

# CALCANHEAL.



CALCANEAL  
FRACTURES



# CALCANHEAL

## Intended purpose:

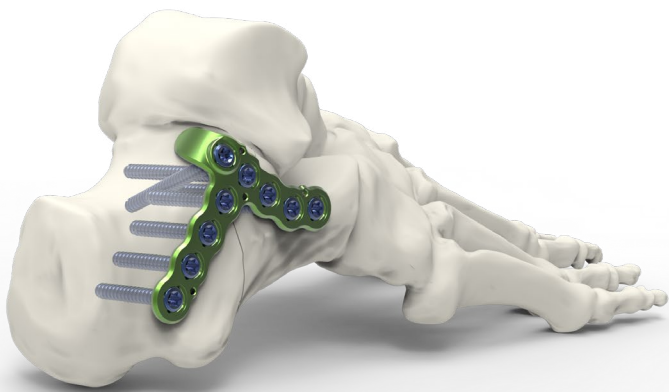
The implants of the Footmotion Plating System are intended for arthrodeses, fractures and osteotomies fixation and revision surgeries of the foot in adults.

## Contraindications:

- Pregnancy.
- Acute or chronic, local or systemic infections.
- Allergy to one of the materials used or sensitivity to foreign bodies.

## A COMPREHENSIVE RANGE OF PLATES

### → SINUS TARSI PLATES



FSTD4

#### 4 sizes available



Size 1 (FSTxL1)



Size 2 (FSTxL2)

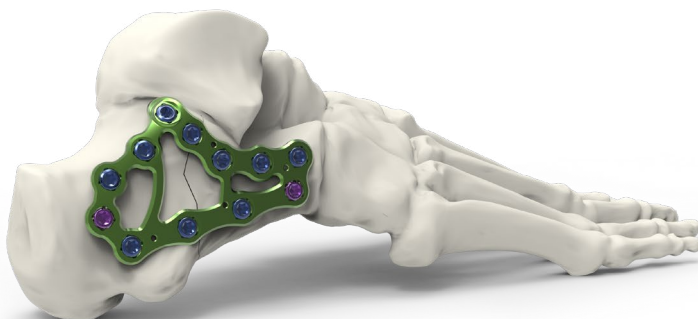


Size 3 (FSTxL3)



Size 4 (FSTxL4)

### → EXTENSILE LATERAL PLATES

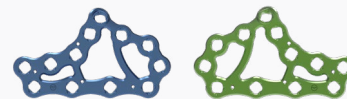


FKTDL2

#### 3 sizes available



Size 1 (FKTxL1)



Size 2 (FKTxL2)

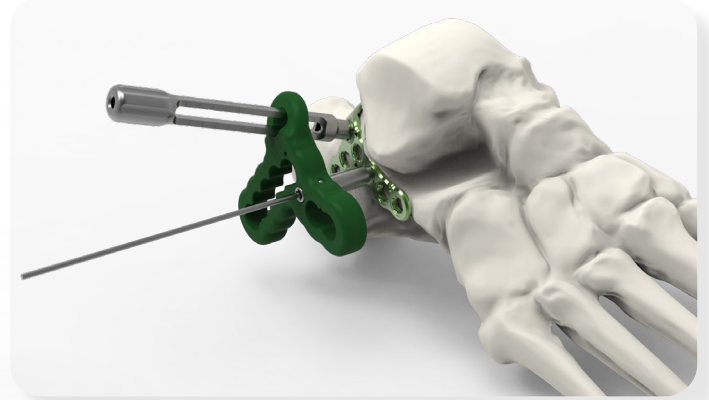


Size 3 (FKTxL3)

# TECHNICAL FEATURES

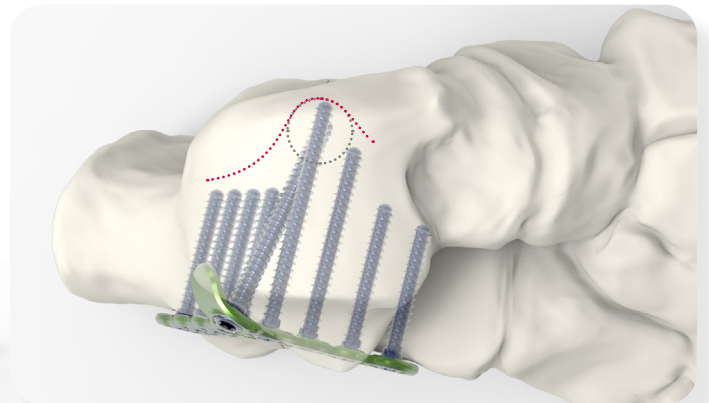
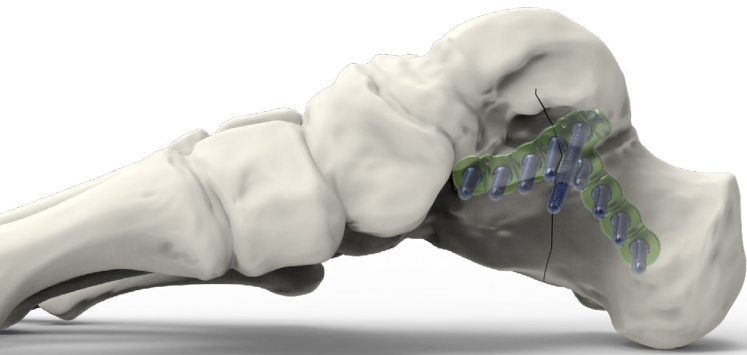
## MINIMALLY INVASIVE EXTERNAL GUIDE

- ▶ Allowing the manipulation of the plate under the skin.
- ▶ Targeting of the holes percutaneously.



