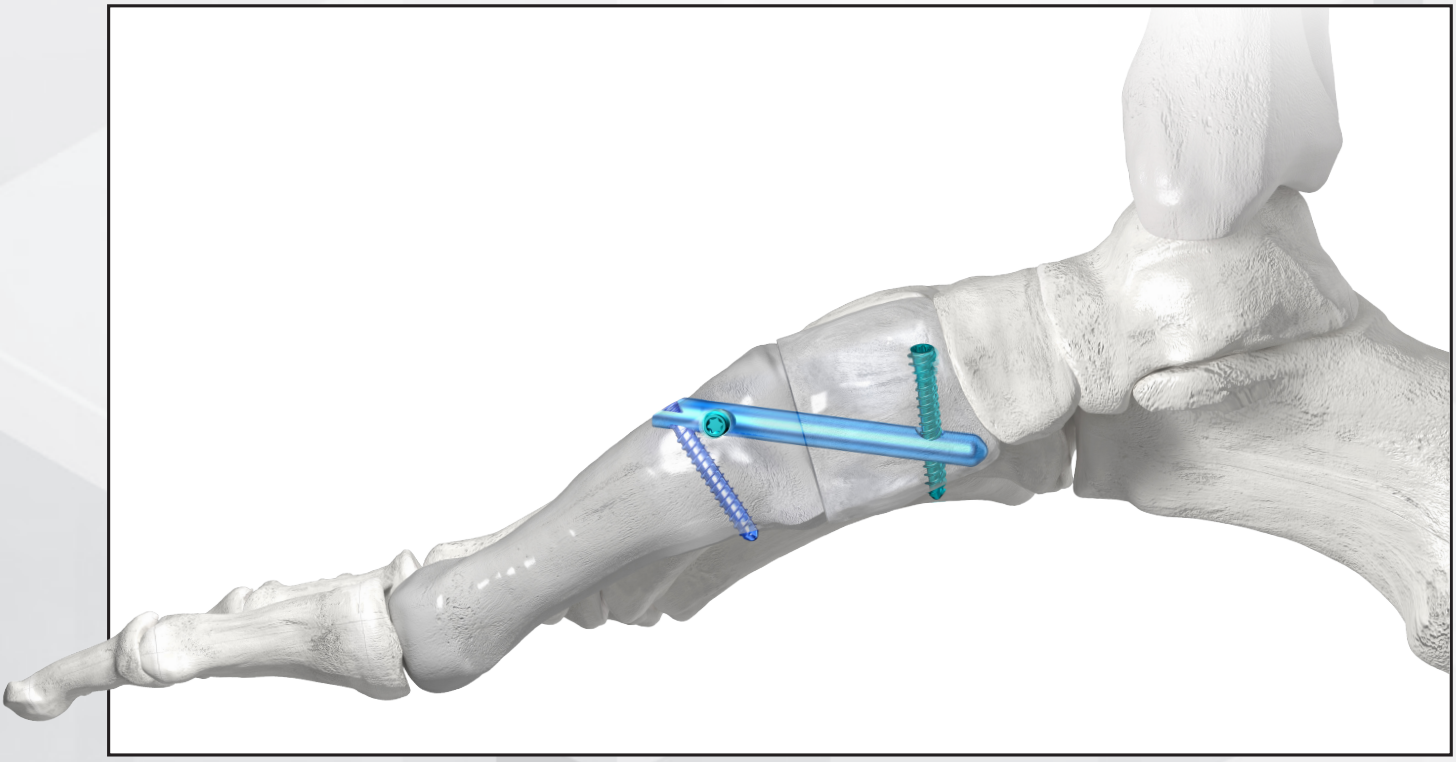
PHANTOM®
INTRAMEDULLARY NAIL

Phantom® Intramedullary Nail System



Exclusively foot & ankle
Paragon 28®

BENEFITS

The Phantom® Intramedullary Nail System was developed to provide a structurally sound construct that minimizes hardware prominence for the Lapidus Arthrodesis procedure.

The titanium alloy Phantom® Nail accepts threaded pegs and a locking screw. The instrumentation provided is intended to facilitate placement of the nail into a highly vascularized environment with minimal soft tissue irritation.

