



BRM Tool VIP Screws

VERIFIED
INTRATHREAD
PERFORMANCE

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
- metacarpal and phalangeal fractures





SURGICAL TECHNIQUE GUIDE

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

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



STOI232000M Depth gauge 60 mm



STVI220XLOP Long cannulated drill bit Ø 1.8 mm for screws Ø 2.5 mm

STVI224XLOP Long cannulated drill bit Ø 2.0 mm for screws Ø 3.0 mm

STVI234XLOP Long cannulated drill bit Ø 2.9 mm for screws Ø 4.0 mm



STVI2250BK Basic countersink Ø 2.5 mm for screws Ø 2.5 mm

STVI2300BK Basic countersink Ø 3.0 mm for screws Ø 3.0 mm

STVI2400BK Basic countersink Ø 4.0 mm for screws Ø 4.0 mm



STVI2ES017S Slim cannulated screwdriver Hex 1.7 for screws Ø 2.5 mm

STVI2ES020S Slim cannulated screwdriver Hex 2.0 for screws Ø 3.0 mm

STVI2ES025S Slim cannulated screwdriver Hex 2.5 for screws Ø 4.0 mm



STVI2ES017P Solid screwdriver Hex 1.7 for screws Ø 2.5 mm

STVI2ES020P Solid screwdriver Hex 2.0 for screws Ø 3.0 mm

STVI2ES025P Solid screwdriver Hex 2.5 for screws Ø 4.0 mm



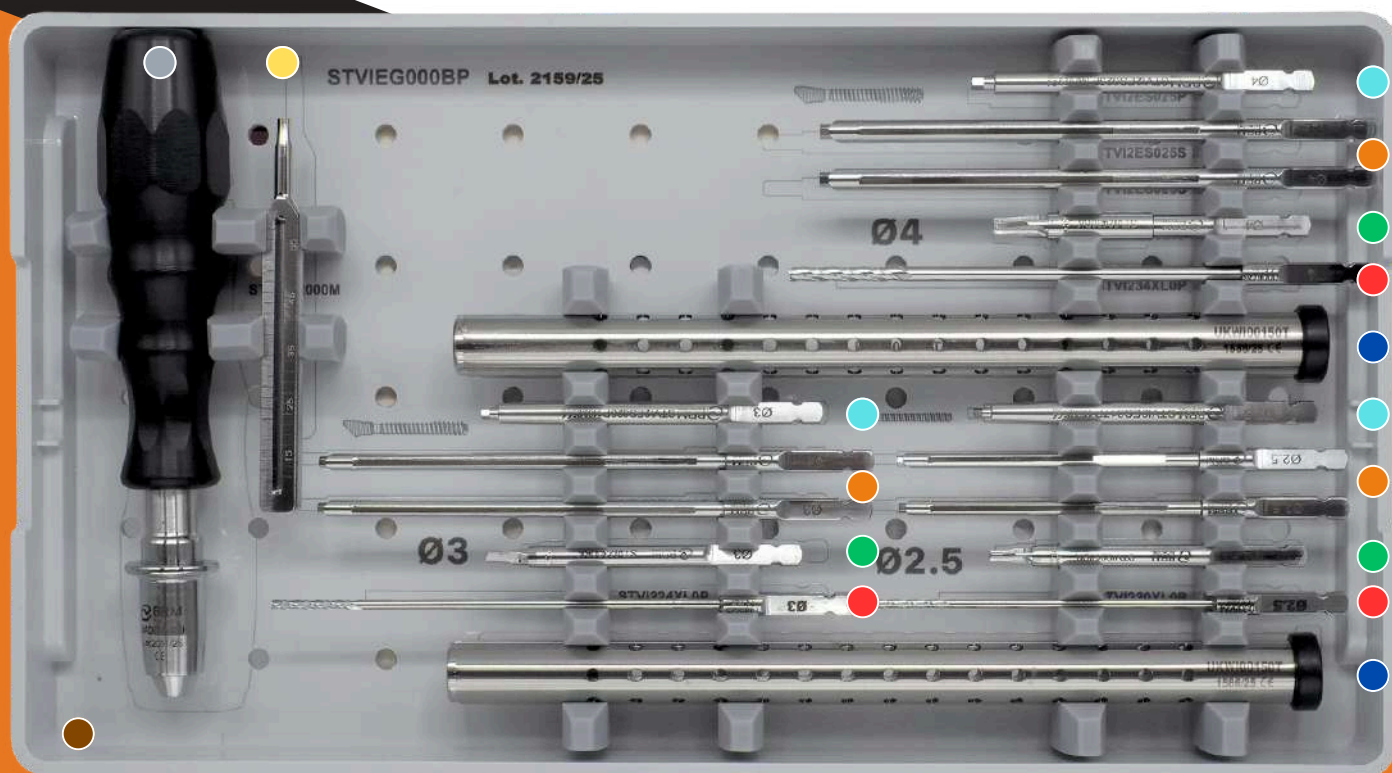
UKWI00150T Dispenser for K-wire sterilization 150mm

