FOREFOOT SOLUTIONS

Specific Patients, Specific Solutions





TMT SOLUTIONS

1ST TMT PRIMARY FUSION SOLUTIONS

Small Bone Phantom® Intramedullary Nail

- Intramedullary—minimal hardware prominence
- Designed to generate uniform compression through center of joint
- Guided system for reproducible implantation



Phantom[®] MIS System

The Phantom[®] Minimally Invasive Surgery (MIS) Lapidus System was designed to provide surgeons guided instrumentation to aid in a minimally invasive joint preparation technique for the Lapidus Arthrodesis procedure

Features

- The Burr Guide and Paddle allow the surgeon to locate the joint such that the orientation is aligned properly prior to burring (Figure 1)
- Ø3.0 mm Shannon-Style Burr designed to avoid impingement of surrounding soft tissue (Figure 2)



Figure 1



Figure 2

Gorilla[®] Lapidus Plating System

- Precision[®] Guide Lapidus helps prevent hardware collision while guiding cross screw orientation
- Patent-pending plantar arm designed to reduce plantar gapping
- Anatomic biconvex plate design
- Proximal soft tissue ramp helps reduce irritation to the tibialis anterior



$\mathbf{1}^{\text{ST}}$ TMT REVISION SOLUTIONS

PRESERVE[™] Length Restoring Lapidus Graft*

- Aseptically processed (no gamma irradiation or bleach), dense cancellous allograft
- Patented Kidney Bean shape designed for biplanar correction is density matched specifically for the 1st TMT joint



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TMT SOLUTIONS (CONT.)

Revision Fixation

- Gorilla[®] Graft Spanning Lapidus plating options designed to span the length of a graft
- Phantom[®] Nails offered in lengths up to 60 mm to accommodate revision procedures



Additional Joint Preparation Instrumentation

LAPIDUS NIPPER

 Allows for completion of osteotomy and extraction of bony fragments







SUBCHONDRAL DRILL

 2.0 mm x 10 mm with stop to allow for controlled drilling/fenestration

BONE FENESTRATION CHISEL

 Two sharp tips to "fishscale" the surface of the joint to promote bleeding bone to help drive fusion

Bun-Yo-Matic Lapidus Clamp

- Precise, Accurate, and Reproducable Tri-planar correction
- Ability to compress, distract, and rotate the first metatarsal
- Compatible with all Paragon 28[°] Lapidus solutions
- First thing on, Last thing off



1ST TMT JOINT PREPARATION SOLUTIONS

Joint Preparation Made Simple: Lapidus Cut Guide System

- Designed to minimize bone resection and reduce the risk of shortening
- Selection of varying degrees of Metatarsal-Cuneiform Guides allow for precise angular correction
- Flat cuts on the metatarsal allow for rotational correction through supination



Lapidus Cut Guide: 12°



HALLUX VALGUS SOLUTIONS

The Precision® MIS Bunion System Solution

FEATURES

- Wide array of screw diameters and lengths to accommodate a variety of patient anatomies
- ► Precision[™] Outrigger designed to accomplish triplanar correction of hallux valgus
- Large guide wire diameters for placement of screws with reduced chance of skiving
- Angel wing trajectory guide to trial placement of cannulated screws
- ► Robust offering of instruments for Precision[™] guided or free-hand technique



IMPLANT OFFERINGS

Chamfer Head Sits flush to bone

Forward Cutting Flutes Creates thread pattern during screw insertion and allows the screw to be self-tapping Modified Hexalobe Head Driver tip sits in one position and allows for orientation of screw



Sharp Tip and Sharp Threads Four sharp tips are self-drilling

	Ø3.0 mm Chamfer Screws	Ø3.5 mm Chamfer Screws	Ø4.0 mm Chamfer Screws
			
Screw Lengths:	Available lengths: 12 mm–48 mm	Available lengths: 12 mm–70 mm	Available lengths: 16 mm–70 mm
	in 2 mm increments	in 2 mm increments	in 2 mm increments

Precision[®] MIS Bunion Outrigger Features

DISTAL METATARSAL HEAD TRANSLATION

 Designed to translate the distal metatarsal fragment up to 100%



Before

After

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HALLUX VALGUS SOLUTIONS (CONT.)

