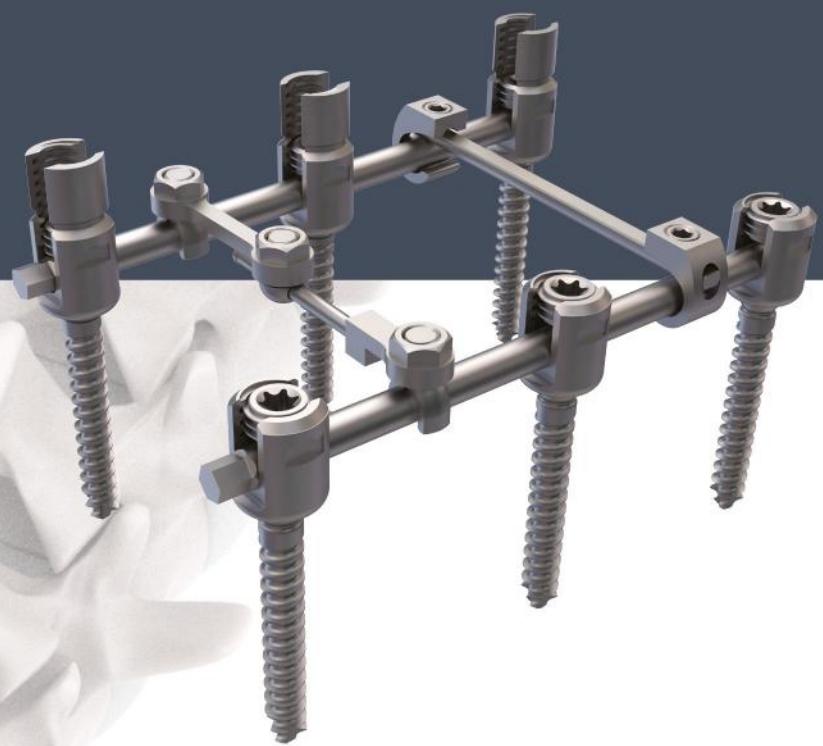


SURGICAL TECHNIQUE



SILVER

Posterior Thoracolumbar
Fixation System



SILVER

Posterior Thoracolumbar
Fixation System

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SILVER

Posterior Thoracolumbar Fixation System

INTRODUCTION



SILVER Features

- The feature of coating with silver ions
- Reducing the infection rate and risk
- Decrease hospitalization period
- Antibacterial characteristic
- Avoid the bacterial growth (MRSA) with high level percent (%91.6) (Methicillin 11-in resistant staphylococcus aureus – Methicillin is among the most powerful antibiotics)
- Kill most of deadly bacterias
- The coating material in microgram weights for biocompatibility
- Level blood in body can't reach toxic level that will cause acute and chronic argyria with that silver level (2mgr – 5mgr) Pedicle screw which is used for the treatment of degenerative ro pathologic diseases to achieve an artificial stabilization
- Efficient biomechanic compatibility

SILVER

Posterior Thoracolumbar Fixation System

INTRODUCTION



Indications

Silver is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion in the treatment of acute and chronic instabilities or deformities of the thoracic, lumbar and sacral spine.

Silver is intended for non-cervical pedicle fixation and non-pedicle fixation for the following indications: degenerative disc disease (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies); spondylolisthesis; trauma (i.e., fracture or dislocation); spinal stenosis; curvatures (i.e., scoliosis, kyphosis, and/or lordosis); tumour; pseudoarthrosis; and failed previous fusion in skeletally mature patients.

Contraindications

Disease conditions that have been shown to be safely and predictably managed without the use of internal fixation devices are relative contraindications to the use of these devices.

Severe osteoporosis is a relative contraindication because it may prevent adequate fixation of spinal anchors and thus preclude the use of this or any other spinal instrumentation system.

SILVER

Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

1

Patient positioning



Position the patient in a restored physiological lordosis.



Figure 1a

2

Exposure



Surgical levels may be verified either clinically or radiographically. To help ensure adequate exposure, the incision is made to extend just beyond the length of the intended fusion.

