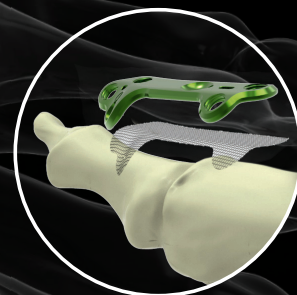
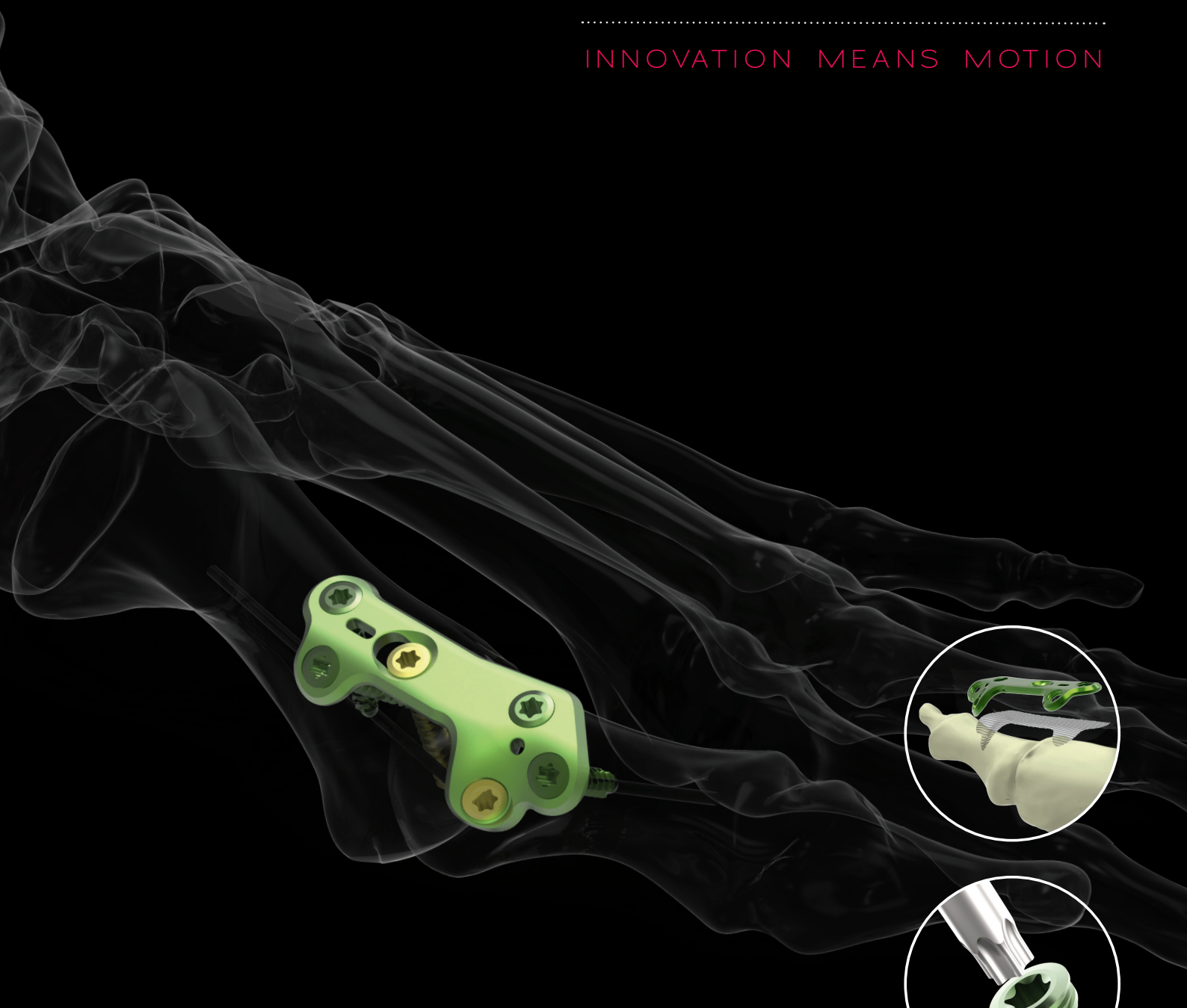




NEWCLIP-TECHNICS

.....  
INNOVATION MEANS MOTION



## FOOTMOTION PLATING SYSTEM - MTP FIRST METATARSO-PHALANGEAL ARTHRODESIS PLATE

- ▶ Precontoured implants
- ▶ Hexalobe screw recess design
- ▶ Transfixation screw

# FOOTMOTION PLATING SYSTEM - MTP

**Indications:** The implants of the Footmotion Plating System are intended for arthrodeses, fractures and osteotomies fixation and revision surgeries of the foot in adults.

