



BRM Tool Screws

MODERATE
COMPRESSION
BEST
FIXATION

SURGICAL TECHNIQUE

CE 0426





CLINICAL INDICATIONS

Fixation of small and medium sized bone fragments:

- epiphyseal detachments
- osteotomy for the correction of hallux valgus
- distal osteotomy of the second, third or fourth metatarsal for painful plantar calluses
- ankylosis of the ankle
- ankylosis of the wrist
- scaphoid fractures
- metacarpal and phalangeal fractures

SURGICAL TECHNIQUE GUIDE

This document details the recommended surgical technique for the TOOL screw, specifically designed for the correction of bone deformities of the forefoot and of the upper limb.

It serves as an educational resource to support qualified surgeons in ensuring the safe and effective application of the system. The following guidelines are provided for reference purposes only.

It remains the sole responsibility of the operating surgeon to determine the appropriateness of each procedure based on their professional clinical judgment and experience.

For comprehensive information regarding indications, contraindications, warnings, and precautions, please consult the official Instructions for Use (IFU) provided with the device.

INSTRUMENTATION



UAOI0SA00S AO Quick Coupling silicone Handle



UAOI0MA000 AO Quick Coupling Handle



STOIGW012 Wire guide Ø 1.2 mm



STOI232000M Depth gauge 60 mm



