

MEDGAL[®]

ORTHOPAEDIC IMPLANTS & INSTRUMENTS

OPERATIVE TECHNIQUE



SYSTEM LCP 3.5

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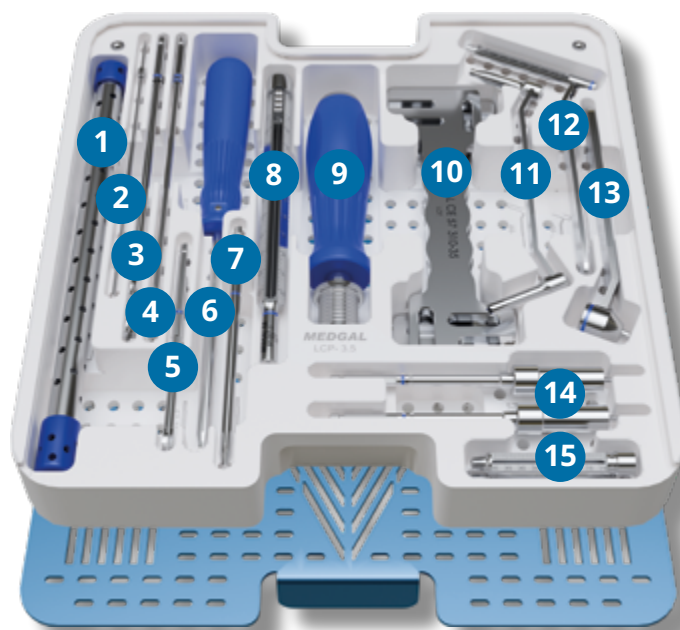
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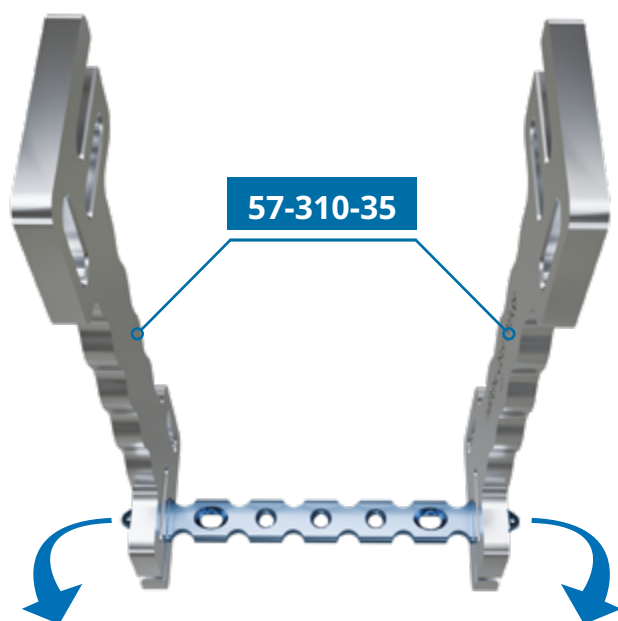
THE INSTRUCTIONS PROVIDED ARE NOT A DETAILED OPERATING MANUAL!

SELECTION OF APPROPRIATE SURGICAL TECHNIQUE IS AT THE DISCRETION OF THE PHYSICIAN.

INSTRUMENTS 99-600-0



1		Wire sterilization container Ø1.5x200 (5 pieces of 4-06-92-20)	99-594-215
2		Kirshner wire with a lock Ø1.5x150 - 2 pcs	57-302-15.150
3		Drill with a AO Ø3.5x173 shank - 2 pcs	40-30-35.173.AO
4		Drill with a AO Ø2.7x173 shank - 2 pcs	40-23-27.173.AO
5		Countersink with AO shank	57-210-35
6		Screwdriver T15	43-298-0
7		T15 pin with AO shank	43-270-T15.115
8		Bone thickness gauge	57-217-0
9		Torque screwdriver with AO shank	43-302-35
10		Plate bender - 2 pcs	57-310-35
11		Pull screw guide	44-10-35
12		Guide for compression holes	44-11-35
13		Variable angle drill guide	44-12-35
14		Provisional pressure screw - 2 pcs	57-303-24
15		Slide sleeve for locking screws - 2 pcs	57-309-35.27



Before surgery, if the case requires it, the plate can be pre-shaped with a plate bender **57-310-35**.

