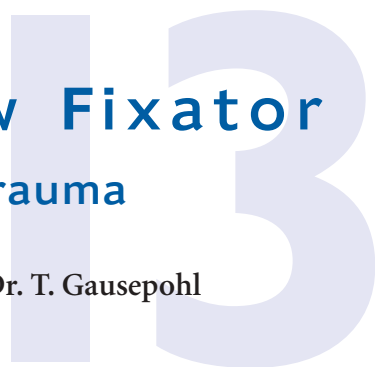
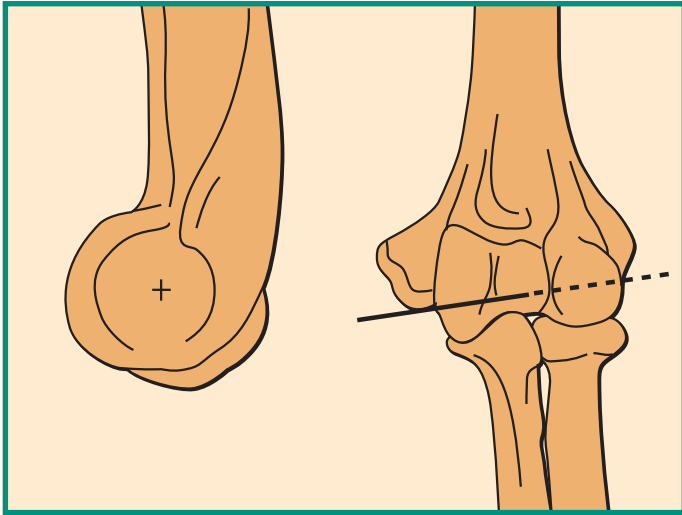


The Elbow Fixator

Part A: Acute Trauma

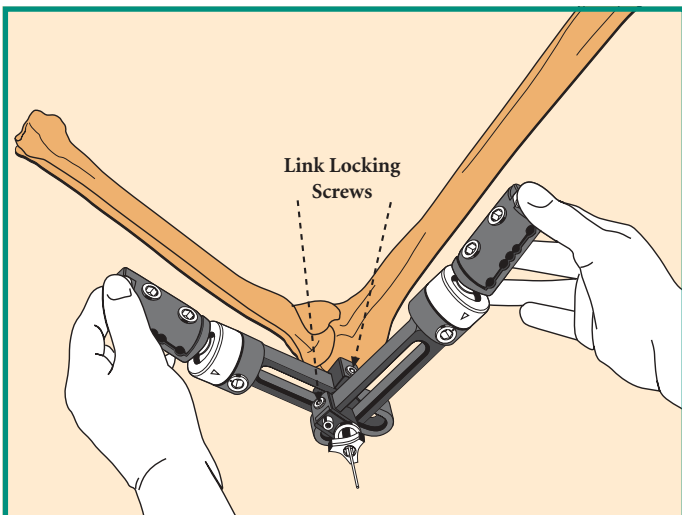
By Prof. Dr. D. Pennig and Dr. T. Gausepohl





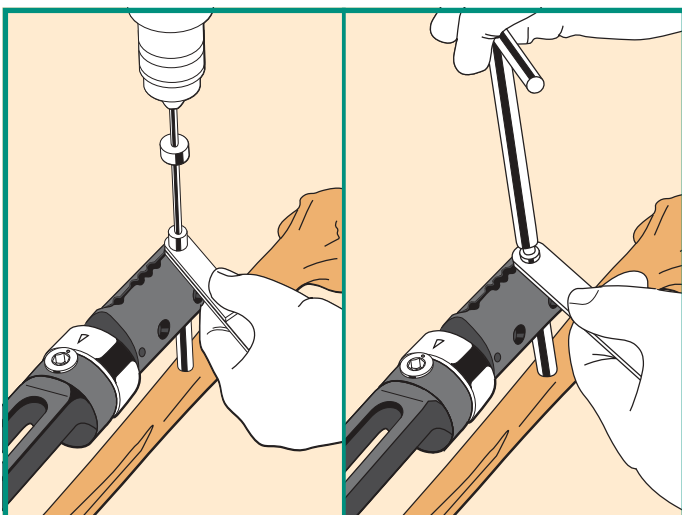
- Insert a 2 mm Kirschner wire to a depth of 2-3 cm, through the centre of rotation of the elbow joint under image intensification. Check its position in both planes.

