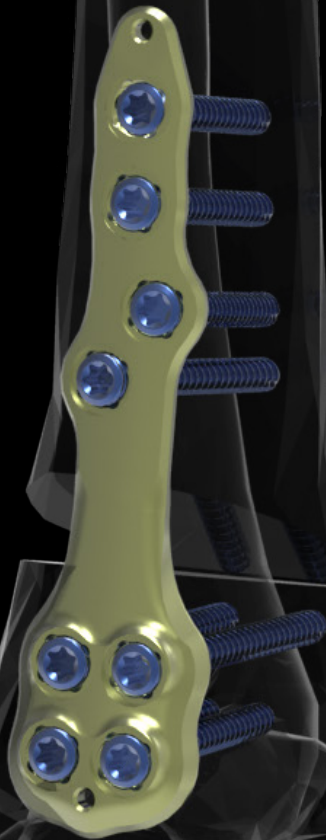
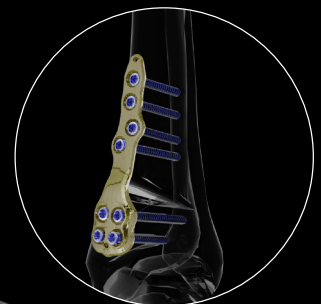
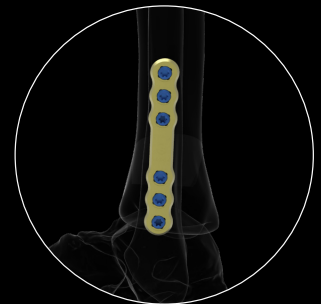
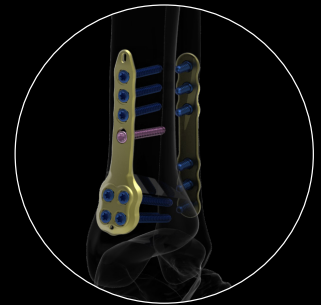
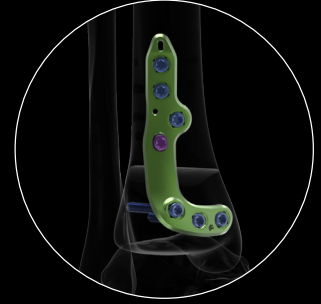




NEWCLIP TECHNICS



ACTIV
MOTION  DTO

DISTAL TIBIAL OSTEOTOMY

ACTIVMOTION S - DTO

Intended purpose: The implants of the Activmotion S DTO range are intended for bone reconstruction of the ankle joint in adults, including fixation of fractures and osteotomies of ankle, distal tibia and fibula.

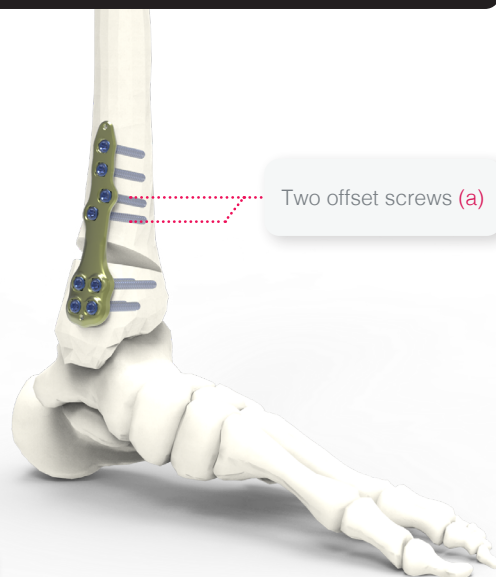
Contraindications:

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

VARUS DEFORMATION

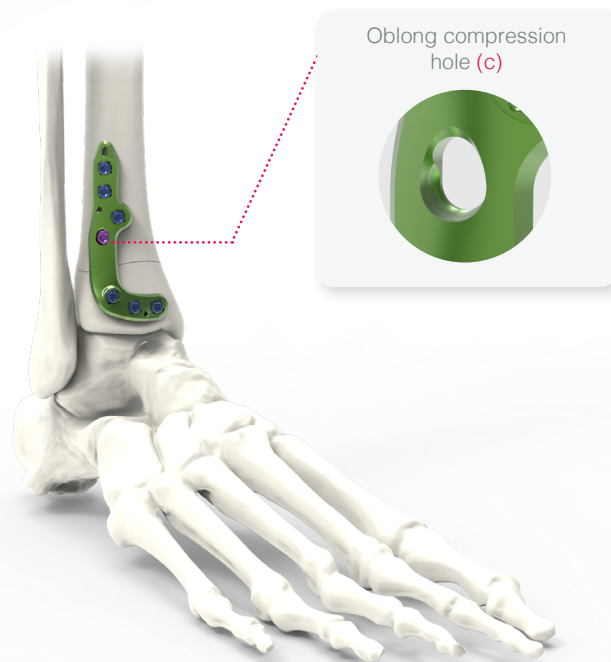
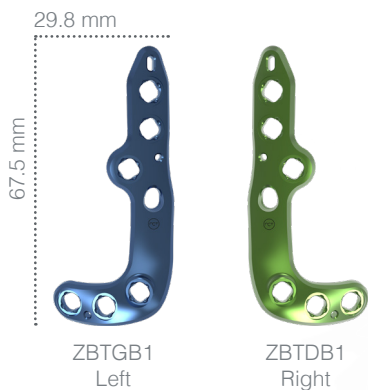
→ MEDIAL OPENING PLATES

- Two offset screws for improving the mechanical features of the assembly (a).
- Step design to optimize congruency of the plate according to the opening (b).



→ ANTEROLATERAL CLOSING PLATES

- One ramp oblong hole allowing a simple and controlled compression for closing (c) (see page 4).

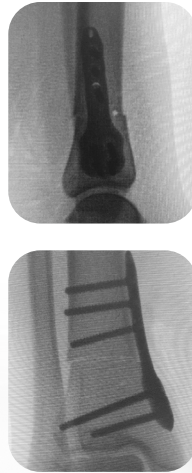
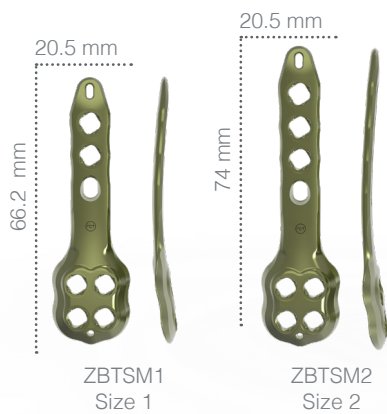


ACTIVMOTION S - DTO

VALGUS DEFORMATION & DEROTATION

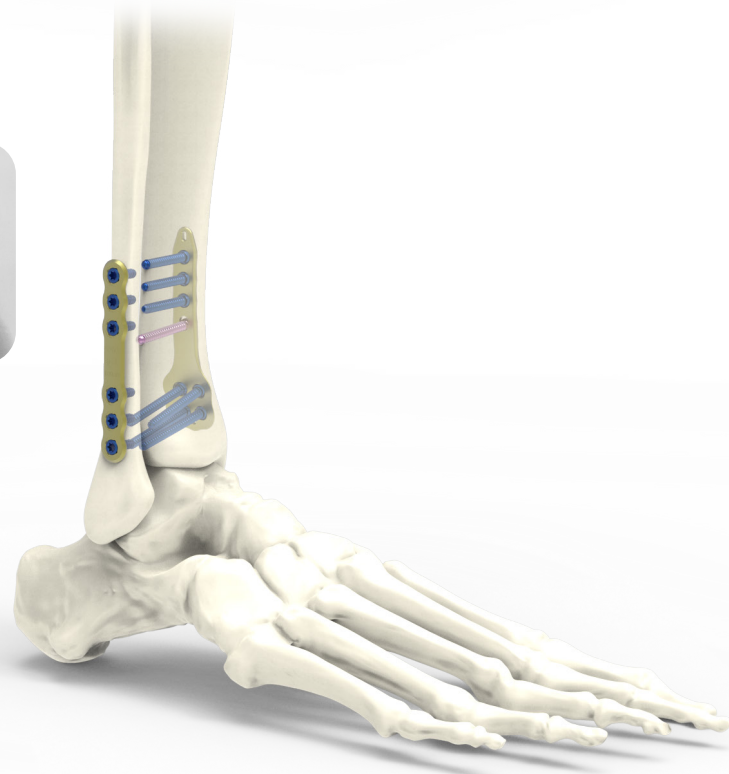
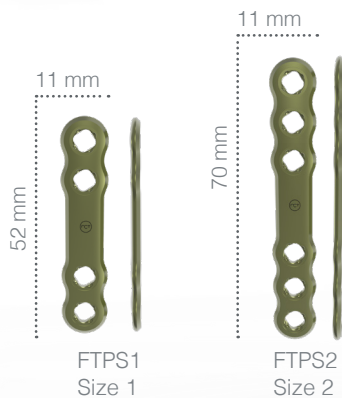
→ MEDIAL CLOSING PLATES