STOI217008P Cannulated drill bit Ø 1.7 mm KW 0.8 for screws Ø 2.2 - 2.6 mm

STOI222000P Cannulated drill bit Ø 2.2 mm KW 1.2 for screws Ø 3.2 mm

STOI227012P Cannulated drill bit Ø 2.7 mm KW 1.2 for screws Ø 4.0 mm



STOI22200BK Basic countersink Ø 2.2 - 2.6 mm for screws Ø 2.2 - 2.6 mm

STOI23200BK Basic countersink Ø 3.2 mm for screws Ø 3.2 mm

STOI24000BK Basic countersink Ø 4.0 mm for screws Ø 4.0 mm



STOI108007CS Slim cannulated screwdriver BTX7 KW 0.8 for screws Ø 2.2 - 2.6 mm

STOI100008CS Slim cannulated screwdriver BTX8 KW 1.2 for screws Ø 3.2 mm

STOI112009CS Slim cannulated screwdriver BTX9 KW 1.2 for screws Ø 4.0 mm



STOI100007P Solid screwdriver BTX7 for screws Ø 2.2 - 2.6 mm

STOI100008P Solid screwdriver BTX8 for screws Ø 3.2 mm

STOI100009P Solid screwdriver BTX9 for screws Ø 4.0 mm

UKWIO0120T

Tube for K-wire sterilization

STOI022040BPH

Sterilization Tray

K-WIRE

STOIKW08120803N

K-Wire Ø 0.8 x 120 mm with marker at 80 mm
Pack of 3 pcs - Non Sterile

for screws Ø 2.2 - 2.6 mm

STOIKW08120810N

K-Wire Ø 0.8 x 120 mm with marker at 80 mm
Pack of 10 pcs - Non Sterile

for screws Ø 2.2 - 2.6 mm

STOIKW12120803N

K-Wire Ø 1.2 x 120 mm with marker at 80 mm
Pack of 3 pcs - Non Sterile

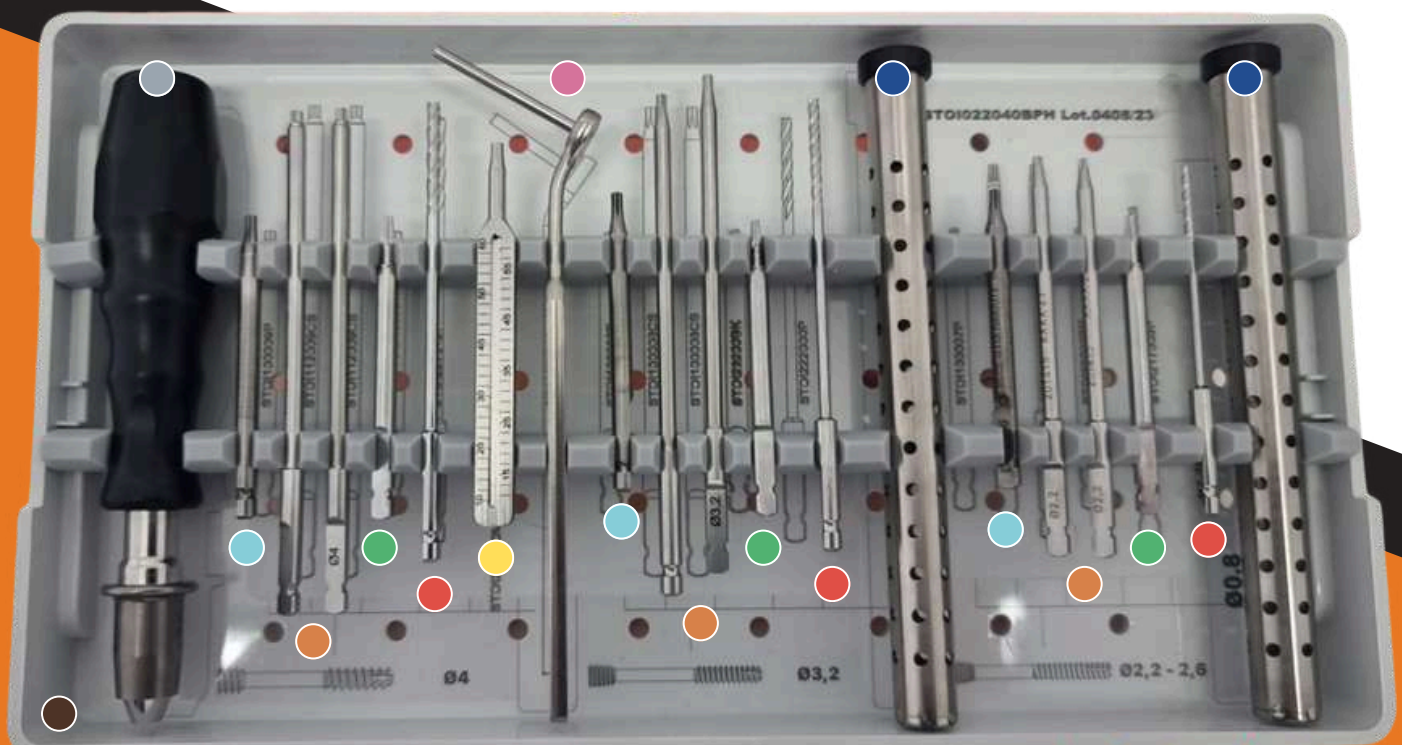
for screws Ø 3.2 - 4.0 mm

STOIKW12120810N

K-Wire Ø 1.2 x 120 mm with marker at 80 mm
Pack of 10 pcs - Non Sterile

for screws Ø 3.2 - 4.0 mm

KIT TOOL



