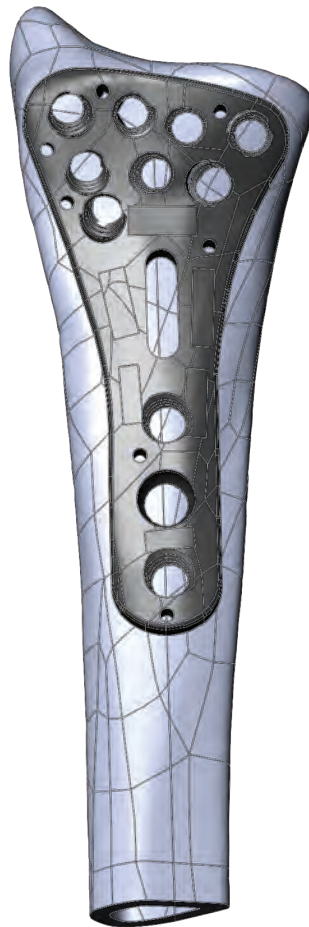


Distal Volar Radius Plate Procedure Steps



Abay Distal Volar Radius Plates

The Plate

The main features of the **Abay** Distal Volar Radius Plates:

- Anatomically shaped
- Low profile plate
- Compatible screw holes for locking or non-locking screws
- Similar instrumentation & procedure steps as conventional metal plates



Plates

Ref. No	Description	Right /Left	Length	Length
0101-03056	Distal Radius Volar Plate 3 Holes	Left	56 mm	8683109330015
0101-04062	Distal Radius Volar Plate 4 Holes	Left	62 mm	8683109330022
0102-03056	Distal Radius Volar Plate 3 Holes	Right	56 mm	8683109330039
0102-04062	Distal Radius Volar Plate 4 Holes	Right	62 mm	8683109330046



Locking Cortical Screws

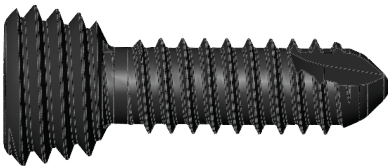
Ref. No	Description	Diameter	Length	Barcode
0101-013504	Locking Cortical Screw	3.5 mm	4 mm	8683109330550
0101-013512	Locking Cortical Screw	3.5 mm	12 mm	8683109330170
0101-013514	Locking Cortical Screw	3.5 mm	14 mm	8683109330171
0101-013516	Locking Cortical Screw	3.5 mm	16 mm	8683109330172
0101-013518	Locking Cortical Screw	3.5 mm	18 mm	8683109330173
0101-013520	Locking Cortical Screw	3.5 mm	20 mm	8683109330174
0101-013522	Locking Cortical Screw	3.5 mm	22 mm	8683109330175
0101-013524	Locking Cortical Screw	3.5 mm	24 mm	8683109330176
0101-013526	Locking Cortical Screw	3.5 mm	26 mm	8683109330177
0101-013528	Locking Cortical Screw	3.5 mm	28 mm	8683109330178
0101-013530	Locking Cortical Screw	3.5 mm	30 mm	8683109330179



0101-013504



small locking screw with in the plate Locking
Cortical Screw (Dia:3.5mm, Length 04mm)



0101-013512



locking screw with in the plate

Locking Cortical Screw(Dia:3.5mm, Length
12mm)

Locking Cortical Low Screws

Ref. No	Description	Diameter	Length	Barcode
0102-022703	Locking Cortical Low Screw	2.7 mm	3 mm	8683109330551
0102-022712	Locking Cortical Low Screw	2.7 mm	12 mm	8683109330180
0102-022714	Locking Cortical Low Screw	2.7 mm	14 mm	8683109330181
0102-022716	Locking Cortical Low Screw	2.7 mm	16 mm	8683109330182
0102-022718	Locking Cortical Low Screw	2.7 mm	18 mm	8683109330183
0102-022720	Locking Cortical Low Screw	2.7 mm	20 mm	8683109330184
0102-022722	Locking Cortical Low Screw	2.7 mm	22 mm	8683109330185
0102-022724	Locking Cortical Low Screw	2.7 mm	24 mm	8683109330186
0102-022726	Locking Cortical Low Screw	2.7 mm	26 mm	8683109330187
0102-022728	Locking Cortical Low Screw	2.7 mm	28 mm	8683109330188
0102-022730	Locking Cortical Low Screw	2.7 mm	30 mm	8683109330558



0102-022712 Locking Low Profile
(Ø:2.7mm, Lenght 12mm)



0102-02270 Locking Low Profile
Screw (Ø:2.7mm, Length 03mm)

