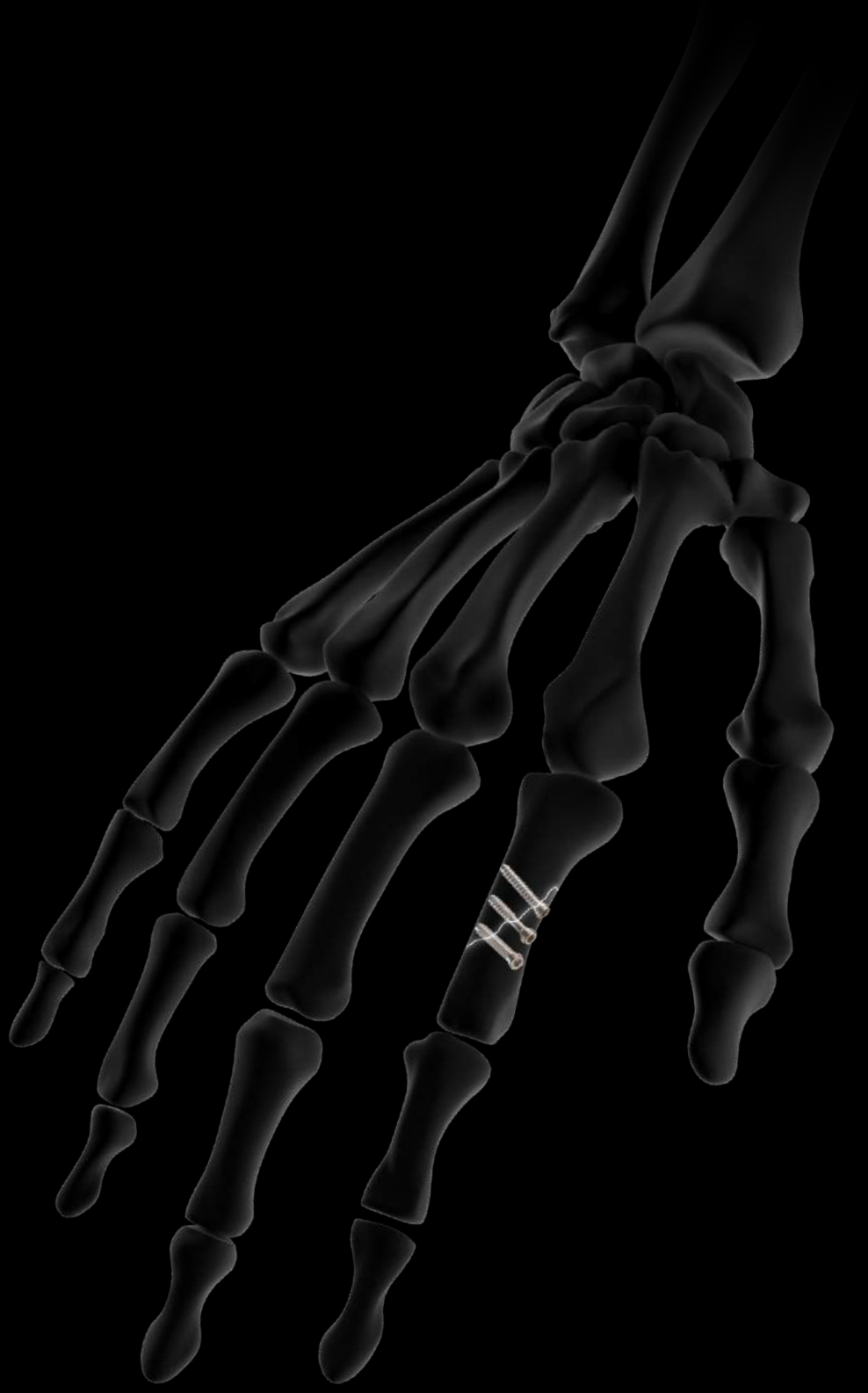
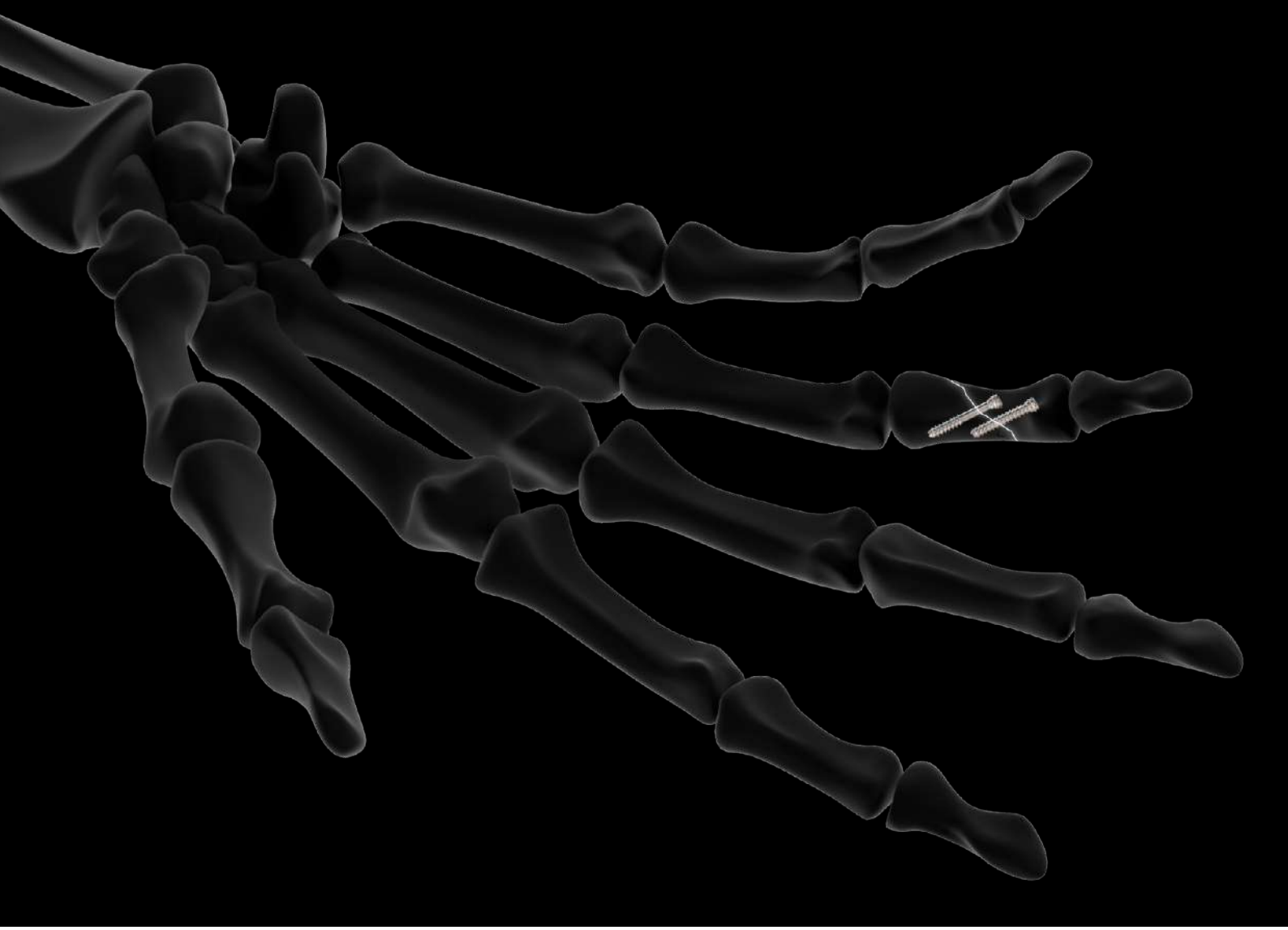
HANDMOTION S.



