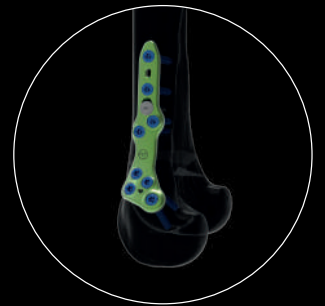
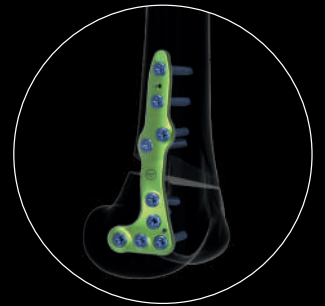
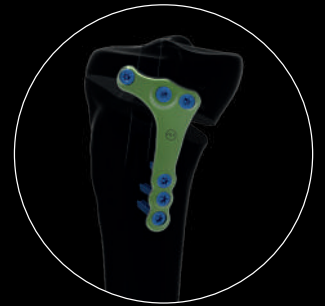
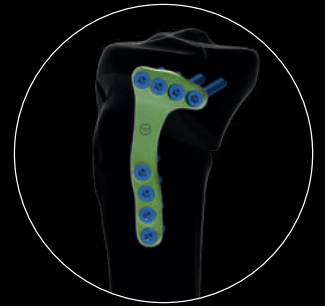
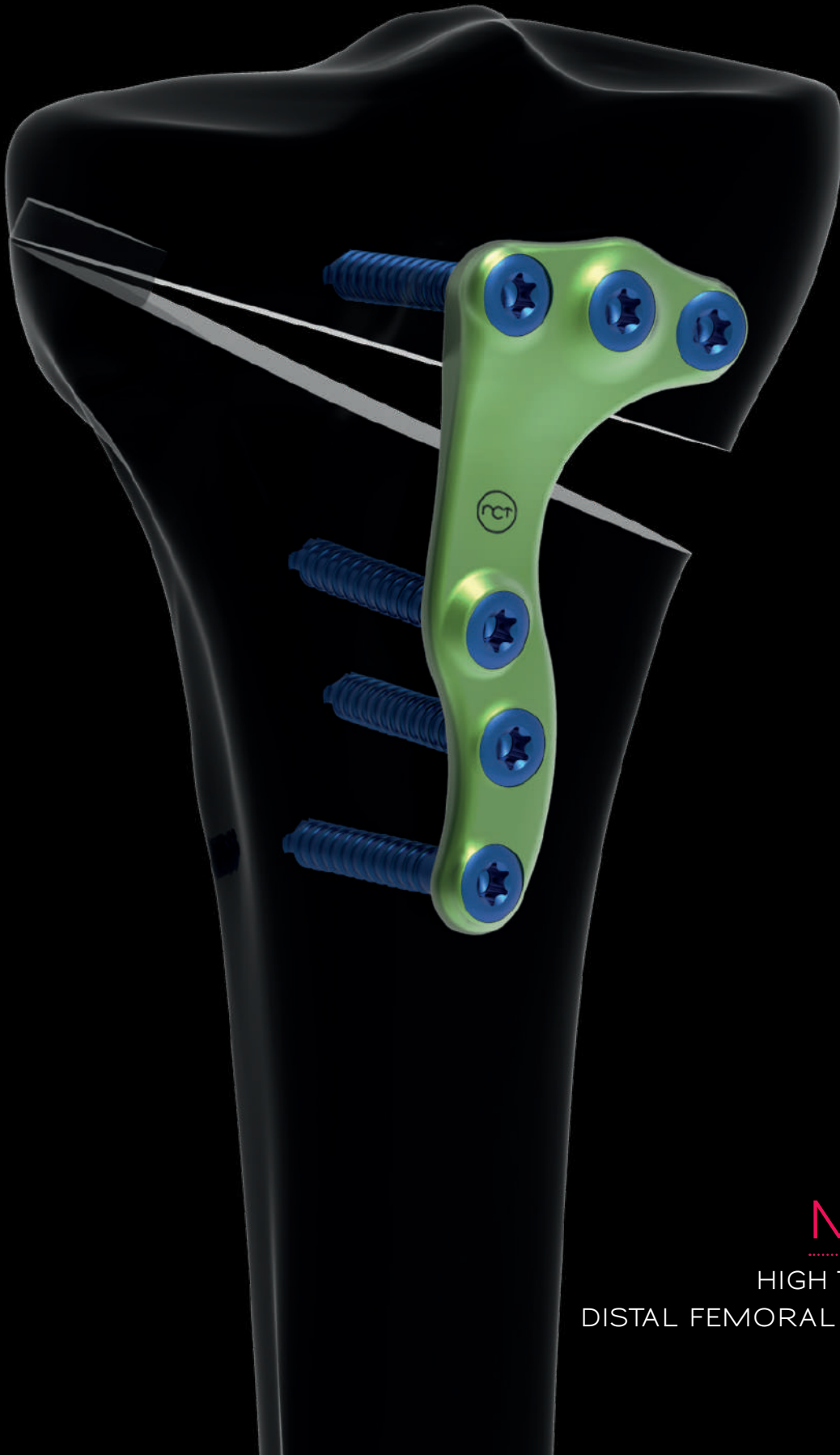




NEWCLIP  
TECHNICS



ACTIVE  
MOTION

HIGH TIBIAL OSTEOTOMY &  
DISTAL FEMORAL OSTEOTOMY PLATES

# ACTIVMOTION S

**Indication:** the implants of the Activmotion S range are intended for knee osteotomy in adults.

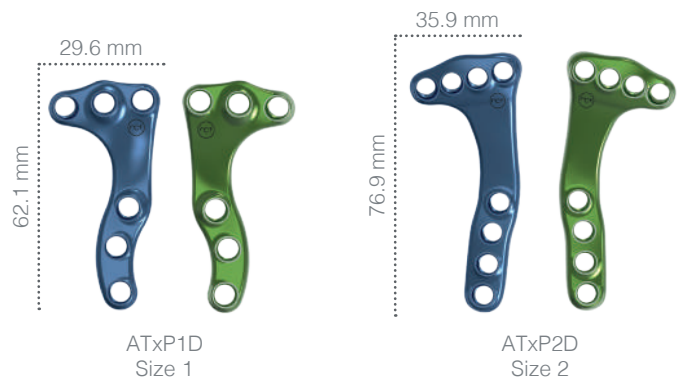
**Contraindications:**

- 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 the correct insertion of the implants 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.

## OPENING WEDGE HIGH TIBIAL OSTEOTOMY PLATES SIZES 1 & 2

### → TECHNICAL FEATURES

- ▶ **Anatomic asymmetrical implants** (blue anodized for left plates and green anodized for right plates).
- ▶ **Antero-medial positioning** to be as close as possible to the lateral stress.
- ▶ The design of the size 2 implants is adapted to large biplanar cuts or large osteotomies.
- ▶ Titanium alloy TA6V implants for optimized mechanical resistance.



### → SIZE CHOICE

#### ▶ SIZE 1

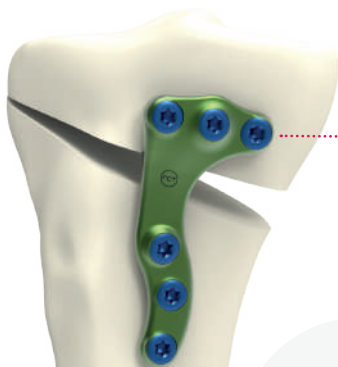
**For monoplanar osteotomy**

- Up to 12 mm of correction

**For biplanar osteotomy**

- Up to 6 mm of correction

Ref: ATDP1D

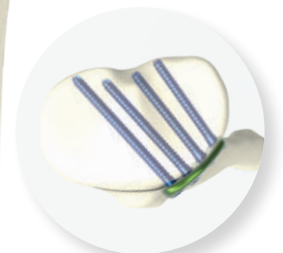
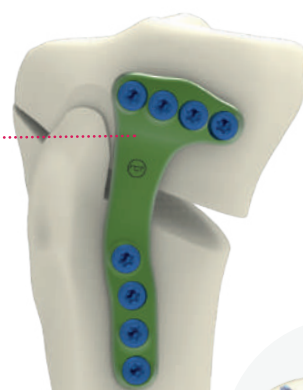


#### ▶ SIZE 2

**For biplanar osteotomy**

- Ascendant osteotomy
- Over 12 mm of correction

Ref: ATDP2D



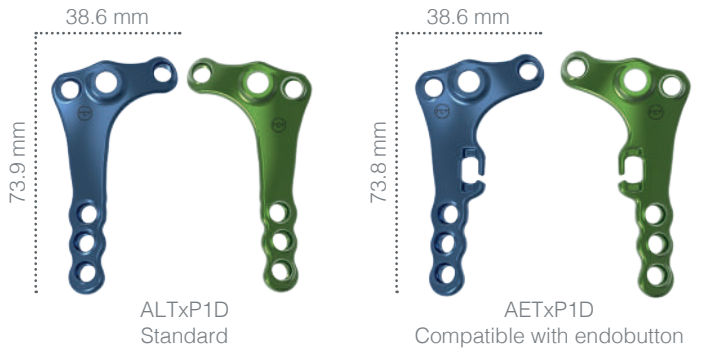
6 to 8 monoaxial locking holes (Oneclip®) for an optimized stability

