LOQTEQ®

Elbow Plates 2.7/3.5
Surgical Technique

Locking Compression Technology by aap

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.
The description of this surgical technique has been compiled by medical experts and trained staff of aap Implantate AG with utmost diligence and to the best of their knowledge. However, aap Implantate AG excludes any liability for the completeness, accuracy, currentness, and quality of the information as well as for material or immaterial damages arising from the use of this information.

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The system LOQTEQ® Elbow Plates 2.7/3.5 comprises bone plates and screws for application at the distal Humerus and the proximal ulna as well as the necessary accessories for insertion. The flexibility of the system allows for safe reduction and stable fixation of various fracture patterns with respect to the indications mentioned in this technical guide. The design features of the implants in combination with standard surgical techniques and proven stability result in reliable constructs to support the bone during the healing process and allow for early mobilization of the patient.

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.

Intended Use

The plate and screw implants of the LOQTEQ® Elbow Plates 2.7 and 3.5 system are intended for the temporary fixation, correction or stabilization of the distal humerus and/or the olecranon. The implants are intended for single use in human bone.

Indications/Contraindications

Indications for Use

LOQTEQ® Distal Medial/Dorsolateral/Lateral Humerus Plates:

- Intra-articular fractures of the distal humerus
- Supracondylar fractures of the distal humerus
- Osteotomies and non-unions of the distal humerus

LOQTEQ® Olecranon Plate

- Fixation of fractures, osteotomies, and pseudarthrosis of the olecranon, especially in osteopenic bone

Absolute Contraindications

- Infection or inflammation (local or systemic)
- Allergies to the implant material
- Acute or chronic osteomyelitis at or close to the sur-gical field
- Unacceptably high anesthesia risk
- Severe soft tissue swelling cornpromising normal wound healing
- Insufficient soft tissue coverage
- Fractures in children and adolescents with epiphyseal plates that are not yet ossified

Caution:

aap products are not approved for the spine.

Detailed information on indications, contraindications and a complete list of adverse effects is included in the instructions for use.

Processing (Sterilization & Cleaning)

aap markets unsterilized products which are appropriately labeled and must be appropriately processed before use (see Instructions for Use, chapter "Processing of products").

Never use damaged implants or implants from damaged packaging.

MRI Safety Information

Non-clinical testing has demonstrated that the LOQTEQ® Elbow Plates 2.7/3.5 system is **MR Conditional**. Further information is included in the Instructions for Use that are enclosed with the products.

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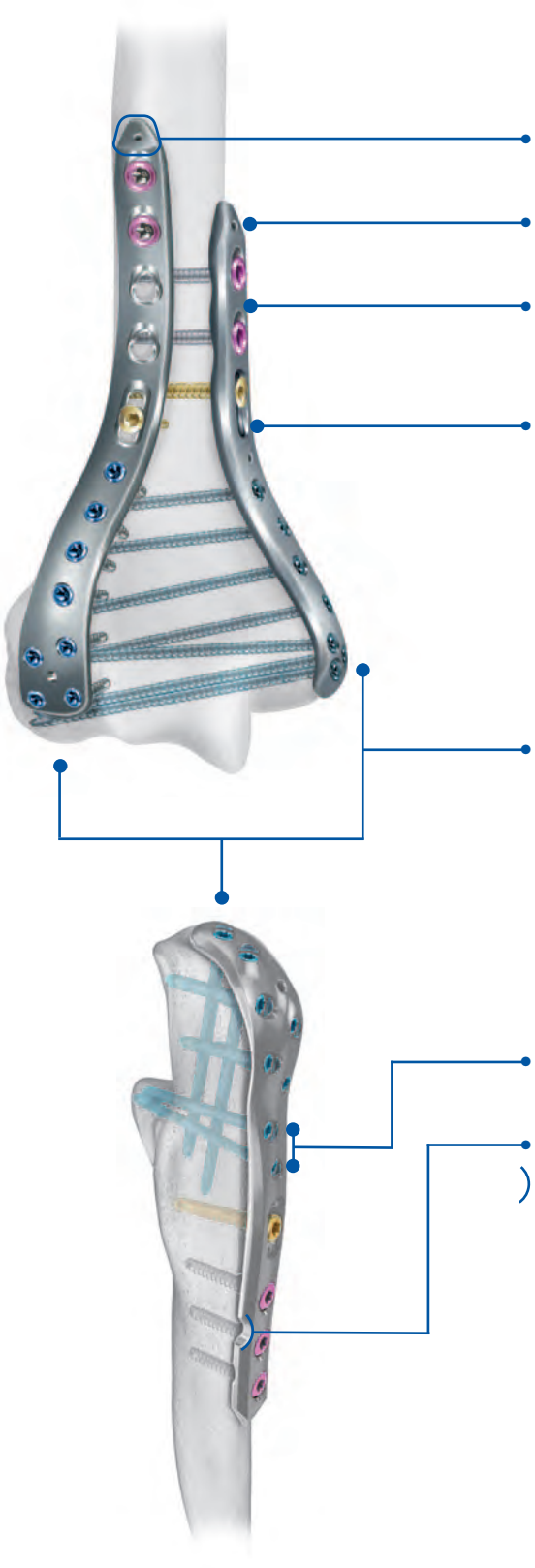
Features & Benefits



Anatomical plate design supports the reduction of complex fractures.

All plate holes, with the exception of the oblong hole, accept both locking and non-locking screws.

Flattened plate ends facilitate submuscular insertion.

K-wire holes allow for temporary fixation of the plate to the bone.

Gliding locking holes in the plate shaft enable fracture compression and angular stability with ø3.5 mm locking screws (red).

The oblong hole aids in the alignment of the plate.

Radiolucent aiming devices facilitate correct placement of the drill guides in the preset angle.

Minor contact undercuts assist in preserving the blood supply to the periosteum.

Round holes in the metaphyseal plate section enable the fixation of small fragments with ø2.7 mm locking (light blue) or ø2.5 mm non-locking screws (gold).

90° or 180° double plating techniques create highly stable fixation of the reduced articular block and allow for early mobilization of the patient.

Screws aim towards the coronoid process and stabilize it.

Bendable segments facilitate intraoperative positioning of the plate if needed.

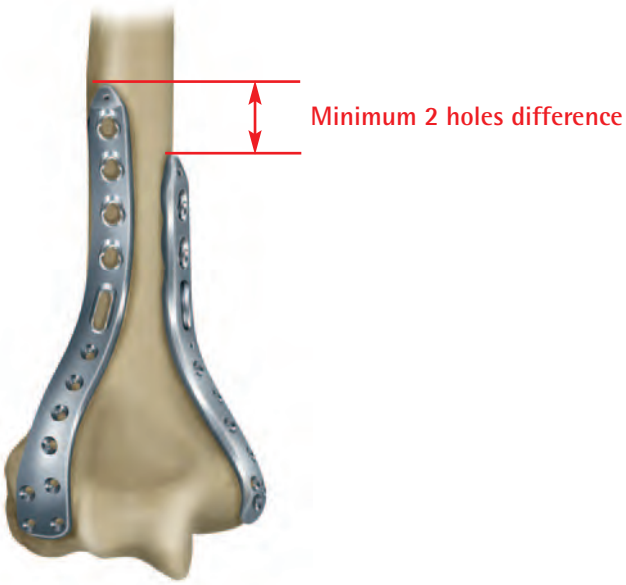
All plates are available for left and right sides.

Preoperative planning

- Evaluate the fracture situation and select the appropriate plate size and position with an X-ray. Consider the use of independent lag screws, if necessary.
- Preoperatively assess the fracture situation using CT imaging where necessary.

◆ **NOTE:**
A difference of at least two plate holes is recommended when choosing the medial and lateral plate sizes for avoiding increased stress on the diaphysis.

- LOQTEQ® Distal Humerus Plates are anatomically pre-contoured and may be used as a template for repositioning fracture fragments.
- The articular block should be reduced prior to repositioning the articular block to the shaft.
- Bicolumn fractures are common and require plate fixation on either side. The LOQTEQ® Elbow Plating System allows for 90° and 180° double plating techniques.