Zero Prominence

- The nail and peg construct is designed to be positioned below the bone surface to minimize hardware prominence
- Periosteal damage may be minimized without plate fixation adjacent the bone

Structurally Sound

- Capable of accepting greater forces across the fusion site without migration

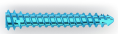
Instrumentation Built for Reproducible Placement

- Helps to ensure accurate positioning of the nail in a highly vascularized environment
- Allows for appropriate amount of compression to be achieved across the 1st tarsometatarsal (TMT) joint

PHANTOM® INTRAMEDULLARY NAIL SYSTEM

Implant Offerings and Components

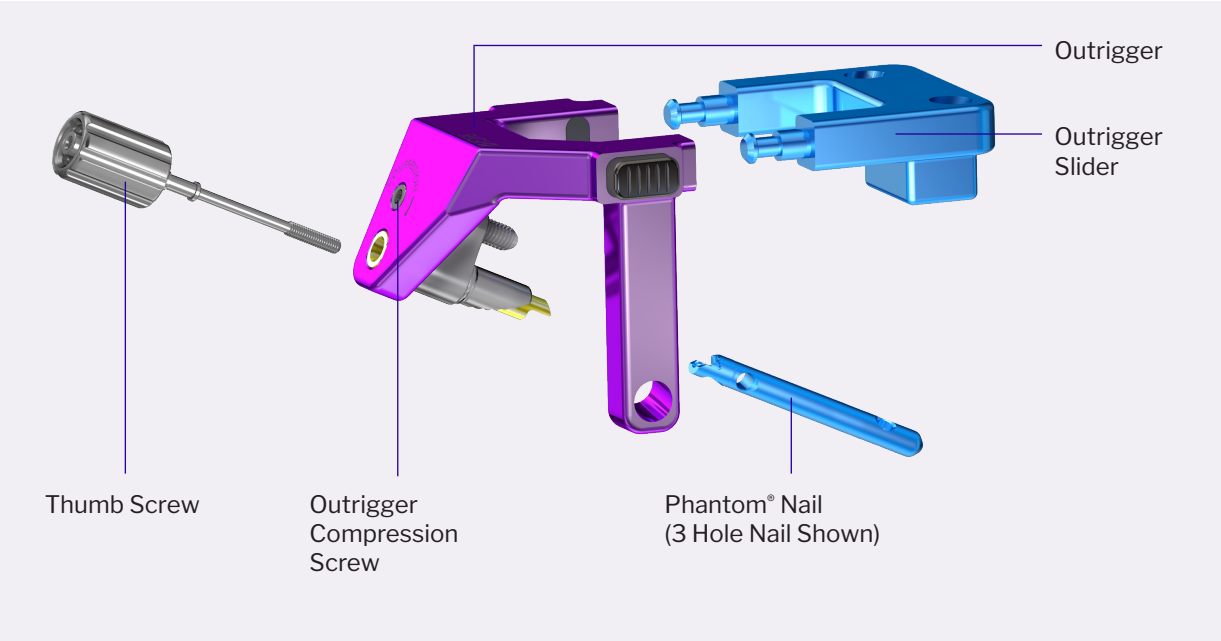
PHANTOM® INTRAMEDULLARY NAIL						
Lengths (2 mm Increments)	38 & 40 mm	42 & 44 mm	46 & 48 mm	50 & 52 mm	54 & 56 mm	58 & 60 mm

		
PHANTOM® INTRAMEDULLARY NAIL	**PHANTOM® INTRADEDULLARY NAIL THREADED PEGS**	**PHANTOM® INTRADEDULLARY NAIL LOCKING SCREWS**
Diameter	3.5 mm	3.5 mm
Lengths	10–46 mm (2 mm increments)	10–26 mm (2 mm increments)
Intended Use	Inserts into the proximal holes of Phantom® Nail	Inserts into the distal holes of Phantom® Nail

