

 smith&nephew

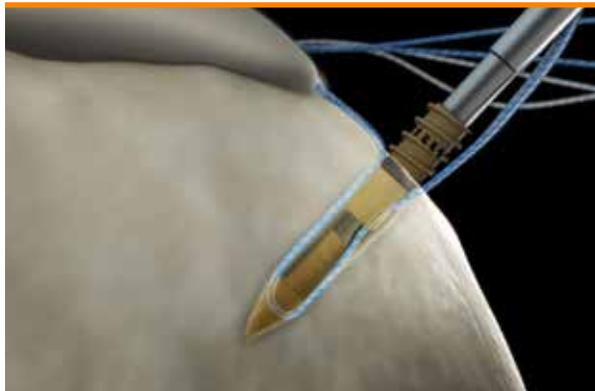
MULTIFIX[®]S

PEEK 5.5mm and 6.5mm Knotless Implants



MULTIFIX[◇] S Knotless Implants

The MULTIFIX S system offers 5.5mm and 6.5mm knotless, all-PEEK, pound-in implants. The system provides multiple fixation options, a streamlined technique, and is ideal in multi-suture constructs allowing surgeons to meet the needs of a diverse patient population.



MULTIFIX S anchor

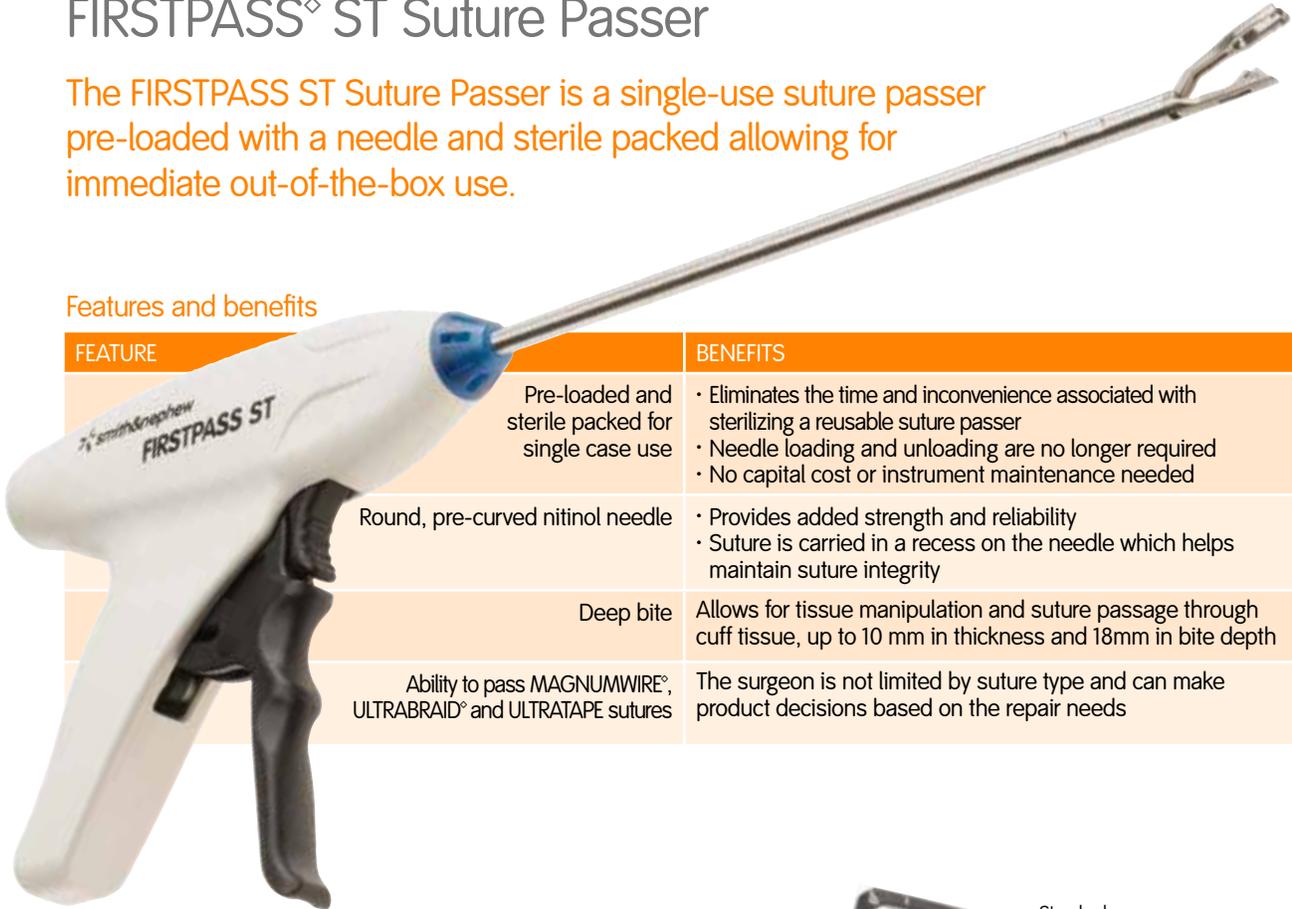


FIRSTPASS[◇] ST Suture Passer

The FIRSTPASS ST Suture Passer is a single-use suture passer pre-loaded with a needle and sterile packed allowing for immediate out-of-the-box use.