CANNULATED
STAND-ALONE
SCREWS



Handmotion S.

RANGE OF SCREWS DEDICATED TO THE TREATMENT OF HAND FRACTURES

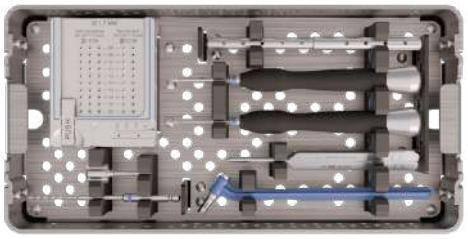
Intended purpose:
The implants of the Stand-Alone Screws range are intended for fractures fixation, osteotomies and arthrodesis of bones in adults, appropriate for the size of the device.

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

Table of contents.

Two formats for different use settings.

A REUSABLE SET – HANDMOTION S Ø1.7



A SINGLE-USE STERILE SOLUTION - INITIAL S EVO HAND Ø1.7

- Newclip Technics also offers a range of single-use sterile kits with ready-to-use instruments and implants.

TRACEABILITY

- Easiest traceability with detailed label sheets.
- Easy inventory management.
- Streamlining of logistic monitoring for nurses and pharmacists.

SAFETY

- Reduced risk of contamination[(1)].
- Reduced risk of a bacterian biofilm formation[(2)].
- New instruments for each surgery.

EFFICIENCY

- No sterilization costs for hospitals.
- Less transportation costs.
- Reduced operative costs[(3)].
- Reduced perioperative time[(4)].
- Reduced receiving and handling costs.
- Increased turnover in the OR[(4)].

AVAILABILITY

- Equipment availability: no restocking and waiting time.
- Shorter and easiest process[(5)].
- Full range of latest-generation implants in sterile format.
- No interruption of preoperative flow[(3)].

