



NEWCLIP-TECHNICS

INNOVATION MEANS MOTION



**ALIANS ELBOW**  
DISTAL HUMERUS  
& OLECRANON  
POLYAXIAL LOCKING FIXATION  
*DUALTEC SYSTEM® II*

- ▶ Distal humerus and olecranon plating system
- ▶ Polyaxial locking technology
- ▶ Precontoured implants

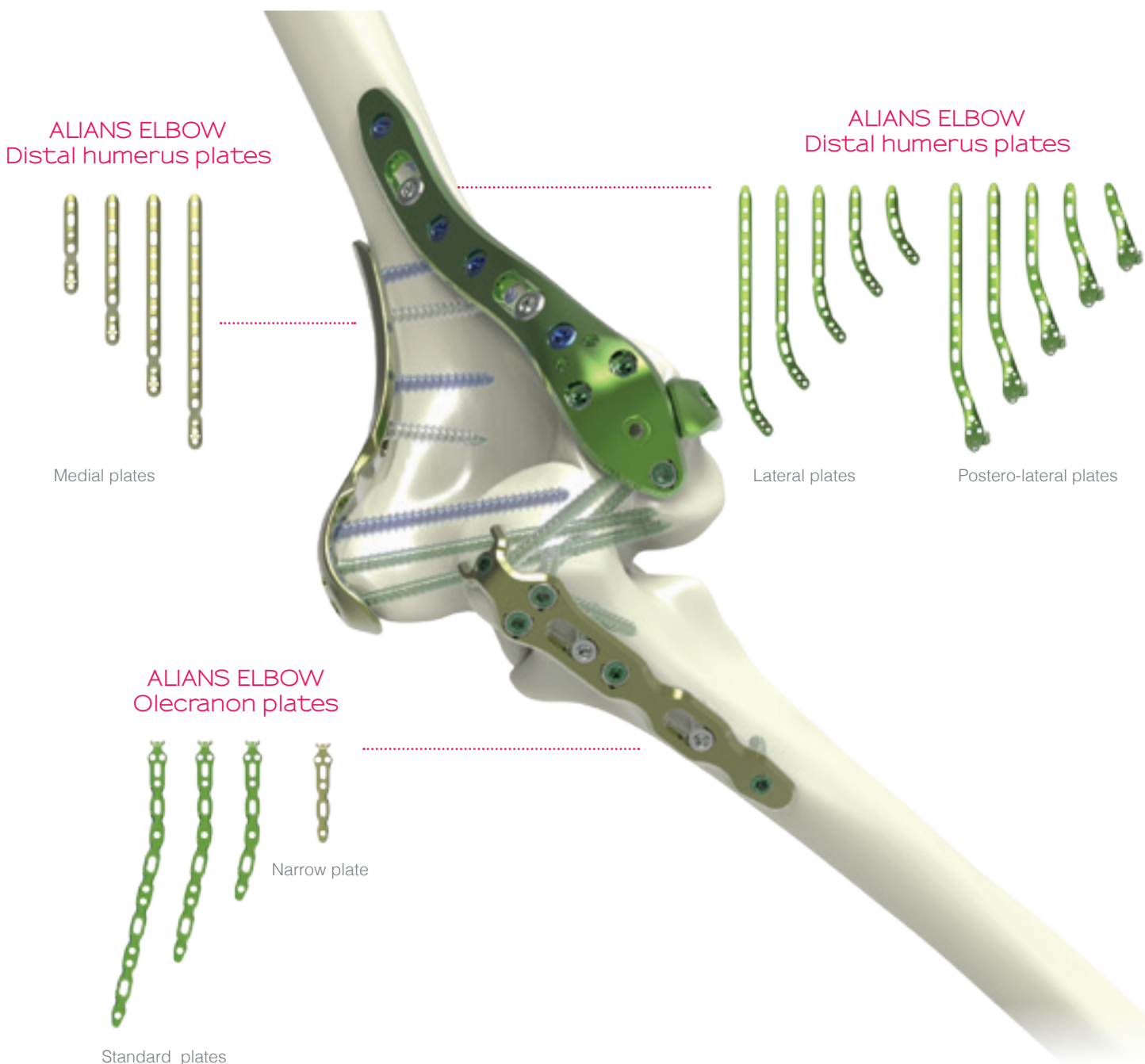
# ALIANS ELBOW

**Indications:** ALIANS ELBOW implants are dedicated to the fixation of fractures, osteotomies and pseudarthroses of the distal humerus and proximal ulna.

