ST/48C

ChM®

7,0 ChM Locked Plating ChLP system

LOCKING PLATES 7.0ChLP

- *IMPLANTS*
- *INSTRUMENT SET 40.5702.700*
- *SURGICAL TECHNIQUE*

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7.0 ChM Locked Plating ChLP system

III. CATALOGUE PAGES
III.1. PLATES

7.0ChLP condylar femoral plate

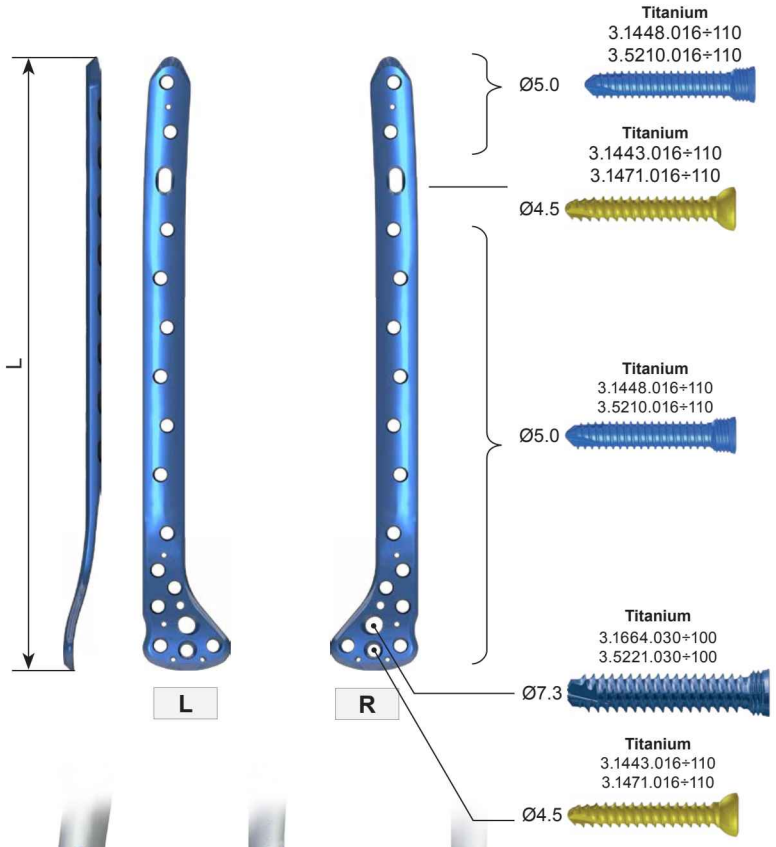
Left

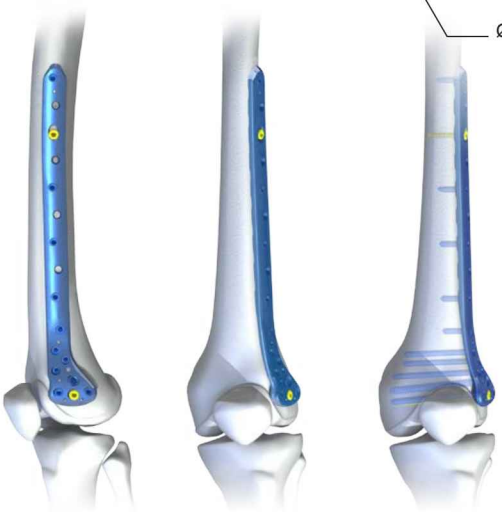
		Catalogue no.
O	L [mm]	Titanium
4	138	3.4023.604
6	180	3.4023.606
8	221	3.4023.608
10	263	3.4023.610
12	305	3.4023.612
14	346	3.4023.614
16	387	3.4023.616

Right

		Catalogue no.
O	L [mm]	Titanium
4	138	3.4024.604
6	180	3.4024.606
8	221	3.4024.608
10	263	3.4024.610
12	305	3.4024.612
14	346	3.4024.614
16	387	3.4024.616

O - holes number in shaft part of the plate





Palette for 7.0ChLP plates - 3.4023/3.4024

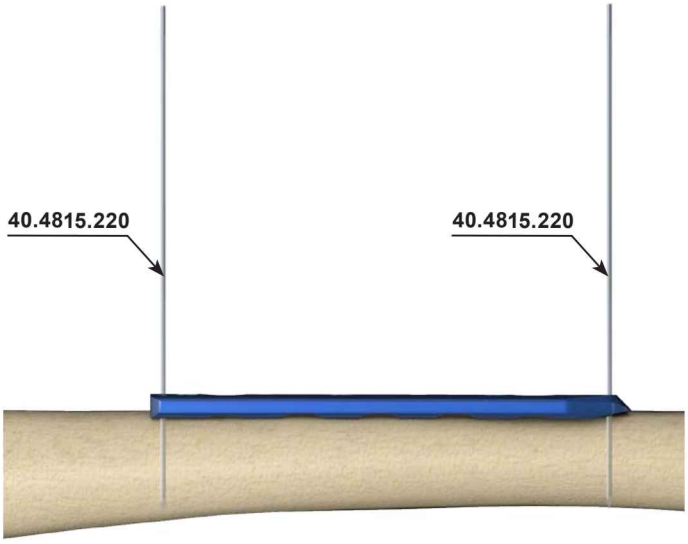
No.	Catalogue no.	Name	Pcs		
1	40.5725.100	Protective guide L **[3.4023]**	1	40.5704.310	40.5704.510
2	40.5725.200	Protective guide R **[3.4024]**	1		
3	40.5708.000	Protective guide 9.0/7.0	2		
4	40.5704.410	Palette for **7.0ChLP** plates	1		
5	12.0750.100	Container solid bottom 1/1 595x275x86 mm	1		
6	12.0750.200	Perforated aluminum lid 1/1 595x275x15 mm Gray	1		

