Elbow Plating System
Surgical Technique

LOQTEQ®

Locking Compression Technology by aap

Elbow Plating System
Surgical Technique

LOQTEQ®

Disclaimer

This surgical technique is exclusively intended for medical professionals, especially physicians, and therefore may not be regarded as a source of information for non-medical persons. The description of this surgical technique does not constitute medical advice or medical recommendations nor does it convey any diagnostic or therapeutic information on individual cases. Therefore, the attending physician is fully responsible for providing medical advice to the patient and obtaining the informed consent of the patient which this surgical technique does not supersede.

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Content

The LOQTEQ® Elbow Plating System combines the advantages of angular stability with anatomically preformed plates for stable fixation of complex fractures of the distal humerus and the proximal ulna. When necessary, diaphyseal/metaphyseal compression can be achieved using the gliding locking holes in the plate shaft.

The LOQTEQ® Elbow Plating System includes the following plates:

- LOQTEQ® Distal Medial Humerus Plate 2.7/3.5
- LOQTEQ® Distal Dorsolateral Humerus Plate 2.7/3.5
- LOQTEQ® Distal Lateral Humerus Plate 2.7/3.5
- LOQTEQ® Olecranon Plate 2.7/3.5

Material

The LOQTEQ® implants and instruments are manufactured using high-quality materials, which have been proven to be successful in medical technology for decades. The anatomical plates and bone screws are made of titanium alloy.

All materials employed comply with national and international standards. They are characterized by good biocompatibility, a high degree of safety against allergic reactions and good mechanical properties. LOQTEQ® implants show an excellent highly polished surface.

Indications/Contraindications

Indications

LOQTEQ® Distal Humerus Plates

- Intra-articular fractures, supracondylar fractures, osteotomies and non-unions of the distal humerus.

LOQTEQ® Olecranon Plates

- Fixation of fractures, osteotomies and nonunions of the olecranon, particularly in osteopenic bone.

Contraindications

- Infection or inflammation (localized or systemic)
- Allergies against the implant material
- High anesthesia risk patients
- Severe soft tissue swelling impacting normal wound healing
- Insufficient soft tissue coverage
- Fractures in children and adolescents with epiphyseal plates not yet ossified

Processing (Sterilization & Cleaning)

The implants are supplied sterile and non-sterile.

Implants and instruments that are supplied in non-sterile condition must be sterilized before use.
For this purpose, please refer to the Instructions for Use that are enclosed with the plates, instruments, and trays.

Do not use (sterile) implants from damaged or open inner packaging.

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Distal Medial Humerus Plate 2.7/3.5

Features & Benefits

- The anatomical plate design minimizes the need for intraoperative plate contouring
- All plate holes, with the exception of the oblong hole, are compatible with locking as well as non-locking cortical screws
- Fitted, radiolucent aiming devices are designed for the safe placement of drill guides at a preset angle
- Minor contact undercuts may help to preserve the blood supply to the periosteum
- Available as left and right version

The flattened end of the plate is designed for tissue-conserving, sub-muscular insertion

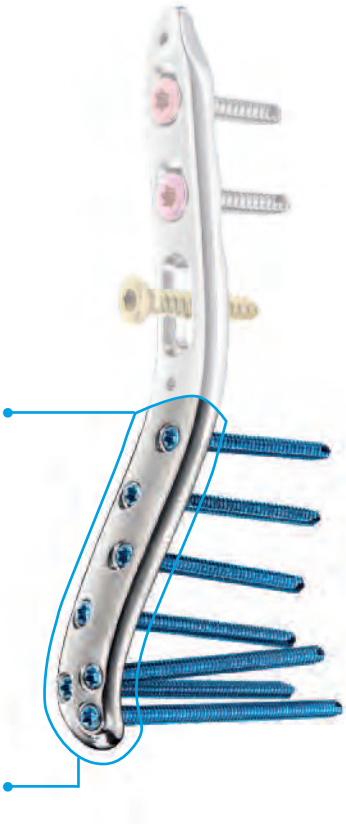
Gliding locking holes in the shaft area allow compression and angular stability with LOQTEQ® technology

The oblong hole allows for easy adjustment of the plate

Holes for K-wires for temporary fixation of bone fragments or of the plate to the bone

Round locking holes in the metaphyseal plate area are suitable for 2.7 mm locking screws (blue) as well as 2.5 mm cortical screws (gold)

- In combination with the dorsolateral (90°) or the lateral plate (180°) a very stable support for the medial condyle is possible, which can allow early recovery for the patient
- 2.7 mm screws as well as offset holes in the metaphyseal area of the plate allow to catch even very small fragments
- 2.5 mm non-locking cortical screws (gold) can angulate in the plate hole



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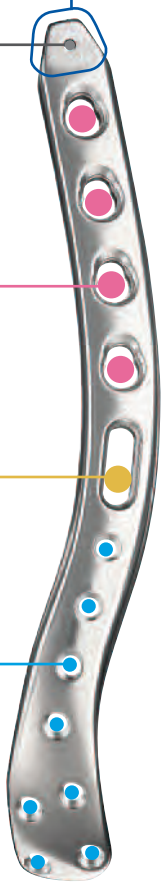
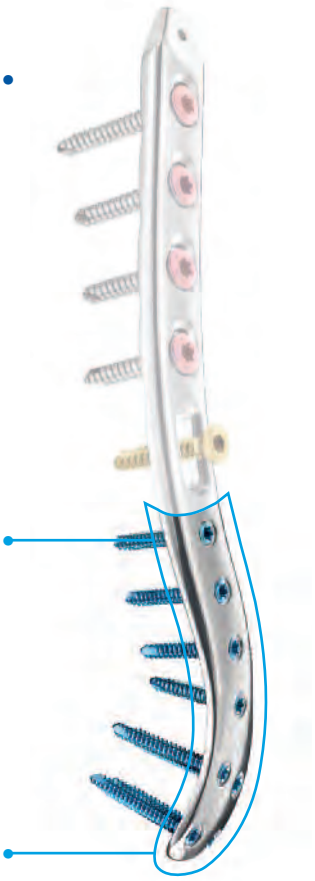


- In combination with the medial plate (90°) a very stable support for the medial condyle is possible, which can allow early recovery for the patient



- 2.7 mm screws as well as offset holes in the metaphyseal area of the plate allow to even catch very small fragments
- 2.5 mm non-locking cortical screws (gold) can angulate in the plate hole

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Features & Benefits

- The anatomical plate design minimizes the need for intraoperative plate contouring
- All plate holes, with the exception of the oblong hole, are compatible with locking as well as non-locking cortical screws
- Fitted, radiolucent aiming devices are designed for the safe placement of drill guides at a preset angle
- Minor contact undercuts may help to preserve the blood supply to the periosteum
- Available as left and right version

The flattened end of the plate is designed for tissue-conserving, sub-muscular insertion

Gliding locking holes in the shaft area allow compression and angular stability with LOQTEQ® technology

The oblong hole allows for easy adjustment of the plate

Holes for K-wires for temporary fixation of bone fragments or of the plate to the bone

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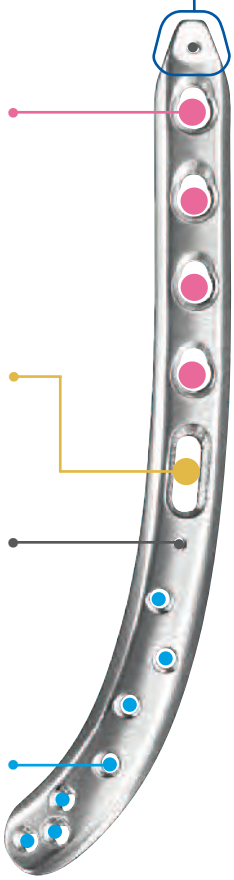
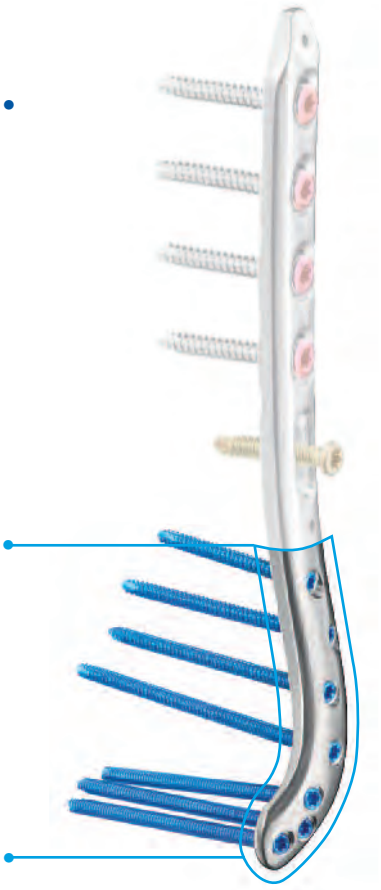


- In combination with the medial plate (180°) a very stable support for the medial condyle is possible, which can allow early recovery for the patient



- 2.7 mm screws as well as offset holes in the metaphyseal area of the plate allow to even catch very small fragments
- 2.5 mm non-locking cortical screws (gold) can angulate in the plate hole

Features & Benefits

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- All plate holes, with the exception of the oblong hole, are compatible with locking as well as non-locking cortical screws
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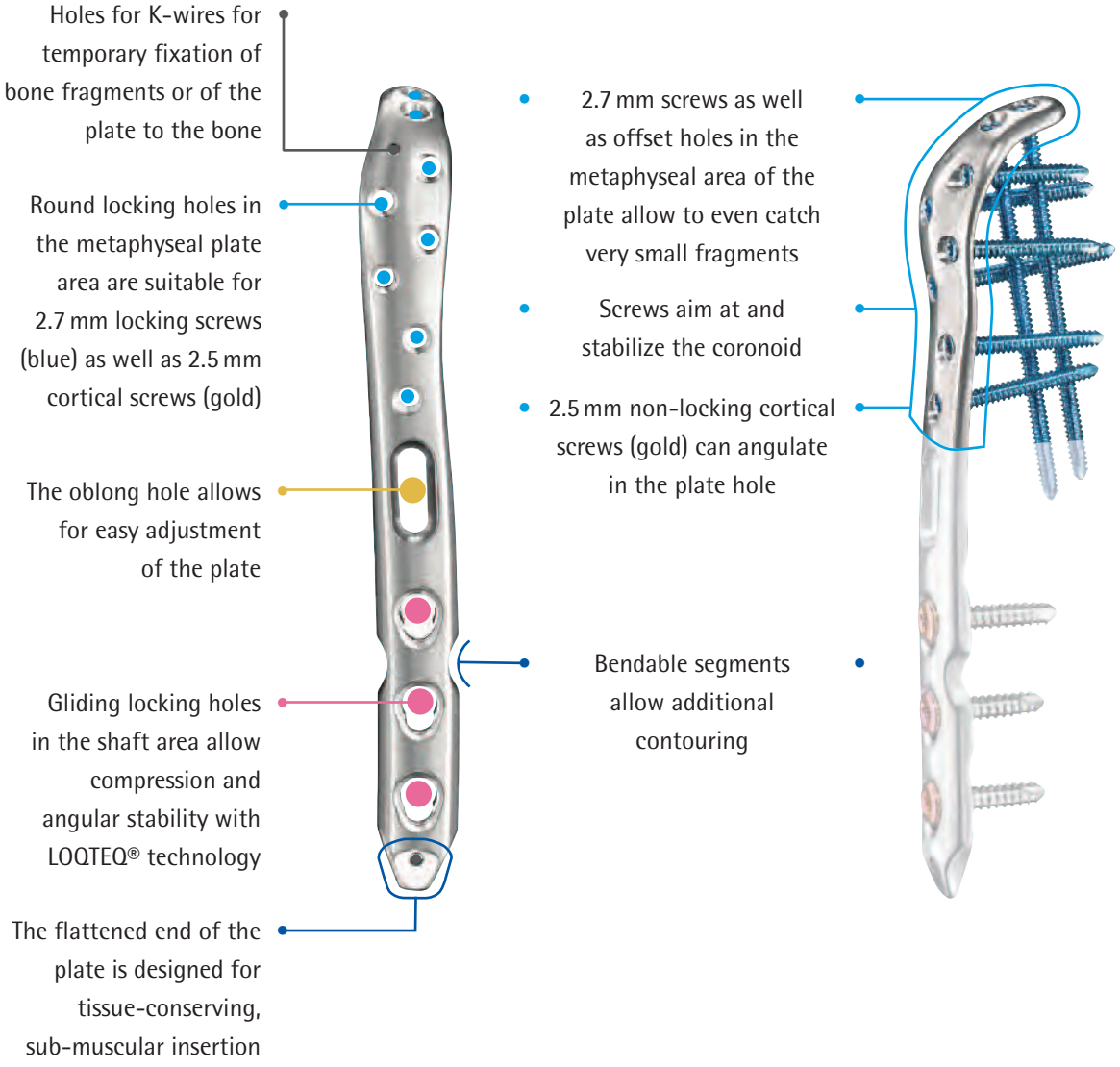

