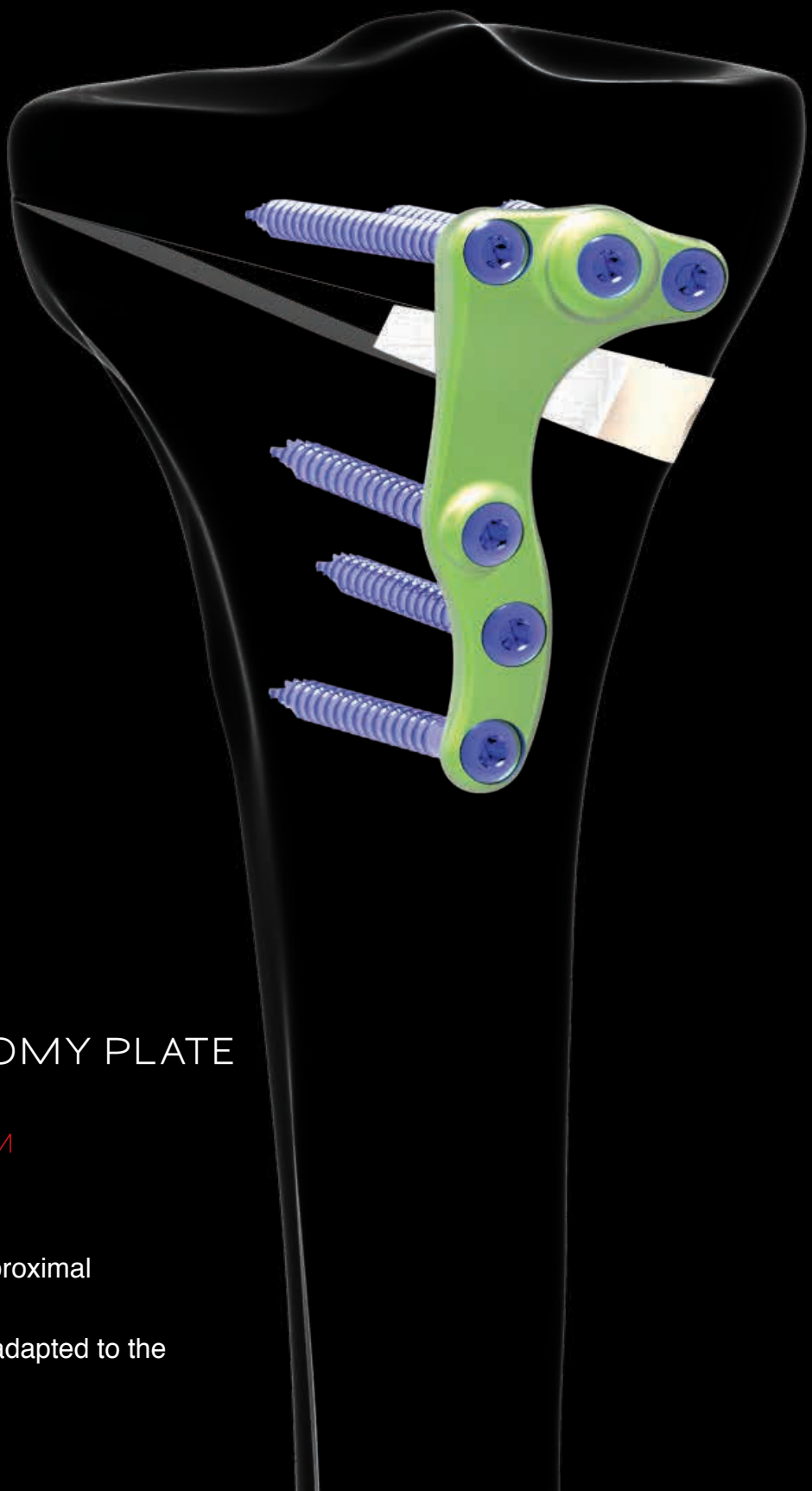
NEWCLIP-TECHNICS

INNOVATION MEANS MOTION



ACTIVMOTION
HIGH TIBIAL OSTEOTOMY PLATE

POLYAXIAL LOCKING SYSTEM
DUALTEC SYSTEM®

- Anatomically contoured implant: proximal curvature and metaphyseal slope.
- Design and positioning perfectly adapted to the knee biomechanics.

