The Synthes MATRIX Spine System is a universal set of instruments and implants that accommodates both open and MIS surgical approaches for deformity, degenerative and trauma indications.

This pedicle screw system has a unique, rigid screw-instrument interface, intraoperative adaptability and exceptionally well-controlled instrumentation. MATRIX is the total solution for the stabilization of spinal segments.

The MATRIX MIS Spine System features efficient, stackable instrumentation for a streamlined surgical process. The system enables easy construct assembly from screw insertion through final tightening, for both mini-open and percutaneous procedures.
**Versatility**
Approach and construct options to meet surgeon and patient needs.

**Performance**
Strong implants and ergonomically designed instruments.

**Ease**
Stackable, precise instrumentation for minimally invasive approaches.
Streamlined Instrumentation.
Versatility

**Instruments for pedicle preparation**

**Cannulated Awls, Probes, Jamshidi Needles**
- Minimize tissue disruption
- Awls correspond to screw diameters

**Kirschner Wires**
- Can be held in place by hand during pedicle preparation and soft tissue dilation
- Contain etch lines (1 cm increments) that can be used as a depth reference
- Blunt tips for surgeon safety and to minimize tissue trauma

**K-Wire Tool**
- Securely attaches to K-wire
- Reliably and efficiently advances and removes K-wires
- Visual indicator (arrow) indicates direction of wire movement

**Instruments for implant insertion**

**Screw-mounted Tissue Retractors**
- Provide tissue protection
- Designed to maximize visualization of construct
- Easy OR back table screw attachment and simple intraoperative detachment
- Helical blades on end type retractors minimize tissue trauma, enable nesting, and create an in situ portal
- Secure, rigid screw connection
Performance

Instruments for implant insertion

Rod Introducer
- Visual and tactile indicators for accurate rod placement
- Allows rod to pivot with user-controlled braking
- Rod may be inserted from any direction
- Maintains rod position during cap insertion
- Simple, one-step rod detachment

Bottom Loading Cap Guide
- Simple, secure cap loading and insertion
- Available in standard and long lengths
- Stackable assembly. Cap guide fits into tissue retractor and holds the cap during seating and final tightening

Instruments for implant manipulation

Compression Tool
- Compression is applied directly on top of the implant and enables a tactile response
- Stackable assembly. Cannula fits inside the tissue retractor and screwdriver fits inside the cannula

Persuader
- Easily attaches to cap guide and tissue retractor
- One-handed. Squeeze handle enables simple persuasion
- Stackable assembly reduces the number of tool exchanges
**Implants**

**Locking Cap**
- Square thread form designed to reduce cross threading
- Self-retaining T25 StarDrive recess designed to resist damage at high loads*
- The saddle on the underside of the locking cap has a groove and ridge geometry designed to increase resistance to rod push through*
- Concave underside prevents rod from skiving during rod reduction

**5.5 mm Minimally Invasive Rods**
- Titanium (CP Ti4)
- Bullet-nosed design allows navigation through soft tissue
- Articulation interface for rod introduction
- Prelordosed configurations. 100 mm and 200 mm bend radius rods minimize intraoperative bending

**Cannulated Polyaxial Screw**
- 1.8 mm cannulation
- Self-tapping, blunt tips
- Patented, dual-core, double-lead thread design enhances bone purchase and speeds screw insertion (8 mm-9 mm, single lead)
- Unique thread-in-head design provides a rigid screwdriver interface
- Bead-blasted outer screwhead provides accurate provisional head positioning
- Up to 50° total angulation

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* Data on file at Synthes and available upon request.
Indications

The Synthes USS are noncervical spinal fixation devices intended for posterior pedicle screw fixation (T1–S2/ilium), posterior hook fixation (T1–L5), or anterolateral fixation (T8–L5). Pedicle screw fixation is limited to skeletally mature patients with the exception of the Small Stature USS, which includes small stature and pediatric patients. These devices are indicated as an adjunct to fusion for all of the following indications: degenerative disc disease (defined as discogenic back pain with degeneration of the disc confirmed by history and radiographic studies), spondylolisthesis, trauma (i.e., fracture or dislocation), deformities or curvatures (i.e., scoliosis, kyphosis, and/or lordosis, Scheuermann’s Disease), tumor, stenosis, and failed previous fusion (pseudoarthrosis).

When treating patients with degenerative disc disease (DDD), transverse bars are not cleared for use as part of the posterior pedicle screw construct.

When used with the 3.5 mm/6.0 mm parallel connectors, the Synthes USS 6.0 mm rod systems can be linked to the CerviFix 3.5 mm Systems. In addition, when used with 3.5 mm/5.0 mm parallel connectors, the Synthes Small Stature USS can be linked to the CerviFix 3.5 mm Systems. When used with the 5.0 mm/6.0 mm parallel connectors, the Synthes Small Stature USS can be linked to the Synthes USS 6.0 mm rod systems.

When used with the 3.5 mm/6.0 mm and 4.0 mm/6.0 mm tapered rods, the Synthes USS 6.0 mm rod systems can be linked to the CerviFix 3.5 mm and 4.0 mm Systems, respectively. When used with the 3.5 mm/5.5 mm and 4.0 mm/5.5 mm tapered rods, MATRIX can be linked to the CerviFix 3.5 mm and 4.0 mm Systems, respectively. When used with the 5.5 mm/6.0 mm tapered rods, the Synthes USS 6.0 mm rod systems can be linked to the MATRIX System.

In addition, Synthes USS 6.0 mm rod systems can be interchanged with all USS 6.0 mm rods and transconnectors.

Synthes USS
- 6.0 mm Rod Systems: USS Side-Opening, USS Dual Opening, USS VAS variable axis components, USS Fracture, Click’X, Click’X Monaxial, Pangea, Pangea Monoaxial, USS PolyaXial, USS Illosacral, ClampFix
- 5.5 mm Rod System: MATRIX
- 5.0 mm Rod System: USS Small Stature

CerviFix
- 3.5 mm Rod Systems: CerviFix, Axon, Synapse
- 4.0 mm Rod System: Synapse

Please refer to package insert (GP2774) for the full list of indications, contraindications, warnings and/or precautions.

Note: Transverse bars, parallel connectors, tapered rods, posterior hooks and transconnectors are not intended to be used with the MATRIX MIS System.