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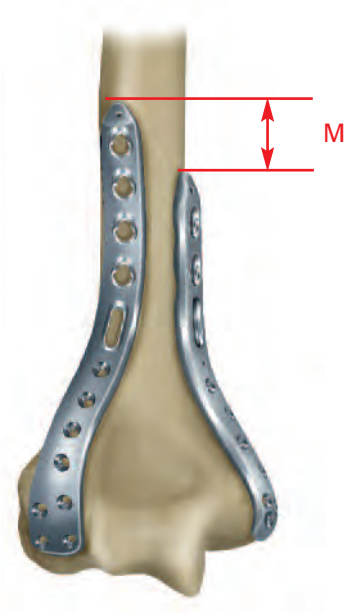
Preoperative planning

- Evaluate the fracture type on the basis of the X-rays / CT and select the appropriate plate length and screw positions.
  Also insert lag screws, if necessary.

◆ NOTE:
To prevent extensive diaphyseal stress, it is recommended that the medial and lateral plates are not the same length, with at least a two-hole difference between the plates.



- LOQTEQ® Distal Humerus Plates are anatomically precontoured to fit to the anatomy of an average distal humerus.

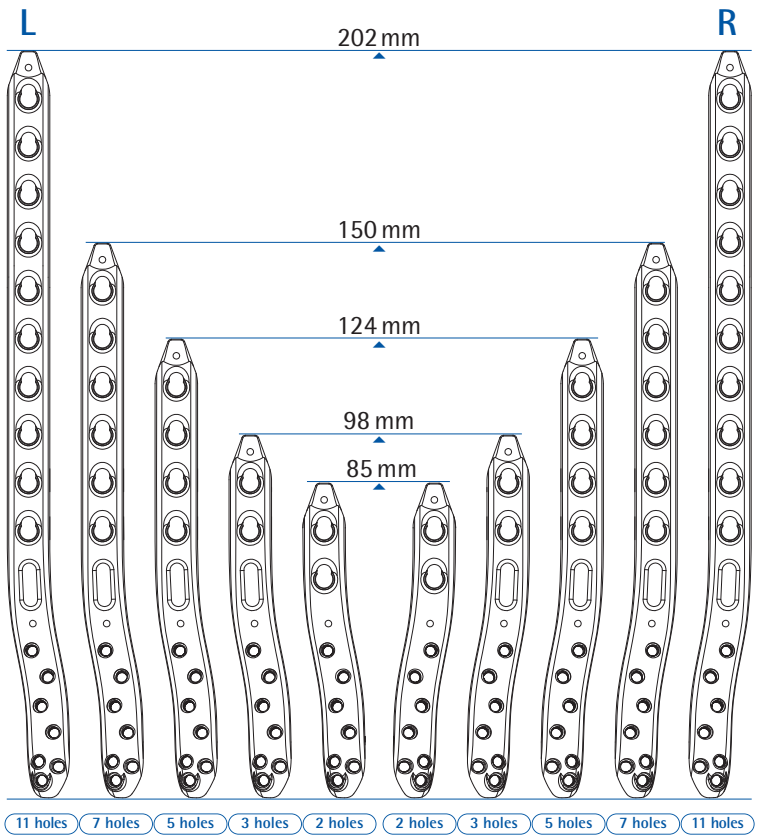
- In general, the articular block should be reduced prior to reositioning the articular block to the shaft.

- Bicolumn fractures are common, requiring fixation via a dual plate construct.
  LOQTEQ® Elbow Plating System allows for 90° and 180° plate placement.

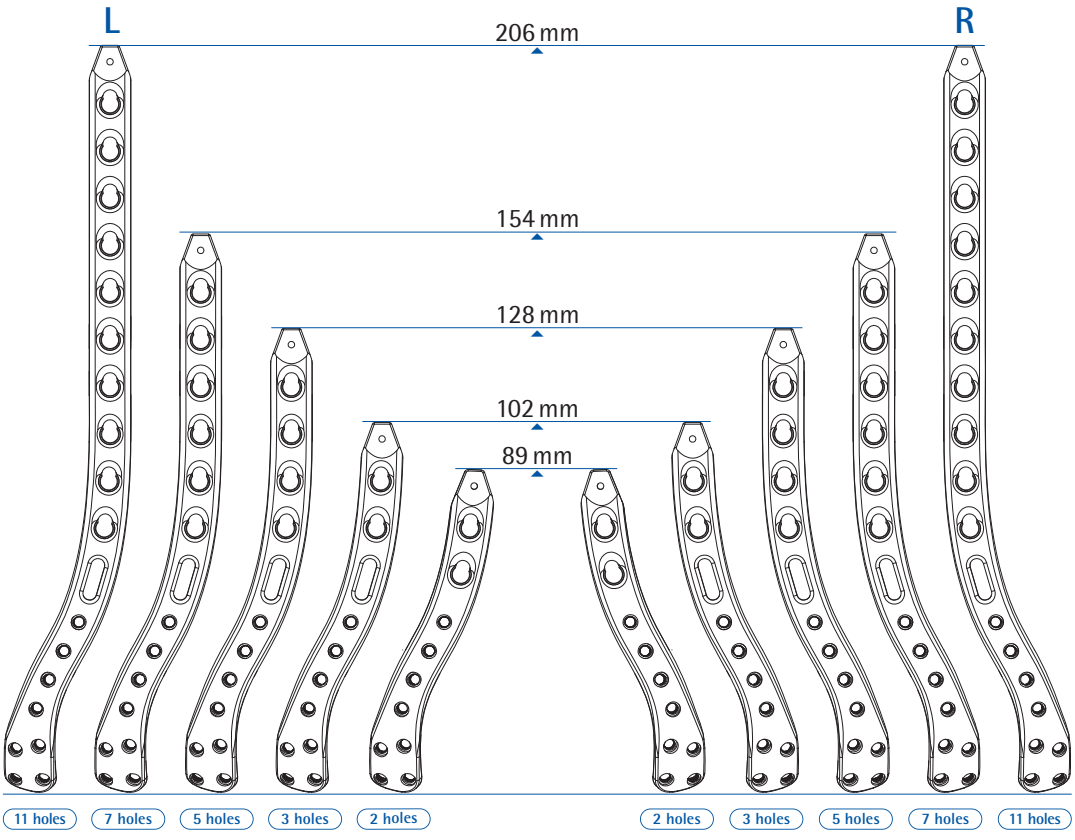
90°
plate placement

180°
plate placement

LOQTEQ® Distal Medial Humerus Plate 2.7/3.5



LOQTEQ® Distal Dorsolateral Humerus Plate 2.7/3.5 (90°)



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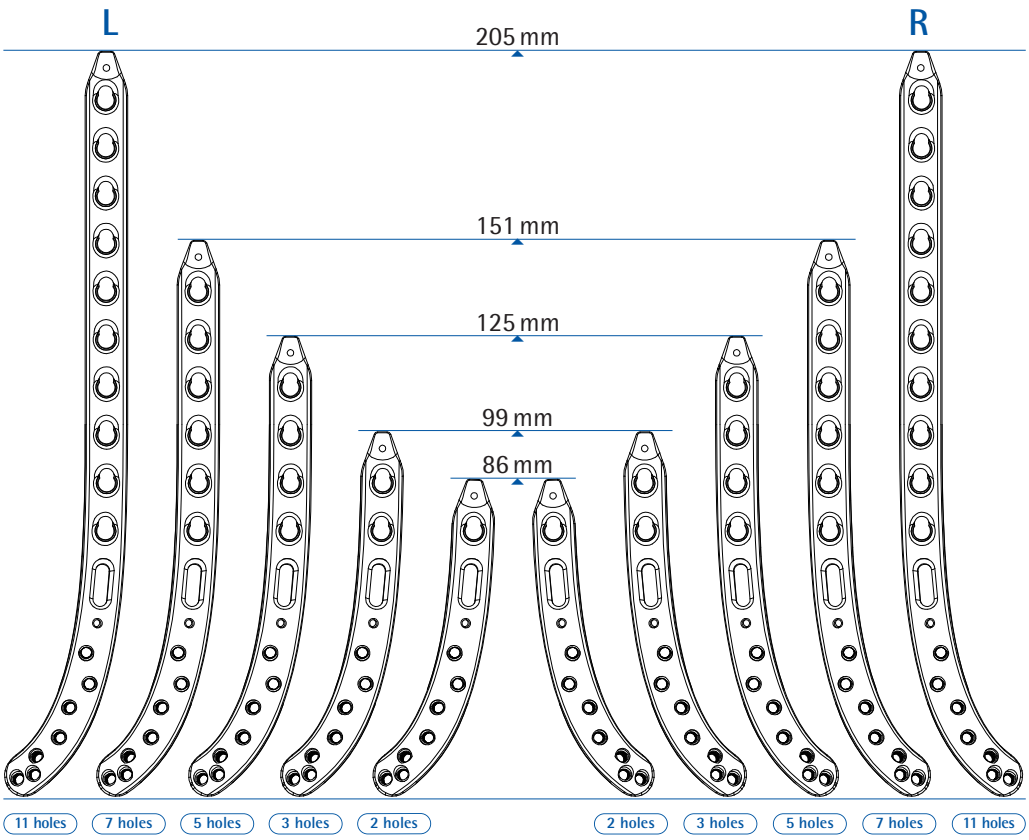
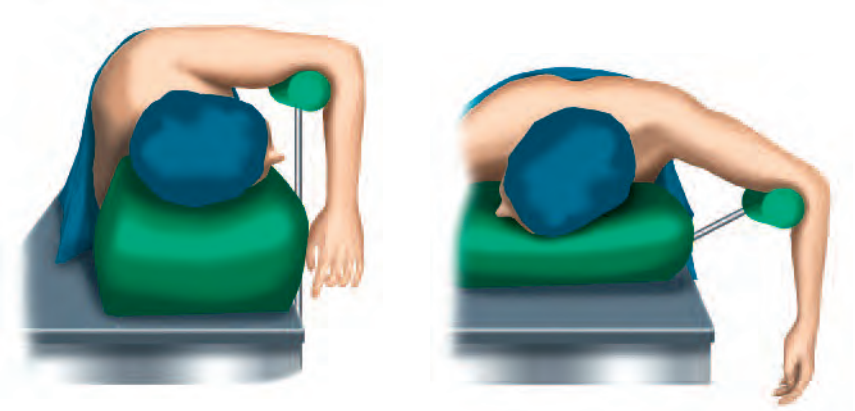
Distal Humerus Plates 2.7/3.5

LOQTEQ® Distal Lateral Humerus Plate 2.7/3.5 (180°)



Patient positioning

- Position the patient in lateral or prone position with the arm supported over bolsters.