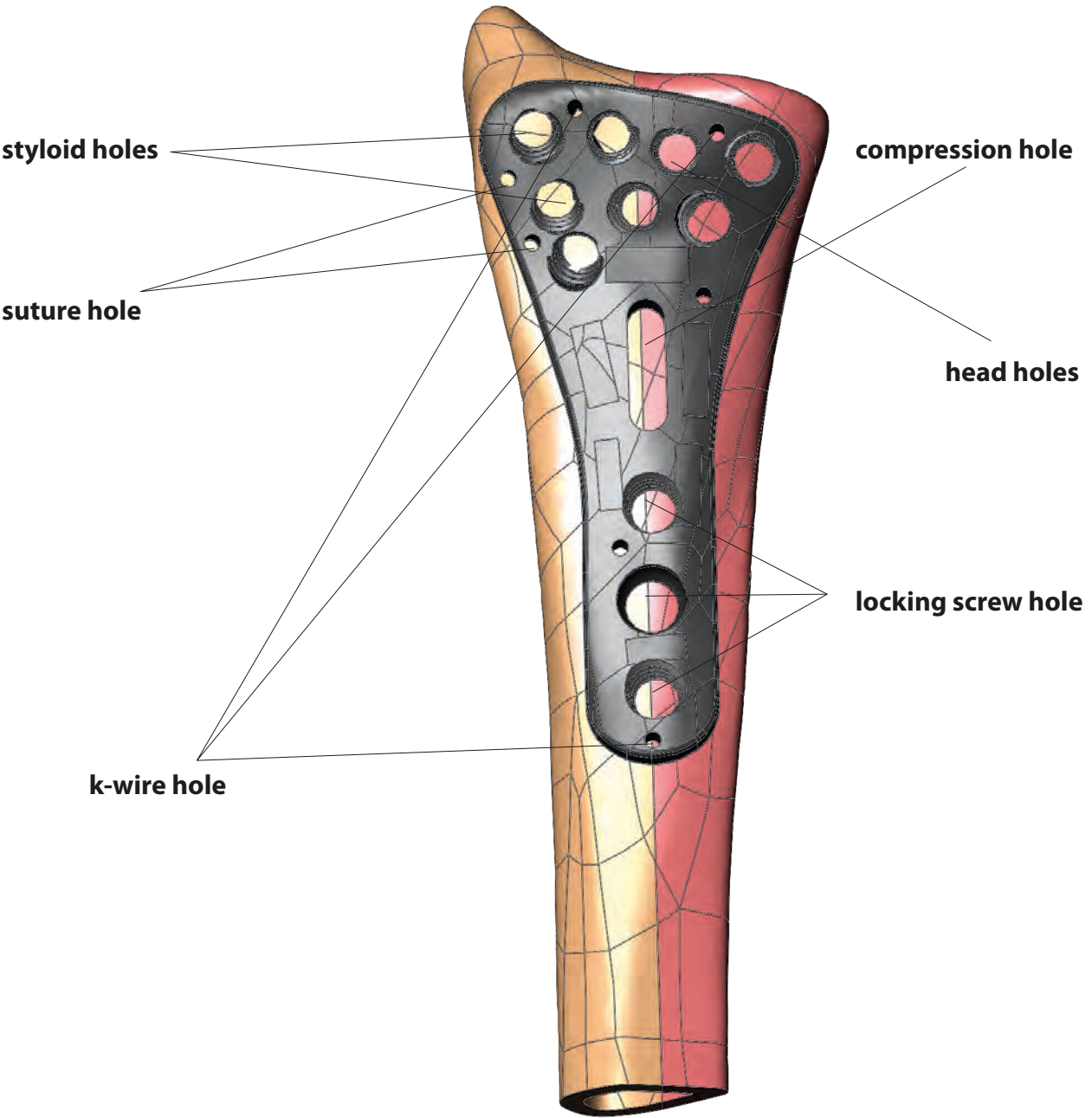
Cortical Screws

Ref. No	Description	Diameter	Length	Barcode
0103-033512	Cortical Screw	3.5 mm	12 mm	8683109330189
0103-033514	Cortical Screw	3.5 mm	14 mm	8683109330190
0103-033516	Cortical Screw	3.5 mm	16 mm	8683109330191
0103-033518	Cortical Screw	3.5 mm	18 mm	8683109330192
0103-033520	Cortical Screw	3.5 mm	20 mm	8683109330193
0103-033522	Cortical Screw	3.5 mm	22 mm	8683109330194
0103-033524	Cortical Screw	3.5 mm	24 mm	8683109330195
0103-033526	Cortical Screw	3.5 mm	26 mm	8683109330196
0103-033528	Cortical Screw	3.5 mm	28 mm	8683109330197
0103-033530	Cortical Screw	3.5 mm	30 mm	8683109330198



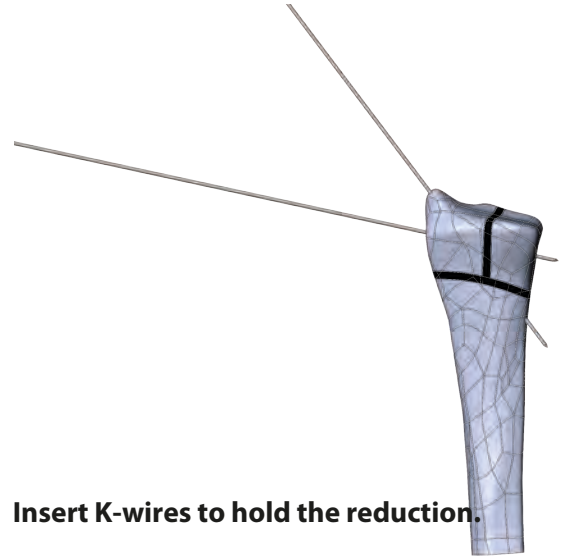
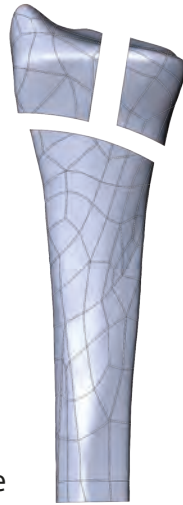
0103-033512 Cortical Screw (Ø:3.5mm, Length 12mm)

Plate Features

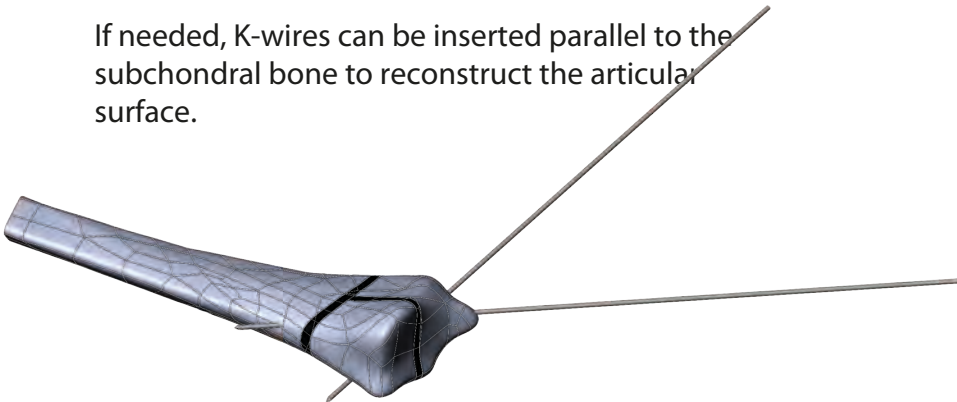


Step 1: Reduce Fracture

Ref: 6901 - 1.0 mm kirshner wire



If needed, K-wires can be inserted parallel to the subchondral bone to reconstruct the articular surface.

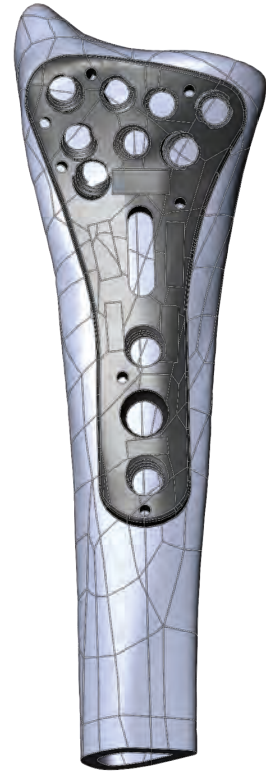


Incision and Dissection

Supinate the patient's forearm to expose the surgical site. To maximize exposure, position a towel under the wrist, placing it in extension. Make a longitudinal incision approximately six centimeters in length just radial to the FCR tendon to protect against injury to the palmar cutaneous branch of the median nerve. Open the tendon sheath and retract the tendon radially to protect the radial artery. Identify the flexor pollicis longus by passive flexion/extension of the thumb interphalangeal joint and retract ulnarly to protect the median nerve. Next, identify the pronator quadratus by its transverse fibers and release radially to the ulnar to expose the fracture site

Step 2: Plate Position

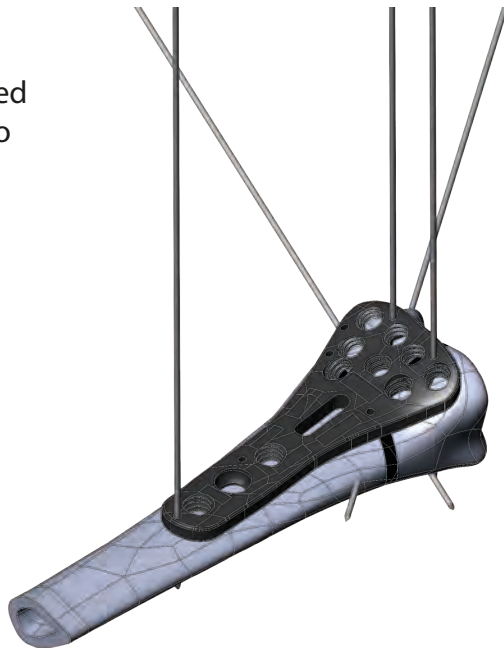
Provisionals are available to help in selecting the appropriate plate size



Step 3: Select Appropriate Plate

The plate should be positioned on the distal radius proximal to the Watershed line. If placed properly, 1.0mm K-wires inserted into the two distal K-wire holes will not violate the joint.