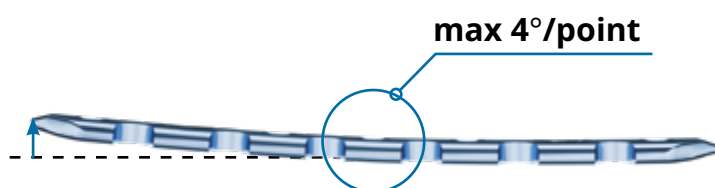
The bending angle in the vertical plane (in the axis of the smaller cross-section), must not be greater than 4° per bending point.

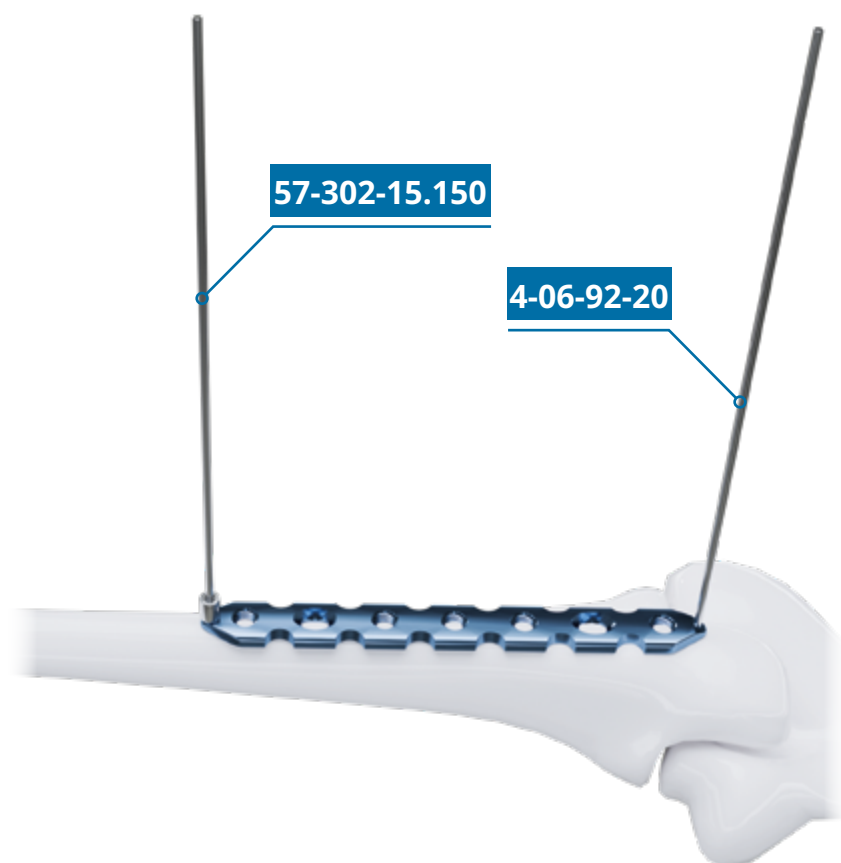
CAUTION!

Do not bend the plate on threaded holes. If necessary, insert locking screws into holes before bending.

IMPORTANT:

Do not bend anatomically shaped parts of the plate. Do not bend and then straighten the plate repeatedly. This may cause material fatigue of the plate.



