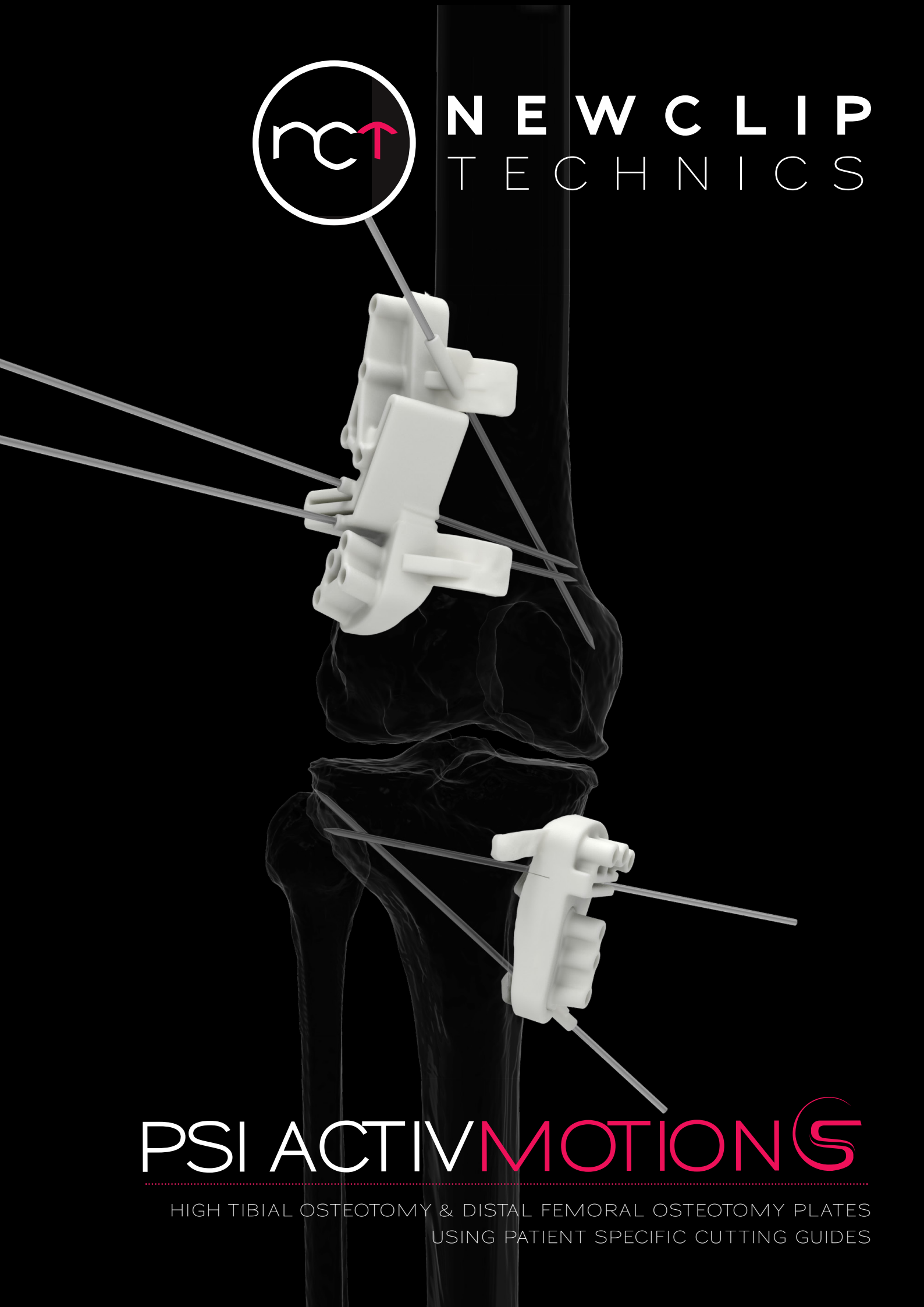




NEWCLIP
TECHNICS



PSI ACTIVMOTION[®]

