



 Medifit



Medifit Devices LLP

HAND AND FOOT PLATE



www.medifitdevices.com



Indications

LCP plates may in principle be used for the same indications as for the corresponding standard plates.

Thanks to the angular stability provided by the plate-screw connection, better clinical results can be obtained in patients with metaphyseal fractures, comminuted fractures and osteoporotic bone.

Possible indications for implants of size 2.0 and 2.4 include:

- Fractures of the phalanges
- Fractures of the metacarpals and metatarsals (II-V)
- Fractures of the distal radius (double-plate technique)
- Osteotomies and arthrodeses on the hand and foot
(e.g. TMT [II-V] fusions)
- Subcapital radial head fracture
- As an additional implant with small fragments

Possible indications for implants of size 2.7 include:

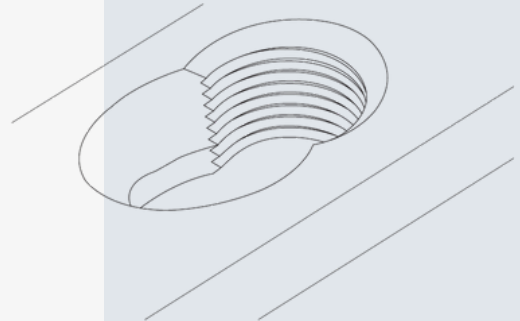
- Fractures of metatarsal I
- Fractures of the tarsals
- MTP 1 fusions
- Osteotomies and arthrodeses of the tarsals
(e.g. calcaneo-cuboidal fusion)

Medifit System Discription

The Combi-hole

The LCP (Locking Compression Plate) system offers the surgeon the choice, preoperatively and intraoperatively, of using either standard screws or locking screws – or a combination of the two screw types – for fracture fixation.

Experience in the use of LC-DCP or DCP plates or instruction by a surgeon with experience of their use is recommended.

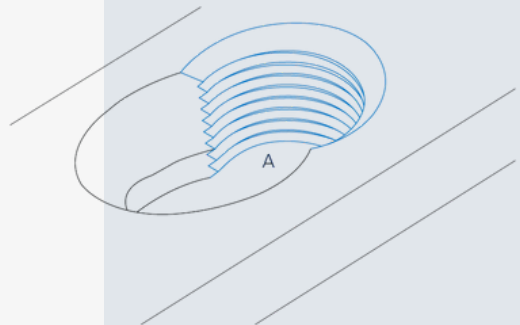


Tapered, threaded hole for locking screws (A)

The self-tapping locking screws can be locked in the tapered threaded hole to ensure angular stability. Plate and screw systems in which the screws are locked in the plate function according to the principle of an internal fixator and are used to resolve the following problem situations:

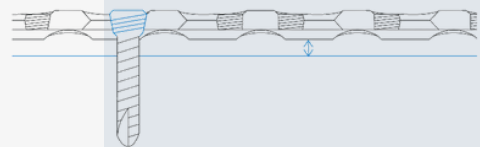
- Primary intraoperative loss of reduction
- Secondary postoperative loss of reduction, particularly in cases of osteoporosis or poor bone quality or of comminuted fractures without bony support
- Compression of the periosteum and the resulting impairment of cortical circulation

Note: To avoid the phenomenon of cold welding of plates and screws, we recommend the use of a screwdriver shaft with a mini quick coupling and appropriate handle (311.01X) or a torque limiter (511.77X).



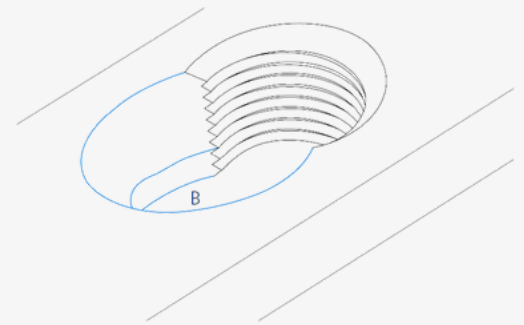
Functional principle of the internal fixator

When LCP plates are used with angularly stable locking screws, the plate and screws together form a stable system; the stability of the fracture is mainly dependent on the strength of the resulting assembly. Since the plate does not need to be compressed against the bone, blood flow to the bone is not additionally impaired.



