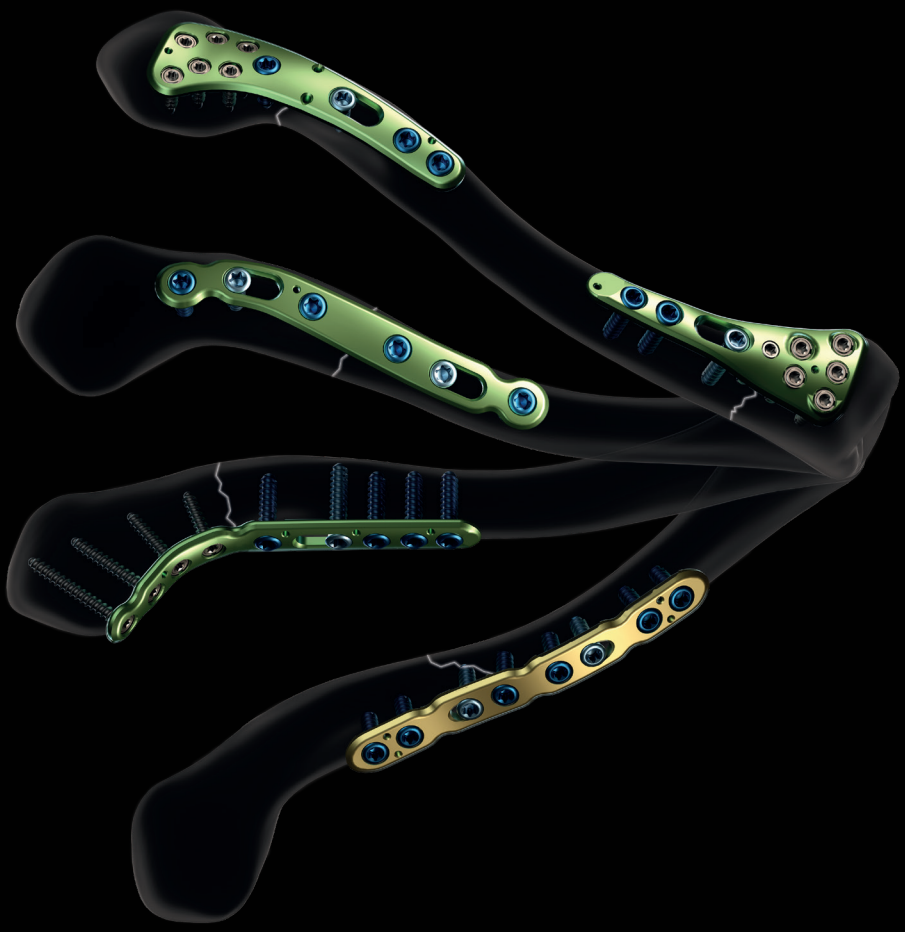
ALIANS CLAVICLE S.



CLAVICLE
PLATING SYSTEM

Alians Clavicle S.

CLAVICLE PLATING SYSTEM

Intended purpose:
The implants of the Alians Clavicle S range are dedicated to the fixation of fractures, mal-unions, non-unions, and osteotomies of the clavicle in adults.

Contraindications:

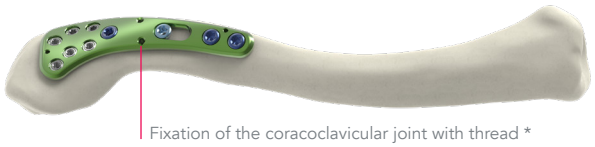
- Pregnancy.
- Acute or chronic local or systemic infections.
- Allergy to one of the materials used or sensitivity to foreign bodies.

Plate features.

A COMPREHENSIVE RANGE OF SUPERIOR PLATES

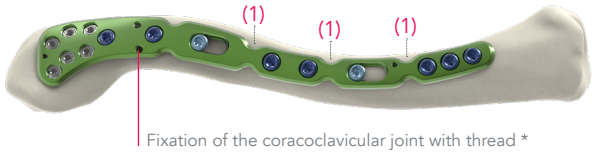
PLATES DEDICATED TO THE LATERAL THIRD OF THE CLAVICLE

- **Superior lateral plate**



2 sizes available

- **Superior lateral bendable plate**



1 size available

- **Superior lateral plate with suture holes**

1 size available

- **Superior extra lateral plate**

2 sizes available

[1] Thanks to their bendable sections, the bendable plates ensure an optimized fit in case of complex fractures and non-unions. The bending irons (ANC452) can be used in these cases (*see page 5 for more information*).

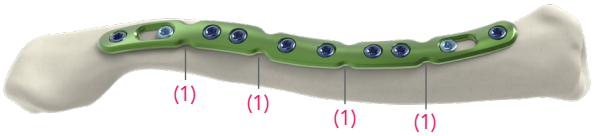
* *The suture holes are compatible with needles Ø0.9 mm maximum for the standard lateral plates and Ø1.2 mm for the suture plates (CSTxL1D).*
We recommend using #2 USP (5 Ph. Eur.) and #5 USP (7 Ph. Eur.)

PLATES DEDICATED TO THE MIDDLE THIRD OF THE CLAVICLE

• Superior midshaft plate

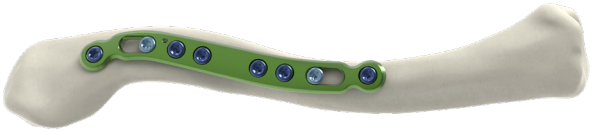
1 standard size and 2 narrow sizes available

• Superior midshaft bendable plate



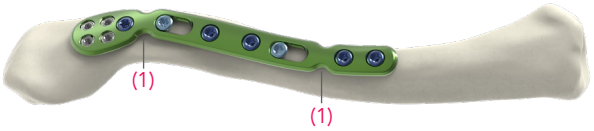
3 sizes available

• Superior lateral midshaft plate



2 sizes available

• Superior lateral midshaft bendable plate



1 size available

(1)Thanks to their bendable sections, the bendable plates ensure an optimized fit in case of complex fractures and non-unions. The bending irons (ANC452) can be used in these cases (*see page 5 for more information*).

