

SURGICAL TECHNIQUE

# All-in-One Staple



**APTUS** Foot

# Contents

3	Introduction
3	Product Materials
3	Indications
3	Contraindications
4	System Overview
5	Surgical Technique
8	Explantation
8	Implants and Instruments

For further information regarding the APTUS product line visit [www.medartis.com](http://www.medartis.com)

# Introduction

## Product Materials

<b>Product</b>	<b>Material</b>
Staples and K-wires	Stainless steel

## Indications

### **All-in-One Staple**

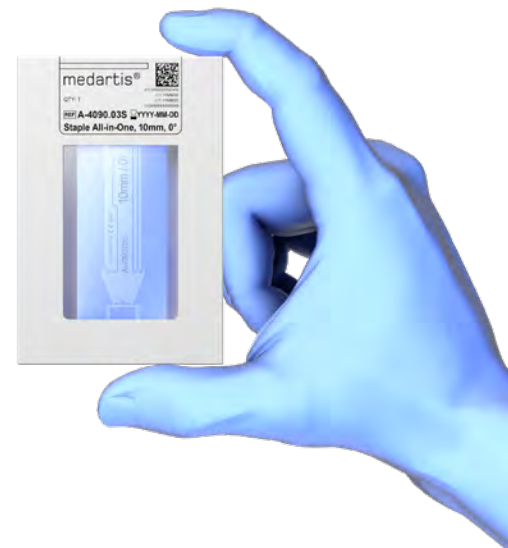
Osteotomies of the foot phalanges and metatarsals

## Contraindications

- Pre-existing or suspected infection at or near the implantation site
- Known allergies and/or hypersensitivity to implant materials
- Inferior or insufficient bone quality to securely anchor the implant
- Patients who are incapacitated and/or uncooperative during the treatment phase
- Growth plates are not to be blocked with implants

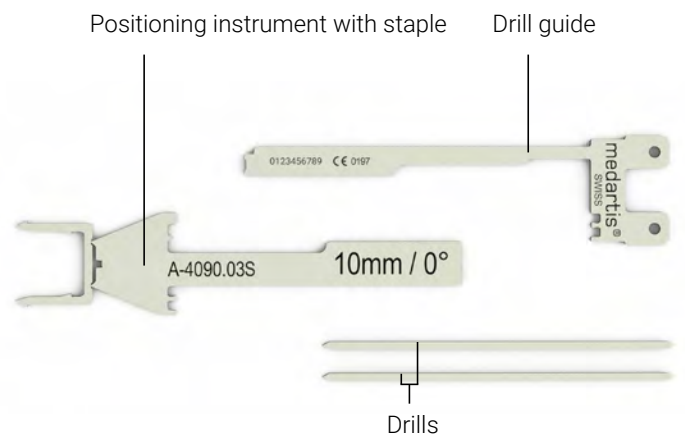


# System Overview



## Implant and Instruments

- Sterile staple kit with implant and all implant-specific instruments combined
- Two drills and the corresponding drill guide are included
- Positioning instrument



## Implants

- Available in two widths (8 mm and 10 mm) and two angles (0° and 26°)
- Leg length 10 mm



# Surgical Technique

## Prior to Use

- Check the use-by date on the staple sterile packaging
- Inspect and verify the physical integrity of the packaging and do not use any product where the sterile packaging has been opened or damaged
- Confirm that the width and angle of the staple are per surgeon's request

## Warning

Do not use damaged or expired sterile products.

### 1. Preparing the staple

Remove the all-in-one staple from the sterile packaging following specific aseptic guidelines.

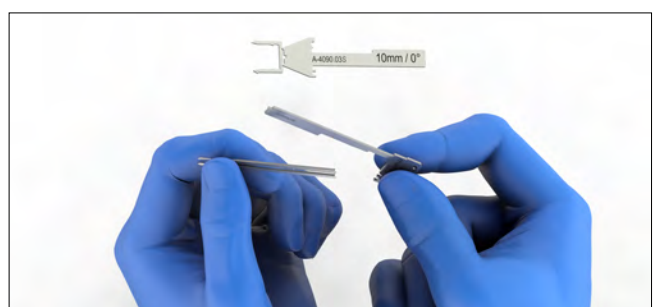
To detach the individual elements of the staple, hold the all-in-one staple at its ends. Make sure to grasp the positioning instrument and the staple by the corresponding junction points to prevent the staple from being detached prematurely.



Detach the two drills and the drill guide by applying slight opposite pressure against the positioning instrument.

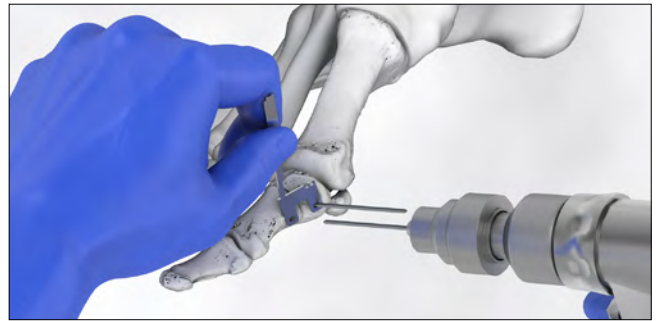


Detach the drills from the drill guide in the same way.



## 2. Drilling

Drill the first hole through the drill guide using one of the detached drills. Leave the drill in the drill hole for fixation of the drill guide. Make sure that the osteotomy is completely closed, and the lateral cortex is intact, before drilling the second hole. With the second drill, drill the second hole parallel to the first drill hole through the drill guide. Due to the slightly wider distance of the drill holes in relation to the staple width, compression will be achieved during the insertion of the staple.



