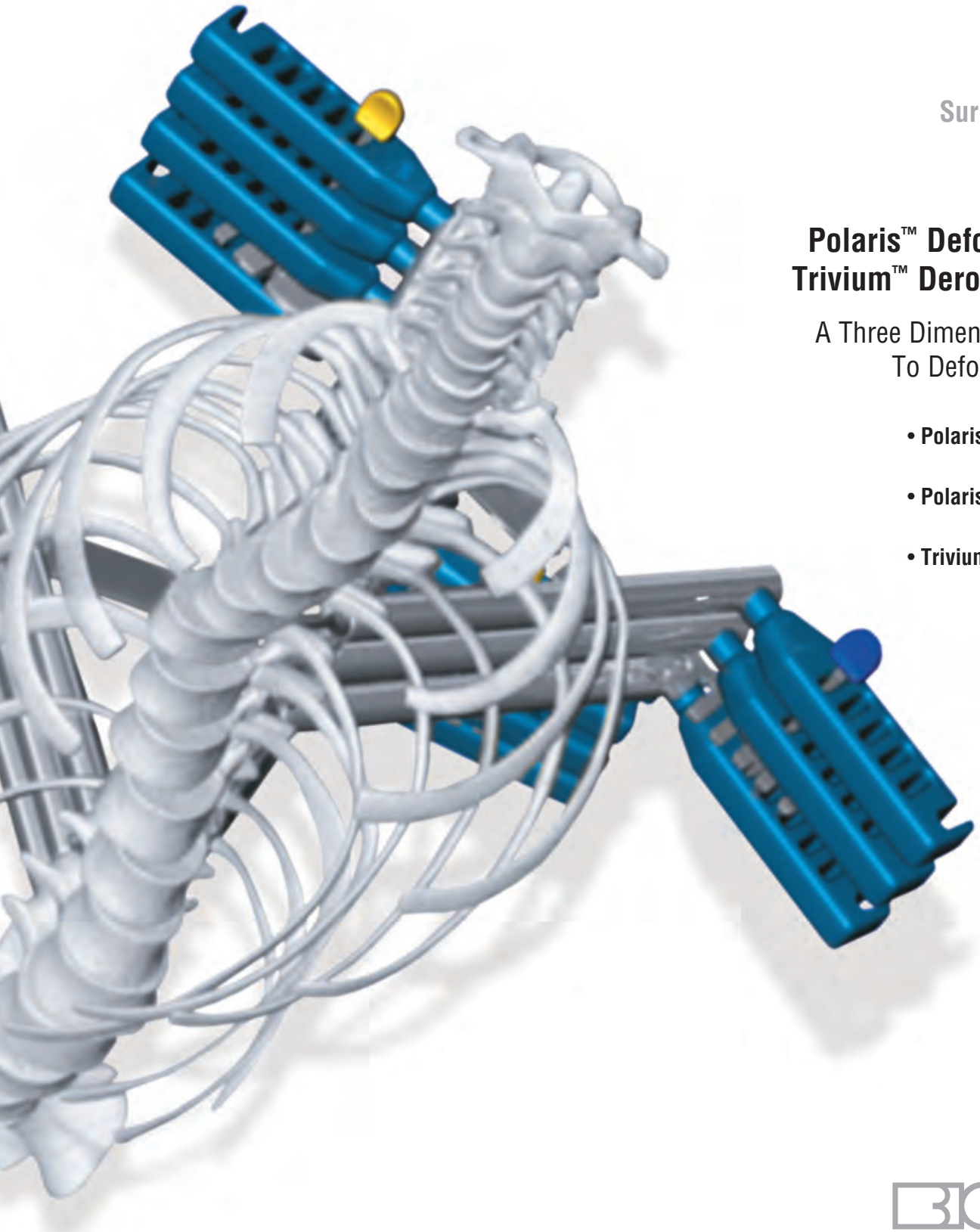

Surgical Technique

Polaris™ Deformity System
Trivium™ Derotation System

A Three Dimensional Approach To Deformity Correction

- **Polaris** 5.5 Spinal System
- **Polaris** 6.35 Spinal System
- **Trivium** Derotation System

BIOMET® SPINE

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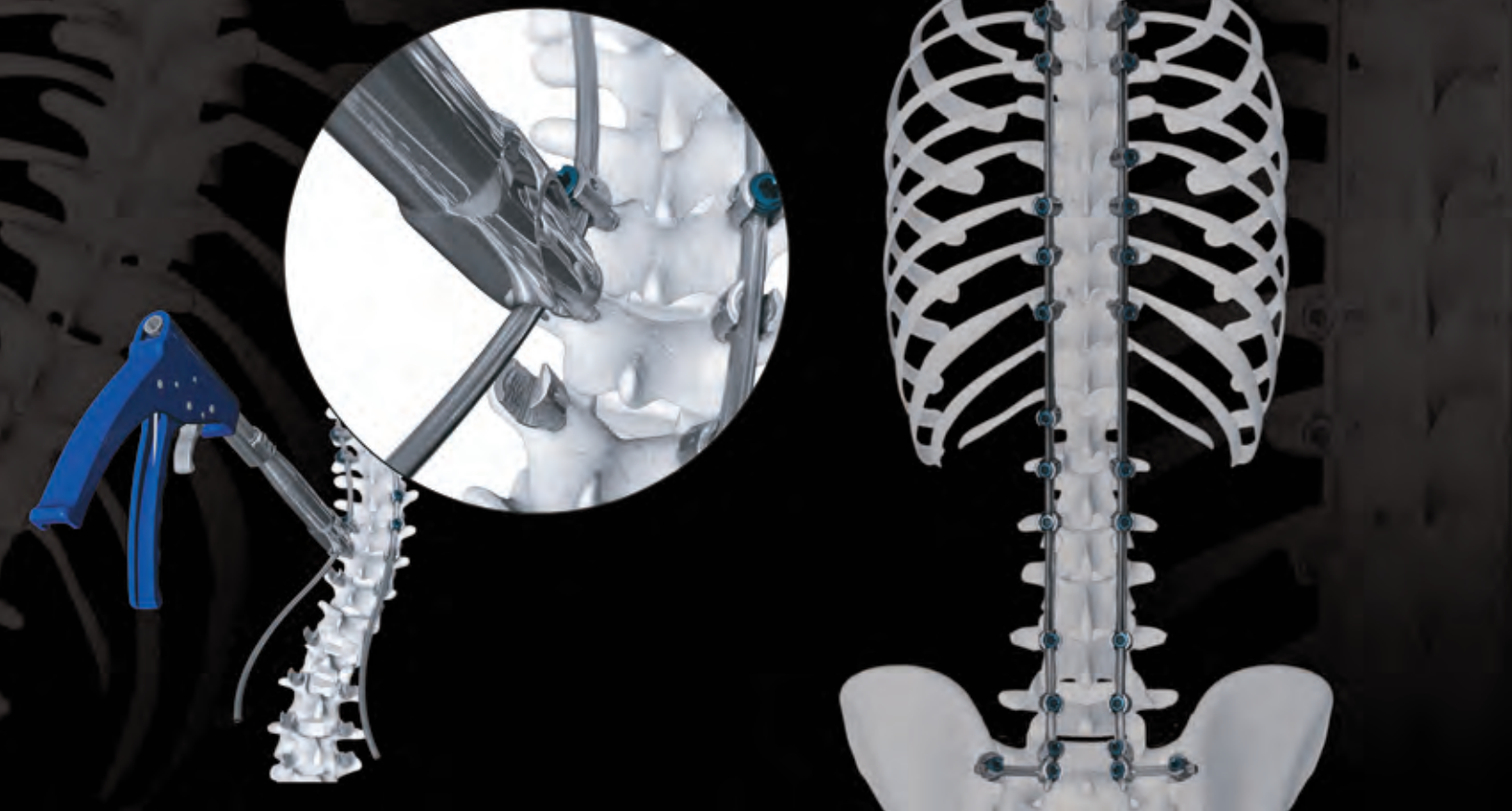


Introduction

During the past decade there has been a continuous evolution in the design of pedicle screw fixation systems. The advancement of modern surgical techniques and healthcare has led to a desire for spinal systems that are reliable, simple, user-friendly and adaptable. The **Polaris** Deformity System was developed to address the modern demands of complex pathologies.

The **Polaris** Deformity System is a universal Screw, Hook, and Rod system designed to address the complex pathologies of the thoracic and lumbar spine. Careful attention was focused on ergonomically designed instrumentation. The trays for the **Polaris** Deformity System have been configured to address the treatment of deformity indications and spinal trauma. The **Polaris** Deformity System utilizes Helical Flange® Technology, an enhanced closure mechanism that minimizes seat splay and cross threading. The forces upon torquing are pulled inward, thus creating a secure lock.

The **Trivium** Derotation System incorporates an innovative posterior three-dimensional spinal deformity correction technique that utilizes the power of pedicle screw fixation. The technique gives the surgeon the power to correct most spinal deformities in three dimensions. In Idiopathic Scoliosis in adolescents it has been shown that lumbar motion segments can be spared in thoracolumbar and lumbar curves, truncal offset can be more predictably reduced, and significant rib hump correction can be achieved without the need for thoracoplasty. Force coupling is an integral part of the correction process. Multiple screws clustered about the curve apex can be linked and levered synchronously to achieve a uniform, near-complete axial plane correction. In designing this system, special attention was given to maximizing ease of use by following a stepwise, non-regressive technique to minimize “fiddle” and optimize efficiency.

System Design Features

The **Polaris** Deformity System is a spinal fixation device made from Titanium Alloy (Ti-6Al-4V ELI) and offers Cobalt Chrome Alloy (Co-28Cr-6Mo) 5.5mm diameter rods to be used with Titanium implants. The complete system is also available in Stainless Steel (5.5mm and 6.35mm). The System includes self-tapping Multi-axial Screws and Fixed Screws, Reduction Screws, Iliac Screws, Hooks, Direct Vertebral Body Derotation **Helical Flange** Plugs, and Standard **Helical Flange** Plugs. The offering for the **Polaris** 5.5mm diameter rod system and the 6.35mm diameter rod system is mostly identical.

The instrumentation is modular, allowing for optimized speed and ease of use for the technician and the surgeon. Whether your choice is based on size, strength or ease of use, the **Polaris** Deformity System will address the complex needs associated with the thoracic and lumbar spine.

NOTE: Polaris 5.5 Titanium Spinal System 4.0mm diameter screws are not for use with Cobalt Chrome Alloy Rods.

5.5mm Deformity Implants

NOTE: All implants are available in Stainless Steel and are marked with "SST." Stainless Steel cannot be color-coded.

Multi-axial Screw Family

Diameters:

4.0mm (Gray)

4.75mm (Green)

5.5mm (Gold)

6.5mm (Blue)

7.5mm (Purple)

8.5mm (Bronze)

Ranging in lengths from 20mm-55mm in 5.0mm increments.

Fixed Screw Family

Diameters:

4.0mm (Gray)

4.75mm (Green)

5.5mm (Gold)

6.5mm (Blue)

7.5mm (Purple)

8.5mm (Bronze)

Ranging in lengths from 20mm-55mm in 5.0mm increments.

NOTE: Polaris 5.5 Titanium Spinal System 4.0mm diameter screws are not for use with Cobalt Chrome Alloy Rods.

Reduction Multi-axial Screws

Diameters:

5.5mm (Gold)

6.5mm (Blue)

7.5mm (Purple)

Ranging in lengths from 30mm-55mm in 5.0mm increments.

Multi-axial Iliac Screws

Diameters:

6.5mm (Blue)

7.5mm (Purple)

8.5mm (Bronze)

Ranging in lengths from 60-90mm in 10mm increments, double lead screw shaft thread design.

The interface between the seat and the plug incorporates **Helical Flange** Technology.

Trivium Derotation Helical Flange Plug

- Derotation **Helical Flange** Plugs - Two Rings on the bottom:
- Prevents Rod rotation after torquing

*Data on file at Biomet Spine VERR-00124

Standard Helical Flange Plug:

- **Helical Flange** Technology allows the flanges on the Plug and the seat to lock together to minimize head splay and cross-threading

Various Rod Options Are Available

Commercially Pure Titanium (CP Ti) 510mm

Titanium Alloy (Ti Alloy) 510mm

Stainless Steel (SST) 510mm

- Medium Strength
- Hard Strength
- X-Hard Strength

Cobalt Chrome Alloy (CoCrMo) 300mm, 510mm

- X-Hard Tensile Strength

CP Ti

Ti Alloy

Stainless Steel

CoCrMo Rod

5.5mm Deformity Implants (Continued)

Hooks

The **Polaris** Spinal System has a complete selection of Hooks featuring the **Helical Flange** design. Hook styles are color-coded by throat size (Titanium Only) and numbered accordingly.

Throat Sizes:

Small: 6.0mm (Gold)

Medium: 7.5mm (Gray)

Large: 9.0mm (Blue)

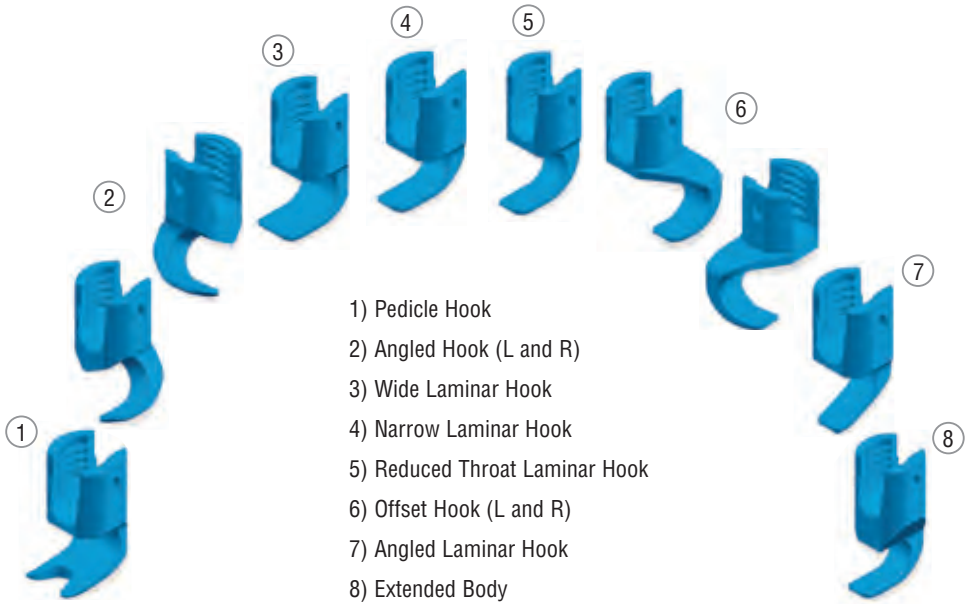
Blade Size:

Narrow: 5.0mm

Wide: 7.3mm

Pedicle: 9.0mm

NOTE: Hooks are numbered on the Blade for easy reference during the procedure.