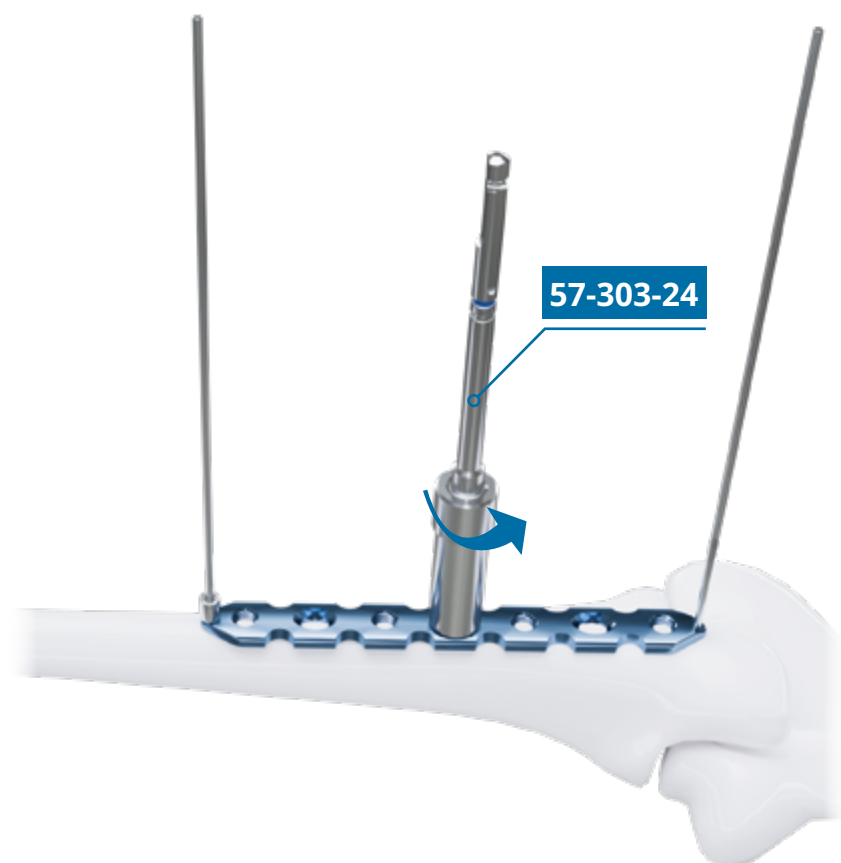


After recognizing the type of fracture, select the appropriate plate. Prior to plate insertion, determine the bone fragments.

Regular Kirschner wire can be used **4-06-92-20** or with a lock **57-302-15.150**.

PRELIMINARY IMPLANT STABILIZATION

1 Preliminarily stabilize the plate by inserting a Kirschner wire with a lock **57-302-15.150**.



2 For preliminary stabilization, a temporary pressure screw **57-303-24** can be used. Insert the self-drilling pin of the pressure screw. Then by tightening the sleeve, pull the plate to the bone. A screw can be driven into the hole after the pressure screw is removed without re-drilling.

