



## PANTA<sup>◇</sup> – PANTA XL

Arthrodesis Nail System

Removal Surgical Technique



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**PANTA – PANTA XL Arthrodesis Nail System Removal Kit**

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**Nota Bene**

The following technique is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on the product, including its indications for use, contraindications, and product safety information, please refer to the product’s label and the Instructions for Use packaged with the product.



## Implant Description

The implanted PANTA<sup>®</sup> and PANTA XL arthrodesis nail construct typically consists of:

- 1 intramedullary nail
- 2 tibial screws
- 2 calcaneal screws
- 1 talar screw (optional)

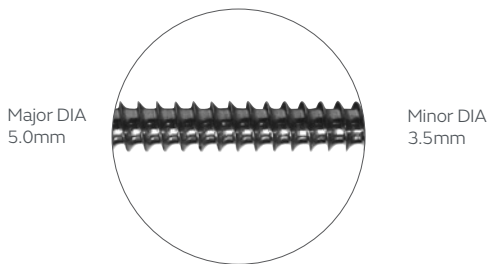
Each implanted PANTA or PANTA XL screw is fully threaded or partially threaded.

An end cap may be inserted into the distal nail threads to prevent tissue ingrowth and facilitate future nail removal.

The nail, cross locking screws and end cap are manufactured from titanium alloy: Ti-6Al-4V ELI, ISO 5832-3, ASTM F136.

### Fully threaded screws

- Threads on the entire length
- The head avoids a too deep insertion of the screw in the bone



### Partially threaded screws

- Threads on the head and tip only
- The headless design enables the implant being totally embedded

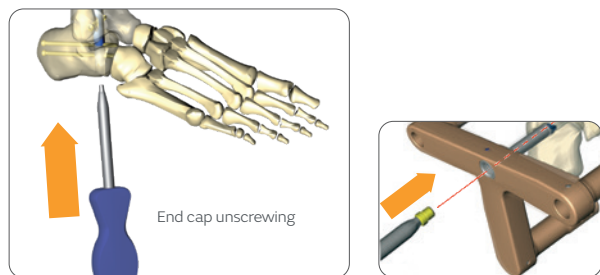


Figure 1

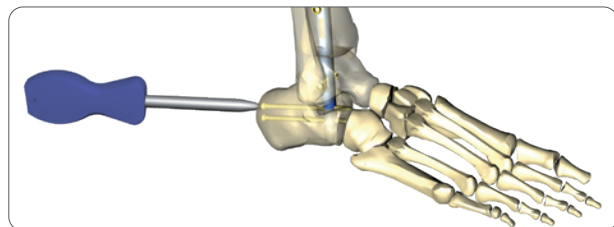


Figure 2-a

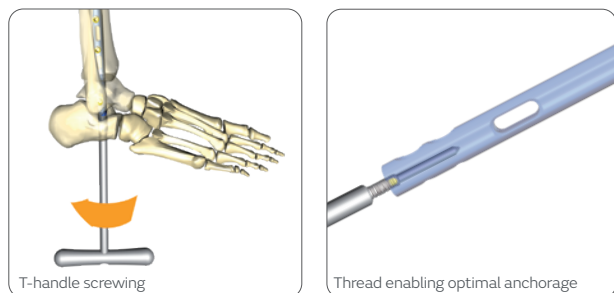


Figure 3-a

Figure 3-b

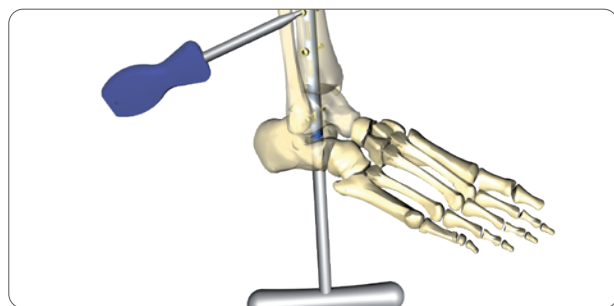


Figure 3-c Tibial screw unscrewing

## Surgical Technique

### Step 1 • End Cap Unscrewing

Remove the end cap using the screwdriver (309645ND). The protection sleeve (119552ND) may be used to find the nail extremity.



