



BRM Tool PRO Screws

THE CHOICE OF
COMPRESSION

SURGICAL TECHNIQUE

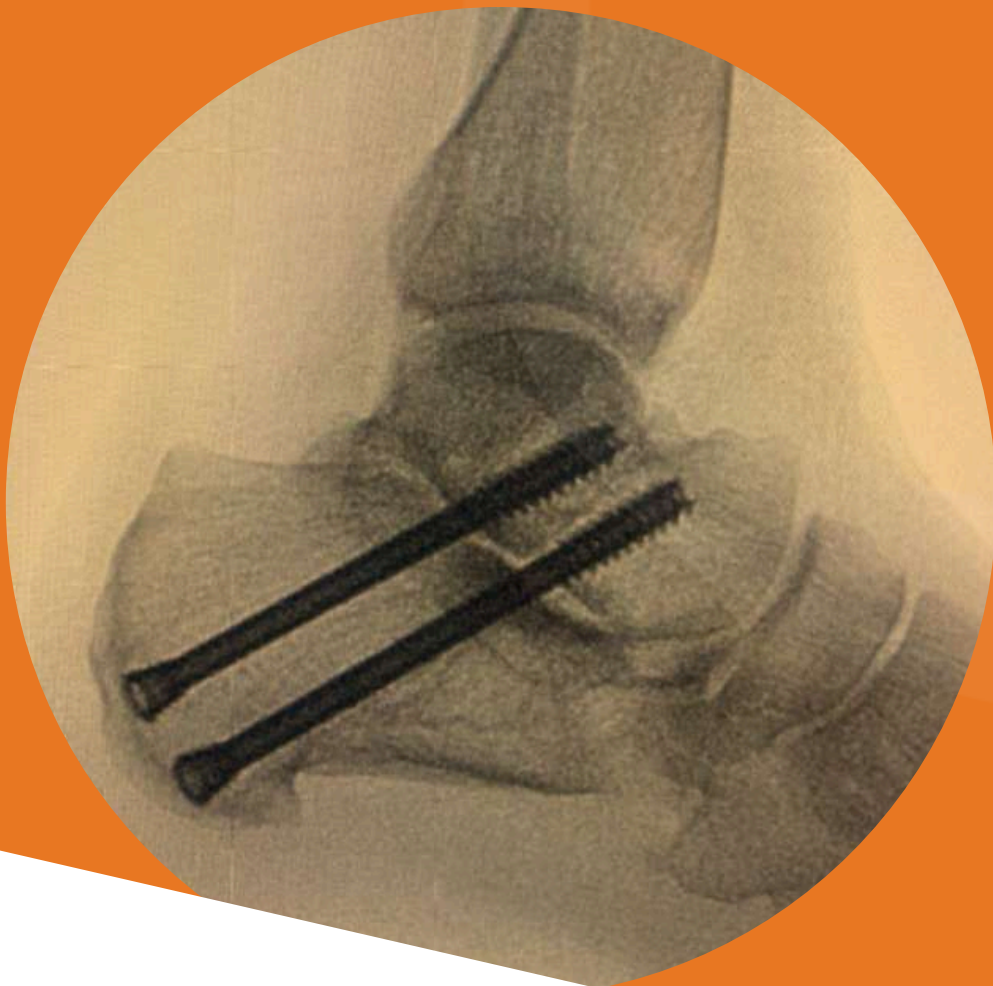
CE 0426



CLINICAL INDICATIONS

Fixation of medium and large bone fragments:

- epiphyseal detachments
- ankylosis of the ankle
- ankylosis of the wrist
- **calcaneal osteotomy**





SURGICAL TECHNIQUE GUIDE

This document details the recommended surgical technique for the TOOL PRO screw, specifically designed for the correction of bone deformities of the rearfoot.

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



UAOI0SA00L	AO Quick Coupling silicone PRO Handle	for screws Ø 5.6 mm
UAOI0MT000	Quick Coupling T-Type Handle	for screws Ø 7.0 mm
UAOI0SJ000	Quick Coupling Silicone Jacobs Handle	for screws Ø 7.0 mm



STAI0W016	Guidewire Ø 1.6 mm	for screws Ø 5.6 mm
STAI0D039	Guided drill Ø 3.9 mm	for screws Ø 5.6 mm
STAI0S056	Tissue Protection Sleeve Ø 5.6 mm	for screws Ø 5.6 mm
STAI0W025	Guidewire Ø 2.5 mm	for screws Ø 7.0 mm
STAI0D046	Guided drill Ø 4.6 mm	for screws Ø 7.0 mm
STAI0S070	Tissue Protection Sleeve Ø 7.0 mm	for screws Ø 7.0 mm



