

# **PRODUCT INFORMATION**



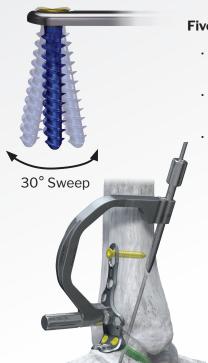


# **SILVERBACK™** Ankle Fusion Plating System

### **FEATURES & BENEFITS**

# Mini-Open, Anterior, Lateral, and Posterior low profile (1.5 mm - 2.0 mm) plates engineered from Type II Anodized Titanium Alloy

- Multiple points of fixation in the tibia, talus, and calcaneus to address a tibiotalar (TT), tibiocalcaneal (TC) and tibiotalocalcaneal (TTC) arthrodesis
- · Left and right specific plates with contoured and flat options



### Five anatomy specific plate screw diameters offered in locking and non-locking options

- Locking screws offer 15° of variability/30°sweep with converging and diverging capabilities to address varied deformities
- Locking screws and plate holes provide "Cheaters Lag" technology to help minimize plate prominence
- The Ø4.7 mm Silverback compact screw features a larger inner diameter and shorter thread pitch to allow for easier insertion if dense bone is encountered in the proximal tibia

PRECISION® Guide Technology allows for insertion of a Ø5.5 mm or Ø7.0 mm cannulated Monster® crossing screw outside of the plate while avoiding interference with on-axis plate screws

- · Partial and full thread, headed and headless options available
- Aid in compression and stability, creating a more evenly balanced construct across the TT and subtalar (ST) joints

Robust joint preparation instrumentation designed specifically to address TT, TC and TTC arthrodesis



Silverback Plates are available in Anterior, Lateral and Posterior options to address TT, TC and TTC fusions.

• The Silverback Ankle Fusion system has 62 unique plates, allowing surgeons to match their patient's anatomy when performing an arthrodesis.

Straddle and Spanning Plates are available in Anterior, Lateral and Posterior offerings to be used in cases where maximum strength is required or when a significant void is present at the ankle joint

- The Straddle Plates have an increased surface area to accomodate the Phantom® TTC/TC Nail to help evenly distribute force across the construct and help guard against stress shielding
- The Spanning Plates are intended to be used in combination with allograft or a titanium cage to span a bony deficit and come in varying span distances to accommodate unique anatomies and graft lengths.
- A proximal compression slot built into all plates may be used to compress the bone to graft interface



# **SILVERBACK™**

# **PLATES - 62 Total Plates**

# ANTERIOR



TT

Anterior TT Standard, Contoured and Flat

Anterior TT Long, Contoured and Flat



Anterior Mini-Open Flat and Contoured

# **LATERAL**



Lateral TT Standard

## **POSTERIOR**



Posterior TT Long, Contoured and Flat



Posterior TT Standard, Contoured and Flat

# TTC



Anterior TTC Standard, Contoured and Flat



Lateral TTC Standard and Long



Posterior TTC Long, Contoured and Flat



Posterior TTC Standard, Contoured and Flat

# STRADDLE



Anterior Straddle TT, Long, Contoured and Flat



Left and Right Lateral Straddle TC Long, Flat



Left and Right Lateral Straddle TTC Long, Flat



Posterior TTC Long Contoured and Flat

### **SPAN**



Anterior Span Standard Flat



Anterior Span Long Flat



Lateral Span Standard



Lateral Span Long



Posterior Span Standard Flat



Posterior Span Long Flat



# **SILVERBACK**™ Plating Options

# **ANTERIOR PLATES**



### **Anterior TT and Mini-Open TT**

- 1.5 mm to 1.7 mm plates with transitional thickness at the ankle joint
- Available in flat, contoured, and mini-open options to address varying patient anatomy
- Allows for PRECISION® guided placement of a Ø5.5 mm or Ø7.0 mm crossing screw

Available in 6, 8, and 10 hole right and left specific plates





#### **Anterior TTC**

- 1.5 mm plates with transitional thickness at the ankle joint
- Available in flat and contoured options to address varying patient anatomy
- Accommodates a Ø7.0 mm ST screw through the plate to stabilize the construct
- Allows for PRECISION guided placement of a Ø5.5 mm or Ø7.0 mm crossing screw to compress the ST joint