A fluoroscopy control can be useful during this step.

### Step 2 • Calcaneal Screws Removal

Calcaneal screws (501020ND to 501110ND or 511020ND to 511110ND) have to be removed first. Protection sleeves (119552ND) may be used to locate the screw head. Using the screwdriver (309645ND) remove both screws.

In case of talar screw presence, remove it.

### Step 3 • Tibial Screws Removal

Insert the T-handle (519210ND) into the nail.

Protection sleeve may be used.

After the calcaneal screws, the tibial screws (501020ND to 501110ND or 511020ND to 511110ND) have to be removed using the screwdriver.

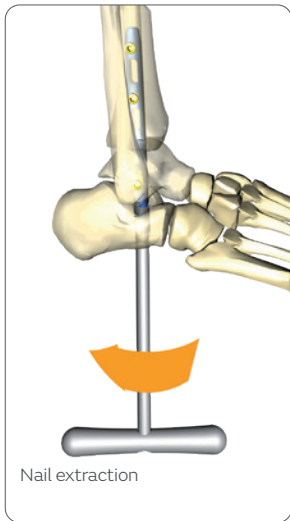


Figure 4-a

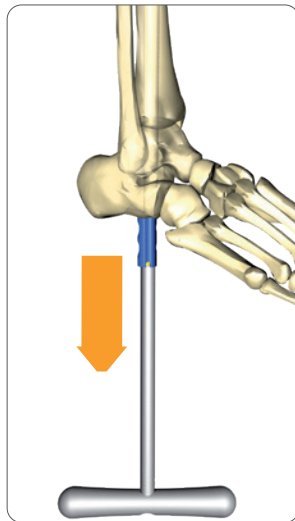


Figure 4-b

## Step 4 • Nail Removal with the T-handle

Break possible bony bridge by turning the T-handle.

Then pull the T-handle to remove the nail.

### Nail extraction with the sliding hammer

In case of hard bone, the sliding hammer might be used. Attach the sliding hammer to the T-handle while holding the assembly.

Slide the hammer axially until the bony bridges are broken and the nail extracted.

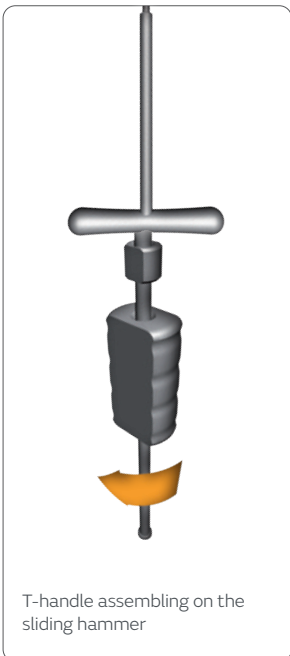


Figure 4-c

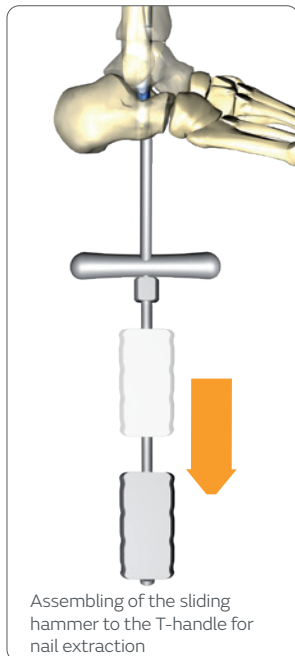


Figure 4-d



**309645ND**  
Hexagonal  
screwdriver  
3.5mm



**119552ND**  
6.5mm external  
protecting  
sleeve



**519210ND**  
T-handle



**519209ND**  
Sliding hammer

## Instrumentation Set



### Reusable Instruments

#	Ref	PANTA Nail removal kit description
1	519209ND	Sliding hammer
2	519210ND	T-handle
3	309645ND	Hexagonal screwdriver 3.5mm
4	119552ND	6.5mm external protecting sleeve
5	519950ND	Container including the following components:
	996100ND	Lid (not shown)



Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets. Please contact your Smith+Nephew representative or distributor if you have questions about the availability of Smith+Nephew products in your area.

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