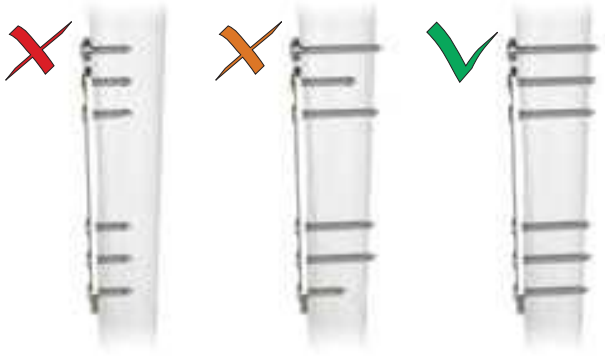
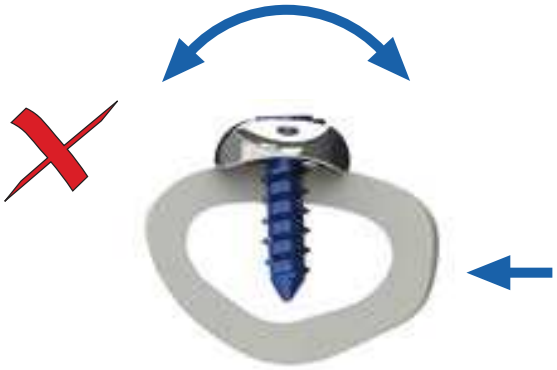
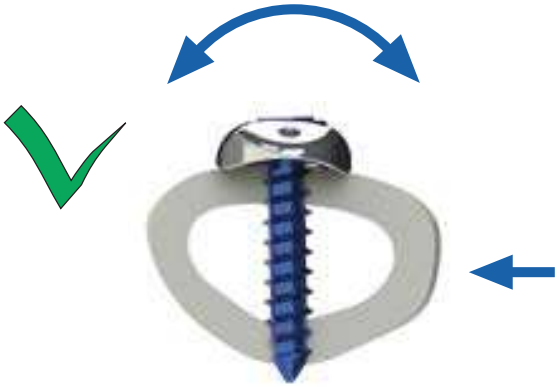
O'nil®
The internal fixator

stability and grip of the implant

In lateral loads, prevalent in the upper limbs, force tends to make fragments rotate, and resistance depends on single screws with rigid support.







Screws inserted into a single cortical do not ensure sufficient resistance to the rotation of fragments.

In axial loads, prevalent in the lower limbs, the force exerted causes the flexion of the screws on the support, leading to the major risk of localised osteolysis and/or breakage.

It is therefore important that the screws are affixed onto the two corticals.

stability of the implant in loading condition

- Stable bridge immobilisation of comminuted fractures.
- Plate-screw solidarisation reduces the secondary loss of reduction in the epiphyseal and metaphyseal regions.
- Screws are locked onto the plate and the physiological load (F) is homogeneously transferred from the bone to the plate.
- Bone fragments are stably fixed into the position assumed at the time the screws were locked.

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angular stability

- Angular support confers stability to the fragment independent of bone quality.
- Limited contact reduces the impairment of periosteal blood supply, preserving circulation.
- Screws conically locked onto the plate on two or three levels.

characteristics of the screws

Self-threading, conical-head screws

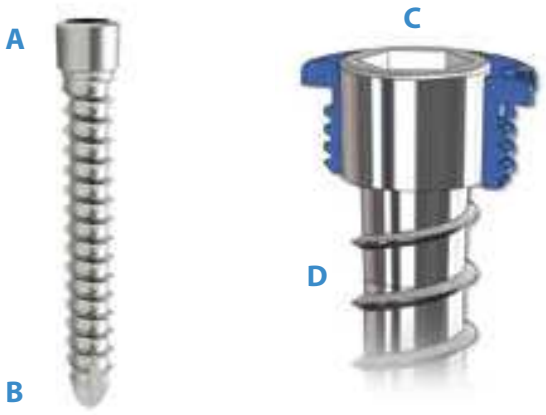
O'nil screws have the following characteristics:

- A: 2° conical head.
- B: Self-threading grooves.
- C: Hexagon socket for screwdrivers.
- D: Thread.

O'nil screws are divided into 4 pathologies:

- Mini Series Screws, 2.5 mm diameter
- 3.5 Series Screws, 3.5 mm diameter
- 5 Series Screws, 5.0 mm diameter
- 7 Series Screws, 7.0 mm diameter

O'nil screws are made of Titanium Ti6Al4V



characteristics of the bushing

- Pre-assembled on the support.
- Housing for conical screws (2°).
- O'nil bushings are made of Ti6Al4V.
- O'nil bushings are colour-coded.

