



NEWCLIP  
TECHNICS



FOOTMOTION  
FOREFOOT

# FOOTMOTION

**Intended purpose:** Implants of the Stand-Alone Screws range are intended for fractures fixation, osteotomies and arthrodeses of bones in adults, appropriate for the size of the device.

**Contra-indication:**

- Pregnancy.
- Acute or chronic local or systemic infections.
- Allergy to one of the materials used or sensitivity to foreign bodies.

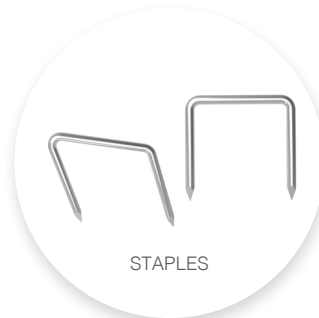
## A COMPREHENSIVE RANGE OF SOLUTIONS FOR FOREFOOT

### SAFETY TRACEABILITY

The whole range is available sterile and non-sterile.



In order to improve the traceability of non-sterile screws, a marker (provided with each screw, except snap-off screw) clearly indicates their batch number and length.



## TECHNICAL FEATURES

### → SELF-DRILLING SCREWS

The shape of the distal tip of the screws allows self-drilling properties.

### → CANNULATED SCREWS

The Ø2.25 mm and Ø2.6/3.0 mm cannulated screws are guided by Ø0.8 mm and Ø1.0 mm pins respectively. This allows the use of the drill bit, 3 in 1 instrument and the screw insertion through the pin.

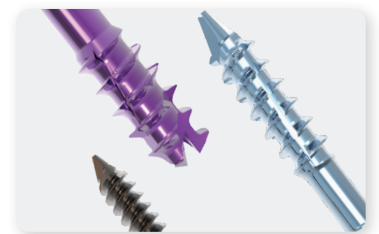


### → SELF-TAPPING SCREWS

The tip and the head of the screws have been designed with self-tapping shape allowing an insertion of the screw without any need of pre-tapping step.

### → NON-CANNULATED SCREWS

- 2 types of non-cannulated screws:
- For Weil osteotomies with Weil screws Ø2.0 mm
  - For Chevron osteotomies with Chevron screws Ø2.8 mm.

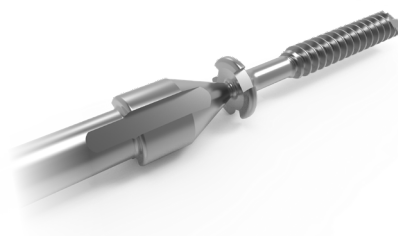


### → SELF-COMPRESSIVE SCREWS

The difference of the pitch thread between the head and the distal part of the screw will lead to faster insertion on the distal fragment than on the proximal one and thus creates compressive effect.

### → WEIL SNAP-OFF SCREWS

The screw separates itself from the shank as soon as the head gets in contact with the bone and is compatible with wire driver (Ø2.4 mm).

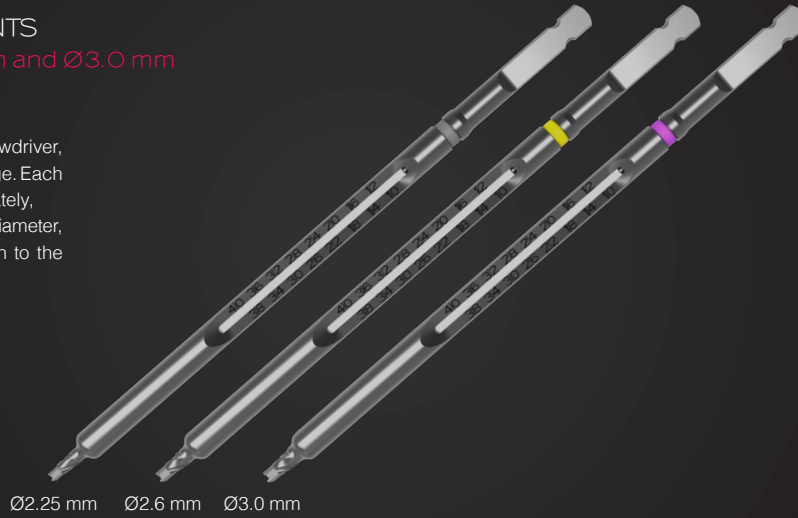


# FOOTMOTION

## PATENTED DESIGNED INSTRUMENTS

### → 3-IN-1 INSTRUMENTS Ø2.25 mm, Ø2.6 mm and Ø3.0 mm

The 3-in-1 instrument:  
 - combines three tools: screwdriver, countersink and depth gauge. Each tool is also available separately,  
 - is available for each screw diameter,  
 - is available with connection to the power tool.