# PLATE FEATURES

## OPENING WEDGE HIGH TIBIAL OSTEOTOMY WITH ACL REPLACEMENT PLATES

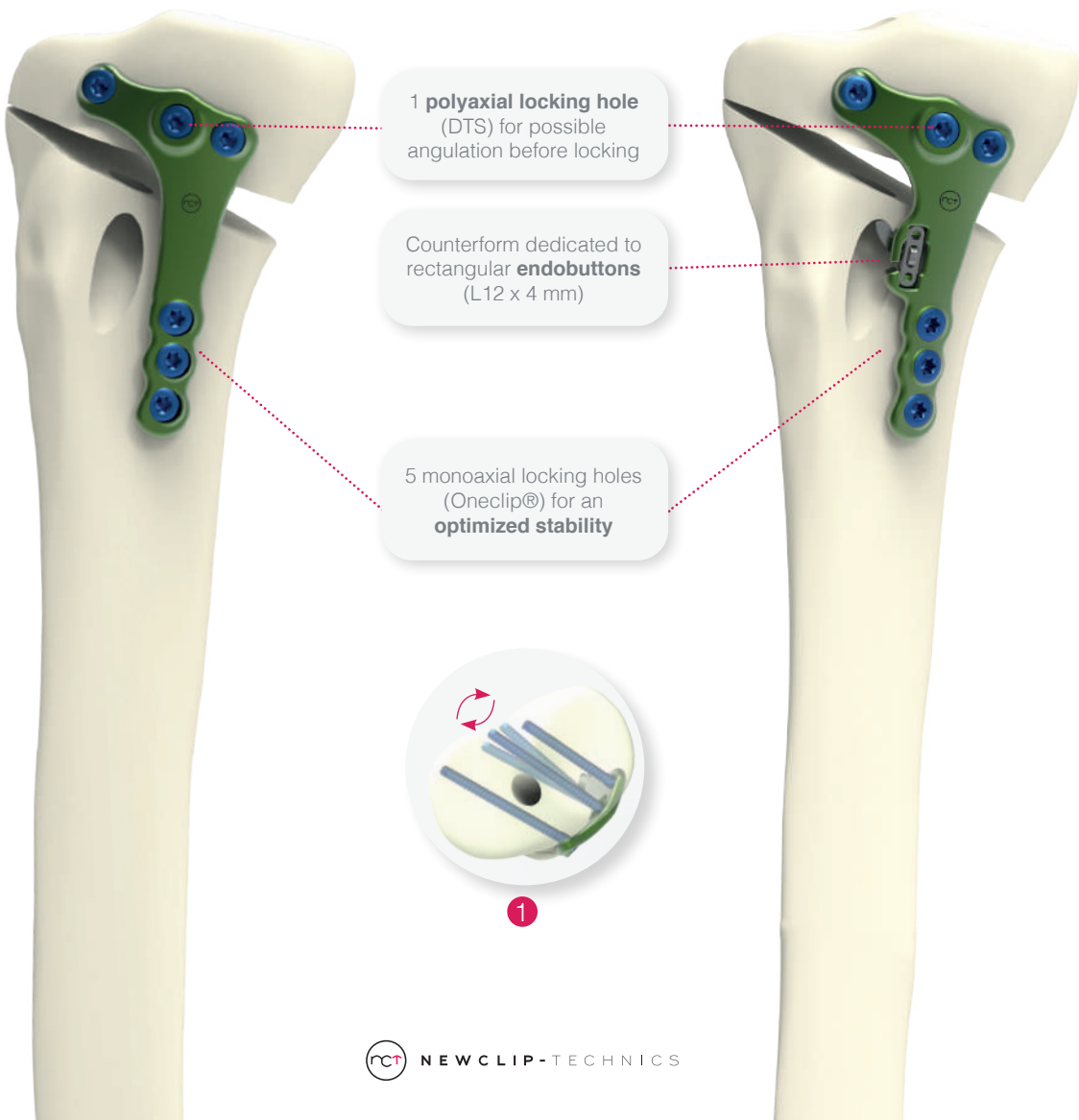
### → TECHNICAL FEATURES

- ▶ **Anatomic asymmetrical implants** (blue anodized for left plates and green anodized for right plates).
- ▶ To prevent any risk of damaging the tunnel, the plate's upper part is **optimized for ACL reconstruction (1)**.
- ▶ 1 polyaxial locking hole located in the proximal part of the ACL tunnel to avoid damaging the graft.
- ▶ One design compatible with the peek or titanium endobutton placement.



Ref: ALTDP1D

Ref: AETDP1D

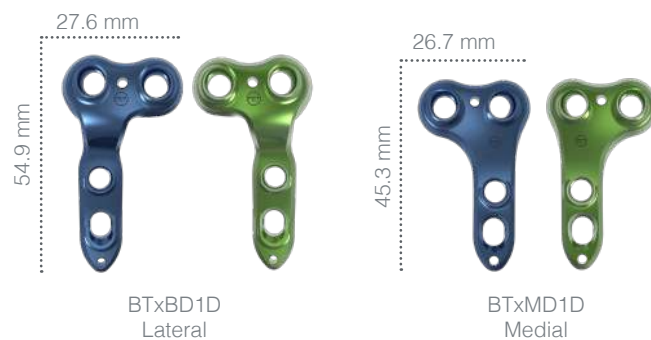


# PLATE FEATURES

## CLOSING WEDGE HIGH TIBIAL OSTEOTOMY PLATES

### → TECHNICAL FEATURES

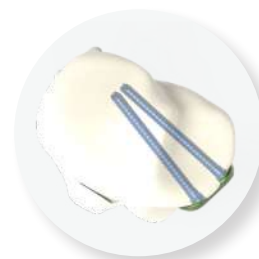
- ▶ **Lateral and medial closing plates.**
- ▶ **Precontoured implants:** the design of these plates is the result of a proprietary state-of-the-art mapping technology to establish the maximum congruence between the plate and the bone.
- ▶ Compression oblong ramp hole to optimize the osteotomy compression.
- ▶ Compatible with **mini invasive approach**.
- ▶ **Titanium alloy TA6V** implants for optimized mechanical resistance.
- ▶ Medial plate: antero-medial positioning for an easier positioning of the plate avoiding the medial step due to the osteotomy.



Ref: BTDBD1D



Ref: BTMD1D

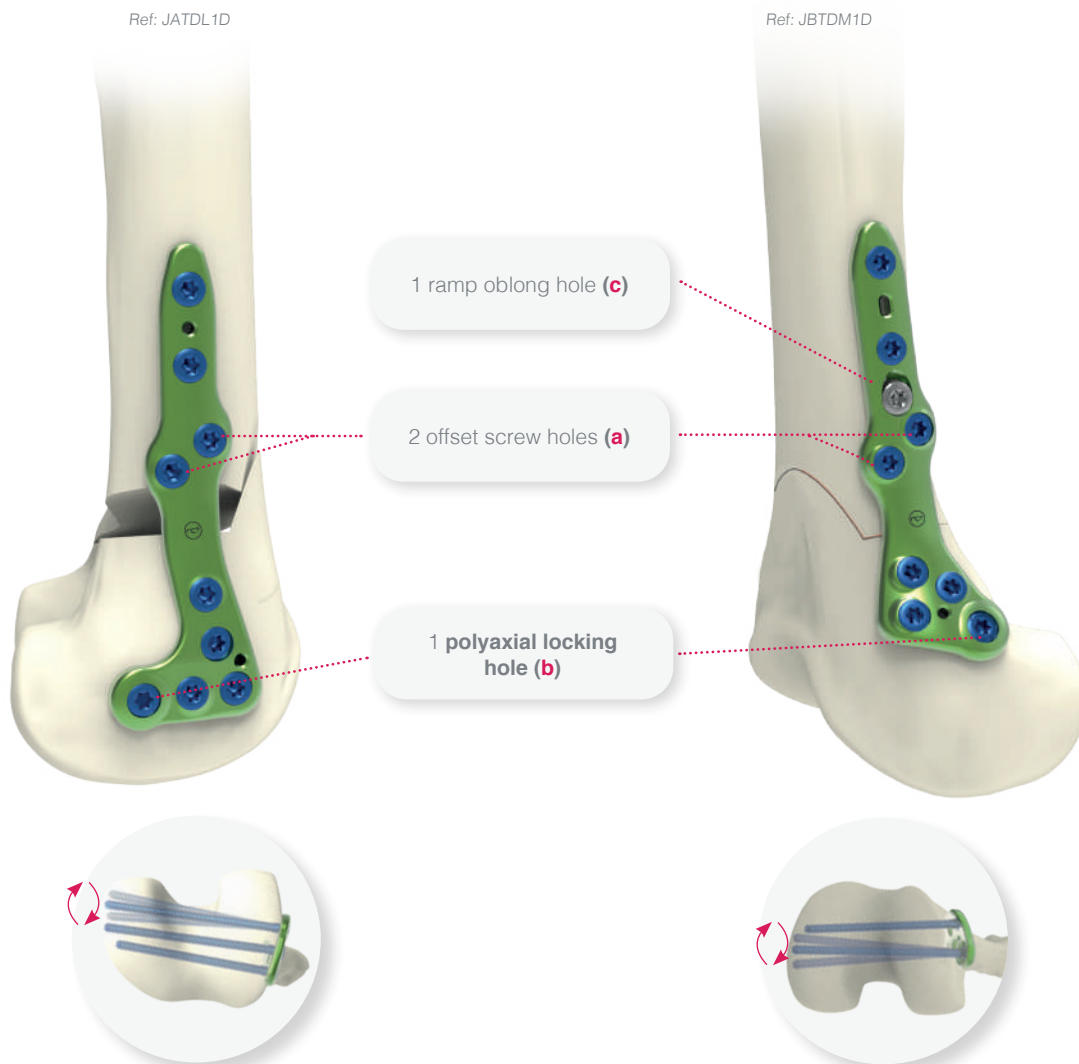
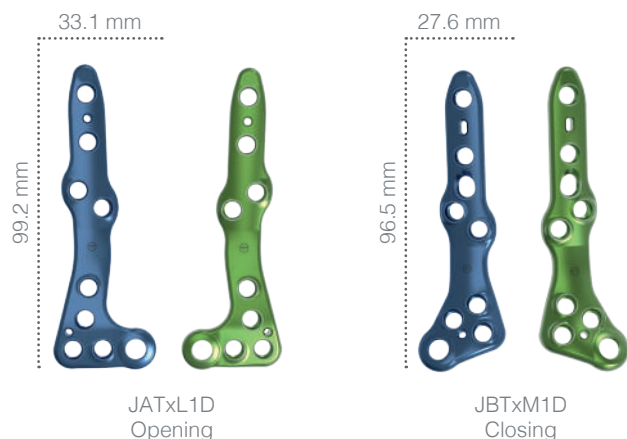


# PLATE FEATURES

## DISTAL FEMORAL OSTEOTOMY PLATES

### → TECHNICAL FEATURES

- **Medial closing and lateral opening plates.**
- **Anatomic asymmetrical implants** (green anodized for right plates and blue anodized for left plates).
- 2 offset screw holes improving the mechanical features of the assembly and preventing loss of angular correction (a):
  - On both sides of the osteotomy site for closing;
  - Above the osteotomy site for opening.
- Monoaxial locking screws (Oneclip®):
  - 7 screws for the closing plate;
  - 8 screws for the opening plate.
- 1 polyaxial locking screw (DTS) allowing to avoid the intercondylar notch, if necessary (b). Possible angulation of the screw before locking (25° locking range) thanks to the DTS system.
- 1 ramp oblong hole allowing for a simple and controlled compression (c) for closing.