90° (perpendicular)
plate placement

180° (parallel)
plate placement

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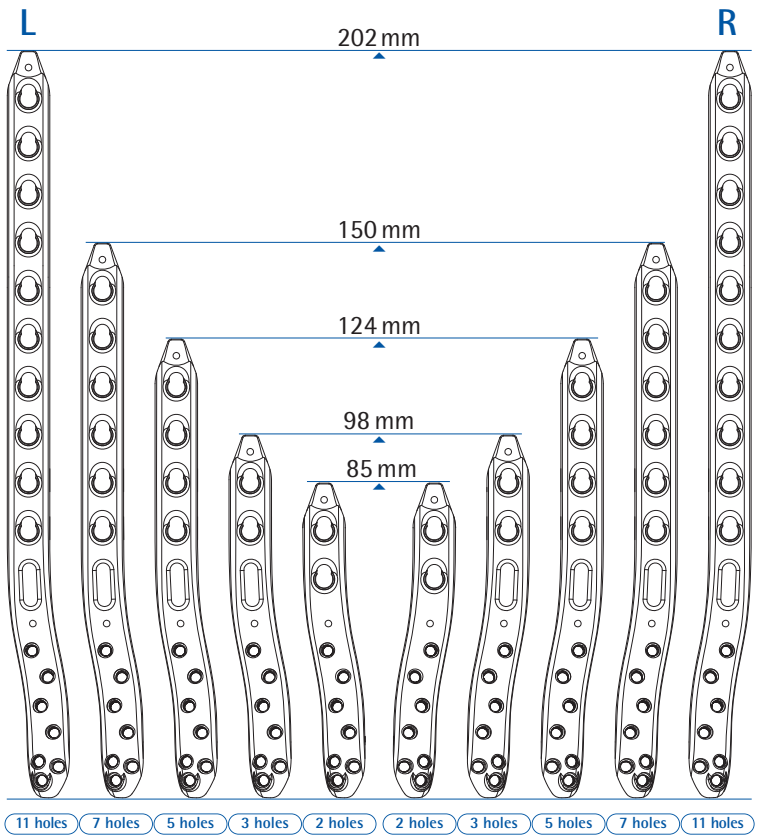
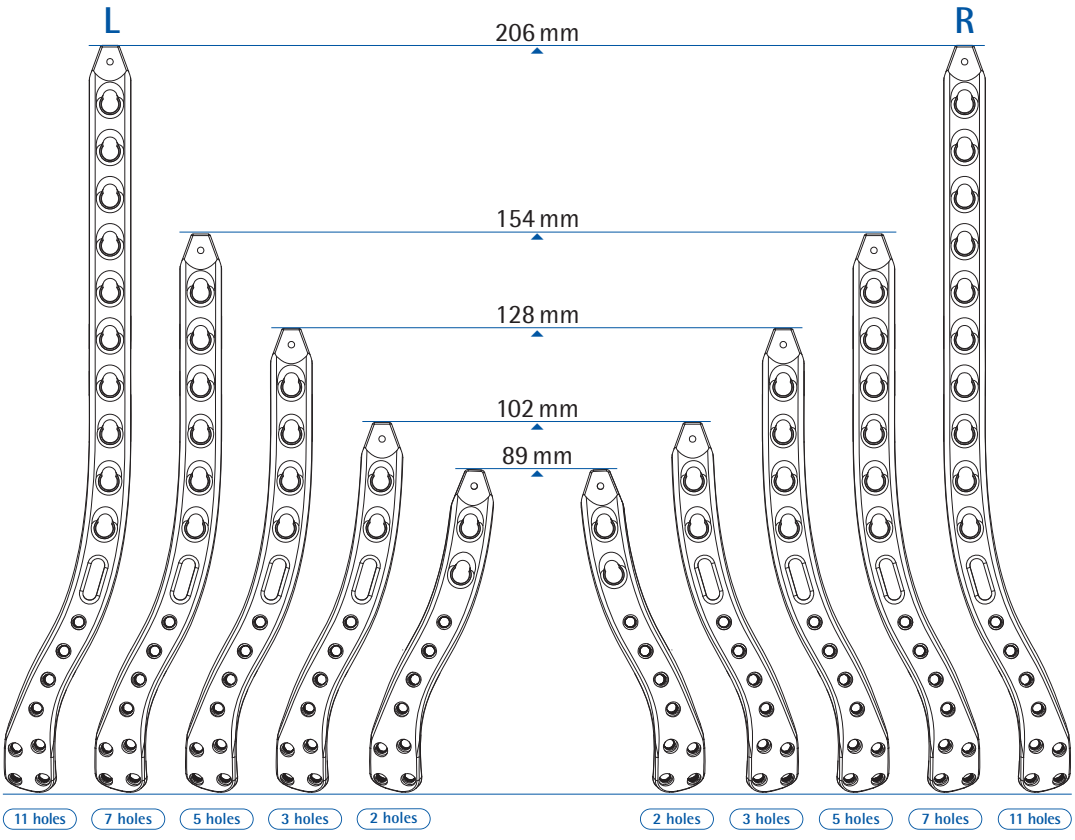
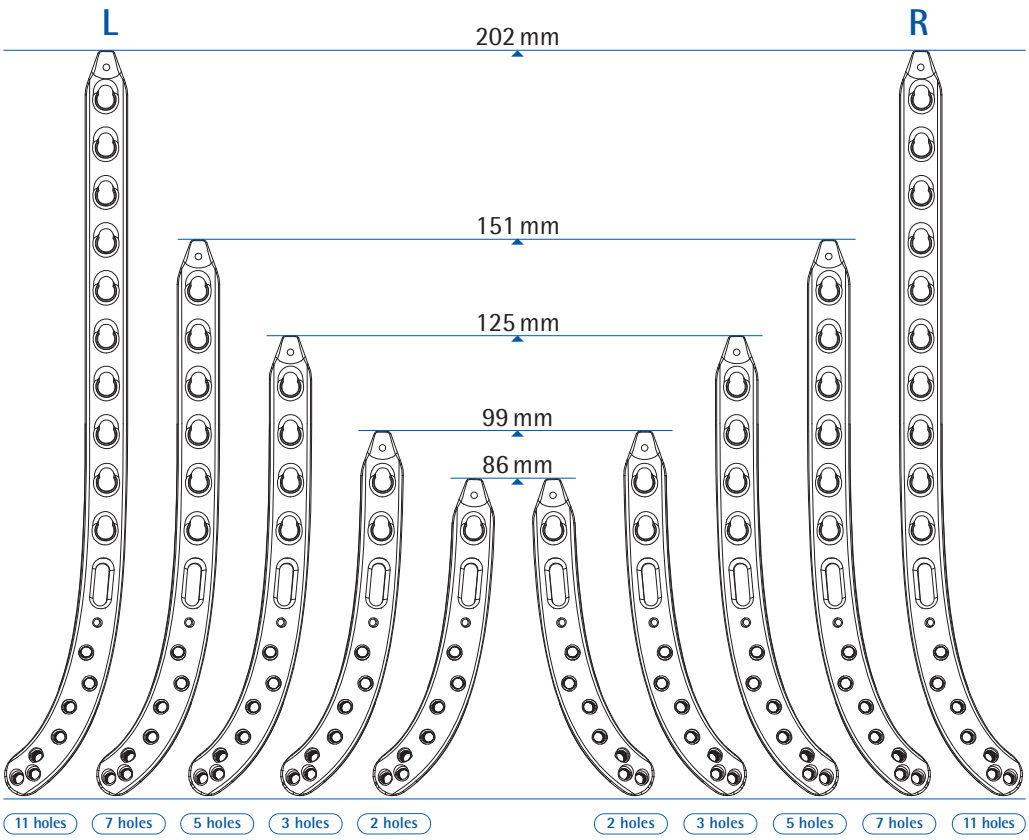
LOQTEQ® Distal Medial Humerus Plate 2.7/3.5



LOQTEQ® Distal Dorsolateral Humerus Plate 2.7/3.5



LOQTEQ® Distal Lateral Humerus Plate 2.7/3.5



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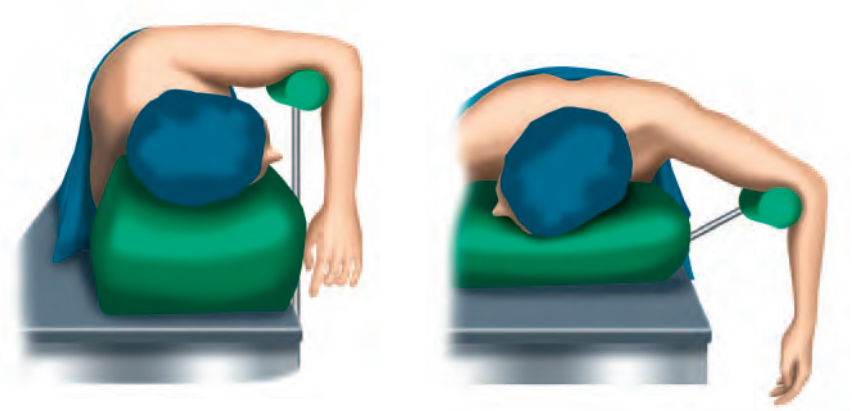
Patient positioning

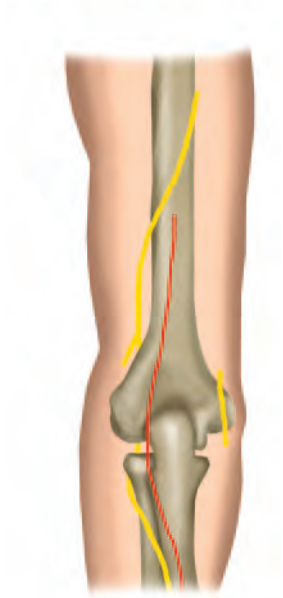
- Position the patient in lateral or prone position with the arm supported over bolsters.
- If needed, a tourniquet can be used on the upper arm.



