Indications

- Comminuted, transverse, spiral, oblique, compression fractures of the femoral shaft.
- Non-unions or malunions of the femoral shaft.
- Osteotomies.

Contraindications

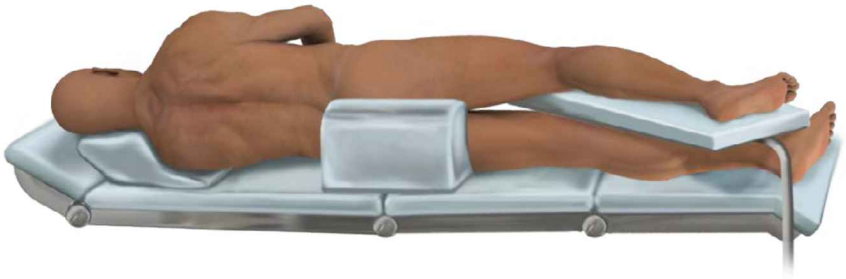
Absolute:

- Health condition precluding surgery.
- Allergic reactions to the metal from which the implant is made.
- Active infection.

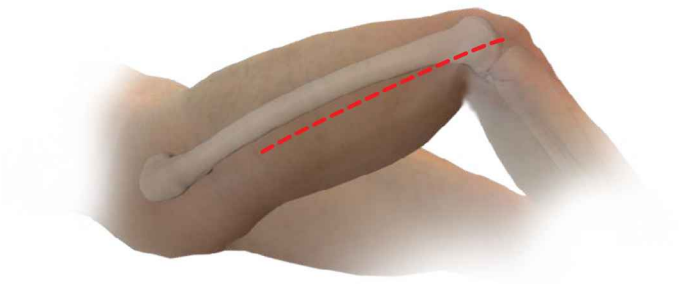
Relative:

- Weakened bone *(by disease, infection or prior implantation)* making it impossible to install/stabilize the implant properly.
- Abnormal perfusion of fracture area or surgical site.
- Excessive obesity.
- Lack of adequate tissue coverage.
- Psychiatric disorders or the disorders of the musculoskeletal system which may create a risk of fusion failure or complications in the postoperative period.
- Other medical conditions that exclude the potential benefits of the treatment.

The patient's position



Surgical approach



Lateral approach: length and location of the incision depends on the location and type of fracture.

Incision approx. 5 cm below the greater trochanter to approx. 5 cm above the lateral epicondyle of the femur. When minimally invasive technique is applied, the incision length of approx. 5 cm is performed on the lateral proximal or distal femur *(depending on local conditions and a surgeon's preferences)*

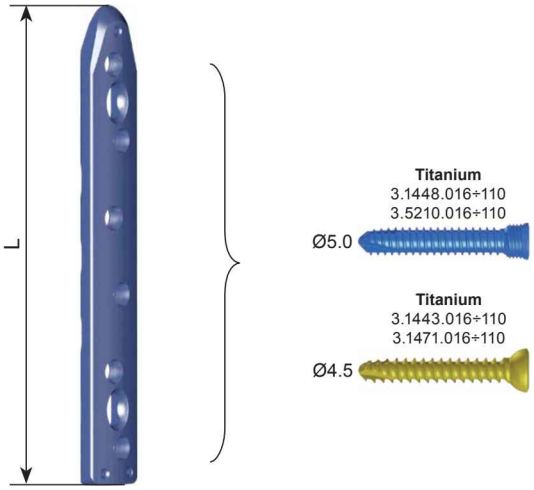
Procedure stages

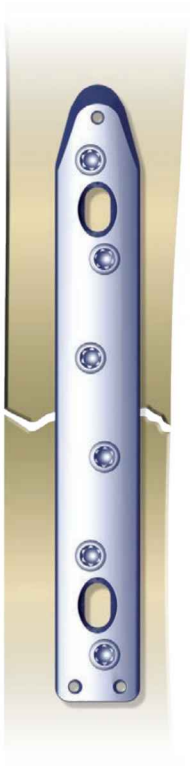
- Reduction and initial fracture stabilization.
- The choice of implants - determining the length and position of the implant.
- Insertion of the plate and its positioning.
- Temporary stabilization of the implant using Kirschner wires.
- Stabilization of the plate using locking or compression screws.