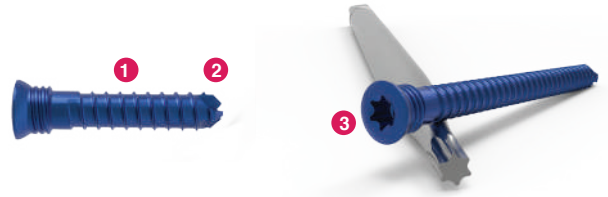


# TECHNICAL FEATURES

## FIXATION FEATURES

### → SCREW TECHNICAL FEATURES

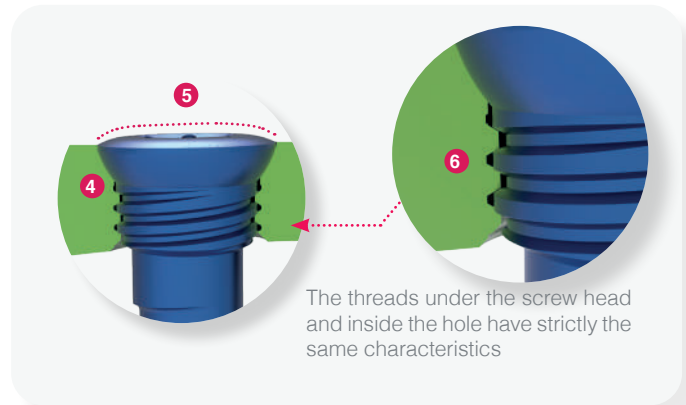
- Ø4.5 mm reinforced core screws for optimized mechanical stability (1).
- Self-tapping systems to help for insertion (2).
- Hexalobular T20 (3).



### → LOCKING SYSTEM FEATURE

#### ➤ Low profile construct:

- The screw is stopped in the hole by its cap, insuring the locking (4).
- The screw head is buried in the plate (5) to minimize the risk of soft tissue irritation.
- Coaptation of both profiles when locking (6).
- Plate and screws made from the same material: titanium alloy.



#### ➤ Monoaxial locking fixation

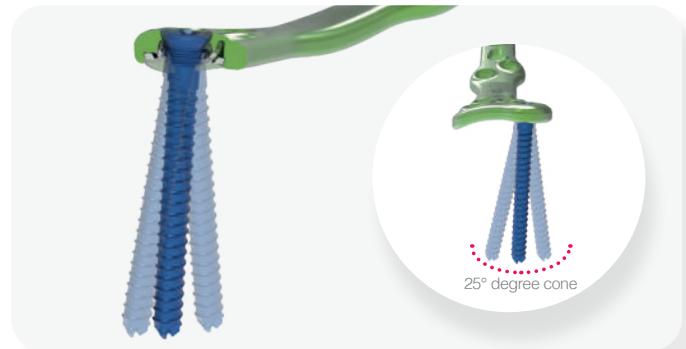
Oneclip®: patented design.

#### ➤ Polyaxial locking fixation

The DTS system (patented design) allows the screw to lock into the plate while permitting an angulation of the screw.

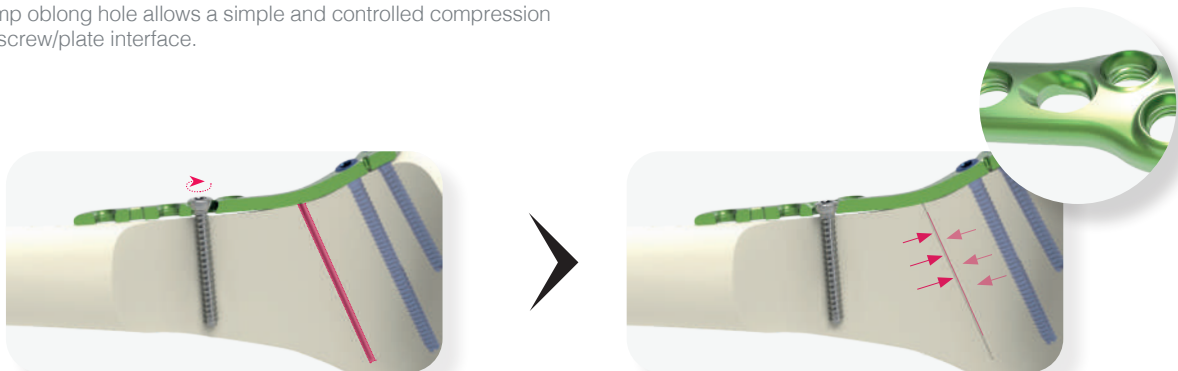
Newclip Technics plates combine both polyaxial and locking technologies to create a fixed-angle construct particularly useful to preserve the articulation.

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



### → COMPRESSIVE RAMP OBLONG HOLE

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

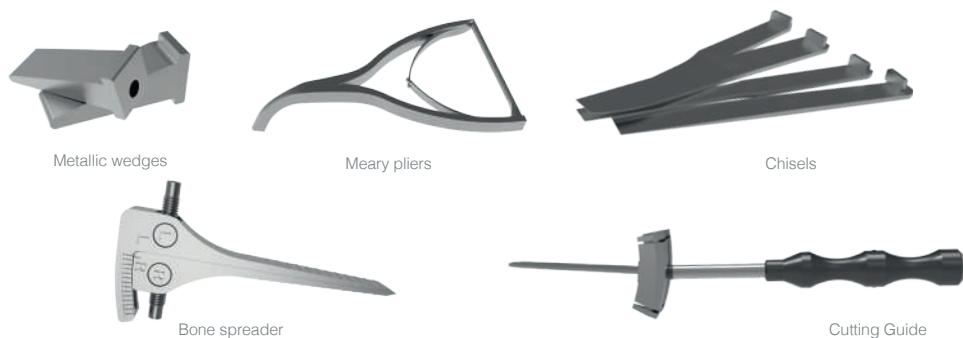




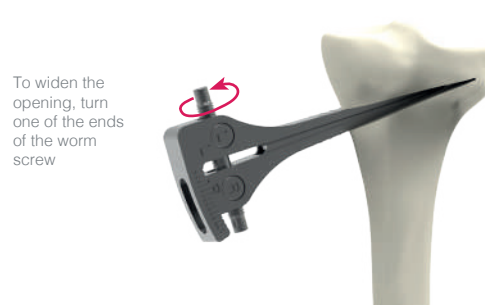
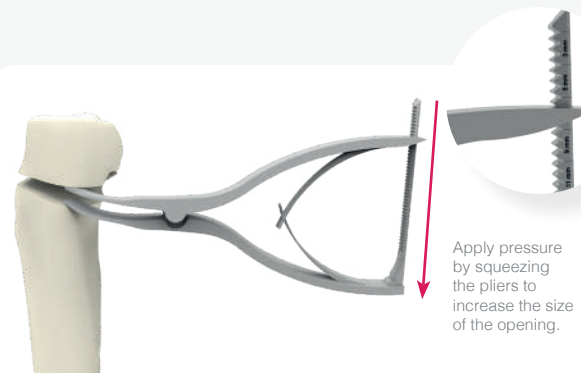
# TECHNICAL FEATURES

## INSTRUMENTATION

- Dedicated minimally invasive instruments (ANC1063 and ANC1065)
- Dedicated instruments to create and maintain the appropriate angular correction during osteosynthesis:
  - 8 metallic wedges (4 mm to 18 mm; increment of 2 mm);
  - Meary pliers (controlled opening thanks to the markings - 3 to 19 mm (2 mm increment));
  - Chisels;
  - Bone spreader;
  - Cutting guide (see page 12 to see how to use the instrument).



### → DIFFERENT METHODS OF OPENING OSTEOTOMIES



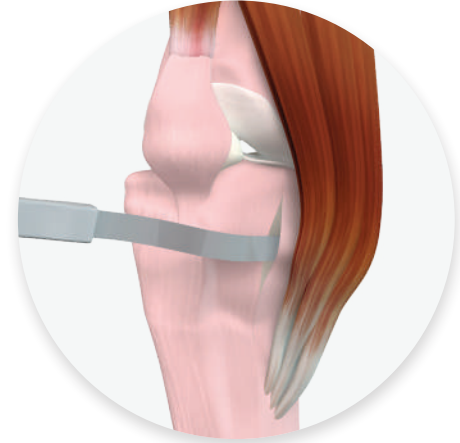
# SURGICAL TECHNIQUE

## HIGH TIBIAL OSTEOTOMY APPROACH

Technique presented below is one of the surgical techniques possibilities. The choice is made according to surgeon's preferences. Use an antero-medial approach to expose the proximal tibia metaphysis.



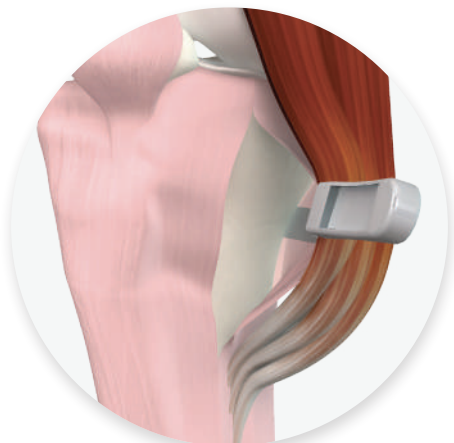
1. The patient is positioned in a supine position on the operating table. The procedure is performed under pneumatic tourniquet and a small pillow is placed under the buttock of the operated side in order to maintain the limb in neutral position.
2. An 8 cm slightly oblique vertical incision is made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



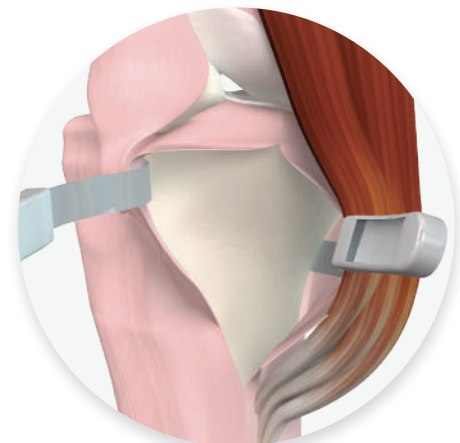
3. A single-plane incision is made through the periosteum; then the hamstring and the medial collateral ligament (MCL) are retracted posteriorly.

The wider the angular correction is, 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 healing.  
ie: pseudarthrosis.



4. A hohmann retractor (4450-R) is placed very carefully over the posterior surface of the tibial metaphysis and should remain in place as a protection during the osteotomy.