Note: In comminuted fractures, it is sufficient to engage the first cortex only.



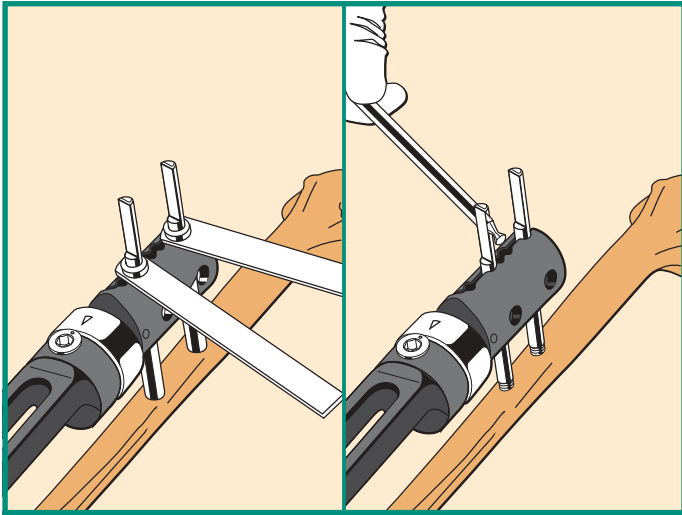
- Slide the fixator over the 2 mm Kirschner wire. Adjust the position of the links so that sufficient space is available for subsequent correction.

Note: The link locking screws are provisionally tightened at this point.



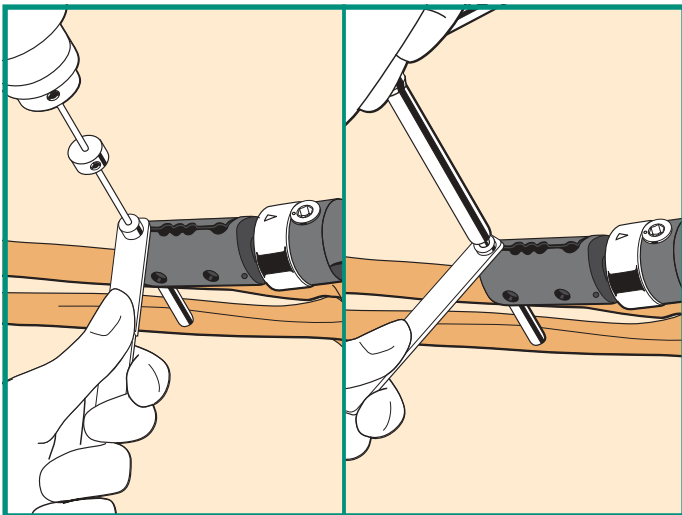
HUMERAL SCREW INSERTION

- Expose the lateral aspect of the humerus by blunt dissection in order to avoid damage to the radial nerve. Insert the most proximal screw first, at the distal insertion of the deltoid muscle. After pre-drilling with a 4.8 mm drill bit, insert a 100/30 or 110/30 6-5 mm diameter screw.



- Insert the second humeral screw in the same manner, in the 4th screw seat of the clamp.

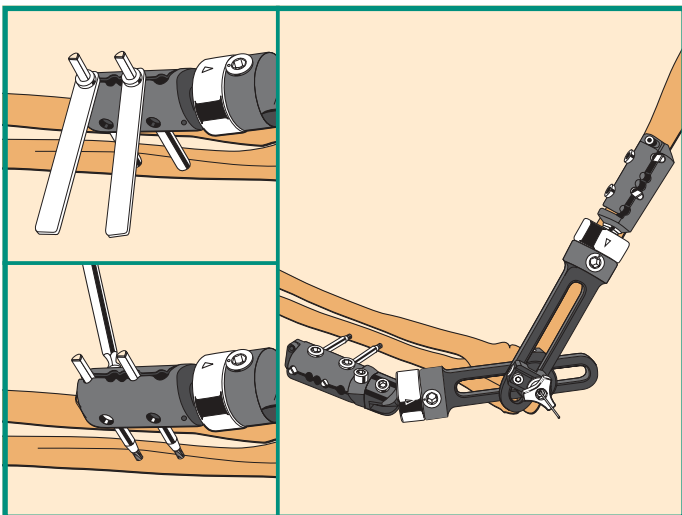
Note: In small humeri, where the diameter of the bone is less than 20 mm, use screws with a smaller thread diameter, 4.5-3.5 mm.