DC hole for standard screws (B)

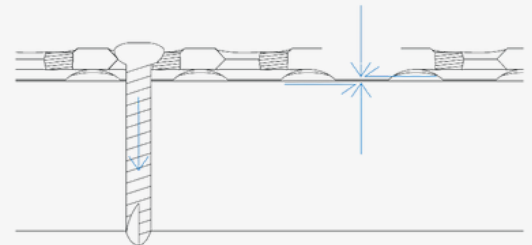
The DC hole corresponds to the DCU (Dynamic Compression Unit) of the LC-DCP plate and is designed for standard cortex screws. As with any standard LC-DCP plate, axial compression of the fracture can be achieved by predrilling off-centre. Lag screws can also be angled laterally and longitudinally in relation to the plate for interfragmental compression. The DC hole is not suitable for the insertion of a locking screw.

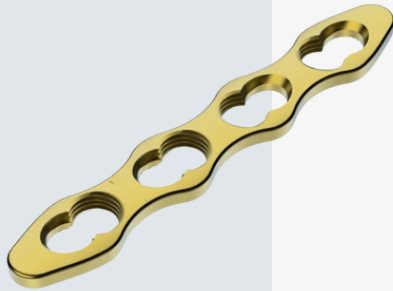


Note: The standard screw must be placed first within a fragment in order to achieve compression.

Functional principle of absolute stability

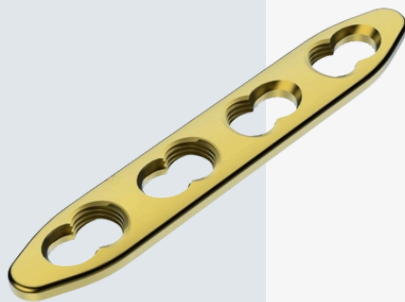
Securing the plate with standard screws creates friction between the underside of the plate and the surface of the bone by compression at the interface. In order to ensure absolute stability, the frictional resistance must be greater than the forces produced during rehabilitation. Bicortical screws are essential for this type of fixation.





Micro Recon Locking Plate
1.5mm / 2.0mm / 2.4mm

4 Hole	T2148.04
6 Hole	T2148.06
8 Hole	T2148.08
10 Hole	T2148.10
12 Hole	T2148.12



Micro Straight Locking Plate
1.5mm / 2.0mm / 2.4mm

4 Hole	T2149.04
5 Hole	T2149.05
6 Hole	T2149.06
7 Hole	T2149.07

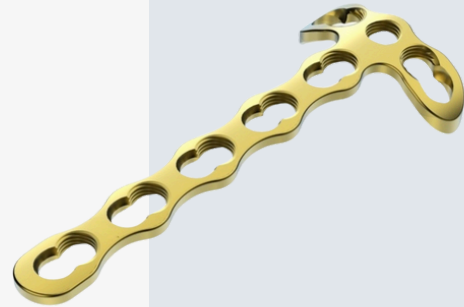


Micro T Locking Plate
1.5mm / 2.0mm / 2.4mm (Hed 2 Hole)

3 Hole	T2150.03
5 Hole	T2150.05
7 Hole	T2150.07

Micro T Locking Plate
1.5mm / 2.0mm / 2.4mm (Hed 3 Hole)

3 Hole	T2151.03
5 Hole	T2151.05
7 Hole	T2151.07



Micro Y Locking Plate
1.5mm / 2.0mm / 2.4mm

3 Hole	T2152.03
5 Hole	T2152.05
7 Hole	T2152.07



Micro Condylar Locking Plate
1.5mm / 2.0mm / 2.4mm

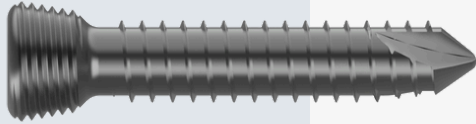
3 Hole	T2153.03
5 Hole	T2153.05
7 Hole	T2153.07



Micro Rotation Correction Locking Plate
1.5mm / 2.0mm / 2.4mm

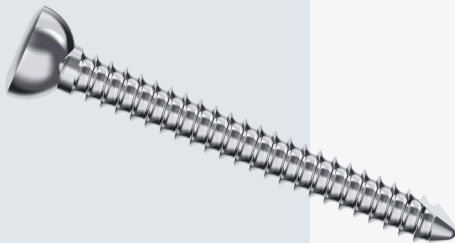
4 Hole	T2154.04
5 Hole	T2154.05





**1.5mm / 2.0mm / 2.4mm
Locking Screw**

6.0mm	T1004.006
8.0mm	T1004.008
10.0mm	T1004.010
12.0mm	T1004.012
14.0mm	T1004.014
16.0mm	T1004.016
18.0mm	T1004.018
20.0mm	T1004.020