implants not included; with additional instruments

ChM sp. z o.o., Lewickie 3b, 16-061 Juchnowiec Kościelny, POLAND, tel. + 48 85 713 13 20, fax + 48 85 713 13 19, chm@chm.eu, www.chm.eu

IV. SURGICAL TECHNIQUE
IV.1. TEMPORARY PLATE ATTACHMENT

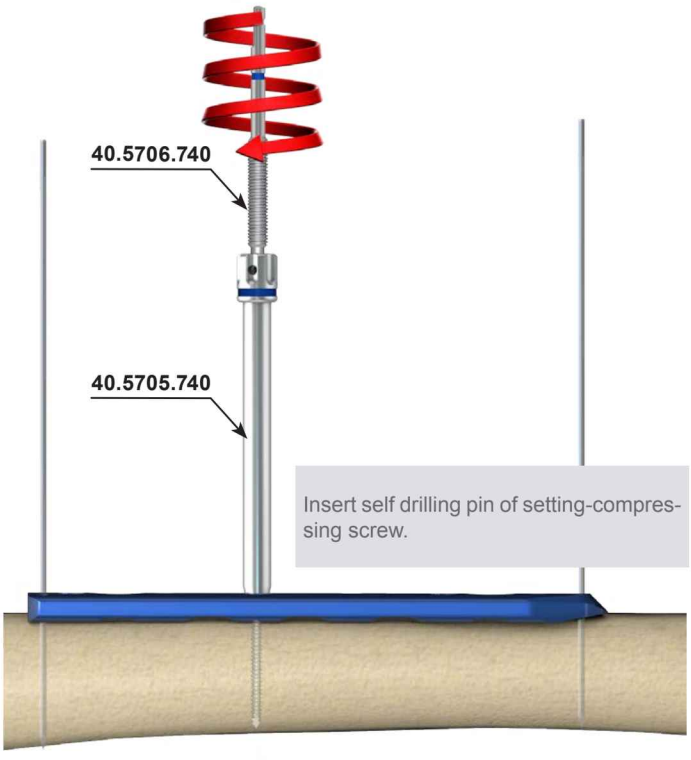
When fracture is reduced and the plate position is confirmed, determine its temporary location using Kirschner wires 2.0 **[40.4815.220]**.
Wires can be inserted in proximal holes of the plate and the most distal ones.

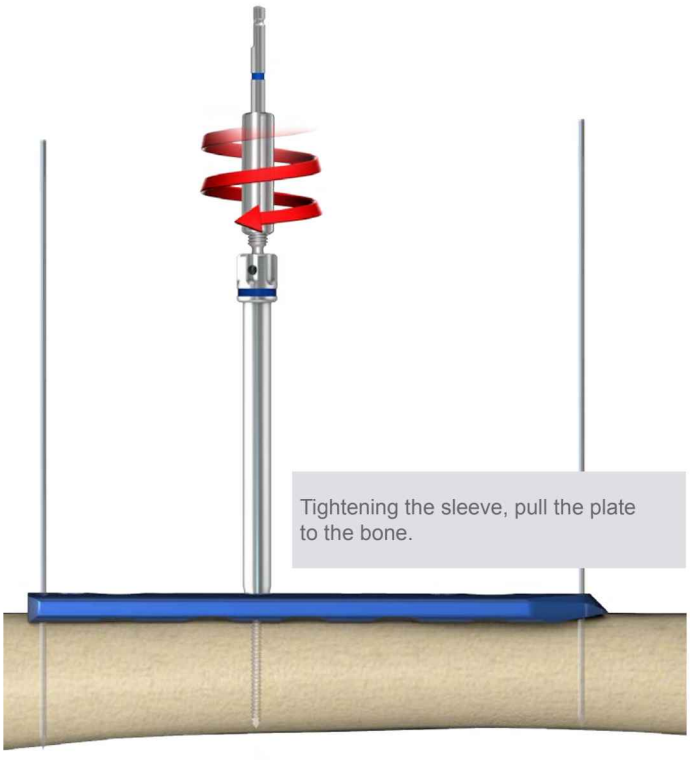


Confirm the plate position is correct taking X-Ray image.

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.



