**CUTTING GUIDE AND COMPRESSION DEVICE**

### COMPONENTS

1. **2 blocks** (ANC670 and ANC671) allowing to manage the operated side (right or left) and the approach (lateral, dorsal or palmar/volar).

   - **Block - Alans**
   - **Ulna plate fixation screw**

   - **Pin holes**

   - **Rack-and-pinion system allowing optimal compression of the osteotomy sites**

   - **Hole dedicated to the Ø2.7 mm non-threaded bent guide gauge (ANC750)**

2. **2 cutting guides** (ANC171/1 and ANC171/2) enabling 2 to 6 mm resections. The indication ‘DISTAL’ is present on each cutting guide to ensure an appropriate positioning on the block.

   - **ANC171/1**
   - **ANC171/2**

   - **Pre-oriented hole for transfixation screw in order to be perpendicular to the fracture**

   - **Block - cutting guide fixation screw**

### ASSEMBLING

1. Choose one of the two blocks (ANC670 or ANC671) depending on the operated side (left or right) and the selected approach (lateral, dorsal or palmar/volar).

   - *The illustration above presents a palmar/volar approach on a left ulna.*

2. Choose the appropriate cutting guide (ANC171/1 or ANC171/2) depending on the resection to perform.

   - *Assemble the cutting guide and the block by fastening the preassembled screw with the screwdriver part of the 2-in-1 instrument (ANC083C).*

### FINAL RESULT

The block should be chosen according to:

- The side: right or left
- The selected approach: lateral, dorsal or palmar (volar)

To perform the resection, adjust and secure the cutting and compression device to the plate. Insert and tighten the screw of the block into the appropriate hole of the plate using the screwdriver part of the 2-in-1 instrument (ANC083C).
1. Position the plate. In the most distal hole, drill (ø2.7 mm) (ANC089C) and directly read the drilling depth on the ø 2.7 mm threaded guide gauge (ANC186).

NB : It is possible to position the plate previously assembled with the cutting guide and compression device.

2.a. To ease the insertion of the Ø3.5 mm locking screw (SOT3.5Lxx) use the countersink part of the 2-in-1 instrument (ANC083C) to widen the previously drilled first cortex.

2.b. Insert a Ø 3.5 mm locking screw (SOT3.5Lxx) using the screwdriver part of the 2-in-1 instrument (ANC083C).

3. Snap the ø2.7 mm non threaded bent guide gauge (ANC750) in the plate oblong hole. In the proximal hole of the instrument, perform the ø2.7 mm drilling (ANC089C) and directly read the drilling depth.

NB : In case where the block is assembled with the plate, the ø2.7 mm non threaded bent guide gauge (ANC750) can be snapped in through the block (see § "components").

4.a. In the distal hole of the instrument (ANC750), insert a Ø2.5 mm pin (33.0225.120) using the bicortical fixation method. Remove the non threaded bent guide gauge (ANC750) by sliding it along the Ø2.5 mm pin (33.0225.120).

4.b. Insert a Ø3.5 mm cortical screw (CT3.5Lxx) using the bicortical fixation method in the proximal part of the oblong hole using the screwdriver part of the 2-in-1 instrument (ANC083C). The cortical screw (CT3.5Lxx) and the Ø2.5 mm pin (33.0225.120) help to perfectly align both proximal and distal parts during compression.

5.a. In the second distal hole of the plate, drill (ø2.7 mm) (ANC089C) using the Ø2.7 mm threaded guide gauge (ANC186).

5.b. Insert a Ø3.5 mm locking screw (SOT3.5Lxx) using the screwdriver part of the 2-in-1 instrument (ANC083C).

NB : In case where the block is assembled with the plate, the Ø2.7 mm threaded guide gauge (ANC186) can be locked on the second most distal hole without conflict with the block.

6. Assemble the cutting and compression device (see. § "Assembling") and fix it into the distal hole the closest to the osteotomy site.