RESPONSIBILITY

- External packaging in recyclable cardboard.
- Dematerialized instructions for use.
- Less CO2 emissions during manufacture and use than a reusable kit[(6)].

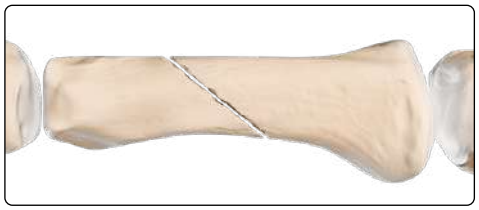
PRACTICALITY

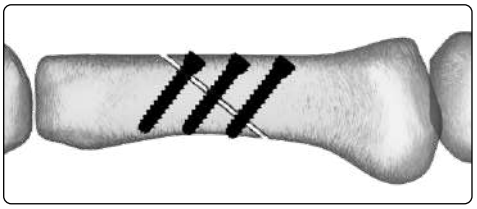
- Immediate identification and intuitive use.
- Ergonomic format for gears.
- Simplified orderings.

(1) Mont et al. Single-use instrumentation, cutting blocks, and trials decrease contamination during total knee arthroplasty: a prospective comparison of navigated and nonnavigated cases. J Knee Surg. 2013;26(4):285–290. - (2) Costa D de M, Lopes LK de O, Tipple AFV, Johani K, Hu H, Deva AK, et al. Evaluation of stainless-steel surgical instruments subjected to multiple use/processing. Infect Dis Heal. 2018;23(1):3–9. - (3) Shippert RD. A Study of Time-Dependent Operating Room Fees and How to save $100 000 by Using Time-Saving Products. Am J Cosmet Surg. 2005;22(1):25–34. - (4) Siegel GW et al., Cost Analysis and Surgical Site Infection Rates in Total Knee Arthroplasty Comparing Traditional vs. Single-Use Instrumentation. J Arthroplasty. 2015;30(12):2271–4. - (5) Matron P., Etude comparative économique et pratique de plaques d'ostéosynthèse de l'extrémité distale du radius présentées individuellement et en kit stérile "tout en un" dans un établissement de santé privé, 2016, 1-21. - (6) "Empreinte carbone comparée de deux dispositifs médicaux implantables" - Etude Carbon 4.

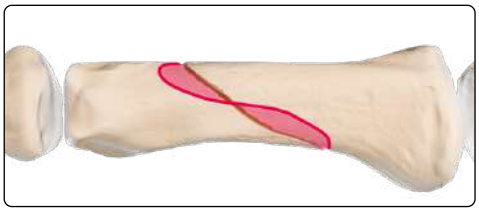
Examples of indications.

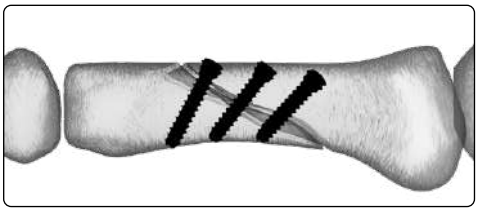
These screws can be used for the treatment of **long oblique and spiral fractures of the phalanges.**





OBLIQUE





SPIRAL

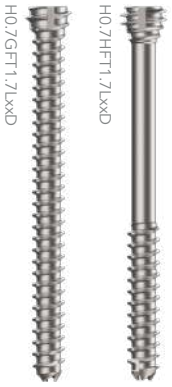
Treatment of long oblique and spiral fractures is similar. The only technical difference lies in screw insertion relative to the fracture plane, which is single in long oblique fractures. In spiral fractures, the fracture plane is helical; therefore, each screw is inserted in a slightly different direction.

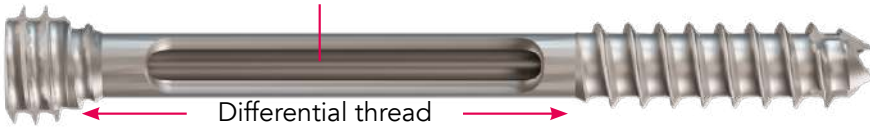
Technical features.

RANGE OF CANNULATED STAND-ALONE SCREWS FOR HAND FRACTURE TREATMENT

SCREW FEATURES

- **Ø1.7 mm cannulated screws with a cannula of Ø0.65 mm** for a guided placement
- 2 different designs:
  - **Self-compressive** screws for compression
  - **Non-compressive** screws for neutralization
- **Self-drilling:** the shape of the distal tip of the screws allows self-drilling properties
- **Self-tapping:** 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
- Lengths:
  - L8 to L14 mm (1 mm incrementation)
  - L14 to L20 mm (2 mm incrementation)
- T4 hexalobular recess