PLATE DEDICATED TO THE MEDIAL THIRD OF THE CLAVICLE

• Superior medial midshaft plate

1 size available

A COMPREHENSIVE RANGE OF ANTERIOR PLATES

PLATE DEDICATED TO THE MIDDLE THIRD OF THE CLAVICLE

• Anterior midshaft bendable plate

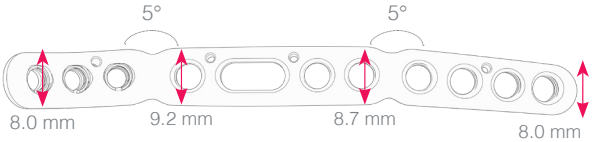
1 size available

PLATES DEDICATED TO THE LATERAL AND LATERAL MIDSHAFT PART OF THE CLAVICLE

• Anterior lateral midshaft bendable plate

1 size available*

Dimensions

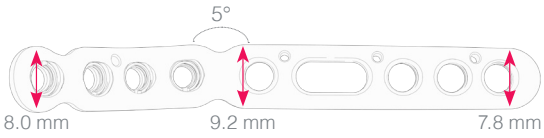


Ref: CBTDBA2D

• Anterior lateral bendable plate

1 size available*

Dimensions



Ref: CBTDBN2D

FIXATION

- DTS3 polyaxial holes for Ø2.8 mm locking screws (SDT2.8LxxD), for lateral and medial plates only.
- Holes for Ø3.5 mm locking (SOT3.5LxxD) and non locking screws (CT3.5LxxD).
- Oblong holes for non locking screws Ø3.5 mm (CT3.5LxxD) & Ø2.8 mm (CT2.8LxxD)..

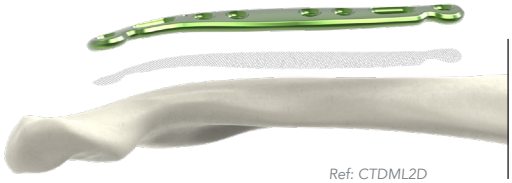
*For anterior lateral plates: full Ø2.8 polyaxial versions are also available. The shape of theses plates are strictly identical for both versions.

Technical features.

PRECONTOURED IMPLANTS

OPTIMIZED ANATOMICAL CONGRUENCE

The design of this implant is the result of a proprietary state-of-the-art mapping technology to establish an optimized congruence between the plate and the bone.

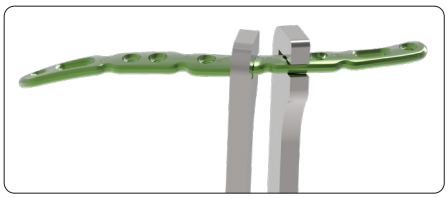


Ref: CTDML2D

BENDABLE PLATES

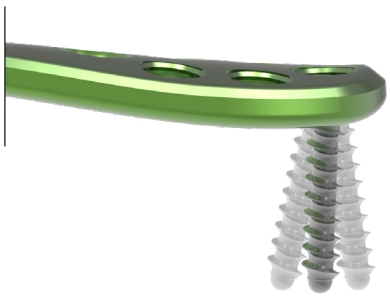
Some plates from the Alians Clavicle S range offer bending areas. It is possible to bend the plate with the bending irons (ANC452) following the instructions below:

- Bending is only possible in the areas intended for this purpose.
- A bendable area should be bent only once and in one direction.
- Bending should not be performed excessively.
- There is a risk of distortion of the holes when bending the plate. Thus, the holes must be protected to avoid damaging the fixation system.



ANGULAR RANGE ± 10° POLYAXIAL LOCKING FIXATION

The DTS3 technology ensures the locking of the screw into the plate while allowing its angulation. This system helps for the insertion of the screws in diverging or converging directions and strengthens the assembly.

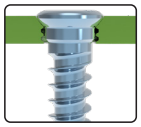


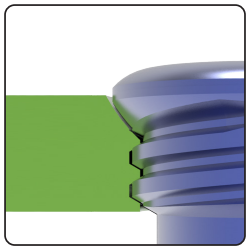
Polyaxiality of 20°

Dualtec System® III Technology
Polyaxial locking fixation

MONOAXIAL LOCKING SYSTEM

- The screw head is stopped in the hole, ensuring its locking.
- The screw head is buried in the plate.
- Plate and screw made from the same material: titanium alloy.
- Non locking screws (CT2.8LxxD or CT3.5LxxD according to the hole diameter) can be used in the locking holes at the surgeon's discretion.



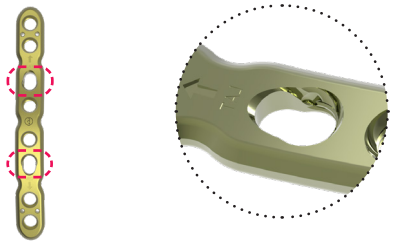


The threads under the screw head and inside the hole have strictly the same characteristics.

SPECIFIC FIXATIONS FOR THE ANTERIOR MIDSHAFT PLATE SIZE 2

LOCKING RAMP OBLONG HOLE

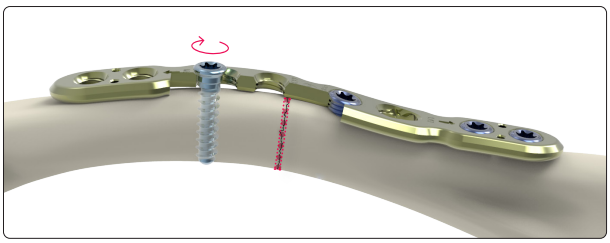
The ramp oblong hole allows a simple and controlled compression(1) by the screw/plate interface or a locked fixation(2) using a locking screw.

