Medical Implants





Rearfoot 3.5mm Surgical Technique



Medical Implants

Astrolabe recognizes that proper surgical procedures and techniques are responsibilities of medical professionals.

The following guidelines are provided for information purposes only. Each surgeon must evaluate the appropriateness of the procedures based on their medical training, experience and condition of the patient. Before using the system, the surgeon must consult the operating instructions for additional warnings, precautions, indications, contraindications and adverse effects.

3.5mm Rearfoot Plates System



3.5mm Rearfoot Plates



LOCKING PLATE'UNIVERSAL'
10mm - 30mm



LOCKING PLATE 'OBLIQUE - FLAT'12mm - 16mm



LOCKING PLATE 'SPACER' no spacer - 8mm



LOCKING PLATE 'OFFSET' no offset - 6mm



LOCKING PLATE 'RECONSTRUCTION' 37mm - 66mm



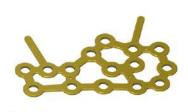
LOCKING PLATE 'H' 16mm - 22mm



LOCKING PLATE 'CALCANEUS' Extra Small/ Small/ Medium/ Large



LOCKING PLATE 'CALCANEUS, OFFSET' 6mm - 10mm



LOCKING PLATE 'CALCANEUS, MULTISEGMENTED' Small/ Medium/ Large

3.5mm **Rearfoot Screws**



3.5 mm **CORTICAL SCREW** 8mm - 40mm 2mm increments



3.5 mm **LOCKING SCREW** 8mm - 40mm 2mm increments





Ø3.5 MM CANNULATED SCREW, **PARTLY THREADED**

34mm - 40mm (2mm increments) 45mm- 50mm (5mm increments)

Ø3.5 MM CANNULATED SCREW, **FULLY THREADED**

34mm - 40mm (2mm increments) 45mm- 50mm (5mm increments)



3.5mm Rearfoot Plates System

 3.5mm Rearfoot Locking Plate System is developed to attend multiple surgical demands of the Rearfoot.

General Indications

- Arthrodesis of TMT 1 Joint
- Arthrodesis of Calcaneus-Cuboidale (CC), Talo-Navicular (TN) and Naviculo-Cuneiform (NC)
- Osteotomies of MT1, Charcot
- Instabilities of Lisfranc area
- Lenghtening of medial columns during intertarsal arthrodesis
- Base osteotomies
- MP Joint fusion
- Stabilization of medial and lateral columns from the talus to the metatarsal
- Isolated subtalar fusions as well CC and Lisfranc arthrodesis between the individual cuneifomia
- Multiple fixation of calcaneus fractures and displacements

3.5mm Rearfoot System









3.5 mm Cannulated Screws Fixation of small bones

- Fractures with small fragments
- -Metacarpal and metatarsal fractures/fixation and osteotomies
- Tarsal fractures
- Condilar fractures



Locking Plate, "Universal"

- Universal 4-hole plates for stabilisation of many arthrodesis and osteotomies:
- This multifuncional plate is used for Lisfranc and isolated tarsal fusions such as CC, NC and TN, base osteotomies like Closing/Opening-Wedge and MP-Joint Fusion;



Locking Plate, Spacer

- Plate with different spacers (0 to 8mm) for retrotrope interposition arthrodeses:
- Recommended for osteoporotic bones;
- Lengthening of the medial columns during intratarsal arthrodesis, such as talo-navicular TN arthrodesis, CC and NC arthrodesis, as wll as for Evans and Triple osteotomy;



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3.5mm Rearfoot System



Locking Plate, Reconstruction

- 3 different models with 6, 8 and 14 holes available;
- Multi-hole plates are specially designed for stabilization of the medial and lateral columns from the talus to the metatarsals:



Locking Plate, Oblique-Flat

- 3 different lengths available: 12mm, 14mm, 16mm
- Designed for subtalar fusions, CC and Lisfranc arthrodesis between individual Cuneiformes



Locking Plate, Calcaneus, Offset

- Available in 7 offsets: 0 to 6mm
- Indicated to stabilize the medial displacement of the calcaneus
- The design of the plate allows a precise positioning and optimal fixation of the distal fragment in the different osteotomies of the calcaneus



Locking Plate, Calcaneus

- Universal and malleable plates, indicated for the different calcaneal fractures; available in four sizes (XS; S, M, L)
- Possibility of transfixation of the Calcaneo-Cuboid joint:
- The reduced profile (1.3mm) allows for optimum anatomical adaptation, with easy and safe modeling, associated to locking screws and cortical screws.



Locking Plate, Calcaneus, Multisegmented

- Universal and malleable plates, indicated for the different calcaneal fractures; available in three sizes (S, M, L)
- Possibility of transfixation of the Calcaneo-Cuboid joint;
- The reduced profile (1.0mm) allows for optimum anatomical adaptation, with easy and safe modeling, associated to locking screws and cortical screws.

Surgical Technique

- After choosing the appropriate plate, provisionally fix it in place with a Kirschner Wire.
- If it is necessary, the plate can be moulded (item 11) to better fit patient's anatomy.



Note: Avoid excessive modeling of the plate as this can compromise its locking mechanisms. When using plate bender (item 11), holes adjacent to the bender can lose the ability to lock. If this occurs, a Cortical Screw must be used.

Surgical Technique

3.5 mm Locking Screws Positioning

Properly place the Threaded Graduated Drill Guide (item 06) by turning it into the threaded hole, then proceed with drilling using the Drill Bit (item 01/02/03/04).



 The reading of the screw measurement can be made directly on the Threaded Graduated Drill Guide (item 06) or using the Depth Gauge (item 09).



Attention:

To ensure the perfect fit and low profile of the Locking Screws on the plate, the Threaded Graduated Drill Guide (item 06) must be used.

If there is any damage to the threaded hole of the plate, the Locking Screws must be replaced by Cortical Screws.

Surgical Technique

Use the Handle (item 05) and Shaft Screwdriver (item 07/08) to position the screws.



- The procedure of placement of the screws is repeated as many times as necessary, for optimal fixation of the plate.
- Check the final position of the screws through the image intensifier to check if final position is according to initial intention.



Instruments

- O11 Drill Bit, Ø2.5 x 120 mm, Stop 50 mm, AO Coupling, Yellow Code Cod.:09.01.03.25020
- 90 mm, AO Coupling Yellow Code Cod.:09.07.04.10092
- Drill Bit, Cannulated, Øext. 2.5 x Øint. 1.4 x 95 mm, twist length 30 mm, AO Coupling Cod.:09.01.04.25095
- Shaft Screwdriver, Cannulated, Torx-10, 90 mm, AO Coupling, Yellow Code Cod.:09.07.08.10092

- O3 Drill Bit, Ø2.5 x 125 mm, Stop 50 mm, Stryker Coupling, Barrel Ø4.5 mm, Yellow Code Cod.: 09.01.07.25021
- Depth Gauge, 60 mm Cod: 09.08.01.00060

- O4 Drill Bit, Cannulated, Øext. 2.5 x Øint. 1.4 x 95 mm, twist length 30 mm Cod.:09.01.10.25095
- Plate and Screw Holding Forceps, Angled, 150 mm Cod.09.10.06.00150

Handle, Cannulated,
AO Coupling, 120 mm – Black
Cod.: 09.04.04.12050

Bending Pliers, Flat, 135 mm Cod.09.14.02.00135

Graduated Drill Guide
Ø2.5 x 40 mm, Threaded, Yellow Code
Cod.: 09.05.14.04025



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