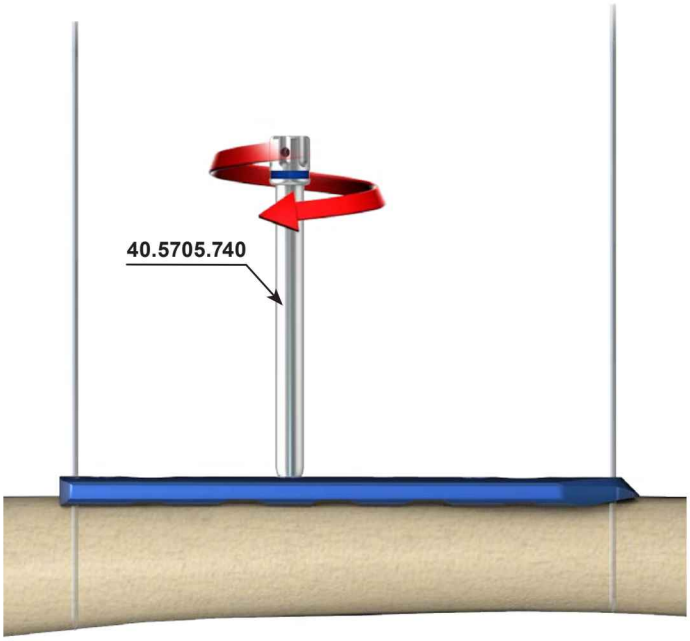


IV.2. LOCKING SCREW Ø5.0 INSERTION

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)*.

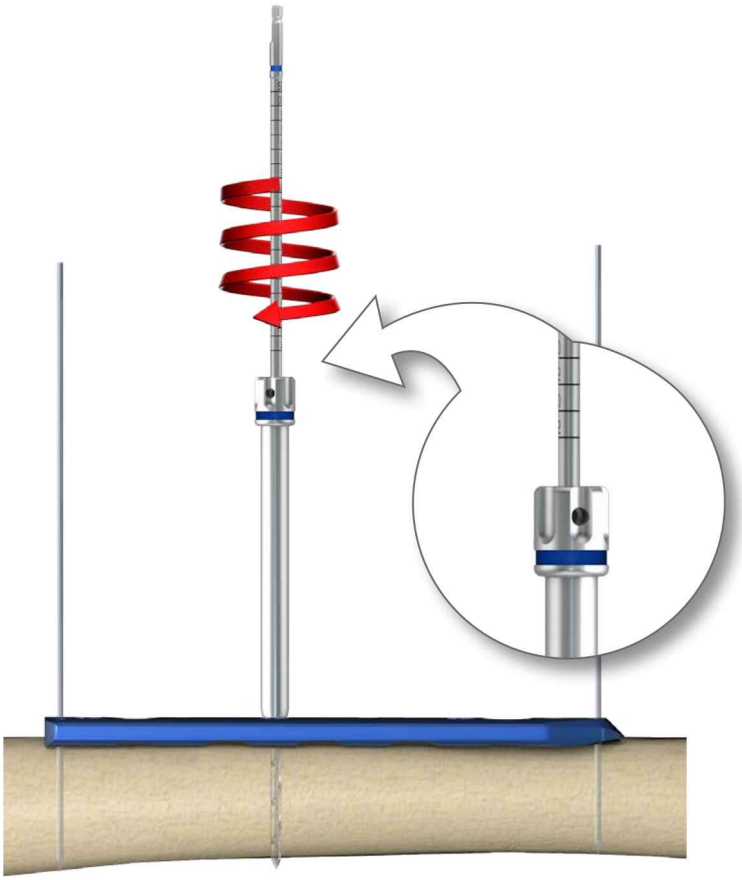
Guide sleeve screwing

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



Drilling the hole

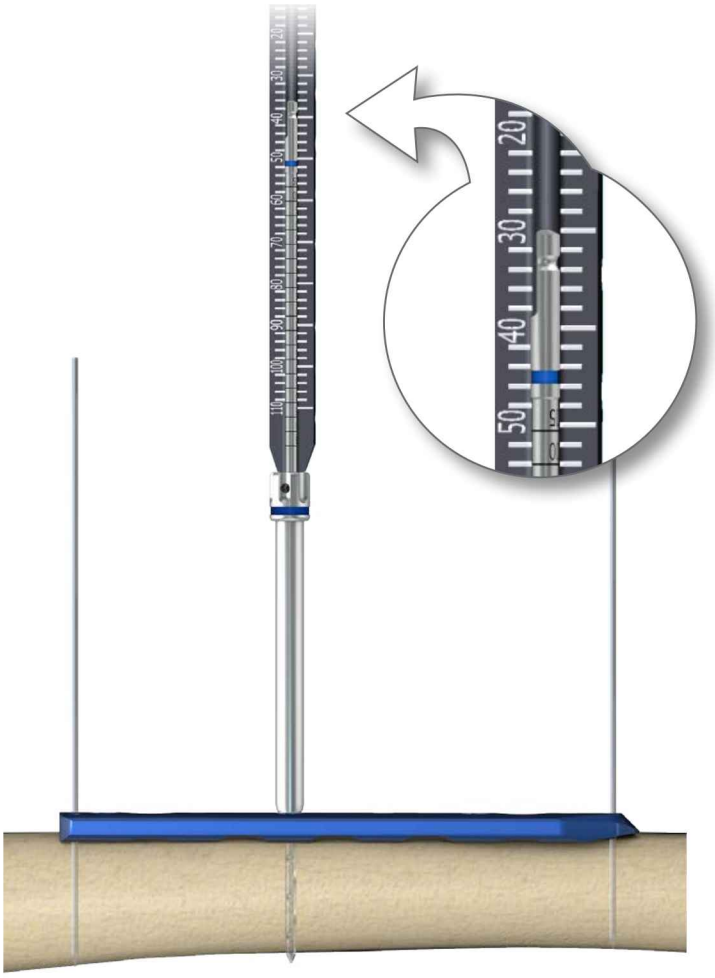
Ream the hole using the Drill with scale 4.0/220 **[40.5651.222]** until the desire depth is reached