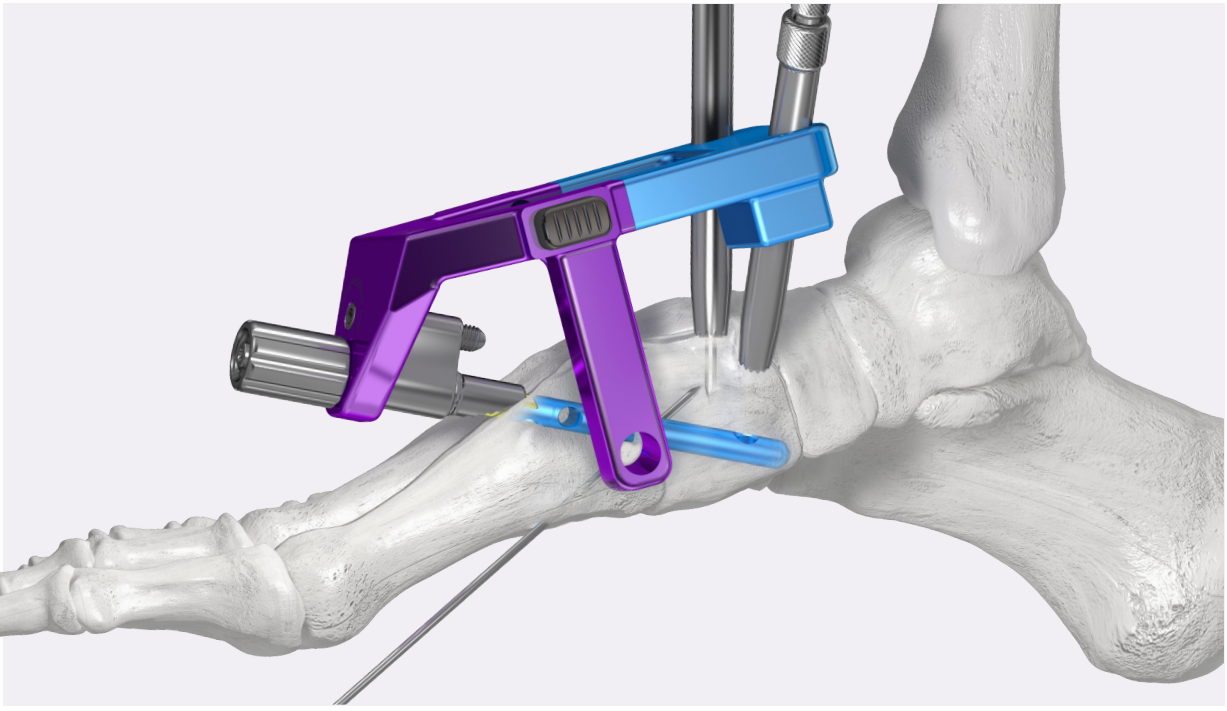
PHANTOM® INTRAMEDULLARY NAIL SYSTEM

Assembly and Insertion

Assembly of Outrigger and Nail



Drilling and Placement of Nail



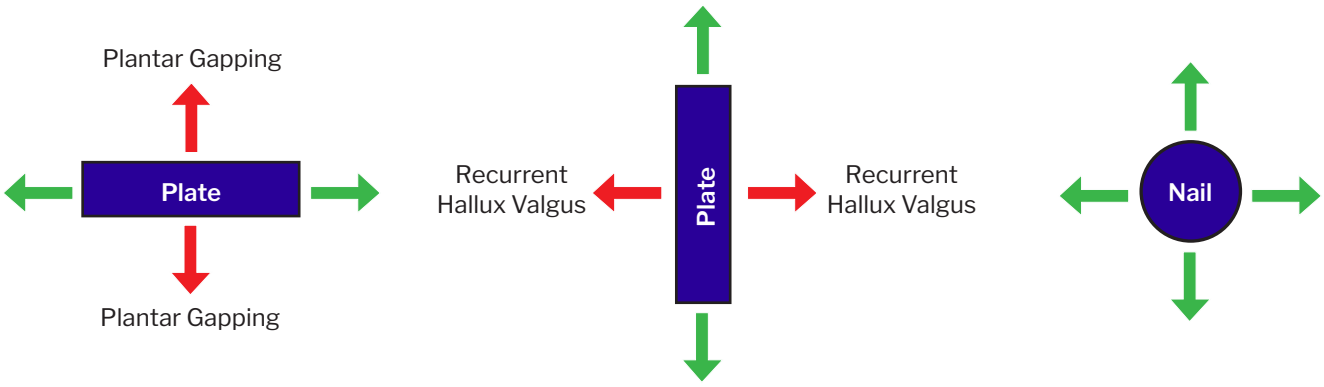
PHANTOM® NAIL SCIENCE

Load vs. Displacement

Internal bench testing was completed to assess the stiffness of three constructs at the 1st TMT Joint: Dorsal Plating, Straight Medial Plating and Intramedullary Nail[1].