**Contra-indications:**

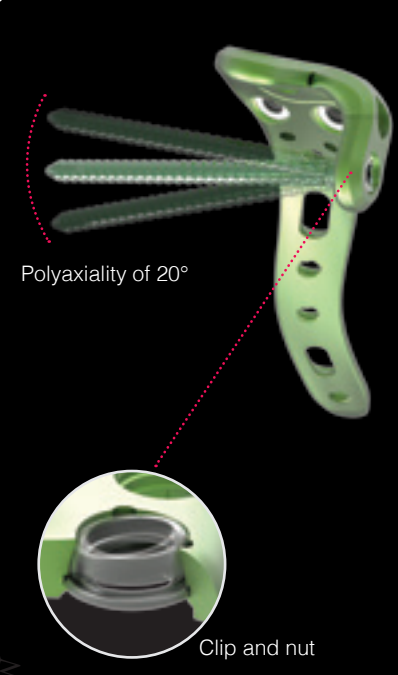
- Pregnancy.
- Acute or chronic, local or systemic infections.
- Lack of musculo-cutaneous cover, severe vascular deficiency touching the focus.
- Insufficient bone quality preventing a good fixation of the screws into the bone.
- Muscular deficit, neurological deficiency or behavioural disorders which could submit the osteosynthesis to abnormal mechanical strains.
- Foreign body sensitivity or allergy to one of the materials used.
- Patients with mental or neurological conditions who are unwilling or incapable of following post-operative care instructions.
- Patients with poor physical condition and/or mental instability.

## ALIANS ELBOW RANGE



# FIXATIONS : TECHNICAL FEATURES

## ANGULAR RANGE: +/- 10° POLYAXIAL LOCKING RANGE



**→ ANGULAR RANGE: +/- 10° POLYAXIAL LOCKING FIXATION**

The DTS2® technology 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 for poor bone quality and/or multifragmentary fractures.

The DTS2® polyaxial locking holes are located in the epiphyseal area, thus facilitating the insertion of the epiphyseal screws in diverging or converging direction and allowing for optimal strength of the assembly.