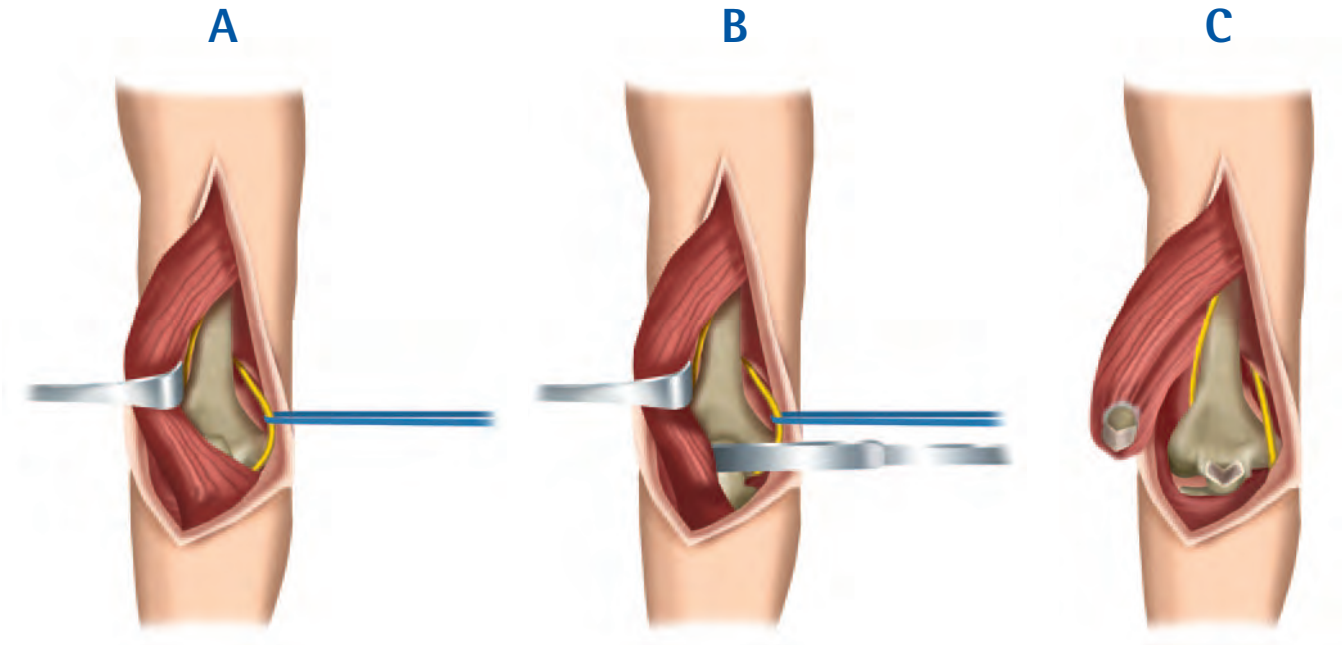
Approach

- The posterior access is usually preferred, with a longitudinal incision passing the olecranon on the radial side.
- The choice of access depends on fracture type as well as surgeon's experience and preference.

◆ 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.



The following surgery technique starts with the reduction of the medial column. Depending on the fracture pattern, a different technique may be chosen.

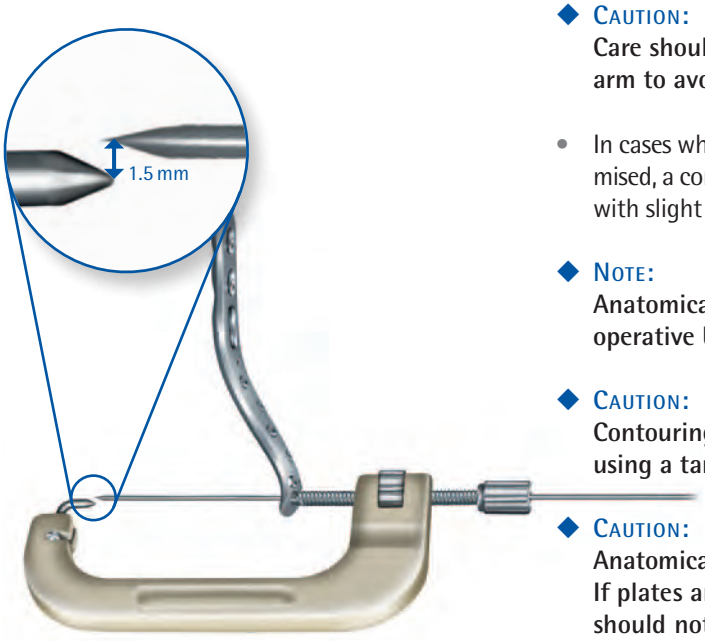
Preparing the plate

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

- The aiming arm assits in positioning the most distal screws in the medial or lateral plate by marking the exit point of the drill. The joint block is supported while avoiding screws perforating the articular surfaces.

◆ **CAUTION:**
The aiming arm should be used in combination with the matching aiming device.

- Insert the drill guide in the most distal hole of the medial plate and position the opposite pointer laterally in the desired point of exit of the later inserted screw. In the event of an assumed penetration of the articular surfaces, the next screw hole (in the proximal direction) is used to position the aiming arm. There is an offset of 1.5 mm between the drill and the K-wire to prevent damage to the drill.



◆ **CAUTION:**
Care should be taken when positioning the pointer of the aiming arm to avoid perforating the gloves.

- In cases where locking fixation in the most distal plate hole is compromised, a cortical screw ø2.5 mm may be used. This screw can be inserted with slight angulation as desired.

◆ **NOTE:**
Anatomically pre-contoured plates minimize the need for intraoperative bending. If necessary, the plates may be contoured.

◆ **CAUTION:**
Contouring the metaphyseal part of a plate is not permitted when using a targeting device.

◆ **CAUTION:**
Anatomically preformed plates should not be bent where possible. If plates are adapted to anatomical bone structures, the implants should not be bent back and forth repeatedly and excessively as this may result in implant failure. Damage caused by sharp edges should be avoided when bending. Locking plates should in principle be bent in the area between the holes only. Bending plates along locking holes may impair or even abolish their function completely. If angular stability is compromised by bending, a non-locking screw should be used.

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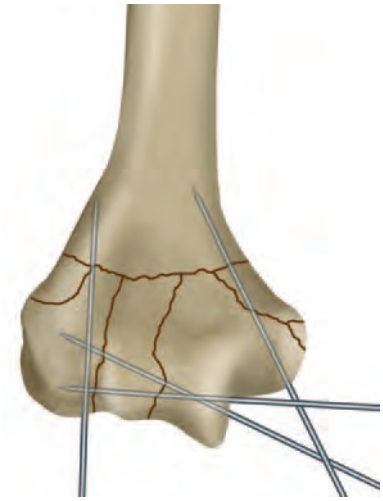
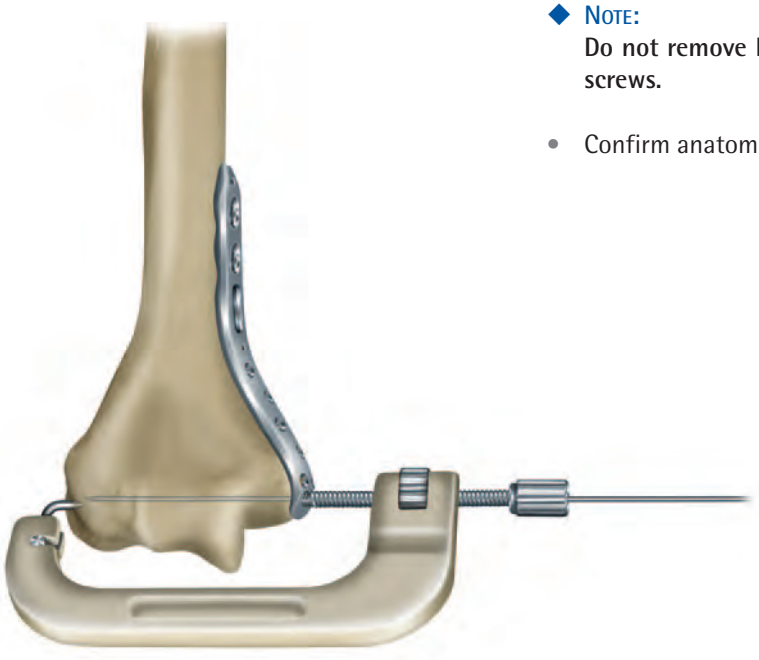
Reduction and primary fixation

Insertion of the Medial Humerus Plate

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
Twist drill ø2.0, L 180, coil 25, quick coupling	IU 7420-18





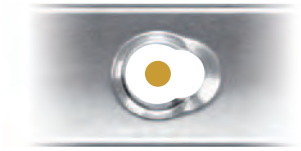
- Perform anatomic reduction of the articular block and the condyles from distal to proximal, depending on the degree of damage.
- Reduce and temporarily secure the fracture. Care must be taken when positioning K-wires or independent lag screws to ensure that they do not interfere with the later plate position.
- Insert and position the medial plate. The plate is fixed to the bone with K-wires. Using a cortical screw in the oblong hole for primary fixation allows for corrections in plate positioning.
- Using the aiming arm allows for distal fixation of the plate and stabilization of the articular block in one step by inserting a K-wire ø1.6 mm or a drill ø2.0 mm through the drill guide of the aiming arm.

◆ NOTE:
Do not remove K-wire or drill until the reduction is fixated with screws.

- Confirm anatomic reduction and plate position using fluoroscopy.

Insertion of cortical screws (gold)

INSTRUMENTS ø3.5	⬢	✱
Double drill guide, with spring aided centering	IU 8116-50	IU 8116-60
Twist Drill, quick coupling	IU 7425-00	IU 7427-15
Twist drill ø2.7, L 150, coil 50, quick coupling, scaled	–	IU 7427-16
Depth gauge for screws, ø3.5-4.0, up to L 90	IS 7904-20	IS 7904-20
Screwdriver Duo, quick coupling	IU 7825-00	IU 7825-56
Large handle, cannulated, quick coupling	IU 7706-00	IU 7706-00



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

- To insert a cortical screw ø3.5 mm (gold) in the oblong hole, place the double drill guide in the center of the oblong hole and press it down. Drill through both cortices. Determine the length of the screw using the depth gauge and insert a screw of appropriate length using the screwdriver.

◆ **NOTE:**
Ensure proper alignment of the screwdriver and that the screwdriver tip is fully seated in the screw head.

- Check the plate position using fluoroscopy and adjust if required.
- Use this technique for inserting non-locking screws without compression into any other gliding hole in the plate shaft.