7.0ChLP wide compression limited contact plate

O	L [mm]	Catalogue no. Titanium
4	89	3.3155.604
6	131	3.3155.606
8	173	3.3155.608
10	225	3.3155.610
12	257	3.3155.612
14	299	3.3155.614
16	341	3.3155.616
18	383	3.3155.618

O - all threaded holes number in the plate





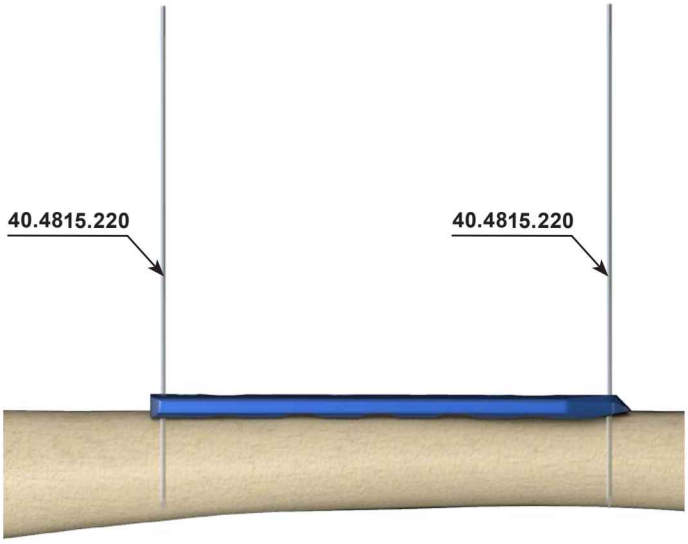
Palette for 7.0ChLP plates - straight

No.	Catalogue no.	Name	Pcs	
1	40.5704.350	Palette for **7.0ChLP** straight plates	1	**40.5704.550**
2	12.0750.100	Container solid bottom 1/1 595x275x86 mm	1	
3	12.0750.200	Perforated aluminum lid 1/1 595x275x15 mm Gray	1	

implants not included

IV. SURGICAL TECHNIQUE
IV.1. TEMPORARY PLATE ATTACHMENT

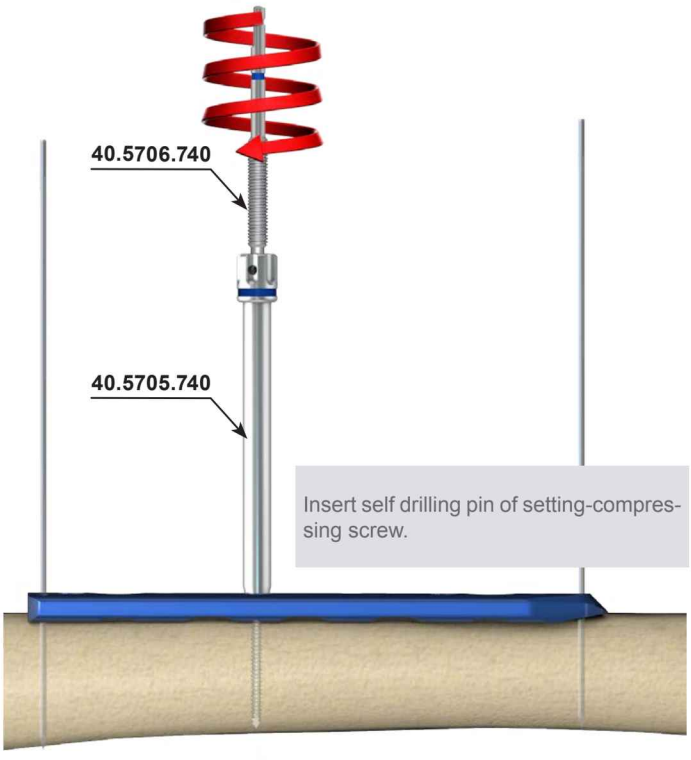
When fracture is reduced and the plate position is confirmed, determine its temporary location using Kirschner wires 2.0 **[40.4815.220]**.
Wires can be inserted in proximal holes of the plate and the most distal ones.