Available in 7 hole right and left specific plates



# **LATERAL PLATES**



### **Lateral TT**

- 2.0 mm plates with transitional thickness at the ankle joint
- Allows for PRECISION guided placement of a Ø5.5 mm or Ø7.0 mm crossing screw to compress the TT joint

Available in 13 hole right and left specific plates





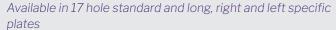
# **SILVERBACK**™ Plating Options

# **LATERAL PLATES**



#### **Lateral TTC**

- 2.0 mm plates with transitional thickness at the ankle joint
- Allows for PRECISION® guided placement of a Ø5.5 mm or Ø7.0 mm crossing screw to compress the TT and ST joints





## **POSTERIOR PLATES**



### **Posterior TT**

- 1.8 mm plates with transitional thickness at the ankle joint
- Available in flat and contoured options to address varying patient anatomy
- Allows for PRECISION guided placement of a Ø5.5 mm or Ø7.0 mm crossing screw to compress the TT

Available in 6 and 8 hole standard and long, right and left specific plates



### **Posterior TTC**

- 1.8 mm plates with transitional thickness at the ankle joint
- Available in flat and contoured options to address varying patient anatomy
- Allows for PRECISION guided placement of a Ø5.5 mm or Ø7.0 mm crossing screw to compress the TT and ST joint

Available in 8 and 10 hole standard and long, right and left specific plates







# **SILVERBACK™**

# **STRADDLE PLATES**



#### **Anterior TT**

- 1.8 mm plates with transitional thickness at the ankle joint
- Available in flat and contoured options to address varying patient anatomy
- Plate surface area is optimized to accommodate the Phantom® TTC/TC and allow for placement of screws around the Nail

Available in 14 hole right and left specific plates









### **Posterior TTC**

- 1.8 mm plates with transitional thickness at the ankle joint
- Available in flat and contoured options to address varying patient anatomy
- Plate surface area is optimized to accommodate the Phantom® TTC/TC and allow for placement of screws around the Nail

Available in 14 hole right and left specific plates













### **Lateral TT**

- · 2.0 mm plates with transitional thickness at the ankle joint
- Proximal portion of plate designed to allow for plate to be bent and contoured around Nail and to the tibia
- Plate surface area is optimized to accommodate the Phantom® TTC/TC and allow for placement of screws around the Nail

Available in 17 hole right and left specific plates



#### **Lateral TTC**

- · 2.0 mm plates with transitional thickness at the ankle joint
- Proximal portion of plate designed to allow for plate to be bent and contoured around Nail and to the tibia
- Plate surface area is optimized to accommodate the Phantom® TTC/TC and allow for placement of screws around the Nail

Available in 17 and 24 hole right and left specific plates





# **SILVERBACK™**

# **SPAN PLATES**



### **Anterior Span**

- 1.7 mm plates with transitional thickness at the ankle joint
- Available in standard and long options to address varying patient anatomy
- Proximal compression slot which may be used to compress the bone to graft or bone to cage interface

Available in 8 hole standard and long, right and left specific plates











### **Posterior Span**

- 1.8 mm plates with transitional thickness at the ankle joint
- Available in standard and long options to address varying patient anatomy
- Proximal compression slot which may be used to compress the bone to graft or bone to cage interface

Available in 9 hole standard and long, right and left specific plates











## **Lateral Span**

- 1.8 mm plates with transitional thickness at the ankle joint
- Available in standard and long options to address varying patient anatomy
- Proximal compression slot which may be used to compress the bone to graft or bone to cage interface

