Medical Implants

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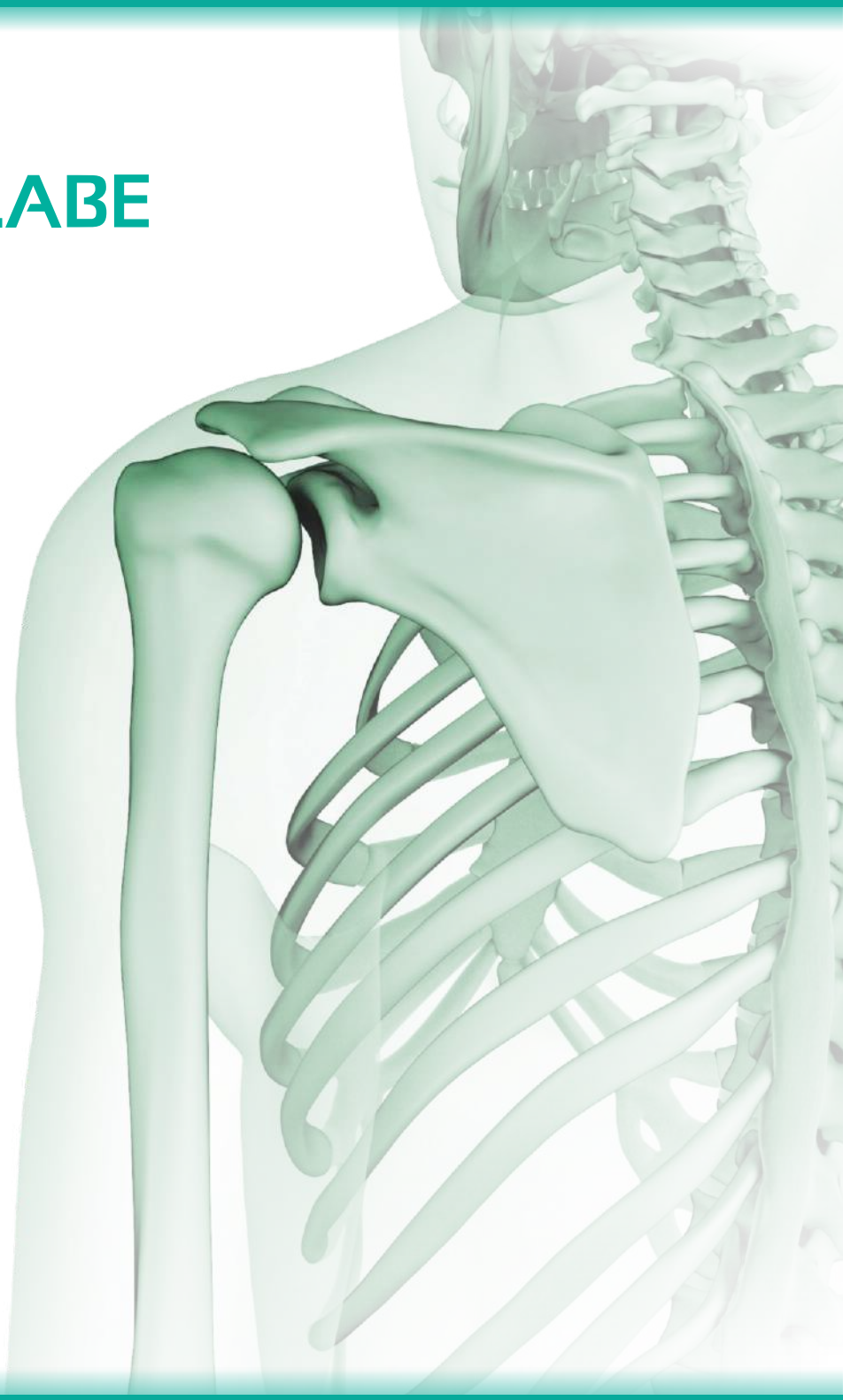
life and mobility



Clavicle Plates
Surgical Technique

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Medical Implants

Astrolabe recognizes that proper surgical procedures and techniques are responsibilities of medical professionals.

The following guidelines are provided for information purposes only. Each surgeon must evaluate the appropriateness of the procedures based on their medical training, experience and condition of the patient. Before using the system, the surgeon must consult the operating instructions for additional warnings, precautions, indications, contraindications and adverse effects.