STAI256150M	Depth Gauge 85 mm KW 150	for screws Ø 5.6 mm
STAI270000M	Depth Gauge 110 mm KW 200	for screws Ø 7.0 mm



STAI239GD0P	Cannulated Drill Bit Ø 3.9 mm	for screws Ø 5.6 mm
STAI246GD0P	Cannulated Drill Bit Ø 4.6 mm	for screws Ø 7.0 mm



STAI256000K	Basic Countersink Ø 5.6 mm	for screws Ø 5.6 mm
STAI270000K	Basic Countersink Ø 7.0 mm	for screws Ø 7.0 mm



STAI100020L	Long Cannulated Screwdriver BTX20	for screws Ø 5.6 mm
STAI100025L	Long Cannulated Screwdriver BTX25	for screws Ø 7.0 mm



STAI100020PL	Long Solid Screwdriver BTX20	for screws Ø 5.6 mm
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STAI100025PL	Long Solid Screwdriver BTX25	for screws Ø 7.0 mm
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STOI056070BPL	Metallic Sterilization tray for Instruments Tool Pro
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K-WIRE



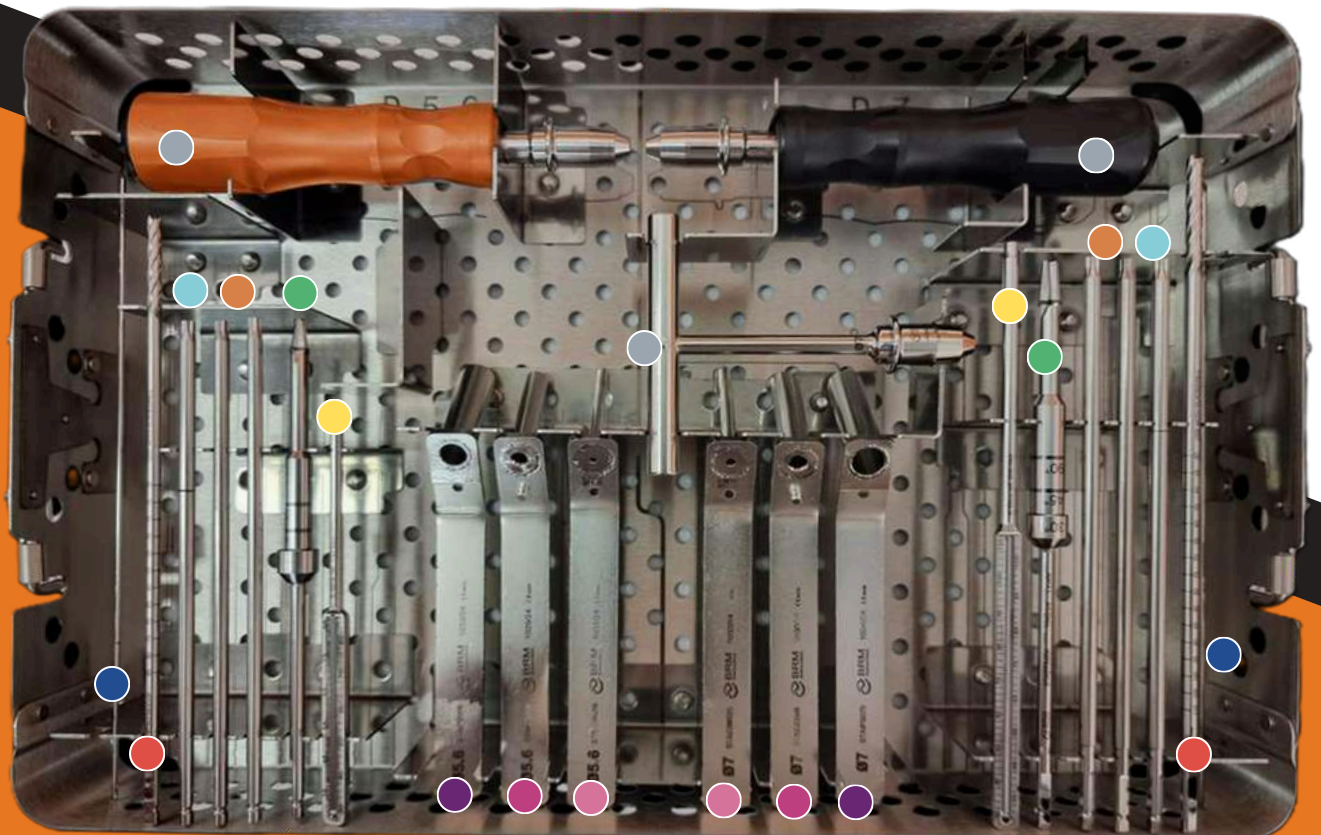
STOIKW16201503N	K-Wire Ø 1.6 x 200 mm with marker at 150 mm Pack of 3 pcs - Non-sterile	for screws Ø 5.6 mm
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STOIKW16201510N	K-Wire Ø 1.6 x 200 mm with marker at 150 mm Pack of 10 pcs - Non-sterile	for screws Ø 5.6 mm
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STOIKW25200003N	K-Wire Ø 2.5 x 200 mm Pack of 3 pcs - Non-sterile	for screws Ø 7.0 mm
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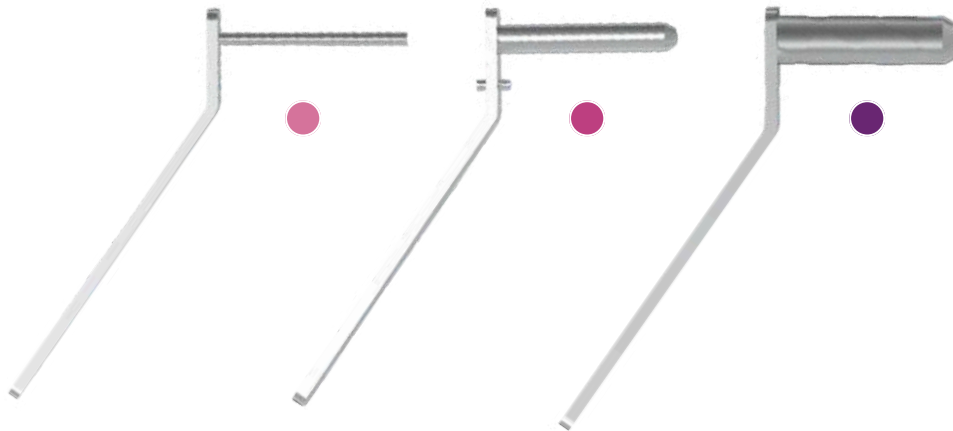
STOIKW25200010N	K-Wire Ø 2.5 x 200 mm Pack of 10 pcs - Non-sterile	for screws Ø 7.0 mm
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KIT TOOL PRO