1) Pedicle Hook
2) Angled Hook (L and R)
3) Wide Laminar Hook
4) Narrow Laminar Hook
5) Reduced Throat Laminar Hook
6) Offset Hook (L and R)
7) Angled Laminar Hook
8) Extended Body

All hooks are available in Titanium and Stainless Steel.

Lateral Connectors

Open Lateral Connectors are offered in four sizes (size is measured from the center of the seat to the end of the post of the Lateral Connector). The open design uses the Standard **Helical Flange** Plugs and provide strong, secure fixation.

25mm

35mm

50mm

75mm

Fixed Cross Connectors

12mm

14mm

16mm

18mm

20mm

22mm

24mm

5.5mm Deformity Implants (Continued)

Telescoping Cross Connector

Ranging in size from 16mm-75mm.

XXS Cross Connector

XS Cross Connector

Small Cross Connector

Medium Cross Connector

Large Cross Connector

5.5mm Deformity Instruments

2.3mm Pedicle Probe

Small Straight Thoracic Probe

Large Curved Thoracic Probe

4.0mm Tap

4.0mm Reamer

Fixed Screw Inserter

Multi-axial Screw Inserter

510mm Malleable Rod Template

Rod Rotator

Cross Connector Caliper

5.5mm Deformity Instruments (Continued)

Vertical Hook Holder

Short Angled Hook Holder

Pedicle Hook Starter

Narrow Laminar Hook Starter

Medium Laminar Hook Starter

Wide Laminar Hook Starter

Thoracic Hook Starter

Hook Impactor

In-Situ Benders (Left And Right)

Coronal Benders (Left And Right)

Deformity Compressor (Small)

Deformity Compressor (Large)

Deformity Distractor

Fixed Cross Connector Benders

5.5mm Deformity Instruments (Continued)

Wide Handle Derotator

Derotator Lever

Handle Linkage Rod Size 2-3

Handle Linkage Rod Size 3-4

Handle Linkage Rod Size 4-5

Small Comb

Large Comb

Small Cluster Linkage Rod

Large Cluster Linkage Rod

Small Horizontalizer

Large Horizontalizer

Bone Planer

Rod Manipulator - Right

Straight Rod Pusher

Rod Rocker

T-Handle Adapter

Rod Hex Driver

5.5mm Deformity Instruments (Continued)

Distractor Wedge

Fixed Screw Aligner - Right

Iliac Reamer 5.5mm

Iliac Reamer 6.5mm

Iliac Reamer 7.5mm

Iliac Reamer 8.5mm

6.35mm Deformity Implants

NOTE: All implants are available in Stainless Steel and are marked with "SST." Stainless Steel cannot be color-coded.

Multi-axial Screw Family

Ranging in lengths, 5.0mm increments.
4.0mm Dia. (20mm – 40mm)
4.75mm Dia. (20mm – 40mm)
5.5mm Dia. (30mm – 50mm)
6.5mm Dia. (30mm – 55mm)
7.0mm Dia. (30mm – 55mm)

Large Diameter Multi-axial Screws

7.5mm Dia. 8.5mm Dia.

Ranging in lengths 30mm-55mm, 5.0mm increments.

NOTE: Polaris 6.35 System large diameter screws must use the Multi-axial Screw inserter Catalog Number 14-501035 that incorporates a male pentalobe tip to interface with the female pentalobe proximal screw shaft.

Reduction Multi-axial Screws

Standard offering is 6.5mm diameter 40mm and 45mm length, 7.0mm diameter 45mm and 50mm length.

Helical Flange Trivium Derotation Plug

Helical Flange Standard Plug

Fixed Screw Family

Ranging in lengths, 5.0mm increments
4.0mm Dia. (25mm – 40mm)
4.75mm Dia. (25mm – 40mm)
5.5mm Dia. (25mm – 45mm)
6.5mm Dia. (30mm – 50mm)
7.0mm Dia. (30mm – 50mm)

6.35mm Deformity Implants (Continued)

Hooks

The **Polaris** Spinal System has a complete selection of Hooks featuring the **Helical Flange** design. Hook styles are color-coded by throat size (Titanium Only) and numbered accordingly.

Throat Sizes:

Small: 6.0mm (Gold)

Medium: 7.5mm (Gray)

Large: 9.0mm (Blue)

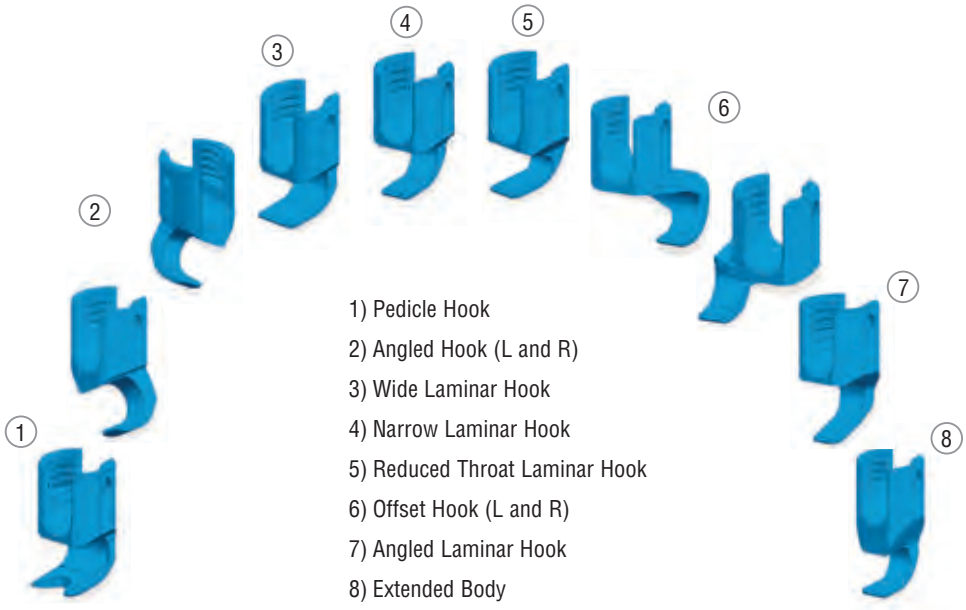
Blade Size:

Narrow: 5.0mm

Wide: 7.3mm

Pedicle: 9.0mm

NOTE: Hooks are numbered on the Blade for easy reference during the procedure.

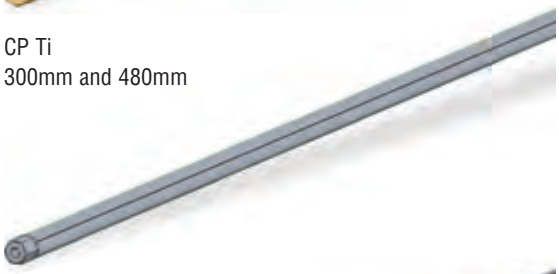


1) Pedicle Hook
2) Angled Hook (L and R)
3) Wide Laminar Hook
4) Narrow Laminar Hook
5) Reduced Throat Laminar Hook
6) Offset Hook (L and R)
7) Angled Laminar Hook
8) Extended Body

Rods

300mm and 480mm length; Commercially Pure Titanium (CP Ti, Gold) and Titanium Alloy (Ti, Gray). A hex end aids with contouring and derotating the rod.

CP Ti
300mm and 480mm



Ti Alloy
300mm and 480mm

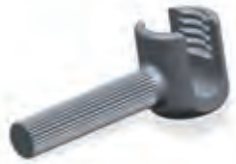
Stainless Steel
510mm

NOTE: A 600mm length rod is available upon request.

Lateral Connectors

Open Lateral Connectors are offered in four sizes (size is measured from the center of the seat to the end of the post of the Lateral Connector). The open design uses the **Helical Flange** Design and provides strong, secure fixation.

24mm



34mm

50mm

75mm

6.35mm Deformity Implants (Continued)

Fixed Cross Connectors

14mm

16mm

18mm

20mm

22mm

24mm

Telescoping Cross Connector

Ranging in size from 29.5mm-80mm.

XS Connector

Small Connector

Medium Connector

Large Connector

6.35mm Deformity Instruments

Plug Driver

Ball Tipped Hex Plug Driver

Torque Limiting With Shaft

Double End Plug Starter

Fixed Screw Height Adjuster

Fixed Screw Inserter

Bone Planer

Stainless Steel and Large Diameter Ti Screw Multi-axial Screw Inserter

480mm Malleable Rod Template

6.35mm Deformity Instruments (Continued)

Rod Gripper

Cross Connector Caliper

Vertical Hook Holder

Short Angled Hook Holder

Pedicle Hook Starter

Narrow Laminar Hook Starter

Medium Laminar Hook Starter

Wide Laminar Hook Starter

Thoracic Hook Starter

Hook Impactor

In-Situ Benders (Left And Right)

Hook Impactor

Fixed Cross Connector Benders

Coronal Benders (Left And Right)

6.35mm Deformity Instruments (Continued)

Wide Handle Derotator

Derotator Lever

Handle Linkage Rod Size 2-3

Handle Linkage Rod Size 3-4

Handle Linkage Rod Size 4-5

Small Comb

Large Comb

Small Cluster Linkage Rod

Large Cluster Linkage Rod

Small Horizontalizer

Large Horizontalizer

Bone Planer

Rod Manipulator - Right

Straight Rod Pusher

Rod Hex Driver

Distractor Wedge

Hook Site Preparation And Insertion

Hook Starters are used to prepare the Hook implant site. Various Starters match the Hook style desired.

Pedicle Hook

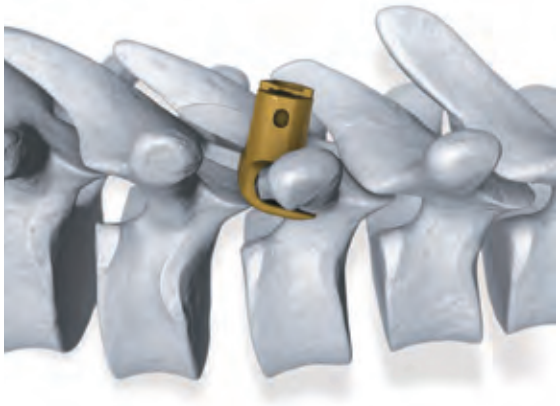
The **Polaris** Pedicle Hook is designed to obtain purchase in the thoracic spine from the tenth thoracic vertebra to the first thoracic vertebra. These Hooks are placed in an up-going fashion, allowing the bifurcated blade of the Hook to engage the pedicle at that level.

Pedicle Hook

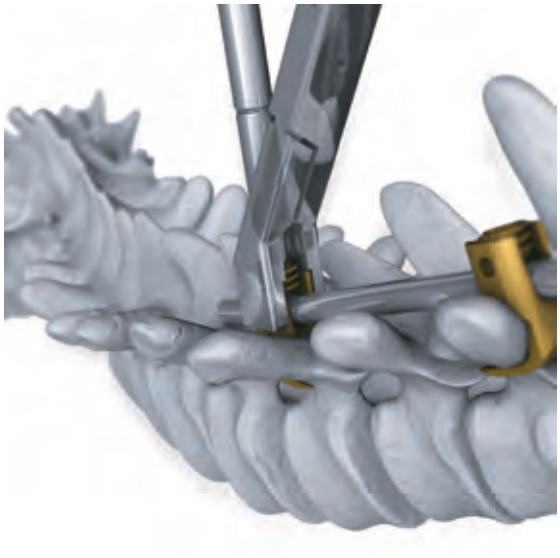
The Pedicle Hook site is prepared by using a quarter inch osteotome. Two cuts are made on the inferior facet of the level to be instrumented. A superior to inferior cut is made at the lateral margin of the ligamentum flavum and is directed two to three millimeters proximally. The second cut with a quarter inch osteotome is performed in a transverse plane from the lateral edge of the facet to the medial cut. Approximately 6.0mm (1/4") of inferior facet should remain when measured from the base of the transverse process. The osteotomized bone is removed and the facet cartilage is curetted.

The Thoracic Pedicle Hook site may then be prepared with the Pedicle Hook Starter. Caution should be used to prevent medial penetration of the canal with this instrument. The appropriate sized Pedicle Hook can be placed in a Hook Holder with a Hook Impactor and gently tapped into a seated position.

The Pedicle Hook Starter Is Used To Prepare The Site



Hook Placed On Pedicle Upgoing



The Angled Hook Holder is cannulated to align the Plug Starter

The Hook Impactor incorporates a strike plate and may be gently tapped to allow for better Hook control and to securely seat the hook onto the pedicle.

Laminar Hook

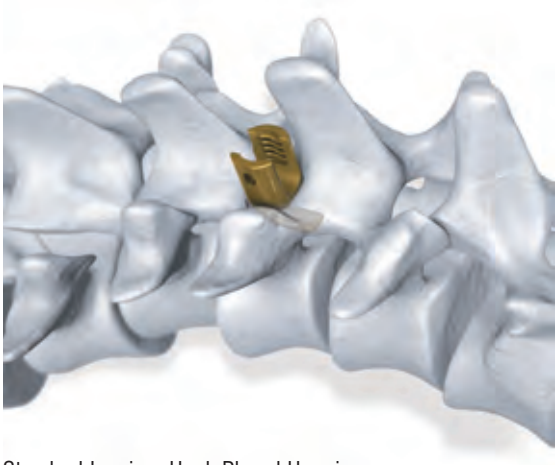
In general, Laminar Hooks are placed by removing an appropriate amount of ligamentum flavum and surrounding bone to provide safe passage of the Hook into the spinal canal in an infra or supralaminar position depending upon the appropriate level. Care is taken to note that the bone encompassed by the Hook completely fills the throat of the Hook, thus preventing unnecessary penetration of the blade into the canal.

Polaris Thoracic and Lumbar Laminar Hooks may be placed in a supra or infralaminar position depending on the location of the spine. A wide selection of **Polaris** Laminar Hooks are available for use in different locations. Offset down-going Laminar Hooks can be used at the top of the thoracic construct where transverse processes are small.