- Two lengths: 2 or 3 proximal holes.
- One ramp oblong hole allowing a simple and controlled compression for closing (d) (see page 4).



→ ASSOCIATED FIBULA OSTEOTOMY

- Two lengths to adapt to the osteotomy type.



TECHNICAL FEATURES

ANATOMICAL PLATES



▶ 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 Activmotion S DTO plates can be bent with the appropriate bending irons (ANC452). The bending of these plates must be performed **once and in one direction only**. Please refer to the IFU for bending precautions.

▶ Smooth implant edges

Especially on the medial plates to limit soft tissue irritation.

FIXATION & SCREW FEATURES

→ POLYAXIAL AND MONOAXIAL LOCKING FIXATION

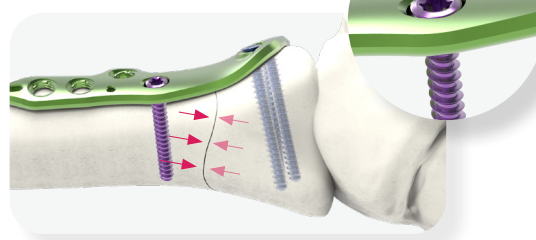
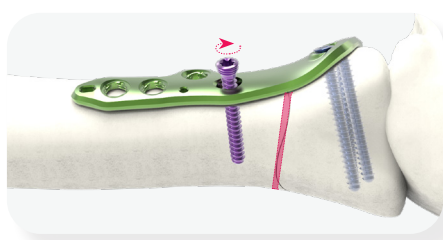
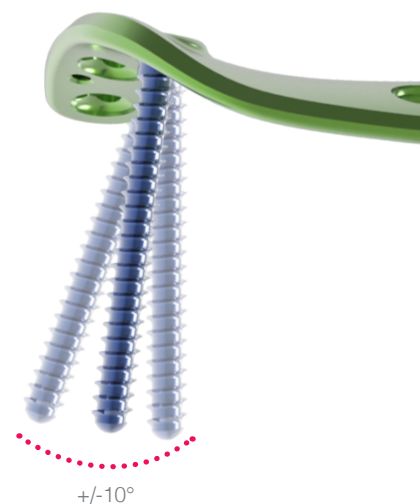
- ▶ Unique screw diameter (Ø3.5 mm).
- ▶ Hexalobular screw head design.
- ▶ Optimized screw head protuberance limiting soft tissues irritation.
- ▶ New patented polyaxial locking platform (+/-10°) with a dedicated polyaxial drilling guide (ANC1067). If the pre-angled positioning is preferred a dedicated monoaxial drilling guide can be used (ANC1094).

⚠ When using the polyaxial drill guide, make sure that the guide is locked in the axis of the hole to avoid over angulation of the drilling, resulting in a failure of the locking mechanism.

- ▶ Rounded tip screw.
- ▶ The plate holes are compatible with locking (SAT3.5Lxx) and non-locking (CAT3.5LxxD) screws. However, it is recommended to use locking screws for a better mounting stability.

→ COMPRESSIVE RAMP OBLONG HOLE

- ▶ The ramp oblong hole allows a simple and controlled compression by the screw/plate interface.



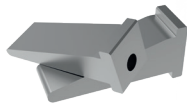
TECHNICAL FEATURES

INSTRUMENTATION

- Dedicated instruments to prepare, create and maintain the appropriate angular correction during osteosynthesis:
 - Chisels (to be used to prepare the opening);
 - Six metallic wedges (4 mm to 14 mm; 2 mm increment);
 - Meary pliers (controlled opening thanks to the markings - 3 to 19 mm (2 mm increment));
 - Closing cutting guide.