## SUSTENTACULUM TALI TARGETING

- ▶ Targeting the strongest part of the calcaneus: the sustentaculum tali.



# TECHNICAL FEATURES

## ANATOMICAL FEATURES

### ▶ Precontoured implants

The design of these implants is the result of a proprietary state-of-the-art mapping technology to establish the maximum congruence between the plate and the bone.

### ▶ Bendable plates

However, in the case of difficult bone anatomy, all the CalcanHeal plates can be bent with the appropriate bending irons (ANC578). The bending of these plates must be performed **once and in one direction only**. Please refer to the IFU for bending precautions.

⚠ If the bending irons are used for the sinus tarsi plates, the external guide can no longer be used.



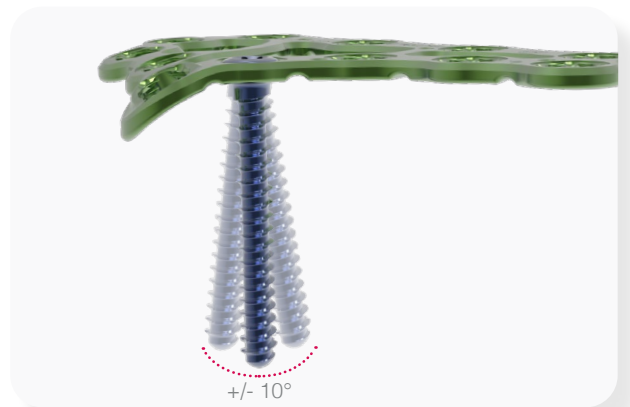
ANC578

## FIXATION AND SCREW FEATURES

▶ Ø3.5 mm and Ø2.8 mm locking and non locking (compressive) screws, from 10 mm to 50 mm (2 mm incrementation).

▶ Polyaxiality of  $\pm 10^\circ$  for all the holes of the plate.

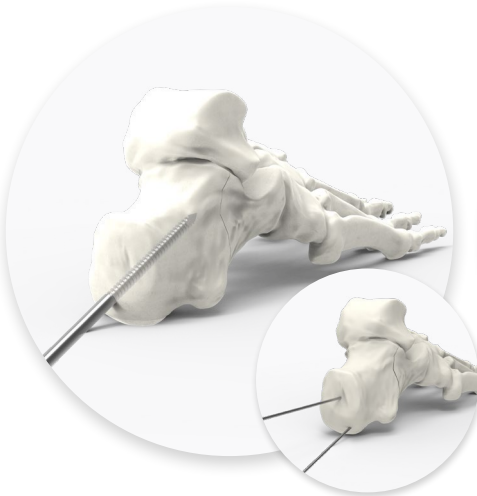
▶ Hexalobe screw recess design (T15)



# SURGICAL TECHNIQUE

## SINUS TARSI APPROACH

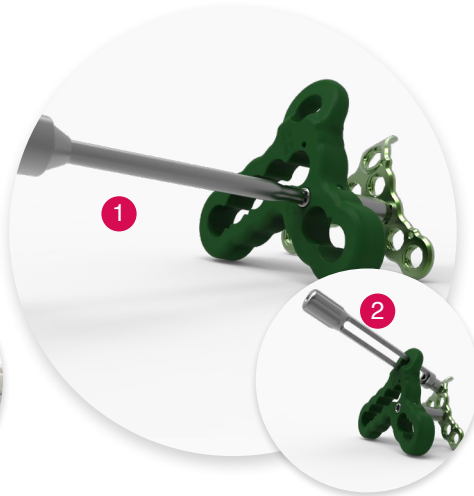
Surgical technique example using the size 4 calcaneal fracture sinus tarsi plate (FSTD4)



1. Make a slightly S-shaped incision from the base of the lateral malleolus to the calcaneocuboid joint. Continue the dissection down to the subtalar joint.

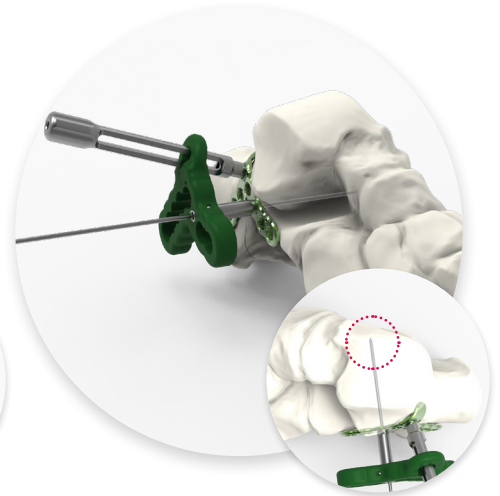
Reduce the posterior tuberosity by placing in the posterior part of the calcaneus a Schanz pin (ANC1162) or a Denham pin (ANC1163). Insert a Ø1.6 mm pin (33.0216.150) to maintain the reduction.

Check the reduction under fluoroscopy and ensure the Bohler's angle is between 20° and 40°.