a) Depth gauge



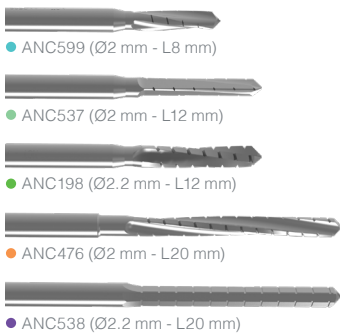
b) Countersink



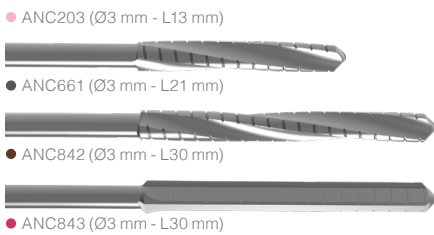
c) Screwdriver

## PERCUTANEOUS REAMERS

### Ø2.0 mm/Ø2.2 mm SHANNON REAMERS (straight or helical flute)



### Ø3.0 mm SHANNON REAMERS (straight or helical flute)



### Ø4.0 mm SHANNON REAMER (helical flute)



### APPLICATIONS

Percutaneous reamers are designed for minimally invasive surgery of the forefoot.

#### → Cylindrical reamers

- Ø4.0 mm large and Ø3.0 mm long Shannon reamers: exostosectomy, arthrodesis and shortening osteotomy.

- Ø2.0 mm/Ø2.2 mm short and long Shannon reamers: lateral rays osteotomy, distal or proximal osteotomy of the first ray and osteotomy of the first phalanx.

#### → Conical reamers

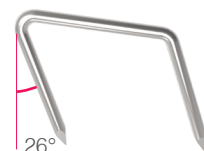
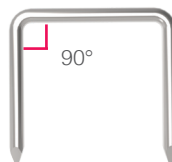
- Wedge: distal monocortical osteotomy of the first ray and osteotomy of the first phalanx.

### WEDGE CONICAL REAMER



## STAPLES

Two designs are available (straight: 90° and oblique: 26°) with, for each one, two widths (8 and 10 mm).



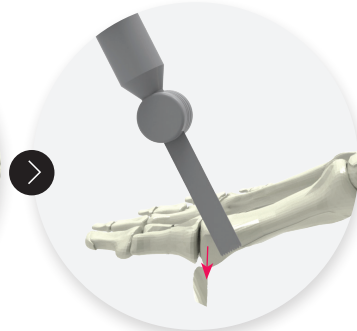
# HALLUX VALGUS SURGICAL TECHNIQUE

## STEP 1

## FIRST METATARSAL OSTEOTOMY (M1)

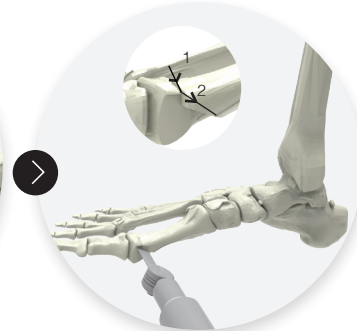


Hallux Valgus



### A. Exostectomy

Using an oscillating saw or a percutaneous reamer, perform metatarsal head resection to create a smooth surface.



### B. Chevron Osteotomy ('V-shaped' osteotomy)

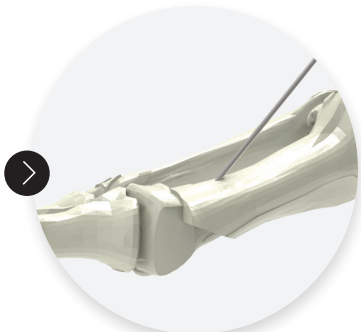
1. The first cut is performed distally, dorsally and transversally under visual control, just behind the articular surface, and perpendicularly to the axis of the second metatarsal. The osteotomy depth should be about 5 mm.