**Contraindications:**

- Serious vascular deterioration, bone devitalization.
- Pregnancy.
- Acute or chronic local or systemic infections.
- Lack of musculo-cutaneous cover, severe vascular deficiency affecting the concerned area.
- Insufficient bone quality preventing a good fixation of the implants into the bone.
- Muscular deficit, neurological deficiency or behavioral disorders, which could submit the implant to abnormal mechanical strains.
- Allergy to one of the materials used or sensitivity to foreign bodies.
- Serious problems of non-compliance, mental or neurological disorders, failure to follow post-operative care recommendations.
- Unstable physical and/or mental condition.

## ARTHRODESIS PLATE FOR THE FIRST METATARSO-PHALANGEAL (MTP) JOINT

### → TECHNICAL FEATURES

Examples of application: hallux rigidus, severe hallux valgus, polyarthritis

- **3 types of plates**, for the right (green plates) and left (blue plates) sides offering versatile solutions.



**Narrow plates**  
2 sizes of plates



**Standard plates**  
3 sizes of plates

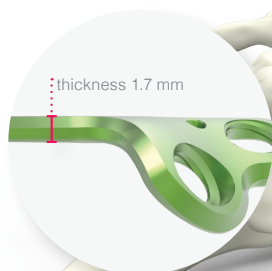


**Revision plates**  
2 sizes of plates

- **Range of precontoured plates:** the design of this implant is the result of a proprietary state-of-the-art mapping technology to establish an optimized congruence between the plate and the bone.



- **Low profile plate:** approximately 1.7 mm thick, thus limiting soft tissue irritation risks while providing an optimized mechanical stability.



thickness 1.7 mm

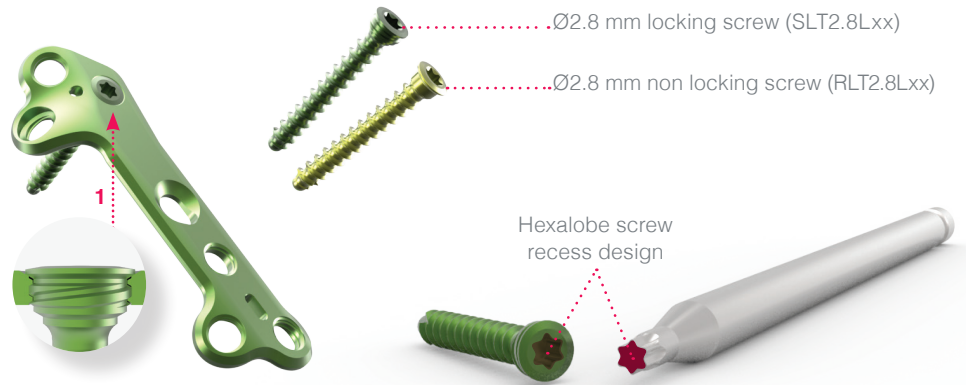
**Oblong hole for pin** to achieve compression without removing the pin and to ensure the guiding on the metatarsal.

**Hole for pin** to temporarily stabilize the plate.

# FIXATION - TECHNICAL FEATURES

## FIXATION AND SCREW FEATURES

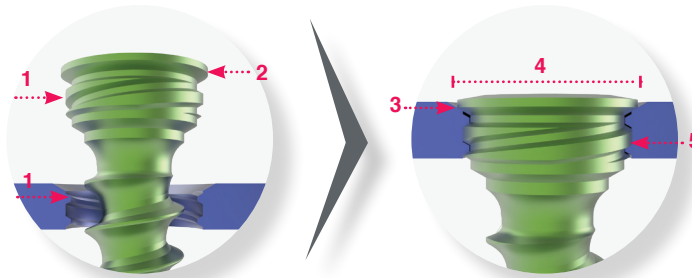
- **A single screw diameter:** Ø2.8 mm. Both locking (SLT2.8Lxx) and non locking screws (RLT2.8Lxx) are available.
- **The screw head is minimally invasive and buried in the plate (1)** to limit the risk of soft tissue irritation.
- **The hexalobe screw recess design** improves torque transmission and ability to cope with difficulty arising from screw insertion into the bone.