**1.5mm / 2.0mm / 2.4mm
Micro Cortex Screw**

6mm	T1003.006
8mm	T1003.008
10mm	T1003.010
12mm	T1003.012
14mm	T1003.014
16mm	T1003.016
18mm	T1003.018
20mm	T1003.020



**1.5mm / 2.0mm / 2.4mm
Micro Plate Instrument Set**

IS046-01	Locking Drill Sleeve 2-1.5mm
IS046-02	Bending Pin For 2.0mm Plate
IS046-03	Drill Bit 1.5x90mm
IS046-04	Screw Holding Forceps
IS046-05	Sleeve For Screw Holding
IS046-06	Screw Driver T6
IS046-07	Double Drill Sleeve 1.5-1.1mm
IS046-08	Instrument With Implant Box





**L Fusion Locking Plate
Right/Left 2.7mm Short**

Short	T2155R.00
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**L Fusion Locking Plate
Right/Left 2.7mm Standard**

Standard	T2156R.00
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**T Fusion Locking Plate
2.7mm Short**

Short	T2157.00
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**T Fusion Locking Plate
2.7mm Standard**

Standard	T2158.00
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Cloverleaf Fusion Locking Plate 2.7mm Short

Short	T2159.00
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Cloverleaf Fusion Locking Plate 2.7mm Standard

Standard	T2160.00
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X Fusion Locking Plate 2.7mm Extra Small

Ex. Small	T2161.00
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X Fusion Locking Plate 2.7mm Small

Small	T2162.00
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**X Fusion Locking Plate
2.7mm Medium**

Medium	T2163.00
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**X Fusion Locking Plate
2.7mm Large**

Large	T2164.00
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**MTP Fusion Locking Plate
Right/Left 2.7mm Short**

Short	T2165R.00
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**MTP Fusion Locking Plate
Right/Left 2.7mm Standard**

Standard	T2166R.00
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TMT Fusion Locking Plate First 2.7mm Standard

Standard	T2167.00
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TMT Fusion Locking Plate First 2.7mm Long

Long	T2168.00
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TMT Fusion Locking Plate Second 2.7mm

Standard	T2169.00
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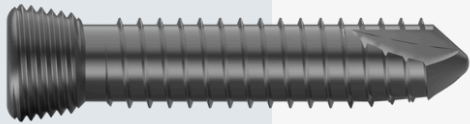
Straight Fusion Locking Plate 2.7mm

Standard	T2170.00
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Calcaneal Locking Plate Right/Left 2.7mm

8 Hole	T2171R.08
9 Hole	T2171R.09



2.7mm Locking Screw

10mm	T1014.010
12mm	T1014.012
14mm	T1014.014
16mm	T1014.016
18mm	T1014.018
20mm	T1014.020
22mm	T1014.022
24mm	T1014.024
26mm	T1014.026
28mm	T1014.028
30mm	T1014.030
32mm	T1014.032
34mm	T1014.034
36mm	T1014.036

38mm	T1014.038
40mm	T1014.040
42mm	T1014.042
44mm	T1014.044
45mm	T1014.045
46mm	T1014.046
48mm	T1014.048
50mm	T1014.050
52mm	T1014.052
54mm	T1014.054
55mm	T1014.055
56mm	T1014.056
58mm	T1014.058
60mm	T1014.060



2.7mm Cortex Screw

06mm	T1012.006
08mm	T1012.008
10mm	T1012.010
12mm	T1012.012
14mm	T1012.014
16mm	T1012.016
18mm	T1012.018
20mm	T1012.020
22mm	T1012.022
24mm	T1012.024
26mm	T1012.026
28mm	T1012.028
30mm	T1012.030
32mm	T1012.032
34mm	T1012.034
36mm	T1012.036
38mm	T1012.038
40mm	T1012.040

