



# P.R.C.T II

## FIXATION PLATE FOR ARTICULAR FRACTURE OF THE PROXIMAL HUMERUS



SURGICAL TECHNIQUE

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# PROPERTIES

PRCT II is a new generation of humeral plates, designed for numerous shoulder fractures. The technical characteristics of this implant have been designed from workshops in anatomical labs to fit as much as possible to the anatomy, correlated to results previously published in medical journals.

# INDICATIONS

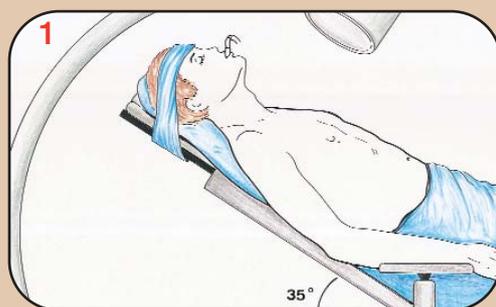
- Indications of the plates are :
- Two or three-part articular fracture,
  - Displaced surgical neck fracture
  - Nonunion
  - Pseudoarthrosis
  - Comminuted fracture

# WARNINGS AND PRECAUTIONS

Unless otherwise indicated, instrument sets are sold non-sterile and must be completely cleaned and sterilized before use. Instruments must not undergo accelerated autoclave sterilization inside the instrument box. Accelerated autoclave sterilization of individual instruments has not been validated by the manufacturer.

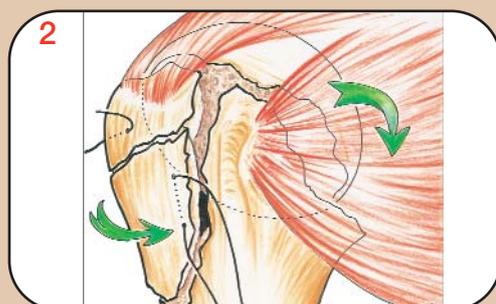
**Please consult the instrument package insert for validated sterilization instructions and the implant package insert for a complete list of warnings, precautions, contraindications and adverse events.**

# SURGICAL TECHNIQUE



## Patient positioning:

Place the patient in a 35° beach-chair position. Position the patient so that the involved shoulder extends over the top corner of the table. This will facilitate radiographic imaging. The forearm rests on an arm board so that it can be moved through a complete ROM. The C-arm is positioned at 35° along the patient's side.



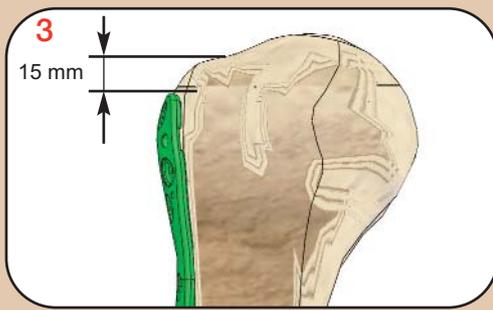
## Surgical approach and reduction:

**Antero lateral approach:**  
Longitudinal incision from the anterolateral corner of the acromion and extending 8 - 10 cm distally excepted for the smallest plate. Dissection between the anterior and middle heads of deltoid muscle. The axillary nerve can be palpated and protected. This approach allows direct visualization of:

- the fracture for plate placement and locking screws,
- reduction of tuberosity fragments.



# LOCKING OF THE PROXIMAL PART



## Plate positioning:

The plate should be positioned about 15 mm below the top of the greater tuberosity, lateral to the biceps groove.

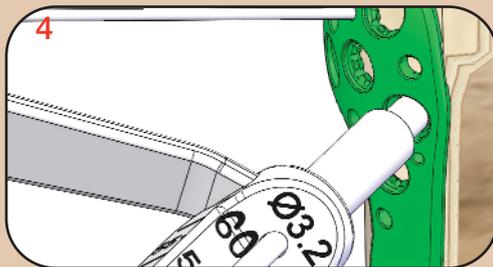
Choose the size of the plate that fits the best.

Blue plate = left side

Green plate = right side

Insert the first screw through the oval-shaped hole of the plate. This will allow adjustment of the position of the plate, if necessary.