Note: The two distal K-wire holes match the trajectory of their adjacent screw holes. The K-wire holes are offset slightly more distal to ensure that the nominal trajectory of the screws

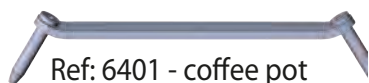


Ref: 6901 - 1.0 mm kirshner wire

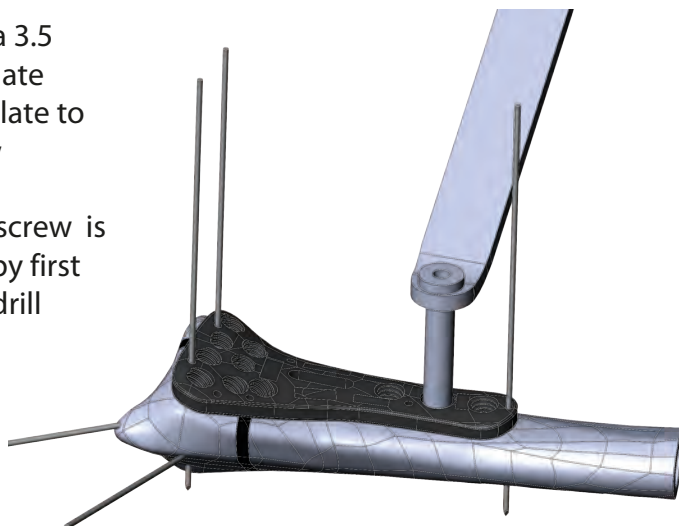
Ensure that K-wires are placed in locations which will not impede proper plate placement and fixation

Provisionally fix plate to bone place a 3.5 mm cortical screw into the oblong plate shaft hole to provisionally hold the plate to the bone nonlocking proximal screw placement.

The first nonlocking 3.5 mm cortical screw is placed through the slot in the plate by first drilling bicortically with the 2.8 mm drill



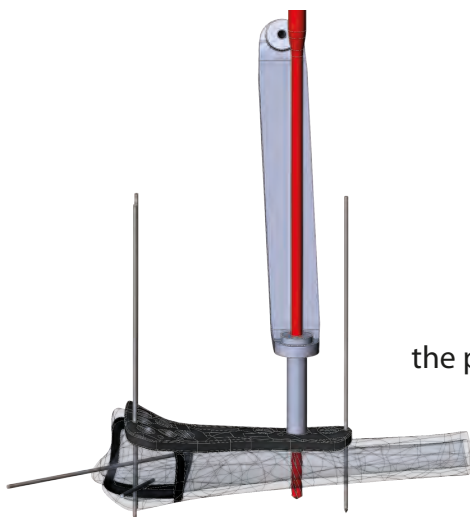
Ref: 6401 - coffee pot



Insert 2.8 mm drill



Ref: 6810 - 2.8 mm diameter quick coupling drill

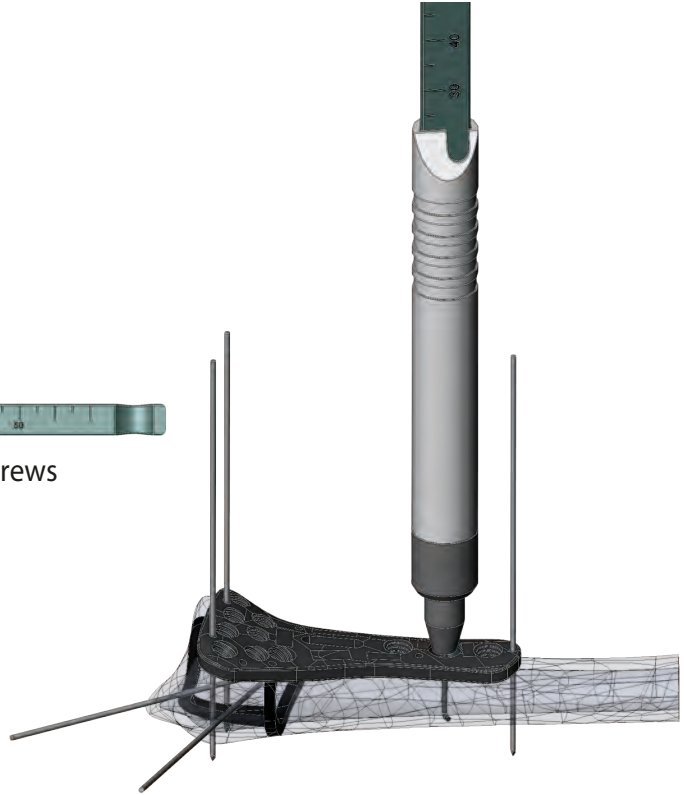


the plate by first drilling bicortically with the 2.8 mm drill

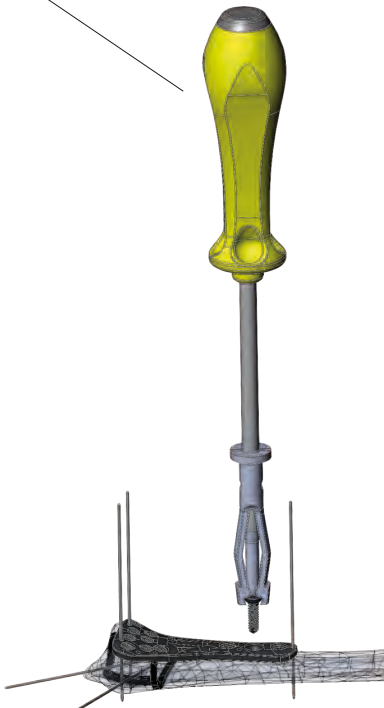
Measure depth



Ref: 6202 -small depth gauge for screws

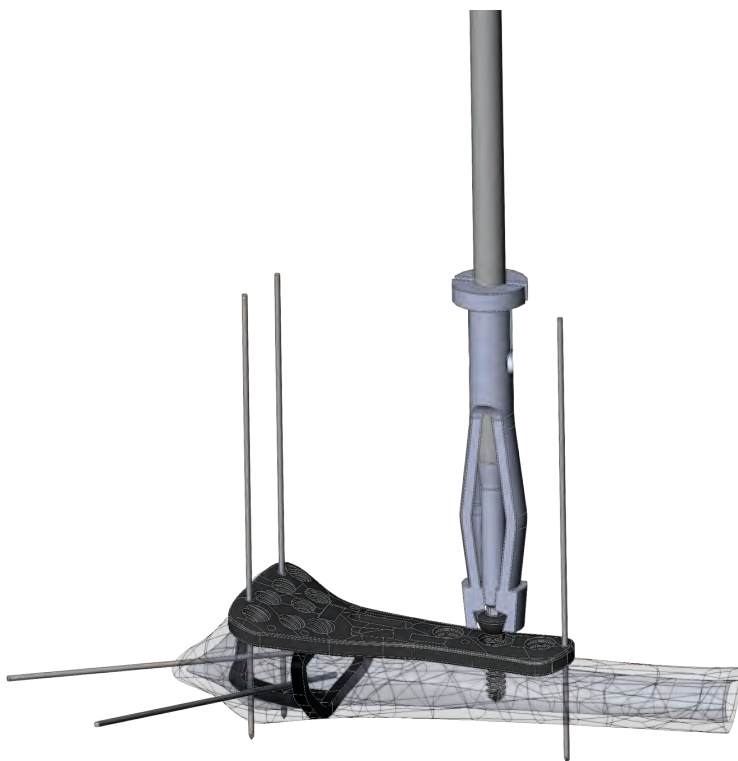
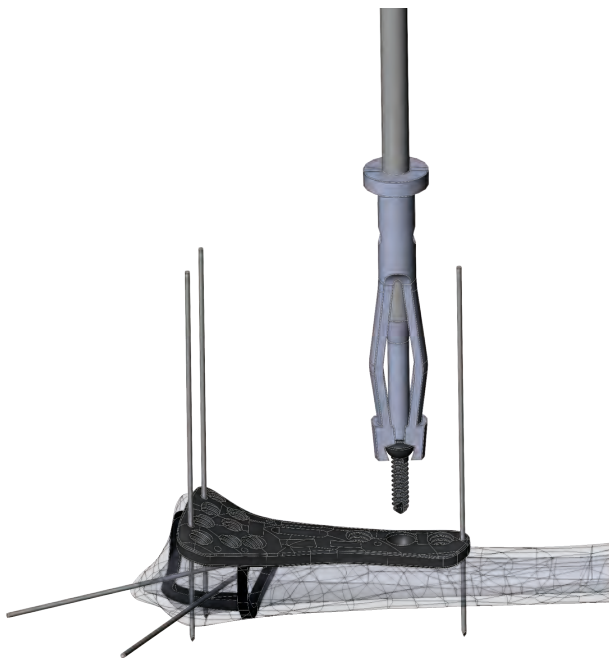