INTRODUCTION

The same surgical technique for implanting the TOOL PRO Screws can be performed with or without the use of a tissue protector. Both procedures are described below.



PATIENT PREPARATION AND INCISION

Based on the preoperative X-ray images, position the patient according to the technique chosen by the surgeon to ensure appropriate surgical access.

Make an incision through the skin and subcutaneous tissues to create access to the fracture or osteotomy site for screw implantation.

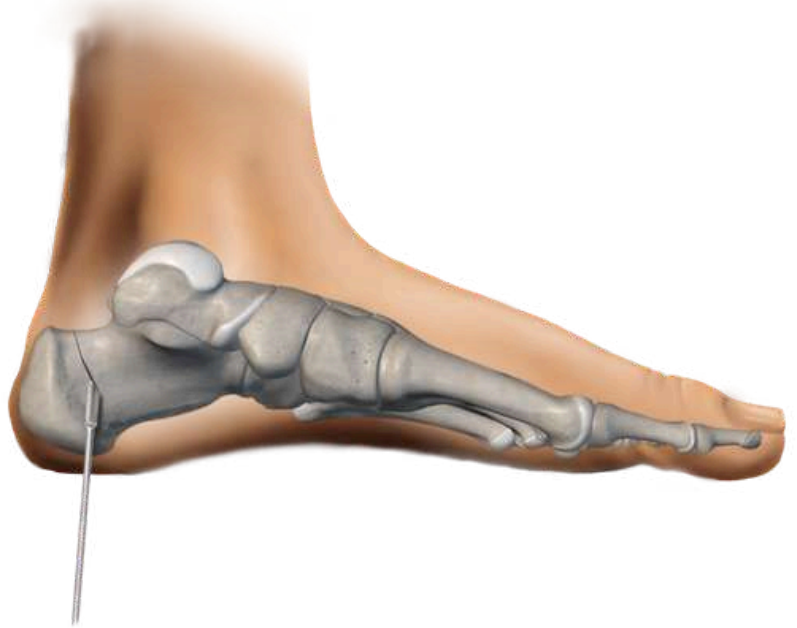
The procedure may be performed with or without the use of a tissue protector; follow the preferred surgical technique.