The screw should be in both cortex.

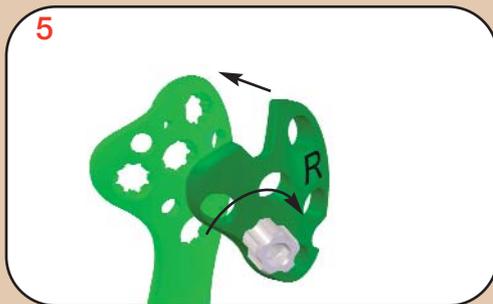


## Locking of the proximal part: (1<sup>st</sup> solution)

By means of the guide, drill the hole in direction of the humeral head.

Length of the screw is done by direct reading from the drill-guide and image intensifier control.

Put other screws using the same method.



## Locking of the proximal part: (2<sup>nd</sup> solution)

### Fitting the targeting device:

#### Warning

Green targeting device for right side

Blue targeting device for left side.

1- Mount the targeting device onto the implant such as the tab being in the hole of the plate.

2- Insert the screw with the 3.5 mm hex screwdriver.



### Screw insertion:

By means of the targeting device + guide, drill the hole.

Length of the screw is done by direct reading from the drill-guide and image intensifier control.

Put other screws on the proximal part using the same method.



Use the same method as 1<sup>st</sup> solution for distal part screws.

The screw in diaphyseal part should be in both cortex.

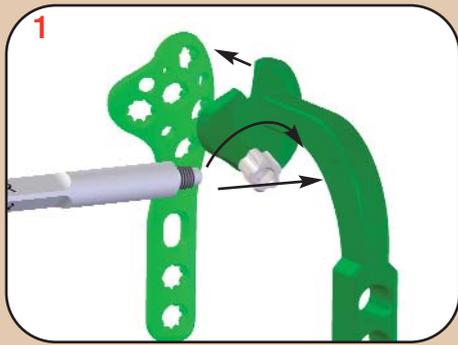
Fixation can be done by locking screws or compression screws (standard).

## Diaphyseal plates:

Use the same method as described for the locking of the proximal part (step 4 page 3).



# MINI INVASIVE APPROACH



## Fitting the plate:

### Warning

Green aiming guide for right side  
Blue aiming guide for left side.

- 1- Mount the aiming guide onto the implant such as the tab being in the hole of the plate.
- 2- Insert the screw with the 3.5 mm hex screwdriver.
- 3- Insert the handle into the aiming guide.



## Distal interlocking screw:

After having carefully dissected the soft parts using Halstead forceps, insert the Ø8 mm guide into the top hole of the aimer until contact is made with the cortex using the soft-tissue holder. Insert the drill guide / depth gauge into the Ø8 mm guide.



## Length of screws:

Drill the 1<sup>st</sup> cortex with the measurer drill.  
When in contact with the 2<sup>nd</sup> cortex, read the measurement and use screw size **L + 4 mm**.  
Drill to the 2<sup>nd</sup> cortex.

Insert the screw through the Ø8 mm guide with the 3.5mm hex screwdriver.

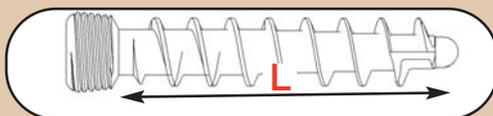
Proceed in the same way as for other distal interlockings.

Fixation can be done by locking screws or compression screws (standard).

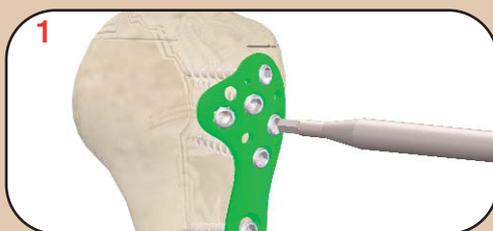
Screw length is measured from under the head.  
Remove the aiming guide.

## Proximal interlocking screw:

Proceed as defined on steps 4, 5 and 6 page 3.



# IMPLANTS REMOVAL



## Screws removal:

Remove screws with the 3.5 mm hex screwdriver.