HIGH TIBIAL OSTEOTOMY & DISTAL FEMORAL OSTEOTOMY PLATES
USING PATIENT SPECIFIC CUTTING GUIDES

PATIENT SPECIFIC CUTTING GUIDE

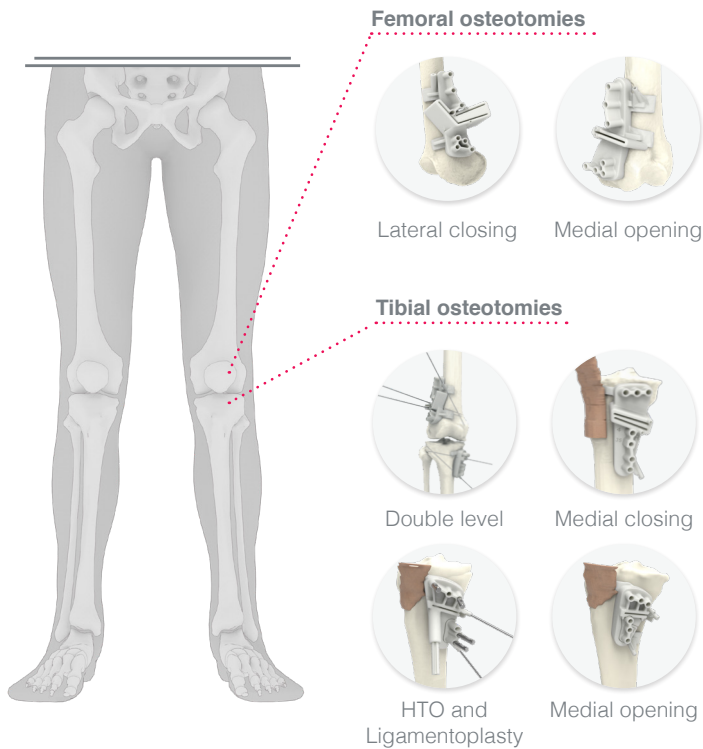
STEP BY STEP GUIDE

The patient specific cutting guide is based on the patient's CT scan offering a correction of HKA axis and tibial slope.