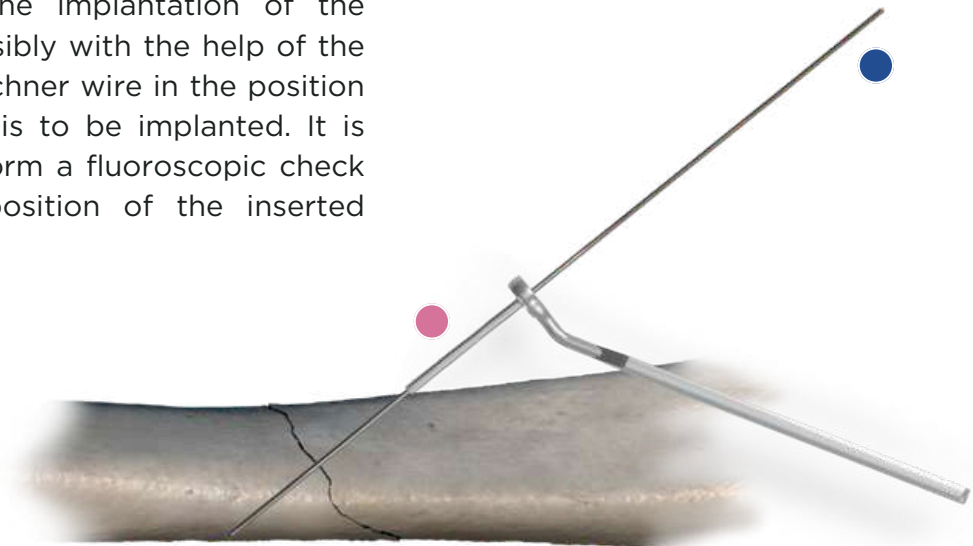
PATIENT PREPARATION



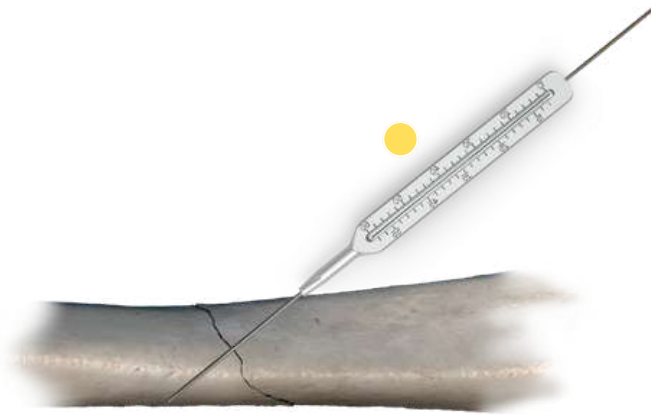
Based on the preoperative Xray images, position the patient according to the technique chosen by the surgeon to ensure appropriate operative access. Proceed with a temporary fracture reduction or osteotomy and select the most appropriate screw diameter according to the type of surgery to be performed

INCISION AND FRACTURE FIXATION

Make an incision in the skin and subcutaneous tissues creating an access route to the area of the fracture, or osteotomy, for the implantation of the screw. Insert, possibly with the help of the guide wire, a Kirschner wire in the position where the screw is to be implanted. It is advisable to perform a fluoroscopic check of the correct position of the inserted thread.



SIZE SELECTION



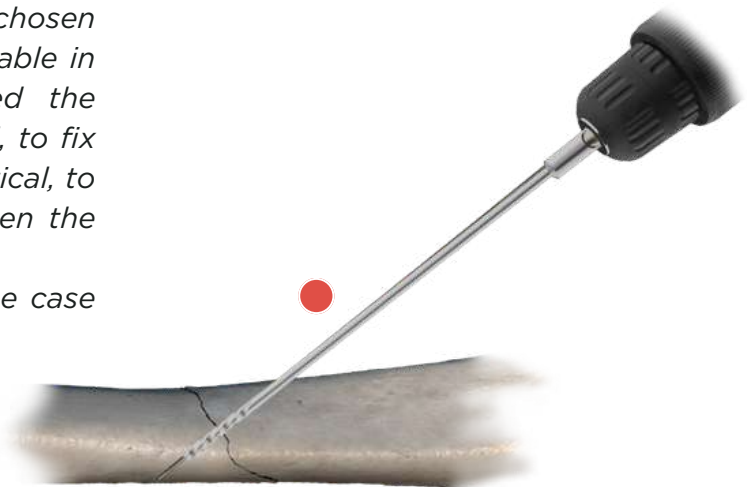
Insert the depth gauge on the Kirschner wire and place it in contact with the bone. The measurement indicated by the tail of the wire or the reference mark on the scale of the depth gauge corresponds to the length of the screw to be implanted. Remove the gauge.

It is important to select the correct length of the screw to ensure that, once inserted, the tip of the screw does not protrude from the bone fragment and the head remains slightly below the surface of the bone, avoiding problems with the prominence of the screw.