2.7mm Foot Instrument Set



IS047-01	Guide Wire Threaded 1.8x225mm
IS047-02	Double Drill Sleeve 2.7-2.0mm
IS047-03	Q.C Drill Bit 2.0x150mm
IS047-04	Q.C Bone Tap 2.7mm Screw
IS047-05	Q.C Screw Driver 2.0mm Tip
IS047-06	Screw Driver 2.0mm Tip
IS047-07	Quick Coupling T-Handle
IS047-08	Locking Drill Sleeve 2.7-2mm
IS047-09	K-Wire Compressor
IS047-10	Screw Holding Forceps
IS047-11	Instrument Box

Medifit Surgical technique

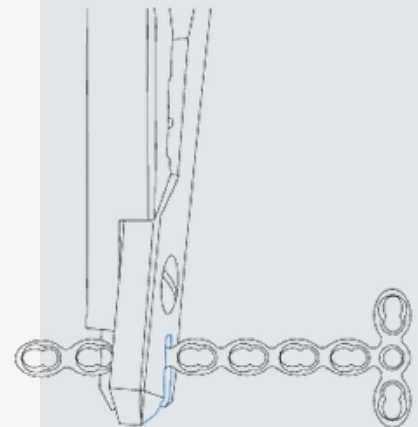
The following surgical technique is described using the example of an LCP T-plate 2.0. Implant handling is identical for the sizes 2.0, 2.4 and 2.7.

1 Reduce fracture

Reduce the fracture under the image intensifier and, if necessary, fix with Kirschner wires or reduction forceps

2 Trim plate

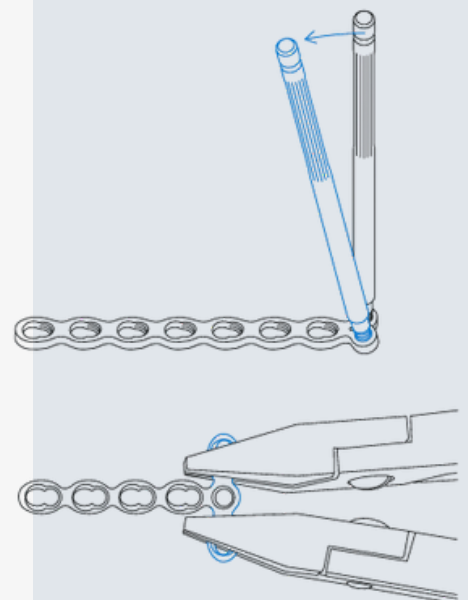
Trim plate to the desired length using the cutting pliers* and remove the burrs.



3 Bend plate

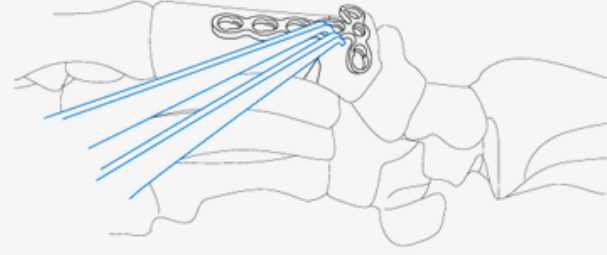
Bend the plate using the flat-nosed pliers*. The bending pins* can be used to bend the round threaded holes.

Note: If possible, bend the plate between the combi-holes. Do not deform the combi-holes during bending as this may hinder the subsequent insertion of locking screws.



4 Position plate

Position the plate over the reduced fracture and, if necessary, fix provisionally with Kirschner wires or reduction forceps.



5 Determine screw type

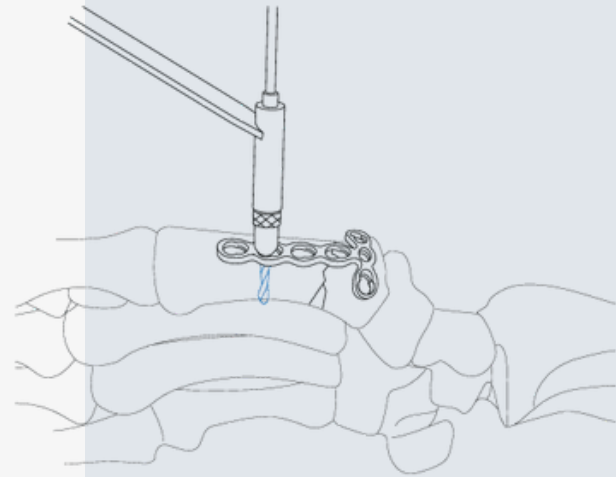
Depending on the indication and situation in each case, standard screws and/or LCP locking screws may be inserted. If both cortex and locking screws are used in one plate, the cortex screws must be inserted first in order to compress the plate against the bone before the locking screws are inserted.