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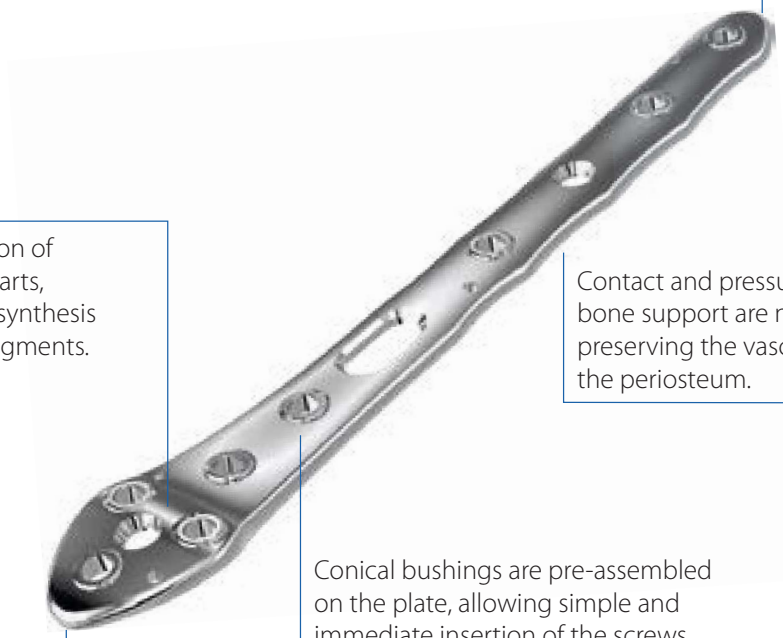
characteristics of the supports

- Less invasive through the use of shorter implants, with a reduced number of screws.
- Screw-support solidarisation through conical coupling ensures the distribution of force throughout the structure, eliminating the risk of implant breakage and screw mobilisation.
- Mechanical quality of the implant permits early rehabilitation and distribution of loads.
- Stability of the implant is especially important in treating elderly patients with poor bone quality.
- Conical coupling creates a stable system, reducing secondary loss of reduction.

Plates have rounded edges for easier and less invasive application.



Greater concentration of bores in the distal parts, allowing improved synthesis and reduction of fragments.

Contact and pressure of the bone support are not needed, preserving the vascularisation of the periosteum.

Anatomical supports, 1.2 to 4.5 mm in thickness, allow an extremely wide application.

Conical bushings are pre-assembled on the plate, allowing simple and immediate insertion of the screws.

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advantages of hybrid implants

Ability to use screws of differing diameters on some types of fixators. Use of screws with diameters smaller than the epiphysis allows optimal synthesis of the fracture.

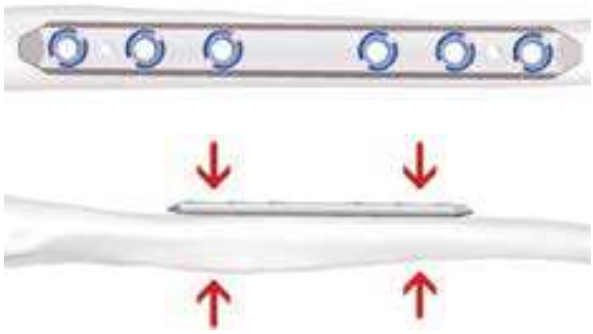
Ability to model the support based on anatomy.

innovative solutions

Fractures of the humeral pallet

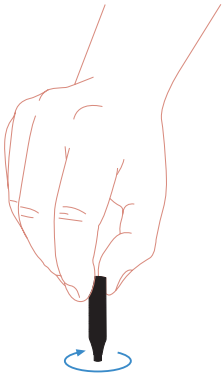
- Distal parts of the fixators are tapered to preserve the soft tissue of the humeral pallet.
- Stable fixation in the condylar area is ensured by the specific orientation of the screws.
- Stable fixation in the condylar area is ensured by the specific orientation of the screws.

Implant technique



1. After the fracture is reduced, solidarise the support onto the bone with the aid of reduction forceps.

2. Insert the drill guide into the bushing, conically coupling it. Insert the helicoidal point into the drill guide and execute a bicortical hole.



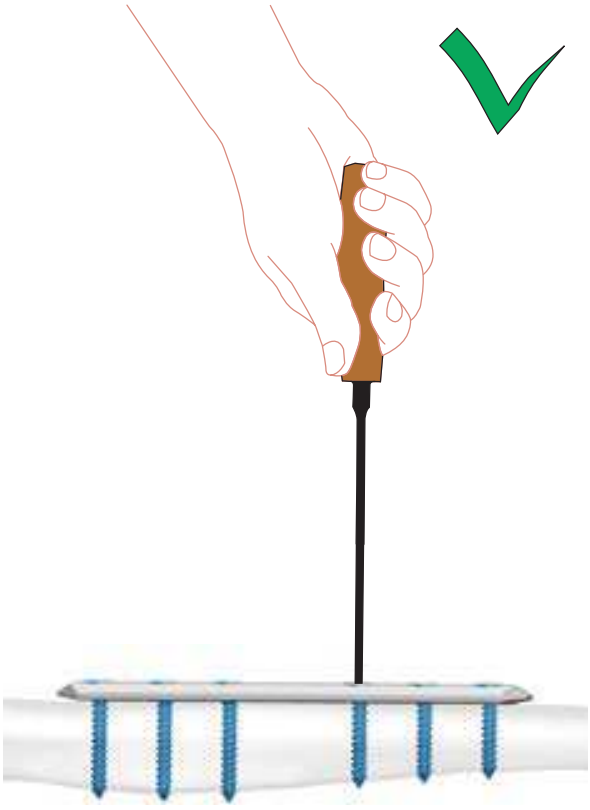
3. Pay attention during removal of the drill guide: this must be done with a clockwise rotation.