STVIEG000BP Sterilization tray for instruments Tool Vip

K-WIRE

STOIKW10150803N	K-Wire Ø 1.0 x 150 mm with marker at 80 mm Pack of 3 pcs - Non-sterile	for screws Ø 2.5 - 3.0 mm
STOIKW10150810N	K-Wire Ø 1.0 x 150 mm with marker at 80 mm Pack of 10 pcs - Non-sterile	for screws Ø 2.5 - 3.0 mm
STOIKW15150803N	K-Wire Ø 1.5 x 150 mm with marker at 80 mm Pack of 3 pcs - Non-sterile	for screws Ø 4.0 mm
STOIKW15150810N	K-Wire Ø 1.5 x 150 mm with marker at 80 mm Pack of 10 pcs - Non-sterile	for screws Ø 4.0 mm

KIT TOOL VIP





PATIENT PREPARATION

Based on preoperative Xray images, position the patient according to the technique chosen by the surgeon to ensure appropriate operative access. Make an incision to the skin and the subcutaneous tissues, along the midline of the metatarsal, just proximal to the sesamoid complex on the neck of the metatarsal, to access the area where the osteotomy will be performed.

K-WIRES FIRST

Before performing the osteotomy, place the Kwires in the position deemed appropriate. This sequence is technically simpler and helps reduce potential complications by improving control over the correction.



EXTRA-ARTICULAR OSTEOTOMY

Perform an oblique osteotomy of the Bosch type to compensate for the shortening of the first metatarsal and to allow also for rotational correction.

Introduce the burr at the apex of the osteotomy in a direction perpendicular to the II ray.

First perform the dorsal cut, next the plantar cut by moving the burr in a windshield-like manner. A perpendicular cut can be performed in index plusminus cases.



OSTEOTOMY FIXATION

Translate the metatarsal head until the desired correction is achieved.

Also correct any rotational deformity of the hallux at this stage. Fix the translation by inserting a guide wire. Advance the appropriately sized K-wire (ref. to table 1) into the metatarsal.

Ideal placement of the K-wire for the most proximal screw traverses both cortices of the proximal metatarsal prior to penetrating the metatarsal head.

It is crucial to obtain a true lateral X-ray projection to confirm proper positioning of the K-wires and the metatarsal head before inserting the screws. This step is essential to ensure correct alignment and avoid malpositioning.



SIZE SELECTION

Put the gauge on the K-wire and in contact with the bone.

The measurement indicated by the reference mark on the graduated scale corresponds to the length of the screw to be implanted. Remove the gauge.

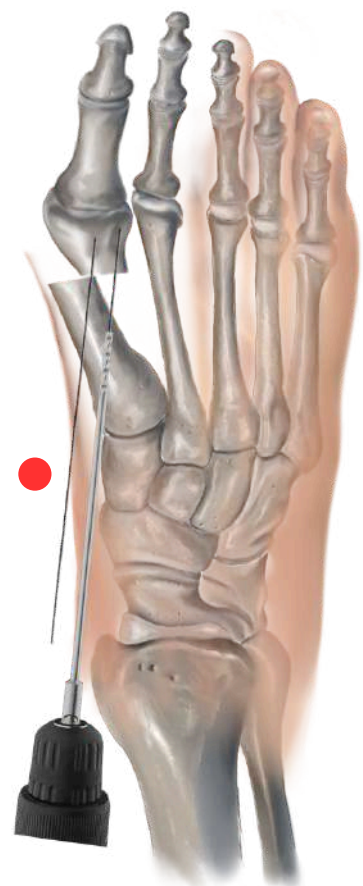
It is important to select the correct length of the screw to ensure that, once inserted, the tip and the head of the screw does not protrude from the bone, avoiding problems related to screw prominence.



CANAL PREPARATION

Prepare the canal that will house the screw by using the proper cannulated drill bit.

After determining the length of the screw to be implanted, it is advisable, before drilling, to secure the Kirschner wire in the second cortical, to avoid its displacement during drill bit extraction



CORTEX PREPARATION

Insert the countersink on the Kirschner wire and penetrate the first cortical as far as the instrument will allow (the countersink has a mechanical “stop”).



SCREW INSERTION

Insert the 4.0 screw using the corresponding screwdriver. Place the screwdriver so that the orientation marker on its body is at the bevel of the screw head. Screw to the desired depth, making sure that the chamfered head is in continuity with the bone surface to avoid impingement phenomena. Intraoperative fluoroscopic check is recommended for evaluating screw placement and verifying fracture fixation.



ROTATION FIXATION

With the same procedure put the second wire and the 3.0 screw to fix the rotation.



MEDIAL CLEANING

Insert the wedge burr through the initial medial incision and proceed to shave down the prominence until it is no longer palpable outside the skin.



AKIN OSTEOTOMY

Complete the procedure with a distal Akin osteotomy. Insert the burr midline at the proximal phalanx and aimed 45° proximal toward the proximal lateral aspect of the proximal phalanx. Manually reduce the osteotomy and insert a guide wire to prepare for definitive fixation. Insert the 2.5 screw to complete the construct.



REMOVAL

Once bone consolidation has been achieved, the screws can be removed using the solid screwdriver. In specific cases, when the removal of the device could represent a risk to the patient, the surgeon may decide to leave the implanted devices in place.



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



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Brochure**



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TC-01A-004-B-EN-Rev00