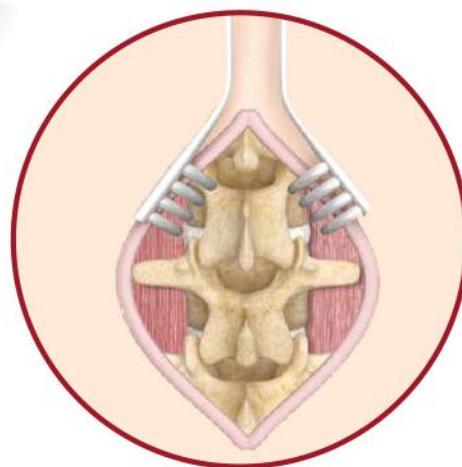


Figure 2a

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

3

Preparing the Pedicle

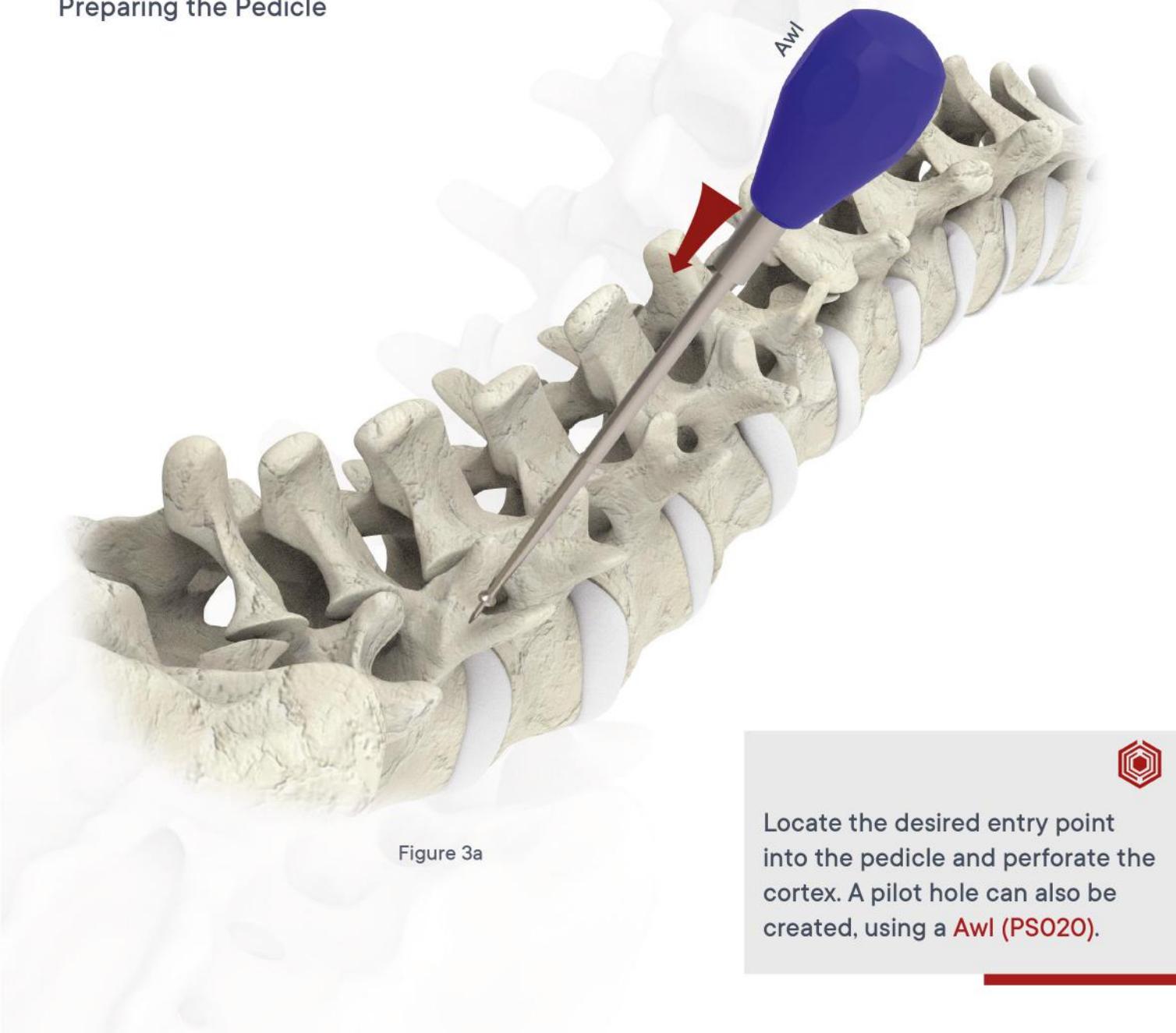


Figure 3a



Locate the desired entry point into the pedicle and perforate the cortex. A pilot hole can also be created, using a Awl (PS020).