Note: If angularly-stable buttress pins are used, one screw per bone fragment must be inserted additionally.

Insertion of standard screws

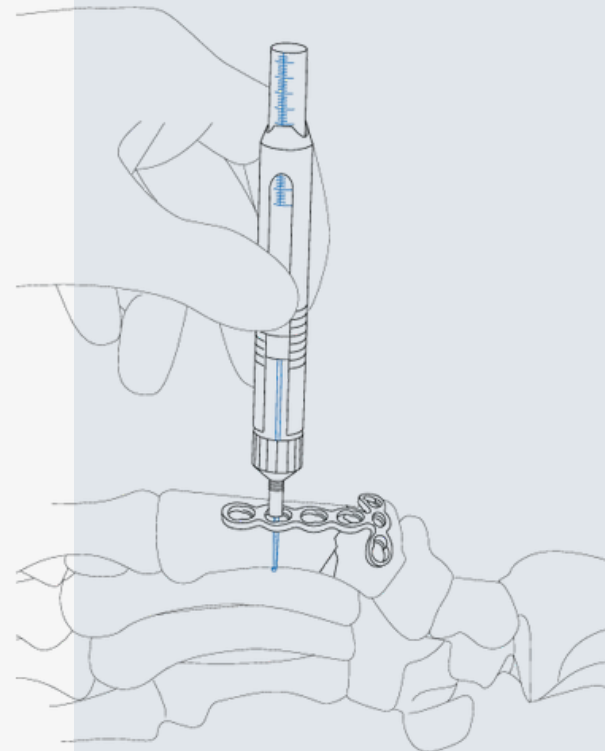
6A Predrill screw hole

Using the universal drill sleeve*, predrill the screw hole either neutrally or off-centre.



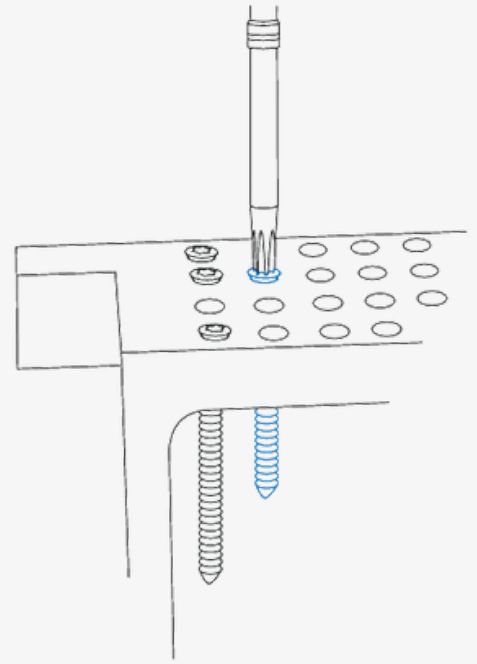
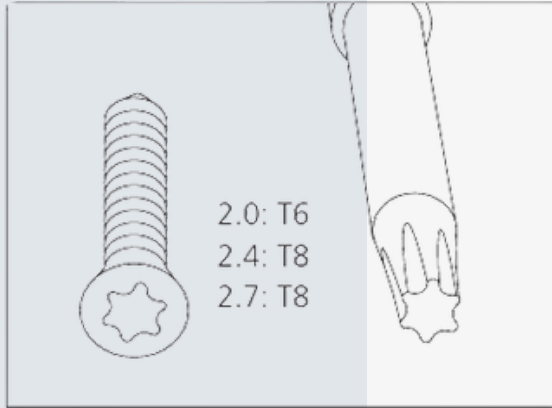
6B Determine screw length

Determine the screw length with the depth gauge*.



