# **ALIANS PROXIMAL HUMERUS.**







# ALIANS PROXIMAL HUMERUS

Indications for use: The Humerus Locking Plating System is intended for fractures and fracture dislocations, osteotomies, and non-unions of the proximal humerus.

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Contra-indications:

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

## TECHNICAL FEATURES

### ANATOMICALLY SHAPED PLATE

### → POSITIONING OF THE PLATE

- 1.5 cm from the proximal edge of the greater tuberosity.
- Alongside the bicipital groove.



Suture holes designed for use before or after fracture reduction.

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Oblong hole length allowing for adjustment of the plates height.

### SCREW FIXATION FEATURES

### → BLUNT-TIPPED SCREWS

Allow to be as close as possible to the articular surface.



Screw diameter: 4.5 mm Core diameter: 3.5 mm

# TECHNICAL FEATURES

SCREW FIXATION FEATURES

### → DEDICATED CENTERING SCREW HOLE



The drill guide (ANC131) and reductor (ANC147), with the Ø2.0 mm pin (33.0220.210), allow placement of a centering screw in the humeral head (hole marked #1).



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The centering screw determines the plate positioning and the fixed-angle screw placement.

### → PROXIMAL SCREW POSITION





Divergent fixed-angle screws (targeting the inferior quadrants) and polyaxial locking screws allowing for position in the humeral head.

### → POLYAXIAL LOCKING SCREWS





# SURGICAL TECHNIQUE

### STEP 1 SURGICAL APPROACH







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Pectoralis Major





The patient is placed in the beach-chair position.

A deltopectoral approach, passing outside of the cephalic vein, is recommended.

### STEP 2 FRACTURE REDUCTION



Reduce the fracture through traction and manipulation and provisionally stabilize the fracture fragments with pins (33.0220.210).

In valgus fracture patterns, the head must be elevated prior to provisional fixation.

The greater tuberosity is anatomically reduced and pinned to the shaft.

This is facilitated by manipulating the tuberosity with sutures placed through the substance of the infraspinatus. These sutures will later be used as supplemental fixation when they are secured to the plate.

Image intensification is necessary to confirm reduction.

### STEP 3 OSTEOSYNTHESIS PROCEDURE

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-> CENTERING SCREW

Place the plate alongside the bicipital groove and approximately 1.5 cm distal from the top of the greater tuberosity.

Insert a Ø4.5 mm cortical screw (CT4.5Lxx) into the oblong hole and fasten the plate to the shaft. Provisionally secure the plate to the bone with  $\emptyset$ 2.0 mm pins (33.0220.210).

Insert the drill guide (ANC131) with its reductor (ANC147) through hole #1. Insert a Ø2.0 mm pin (33.0220.210) to target the center of the humeral head. Check position and trajectory under fluoroscopy.

Remove the reductor and then drill using the Ø3.5 mm drill bit (ANC132) through the drill guide (ANC131) and insert the first Ø4.5 mm locking screw (PT4.5Lxx).



# SURGICAL TECHNIQUE

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### STEP 3 OSTEOSYNTHESIS PROCEDURE

### → FIXED-ANGLE DIVERGENT SCREWS



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Use the Ø3.5 mm drill (ANC132) and drill guide (ANC131) in the 4 remaining monoaxial holes. Insert 4 divergent Ø4.5 mm fixed-angle screws (PT4.5Lxx).

### → POLYAXIAL LOCKING SCREWS



Orientate and lock the first 2 proximal screws and the first metaphyseal screw (①) according to the fracture pattern, using the Ø3.5 mm drill guide (ANC131).

As the highest bone density is located in the inferior quadrants, every attempt should be made to keep the screws descending.



For the remaining holes, use the Ø3.5 mm drill guide (ANC127) and place the remaining distal, non locking (CT4.5Lxx) or locking (VT4.5Lxx) screws at the surgeon's discretion.



### STEP 4 SUTURE OF THE TUBEROSITIES



Repair and fasten the tuberosity to the plate through the suture holes.

Assess the final reduction under fluoroscopy.

Suture holes for soft tissue fixation are compatible with Ø2.0 mm needles.



# IMPLANT REFERENCES







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	ALIANS PROXIMAL HUMERUS PLATES			
Ref.	Description			
STGPSS1	Proximal humerus plate - Left - Size 1 - Short			
STDPSS1	Proximal humerus plate - Right - Size 1 - Short			
STGPS1	Proximal humerus plate - Left - Size 1			
STDPS1	Proximal humerus plate - Right - Size 1			
STGPS2	Proximal humerus plate - Left - Size 2			
STDPS2	Proximal humerus plate - Right - Size 2			
STGPS3	Proximal humerus plate - Left - Size 3			
STDPS3	Proximal humerus plate - Right - Size 3			