Narrow Blade, Angled Laminar Hooks

Wide And Narrow Blades, Laminar Hooks

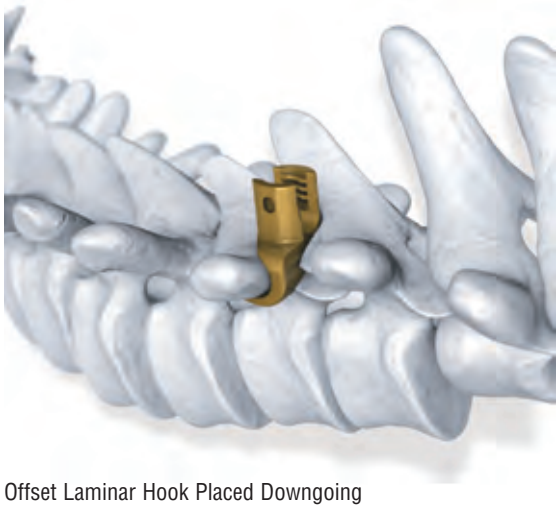
When placing Hooks downgoing, Left Hooks are used on the right side and vice versa. This allows the tulip to be in-line with the other Hooks in place.



Standard Laminar Hook Placed Upgoing

In the lower lumbar spine, larger offset Laminar Hooks are placed in an up-going fashion in order to maintain co-linearity of the saddles of the implants.

Offset Hooks



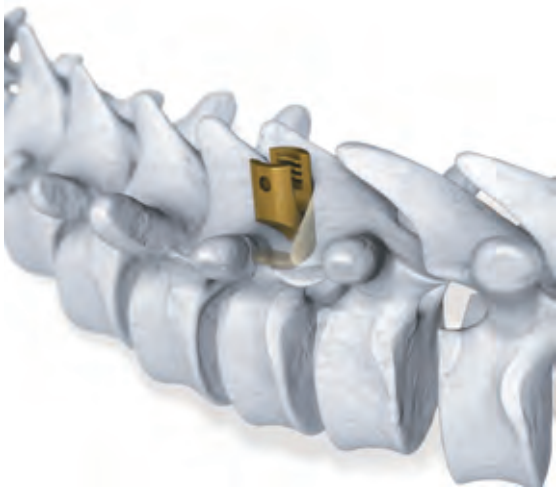
Offset Laminar Hook Placed Downgoing

In some situations, particularly when a sub-adjacent pedicle screw is in place, the offset laminar hook is ideal for placement in the transverse process location.

Reduced Laminar Hooks are placed in the thoracic spine in a down-going fashion at the end of the concavity of the curve or in the rigid segment. These Hooks prevent unnecessary crowding of the blade of the Hook into the spinal canal.

Standard
Laminar Hook

Reduced Throat
Laminar Hook

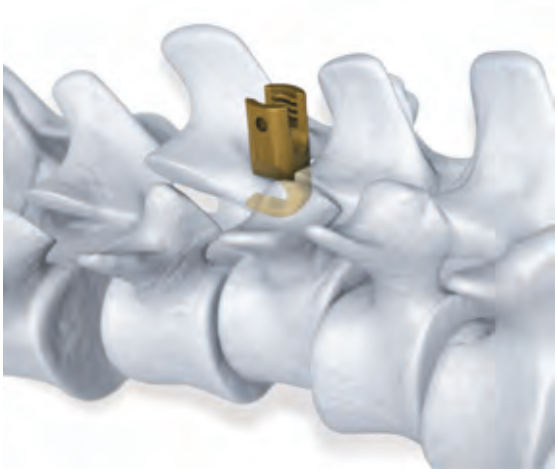


Reduced Laminar Hook Placed Downgoing

Extended Body Laminar Hooks are best used in a down-going fashion in the mid-lumbar spine in order to maintain the appropriate height of the Rod construct with the other implants proximally and distally.

Extended Body
Laminar Hook

Standard
Laminar Hook



Extended Body Hook Placed Down-Going

2. Screw Placement

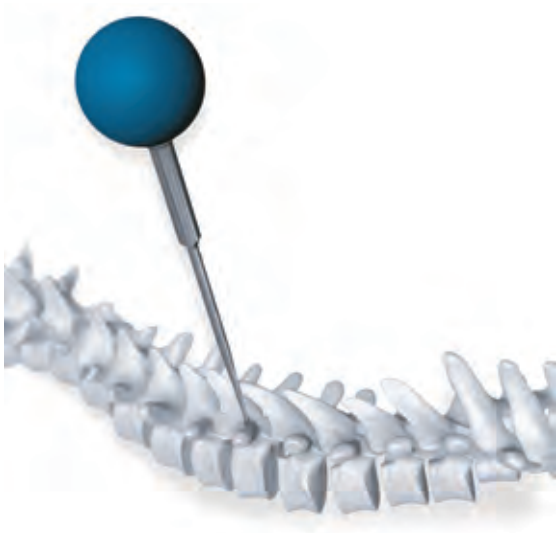
Polaris Pedicle Screws are placed within those vertebral bodies determined by the surgeon to be appropriate in size and location. Pre-operative and intraoperative imaging is valuable to assess the size of the pedicle and its ideal starting point. Image guidance may offer information about screw trajectory for the Pedicle Screw. Pedicle Screw placement may be performed in several ways according to surgeon experience and preference.

Polaris provides a full line of options for pedicle screw fixation with fixed and multi-axial screws varying in diameters of 4.0mm to 8.5mm, ranging 20mm to 55mm in length. Pedicle screws are inserted using established anatomical and fluoroscopic landmarks. Various pedicle finders, probes and taps are available to assist the surgeon in development, probing and measurements of the pedicle.

Multi-axial Screw Offering

Fixed Screw Offering

NOTE: All implants are available in Stainless Steel.



The Thoracic Probe Is Used To Prepare The Pedicle Hole

Multi-axial Screw Inserter

Screw Selection And Insertion

Self-tapping screws are available in several diameters and lengths. The appropriate screw length is determined by using the depth markings on the Pedicle Probe, or by feeling the anterior wall with the sound and marking it with a hemostat. Attach the selected Screw Driver to the chosen Quick Connect Handle by pulling back on the plunger at the base of the quick connect mechanism, inserting the shaft, and releasing the plunger to lock the shaft in place. Hold the screw by the screw shaft and load the screw onto the tip of the Fixed or Multi-axial Screw Driver.

Standard Multi-axial Screw Inserter

Use with the following screws:

- **Polaris** 5.5 Multi-axial Screws
- **Polaris** 5.5 Iliac Multi-axial Screws
- **Polaris** 6.35 Ti 7.5mm and 8.5mm Diameter Screws, **Polaris** 6.35 Stainless Steel Multi-axial Screws
- **Polaris** 6.35 Iliac Multi-axial Screws

To use the standard multi-axial screw inserter, ensure the male pentalobe at the distal tip of the Driver is fully seated within the female pentalobe located at the top of the screw shaft. Slide the outer sleeve of the inserter down into the seat of the screw, and then turn the round, knurled grip in a clockwise direction to thread the outer shaft into the seat. Turn until tight and confirm that the screw is straight and secure in the Driver. If it is not, remove the screw from the driver and repeat steps above. The screw is advanced into the pedicle to the desired depth. During insertion, guide the Driver by holding the black sleeve on the shaft of the instrument. The Driver is disengaged from the screw by turning the round, knurled grip in a counterclockwise direction, pull the outer sleeve up and lift the driver from the screw.

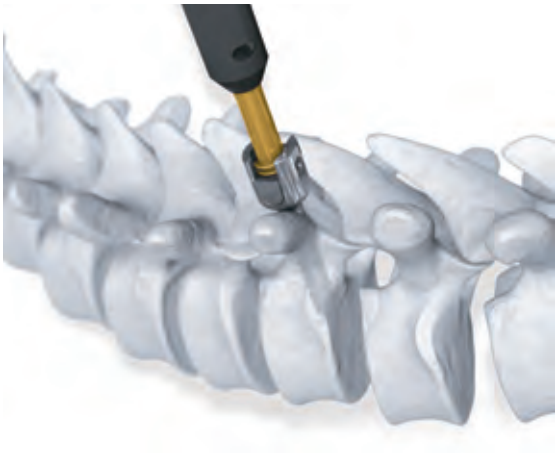
NOTE: Polaris 5.5 Titanium Spinal System 4.0mm diameter screws are not for use with Cobalt Chrome Alloy Rods.

Optional: Multi-axial Screw driver with two modes: LOCKING and NON-LOCKING capacity. (This must be ordered separately by the sales representative).

If using the LOCKING setting, ensure the knob located on the knurled grip is rotated so that the arrow points to the "ON" icon. Place the tip of the inserter into the seat of the screw, and then turn the knurled grip in a clockwise direction to thread the outer shaft into the seat. The driver will begin to "ratchet" when it is almost fully engaged. It will stop ratcheting when the screw is fully loaded. Confirm the screw is straight and secure in the Driver. The screw is advanced into the pedicle to the desired depth. During insertion, guide the Driver by holding the black sleeve on the shaft of the instrument. The Driver is disengaged from the screw by rotating the knob to point to the "OFF" icon, then unthreading the outer sleeve from the screw. The surgeon can also push and hold the button located on the opposite side of the knob. Finally, pull the outer sleeve up and lift the driver from the screw.

Load The Screw Driver

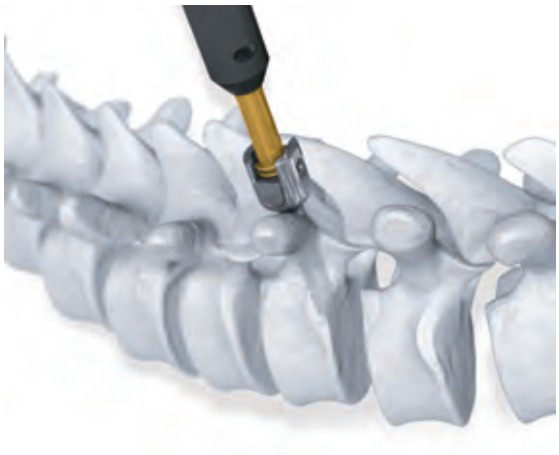
If the surgeon prefers the NON-LOCKING setting, ensure the knob on the knurled grip is rotated so that the arrow points to the "OFF" icon. Place the tip of the inserter into the seat of the screw, and then turn the knurled grip in a clockwise direction to thread the outer shaft into the seat. Turn until tight and confirm that the screw is straight and secure in the Driver. The screw is advanced into the pedicle to the desired depth. During insertion, guide the Driver by holding the black sleeve on the shaft of the instrument. The Driver is disengaged from the screw by turning the round, knurled grip in a counterclockwise direction, pull the outer sleeve up and lift from the screw.



Insert The Screw Into The Pedicle At The Appropriate Angle And Depth

Polaris 5.5 Fixed Screw Inserter

To use the standard fixed screw inserter, ensure the male blunt tip at the distal end of the Driver is fully seated within the seat of the screw shaft. Slide the outer sleeve of the inserter down into the seat of the screw, and then turn the round, knurled grip in a clockwise direction to thread the outer shaft into the seat. Turn until tight and confirm that the screw is straight and secure in the Driver. If it is not, remove the screw from the driver and repeat steps above. The screw is advanced into the pedicle to the desired depth. During insertion, guide the Driver by holding the black sleeve on the shaft of the instrument. The Driver is disengaged from the screw by turning the round, knurled grip in a counterclockwise direction, pull the outer sleeve up and lift the driver from the screw.



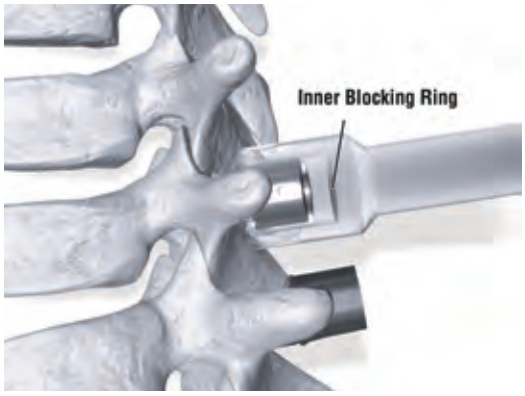
Insert The Screw Into The Pedicle At The Appropriate Angle And Depth

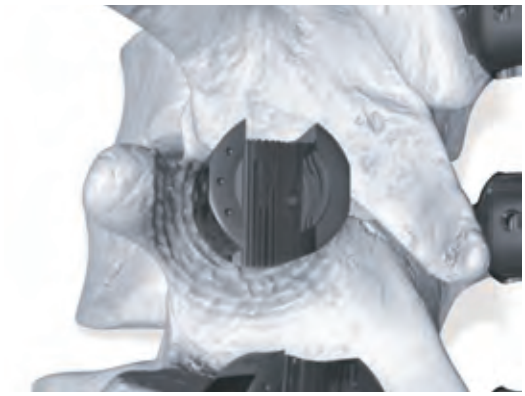
Polaris 6.35 System Multi-axial And Fixed Screw Inserter

When using the Multi-axial Screw Driver, first ensure that the knurled T is at the top of the driver shaft, preventing the outer shaft from prematurely dropping into the screw head. Next, hold the screw by the screw shaft and load the screw onto the tip of the Driver. Ensure that the male hex end at the top of the screw shaft is fully seated into the female hex of the Driver. Then turn the knurled T in a clockwise direction to thread the outer shaft into the seat. Confirm the screw is straight and secure in the Driver. The screw is advanced into the pedicle to the desired depth. During insertion, guide the Driver by holding the blue sleeve on the shaft of the instrument. The Driver is disengaged from the screw by rotating the knurled T in a counterclockwise direction, and then lifting the Driver from the screw.

Fixed head screws are inserted using the Fixed Screw Driver. Attach the Fixed Screw Driver shaft to the Quick Connect Handle. Ensure that the knurled T is at the top of the driver shaft, preventing the outer shaft from prematurely dropping into the screw head. Next, hold the screw by the screw shaft and load the screw into the tip of the Fixed Driver. Then, turn the knurled T in a clockwise direction to thread the outer shaft into the seat. Confirm the screw is secure in the Driver. The screw is advanced into the pedicle to the desired depth. The Fixed Driver is disengaged from the screw by rotating the knurled T in a counterclockwise direction, and then lifting the Driver from the screw.

The Bone Planer is used to remove bone before or after the rod is introduced (e.g., base of thoracic transverse process or lamina) that may be hindering engagement of instruments onto the screw, particularly when introducing the rod.