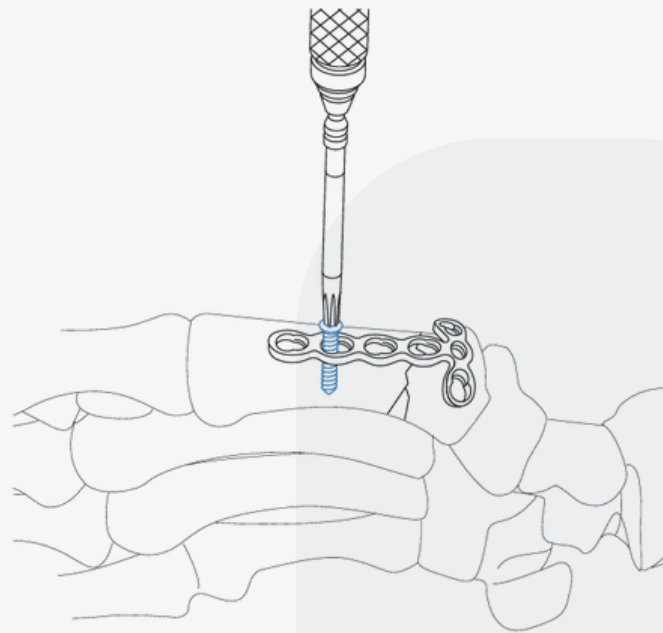
6C Pick up screw

Select and pick up the matching screw using the Stardrive screwdriver shaft* and appropriate handle (311.01X).



6D Insert standard screw

Insert self-tapping standard screw either neutrally or off-centre.



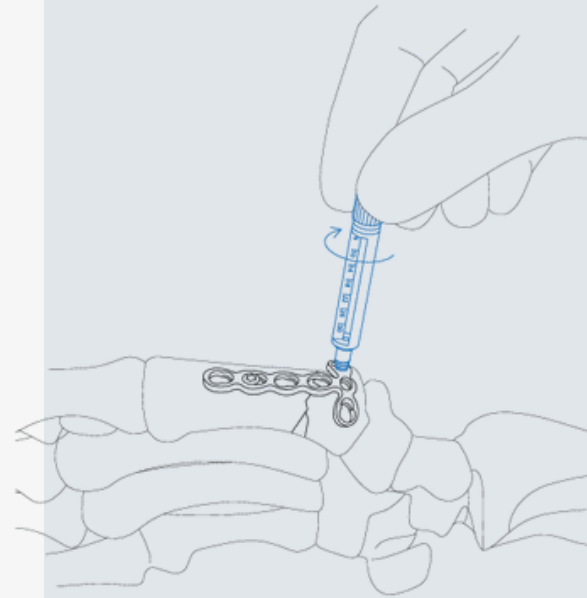
6E Insert additional standard screws

Insert additional standard screws depending on the corresponding indication and situation.

Insertion of locking screws

7A Insert LCP drill sleeve

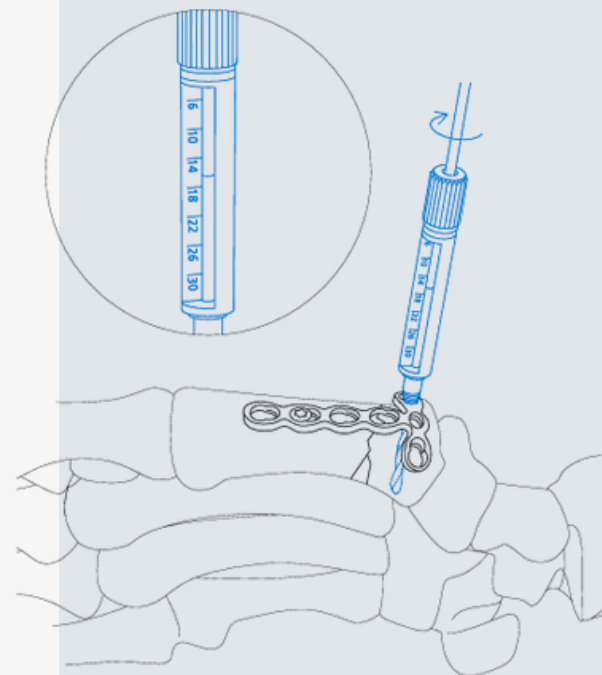
Screw the LCP drill sleeve* into the desired plate hole at right angles to the plate.



