

Thoracolumbar Solutions

Polaris[™] Deformity System Trivium[®] Derotation System

When combined with the Trivium System, the Polaris Deformity System offers a powerful three-dimensional approach to deformity correction.

Control

The Polaris Deformity System offers an efficient combination of rod reduction and vertebral body derotation. Reduction rockets provide tactile, secure engagement to the screw head and allow controlled, sequential rod reduction with a rod self-centering feature built in.

EXTENSIVE ROD REDUCTION OPTIONS



Power

- The Polaris Rockets provide 30mm of controlled rod reduction coupled with 15mm of medial lateral reduction.
- Once connected to the rockets, the DeRoduction handles allow for unparalleled correction techniques.



Efficiency

- Once the Trivium or DeRoduction devices are connected, all correction and tightening can be performed without removing the devices.
- Streamlined instrumentation laid out in a logical, procedural order allows for OR efficiency.



Safety

- Reduction rockets provide the surgeon with tactile feedback during the procedure.
- The round rod minimizes any system-derived friction during derotation maneuvers.





EXTENSIVE ROD REDUCTION OPTIONS



The manipulator allows the surgeon medial-lateral control of the rod, facilitating



Rod Rocker

The rocker attaches to the site features of the screw head. Cantilever or tilt the rocker down to persuade the rod into the tulip. Once the rod is seated, plug application can be executed.



The persuader provides a means for pushing the rod into the tulip. To use the persuader, squeeze the handle until the rod is seated. The plug driver will fit within the cannulated portion of the persuader and facilitate plug application.



Rod Pusher

The pusher allows the surgeon to capture and apply downward pressure to the rod to facilitate placement into the screw head.

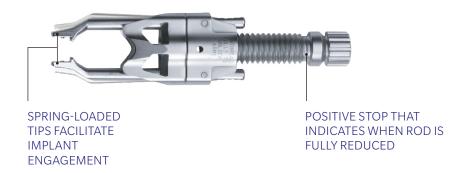
THE TRIVIUM SYSTEM

The Trivium System incorporates an innovative posterior three-dimensional spinal deformity correction technique that uses the power of pedicle screw fixation. The technique gives the surgeon the power to correct most spinal deformities in three dimensions. The design of the system is focused on maximizing ease of use by following a stepwise, nonregressive technique to minimize fiddle and optimize efficiency.

Unique Instrumentation

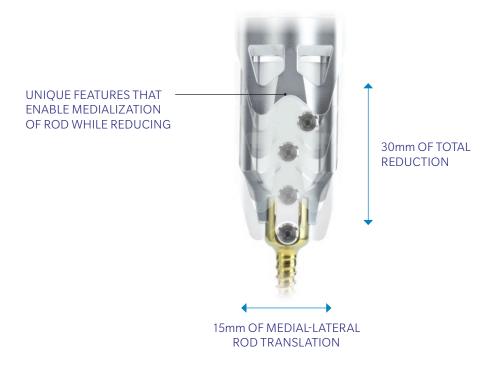
The Rocket Threaded Reducers have been designed to facilitate rod reduction in a wide range of spinal procedures. Rocket instruments have the unique ability to guide the rod into position while reducing it into the screw.





Efficient Design

In addition to providing simultaneous rod translation and reduction, the Rocket Threaded Reducer offers unique features that guide a rod into proper screw head position. This reducer is also engineered with a rod capture window that simplifies screw engagement while accommodating significant medial or lateral rod offset.



Key Features of the Short and Long Rocket Threaded Reducers

- Spring-loaded tips that provide tactile and secure engagement
- Infinite adjustability range for controlled and sequential reduction
- Self-centering reduction design
- Cannulated body for plug insertion and tightening
- Multiple handle options



SIMPLE ASSEMBLY

The assembly of the Rocket Threaded Reducer and DeRoducer incorporates the familiar features and user interface of the Trivium System. The handles contain slots that longitudinally link multiple DeRoducers and streamline assembly.



A secure attachment is created when the Rocket Threaded Reducer and DeRoducer are connected, which can be accomplished in one simple step.

Combining Rod Reduction and Vertebral Body Derotation



1 Position the Rocket Threaded Reducer instruments onto the screws.



2 Reduce rods and attach DeRoducers. Slide linkage rods through handles. Place combs across the spine to couple the left and right screw clusters.



3 Slowly derotate the spine. Insert cluster alignment rods to hold the correction in place.

UNPARALLELED FLEXIBILITY

The Trivium System incorporates an innovative posterior three-dimensional spinal deformity correction technique that uses the stability of pedicle screw fixation and offers simple, controlled derotation.

Simple Assembly. Secure Constructs.

