

Smith+Nephew

QWIX[®]
Fixation Screw

Surgical Technique



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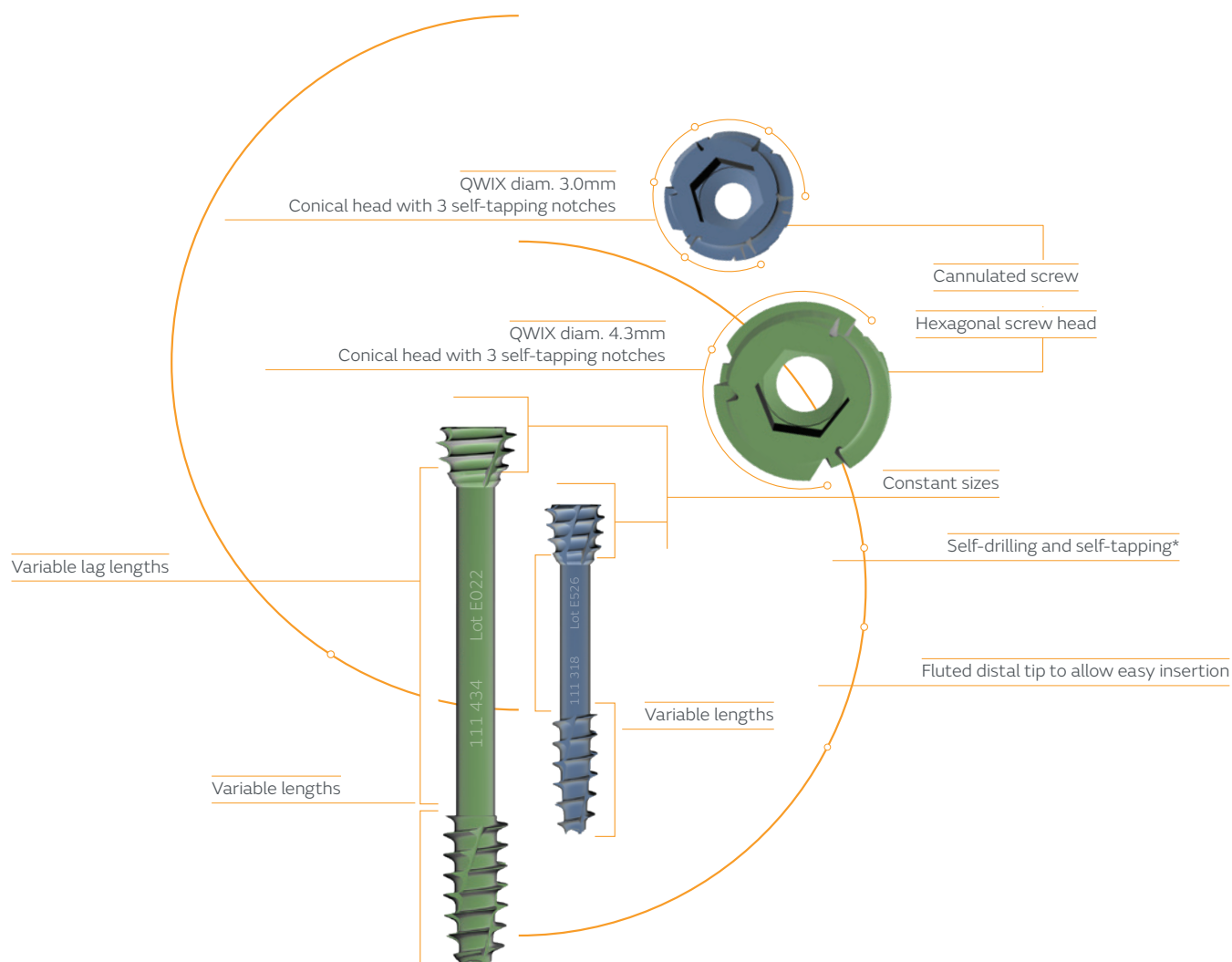
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Nota Bene

The following technique is for informational and educational purposes only. It is not intended to serve as medical advice. It is the responsibility of treating physicians to determine and utilize the appropriate products and techniques according to their own clinical judgment for each of their patients. For more information on the product, including its indications for use, contraindications, and product safety information, please refer to the product's label and the Instructions for Use packaged with the product.