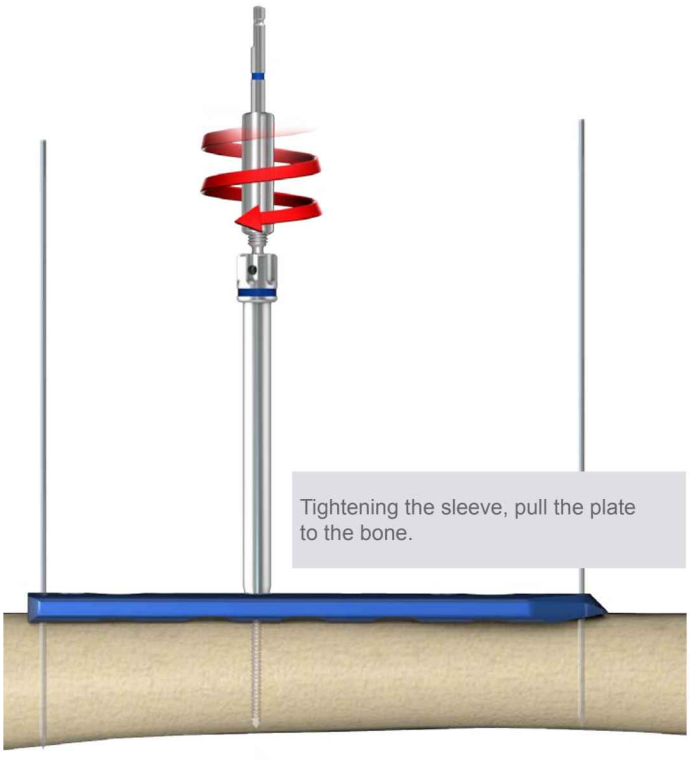


Confirm the plate position is correct taking X-Ray image.

NOTE:
The Setting-compressing screw 4.0/180 [40.5706.740] can be used to stabilize and tighten the plate up to the bone for temporary purposes. The screw is to be inserted via the Guide sleeve 7.0/4.0 [40.5705.740].

Locking screw Ø5.0 can be inserted in the hole after removal of the Setting-compressing screw 4.0/180.