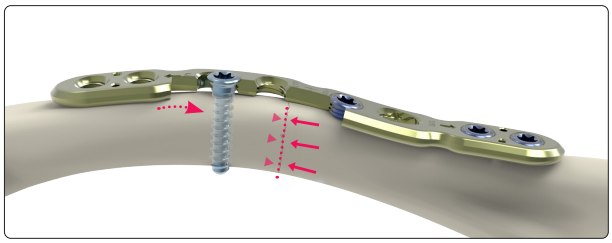


CBTSA2D

(1) Dynamic compression:

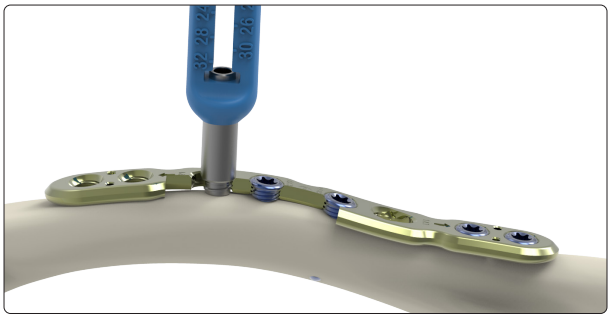
Warning: In order to achieve compression, a Ø3.5 mm non-locking screw (CT3.5LxxD) can be used. The Ø2.7 mm drill bit must be manually maintained to drill in the oval part of the oblong hole located opposite the fracture line. Thus, the insertion of the non locking screw at the top of the ramp allows for the compression of the bone fragments.

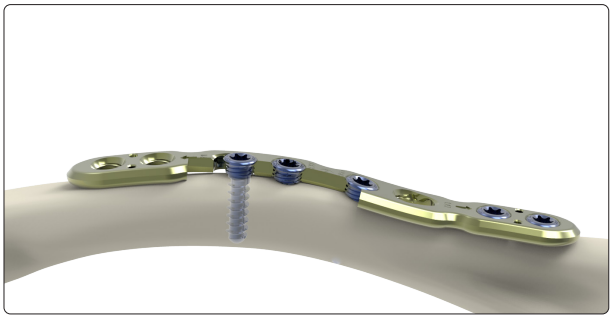




(2) Locked fixation:

If no additional compression is required, a Ø3.5 mm locking screw (SOT3.5LxxD) can be used. It must be inserted in the locking part of the oblong hole (for the lateral hole in the most medial part and for the medial hole in the most lateral part). To do so, use the Ø2.7 mm threaded guide gauge for Ø3.5 mm screws (ANC1445).





Surgical technique.

LATERAL MIDSHAFT PLATE (PAGE 1/2)

Applicable for all the midshaft plates and lateral midshaft plates with only Ø3.5 mm screws. Example using the size 2 lateral midshaft plate (CTDML2D)

DRILL BITS CARACTERISTICS

The Alians Clavicle S kit offers two different types of drill bits :

- **Standard drill bits**
  - ANC1356 (Ø2.0 mm)
  - ANC1355 (Ø2.7 mm)
- **Auto-stop drill bits**
  - ANC1357 (Ø2.0 mm)
  - ANC1381 (Ø2.7 mm)

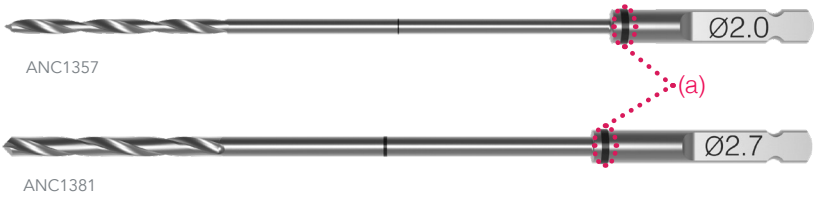
The auto-stop drill bits and the associated guide gauge have been designed for a maximum drilling depth of a 18 mm screw. Therefore, excessive penetration is avoided and surrounding tissues are protected (e.g. subclavian artery).

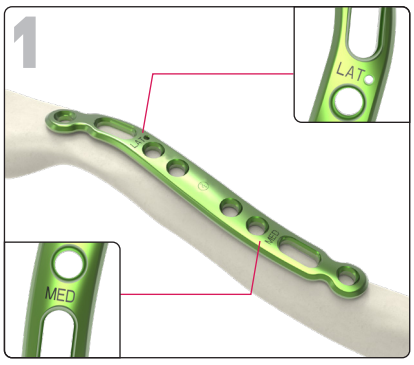
The choice of using a standard or an auto-stop drill bit is entirely left to the surgeon's discretion. Both versions are fully compatible with the rest of the instrumentation and the only difference is the length of the instrument.

Auto-stop drill bits are identifiable by the laser marked rings on the quick coupling part of the instrument (a).

AUTO-STOP DRILL BITS

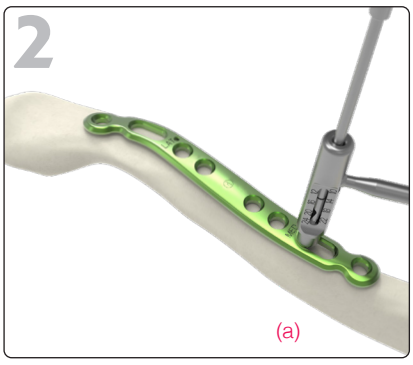
Ref.	Ø	Max. Length
ANC1357	Ø2.0 mm	18 mm
ANC1381	Ø2.7 mm	18 mm



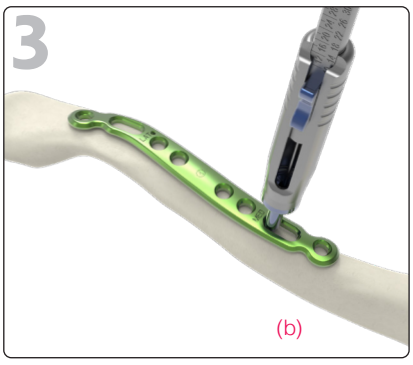


The plate can be provisionnally fixed on the bone using pliers or using Ø1.2 mm pins (33.0212.120) for the plates with pin holes.