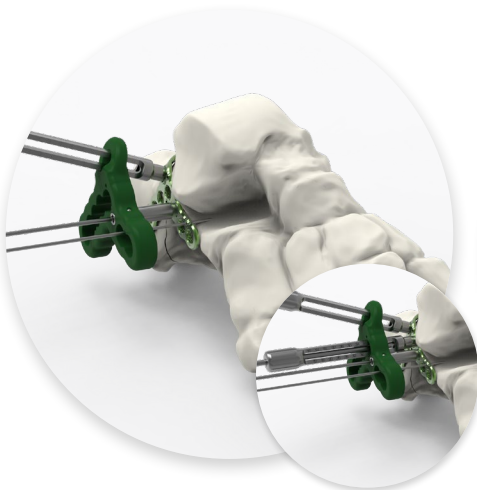


2. Assemble the external drill guide onto the sinus tarsi plate following these 2 steps:

- 1 Use the T15 screwdriver (ANC1027) to insert the centering pin into the plate.
- 2 Lock the guide gauge (ANC1094) into the postero-dorsal hole of the plate (as shown in the picture above) to avoid the rotation of the guide around the plate.



3. Slide the plate under the skin and insert a Ø1.6 mm pin (33.0216.150) into the centering pin to validate its correct positioning. The pin must target the sustentaculum tali.



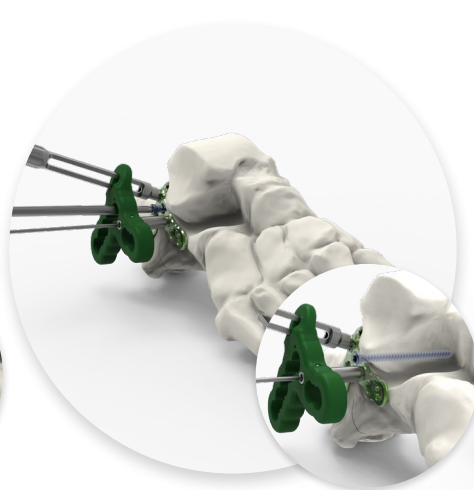
4. Insert Ø1.2 mm pins (33.0212.120) into the guide.

For the drilling, start with the holes following the sinus tarsi.

- For **Ø3.5 mm screws** ●, drill using the Ø2.7 mm drill bit (ANC1099) through the Ø2.7 mm threaded guide gauge (ANC1094).

- For **Ø2.8 mm screws** ●, drill using the Ø2.0 mm drill bit (ANC1098) through the Ø2.0 mm threaded guide gauge (ANC1096).

Read the drilling depth on the guide gauge (ANC1094 or ANC1096 respectively).



5. Insert the Ø3.5 mm locking screws (SAT3.5Lxx) or the Ø2.8 mm locking screws (SAT2.8Lxx) along the sinus tarsi, using the T15 screwdriver (ANC1027).

Use the external guide to drill the holes located on the posterior part of the calcaneus.



### FINAL RESULT

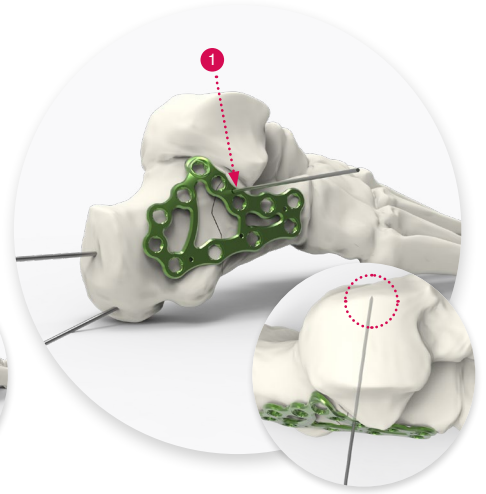
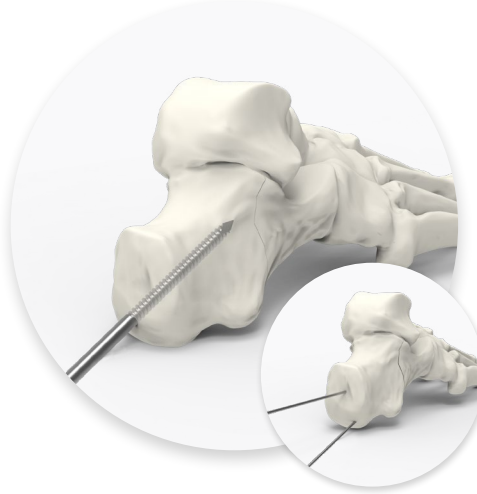
**Finalize the procedure by inserting the remaining locking screws. Remove the guide and insert the last screw.**

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

# SURGICAL TECHNIQUE

## EXTENSILE LATERAL APPROACH (PAGE 1 / 2)

Surgical technique example using the size 2 calcaneal fracture plate (FKTDL2)



1. Make an incision from the basis of the fifth metatarsal and extend it posteriorly, following the junction between the plantar skin and the lateral skin.