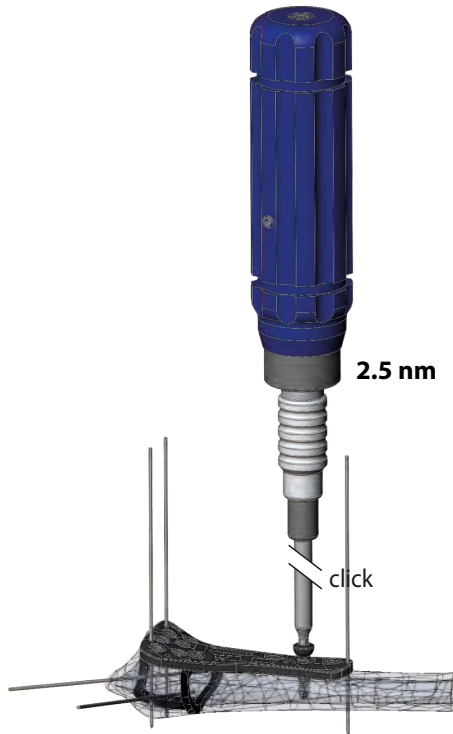
Ref: 7000 - 2.0 fixe handle screw driwer



insert screw using fixe handle screw driwer

Insert Screw





With the torque wrench, the final locking of the screw must be done at 2.5 Nm.

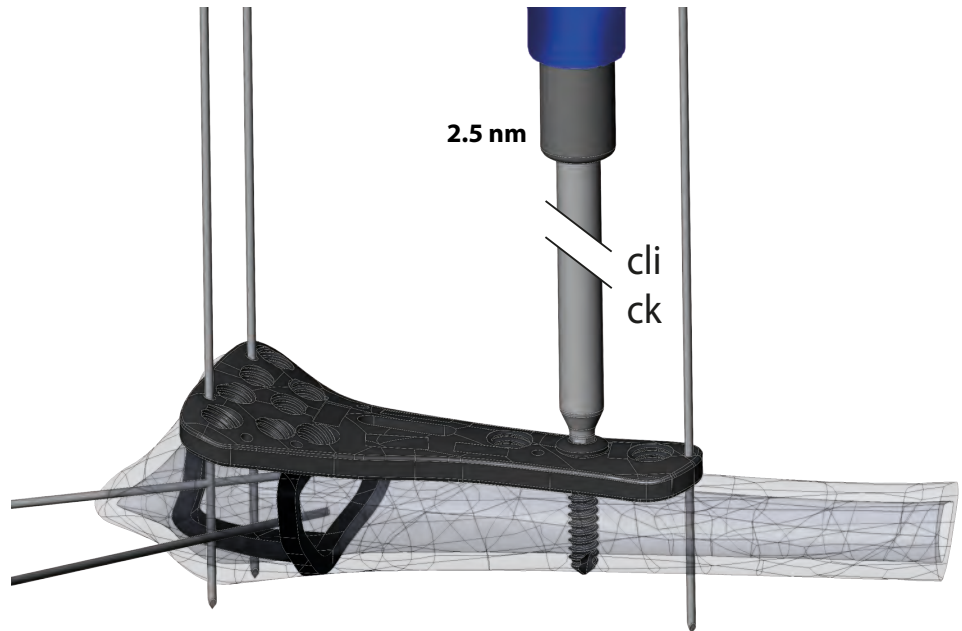


Ref: 6001 - AA2.0 mm screw driver shaft quick coupling



Ref: 6305 - 3.5 mm diameter torque limiter screw driver

The torque is automatically limited and a clearly audible click signifies that the torque limit has been reached.

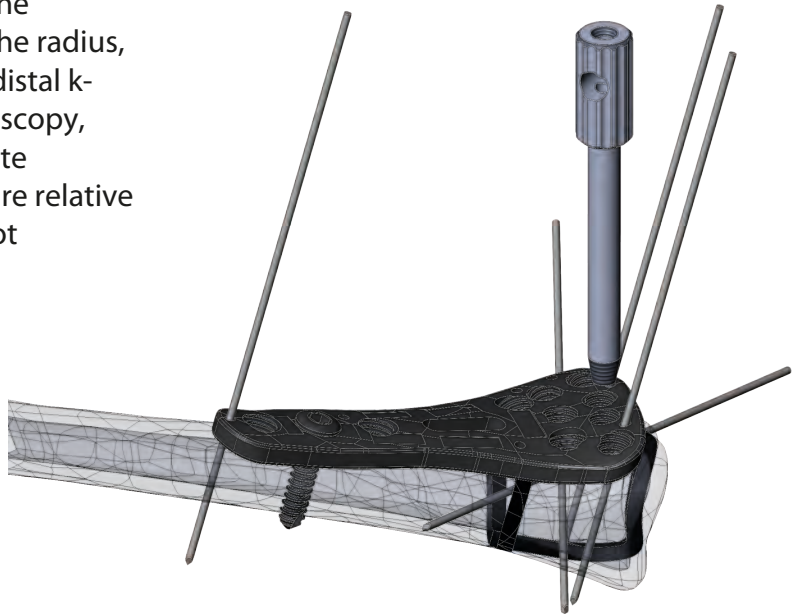


Step 4: Drill Distal Screw Holes

Drill distal screw holes to assess the position of the distal locking screws relative to the articular surface and the dorsum of the radius. A k-wire may be placed through the distal k-wire holes on the plate. Under fluoroscopy, assess the fracture reduction, the plate position, and the location of the k-wire relative to the joint. If the distal k-wires do not penetrate the joint

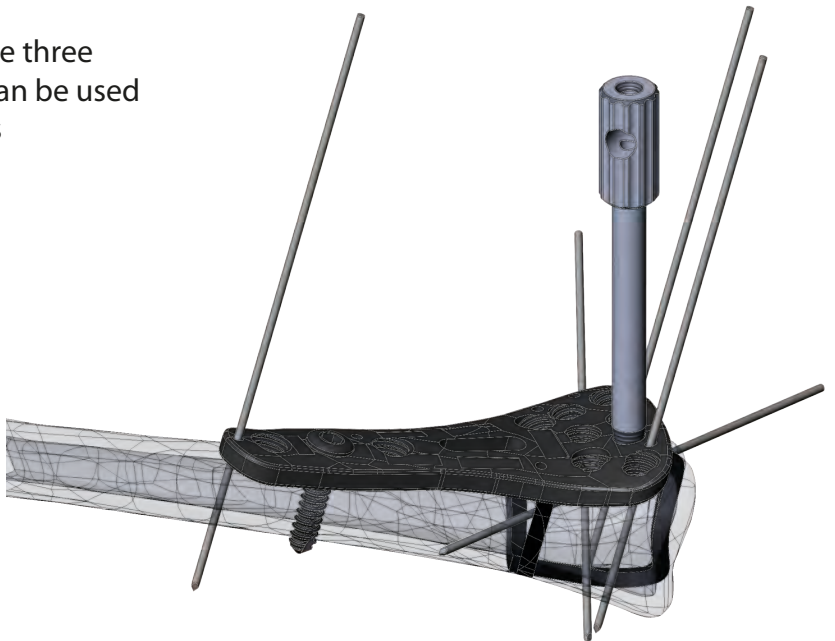


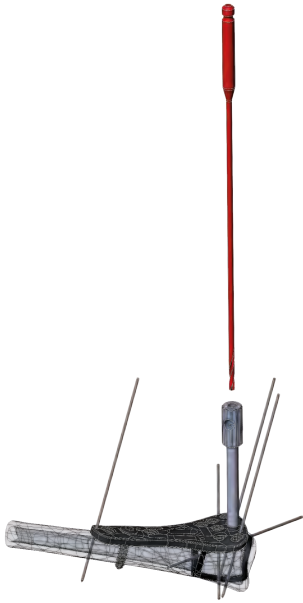
Ref: 6601 - 2.0 mm diameter sleeve for drill



