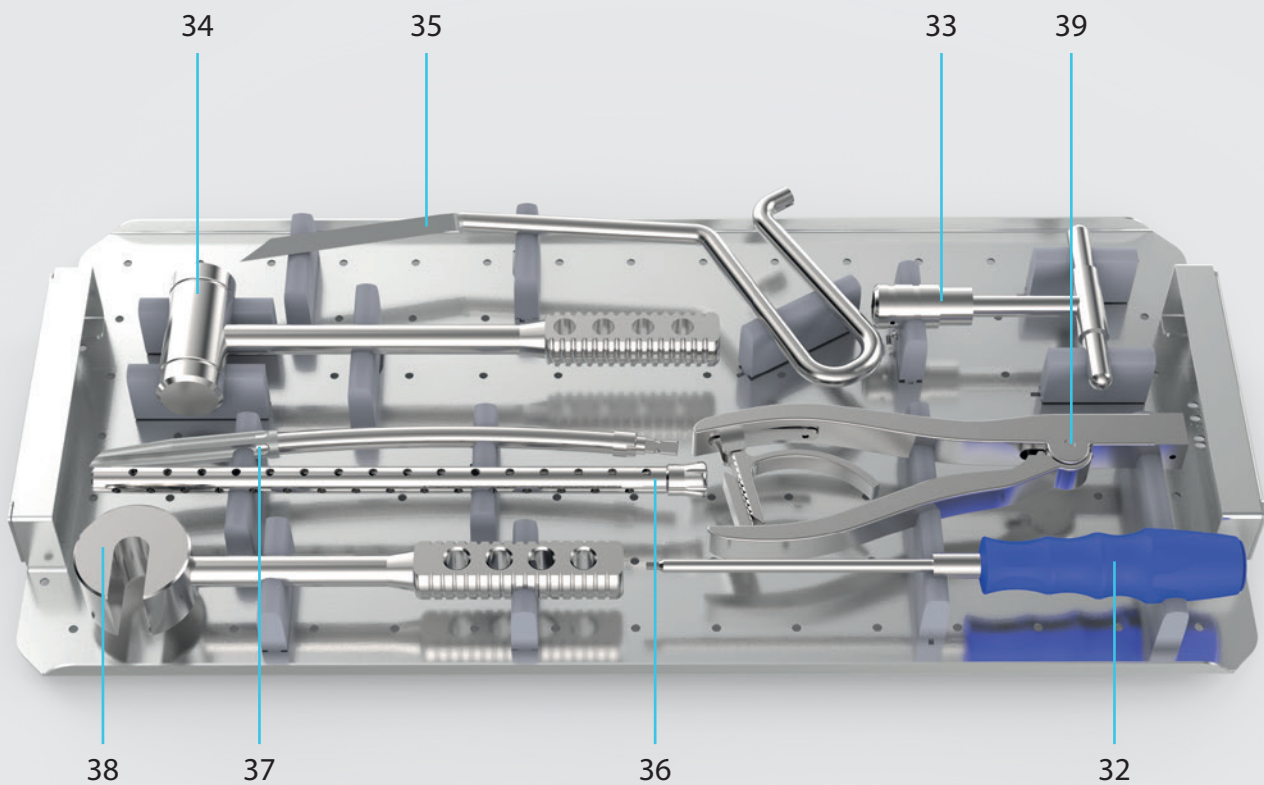
Instrument Tray 2

	Code	Barcode	Description	Qty
	705500	8699931017656	5. DESIGN TRAY	1
16	08340100012	8699931021684	FIN BUTTERFLY GUIDE	1
17	08340100021	8699931021691	FIN C GUIDE	1
18	08300000036	8699931017373	FIN NAIL IMPACTOR	1
19	02025100500	8699931005172	T SCREW DRIVER Ø 5 MM	1
20	08300000018	8699931017304	FIN PROXIMAL SCREW INSERTER	1
21	08300000021	8699931017311	FIN PROXIMAL SCREW TRACTION INSERTER	1
22	08300000017	8699931021639	FIN THE OUTER PROXIMAL SLEEVE	2
23	08300000015	8699931021622	FIN PROXIMAL KIRSCHNER SLEEVE	2
24	08300000016	8699931021646	FIN PROXIMAL DRILL SLEEVE	1
25	02050101050	8699931029031	QUICK SCREW DRIVER SHAFT WITH SWIVEL 5MM HEX.BIT	1
26	08040001214	8698673493452	WRENCH 12 MM-14 MM	1
27	08301200100	8680858432455	LENGTH MEASURING DEVICE FIN DISTAL (20-100 MM)	1
28	02020220035	8699931023442	SCREW DRIVER QUICK TIP 3.5 X 220 MM	1
29	08350408215	8680858405091	FIN CORTEX PERFORATOR PRE-K-WIRE Ø 4X8X215 MM	1
30	08300000014	8699931021653	FIN TROCAR	1
31	08340110012	8680858432462	FIN GUIDE CONNECTION SCREW	1
32	08301650110	8699931021752	LENGTH MEASURING DEVICE - FIN & TIN (30-120 MM)	1