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

3

Preparing the Pedicle

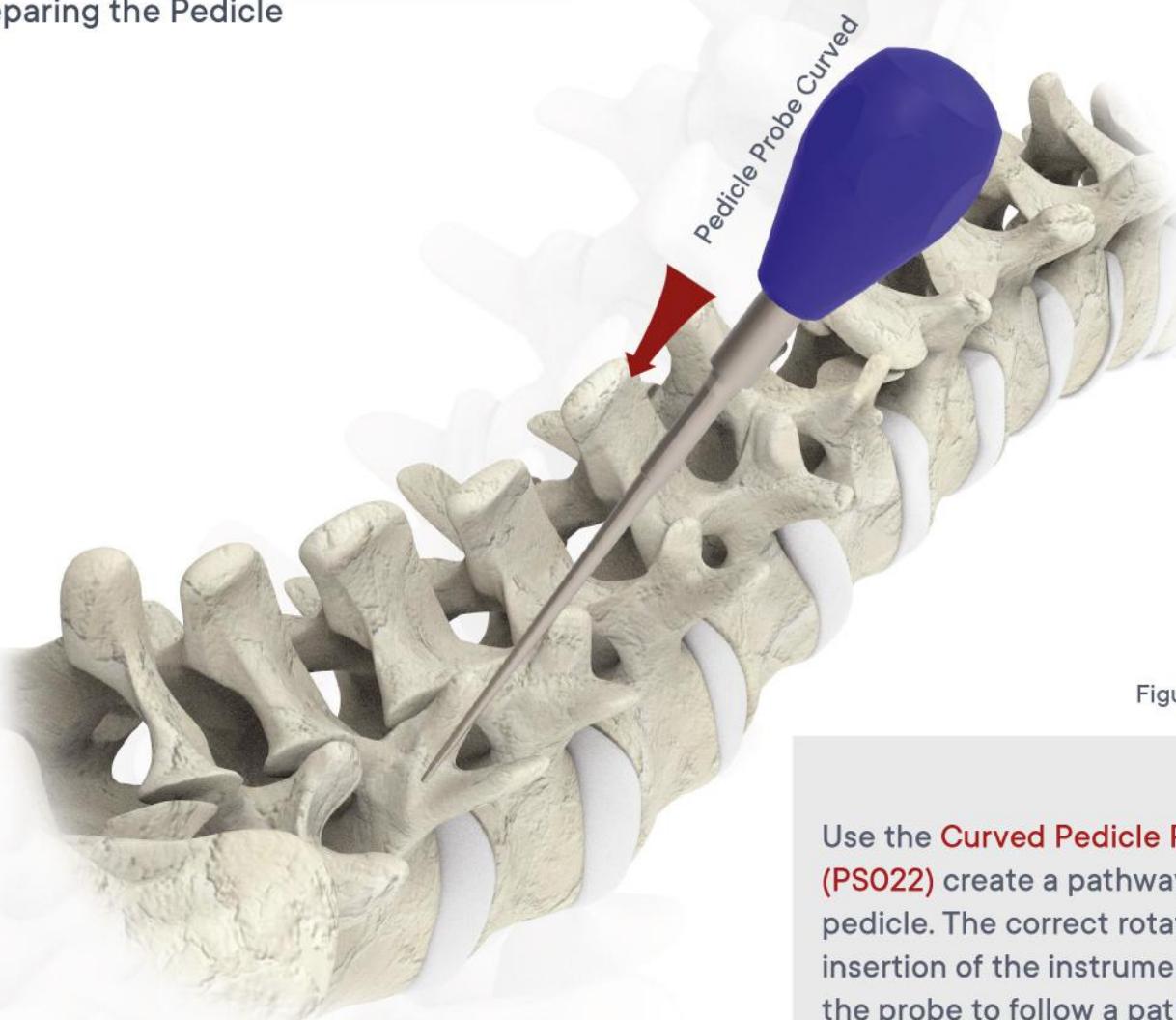


Figure 3c



Figure 3b



Use the **Curved Pedicle Probe (PS022)** create a pathway into the pedicle. The correct rotational insertion of the instrument allows the probe to follow a path of least resistance without violating the pedicle walls. If desired can be use the **Straight Pedicle Probe (PS021)**.