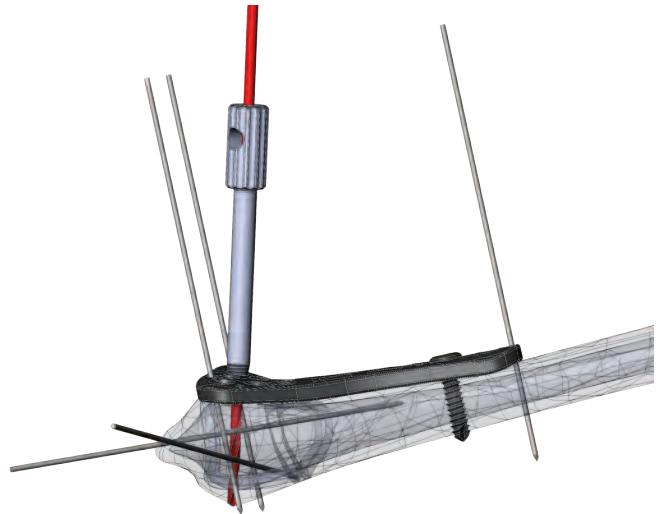
Insert The Drill Guide

Distal screw selection there are three types of 2.7 mm screws that can be used in any of the eight distal holes





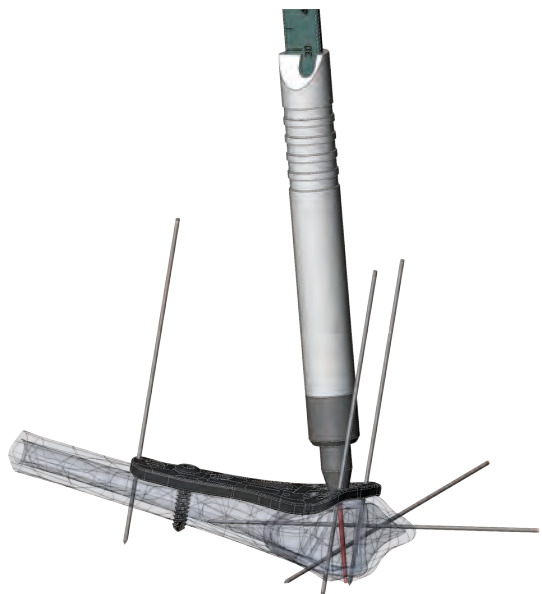
Ref: 6809 - 2.0 mm diameter quick coupling drill



Measure the screw length
by using the depth gauge



Ref: 6202 -small depth gauge for screws

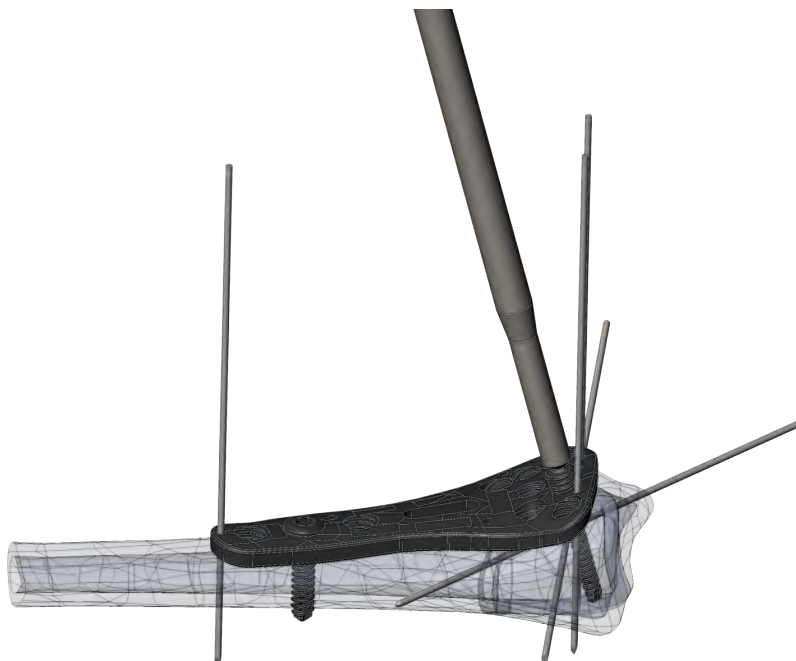


Insert all 2.7 mm screws using the 2.0 mm screw
Driver the 2.7 mm Sleeve the Cruciform Driver

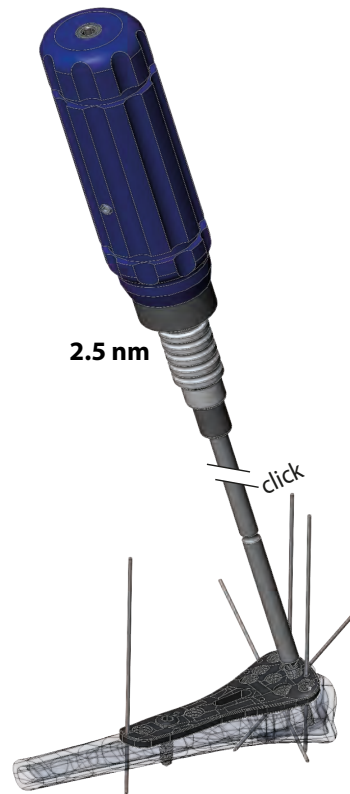
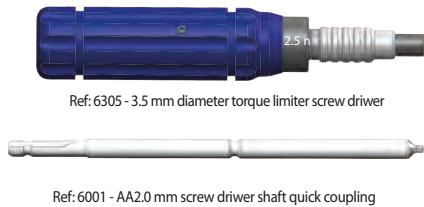
Ref: 7000 - 2.0 fixe
handle screw
driverer



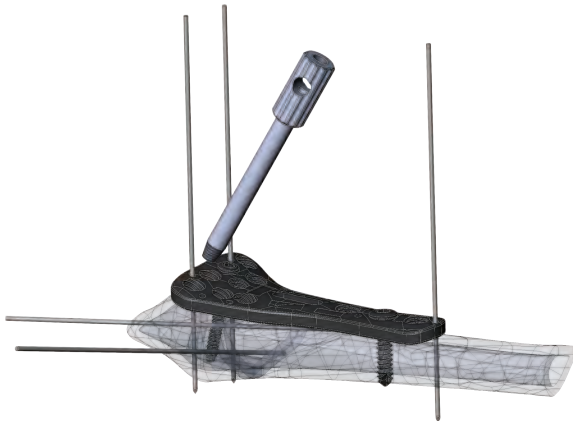
a minimum of six distal screws should be used in
the four most distal holes and the two radial styloid
holes



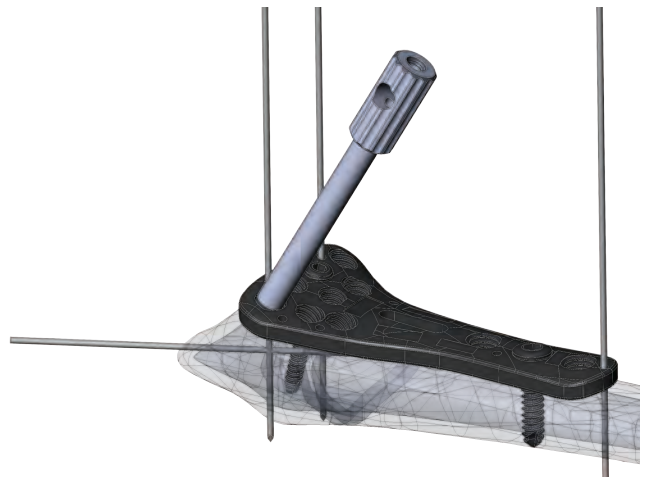
The torque is automatically limited and a clearly audible click signifies that the torque limit has been reached.