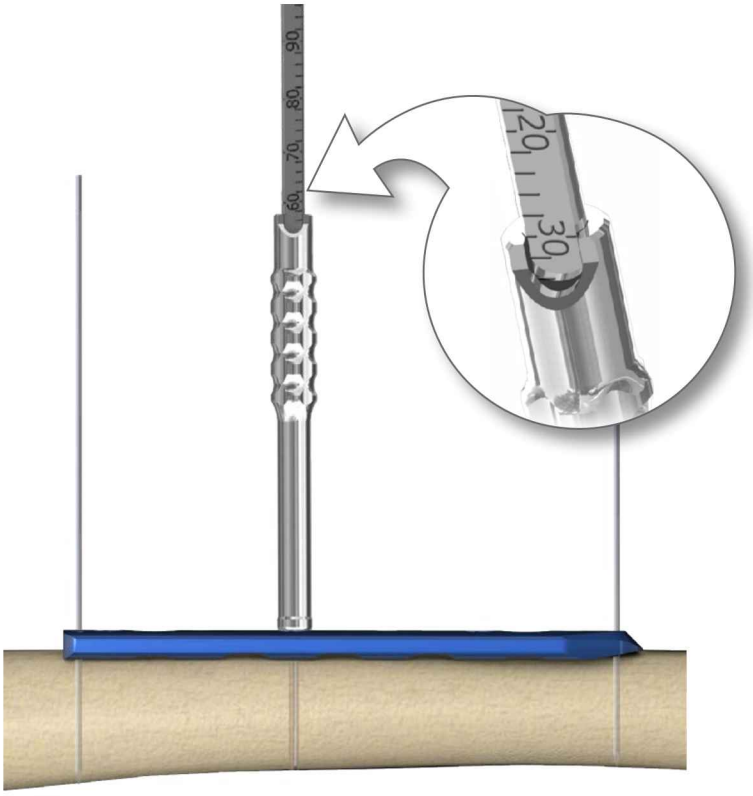
Hole depth measurement

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

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

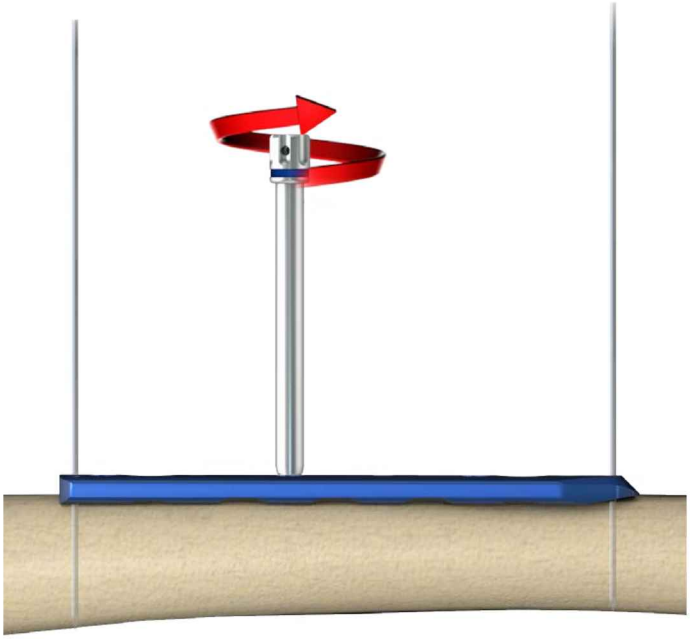


OPTION III: Unscrew the Guide sleeve 7.0/4.0 **[40.5705.740]** and define the screw length using the Depth measure **[40.4639.700]**.