Fixation Screws

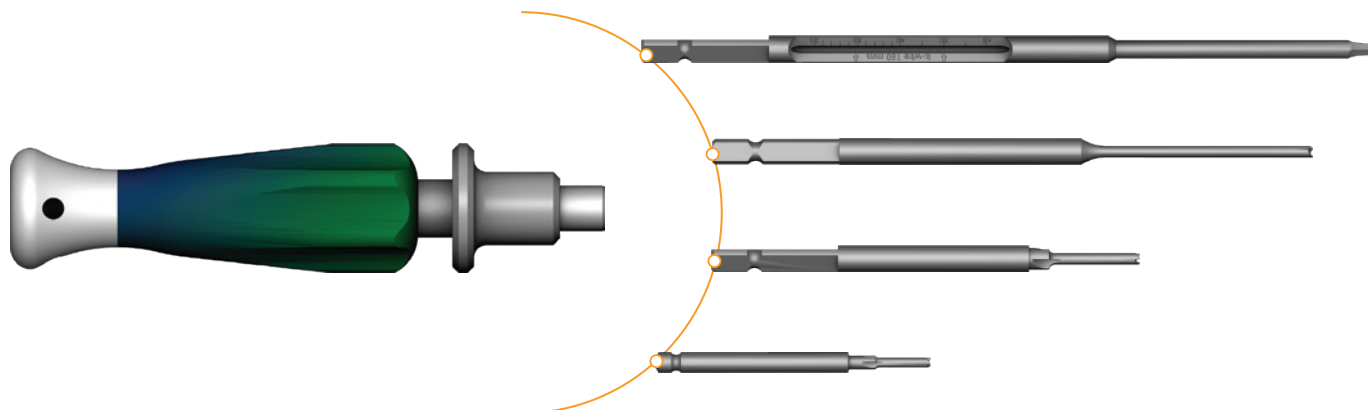


*QWIX 3.0 and 4.3

*QWIX 3.0 and 4.3 are designed with self-drilling flutes, but bone hardness can greatly vary by patient and anatomic area. The surgeon is responsible for assessing this hardness before using the self-drilling feature of the QWIX screws. Pre-drilling is advisable for dense or hard bone.

Instruments

Modular handle with AO attachment.



Description

- Self-drilling and self-tapping* insertion.
- Variable lags to ensure compression across the osteotomy or fracture site.
- Two diameters (3.0mm and 4.3mm) to address multiple fixation and osteotomy sites.
- Intra-Osseous Fixation
- K-wire guided drilling and insertion.
- Manufactured from Titanium alloy: Ti-6Al-4V, ISO 5832-3 ASTM F136.

***QWIX 3.0 and 4.3**

*QWIX 3.0 and 4.3 are designed with self-drilling flutes, but bone hardness can greatly vary by patient and anatomic area. The surgeon is responsible for assessing this hardness before using the self-drilling feature of the QWIX screws. Pre-drilling is advisable for dense or hard bone.

Surgical Technique

Product Identification

The QWIX[®] screws and instrumentation are color coded:

- ● Blue for 3.0mm screws
- ● Green for 4.3mm screws

Step 1 • K-Wire insertion

1-1 Secure the bone fragments with a K-wire (115 070ND, 115 101ND or 115 116ND). The position should be checked under fluoroscopy (now and throughout the procedure).

This K-wire guides the screw. Due to the atraumatic aspects of the K-wire, it can be withdrawn and replaced until the desired position is achieved.

Step 2 • Measurement

2-1 The length read on the cannulated screwdriver is equal to the length of the K-wire inserted in the bone plus 1.5mm (offset compensates for compression and Bi-cortical fixation).

Bi-cortical fixation:

Insert the appropriate cannulated screwdriver (119 135ND or 119 104ND) on the K-wire (fig. 2-1), and read the indicated screw length directly from the scale (fig. 2-2).

Mono-cortical fixation:

Follow the same procedure as above except subtract 1.5mm from the reading on the scale to determine appropriate screw length.

*See Step 4 for illustration of screw placement.