2. The second cut is performed toward the plantar diaphysis.



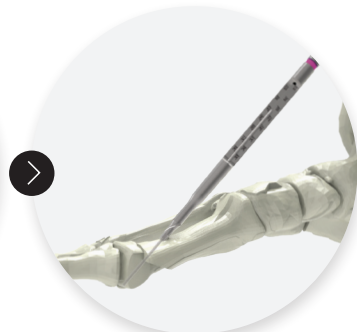
### C. Translation of bone fragment

Displace the distal fragment laterally to correct alignment. Temporary pin fixation can help maintaining the correct alignment.



### D. Positioning the guide pin

Using the appropriate guide, insert the pin corresponding to the chosen screw diameter (Ø0.8 mm pin for Ø2.25 mm screws / Ø1.0 mm pin for Ø2.6 mm and Ø3.0 mm screws – the colour code of the pin holders helps to clearly identify the suitable pin size).



### E. Determining screw length

Choose the 3-in-1 instrument (measuring device, countersink and screwdriver\*) corresponding to the screw diameter\*\* and insert it manually into the guide pin until it touches the bone. Read the screw length on the measuring gauge at the tip of the pin.

\*Each tool is available separately and used with the quick-coupling handle, no power tool is necessary.

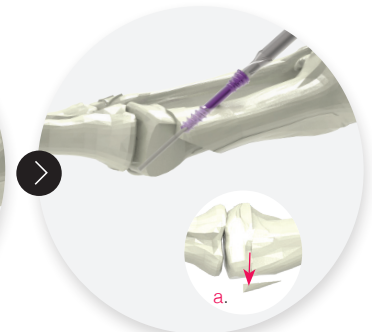
\*\*Each instrument is marked with a silicone colour ring matching the colour code of the used screw.



### F. Manual preparation of the first cortical surface

Prepare the first cortical surface using the countersink tip of the 3-in-1 instrument, so that the screw head can be safely inserted and flush with the cortex.

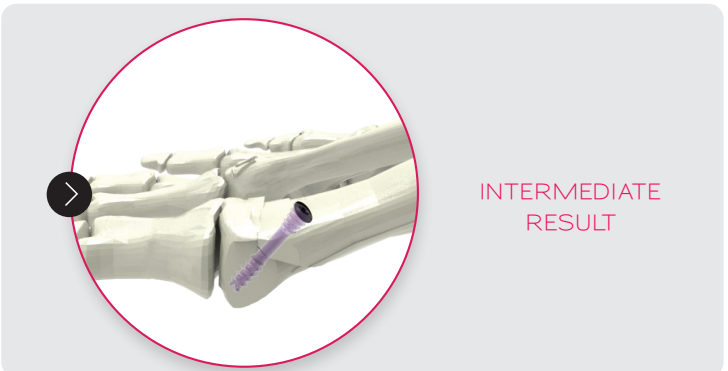
**NB:** The preparation of the cortex is critical in order to get an optimized compression.



### G. Inserting the screw

The self-drilling property of the screw allows its direct insertion without a pre-drilling using the screwdriver tip of the 3-in-1 instrument\*. Finalize the screw insertion manually and check if the screw head is totally inserted. Remove the pin and excise the medial eminence of the dorsal fragment (cf a. in the picture above).

\*In case of a hard cortical bone it is recommended to drill before the screw insertion.

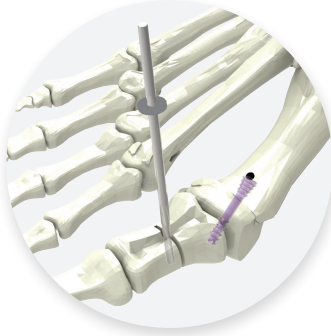


INTERMEDIATE RESULT

# HALLUX VALGUS SURGICAL TECHNIQUE

## STEP 2

## PHALANGEAL OSTEOTOMY (P1)



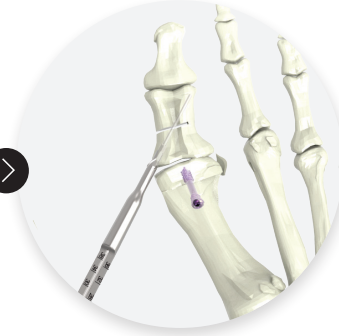
### H. Varus osteotomy

The Akin osteotomy of P1 is performed using a percutaneous reamer following the habits of the surgeon.