Polyaxiality of 20°

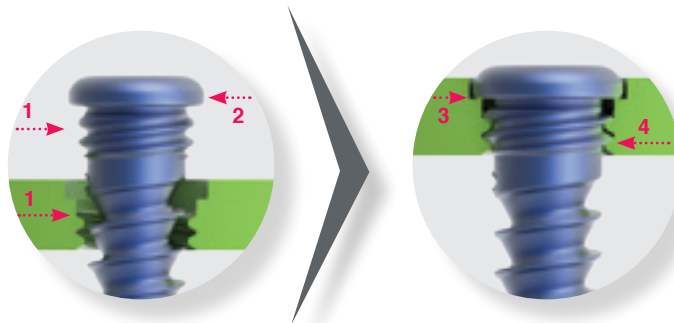
Clip and nut

Polyaxiality of 20°

## MONOAXIAL LOCKING SYSTEM

### → FEATURES

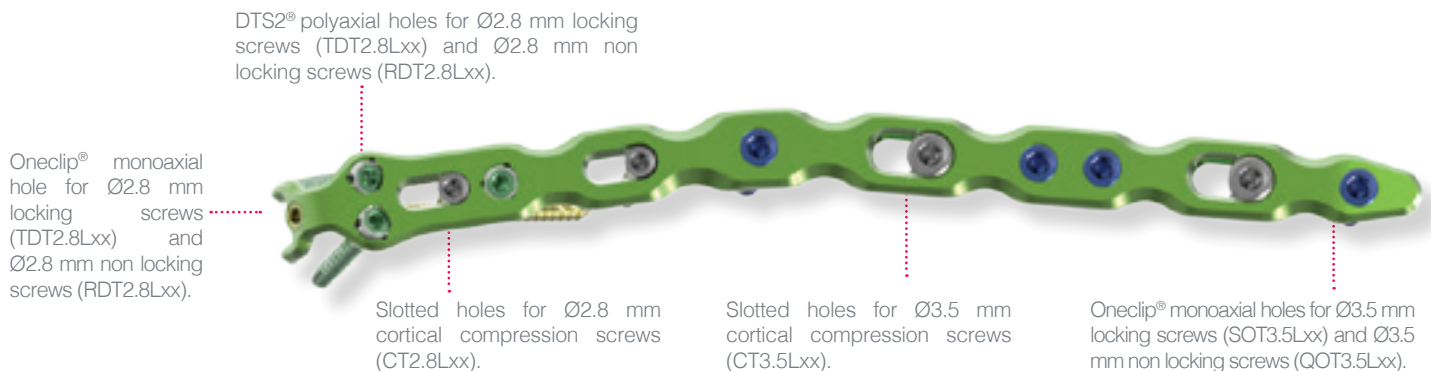
- The threaded sections under the screw head and inside the hole have strictly the **same characteristics (1)**:
  - Cylindrical internal thread profile,
  - Cylindrical external thread profile,
- Screw head cap (2),
- Plate and screw made from the same material: titanium alloy.



### → 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.
- **Construct limiting cold welding risks for improved removal properties:**
  - A perfect coaptation of both profiles when locking (4).

## FIXATION SYSTEM



DTS2® polyaxial holes for Ø2.8 mm locking screws (TDT2.8Lxx) and Ø2.8 mm non locking screws (RDT2.8Lxx).

Oneclip® monoaxial hole for Ø2.8 mm locking screws (TDT2.8Lxx) and Ø2.8 mm non locking screws (RDT2.8Lxx).

Slotted holes for Ø2.8 mm cortical compression screws (CT2.8Lxx).

Slotted holes for Ø3.5 mm cortical compression screws (CT3.5Lxx).

Oneclip® monoaxial holes for Ø3.5 mm locking screws (SOT3.5Lxx) and Ø3.5 mm non locking screws (QOT3.5Lxx).

# DISTAL HUMERUS PLATES

## PRECONTOURED IMPLANTS

The design of ALIANS ELBOW Distal humerus implants is the result of a proprietary state-of-the-art mapping technology to establish the maximum congruence between the plate and the bone.



### PLATE BENDING

Some plates from **ALIANS ELBOW** range (distal humerus and olecranon plates) offer bending areas. In certain cases, it is possible to bend the plate thanks to 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,
- > 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.

## 3 TYPES OF CONSTRUCT

### → PARALLEL CONSTRUCT

#### MEDIAL PLATE

- Medial column,
- Medial position,
- Medio-lateral direction of the distal screws.

#### LATERAL PLATE

- Lateral column,
- Lateral position,
- Latero-medial direction of the distal screws.

### → PERPENDICULAR CONSTRUCTS

#### MEDIAL PLATE

#### POSTERO-LATERAL PLATE

- Lateral column,
- Dorsal position,
- Postero-anterior and latero-medial direction of the distal screws.

#### MEDIAL PLATE

#### POSTERO-LATERAL PLATE

..... Lateral pre-assembled support

#### Fixation with lateral support

In the case of a perpendicular construct, the lateral support enables the insertion of 2 additional polyaxial long screws, from the lateral to the medial column of the distal humerus for extra stability and strength of the fixation.

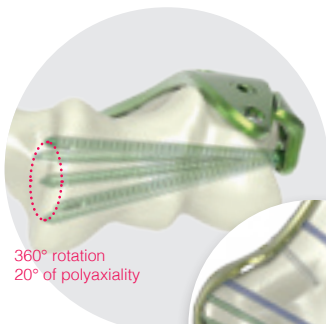
#### Fixation without lateral support

Distal humerus postero-lateral plates can be fitted to several types of fracture. In the case of partial articular fractures of the capitellum or very small humeri if the lateral support exceeds over the lateral epicondyl, it is possible to remove the lateral support. In this case, a Ø3.5 mm locking screw can be inserted in the cleared hole.