Available in 15 hole standard and long, right and left specific plates



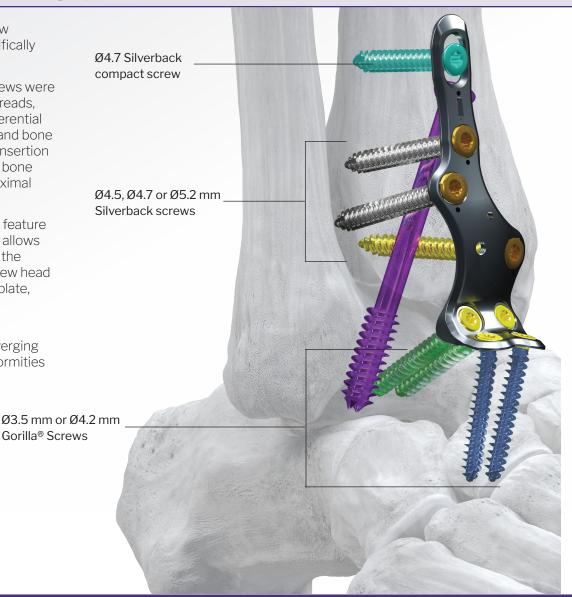






# **SILVERBACK™** Screw Plating Options

- Five locking and non-locking screw diameters offered designed specifically for foot and ankle anatomy
- Ø4.7 mm Compact Silverback screws were designed with single lead bone threads, resulting in a decreased pitch differential between the locking screw head and bone threads to reduce the amount of insertion torque when encountering dense bone that is commonly found in the proximal tibia
- All locking plate holes and screws feature a "Cheaters Lag" technology. This allows a locking screw to lag the plate to the bone, once the threads on the screw head interface with the threads on the plate, minimizing plate prominence
- Locking screws allow up to 15° of variability with converging and diverging capabilities to address varied deformities



# SILVERBACK ANKLE FUSION PLATING SCREW REFERENCE CHART

	Ø3.5 mm Gorilla R3CON Screws	Ø4.2 mm Gorilla R3CON Screws	Ø4.5 mm Silverback Screws	Ø5.2 mm Silverback Screws	Ø4.7 mm Silverback Compact Screws
Locking	<b></b>	<b>*********</b>			<b>(</b>
Non-locking					
Lengths	14 mm - 30 mm 2 mm increments	= =	50 mm 55 mm - 60 mm crements 5 mm increments		20 mm - 40 mm 2 mm increments
Placement	Talus	Talus	Tibia and Calcaneus	Tibia and Calcaneus	Proximal Tibia
Material			Titanium Alloy		

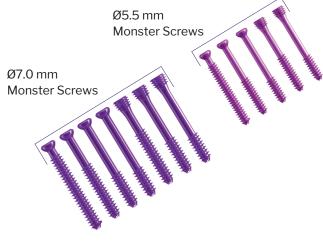


# **SILVERBACK™** Crossing Screws

- Headed or headless Ø5.5 mm (26 mm 90 mm) and Ø7.0 mm (36 mm - 130 mm) Monster® crossing screws may be implanted using the Silverback PRECISION® Guide technology
  - Partially and fully threaded crossing screw options are available to add compression and/or stability, creating a more evenly balanced construct across the TT and ST joints
- Patented FluoroBand<sup>™</sup> Guide Wires may be used to aid in determining whether a short, medium, or long thread length Monster Screw could be used across the arthrodesis site

Four different washer types offered including patented Split Bowl Washer

- · All Monster screws work with each washer option;
  - Flat, Domed, Bowl, Split Bowl
    - Bowl washer provides the ability to countersink the crossing screw and is intended to minimize head prominence when the crossing screw is placed off axis
    - Patented Split Bowl Washer designed specifically to allow surgeon to place washer around screw without having to fully remove screw, preventing loss of purchase and saving intraoperative time