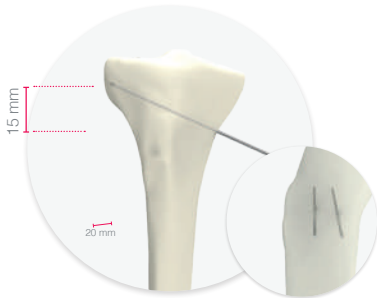


5. Clear the deepest part of the patellar tendon down to its attachment onto the tibial tuberosity, and protect it using a retractor during the osteotomy.



# SURGICAL TECHNIQUE

## OPENING WEDGE HIGH TIBIAL OSTEOTOMY - MONOPLANAR CUT



1. To perform the osteotomy cut, insert:
- **The first pin** from the insertion of the hamstring until reaching the lateral cortex, 15 mm below the tibial plateau ridge.
  - **The second pin** parallel to the first one with a 20 mm distance between both of the pins, to maintain the tibial slope.

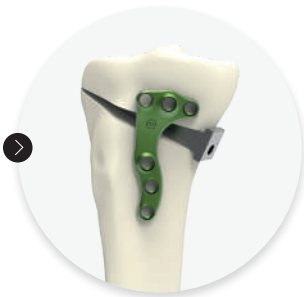


2. Incise upwards toward the head of the fibula and stop the cut 10 mm before the lateral cortical area. Then, remove the pins.

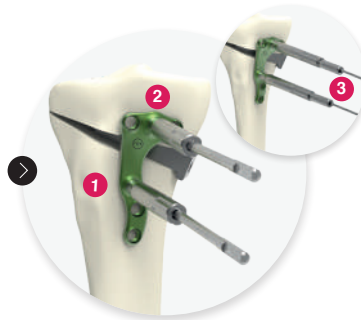


3. Insert wedges of increasing sizes until finding the appropriate one (4 - 18 mm) while maintaining the lateral surface of the tibia. Once the appropriate wedge is inserted, the angular correction is maintained during osteosynthesis.

Alternatively, chisels, the meary pliers or the bone spreader can be used to increase the size of the opening (see page 7 for more information).

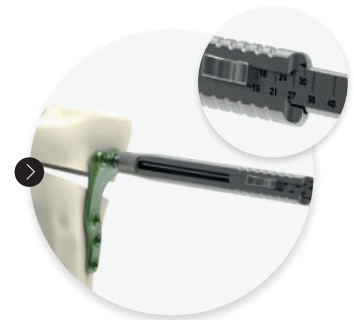


4. Position the plate onto the antero-medial side so that:
- The proximal part of the plate runs parallel to the osteotomy cut, or
  - The distal part of the plate runs parallel to the tibial tuberosity.



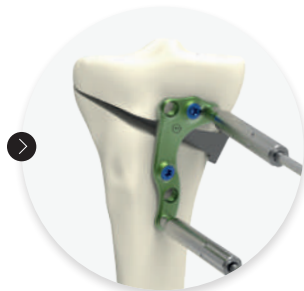
- 5a. Lock the first  $\varnothing 4.0$  mm guide (ANC998) in the hole under the osteotomy cut, then start drilling using a  $\varnothing 4.0$  mm drill (ANC211) (1). Above the osteotomy cut, insert a  $\varnothing 4.0$  mm guide into the central hole (2) and drill.

Alternatively, before drilling, the plate can be temporarily maintained in position with  $\varnothing 2.2$  mm pin (33.0222.200) inserted through the reductor of drill guide (ANC1009)(3).



- 5b. The screw length can be directly read on the drill at the rear of the drill guide (see image 5a) or thanks to the length gauge (ANC210).

**N.B:** to ease the insertion of the screws, use the countersink (ANC120-US) to widen the first cortex previously drilled.



6. Remove the drill guides. Insert and lock the 2  $\varnothing 4.5$  mm screws (ST4.5LxxD-ST) using the screwdriver (ANC975). Proceed similarly for the other 4 monoaxial locking holes.



### FINAL RESULT

The construct is complete when the metallic wedge is removed

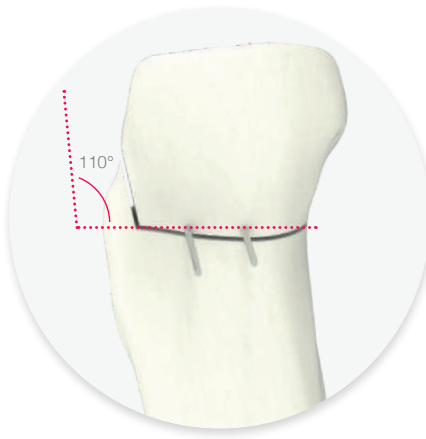
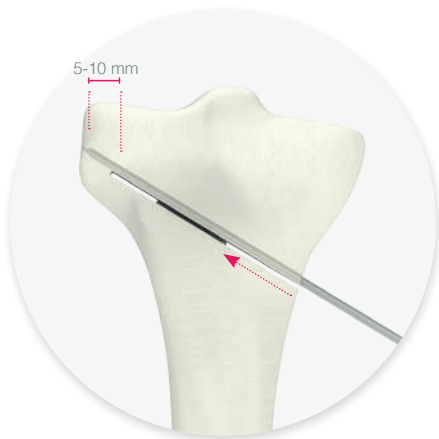


ANC975

# SURGICAL TECHNIQUE

## OPENING WEDGE HIGH TIBIAL OSTEOTOMY - BIPLANAR CUT\*

\* A biplanar cut must be performed with an Activmotion plate size 2



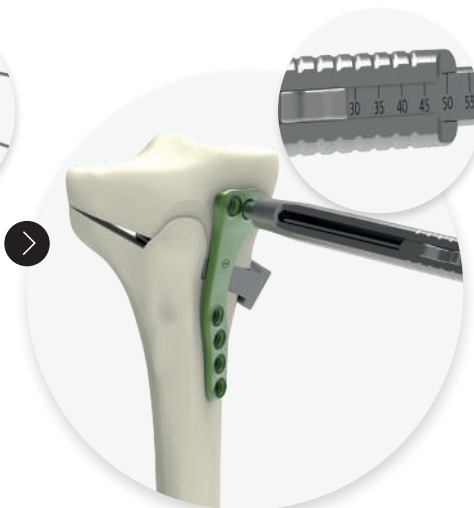
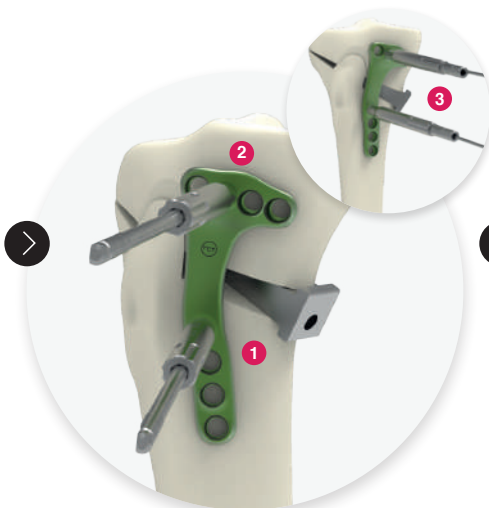
### The osteotomy cut is performed in two steps :

- 1. Ascending osteotomy cut:** the cut is performed by oscillating saw, alongside and below the two pins. Stop incision 5 - 10 mm from the lateral cortex area.
- 2. Transverse osteotomy cut:** perform the anterior transverse osteotomy cut behind the tibial tuberosity at a resulting angle of around 110° to ascending cut.

- 3.** Insert wedges of increasing sizes until the appropriate one while maintaining the lateral surface of the tibia. Once the appropriate wedge is inserted, the angular correction is maintained during osteosynthesis.

Position the plate onto the antero-medial side so that the distal part of the plate runs parallel to the tibial tuberosity.

Alternatively, chisels, the meary pliers or the bone spreader can be used to increase the size of the opening (see page 7 for more information on these techniques).



- 4.** Lock the first Ø4.0 mm guide (ANC998) in the hole under the osteotomy cut, then start drilling using a Ø4.0 mm drill (ANC211) (1). Above the osteotomy cut, insert a Ø4.0 mm guide into the central hole (2) and drill. Alternatively, before drilling, the plate can be temporarily maintained in position with Ø2.2 mm pin (33.0222.200) inserted through the reductor of drill guide (ANC1009)(3).

- 5.** The screw length can be directly read on the drill at the rear of the drill guide (see image 4) or thanks to the length gauge (ANC210). Remove the drill guides. Insert and lock the two Ø4.5 mm screws (ST4.5LxD-ST). Proceed similarly for the remaining locking holes.

**N.B:** to ease the insertion of the screws, use the countersink (ANC120-US) to widen the first cortex previously drilled.



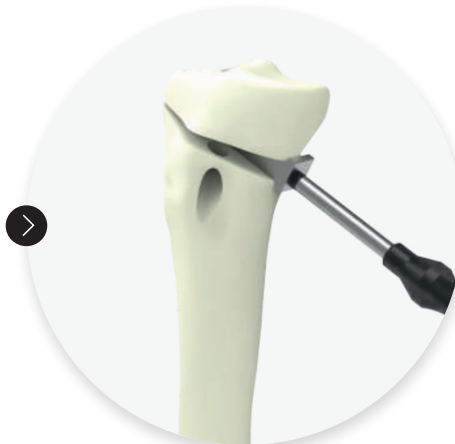
The construct is complete when the metallic wedge is removed

# SURGICAL TECHNIQUE

## HIGH TIBIAL OSTEOTOMY PLATE WITH ACL REPLACEMENT



1. Perform the ACL tunnel following the surgeon's surgical technique.



2. Perform the osteotomy cut, by inserting wedges of increasing sizes until finding the appropriate one (4 - 18 mm) while maintaining the lateral surface of the tibia. Once the appropriate wedge is inserted, the angular correction is maintained during osteosynthesis.

Alternatively, chisels, the meary pliers or the bone spreader can be used to increase the size of the opening (see page 7 for more information).



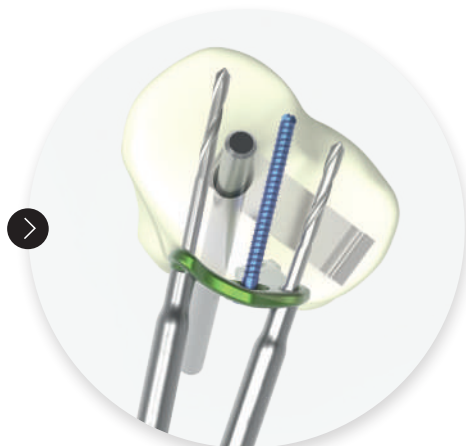
3. Insert the spacer (Ø8 mm: ANC649 or Ø10 mm: ANC601) in order to preserve the tunnel during the insertion of the proximal screws (see steps 5 and 6).