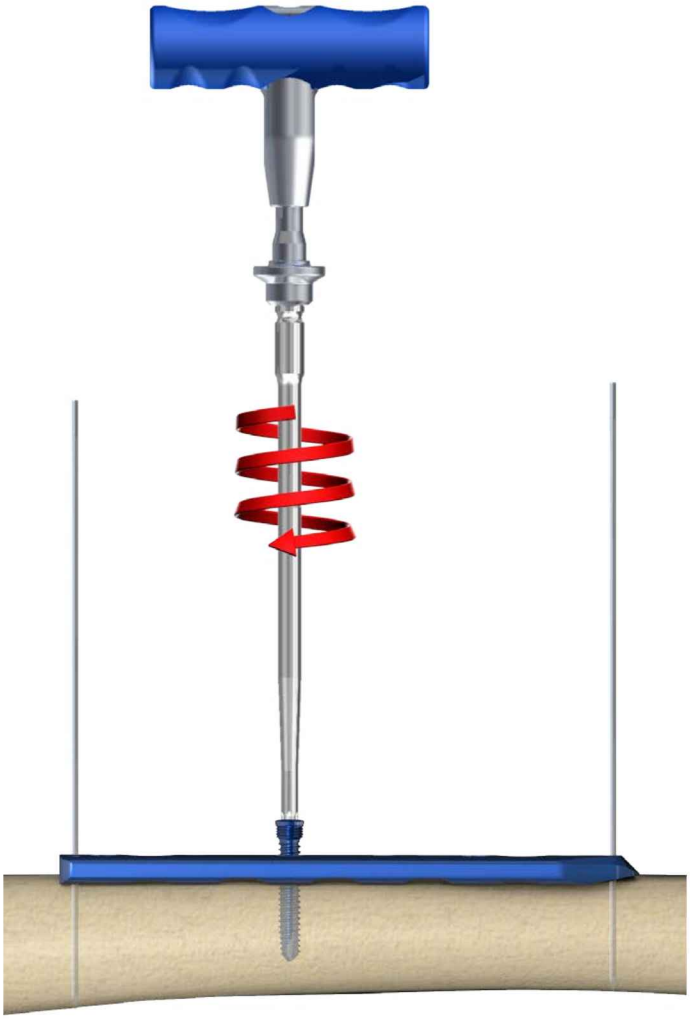


Screw insertion

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

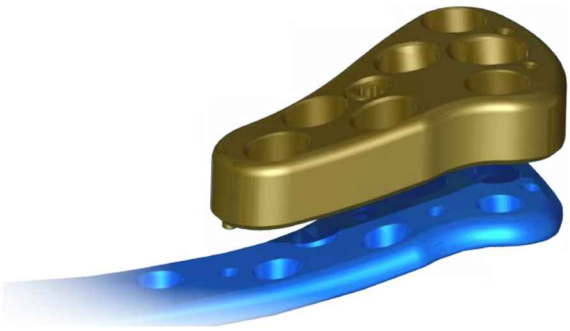


Insert the locking screw Ø5.0 using the Torque wrench **[40.5270.400]** and proper screwdriver tip.



IV.3. THE USE OF AIMING BLOCK

Most locking plates ChLP are available with aiming blocks, as additional complementary instruments. Using aiming blocks ensures proper fastening of guide sleeves in the locking holes, in the epiphyseal part of the plate. It facilitates also the smooth conduct of the procedure, reduces its duration, and ensures that drilling is performed in the axis of the locking hole *(note from point IV.2)*.

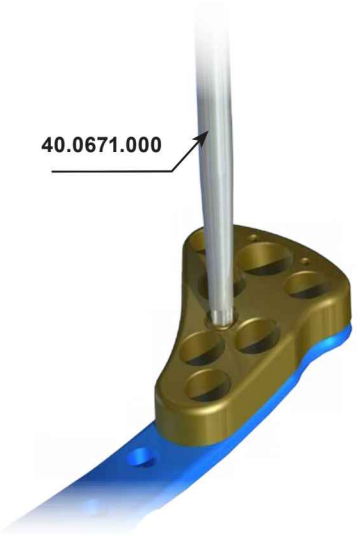


When aiming blocks are not used, the implantation can be incorrect, and in particular can cause:

- **improper locking of the screws and their migration,**
- **decrease of the fixation stability,**
- **complications while implants removal.**

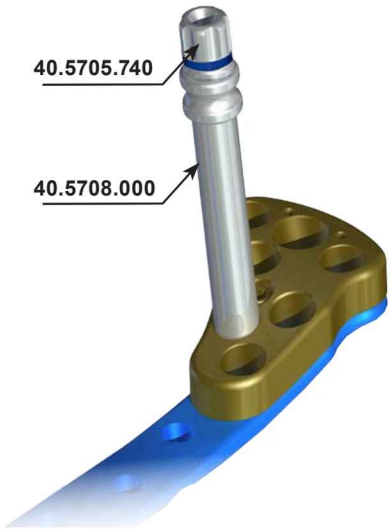
Position the aiming block on the plate.

Tighten up with Star screwdriver T25 **[40.0671.000]**.



Insert Protective sleeve 9.0/7.0 **[40.5708.000]** in the desired hole of the aiming block.

Then screw the Guide sleeve 7.0/4.0 **[40.5705.740]** into the plate through the Protective sleeve 9.0/7.0.