### I. Determining screw length

Stabilize the varus osteotomy with the pin corresponding to the chosen screw diameter. Insert it until lightly touching the second cortical surface. Choose the suitable 3-in-1 instrument to measure the screw length (cf. E).



### J. Manual preparation of the first cortical surface

Prepare the first cortical surface using the countersink tip of the 3-in-1 instrument, so that the screw head can be safely inserted and flush with the cortex.



### K. Inserting the screw

Insert the screw\* of the appropriate length, using the screwdriver tip of the 3-in-1 instrument. Finalize the screw insertion manually and check if the screw head is totally inserted. Remove the pin.

*\*In case of a hard cortical bone or a bicortical fixation it is recommended to drill before the screw insertion.*



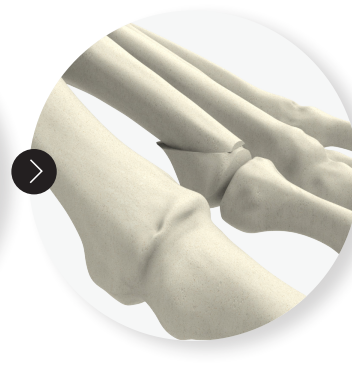
# WEIL OSTEOTOMY SURGICAL TECHNIQUE

Weil osteotomy surgical technique with a snap-off screw (WST2.0Lxx)

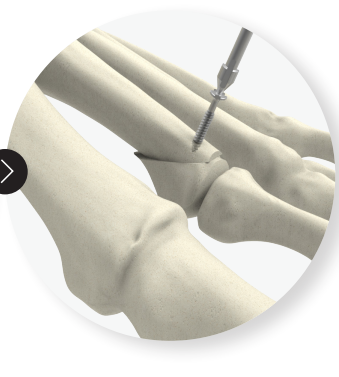


1. Perform a first horizontal cut using the oscillating saw starting at the junction of the dorsal cartilage (1).

Then perform the second parallel dorsal cut with the first cut and then remove the bone fragment (2).



2. The reduction is made manually by flexing the toe.



3. Insert the screw with the power tool. As soon as the compression is finished, the screw snaps off.

**NB:** In case of a hard cortical bone it is recommended to prepare the screw insertion using a Ø1.0 mm pin (33.0210.080).

*Caution: In osteoporotic bone, it may be necessary to provoke release of the shank prior screw head reaches the cortical bone to avoid excessive screwing. Then, use the screwdriver to realize the compression.*



# INSTRUMENTS REFERENCES

## FOOTMOTION INSTRUMENTATION\*

Ref.	Screw colour	Description
ANC104	●	1.5 mm quick coupling hexagonal prehensor screwdriver - cannula Ø0.9 mm
ANC105	●	Ø0.8 mm pin guide
ANC106	●	Ø1.7 mm quick coupling drill bit - cannula Ø0.9 mm
ANC108		Length gauge for pin Ø1.0 mm - L150 mm
ANC125	●●	Ø1.0 mm pin guide
ANC135		Ø2.0 mm quick coupling drill bit - cannula Ø1.1 mm
ANC137	●	Ø2.2 mm quick coupling drill bit - cannula Ø1.1 mm
ANC139	●	2.0 mm quick coupling hexagonal prehensor screwdriver - cannula Ø1.1 mm
ANC140	●	Ø1.7 mm countersink - cannula Ø0.9 mm
ANC141	●	Ø2.0 mm countersink - cannula Ø1.1 mm
ANC142	●	Ø2.2 mm countersink - cannula Ø1.1 mm
ANC145	●	Spatula for Weil screws
ANC148	●	1.8 mm quick coupling hexagonal prehensor screwdriver - cannula Ø1.1 mm
ANC161	●	1.5 mm quick coupling hexagonal screwdriver for Weil screws
ANC166	●	Pins support for Ø0.8 mm pin
ANC167	●●	Pins support for Ø1.0 mm pin
ANC200	●	Pre-tapering countersink for Weil screws
ANC201	●	1.8 mm quick coupling hexagonal prehensor screwdriver for Chevron screws
ANC202	●	Pre-tapering countersink for Chevron screws
ANC350		Ø4.5 mm AO quick coupling handle - Size 1
ANC699	●	3 in 1 instrument for Ø2.25 mm screws
ANC700	●	3 in 1 instrument for Ø2.6 mm screws
ANC701	●	3 in 1 instrument for Ø3.0 mm screws
ANC770		Screwdriver for Ø2.0 mm Snap-off screws
33.0208.080	●	Pin Ø0.8 L80 mm
33.0210.080	●●	Pin Ø1.0 L80 mm