- Astrolabe Clavicle Plate System can combine the use of 3.5mm cortex screws with 2.7mm locking screws and a 2.4mm cortex screw, providing better angular stability to the clavicle shaft and the lateral clavicle.
  Anatomic pre-shaped plates and conical tips facilitates percutaneous surgeries and prevent soft tissue irritation.

- **General Indications:**

  - Clavicle Shaft Fractures
  - Lateral Clavicle Fractures
  - Clavicle Malunions
  - Clavicle Non-unions

Clavicle Plates

Clavicle Plates
Combined Holes
Left and Right

Clavicle Plates
Anterior/Superior
Left and Right

Clavicle Screws

Cortical Screw Ø2.4mm

12mm - 30mm, 2mm increments

Locking Screw Ø2.7mm

12mm - 30mm, 2mm increments

Cortical Screw Ø3.5mm

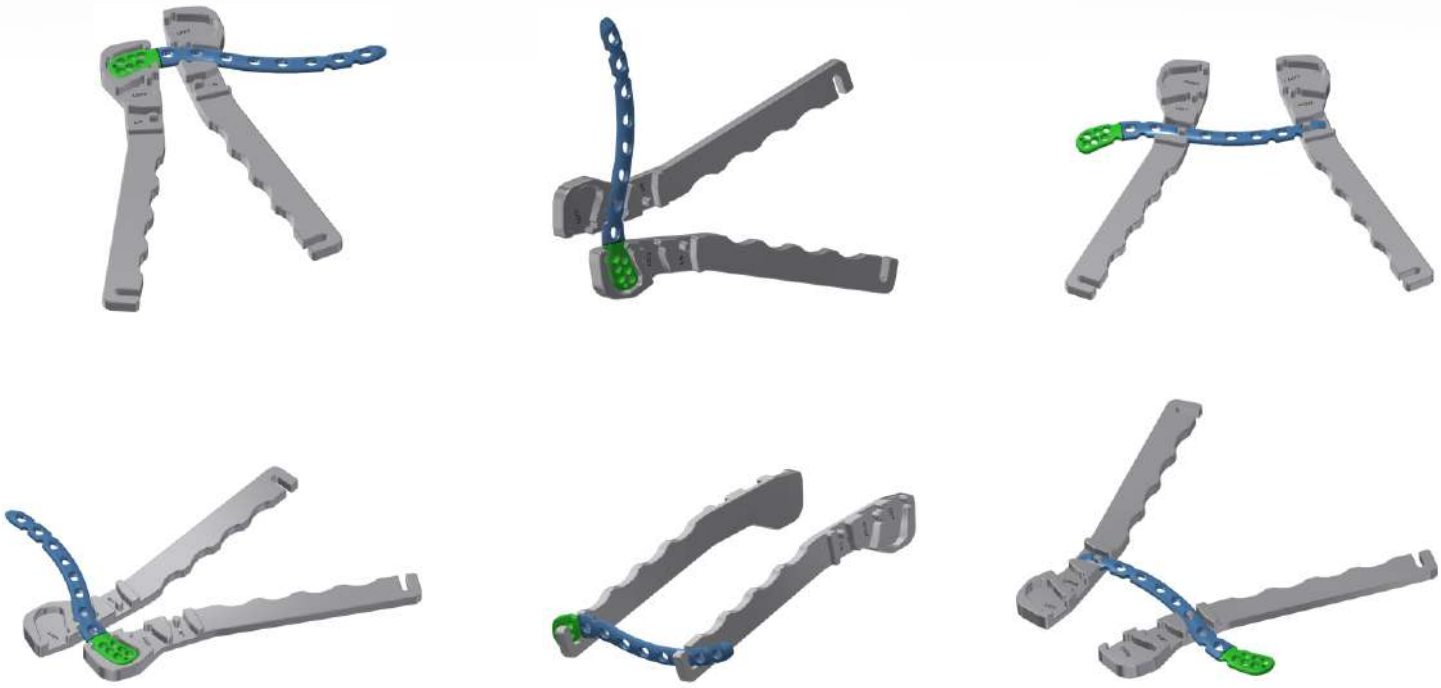
12mm - 30mm, 2mm increments

Locking Screw Ø3.5mm

12mm - 30mm, 2mm increments

- The preoperative plan can be done by using templates provided in our system. This is a very important step to determine the length and position of the plates and screws.

- After the reduction of the fracture, select a plate length appropriate for the fracture and, if necessary, contour the plate to adapt the patient's anatomy (item 09/ 10).