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

4

Tapping



For increased bone purchase, use the taps to prepare the pedicle canal. After attaching a **T Handle (PS010)** insert the **Tap(PS030)** into the pedicle and the vertebral body.



Figure 4a



Figure 4b

 Taps are available in the following sizes:

- Ø4.5mm Tap (PS030)**
- Ø5.5mm Tap (PS031)**
- Ø6.5mm Tap (PS032)**



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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

5

Screw Types



SILVER MONOAXIAL SCREW



SILVER MONOAXIAL
LYSTHESIS SCREW



SILVER POLYAXIAL SCREW



SILVER POLYAXIAL
FENESTRATED SCREW



SILVER CANNULATED POLYAXIAL
SCREW



SILVER REDUCTION
POLYAXIAL SCREW

SILVER

Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

6

Polyaxial Screw Insertion



The Polyaxial Screw Driver (PS027) provide a rigid connection between the polyaxial screw and the **The Polyaxial Screw Driver.**



Figure 6a

NOTE:

The Polyaxial Screw Driver (PS027) attaching a T Handle (PS010). (Figure 6b)

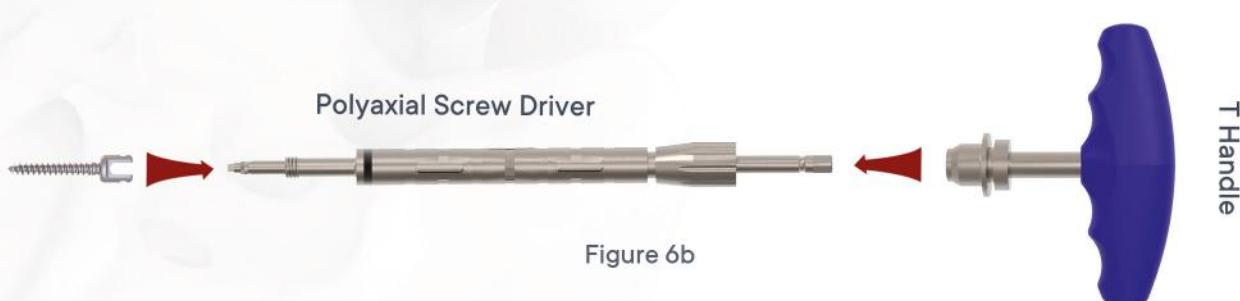


Figure 6b

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Posterior Thoracolumbar
Fixation System