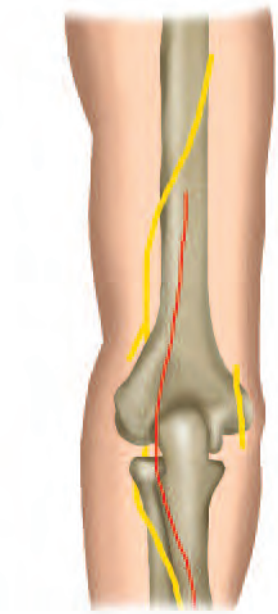


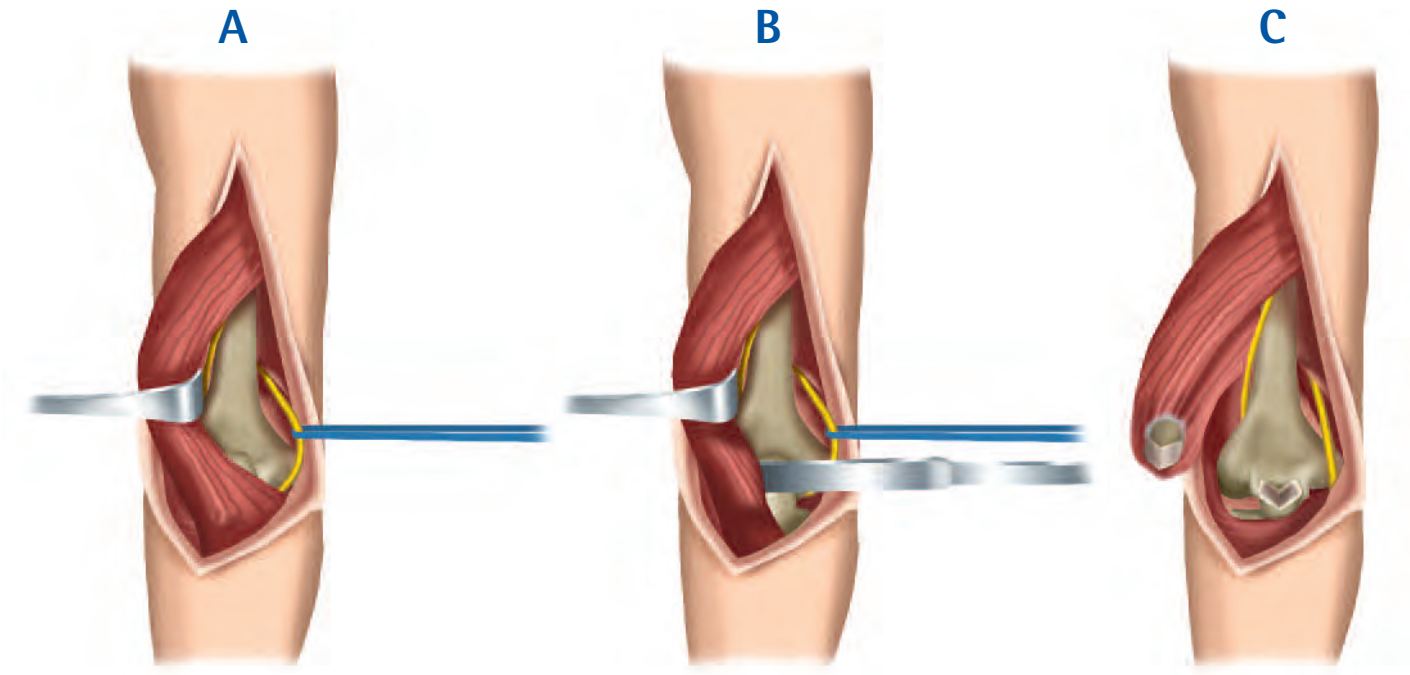
Approach

- The posterior access is usually preferred, with a longitudinal incision just radial to the olecranon.

◆ CAUTION:
The ulnar nerve must be identified and protected. When using longer plates, the radial nerve may require exploration and protection.

- Depending on the fracture pattern, the triceps can be left intact (A), elevated off the bone (B) or an olecranon osteotomy (C) can be performed for adequate exposure of the fracture.





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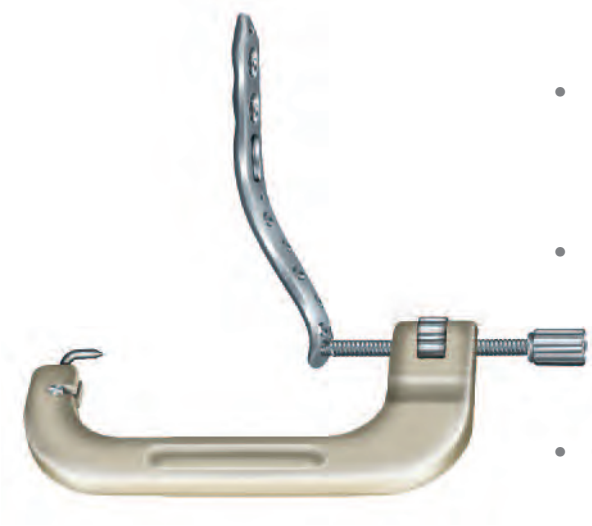
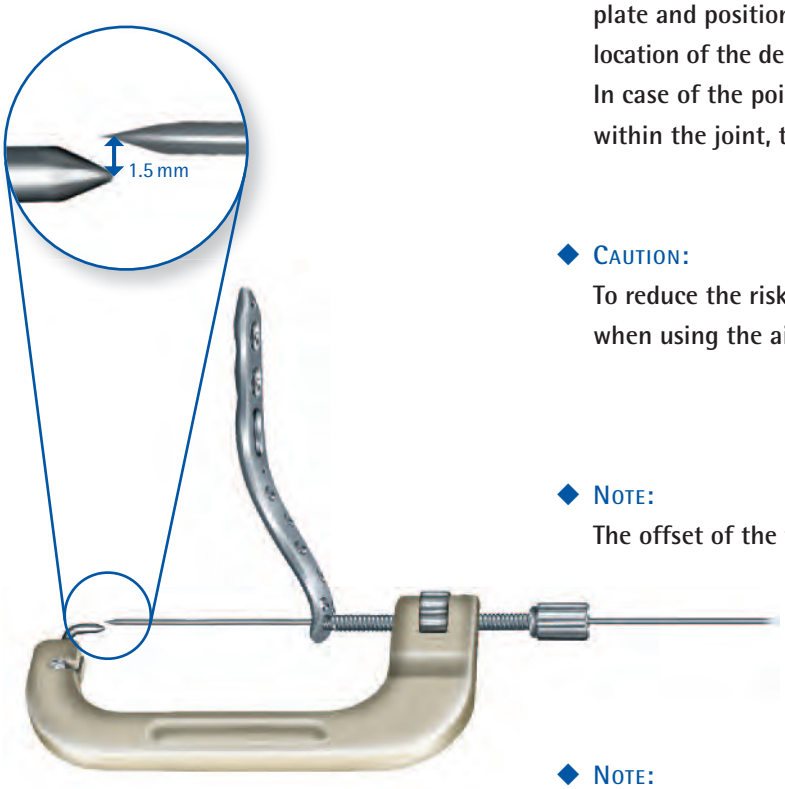
Preparing the plate

INSTRUMENTS	ART.-NO.
Aiming arm LOQTEQ® Distal Medial Humerus Plate	IU 8179-00



- Position the medial plate on the madial column at the distal humerus using the aiming arm prefixing it in the most distal plate hole.
- Plate position: on the medial column
- Orientation of distal screws: mediolateral

◆ **NOTE:**
Screw the drill guide in the most distal screw hole of the medial plate and position the opposite tip of the aiming pointer in the location of the desired screw penetration point on the lateral side. In case of the pointer indicating a likely penetration of an area within the joint, try one hole up.



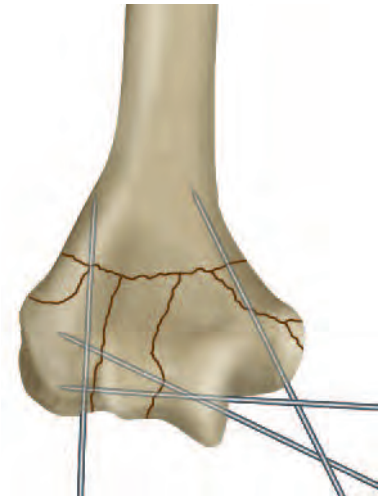
◆ **CAUTION:**
To reduce the risk of glove perforation, care should be taken when using the aiming pointer of the aiming arm.

◆ **NOTE:**
The offset of the twist drill / K-wire is 1.5 mm.

◆ **NOTE:**
If for example an angle stable screw fixation should not be possible in the most distal plate hole, the cortical screws 2.5 mm (gold) offer a draw-back with an option of slight angulation. In that case the principle of internal fixation will be violated for that particular hole.

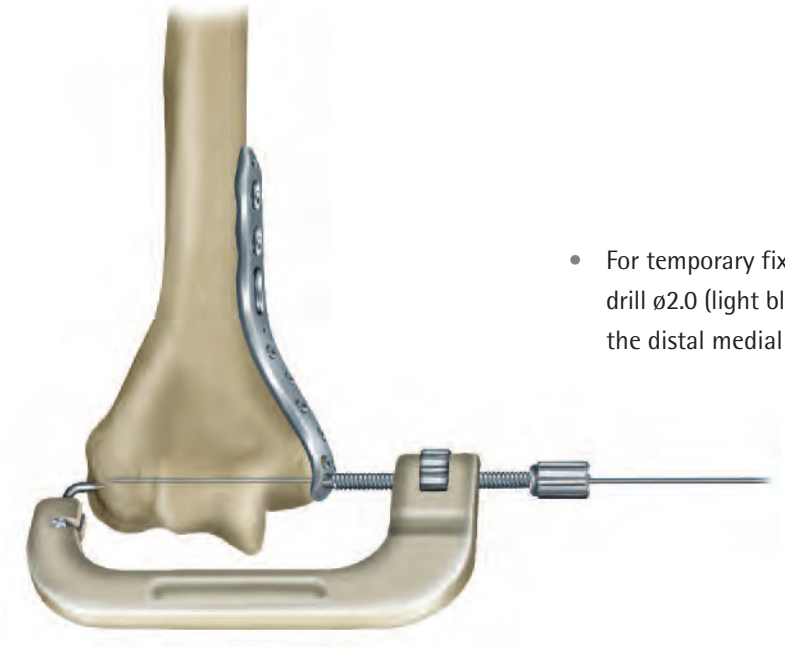
Reduction and primary fixation

INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15
Aiming arm LOQTEQ® Distal Medial Humerus Plate	IU 8179-00



- Ensure that the anatomy of the distal humerus is reconstructed.
- For reposition and temporary fixation of the fragments place K-wires or reduction forceps. Ensure that the K-wires will not interfere with later plate positioning. If necessary, use lag screws to secure intra-articular fragments.
- The articular fragments of the distal block should be reduced prior to reducing the distal block of the shaft.

◆ NOTE:
The shape of the LOQTEQ® Distal Humerus Plates may assist in anatomic reduction of the humerus.