Hexalobular recess

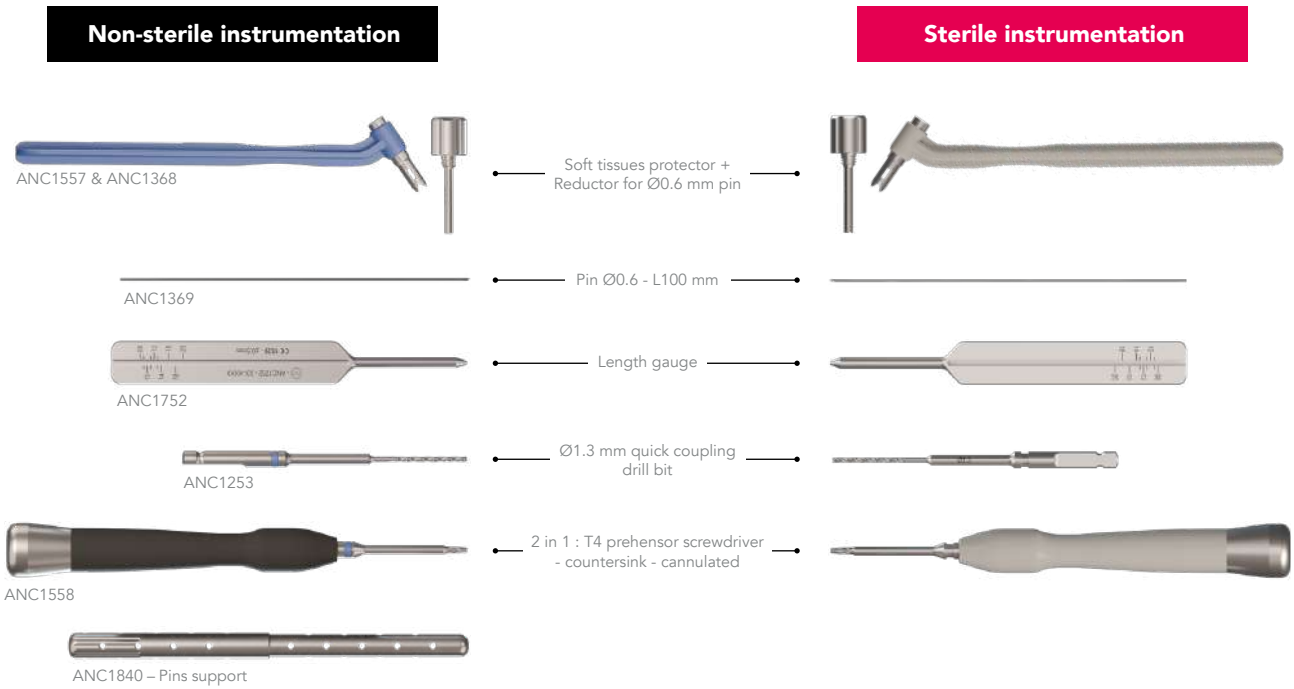
Self-tapping & reverse self-tapping

Self-drilling & self-tapping

Use of instrumentation.

A DEDICATED INSTRUMENTATION AVAILABLE IN TWO FORMATS

N.B.: Both format can be used with sterile implants. The non-sterile instrumentation is color-coded in blue, matching the screw rack for easy identification in the OR.



FOCUS ON THE SELF-HOLDING SCREWDRIVER

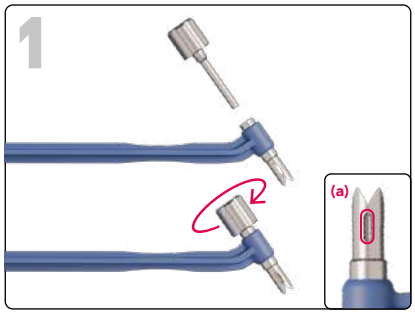
- The 2-in-1 T4 cannulated screwdriver (ANC1558):
  - Enables **pick-and-stick screw grip** with the self-holding hexalobe
  - Includes a **spin cap** allowing the surgeon to apply torque with fingers only (instead of whole hand)
  - Features a **countersink to prepare the first bone cortex**

N.B.: For better screw pickup from the rack, press down on the screw head with the screwdriver, then make a quarter turn counterclockwise.

Surgical technique.

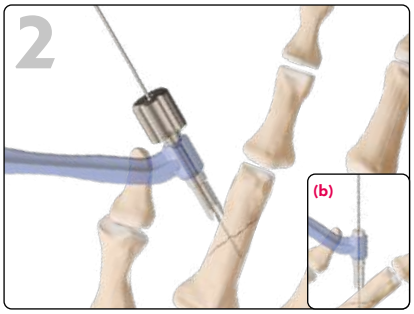
PHALANGEAL FRACTURE - Ø1.7 MM CANNULATED SCREWS

Example of a surgical technique using a self-compressive screw (H0.7HFT1.7LxxD). This technique is also applicable for the neutralization screws (H0.7GFT1.7LxxD).



Assemble the pin reductor (ANC1368) on the soft tissue protector (ANC1557).