Chisels



Metallic wedges

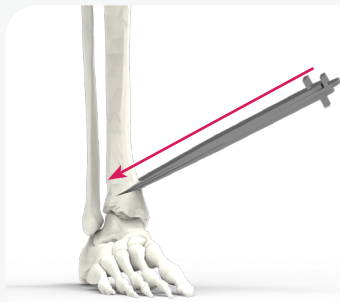


Meary pliers



Cutting Guide

→ DIFFERENT METHODS OF OPENING OSTEOTOMIES



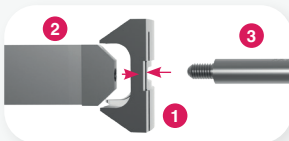
Prepare the opening by inserting progressively the chisels with a hammer. The metallic wedges or the meary pliers can be used to open the osteotomy.

Insert the meary pliers and once in place, turn the knob at the top of the instrument to increase the opening.



Insert increasing size wedges until finding the appropriate one. Six different wedges are available from 4 to 14 mm.

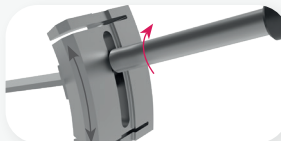
→ HOW TO USE THE CLOSING CUTTING GUIDE



1. Place the cutting guide - part 1 (ANC014-1) (1) into the cutting guide - part 2 (ANC014-2) (2), and screw the construct onto the handle (ANC024) (3).



2. Choose the correct side: **R** for right and **L** for left.



3. Choose the correct angle by sliding the handle in a vertical movement; once in the correct position, turn the handle to fix in place.



4. The blade can then be inserted into the top slot of the cutting guide to perform the cut.



SURGICAL TECHNIQUE

CLOSING OSTEOTOMY APPROACH (PAGE 1 / 2)

Example using anterolateral plate (ZBTDB1).



1. Insert the two pins and perform the first cut.

2. Perform the second cut and carefully close the osteotomy. The cutting guide (ANC014) can be used to perform the osteotomy (see on page 5 how to use the closing cutting guide).

NB: the length of the saw must be at least 90 mm.

3. Close the osteotomy and position the plate by inserting two Ø1.6 mm pins (33.0216.150). **The proximal pin must be positioned in the proximal part of the oblong pin hole.**

If necessary, the plate can be bent with the dedicated bending irons (ANC452), **once and in one direction only.**

Step 4: distal screw insertion

To insert the three distal screws below the osteotomy section, start with the most lateral one, two options are possible:



or



Option 1: polyaxiality

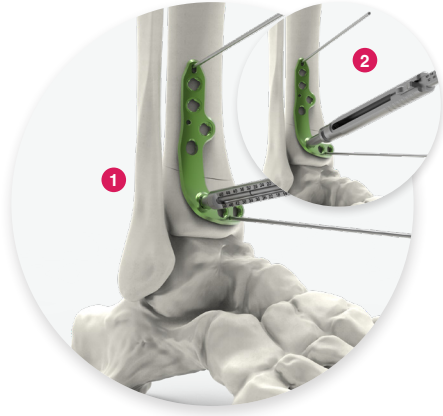
Drill using the Ø2.7 mm drill bit (ANC1099) through the polyaxial drill guide (ANC1067).

Option 2: pre-angled direction

If a neutral angulation is needed, drill using the Ø2.7 mm drill bit (ANC1099) through the threaded guide gauge (ANC1094).

SURGICAL TECHNIQUE

CLOSING OSTEOTOMY APPROACH (PAGE 2 / 2)



5. Depending on the type of drilling used (see step 4), determine the screw length directly on the guide gauge (ANC1094) (1) or using the length gauge (ANC1095) (2).

Then, insert a $\varnothing 3.5$ mm locking screw (SAT3.5Lxx) using the T15 screwdriver (ANC1027).

6. Repeat the same procedure as steps 4 and 5 for the two other distal locking holes.

7. Drill in the proximal part of the ramp oblong hole, using the $\varnothing 2.7$ mm drill bit (ANC1099), through the non threaded guide gauge (ANC1127).

The orientation of the drill guide must be taken into account to allow compression. Determine the screw length directly on the drill guide or using the length gauge (ANC1095).



ANC1027



ANC1095



8. Insert a $\varnothing 3.5$ mm non-locking screw (CAT3.5LxxD) and perform the compression with the screwdriver (ANC1027).