4. Position the plate: the diaphyseal part of the implant should run alongside the anterior tibial tuberosity, the anterior holes are positioned on either sides of the tunnel.



5. Insert the Ø4.5 screws (ST4.5LxD-ST) located on both sides of the osteotomy site. Drill with a Ø4.0 mm drill bit (ANC211) using the drill guide (ANC998). To avoid drilling through the tunnel, use the polyaxiality for the placement of the screw into the proximal central hole. Before drilling, a pin can be inserted through the reductor of the drill guide (ANC1009)(1).

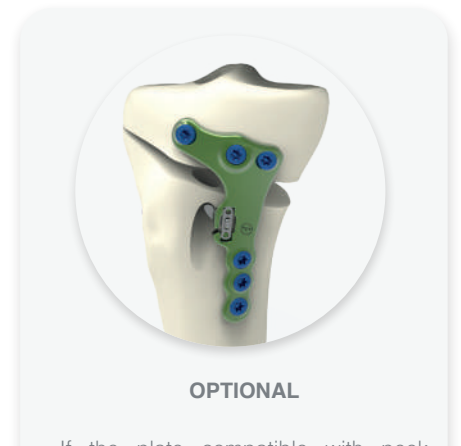


6. Once the first two screws have been inserted, repeat the procedure with the other two proximal Ø4.5 mm screws.



**FINAL RESULT**

Complete the procedure by inserting the last two distal screws and removing the metallic wedge and the spacer. The ligamentoplasty can then be performed.



**OPTIONAL**

If the plate compatible with peek or titanium endobutton is used, the endobutton (L12 x 4 mm) is inserted into the dedicated counter-forme.

# SURGICAL TECHNIQUE

## MEDIAL CLOSING WEDGE HIGH TIBIAL OSTEOTOMY (PAGE 1 / 2)



### 1. Perform the first cut.

Insert two pins approximately 25 mm below the medial articular surface until reaching the external cortex and 15 mm below the tibial plateau.

Perform the cut stopping at 6 mm from the lateral cortex.



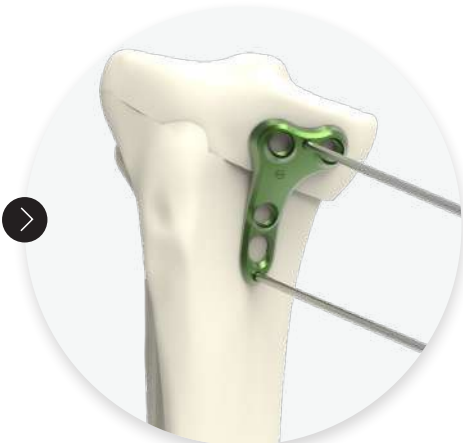
### 2. Perform the distal 2<sup>nd</sup> cut:

- Set the chosen correction angle on the cutting guide (ANC014-1 / ANC014-2).
- Insert the blade of the cutting guide into the first cut.
- Perform the second osteotomy in the cutting slot with an oscillating saw.

Remove the bone wedge and make sure that every residual bone fragment has been removed from the osteotomy.

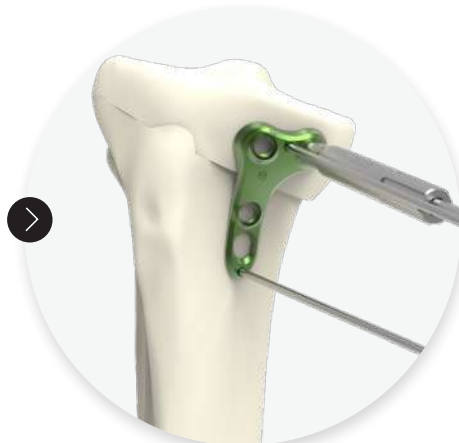
Then, carefully close the osteotomy by applying continuous pressure to the lateral lower limb while stabilizing the knee joint region.

**N.B:** a biplanar cut can be performed: perform the transversal anterior cut behind the tibial tuberosity to obtain an angle of 110° with the ascending cut.



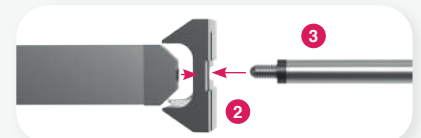
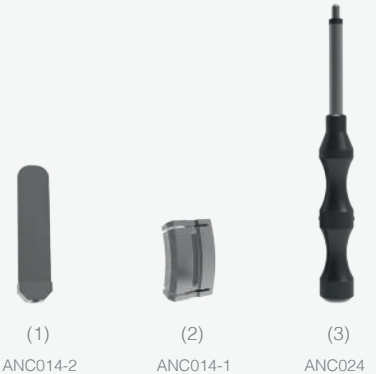
3. Position the plate onto the medial surface of the proximal tibia. It is important to ensure that the zone between the distal and proximal screws is located on the osteotomy site and that the proximal screws do not penetrate the joint.

The plate can be temporarily held in position with two Ø2.2 mm pins (33.0222.200).



4. Lock the Ø4.0 mm drill guide (ANC998) into the medial hole situated above the osteotomy cut. Then, drill using Ø4.0 mm drill bit (ANC211).

### How to use the cutting guide:



1. Place the NCT cutting guide - piece 2 (2) into the NCT cutting guide - piece 1 (1), and screw the construct onto the handle (3).



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



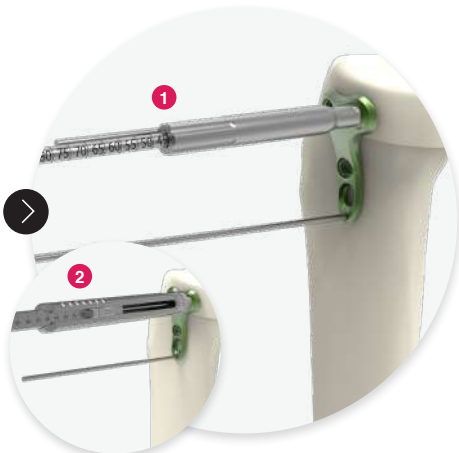
3. Choose the correct angle by sliding the handle in a vertical movement; once in the correct position, turn the handle to fix in place.



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

# SURGICAL TECHNIQUE

## MEDIAL CLOSING WEDGE HIGH TIBIAL OSTEOTOMY (PAGE 2/2)



5. Determine the screw length directly at the rear of the Ø4.0 mm drill guide (ANC998) (1), or with the length gauge (ANC210) (2). Then, insert a Ø4.5 mm locking screw (ST4.5LxD-ST) using the screwdriver (ANC975).



ANC975

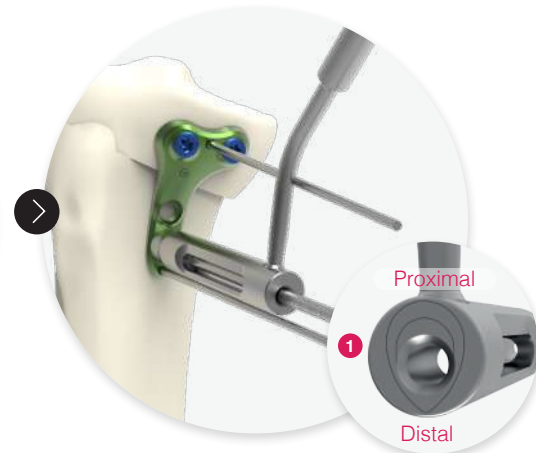
**N.B.** To ease the insertion of the Ø4.5 mm locking screw, use the countersink (ANC120-US) to widen the first cortex previously drilled.



ANC120-US



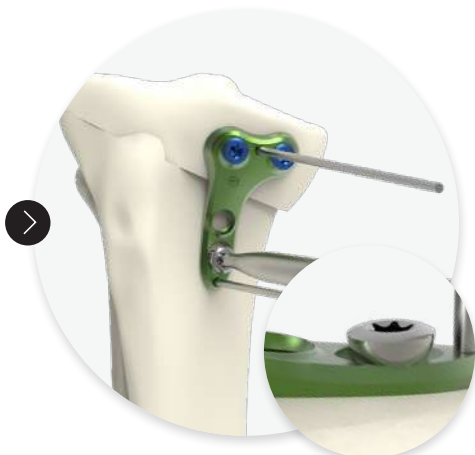
6. Repeat the same procedure as steps 4 and 5 for the anterior hole above the osteotomy cut.



7. Drill into the **distal part of the oblong hole** using the dedicated drill guide (ANC1064) and the **Ø3.5 mm drill bit (ANC1075)**. The orientation of the drill guide must be taken into account to allow compression (1). Determine the screw length directly on the drill at the rear of the drill guide or with the length gauge (ANC210).



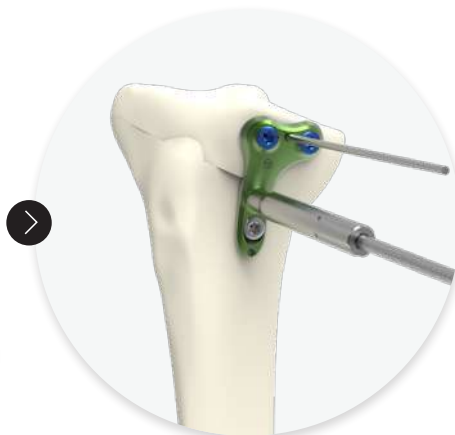
ANC210



8. Insert a Ø4.5 mm standard cortical screw (CT4.5LxD-ST) using the screwdriver (ANC975) and stop before the screw head is fully inserted in the hole.

**ATTENTION:** remove the distal pin just before fully inserting screw head.

Perform the compression by finishing the insertion of the screw head.



9. Repeat the same procedure as the steps 4 and 5 to insert the remaining Ø4.5 mm locking screw (ST4.5LxD-ST) in the hole situated under the osteotomy cut. The last pin can then be removed.



## FINAL RESULT



# SURGICAL TECHNIQUE

## LATERAL CLOSING WEDGE HIGH TIBIAL OSTEOTOMY (PAGE 1 / 2)



### 1. Perform the first cut.

Insert two pins 20 mm below and parallel to the articular surface.

Perform the cut stopping at 6 mm from the lateral cortex.

**N.B:** a biplanar cut can be performed: perform the transversal anterior cut behind the tibial tuberosity to obtain an angle of 110° with the ascending cut.