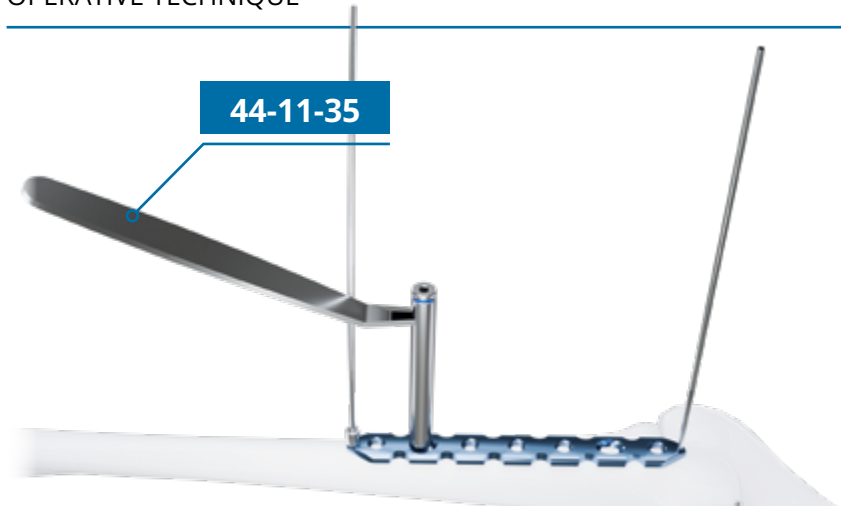


Fig. 1

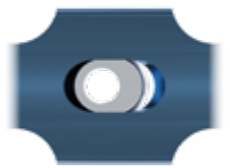
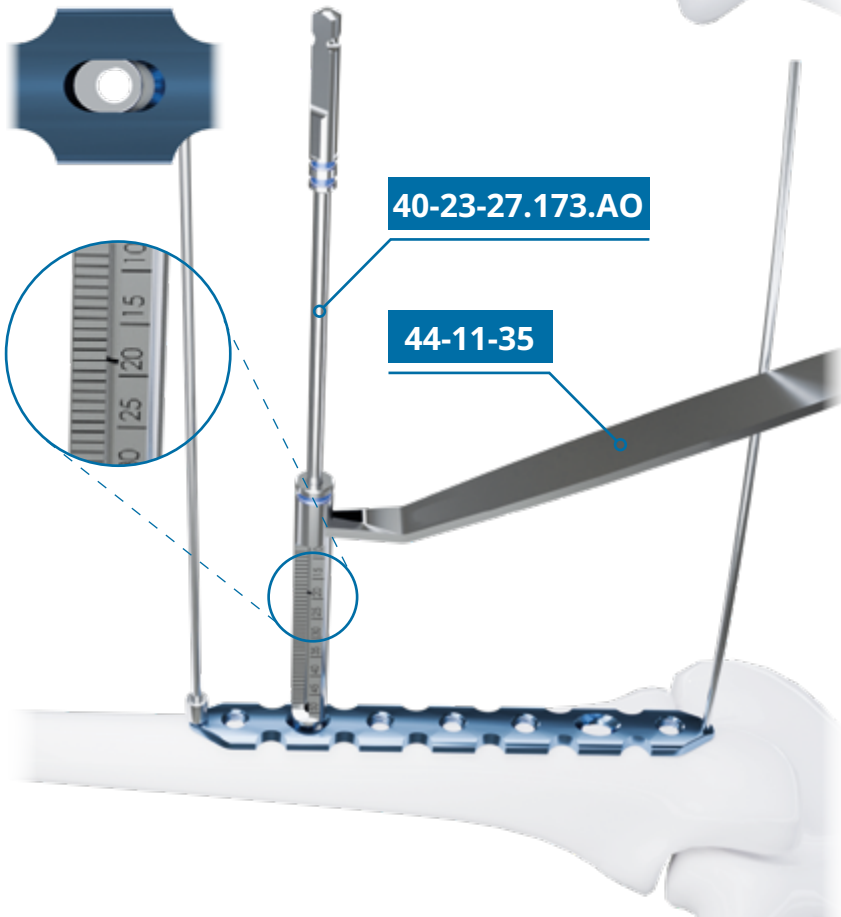


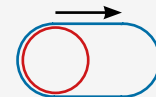
Fig. 2



CORTICAL SCREWS

3 Positioning the guide for compression holes **44-11-35**.

Fig. 1
Compression position:



position the tip of the guide as close to the edge of the hole as possible.

Fig. 2
Neutral position:



rotate the guide by 180° so that the drilling point is positioned away from the edge of the hole.