FINAL RESULT

Finalize the assembly by inserting the remaining $\varnothing 3.5$ mm locking screws.

Remark: the surgical technique is the same for all the closing plates of the range.

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

SURGICAL TECHNIQUE

OPENING OSTEOTOMY APPROACH

Example using medial opening plate (ZATSM1).



1. Perform the cut and gradually open the osteotomy site until the desired opening is reached.



2. Insert wedges of increasing sizes until finding the appropriate one (4-14 mm) while maintaining the lateral surface of the tibia.

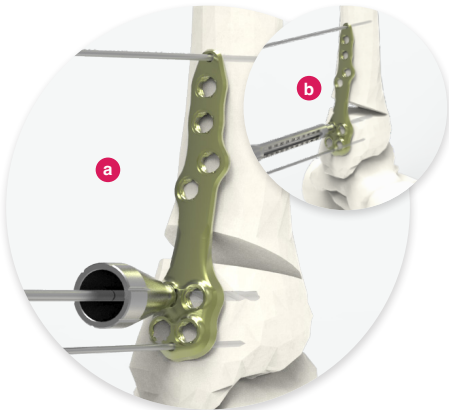
Once the appropriate wedge is inserted, the angular correction is maintained during osteosynthesis.

Alternatively, the meary pliers can be used to increase the size of the opening (see page 5 for more information).



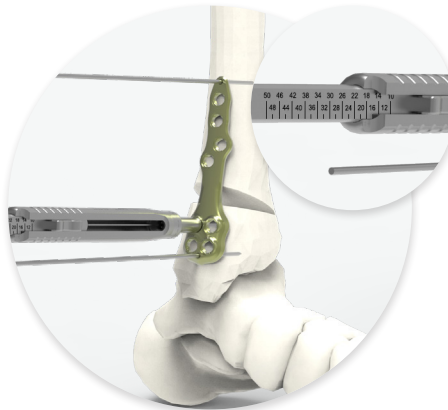
3. Select the most appropriate plate shape to fit the bone by using the plate templates (ANC1246 or ANC1247). Once chosen, position the plate by inserting two Ø1.6 mm pins (33.0216.150).

If needed, the plate can be bent with the appropriate bending irons (ANC452) **once and in one direction only.**

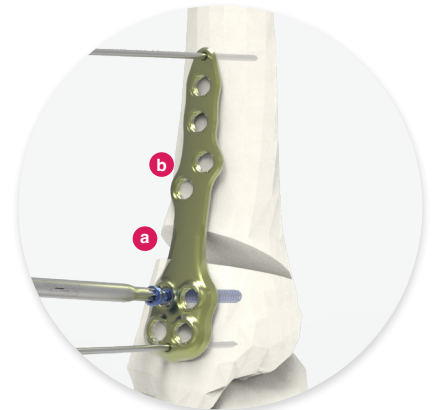


4.a. Drill using the Ø2.7 mm drill bit (ANC1099) through the polyaxial drill guide (ANC1067).

4.b. If a normoaxial hole is desired, drill using the Ø2.7 mm drill bit (ANC1099) through the threaded guide gauge (ANC1094). The screw length can be determined directly on the guide gauge.

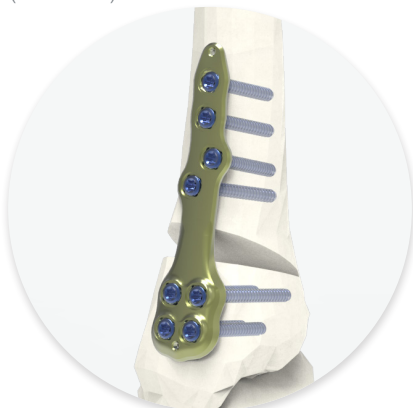


5. Depending on the type of drilling used (see steps 4a and 4b), determine the drilling depth directly on the threaded guide gauge (ANC1094) or with the length gauge (ANC1095).



6. Insert a Ø3.5 mm locking screw (SAT3.5Lxx) (a) using the T15 screwdriver (ANC1027).

Do the same for the screw (b) just above the osteotomy.



FINAL RESULT

Finalize the procedure by inserting the remaining Ø3.5 mm locking screws.

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

Remark: the surgical technique is the same for all the opening plates of the range.