Direction of Forces

- **Dorsal Plating** is strongest in a horizontal direction and weakest in a vertical direction. Lacking compression in this vertical direction has been shown to result in plantar gapping following dorsal placement of the plate.
- **Straight Medial Plating** is strongest in a vertical direction and weakest in a horizontal direction. The lack of compression horizontally has been shown to result in recurrent hallux valgus as the first metatarsal may redirect medially following placement of the plate.
- **Intramedullary Nails** show the same strength regardless of direction. The Phantom® Intramedullary Nail is designed to resist both recurrent hallux valgus and plantar gapping.

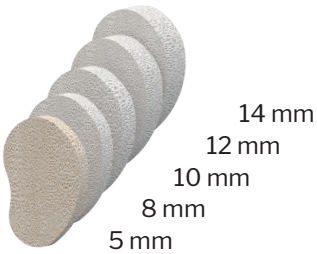


DORSAL PLATING | STRAIGHT MEDIAL PLATING | IM NAIL

PRESERVE™ LAPIDUS ANGULAR LENGTH RESTORING GRAFT

- Patented shape features both dorsal to plantar and medial to lateral taper allowing for bi-planar correction
- Donor harvest site is density matched specific to Lapidus indication for strength demands and blood flow requirements
- Aseptically processed without gamma irradiation or hydrogen peroxide to help preserve the native mechanical advantages of human bone and the osteoinductivity of the environment in which the graft is being implanted

Lapidus Trial Sizers



LAPIDUS CUT GUIDE SYSTEM

Met-Cuneiform Guides

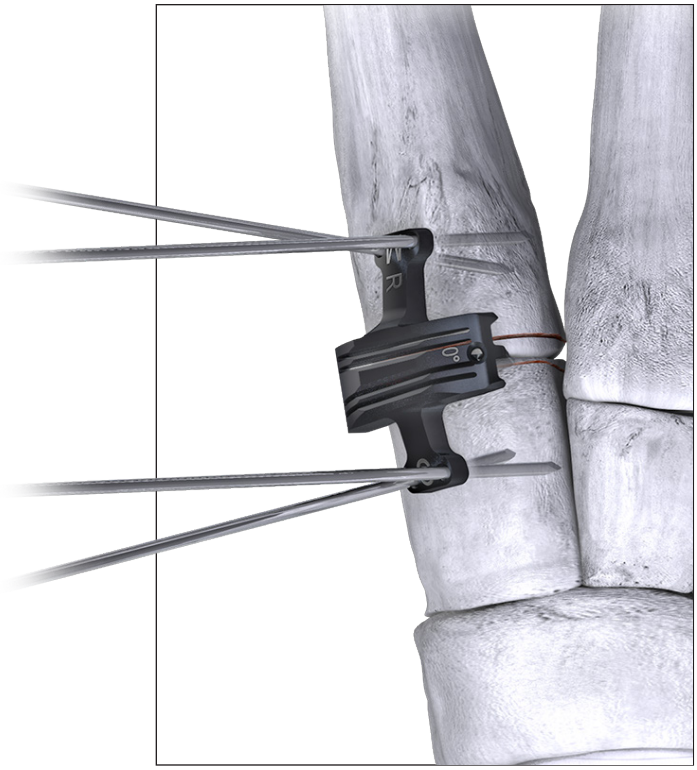
- A patented instrumentation option for joint preparation, enabling surgeons to make congruent cuts while minimizing resection at the 1st TMT joint
- Available in 0° and 8°–20° options to achieve the appropriate amount of transverse plane correction
- Left and Right side specific

Cleanup Guide

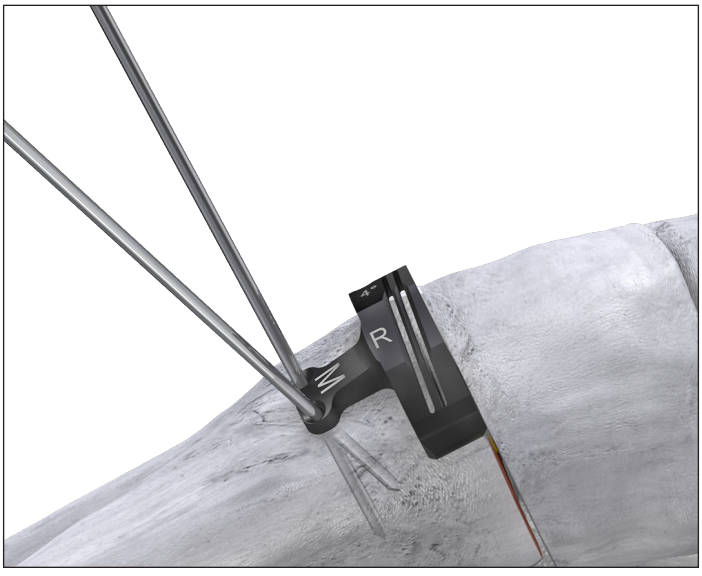
- Designed for use in an uneven joint when additional cartilage remains, or when additional bone resection is desired via a parallel cut
- Can be used on the metatarsal or cuneiform, and is universal for right and left