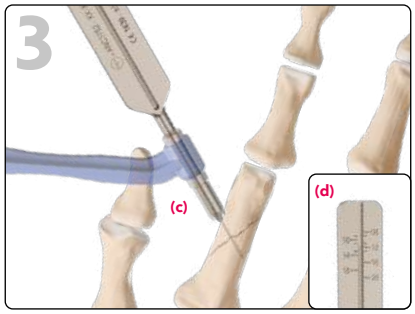
N.B.: The soft tissue protector view window[(a)] allows the surgeon to have a better visualization on the instrument inserted through the protector.



After reduction, position the soft tissue protector onto the bone.

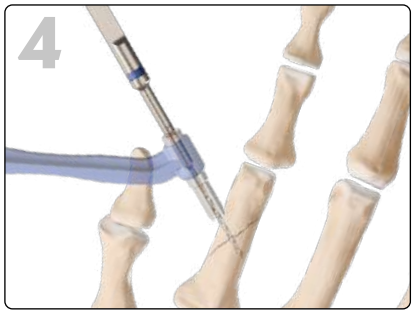
Insert the pin (ANC1369) through the pin reductor to reach the second cortex of the bone.

Remove the pin reductor from the soft tissue protector, keeping the latter in position[(b)].

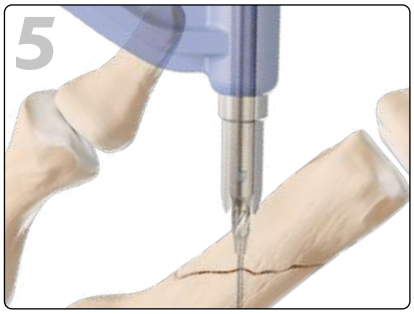


Slide the length gauge (ANC1752) over the pin to the cortex through the soft tissue protector[(c)] and read the insertion depth at the rear of the pin[(d)].

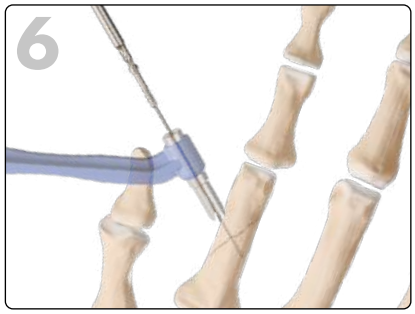
N.B.: It is also possible to perform the measurement directly against the bone without the soft tissue protector.



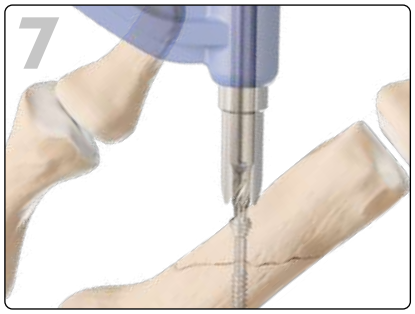
Drill with the cannulated drill bit (ANC1253) over the pin through the soft tissue protector until reaching the second cortex of the bone.



If required, use the countersink part of the 2-in-1 instrument (ANC1558) over the pin to create a recess in the bone (first cortex) for the screw head.



Insert the appropriate screw (H0.7HFT1.7LxxD) identified in step 3 over the pin by using the screwdriver part of the 2-in-1 instrument (ANC1558) until the screw head is buried. Then, remove the pin and the soft tissue protector.



If required, and depending on fracture line, perform from step 1 to step 6 to insert other screws.

Then, remove the pin and the soft tissue protector.

N.B.: Please disassemble the instruments before sterilization.

Final result.

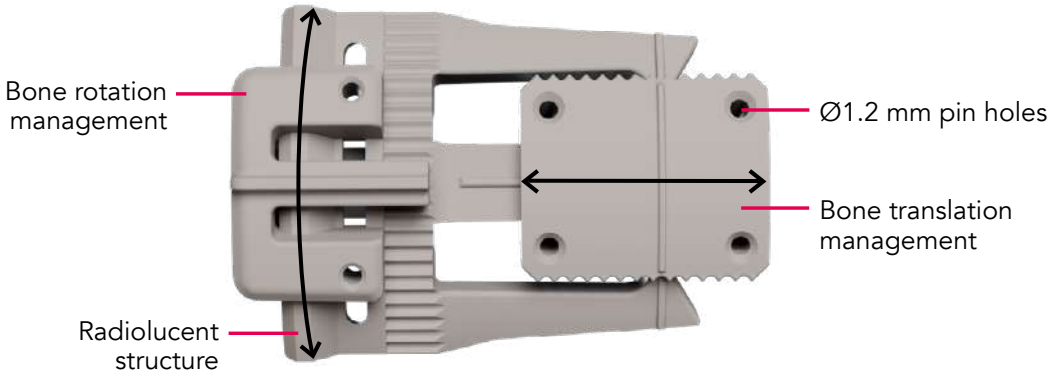
Reduction instrument.