IMPLANT REFERENCES

→ PLATES

MEDIAL CLOSING PLATES

Ref.	Description
ZBTSM1-ST	Medial closing DTO plate - Symmetrical - Size 1 - STERILE
ZBTSM2-ST	Medial closing DTO plate - Symmetrical - Size 2 - STERILE



ZBTSM1-ST

ZBTSM2-ST

ANTEROLATERAL CLOSING PLATES

Ref.	Description
ZBTGB1-ST	Anterolateral closing DTO plate - Left - Size 1 - STERILE
ZBTDB1-ST	Anterolateral closing DTO plate - Right - Size 1 - STERILE



ZBTGB1-ST

ZBTDB1-ST

MEDIAL OPENING PLATES

Ref.	Description
ZATSM1-ST	Medial opening DTO plate - Symmetrical - Size 1 - STERILE
ZATSM2-ST	Medial opening DTO plate - Symmetrical - Size 2 - STERILE



ZATSM1-ST

ZATSM2-ST

FIBULA PLATES

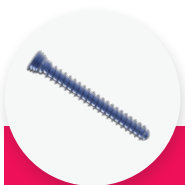
Ref.	Description
FTPS1-ST	Straight plate - Diaphyseal fibula - Symmetrical - Size 1 - STERILE
FTPS2-ST	Straight plate - Diaphyseal fibula - Symmetrical - Size 2 - STERILE



FTPS1-ST

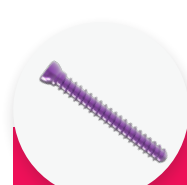
FTPS2-ST

→ SCREWS



LOCKING SCREWS*

Ref.	Description
SAT3.5Lxx-ST	Ø3.5 mm locking screw - L12 to 50 mm - STERILE (2 mm increments)



NON-LOCKING SCREWS*

Ref.	Description
CAT3.5LxxD-ST	Ø3.5 mm non-locking screw - L12 to 50 mm - STERILE (2 mm increments)

* Blue anodized

* Fuchsia anodized

INSTRUMENT REFERENCES

INSTRUMENTS		
Ref.	Description	Qty
ANC014-1	Osteotomy cutting guide - Part 1	1
ANC014-2	Osteotomy cutting guide - Part 2	1
ANC024	Handle for wedges and osteotomy cutting guide	2
ANC351	Ø4.5 mm AO quick coupling handle - size 2	2
ANC452	Bending iron	2
ANC621	Chisel Pauwels - 10*240 mm	1
ANC622	Chisel Pauwels - 25*240 mm	1
ANC628	Chisel Pauwels - 15*240 mm	1
ANC629	Chisel Pauwels - 20*240 mm	1
ANC990	Osteotomy Meary pliers	1
ANC1027	T15 AO quick coupling prehensor screwdriver	2
ANC1066*	Activmotion Meary pliers	1
ANC1067	Ø2.7 mm polyaxial drill guide - SAT3.5 hole	2
ANC1088	Metallic wedge for osteotomy - Narrow - 4 mm high	1
ANC1089	Metallic wedge for osteotomy - Narrow - 6 mm high	1
ANC1090	Metallic wedge for osteotomy - Narrow - 8 mm high	1
ANC1091	Metallic wedge for osteotomy - Narrow - 10 mm high	1
ANC1092	Metallic wedge for osteotomy - Narrow - 12 mm high	1
ANC1093	Metallic wedge for osteotomy - Narrow - 14 mm high	1
ANC1094	Ø2.7 mm threaded guide gauge - SAT3.5 hole	2
ANC1095	Length gauge for Ø2.8 and Ø3.5 mm screws	1
ANC1099	Ø2.7 mm quick coupling drill bit - L180 mm	2
ANC1127	Ø2.7 mm non threaded bent guide gauge for ramp oblong hole	1
ANC1246	Template for medial opening DTO plate - Symmetrical - Size 1 (ZATSM1)	1
ANC1247	Template for medial opening DTO plate - Symmetrical - Size 2 (ZATSM2)	1
ANC1248	Template for medial closing DTO plate - Symmetrical - Sizes 1-2 (ZBTSM1-2)	1
ANC1249	Template for anterolateral closing DTO plate - Left - Size 1 (ZBTGB1)	1
ANC1250	Template for anterolateral closing DTO plate - Right - Size 1 (ZBTDB1)	1
ANC1255	Template for straight plate - Diaphyseal fibula - Symmetrical - Sizes 1-2 (FTPS1-2)	1
33.0216.150	Pin Ø1.6 L150 mm	6
33.0222.200	Pin Ø2.2 L200 mm	6

* Optional as a replacement for ANC990.