Position the plate using the markings "LAT" (Lateral) and "MED" (Medial).

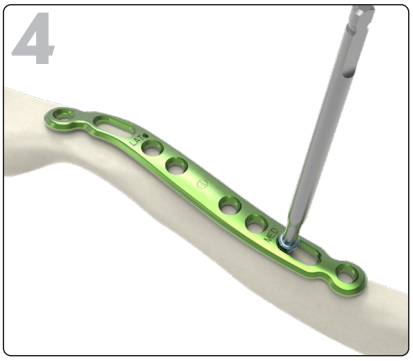


Perform the drilling using the non threaded bent guide gauge (ANC1030) and the Ø2.7 mm auto-stop drill bit (ANC1381) in the medial oblong hole.



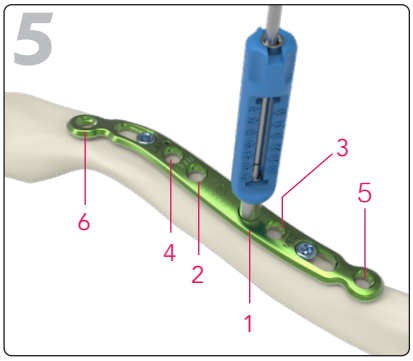
Measure the screw length directly on the non-threaded bent guide gauge (ANC1030)[(a)] or with the length gauge (ANC1028)[(b)].

LATERAL MIDSHAFT PLATE (PAGE 2/2)



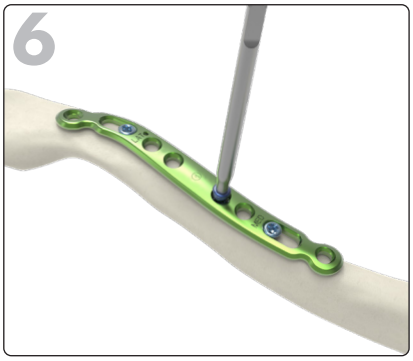
Insert a non-locking screw (CT3.5LxxD) using the screwdriver (ANC1027).

Repeat the steps 2 to 4 for the remaining oblong hole.



Insert the threaded guide gauge (ANC1445) for Ø3.5 mm locking screws (SOT3.5LxxD) starting from the holes located near the fracture to those located at each end of the plate.

Perform drilling using either the Ø2.7 auto-stop drill bit (ANC1381) or the standard drill bit (ANC1355).

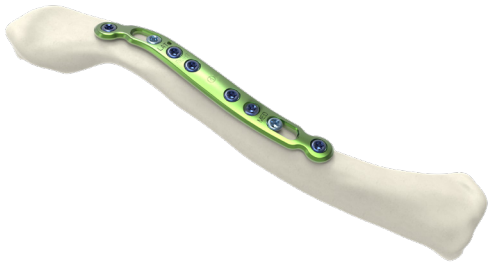


Measure the screw length directly on the threaded guide gauge (ANC1445) or with the length gauge (ANC1028).

Insert a Ø3.5mm locking screw (SOT3.5LxxD) using the screwdriver (ANC1027).

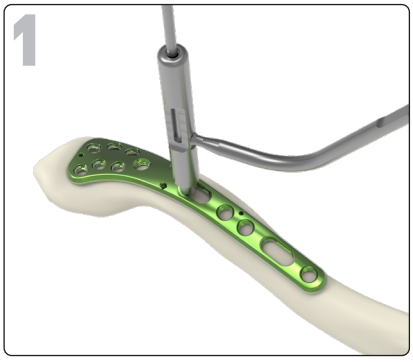
Repeat steps 5 and 6 for the remaining Ø3.5mm locking screws (SOT3.5LxxD).

FINAL RESULT.



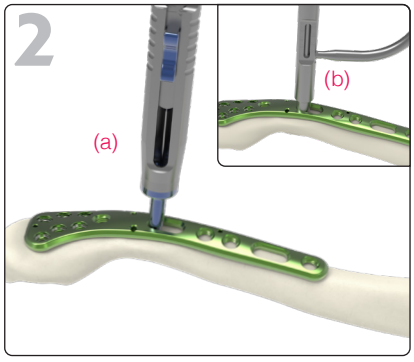
LATERAL PLATE (PAGE 1/2)

Applicable for all the lateral, midshaft and medial plates with both Ø2.8 mm and Ø3.5 mm screws - example using the size 2 lateral plate (CTDL2D)

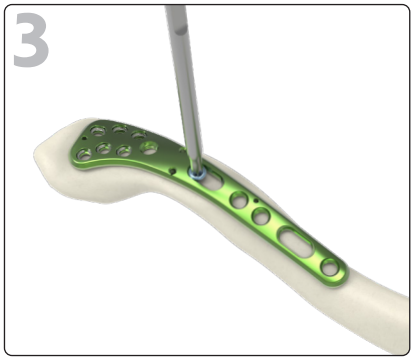


The plate can be provisionnally fixed on the bone using pliers or using Ø1.2 mm pins (33.0212.120) for the plates with pin holes.

Position the plate and perform the drilling using the non-threaded bent guide gauge (ANC1030) and the drill bit (ANC1381 or ANC1355) into the lateral oblong hole.