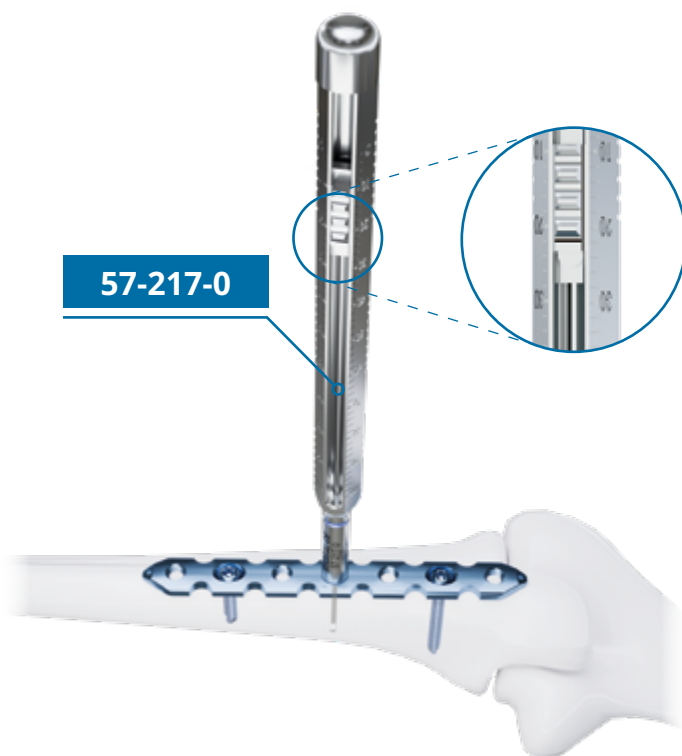
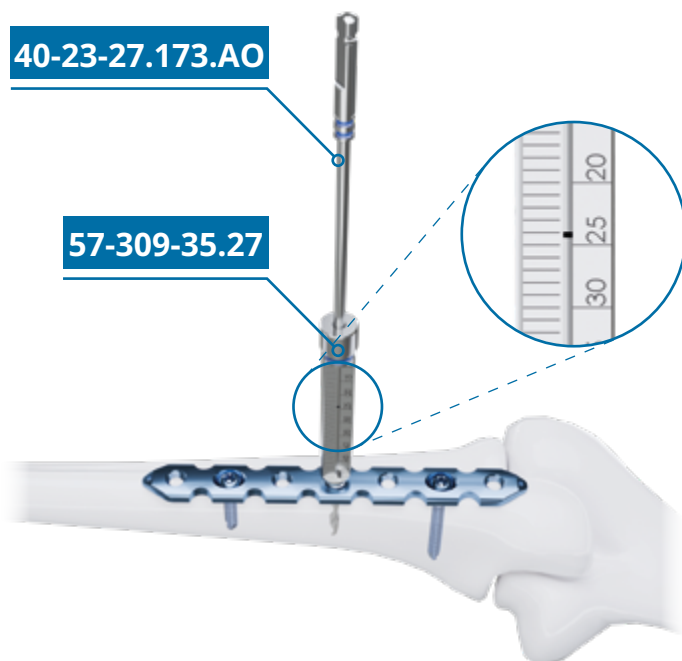
4 Drill a hole for a cortical screw using a guide **44-11-35** and drill bit with AO Ø2.7mm shank **40-23-27-173.AO**. It is possible to read the screw length from the gauge on the guide.

The hole should pass through both cortical layers of the bone.



5 Select screw length by reading the indication from the bone thickness gauge **57-217-0**.

6 Tighten the cortical screw using a T15 **43-298-0** screwdriver. Insert another cortical screw. Remove Kirschner wires.