Bone Planer Is Used To Remove Small Amounts Of Bone Around Screw To Help Facilitate Instrument Engagement

3. Rod Selection And Application

Polaris rods are offered in Titanium Alloy, Commercially Pure Titanium (CP Ti) and Cobalt Chrome (CoCrMo) alloy for use with the titanium alloy components. Stainless Steel components should never be used with components made of Titanium Alloy, CP Ti, or CoCrMo alloy, per the package insert. The variety of stiffness and strength combinations of rods allow the surgeon to tailor the construct to the surgeon's preference according to the needs of the patient. CP Ti and Titanium Alloy have similar stiffness properties. However, CP Ti is a softer material and is easier to bend than Titanium Alloy. If a stiffer rod is preferred, CoCrMo rods are offered in an, Extra-Hard tensile strength.

A 5.5mm diameter Cobalt Chrome Alloy Rod enables the construct to behave with the similar strength and stiffness as compared to a 5.5mm diameter Stainless Steel Rod. The bending properties of Cobalt Chrome Alloy Rods continue to harden as in-situ bending occurs repeatedly. As with any metal, Rods should be bent with caution and minimally to prevent fracture and fatigue. The use of Cobalt Chrome Alloy Rods with Titanium Implants (Screws, Hooks, Plugs, and Hooks) maintains imaging capabilities. Cobalt Chrome Alloy Rods are only to be used with Titanium implants and are never used with Stainless Steel implants.

Stainless Steel rods are for use with Stainless Steel implants only. Biomet offers 3 tensile strengths in order for the surgeon to select the appropriate rigidity desired based on patient needs.

The Rods include two etched longitudinal lines along the length of the Rod to help determine the correct plane and reference when bending and inserting the Rod. The etched line also aids in Rod rotation. The Rods incorporate two hex ends for further options with rod rotation. A malleable rod template is available in order to aid with rod measurement and bending prior to rod insertion.

Rod Template

CP Ti

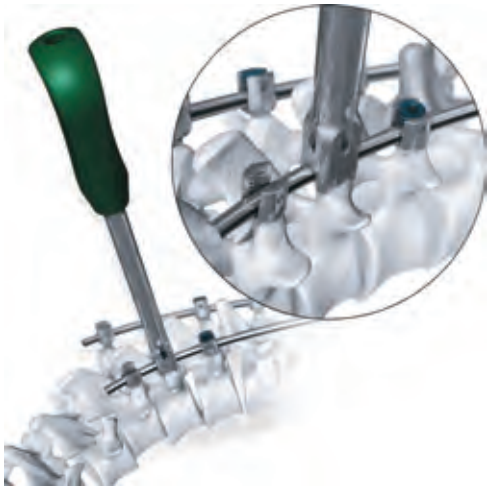
Ti Alloy

Cobalt Chrome Alloy

Stainless Steel

4. Rod Reduction - Four Options

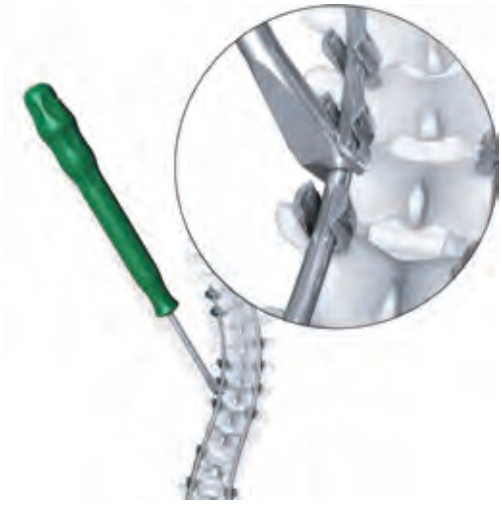
The Rod is inserted into the proximal Hook or Screw. It is often helpful to place a Plug in the most proximal saddle prior to Rod placement and in order to facilitate proximal fixation of the Rod. The Rod can then be reduced to the Hooks and Screws with a variety of options: Rod Pusher, Rod Manipulator, Rod Rocker, or the Rod Reducer.



Rod Pusher Encompassing The Screw To Seat The Rod And Facilitate Plug Insertion

Pusher:

The Straight Rod pusher is available with bent tip or straight tip to allow for optimum visualization of the rod persuasion into the tulip of the screw or hook. The pushers can be tapped with a mallet to facilitate rod placement.



Straight Rod Pusher Used To Persuade The Rod Into The Tulip And Facilitate Plug Insertion

Manipulator:

The Rod Manipulator is used to persuade the rod into the tulip and can move the rod cephalad/caudal, medial/lateral. First place the Manipulator on the rod, turn the handle 90° clockwise to lock the instrument to the rod, push, pull, or translate the rod into the seat. Provisionally place the Plug into the tulip, turn the handle 90° counterclockwise to release the Manipulator and lift up.

NOTE: Be cautious as to potential bone that may be underneath the instrument that may hinder the application and release of the instrument. If this occurs, use a different rod reduction option or remove the bone with the Bone Planer.

Step 1 – Load
The Instrument
Onto The Rod

Step 2 – Turn
The Instrument Handle
90° And Engage The Rod

Step 3 – Push The Rod
Into Screw Seat
To Facilitate Plug Insertion

The Rod Persuader offers the surgeon a controlled and powerful means in which to reduce the rod into the seat. This can be used for standard screws and reduction screws. Place the Persuader over top of the screw seat until the blocking ring rests on the top of the screw. This ensures the Persuader is in proper position. Begin to squeeze the blue handle to advance the middle and outer sleeves. Once the middle sleeve passes the inner blocking ring, the persuader will grab the screw seat connecting into the dimples of the seat. Continue to squeeze the handle to seat the rod. The Plug Starter will fit through the cannulated portion of the Persuader, allowing for plug application with the Persuader in place. To release the Persuader, press the trigger located underneath the handle. Once released, the Persuader may then be removed from the screw seat.

Step 1 – Place
Onto The Screw

Step 2 – Squeeze
Handle To Advance
The Middle And
Outer Sleeves

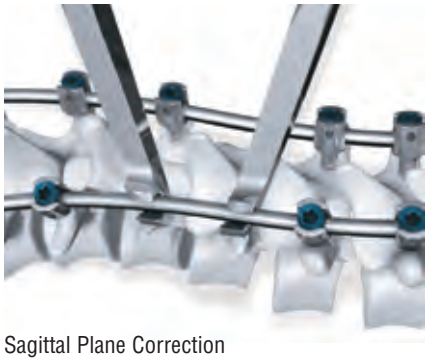
NOTE: Each rod reduction instrument allows for Plug application.

Once the Rod is reduced, the spine can be corrected with Rod rotation, in-situ bending, or use of cables and wires to translate the spine to the Rod. Once the Plugs have been provisionally tightened and the construct confirmed the contralateral Rod is placed in the standard fashion, thus providing further fixation. Plugs are finally tightened using the Torque Wrench and Counter Torque Wrench.

5. In-Situ Contouring

In-situ contouring may be performed with In-Situ and/or Coronal Benders prior to final torquing. In general, the In-Situ Benders are used to improve or adjust kyphosis and lordosis and Coronal Benders are used to reduce coronal plane deformity.

Coronal Plane Correction



Sagittal Plane Correction

If using Cables, refer to the Biomet Lentur™ Cable Surgical Technique (BSP216518L).

6. Distraction And Compression

Distraction and Compression can be achieved by utilizing either the Standard Distractor or Compressor. Both instruments permit intraoperative application of linear Distraction or Compression at any level. The distal tips of the Distractor or Compressor are applied to the Rod and the desired degree of Distraction or Compression is applied. The Distraction or Compression device will maintain the position of the vertebra until the Plug is tightened with the Provisional Driver, thus securing the Rod.

Specific Compressors and Distractors are available to facilitate deformity applications. In the **Polaris** 5.5 Spinal System, a Small Compressor with a range from 15mm to 42mm and a Large Compressor with a range from 38mm to 66mm are available. Also a single action Distractor, with a range from 5.0mm to 40mm, is available.

The **Polaris** 6.35 Spinal System Compressor has a range of 14.5mm to 53.3mm. The Distractor has a range of 5.6mm to 44.5mm.

NOTE: The Rod Gripper may act as an intermediary point when Compressing/Distracting.

Distract To Achieve Desired Position Of The Vertebra And Provisionally Tighten The Plug To Maintain The Position

Cross Connector Application*

In the event that additional torsional stability is required, a Cross Connector* may be utilized. The Cross Connector should be applied after the construct has been assembled and final torque of the Plugs has taken place. Apply the Cross Connector to the Rods. Tighten the set screws with the green-handled Torque Wrench until an audible click is heard, applying 40in-lbs of torque to the Cross Connector set screws (tighten the Plugs on the outer Hooks first and then the central Plug). Great care is needed to avoid inadvertent penetration of the canal with the Cross Connector Torque Wrench. Select the appropriate size Cross Connector, in either a fixed or telescoping style. A Cross Connector Caliper is available to determine the proper size needed.

The Fixed Cross Connectors may be contoured, if necessary
Torque the set screws on the Cross Connector as a final step.

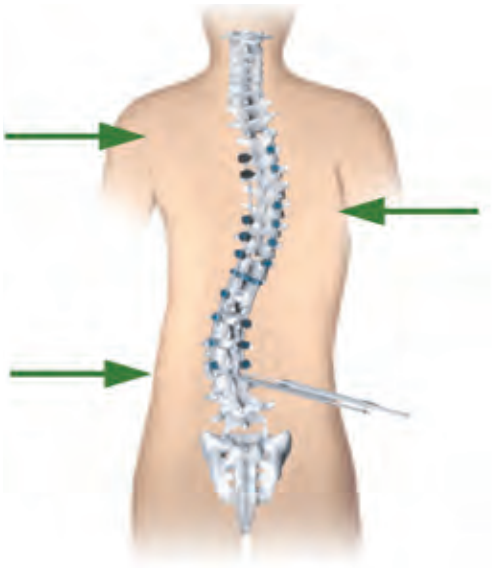
Torque The Cross Connector To 40in-lb Using
The Cross Connector Torque Handle

* The Crossbar™ Cross Connector was developed by SeaSpine, Inc.
Crossbar is a trademark of SeaSpine, Inc.

7. Rod Rotation

With Plugs loosely engaged, the Rods are simultaneously rotated into the desired sagittal profile to obtain 3-dimensional deformity correction. This is verified by the exact dorsal orientation of the longitudinal rod marker line. Rotation of the Rod can be done in lesser curves with the Hex End Wrenches engaging the hexagonal rod end.

Hex End Wrench Attached To Hex End On Rods
Used To Facilitate Rotation



A greater force can be applied using the Rod Rotators for larger curves. Place the distal tip of the Rotators onto the Rod and squeeze the handle until firmly gripping the Rod. Rotate the Rod to the desired position. To release the Rotators, lift the trigger release.

Segmental Translation

Reduction screws, or Extended screws, are very useful during challenging cases and offers the surgeon a variety of techniques to correct the spine.

Reduction screws are used for segmental translation of the lumbar spine. The Rod is secured in the S1 screw to act as a firm anchor. The Rod is then slowly reduced by inserting the Plug and tightened gradually from L1-L5. The spine is translated to the Rods, thus correcting the coronal or sagittal plane.

Once the **Helical Flange** plugs are inserted to the appropriate depth, below the break off tab, the plugs must be torque with the chosen torque wrench and counter torque stabilizer.

Kyphosis Correction

Reduction screws are used during kyphosis cases in order to reduce the spine to the correct sagittal alignment. The rod is slowly reduced into the screw tulip using the reduction instruments and **Helical Flange** Plug.

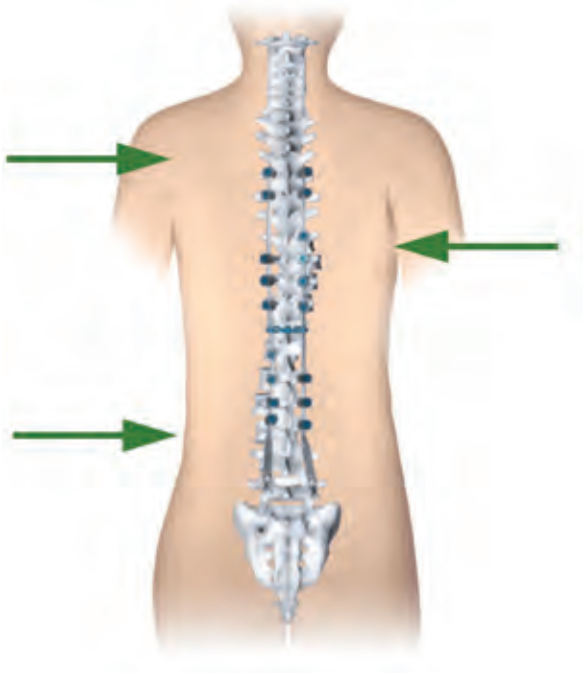
Once the **Helical Flange** plugs are inserted to the appropriate depth, below the break off tab, the plugs must be torqued with the chosen torque wrench and counter torque stabilizer.

Direct Vertebral Column Manipulation Technique

While rod rotation and/or in-situ contouring address the bi-dimensional or global deformity of the spine, derotation addresses the third dimension of the axial plane. At this point in the surgical procedure, a near complete two-dimensional correction should have been realized. Derotation of the spine can be accomplished by use of fixed Pedicle Screws at selected levels. Common areas where derotation is of benefit are the apical and end vertebra. This is an excellent method for reducing the rotational deformity of the spine. Structural curves with a true, stiff axial plane malrotation are targeted by placing 5-8 fixed head pedicle screws. In order to derotate segments of the spine, it is important that there be appropriate fixation points on the remaining segments of the spine against which to derotate. Best results are achieved by aligning and then linking opposing axial plane corrective forces. An example would be a right thoracic against left thoracolumbar in a classic double major pattern.

Fixed Screws Are Placed In Clusters Of 5-8 About The Apices Of The Lumbar And Thoracic Curves

Hex End Wrench Is Used To Rotate The Rods



Global Correction Has Been Performed

In double thoracic curve, the cephalad and caudad foundations oppose the corrective axial force. An extra level past the measured Cobb “end” vertebra may need to be included in a large, stiff curve. A stiff upper thoracic secondary curve provides a stronger opposing axial force than a thoracolumbar junction compensatory curve.

Derotation Levers are engaged on the various clusters. Levers are aligned within each cluster and Handle Linkage Rods are placed in the first hole in the handles. A Comb is then engaged from above onto the Handle Linkage Rods. All 5-8 screws in a cluster are thus linked to provide a uniform axial plane corrective force distributed through multiple screws minimizing the chance of screw ploughing. Two clusters in a double major scoliosis are simultaneously slowly derotated, three in a single thoracic or triple major.