A PATENTED SOLUTION FOR FRACTURE REDUCTION

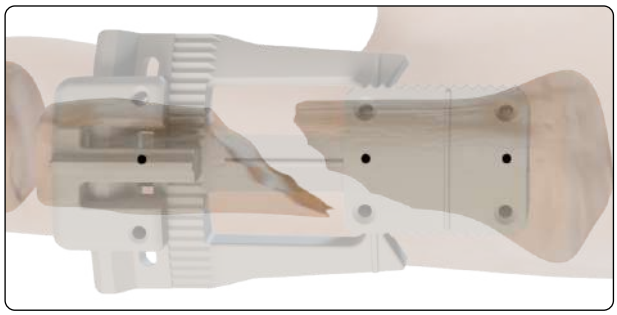
A specific instrument designed to **help in the fracture reduction and stabilization:**

- **Compact instrument** to easily reduce, compress and stabilize the fracture
- **Minimally invasive approach** (percutaneous / Ø1.2mm pins)
- **Radiolucent with 3 radiopaque markers for an easy positioning under X-rays**[(a)]
- Enables reduction in **in two planes: rotation and translation** (black arrows)
- Only available in single-use format (1x reduction instrument + 4x Ø1.2 mm pins)

N.B.: This reduction instrumentation (KIT-INSTRUM-4) is only compatible with the Ø1.7 mm screws.



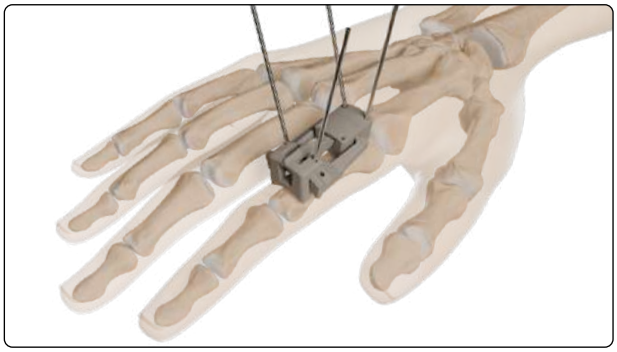
(a)



KIT-INSTRUM 4

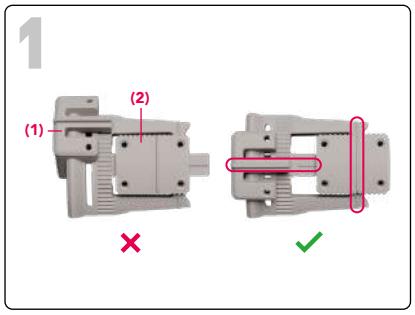
Reduction instrument

Pin Ø1.2 - L70 mm (x4)

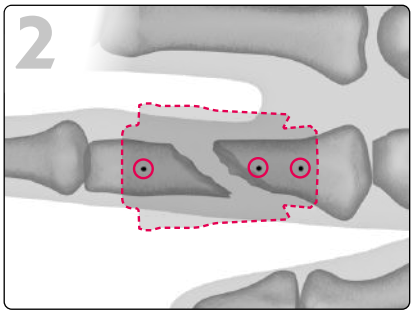


Surgical technique.

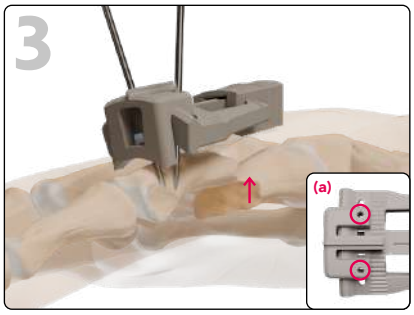
INSERTION OF A SCREW WITH THE REDUCTION INSTRUMENT



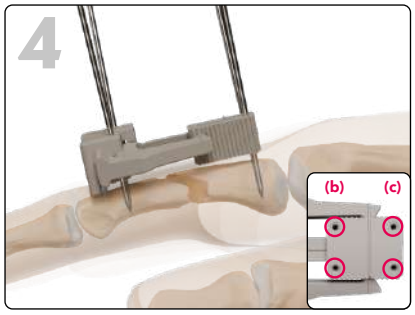
Before pre-reducing the fracture, check that all mobile parts (1 & 2) are aligned with the marking (pink circles).



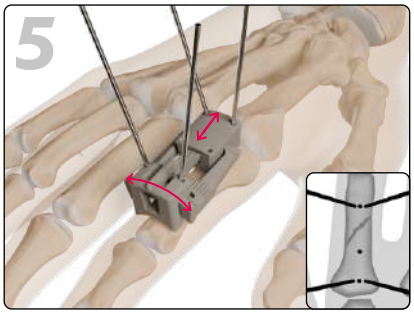
Then, position the reduction instrument on the phalanx. Under X-rays, verify that there is a mobile part on each side of the fracture line thanks to the three radiopaque markers (pink circles) of the instrument.