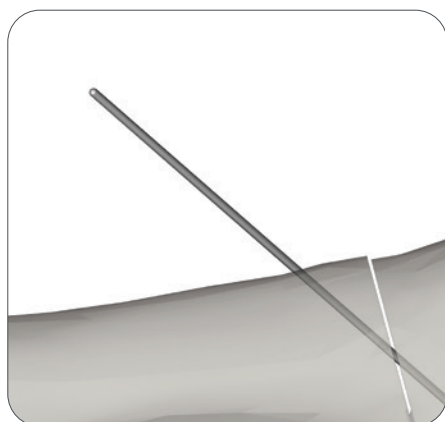


Figure 1-1

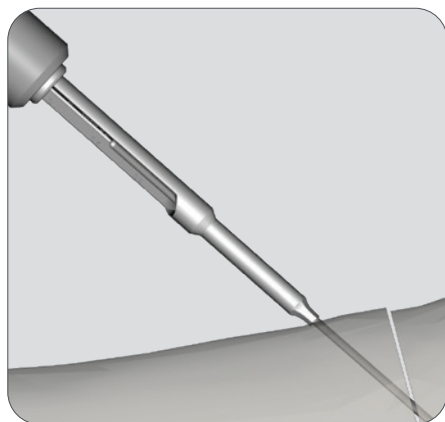


Figure 2-1



Figure 2-2

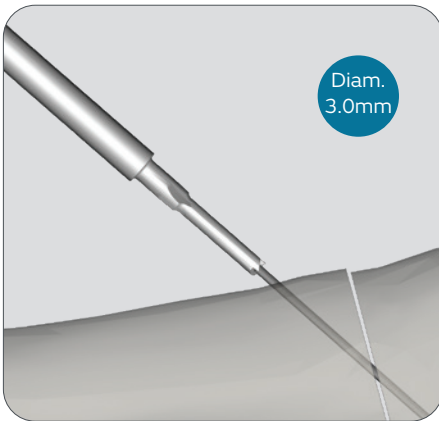


Figure 3-1

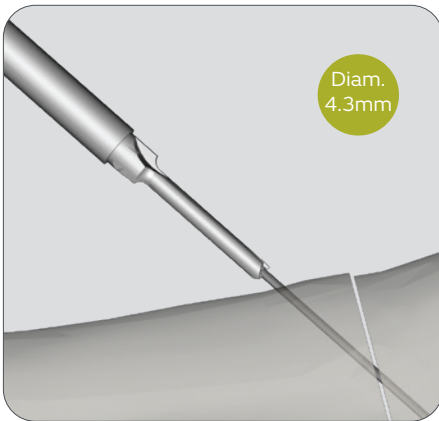


Figure 3-2a

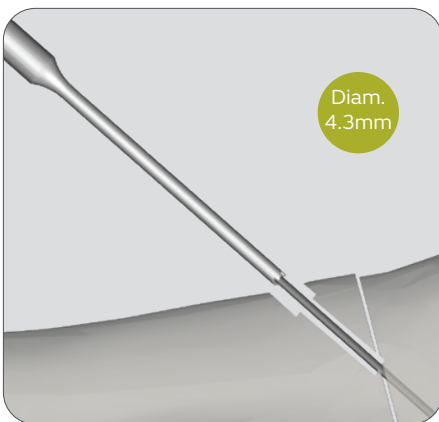


Figure 3-2b

Step 3 - Optional

QWIX[®] 3.0 and 4.3 are designed with self-drilling flutes, but bone hardness can greatly vary by patient and anatomic area. The surgeon is responsible for assessing this hardness before using the self-drilling feature of the QWIX screws. Pre-drilling is advisable for dense or hard bone.

Depending on the selected screw, follow the appropriate procedures:

- Fig. 3-1 is for diam. 3.0mm QWIX
- Fig. 3-2a is for diam. 4.3mm QWIX

For diameter 3.0mm screws only

3-1 In case of hard/sclerotic bone, it may be necessary to prepare the cortex by power or manually with the 3.0mm diameter drill (159 027SND).

For diameter 4.3mm screws only

3-2a The short drill (119 139ND) is used to prepare the cortex for insertion of the screw head.

3-2b The long drill (119 516ND) is used to countersink the bone for insertion of the screw body. The drill is introduced over the K-wire and drilled to the desired depth.

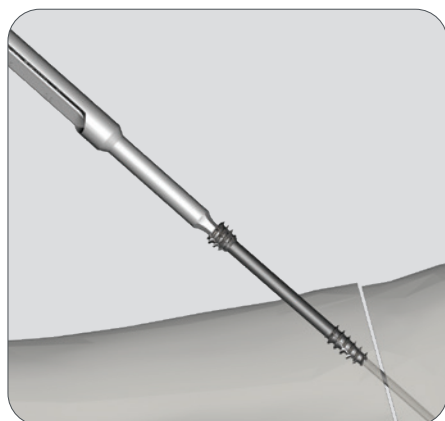


Figure 4-1

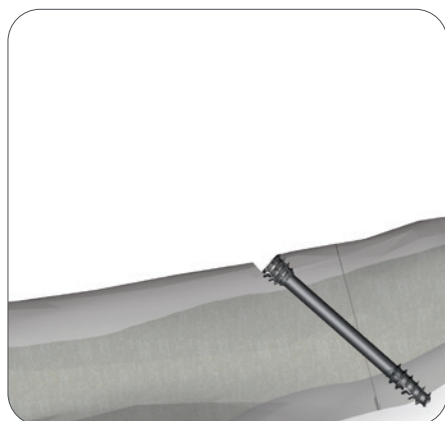
Step 4 • Screw Insertion

4-1 The screw is inserted with the cannulated screwdriver (119 135ND or 119 104ND).