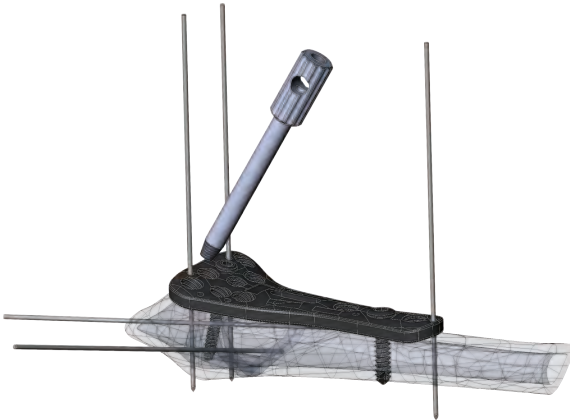


Ref: 6601 - 2.0 mm diameter sleeve for drill



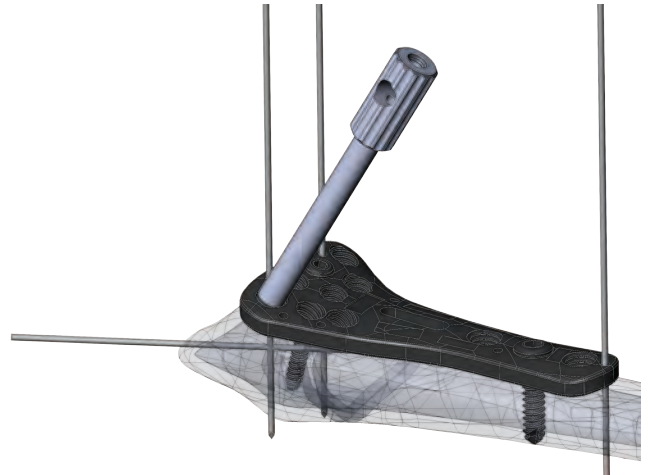
Styloid screw placement the radial styloid screws are designed specifically to target and support the radial styloid fragment at angles of 25 and 30 degrees from the plate





Ref: 6601 - 2.0 mm diameter sleeve for drill

styloid screw placement the radial styloid screws are designed specifically to target and support the radial styloid fragment at angles of 25 and 30 degrees from the plate



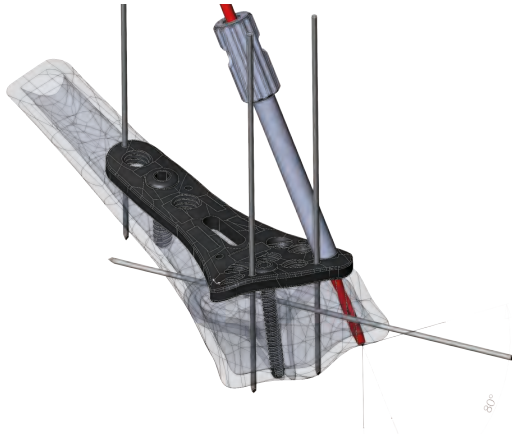
Both radial styloid screws should be drilled through the sleeve



Ref: 6810 - 2.8 mm diameter quick coupling drill



Remove the guide to measure and insert the screws.



Remove the guide to measure and insert the screws.

Measure with the depth gauge

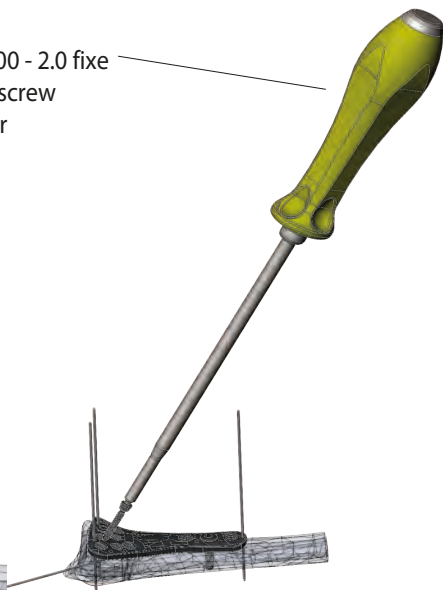
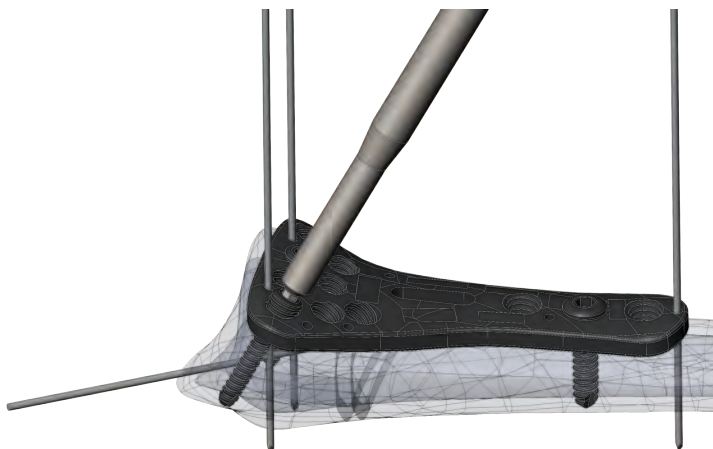


Ref: 6202 -small depth gauge for screws



Insert the proper length 3.5 mm locking cortical screw using the 2.0 mm fixe handle screw driverer

Ref: 7000 - 2.0 fixe handle screw driverer

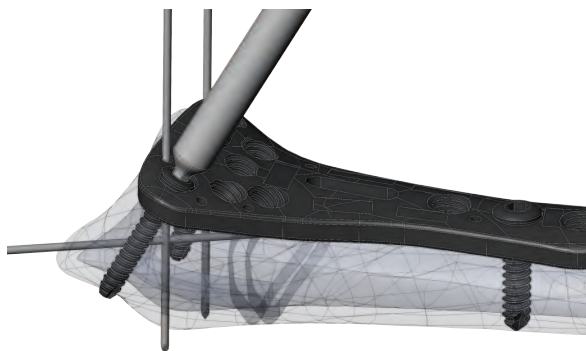
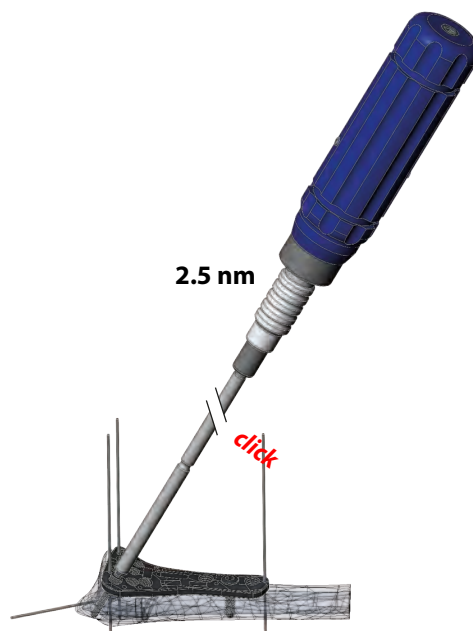