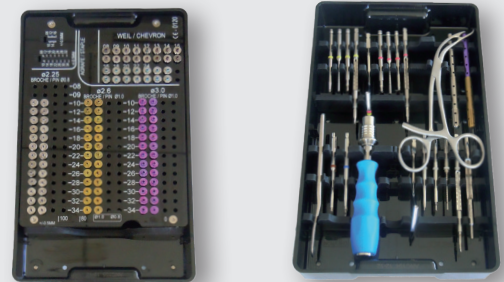
## OPTIONAL INSTRUMENTS

Ref.	Screw colour	Description
ANC144	●●●	16 cm forceps
ANC177		Holder Staple 90°
ANC178		Holder Staple 26°
ANC220	●	Chevron cutting guide - right side
ANC221	●	Chevron cutting guide - left side
14.33.53		Impactor Staple 90°
14.33.54		Impactor Staple 26°

\* Custom-made kits including only instruments designed for the desired screw diameters can be ordered (see opposite summary table of instruments corresponding to each diameter).

- Instruments for Ø2.25 mm cannulated screws
- Instruments for Ø2.6 mm cannulated screws
- Instruments for Ø3.0 mm cannulated screws
- Instruments for Ø2.0 mm Weil screws
- Instruments for Ø2.8 mm Chevron screws

### ➤ KIT DESCRIPTION



## PERCUTANEOUS REAMERS\*

Ref.	Description
ANC197	● Ø4 mm large Shannon reamer - Helical flute L16 mm
ANC198	● Ø2.2 mm short Shannon reamer - Helical flute L12 mm
ANC199	● Ø4 mm wedge reamer - Flute L12 mm
ANC203	● Ø3 mm wedge reamer - Flute L13 mm
ANC476	● Ø2.0 mm long Shannon reamer - Helical flute L20 mm
ANC537	● Ø2.0 mm short Shannon Isham reamer - Straight flute L12 mm

## PERCUTANEOUS REAMERS\*

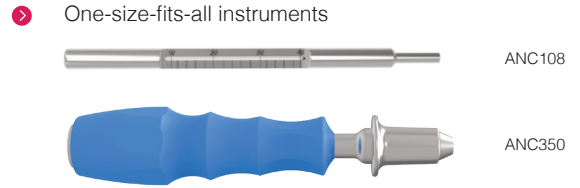
Ref.	Description
ANC538	● Ø2.2 mm long Shannon Isham reamer - Straight flute L20 mm
ANC599	● Ø2.0 mm ultra short Shannon reamer - Helical flute L8 mm
ANC661	● Ø3.0 mm long Shannon reamer - Helical flute L21 mm
ANC842	● Ø3.0 mm long Shannon reamer - Helical flute L30 mm
ANC843	● Ø3.0 mm long Shannon Isham reamer - Straight flute L30 mm

\* The percutaneous reamers are only available on demand. They are supplied in a sterile single use package.