- For temporary fixation of the plate, place the K-wire ø1.6 or a twist drill ø2.0 (light blue) through the drill guide of the aiming arm for the distal medial or lateral humerus plate.

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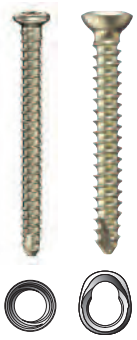
Insertion of cortical screws (gold)



INSTRUMENTS	ø 2.5	ø 3.5
Drill guide	IU 8169-20	IU 8116-50
Twist Drill, coil 50, quick coupling	IU 7420-18	IU 7425-00
Depth gauge for locking screws	IS 7903-00	IS 7904-00
Screwdriver, quick coupling	IU 7815-56	IU 7825-00
Large handle, cannulated, quick coupling	IU 7706-00	IU 7706-00

- **For locking/oblong hole only use cortical screws ø3.5!**
- **For round hole only use cortical screws ø2.5!**

- For the primary fixation of the plate shaft, a non-locking cortical screw 3.5 mm (gold) can be inserted into the oblong hole. For this purpose use a double drill guide and a twist drill ø2.5 and drill to the desired depth.

- Then determine the length of the screw using the depth gauge and insert a screw of appropriate length by using the screwdriver hex 2.5. The plate can be pulled against the bone using this screw.

- **NOTE:**
  Securing the oblong hole before inserting screws in other plate holes can facilitate the positioning of the plate on the bone.

- To insert a non-locking cortical screw 3.5 mm (gold) in the gliding hole, proceed as described above.

- **NOTE:**
  If a combination of non-locking cortical screws and locking screws is used, non-locking cortical screws must be inserted first.

- To improve handling the aiming arm can be removed leaving the drill / K-wire in place providing necessary stability. The adjusting ring can then be freely moved to allow more space for the subsequent surgical steps.

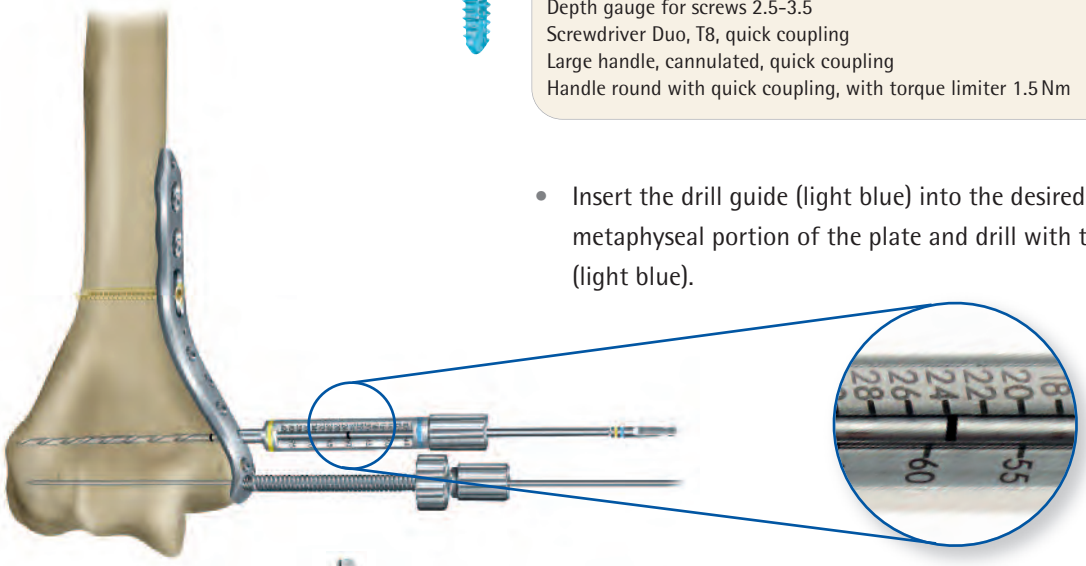
- **NOTE:**
  To ensure the temporary stability of the reduction, do not remove the K-wire or twist drill until at least one additional locking screw has been inserted.

- To insert non-locking cortical screws 2.5 mm (gold) in the metaphyseal area (round hole) of the plate, please follow the instructions on page 16 (locking screws 2.7, light blue). The torque limiter is not applicable for non-locking screws.

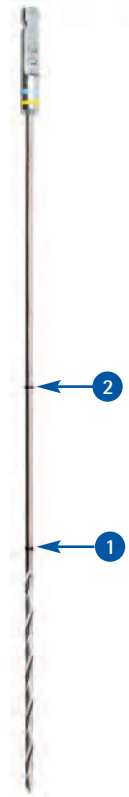
- Check the plate position using fluoroscopy and adjust if required.

Insertion of locking screws (light blue)

INSTRUMENTS	ART.-NO.
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20
Twist drill ø2.0, L 180, coil 50, quick coupling	IU 7420-18
Depth gauge for screws 2.5-3.5	IS 7903-00
Screwdriver Duo, T8, quick coupling	IU 7815-56
Large handle, cannulated, quick coupling	IU 7706-00
Handle round with quick coupling, with torque limiter 1.5 Nm	IU 7707-00



- Insert the drill guide (light blue) into the desired plate hole in the metaphyseal portion of the plate and drill with the twist drill ø2.0 (light blue).



- Measure for screw length with the depth gauge for screws ø2.7. Alternatively, the penetration depth during drilling can be read off from the drill guide (light blue) to determine the required screw length.

- The drill guide is marked with two very accurate measuring scales, which must be observed during measuring.

  Measuring scale 1 10-42 mm, 2 mm steps
  Measuring scale 2 45-75 mm, 5 mm steps

- Insert the appropriate length LOQTEQ® locking screw 2.7 mm (light blue) using the screwdriver T8 and finally tighten the screw with the torque limiter 1.5 Nm. With an audible and sensible click of the torque limiter the optimal locking is achieved. In addition, it is recommended to ensure correct fit of the screws, e.g. visually or using fluoroscopy.

◆ **Caution:**
As soon as the head of the screw reaches the plate hole it is compulsory to switch to the torque limiter.

- Secure the other metaphyseal plate holes in this way. Then remove any remaining K-wires.

◆ **Caution:**
Screws in the metaphyseal area of the plate should never penetrate the articulating surface. A final control of movement should be preformed.

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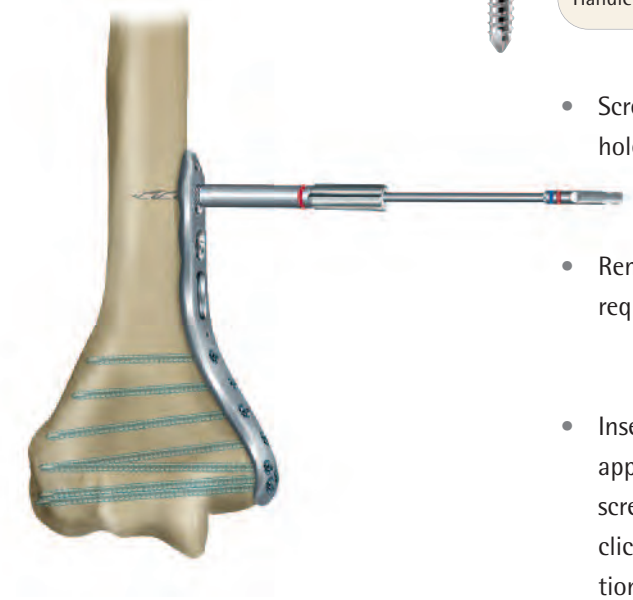
Insertion of locking compression screws (red)
without compression

INSTRUMENTS	ART.-NO.
Drill guide for gliding hole LOQTEQ® 3.5, l-ø2.8, red	IU 8166-10
Twist drill ø2.7, L 150, coil 50, quick coupling	IU 7427-15
Depth gauge for locking screws, small	IS 7904-00
Screwdriver Duo, T15, quick coupling	IU 7825-56
Large handle, cannulated, quick coupling	IU 7706-00
Handle round with quick coupling, with torque limiter 1.5 Nm	IU 7707-00



- Screw the drill guide for gliding hole (red) into the desired plate hole and drill using the twist drill ø2.7 (blue/red).
- Remove the drill guide for gliding hole (red) and determine the required screw length using the depth gauge.
- Insert a LOQTEQ® locking compression screw 3.5 mm (red) of the appropriate length using screwdriver T15 and finally tighten the screw with the torque limiter 2.0 Nm. With an audible and sensible click of the torque limiter the optimal locking is achieved. In addition, it is recommended to ensure correct fit of the screws, e.g. visually or using fluoroscopy.

◆ **CAUTION:**

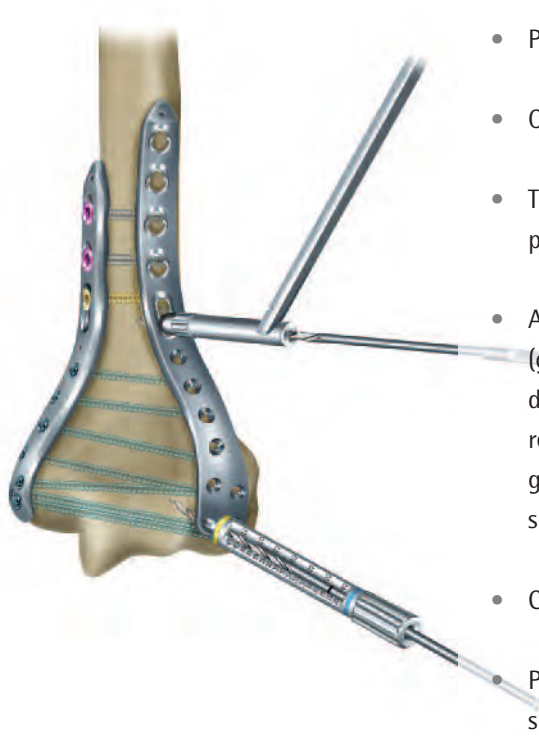
As soon as the head of the screw reaches the plate hole it is compulsory to switch to the torque limiter. In cases of very hard bone in the diaphysis it is necessary to make sure that the screw head is flush to the plate. Therefore, it is permissible in exceptionally hard bone of the diaphysis to finish the screw without the torque limiter.

- Secure the other proximal plate holes in this way. Then remove any remaining K-wires.
- For optimal plate-to-screw connection, it is recommended to use the threaded drill guide (red) to insert LOQTEQ® locking compression screws (red). If the locking compression screw is inserted obliquely, a secure connection between the screw and plate is not guaranteed!

Insertion of the Distal Dorsolateral Humerus Plate

90° plate configuration

INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15
Double drill guide ø2.5/3.5, with spring aided centuring	IU 8116-50
Twist drill ø2.0, L 180, coil 50, quick coupling	IU 7420-18
Depth gauge for screws 2.5-3.5	IS 7903-00
Screwdriver hex 2.5, quick coupling	IU 7825-00
Large handle, cannulated, quick coupling	IU 7706-00
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20
Twist drill ø2.5, L 110, coil 50, quick coupling	IU 7425-00



- Plate position: on the lateral column, radial
- Orientation of distal screws: posteroanterior
- Temporarily fixate the plate with a K-wire through the hole in the plate that is intended for this purpose.
- As an alternative to the K-wires, a standard cortical screw 3.5 mm (gold) can be inserted in the oblong hole. For this purpose, use a double drill guide ø2.5/3.5 and a twist drill ø2.5 and drill to the required depth. Then determine the screw length using the depth gauge and insert a screw of the appropriate length. This screw can simultaneously pull the plate towards the shaft.
- Check plate position using fluoroscopy and adjust if required.
- Please refer to the pages 15-17 for the detailed description of the surgical steps.