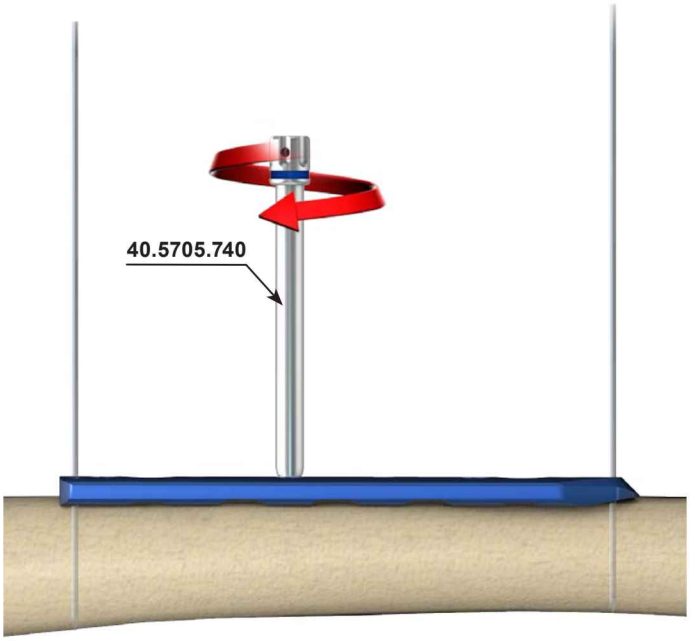


IV.2. LOCKING SCREW Ø5.0 INSERTION

It is important to drill exactly in the axis of a locking hole. Use always the appropriate guide sleeve when drilling. The guide sleeve will ensure the locking screw take an axial position towards the hole of the plate and be correctly locked in the plate. Unprepared drilling of a hole can lead to: thread skewing and jamming the screw, incorrect screw locking and problems when removing the screws *(thread seizure)*.