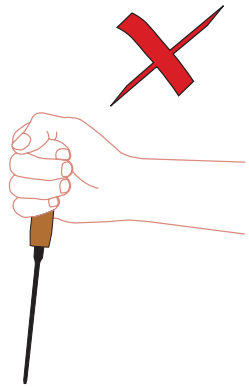
4. After removing the drill guide, determine the length of the screws with the appropriate gauge.

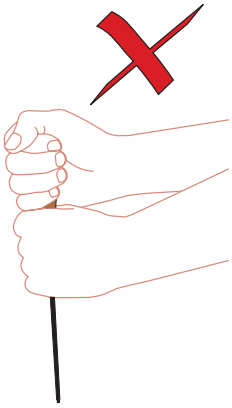
Implant technique

5. Remove the gauge and insert the screws of the selected size, without completely tightening it into the site, as shown in the figure.

6. Proceed similarly for all the other screws. Before completely tightening the heads of the screws, ensure that the lengths selected are correct.







7. Tighten the screws using moderate force.

Technique with temporary stabilisation screws

1. Remove the point and the drill guide and tighten the temporary stabilisation screws. If necessary, use the second stabilisation screw.

2. Proceed by inserting the final screws, as specified in the previous implant technique.

3. Remove the temporary stabilisation screws, measure the length of the final screws, and insert them.

4. After verifying that the length is correct, tighten the screws, conically coupling the head with the bushing.

Screw-bushing disassembly technique

1. If the bushing is still assembled at the head when removing a screw, insert the two components into the screw/bushing disassembly tool, as shown in the figure.

2. Screw the cap back onto the screw/bushing disassembler.

3. Insert the beater, as shown in the figure, and disassemble the bushing from the screws.

Slotted pin

Serie 3.5 Serie 5

The slotted pin is to be inserted into the bushing to perform cerclage. The slotted pin is made of Titanium Ti6Al4V and is internally hexagonally recessed.

Available in versions:

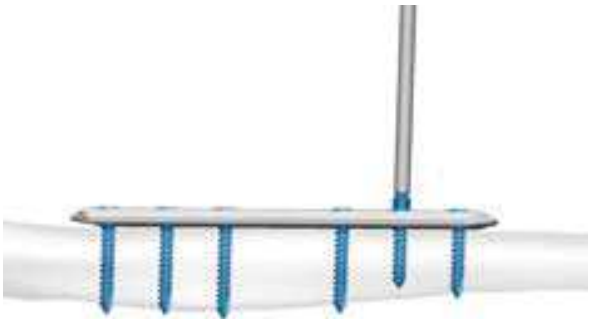
- 3.5 Series
- 5 Series (including threaded)

The four bores (Ø 2 mm) on the walls of the pin allow easy insertion of the cerclage cable.

After selecting the bushing in which to insert the slotted pin, insert it into the conical site and tighten it, using the appropriate screwdriver for the series.

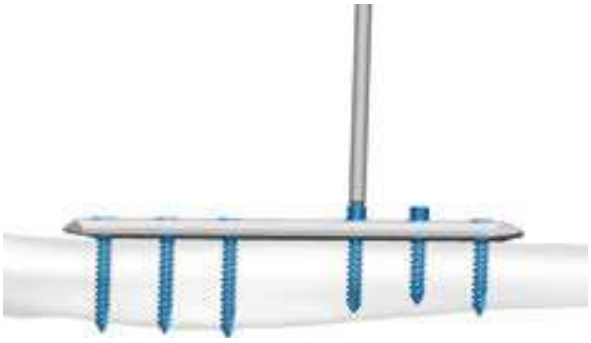
View of the correctly inserted slotted pin.

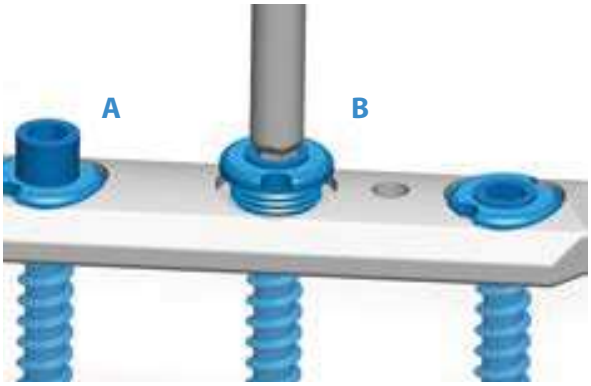
Removal of the implant



1. Use a screwdriver to decouple the head of the screw from the bushing.

2. We recommend decoupling several screws to facilitate removal.





3. Method for extraction of screws:

A - Removal of screws

B - Removal of screw with bushing