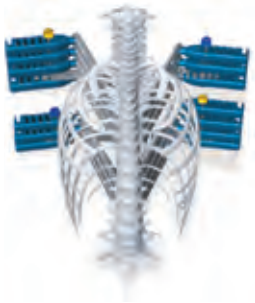
Derotation Tubes Are Attached To The Fixed Screws In The Apical Clusters

Handle Linkage Rods Are Attached Thru The Handle Of Each Cluster

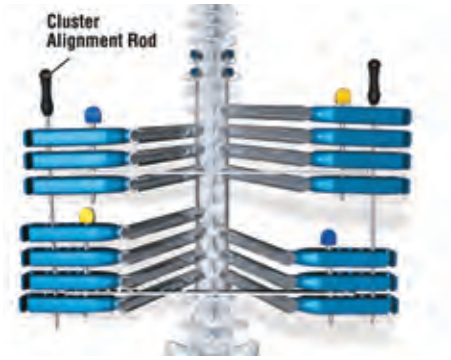
Attach The Comb To Connect The Lumbar And Thoracic Curve Clusters Respectively

Comb Connecting To Handle Linkage Rods

Derotate The Spine By Manipulating The Clusters



The Spine Is Now Corrected

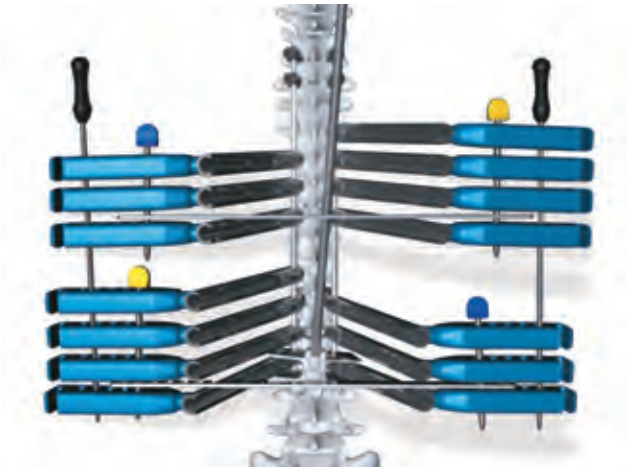


Cluster Alignment Is To Hold Correction In Place

Spine is derotated in all three-planes. Once desired derotation is achieved, Cluster Alignment Rods placed through various handle slots on both sides hold the axial plane correction. It is important to monitor neurologic function with real time spinal cord electro physiologic testing throughout this maneuver, especially with larger curves.

Vertebral Horizontilization And Compression / Distraction

The Horizontalizer is used to adjust coronal plane non-level vertebrae to achieve vertebral leveling with the desired combination of equal partial concavity distraction and convexity compression. This helps prevent unwanted elongation of the spinal cord. The Horizontalizer is dropped down onto the still-engaged Levers of the desired segment to be horizontalized. The handle is used as a lever pushed laterally in either direction to effect leveling of the vertebral body. The various handle angle adjustment options allow the surgeon to adjust to varying patient anatomy. Special attention paid to leveling the lowest instrumented vertebra, or in some situations slightly over-correction, will help prevent truncal offset in lumbar curves.



Horizontalizer Is Placed In Between Derotators To Angle The Vertebral Body

If compression and distraction is necessary and cannot be achieved with the Horizontalizer, two options remain.

i. Inter-derotator Wedge Distractor tool can be used in a tight concavity situation in the upper thoracic spine to give room for Horizontalizer application. After distraction, provisionally tighten the two adjacent screw plugs, then apply the Horizontalizer. Loosen and retighten/ torque plugs as needed.

Use The Distractor Wedge In Between Derotators To Distract The Disc Space

ii. The Compressors or Distractors can be used between the Derotation Levers or the screws themselves.

Iliac Fixation Surgical Technique

In some instances, such as neuromuscular scoliosis with pelvic obliquity, or when additional fixation is necessary to load share at the lumbosacral junction, iliac fixation may be valuable.

The iliac wing and posterior superior iliac spine are exposed by the surgeon's preferred method. The iliac wing is typically exposed enough to orient the path of the iliac screw to ensure that the iliac cortex is not violated during placement of the iliac screw. Place the pedicle probe down between the iliac tables in a manner that places the path about 1.0cm to 1.5cm above the greater sciatic notch. The Pedicle Probe or Reamer Probe may be used to start the hole, but may not extend to the entire length of the Iliac Screw chosen. This can be confirmed with fluoroscopy of the pelvis or by tactile feedback, depending on the surgeon's standard protocol. In general, it is best to place the largest Screw diameter possible. The Screw is placed after the inner and outer tables are palpated with a pedicle sound and the iliac walls and floors are noted to be intact. It is recommended to notch the iliac wing around the Screw head to sink the Screw head to prevent prominence.

Insert The Multi-axial Screw Into The Pelvis

3. Applying The Lateral Connector

Preload the Lateral Connector onto the Longitudinal Rod. The post of the Lateral Connector may be cut and contoured as deemed necessary. A Lateral Connector may also be used at points along the construct to connect to a Screw that may be Lateral and out of line with the pedicle Screw above and below this point.

Lateral Connector Loaded Onto Rod Connected to the Iliac Screw

Provisional And Final Tightening

In tightening the Plugs, first secure the Plugs along the Longitudinal Rod. Then secure the Plug where it mates with the post of the Lateral Connector within the Lateral or Iliac Screw. Finally, tighten the Plug at the Lateral Connector/Longitudinal Rod interface. All Plugs must be final tightened with the Torque Wrench in combination with the Counter Torque Wrench.

Closure And Postoperative Care

Closure

After implantation of the **Polaris** Spinal System is complete, closure is performed in layers according to standard protocol.

Postoperative Care

To enhance recovery following implantation of the **Polaris** Spinal System, the patient should be mobilized after a few days. A TSLO brace may be used postoperatively to decrease excessive mobility. Walking-intensive activities should be restricted until otherwise advised by the surgeon. Postoperative radiographs should be taken periodically and reviewed to ensure fixation stability.

Implant Removal

Removal of the **Polaris** Spinal System is performed by reversing the order of the implant procedure. The T-handle attached to the plug driver, in combination with the Counter Torque must be used first to remove the Plugs.

Essential Product Information

See the package inserts for the **Polaris** 5.5 and **Polaris** 6.35 for the specific indications, contraindications, warnings, precautions and potential adverse effects.

CAUTION: Federal Law (USA) restricts this device to sale by or on the order of a physician.

Ordering Information

Polaris 5.5 SST Deformity Screw Implant Kit

(Catalog No. 14-509650)

Catalog No.	Description
14-505100	Std **Helical Flange** Plug
14-505110	Derotation **Helical Flange** Plug
14-505402	5.5mm Dia. x 510mm SST Rod Med (w/hex)
14-505406	5.5mm Dia. x 510mm SST Hard Rod (w/hex)
14-505410	5.5mm Dia. x 510mm SST Extra Hard Rod (w/hex)
14-505120	25mm Lateral Connector
14-505122	35mm Lateral Connector
14-505124	50mm Lateral Connector
14-505126	75mm Lateral Connector
14-505142	12mm Fixed Cross Connector
14-505143	14mm Fixed Cross Connector
5006760	16mm Fixed Cross Connector
5006761	18mm Fixed Cross Connector
5006762	20mm Fixed Cross Connector
5006763	22mm Fixed Cross Connector
5006764	24mm Fixed Cross Connector
14-504220	4.75mm Dia. x 20mm Fixed Screw
14-504225	4.75mm Dia. x 25mm Fixed Screw
14-504230	4.75mm Dia. x 30mm Fixed Screw
14-504235	4.75mm Dia. x 35mm Fixed Screw
14-504240	4.75mm Dia. x 40mm Fixed Screw
14-504245	4.75mm Dia. x 45mm Fixed Screw
14-504320	5.5mm Dia. x 20mm Fixed Screw
14-504325	5.5mm Dia. x 25mm Fixed Screw
14-504330	5.5mm Dia. x 30mm Fixed Screw
14-504335	5.5mm Dia. x 35mm Fixed Screw
14-504340	5.5mm Dia. x 40mm Fixed Screw
14-504345	5.5mm Dia. x 45mm Fixed Screw
14-504350	5.5mm Dia. x 50mm Fixed Screw
14-504355	5.5mm Dia. x 55mm Fixed Screw
14-504430	6.5mm Dia. x 30mm Fixed Screw
14-504435	6.5mm Dia. x 35mm Fixed Screw
14-504440	6.5mm Dia. x 40mm Fixed Screw
14-504445	6.5mm Dia. x 45mm Fixed Screw
14-504450	6.5mm Dia. x 50mm Fixed Screw
14-504455	6.5mm Dia. x 55mm Fixed Screw
14-504530	7.5mm Dia. x 30mm Fixed Screw
14-504535	7.5mm Dia. x 35mm Fixed Screw
14-504540	7.5mm Dia. x 40mm Fixed Screw
14-504545	7.5mm Dia. x 45mm Fixed Screw
14-504550	7.5mm Dia. x 50mm Fixed Screw
14-504555	7.5mm Dia. x 55mm Fixed Screw
14-504630	8.5mm Dia. x 30mm Fixed Screw
14-504635	8.5mm Dia. x 35mm Fixed Screw
14-504640	8.5mm Dia. x 40mm Fixed Screw
14-504645	8.5mm Dia. x 45mm Fixed Screw
14-504650	8.5mm Dia. x 50mm Fixed Screw
14-504655	8.5mm Dia. x 55mm Fixed Screw

Polaris 5.5 SST Deformity Hook Implant Kit

(Catalog No. 14-509651)

Catalog No.	Description
14-505500	Pedicle Hook, Small (6.0mm)
14-505502	Pedicle Hook, Medium (7.5mm)
14-505504	Pedicle Hook, Large (9.0mm)
14-505506	Left Angled Hook, Small (6.0mm)
14-505508	Right Angled Hook, Small (6.0mm)
14-505510	Left Angled Hook, Medium (7.5mm)
14-505512	Right Angled Hook, Medium (7.5mm)
14-505514	Left Angled Hook, Large (9.0mm)
14-505516	Right Angled Hook, Large (9.0mm)
14-505524	Narrow Laminar Hook, Small (6.0mm)
14-505526	Narrow Laminar Hook, Medium (7.5mm)
14-505528	Narrow Laminar Hook, Large (9.0mm)
14-505530	Narrow Reduced Laminar Hook, Small (6.0mm)
14-505532	Narrow Reduced Laminar Hook, Medium (7.5mm)
14-505534	Narrow Reduced Laminar Hook, Large (9.0mm)
14-505518	Wide Laminar Hook, Small (6.0mm)
14-505520	Wide Laminar Hook, Medium (7.5mm)
14-505522	Wide Laminar Hook, Large (9.0mm)
14-505536	Left Offset Hook, Small (6.0mm)
14-505538	Right Offset Hook, Small (6.0mm)
14-505540	Left Offset Hook, Medium (7.5mm)
14-505542	Right Offset Hook, Medium (7.5mm)
14-505544	Left Offset Hook, Large (9.0mm)
14-505546	Right Offset Hook, Large (9.0mm)
14-505548	Angled Blade Hook, Small (6.0mm)
14-505550	Angled Blade Hook, Medium (7.5mm)
14-505552	Angled Blade Hook, Large (9.0mm)
14-505554	Extended Hook, Small (6.0mm)
14-505556	Extended Hook, Medium (7.5mm)
14-505558	Extended Hook, Large (9.0mm)

Polaris 5.5 SST Standard Implants

(Catalog No. 14-509652)

Catalog No.	Description
14-505100	SST **Helical Flange** Plug
14-502320	5.5mm Dia. x 20mm Multi-axial SST Screw
14-502325	5.5mm Dia. x 25mm Multi-axial SST Screw
14-502330	5.5mm Dia. x 30mm Multi-axial SST Screw
14-502335	5.5mm Dia. x 35mm Multi-axial SST Screw
14-502340	5.5mm Dia. x 40mm Multi-axial SST Screw
14-502345	5.5mm Dia. x 45mm Multi-axial SST Screw
14-502350	5.5mm Dia. x 50mm Multi-axial SST Screw
14-502355	5.5mm Dia. x 55mm Multi-axial SST Screw
14-502430	6.5mm Dia. x 30mm Multi-axial SST Screw
14-502435	6.5mm Dia. x 35mm Multi-axial SST Screw
14-502440	6.5mm Dia. x 40mm Multi-axial SST Screw
14-502445	6.5mm Dia. x 45mm Multi-axial SST Screw
14-502450	6.5mm Dia. x 50mm Multi-axial SST Screw
14-502455	6.5mm Dia. x 55mm Multi-axial SST Screw
14-502530	7.5mm Dia. x 30mm Multi-axial SST Screw
14-502535	7.5mm Dia. x 35mm Multi-axial SST Screw
14-502540	7.5mm Dia. x 40mm Multi-axial SST Screw
14-502545	7.5mm Dia. x 45mm Multi-axial SST Screw
14-502550	7.5mm Dia. x 50mm Multi-axial SST Screw
14-502555	7.5mm Dia. x 55mm Multi-axial SST Screw
14-505402	510mm Rod SST Med (w/hex)
14-505406	510mm Rod SST High Strength (w/hex)
14-505410	510mm Rod SST Extra High Strength (w/hex)

Polaris 5.5 SST Standard Implants

(Catalog No. 14-509652) (Continued)

Catalog No.	Description
5006750	XX-Small Cross Connector
5006751	X-Small Cross Connector
5006752	Small Cross Connector
5006753	Medium Cross Connector
5006754	Large Cross Connector
14-502630	8.5mm Dia. x 30mm Multi-axial SST Screw
14-502635	8.5mm Dia. x 35mm Multi-axial SST Screw
14-502640	8.5mm Dia. x 40mm Multi-axial SST Screw
14-502645	8.5mm Dia. x 45mm Multi-axial SST Screw
14-502650	8.5mm Dia. x 50mm Multi-axial SST Screw
14-502655	8.5mm Dia. x 55mm Multi-axial SST Screw
14-502220	4.75mm Dia. x 20mm Multi-axial SST Screw
14-502225	4.75mm Dia. x 25mm Multi-axial SST Screw
14-502230	4.75mm Dia. x 30mm Multi-axial SST Screw
14-502235	4.75mm Dia. x 35mm Multi-axial SST Screw
14-502240	4.75mm Dia. x 40mm Multi-axial SST Screw
14-502245	4.75mm Dia. x 45mm Multi-axial SST Screw
14-502250	4.75mm Dia. x 50mm Multi-axial SST Screw
14-500185	Multi-axial Screw Inserter