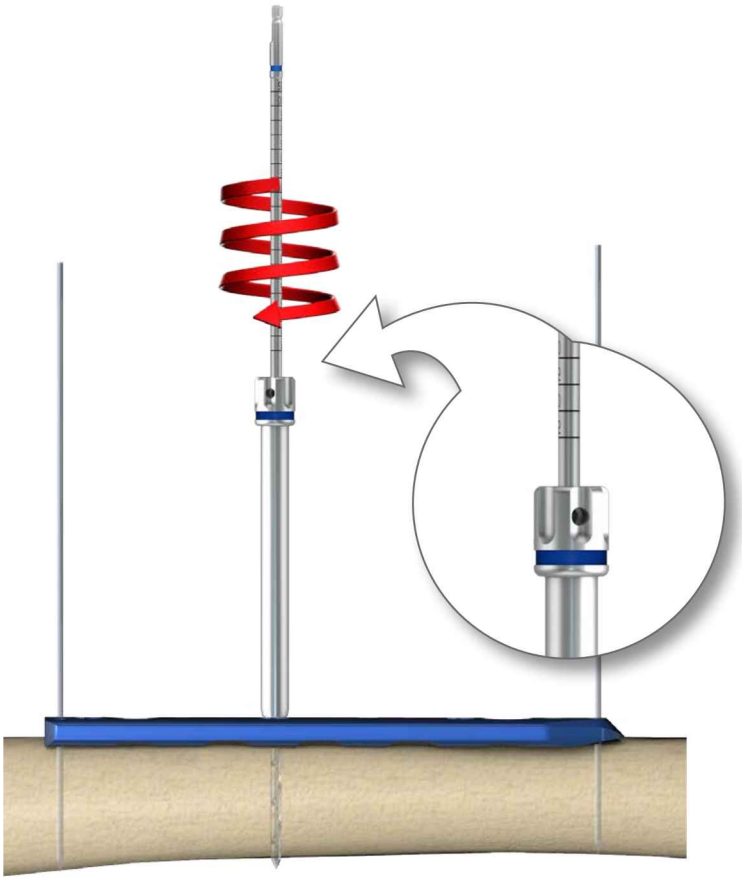
Guide sleeve screwing

Insert the Guide sleeve 7.0/4.0 **[40.5705.740]** into the plate



Drilling the hole

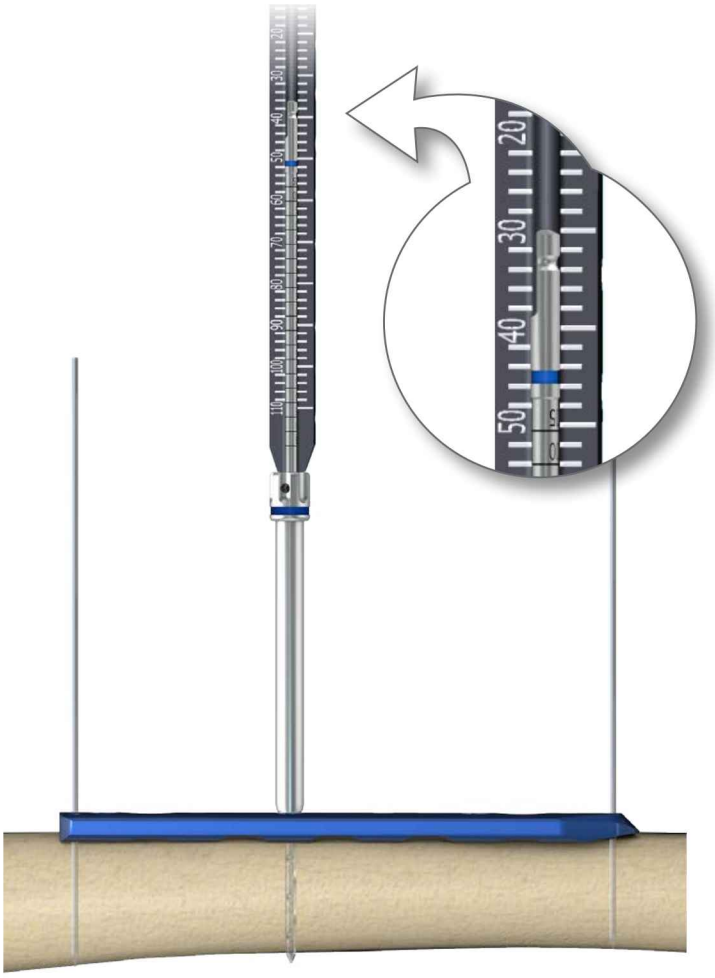
Ream the hole using the Drill with scale 4.0/220 **[40.5651.222]** until the desire depth is reached



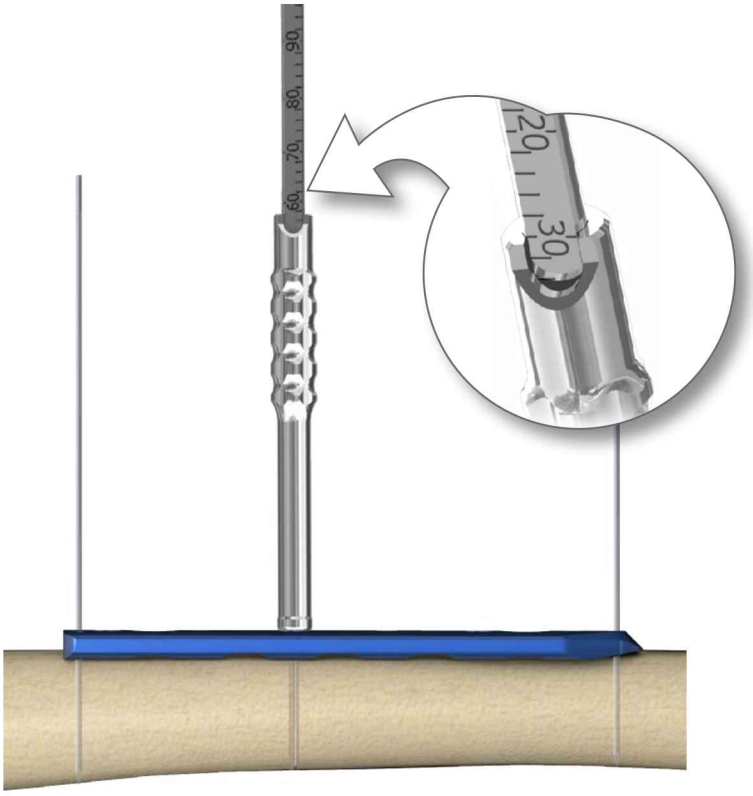
Hole depth measurement

OPTION I: Read the value on the Drill with scale **[40.5651.222]** or

OPTION II: use the Screw length measure **[40.5675.100]**.