Features and benefits

FEATURE		BENEFITS
	Pre-loaded and sterile packed for single case use	<ul style="list-style-type: none"> Eliminates the time and inconvenience associated with sterilizing a reusable suture passer Needle loading and unloading are no longer required No capital cost or instrument maintenance needed
	Round, pre-curved nitinol needle	<ul style="list-style-type: none"> Provides added strength and reliability Suture is carried in a recess on the needle which helps maintain suture integrity
	Deep bite	Allows for tissue manipulation and suture passage through cuff tissue, up to 10 mm in thickness and 18mm in bite depth
	Ability to pass MAGNUMWIRE [®] , ULTRABRAID [®] and ULTRATAPE sutures	The surgeon is not limited by suture type and can make product decisions based on the repair needs



Round pre-curved needle for reliability and strength



Two step trigger to grasp tissue and deploy needle



Available in both standard and self-capturing solutions

Surgical technique

Assess the patient's bone quality prior to use. If, in the physician's opinion, the bone is hard, create a bone hole with a punch such as the Tapered Punch (OM-9220). A bone hole is also required if the implant is to be placed at an angle other than perpendicular to the bone surface.



OM-9220 Tapered punch



OM-9615 Insertion Guide with Obturator

Preparation - Bone holes for the MULTIFIX[®] S Implant

The bone hole sites are planned by applying traction to the tendon to approximate implant location. The cuff footprint is prepared by removing all soft tissue and creating a smooth bone surface.

A Insert the Insertion Guide with Obturator through the skin incision with the Insertion Guide handle oriented 180° from the sutures. Align the slit of the Insertion Guide in the direction of the stitch in the tissue. Remove the obturator from the Insertion Guide. Using a suture retriever, shuttle sutures into the working portal.

B Using a punch, create a bone hole 25mm in depth.

CAUTION: Care must be taken to avoid creation of a shallow bone hole.

C Remove the punch from the bone.

NOTE: If placing more than one implant, ensure bone holes are at least 7mm apart.

Procedure

- 1 Suture soft tissue utilizing the appropriate suture.

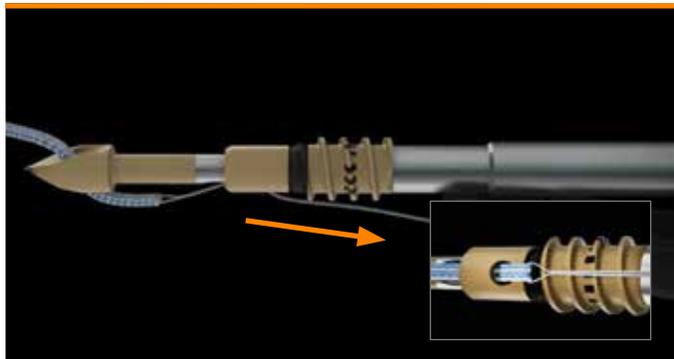
NOTE: The MULTIFIX[®] S implant can accommodate 2-4 suture strands or 2 strands of suture and 2 strands of ULTRATAPE[®].



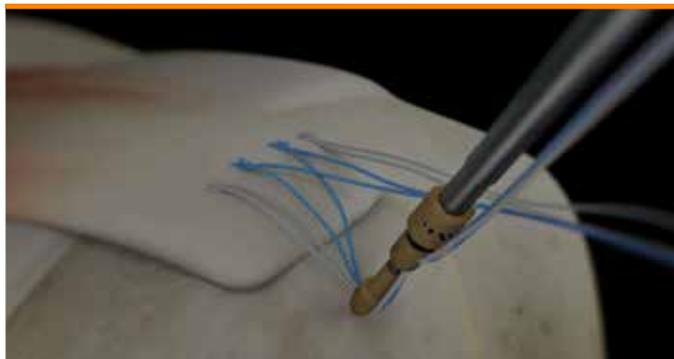
- 2 Load suture legs through the snare loop ensuring about 3cm of each extends past the snare.



- 3 To snare the sutures through the anchor, pull the suture loader cross bar away from the shaft and toward the handle at 45°. Discard the suture loader after the sutures have been passed through the anchor.