ACTIVMOTION

Indications: The ACTIVMOTION range is indicated for high tibial osteotomy in adults.

Contra-indications:
- Pregnancy.
- Acute or chronic local or systemic infections.
- Lack of musculo-cutaneous cover, severe vascular deficiency touching the focus.
- Insufficient bone quality preventing the correct insertion of the screws into the bone.
- Muscular deficit, neurological deficiency or behavioural 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.

HIGH TIBIAL OSTEOTOMY PLATE

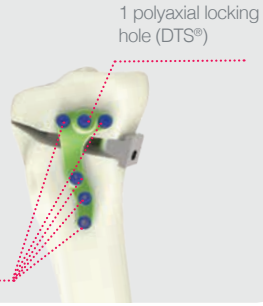
→ TECHNICAL FEATURES

- **Anatomic asymmetrical implant** (green anodized for right plate and blue anodized for left plate)
- Proximal curve
- Metaphyseal slope adapted to the anatomy
- 6 **locking screws** including 1 polyaxial screw
- Material: **Titanium** alloy

FIXATION

→ TECHNICAL FEATURES

- Ø4.5 mm reinforced core screws for optimal mechanical stability (progressive core diameter Ø3.9 to 4.5 mm),
- Buried screws are used to minimize risks of soft tissue irritation.



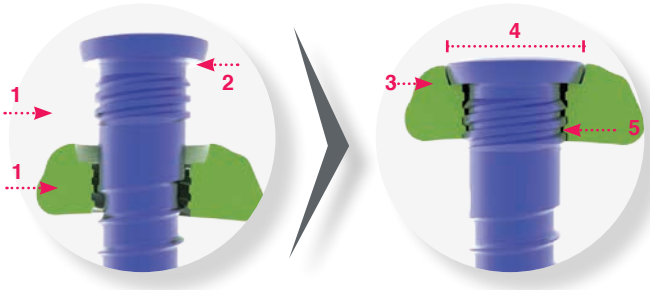
→ POLYAXIAL LOCKING SYSTEM

Possible angulation of the screw before locking (25° locking range) thanks to the DTS® system.

→ SELF LOCKING SYSTEM

Features:

- The threaded sections under the screw head and inside the hole have strictly the **same characteristics** (1):
  - Cylindrical internal thread profile,
  - Cylindrical external thread profile,
- Screw head cap (2),
- Plate and screw made from the same material: titanium alloy.



Results:

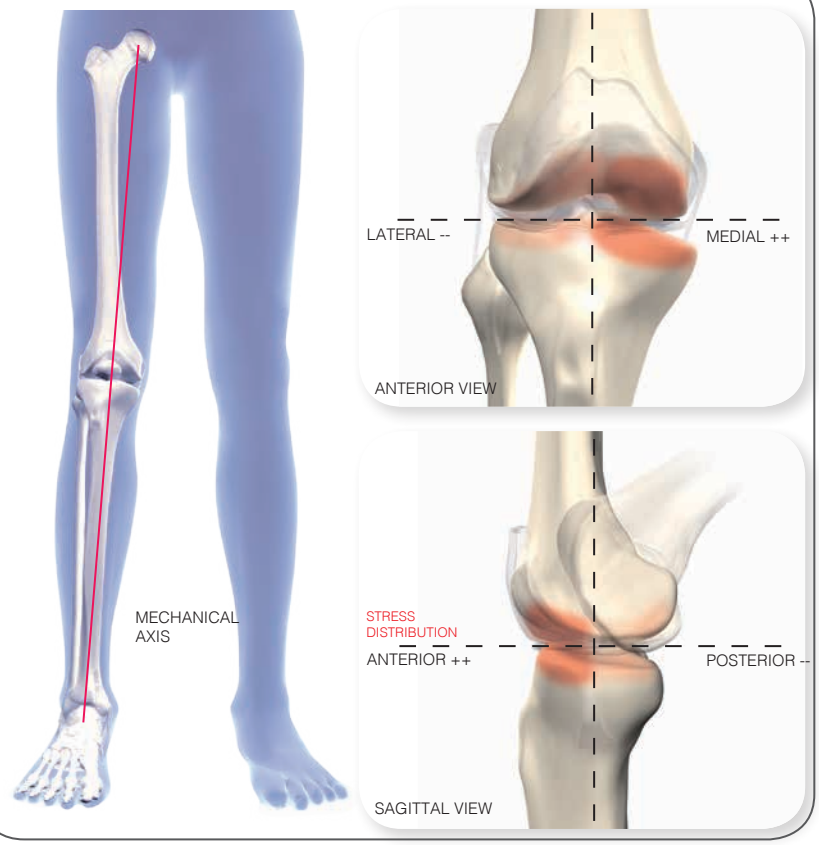
- **Low profile construct:**
  - The buried screw head thanks to the cap in the slot insuring the locking, (3)
  - The screw head is buried in the plate (4).
- **Construct limiting cold welding risks for improved removal properties:**
  A perfect coaptation of both profiles when locking (5),

INSTRUMENTATION

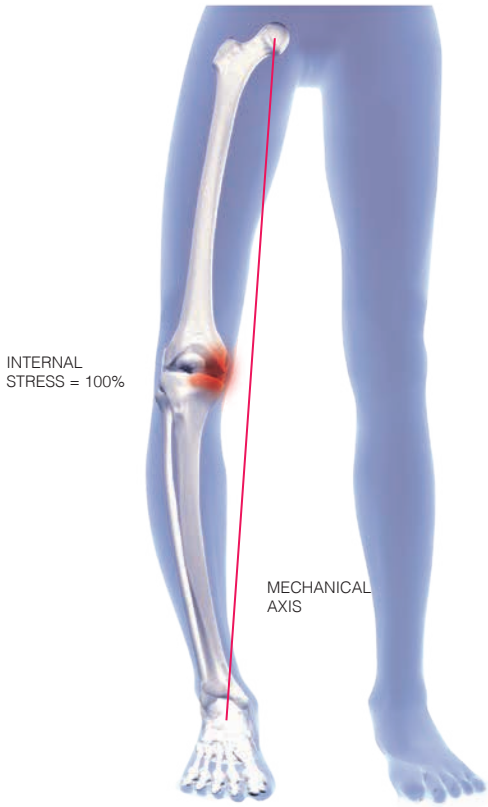
- A single instrument set for the whole ACTIVMOTION range,
- One type of screw (Ø4.5 mm) and one drill bit diameter (Ø4.0 mm) for simple and safe implant fitting,
- Osteotomy metallic wedges for progressive and safe opening of the osteotomy site.