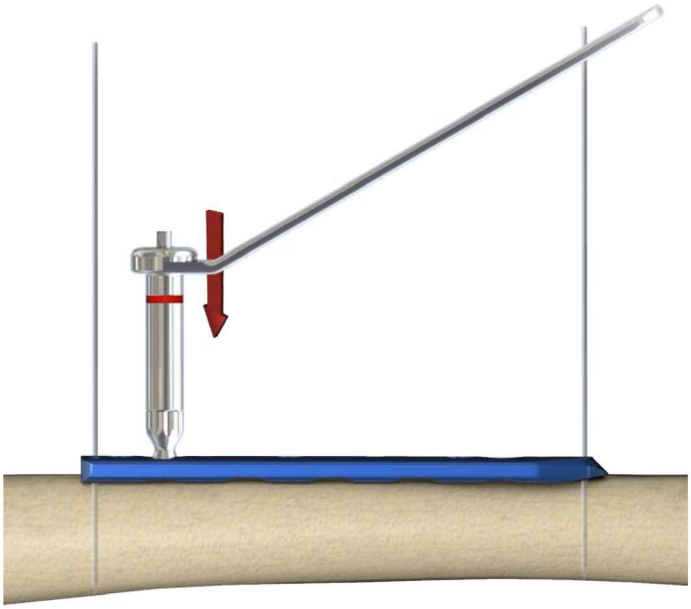


NOTE!
Further proceedings in accordance with the steps described in the point IV.2 on page 25

IV.4. CORTICAL SCREW Ø4.5 INSERTION

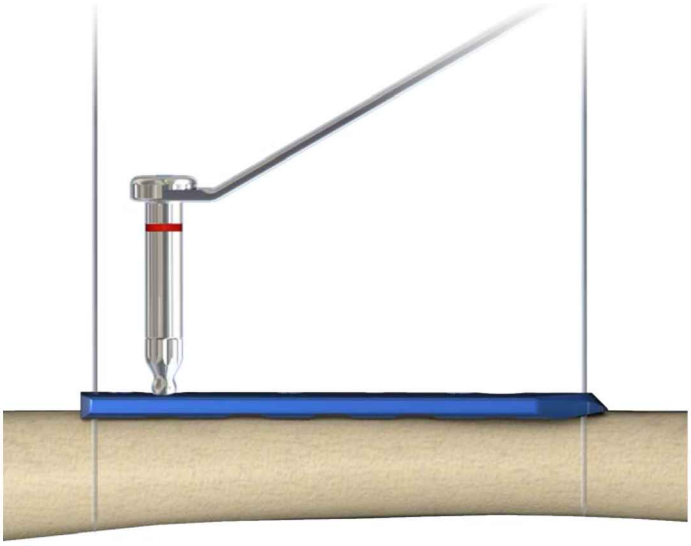
Compression guide setting

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



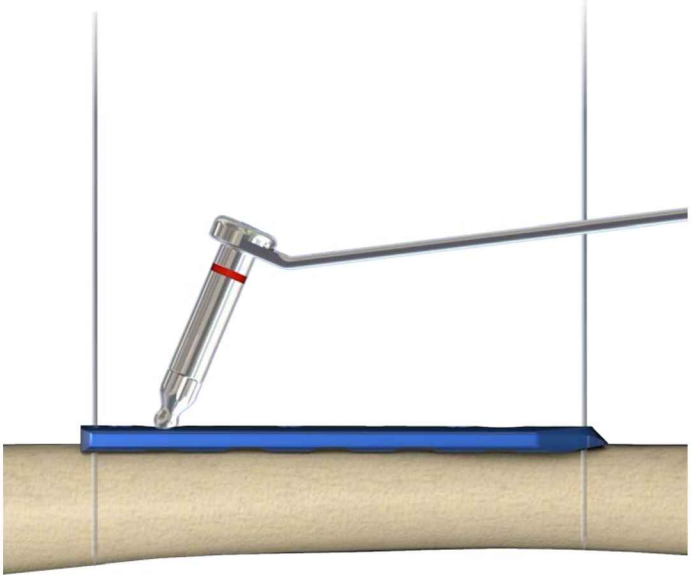
1. Neutral position

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.

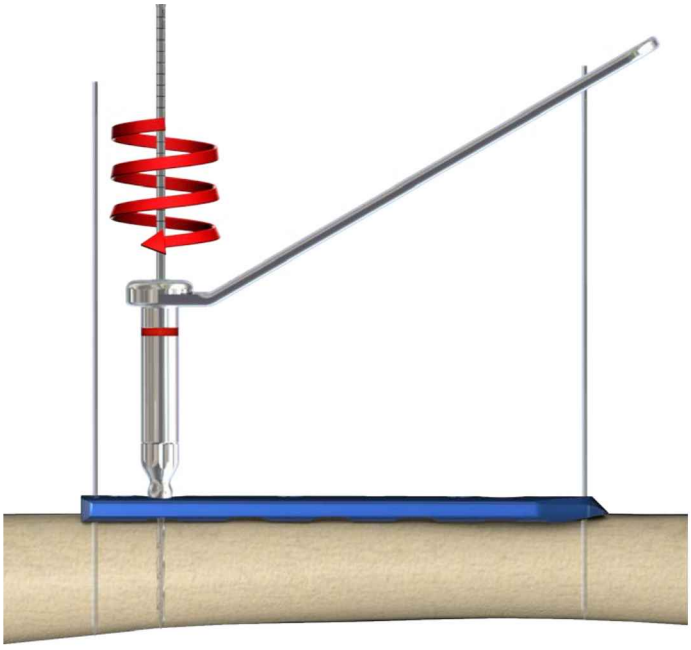


3. Angular position

Angular positioning of the guide is also available.