INSTRUMENTS ø2.5	ART.-NO.
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20
Twist drill ø2.0, L 180, coil 25, quick coupling	IU 7420-18
Depth gauge for screws, ø2.7, up to L 70	IS 7903-20
Screwdriver Duo, T8, quick coupling	IU 7815-56
Large handle, cannulated, quick coupling	IU 7706-00

- To insert a cortical screw ø2.5 mm (gold) in the metaphyseal plate section, insert a threaded drill guide (light blue) and drill to the desired depth with a drill ø2.0 mm (light blue). The screw length can be read off the calibration of the drill guide or determined using the depth gauge, after the drill guide has been removed. Insert a screw of appropriate length using the screwdriver T8.

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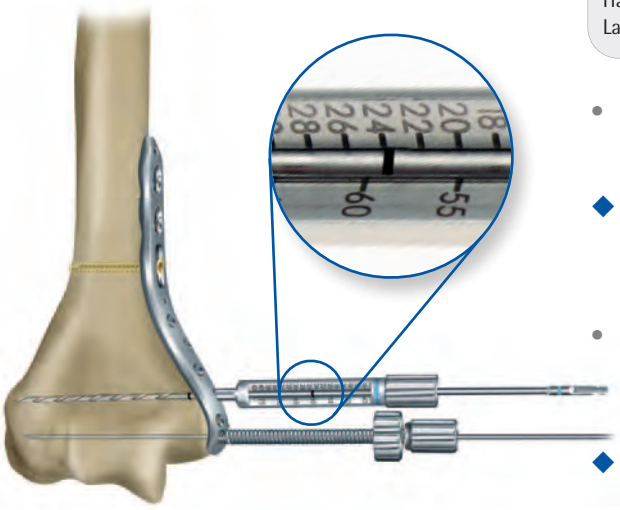
Insertion of locking screws (light blue)

INSTRUMENTS	ART.-NO.
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20
Twist drill ø2.0, L 180, coil 25, quick coupling	IU 7420-18
Depth gauge for locking screws ø2.7, up to L 70	IS 7903-20
Screwdriver Duo, T8, quick coupling	IU 7815-56
Handle round with quick coupling, with torque limiter 1.5 Nm	IU 7707-00
Large handle, cannulated, quick coupling	IU 7706-00

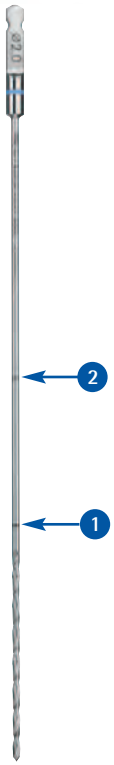


- Insert a drill guide (light blue) into any chosen metaphyseal plate hole and drill to the desired depth using a drill ø2.0 mm (light blue).

◆ **Caution:**
The screwdriver duo is not intended for screwing the drill guide into the plate.

- The screw length can be read off the calibration of the drill guide or determined using the depth gauge, after the drill guide has been removed.

◆ **Caution:**
Ensure reading off the correct side of the drill guide:
Marking 1: for calibration 10-42 mm, 2 mm increments
Marking 2: for calibration 45-75 mm, 5 mm increments



◆ **Note:**
The screwdriver duo facilitates manual removal of the drill guide.

- Select a locking screw (light blue) of the proper length. Loosely insert the screw using the screwdriver T8 manually or under power with a low speed. Stop insertion when the screw head approaches the plate surface.

◆ **Note:**
Ensure proper alignment of the screwdriver and that the screwdriver tip is fully seated in the screw head.

- Finish the screw manually using the screwdriver bit T8 with the torque limiting handle 1.5 Nm. Optimal locking should be achieved with an audible and tactile click of the torque limiter.

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

- Follow these instructions to insert further screws in the metaphyseal plate holes depending on the fracture pattern. Finally, confirm that all screw heads are flush with the plate surface and perform movement control.

- Check the result using fluoroscopy and adjust screw positioning or length as necessary.

◆ **Caution:**
Ensure no screws are penetrating the articular surfaces.

Insertion of locking compression screws (red) without compression

INSTRUMENTS	ART.-NO.
Drill guide for gliding hole LOQTEQ® 3.5, I-ø2.8, red	IU 8166-10
Twist drill ø2.7, L 150, coil 50, quick coupling	IU 7427-15
Twist drill ø2.7, L 150, coil 50, quick coupling, scaled	IU 7427-16
Stop ring for depth measurement, SF	IU 8166-06
Depth gauge for locking screws ø3.5-4.0, up to L 90	IS 7904-20
Screwdriver Duo, T15, quick coupling	IU 7825-56
Handle round with quick coupling, with torque limiter 1.5 Nm	IU 7707-00
Large handle, cannulated, quick coupling	IU 7706-00

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

- The plate shaft features gliding locking holes for ø3.5 mm locking screws (red). Insert a drill guide (red) into any chosen gliding hole and drill to the desired depth using a drill ø2.7 mm (blue/red).

◆ **CAUTION:**
The screwdriver duo is not intended for screwing the drill guide into the plate.

- The screw length can be read off the calibration of the drill or determined using the depth gauge, after the drill guide has been removed.

- The stop ring facilitates reading off the calibration when attached to the drill. Push it down to the drill guide and remove the drill for reading the drilling depth in the gap of the ring.

◆ **NOTE:**
The screwdriver duo facilitates manual removal of the drill guide.

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- Select a locking screw (red) of the proper length. Loosely insert the screw using the screwdriver T15 manually or under power with a low speed. Stop insertion when the screw head approaches the plate surface.

◆ **NOTE:**
Ensure proper alignment of the screwdriver and that the screwdriver tip is fully seated in the screw head.

- Finish the screw manually using the screwdriver bit T15 with the torque limiting handle 2.0 Nm. Optimal locking should be achieved with an audible and tactile click of the torque limiter.

◆ **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 uncommonly hard bone, it may be necessary to finish the screw without the torque limiter to ensure the screw head is flush with the plate and the screw is locked.

- Alternatively, insert a non-locking cortical screw ø3.5 mm, see section "Insertion of cortical screws (gold)".

- Follow these instructions to insert further screws in the plate holes depending on the fracture pattern. Finally, confirm that all screw heads are flush with the plate surface. Check the result using fluoroscopy and adjust screw positioning or length as necessary.

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 1mm	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
Twist drill ø2.7, L 150, coil 50, quick coupling, scaled	IU 7427-16
Depth gauge for screws ø3.5 - 4.0, up to L 90	IS 7904-20
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 2mm	IU 8166-03

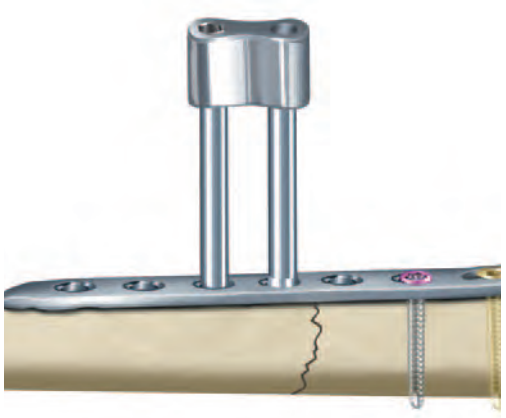
- LOQTEQ® gliding holes allow for fracture compression with subsequent locking fixation in one step. Load drill guides enable compressing fracture gaps of up to 2 mm.

- Screw the basic insert for load drill guides 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), slide it on the basic insert and place the drill guide in the next plate hole, away from the fracture gap. Avoid pressure on the drill guide.

◆ **Caution:**
The screwdriver duo is not intended for screwing the basic insert into the plate.

- If available, use the adjustable load drill guide. The fracture gap serves as orientation in setting the compression distance (max. 2 mm) by turning the wheel of the load drill guide until an appropriate gap opens in the upper part of the instrument.

◆ **Note:**
Care should be taken when selecting the proper compression distance (1 mm or 2 mm). Avoid over-compression to ensure full locking of the screw, especially in hard bone.



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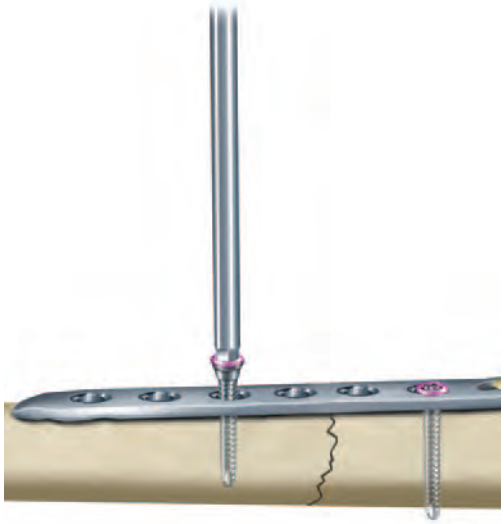
- Drill to the desired depth using a drill ø2.7 mm (blue/red) and remove the basic insert. The screw length can be read off the calibration of the drill or determined using the depth gauge, after the drill guide has been removed.

◆ **Note:**
The screwdriver duo facilitates manual removal of the basic insert.

