4.5 mm/6.7 mm Low Profile Screw System

Surgical Technique





Introduction

Designed in conjunction with foot and ankle surgeons, the cannulated 6.7 mm low profile screw is the ideal tool for hindfoot fixation. The larger thread-to-shaft differential, provides greater pull-out strength¹ and compression, while the 18 mm, 28 mm, and fully threaded options expand the range of surgical solutions. Lower profile heads decrease the need for removal in areas where minimal soft tissue and direct weightbearing are considerations.

Features and Benefits

- 18 mm thread length, 28 mm thread length, and fully threaded options – Three choices for surgical flexibility
- Deeper threads Using a 2.4 mm guide pin allows threads to be deeper than a standard AO screw
- Larger thread height Maximizes purchase for 30% more pull-out strength than a standard screw¹
- Lower profile head 1 mm lower than a standard screw



- 2.4 mm guide pin Enables accurate placement
- Self-drilling/self-tapping Quick and easy insertion, reverse cutting flutes
- 3.5 mm hex Strong drive for confident placement
- Type II anodized titanium



Pull-Out Strength Comparison¹

Reference

1. Arthrex, Inc. Data on file (APT 930). Naples, FL; 2007.

Comparison Between AO 6.5 mm Screw and the Arthrex 6.7 mm Screw



Medializing Calcaneal Osteotomy (MCO) Technique, 6.7 mm LPS Screw



Cut the calcaneus in the appropriate location and shift the desired amount.

Maintain the correction with two 2.4 mm guide pins at the desired location of the screws. If desired, use the provided parallel pin guide. Always drive the pin through the longer leg of the guide.



Countersink, if indicated.





Measure pin depth with the depth device (inset).

Fix with two 6.7 mm cannulated LPS screws. Screws are self-drilling, but in very hard bone predrilling may be required. Screws may be inserted by hand or power, but final tightening should be done by hand.



Osteotomy fixation is complete.



Prepare subtalar joint by thoroughly removing all cartilage. Roughen bony surfaces by drilling, "fish scaling," or other means. Pack the joint with graft material. AlloSync Pure[®] demineralized bone matrix hydrated with Angel[®] cPRP system from bone marrow would probably be the first choice among many.



Insert two 2.4 mm guide pins at the intended location of the screws. If desired, use the provided parallel pin guide. Always drive pins through the longer leg of the guide.



Countersink, if indicated.

Subtalar Arthrodesis Technique Options, 6.7 mm LPS Screw



Measure the pin depth with the depth device.



Fix with two 6.7 mm cannulated LPS screws. Screws are self-drilling, but in very hard bone predrilling may be required.



Screws may be inserted by hand or power, but final tightening should be done by hand. Screws may be inserted in divergent directions, if desired.



Guidewires must be placed diagonally prior to screw insertion.



Final fixation.

Using Arthrex Orthobiologics to Augment Bony Defects

AlloSync[™] Pure Demineralized Bone Matrix

AlloSync Pure dehydrated osteoinductive demineralized bone matrix is derived from 100% human allograft bone with no extrinsic carriers. AlloSync Pure bone matrix resists irrigation and can be used in a fluid environment. The clinician can control the handling properties of AlloSync Pure bone matrix, which includes decreasing the viscosity for injectable applications or increasing the viscosity to add autograft and/or allograft.



Figure 1: AlloSync Pure demineralized bone matrix histology.¹



AlloSync Demineralized Cancellous Sponge and Demineralized Cortical Fibers

When combined with osteogenic autologous bone marrow and/or autologous platelet-rich plasma, AlloSync demineralized bone provides the necessary components for bone formation.