LOCKING SCREWS

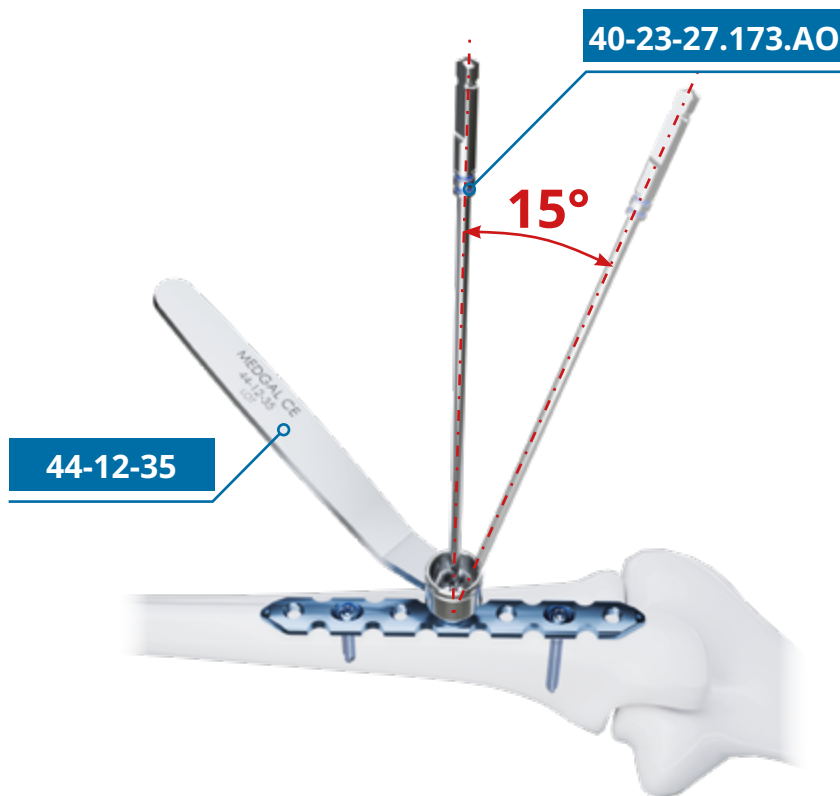
1 Drill a hole for the locking screw using guide sleeve **57-309-35.27** and drill with AO shank **40-23-27.173.AO**.

Read the screw length from guiding sleeve.

2 Optionally: select the length of screw by reading the indication from the bone thickness gauge **57-217-0**.

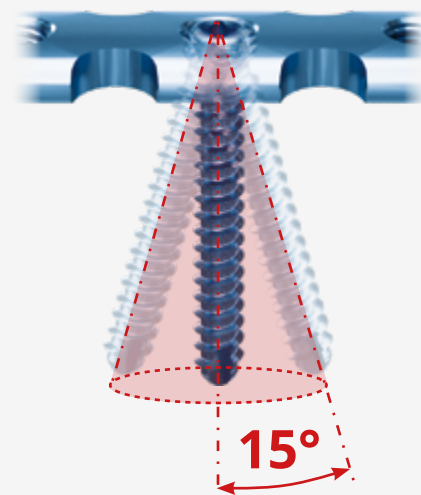


- 3** Tighten the locking screws using Torque screwdriver with AO shank **43-302-35** and T15 shank **43-270-T15.115**.



VARIABLE ANGLE SCREWS

- 1 Drill a hole for the variable angle screw using the **44-12-35** variable angle drill guide and a drill with $\text{Ø}2.7\text{mm}$ AO shank **40-23-27.173.AO** resting against the inner wall of the guide.



- 2 Select the screw length by reading the indication from bone thickness gauge **57-217-0**.



- 3** Tighten the locking screw using a torque screwdriver with AO shank **43-302-35** and T15 shank **43-270-T15.115**.