7. Perform the two cuts necessary for the ulnar shortening osteotomy using the cutting guide at graduation 0 at first. Then at the graduation corresponding to the required resection. The resection is thus made by two oblique saw cuts.

8. Remove the cutting guide (ANC171/1 or ANC171/2) to pull out the resected bone fragment.

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**Surgical Technique**

**Volar approach Left side**

(a)  

(b)  

(c)  

(d)  

(e)  

(f)  

(g)  

(h)  

(i)  

(j)  

(k)  

(l)  

(m)  

(n)  

(o)  

(p)  

(q)  

(r)  

(s)  

(t)  

(u)  

(v)  

(w)  

(x)  

(y)  

(z)
Surgical Technique Option 1: Stabilization Standard Cortical Screw

9. Slide the cannulated handle (ANC669) along the Ø2.5 mm pin (33.0225.120) and into the rack-and-pinion section of the block.

Unscrew the cortical screw (CT3.5Lxx) of only half a turn so that the plate may be slid.

10.a. Rotate the cannulated handle to perform compression of the osteotomy site.

10.b. While maintaining the compression, tighten up the Ø3.5 mm cortical screw (CT3.5Lxx) into the oblong hole.

11. Remove the cannulated compression handle (ANC669) by sliding it along the Ø2.5 mm pin (33.0225.120).

12. Into the most proximal hole, drill (Ø2.7 mm) (ANC089C) using the Ø2.7 mm guide gauge (ANC186).

Insert a Ø3.5 mm locking screw (SOT3.5Lxx) and directly read the drilling depth on the guide gauge (ANC751).

 Ø2.7 mm drill must not be used into the pre-angled hole (ANC089C).

13. Position the Ø2.0 mm non-threaded guide gauge (ANC751) into the pre-angled (50°) hole of the block (ANC670/671), drill (Ø2.0 mm) (ANC088) and directly read the drilling depth on the guide gauge (ANC751).

14. Insert a Ø2.8 mm cortical screw (CT2.8Lxx) directly through the block using the appropriate screwdriver (ANC082).

15. Remove the block and complete the procedure by inserting the last two Ø3.5 mm locking screws (SOT3.5Lxx) into the remaining locking holes.

Final Result
9. Slide the cannulated compression handle along the Ø2.5 mm pin (33.0225.120) and into the rack-and-pinion section of the block.

Unscrew the cortical screw (CT3.5Lxx) of only half a turn so that the plate may be slid.

10.a. Rotate the cannulated handle to perform compression of the osteotomy site.

10.b. While maintaining the compression, tighten the Ø3.5 mm cortical screw (CT3.5Lxx) into the oblong hole.

11.a. Insert a Ø1.6 mm pin (33.0216.100) into one of the appropriate side holes for stabilization of the assembly. Make sure to insert the pin into the proximal part of the pin hole in order to allow compression.

11.b. Then remove both the cannulated compression handle (ANC669) and the Ø2.5 mm pin (33.0225.120).

12. Position the Ø2.0 mm non threaded guide gauge (ANC751) into the pre-angled (50°) hole of the block and perform the drilling (Ø2.0 mm) (ANC088). Read directly the drilling depth on the Ø2.0 mm non threaded guide gauge (ANC751).

Ø2.7 mm drill must not be used into the preangled hole (ANC089C).

13. Insert a Ø2.8 mm lag screw (QBT2.8Lxx) directly through the block using the appropriate screwdriver (ANC082).

14. Remove the Ø1.6 mm pin and the block. Into the most proximal hole, drill (Ø2.7mm) (ANC089C) using the Ø2.7 mm threaded guige gauge (ANC186). Insert a Ø3.5 mm locking screw (SOT3.5Lxx) using the screwdriver part of the 2-in-1 instrument (ANC083C).

15. Complete the procedure by inserting the last two Ø3.5 mm locking screws (SOT3.5Lxx) into the remaining locking holes.

FINAL RESULT