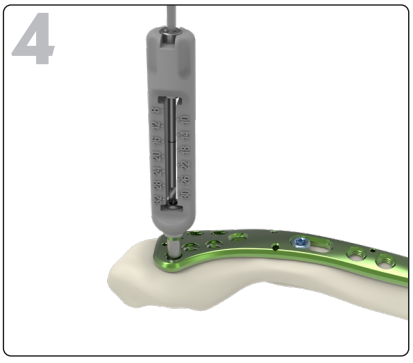


Read the screw length using the length gauge (ANC1028)[(a)] or directly on the non threaded-bent guide (ANC1030)[(b)].



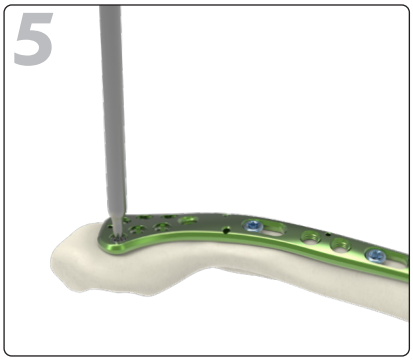
Insert a non-locking screw (CT3.5LxxD) using the screwdriver (ANC1027).

Repeat the steps 1 to 3 for the remaining oblong hole.



Insert the threaded guide gauge (ANC1360) into the epiphyseal part of the plate.

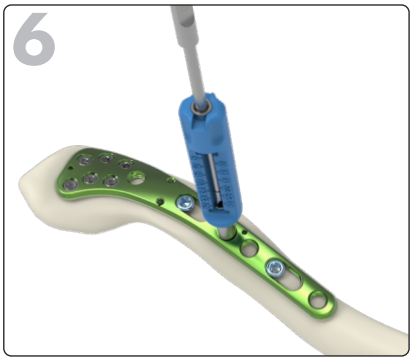
Then, angulate as required and perform the drilling using the drill bit (ANC1356).



Measure the screw length directly on the threaded guide gauge (ANC1360) or with the length gauge (ANC102) .

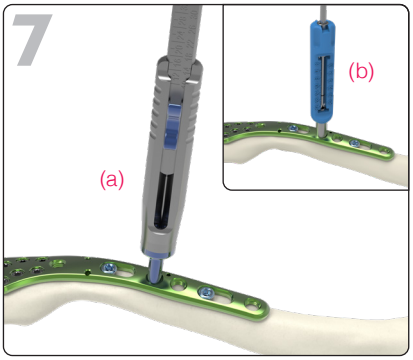
Insert a Ø2.8 mm locking screw (SDT2.8LxxD) into the plate using the screwdriver (ANC575).

Repeat steps 4 and 5 for the other Ø2.8 mm screws.

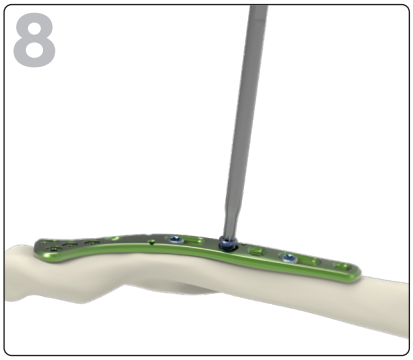


For the remaining Ø3.5 mm locking screws, insert the threaded guide gauge (ANC1445), perform the drilling (ANC1381 or ANC1355).

We recommend starting from the holes located near the fracture to those located at the end of the plate.



Read the screw length using the length gauge (ANC1028)[a], or directly on the threaded guide gauge (ANC1445)[b].



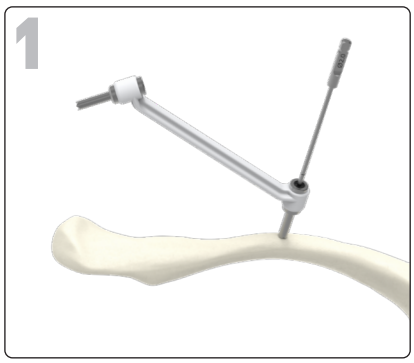
Insert a Ø3.5mm locking screw (SOT3.5LxxD) using the screwdriver (ANC1027).

Repeat the same steps for the remaining Ø3.5 mm locking screws (SOT3.5LxxD).

FINAL RESULT.

OPTION - DOUBLE GUIDE (AVAILABLE ONLY ON DEMAND)

Surgical technique example for a butterfly fragment surgery with a double guide (ANC1056)



Choose correct diameter of the screw (Ø2.8 mm or Ø3.5 mm) for the butterfly fragment.

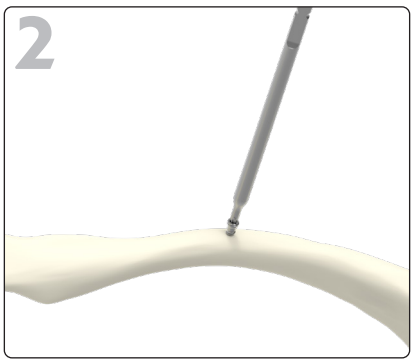
For the Ø2.8 mm screw*, perform the drilling using the correct side of the guide (marked Ø2.0 mm) and with the Ø2.0 mm quick coupling drill bit (ANC1356).

The lag technique can also be performed using the Ø2.7 mm drill bit (ANC1355) on the other side of the guide.

** For a Ø3.5 mm screw, use the other side of the guide (marked Ø2.7 mm) with Ø2.7 mm quick coupling drill bit (ANC1355) and the prehensor screwdriver (ANC1027) for the insertion of the screw*

ANC1355

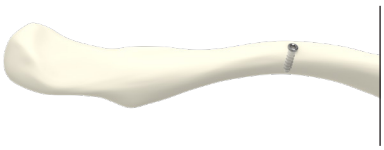
ANC1027



Measure the screw length using the length gauge (ANC102).

Insert the Ø2.8 mm screw, using the prehensor screwdriver (ANC575).

FINAL RESULT.



TECHNICAL PRESENTATION OF THE DOUBLE GUIDE (ANC1056)

Ø2.0 mm Ø2.7 mm

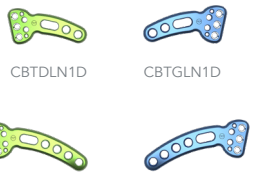
Implant references.