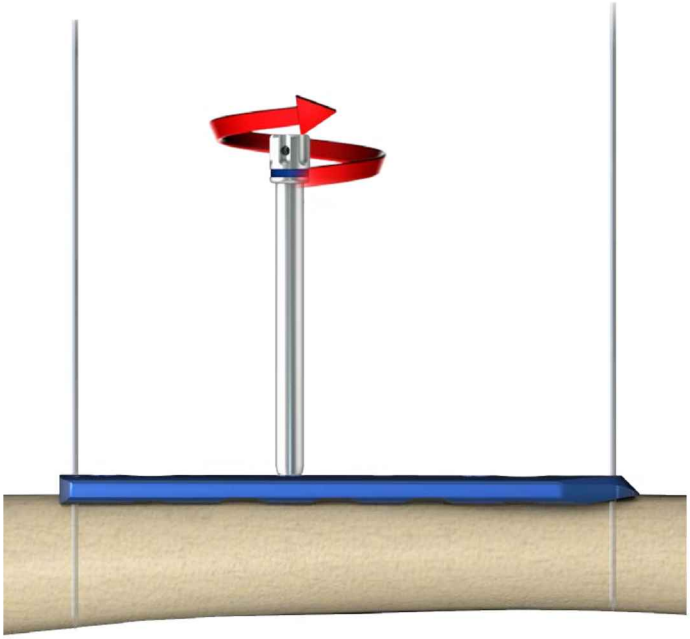


OPTION III: Unscrew the Guide sleeve 7.0/4.0 **[40.5705.740]** and define the screw length using the Depth measure **[40.4639.700]**.

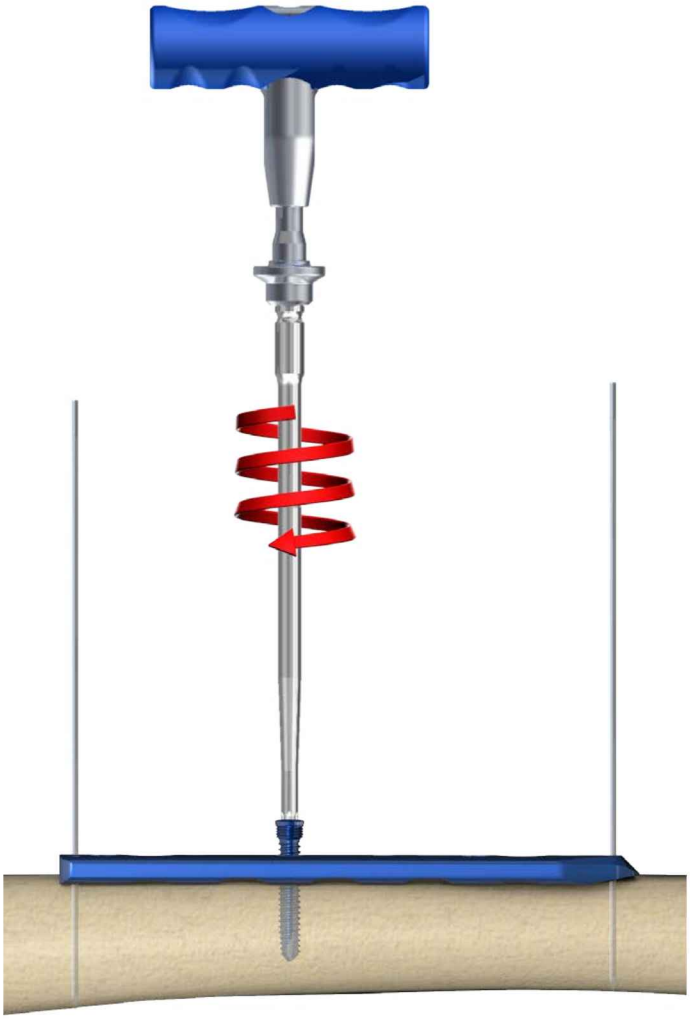


Screw insertion

Remove the Guide sleeve 7.0/4.0 **[40.5705.740]**.