CALCANEAL OSTEOTOMY

Proceed with calcaneal osteotomy using a cylindrical straight burr 3.1x22 mm or the one most appropriate by the surgeon.

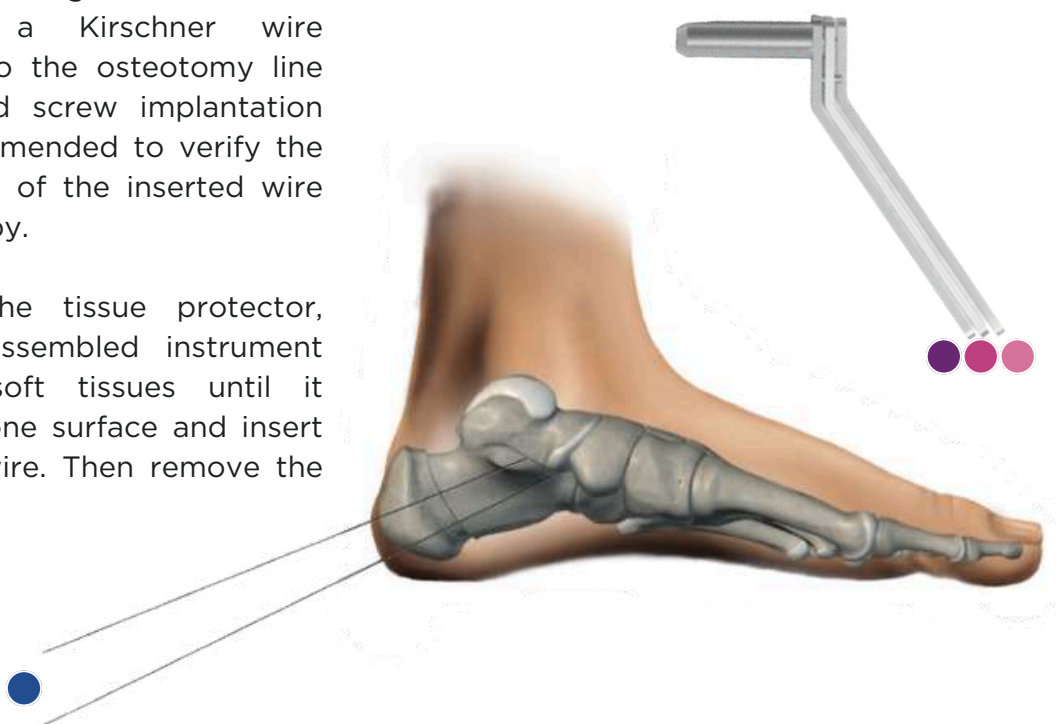
Then select the most appropriate screw diameter according to the type of procedure to be performed.



OSTEOTOMY FIXATION

Medially displace the calcaneus and fix it in place using two Kirschner wires. Insert a Kirschner wire perpendicular to the osteotomy line at the intended screw implantation site. It is recommended to verify the correct position of the inserted wire using fluoroscopy.

When using the tissue protector, advance the assembled instrument through the soft tissues until it contacts the bone surface and insert the Kirschner wire. Then remove the guide wire.

