



Low Profile MTP Plate

Surgical Technique



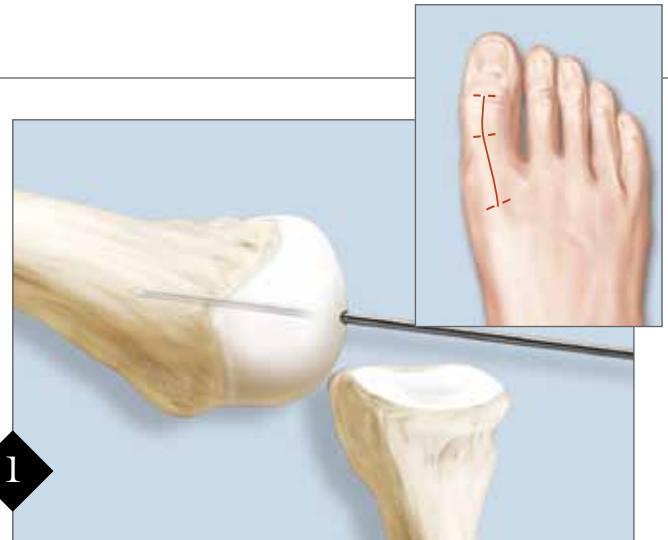
Low Profile MTP Plate

## Low Profile MTP Fixation

More than a plate, this is a complete system for joint preparation and fixation for the treatment of severe hallux rigidus and other MTP pathologies. Whether used in primary or revision cases, this system enables surgeons to reduce, compress and lock the 1st metatarsal phalangeal joint in the ideal position for arthrodesis.

### Advantages:

- **Anatomic Plate Design** - 1.5 mm titanium plate anatomically designed with 8° of dorsiflexion and 5° of valgus
- **Concave/Convex Reamers** - facilitate quick and accurate joint preparation
- **3 mm QuickFix or FT Screws** - enhanced ease of use in reducing the plate-to-bone with "snap-off" screws or traditional fully threaded screws
- **3 mm Cannulated Screw** - as crossed screws or in conjunction with the plate, these lag screws provide excellent compression with a low profile head
- **3 mm Locking Screws** - create greater stability in varying bone quality



**Preparation** – For optimal exposure of the MTP joint, a dorsal longitudinal incision is recommended. The incision should begin just proximal to the interphalangeal joint, extending over the extensor hallucis longus tendon medially, and ending 2-3 cm proximal to the joint. Incise and release the joint capsule, exposing the base of the proximal phalanx and metatarsal head. Insert 1.6 mm Guidewire in the central aspect of the metatarsal.



**Metatarsal Reaming** – Using a power saw, resect the bone and shape the metatarsal head to prepare for reaming. Elevate the metatarsal head and plantar flex the proximal phalanx. Place the concave shaped Metatarsal Reamer over the Guidewire and gently ream the metatarsal head. Start spinning the Reamer before touching the bone.



**Phalangeal Reaming** – Insert the 1.6 mm Guidewire in the central aspect of the proximal phalanx. Using the Cannulated AO Adapter, place the convex shaped Phalangeal Reamer over the Guidewire and gently ream the articular surface until healthy, bleeding bone is present. The reamer sizes should be consistent for both the metatarsal and phalanx to create a congruent cup-shaped surface.



**Preliminary Plate Placement** – The plate can be temporarily fixed with the BB-Taks included in the set of K-wires. The plate is precontoured at 8° dorsiflexion and 5° valgus. There is no need for substantial bending. If additional bending is needed, use the Bending Iron in the set to achieve the desired plate contour.



**Nonlocking Screw Placement** – Once the plate is placed in the ideal position, secure the plate to the bone by inserting the 3 mm QuickFix "snap-off" Screws in a distal and a proximal nonlocking hole. The third nonlocking screw will be added once the level of compression is identified during the interfragmentary screw fixation. **Alternatively:** Measure and place nonlocking fully threaded screws.



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**Interfragmentary Screw** – In an oblique fashion, insert the interfragmentary 1.1 mm K-wire across the construct. Proceed by drilling over the Guidewire with the 2 mm cannulated drill. The interfragmentary screw can be inserted prior to plate placement if the surgeon prefers.