Insertion of the Distal Lateral Humerus Plate

180° plate configuration

- Plate position: lateral column, radial
- Orientation of distal screws: lateromedial
- The aiming arm assists in positioning the distal screws of both the distal medial and lateral plates to help to ensure optimal support for the articular block of the distal humerus.
- Please refer to the pages 13-17 for the detailed description of the surgical steps.

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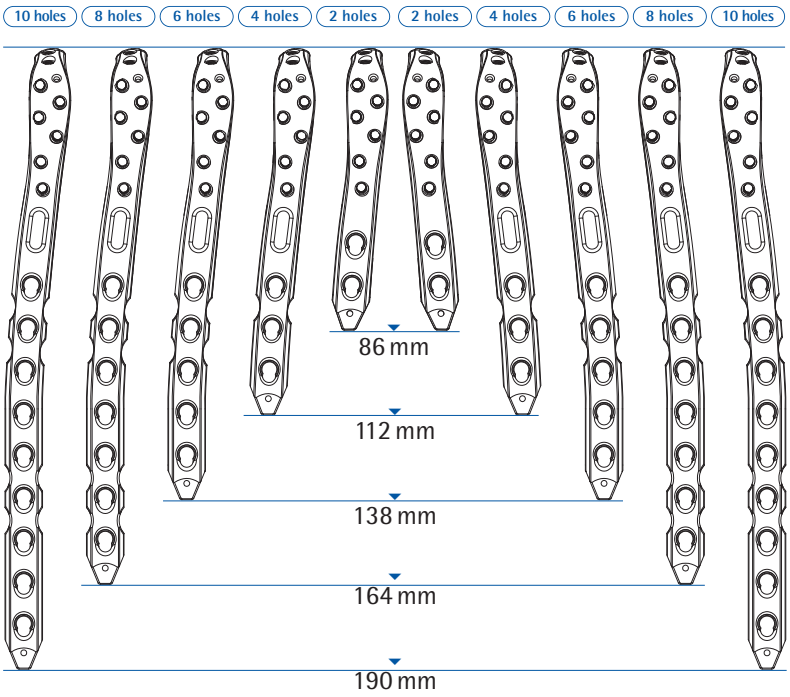
Preoperative planning

INSTRUMENTS	ART.-NO.
Bending iron 1 for small fragment plates, closed	IP 8405-00
Bending iron 2 for small fragment plates, closed	IP 8405-50

- Evaluate the fracture type on the basis of the X-rays / CT and select the appropriate plate length and screw positions.

- LOQTEQ® Olecranon Plates are anatomically precontoured to fit to normal ulna anatomy. Although not usually necessary, the plates may be contoured to the individual patient anatomy.
  The plates (except the short, 2-hole plates) feature bending elements to facilitate the bending process. Use bending irons to contour the plates if needed.

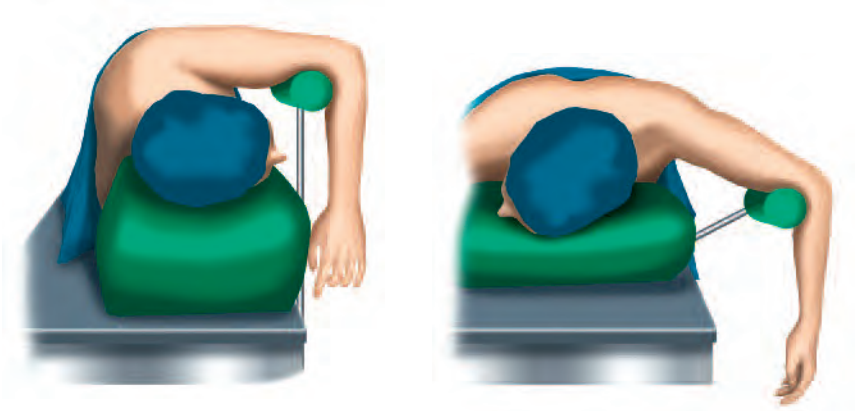


◆ **CAUTION:**

Observe the following while bending the plates, avoid repeatedly or excessevely bending the plates as it may result in implant failure. Bend the plate between the holes to prevent the loss of locking function. Avoid any sharp-edged damage by instruments.

Patient positioning

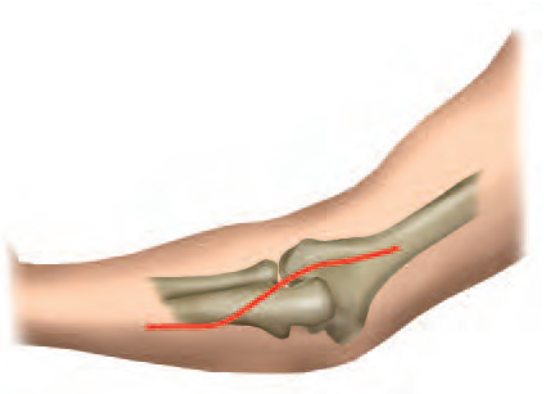
- Position the patient in lateral or prone position with the arm supported over bolsters.



Approach

- The posterior access lateral to the elbow is usually preferred, with a skin incision about 5 cm distally over the supracondylar area. The incision may be slightly curved radially to protect the ulnar nerve.

◆ CAUTION:
The ulnar nerve must be identified and protected.



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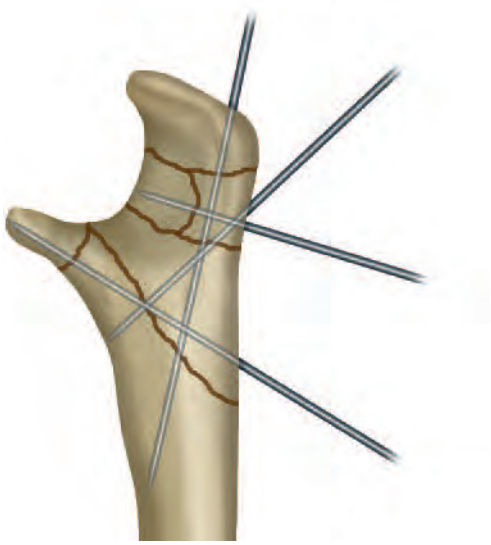
Preparing the plate

INSTRUMENTS	ART.-NO.
Aiming device LOQTEQ® Olecranon Plate, R / L	IU 8178-01/-02
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20

- Place the aiming device on the plate and fixate it using the drill guide LOQTEQ® Elbow Plates 2.7 (light blue) in the most distal hole of the targeting device.

Reduction and primary fixation



- Ensure that the anatomy of the proximal ulna is reconstructed.
- For temporary reposition and fixation of the fragments place K-wires or reduction forceps. Ensure that the K-wires will not interfere with later plate positioning. If necessary, use lag screws to secure intraarticular fragments.
- The articular fragments of the distal block (humerus) should be reduced prior to reducing the fragments of the olecranon.
- When repositioning the olecranon, ensure appropriate reconstruction of the coronoid process.

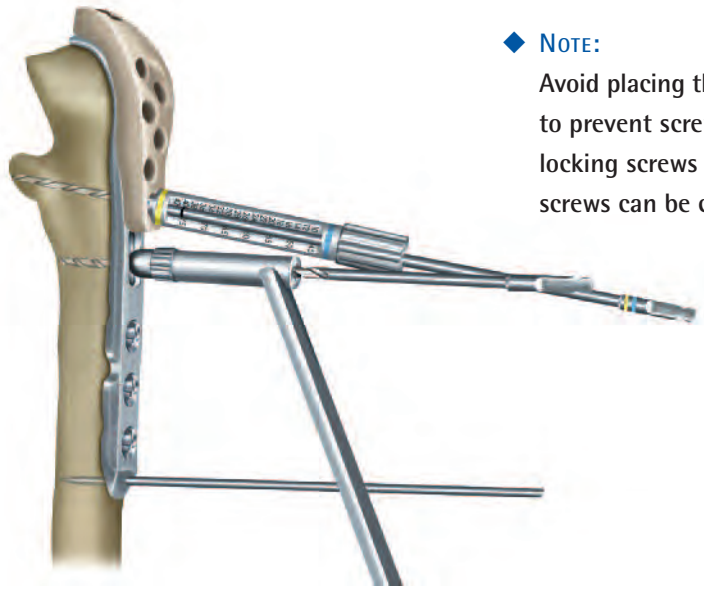
◆ NOTE:
The shape of the LOQTEQ® Olecranon Plates may assist in anatomic reduction of the humerus.

- For temporary fixation of the plate place K-wires through the corresponding holes in the plate.

◆ NOTE:
Position the plate on the dorsal aspect of the proximal ulna. Proximally, the plate does not need necessarily to center on the olecranon.

Insertion of cortical screws (gold)

• Please follow instructions on page 15.

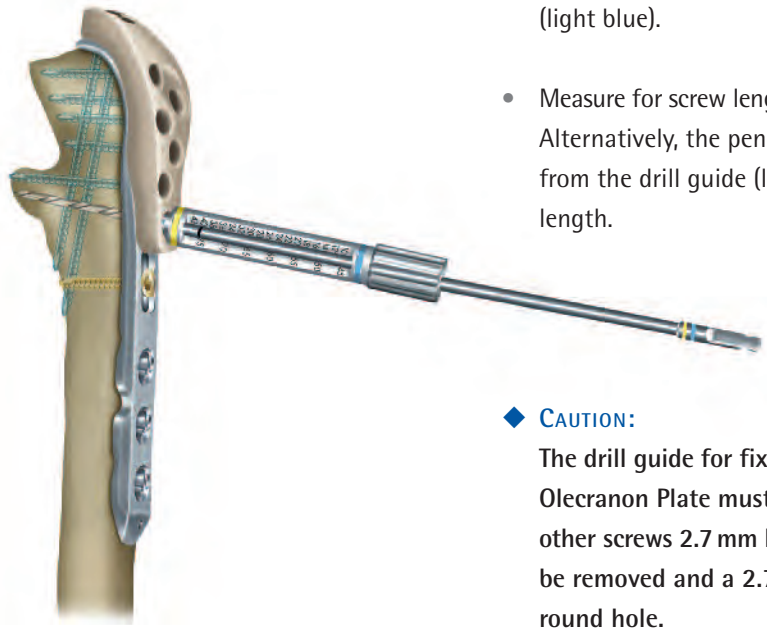


◆ **NOTE:**

Avoid placing the cortical screw (gold) in oblique lateral direction to prevent screw collision with the two most proximal 2.7 mm locking screws (light blue). Alternatively, shorter 2.5 mm cortical screws can be chosen.

Insertion of locking screws (light blue)

INSTRUMENTS	ART.-NO.
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20
Twist drill ø2.0, L 180, coil 50, quick coupling	IU 7420-18
Depth gauge for screws 2.5-3.5	IS 7903-00
Screwdriver Duo, T8, quick coupling	IU 7815-56
Large handle, cannulated, quick coupling	IU 7706-00
Handle round with quick coupling, with torque limiter 1.5 Nm	IU 7707-00



- Insert the drill guide (light blue) into the desired plate hole in the metaphyseal portion of the plate and drill with the twist drill ø2.0 (light blue).
- Measure for screw length with the depth gauge for screws ø2.5 - 3.5. Alternatively, the penetration depth during drilling can be read off from the drill guide (light blue) to determine the required screw length.

◆ **CAUTION:**

The drill guide for fixating the aiming device of the LOQTEQ® Olecranon Plate must remain in the distal round hole 2.7 until all other screws 2.7 mm have been placed. Then the aiming device can be removed and a 2.7 mm screw can be inserted in the distal round hole.

