Minirail System
Part A: Hand Applications
Please kindly refer to the product IFU PQMIN, to the Orthofix implantable devices and related instrument IFU PQSCR, and to the reusable medical devices IFU PQRMD that contain instructions for use of the product.

**USE OF M 103 IN LENGTHENING OF THE 1ST METACARPAL**

Insert a 2mm diameter threaded wire (or 3mm diameter bone screw) in the frontal plane, 90° to the bone axis. Apply the MiniRail Lengthener over the wire (or screw). Insert the second wire (or screw) into one screw seat of the second clamp.

Insert the remaining threaded wires (or screws). Perform a mid-shaft osteotomy.

If a metaphyseal osteotomy is performed, use the T-Clamp.
Post-Operative Management

Wait for 7-10 days before commencing distraction. Distract at a rate of 1mm per day (one quarter turn clockwise of the threaded screw four times a day).

**PRECAUTION:** In patients undergoing callus distraction, the regenerated bone must be checked regularly and monitored radiologically.

USE OF M 111 IN TREATMENT OF JOINT STIFFNESS

Insert a 1.8mm Kirschner Wire through the center of rotation of the joint. Apply the MiniRail Fixator over this wire. Insert the first and the second 2mm diameter threaded wires (or 3mm diameter bone screws) through the outermost screw seat of each clamp.

Insert the remaining wires (or screws).
USE OF M 122 IN SOFT TISSUE CORRECTION

Apply the MiniRail Fixator to the 1st and 2nd metacarpals, with the distraction threaded screw on the ulnar side of the limb. One bone screw in each clamp is sufficient for stability, but the use of an additional dummy screw shaft in each clamp is advisable to ensure uniform tightening of the clamp covers.

Post-Operative Management

When the soft tissues have relaxed, loosen the articulated body locking screw to commence physiotherapy. At the end of an exercise period, place the finger in maximum extension and retighten the articulated body locking screw.

Distract the joint until a joint space two or three times the normal width is obtained (one full turn clockwise of the threaded screw = 1mm distraction). Remove the Kirschner Wire and tighten the articulated body locking screw (inset).
Progressively distract the web space and orient the thumb towards the most functional position (usually 20° of abduction and 40° of opposition). In cases with severe neurological impairment of the hand, a two week trial period is advisable to determine the best functional position. Supplementary techniques (arthrodesis of the 1st carpo-metacarpal joint or tenodesis) are usually necessary to maintain the desired position.

Perform arthrodesis of the 1st carpo-metacarpal joint with the fixator in situ: resect the articular surfaces and insert a cancellous bone graft. Minimal internal fixation through the trapezium and 1st metacarpal may be used to maintain the desired position.

Operative Technique Contributing Surgeons:
Dr. L. Cugola
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Please refer to the “Instructions for Use” supplied with the product for specific information on indications for use, contraindications, warnings, precautions, adverse reactions and sterilization.

Electronic Instructions for use available at the website http://ifu.orthofix.it

Electronic Instructions for use - Minimum requirements for consultation:
- Internet connection (56 Kbit/s)
- Device capable to visualize PDF (ISO/IEC 32000-1) files
- Disk space: 50 Mbytes

Free paper copy can be requested from customer service (delivery within 7 days):
tel +39 045 6719301, fax +39 045 6719370,
e-mail: customerservice@orthofix.it

Caution: Federal law (USA) restricts this device to sale by or on the order of a physician. Proper surgical procedure is the responsibility of the medical professional. Operative techniques are furnished as an informative guideline. Each surgeon must evaluate the appropriateness of a technique based on his or her personal medical credentials and experience.

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