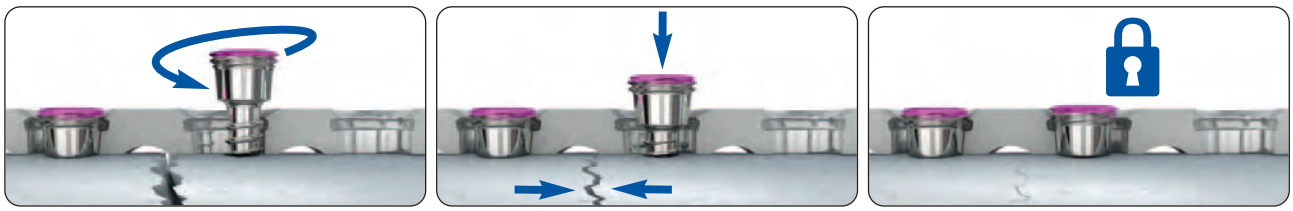
- Select a locking screw (red) of the proper length. Loosely insert the screw using the screwdriver T15 manually or under power with a low speed. Stop insertion when the screw head approaches the plate surface. Finish the screw manually using the screwdriver bit T15 with the torque limiting handle 2.0 Nm. Optimal locking should be achieved with an audible and tactile click of the torque limiter.

◆ **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 uncommonly hard bone, it may be necessary to finish the screw without the torque limiter to ensure the screw head is flush with the plate and the screw is locked.



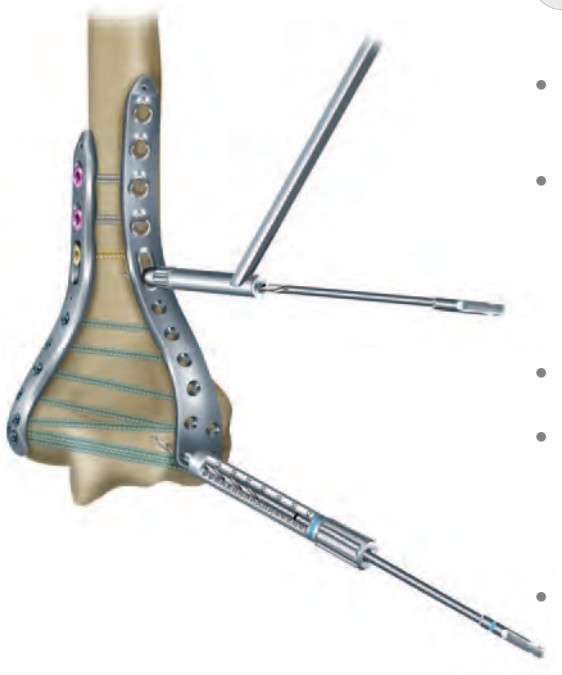
- Alternatively, insert a non-locking cortical screw (gold) as a compression screw by placing the double drill guide without pressure in an off-center position in the plate hole. For insertion of the screw, follow the instructions on page 10.

- Follow these instructions to insert further screws in the plate holes depending on the fracture pattern. Finally, confirm that all screw heads are flush with the plate surface. Check the result using fluoroscopy and adjust screw positioning or length as necessary.



Double plating technique 90°

Insertion of the Distal Dorsolateral Humerus Plate



INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15
Aiming device LOQTEQ® Distal Dorsolateral Humerus Plate, R	IU 8181-03
Aiming device LOQTEQ® Distal Dorsolateral Humerus Plate, L	IU 8181-04
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20

- Plate position: lateral column, posterior
  Screw orientation: posteroanterior
- Insert and position the plate on the condyle and along the lateral column. The plate is fixed to the bone with K-wires. Using a cortical screw in the oblong hole for primary fixation allows for corrections in plate positioning. This screw can push the plate to the bone, if necessary.
- Check the plate position using fluoroscopy and adjust if required.
- Secure the plates to the bone from distal to proximal. Follow the instructions for screw insertion in the respective sections for locking and non-locking screws ø2.5/2.7 mm (metaphyseal plate holes) and ø3.5 mm (diaphyseal plate holes).
- Finally, confirm that all screw heads are flush with the plate surface. Check the result using fluoroscopy and adjust screw positioning or length as necessary.

Double plating technique 180°

Insertion of the Lateral Humerus Plate

INSTRUMENTS	ART.-NO.
K-wire with trocar point, ø1.6, L 150	NK 0016-15
Aiming device LOQTEQ® Distal Lateral Humerus Plate, R	IU 8182-01
Aiming device LOQTEQ® Distal Lateral Humerus Plate, L	IU 8182-02
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20

- Plate position: lateral column, lateral
  Screw orientation: lateromedial
- Insert and position the plate strictly lateral along the lateral column. The plate is fixed to the bone with K-wires. Using a cortical screw in the oblong hole for primary fixation allows for corrections in plate positioning. This screw can push the plate to the bone, if necessary.
- Check the plate position using fluoroscopy and adjust if required.
- Secure the plates to the bone from distal to proximal. Follow the instructions for screw insertion in the respective sections for locking and non-locking screws ø2.5/2.7 mm (metaphyseal plate holes) and ø3.5 mm (diaphyseal plate holes).
- Finally, confirm that all screw heads are flush with the plate surface. Check the result using fluoroscopy and adjust screw positioning or length as necessary.

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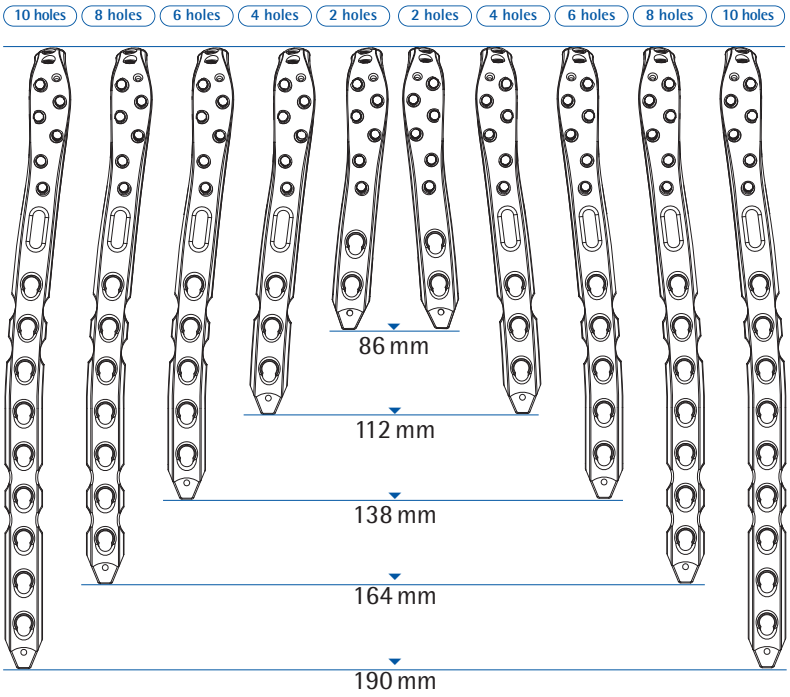
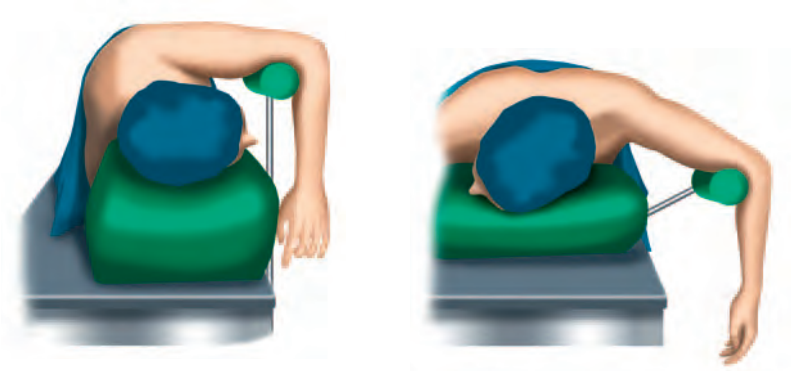
Preoperative planning

- Evaluate the fracture situation and select the appropriate plate size and position with an X-ray.
- Preoperatively assess the fracture situation using CT imaging where necessary.



Patient positioning

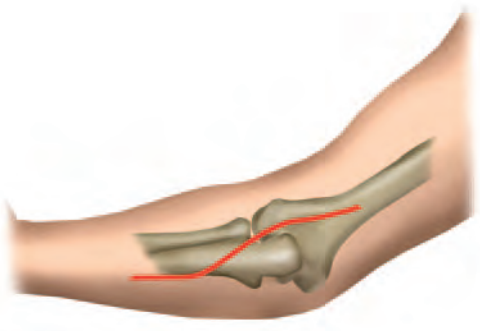
- Position the patient in lateral or prone position with the arm supported over bolsters.
- If needed, a tourniquet can be used on the upper arm.



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.



Preparing the plate

INSTRUMENTS	ART.-NO.
Aiming device LOQTEQ® Olecranon Plate, R	IU 8178-01
Aiming device LOQTEQ® Olecranon Plate, L	IU 8178-02
Drill guide LOQTEQ® Elbow plates 2.7, light blue	IU 8169-20
Bending iron 1 for small fragment plates, closed	IP 8405-00
Bending iron 2 for small fragment plates, closed	IP 8405-50

- Position the aiming device on the plate and insert a drill guide (light blue) through the most proximal hole into the plate.

◆ **NOTE:**
Anatomically pre-contoured plates minimize the need for intraoperative bending. If necessary, the plates may be contoured with the bending irons.

◆ **CAUTION:**
Contouring the metaphyseal part of a plate is not permitted when using a targeting device.

◆ **CAUTION:**
Anatomically preformed plates should not be bent where possible. If plates are adapted to anatomical bone structures, the implants should not be bent back and forth repeatedly and excessively as this may result in implant failure. Damage caused by sharp edges should be avoided when bending. Locking plates should in principle be bent in the area between the holes only. Bending plates along locking holes may impair or even abolish their function completely. If angular stability is compromised by bending, a non-locking screw should be used.