ULNAR SCREW INSERTION

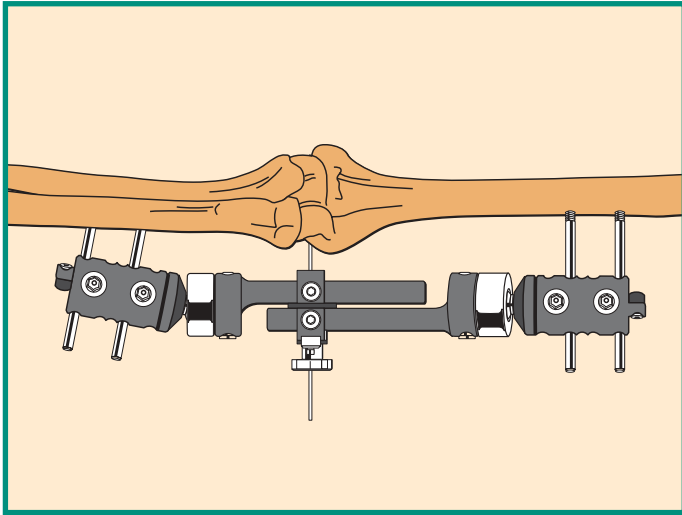
- With the forearm in the neutral position, apply the ulnar screws from the dorsal side, placing them as centrally as possible to avoid weakening the bone. After pre-drilling with a 3.2 mm drill bit, insert the most distal screw first. Always use a 120/20 or 100/20 4.5-3.5 mm diameter screw. Bicortical purchase is required.

Note: Open exposure is advisable.

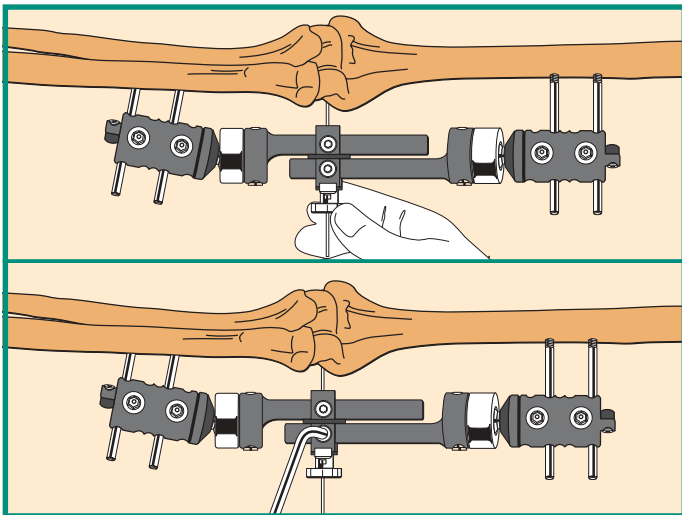


- Insert the second ulnar screw in the same manner, in the 4th screw seat of the clamp.

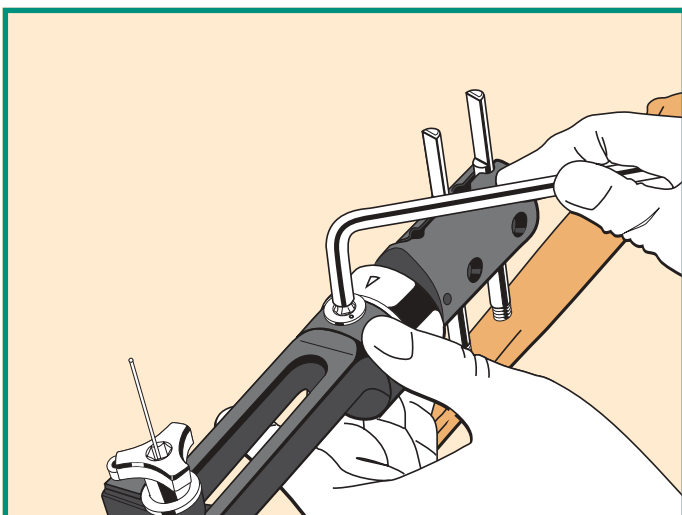
Note: An Extended Range Clamp may be used if it is not possible to insert both screws exactly in the centre of the bone.