Polaris 5.5 SST Iliac Fixation Kit

(Catalog No. 14-509654)

Catalog No.	Description
14-503460	6.5mm Dia. x 60mm Multi-axial Screw
14-503470	6.5mm Dia. x 70mm Multi-axial Screw
14-503480	6.5mm Dia. x 80mm Multi-axial Screw
14-503490	6.5mm Dia. x 90mm Multi-axial Screw
14-503560	7.5mm Dia. x 60mm Multi-axial Screw
14-503570	7.5mm Dia. x 70mm Multi-axial Screw
14-503580	7.5mm Dia. x 80mm Multi-axial Screw
14-503590	7.5mm Dia. x 90mm Multi-axial Screw
14-503660	8.5mm Dia. x 60mm Multi-axial Screw
14-503670	8.5mm Dia. x 70mm Multi-axial Screw
14-503680	8.5mm Dia. x 80mm Multi-axial Screw
14-503690	8.5mm Dia. x 90mm Multi-axial Screw

Polaris 5.5 SST Multi-axial Reduction Screw Case

(Catalog No. 14-509655)

Catalog No.	Description
14-507330	5.5mm Dia. x 30mm Multi-axial Reduction Screw
14-507335	5.5mm Dia. x 35mm Multi-axial Reduction Screw
14-507340	5.5mm Dia. x 40mm Multi-axial Reduction Screw
14-507345	5.5mm Dia. x 45mm Multi-axial Reduction Screw
14-507350	5.5mm Dia. x 50mm Multi-axial Reduction Screw
14-507355	5.5mm Dia. x 55mm Multi-axial Reduction Screw
14-507430	6.5mm Dia. x 30mm Multi-axial Reduction Screw
14-507435	6.5mm Dia. x 35mm Multi-axial Reduction Screw
14-507440	6.5mm Dia. x 40mm Multi-axial Reduction Screw
14-507445	6.5mm Dia. x 45mm Multi-axial Reduction Screw
14-507450	6.5mm Dia. x 50mm Multi-axial Reduction Screw
14-507455	6.5mm Dia. x 55mm Multi-axial Reduction Screw
14-507530	7.5mm Dia. x 30mm Multi-axial Reduction Screw
14-507535	7.5mm Dia. x 35mm Multi-axial Reduction Screw
14-507540	7.5mm Dia. x 40mm Multi-axial Reduction Screw
14-507545	7.5mm Dia. x 45mm Multi-axial Reduction Screw
14-507550	7.5mm Dia. x 50mm Multi-axial Reduction Screw
14-507555	7.5mm Dia. x 55mm Multi-axial Reduction Screw

Polaris 5.5 SST 4.0mm Diameter Screw Kit

(Catalog No. 14-509656)

Catalog No.	Description
14-502120	4.0mm Dia. x 20mm Multi-axial Screw
14-502125	4.0mm Dia. x 25mm Multi-axial Screw
14-502130	4.0mm Dia. x 30mm Multi-axial Screw
14-502135	4.0mm Dia. x 35mm Multi-axial Screw
14-502140	4.0mm Dia. x 40mm Multi-axial Screw
14-502145	4.0mm Dia. x 45mm Multi-axial Screw
14-504120	4.0mm Dia. x 20mm Fixed Screw
14-504125	4.0mm Dia. x 25mm Fixed Screw
14-504130	4.0mm Dia. x 30mm Fixed Screw
14-504135	4.0mm Dia. x 35mm Fixed Screw
14-504140	4.0mm Dia. x 40mm Fixed Screw
14-504145	4.0mm Dia. x 45mm FIxed Screw

Polaris 5.5 Spine Deformity Cobalt Chrome Kit
(Catalog No. 14-509660)

Catalog No.	Description
14-500581	CoCrMo X-Hard 300mm
14-500585	CoCrMo X-Hard 510mm
14-500590	CoCrMo XX-Hard 300mm
14-500591	CoCrMo XX-Hard 510mm

Polaris 5.5 Ti 4.0mm Diameter Screw Kit
(Catalog No. 14-509629)

Catalog No.	Description
2000-2120	4.0mm Dia. x 20mm Multi-axial screw
2000-2125	4.0mm Dia. x 25mm Multi-axial Screw
2000-2130	4.0mm Dia. x 30mm Multi-axial Screw
2000-2135	4.0mm Dia. x 35mm Multi-axial Screw
2000-2140	4.0mm Dia. x 40mm Multi-axial Screw
2000-2145	4.0mm Dia. x 45mm Multi-axial Screw
2000-4120	4.0mm Dia. x 20mm Fixed Screw
2000-4125	4.0mm Dia. x 25mm Fixed Screw
2000-4130	4.0mm Dia. x 30mm Fixed Screw
2000-4135	4.0mm Dia. x 35mm Fixed Screw
2000-4140	4.0mm Dia. x 40mm Fixed Screw
2000-4145	4.0mm Dia. x 45mm Fixed Screw

Polaris 5.5 Ti Deformity Screw Implant Kit

(Catalog No. 14-509630)

Catalog No.	Description
2000-1005	Std **Helical Flange** Plug
2000-5305	510mm Rod CP Ti (w/hex)
2000-5405	5.5mm Dia. x 510mm Ti Alloy Rod (w/hex)
2000-1020	25mm Lateral Connector
14-500132	35mm Lateral Connector
2000-1022	50mm Lateral Connector
2000-1024	75mm Lateral Connector
14-500130	12mm Fixed Cross Connector
14-500131	14mm Fixed Cross Connector
94487	16mm Fixed Cross Connector
94488	18mm Fixed Cross Connector
94489	20mm Fixed Cross Connector
94490	22mm Fixed Cross Connector
94491	24mm Fixed Cross Connector
2000-2325	5.5mm Dia. x 25mm Multi-axial Screw
2000-2330	5.5mm Dia. x 30mm Multi-axial Screw
2000-2335	5.5mm Dia. x 35mm Multi-axial Screw
2000-2340	5.5mm Dia. x 40mm Multi-axial Screw
2000-2345	5.5mm Dia. x 45mm Multi-axial Screw
2000-4220	4.75mm Dia. x 20mm Fixed Screw
2000-4225	4.75mm Dia. x 25mm Fixed Screw
2000-4230	4.75mm Dia. x 30mm Fixed Screw
2000-4235	4.75mm Dia. x 35mm Fixed Screw
2000-4240	4.75mm Dia. x 40mm Fixed Screw
2000-4245	4.75mm Dia. x 45mm Fixed Screw
2000-4325	5.5mm Dia. x 25mm Fixed Screw
2000-4330	5.5mm Dia. x 30mm Fixed Screw
2000-4335	5.5mm Dia. x 35mm Fixed Screw
2000-4340	5.5mm Dia. x 40mm Fixed Screw
2000-4345	5.5mm Dia. x 45mm Fixed Screw
2000-4350	5.5mm Dia. x 50mm Fixed Screw
2000-4355	5.5mm Dia. x 55mm Fixed Screw

Catalog No.	Description
2000-4430	6.5mm Dia. x 30mm Fixed Screw
2000-4435	6.5mm Dia. x 35mm Fixed Screw
2000-4440	6.5mm Dia. x 40mm Fixed Screw
2000-4445	6.5mm Dia. x 45mm Fixed Screw
2000-4450	6.5mm Dia. x 50mm Fixed Screw
2000-4455	6.5mm Dia. x 55mm Fixed Screw
2000-4530	7.5mm Dia. x 30mm Fixed Screw
2000-4535	7.5mm Dia. x 35mm Fixed Screw
2000-4540	7.5mm Dia. x 40mm Fixed Screw
2000-4545	7.5mm Dia. x 45mm Fixed Screw
2000-4550	7.5mm Dia. x 50mm Fixed Screw
2000-4555	7.5mm Dia. x 55mm Fixed Screw
2000-4630	8.5mm Dia. x 30mm Fixed Screw
2000-4635	8.5mm Dia. x 35mm Fixed Screw
2000-4640	8.5mm Dia. x 40mm Fixed Screw
2000-4645	8.5mm Dia. x 45mm Fixed Screw
2000-4650	8.5mm Dia. x 50mm Fixed Screw
2000-4655	8.5mm Dia. x 55mm Fixed Screw

Ordering Information (Continued)

Polaris 5.5 Ti Deformity Hook Kit

(Catalog No. 14-509631)

Catalog No.	Description
2000-5500	Pedicle Hook, Small (6.0mm)
2000-5502	Pedicle Hook, Medium (7.5mm)
2000-5504	Pedicle Hook, Large (9.0mm)
2000-5506	Left Angled Hook, Small (6.0mm)
2000-5508	Right Angled Hook, Small (6.0mm)
2000-5510	Left Angled Hook, Medium (7.5mm)
2000-5512	Right Angled Hook, Medium (7.5mm)
2000-5514	Left Angled Hook, Large (9.0mm)
2000-5516	Right Angled Hook, Large (9.0mm)
2000-5524	Narrow Laminar Hook, Small (6.0mm)
2000-5526	Narrow Laminar Hook, Medium (7.5mm)
2000-5528	Narrow Laminar Hook, Large (9.0mm)
2000-5530	Narrow Reduced Laminar Hook, Small (6.0mm)
2000-5532	Narrow Reduced Laminar Hook, Medium (7.5mm)
2000-5534	Narrow Reduced Laminar Hook, Large (9.0mm)
2000-5518	Wide Laminar Hook, Small (6.0mm)
2000-5520	Wide Laminar Hook, Medium (7.5mm)
2000-5522	Wide Laminar Hook, Large (9.0mm)
2000-5536	Left Offset Hook, Small (6.0mm)
2000-5538	Right Offset Hook, Small (6.0mm)
2000-5540	Left Offset Hook, Medium (7.5mm)
2000-5542	Right Offset Hook, Medium (7.5mm)
2000-5544	Left Offset Hook, Large (9.0mm)
2000-5546	Right Offset Hook, Large (9.0mm)
2000-5548	Angled Blade Hook, Small (6.0mm)
2000-5550	Angled Blade Hook, Medium (7.5mm)
2000-5552	Angled Blade Hook, Large (9.0mm)
2000-5554	Extended Hook, Small (6.0mm)
2000-5556	Extended Hook, Medium (7.5mm)
2000-5558	Extended Hook, Large (9.0mm)

Polaris 5.5 Ti Reduction Screw Kit

(Catalog No. 14-509605)

Catalog No.	Description
2000-7330	5.5mm Dia. x 30mm, Extended
2000-7335	5.5mm Dia. x 35mm, Extended
2000-7340	5.5mm Dia. x 40mm, Extended
2000-7345	5.5mm Dia. x 45mm, Extended
2000-7350	5.5mm Dia. x 50mm, Extended
2000-7355	5.5mm Dia. x 55mm, Extended
2000-7430	6.5mm Dia. x 30mm, Extended
2000-7435	6.5mm Dia. x 35mm, Extended
2000-7440	6.5mm Dia. x 40mm, Extended
2000-7445	6.5mm Dia. x 45mm, Extended
2000-7450	6.5mm Dia. x 50mm, Extended
2000-7455	6.5mm Dia. x 55mm, Extended
2000-7530	7.5mm Dia. x 30mm, Extended
2000-7535	7.5mm Dia. x 35mm, Extended
2000-7540	7.5mm Dia. x 40mm, Extended
2000-7545	7.5mm Dia. x 45mm, Extended
2000-7550	7.5mm Dia. x 50mm, Extended
2000-7555	7.5mm Dia. x 55mm, Extended

Polaris 5.5 Ti 4.75mm Diameter Screw Kit

(Catalog No. 14-509606)

Catalog No.	Description
2000-2220	4.75mm Dia. x 20mm
2000-2225	4.75mm Dia. x 25mm
2000-2230	4.75mm Dia. x 30mm
2000-2235	4.75mm Dia. x 35mm
2000-2240	4.75mm Dia. x 40mm
2000-2245	4.75mm Dia. x 45mm
2000-2250	4.75mm Dia. x 50mm

Polaris 5.5 Ti 8.5mm Diameter Screw Kit

(Catalog No. 14-509607)

Catalog No.	Description
2000-2630	8.5mm Dia. x 30mm
2000-2635	8.5mm Dia. x 35mm
2000-2640	8.5mm Dia. x 40mm
2000-2645	8.5mm Dia. x 45mm
2000-2650	8.5mm Dia. x 50mm
2000-2655	8.5mm Dia. x 55mm

Polaris 5.5 Ti Iliac Implant Kit

(Catalog No. 14-509635)

Catalog No.	Description
14-500290	6.5mm Dia. x 60mm Multi-axial Screw
14-500292	6.5mm Dia. x 70mm Multi-axial Screw
14-500294	6.5mm Dia. x 80mm Multi-axial Screw
14-500296	6.5mm Dia. x 90mm Multi-axial Screw
14-500310	7.5mm Dia. x 60mm Multi-axial Screw
14-500312	7.5mm Dia. x 70mm Multi-axial Screw
14-500314	7.5mm Dia. x 80mm Multi-axial Screw
14-500316	7.5mm Dia. x 90mm Multi-axial Screw
14-500330	8.5mm Dia. x 60mm Multi-axial Screw
14-500332	8.5mm Dia. x 70mm Multi-axial Screw
14-500334	8.5mm Dia. x 80mm Multi-axial Screw
14-500336	8.5mm Dia. x 90mm Multi-axial Screw

Polaris 5.5 Ti Standard Implant Kit

(Catalog No. 55500147)

Catalog No.	Description
2000-1005	Plug
2000-1020	Lateral Connector-25mm
94669	XX-Small Cross Connector
94670	X-Small Cross Connector
94671	Small Cross Connector
94672	Medium Cross Connector
94673	Large Cross Connector

Multi-axial Screws

Catalog No.	Description
2000-2330	5.5mm Dia. x 30mm
2000-2335	5.5mm Dia. x 35mm
2000-2340	5.5mm Dia. x 40mm
2000-2345	5.5mm Dia. x 45mm
2000-2350	5.5mm Dia. x 50mm
2000-2355	5.5mm Dia. x 55mm
2000-2430	6.5mm Dia. x 30mm
2000-2435	6.5mm Dia. x 35mm
2000-2440	6.5mm Dia. x 40mm
2000-2445	6.5mm Dia. x 45mm
2000-2450	6.5mm Dia. x 50mm
2000-2455	6.5mm Dia. x 55mm
2000-2530	7.5mm Dia. x 30mm
2000-2535	7.5mm Dia. x 35mm
2000-2540	7.5mm Dia. x 40mm
2000-2545	7.5mm Dia. x 45mm
2000-2550	7.5mm Dia. x 50mm
2000-2555	7.5mm Dia. x 55mm