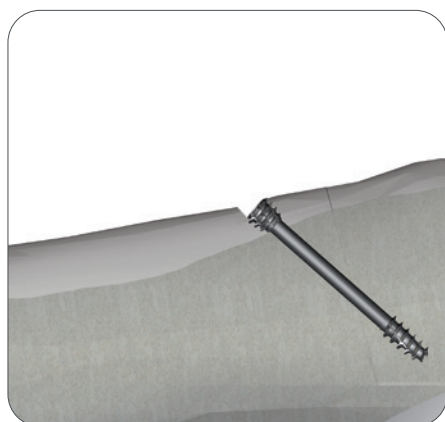
QWIX[®] screws may be inserted under power or by hand.

The head of the screw must be completely embedded in the cortex to obtain optimal compression. Complete insertion is also recommended to prevent soft tissue irritation particularly on the dorsal aspect of the foot.

Tip: The screw insertion should be checked under fluoroscopy.



Bi-cortical



Mono-cortical

3.0mm QWIX[®] Fixation Screw

Reference	Length
111 312 SND	12mm
111 314 SND	14mm
111 316 SND	16mm
111 318 SND	18mm
111 320 SND	20mm
111 322 SND	22mm
111 324 SND	24mm
111 326 SND	26mm
111 328 SND	28mm
111 330 SND	30mm
111 332 SND	32mm
111 334 SND	34mm

4.3mm QWIX Fixation Screw

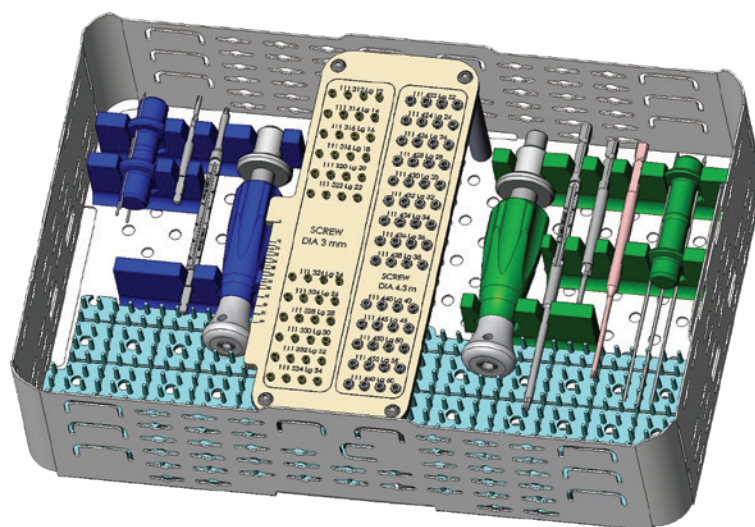
Reference	Length
111 422 SND	22mm
111 424 SND	24mm
111 426 SND	26mm
111 428 SND	28mm
111 430 SND	30mm
111 432 SND	32mm
111 434 SND	34mm
111 436 SND	36mm
111 438 SND	38mm
111 440 SND	40mm
111 445 SND	45mm
111 450 SND	50mm
111 455 SND	55mm
111 460 SND	60mm

3.0mm QWIX Instrumentation

Reference	Description
119 133 ND	Handle with AO Attachment Diam. 3.0mm
119 135 ND	Diam. 3.0mm Screwdriver Axis
159 027 SND	Drill with AO Attachment LG 65mm Diam. 2.2mm
115 070 ND	K-Wire Diam. 1.0mm LG 70mm
115 101 ND	K-Wire Diam. 1.0mm LG 100mm – one blunt tip
119 934 ND	Cylinder for Screw Diam. 3.0mm

4.3mm QWIX Instrumentation

Reference	Description
119 138 ND	Handle with AO Attachment Diam. 4.3mm
119 104 ND	Diam. 4.3mm Screwdriver Axis
119 139 SND	Short Drill for 4.3mm
119 516 ND	Long Drill for 4.3mm
115 116 ND	K-Wire Diam. 1.6mm LG 150mm
119 937 ND	Cylinder for Screw Diam. 4.3mm



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