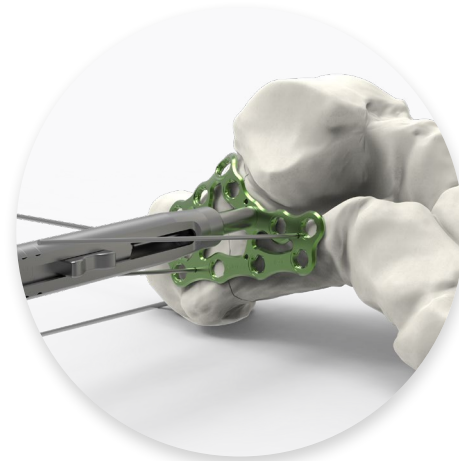
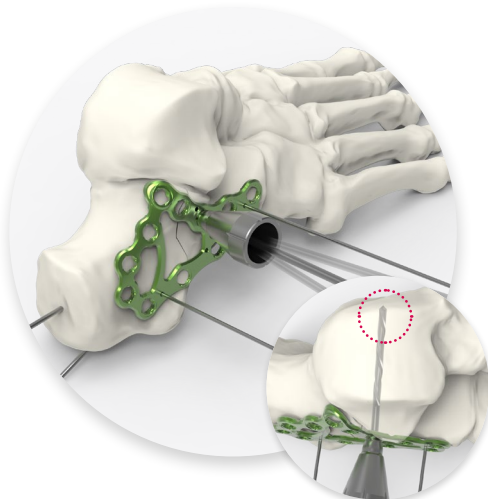
Make a second incision beginning approximately 6 to 8 cm above the skin of the heel, halfway between the posterior aspect of the fibula and the lateral aspect of the Achilles tendon. Extend the second incision distally so it meets the first incision.

2. Perform the reduction of the fracture following step 1 described in the sinus tarsi approach (see page 5).

3. Select the most appropriate plate shape to fit the bone anatomy\*. Then, check the correct positioning by inserting a Ø1.2 mm pin (33.0212.120) into the #1 pin hole. The pin must target the sustentaculum tali.

The remaining pin holes can then be filled to stabilize the plate.

\* If needed, the plates can be bent with the appropriate bending irons (ANC578), **once and in one direction only**.



4. For the drilling, start with the holes following the sinus tarsi.

- For **Ø3.5 mm screws** ●, drill using the Ø2.7 mm drill bit (ANC1099) through the Ø2.7 mm polyaxial drill guide (ANC1067).

- For **Ø2.8 mm screws** ●, drill using the Ø2.0 mm drill bit (ANC1098) through the Ø2.0 mm polyaxial drill guide (ANC1100).

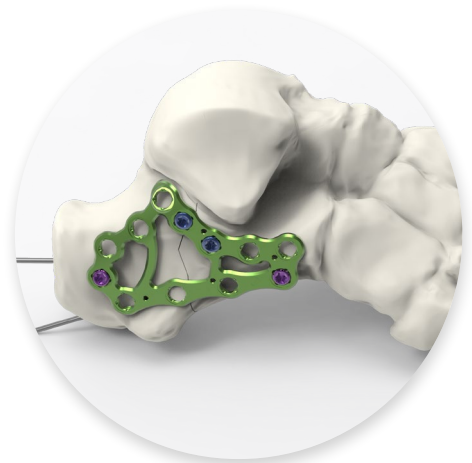
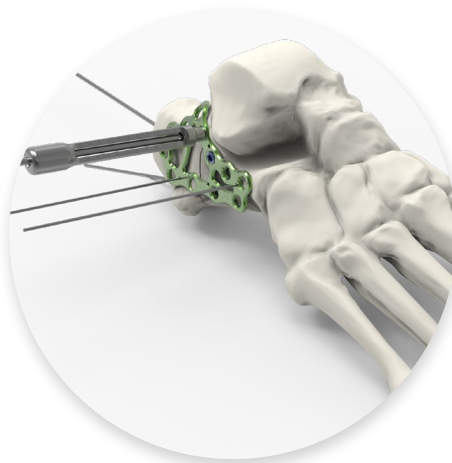
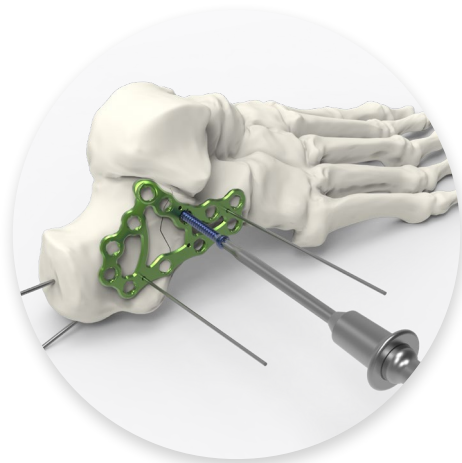
If needed, the pin #1 can be removed before the drilling.