METATARSAL HEAD DEROTATION

Derotate the metatarsal head up to 48°





Open Retention Clip

Final Position

DISTAL METATARSAL ARTICULAR ANGLE CORRECTION

▶ Introduce up to 25° of DMAA adjustment





ANGEL WING GUIDE WIRE TRAJECTORY TRIAL

 Visualize screw entry point, trajectory, and position in metatarsal head



The FJ 2000[™] Power Console System Solution* **FEATURES:** HANDPIECE MIS HANDPIECE CLASSIC PROCEDURE Designed specifically for Foot & Ankle Surgery **Port in Blue** with associated speed AO Automatic Cannulated Saw Automatic Cannulated (RPM) and torque settings Module K-Wire Module K-Wire AO AO ► Sterile handpieces to improve OR turnover, infection rates, and device reliability 10,000 RPM 1,500 RPM 1,500 RPM 20,000 RPM 3,000 RPM 3,000 RPM **High Speed** ► Large offering of burr diameters, lengths, Medium Speed 8,000 RPM 1,200 RPM 1,200 RPM 15,000 RPM 2,250 RPM 2,250 RPM and shapes to support 6,000 RPM 900 RPM 900 RPM 1,500 RPM 1,500 RPM Low Speed 10,000 RPM multiple MIS techniques

*Distributed by Paragon 28°

HALLUX VALGUS (CONT.)

The **PROMO[™]** Solution

FEATURES:

- Simultaneous correction of the IM angle and rotational deformity
- Single, oblique osteotomy with no wedge resection
- Guided jig system helps construct the osteotomy
- System allows for pre-operative planning



- Up to 87% of hallux valgus deformities have a rotational deformity¹
- Uncorrected rotation has been identified as a significant risk factor in recurrence²



PROMO[™] is the joint-sparing, multi-plane osteotomy solution for hallux valgus





A "rounding" of the lateral side of the metatarsal head is an indicator that rotation is present ^{2,3}



0°

Stable fixation using low profile medial plate and Precision[®] Guide crossing screw construct



20°-29°



1ST MTP FUSION

PRIMARY MTP FUSION

Gorilla® MTP Fusion System

- 18 Primary and Short Plating options
 - 0, 5, and 10 degree dorsiflexion options
- Precision[®] Guided Crossing Screw
 - Allows plate screws to remain on axis and guide crossing screw orientation
- Cup and cone reamers included in set for tight ball and socket fit in order to properly align toe
 - Patented cup and cone Spin Guards help minimize soft tissue disruption







Short



Precision[®] Guide MTP

Primary





AVITRAC[™] MTP Revision System*

- Shape and size of the graft were optimized to fill the bony void left during an SCI revision
- Density matched to the 1st metatarsal head to meet the strength demands and blood flow requirements
- Aseptically Processed (no bleach, no gamma irradiation)
- Available in: Ø9 mm, Ø11 mm and Ø13 mm diameters



Available in 3 Configurations: Ø9 mm, Ø11 mm, Ø13 mm



1ST MTP REVISIONS

MTP Revision Solutions





Revision

Graft Spanning

Revision and Graft Spanning Plating Options*

- ▶ 14 additional Gorilla® MTP Plating Options
 - Revision Plates
 - Additional screw holes proximal to the joint
 - Graft Spanning Plates
 - Lengthened plate designed to accommodate graft

PRESERVE[™] Length Restoring MTP Graft

- Aseptically Processed (no bleach, no gamma irradiation)
- Available in:
 - Ø19 mm x 5, 8, 10, 15, 20 mm and Ø21 mm x 5, 8, 10 mm
- Patented conical shape that mirrors the patented cup and cone reamers included in set



GENERAL HALLUX VALGUS

Mini-Monster[®] Cannulated Screws



- Headed and Headless
- Multiple thread lengths

Ø2.0 mm

Ø3.0 mm

Ø3.5 mm

Ø4.0 mm

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GENERAL HALLUX VALGUS (CONT.)