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- Insert the appropriate length LOQTEQ® locking screw 2.7 mm (light blue) using the screwdriver T8 and finally tighten the screw with the torque limiter 1.5 Nm. With an audible and sensible click of the torque limiter the optimal locking is achieved. In addition, it is recommended to ensure correct fit of the screws, i.e. visually or using fluoroscopy.

◆ **Caution:**
As soon as the head of the screw reaches the plate hole it is compulsory to switch to the torque limiter.

- Secure the other metaphyseal plate holes in this way. Then remove any remaining K-wires.

◆ **Caution:**
Screws in the metaphyseal area of the plate should never penetrate the articulating surface. A final control of movement should be preformed.

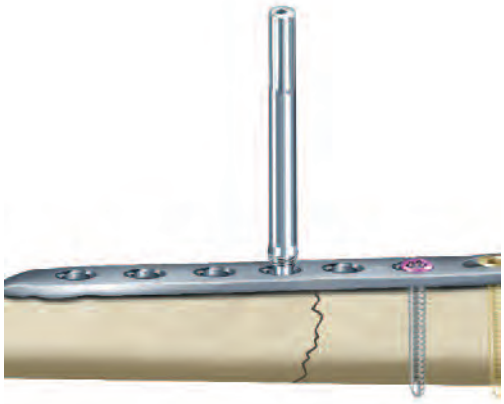
Insertion of locking compression screws (red)
without compression

- Please follow instructions on page 17.

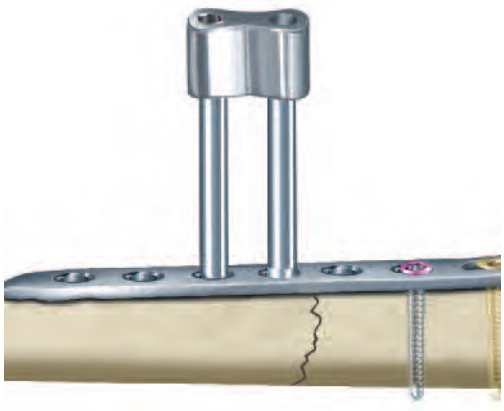
Insertion of locking compression screws (red)
with compression

INSTRUMENTS	ART.-NO.
Basic Insert for load drill guide LOQTEQ® 3.5	IU 8166-05
Load Drill guide LOQTEQ® 3.5, compression 1 mm	IU 8166-01
Load Drill guide LOQTEQ® 3.5, compression 2 mm	IU 8166-02
Twist Drill ø2.7, L 150, coil 50, quick coupling	IU 7427-15
Depth gauge for locking screws, small	IS 7904-00
Screwdriver duo, T15, quick coupling	IU 7825-56
Large handle, cannulated, quick coupling	IU 7706-00
Handle with quick coupling, with torque limiter, 2.0Nm	IU 7707-20
OPTIONAL	
Load drill guide LOQTEQ® 3.5, adjustable up to 2 mm	IU 8166-03

- If required, fracture compression can be achieved by inserting a non-locking cortical screw 3.5 mm (gold) or LOQTEQ® locking compression screw 3.5 mm (red) into the compression position.



- Screw the basic insert for load drill guide (IU 8166-05) into a shaft hole near the fracture line or, if necessary, above the fracture line. Choose a load drill guide in accordance with the compression distance (1 mm or 2 mm) and position on the basic insert away from the fracture gap.



- Alternatively, the adjustable load drill guide (IU 8166-03) can be used. The fracture gap serves as orientation in setting the compression distance (max. 2 mm). For this purpose, turn the wheel of the load drill guide until an appropriate gap forms in the upper part of the instrument and position the drill guide on the basic insert for load drill guide away from the fracture gap.

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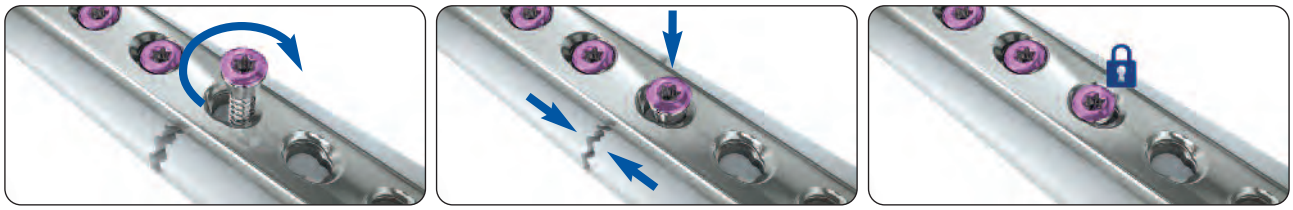
- Drill to the desired depth using a twist drill ø2.7 (blue/red) and determine the depth with the depth gauge.
- Loosely insert a LOQTEQ® locking compression screw 3.5 mm (red) of the appropriate length with screwdriver T15 and finally tighten the screw with the torque limiter 2.0 Nm. With an audible and sensible click of the torque limiter the optimal locking is achieved. In addition, it is recommended to ensure correct fit of the screws, e.g. visually or using fluoroscopy.

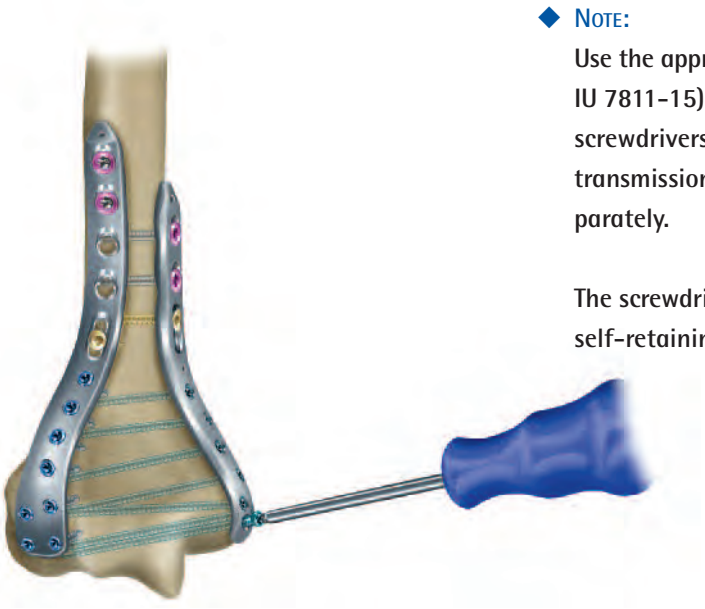
◆ **Caution:**
Care should be taken to select the proper compression distance (1 or 2 mm). If the fracture gap is too small and the bone very hard, excessive compression may prevent full locking of the angle stable screw.

◆ **Caution:**
As soon as the head of the screw reaches the plate hole it is compulsory to switch to the torque limiter. In cases of very hard bone in the diaphysis it is necessary to make sure that the screw head is flush to the plate. With such conditions, it is permissible to finish the screw without the torque limiter.

- Alternatively, a non-locking cortical screw (gold) can be placed as a compression screw. For this purpose, use the double drill guide in offset position (do not apply pressure on the drill guide) and drill using a twist drill ø2.7.
- When all required screws have been inserted, perform final check using fluoroscopy, AP and lateral, and close the wound.



INSTRUMENTS	ART.-NO.
Explantation screwdriver, T8, round handle	IU 7811-08
Explantation screwdriver, T15, round handle	IU 7811-15
Screwdriver, hexagonal, ø2.5, blue handle	IU 7841-00

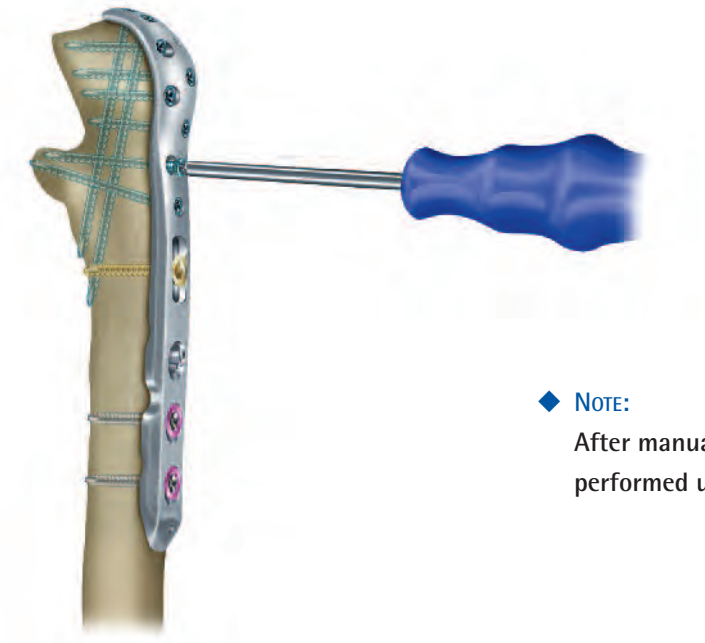


◆ NOTE:

Use the appropriate explantation screwdriver T8/T15 (IU 7811-08/ IU 7811-15) for a safe screw removal. The explantation screwdrivers are not self-retaining and allow for higher torque transmission during screw removal. They should be ordered separately.

The screwdrivers T8/T15 in the set (IU 7815-56/IU 7825-56) are self-retaining and should not be used for screw explantation.

- Place an incision on the old scar. Manually undo all screws and sequentially remove them.



◆ NOTE:

After manually unlocking all screws, the removal can be performed using a power tool.

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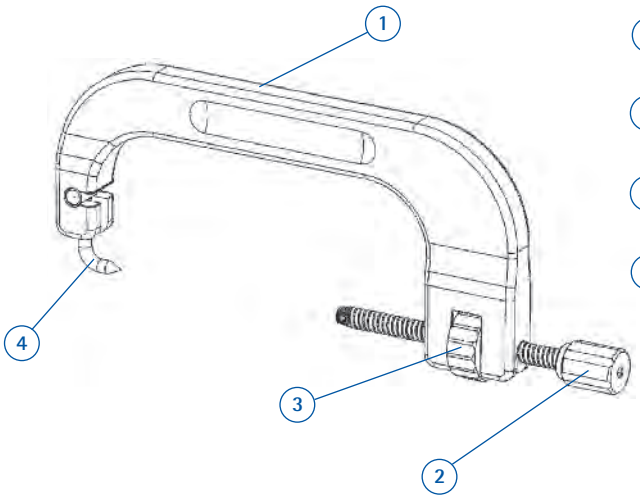
Assembly instructions aiming arm

- The aiming arm for the distal medial humerus plate consists of four individual parts:



(1) Aiming arm made of radiolucent PEEK material

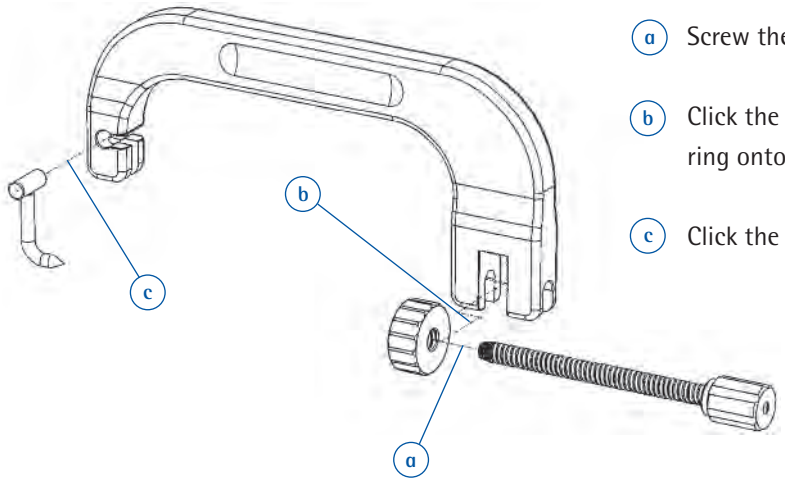
(2) Metal drill guide with external thread

(3) Metal adjusting ring with internal thread

(4) Pointer

◆ **CAUTION:**

To reduce the risk of glove perforation, care should be taken when using the aiming pointer of the aiming arm.