4° Cut Guide

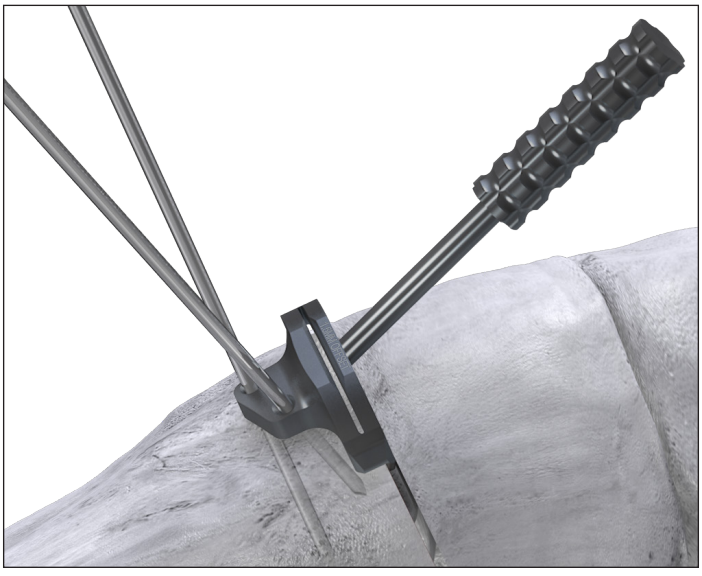
- Creates a 4° dorsal to plantar taper on the 1st metatarsal to allow additional plantarflexion of the 1st metatarsal to be built into the cut
- Used for 1st metatarsal resection only



Met-Cuneiform Guide



4° Cut Guide

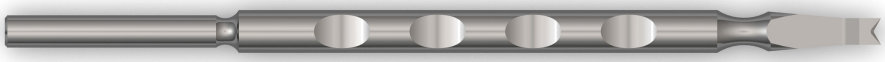


Cleanup Guide

SUBCHONDRAL PERFORATING DRILL AND JOINT PREPARATION CHISEL

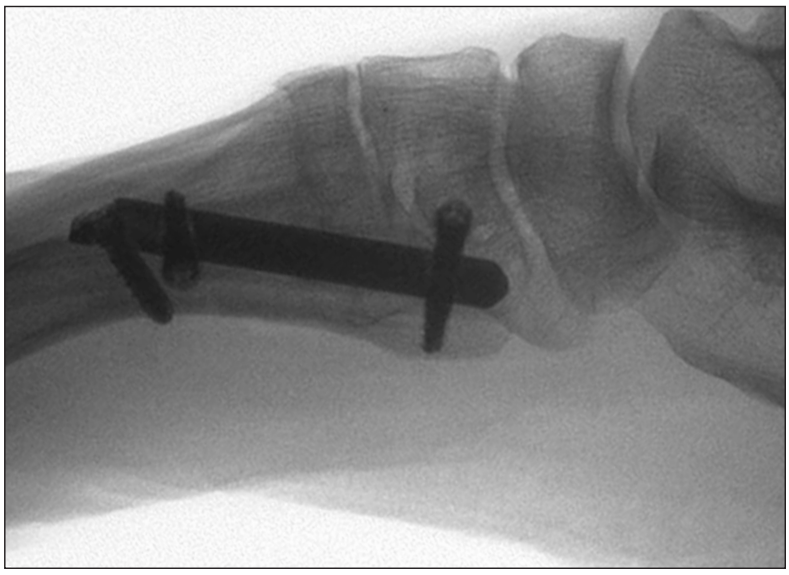
Subchondral Perforating Drill

- The Subchondral Perforating Drill allows for controlled perforation of the subchondral plate of the bone



Bone Fenestration Chisel

- The Bone Fenestration Chisel further aids in the fenestration process by expanding vascular channels to the surgeons' preference



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Exclusively foot & ankle
Paragon 28®

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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