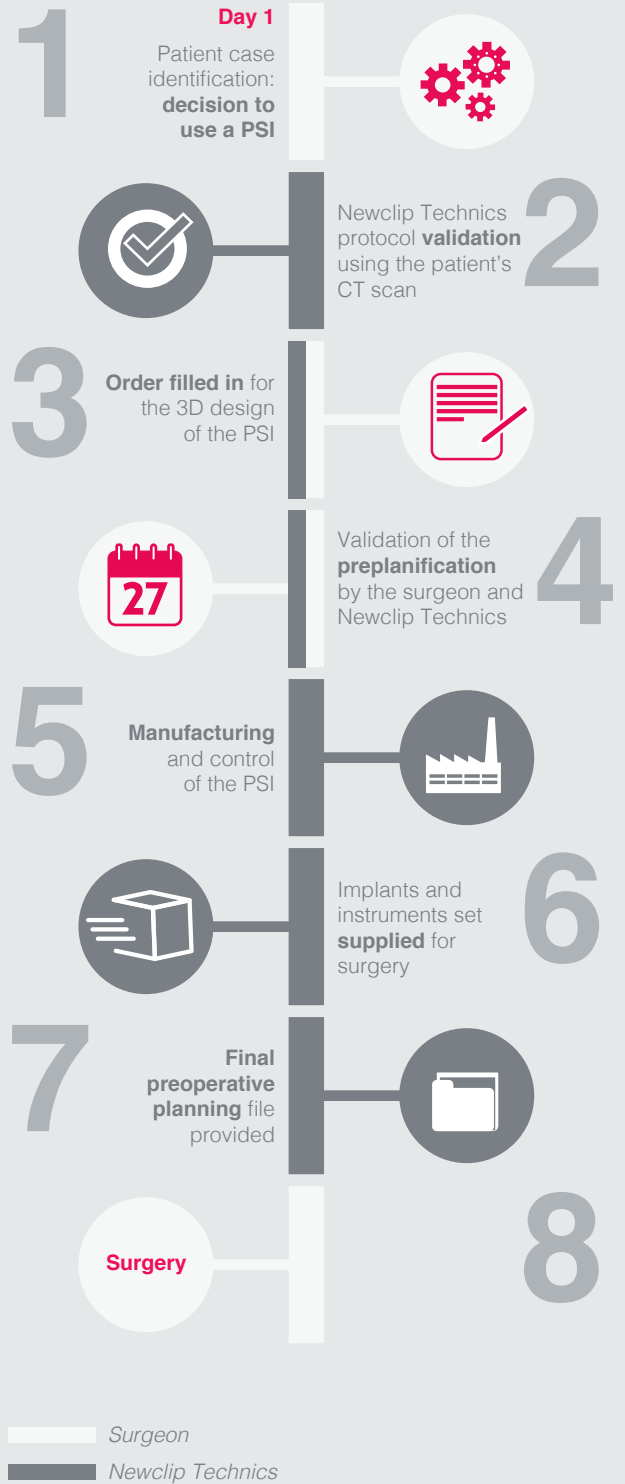
→ TECHNICAL FEATURES

A patient specific cutting guide (Patient Specific Instrument: PSI) for each Activmotion S plate listed in this brochure.

- The «cut pin» going through the hole allows to check:
 - the **direction** of the **osteotomy cut**,
 - the **PSI position** (compliance of the real position with the planned position).
- The «hinge pin» going through this hole serves as:
 - a **mechanical stop for the cut**,
 - an **indication of the hinge position** (hinge 10-11 mm from the lateral cortex, distance from the tibial plateau varies between patients).
- Anterior bracket** positioned below the patellar tendon for accurate positioning.
- Posterior anatomical brackets** congruent with the tibial surface for accurate positioning.



→ PROCESS



SURGICAL TECHNIQUE

HTO WITH BIPLANAR CUT - PSI POSITIONING (STEP 1/3)

The following surgical technique illustrates the Activmotion S opening wedge high tibial osteotomy plate size 1 (ATxP1D), the same steps apply to the Activmotion S opening wedge high tibial osteotomy plate size 2 (ATxP2D)



1. Guide positioning

Position the anatomical cutting guide on the anterior face of the tibia using the congruence of the guide and the anterior and distal posterior brackets.

Caution: please do not modify the insertion of the patellar tendon to keep the anatomical shape of the guide.



2. «Cut pin» insertion

Hold the PSI against the bone by keeping pressure on it. Insert a **Ø2.2 mm pin** (33.0222.200) in the «cut pin» hole positioned on the posterior proximal bracket.

To check the insertion depth, measure the part of the pin remaining out of the pin hole. Compare the value with the one mentioned in the planning file



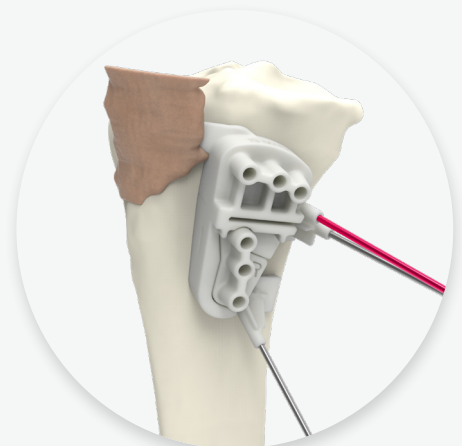
3. «Hinge pin» insertion

Insert a **Ø2.2 mm pin** (33.0222.200) in the «hinge pin» hole positioned on the posterior distal bracket.

To check the insertion depth, measure the part of the pin remaining out of the pin hole. Compare the value with the one mentioned in the planning file

Check the positioning of the PSI by x-ray.