OPTIONAL BONE SUBSTITUTES		
Ref.	Description	Qty
0106C01	Rounded wedge 06 mm	1
0108C01	Rounded wedge 08 mm	1
0110C01	Rounded wedge 10 mm	1
0112C01	Rounded wedge 12 mm	1
1414C01	Rounded wedge 14 mm	1

Manufacturer: BIOMATLANTE (FRANCE)
Class: III
Notified body: TUV - CE 0123



COMPATIBLE WITH PATIENT SPECIFIC INSTRUMENTATION (PSI)



Please contact your NEWCLIP TECHNICS representative if you have questions about the availability of NEWCLIP TECHNICS products in your area.

PSI OPTIONS	
Ref.	Description
ANC714	Patient specific cutting guide for distal tibia osteotomy
ANC956	Patient specific wedge
ANC1134	Patient specific cutting guide for iliac graft
ANC1135	Patient specific cutting guide for synthetic graft
ANC1184	Patient specific cutting guide for femoral head
ANC1218	Ø2.6 mm pin for cutting guide - L 45 mm
ANC1219	Ø2.6 mm pin for cutting guide - L 30 mm

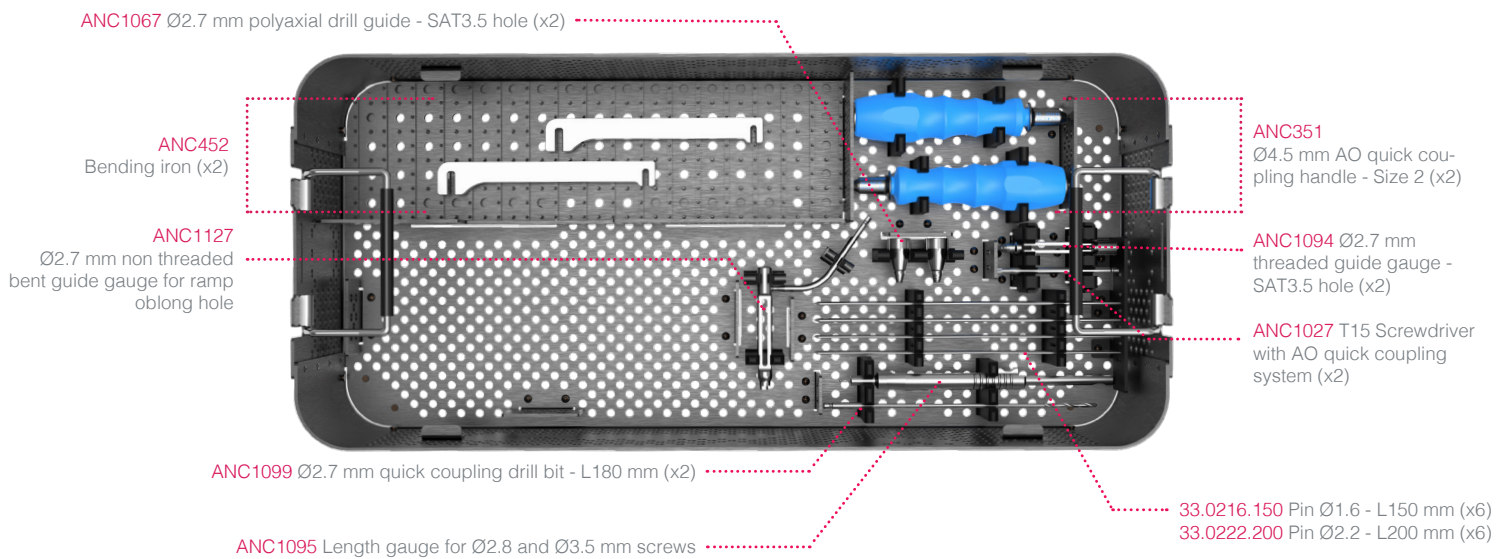
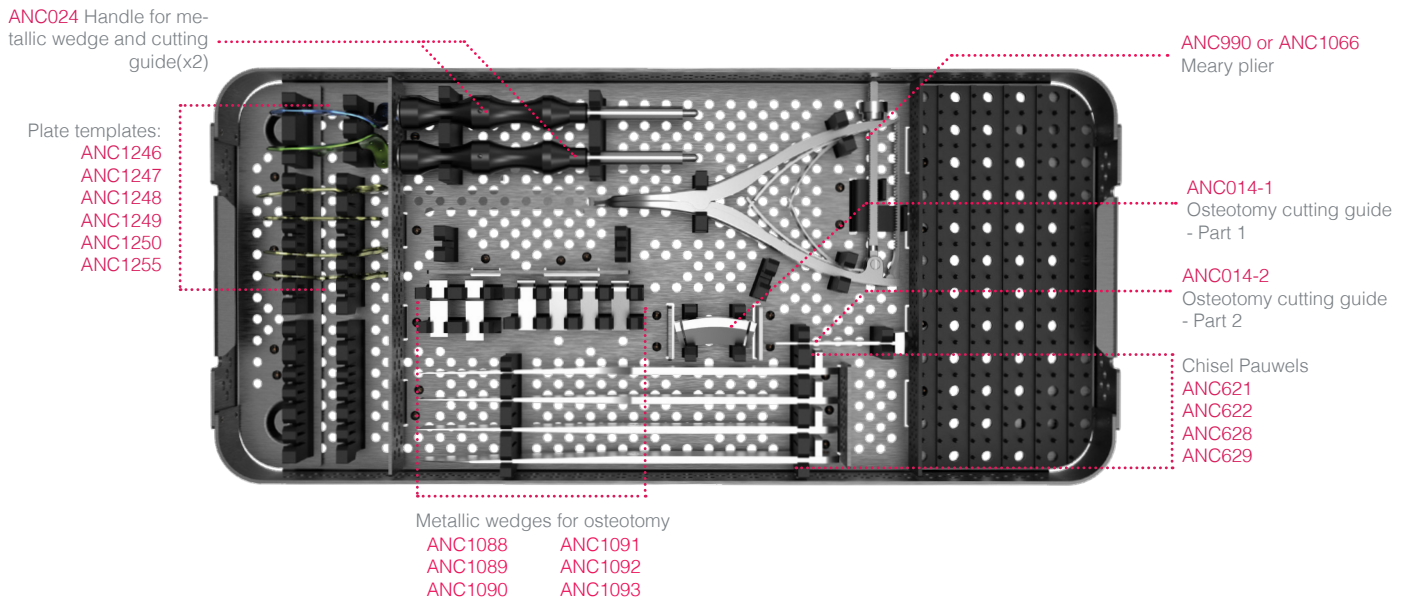
REMOVAL KIT