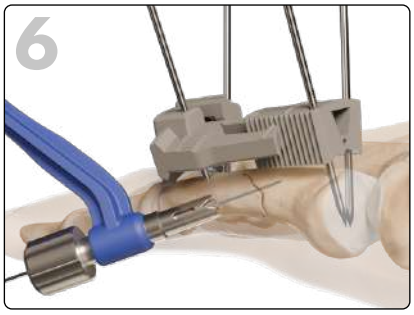
Insert two pins into the two-hole part(a). Then, reduce the fracture in the anterodorsal direction (pink arrow).



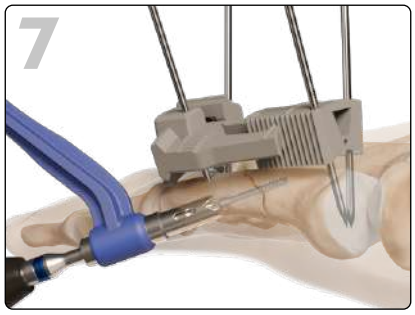
Insert two other pins into two of the four-holes part. The choice of pins positions (b or c) must be made depending on the fracture pattern and the patient's anatomy.



Adjust the reduction using both axes and verify the alignment under X-rays.



Once satisfactory reduction is achieved, proceed with the surgical technique as described earlier in the brochure.



After inserting the final screw, remove the four pins and the reduction instrument.

Final result.

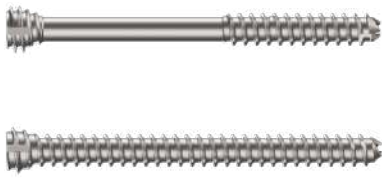
Implant references.

Remark: Please note that all implants are also available in sterile packaging. A "-ST" code is added at the end of the reference.
Example: H0.7HFT1.7L08D-ST».

Ø1.7 mm cannulated screws*

Ref.	Description
H0.7HFT1.7L08D to H0.7HFT1.7L14D	1.7 mm self-compressive screw - cannula Ø0.7 - L08 to 14 mm (1mm increments)
H0.7HFT1.7L14D to H0.7HFT1.7L20D	1.7 mm self-compressive screw - cannula Ø0.7 - L14 to 20 mm (2mm increments)
H0.7GFT1.7L08D to H0.7GFT1.7L14D	1.7 mm neutralization screw - cannula Ø0.7 - L08 to 14 mm (1mm increments)
H0.7GFT1.7L14D to H0.7GFT1.7L20D	1.7 mm neutralization screw - cannula Ø0.7 - L14 to 20 mm (2mm increments)

*Non anodized



IMPLANT REMOVAL

For any removal of Handmotion S implant, make sure to order one of the two Newclip Technics removal solutions listed below.

Reusable removal set content

Ref.	Description	Qty
ANC1558	2 in 1 - T4 prehensor screwdriver Ø0.7 mm cannulated - Ø1.9 mm countersink	1
ANC1603	T4 prehensor screwdriver	1
ANC1369	Ø0.6 mm pin – L100 mm	2
ANC1840	Pins support for Ø0.6 mm pin	1

Single-use removal kit content

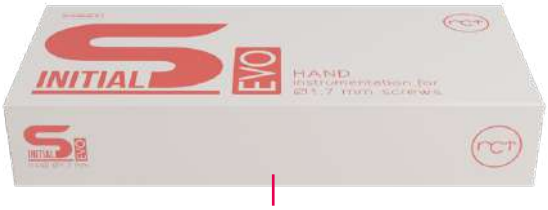
Ref.	Description	Content
KIT-REMOVE-11	Removal kit for T4 hexalobe	T4 prehensor screwdriver (x1)

Instrument references.

SINGLE-USE KIT - INITIAL S EVO HAND 1.7

Initial S EVO Hand 1.7 - Sterile kit

#	Ref.	Description
01	KIT-SCD1.7H	Instrumentation kit for Ø1.7 mm cannulated screws - Hand



01

Instrumentation

#	Description	Qty
02	Ø1.3 mm quick coupling drill bit - cannula Ø0.7 mm - L80 mm	1
03	Soft tissues protector for Ø1.7 mm screws	1
04	2 in 1: T4 prehensor screwdriver Ø0.7 mm cannulated - Ø1.9 mm countersink - with handle	1
05	Reductor for Ø0.6 mm pin	1
06	Length gauge for pin Ø0.6 mm - L100 mm	1
07	Pin Ø0.6 - L100 mm	6