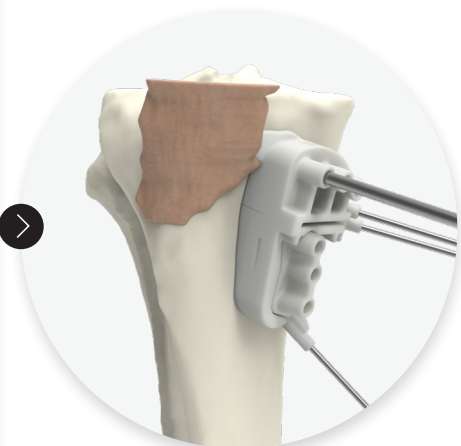
OPTIONAL STEP 3



Optional second «cut pin»

According to the planning file, a second pin hole can be added above the cutting slot in order to insert an optional **Ø2.2 mm pin** (33.0222.200). It will secure the sawblade path.

This second «cut pin» must be selected when the case is uploaded on the portal.



4. Drill the holes

Once the guide fixed, drill in a bicortical manner (ANC211) through the 6 holes of the guide (8 holes for the ATxP2D).

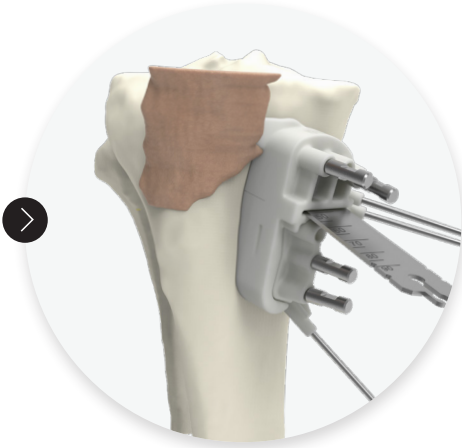


5. Fixation pins insertion

Insert two monocortical pins L60 mm (ANC657) in the proximal part of the guide, on the external drill guides and two bicortical pins (ANC657) in the most distal holes, by using a hammer.

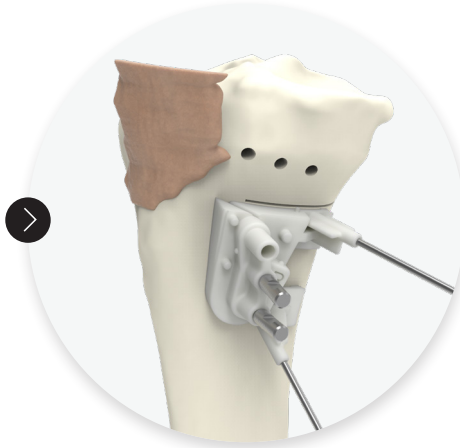
SURGICAL TECHNIQUE

HTO WITH BIPLANAR CUT - CUTTING (STEP 2/3)



6. Initiate the cut

Insert the sawblade in the cutting guide slot and initiate the cut in the antero-posterior direction.



7. Remove the proximal guide

Remove the fixation pins (ANC657) and the second «cut pin» (33.0222.200) of the proximal guide and remove the proximal part.



8a. Perform the cut

Reinsert the sawblade and finalize the cut in medio-lateral direction.

Once the sawblade reaches the «hinge pin», stop the cut.



8b. Biplanar cut

Insert the sawblade in the biplanar slot.
The biplanar option must be selected when the case is uploaded on the portal.



9. Remove the distal guide

Remove the fixation pin (ANC657) and the «cut pin» (33.0222.200) of the distal guide and remove the distal part along the «hinge pin».



10. Perform the opening

Insert a patient specific wedge (ANC956) or a metallic wedge for knee osteotomy (ANC019 to ANC023 and ANC025), to perform the opening.

The patient specific wedge is an option and must be selected when the case is uploaded on the portal.