SURGICAL TECHNIQUE

6

Polyaxial Screw Insertion



Figure 6c

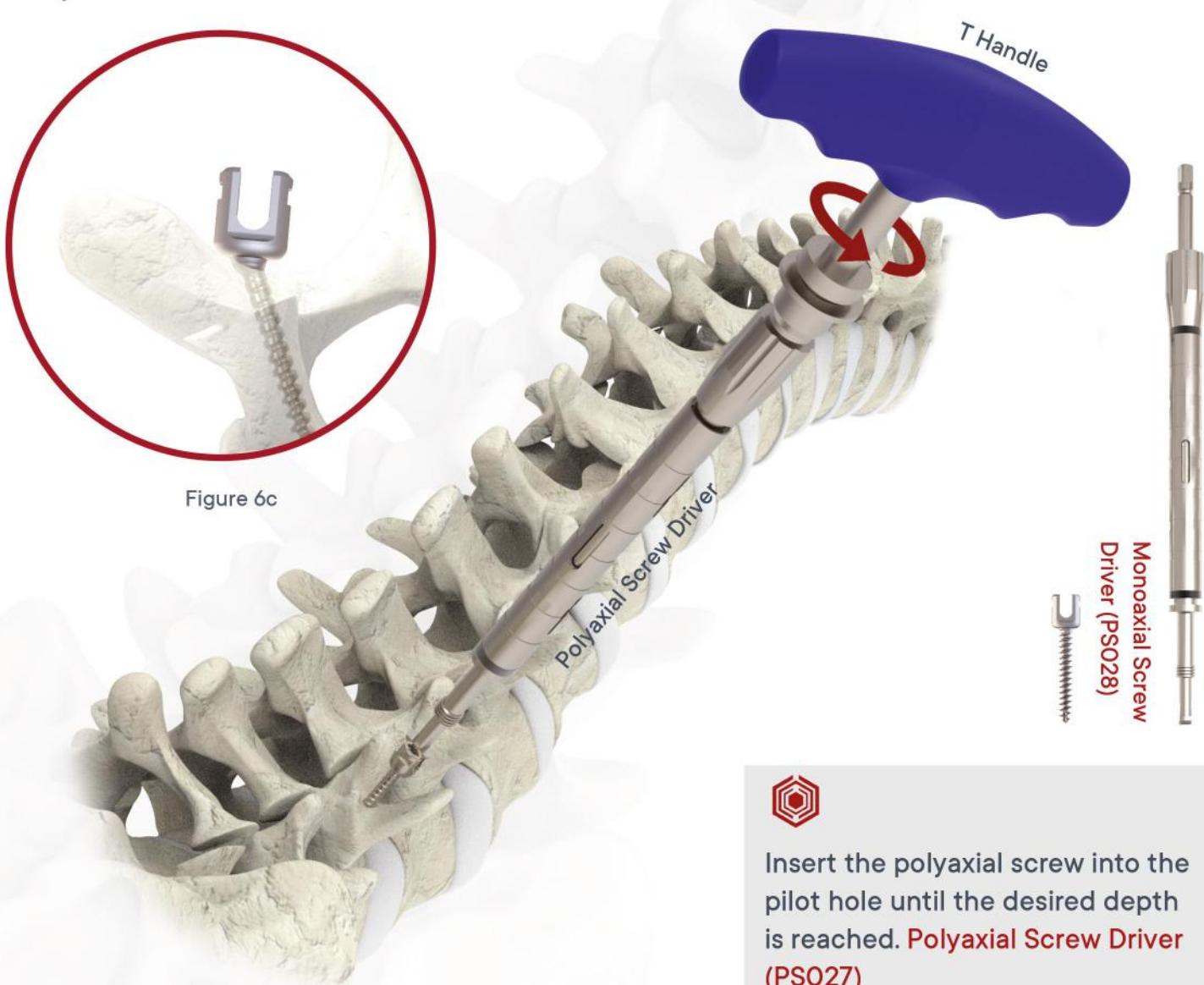


Figure 6d



Insert the polyaxial screw into the pilot hole until the desired depth is reached. **Polyaxial Screw Driver (PS027)**

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

7

Rod Preparation



Optional Instrument:

Use the appropriate pre-cut rods or cut a longer rod to the desired length using the **Rod Cutter** (PX042). (Figure 7a)



Figure 7a



Figure 7b



To fit the desired spinal contours, rod bending can be performed with the **Rod Bender** (PS007). To contour the rod, a series of small incremental adjustments will bend the rod gradually and help ensure even stress distribution on the rod. (Figure 7c)



Figure 7c

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

8

Rod Insertion



Figure 8a

NOTE:

Do not repeatedly contour the rod. Care should be taken not to make extreme bends, so as to avoid stress concentration and notching of the rod. Do not contour a bent rod in the opposite direction; bending and unbending the rod.