## MONOAXIAL SELF-LOCKING SYSTEM

### Features:

- The threads under the screw head and inside the hole have the **same characteristics (1)**:
  - Cylindrical internal thread profile.
  - Cylindrical external thread profile.
- Screw head cap (2),
- Plate and screws are all made of titanium alloy.



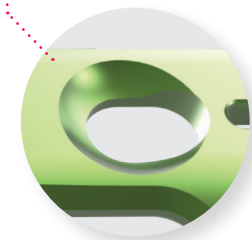
### Results:

- **Low profile assembly:**
  - The screw head is stopped in the hole by its cap, ensuring the locking (3),
  - The screw head is buried in the plate (4).
- **Coaptation of both profiles during locking (5).**

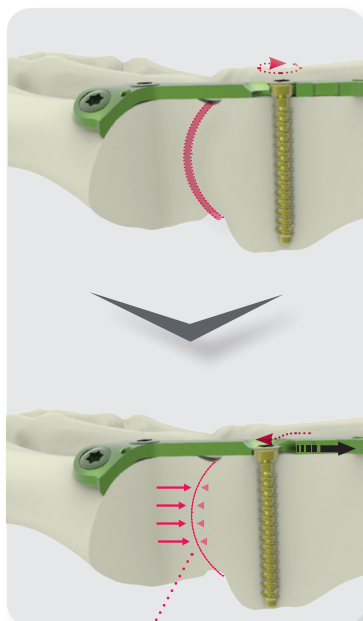
## SPECIFIC FIXATIONS FOR OPTIMAL STABILITY OF THE ASSEMBLY

### Ramp oblong hole

The ramp oblong hole enables a simple and controlled compression thanks to its screw-plate interface.

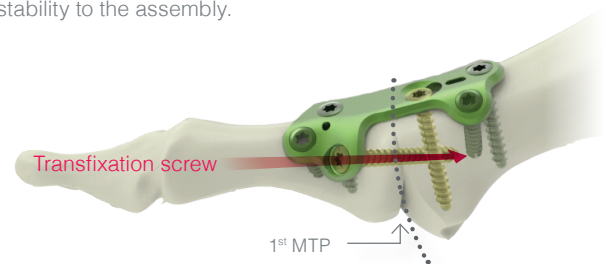


Compression of the joint up to 1.5 mm



### Hole for transfixation screw

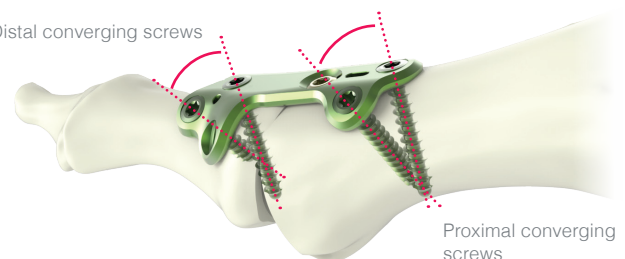
The transfixation screw goes through the 1<sup>st</sup> MTP joint providing stability to the assembly.



### Holes for converging screws in the distal and proximal areas

Converging screws allow a stable fixation of the system.

Distal converging screws



# SURGICAL TECHNIQUE

## JOINT SURFACES PREPARATION

Example using a standard arthrodesis plate.

1.



1. Dislocate the joint to expose the head of the first metatarsal and the base of the proximal phalanx.

2.



2. Insert the Ø1.6 mm pin (33.0216.150) through the head of the first metatarsal into the medullary cavity.

To determine the appropriate reaming size, insert the convex reamers successively along the pin. Progressively, reduce the diameter until the cartilage surfaces have been removed.

Remove the reamer and pin.

3.



3. Expose the base of the phalanx and insert the Ø1.6 mm pin (33.0216.100) to achieve proper alignment with the diaphysis.

4.