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

- ANC974: T15 screwdriver with AO quick coupling system
- ANC351: Ø4.5 mm AO quick coupling handle - Size 2

An **extraction set** can also be ordered separately.

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.

NEWCLIP TECHNICS

45 rue des Garottières
44115 Haute Goulaine, France
+33 (0)2 28 21 23 25
orders@newcliptechnics.com
www.newcliptechnics.com

NEWCLIP TECHNICS GERMANY

Newclip GmbH
Pröllstraße 11
D-86157 Augsburg, Deutschland
+49 (0)821 650 749 40
info@newclipgmbh.com
www.newclipgmbh.de

NEWCLIP TECHNICS USA

Newclip USA
642 Larkfield Center
Santa Rosa CA 95403, USA
+1 707 230 5078
customerservice@newclipusa.com
www.newclipusa.com

NEWCLIP TECHNICS AUSTRALIA

Newclip Australia
3B/11 Donkin Street
West End 4101, Australia
+61 (0)2 81 886 110
solutions@newclipaustralia.com
www.newcliptechnics.com

NEWCLIP TECHNICS JAPAN

Newclip Technics Japan K.K.
KKK Bldg. 502, 3-18-1 Asakusabashi
Taito-Ku, Tokyo, 111-0053, Japan
+81 (0)3 58 25 49 81
Fax: +81 (0)3 58 25 49 86
www.newcliptechnics.com

NEWCLIP TECHNICS IBERIA

Newclip Iberia
Calle Frederic Mompou 4b,
Sant Just Desvern, 08960, Barcelona, Spain
+34 938 299 526
contact@newclipiberia.com
www.newcliptechnics.com