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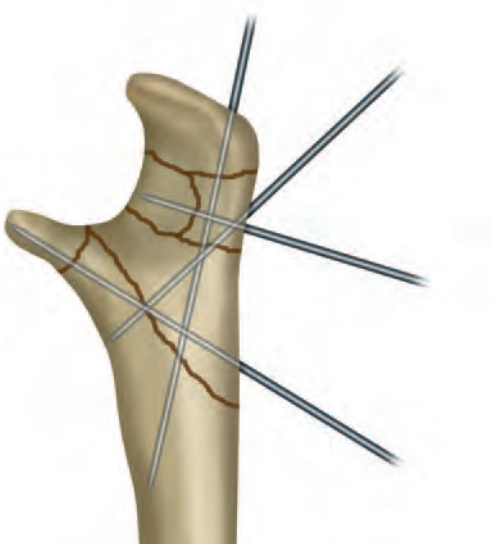
Reduction and primary fixation



- Reduce and temporarily secure the fracture. Care must be taken when positioning K-wires or independent lag screws to ensure that they do not interfere with the later plate position.
- In complex fractures which require reduction of the distal humerus and the olecranon, the distal block of the humerus should be reduced and secured first.

◆ **NOTE:**
The anatomic shape of the LOQTEQ® Olecranon Plate may assist in the reduction of fracture fragments.

- Insert and align the plate on the bone. The plate is fixed to the bone with K-wires or a non-locking screw in the oblong hole.

◆ **NOTE:**
Position the plate on the dorsal aspect of the proximal ulna. Proximally, the plate is not necessarily centered on the olecranon.

- Confirm anatomic reduction and plate position using fluoroscopy.
- Secure the metaphyseal plate holes with ø2.7 mm locking screws. Follow the instructions for the insertion of locking screws (light blue). Alternatively, non-locking screws ø2.5 mm may be used.

◆ **CAUTION:**
Ensure no screws are penetrating the articular surfaces.

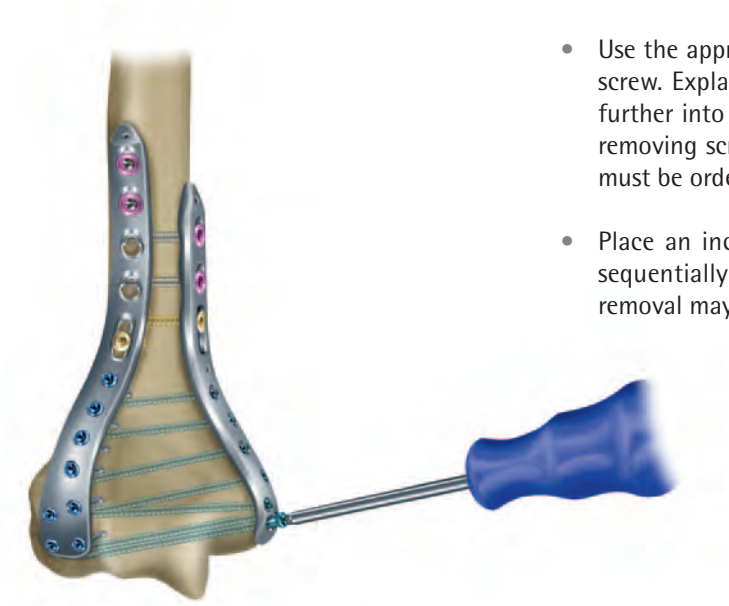
- Finally, secure the most distal metaphyseal plate hole with a screw and remove the aiming device.
- Confirm screw positioning using fluoroscopy and perform movement control.
- For screw fixation of the plate shaft, follow the instructions for the insertion of ø3.5 mm locking screws (red) and cortical screws (gold).
- Finally, confirm that all screw heads are flush with the plate surface. Check the result using fluoroscopy and adjust screw positioning or length as necessary.

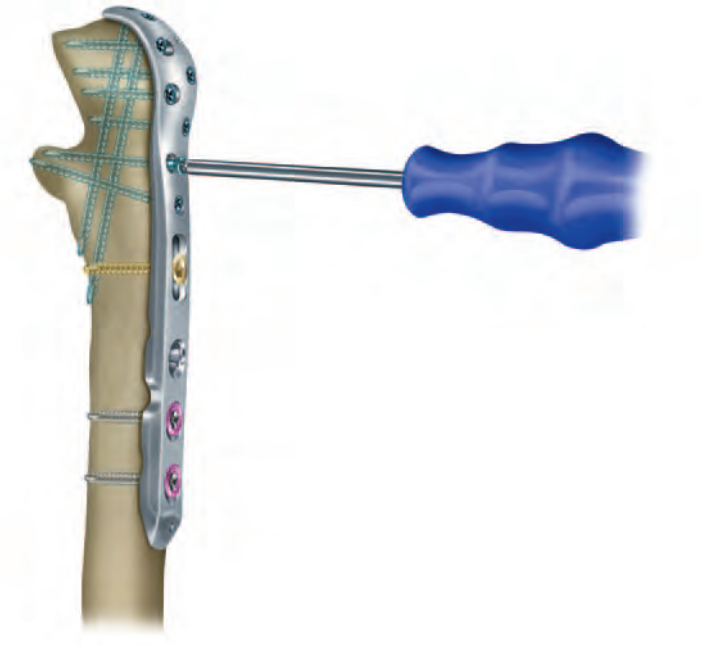
INSTRUMENTS	ART.-NO.
Explantation screwdriver, T8, round handle	IU 7811-08
Explantation screwdriver, T15, round handle	IU 7811-15

◆ **NOTE:**
The T8 (IU 7815-56) and T15 (IU 7825-56) screwdriver in the set are self-retaining and should not be used for screw removal.

- Use the appropriate explantation screwdriver for safe removal of a screw. Explantation screwdrivers are not self-retaining, penetrate further into the screw head and thus permit a higher torque when removing screws. They are not included in the set as standard and must be ordered separately.

- Place an incision on the old scar. Manually undo all screws and sequentially remove them. After manually unlocking all screws, removal may be performed using a power tool.





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Aiming arm (IU 8179-00)

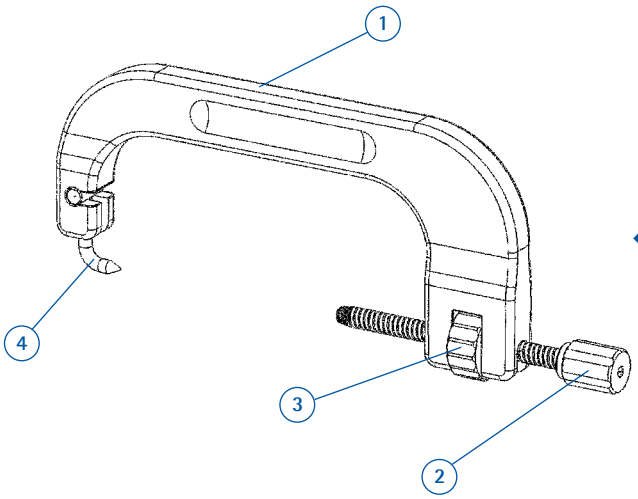
- The aiming arm for the distal medial humerus plate consists of four individual parts:

  (1) Aiming arm made of radiolucent PEEK material

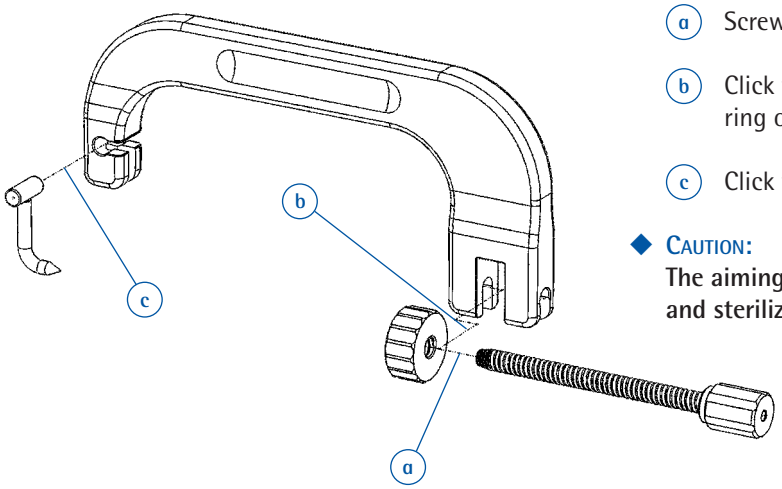
  (2) Metal drill guide with external thread

  (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.



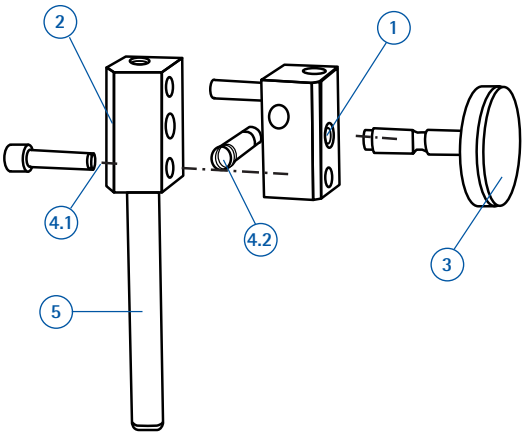
(a) Screw the adjusting ring onto the guiding sleeve.

(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.