Polaris 5.5 Ti Standard Implant Kit

(Catalog No. 55500147) Multi-axial Screws (Continued)

Catalog No.	Description
2000-5130	30mm Ti Alloy Pre-Curved Rod
2000-5135	35mm Ti Alloy Pre-Curved Rod
2000-5140	40mm Ti Alloy Pre-Curved Rod
2000-5145	45mm Ti Alloy Pre-Curved Rod
2000-5150	50mm Ti Alloy Pre-Curved Rod
2000-5155	55mm Ti Alloy Pre-Curved Rod
2000-5160	60mm Ti Alloy Pre-Curved Rod
2000-5165	65mm Ti Alloy Pre-Curved Rod
2000-5170	70mm Ti Alloy Pre-Curved Rod
2000-5175	75mm Ti Alloy Pre-Curved Rod
2000-5180	80mm Ti Alloy Pre-Curved Rod
2000-5190	90mm Ti Alloy Pre-Curved Rod
2000-5199	100mm Ti Alloy Pre-Curved Rod
2000-5405	510mm Rod Ti Alloy (w/hex)

Polaris 5.5 Standard Instrument Case

(Catalog No. 55500146)

Catalog No.	Description
94505	Awl Shaft
14-500100	Thoracic Pedicle Probe
14-500101	Straight Pedicle Probe
14-500102	Curved Pedicle Probe
2000-9015	Flexible Sound
4010	Stiff Sound
4077	9cm Trial Pin
4072	11cm Trial Pin
2000-9023	4.75mm Tap
2000-9024	5.5mm Tap
2000-9025	6.5mm Tap
2000-9026	7.5mm Tap
2000-9027	8.5mm Tap
2000-9091	4.75mm Reamer Probe
2000-9092	5.5mm Reamer Probe
2000-9093	6.5mm Reamer Probe
2000-9094	7.5mm Reamer Probe
124797	Ratchet Handle - T
124799	Ratchet Handle - Straight
94697	Fixed Handle - T
94699	Fixed Handle - Straight
2000-9006	Tear Drop Handle - Fixed
2000-6481	Tear Drop Handle - Ratcheting
2000-9061	Plug Driver
14-500185	Multi-axial Screw Inserter
2000-9060	Double End Plug Starter
2000-9072	Dorsal Height Adjuster
94612	Rod Template
94613	Rod Holder
94614	Soft Tissue Retractor
2000-9075	Torque Stabilizer

Polaris 5.5 Standard Instrument Case
(Catalog No. 55500146) (Continued)

Catalog No.	Description
2000-9044	Rod Bender
2000-9055	Rod Persuader
2000-9059	Straight Rod Pusher
2000-9074	Reduction Screw Break-Off Plier
2000-9054	ReDuction Fork
94624	Cross Connector Torque Wrench
94686	Compressor
94687	Distractor
2000-9019	Reduction Screw Break-Off Stabilizer

Polaris 5.5 Deformity Instrument Kit A
(Catalog No. 14-509632)

Catalog No.	Description
14-500117	2.3 Pedicle Probe
2000-9022	4.0mm Tap
2000-9090	4.0mm Reamer
14-500137	Large Curved Thoracic Probe
14-500103	Small Straight Thoracic Probe
2000-9085	Fixed Screw Inserter
14-500180	Uni-planer Screw Inserter
2000-9056	Rod Hex Driver
94985	Fixed Screw Aligner-Right Hand
2000-9051	Rod Rocker
14-500139	Straight Rod Pusher
14-500138	Bone Planer
14-500116	Rod Manipulator-Right Hand
14-500123	Coronal Rod Bender-Left
14-500124	Coronal Rod Bender-Right
94644	510mm Rod Template
2000-9045	In-situ Bender, Right
2000-9046	In-situ Bender, Left
14-500128	Rod Rotator
14-500172	5.5 Iliac Reamer
14-500173	6.5 Iliac Reamer
14-500174	7.5 Iliac Reamer
14-500175	8.5 Iliac Reamer

Polaris 5.5 Deformity Instrument Kit B

(Catalog No. 14-509633)

Catalog No.	Description
94659	Compressor, Small
94667	Compressor, Large
94668	Distractor
14-500118	Cross Connector Caliper
94523	Fixed Cross Connector Bender, Left
94524	Fixed Cross Connector Bender, Right
94510	Pedicle Hook Starter
94512	Medium Width Hook Starter
94513	Narrow Hook Starter
94515	Thoracic Hook Starter
94511	Wide Laminar Hook Starter
2000-9086	Vertical Hook Holder
2000-9088	Short Angle Hook Holder
2000-9089	Hook Impactor

Polaris 5.5 Derotation Instrument Kit

(Catalog No. 14-509634)

Catalog No.	Description
14-500120	Derotator
14-500121	55mm Horizontalator
14-500122	75mm Horizontalator
14-501006	25cm Cluster Linkage Rod
14-501007	38cm Cluster Linkage Rod
14-501008	30cm Comb
14-501009	36cm Comb
14-501003	Size 2-3 Handle Linkage Rod
14-501004	Size 3-4 Handle Linkage Rod
14-501005	Size 4-5 Handle Linkage Rod
14-500125	Distractor Wedge
14-500133	T-Handle Adaptor
14-500152	Wide Handle Derotator

Polaris 6.35 Ti Standard Implants

(Catalog No. LTPTL)

Catalog No.	Description
50-6550MP	4.0mm Dia. x 20mm Multi-axial Screw
50-6551MP	4.0mm Dia. x 25mm Multi-axial Screw
50-6552MP	4.0mm Dia. x 30mm Multi-axial Screw
50-6553MP	4.0mm Dia. x 35mm Multi-axial Screw
50-6554MP	4.0mm Dia. x 40mm Multi-axial Screw
50-6803MP	4.75mm Dia. x 20mm Multi-axial Screw
50-6804MP	4.75mm Dia. x 25mm Multi-axial Screw
50-6805MP	4.75mm Dia. x 30mm Multi-axial Screw
50-6806MP	4.75mm Dia. x 35mm Multi-axial Screw
50-6807MP	4.75mm Dia. x 40mm Multi-axial Screw
50-6105MP	5.5mm Dia. x 30mm Multi-axial Screw
50-6106MP	5.5mm Dia. x 35mm Multi-axial Screw
50-6107MP	5.5mm Dia. x 40mm Multi-axial Screw
50-6108MP	5.5mm Dia. x 45mm Multi-axial Screw
50-6109MP	5.5mm Dia. x 50mm Multi-axial Screw
50-6110MP	6.5mm Dia. x 30mm Multi-axial Screw
50-6111MP	6.5mm Dia. x 35mm Multi-axial Screw
50-6112MP	6.5mm Dia. x 40mm Multi-axial Screw
50-6113MP	6.5mm Dia. x 45mm Multi-axial Screw
50-6114MP	6.5mm Dia. x 50mm Multi-axial Screw
50-6800MP	6.5mm Dia. x 55mm Multi-axial Screw
50-6115MP	7.0mm Dia. x 30mm Multi-axial Screw
50-6116MP	7.0mm Dia. x 35mm Multi-axial Screw
50-6117MP	7.0mm Dia. x 40mm Multi-axial Screw
50-6118MP	7.0mm Dia. x 45mm Multi-axial Screw
50-6119MP	7.0mm Dia. x 50mm Multi-axial Screw
50-6801MP	7.0mm Dia. x 55mm Multi-axial Screw
53-6112MP	6.5mm Dia. x 40mm Multi-axial Reduction Screw
53-6113MP	6.5mm Dia. x 45mm Multi-axial Reduction Screw
53-6118MP	7.0mm Dia. x 45mm Multi-axial Reduction Screw
53-6119MP	7.0mm Dia. x 50mm Multi-axial Reduction Screw
6451	**Helical Flange** Plug
6454	Lateral Connector
6455	Lateral Connector-Extended
6954	Cross Connector-Small
6955	Cross Connector-Medium
6956	Cross Connector-Large
6310	4.0mm Dia. x 25mm Fixed Screw
6311	4.0mm Dia. x 30mm Fixed Screw
6312	4.0mm Dia. x 35mm Fixed Screw
6313	4.0mm Dia. x 40mm Fixed Screw
6385	4.75mm Dia. x 25mm Fixed Screw
6386	4.75mm Dia. x 30mm Fixed Screw
6387	4.75mm Dia. x 35mm Fixed Screw
6388	4.75mm Dia. x 40mm Fixed Screw
6719	5.5mm Dia. x 25mm Fixed Screw
6720	5.5mm Dia. x 30mm Fixed Screw
6721	5.5mm Dia. x 35mm Fixed Screw
6722	5.5mm Dia. x 40mm Fixed Screw
6723	5.5mm Dia. x 45mm Fixed Screw
6730	6.5mm Dia. x 30mm Fixed Screw
6731	6.5mm Dia. x 35mm Fixed Screw
6732	6.5mm Dia. x 40mm Fixed Screw
6733	6.5mm Dia. x 45mm Fixed Screw
6734	6.5mm Dia. x 50mm Fixed Screw
6749	7.0mm Dia. x 30mm Fixed Screw
6750	7.0mm Dia. x 35mm Fixed Screw
6751	7.0mm Dia. x 40mm Fixed Screw
6752	7.0mm Dia. x 45mm Fixed Screw
6753	7.0mm Dia. x 50mm Fixed Screw
6008	6.35mm x 10cm CP Ti Rod
6009	6.35mm x 12cm CP Ti Rod
6010	6.35mm x 14cm CP Ti Rod
6015	6.35mm x 30cm CP Ti Rod (w/hex)
6016	6.35mm x 48cm CP Ti Rod (w/hex)
6035	6.35mm x 30cm Ti Alloy Rod
6036	6.35mm x 48cm Ti Alloy Rod

Polaris 6.35 Ti Large Diameter Screws

(Catalog No. 14-509640)

Catalog No.	Description
14-511530	7.5mm Dia. x 30mm Multi-axial Screw
14-511535	7.5mm Dia. x 35mm Multi-axial Screw
14-511540	7.5mm Dia. x 40mm Multi-axial Screw
14-511545	7.5mm Dia. x 45mm Multi-axial Screw
14-511550	7.5mm Dia. x 50mm Multi-axial Screw
14-511555	7.5mm Dia. x 55mm Multi-axial Screw
14-511630	8.5mm Dia. x 30mm Multi-axial Screw
14-511635	8.5mm Dia. x 35mm Multi-axial Screw
14-511640	8.5mm Dia. x 40mm Multi-axial Screw
14-511645	8.5mm Dia. x 45mm Multi-axial Screw
14-511650	8.5mm Dia. x 50mm Multi-axial Screw
14-511655	8.5mm Dia. x 55mm Multi-axial Screw
14-501035	Multi-axial Screw inserter

Polaris 6.35 Ti Hooks

(Catalog No. 14-509641)

Catalog No.	Description
14-501150	Pedicle Hook, Small (6.0mm)
14-501151	Pedicle Hook, Medium (7.5mm)
14-501152	Pedicle Hook, Large (9.0mm)
14-501153	Left Angled Hook, Small (6.0mm)
14-501156	Right Angled Hook, Small (6.0mm)
14-501154	Left Angled Hook, Medium (7.5mm)
14-501157	Right Angled Hook, Medium (7.5mm)
14-501155	Left Angled Hook, Large (9.0mm)
14-501158	Right Angled Hook, Large (9.0mm)
14-501162	Narrow Laminar Hook, Small (6.0mm)
14-501163	Narrow Laminar Hook, Medium (7.5mm)
14-501164	Narrow Laminar Hook, Large (9.0mm)
14-501165	Narrow Reduced Laminar Hook, Small (6.0mm)
14-501166	Narrow Reduced Laminar Hook, Medium (7.5mm)
14-501167	Narrow Reduced Laminar Hook, Large (9.0mm)
14-501159	Wide Laminar Hook, Small (6.0mm)
14-501160	Wide Laminar Hook, Medium (7.5mm)
14-501161	Wide Laminar Hook, Large (9.0mm)
14-501168	Left Offset Hook, Small (6.0mm)
14-501171	Right Offset Hook, Small (6.0mm)
14-501169	Left Offset Hook, Medium (7.5mm)
14-501172	Right Offset Hook, Medium (7.5mm)
14-501170	Left Offset Hook, Large (9.0mm)
14-501173	Right Offset Hook, Large (9.0mm)
14-501174	Angled Blade Hook, Small (6.0mm)
14-501175	Angled Blade Hook, Medium (7.5mm)
14-501176	Angled Blade Hook, Large (9.0mm)
14-501177	Extended Hook, Small (6.0mm)
14-501178	Extended Hook, Medium (7.5mm)
14-501179	Extended Hook, Large (9.0mm)
14-501041	14mm Fixed Cross Connector
14-501051	16mm Fixed Cross Connector
14-501052	18mm Fixed Cross Connector
14-501053	20mm Fixed Cross Connector
14-501054	22mm Fixed Cross Connector
14-501055	24mm Fixed Cross Connector

Polaris 6.35 Ti Iliac Fixation

(Catalog No. 14-509645)

Catalog No.	Description
14-501290	6.5mm Dia. x 60mm Multi-axial Screw
14-501292	6.5mm Dia. x 70mm Multi-axial Screw
14-501294	6.5mm Dia. x 80mm Multi-axial Screw
14-501296	6.5mm Dia. x 90mm Multi-axial Screw
14-501310	7.5mm Dia. x 60mm Multi-axial Screw
14-501312	7.5mm Dia. x 70mm Multi-axial Screw
14-501314	7.5mm Dia. x 80mm Multi-axial Screw
14-501316	7.5mm Dia. x 90mm Multi-axial Screw
14-501330	8.5mm Dia. x 60mm Multi-axial Screw
14-501332	8.5mm Dia. x 70mm Multi-axial Screw
14-501334	8.5mm Dia. x 80mm Multi-axial Screw
14-501336	8.5mm Dia. x 90mm Multi-axial Screw
6454	Lateral Connector-24mm
6455	Lateral Connector-34mm
14-501220	Lateral connector-50mm
14-501221	Lateral Connector-75mm
14-501035	Multi-axial Iliac Screw Inserter

Polaris 6.35 SST Deformity Implants

(Catalog No. 14-509670)