The Trivium System is engineered with a specific focus on simplified assembly and strong, stable constructs. The assembly steps are as follows:



Position the Rocket instruments and connect the DeRoducers and DeRotation handles.



 $\mathbf{2}$ Slide the linkage rods through the handles.



3 Place the comb across the spine to couple the left and right cluster.

CONTROLLED DEROTATION

Once assembled, you can derotate the spine en bloc. The derotation handle clusters protect the screw-thread-to-bone interface by distributing the force of derotation across several levels of screws.

A Design That Protects the Integrity of Bone Purchase

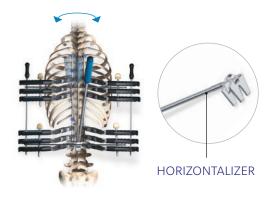
What follows is an example of the primary derotation technique performed in a three-dimensional scoliosis procedure.



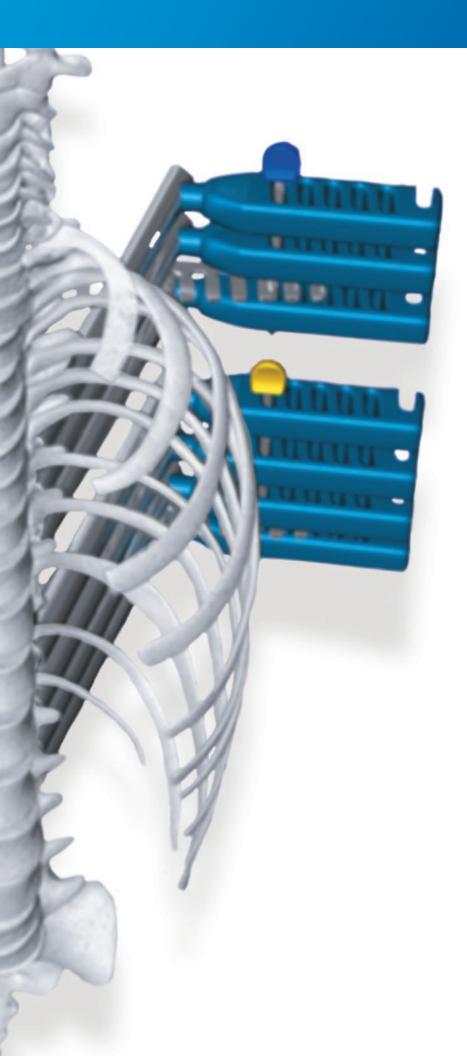
Slowly derotate the spine by manipulating the clusters.



2 The spine is now corrected.



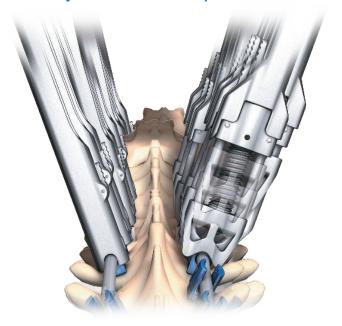
3 The Horizontalizer provides surgeons the ability to fine-tune the alignment of each level of the construct. This optimizes the ability to balance the patient's shoulder and pelvis. The three-dimensional scoliosis correction is now complete.



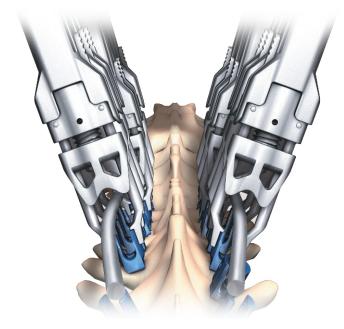
DECOUPLE THE SEQUENCE OF ROD REDUCTION, THEN DEROTATION

Traditionally, three-dimensional correction techniques have required rod reduction followed by vertebral body derotation for deformity correction. The DeRoduction System provides intraoperative flexibility by enabling the surgeon to choose the sequence of vertebral body derotation and rod reduction independently.

Use a Variety of Derotation Techniques

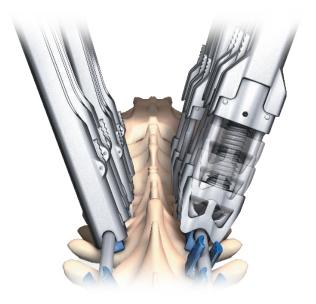


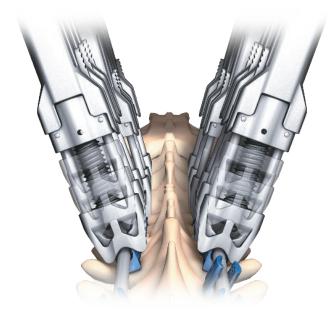
Vertebral body derotation with one rod.



Vertebral body derotation with two rods.

Controlled Rod Reduction







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