BIOMECHANICS OF THE KNEE

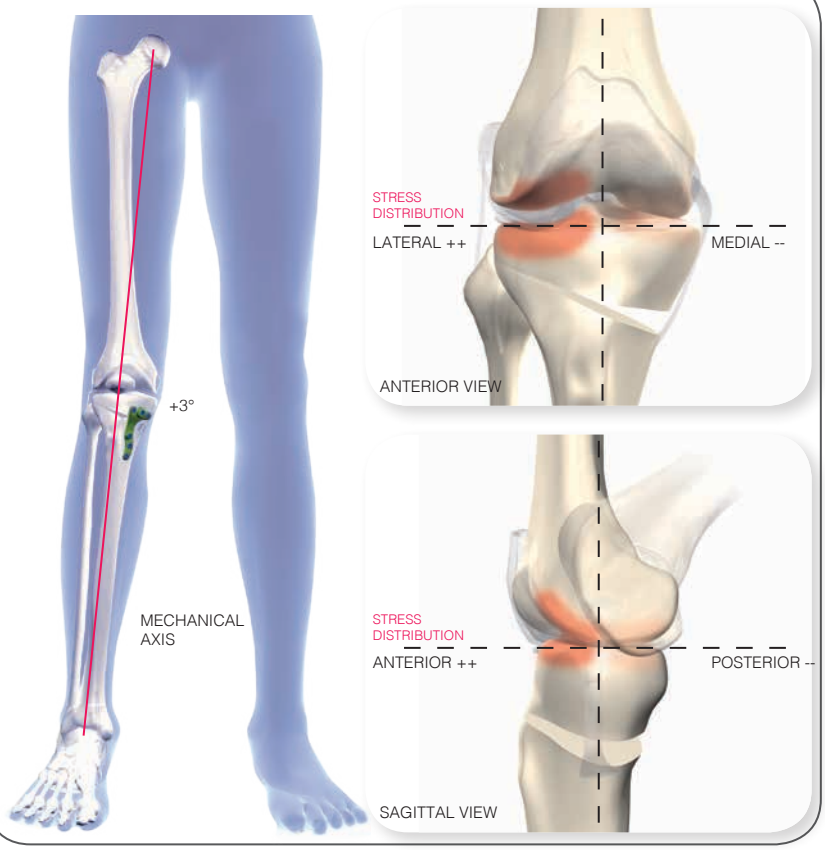
NORMAL KNEE ALIGNMENT

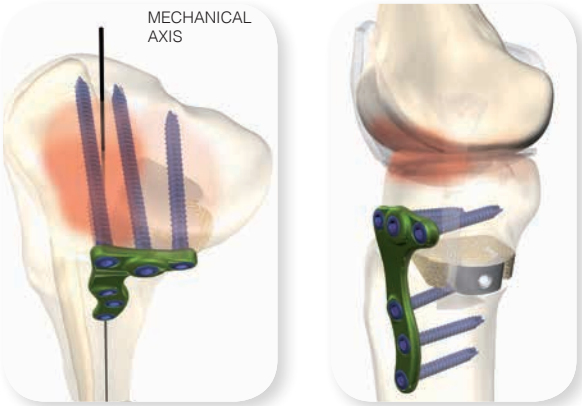


GENU VARUM



KNEE AFTER +3° VALGISATION CORRECTION





OPTIMAL IMPLANT POSITIONING.

- The implant is fitted onto the antero-medial surface of the tibia where the highest mechanical stress are registered.
- Screws are distributed following a 2 + 1 pattern:
  - 2 screws on the lateral tibial plateau
  - 1 screw on the medial tibial plateau
- Orientation of the screws in an antero-posterior direction allows for increased resistance to mechanical stress when the knee rolls back.

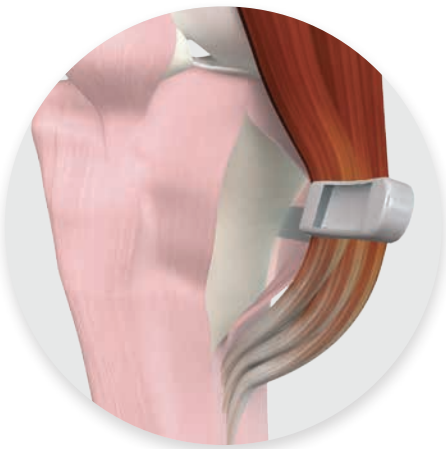
SURGICAL APPROACH

- 1. The patient is positioned supine on the operating table. The procedure is performed under pneumatic tourniquet and a small pillow is placed under the buttock of the operated side in order to maintain the limb in neutral rotation.
- 2. An 8 cm slightly oblique vertical incision is made along the antero-medial surface, running over the joint space down to under the tibial tuberosity.