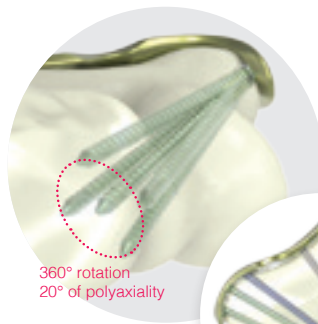
## POLYAXIAL LOCKING FIXATION

### Polyaxial locking fixation:

- > Gives the surgeon the ability to reach all fragments of the articular block thanks to long screws,
- > Avoids conflicts between screws in the articular block.



POSTERO-LATERAL PLATE



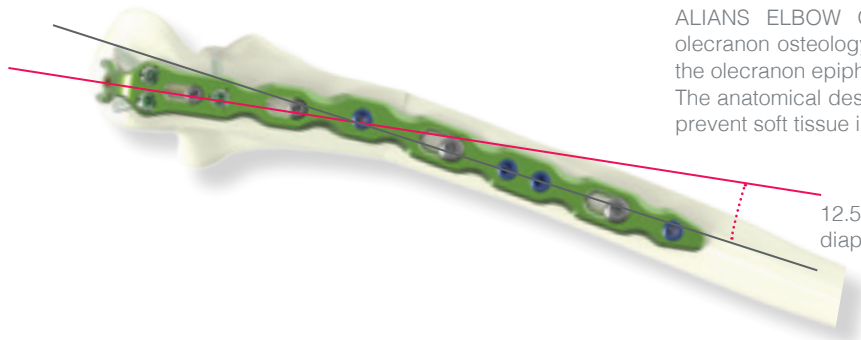
MEDIAL PLATE



LATERAL PLATE

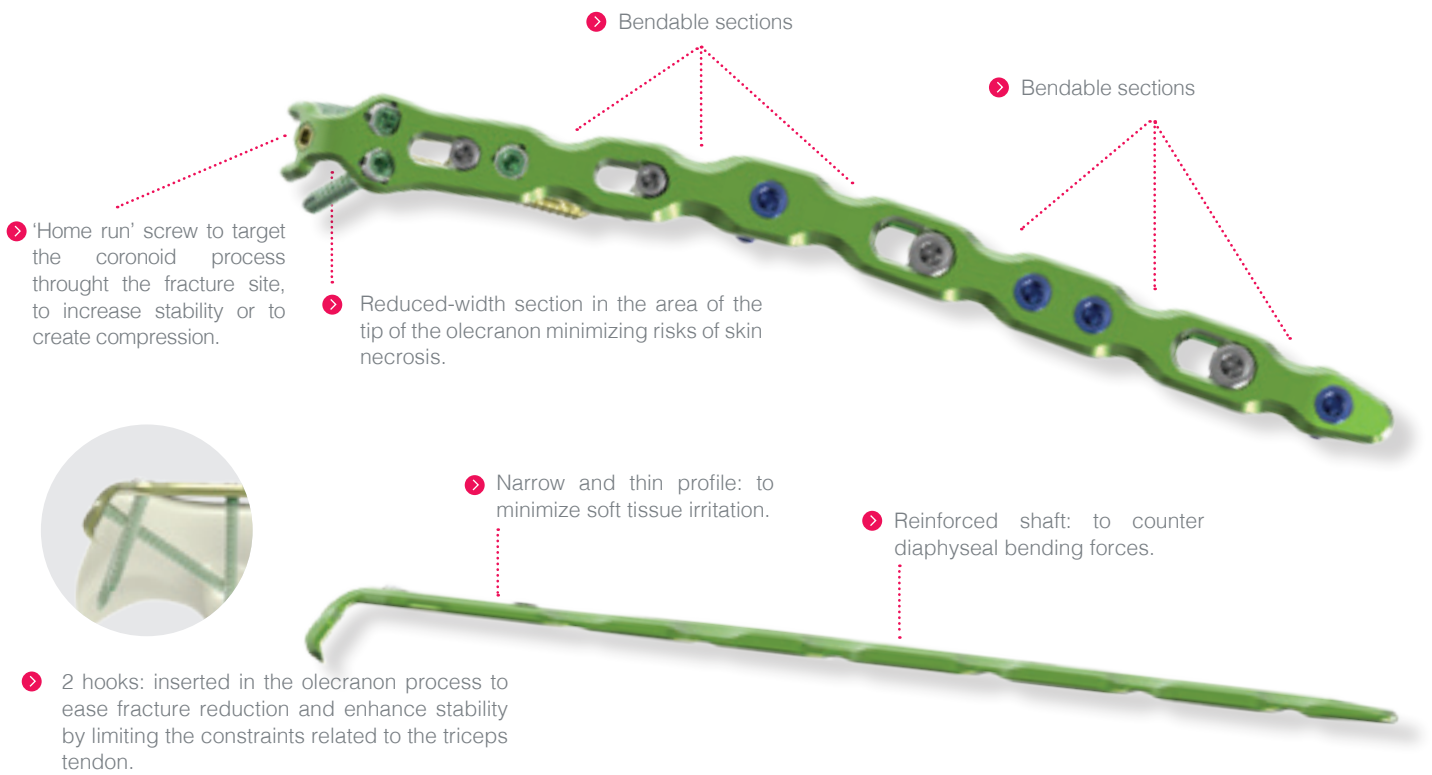
# OLECRANON PLATES

## PRECONTOURED IMPLANTS

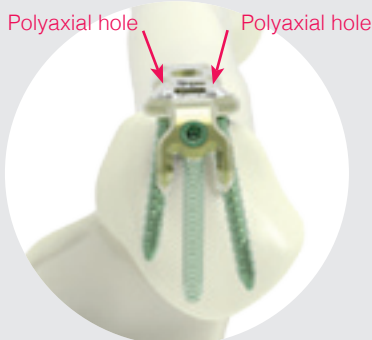