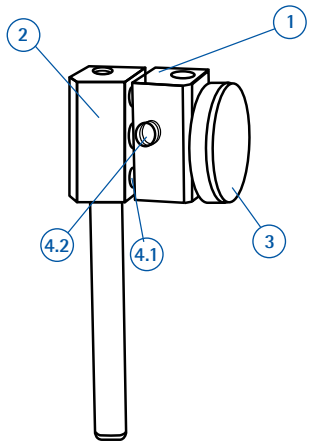
Disassembly



Adjustable load drill guide (IU 8166-03)

- Remove screws (item 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

LOQTEQ® Distal Medial Humerus Plate 2.7/3.5

HOLES	LENGTH (mm)	LEFT	RIGHT
2	85	PH 3522-02-2	PH 3521-02-2
3	98	PH 3522-03-2	PH 3521-03-2
5	124	PH 3522-05-2	PH 3521-05-2
7	150	PH 3522-07-2	PH 3521-07-2
11	202	PH 3522-11-2	PH 3521-11-2

LOQTEQ® Distal Dorsolateral Humerus Plate 2.7/3.5

HOLES	LENGTH (mm)	LEFT	RIGHT
2	89	PH 3532-02-2	PH 3531-02-2
3	102	PH 3532-03-2	PH 3531-03-2
5	128	PH 3532-05-2	PH 3531-05-2
7	154	PH 3532-07-2	PH 3531-07-2
11	206	PH 3532-11-2	PH 3531-11-2

LOQTEQ® Distal Lateral Humerus Plate 2.7/3.5

HOLES	LENGTH (mm)	LEFT	RIGHT
2	86	PH 3542-02-2	PH 3541-02-2
3	99	PH 3542-03-2	PH 3541-03-2
5	125	PH 3542-05-2	PH 3541-05-2
7	151	PH 3542-07-2	PH 3541-07-2
11	202	PH 3542-11-2	PH 3541-11-2

LOQTEQ® Olecranon Plate 2.7/3.5

HOLES	LENGTH (mm)	LEFT	RIGHT
2	86	PU 3532-02-2	PU 3531-02-2
4	112	PU 3532-04-2	PU 3531-04-2
6	138	PU 3532-06-2	PU 3531-06-2
8	164	PU 3532-08-2	PU 3531-08-2
10	190	PU 3532-10-2	PU 3531-10-2

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Cortical Screw 2.5, small head, T8, self-tapping

L 10	SK 2512-10-2
L 12	SK 2512-12-2
L 14	SK 2512-14-2
L 16	SK 2512-16-2
L 18	SK 2512-18-2
L 20	SK 2512-20-2
L 22	SK 2512-22-2
L 24	SK 2512-24-2
L 26	SK 2512-26-2
L 28	SK 2512-28-2
L 30	SK 2512-30-2
L 32	SK 2512-32-2
L 34	SK 2512-34-2
L 36	SK 2512-36-2
L 38	SK 2512-38-2
L 40	SK 2512-40-2
L 42	SK 2512-42-2
L 45	SK 2512-45-2
L 50	SK 2512-50-2
L 55	SK 2512-55-2
L 60	SK 2512-60-2
L 65	SK 2512-65-2
L 70	SK 2512-70-2

LOQTEQ® Cortical Screw 2.7, small head, T8, self-tapping

L 10	SK 2726-10-2
L 12	SK 2726-12-2
L 14	SK 2726-14-2
L 16	SK 2726-16-2
L 18	SK 2726-18-2
L 20	SK 2726-20-2
L 22	SK 2726-22-2
L 24	SK 2726-24-2
L 26	SK 2726-26-2
L 28	SK 2726-28-2
L 30	SK 2726-30-2
L 32	SK 2726-32-2
L 34	SK 2726-34-2
L 36	SK 2726-36-2
L 38	SK 2726-38-2
L 40	SK 2726-40-2
L 42	SK 2726-42-2
L 45	SK 2726-45-2
L 50	SK 2726-50-2
L 55	SK 2726-55-2
L 60	SK 2726-60-2
L 65	SK 2726-65-2
L 70	SK 2726-70-2

LOQTEQ® Cortical Screw 3.5, T15, self-tapping

L 12	SK 3525-12-2
L 14	SK 3525-14-2
L 16	SK 3525-16-2
L 18	SK 3525-18-2
L 20	SK 3525-20-2
L 22	SK 3525-22-2
L 24	SK 3525-24-2
L 26	SK 3525-26-2
L 28	SK 3525-28-2
L 30	SK 3525-30-2
L 32	SK 3525-32-2
L 34	SK 3525-34-2
L 36	SK 3525-36-2
L 38	SK 3525-38-2
L 40	SK 3525-40-2
L 42	SK 3525-42-2
L 45	SK 3525-45-2
L 50	SK 3525-50-2
L 55	SK 3525-55-2
L 60	SK 3525-60-2
L 65	SK 3525-65-2
L 70	SK 3525-70-2

Cortical Screw 3.5, T15, self-tapping

L 10	SK 3514-10-2
L 12	SK 3514-12-2
L 14	SK 3514-14-2
L 16	SK 3514-16-2
L 18	SK 3514-18-2
L 20	SK 3514-20-2
L 22	SK 3514-22-2
L 24	SK 3514-24-2
L 26	SK 3514-26-2
L 28	SK 3514-28-2
L 30	SK 3514-30-2
L 32	SK 3514-32-2
L 34	SK 3514-34-2
L 36	SK 3514-36-2
L 38	SK 3514-38-2
L 40	SK 3514-40-2
L 42	SK 3514-42-2
L 45	SK 3514-45-2
L 50	SK 3514-50-2
L 55	SK 3514-55-2
L 60	SK 3514-60-2
L 65	SK 3514-65-2
L 70	SK 3514-70-2
L 75	SK 3514-75-2
L 80	SK 3514-80-2
L 85	SK 3514-85-2
L 90	SK 3514-90-2

Cortical Screw 3.5, self-tapping*

L 10	SK 3510-10-2
L 12	SK 3510-12-2
L 14	SK 3510-14-2
L 16	SK 3510-16-2
L 18	SK 3510-18-2
L 20	SK 3510-20-2
L 22	SK 3510-22-2
L 24	SK 3510-24-2
L 26	SK 3510-26-2
L 28	SK 3510-28-2
L 30	SK 3510-30-2
L 32	SK 3510-32-2
L 34	SK 3510-34-2
L 36	SK 3510-36-2
L 38	SK 3510-38-2
L 40	SK 3510-40-2
L 45	SK 3510-45-2
L 50	SK 3510-50-2
L 55	SK 3510-55-2
L 60	SK 3510-60-2
L 65	SK 3510-65-2
L 70	SK 3510-70-2

* **Caution:**
Current tray contents do no longer include these screws. Use the part numbers on the screw racks for your order or ask your local sales agent.

Cancellous Screw 4.0, small head, T15

L 10	TL 5	SP 4030-10-2
L 12	TL 5	SP 4030-12-2
L 14	TL 5	SP 4030-14-2
L 16	TL 6	SP 4030-16-2
L 18	TL 7	SP 4030-18-2
L 20	TL 8	SP 4030-20-2
L 22	TL 9	SP 4030-22-2
L 24	TL 10	SP 4030-24-2
L 26	TL 12	SP 4030-26-2
L 28	TL 14	SP 4030-28-2
L 30	TL 14	SP 4030-30-2
L 32	TL 14	SP 4030-32-2
L 34	TL 14	SP 4030-34-2
L 36	TL 14	SP 4030-36-2
L 38	TL 14	SP 4030-38-2
L 40	TL 14	SP 4030-40-2
L 42	TL 15	SP 4030-42-2
L 45	TL 15	SP 4030-45-2
L 50	TL 15	SP 4030-50-2
L 55	TL 16	SP 4030-55-2
L 60	TL 16	SP 4030-60-2
L 65	TL 16	SP 4030-65-2
L 70	TL 16	SP 4030-70-2
L 75	TL 16	SP 4030-75-2
L 80	TL 16	SP 4030-80-2
L 85	TL 16	SP 4030-85-2

Cancellous Screw 4.0, kl. Kopf, T15, full thread

L 10	SP 4035-10-2
L 12	SP 4035-12-2
L 14	SP 4035-14-2
L 16	SP 4035-16-2
L 18	SP 4035-18-2
L 20	SP 4035-20-2
L 22	SP 4035-22-2
L 24	SP 4035-24-2
L 26	SP 4035-26-2
L 28	SP 4035-28-2
L 30	SP 4035-30-2
L 32	SP 4035-32-2
L 34	SP 4035-34-2
L 36	SP 4035-36-2
L 38	SP 4035-38-2
L 40	SP 4035-40-2
L 42	SP 4035-42-2
L 45	SP 4035-45-2
L 50	SP 4035-50-2
L 55	SP 4035-55-2
L 60	SP 4035-60-2
L 65	SP 4035-65-2
L 70	SP 4035-70-2
L 75	SP 4035-75-2
L 80	SP 4035-80-2
L 85	SP 4035-85-2

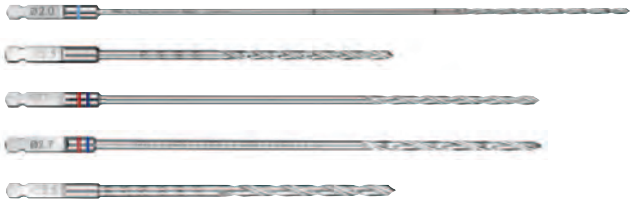
Washer
I-ø 4.4 mm, A-ø 8.0 mm, Titanium

SU 0448-00-2

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 screws, ø2.7, up to L 70	IS 7903-20