**NB:** when drilling, target as close as possible the sustentaculum tali.

5. Measure the drilling depth using the length gauge (ANC1095).

# SURGICAL TECHNIQUE

## EXTENSILE LATERAL APPROACH (PAGE 2/2)



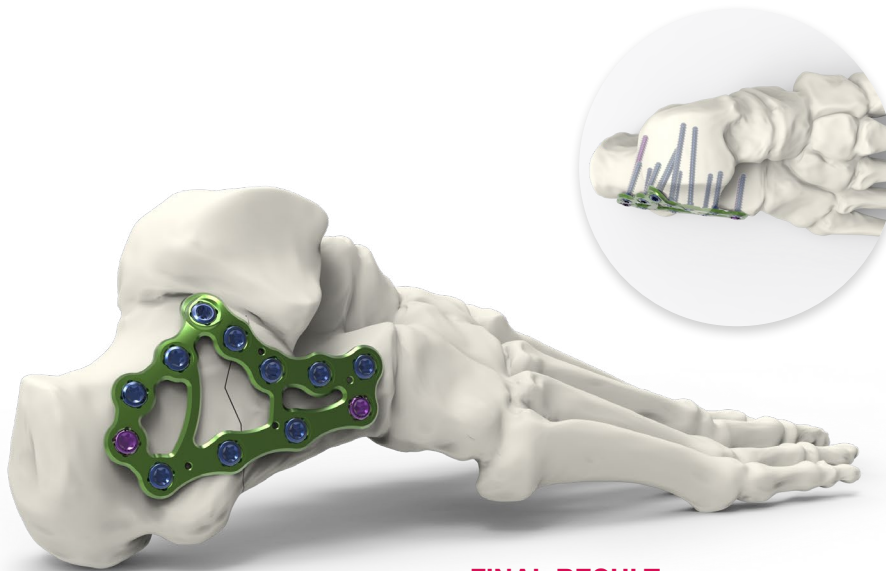
6. Insert a  $\varnothing 3.5$  mm locking screw (SAT3.5Lxx) or a  $\varnothing 2.8$  mm locking screw (SAT2.8Lxx) using the T15 screwdriver (ANC1027).

7.  **$\varnothing 3.5$  mm screws** ●: If a normoaxial targeting is desired, drill using the  $\varnothing 2.7$  mm drill bit (ANC1099) through the  $\varnothing 2.7$  mm threaded guide gauge (ANC1094) and directly read the drilling depth on the guide gauge.

**$\varnothing 2.8$  mm screws** ●: It is also possible to drill with the  $\varnothing 2.0$  mm drill bit (ANC1098) through the  $\varnothing 2.0$  mm threaded guide gauge (ANC1096).

8. Insert  $\varnothing 3.5$  mm or  $\varnothing 2.8$  mm non locking screws (CAT3.5LxxD or CAT2.8LxxD) in order to be flush to the bone.

⚠ Final tightening of the screws must be performed by hand.



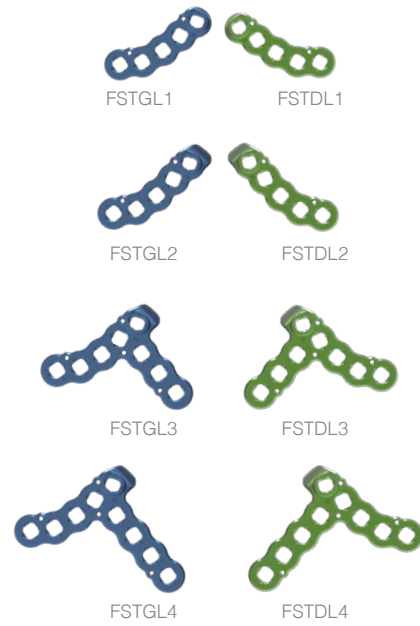
### FINAL RESULT

Finalize the procedure by inserting the remaining screws.

# IMPLANT REFERENCES

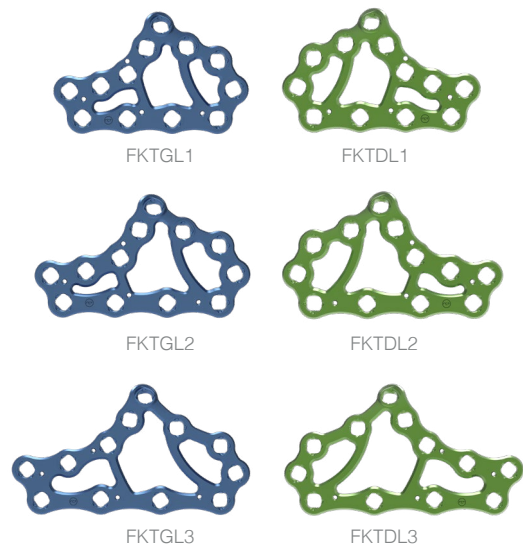
## → SINUS TARSI PLATES

SINUS TARSI PLATES	
Ref.	Description
FSTGL1	Sinus tarsi plate - Calcaneal fracture - Left - Size 1
FSTD1	Sinus tarsi plate - Calcaneal fracture - Right - Size 1
FSTGL2	Sinus tarsi plate - Calcaneal fracture - Left - Size 2
FSTD2	Sinus tarsi plate - Calcaneal fracture - Right - Size 2
FSTGL3	Sinus tarsi plate - Calcaneal fracture - Left - Size 3
FSTD3	Sinus tarsi plate - Calcaneal fracture - Right - Size 3
FSTGL4	Sinus tarsi plate - Calcaneal fracture - Left - Size 4
FSTD4	Sinus tarsi plate - Calcaneal fracture - Right - Size 4



## → EXTENSILE LATERAL PLATES

EXTENSILE LATERAL PLATES	
Ref.	Description
FKTGL1	Extensile lateral plate - Calcaneal fracture - Left - Size 1
FKTDL1	Extensile lateral plate - Calcaneal fracture - Right - Size 1
FKTGL2	Extensile lateral plate - Calcaneal fracture - Left - Size 2
FKTDL2	Extensile lateral plate - Calcaneal fracture - Right - Size 2
FKTGL3	Extensile lateral plate - Calcaneal fracture - Left - Size 3
FKTDL3	Extensile lateral plate - Calcaneal fracture - Right - Size 3