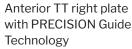








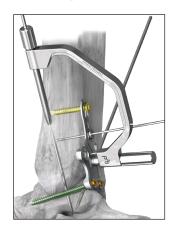






Lateral TTC right plate with TT and ST PRECISION Guide Technology





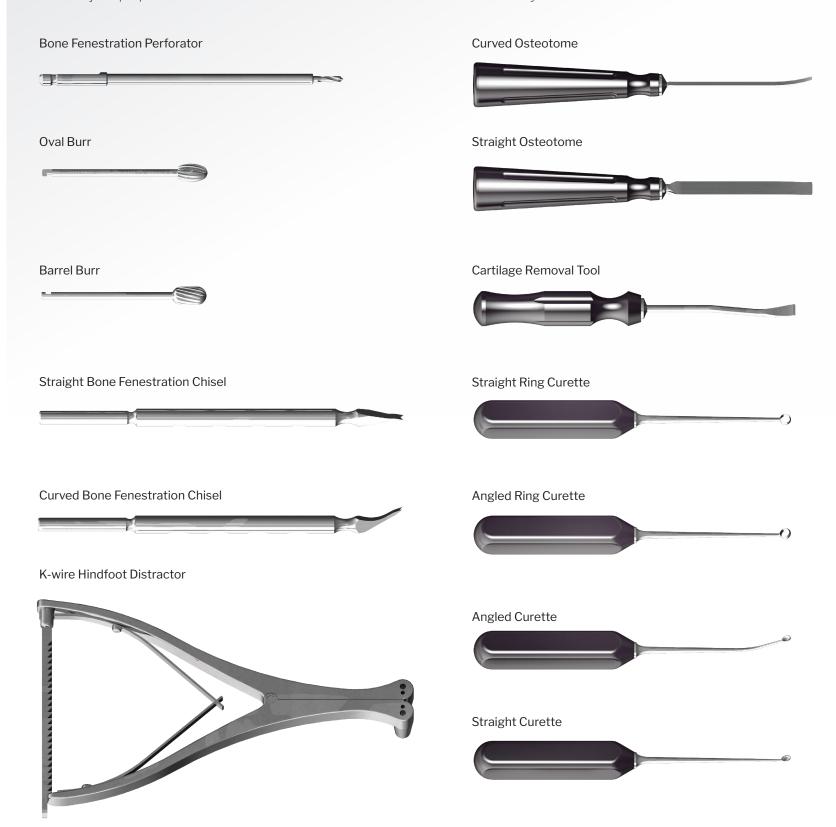
## SILVERBACK PRECISION GUIDE TECHNOLOGY

- Allows for placement of a Ø5.5 mm or Ø7.0 mm cannulated Monster® crossing screw outside of the plate while avoiding interference with on-axis plate screws
- Anterior, lateral, and posterior PRECISION Guides work with both left and right specific plates
  - The lateral plates have TT and ST specific PRECISION Guides
- The PRECISION Guides thread into the face of the plate and wrap around the tibia medially (for the anterior and posterior plates) and posteriorly (for lateral plates)



# **SILVERBACK™** Robust Joint Preparation Instrumentation

- · Joint preparation instrumentation designed specifically to address the unique contouring of the TT and ST joints
- · Ability to access all joint surfaces to ensure adequate preparation
- · All joint preparation instrumentation is available in the Silverback case and tray





# **SILVERBACK™** Fully Modular System

#### Silverback™ Anterior Plate Caddy

Anterior TT and TTC plates and corresponding Precision® Guides are located within the Anterior Plate Caddy.



#### Silverback™ Lateral Plate Caddy

Lateral TT and TTC plates and corresponding Precision® Guides are located within the Lateral Plate Caddy.



#### Silverback™ Posterior Plate Caddy

Posterior TT and TTC plates and corresponding Precision® Guides are located within the Posterior Plate Caddy.



Silverback<sup>™</sup> Straddle Plate Caddy

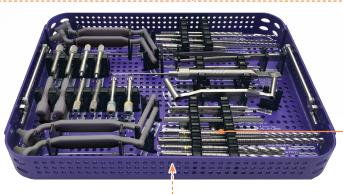


Silverback<sup>™</sup> Span Plate Caddy



Silverback<sup>™</sup> Mini-Open Plate Caddy





# Silverback<sup>™</sup> K-wire and Olive Wire Caddy

Smooth and threaded K-wires and Olive Wires and a ruler are located within the K-wire and Olive Wire Caddy.



All drill guides, drills, overdrills, taps, Drivers, forceps and a depth gauge are located within the Silverback™

Silverback<sup>™</sup> Instrument Tray

### Silverback<sup>™</sup> Case Base

Handles, plate bending instrumentation and joint preparation instrumentation including curettes, osteotomes, chisels and a cartilage removal tool are located at the bottom of the Silverback  $^{\text{\tiny M}}$  Instrument Case.

### Silverback<sup>™</sup> Screw Caddy

The Silverback™ screw length options for locking:

3.5 mm	2 mm increments, 14-30 mm	
4.2 mm	2 mm increments, 10-50 mm	
4.2 mm	5 mm increments, 55-60 mm	
4.5 mm	2 mm increments, 14-50 mm	
4.5 mm	5 mm increments, 55-60 mm	
5.2 mm	2 mm increments, 10-50 mm	
5.2 mm	5 mm increments, 55-60 mm	

The Silverback™ compact screw length options are as follows:

4.7 mm 2 mm increments, 20-40 mm





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SBGP-01 RevE

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