- Check fixator alignment in the AP view.

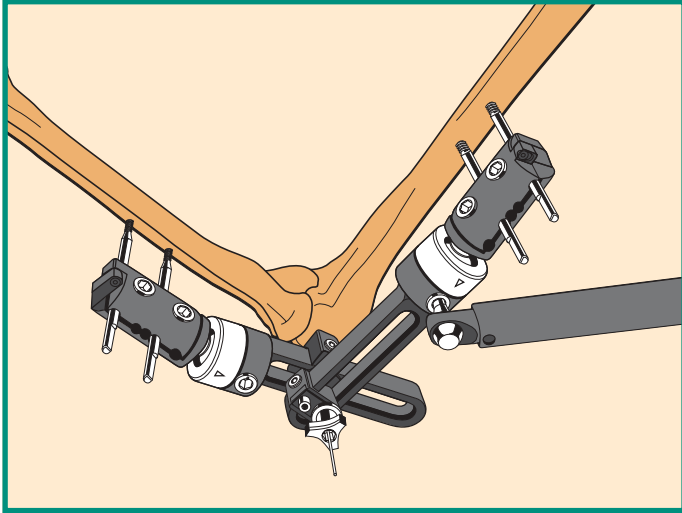


- Lock the triangular knob and then each of the link locking screws.

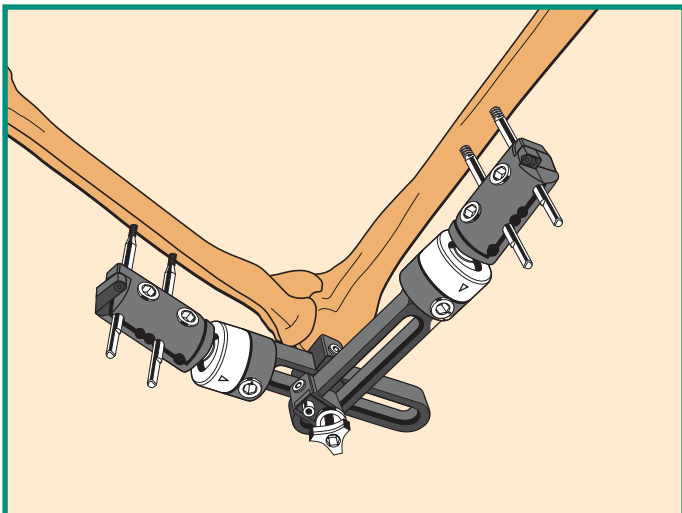


- Finally, tighten the ball-joints with a 6 mm Allen Wrench.

Note: Follow this sequence strictly otherwise the links may bend or jam.



- With the triangular knob loosened, flex and extend the elbow under image intensification to confirm correct fixator alignment and symmetrical joint opening. Finally, lock the ball-joints with the torque wrench.




- Using the triangular knob of the central connecting unit, lock the fixator at an appropriate angle (70° of flexion from full extension is recommended). Remove the 2 mm Kirschner wire.

The Orthofix Quality System has been certified to be in compliance with the requirements of:

- Medical Devices Directive 93/42/EEC, Annex II - (Full Quality System)
- International Standards EN 46001/ISO 9001

for orthopaedic external fixator systems including bone screws, nails and wires, sterile external and internal fixation systems.

 See "Orthofix External Fixation System" instruction leaflet (PQ EXF) and appropriate Operative Manual prior to use.

Your Distributor is:

www.orthofix.com



ORTHOFIX - Wonersh House - The Guildway - Old Portsmouth Road
Guildford - Surrey GU3 1LR - England
Tel. 44 1483 468800 Fax 44 1483 468829