SURGICAL TECHNIQUE

HTO WITH BIPLANAR CUT - PLATE FIXATION (STEP 3/3)



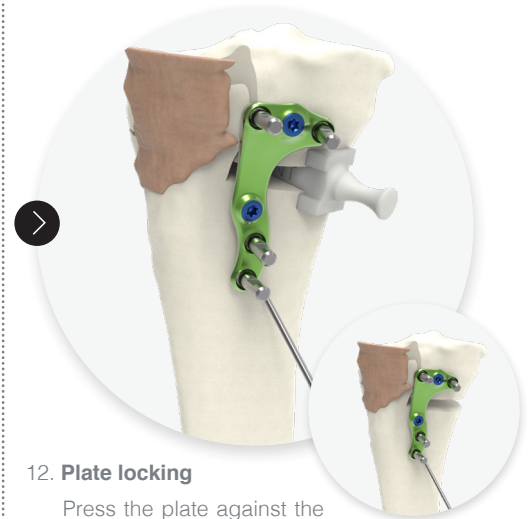
11a. Plate positioning

Insert two pins (ANC774) into the two distal holes of the plate.



11b. Plate positioning

The planned opening is reached in both planes when the previously drilled proximal holes and the proximal holes of the plate are facing each other. Insert two pins (ANC774) in the most lateral and the most medial hole.



12. Plate locking

Press the plate against the bone and use the countersink (ANC120-US) to prepare the first cortex of the two remaining holes.



ANC120-US

Insert two screws (ST4.5LxxD-ST) using the screwdriver (ANC975).



ANC975

Once the plate is stable the wedge can then be removed.



13. Finalize the assembly

Finalize the assembly by inserting the remaining Ø4.5 mm screws (ST4.5LxxD-ST).

Proceed by inserting alternatively proximal and distal screws getting further and further away from the osteotomy site.

Each pin must only be removed just before inserting a screw in place.

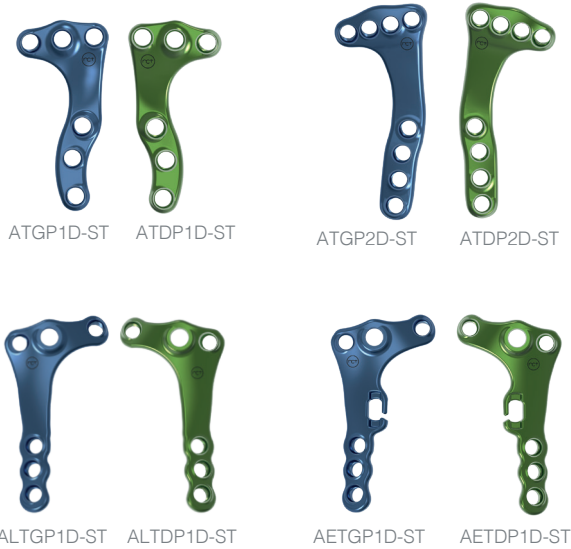


FINAL RESULT

IMPLANT REFERENCES

OPENING WEDGE TIBIAL PLATES

Ref.	Description
ATGP1D-ST	Medial opening HTO plate - Left - Size 1 - STERILE
ATDP1D-ST	Medial opening HTO plate - Right - Size 1 - STERILE
ATGP2D-ST	Medial opening HTO plate - Left - Size 2 - STERILE
ATDP2D-ST	Medial opening HTO plate - Right - Size 2 - STERILE
ALTGP1D-ST	Medial opening HTO + Ligamentoplasty plate - Left - Size 1 - STERILE
ALDTP1D-ST	Medial opening HTO + Ligamentoplasty plate - Right - Size 1 - STERILE
AETGP1D-ST	Medial opening HTO + Ligamentoplasty & button plate - Left - Size 1 - STERILE
AETDP1D-ST	Medial opening HTO + Ligamentoplasty & button plate - Right - Size 1 - STERILE