# KIT CONTENT

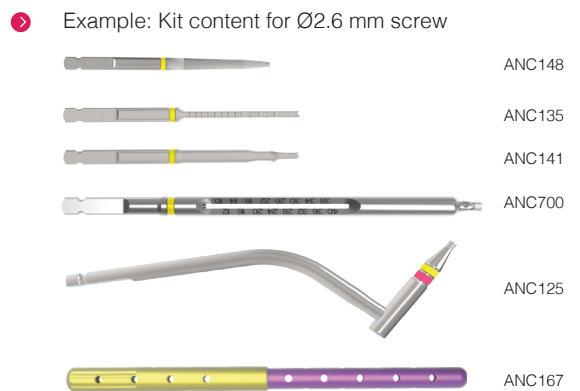
## → REFERENCES OF ONE-SIZE-FITS-ALL INSTRUMENTS

For all diameters	
Length gauge for pin Ø1.0 mm - L 150 mm	ANC108
Ø4.5 mm AO quick coupling handle - Size 1	ANC350



## → REFERENCES OF INSTRUMENTS FOR CANNULATED SCREWS

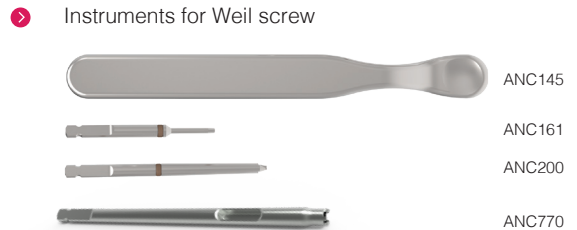
	Ø 2.25 mm* Not anodized	Ø 2.6 mm* Golden anodized	Ø 3.0 mm* Pink anodized
Hexagonal prehensor screwdriver	ANC104	ANC148	ANC139
Drill bit	ANC106	ANC135	ANC137
Countersink	ANC140	ANC141	ANC142
3-in-1 instrument	ANC699	ANC700	ANC701
Pin guide	ANC105	ANC125	
Pins support	ANC166	ANC167	
Pins	33.0208.080	33.0210.080	



\* Each instrument is marked with a silicone colour ring matching the colour code of the used screw:  
 - Ø2.25 mm: grey ring  
 - Ø2.6 mm: yellow ring  
 - Ø3.0 mm: purple ring

## → REFERENCES OF INSTRUMENTS FOR WEIL AND CHEVRON SCREWS

	Ø2.0 mm* Weil screw Brown anodized	Ø2.0 mm* Snap-off Weil screw Not anodized	Ø2.8 mm* Chevron screw Light blue anodized
Spatula for Weil screws	ANC145		
Hexagonal screwdriver	ANC161		ANC201
Screwdriver for Ø2.0 mm Snap-off screws		ANC770	
Countersink	ANC200		ANC202
Chevron cutting guide			ANC220 (right side) ANC221 (left side)



\* Each instrument is marked with a silicone colour ring matching the colour code of the used screw:  
 - Ø2.0 mm - Weil screw: brown ring  
 - Ø2.8 mm - Chevron screw: blue ring

# IMPLANTS REFERENCES



## Ø2.25 MM CANNULATED SCREW\*

Ref.	Description
H0.9HFT2.25L12	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L12 mm
H0.9HFT2.25L14	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L14 mm
H0.9HFT2.25L16	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L16 mm
H0.9HFT2.25L18	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L18 mm
H0.9HFT2.25L20	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L20 mm
H0.9HFT2.25L22	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L22 mm
H0.9HFT2.25L24	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L24 mm
H0.9HFT2.25L26	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L26 mm
H0.9HFT2.25L28	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L28 mm
H0.9HFT2.25L30	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L30 mm
H0.9HFT2.25L32	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L32 mm
H0.9HFT2.25L34	Ø2.25 mm self-compressive screw - cannula Ø0.9 - long thread - L34 mm

\* Not anodized



## Ø2.6 MM CANNULATED SCREW\*

Ref.	Description
H1.1HFT2.6L10	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L10 mm
H1.1HFT2.6L12	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L12 mm
H1.1HFT2.6L14	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L14 mm
H1.1HFT2.6L16	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L16 mm
H1.1HFT2.6L18	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L18 mm
H1.1HFT2.6L20	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L20 mm
H1.1HFT2.6L22	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L22 mm
H1.1HFT2.6L24	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L24 mm
H1.1HFT2.6L26	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L26 mm
H1.1HFT2.6L28	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L28 mm
H1.1HFT2.6L30	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L30 mm
H1.1HFT2.6L32	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L32 mm
H1.1HFT2.6L34	Ø2.6 mm self-compressive screw - cannula Ø1.1 - long thread - L34 mm