(a) Screw the adjusting ring onto the guiding sleeve.

(b) Click the drill guide with the assembled adjusting ring onto the PEEK aiming arm.

(c) Click the pointer onto the PEEK aiming arm.

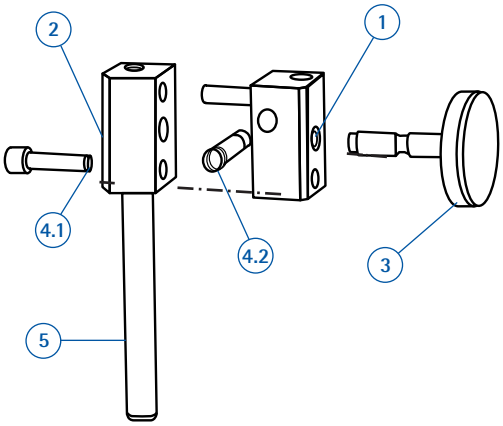
◆ **CAUTION:**

The aiming arm must be disassembled prior to cleaning and sterilization.

- The load drill guide facilitates setting a variable compression path. It can be disassembled and reassembled in only a few steps.

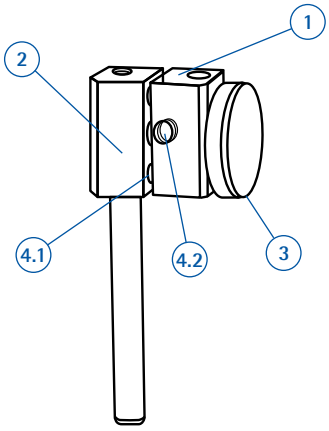
◆ NOTE:
When ordering the adjustable load drill guide LOQTEQ® 3.5 (IU 8166-03), please add a screwdriver hexagonal 2.5 (IU 7825-00) to your order.

Disassembly



- Remove screws (items 4.1 and 4.2) using a hexagonal screwdriver 2.5
- Unscrew the set screw (item 3)
- Pull the compression block apart (items 1 and 2)

Assembly



- Fit together the compression block (items 1 and 2)
- Insert the set screw (item 3) into the compression block, middle hole
- Insert the retaining screws (items 4.1 and 4.2) using a hexagonal screwdriver 2.5

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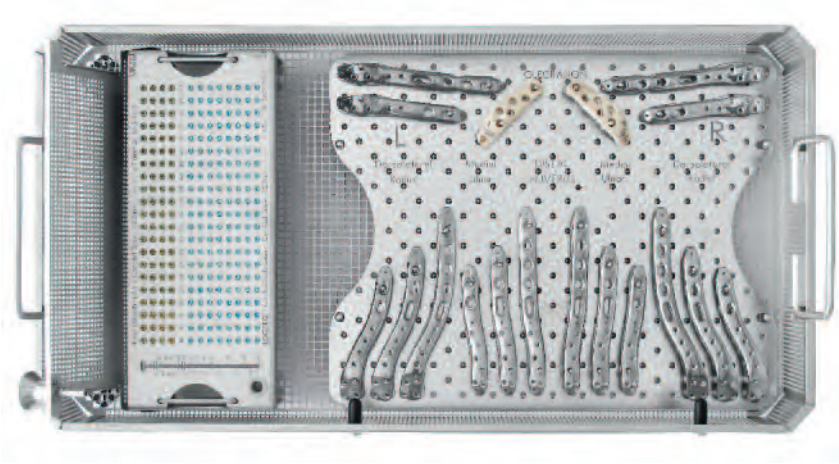

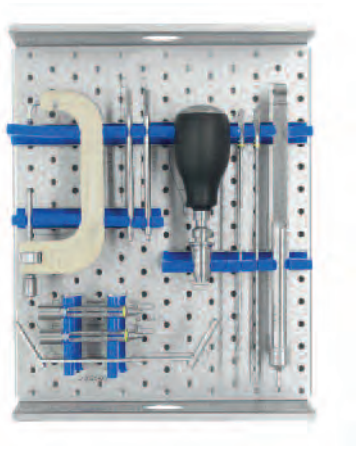

ARTICLE	ART.-NO.
Tray for implants LOQTEQ® Elbow Plates 2.7/3.5	IC 6935-01
Lid for trays, large	IC 2008-00
Depth gauge for screws 2.5-3.5	IS 7903-00
Twist drill ø2.0, L 180, coil 50, quick coupling	IU 7420-18
Handle round with quick coupling, with torque limiter 1.5 Nm	IU 7707-00
Screwdriver Duo, T8, quick coupling	IU 7815-56
Double drill guide ø2.0/2.5	IU 8125-00
Drill guide LOQTEQ® Elbow plates 2.7, light blue/gold	IU 8169-20
Aiming device LOQTEQ® Olecranon Plate, R	IU 8178-01
Aiming device LOQTEQ® Olecranon Plate, L	IU 8178-02
Aiming arm LOQTEQ® Distal Medial Humerus Plate	IU 8179-00
LOQTEQ® Distal Medial Humerus Plate, 2 holes, L 85, R, Titanium	PH 3521-02-2
LOQTEQ® Distal Medial Humerus Plate, 3 holes, L 98, R, Titanium	PH 3521-03-2
LOQTEQ® Distal Medial Humerus Plate, 5 holes, L 124, R, Titanium	PH 3521-05-2
LOQTEQ® Distal Medial Humerus Plate, 2 holes, L 85, L, Titanium	PH 3522-02-2
LOQTEQ® Distal Medial Humerus Plate, 3 holes, L 98, L, Titanium	PH 3522-03-2
LOQTEQ® Distal Medial Humerus Plate, 5 holes, L 124, L, Titanium	PH 3522-05-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 2 holes, L 89, R, Titanium	PH 3531-02-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 3 holes, L 102, R, Titanium	PH 3531-03-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 5 holes, L 128, R, Titanium	PH 3531-05-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 2 holes, L 89, L, Titanium	PH 3532-02-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 3 holes, L 102, L, Titanium	PH 3532-03-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 5 holes, L 128, L, Titanium	PH 3532-05-2
LOQTEQ® Olecranon Plate, 2 holes, L 86, R, Titanium	PU 3531-02-2
LOQTEQ® Olecranon Plate, 4 holes, L 112, R, Titanium	PU 3531-04-2
LOQTEQ® Olecranon Plate, 2 holes, L 86, L, Titanium	PU 3532-02-2
LOQTEQ® Olecranon Plate, 4 holes, L 112, L, Titanium	PU 3532-04-2

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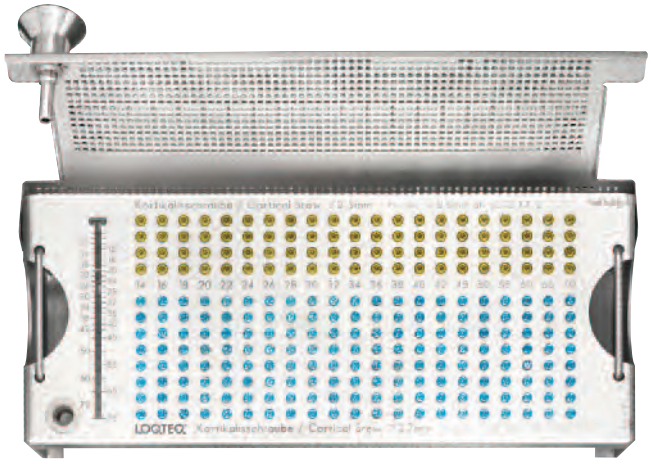
AVAILABLE ON REQUEST

ARTICLE	ART.-NO.
Depth gauge for screws ø2.7, up to L 70	IS 7903-20
Aiming device LOQTEQ® Distal Medial Humerus Plate, R	IU 8177-01
Aiming device LOQTEQ® Distal Medial Humerus Plate, L	IU 8177-02
LOQTEQ® Distal Medial Humerus Plate, 7 holes, L 150, R, Titanium	PH 3521-07-2
LOQTEQ® Distal Medial Humerus Plate, 11 holes, L 202, R, Titanium	PH 3521-11-2
LOQTEQ® Distal Medial Humerus Plate, 7 holes, L 150, L, Titanium	PH 3522-07-2
LOQTEQ® Distal Medial Humerus Plate, 11 holes, L 202, L, Titanium	PH 3522-11-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 7 holes, L 154, R, Titanium	PH 3531-07-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 11 holes, L 206, R, Titanium	PH 3531-11-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 7 holes, L 154, L, Titanium	PH 3532-07-2
LOQTEQ® Distal Dorsolat. Humerus Plate, 11 holes, L 206, L, Titanium	PH 3532-11-2
LOQTEQ® Olecranon Plate, 6 holes, L 138, R, Titanium	PU 3531-06-2
LOQTEQ® Olecranon Plate, 8 holes, L 164, R, Titanium	PU 3531-08-2
LOQTEQ® Olecranon Plate, 10 holes, L 190, R, Titanium	PU 3531-10-2
LOQTEQ® Olecranon Plate, 6 holes, L 138, L, Titanium	PU 3532-06-2
LOQTEQ® Olecranon Plate, 8 holes, L 164, L, Titanium	PU 3532-08-2
LOQTEQ® Olecranon Plate, 10 holes, L 190, L, Titanium	PU 3532-10-2

* 2.5 / 2.7 instruments only!
Please complete with Small Fragment Set Set IC 6931-05/IC 6931-00 or IC 6931-10 and IC 6931-35/IC 6931-30



ARTICLE	ART.-NO.
Screw rack LOQTEQ® Elbow for extensions screw set, empty	IC 6935-02

Standard screw 2.5

Titanium

ARTICLE	ART.-NO.
Cortical Screw 2.5, small head T8, self-tapp., L 14	SK 2512-14-2
Cortical Screw 2.5, small head T8, self-tapp., L 16	SK 2512-16-2
Cortical Screw 2.5, small head T8, self-tapp., L 18	SK 2512-18-2
Cortical Screw 2.5, small head T8, self-tapp., L 20	SK 2512-20-2
Cortical Screw 2.5, small head T8, self-tapp., L 22	SK 2512-22-2
Cortical Screw 2.5, small head T8, self-tapp., L 24	SK 2512-24-2
Cortical Screw 2.5, small head T8, self-tapp., L 26	SK 2512-26-2
Cortical Screw 2.5, small head T8, self-tapp., L 28	SK 2512-28-2
Cortical Screw 2.5, small head T8, self-tapp., L 30	SK 2512-30-2
Cortical Screw 2.5, small head T8, self-tapp., L 32	SK 2512-32-2
Cortical Screw 2.5, small head T8, self-tapp., L 34	SK 2512-34-2
Cortical Screw 2.5, small head T8, self-tapp., L 36	SK 2512-36-2
Cortical Screw 2.5, small head T8, self-tapp., L 38	SK 2512-38-2
Cortical Screw 2.5, small head T8, self-tapp., L 40	SK 2512-40-2
Cortical Screw 2.5, small head T8, self-tapp., L 42	SK 2512-42-2
Cortical Screw 2.5, small head T8, self-tapp., L 45	SK 2512-45-2
Cortical Screw 2.5, small head T8, self-tapp., L 50	SK 2512-50-2
Cortical Screw 2.5, small head T8, self-tapp., L 55	SK 2512-55-2
Cortical Screw 2.5, small head T8, self-tapp., L 60	SK 2512-60-2
Cortical Screw 2.5, small head T8, self-tapp., L 65	SK 2512-65-2
Cortical Screw 2.5, small head T8, self-tapp., L 70	SK 2512-70-2