CLOSING WEDGE TIBIAL PLATES

Ref.	Description
BTGBD1D-ST	Lateral closing HTO plate - Left - Size 1 - STERILE
BTDBD1D-ST	Lateral closing HTO plate - Right - Size 1 - STERILE
BTGBD2D-ST	Lateral closing HTO plate - Left - Size 2 - STERILE
BTDBD2D-ST	Lateral closing HTO plate - Right - Size 2 - STERILE
BTGMD1D-ST	Medial closing HTO plate - Left - Size 1 - STERILE
BTDM1D-ST	Medial closing HTO plate - Right - Size 1 - STERILE
BTGMD2D-ST	Medial closing HTO plate - Left - Size 2 - STERILE
BTDM2D-ST	Medial closing HTO plate - Right - Size 2 - STERILE

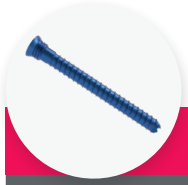


DISTAL FEMORAL PLATES

Ref.	Description
JATGL1D-ST	Lateral opening DFO plate - Left - Size 1 - STERILE
JATDL1D-ST	Lateral opening DFO plate - Right - Size 1 - STERILE
JBTGM1D-ST	Medial closing DFO plate - Left - Size 1 - STERILE
JBTDM1D-ST	Medial closing DFO plate - Right - Size 1 - STERILE



SCREW REFERENCES

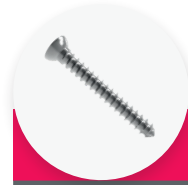


Ø4.5 MM REINFORCED CORE LOCKING SCREWS*

Ref.	Description
ST4.5L15D-ST	Ø4.5 mm reinforced core locking screw - L15 mm - STERILE **
ST4.5L18D-ST	Ø4.5 mm reinforced core locking screw - L18 mm - STERILE **
ST4.5L21D-ST	Ø4.5 mm reinforced core locking screw - L21 mm - STERILE **
ST4.5L24D-ST	Ø4.5 mm reinforced core locking screw - L24 mm - STERILE
ST4.5L27D-ST	Ø4.5 mm reinforced core locking screw - L27 mm - STERILE
ST4.5L30D-ST	Ø4.5 mm reinforced core locking screw - L30 mm - STERILE
ST4.5L35D-ST	Ø4.5 mm reinforced core locking screw - L35 mm - STERILE
ST4.5L40D-ST	Ø4.5 mm reinforced core locking screw - L40 mm - STERILE
ST4.5L45D-ST	Ø4.5 mm reinforced core locking screw - L45 mm - STERILE
ST4.5L50D-ST	Ø4.5 mm reinforced core locking screw - L50 mm - STERILE
ST4.5L55D-ST	Ø4.5 mm reinforced core locking screw - L55 mm - STERILE
ST4.5L60D-ST	Ø4.5 mm reinforced core locking screw - L60 mm - STERILE
ST4.5L65D-ST	Ø4.5 mm reinforced core locking screw - L65 mm - STERILE
ST4.5L70D-ST	Ø4.5 mm reinforced core locking screw - L70 mm - STERILE
ST4.5L75D-ST	Ø4.5 mm reinforced core locking screw - L75 mm - STERILE
ST4.5L80D-ST	Ø4.5 mm reinforced core locking screw - L80 mm - STERILE
ST4.5L85D-ST	Ø4.5 mm reinforced core locking screw - L85 mm - STERILE
ST4.5L90D-ST	Ø4.5 mm reinforced core locking screw - L90 mm - STERILE

* Blue anodized

** Optional



Ø4.5 MM NON-LOCKING SCREWS*

Ref.	Description
CT4.5L24D-ST	Ø4.5 mm non-locking screw - L24 mm - STERILE
CT4.5L27D-ST	Ø4.5 mm non-locking screw - L27 mm - STERILE
CT4.5L30D-ST	Ø4.5 mm non-locking screw - L30 mm - STERILE
CT4.5L35D-ST	Ø4.5 mm non-locking screw - L35 mm - STERILE
CT4.5L40D-ST	Ø4.5 mm non-locking screw - L40 mm - STERILE
CT4.5L45D-ST	Ø4.5 mm non-locking screw - L45 mm - STERILE
CT4.5L50D-ST	Ø4.5 mm non-locking screw - L50 mm - STERILE
CT4.5L55D-ST	Ø4.5 mm non-locking screw - L55 mm - STERILE
CT4.5L60D-ST	Ø4.5 mm non-locking screw - L60 mm - STERILE
CT4.5L65D-ST	Ø4.5 mm non-locking screw - L65 mm - STERILE
CT4.5L70D-ST	Ø4.5 mm non-locking screw - L70 mm - STERILE
CT4.5L75D-ST	Ø4.5 mm non-locking screw - L75 mm - STERILE
CT4.5L80D-ST	Ø4.5 mm non-locking screw - L80 mm - STERILE
CT4.5L85D-ST	Ø4.5 mm non-locking screw - L85 mm - STERILE
CT4.5L90D-ST	Ø4.5 mm non-locking screw - L90 mm - STERILE