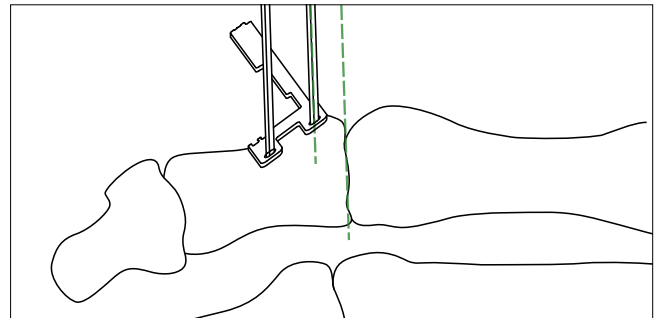
### Warning

Ensure that adequate compression is achieved across the osteotomy.

As an alternative to the drills (1 x 1 mm), K-wires  $\varnothing$  1.4 mm can be used.

### Notice

With the 26° staples (A-4090.02S and A-4090.04S), pre-drilling must be carried out parallel to the joint surface.



## 3. Inserting the staple

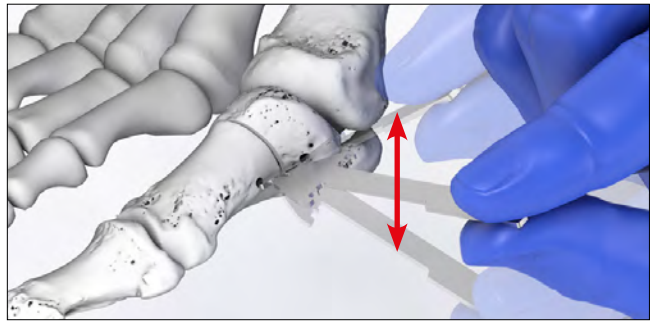
Remove the drill guide and the drills.



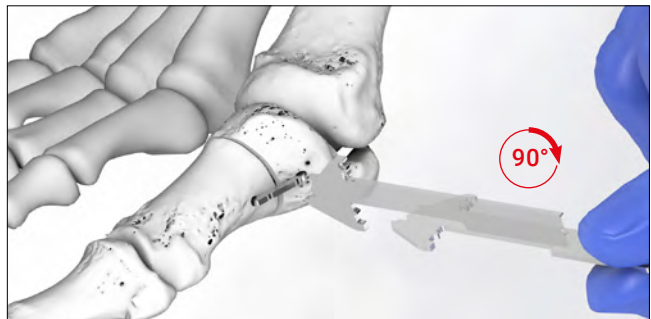
Insert the staple monocortically into the predrilled holes using the positioning instrument and if needed a small mallet.



Detach the positioning instrument from the staple by moving it slightly up and down

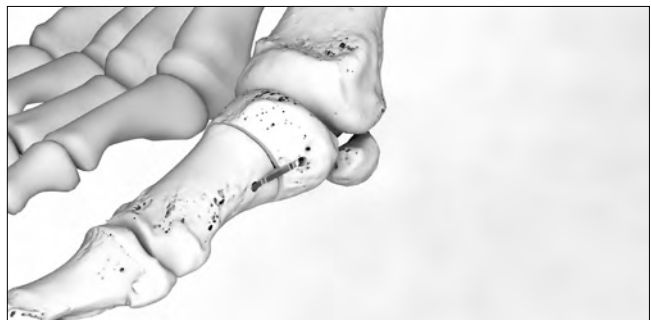


If the staple is not completely inserted, the positioning instrument acts as a tamp to correct the insertion depth of the staple using a small mallet. To do so, turn the positioning instrument by 90° to the staple and place it with the notch onto the staple.



### Warning

Ensure the staple is completely inserted and resting on the bone. Irrigate and close in the standard manner.



### Warning

In the case of osteoporotic bone, the staple should be detached from the positioning instrument before insertion and then inserted manually.

# Explantation

## Removing the staple

- Expose the site and the bridge of the staple
- If the implant is recessed, use a periosteal elevator to lift the staple bridge
- Using a forceps, grasp the center of the staple and remove
- If solidly connected to the bone, cut the center of the staple bridge and remove the two parts with a bone pliers

# Implants and Instruments

## Staples All-in-One

Material: Stainless steel (ASTM F139)  
Staple thickness: 1.0 mm



A-4090.01S



A-4090.03S



A-4090.02S



A-4090.04S

Art. No.		Description (Width, Angle)	Pieces / Pkg
A-4090.01S	<b>STERILE</b>	08 mm, 0°	1
A-4090.02S	<b>STERILE</b>	08 mm, 26°	1
A-4090.03S	<b>STERILE</b>	10 mm, 0°	1
A-4090.04S	<b>STERILE</b>	10 mm, 26°	1



R FOOT-01040001\_v0 / © 2021-03, Medartis AG, Switzerland. All technical data subject to alteration.

#### **MANUFACTURER & HEADQUARTERS**

Medartis AG | Hochbergerstrasse 60E | 4057 Basel / Switzerland  
P +41 61 633 34 34 | F +41 61 633 34 00 | [www.medartis.com](http://www.medartis.com)

#### **SUBSIDIARIES**

Australia | Austria | Brazil | China | France | Germany | Japan | Mexico | New Zealand | Poland | Spain | UK | USA

For detailed information regarding our subsidiaries and distributors, please visit [www.medartis.com](http://www.medartis.com)



Disclaimer: This information is intended to demonstrate the Medartis portfolio of medical devices. A surgeon must always rely on her or his own professional clinical judgement when deciding whether to use a particular product when treating a particular patient. Medartis is not giving any medical advice. The devices may not be available in all countries due to registration and / or medical practices. For further questions, please contact your Medartis representative ([www.medartis.com](http://www.medartis.com)). This information contains CE-marked products.  
For US only: Federal law restricts this device to sale by or on the order of a physician.