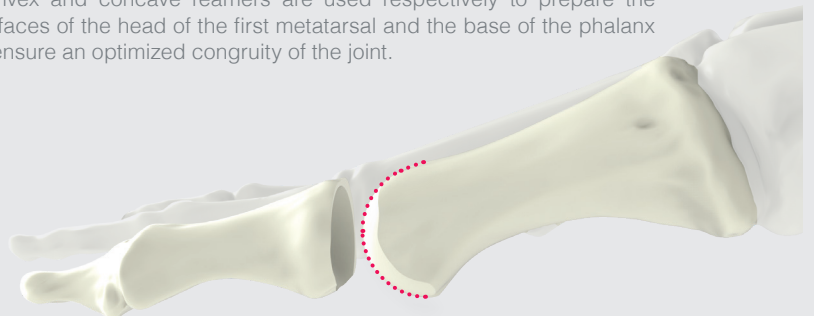


4. Take a concave reamer with the **same diameter** as the convex reamer (determined at step 2). Insert it along the pin and perform reaming until the cartilage surfaces have been removed.

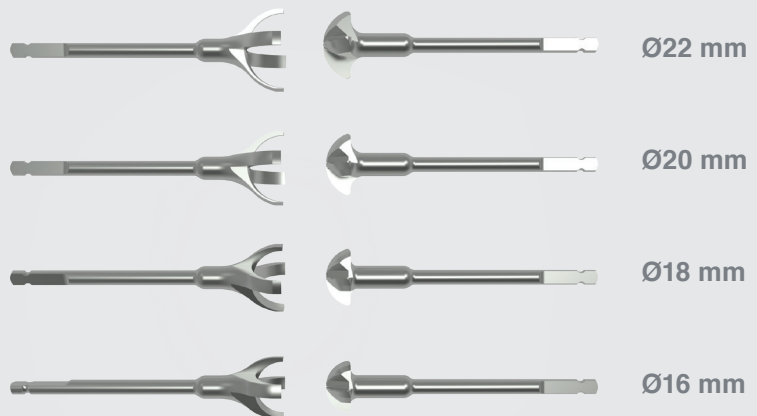
Remove the reamer and the pin.

### → INSTRUMENTATION: CONVEX AND CONCAVE REAMERS

Convex and concave reamers are used respectively to prepare the surfaces of the head of the first metatarsal and the base of the phalanx to ensure an optimized congruity of the joint.



Reamers are available in 4 diameters:



Convex reamers

Concave reamers

# SURGICAL TECHNIQUE

## POSITIONING OF THE PLATE

5.



5. Position the joint in the desired direction and stabilize it using a Ø1.6 mm pin (33.0216.150).

6.



6. Choose the plate corresponding to the desired correction (three sizes available).

**NB:** The plates of the Footmotion Plating System are precontoured. If necessary, they can be bent to be adapted to the arthrodesis to perform.

### → PLATE BENDING

The plates of the Footmotion Plating System can be bent using the appropriate bending pliers (ANC578) and complying with the following instructions:



- Bending is only possible in the areas intended for this purpose,
- A bendable area must be bent only once and in one direction,
- Bending must not be performed excessively,
- The holes must be protected to avoid damaging the fixation.

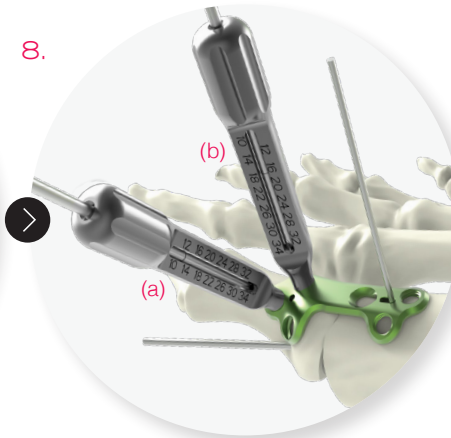
## FIXATION OF THE PLATE

7.



7. Position the plate and stabilize it temporarily by inserting a Ø1.2 mm pin (33.0212.070) into the dedicated oblong hole.

8.



**NB:** It is also possible to position the plate and stabilize it temporarily using Ø1.2 mm (33.0212.070) pin through the dedicated distal hole.

8. Lock the two threaded guide gauges (ANC576) in the two distal holes. Insert the drill bit (ANC590) in the first hole (a) in order to stabilize the plate, and keep it in place. Drill (ANC590) through the second hole (b). Determine the appropriate screw length using the threaded guide gauge (ANC576).

9.