### 2. Perform the distal 2<sup>nd</sup> cut:

- Set the chosen correction angle on the cutting guide (ANC014-1 / ANC014-2).
- Insert the blade of the cutting guide into the first cut.
- Perform the second osteotomy in the cutting slot with an oscillating saw.

Remove the bone wedge and make sure that every residual bone fragment has been removed from the osteotomy.

Then, carefully close the osteotomy by applying continuous pressure to the lateral lower limb while stabilizing the knee joint region.



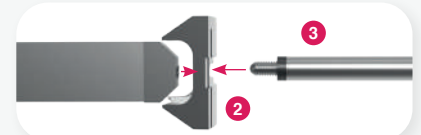
3. Position the plate onto the lateral surface of the proximal tibia. It is important to ensure that the zone between the distal and proximal screws is located on the osteotomy site and that the proximal screws do not penetrate the joint.

The plate can be temporarily held in position with two Ø2.2 mm pins (33.0222.200).



4. Lock the Ø4.0 mm drill guide (ANC998) into the hole situated above the osteotomy cut. Then, drill using Ø4.0 mm drill bit (ANC211).

### How to use the cutting guide:



1. Place the NCT cutting guide - piece 2 (2) into the NCT cutting guide - piece 1 (1), and screw the construct onto the handle (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.

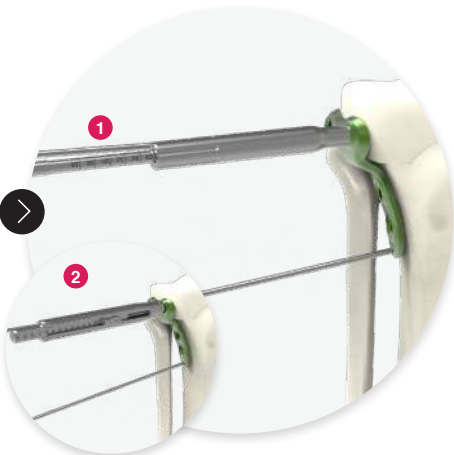


4. The blade can then be inserted into the top slot of the cutting guide to perform the cut.



# SURGICAL TECHNIQUE

## LATERAL CLOSING WEDGE HIGH TIBIAL OSTEOTOMY (PAGE 2 / 2)



5. Determine the screw length directly at the rear of the Ø4.0 mm drill guide (ANC998) (1), or with the length gauge (ANC210) (2).

Then, insert a Ø4.5 mm locking screw (ST4.5LxD-ST) using the screwdriver (ANC975).



ANC975

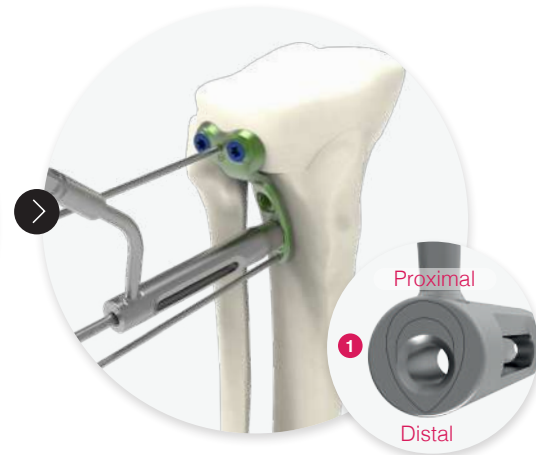
**N.B.** To ease the insertion of the Ø4.5 mm locking screw, use the countersink (ANC120-US) to widen the first cortex previously drilled.



ANC120-US



6. Repeat the same procedure as steps 4 and 5 for the posterior hole above the osteotomy cut.

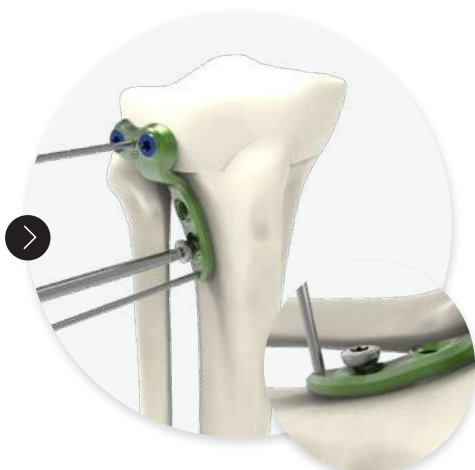


7. Drill into the **distal part of the oblong hole** using the dedicated drill guide (ANC1064) and the Ø3.5 mm drill bit (ANC1075). The orientation of the drill guide must be taken into account to allow compression (1).

Determine the screw length directly on the drill at the rear of the drill guide or with the length gauge (ANC210).



ANC210



8. Insert a Ø4.5 mm standard cortical screw (CT4.5LxD-ST) using the screwdriver (ANC975) and stop before the screw head is fully inserted in the hole.

**ATTENTION:** remove the distal pin just before fully inserting screw head.

Perform the compression by finishing the insertion of the screw head.



9. Repeat the same procedure as the steps 4 and 5 to insert the remaining Ø4.5 mm locking screw (ST4.5LxD-ST) in the hole situated under the osteotomy cut. The last pin can then be removed.



## FINAL RESULT

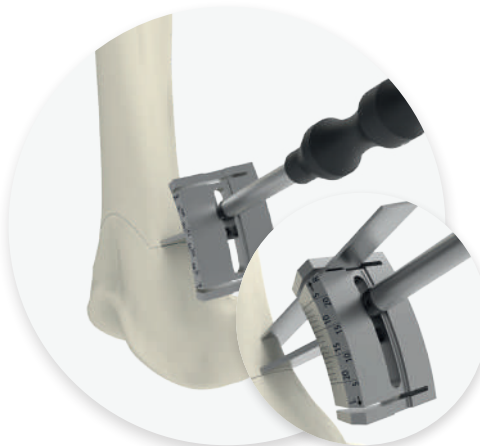
# SURGICAL TECHNIQUE

## MEDIAL CLOSING WEDGE PLATE (PAGE 1 / 2)



### 1. Perform the osteotomy:

Start the first cut approximately at 5 mm above the patella groove. The cut should end around 10 mm from the lateral cortical bone.



### 2. Perform the proximal 2<sup>nd</sup> cut:

- Set the chosen correction angle on the cutting guide (ANC014-1 / ANC014-2).
- Insert the blade of the cutting guide into the first cut.
- Perform the second osteotomy in the cutting slot with an oscillating saw.

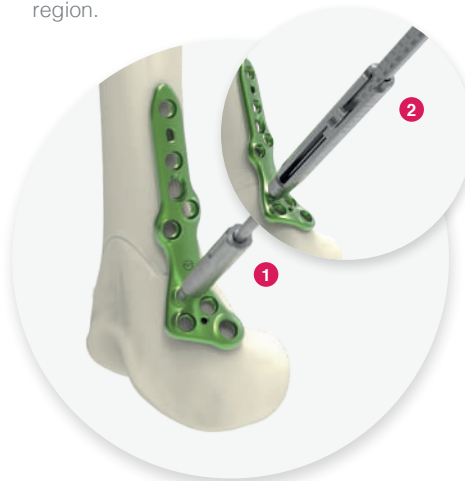
Remove the bone wedge and make sure that every residual bone fragment has been removed from the osteotomy.

Then, carefully close the osteotomy by applying continuous pressure to the lateral lower limb while stabilizing the knee joint region.



### 3. Position the plate onto the medial surface of the distal femur. The polyaxial hole must be positioned around 1 cm above the insertion of the medial collateral ligament.

**It is important to ensure that the bridge area of the plate is located onto the osteotomy site and that the distal screws do not penetrate the joint.**



### 4. Lock the first Ø4.0 mm drill guide (ANC998) into the hole situated below the osteotomy cut, drill using Ø4.0 mm drill bit (ANC211). Determine the screw length directly on the drill (1), at the rear of the drill guide or with the length gauge (ANC210) (2).

Then, insert the Ø4.5 mm locking screw (ST4.5LxxD-ST) using the screwdriver (ANC975).

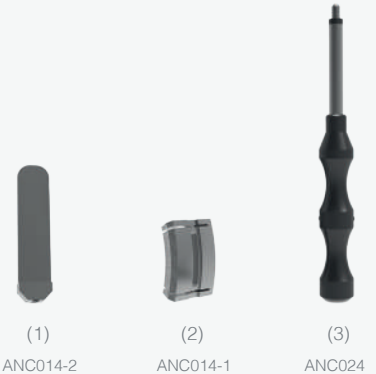
Repeat this procedure with the 2 other distal monoaxial holes.

**N.B.** To ease the insertion of the Ø4.5 mm locking screw, use the countersink (ANC120-US) to widen the first cortex previously drilled.



ANC120-US

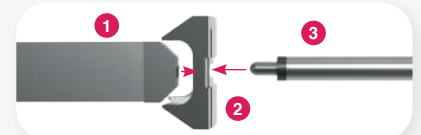
### How to use the cutting guide:



(1)  
ANC014-2

(2)  
ANC014-1

(3)  
ANC024



1. Place the NCT cutting guide - piece 2 (2) into the NCT cutting guide - piece 1 (1), and screw the construct onto the handle (3).



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



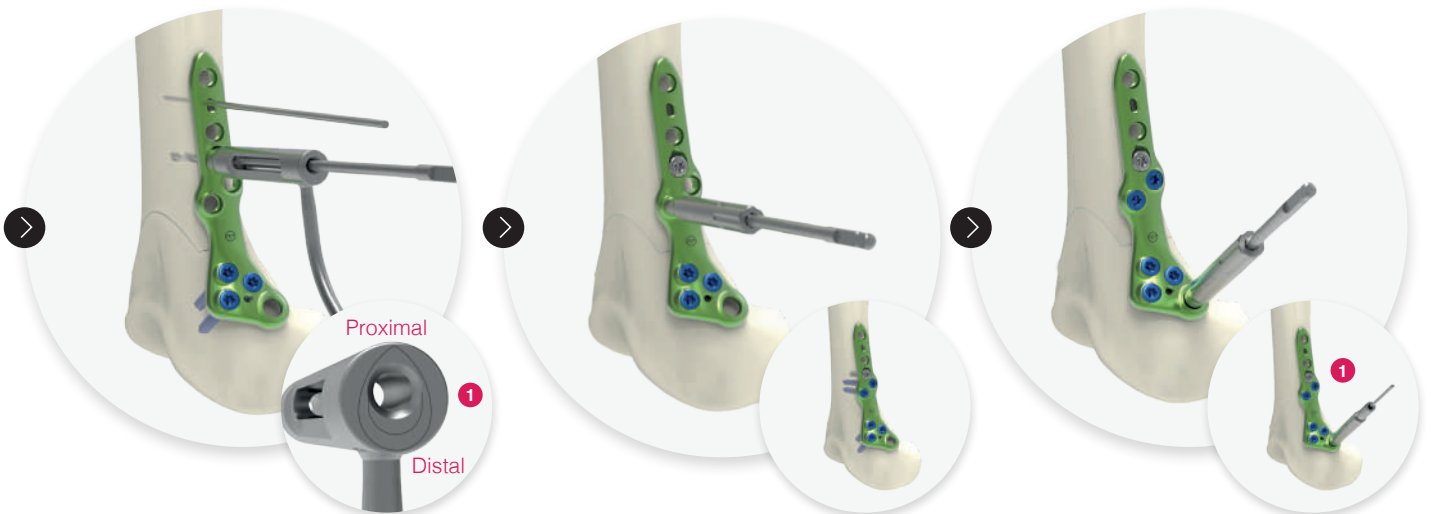
3. Choose the correct angle by sliding the handle in a vertical movement; once in the correct position, turn the handle to fix in place.