- Comprised of 100% demineralized bone with handling characteristics
- Contains exposed natural growth factors with osteoinductive potential
- Provides optimal scaffold for cellular attachment and proliferation
- Naturally absorbs and retains bioactive fluids like platelet-rich plasma (PRP) and bone marrow aspirate (BMA)
 - After rehydration, the product is compressible like a sponge, allowing for flexibility to fit in and around different types of bone defects

⁺FlexiGRAFT is a registered trademark of LifeNet Health

Reference

1. CellRight Technologies, LLC. Data on file (ConCelltrate® 100 histology and in-vitro alkaline phosphate induction assay). Universal City, TX; 2017.



Ordering Information

LPS 4.5 mm/6.7 mm Instrument Set

Product Description	Item Number
LPS 4.5 mm/6.7 mm Screw Instrument Set	AR- 8946S
Low Profile Screw System Instrument Case	AR- 8946C
4.5 mm Instruments	
Depth Device, cannulated, 3 mm/4.5 mm	AR- 8944DG
Drill Guide, 1.6 mm/4 mm	AR- 8955G
Driver, cannulated, 3.5 mm hex (Mini Hudson)	AR- 8967D
Drill Bit, cannulated, 3 mm (Mini Hudson)	AR- 8945-30C
Countersink, fixed handle, cannulated, 4.5 mm	AR-8945CSF
Drill Guide, 3.4 mm/4.5 mm	AR- 4164G
Drill Bit, cannulated, 4.5 mm (Mini Hudson)	AR- 8945-45C
Depth Device, large for 4.5 mm/6.7 mm (hook tip)	AR- 4167
Bone Tap, cannulated, 4.5 mm (Mini Hudson)	AR- 8945TC
Low Profile Screws, partially threaded,	AR-8945-20FT-40FT
4.5 mm × 20 mm-40 mm (2 mm increments)	
Low Profile Screws, partially threaded,	AR- 8945-45FT-80FT
4.5 mm × 45 mm-80 mm (5 mm increments)	AP-8945-20FT-40FT
4.5 mm × 20 mm-40 mm (2 mm increments)	AR-0343-2011-4011
Low Profile Screws, fully threaded,	AR- 8945-45FT-80FT
4.5 mm × 45 mm-80 mm (5 mm increments)	
Implants – 4.5 mm Screws and Washer	
Washer, titanium, qty. 4	AR- 8945W
Disposables	
Guidewire w/ Trocar Tip, .062 in (1.6 mm)	AR- 8941K
Guidewire w/ Trocar Tip, threaded, .062 in (1.6 mm)	AR- 8941KT

Product Description	Item Number	
6.7 mm Instruments		
Parallel Pin Guide, adjustable, 2.4 mm	AR- 8967PG	
Cannulated Depth Device, 6.7 mm	AR- 8967DG	
Drill Guide, 4 mm/6.7 mm	AR- 8967G	
Drill Bit, cannulated, 4 mm, qty. 2	AR- 8967-40C	
Drill Bit, cannulated, 6.7 mm	AR- 8967-67C	
Hudson Adapter	AR- 1416	
Countersink, fixed handle, cannulated, 6.7 mm	AR-8967CSF	
Bone Tap (Mini Hudson), cannulated, 6.7 mm	AR- 8967TC	
Driver, cannulated, 3.5 mm hex	AR- 8967D	
Ratcheting Screwdriver Handle	AR- 1999	
Depth Device, hook tip, large	AR- 4167	
Tear Drop Handle	AR- 2001	
Low Profile Screw Caddy, 4.5 mm/6.7 mm	AR- 8946C-SC	
Implants – 6.7 mm Screws and Washer		
Low Profile Screws, cannulated, 6.7 mm ×	AR- 8967-1840-18120	
40 mm-120 mm, 18 mm thread length*		
Low Profile Screws, cannulated, 6.7 mm ×	AR- 8967-2840-28120	
40 mm-120 mm, 28 mm thread length*	AD 0007 4057 40057	
6.7 mm × 40 mm-120 mm*	AR-8967-40F1-120F1	
Washer, titanium, qty. 4	AR- 8967W	
Disposables		
Guidewire w/ Trocar Tip, nonthreaded,	AR- 8967K	
0.094 in (2.4 mm) × 8 in, qty. 6		
Guidewire w/ Trocar Tip, threaded,	AR- 8967KT	
0.094 in (2.4 mm) × 8 in, qty. 6		
Guidewire w/ Trocar Tip, nonthreaded,	AR- 8967K-12	
Guidewire w/ Trocar Tip, threaded	AP-8967KT-12	
0.094 in (2.4 mm) × 12 in, qty. 6		
Optional		
C-ring Pin Guide	AR- 8967CG	
Countersink, cannulated, 4.5 mm/6.7 mm	AR- 8945CS	
6.7 mm Low Profile Screw System Tenodesis Module	AR- 8967S	