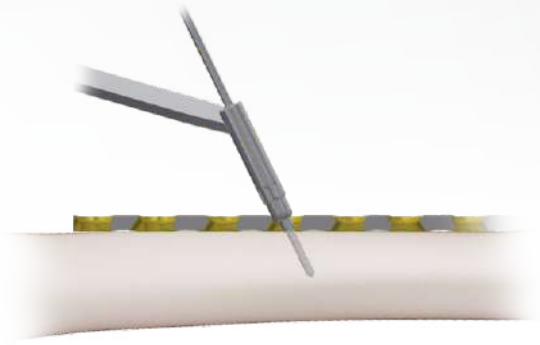
- Position the plate over the fracture and fix it, temporarily, with a 3.5mm cortical screw.

- Check the position of the plate with the image intensifier.

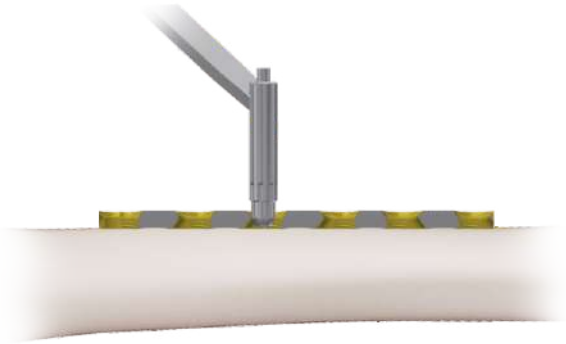
- Determine the combination of screws for the fixation.
- Once is decided to use both screws (cortical and locking), cortical screws should be placed first, in order to pull the bone to the plate.

Fixation with 3.5 mm cortical screws

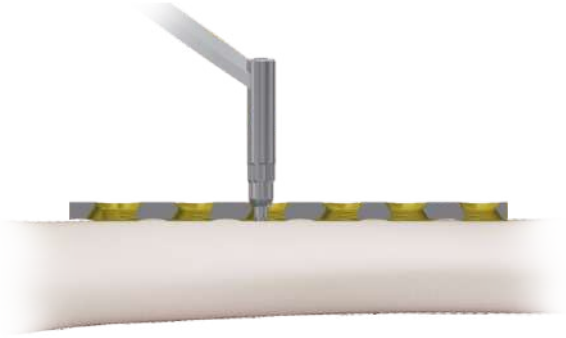
- Properly place the Drill Guide (item 03) over the plate then proceed with drilling using the Drill Bit (item 01/ 02).



- To place a Screw in **neutral position**, position the Universal Drill Guide (item 03) in order to take place in the center of the plate hole allowing a neutral pre drilling.



- To place a Screw for **dynamic compression**, position the Universal Drill Guide (item 03) eccentrically on the plate hole and proceed with pre drilling.



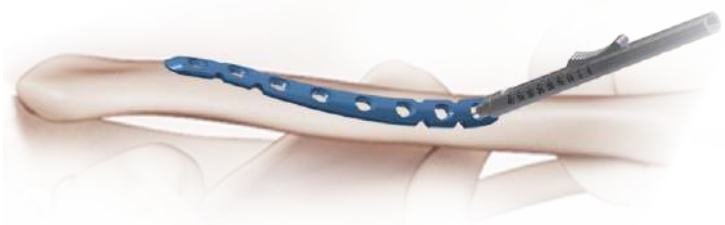
- Screw measure can be obtained by reading on the Depth Gauge (item 07).

- Use the Shaft Screwdriver (item 06) to properly position the screws.

Fixation with 3.5 mm Locking Screws

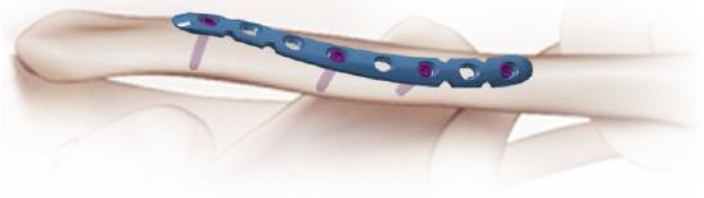
- Properly place the **Ø2.8mm Threaded Drill Guide (Small Fragments)** into the threaded hole, then drill through both cortices with Drill Bit (item 01/ 02).

- The screw measure can be obtained by reading on the Depth Gauge (item 07).