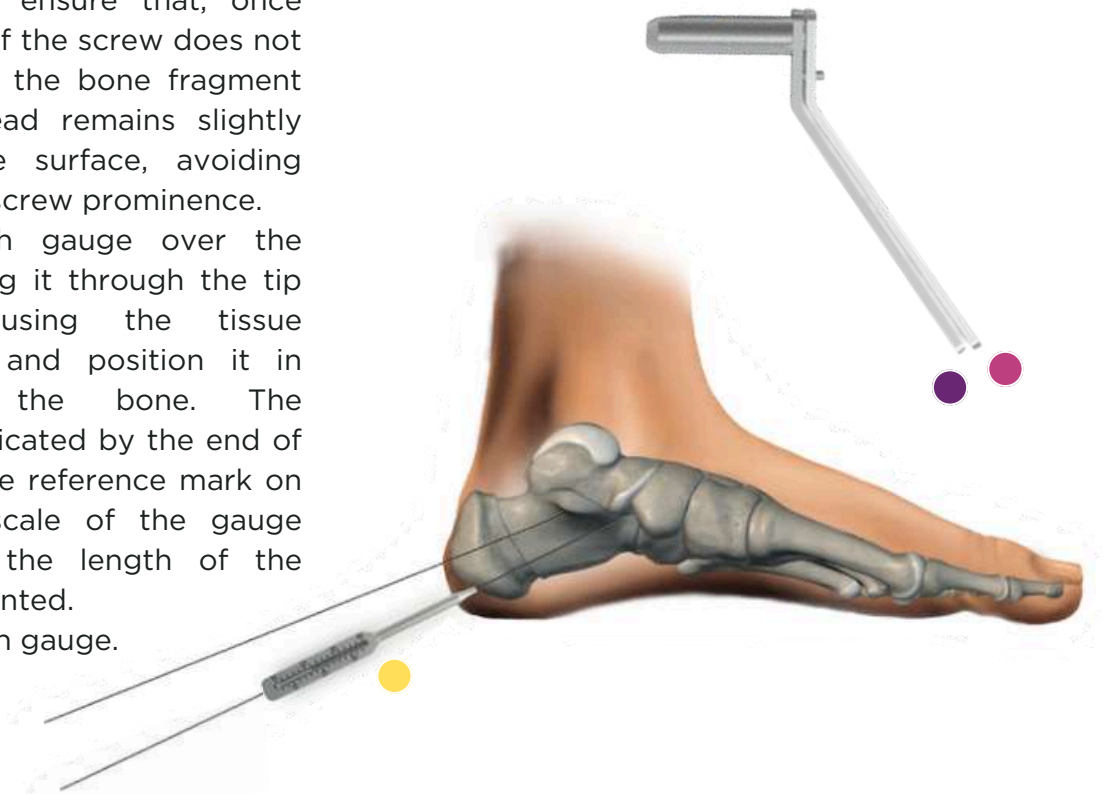


SIZE SELECTION

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

Insert the depth gauge over the Kirschner (passing it through the tip guide, when using the tissue protector) wire and position it in contact with the bone. The measurement indicated by the end of the wire or by the reference mark on the graduated scale of the gauge corresponds to the length of the screw to be implanted.

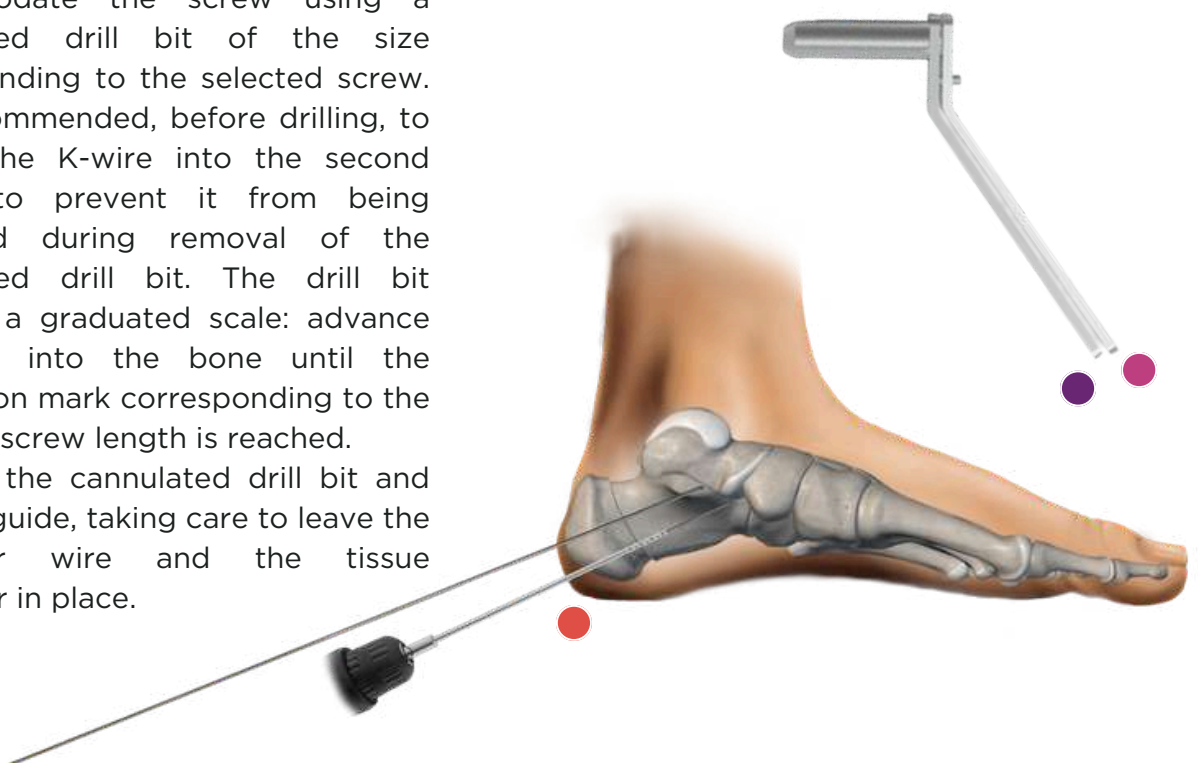
Remove the depth gauge.