# SCREW REFERENCES

## → Ø2.8 MM SCREWS ●

### LOCKING SCREWS\*

Ref.	Description
SAT2.8L10	Ø2.8 mm locking screw - L10 mm
SAT2.8L12	Ø2.8 mm locking screw - L12 mm
SAT2.8L14	Ø2.8 mm locking screw - L14 mm
SAT2.8L16	Ø2.8 mm locking screw - L16 mm
SAT2.8L18	Ø2.8 mm locking screw - L18 mm
SAT2.8L20	Ø2.8 mm locking screw - L20 mm
SAT2.8L22	Ø2.8 mm locking screw - L22 mm
SAT2.8L24	Ø2.8 mm locking screw - L24 mm
SAT2.8L26	Ø2.8 mm locking screw - L26 mm
SAT2.8L28	Ø2.8 mm locking screw - L28 mm
SAT2.8L30	Ø2.8 mm locking screw - L30 mm
SAT2.8L32	Ø2.8 mm locking screw - L32 mm
SAT2.8L34	Ø2.8 mm locking screw - L34 mm
SAT2.8L36	Ø2.8 mm locking screw - L36 mm
SAT2.8L38	Ø2.8 mm locking screw - L38 mm
SAT2.8L40	Ø2.8 mm locking screw - L40 mm
SAT2.8L42	Ø2.8 mm locking screw - L42 mm
SAT2.8L44	Ø2.8 mm locking screw - L44 mm
SAT2.8L46	Ø2.8 mm locking screw - L46 mm
SAT2.8L48	Ø2.8 mm locking screw - L48 mm
SAT2.8L50	Ø2.8 mm locking screw - L50 mm

\* Green anodized

### NON-LOCKING SCREWS\*

Ref.	Description
CAT2.8L10D	Ø2.8 mm non-locking screw - L10 mm
CAT2.8L12D	Ø2.8 mm non-locking screw - L12 mm
CAT2.8L14D	Ø2.8 mm non-locking screw - L14 mm
CAT2.8L16D	Ø2.8 mm non-locking screw - L16 mm
CAT2.8L18D	Ø2.8 mm non-locking screw - L18 mm
CAT2.8L20D	Ø2.8 mm non-locking screw - L20 mm
CAT2.8L22D	Ø2.8 mm non-locking screw - L22 mm
CAT2.8L24D	Ø2.8 mm non-locking screw - L24 mm
CAT2.8L26D	Ø2.8 mm non-locking screw - L26 mm
CAT2.8L28D	Ø2.8 mm non-locking screw - L28 mm
CAT2.8L30D	Ø2.8 mm non-locking screw - L30 mm
CAT2.8L32D	Ø2.8 mm non-locking screw - L32 mm
CAT2.8L34D	Ø2.8 mm non-locking screw - L34 mm
CAT2.8L36D	Ø2.8 mm non-locking screw - L36 mm
CAT2.8L38D	Ø2.8 mm non-locking screw - L38 mm
CAT2.8L40D	Ø2.8 mm non-locking screw - L40 mm
CAT2.8L42D	Ø2.8 mm non-locking screw - L42 mm
CAT2.8L44D	Ø2.8 mm non-locking screw - L44 mm
CAT2.8L46D	Ø2.8 mm non-locking screw - L46 mm
CAT2.8L48D	Ø2.8 mm non-locking screw - L48 mm
CAT2.8L50D	Ø2.8 mm non-locking screw - L50 mm

\* Yellow anodized

## → Ø3.5 MM SCREWS ●

### LOCKING SCREWS\*

Ref.	Description
SAT3.5L10	Ø3.5 mm locking screw - L10 mm
SAT3.5L12	Ø3.5 mm locking screw - L12 mm
SAT3.5L14	Ø3.5 mm locking screw - L14 mm
SAT3.5L16	Ø3.5 mm locking screw - L16 mm
SAT3.5L18	Ø3.5 mm locking screw - L18 mm
SAT3.5L20	Ø3.5 mm locking screw - L20 mm
SAT3.5L22	Ø3.5 mm locking screw - L22 mm
SAT3.5L24	Ø3.5 mm locking screw - L24 mm
SAT3.5L26	Ø3.5 mm locking screw - L26 mm
SAT3.5L28	Ø3.5 mm locking screw - L28 mm
SAT3.5L30	Ø3.5 mm locking screw - L30 mm
SAT3.5L32	Ø3.5 mm locking screw - L32 mm
SAT3.5L34	Ø3.5 mm locking screw - L34 mm
SAT3.5L36	Ø3.5 mm locking screw - L36 mm
SAT3.5L38	Ø3.5 mm locking screw - L38 mm
SAT3.5L40	Ø3.5 mm locking screw - L40 mm
SAT3.5L42	Ø3.5 mm locking screw - L42 mm
SAT3.5L44	Ø3.5 mm locking screw - L44 mm
SAT3.5L46	Ø3.5 mm locking screw - L46 mm
SAT3.5L48	Ø3.5 mm locking screw - L48 mm
SAT3.5L50	Ø3.5 mm locking screw - L50 mm