- 4 Holding the free ends of the sutures, advance the loaded implant to the surface of the bone. Advance until sutures can be clearly seen between the tissue and the pound-in tip. Confirm that the sutures are not wrapped around the inserter. If wrapped, pull the device out and repeat this step.

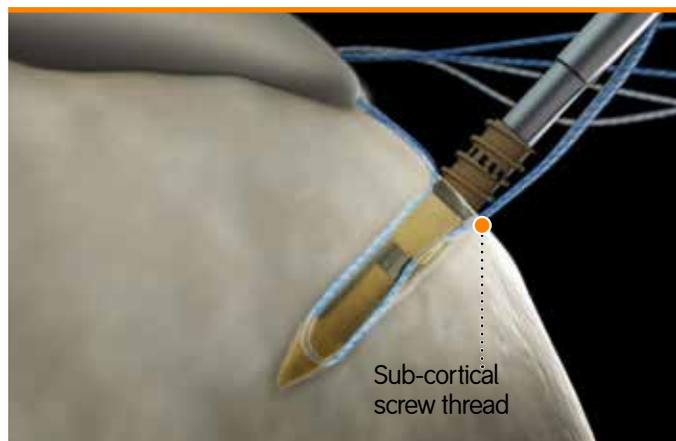


5 Place the pound-in tip at the desired location lateral to where the tendon is to be secured. Ensure the eyelet of the pound-in tip orients the sutures toward the tissue. Do not split the sutures with the implant. Establish axial alignment of the inserter shaft perpendicular to the bone. If a bone hole was created, establish axial alignment of the inserter handle with the bone hole.



6 Remove desired slack in the sutures by pulling on the suture tails.
7 Mallet the proximal end of the inserter handle to drive the pound-in tip into the bone. Mallet until the laser mark on the leading thread of the screw is sub-cortical

CAUTION: If the pound-in tip does not penetrate the bone on the first strike, create a bone hole according to steps B & C. Use a new implant in the bone hole.



CAUTION: Use care to properly align the implant and inserter handle with the bone hole during pound-in. Avoid excessive probing. Do not bend or twist the inserter handle during and after insertion as damage to the implant or incomplete insertion may result. Do not deploy a bent or damaged implant.

CAUTION: Incomplete insertion or poor bone quality may result in the implant pulling out.

8 Tension will be applied to the tissue during advancement of the pound-in tip. If additional tension is required, individually pull the free suture tails in line with the axis of the inserter, while maintaining downward pressure on the inserter handle. Suture may be placed in the suture cleats for suture management if desired.

CAUTION: Individually tensioning the sutures may cause the device to back out of the bone hole. If this occurs, advance the pound-in tip until the laser mark on the leading edge of the screw is sub-cortical before applying tension to the next suture.

CAUTION: Do not over tension the sutures as breakage or tissue pull through may occur. In addition, over-tension may result in incomplete insertion or implant pull out.

9 While maintaining downward pressure on the inserter handle, deploy the screw by turning the deployment knob clockwise until the screw is flush or below the surface of the bone and the deployment knob has come to a hard stop. Disengage the anchored implant from the inserter handle by turning the end cap counterclockwise a minimum of six turns.

NOTE: If the screw threads do not bite, mallet the threads further into the bone. Then, continue turning the deployment knob until the screw is flush or below the surface of the bone and the deployment knob has come to a hard stop.

NOTE: If implant extraction is indicated at this point, turn deployment knob counterclockwise to remove the screw and pull on the suture tails to remove the pound-in tip.

NOTE: If the implant has detached from inserter handle, or for postoperative repair, insert the Anchor Extraction Tool (22-9005) and turn counterclockwise to remove the screw and then pull on the sutures to remove the pound-in tip.

10 Disengage sutures from the cleats if needed prior to retracting the inserter handle. Trim remaining loose suture ends at the bone hole.

NOTE: If placing more than one implant, assure bone holes are at least 7mm apart.



22-9005 Anchor Removal Tool

Ordering information

Reference #	Description
OM-2300	MULTIFIX S 5.5MM IMPLANT
OM-2365	MULTIFIX S 6.5MM IMPLANT
OM-9220	TAPERED PUNCH
OM-9615	SPEEDSCREW® INSERTION GUIDE AND OBTURATOR SET: INSERTION GUIDE WITH OBTURATOR
22-4038	FIRSTPASS ST SUTURE PASSER, SELF CAPTURE
22-4039	FIRSTPASS ST SUTURE PASSER, STANDARD

ArthroCare Corporation
7000 West William Cannon Drive
Austin, TX 78735
USA

www.smith-nephew.com

Order Entry: 1-800-343-5717
Order Entry Fax: 1-888-994-2782

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