CANAL PREPARATION

Prepare the canal that will accommodate the screw using a cannulated drill bit of the size corresponding to the selected screw. It is recommended, before drilling, to secure the K-wire into the second cortex to prevent it from being displaced during removal of the cannulated drill bit. The drill bit features a graduated scale: advance the drill into the bone until the graduation mark corresponding to the selected screw length is reached.

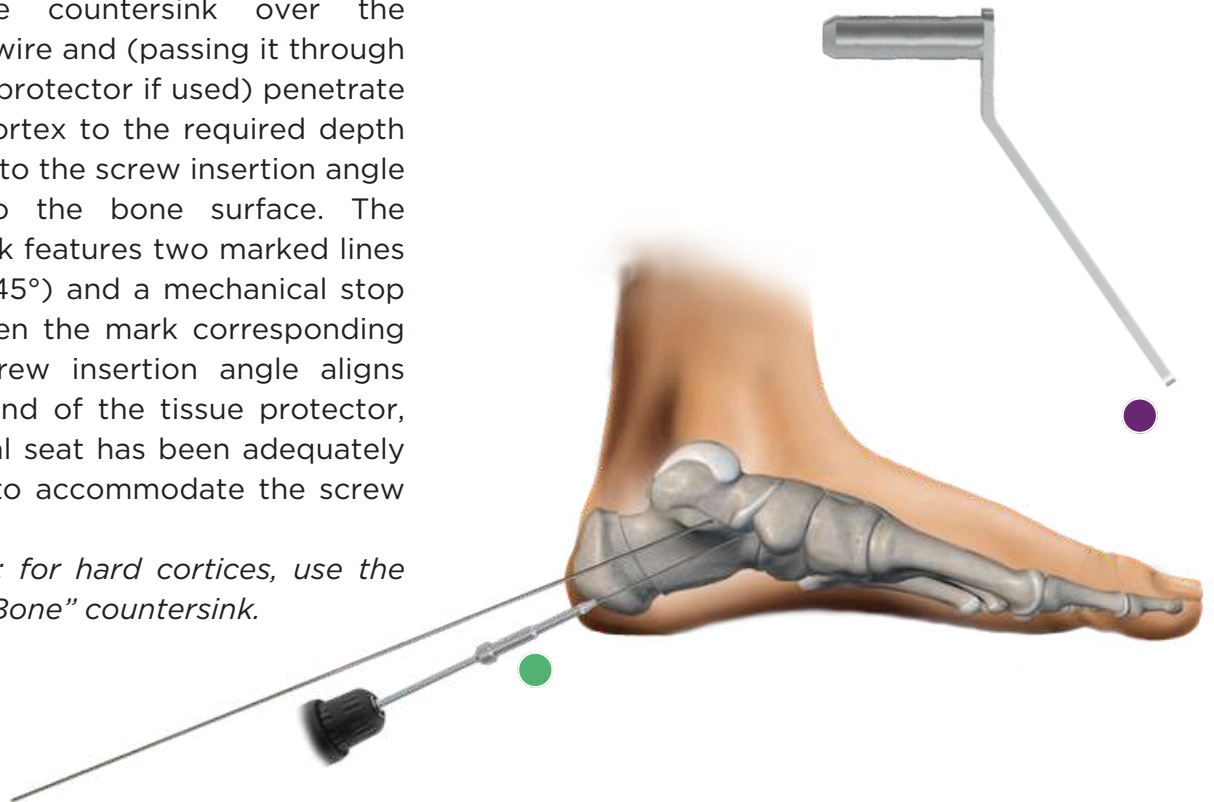
Remove the cannulated drill bit and the drill guide, taking care to leave the Kirschner wire and the tissue protector in place.



CORTEX PREPARATION

Insert the countersink over the Kirschner wire and (passing it through the tissue protector if used) penetrate the first cortex to the required depth according to the screw insertion angle relative to the bone surface. The countersink features two marked lines (90° and 45°) and a mechanical stop (30°). When the mark corresponding to the screw insertion angle aligns with the end of the tissue protector, the cortical seat has been adequately prepared to accommodate the screw head.