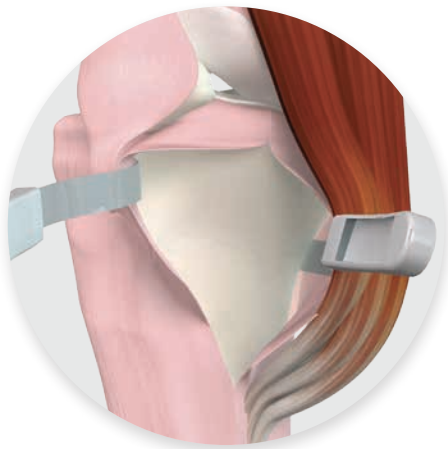
- 3. A single-plane incision is made through the periosteum; then the hamstring and the medial collateral ligament (MCL) are retracted posteriorly.

  The larger the angular correction must be, the more the hamstring and MCL should be released distally.

  CAUTION : if the release is adequate, the opening of the osteotomy and the insertion of the bone graft can be performed with no risk of tearing the lateral cortical hinge. If it is not, forcing the graft in may tear the hinge, thus seriously jeopardizing complete bone mending.
  ie: pseudarthrosis.



- 4. An elevator is placed very carefully over the posterior surface of the tibial metaphysis and should remain in place as a protection during the osteotomy.

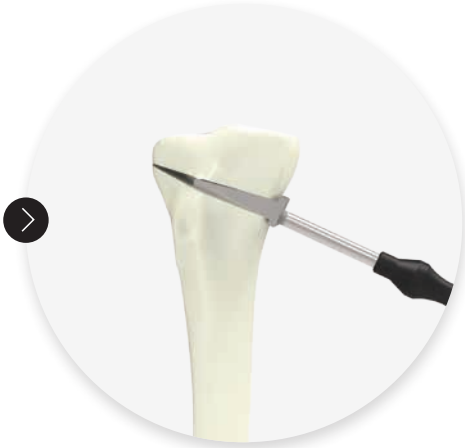


- 5. Clear the deepest part of the patellar tendon down to its attachment onto the tibial tuberosity, and protect it using a retractor during the osteotomy.

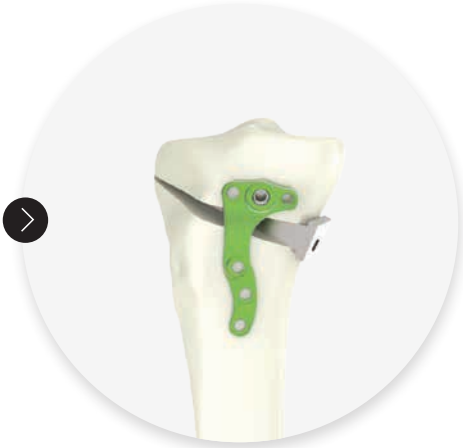
SURGICAL TECHNIQUE

HIGH TIBIAL OSTEOTOMY

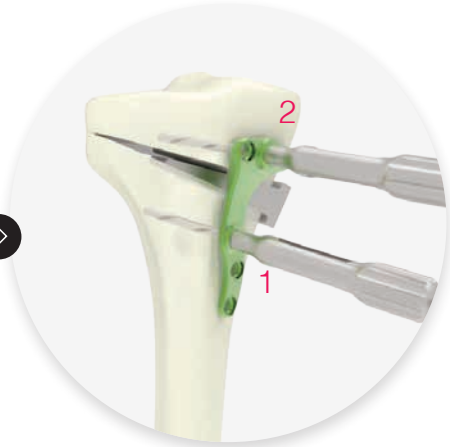
1. Incise upward toward the head of the fibula and stop incision 5-10 mm before the lateral cortical area.



2. Insert wedges of increasing size until finding the appropriate one (6-16 mm) while maintaining the lateral surface of the tibia. Once the appropriate wedge has been inserted, the angular correction is maintained during osteosynthesis.



3. Position the plate onto the antero-internal side so that:
- The proximal part of the plate runs parallel to the osteotomy cut, or
- The distal part of the plate runs parallel to the tibial tuberosity.