9. Insert a locking screw (SLT2.8Lxx) with the screwdriver (ANC575).

10.



10. After determining the screw length required, remove the drill bit and the guide gauge from the first hole and insert a locking screw (SLT2.8Lxx) using the screwdriver (ANC575).

**⚠** The final tightening of the screws must be performed by hand.

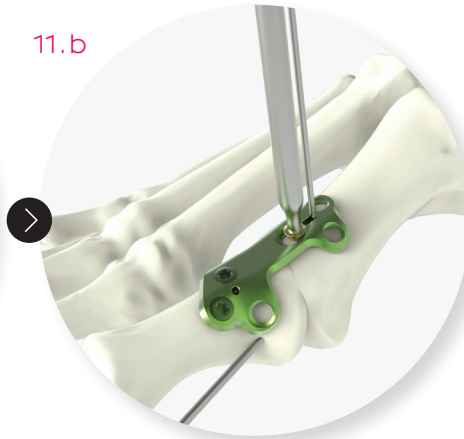
# SURGICAL TECHNIQUE

## COMPRESSION OF THE JOINT

### → OPTION 1: COMPRESSION USING THE RAMP OBLONG HOLE



11.a) Drill (ANC590) into the most proximal part of the ramp oblong hole, and directly read the depth on the non-threaded bent guide gauge (ANC586).



11.b) Insert a Ø2.8 mm non locking screw (RLT2.8Lxx) then perform compression using the screwdriver (ANC575) (see page 3).



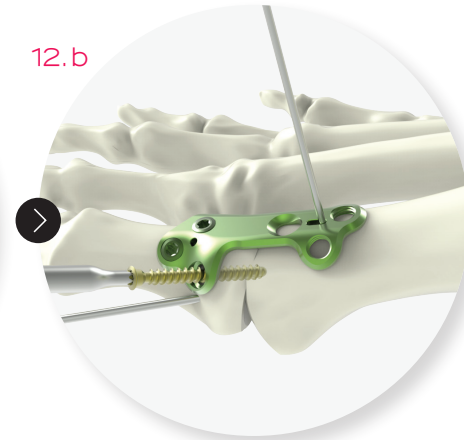
11.c) Insert in the proximal part, the two Ø2.8 mm locking screws (SLT2.8Lxx) into the remaining holes following the steps 8 & 9.

Finalize by inserting a Ø2.8 mm non locking screw (RLT2.8Lxx) into the hole for the transfixation screw in the distal part.

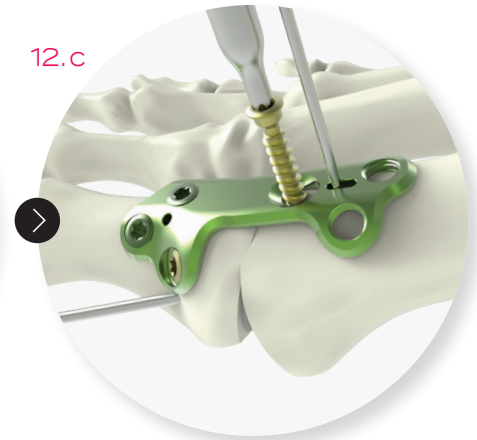
### → OPTION 2: COMPRESSION USING THE TRANSFIXATION SCREW



12.a) Drill through the hole designed for the transfixation screw and through the metatarso-phalangeal joint, using a Ø2.0 mm drill bit (ANC590) and the threaded guide gauge (ANC576). To produce the lag effect, drill through the base of the phalanx using a Ø3.0 mm drill bit (ANC611).



12.b) Insert a Ø2.8 mm non locking screw (RLT2.8Lxx) using the screwdriver (ANC575).



12.c) Complete the construct by inserting in the proximal part:

- A Ø2.8 mm non locking screw (RLT2.8Lxx) into the distal part of the ramp oblong hole, so as to avoid additional compression.
- Two Ø2.8 mm locking screws (SLT2.8Lxx) into the two remaining proximal holes.

FINAL RESULT



 The final tightening of the screws must be performed by hand.