* Not anodized

INSTRUMENT REFERENCES

INSTRUMENTS		
Ref.	Description	Qty
ANC014-1	NCT Cutting guide – piece 1	1
ANC014-2	NCT Cutting guide – piece 2	1
ANC019	Metallic wedge for knee osteotomy - 6 mm high	1
ANC020	Metallic wedge for knee osteotomy - 8 mm high	1
ANC021	Metallic wedge for knee osteotomy - 10 mm high	1
ANC022	Metallic wedge for knee osteotomy - 12 mm high	1
ANC023	Metallic wedge for knee osteotomy - 14 mm high	1
ANC024	Handle for metallic wedge and cutting guide	2
ANC025	Metallic wedge for knee osteotomy - 16 mm high	1
ANC120-US	Ø4.2 mm countersink with US quick coupling system	1
ANC210	Length gauge for Ø4.5 mm screws	1
ANC211	Ø4.0 mm quick coupling drill bit	3
ANC214	Soft tissues protector	1
ANC352	Ø6 mm US quick coupling handle	2
ANC601	Spacer Ø10 mm for HTO with ACL replacement	1
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
ANC649	Spacer Ø8 mm for HTO with ACL replacement	1
ANC860	Metallic wedge for knee osteotomy - 18 mm high	1
ANC975	T20 screwdriver with US quick coupling system	2
ANC980	T20 screwdriver with AO quick coupling system	1
ANC990	Activmotion Meary pliers	1
ANC998	Ø4.0 mm threaded guide gauge	3
ANC1009	Reducer of drill guide for Ø2.2 mm pin	2
ANC1064	Ø3.5 mm non threaded bent guide gauge	1
ANC1075	Ø3.5 mm quick coupling drill bit - L195 mm	2
33.0222.200	Pin Ø2.2 L200 mm	6

PSI OPTIONS	
Ref.	Description
ANC656	Patient specific cutting guide for HTO
ANC717	Patient specific cutting guide for DFO
ANC657	Ø3.9 mm pin for cutting guide - L60 mm
ANC774	Ø3.9 mm pin for cutting guide - L35 mm
ANC927	Farabeuf pliers 170 mm

OPTIONAL INSTRUMENTS		
Ref.	Description	Qty
ANC620	Ø2.2 mm pin guide	1
ANC652	HTO Alignment rod	3
ANC653	Support for HTO alignment rod	1
ANC1063	Ø4 mm mini invasive threaded guide	2
ANC1065	Ø4.0 mm quick coupling drill bit - L 225 mm	2
ANC1066	Activmotion Meary pliers	1
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
ANC1119	Metallic wedge for osteotomy - Narrow - 16 mm high	1
ANC1120	Metallic wedge for osteotomy - Narrow - 18 mm high	1

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



PSI OPTIONS	
Ref.	Description
ANC1134	Patient specific cutting guide for iliac graft
ANC1135	Patient specific cutting guide for synthetic graft
ANC1184	Patient specific cutting guide for femoral head
ANC956	Patient specific wedge
ANC042	Mini set - Base
33.0222.200	Pin Ø2.2 L200 mm

REMOVAL KIT

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

- ANC975: T20 screwdriver with US quick coupling system
- ANC352: Ø6 mm US quick coupling handle

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

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, Germany
+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