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Screws for round locking hole 2.7

Titanium

ARTICLE	ART.-NO.
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 14	SK 2726-14-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 16	SK 2726-16-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 18	SK 2726-18-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 20	SK 2726-20-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 22	SK 2726-22-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 22	SK 2726-24-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 26	SK 2726-26-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 28	SK 2726-28-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 30	SK 2726-30-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 32	SK 2726-32-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 34	SK 2726-34-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 36	SK 2726-36-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 38	SK 2726-38-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 40	SK 2726-40-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 42	SK 2726-42-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 45	SK 2726-45-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 50	SK 2726-50-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 55	SK 2726-55-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 60	SK 2726-60-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 65	SK 2726-65-2
LOQTEQ® Cortical Screw 2.7, small head T8, self-tapp. L 70	SK 2726-70-2

ARTICLE	ART.-NO.
Tray for implants LOQTEQ® Elbow Plates lateral	IC 6935-41
Lid for trays, small	IC 2007-00
Aiming device LOQTEQ® Distal Lateral Humerus Plate, R	IU 8182-01
Aiming device LOQTEQ® Distal Lateral Humerus Plate, L	IU 8182-02
LOQTEQ® Distal Lateral Humerus Plate, 2 holes, L 86, R, Titanium	PH 3541-02-2
LOQTEQ® Distal Lateral Humerus Plate, 3 holes, L 99, R, Titanium	PH 3541-03-2
LOQTEQ® Distal Lateral Humerus Plate, 5 holes, L 125, R, Titanium	PH 3541-05-2
LOQTEQ® Distal Lateral Humerus Plate, 7 holes, L 151, R, Titanium	PH 3541-07-2
LOQTEQ® Distal Lateral Humerus Plate, 2 holes, L 86, L, Titanium	PH 3542-02-2
LOQTEQ® Distal Lateral Humerus Plate, 3 holes, L 99, L, Titanium	PH 3542-03-2
LOQTEQ® Distal Lateral Humerus Plate, 5 holes, L 125, L, Titanium	PH 3542-05-2
LOQTEQ® Distal Lateral Humerus Plate, 7 holes, L 151, L, Titanium	PH 3542-07-2

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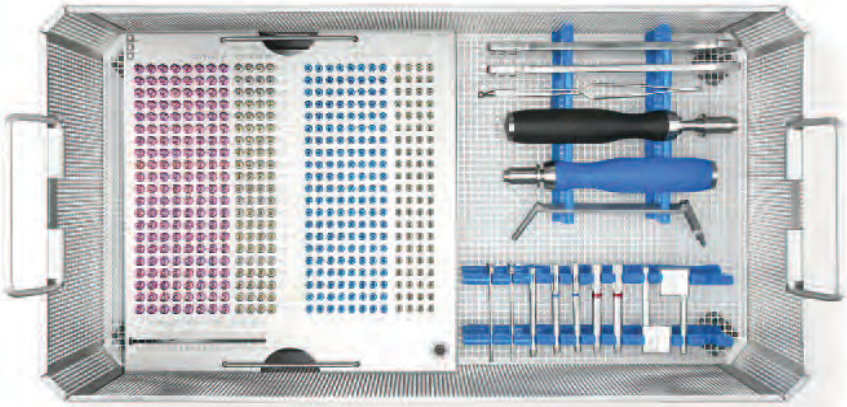
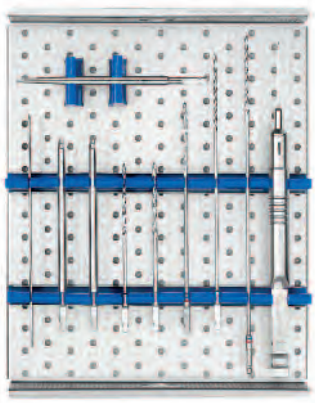
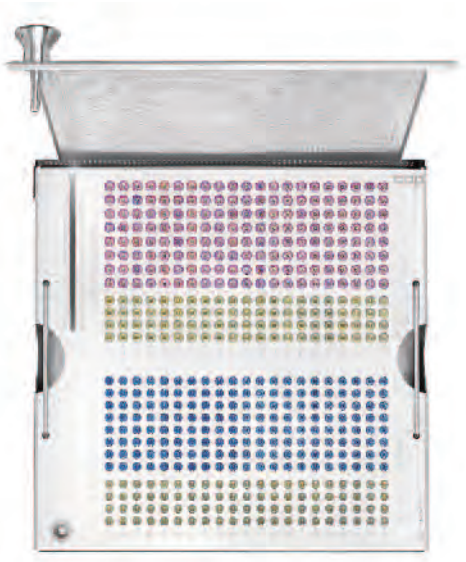




ARTICLE	ART.-NO.
Tray for Instruments LOQTEQ® Small Fragment, empty	IC 6931-11
Lid for trays, large	IC 2008-00
Bending iron 1 for small fragment plates, closed	IP 8405-00
Bending iron 2 for small fragment plates, closed	IP 8405-50
Depth gauge for locking screws, small	IS 7904-00
Twist drill ø2.5, L 110, coil 50, quick coupling	IU 7425-00
Twist drill ø2.5, L 180, coil 50, quick coupling	IU 7425-18
Twist drill ø2.7, L 150, coil 50, quick coupling	IU 7427-15
Twist drill ø2.7, L 220, coil 50, quick coupling	IU 7427-22
Twist drill ø3.5, L 110, coil 50, quick coupling	IU 7435-00
Handle for quick coupling, large, cannulated	IU 7706-00
Handle with quick coupling, with torque limiter, 2.0 Nm	IU 7707-20
Screwdriver hexagonal, ø2.5, quick coupling	IU 7825-00
Screwdriver Duo, T15, quick coupling	IU 7825-56
Screw forceps, self-holding	IU 8004-00
Double drill guide, ø2.5/3.5, with spring aided centering	IU 8116-50
Load Drill guide LOQTEQ® 3.5, compression 1 mm	IU 8166-01
Load Drill guide LOQTEQ® 3.5, compression 2 mm	IU 8166-02
Basic Insert for Load Drill Guide LOQTEQ® 3.5	IU 8166-05
Drill guide for gliding hole LOQTEQ® 3.5, I-ø 2.8, red	IU 8166-10
Reduction sleeve for K-wire ø1.6	IU 8166-16
Drill guide for round hole LOQTEQ® 3.5, I-ø 2.8, blue	IU 8166-20
K-wire with trocar point, ø1.6, L 150	NK 0016-15
OPTIONAL	
Load Drill guide LOQTEQ® 3.5, adjustable up to 2 mm	IU 8166-03



ARTICLE	ART.-NO.
Screw rack LOQTEQ® Small Fragment, empty	IC 6931-31

Screws for gliding locking hole 3.5

Titanium

ARTICLE	ART.-NO.
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 12	SK 3525-12-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 14	SK 3525-14-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 16	SK 3525-16-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 18	SK 3525-18-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 20	SK 3525-20-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 22	SK 3525-22-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 24	SK 3525-24-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 26	SK 3525-26-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 28	SK 3525-28-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 30	SK 3525-30-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 32	SK 3525-32-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 34	SK 3525-34-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 36	SK 3525-36-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 38	SK 3525-38-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 40	SK 3525-40-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 45	SK 3525-45-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 50	SK 3525-50-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 55	SK 3525-55-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 60	SK 3525-60-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 65	SK 3525-65-2
LOQTEQ® Cortical Screw 3.5, T15, self-tapping, L 70	SK 3525-70-2

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ARTICLE	ART.-NO.
Cortical Screw 3.5, self-tapping, L 12	SK 3510-12-2
Cortical Screw 3.5, self-tapping, L 14	SK 3510-14-2
Cortical Screw 3.5, self-tapping, L 16	SK 3510-16-2
Cortical Screw 3.5, self-tapping, L 18	SK 3510-18-2
Cortical Screw 3.5, self-tapping, L 20	SK 3510-20-2
Cortical Screw 3.5, self-tapping, L 22	SK 3510-22-2
Cortical Screw 3.5, self-tapping, L 24	SK 3510-24-2
Cortical Screw 3.5, self-tapping, L 26	SK 3510-26-2
Cortical Screw 3.5, self-tapping, L 28	SK 3510-28-2
Cortical Screw 3.5, self-tapping, L 30	SK 3510-30-2
Cortical Screw 3.5, self-tapping, L 32	SK 3510-32-2
Cortical Screw 3.5, self-tapping, L 34	SK 3510-34-2
Cortical Screw 3.5, self-tapping, L 36	SK 3510-36-2
Cortical Screw 3.5, self-tapping, L 38	SK 3510-38-2
Cortical Screw 3.5, self-tapping, L 40	SK 3510-40-2
Cortical Screw 3.5, self-tapping, L 45	SK 3510-45-2
Cortical Screw 3.5, self-tapping, L 50	SK 3510-50-2
Cortical Screw 3.5, self-tapping, L 55	SK 3510-55-2
Cortical Screw 3.5, self-tapping, L 60	SK 3510-60-2
Cortical Screw 3.5, self-tapping, L 65	SK 3510-65-2
Cortical Screw 3.5, self-tapping, L 70	SK 3510-70-2

Preoperative

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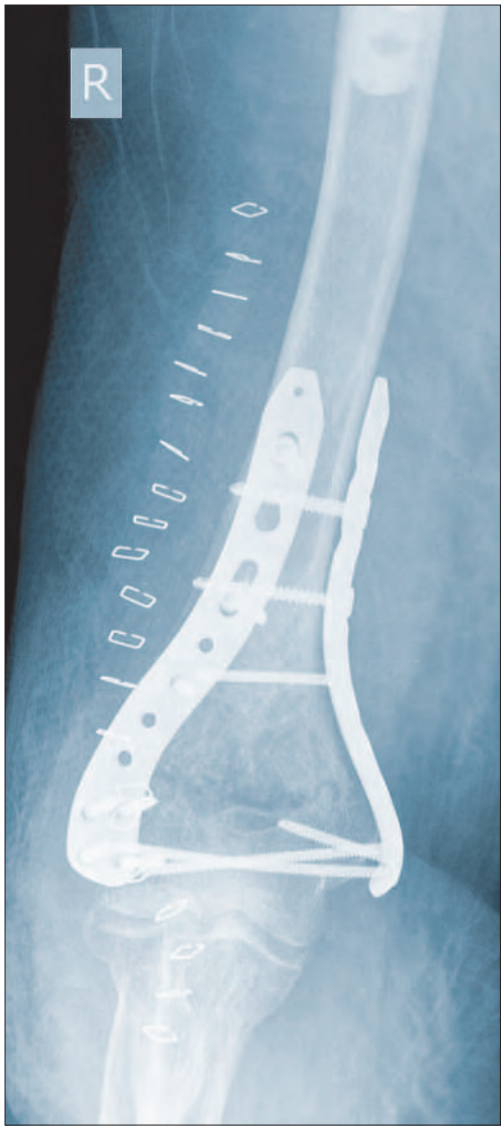
Postoperative



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Univ.-Prof. Dr. Dr. Dr. h.c. Reinhard Schnettler,
Trauma University Hospital Giessen and Marburg GmbH, Germany.

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WP 2OP030 EN / 1603

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