# IMPLANTS REFERENCES

## → PLATES

### 1<sup>ST</sup> MTP ARTHRODESIS PLATES

Ref.	Description
FMTDD1	1 <sup>st</sup> MTP Arthrodesis plate - Right - Size 1
FMTGD1	1 <sup>st</sup> MTP Arthrodesis plate - Left - Size 1
FMTDD2	1 <sup>st</sup> MTP Arthrodesis plate - Right - Size 2
FMTGD2	1 <sup>st</sup> MTP Arthrodesis plate - Left - Size 2
FMTDD3	1 <sup>st</sup> MTP Arthrodesis plate - Right - Size 3
FMTGD3	1 <sup>st</sup> MTP Arthrodesis plate - Left - Size 3



### 1<sup>ST</sup> MTP ARTHRODESIS NARROW PLATES

Ref.	Description
FMTDDN1	1 <sup>st</sup> MTP Arthrodesis plate - Right - Narrow - Size 1
FMTGDN1	1 <sup>st</sup> MTP Arthrodesis plate - Left - Narrow - Size 1
FMTDDN2	1 <sup>st</sup> MTP Arthrodesis plate - Right - Narrow - Size 2
FMTGDN2	1 <sup>st</sup> MTP Arthrodesis plate - Left - Narrow - Size 2

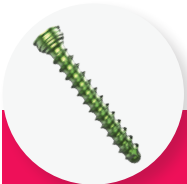


### 1<sup>ST</sup> MTP ARTHRODESIS REVISION PLATES

Ref.	Description
FMTDDN4	1 <sup>st</sup> MTP Arthrodesis plate - Right - Narrow - Size 4
FMTGDN4	1 <sup>st</sup> MTP Arthrodesis plate - Left - Narrow - Size 4
FMTDD4	1 <sup>st</sup> MTP Arthrodesis plate - Right - Size 4
FMTGD4	1 <sup>st</sup> MTP Arthrodesis plate - Left - Size 4



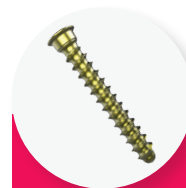
## → Ø2.8 MM SCREWS



### LOCKING SCREWS\*

Ref.	Description
SLT2.8L10	Locking screw - Ø2.8 mm - L10 mm
SLT2.8L12	Locking screw - Ø2.8 mm - L12 mm
SLT2.8L14	Locking screw - Ø2.8 mm - L14 mm
SLT2.8L16	Locking screw - Ø2.8 mm - L16 mm
SLT2.8L18	Locking screw - Ø2.8 mm - L18 mm
SLT2.8L20	Locking screw - Ø2.8 mm - L20 mm
SLT2.8L22	Locking screw - Ø2.8 mm - L22 mm
SLT2.8L24	Locking screw - Ø2.8 mm - L24 mm
SLT2.8L26	Locking screw - Ø2.8 mm - L26 mm
SLT2.8L28	Locking screw - Ø2.8 mm - L28 mm
SLT2.8L30	Locking screw - Ø2.8 mm - L30 mm
SLT2.8L32	Locking screw - Ø2.8 mm - L32 mm
SLT2.8L34	Locking screw - Ø2.8 mm - L34 mm

\* Green anodized



### NON LOCKING SCREWS\*

Ref.	Description
RLT2.8L10	Non locking screw - Ø2.8 mm - L10 mm
RLT2.8L12	Non locking screw - Ø2.8 mm - L12 mm
RLT2.8L14	Non locking screw - Ø2.8 mm - L14 mm
RLT2.8L16	Non locking screw - Ø2.8 mm - L16 mm
RLT2.8L18	Non locking screw - Ø2.8 mm - L18 mm
RLT2.8L20	Non locking screw - Ø2.8 mm - L20 mm
RLT2.8L22	Non locking screw - Ø2.8 mm - L22 mm
RLT2.8L24	Non locking screw - Ø2.8 mm - L24 mm
RLT2.8L26	Non locking screw - Ø2.8 mm - L26 mm
RLT2.8L28	Non locking screw - Ø2.8 mm - L28 mm
RLT2.8L30	Non locking screw - Ø2.8 mm - L30 mm
RLT2.8L32	Non locking screw - Ø2.8 mm - L32 mm
RLT2.8L34	Non locking screw - Ø2.8 mm - L34 mm