Catalog No.	Description
14-575100	SST Standard **Helical Flange** Plug
14-575110	SST Derotation **Helical Flange** Plug
14-575402	6.35mm x 510mm SST Med Rod (w/hex)
14-575406	6.35mm x 510mm SST Hard Rod (w/hex)
14-575410	6.35mm x 510mm SST Extra Hard Rod (w/hex)
14-575120	25mm Lateral Connector
14-575122	35mm Lateral Connector
14-575124	50mm Lateral Connector
14-575126	75mm Lateral Connector
14-574220	4.75mm Dia. x 20mm Fixed Screw
14-574225	4.75mm Dia. x 25mm Fixed Screw
14-574230	4.75mm Dia. x 30mm Fixed Screw
14-574235	4.75mm Dia. x 35mm Fixed Screw
14-574240	4.75mm Dia. x 40mm Fixed Screw
14-574245	4.75mm Dia. x 45mm Fixed Screw
14-574325	5.5mm Dia. x 25mm Fixed Screw
14-574330	5.5mm Dia. x 30mm Fixed Screw
14-574335	5.5mm Dia. x 35mm Fixed Screw
14-574340	5.5mm Dia. x 40mm Fixed Screw
14-574345	5.5mm Dia. x 45mm Fixed Screw
14-574350	5.5mm Dia. x 50mm Fixed Screw
14-574355	5.5mm Dia. x 55mm Fixed Screw
14-574430	6.5mm Dia. x 30mm Fixed Screw
14-574435	6.5mm Dia. x 35mm Fixed Screw
14-574440	6.5mm Dia. x 40mm Fixed Screw
14-574445	6.5mm Dia. x 45mm Fixed Screw
14-574450	6.5mm Dia. x 50mm Fixed Screw
14-574455	6.5mm Dia. x 55mm Fixed Screw

Polaris 6.35 SST Deformity Implants

(Catalog No. 14-509670) (Continued)

Catalog No.	Description
14-574530	7.5mm Dia. x 30mm Fixed Screw
14-574535	7.5mm Dia. x 35mm Fixed Screw
14-574540	7.5mm Dia. x 40mm Fixed Screw
14-574545	7.5mm Dia. x 45mm Fixed Screw
14-574550	7.5mm Dia. x 50mm Fixed Screw
14-574555	7.5mm Dia. x 55mm Fixed Screw
14-574630	8.5mm Dia. x 30mm Fixed Screw
14-574635	8.5mm Dia. x 35mm Fixed Screw
14-574640	8.5mm Dia. x 40mm Fixed Screw
14-574645	8.5mm Dia. x 45mm Fixed Screw
14-574650	8.5mm Dia. x 50mm Fixed Screw
14-574655	8.5mm Dia. x 55mm Fixed Screw
14-575142	12mm Fixed Cross Connector
14-575143	14mm Fixed Cross Connector
14-575153	16mm Fixed Cross Connector
14-575154	18mm Fixed Cross Connector
14-575155	20mm Fixed Cross Connector
14-575156	22mm Fixed Cross Connector
14-575157	24mm Fixed Cross Connector

Polaris 6.35 SST Hooks

(Catalog No. 14-509671)

Catalog No.	Description
14-575500	Pedicle Hook, Small (6.0mm)
14-575502	Pedicle Hook, Medium (7.5mm)
14-575504	Pedicle Hook, Large (9.0mm)
14-575506	Left Angled Hook, Small (6.0mm)
14-575508	Right Angled Hook, Small (6.0mm)
14-575510	Left Angled Hook, Medium (7.5mm)
14-575512	Right Angled Hook, Medium (7.5mm)
14-575514	Left Angled Hook, Large (9.0mm)
14-575516	Right Angled Hook, Large (9.0mm)
14-575518	Narrow Laminar Hook, Small (6.0mm)
14-575520	Narrow Laminar Hook, Medium (7.5mm)
14-575522	Narrow Laminar Hook, Large (9.0mm)
14-575524	Narrow Reduced Laminar Hook, Small (6.0mm)
14-575526	Narrow Reduced Laminar Hook, Medium (7.5mm)
14-575528	Narrow Reduced Laminar Hook, Large (9.0mm)
14-575530	Wide Laminar Hook, Small (6.0mm)
14-575532	Wide Laminar Hook, Medium (7.5mm)
14-575534	Wide Laminar Hook, Large (9.0mm)
14-575536	Left Offset Hook, Small (6.0mm)
14-575538	Right Offset Hook, Small (6.0mm)
14-575540	Left Offset Hook, Medium (7.5mm)
14-575542	Right Offset Hook, Medium (7.5mm)
14-575544	Left Offset Hook, Large (9.0mm)
14-575546	Right Offset Hook, Large (9.0mm)
14-575548	Angled Blade Hook, Small (6.0mm)
14-575550	Angled Blade Hook, Medium (7.5mm)
14-575552	Angled Blade Hook, Large (9.0mm)
14-575554	Extended Hook, Small (6.0mm)
14-575556	Extended Hook, Medium (7.5mm)
14-575558	Extended Hook, Large (9.0mm)

Polaris 6.35 SST Standard Implants

(Catalog No. 14-509672)

Catalog No.	Description
14-572220	4.75mm Dia. x 20mm Multi-axial Screw
14-572225	4.75mm Dia. x 25mm Multi-axial Screw
14-572230	4.75mm Dia. x 30mm Multi-axial Screw
14-572235	4.75mm Dia. x 35mm Multi-axial Screw
14-572240	4.75mm Dia. x 40mm Multi-axial Screw
14-572245	4.75mm Dia. x 45mm Multi-axial Screw
14-572250	4.75mm Dia. x 50mm Multi-axial Screw
14-572330	5.5mm Dia. x 30mm Multi-axial Screw
14-572335	5.5mm Dia. x 35mm Multi-axial Screw
14-572340	5.5mm Dia. x 40mm Multi-axial Screw
14-572345	5.5mm Dia. x 45mm Multi-axial Screw
14-572350	5.5mm Dia. x 50mm Multi-axial Screw
14-572355	5.5mm Dia. x 55mm Multi-axial Screw
14-572430	6.5mm Dia. x 30mm Multi-axial Screw
14-572435	6.5mm Dia. x 35mm Multi-axial Screw
14-572440	6.5mm Dia. x 40mm Multi-axial Screw
14-572445	6.5mm Dia. x 45mm Multi-axial Screw
14-572450	6.5mm Dia. x 50mm Multi-axial Screw
14-572455	6.5mm Dia. x 55mm Multi-axial Screw
14-572530	7.5mm Dia. x 30mm Multi-axial Screw
14-572535	7.5mm Dia. x 35mm Multi-axial Screw
14-572540	7.5mm Dia. x 40mm Multi-axial Screw
14-572545	7.5mm Dia. x 45mm Multi-axial Screw
14-572550	7.5mm Dia. x 50mm Multi-axial Screw
14-572555	7.5mm Dia. x 55mm Multi-axial Screw
14-572630	8.5mm Dia. x 30mm Multi-axial Screw
14-572635	8.5mm Dia. x 35mm Multi-axial Screw
14-572640	8.5mm Dia. x 40mm Multi-axial Screw
14-572645	8.5mm Dia. x 45mm Multi-axial Screw
14-572650	8.5mm Dia. x 50mm Multi-axial Screw
14-572655	8.5mm Dia. x 55mm Multi-axial Screw
14-575100	SST Standard **Helical Flange** Plug
14-575120	Lateral Connector-25mm
14-575122	Lateral Connector-35mm
14-575169	Cross Connector-Small
14-575170	Cross Connector-Medium
14-575171	Cross Connector-Large
14-575168	Cross Connector-X-Small
14-575402	6.35mm x 510mm SST Med Rod (w/hex)
14-575406	6.35mm x 510mm SST Hard Rod (w/hex)
14-575410	6.35mm x 510mm SST Extra Hard Rod (w/hex)
14-501035	Multi-axial screw inserters

Polaris 6.35 SST Iliac Fixation

(Catalog No. 14-509674)

Catalog No.	Description
14-573460	6.5mm Dia. x 60mm Multi-axial Screw
14-573470	6.5mm Dia. x 70mm Multi-axial Screw
14-573480	6.5mm Dia. x 80mm Multi-axial Screw
14-573490	6.5mm Dia. x 90mm Multi-axial Screw
14-573560	7.5mm Dia. x 60mm Multi-axial Screw
14-573570	7.5mm Dia. x 70mm Multi-axial Screw
14-573580	7.5mm Dia. x 80mm Multi-axial Screw
14-573590	7.5mm Dia. x 90mm Multi-axial Screw
14-573660	8.5mm Dia. x 60mm Multi-axial Screw
14-573670	8.5mm Dia. x 70mm Multi-axial Screw
14-573680	8.5mm Dia. x 80mm Multi-axial Screw
14-573690	8.5mm Dia. x 90mm Multi-axial Screw

Polaris 6.35 SST Reduction Screw

(Catalog No. 14-509675)

Catalog No.	Description
14-577330	5.5mm Dia. x 30mm Multi-axial Reduction Screw
14-577335	5.5mm Dia. x 35mm Multi-axial Reduction Screw
14-577340	5.5mm Dia. x 40mm Multi-axial Reduction Screw
14-577345	5.5mm Dia. x 45mm Multi-axial Reduction Screw
14-577350	5.5mm Dia. x 50mm Multi-axial Reduction Screw
14-577355	5.5mm Dia. x 55mm Multi-axial Reduction Screw
14-577430	6.5mm Dia. x 30mm Multi-axial Reduction Screw
14-577435	6.5mm Dia. x 35mm Multi-axial Reduction Screw
14-577440	6.5mm Dia. x 40mm Multi-axial Reduction Screw
14-577445	6.5mm Dia. x 45mm Multi-axial Reduction Screw
14-577450	6.5mm Dia. x 50mm Multi-axial Reduction Screw
14-577455	6.5mm Dia. x 55mm Multi-axial Reduction Screw
14-577530	7.5mm Dia. x 30mm Multi-axial Reduction Screw
14-577535	7.5mm Dia. x 35mm Multi-axial Reduction Screw
14-577540	7.5mm Dia. x 40mm Multi-axial Reduction Screw
14-577545	7.5mm Dia. x 45mm Multi-axial Reduction Screw
14-577550	7.5mm Dia. x 50mm Multi-axial Reduction Screw
14-577555	7.5mm Dia. x 55mm Multi-axial Reduction Screw

Polaris 6.35 SST 4.0mm Diameter Screw Case

(Catalog No. 14-509676)

Catalog No.	Description
14-572120	4.0mm Dia. x 20mm SST Multi-axial Screw
14-572125	4.0mm Dia. x 25mm SST Multi-axial Screw
14-572130	4.0mm Dia. x 30mm SST Multi-axial Screw
14-572135	4.0mm Dia. x 35mm SST Multi-axial Screw
14-572140	4.0mm Dia. x 40mm SST Multi-axial Screw
14-574120	4.0mm Dia. x 20mm SST Fixed Screw
14-574125	4.0mm Dia. x 25mm SST Fixed Screw
14-574130	4.0mm Dia. x 30mm SST Fixed Screw
14-574135	4.0mm Dia. x 35mm SST Fixed Screw
14-574140	4.0mm Dia. x 40mm SST Fixed Screw

Polaris 6.35 General Instruments

(Catalog No. LTPI)

Catalog No.	Description
4005	Awl
4010	Ball Tip Probe
4072	11cm Trial Pin
4077	9cm Trial Pin
4329	Ratcheting Straight Handle
4363M	4.0mm Tap
4364M	4.75mm Tap
4365M	5.5mm Tap
4366M	6.5mm Tap
4367M	7.0mm Tap
4373	Ratcheting T-Handle
4385	3.2 Straight Probe
4396	3.2 Curved Probe
4398M	Lever Activated Multi-axial Screw Driver
4500M	Multi-axial Screw Bidirectional Driver
4516M	Fixed Screw Bidirectional Driver
4046	Rod Holder
4088	Wing Rocker
4493	Multi-axial Screw Height Adjustor
4029	Rod Bender
4030	In-Situ Bender, L
4031	In-Situ Bender, R
4032	Bifid Retractor
4216M	4.8mm Plug Starter
4374M	Screw Fork
4377	Rod Rotator
4055	Reduction Seat Thread Gripper
4484	Torque Stabilizer
4485	Reduction Seat Depth Gauge
4496	Compressor
4497	Distractor
4498	Rod Persuader
4513	Cross Connector Wrench
4490M	Torque Measuring Wrench

Polaris 6.35 Deformity Instrument Kit A

(Catalog No.14-509642)

Catalog No.	Description
14-501010	Double End Plug Starter
14-501199	Fixed Screw Inserter
14-501022	Fixed Screw Height Adjustor
14-501029	6.35mm Dia. Bone Planer (w/window)
4083	Malleable Trial Rod
4160	Lateral In-Situ Bender, Left
4161	Lateral In-Situ Bender, Right
14-501023	Rod Manipulator
4066	Rod Pusher
4003	Hex End Wrench
4052	Rod Rotator
4370	Plug Driver Shaft
4378m	Torque Limiting Handle

Polaris 6.35 Deformity Instrument Kit B

(Catalog No.14-509643)

Catalog No.	Description
14-501190	Cross Connector Caliper
14-501091	Fixed Cross Connector Bender, Left
14-501092	Fixed Cross Connector Bender, Right
94510	Pedicle Hook Starter
94512	Medium Hook Starter
95413	Narrow Hook Starter
94515	Thoracic Hook Starter
94511	Wide Laminar Hook Starter
14-501036	Vertical Hook Holder
14-501037	Short Angle Hook Holder
14-501038	Hook Impactor

Ordering Information (Continued)

Polaris 6.35 Derotation System Case
(Catalog No. 14-509644)

Catalog No.	Description
14-501000	Derotator
14-501001	55mm Horizontalizer
14-501002	75mm Horizontalizer
14-501006	25cm Cluster Alignment Rod
14-501007	38cm Cluster Alignment Rod
14-501008	30cm Comb
14-501009	36cm Comb
14-501003	2-3 Handle Linkage Rod
14-501004	3-4 Handle Linkage Rod
14-501005	4-5 Handle Linkage Rod
14-501011	Ball Tipped Hex Plug Driver
14-500125	Distractor Wedge
6710	Ti Derotaiton **Helical Flange** Plug
14-501187	Wide Handle Derotator

Further Information

The **Polaris** Spinal System is covered by numerous U.S. and International patents. U.S. Patent Numbers: 5,360,431; 5,466,237; 5,474,555 and Patents Pending. Helical Flange® is a registered trademark of Roger P. Jackson. * The Crossbar™ Cross Connector was developed by Sea Spine, Inc. Crossbar is a trademark of Sea Spine, Inc.

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A Three Dimensional Approach To Deformity Correction

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