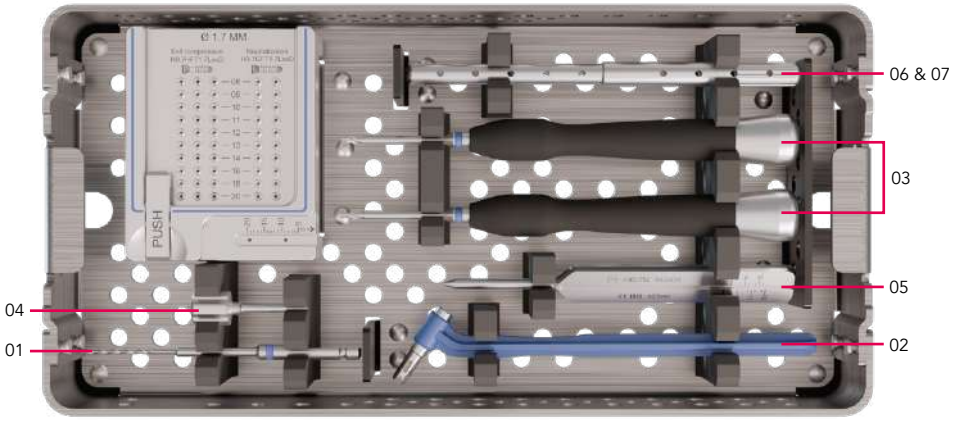
KIT-SCD1.7H

REUSABLE SET - HANDMOTION S

Instrumentation

#	Ref.	Description	Qty
01	ANC1253*	Ø1.3 mm quick coupling drill bit - cannula Ø0.7 mm - L80 mm	2
02	ANC1557	Soft tissues protector for Ø1.7 mm screws	1
03	ANC1558	2 in 1: T4 prehensor screwdriver Ø0.7 mm cannulated - Ø1.9 mm countersink - with handle	2
04	ANC1368	Reductor for Ø0.6 mm pin	1
05	ANC1752	Length gauge for pin Ø0.6 mm - L100 mm	1
06	ANC1369*	Pin Ø0.6 mm - L100 mm	6
07	ANC1840	Pins support for Ø0.6 mm pin	1

*Note that those instruments are also available in sterile packaging. A '-ST' code is added at the end of the reference. Example: « ANC1253-ST».



SPECIFIC REDUCTION INSTRUMENT

Initial S EVO Hand 1.7 - Reduction instrument sterile kit

Ref.	Description
KIT-INSTRUM-4	Reduction instrumentation kit for phalanx fractures

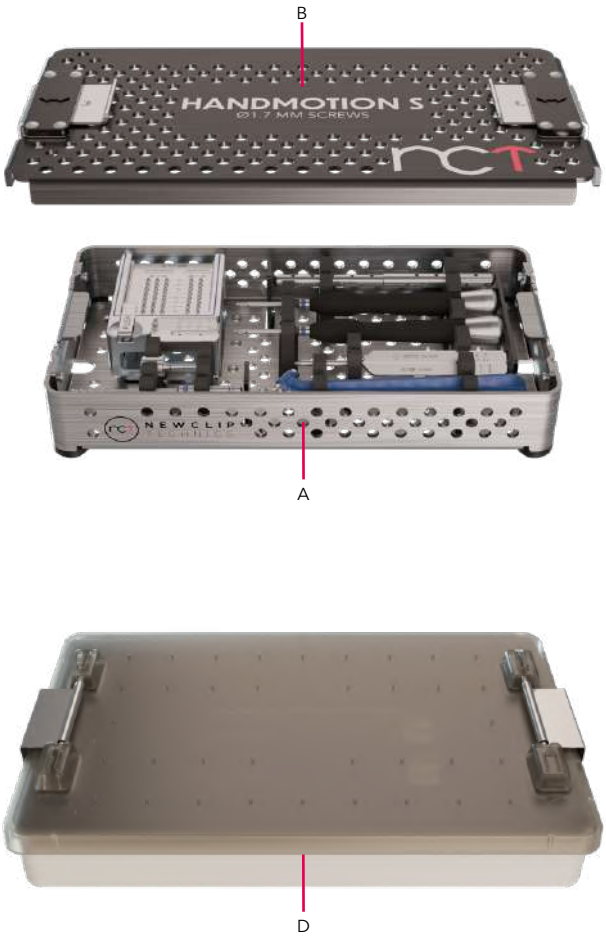
Instrumentation

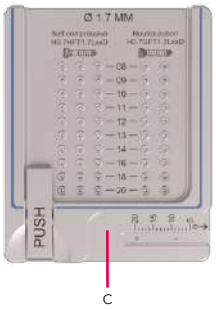
Description	Qty
Reduction instrument for phalanx fractures	1
Pin Ø1.2 - L70 mm	4

Container references.

Container

#	Ref.	Description
A	ANC1586/B	Handmotion S 1.7 set - Size 1/4 - Base
B	ANC1586/C	Handmotion S 1.7 set - Size 1/4 - Lid
C	ANC1586/R	Handmotion S 1.7 set - Screw rack
D	ANC042	Mini set - Base





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