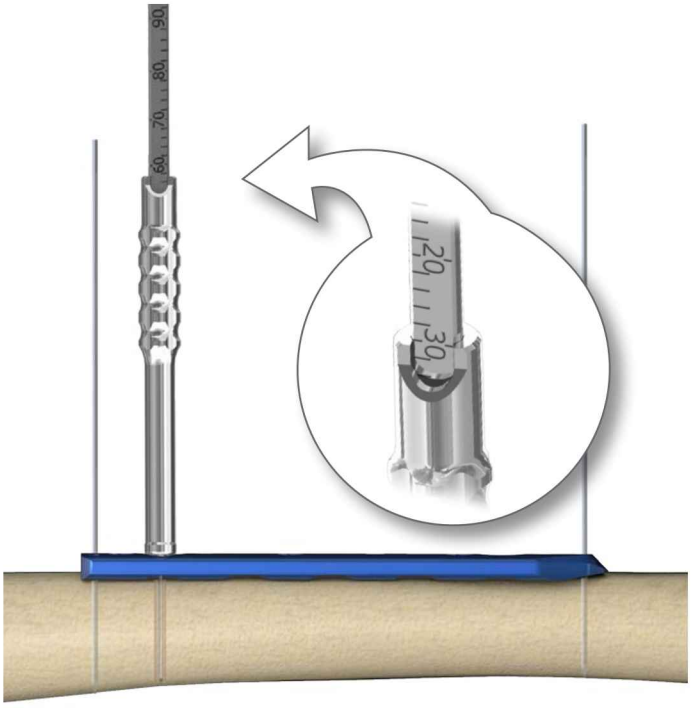
Drilling

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]**



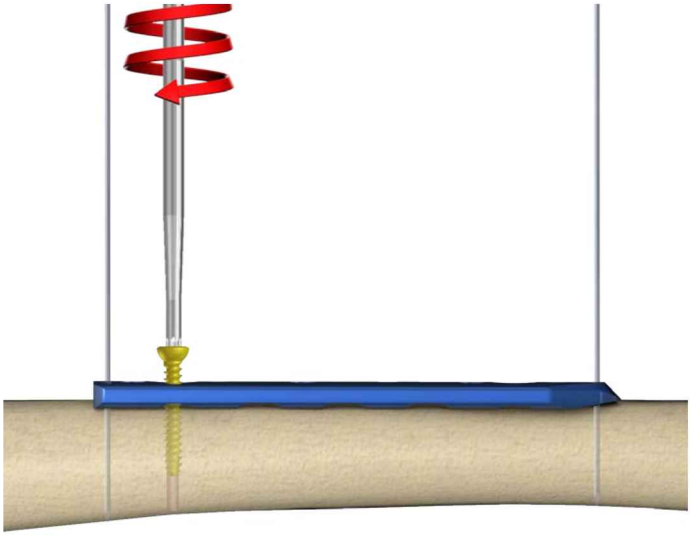
Hole depth measurement

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.



IV.5. CANNULATED SCREW Ø7.3 INSERTION

In the middle of the condylar part of the femoral plate L-**[3.4023]**, R-**[3.4024]**, there is provided a larger hole for insertion of cannulated screw Ø7.3mm.

Guide sleeve screwing

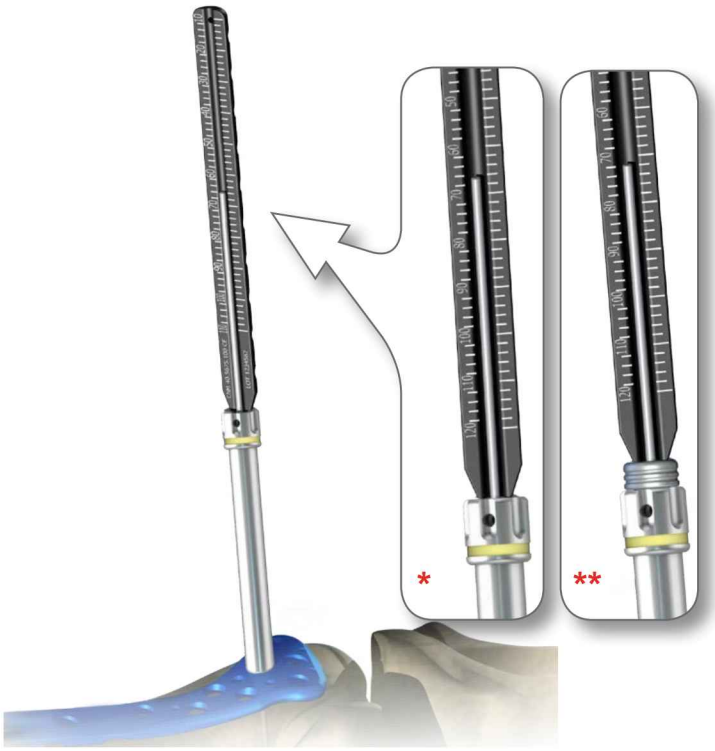
Screw in the Guide sleeve 9.0/5.0 **[40.5654.750]** along with the Guide sleeve 5.0/2.0 **[40.5654.120]** for Kirschner wire 2.0 insertion **[40.4815.220]**.