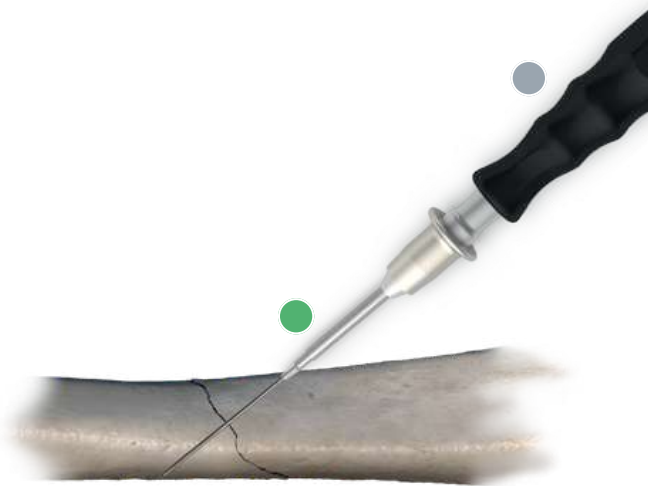
CANAL PREPARATION

In patients with high bone density or if excessive resistance is noticed during screw insertion, it is recommended to prepare the canal that will accommodate the screw using a cannulated tip of the correct size in combination with the chosen Kirschner wire and screw. It is advisable in this case, after having determined the length of the screw to be implanted, to fix the Kirschner wire in the second cortical, to prevent it from being displaced when the cannulated tip is extracted.

Note: this step can be ignored in the case of patients with low bone density.



CORTEX PREPARATION



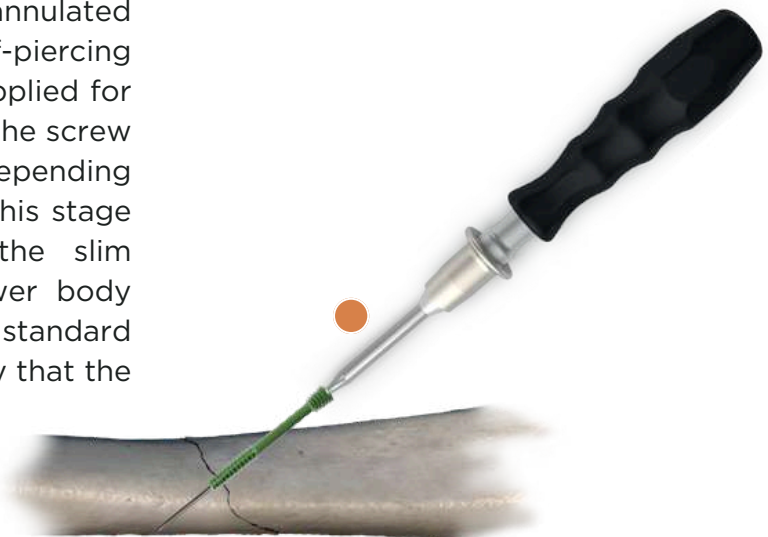
Insert the countersink on the Kirschner wire and penetrate the first cortical to the necessary depth according to the insertion angle of the screw in relation to the bone surface.

There is a laser-marked notch on the countersink that represents the height of the screw head.

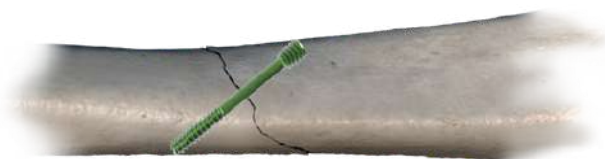
WARNING: Use the countersink designated HB "Hard Bone" for particularly hard corticals.

FINAL IMPLANT

Insert the screw using the cannulated screwdriver. For a better self-piercing effect, axial pressure should be applied for a few turns during screwing until the screw is perceived to have engaged. Depending on the type of screw chosen, at this stage it is possible to use either the slim screwdriver, which has a narrower body and greater length than the standard screwdriver. Check by fluoroscopy that the fractures are properly fixed.



WOUND CLOSURE



Remove the Kirschner wire and proceed with closing the incision.

Implant Removal Once bone consolidation is achieved, the screws can be removed using the screwdriver. In special cases, where removal of the device could pose a risk to the patient, the surgeon may choose to retain the implanted devices.



D I S T R I B U T E D B Y :



**Tool Screws
Brochure**

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