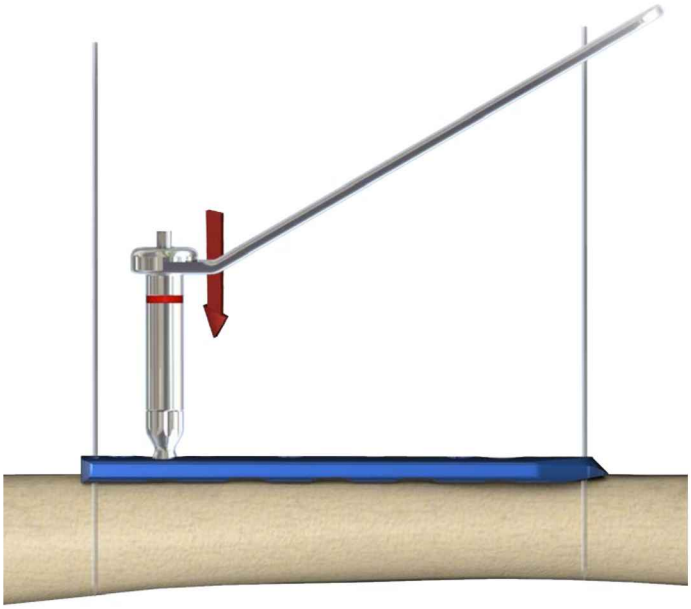
Insert the locking screw Ø5.0 using the Torque wrench **[40.5270.400]** and proper screwdriver tip.



IV.4. CORTICAL SCREW Ø4.5 INSERTION

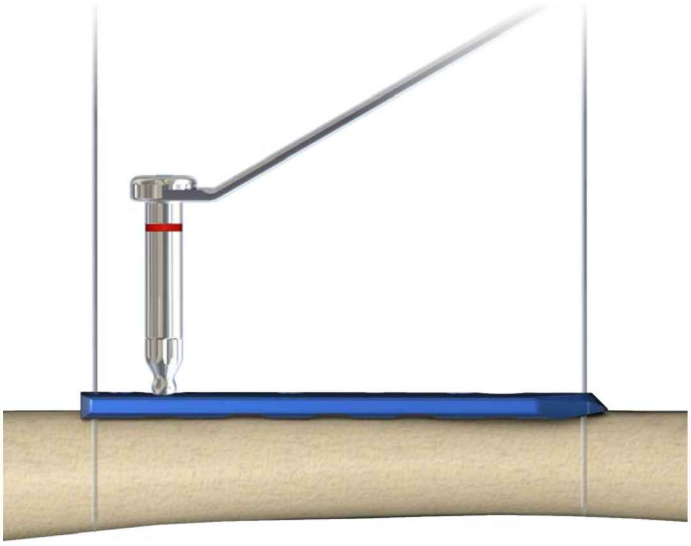
Compression guide setting

Set the Compression guide 3.2 **[40.4802.732]** in desire position:



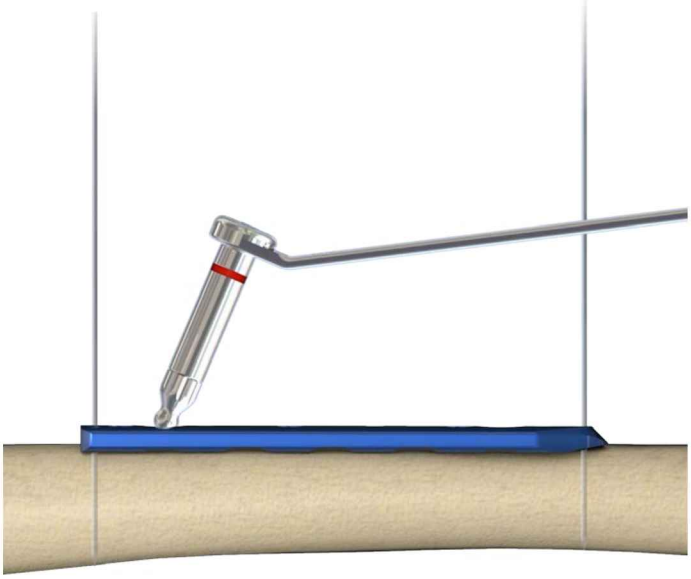
1. Neutral position

Press the guide to the plate to achieve the neutral position for screw insertion.