Hole depth measurement

Insert Kirschner wire 2.0 **[40.4815.220]**; determine the screw length using the Screw length measure **[40.5675.100]**.

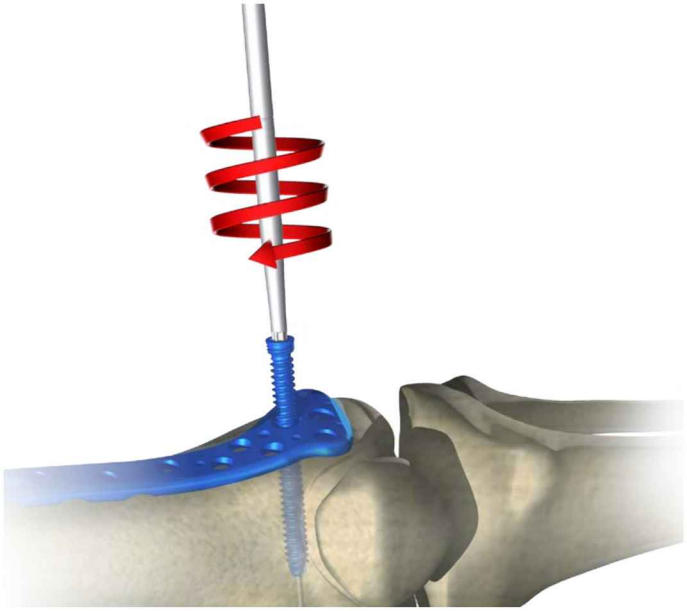
NOTE:

*Remove the inner sleeve 5.0/2.0 **[40.5654.120]** and read the value using the Screw length measure **[40.5675.100]**.
Subtract 5mm from the measured value if the sleeve 5.0/2.0 **[40.5654.120] is not removed.



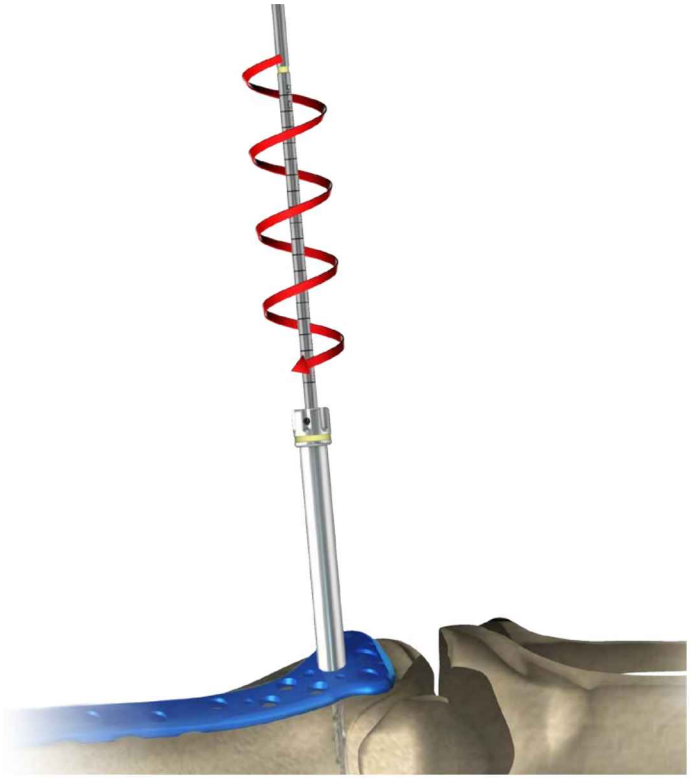
Cannulated screw Ø7.3 insertion

Remove the Guide sleeve.
Insert the cannulated screw Ø7.3 using the Torque wrench **[40.5270.400]** and relevant cannulated screwdriver tip.



NOTE:
Use the Cannulated drill with scale 5.0/2.2/220 [40.5652.222]

If the bone is very hard, use the Cannulated drill with scale 5.0/2.2/220 **[40.5652.222]**. Drill using the Guide sleeve 9.0/5.0 **[40.5654.750]** via Kirchner wire 2.0 **[40.4815.220]**.



V. POSTOPERATIVE TREATMENT

Postoperative treatment after locking plates does not differ from treatment after conventional stabilization.

VI. IMPLANT REMOVAL

In order to remove the screws, first unlock all locking screws from the plate. Then remove bone screws. This prevents the rotation of the plate while removing the last locking screw.