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

# SURGICAL TECHNIQUE

## MEDIAL CLOSING WEDGE PLATE (PAGE 2/2)



5. Insert a  $\varnothing 2.2$  mm pin (33.0222.200) into the **proximal part of the oblong hole for pin**. Drill into the **proximal part of the ramp oblong hole** using the dedicated drill guide (ANC1064) and the  $\varnothing 3.5$  mm drill bit (ANC1075). The orientation of the drill guide must be taken into account to allow compression (1).

Determine the screw length directly on the drill at the rear of the drill guide or with the length gauge (ANC210).



ANC210

Insert a  $\varnothing 4.5$  mm standard cortical screw (CT4.5LxxD-ST) and perform compression using the screwdriver (ANC975).



ANC975

Then remove the  $\varnothing 2.2$  mm pin.

6. Proceed similarly to step 4 for the insertion of the  $\varnothing 4.5$  mm locking screws (ST4.5LxxD-ST) into the 2 holes situated above the osteotomy cut.

7. Lock the  $\varnothing 4.0$  mm drill guide (ANC998) into the polyaxial hole. If necessary, adjust the drilling direction in order to avoid the intercondylar notch. Before drilling, a pin can be inserted through the reductor of the drill guide (ANC1009) (1). Start drilling using the  $\varnothing 4.0$  mm drill bit (ANC211). Determine the screw length directly on the drill, at the rear of the drill guide or with the length gauge (ANC210).



ANC210

Then, insert the  $\varnothing 4.5$  mm locking screw (ST4.5LxxD-ST) using the screwdriver (ANC975).



ANC975

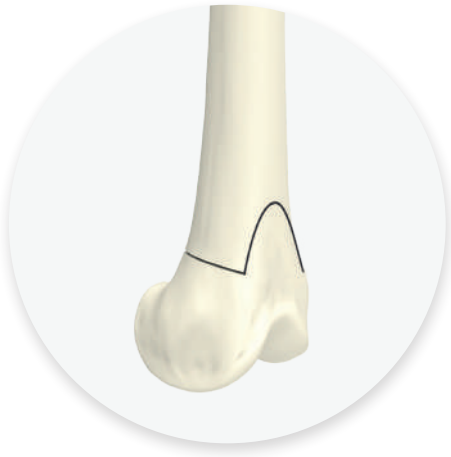


### FINAL RESULT

Repeat the previous steps to insert the remaining  $\varnothing 4.5$  mm locking screws situated on the proximal part of the plate.

# SURGICAL TECHNIQUE

## LATERAL OPENING WEDGE PLATE (PAGE 1/2)

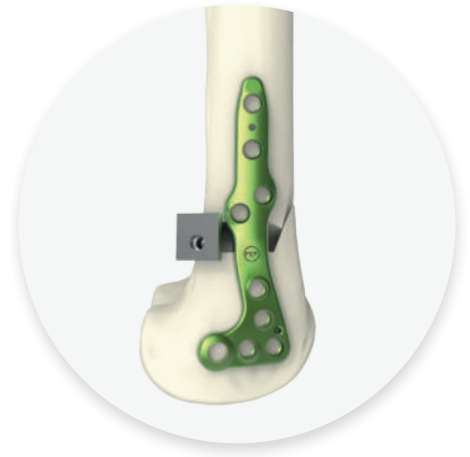


1. Perform the osteotomy using an oscillating saw: the cut starts 30 mm from the insertion of the lateral ligament and ends at around 10 mm from medial cortex.

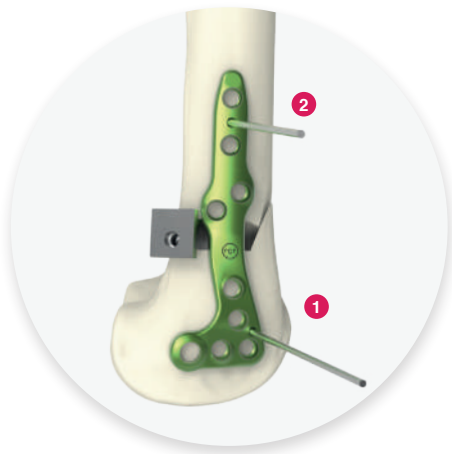


2. Insert wedges of increasing sizes until finding the appropriate one (4 - 18 mm) while maintaining the lateral surface of the femur. Once the appropriate wedge has been inserted, the angular correction is maintained during osteosynthesis.

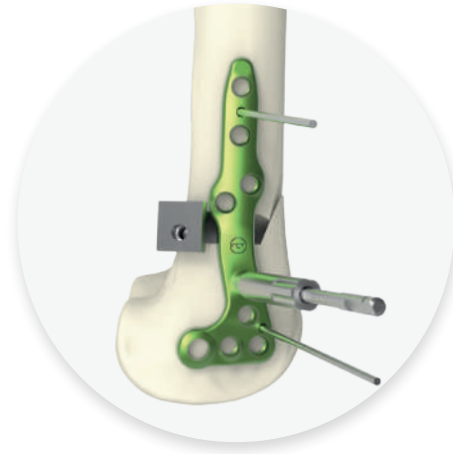
Alternatively, chisels or the meary pliers can be used to increase the size of the opening (see page 7 for more information on these techniques).



3. Position the plate onto the lateral surface of the distal femur. The polyaxial hole must be positioned at the level of the insertion of the lateral collateral ligament.



4. Stabilize the plate using the pins (33.0222.200). Insert the first pin on the distal part (1). Then, insert the second pin on the proximal part (2) so that the plate is placed alongside the femoral diaphysis.



5. Lock the first Ø4.0 mm drill guide (ANC998) in the hole under the osteotomy cut, then start drilling using the Ø4.0 mm drill bit (ANC211). Remove the drill guide and then insert and lock the Ø4.5 mm screw (ST4.5LxxD-ST) the screw using the screwdriver (ANC975)

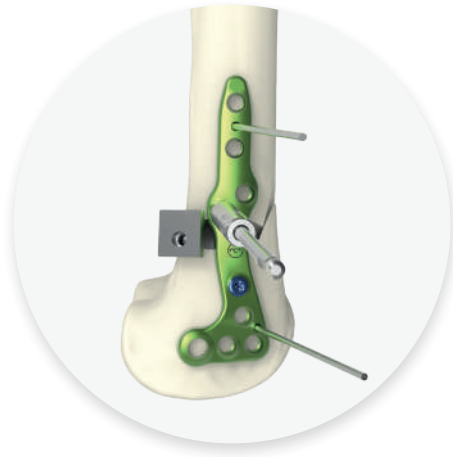
**N.B:** to ease the insertion of the screws, use the countersink (ANC120-US) to widen the first cortex previously drilled.



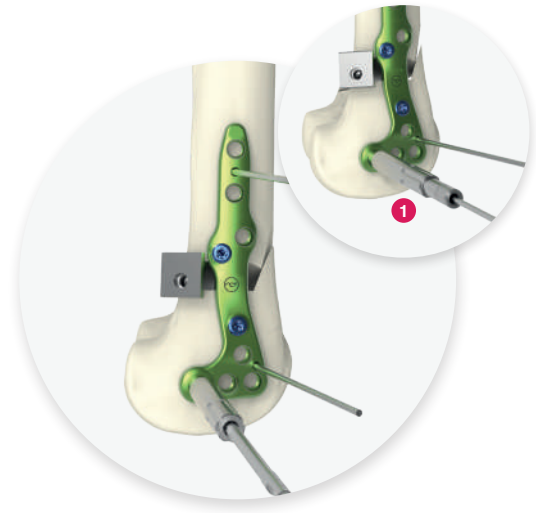
ANC120-US

# SURGICAL TECHNIQUE

## LATERAL OPENING WEDGE PLATE (PAGE 2/2)



6. Proceed similarly for the insertion of the screw into the hole situated above the osteotomy cut.  
Then, remove the two pins.



7. Lock the Ø4.0 mm drill guide (ANC998) into the polyaxial hole. If necessary, adjust the drilling direction in order to avoid the intercondylar notch. Before drilling, a pin can be inserted through the retractor of the drill guide (ANC1009)(1). Start drilling using the Ø4.0 mm drill bit (ANC211). Determine the screw length directly on the drill, at the rear of the drill guide or with the length gauge (ANC210).



ANC210

Then, insert the Ø4.5 mm locking screw (ST4.5LxxD-ST) using the screwdriver (ANC975).

Remove the drill guide and then insert the screw using the screwdriver (ANC975)



## FINAL RESULT

Repeat previous steps to insert the remaining Ø4.5 mm locking screws. The construct is complete when the metallic wedge is removed.