2. Compressive position

Move the guide without pressure to the edge of compression hole to achieve the compression position for screw insertion.

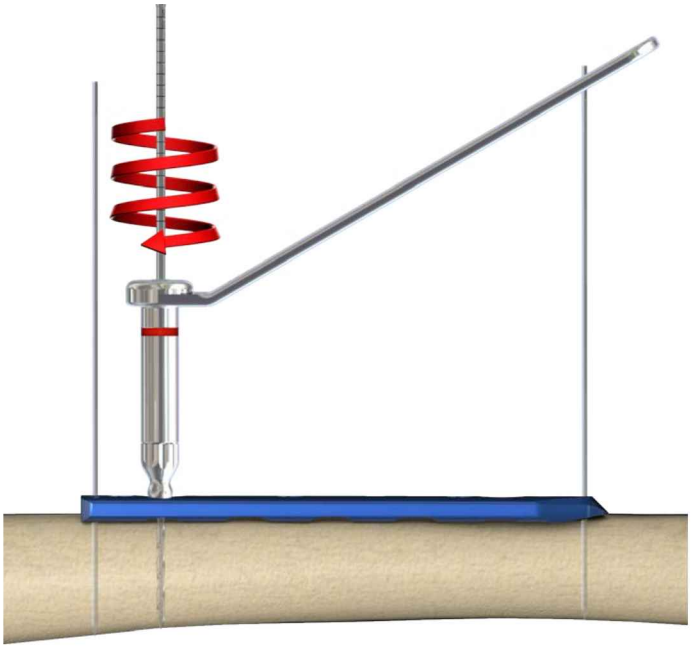


3. Angular position

Angular positioning of the guide is also available.

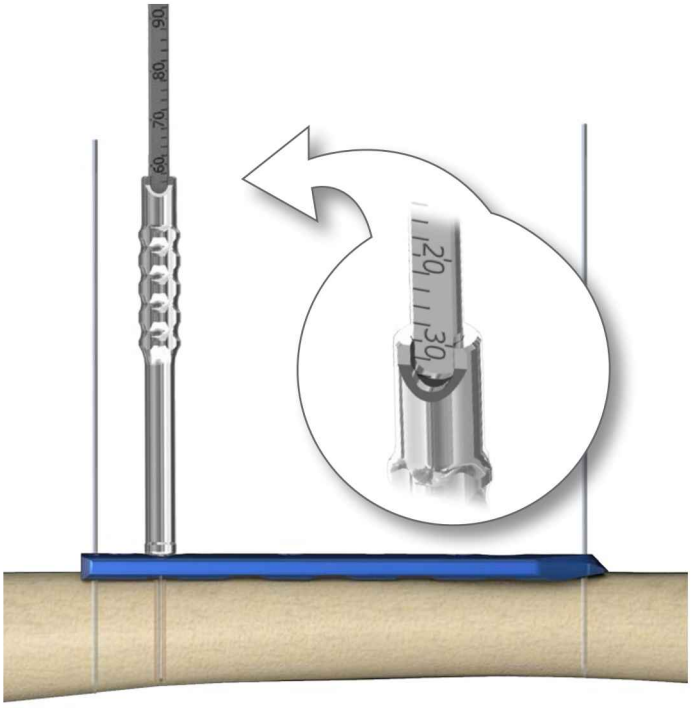
Drilling

Drill the hole through both cortices in desire position for the cortical screw Ø4.5 insertion using the Drill Ø3.2/220 **[40.5650.222]**



Hole depth measurement

Insert the Depth measure **[40.4639.700]** into the drilled hole until its hook anchors the outer surface of the opposite cortex



Screw insertion

Insert cortical screw Ø4.5.