ALIANS ELBOW Olecranon implants design is based on olecranon osteology studies. The design of the plate adapts to the olecranon epiphysio-diaphyseal curve. The anatomical design of the plate and the buried screw heads prevent soft tissue irritation.

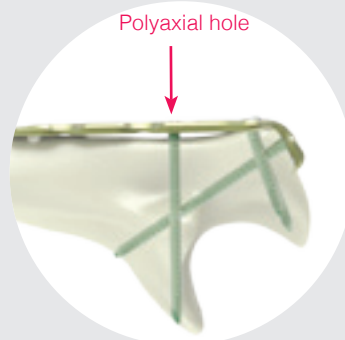
## OLECRANON PLATES TECHNICAL FEATURES



## POLYAXIAL LOCKING FIXATION



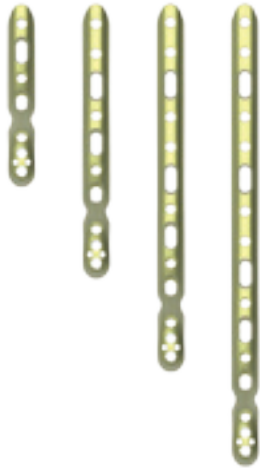
**Two olecranon screws:**  
to be directed toward the tip of the olecranon limiting the constraints related to the triceps tendon.