SUPERIOR PLATES

EXTRA LATERAL PLATES

Superior extra lateral plates

Ref.	Description
CBTDLN1D	Extra lateral clavicle plate - Superior - Right - Size 1 - 8 holes - L44 mm
CBTGLN1D	Extra lateral clavicle plate - Superior - Left - Size 1 - 8 holes - L44 mm
CBTDLN2D	Extra lateral clavicle plate - Superior - Right - Size 2 - 10 holes - L55 mm
CBTGLN2D	Extra lateral clavicle plate - Superior - Left - Size 2 - 10 holes - L55 mm



LATERAL PLATES

Superior lateral plates

Ref.	Description
CTDL1D	Lateral clavicle plate - Superior - Right - Size 1 - 10 holes - L66 mm
CTGL1D	Lateral clavicle plate - Superior - Left - Size 1 - 10 holes - L66 mm
CTDL2D	Lateral clavicle plate - Superior - Right - Size 2 - 12 holes - L91 mm
CTGL2D	Lateral clavicle plate - Superior - Left - Size 2 - 12 holes - L91 mm

Superior lateral bendable plates

Ref.	Description
CBTDL2D	Lateral bendable clavicle plate - Superior - Right - Size 2 - 15 holes - L138 mm
CBTGL2D	Lateral bendable clavicle plate - Superior - Left - Size 2 - 15 holes - L138 mm

LATERAL SUTURE PLATES

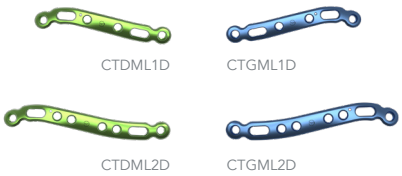
Superior lateral suture plates

Ref.	Description
CSTDL1D	Lateral clavicle plate - Superior - Right - Size 1 - 11 holes - L68 mm
CSTGL1D	Lateral clavicle plate - Superior - Left - Size 1 - 11 holes - L68 mm

LATERAL MIDSHAFT PLATES

Superior lateral midshaft plates

Ref.	Description
CTDML1D	Lateral midshaft clavicle plate - Superior - Right - Size 1 - 6 holes - L79 mm
CTGML1D	Lateral midshaft clavicle plate - Superior - Left - Size 1 - 6 holes - L79 mm
CTDML2D	Lateral midshaft clavicle plate - Superior - Right - Size 2 - 8 holes - L93 mm
CTGML2D	Lateral midshaft clavicle plate - Superior - Left - Size 2 - 8 holes - L93 mm



SUPERIOR PLATES

LATERAL MIDSHAFT PLATES

Superior lateral midshaft bendable plates

Ref.	Description
CBTDML2D	Lateral midshaft bendable clavicle plate - Superior - Right - Size 2 - 11 holes - L100 mm
CBTGML2D	Lateral midshaft bendable clavicle plate - Superior - Left - Size 2 - 11 holes - L100 mm

CBTDML2D CBTGML2D

MIDSHAFT PLATES

Superior lateral midshaft plates - Narrow

Ref.	Description
CTDMN1D	Midshaft clavicle plate - Superior - Narrow - Right - Size 1 - 6 holes - L73 mm
CTGMN1D	Midshaft clavicle plate - Superior - Narrow - Left - Size 1 - 6 holes - L73 mm
CTDMN2D	Midshaft clavicle plate - Superior - Narrow - Right - Size 2 - 6 holes - L91 mm
CTGMN2D	Midshaft clavicle plate - Superior - Narrow - Left - Size 2 - 6 holes - L91 mm

CTDMN1D CTGMN1D

CTDMN2D CTGMN2D

Superior midshaft plates

Ref.	Description
CTDM2D	Midshaft clavicle plate - Superior - Right - Size 2 - 8 holes - L89 mm
CTGM2D	Midshaft clavicle plate - Superior - Left - Size 2 - 8 holes - L89 mm

CTDM2D CTGM2D

Superior midshaft bendable plates

Ref.	Description
CBTDM1D	Midshaft bendable clavicle plate - Superior - Right - Size 1 - Right - 6 holes - L83 mm
CBTGM1D	Midshaft bendable clavicle plate - Superior - Left - Size 1 - Left - 6 holes - L83 mm
CBTDM1.5D	Midshaft bendable clavicle plate - Superior - Right - Size 1.5 10 holes - L105 mm
CBTGM1.5D	Midshaft bendable clavicle plate - Superior - Left - Size 1.5 10 holes - L105 mm
CBTDM2D	Midshaft bendable clavicle plate - Superior - Right - Size 2 10 holes - L127 mm
CBTGM2D	Midshaft bendable clavicle plate - Superior - Left - Size 2 10 holes - L127 mm

CBTDM1D CBTGM1D

CBTDM1.5D CBTGM1.5D

CBTDM2D CBTGM2D

MEDIAL MIDSHAFT PLATES

Superior medial midshaft plates

Ref.	Description
CBTDP1D	Medial midshaft clavicle plate - Superior - Right - Size 1 - 9 holes - L56 mm
CBTGP1D	Medial midshaft clavicle plate - Superior - Left - Size 1 - 9 holes - L56 mm

CBTDP1D CBTGP1D

ANTERIOR PLATES

MIDSHAFT PLATES

Anterior midshaft bendable plates

Ref.	Description
CBTSA2D	Midshaft bendable clavicle plate - Anterior - Symmetrical - Size 2 - 8 holes - L77 mm