\* Blue anodized

### NON-LOCKING SCREWS\*

Ref.	Description
CAT3.5L10D	Ø3.5 mm non-locking screw - L10 mm
CAT3.5L12D	Ø3.5 mm non-locking screw - L12 mm
CAT3.5L14D	Ø3.5 mm non-locking screw - L14 mm
CAT3.5L16D	Ø3.5 mm non-locking screw - L16 mm
CAT3.5L18D	Ø3.5 mm non-locking screw - L18 mm
CAT3.5L20D	Ø3.5 mm non-locking screw - L20 mm
CAT3.5L22D	Ø3.5 mm non-locking screw - L22 mm
CAT3.5L24D	Ø3.5 mm non-locking screw - L24 mm
CAT3.5L26D	Ø3.5 mm non-locking screw - L26 mm
CAT3.5L28D	Ø3.5 mm non-locking screw - L28 mm
CAT3.5L30D	Ø3.5 mm non-locking screw - L30 mm
CAT3.5L32D	Ø3.5 mm non-locking screw - L32 mm
CAT3.5L34D	Ø3.5 mm non-locking screw - L34 mm
CAT3.5L36D	Ø3.5 mm non-locking screw - L36 mm
CAT3.5L38D	Ø3.5 mm non-locking screw - L38 mm
CAT3.5L40D	Ø3.5 mm non-locking screw - L40 mm
CAT3.5L42D	Ø3.5 mm non-locking screw - L42 mm
CAT3.5L44D	Ø3.5 mm non-locking screw - L44 mm
CAT3.5L46D	Ø3.5 mm non-locking screw - L46 mm
CAT3.5L48D	Ø3.5 mm non-locking screw - L48 mm
CAT3.5L50D	Ø3.5 mm non-locking screw - L50 mm

\* Fuchsia anodized

#### Remark :

Please note that all implants are also available in sterile packaging. An 'ST' code is added at the end of the reference.  
Ex : «SAT2.8L30-ST»

# INSTRUMENT REFERENCES

INSTRUMENTS				
Ref.	Description	Ø2.8 mm	Ø3.5 mm	Qty
ANC350	Ø4.5 mm AO quick coupling handle - Size 1			2
ANC578	Bending pliers			2
ANC1027	T15 AO quick coupling prehensor screwdriver			2
ANC1067	Ø2.7 mm polyaxial drill guide - SAT3.5 hole		●	2
ANC1094	Ø2.7 mm threaded guide gauge - SAT3.5 hole		●	2
ANC1095	Length gauge for Ø2.8 and Ø3.5 mm screws			1
ANC1096	Ø2.0 mm threaded guide gauge - SAT3.5 hole	●		2
ANC1098	Ø2.0 mm quick coupling drill bit - L180 mm	●		2
ANC1099	Ø2.7 mm quick coupling drill bit - L180 mm		●	2
ANC1100	Ø2.0 mm polyaxial drill guide - SAT3.5 hole	●		2
ANC1162	Schanz pin Ø4.5 mm - L200 mm			1
ANC1163	Denham pin Ø4.5 mm - L200 mm			1
ANC1164	MIS guide for sinus tarsi plate - Calcaneal fracture - Left			1
ANC1165	MIS guide for sinus tarsi plate - Calcaneal fracture - Right			1
33.0212.120	Pin Ø1.2 - L120 mm			6
33.0216.150	Pin Ø1.6 - L150 mm			6

## REMOVAL KIT

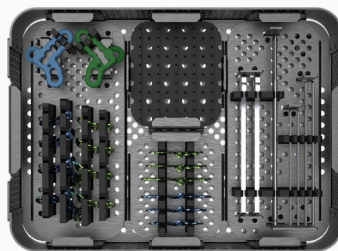
If you have to remove CalcanHeal implants, make sure to order the Newclip Technics removal set which includes the following instruments:

- ANC350: Ø4.5 mm AO quick coupling handle - Size 1
- ANC1027: T15 AO quick coupling prehensor screwdriver

Depending on surgical habits, it is possible to order either:

- a complete kit,
- an adapted kit for Ø2.8 mm screws ● with associated instruments,
- an adapted kit for Ø3.5 mm screws ● with associated instruments.

UPPER LEVEL  
(for all the kits)

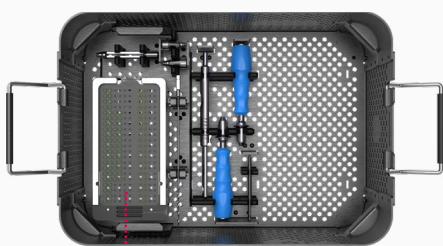


LOWER LEVEL  
(three configurations)