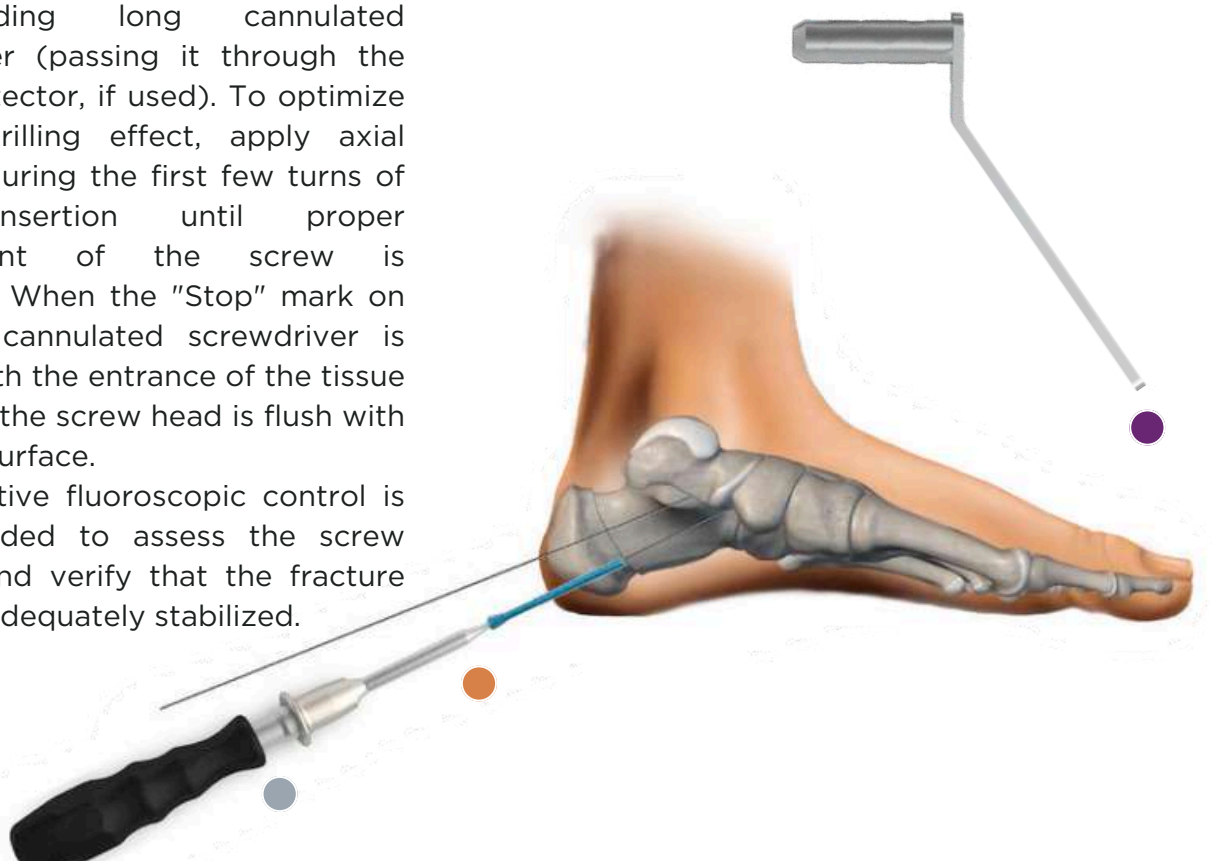
WARNING: for hard cortices, use the HB "Hard Bone" countersink.