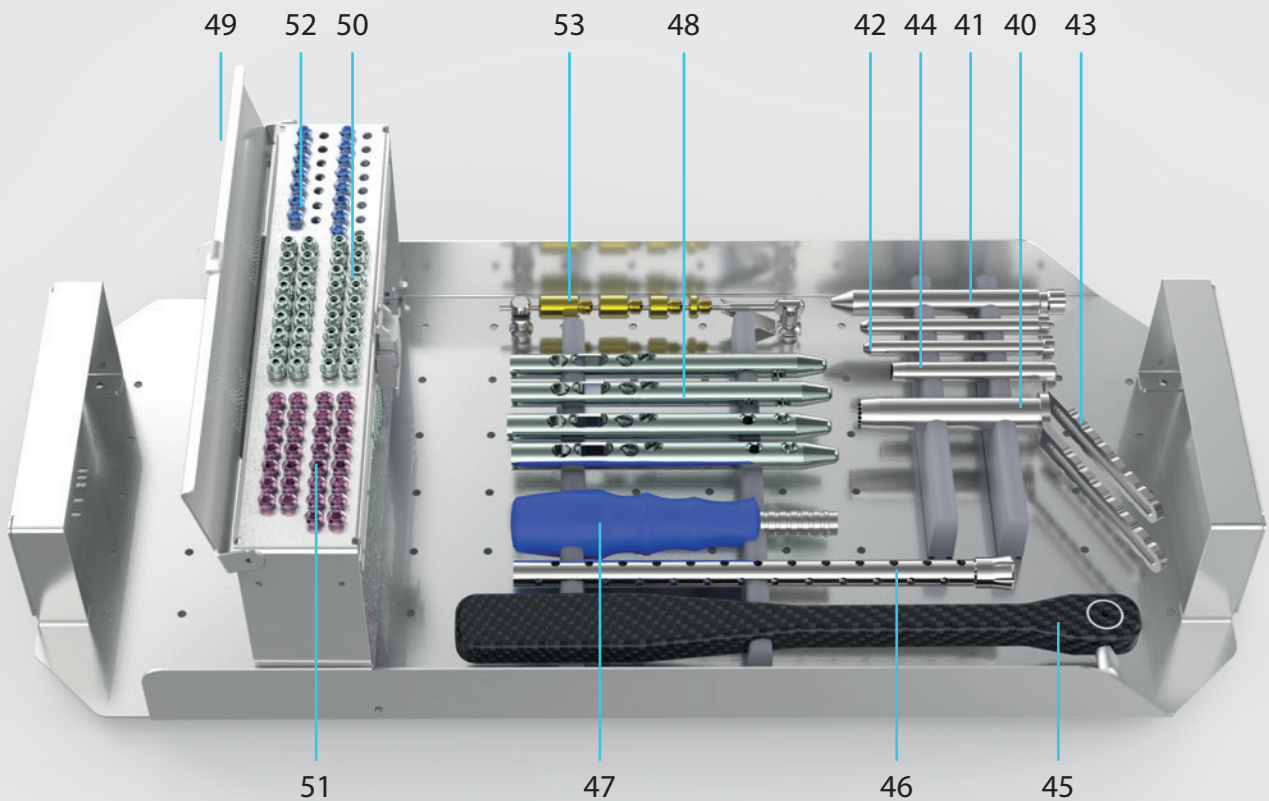
Instrument Tray 3

	Code	Barcode	Description	Qty
	705700	8699931017670	7. DESIGN TRAY	1
32	02055000350	8680858432806	CANNULATED SCREWDRIVER Ø 5 MM	1
33	02171000017	8698673440876	REAMER T-HANDLE	1
34	01193001009	8699931028140	BONE HAMMER LARGE	1
35	08201000003	8698673496248	AWL	1
36	04551208260	8699931029628	K-WIRE TUBE Ø12XØ8X260 MM	1
	23410250125	8698673453227	KIRSCHNER WIRE TROCAR POINT 2.5X250 MM	2
37	08300000050	8699931019070	FIN CANNULATED AWL	1
38	01195001009	8699931028195	HINGED SLOTTED HAMMER LARGE	1
39	08300000025	8699931021738	GUIDE WIRE PUSHER	1



Instrument Tray 4

	Code	Barcode	Description	Qty
	0705800	8699931017847	8. DESIGN TRAY	1
40	08300000032	8699931021677	FIN TROCHANTERIC SLEEVE	1
41	08300000033	8699931021660	FIN TROCHANTERIC KIRSCHNER SLEEVE	1
42	08300000010	8680858432448	DRILL SLEEVE 3.5 MM	1
43	02061050050	0020610500509	CORTEX SCREW SLEEVE Ø5X50 MM	1
44	08300000009	8699931024869	DRILL SLEEVE 4.2X60 MM	1
45	00280400030	8699931030525	FREE-HAND DISTAL TARGETING DEVICE	1
46	04551080210	8699931030808	K-WIRE TUBE Ø10XØ8X210 MM	1
	21510200035	0215102000357	STEINMANN PINS 3.5X200 MM	2
47	02010101002	8698673493308	SOFT SCREW DRIVER QUICK LARGE	1
48	86020015012	8680858402144	FEMUR INTRAMEDULLER REKON CIVI Ø12X150 MM TI	2
	86020015013	8680858402151	FEMUR INTRAMEDULLER REKON CIVI Ø13X150 MM TI	2
	00560270170	8699931010787	CONTAINER 560X270X170 MM	2
	02061303900	8680858432561	GUIDE WIRE BALL TIP Ø 3X900 MM	2