CBTSA2D

LATERAL MIDSHAFT PLATES

Anterior lateral midshaft bendable plates

Ref.	Description
CBTDBA2D	Lateral midshaft bendable clavicle plate - Anterior - Right - Size 2 - 11 holes - L89 mm
CBTGBA2D	Lateral midshaft bendable clavicle plate - Anterior - Left - Size 2 - 11 holes - L89 mm
CBTDBA2D2.8*	Lateral midshaft bendable polyaxial clavicle plate - Anterior - Right - Size 2 - 11 holes - L89 mm
CBTGBA2D2.8*	Lateral midshaft bendable polyaxial clavicle plate - Anterior - Left - Size 2 - 11 holes - L89 mm

CBTDBA2D

CBTGBA2D

(CBTDBA2D2.8*)

(CBTGBA2D2.8*)

LATERAL PLATES

Anterior lateral bendable plates

Ref.	Description
CBTDBN2D	Lateral bendable clavicle plate - Anterior - Right - Size 2 - 9 holes - L71 mm
CBTGBN2D	Lateral bendable clavicle plate - Anterior - Left - Size 2 - 9 holes - L71 mm
CBTDBN2D2.8*	Lateral bendable polyaxial clavicle plate - Anterior - Right - Size 2 - 9 holes - L71 mm
CBTGBN2D2.8*	Lateral bendable polyaxial clavicle plate - Anterior - Left - Size 2 - 9 holes - L71 mm

CBTDBN2D

CBTGBN2D

(CBTGBN2D2.8*)

(CBTDBN2D2.8*)

* *Anterior lateral and lateral midshaft plates also available in Ø2.8 polyaxial versions. Only the screw platform is different, the rest of the design remains strictly identical - option available only on demand*

REMOVAL KIT

If you have to remove Alians Clavicle S implants, make sure to order the Newclip Technics removal set, which includes the following instrument:

- ANC042: Mini set - Base
- ANC350: Ø4.5 mm AO quick coupling handle - Size 1
- ANC351: Ø4.5 mm AO quick coupling handle - Size 2
- ANC575: T8 quick coupling screwdriver - for Ø2.8 mm screws
- ANC974: T15 quick screwdriver - for Ø3.5 mm screws

To remove any of the Alians Clavicle S plates, first loosen all the screws without completely removing them (this prevents rotation of the plate when removing the last screw). Finally, completely remove all screws and the plate.

Ø3.5 mm locking screws*

Ref.	Description
SOT3.5L10D to SOT3.5L24D	Ø3.5 mm locking screw - L10 mm to 24 mm (2mm increments)

*Blue anodized

Ø3.5 mm non-locking screws*

Ref.	Description
CT3.5L10D to CT3.5L24D	Ø3.5 mm non-locking screw - L10 to 24 mm (2mm increments)

*Light blue anodized

Ø2.8 mm locking screws*

Ref.	Description
SDT2.8L10D to SDT2.8L32D	Ø2.8 mm locking screw - L10 mm to 32 mm (2mm increments)

*Not anodized

Ø2.8 mm non-locking screws*

Ref.	Description
CT2.8L10D to CT2.8L24D	Ø2.8 mm non-locking screw - L10 to 24 mm (2mm increments)

*Light pink anodized

OPTIONAL SCREWS (AVAILABLE ONLY ON DEMAND)

Ø2.8 mm non-locking polyaxial screws*

Ref.	Description
QDT2.8L10D to QDT2.8L32D	Ø2.8 mm non-locking screw - L10 to 32 mm (2 mm incrementation)

*Yellow anodized

Ø2.8 mm non-locking screws for Ø3.5 mm holes*

Ref.	Description
CET2.8L10D to CET2.8L24D	Ø2.8 mm non-locking screw - Oblong 3.5 - L10 to 24 mm (2 mm incrementation)

*Brown anodized

Ø2.8 mm locking screws for Ø3.5 mm holes*

Ref.	Description
SOT2.8L10D to SOT2.8L24D	Ø2.8 mm locking screw - Oneclip 3.5 - L10 to 24 mm (2 mm incrementation)

*Turquoise anodized

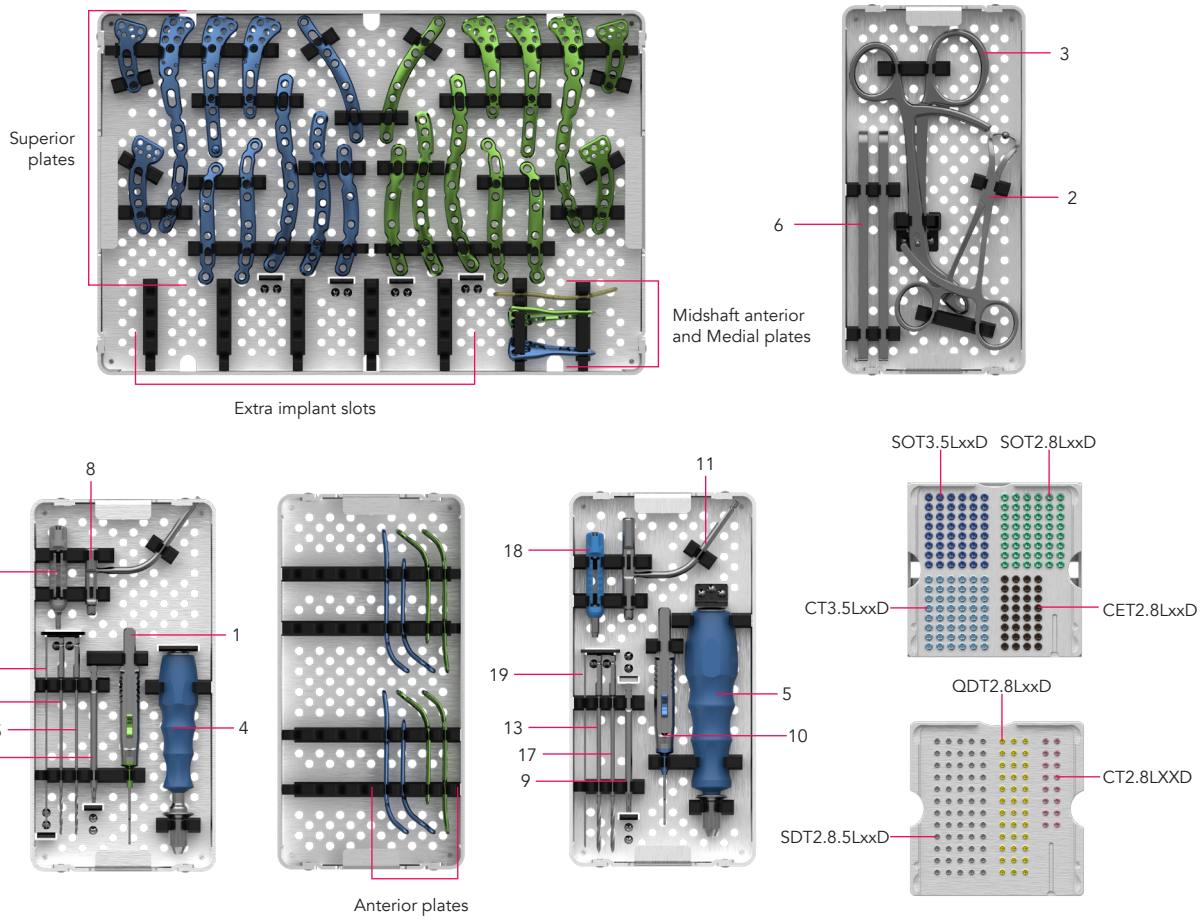
N.B: All the implants are also available in a sterile version. An «-ST» is added to the end of the reference. Ex : «SDT2.8L10D-ST»