*All screws are available in 5 mm increments.

Orthobiologics Ordering Information

AlloSync[®] Cancellous Sponges

Product Description	Item Number
Cube, 8 mm × 8 mm × 8 mm	ABS- 2005-01
Cube, 10 mm × 10 mm × 10 mm	ABS- 2005-02
Cube, 12 mm × 12 mm × 12 mm	ABS- 2005-03
Strip, 10 mm × 20 mm × 2 mm	ABS- 2006-01
Strip, 15 mm × 40 mm × 2 mm	ABS- 2006-02
Strip, 20 mm × 25 mm × 6 mm	ABS- 2006-03
Strip, 10 mm × 20 mm × 8 mm	ABS- 2006-04
Chips (1 mm-4 mm), 1.0 cc	ABS- 2007-01
Chips (1 mm-4 mm), 2.5 cc	ABS- 2007-02
Chips (1 mm-4 mm), 5 cc	ABS- 2007-03

ACP Autologous Conditioned Plasma

Product Description	Item Number
ACP/Double Syringe w/ Cap	ABS- 10010S
Series I ACP Blood Draw Kit	ABS- 10011
Series II ACP Blood Draw Kit	ABS- 10012
Centrifuge	1206-01
Rotor Set w/ Buckets and Caps	ABS- 10021S
Bucket	1491
Bucket Cap	1492
Counterbase	ABS- 10027
Arthrex Biologics Cart	ABS- 10100

AlloSync Cortical Fibers

Product Description	Item Number
Fibers, 1.0 cc	ABS- 20085-01
Fibers, 2.5 cc	ABS- 2008-02
Fibers, 5 cc	ABS- 2008-03
Fibers, 10 cc	ABS- 2008-04

Demineralized Bone Matrix

Product Description	Item Number
AlloSync DBM Putty, 1 cc	ABS- 2012-01
AlloSync DBM Putty, 2.55 cc	ABS- 2012-02
AlloSync DBM Putty, 5 cc	ABS- 2012-05
AlloSync DBM Putty, 10 c	ABS- 2012-10
AlloSync DBM Gel, 1 cc	ABS- 2013-01
AlloSync DBM Gel, 5 cc	ABS- 2013-05
AlloSync DBM Gel, 10 cc	ABS- 2013-10
AlloSync CB DBM Putty, 5 cc	ABS- 2014-05
AlloSync CB DBM Putty, 10 cc	ABS- 2014-10
AlloSync CB DBM Paste, 1 cc	ABS- 2015-01
AlloSync CB DBM Paste, 3 cc	ABS- 2015-03
AlloSync CB DBM Paste, 8 cc	ABS- 2015-08
StimuBlast [®] Cancellous Crushed, 5 cc	27715005

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This description of technique is provided as an educational tool and clinical aid to assist properly licensed medical professionals in the usage of specific Arthrex products. As part of this professional usage, the medical professional must use their professional judgment in making any final determinations in product usage and technique. In doing so, the medical professional should rely on their own training and experience and should conduct a thorough review of pertinent medical literature and the product's directions for use. Postoperative management is patient-specific and dependent on the treating professional's assessment. Individual results will vary and not all patients will experience the same postoperative activity level or outcomes.

View U.S. patent information at www.arthrex.com/corporate/virtual-patent-marking

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