**The coronoid screw:**  
the screw targets and stabilizes the coronoid fragment.

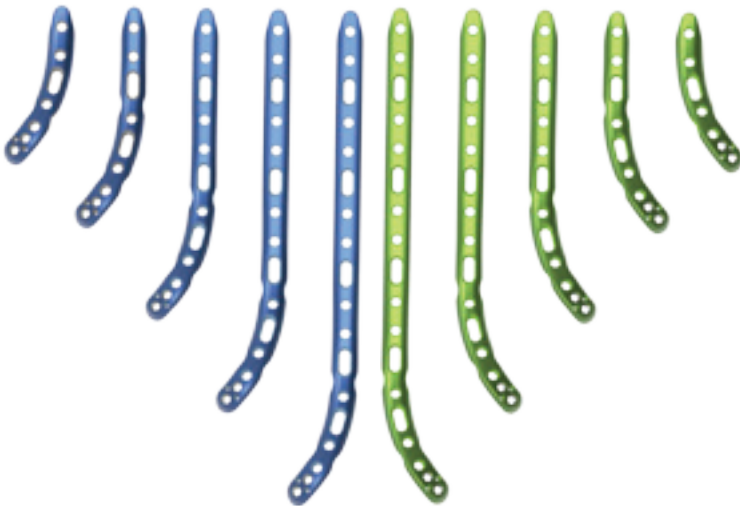
# IMPLANTS REFERENCES

## → DISTAL HUMERUS PLATES



### MEDIAL PLATES

Ref.	Description
NTSM1	Distal humerus medial plate - Symmetrical - Size 1 - 7 holes - L74 mm
NTSM2	Distal humerus medial plate - Symmetrical - Size 2 - 10 holes - L111 mm
NTSM3	Distal humerus medial plate - Symmetrical - Size 3 - 13 holes - L148 mm
NTSM4	Distal humerus medial plate - Symmetrical - Size 4 - 16 holes - L186 mm



### LATERAL PLATES

Ref.	Description
NTGL1	Distal humerus lateral plate - Left - Size 1 - 7 holes - L67 mm
NTDL1	Distal humerus lateral plate - Right - Size 1 - 7 holes - L67 mm
NTGL2	Distal humerus lateral plate - Left - Size 2 - 9 holes - L93 mm
NTDL2	Distal humerus lateral plate - Right - Size 2 - 9 holes - L93 mm
NTGL3	Distal humerus lateral plate - Left - Size 3 - 12 holes - L131 mm
NTDL3	Distal humerus lateral plate - Right - Size 3 - 12 holes - L131 mm
NTGL4	Distal humerus lateral plate - Left - Size 4 - 15 holes - L169 mm
NTDL4	Distal humerus lateral plate - Right - Size 4 - 15 holes - L169 mm
NTGL5	Distal humerus lateral plate - Left - Size 5 - 18 holes - L207 mm
NTDL5	Distal humerus lateral plate - Right - Size 5 - 18 holes - L207 mm

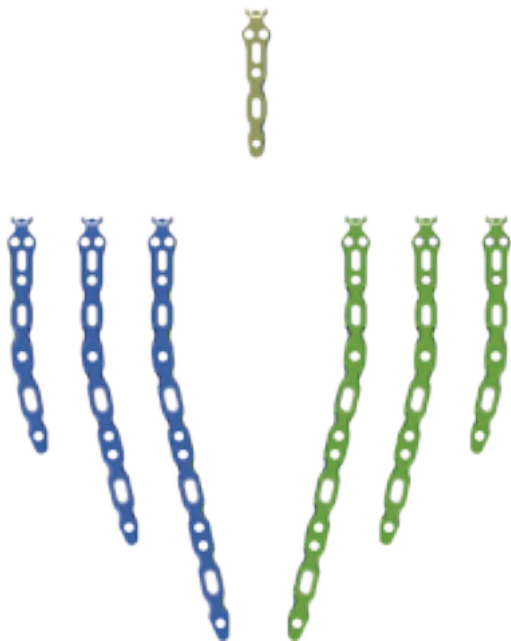


### POSTERO-LATERAL PLATES

Ref.	Description
NTGQ1	Distal humerus postero-lateral plate - Left - Size 1 - 9 holes - L71 mm
NTDQ1	Distal humerus postero-lateral plate - Right - Size 1 - 9 holes - L71 mm
NTGQ2	Distal humerus postero-lateral plate - Left - Size 2 - 11 holes - L99 mm
NTDQ2	Distal humerus postero-lateral plate - Right - Size 2 - 11 holes - L99 mm
NTGQ3	Distal humerus postero-lateral plate - Left - Size 3 - 14 holes - L137 mm
NTDQ3	Distal humerus postero-lateral plate - Right - Size 3 - 14 holes - L137 mm
NTGQ4	Distal humerus postero-lateral plate - Left - Size 4 - 17 holes - L175 mm
NTDQ4	Distal humerus postero-lateral plate - Right - Size 4 - 17 holes - L175 mm
NTGQ5	Distal humerus postero-lateral plate - Left - Size 5 - 20 holes - L213 mm
NTDQ5	Distal humerus postero-lateral plate - Right - Size 5 - 20 holes - L213 mm