Ref: 6305 - 3.5 mm diameter torque limiter screw driver

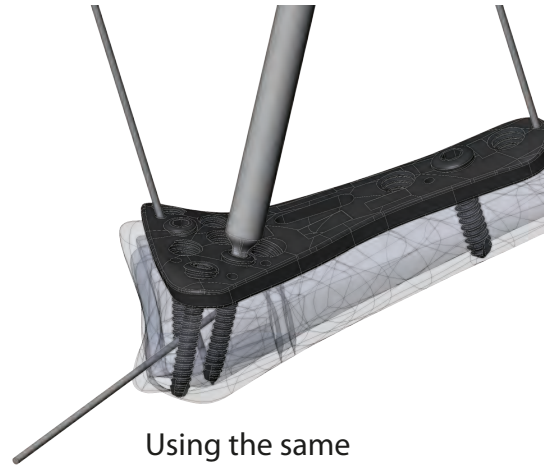
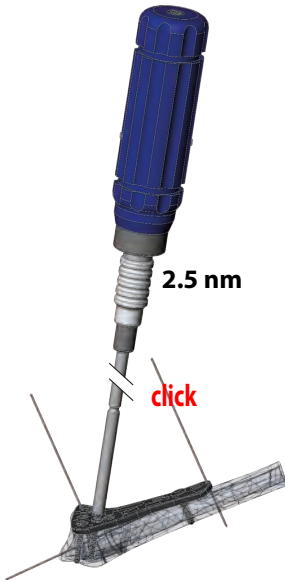


Ref: 6001 - AA2.0 mm screw driver shaft quick coupling

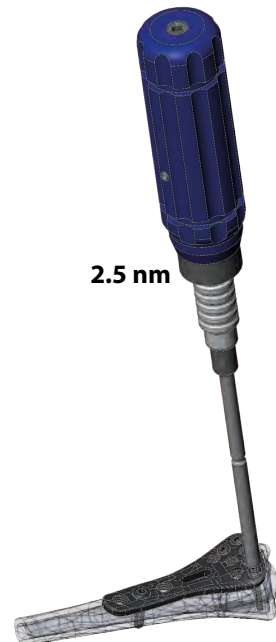
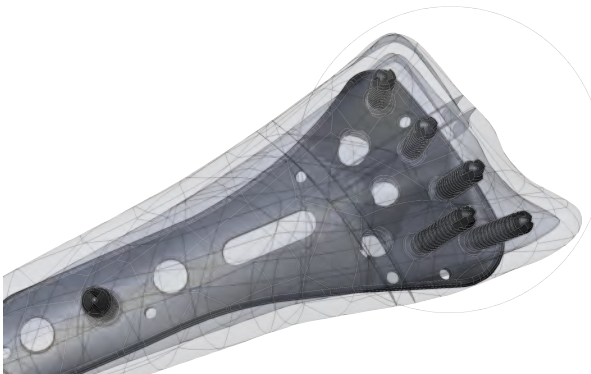


With the torque wrench, the final locking of the screw must be done at 2.5 Nm.

The torque is automatically limited and a clearly audible click signifies that the torque limit has been reached.



Using the same process, drill and place the final locking screws



Proximal locking screw placement
select one of the two remaining
proximal holes and insert the 3.5
mm locking drill guide



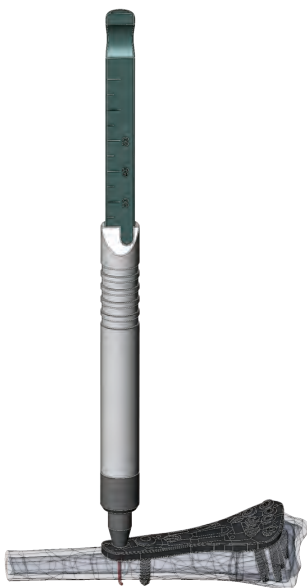
Insert 2.0 mm drill



Ref: 6810 - 2.8 mm diameter quick coupling drill



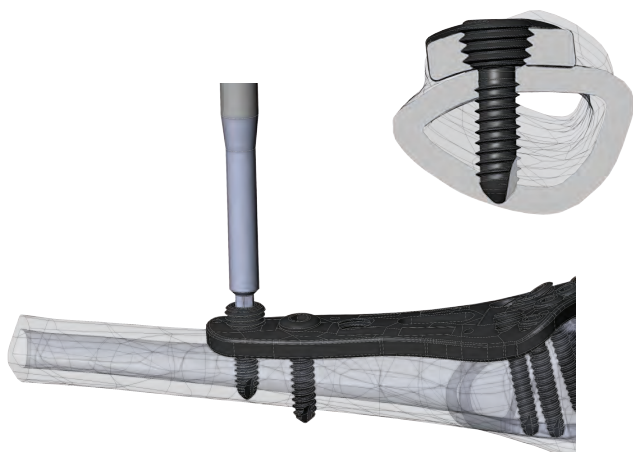
Measure with the depth gauge



Ref: 6202 -small depth gauge for screws

Insert the proper length 3.5 mm locking cortical screw using the 2.0 mm fixe handle screw driver

Ref: 7000 - 2.0 fixe handle screw driver



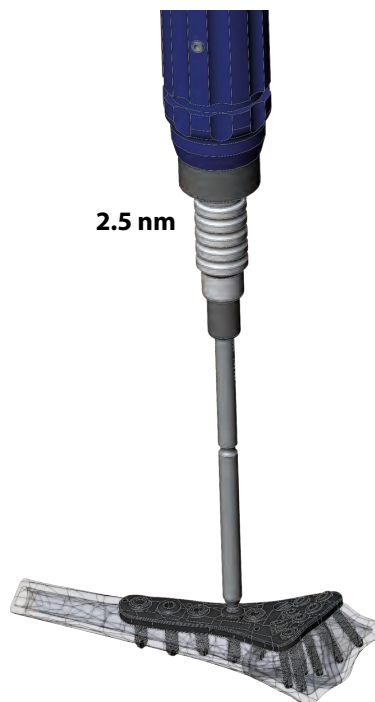
Ref: 6305 - 3.5 mm diameter torque limiter screw driver



Ref: 6001 - AA2.0 mm screw driver shaft quick coupling



2.5 nm



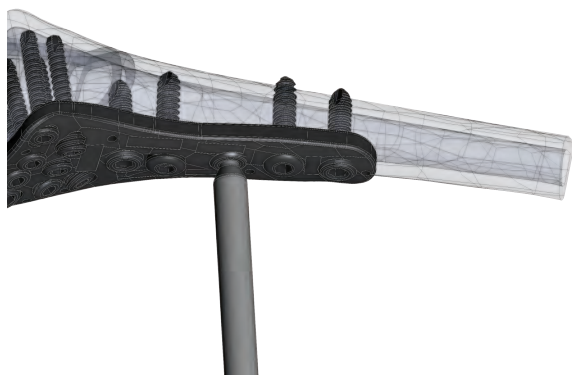
2.5 nm

the optional insert may be in empty
locking screw holes



0101-013504

Locking Cortical Screw Dia:3.5mm,
Length (04mm)



the optional insert may be in empty
cancellous screw holes



0102-02270 Locking Low Profile
Screw (Dia:2.7mm, Length 03mm



Wound Closure

Irrigation, hemostasis, and drain copiously irrigate the wound irrigate until backflow is clear cauterize peripheral bleeding vessels

Deep Closure

Superficial closure subcutaneous with 2-0 vicryl and skin closure with 3-0 vicryl and suture or staples

Dressings soft incision dressings over the distal radius

Write comprehensive admission orders advance diet as tolerated pain controlwound management remove dressings POD2 check appropriate labs antibiotics

Check radiographs in postop check placement of implants Initiate physical therapy on POD 1

Appropriate medical management and medical consultation Discharges patient appropriately pain meds outpatient physical therapy schedule 2 week follow up

Rehabilitation

Provides post-operative management and rehabilitation postop: 1-2 week postoperative visit continue physical therapy and range of motion exercises wound check repeat radiographs of radius staples/sutures removed diagnose and management of early complications postop: ~ 3 month postoperative visit repeat radiographs of the radius diagnosis and management of late complications postop: 1 year postoperative visit