Gorilla[®] BOW & ARROW[®] Base Opening Wedge Plate

- ► Wedge options in 0 mm and 2 mm-4.5 mm in 0.5 mm increments
- Proximal screw holes are parallel, allowing for a more proximal osteotomy



ADDITIONAL FOREFOOT SOLUTIONS

Phantom[®] Metatarsal Shortening System

- Metatarsal shortening is completed in line with metatarsal axis and designed to limit the potential for soft tissue imbalance and minimize plantar depression of the metatarsal head which could lead to metatarsalgia
- Technique is completely extra-articular of the metatarsal head compared to alternative techniques that alter the articular surface
- Cut Guides allow for 3–8 mm of controlled bone resection and shortening
- ▶ Implants available in Ø2.7, Ø3.5, Ø4.2, and Ø5.0 mm diameters



Paratrooper[®] Plantar Plate Repair System

- ▶ The implant features two connected all-suture anchors
- System accommodates either a plantar or dorsal approach



ADDITIONAL FOREFOOT SOLUTIONS (CONT.)

HammerTube[™] System

- Constructed rom PEEK (Polyetheretherketone) and Coated with a titanium plasma spray
- Spray aid in the stick fit of the implant



HammerTube [™] System Implants Available in four different configurations					
	Diameter	Length	Angle		
2.75 HammerTube™ Straight	Ø2.75 mm	14 mm	0°		
2.75 HammerTube™ Angled	Ø2.75 mm	14 mm	10°		
3.50 HammerTube™ Straight	Ø3.50 mm	16 mm	0°		
3.50 HammerTube™ Angled	Ø3.50 mm	16 mm	10°		

TenoTac[™] 2.0 Soft Tissue Fixation System

• A less invasive implant option to traditional methods to correct flexible and semi-rigid hammertoes, plantar plate insufficiency, MTP instability as well as other applications in the foot and ankle through a reproducible technique



DORSAL SLEEVE





Low profile head to help prevent soft tissue irritation



Plantar tack and Dorsal sleeve implants are cannulated allowing for precise placement

PLANTAR TACK



Plantar Tack includes a washer to allow it to angulate up to



20 degrees



Holes allow for additional tendon hold

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ADDITIONAL FOREFOOT SOLUTIONS (CONT.)

Baby Gorilla® Mini Plating System

 Ø2.0 mm and Ø2.5 mm diameter locking and non-locking screw options

BABY GORILLA° STRAIGHT PLATING OPTIONS



JAWS[™] Great White Staples

- The JAWS[™] Great White[™] Staple is sterile packaged and pre-loaded on an inserter that provides a simple, and quick, insertion method to help gain rigid compression across an osteotomy or fusion site
- All staple options are loaded on a patent-pending trigger released staple inserter
- Kits included: Drills (2.7 or 3.0 mm), Locating Pins, Drill Guide (which doubles as a tamp), and Staple



▶ 80+ unique plate options

BABY GORILLA° AKIN PLATES



- ► The JAWS[™] Great White[™] Staple is available in five different sizes to address most forefoot, midfoot, and hindfoot indications
- ▶ 12 mm, 15 mm, 18 mm, 20 mm, and 25 mm
- The bridge length and leg length are 1:1 except for the 25 mm staple which has 20 mm legs

Staple Inserter Use







The staple comes pre-loaded onto the inserter. After preparing the osteotomy/ fusion site and drilling the holes, the staple can be seated into the bone. To deploy the staple, push the trigger on the inserter.

Monster[®] BITE Screw System

- Ø2.0 mm and Ø2.7 mm diameter options
- Self-drilling, self-tapping







POWER CONSOLE SYSTEM

FOREFOOT SOLUTIONS

Specific Patients, Specific Solutions



www.Paragon28.com

For the contraindications, potential complications and adverse reactions, warnings and precautions associated with this device, please refer to the device specific instructions for use at http://www.paragon28.com/ifus

References:

- 1. Kim Y, et al. A new measure of tibial sesamoid position in hallux valgus in relation to the coronal rotation of the first metatarsal in CT scans. Foot Ankle Int. 2015;36(8): 944-52
- 2. Okuda R, et al. The shape of the lateral edge of the first metatarsal head as a risk factor for recurrence of hallux valgus. JBJS. 2007; 89(10):2163-72
- 3. Yamaguchi S, et al. Shape of the lateral edge of the first metatarsal head changes depending on the rotation and inclination of the first metatarsal: a study using digitally reconstructed radiographs. J Orthop Sci. 2015;20(5):868-874

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PARATROOPER®

PHANTOM



PRECISION® MIS BUNION SYSTEM





TENOTAC 2.0