Depth gauge for screws, ø3.5-4.0, up to L 90	IS 7904-20



Twist drill ø2.0, L 180, coil 25, quick coupling	IU 7420-18
Twist drill ø2.5, L 110, coil 50, quick coupling	IU 7425-00
Twist drill ø2.7, L 150, coil 50, quick coupling	IU 7427-15
Twist drill ø2.7, L 150, coil 50, quick couplin, scaled	IU 7427-16
Twist drill ø3.5, L 110, coil 50, quick coupling	IU 7435-00

Large handle, cannulated, quick coupling	IU 7706-00

Handle with quick coupling, with torque limiter 1.5 Nm	IU 7707-00

Handle with quick coupling, with torque limiter 2.0 Nm	IU 7707-20

Screwdriver Duo, T8, quick coupling — IU 7815-56

Screwdriver Duo, T15, quick coupling — IU 7825-56 ✱
Screwdriver Duo, SW 2.5, quick coupling — IU 7825-00 ⬣

Double drill guide ø2.7/3.5, with spring aided centering — IU 8116-60 ✱
Double drill guide ø2.5/3.5, with spring aided centering — IU 8116-50 ⬣

Load drill guide LOQTEQ® 3.5, compression 1mm — IU 8166-01
Load drill guide LOQTEQ® 3.5, compression 2mm — IU 8166-02
Load drill guide LOQTEQ® 3.5, adjustable up to 2mm — IU 8166-03
Basic insert for load drill guide LOQTEQ® 3.5 — IU 8166-05

Stop ring for depth measurement, SF — IU 8166-06

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 LOQTEQ® Elbow plates 2.7, light blue — IU 8169-20

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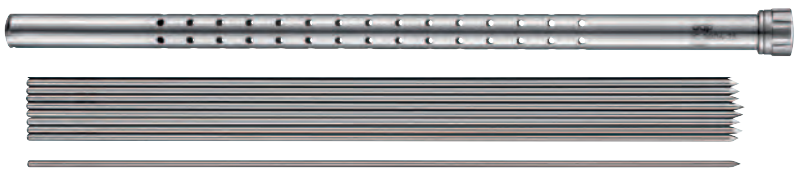
Aiming device LOQTEQ® Distal Medial Humerus Plate, R	IU 8177-01
Aiming device LOQTEQ® Distal Medial Humerus Plate, L	IU 8177-02

Aiming device LOQTEQ® Olecranon Plate, R	IU 8178-01
Aiming device LOQTEQ® Olecranon Plate, L	IU 8178-02

Aiming device LOQTEQ® Distal Dorsolateral Humerus Plate, R	IU 8181-03
Aiming device LOQTEQ® Distal Dorsolateral Humerus Plate, L	IU 8181-04

Aiming device LOQTEQ® Distal Lateral Humerus Plate, R	IU 8182-01
Aiming device LOQTEQ® Distal Lateral Humerus Plate, L	IU 8182-02

Aiming arm LOQTEQ® Distal Medial Humerus Plate	IU 8179-00

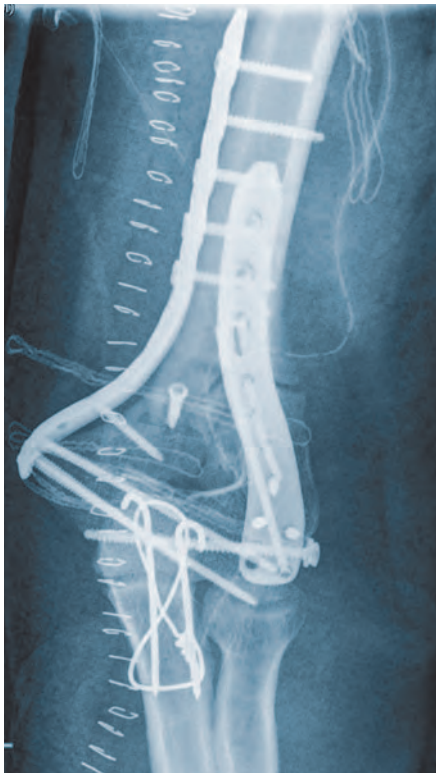


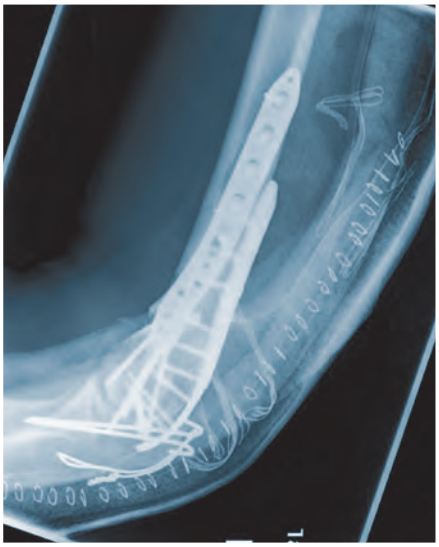
Caddy for K-wire L 150	IC 0006-15
K-wire with trocar point, ø1.6, L 150	NK 0016-15

Distal humerus fracture (AO 13-C2)

Preoperative

Postoperative





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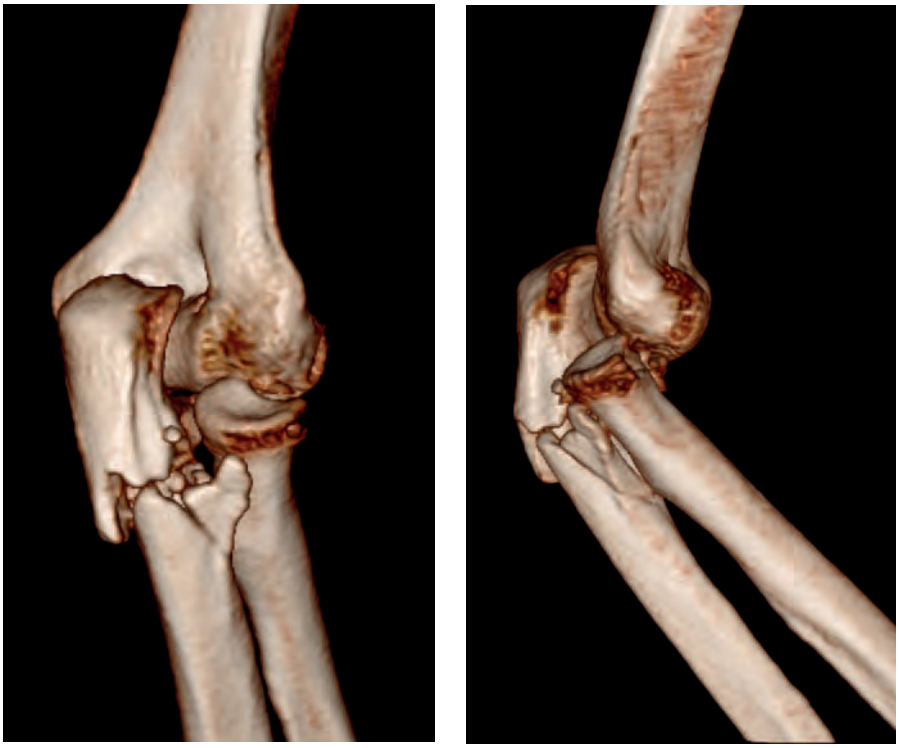
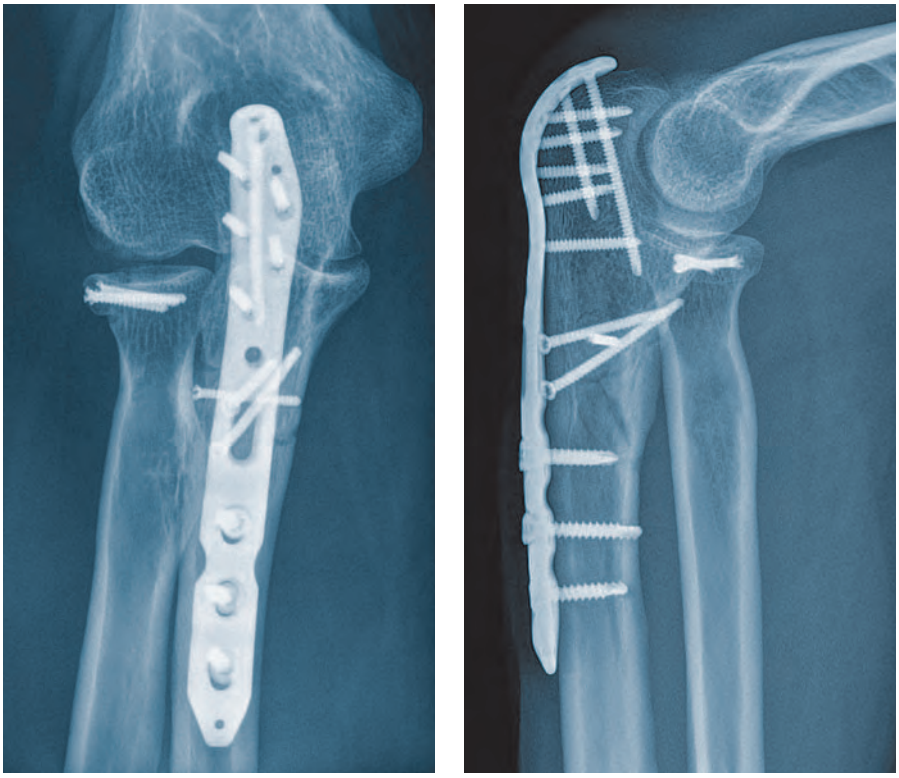
Proximal ulna fracture with luxation and radius head fracture (AO 21-A1)

Preoperative



Postoperative



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