4. Lock the first Ø4.0 mm guide (ANC212) in the slot under the osteotomy cut, then start drilling using a Ø4.0 mm drill (ANC211)(1).
Insert a second Ø4.0 mm guide into the polyaxial slot (2) of the plate. Adjust the drilling direction towards the lateral tibial plateau.
Remove the drill guides. Insert and lock the 2 chosen screws.
In case of dense cortical it is recommanded to drill (ANC120-US) before inserting the screws.

5. Proceed similarly for the other 4 monoaxial locking holes.

6. The construct is complete when the metallic wedge is removed.

→ BENDING OF THE PLATE

1. Bending is only possible on the metaphyseal part of the plate between:
   - the polyaxial hole (a.)
   - the first diaphyseal hole (b.).

The positioning of the bending pliers must be as accurate as possible so that the ergonomic qualities of the plate are not altered.

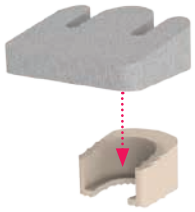
2. **Bend only once and without reverse bending.**
3. The holes must be protected so as to avoid damaging the fixation. The oval-shaped distortion of the holes when bending the plate into shape is a particular risk.

ATLANTIC FUSION® CAGE - ASSEMBLY

Wedge for fusion cage (TBSxx)

Fusion cage for HTO (FCPxx)

- The cages (FCPxx) and wedges (TBSxx) are delivered in two different sterile packaging.



- The wedge (TBSxx) must be inserted into the cage (FCPxx) only as shown.

- Final position of the 2 elements after assembly.

- Use the HTO fusion cage handling tool (ANC047) to insert the cage (FCPxx) and wedge (TBSxx) into position.

FINAL RESULT

IMPLANTS REFERENCES

OPENING TIBIAL PLATES*

Ref.	Description
ATDP1-ST	Right opening tibial plate - size 1 - sterile
ATGP1-ST	Left opening tibial plate - size 1 - sterile

Manufacturer : NEWCLIP TECHNICS (FRANCE)
Class : IIb
Notified body: SGS - CE 0120

Ø4.5 MM DTS® SELF TAPPING SCREWS*

Ref.	Description
ST4.5L30-ST	DTS® self-tapping screw Ø4.5 mm - L30 mm - sterile
ST4.5L35-ST	DTS® self-tapping screw Ø4.5 mm - L35 mm - sterile
ST4.5L40-ST	DTS® self-tapping screw Ø4.5 mm - L40 mm - sterile
ST4.5L45-ST	DTS® self-tapping screw Ø4.5 mm - L45 mm - sterile
ST4.5L50-ST	DTS® self-tapping screw Ø4.5 mm - L50 mm - sterile
ST4.5L55-ST	DTS® self-tapping screw Ø4.5 mm - L55 mm - sterile
ST4.5L60-ST	DTS® self-tapping screw Ø4.5 mm - L60 mm - sterile
ST4.5L65-ST	DTS® self-tapping screw Ø4.5 mm - L65 mm - sterile
ST4.5L70-ST	DTS® self-tapping screw Ø4.5 mm - L70 mm - sterile
ST4.5L75-ST	DTS® self-tapping screw Ø4.5 mm - L75 mm - sterile

Manufacturer : NEWCLIP TECHNICS (FRANCE)
Class : IIb
Notified body: SGS - CE 0120

ATGP1-ST

ATDP1-ST

ATLANTIC FUSION® CAGE AND WEDGE FOR FUSION CAGE REFERENCES

ATLANTIC FUSION® CAGES*

Ref.	Description
FCP06	Fusion cage for HTO - 6 mm high
FCP08	Fusion cage for HTO - 8 mm high
FCP10	Fusion cage for HTO - 10 mm high
FCP12	Fusion cage for HTO - 12 mm high
FCP14	Fusion cage for HTO - 14 mm high
FCP16	Fusion cage for HTO - 16 mm high

Manufacturer : NEWCLIP TECHNICS (FRANCE)
Class : IIb
Notified body: SGS - CE 0120