# IMPLANTS REFERENCES


## → OLECRANON PLATES



NARROW PLATE	
Ref.	Description
HTSPN1	Olecranon plate - Symmetrical - Narrow head - 7 holes - L64 mm

STANDARD PLATES	
Ref.	Description
HTGPS1	Olecranon plate - Left - Size 1 - 9 holes - L102 mm
HTDPS1	Olecranon plate - Right - Size 1 - 9 holes - L102 mm
HTGPS2	Olecranon plate - Left - Size 2 - 12 holes - L141 mm
HTDPS2	Olecranon plate - Right - Size 2 - 12 holes - L141 mm
HTGPS3	Olecranon plate - Left - Size 3 - 15 holes - L182 mm
HTDPS3	Olecranon plate - Right - Size 3 - 15 holes - L182 mm

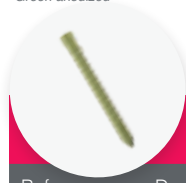
## → Ø2.8 MM SCREWS



**REINFORCED CORE LOCKING SCREWS\***

Ref.	Description
TDT2.8Lxx	Ø2.8 mm reinforced core polyaxial locking screws Length : from 10 mm to 60 mm (2 mm increments from 10 to 40) (5 mm increments from 40 to 60)

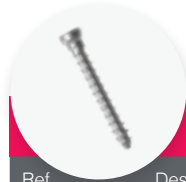
\*Green anodized



**REINFORCED CORE NON LOCKING SCREWS\***

Ref.	Description
RDT2.8Lxx	Ø2.8 mm reinforced core polyaxial non-locking screws Length : From 10 mm to 60 mm (2 mm increments from 10 to 40) (5 mm increments from 40 to 60)

\*Golden anodized



**CORTICAL SCREWS\***

Ref.	Description
CT2.8Lxx	Ø2.8 mm standard cortical screws Length : From 12 mm to 30 mm (2 mm increments)

\*Non anodized or pink anodized for sterile screws

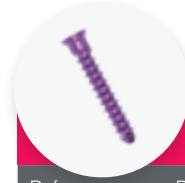
## → Ø3.5 MM SCREWS



**LOCKING SCREWS\***

Ref.	Description
SOT3.5Lxx	Ø3.5 mm locking screws Length : from 10 mm to 60 mm (2 mm increments from 10 to 40) (5 mm increments from 40 to 60)

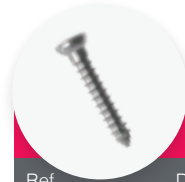
\*Blue anodized



**NON LOCKING SCREWS\***

Ref.	Description
QOT3.5Lxx	Ø3.5 mm non locking screws Length : from 10 mm to 60 mm (2 mm increments from 10 to 40) (5 mm increments from 40 to 60)

\*Fuchsia anodized



**CORTICAL SCREWS\***

Ref.	Description
CT3.5Lxx	Ø3.5 mm standard cortical screws Length : From 10 mm to 40 mm (2 mm increments)

\*Non anodized or light blue anodized for sterile screws

### Remark:



Please note that all implants are also available in sterile packaging. The tube packaging is handy and easy to use. An "ST" code is added at the end of the reference, e.g. "SOT3.5L16-ST".