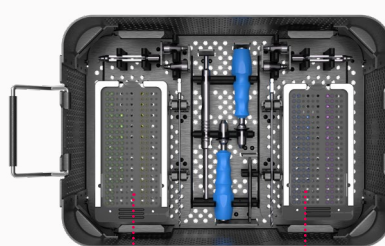
FOR Ø2.8 MM SCREWS ●

COMPLETE KIT

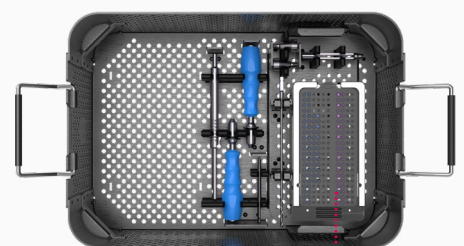
FOR Ø3.5 MM SCREWS ●



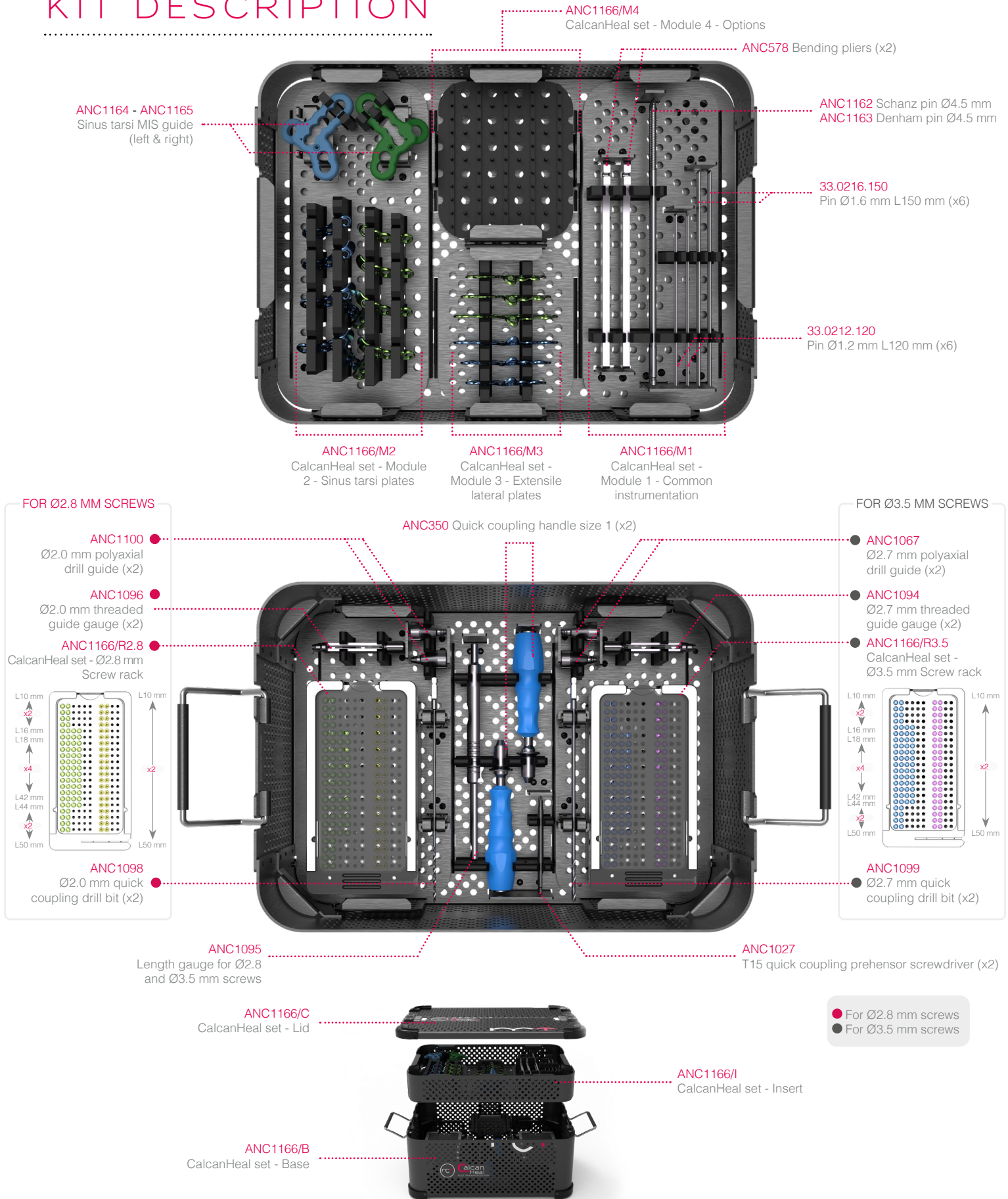
ANC1166/M2.8 CalcanHeal set -  
Module 2.8 - Ø2.8 mm screws



ANC1166/M3.5 CalcanHeal set -  
Module 3.5 - Ø3.5 mm screws



# KIT DESCRIPTION



This information is intended to demonstrate the Newclip Technics portfolio of medical devices. Always refer to the package insert, product label and/or user instructions including cleaning and sterilization before using any Newclip Technics product. These products must be handled and/or implanted by trained and qualified staff who have read the instructions before use. A surgeon must always rely on her or his own professional clinical judgement when deciding whether to use a particular product when treating a particular patient. 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.

Manufacturer: Newclip Technics - Brochure EN - CALCANHEAL – ED2 – 09/2024 - Medical device EC: class IIb – CE1639 SGS BE - US Class: II - Read labelling and instructions before the use of Newclip Technics medical devices. These products must be handled and/or implanted by trained and qualified staff who have read the instructions before use. Non-contractual pictures. Newclip Technics - 45 rue des Garottières - 44115 Haute Goulaine, France. Our subsidiaries: Newclip USA - Newclip Australia - Newclip Germany - Newclip Japan - Newclip Iberia - Newclip Belgium - Newclip Italia.

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