WEDGE FOR FUSION CAGES*

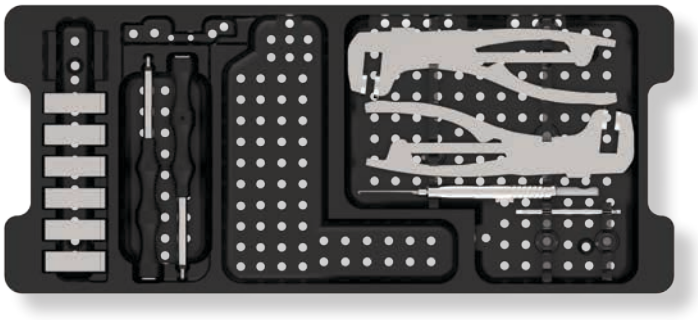
Ref.	Description
TBS06	Wedge for fusion cage 6°
TBS08	Wedge for fusion cage 8°
TBS10	Wedge for fusion cage 10°
TBS12	Wedge for fusion cage 12°
TBS14	Wedge for fusion cage 14°
TBS16	Wedge for fusion cage 16°

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

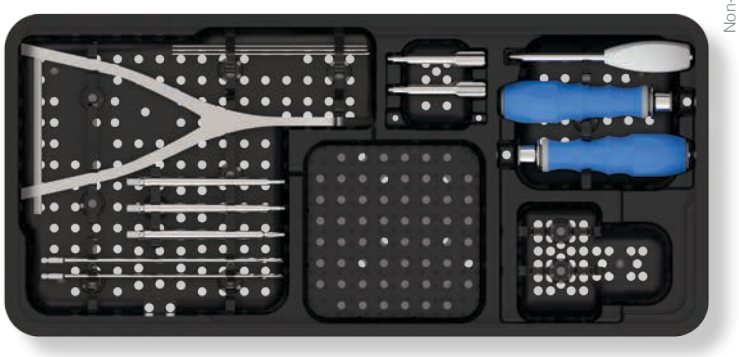
* Sterile packaging

INSTRUMENTS REFERENCES

Non-contractual pictures.



INSERT (ANC279/I)



BASE (ANC279/B)

INSTRUMENTS		
Ref.	Description	Qty
ANC019	Metallic wedge 6 mm high	1
ANC020	Metallic wedge 8 mm high	1
ANC021	Metallic wedge 10 mm high	1
ANC022	Metallic wedge 12 mm high	1
ANC023	Metallic wedge 14 mm high	1
ANC024	Handle for metallic wedge and cutting guide	2
ANC025	Metallic wedge 16 mm high	1
ANC047	HTO fusion cage handling tool	1
ANC119-SK	3.0 mm hexagonal screwdriver with quick coupling system	2
ANC120-US	Ø4.2 mm reamer with US quick coupling system	1
ANC210	Length gauge for Ø4.5 mm screws	1
ANC211	Ø4.0 mm quick coupling drill bit	2
ANC212	Ø4.0 mm DTS® drill guide	2
ANC235	HTO Meary pliers	1
ANC240	Pliers for bending ACTIV plates	2
ANC312	3.0 mm quick coupling hexagonal screwdriver	1
ANC352	Ø6 mm US quick coupling handle	2
33.0222.150	K-wire -Trocar point/Round End - Ø2.2 L150 mm	3

REMOVAL KIT

If you have to remove ACTIVMOTION implants (distal humerus or olecranon implants), make sure to order the **Newclip Technics removal set** which includes the following instruments:
- ANC119-SK: 3.0 mm hexagonal screwdriver with quick coupling system
- ANC352: Ø6 mm US quick coupling handle
- ANC312: 3.0 mm quick coupling hexagonal screwdriver

Brochure EN - Activmotion - Ed.4- 04/2015 - Read labeling and instructions before use.

NEWCLIP TECHNICS
PA de la Lande Saint Martin - 45 rue des Garottières
44115 Haute Goulaine (France)
Phone : +33 (0)2 28 21 37 12 - Fax : +33 (0)2 40 63 68 37
orders@newcliptechnics.com - www.newcliptechnics.com

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