Once the rod is bent to the desired contour, **Forceps Rod Holder (PSO12)** can be used to help place the rod into the grooves of the implant. (Figure 8a)



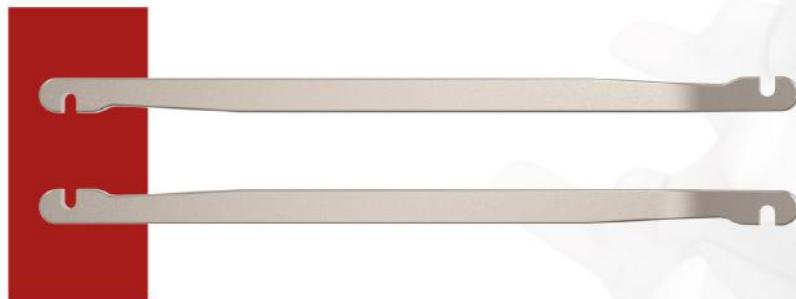
SILVER

Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

8

Rod Insertion



The **In-Situ Bender R (PS005)**,
In-Situ Bender L (PS006) can be
used to achieve final incremental
correction aneuvers. (Figure 8c)

Figure 8b

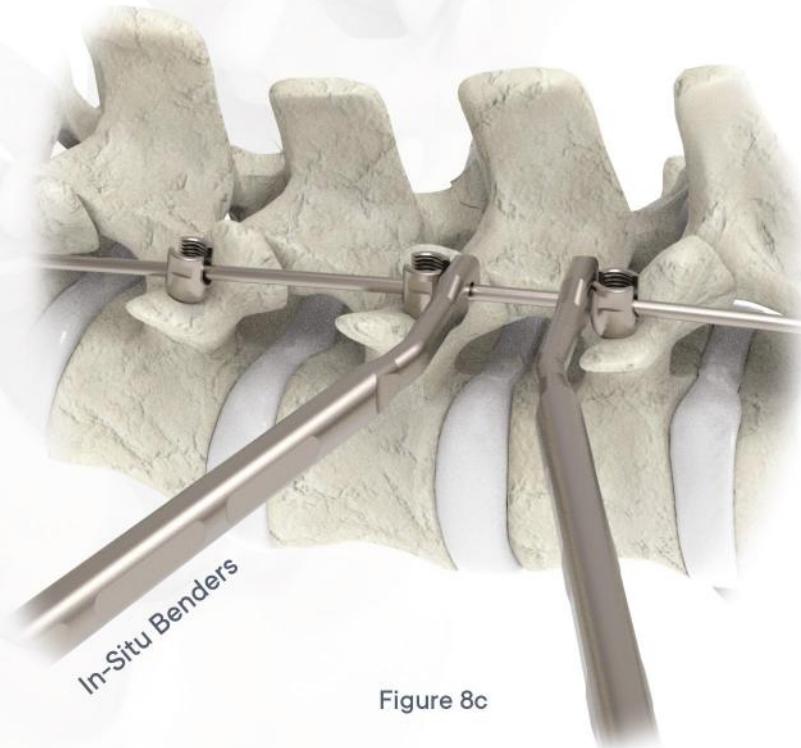


Figure 8c

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

9

Rod Reduction



Turn the rear part of the **Persuader** (**PS003**) and retract the shaft for easier gripping of the screw head. (Figure 9a)



Step 1



Step 2



Step 3

Figure 9a



Figure 9b

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

9

Rod Reduction



Step 1: Verify the indication line on the **Persuader (PS003)** is in the “2” starting position.

Step 2: Connect the **Persuader** to the head of the implant. Rotate the handle of the **Persuader** clockwise until the indication line is in the “1” position. At this position the **Persuader** is locked to the implant and the rod can be pushed into the screw. (Figure 9c)



To Remove the Persuader:

Step 1: Rotate the handle counterclockwise until the indication line is in the “0” starting position.

Step 2: Twist the instrument to disengage from the implant.

NOTE: Blockers can be inserted through the Persuader into the screw heads.



Figure 9c

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

10

Compression and Distraction

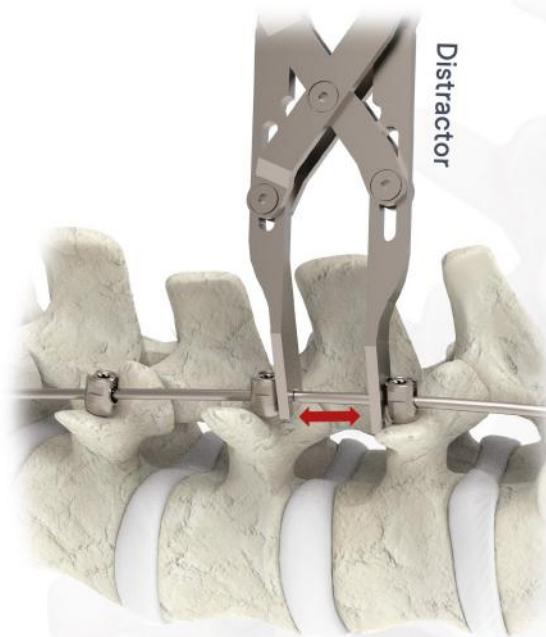


Figure 10a



NOTE:

The compression or distraction maneuvers should be performed once all of the blockers are inserted but not final tightened.