\* Golden anodized



## Ø2.8 MM CHEVRON SCREW\*

Ref.	Description
WT2.8L16	Ø2.8 mm Chevron screw - L16 mm
WT2.8L18	Ø2.8 mm Chevron screw - L18 mm
WT2.8L20	Ø2.8 mm Chevron screw - L20 mm
WT2.8L22	Ø2.8 mm Chevron screw - L22 mm
WT2.8L24	Ø2.8 mm Chevron screw - L24 mm
WT2.8L26	Ø2.8 mm Chevron screw - L26 mm
WT2.8L28	Ø2.8 mm Chevron screw - L28 mm

\* Blue anodized

### Remark :

Please note that all implants are also available in sterile packaging.  
An 'ST' code is added at the end of the reference.  
Ex : «H1.1HFT2.6L12-ST»



## Ø3.0 MM CANNULATED SCREW\*

Ref.	Description
H1.1HFT3.0L10	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L10 mm
H1.1HFT3.0L12	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L12 mm
H1.1HFT3.0L14	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L14 mm
H1.1HFT3.0L16	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L16 mm
H1.1HFT3.0L18	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L18 mm
H1.1HFT3.0L20	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L20 mm
H1.1HFT3.0L22	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L22 mm
H1.1HFT3.0L24	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L24 mm
H1.1HFT3.0L26	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L26 mm
H1.1HFT3.0L28	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L28 mm
H1.1HFT3.0L30	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L30 mm
H1.1HFT3.0L32	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L32 mm
H1.1HFT3.0L34	Ø3.0 mm self-compressive screw - cannula Ø1.1 - long thread - L34 mm

\* Purple anodized



## Ø2.0 MM WEIL SCREW\*

Ref.	Description
WT2.0L08	Ø2.0 mm Weil screw - L08 mm
WT2.0L09	Ø2.0 mm Weil screw - L09 mm
WT2.0L10	Ø2.0 mm Weil screw - L10 mm
WT2.0L11	Ø2.0 mm Weil screw - L11 mm
WT2.0L12	Ø2.0 mm Weil screw - L12 mm
WT2.0L13	Ø2.0 mm Weil screw - L13 mm
WT2.0L14	Ø2.0 mm Weil screw - L14 mm
WT2.0L15	Ø2.0 mm Weil screw - L15 mm

\* Brown anodized



## Ø2.0 MM SNAP-OFF WEIL SCREW\*

Ref.	Description
WST2.0L11-ST	Ø2.0 mm snap-off Weil screw - L11 mm - STERILE
WST2.0L12-ST	Ø2.0 mm snap-off Weil screw - L12 mm - STERILE
WST2.0L13-ST	Ø2.0 mm snap-off Weil screw - L13 mm - STERILE
WST2.0L14-ST	Ø2.0 mm snap-off Weil screw - L14 mm - STERILE
WST2.0L15-ST	Ø2.0 mm snap-off Weil screw - L15 mm - STERILE

\* Not anodized.

## OPTIONAL IMPLANTS : STAPLES

Ref.	Description
ST-25-0510-080ST1	Staple 90° - width 8 mm - STERILE
ST-25-0515-100ST1	Staple 90° - width 10 mm - STERILE
ST-25-0500-080ST1	Staple 26° - width 8 mm - STERILE
ST-25-0505-100ST1	Staple 26° - width 10 mm - STERILE

Manufacturer: MAHE Medical  
Class: IIB  
Notified body: TÜV SÜD

This information is intended to demonstrate the Newclip Technics portfolio of medical devices. Always refer to the package insert, product label and/or user instructions including cleaning and sterilization before using any Newclip Technics product. These products must be handled and/or implanted by trained and qualified staff who have read the instructions before use. A surgeon must always rely on her or his own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Product availability is subject to the regulatory or medical practices that govern individual markets. Please contact your Newclip Technics representative if you have questions about the availability of Newclip Technics products in your area.

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