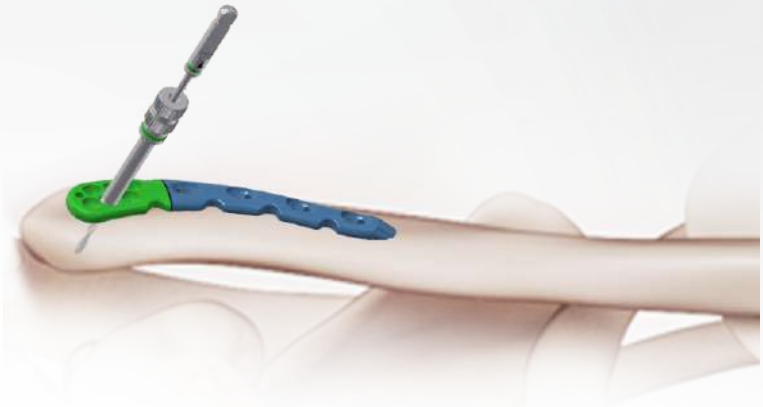
- Use the Shaft Screwdriver (item 06) to properly position the screws.

- The procedure of placement of the screws is repeated as many times as necessary, for optimal fixation of the plate.
- Check the final position of the screws through the image intensifier to check if final position is according to initial intention.

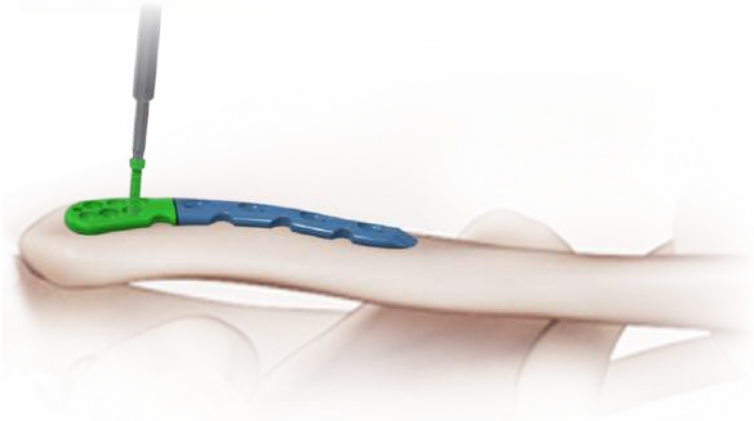


Fixation with 2.7 mm locking screws (only in plates with lateral extension)

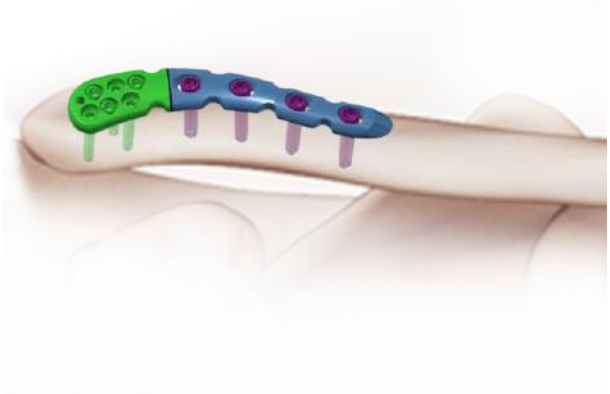
- Properly place Ø2.0mm Threaded Drill Guide (item 04) by turning it into the threaded hole, then proceed with drilling using the Drill Bit (item 01/ 02).



- Use the Shaft Screwdriver (item 06) to properly position the screws.



- The procedure of placement of the screws is repeated as many times as necessary, for optimal fixation of the plate.
- Check the final position of the screws through the image intensifier to check if final position is according to initial intention.



01 **Drill Bit - Ø1.8 x 100mm - Twist**
Length 30 mm - AO Coupling
Cod.: 09.01.01.18100

02 **Drill Bit - Ø2.0 x 100mm - Twist**
Length 30mm - AO Coupling
Green Code
Cod.: 09.01.14.20100

03 **Drill Guide - Ø2.4 / Ø1.8mm**
Universal
Cod.: 09.05.01.24000

04 **Drill Guide - Ø2.0mm**
Threaded
Cod.: 09.05.05.20000

05 **Holding Sleeve - Ø2.4mm**
Cod.: 09.06.04.24000

06 **Shaft Screwdriver - Torx-8**
110mm - AO Coupling
Cod.: 09.07.04.08110

07 **Depth Gauge - 40mm**
Short
Cod.: 09.08.01.00042

08 **Screw Forceps - Small**
Cod.: 09.10.01.00000

09 **Bender - Left**
For 3.5mm Clavicle Plates
Cod.: 09.13.00.10035

10 **Bender - Right**
For 3.5mm Clavicle Plates
Cod.: 09.13.00.20035

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