	Code	Barcode	Description	Qty
49	705000	8699931017687	FIN SCREW BOX (PROX. SCREW - CORTEX SCREW)	1
50	83021350060	8699931021455	FIN CANNULATED PROXIMAL SCREW 35 MM TI	2
	83021400060	8699931021462	FIN CANNULATED PROXIMAL SCREW 40 MM TI	2
	83021450060	8699931021479	FIN CANNULATED PROXIMAL SCREW 45 MM TI	2
	83021500060	8699931021486	FIN CANNULATED PROXIMAL SCREW 50 MM TI	2
	83021550060	8699931021493	FIN CANNULATED PROXIMAL SCREW 55 MM TI	2
	83021600060	8699931021509	FIN CANNULATED PROXIMAL SCREW 60 MM TI	2
	83021650060	8699931013252	FIN CANNULATED PROXIMAL SCREW 65 MM TI	2
	83021700060	8699931006612	FIN CANNULATED PROXIMAL SCREW 70 MM TI	2
	83021750060	8699931006629	FIN CANNULATED PROXIMAL SCREW 75 MM TI	2
	83021800060	8699931006636	FIN CANNULATED PROXIMAL SCREW 80 MM TI	2
	83021850060	8699931006643	FIN CANNULATED PROXIMAL SCREW 85 MM TI	2
	83021900060	8699931006650	FIN CANNULATED PROXIMAL SCREW 90 MM TI	2
	83021950060	8699931008692	FIN CANNULATED PROXIMAL SCREW 95 MM TI	2
	83021100060	8699931006674	FIN CANNULATED PROXIMAL SCREW 100 MM TI	2
	83021105060	8699931013238	FIN CANNULATED PROXIMAL SCREW 105 MM TI	2
	83021110060	8699931006681	FIN CANNULATED PROXIMAL SCREW 110 MM TI	2
	83021115060	8699931013245	FIN CANNULATED PROXIMAL SCREW 115 MM TI	2
	83021120060	8699931006698	FIN CANNULATED PROXIMAL SCREW 120 MM TI	2
51	20620030050	8680858400300	NAIL LOCK. SCREW Ø5X30 MM	2
	20620035050	8680858400331	NAIL LOCK. SCREW Ø5X35 MM	2
	20620040050	8680858400362	NAIL LOCK. SCREW Ø5X40 MM	2
	20620045050	8680858400393	NAIL LOCK. SCREW Ø5X45 MM	2
	20620050050	8680858400423	NAIL LOCK. SCREW Ø5X50 MM	2
	20620055050	8680858400430	NAIL LOCK. SCREW Ø5X55 MM	2
	20620060050	8680858400447	NAIL LOCK. SCREW Ø5X60 MM	2
	20620065050	8680858400454	NAIL LOCK. SCREW Ø5X65 MM	2
	20620070050	8680858400461	NAIL LOCK. SCREW Ø5X70 MM	2
	20620075050	8680858400478	NAIL LOCK. SCREW Ø5X75 MM	2
	20620080050	8680858400485	NAIL LOCK. SCREW Ø5X80 MM	2
	20620085050	8680858400492	NAIL LOCK. SCREW Ø5X85 MM	2
	20620090050	8680858400508	NAIL LOCK. SCREW Ø5X90 MM	2
	20620095050	8680858400515	NAIL LOCK. SCREW Ø5X95 MM	2
	20620010050	8680858400522	NAIL LOCK. SCREW Ø5X100 MM	2
52	85020000020	8680858406807	NAIL SCR.FOR LOCK. 4.5X20MM	2
	85020000024	8680858406821	NAIL SCR.FOR LOCK. 4.5X25MM	2
	85020000030	8680858406852	NAIL SCR.FOR LOCK. 4.5X30MM	2
	85020000034	8680858406876	NAIL SCR.FOR LOCK. 4.5X35MM	2
	85020000040	8680858406906	NAIL SCR.FOR LOCK. 4.5X40MM	2
	85020000044	8680858406920	NAIL SCR.FOR LOCK. 4.5X45MM	2
	85020000050	8680858406951	NAIL SCR.FOR LOCK. 4.5X50MM	2
	85020000054	8680858406975	NAIL SCR.FOR LOCK. 4.5X55MM	2
	85020000060	8680858407002	NAIL SCR.FOR LOCK. 4.5X60MM	2
	85020000064	8680858407026	NAIL SCR.FOR LOCK. 4.5X65MM	2
	85020000062	8680858407019	NAIL SCR.FOR LOCK. 4.5X70MM	2
	85020000058	8680858406999	NAIL SCR.FOR LOCK. 4.5X75MM	2
	85020000056	8680858406982	NAIL SCR.FOR LOCK. 4.5X80MM	2
	85020000052	8680858406968	NAIL SCR.FOR LOCK. 4.5X85MM	2
	85020000048	8680858406944	NAIL SCR.FOR LOCK. 4.5X90MM	2
53	83020000005	8699931013276	FIN END CUP 5 MM	1
	83020000010	8699931013283	FIN END CUP 10 MM	1
	83020000015	8699931013290	FIN END CUP 15 MM	1
	83020000020	8699931013306	FIN END CUP 20 MM	1

| Notes