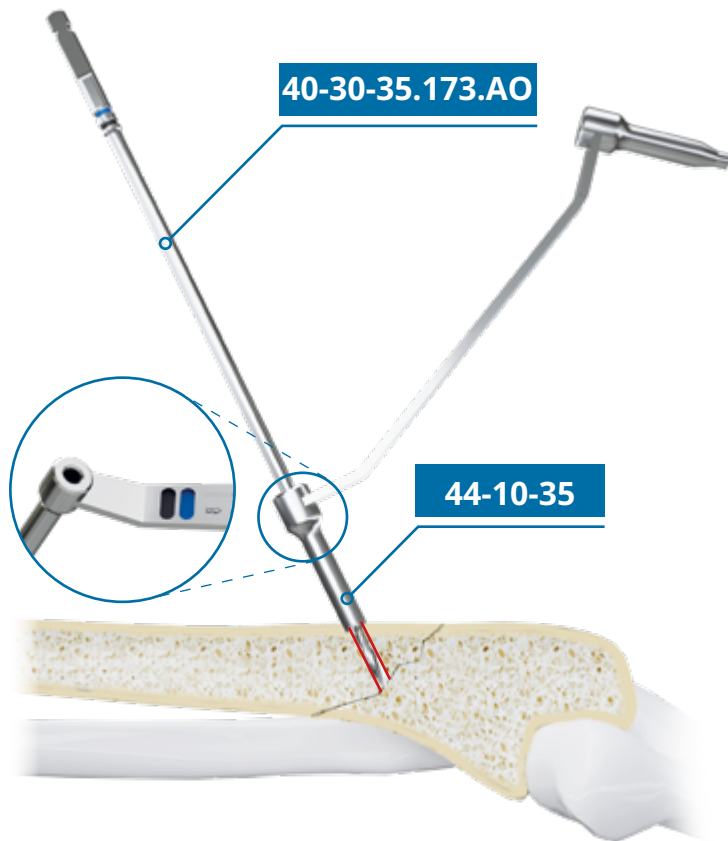
CAUTION!

Recommended order of screw insertion: First insert cortical screws **1** next locking screws **2**.

IMPORTANT:

Do not insert a cortical screw between locking screws, as this results in unnecessary tensions in the plate.

When using fracture compression, insert locking screws into one of the bone fragments. Then insert a cortical screw into the second fragment of the fracture, performing compression and make final stabilization with locking screws.



PULL SCREW METHOD

- 1 Position the guide for the pull screw **44-10-35** in the fracture area.

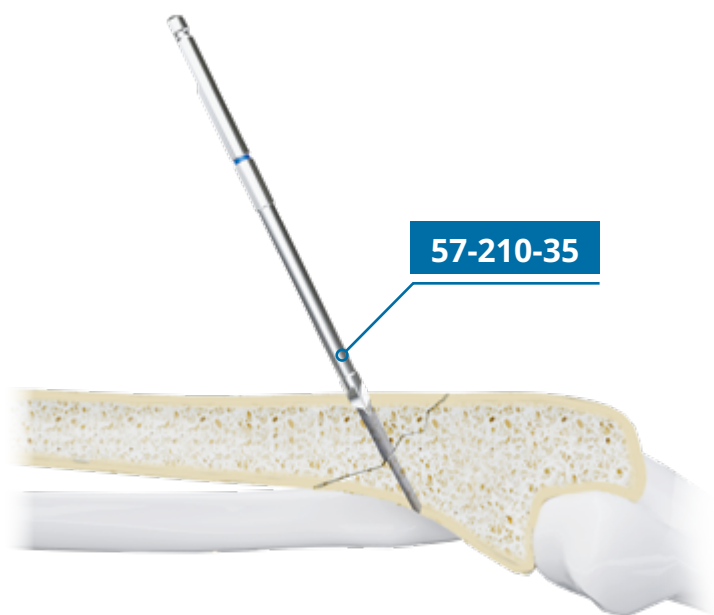
Drill a hole with $\varnothing 3.5$ mm drill **40-30-35.173.AO**.

CAUTION!

Do not drill below the fracture line, otherwise the compression will not be possible.



- 2 After drilling a hole to the fracture line fracture with a $\varnothing 3.5$ mm drill, change the guide to the second guide sleeve and drill with a $\varnothing 2.7$ mm drill through the rest of the bone.



3 To prevent the head of the screw from protruding above the bone, a hole can be prepared with a countersink **57-210-35**.

4 Drive Ø3.5mm cortical screw **X-01-221-L** into the prepared hole using a T15 **43-298-0** screwdriver.



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