\* Golden anodized

#### Remark:

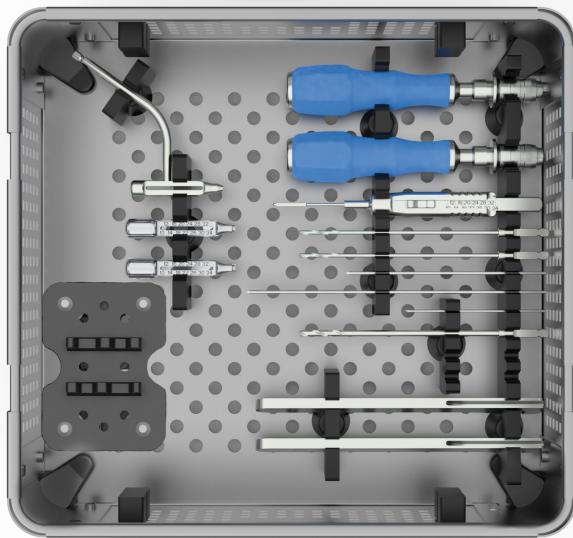
All implants are also available in sterile version. An «-ST» must be added to the end of the reference. Ex : «SLT2.8L10-ST»

# INSTRUMENTS REFERENCES

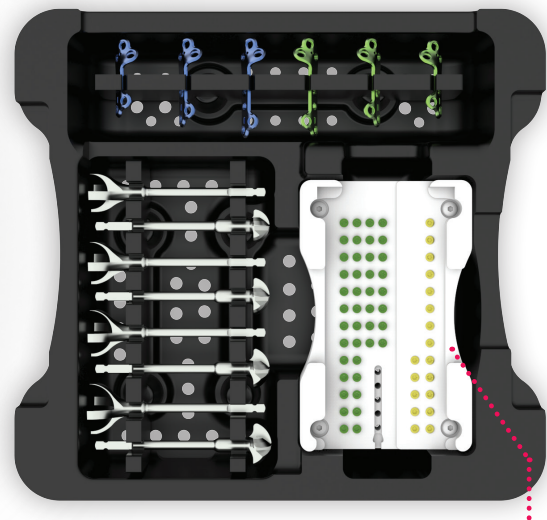
## FOOTMOTION PLATING SYSTEM - MTP - INSTRUMENTS

Ref.	Description	Qty
ANC350	Ø4.5 mm AO quick coupling handle - Size 1	2
ANC567	Ø16 mm convex reamer	1
ANC568	Ø16 mm concave reamer	1
ANC569	Ø18 mm convex reamer	1
ANC570	Ø18 mm concave reamer	1
ANC571	Ø20 mm convex reamer	1
ANC572	Ø20 mm concave reamer	1
ANC573	Ø22 mm convex reamer	1
ANC574	Ø22 mm concave reamer	1
ANC575	T8 quick coupling screwdriver	2
ANC576	Ø2.0 mm threaded guide gauge for Ø2.8 mm screws	2
ANC578	Bending plier	2
ANC586	Ø2.0 mm non threaded bent guide gauge for Ø2.8 mm screws	1
ANC589	Length gauge for Ø2.8 and Ø3.5 mm screws	1
ANC590	Ø2.0 mm quick coupling drill bit - L 125 mm	2
ANC611	Ø3.0 mm quick coupling drill bit - L 125 mm	1
33.0212.070	Pin Ø1.2 mm - L70 mm	5
33.0216.100	Pin Ø1.6 mm - L100 mm	5
33.0216.150	Pin Ø1.6 mm - L150 mm	5

## → FOOTMOTION PLATING SYSTEM - MTP SET DESCRIPTION



BASE (ANC648/B)



INSERT  
(ANC648/I)

SCREW RACK  
(ANC648/R)

### REMOVAL KIT

If you have to remove FOOTMOTION PLATING SYSTEM - MTP implants, make sure to order the **Newclip Technics removal set** which includes the following instruments:

- ANC575: T8 quick coupling screwdriver
- ANC350: Ø4.5 mm AO quick coupling handle - Size 1

The information presented in this brochure is intended to demonstrate a NEWCLIP TECHNICS product. Always refer to the package insert, product label and/or user instructions before using any NEWCLIP TECHNICS product. Surgeons must always rely on their own clinical judgment when deciding which products and techniques to use with their patients. Products may not be available in all markets. Product availability is subject to the regulatory or medical practices that govern individual markets. Please contact your NEWCLIP TECHNICS representative if you have questions about the availability of NEWCLIP TECHNICS products in your area.

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