7B Predrill screw hole and determine screw length

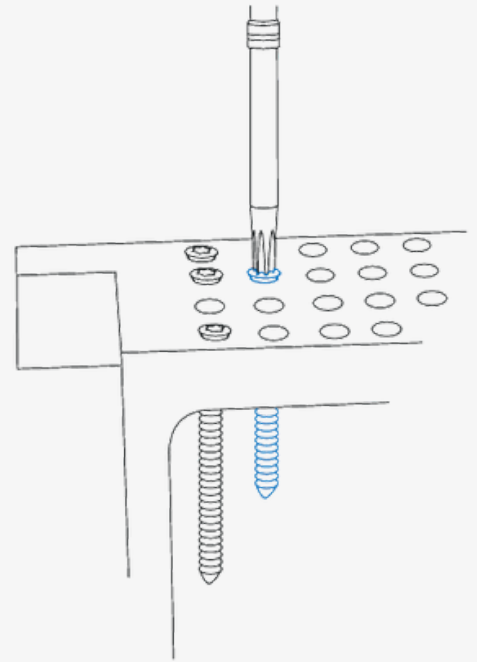
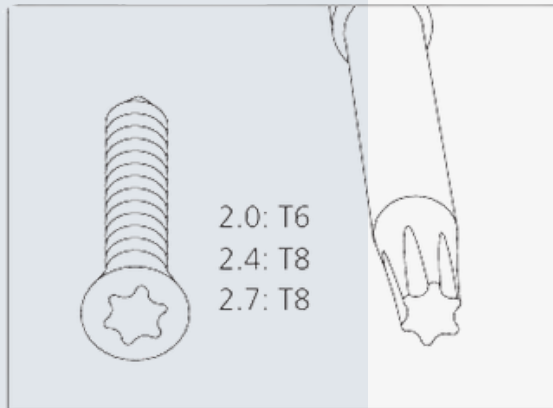
Predrill screw hole through the LCP drill sleeve* using the appropriately sized drill bit with marking*. Read off the screw length directly on the scale of the drill sleeve. Then remove the drill sleeve.

Alternatively, the screw length can be determined using the depth gauge*.



7C Pick up screw

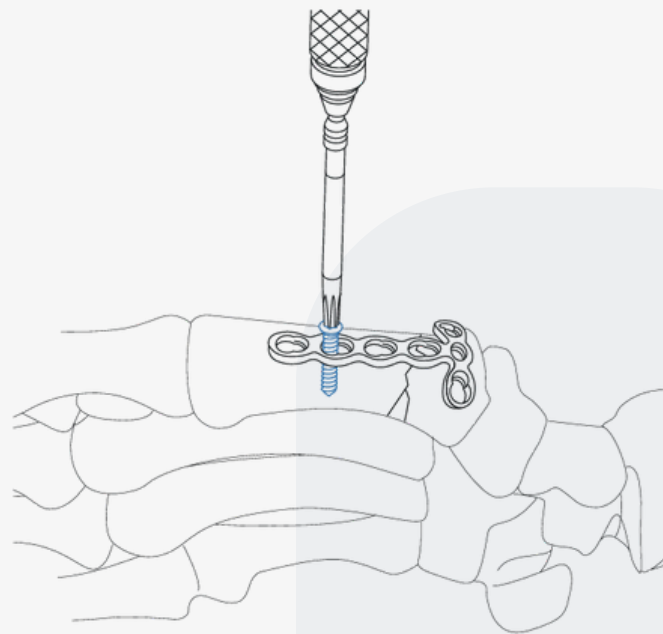
Select and pick up the matching screw using the self-holding Stardrive screwdriver shaft* and the appropriate handle (311.01X).



7D Insert self-tapping locking screw

- For manual insertion of LCP locking screws, use the selfholding Stardrive screwdriver shaft and the appropriate handle (311.01X).
- For mechanical insertion of LCP locking screws 2.7* (head LCP 2.4), attach the 0.8 nm torque limiter* to the Colibri drive unit (532.001). Insert the Stardrive 2.4/2.7 screwdriver shaft* into the torque limiter and pick up the LCP locking screw. To insert the screw, start the drive unit slowly, increase the speed and then reduce again before the screw is fully tightened. The torque is automatically limited and a clearly audible clicking signifies that the torque limit has been reached. Stop the drive unit and disconnect from the screw.

Note: Overtightening the LCP screws can cause thread deformation, making subsequent screw removal impossible. We therefore recommend the use of a screwdriver shaft with a mini quick coupling and appropriate handle (311.01X) or a torque limiter (511.77X).



7E Insert additional locking screws

Insert additional locking screws depending on the indication and situation.

Insertion of locking screws

⑧ **Remove implants**

To remove the plate, first unlock all screws then definitively remove them in a second step, otherwise the plate may rotate while the last screw is being removed and cause soft tissue damage.

THANK YOU



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