# IMPLANT REFERENCES

DTS® SCREWS\* Ref. Description PT4.5L26 Ø4.5 mm DTS locking screw - L26 mm PT4.5L28 Ø4.5 mm DTS locking screw - L28 mm PT4.5L30 Ø4.5 mm DTS locking screw - L30 mm PT4.5L32 Ø4.5 mm DTS locking screw - L32 mm PT4.5L34 Ø4.5 mm DTS locking screw - L34 mm PT4.5L36 Ø4.5 mm DTS locking screw - L36 mm PT4.5L38 Ø4.5 mm DTS locking screw - L38 mm Ø4.5 mm DTS locking screw - L40 mm PT4.5L40 PT4.5L42 Ø4.5 mm DTS locking screw - L42 mm PT4.5L44 Ø4.5 mm DTS locking screw - L44 mm Ø4.5 mm DTS locking screw - L46 mm PT4.5L46 Ø4.5 mm DTS locking screw - L48 mm PT4.5L48 PT4.5L50 Ø4.5 mm DTS locking screw - L50 mm PT4.5L52 Ø4.5 mm DTS locking screw - L52 mm PT4.5L54 Ø4.5 mm DTS locking screw - L54 mm PT4.5L56 Ø4.5 mm DTS locking screw - L56 mm PT4.5L58 Ø4.5 mm DTS locking screw - L58 mm PT4.5L60 Ø4.5 mm DTS locking screw - L60 mm

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		Ø4.5 MM
		NON LOCKING SCREWS*
I	Ref.	Description
	CT4.5L20	Ø4.5 mm non-locking screw - L20 mm
	CT4.5L22	Ø4.5 mm non-locking screw - L22 mm
	CT4.5L24	Ø4.5 mm non-locking screw - L24 mm
	CT4.5L26	Ø4.5 mm non-locking screw - L26 mm
	CT4.5L28	Ø4.5 mm non-locking screw - L28 mm
	CT4.5L30	Ø4.5 mm non-locking screw - L30 mm
	CT4.5L32	Ø4.5 mm non-locking screw - L32 mm
	CT4.5L34	Ø4.5 mm non-locking screw - L34 mm
	CT4.5L36	Ø4.5 mm non-locking screw - L36 mm
	CT4.5L38	Ø4.5 mm non-locking screw - L38 mm
	CT4.5L40	Ø4.5 mm non-locking screw - L40 mm
*	Not anodized	

\* Green anodized

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fin annum		Ø4.5 MM
		NON LOCKED RETAINING SCREWS* (1)
Ref.	Desc	ription
QT4.5L32	Ø4.5 m	im lag screw - L32 mm
QT4.5L36	Ø4.5 m	ım lag screw - L36 mm
QT4.5L40	Ø4.5 m	im lag screw - L40 mm
QT4.5L44	Ø4.5 m	im lag screw - L44 mm

### \* Golden anodized

(1) Only used in intraoperative situation for reduction before the insertion of a locking screw (PT4.5Lxx).

Mill Balance	
Clinet	Ø4.5 MM
	LOCKING SELF-TAPPING CORTICAL SCREWS*
Ref.	Description
VT4.5L20	Ø4.5 mm locking cortical screw - L20 mm
VT4.5L22	Ø4.5 mm locking cortical screw - L22 mm
VT4.5L24	Ø4.5 mm locking cortical screw - L24 mm
VT4.5L26	Ø4.5 mm locking cortical screw - L26 mm
VT4.5L28	Ø4.5 mm locking cortical screw - L28 mm
VT4.5L30	Ø4.5 mm locking cortical screw - L30 mm
VT4.5L32	Ø4.5 mm locking cortical screw - L32 mm
VT4.5L34	Ø4.5 mm locking cortical screw - L34 mm
VT4.5L36	Ø4.5 mm locking cortical screw - L36 mm
VT4.5L38	Ø4.5 mm locking cortical screw - L38 mm
VT4.5L40	Ø4.5 mm locking cortical screw - L40 mm

# INSTRUMENT REFERENCES



INSTRUMENTS						
Ref.	Description	Qty				
ANC119-US	3.0 mm quick coupling hexagonal prehensor screwdriver	2				
ANC120-US	Ø4.2 mm countersink with US quick coupling system	1				
ANC121-US	Ø3.5 mm drill guide with US quick coupling system	1				
ANC127	Ø3.5 mm drill guide for Ø4.5 mm screws	2				
ANC129	Length gauge for Ø4.5 mm screws	1				
ANC131	Ø3.5 mm drill guide for DTS® screws	2				
ANC132	Ø3.5 mm quick coupling drill bit - L195 mm	2				
ANC147	Reductor of drill guide DTS Shoulder for Ø2.0 mm pin	1				
ANC352	Ø6 mm US quick coupling handle	2				
33.0220.210	Pin Ø2.0 L210 mm	3				

### REMOVAL SET

If you have to remove Alians Proximal Humerus implants, make sure to order the Newclip Technics removal set which includes the following instruments:

- ANC119-US: 3.0 mm quick coupling hexagonal screwdriver for Ø4.5 mm screws
- ANC352: Ø6 mm US quick coupling handle

This information is intended to demonstrate the Newclip Technics portfolio of medical devices. Always refer to the package insert, product label and/or user instructions including cleaning and sterilization before using any Newclip Technics product. These products must be handled and/or implanted by trained and qualified staff who have read the instructions before use. A surgeon must always rely on her or his own professional clinical judgement when deciding whether to use a particular product when treating a particular patient. Product availability is subject to the regulatory or medical practices that govern individual markets. Please contact your Newclip Technics representative if you have questions about the availability of Newclip Technics products in your area.



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