Contraindications

The product should not be used in the following cases:

- The state of bone structure and insufficiency of bone density
- Acute or chronic; local or systemic infections
- serious muscle, neurological or vascular diseases involving the bone in question
- Advanced osteoporosis
- Bone formation disorder
- Severe soft tissue damage
- Allergy to device raw material
- Immature patients with skeletal system

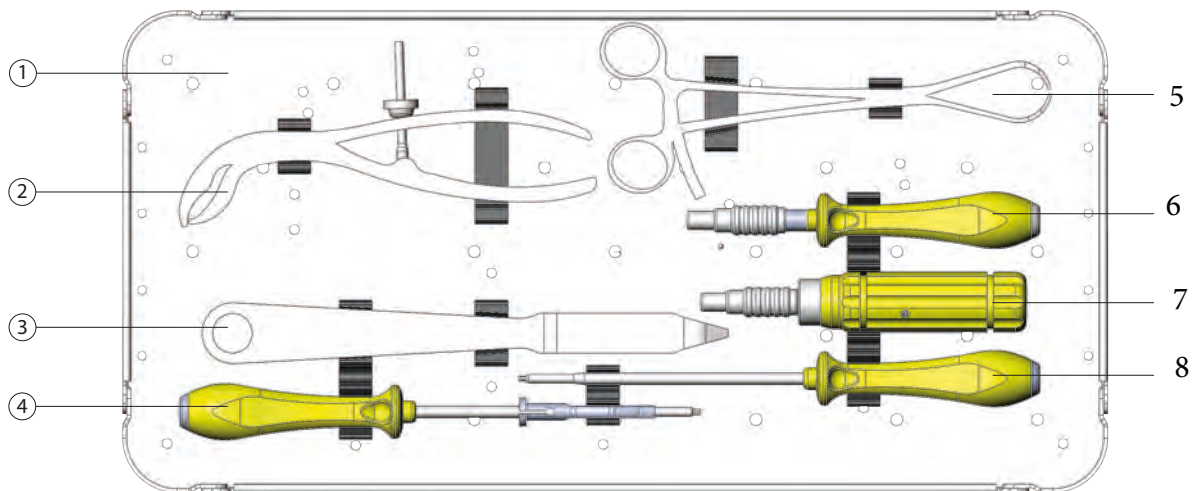
Implant Removal

optional:
implant removal instructions to
extract an cfr peek plate, use the
2.0 mm screw driver to remove all
the 3.5 mm screws in the plate.

Ref: 7000 - 2.0 fixe
handle screw driwer



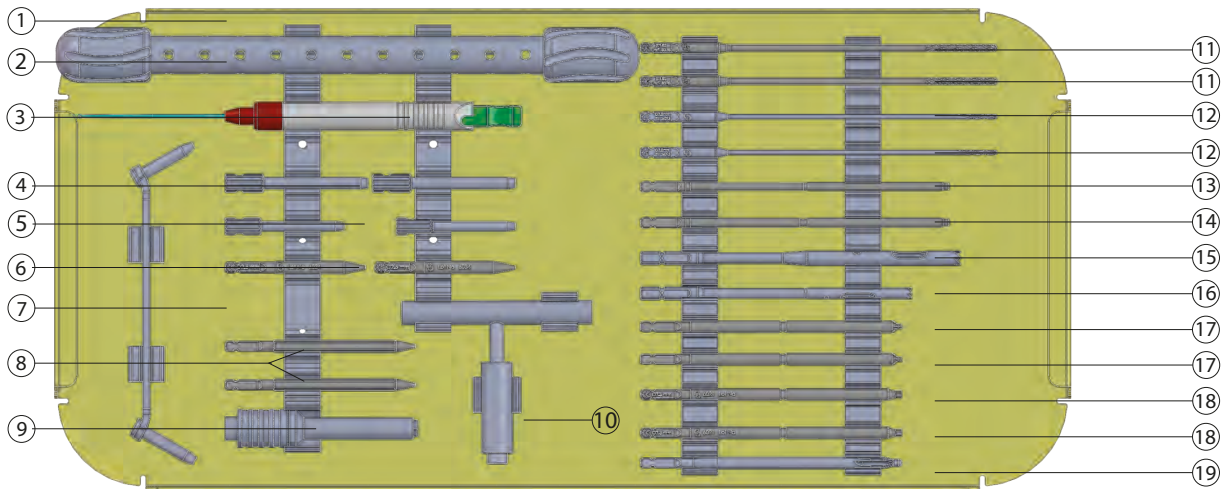
catoalog information- sets



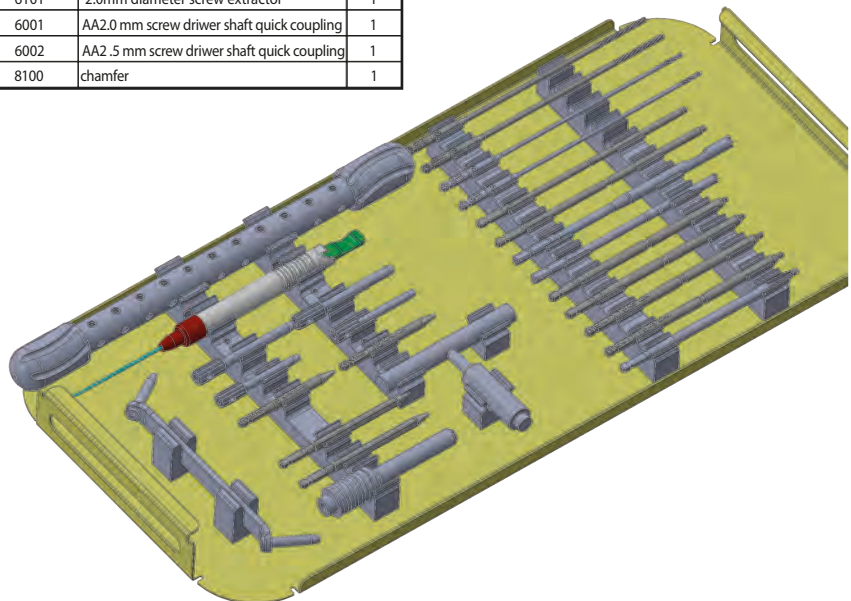
No	Product No	Product Name	Qty
1	7802	3.5 mm diameter instrumentation set tray-2	1
2	8111	reduction forceps	1
3	8108	small retractor	1
4	7001	AA2.5 mm fixe handle screw driwer	1
5	8106	small bone holder key	1
6	6303	small length screw driwer	1
7	6305	3.5 mm diameter torque limiter screw driwer	1
8	7000	2.0 fixe handle screw driwer	1



catoalog information- sets



NO	Product No	Product Name	Qty
1	7910	3.5mm diameter screw instrumentation set tray-1	1
2	6901	kirshner wire tube	1
3	6202	small depth gauge for screws	1
4	6603	3.5 mm diameter sleeve for drill	1
5	6601	2.0 mm diameter sleeve for drill	1
6	6105	2.0mm diameter reverse helical screw extractor	1
7	6401	coffee pot	1
8	6106	2.5mm diameter reverse helical screw extractor	1
9	6510	small screw holder	1
10	6009	t-handle quick coupling holder	1
11	6810	2.8 mm diameter quick coupling drill	1
12	6809	2.0 mm diameter quick coupling drill	1
13	7018	cortical guide	1
14	8102	ancellouse guide	1
15	6102	3.5mm diameter screw extractor	1
16	6101	2.0mm diameter screw extractor	1
17	6001	AA2.0 mm screw driver shaft quick coupling	1
18	6002	AA2.5 mm screw driver shaft quick coupling	1
19	8100	chamfer	1



Case I



Case II



ABAY

S A Ğ L I K