Instrument references.

#	Ref.	Description	Qty
1	ANC102	Length gauge for Ø2.8 mm screws	1
2	ANC195	Clamp 14 cm with ball Ø5 mm	2
3	ANC251	18 cm verbrugge forceps	2
4	ANC350	Ø4.5 mm AO quick coupling handle - Size 1	1
5	ANC351	Ø4.5 mm AO quick coupling handle - Size 2	1
6	ANC452	Bending iron	2
7	ANC575	T8 quick coupling screwdriver	2
8	ANC986	Ø2.0 mm non threaded bent guide gauge for Ø2.8 mm screws	1
9	ANC1027	T15 AO quick coupling prehensor screwdriver	2
10	ANC1028	Length gauge for Ø3.5 mm screws	1

#	Ref.	Description	Qty
11	ANC1030	Ø2.7 mm non threaded bent guide gauge for Ø3.5 mm screws	1
12	ANC1056*	Double guide Ø2.8 mm / Ø2.1 mm for Ø2.8 mm screws	1
13	ANC1355	Ø2.7 mm quick coupling drill bit - L125 mm	1
14	ANC1356	Ø2.0 mm quick coupling drill bit - L125 mm	1
15	ANC1357	Ø2.0 mm quick coupling self-limiting drill bit for L18 mm screws	1
16	ANC1360	Ø2.0 mm threaded guide gauge for Ø2.8 mm screws	2
17	ANC1381	Ø2.7 mm quick coupling self-limiting drill bit for L18 mm screws	1
18	ANC1445	Ø2.7 mm threaded guide gauge for Ø3.5 mm screws	2
19	33.0212.120	Pin Ø1.2 - L120 mm	8

* Optional instrument, available only on demand

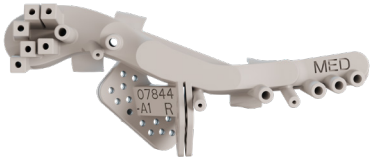


PSI options

Ref.	Description
ANC042	Mini set - Base
ANC863	Ø1.9 mm pin for cutting guide – L15 mm
ANC1015	Patient specific cutting guide for clavicle osteotomy
ANC880	Ø1.9 mm pin for cutting guide - L30 mm
ANC1219	Ø2.6 mm pin for cutting guide - L30 mm
ANC1220	Ø2.6 mm pin for cutting guide – L15 mm
33.0212.070	Pin Ø1.2 - L70 mm

Additional PSI options

Ref.	Description
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
ANC1224	Patient specific realignment guide
ANC1349	Ø1.2 mm holding plot – L10 mm



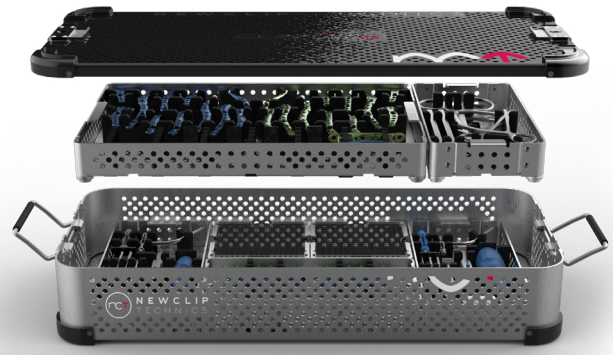
Compatible with patient-specific cutting guides (PSI)

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

Container references.

Containers

Ref.	Description
ANC042	Mini set - Base
ANC042/CB	Mini set - Cambered lid
ANC1060/C	Alians Clavicle S set - Lid
ANC1060/M1	Alians Clavicle S set - Module 1 - Instrumentation for Ø2.8 mm screws
ANC1060/M2	Alians Clavicle S set - Module 2 - Instrumentation for Ø3.5 mm screws
ANC1060/M3	Set - Size 1/4 - Module - 4x8 slots
ANC1060/M4	Alians Clavicle S set - Module 4 - General instrumentation
ANC1060/M5	Alians Clavicle S set - Module 5 - Superior plates
ANC1060/R1	Alians Clavicle S set - Screw rack for Ø3.5 mm screws
ANC1060/R2	Alians Clavicle S set - Screw rack for Ø2.8 mm screws
ANC1434/B2	2 levels set - Base



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