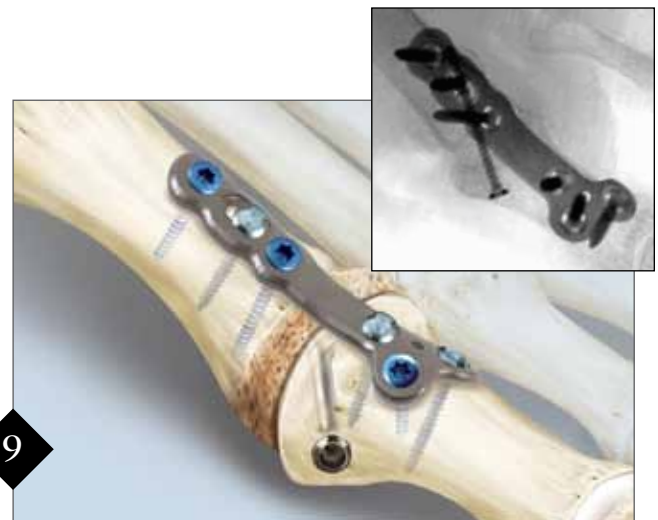
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**Secure Plate to Bone** – Insert the partially threaded 3 mm Cannulated Screw. Once the level of compression is identified, secure all three nonlocking holes by tightening with the 3 mm Driver Shaft (for QuickFix).



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**Locking Screw** – Insert the Drill/Depth Guide (AR-8944-22) for the 3 mm locking screws. Once the appropriate depth of the locking holes is determined, advance the screws until the screw head is flush with the plate.



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**Fixation Complete – Post-Op:** Patients are instructed to protect the fusion with a postoperative shoe and apply weight-bearing on the heel for six weeks. (If they are unable to comply with this protocol, then they are protected by nonweight-bearing for six weeks.) Patients are progressed to full weight-bearing after six weeks if radiographs demonstrate a solid fusion.

## Ordering Information

### Forefoot Fusion Module Implants:

MTP Plate, contoured, standard, left	AR-8944CL-S
MTP Plate, contoured, standard, right	AR-8944CR-S
MTP Plate, contoured, long, left	AR-8944CL-L
MTP Plate, contoured, long, right	AR-8944CR-L
MTP Plate, contoured, short, left	AR-8944CL-P
MTP Plate, contoured, short, right	AR-8944CR-P

QuickFix Screw, yellow, 3 mm x 13 mm	AR-8931-13
QuickFix Screw, light blue, 3 mm x 15 mm	AR-8931-15
QuickFix Screw, aqua, 3 mm x 17 mm	AR-8931-17
QuickFix Screw, bronze, 3 mm x 19 mm	AR-8931-19

Screws, cortical, 3 mm x 10 mm - 24 mm	AR-8933-10 - 24
Low Profile Screws, cortical, locking, 3 mm x 10 mm - 24 mm	AR-8933L-10 - 24
Cannulated Screws, 3 mm x 18 mm - 40 mm	AR-8933-18PT - 40PT

### Forefoot Fusion Module (AR-8944S) Instrument Set:

<b>Bone Preparation:</b>	
Guidewire, .062"	AR-8941K
Hohmann Retractor	AR-13210
McGlamry Elevator, 13 mm	AR-8944M
Metatarsal Reamers, 14 mm - 22 mm	AR-8944MR-14 - 22
Phalangeal Reamers, 14 mm - 22 mm	AR-8944PR-14 - 22
Circular Reamers, 16 mm - 22 mm	AR-8944MC-16 - 22

### QuickFix Instruments:

Cannulated Cutter, QuickFix (accessory)	AR-8930R
Driver Shaft, 3 mm	AR-8931D
Drill Bit, 2 mm	AR-4160-20
Depth Guide	AR-8930G

### 3 mm FT Screw Instruments:

Drill Bit, 2 mm	AR-4160-20
Depth Guide	AR-8930G
Driver, T10 Hexalobe	AR-8944D

### 3 mm Locking Screw Instruments:

Drill Bit, 2.2 mm (for 3 mm locking screws)	AR-8944-22
Driver, T10 Hexalobe	AR-8944D
Drill/Depth Guide, 3 mm locking	AR-8944GL

### 3 mm PT Cannulated Screw Instruments:

Guidewire, .045" x 5.910"	AR-8933K
Drill Bit, 2 mm, cannulated	AR-8933-20C
Drill Bit, 3 mm, cannulated	AR-8933-30C
Drill Guide, 1.5 mm	AR-8933G
Countersink	AR-8933CS
Cannulated Depth Device	AR-8944DG
Driver, 2.5 mm Hex, cannulated	AR-8933D
Screw Holding Forceps	AR-8941F

### Other Instruments:

Bending Iron	AR-8941BI
Bending Pliers	AR-8941BP
Driver Handle, AO	AR-13221AOC
BB-Tak	AR-13226
Cannulated AO Adapter	AR-4160AOC
Forefoot Fusion Module Instrument Case	AR-8944C
Guidewire .045", double trocar	AR-8933KD

*This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's Directions For Use.*



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