# INSTRUMENTS REFERENCES

ALIANS ELBOW INSTRUMENTS		
Ref.	Description	Qty
ANC082E	2.0 mm quick coupling hexagonal prehensor screwdriver	2
ANC083C	2.5 mm quick coupling hexagonal prehensor screwdriver	3
ANC089C	Ø2.7 mm quick coupling drill bit - L 125 mm	1
ANC102L	Length gauge for Ø2.8 mm screws - Measures 10 - 60 mm	1
ANC103	2.0 mm hexagonal non prehensor screwdriver	1
ANC107	2.5 mm quick coupling hexagonal non prehensor screwdriver	1
ANC124L	Length gauge for Ø3.5 mm screws - Measures 10 - 60 mm	1
ANC160	Handle for fast drilling guide	1
ANC186	Ø2.7 mm guide gauge for Ø3.5 mm locking screws	1
ANC191	Ø2.7 mm QC guide gauge for Ø3.5 mm non locking screws	1
ANC256E	Ø2.7 mm quick coupling drill bit - L 180 mm	2
ANC259E	Ø2.7 mm guide gauge for Ø3.5 mm locking screws Measures 10 - 60 mm	2
ANC261E	Ø2.7 mm guide gauge for Ø3.5 mm non locking screws - Measures 10 - 60 mm	1
ANC287	Ø2.3 mm quick coupling drill bit - L 180 mm	2
ANC305	Ø2.3 mm DTS2 drill guide	2
ANC306	Ø2.3 mm guide gauge	1
ANC309	Ø1.7 mm guide for Ø1.6 mm K-wire	1
ANC313	Fast drilling guide for distal humerus medial plates (NTSMx)	1

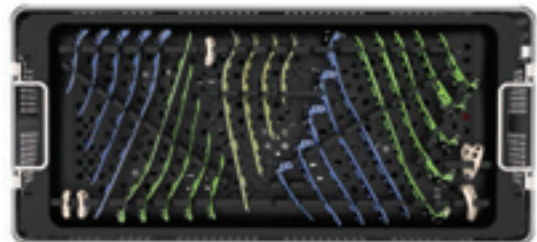
ALIANS ELBOW INSTRUMENTS		
Ref.	Description	Qty
ANC314	Fast drilling guide for distal humerus lateral plates - Left side (NTGLx)	1
ANC315	Fast drilling guide for distal humerus lateral plates - Right side (NTDLx)	1
ANC316	Fast drilling guide for distal humerus posterolateral plates - Left side (NTGQx)	1
ANC317	Fast drilling guide for distal humerus posterolateral plates - Right side (NTDQx)	1
ANC344	Verbrugge forceps 240 mm	1
ANC345	Reduction forceps 200 mm	1
ANC348	Reduction forceps 235 mm	1
ANC350	Ø4.5 mm AO quick coupling handle - Size 1	1
ANC351	Ø4.5 mm AO quick coupling handle - Size 2	1
ANC452	Bending iron	2
ANC463	Ø3.5 mm quick coupling reamer	2
ANC493	Ø2.3 guide gauge for Ø2.8 screws	1
ANC494	Ø2.3 guide gauge for DTS2 screws	1
ANC498	Ø2.3 mm quick coupling drill bit - L 150 mm	1
33.0216.210	K-wire Ø1.6 L210 mm	5
33.0220.210	K-wire Ø2.0 L210 mm	5

## REMOVAL KIT

If you have to remove ALIANS ELBOW implants (distal humerus or olecranon implants), make sure to order the **Newclip Technics removal set** which includes the following instruments:

- ANC082E or ANC103: Screwdriver for Ø2.8 mm screws,
- ANC107 or ANC016: Screwdriver for Ø3.5 mm screws,
- ANC351: Ø4.5 mm AO quick coupling handle - Size 2.

## → SET DESCRIPTION

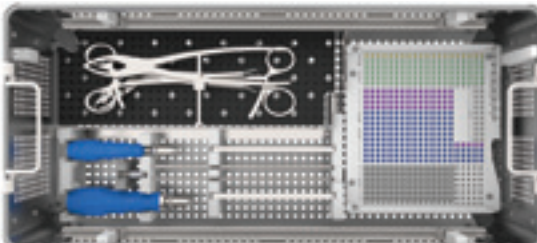


ANC296/I3: DISTAL HUMERUS IMPLANTS TRAY



ANC296/I2: OLECRANON IMPLANTS AND INSTRUMENTS TRAY

ANC296/I1: INSTRUMENTS TRAY



ANC296/B: BASE

ANC296/R: SCREW RACK

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  
PA de la Lande Saint Martin - 45 rue des Garotières  
44115 Haute Goulaine (France)  
Tél. : +33 (0)2 28 21 37 12 - Fax : +33 (0)2 40 63 68 37  
orders@newcliptechnics.com - [www.newcliptechnics.com](http://www.newcliptechnics.com)

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