SCREW INSERTION

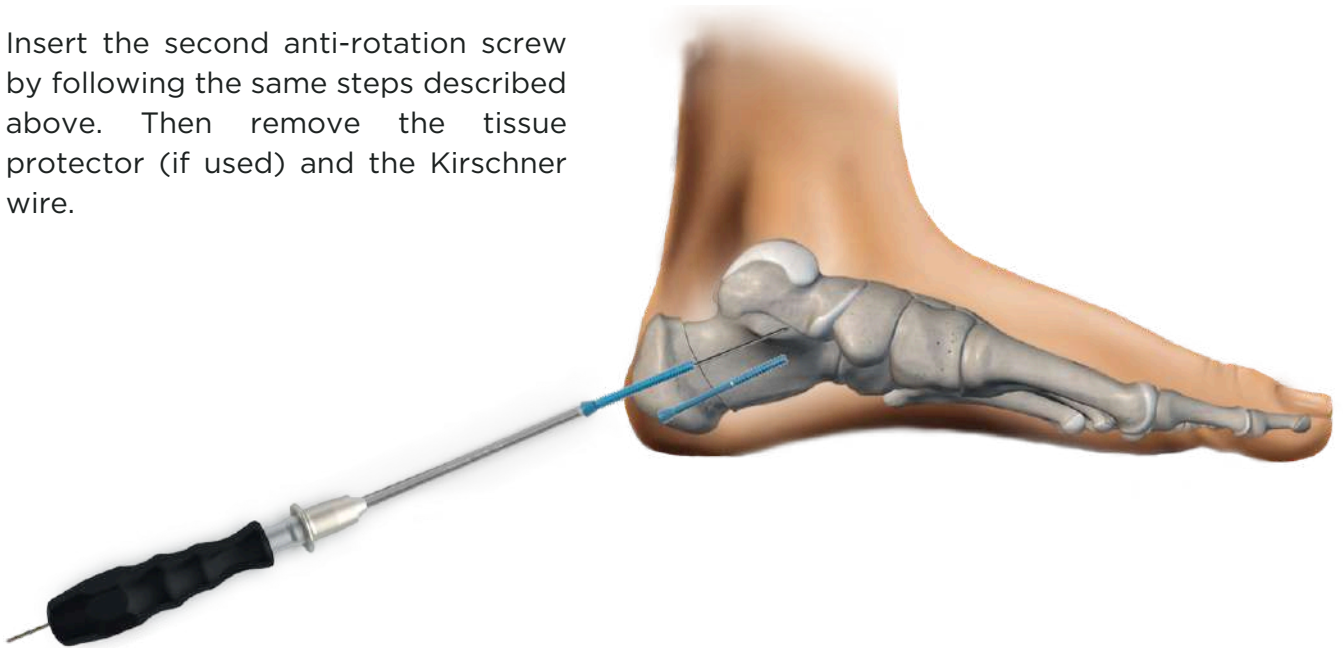
Insert the screw using the corresponding long cannulated screwdriver (passing it through the tissue protector, if used). To optimize the self-drilling effect, apply axial pressure during the first few turns of screw insertion until proper engagement of the screw is perceived. When the "Stop" mark on the long cannulated screwdriver is aligned with the entrance of the tissue protector, the screw head is flush with the bone surface.

Intraoperative fluoroscopic control is recommended to assess the screw position and verify that the fracture has been adequately stabilized.



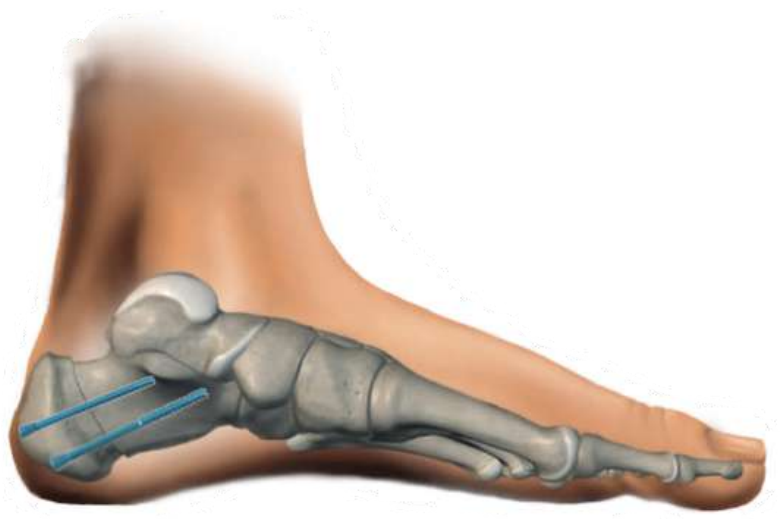
ROTATIONAL STABILIZATION

Insert the second anti-rotation screw by following the same steps described above. Then remove the tissue protector (if used) and the Kirschner wire.



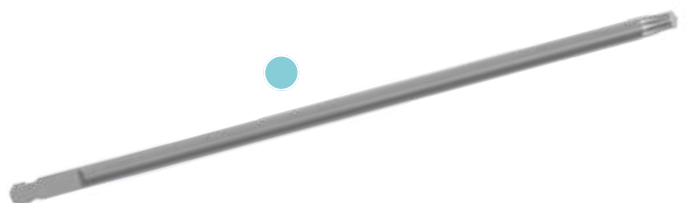
WOUND CLOSURE

Proceed with careful closure of the subcutaneous tissues and skin.



IMPLANT REMOVAL

Once bone healing has been achieved, the screws may be removed using the solid screwdriver. In special cases where implant removal may pose a risk to the patient, the surgeon may decide to leave the implants in place.







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



**Tool PRO Screws
Brochure**



**BRM Burrs
Brochure**

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