# IMPLANT REFERENCES

## OPENING WEDGE TIBIAL PLATES

Ref.	Description
ATGP1D-ST	Medial opening wedge HTO plate - Left - Size 1 - STERILE
ATDP1D-ST	Medial opening wedge HTO plate - Right - Size 1 - STERILE
ATGP2D-ST	Medial opening wedge HTO plate - Left - Size 2 - STERILE
ATDP2D-ST	Medial opening wedge HTO plate - Right - Size 2 - STERILE
ALTGP1D-ST	Medial opening wedge HTO plate with ACL replacement - Left - STERILE
ALDTP1D-ST	Medial opening wedge HTO plate with ACL replacement - Right - STERILE
AETGP1D-ST	Medial opening wedge HTO plate with ACL replacement and endobutton - Left - STERILE
AETDP1D-ST	Medial opening wedge HTO plate with ACL replacement and endobutton - Right - STERILE



## CLOSING WEDGE TIBIAL PLATES

Ref.	Description
BTGBD1D-ST	Lateral closing wedge HTO - Left - Size 1 - STERILE
BTDBD1D-ST	Lateral closing wedge HTO - Right - Size 1 - STERILE
BTGMD1D-ST	Medial closing wedge HTO - Left - Size 1 - STERILE
BTDMD1D-ST	Medial closing wedge HTO - Right - Size 1 - STERILE



## DISTAL FEMORAL PLATES

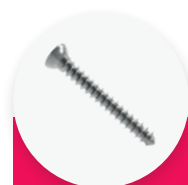
Ref.	Description
JATGL1D-ST	Lateral opening wedge DFO plate - Left - Size 1 - STERILE
JATDL1D-ST	Lateral opening wedge DFO plate - Right - Size 1 - STERILE
JBTGM1D-ST	Medial closing wedge DFO plate - Left - Size 1 - STERILE
JBTDM1D-ST	Medial closing wedge DFO plate - Right - Size 1 - STERILE



### Ø4.5 MM DTS® SELF TAPPING SCREWS\*

Ref.	Description
ST4.5LxD-ST	DTS® self-tapping screw Ø4.5 mm - L15 to 90 mm - STERILE (3 mm increments from 15 to 30 mm) (5 mm increments from 30 to 90 mm)

\* Blue anodized



### Ø4.5 MM CORTICAL SCREWS\*

Ref.	Description
CT4.5LxD-ST	Standard cortical screw - Ø4.5 mm - L30 to 60 mm - STERILE (5 mm increments)

\* 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	2
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
ANC989	Bone spreader	1
ANC990	Activmotion Meary pliers	1
ANC998	Ø4.0 mm threaded guide gauge	2
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 L 200 mm	6
4550-R	Hohmann retractor radiolucent	1

OPTIONAL INSTRUMENTS		
Ref.	Description	Qty
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

\* Instruments dedicated to MIS

Tibial osteotomy plates are anatomic implants. **Bending pliers** are available on request for complex knee osteotomy cases (ANC240). Please refer to the IFU for bending precautions.

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



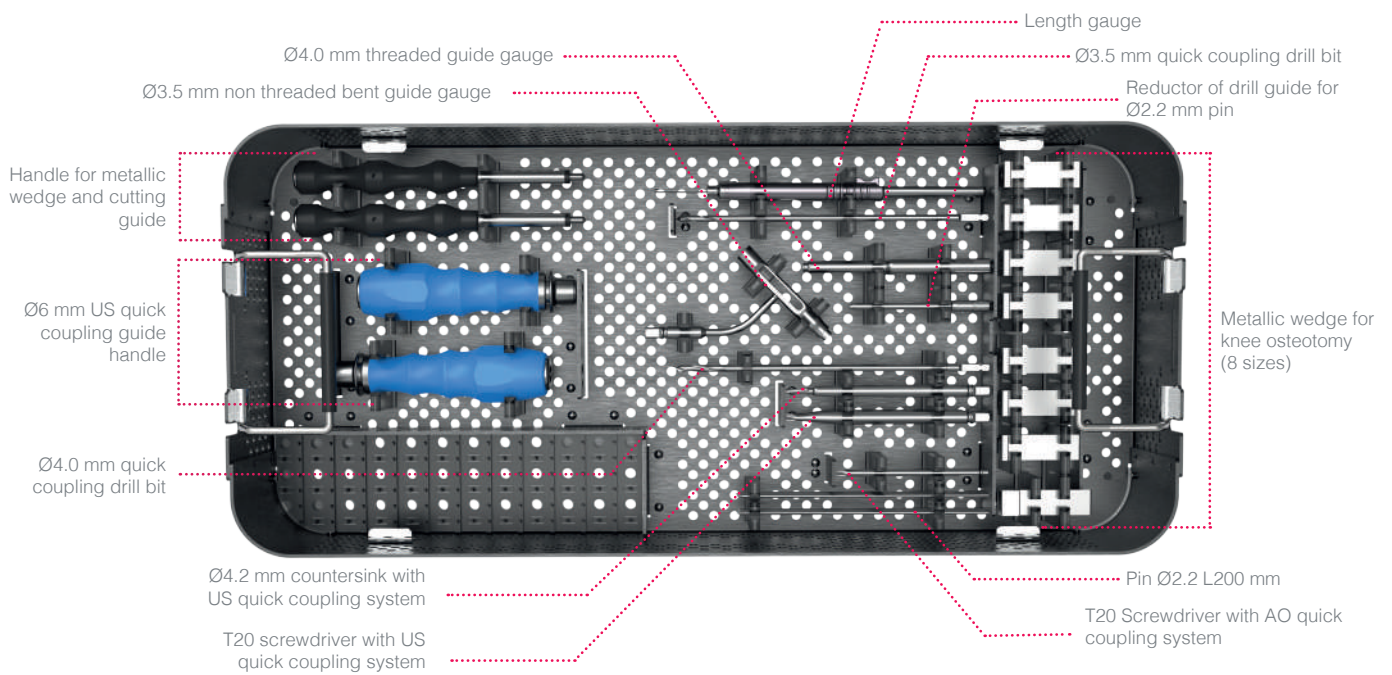
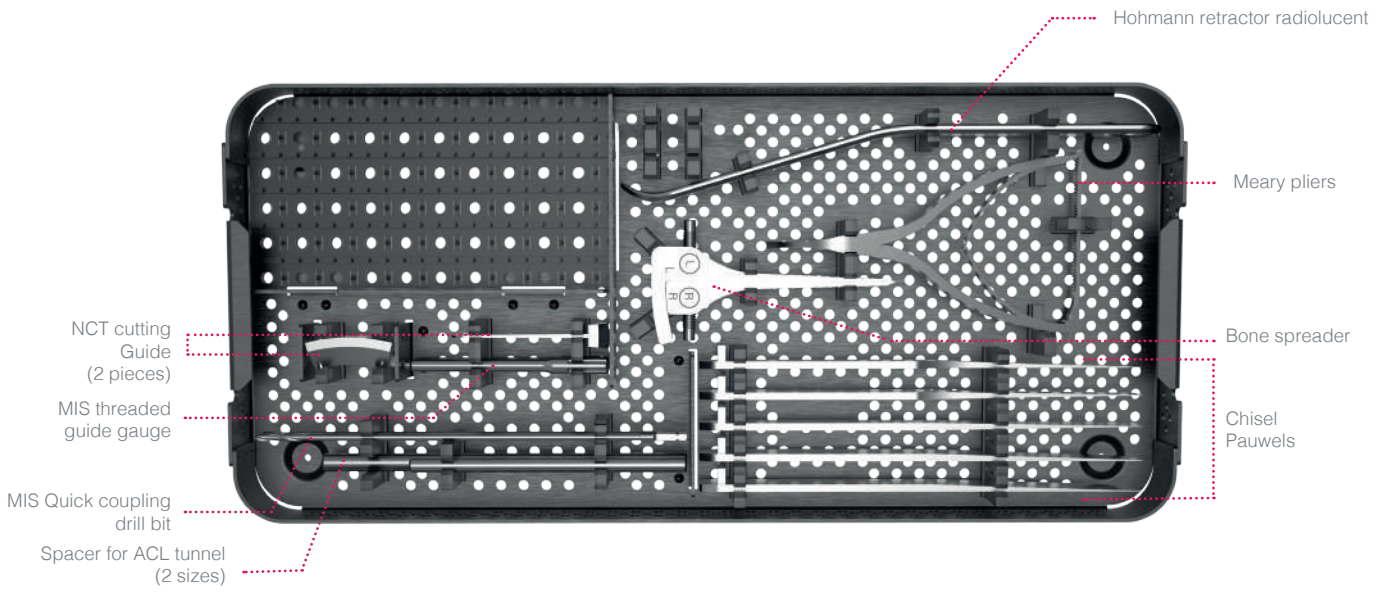
## REMOVAL KIT

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.

**Patient Specific Instruments (PSI)** are also available. For more information, please refer to the **Activmotion-PSI** brochure

# KIT DESCRIPTION

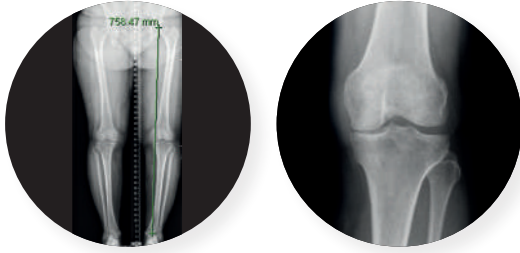


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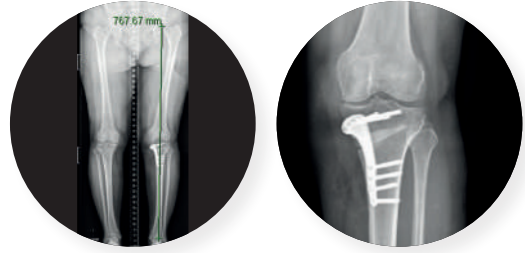
# CLINICAL CASES

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## → CASE 1: OPENING WEDGE SIZE 2

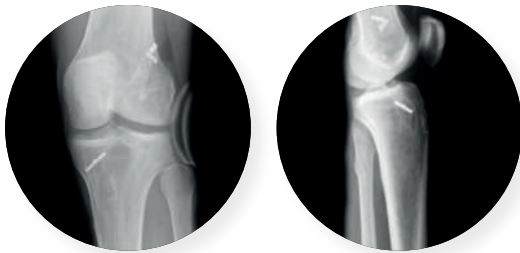


Preoperative xray

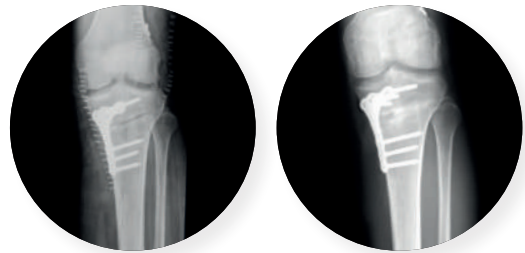


Postoperative xray

## → CASE 2: HTO & ACL



Preoperative xray



Postoperative xray

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.



# NEWCLIP TECHNICS

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#### NEWCLIP TECHNICS

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

#### 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 GERMANY

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

#### 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 AUSTRALIA

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

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