 **Compressor (PS002)** and **Distractor (PS001)** are available for both distracting and compressing the disc space as well as correcting spinal deformities. Spinal deformities can be affected by creating a distraction on the concavity of the deformity and compression on the convexity of the deformity.

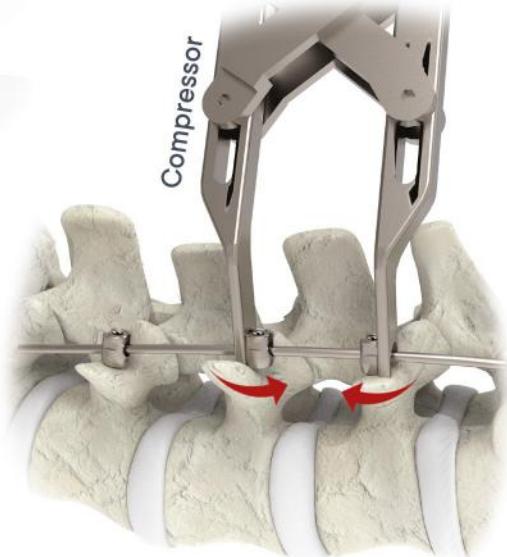


Figure 10b

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

11

Final Process

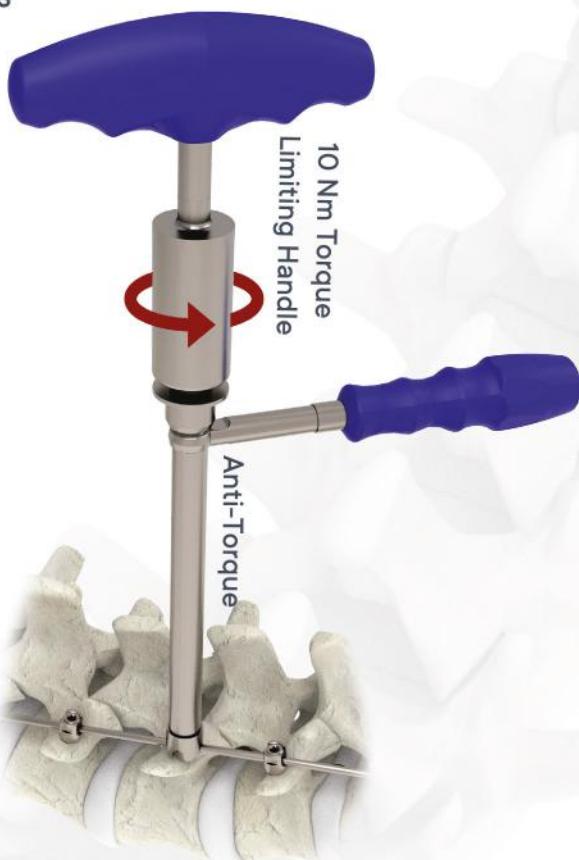


Figure 11a



Figure 11b

Step 1: Place the Anti-Torque (PS008) over the screw head.
Step 2: Place the 10 Nm Torque Limiting Handle (PS009) through the Anti-Torque (PS008) until it is guided into the Set Screw Driver For 10 Nm Torque (PS015).



Break Reduction Screw Heads Using the Lysisis Screw Head Cutter (PS017)



Figure 11c

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Posterior Thoracolumbar Fixation System

SURGICAL TECHNIQUE

12

Transverse Link Placement



Use the **Forceps Transvers Link Holder (PS013)** to place the appropriate length connector on the rod. Use the **Final Screw Driver (PS018)** to tighten one of the set screws onto the rod. **Multiaxial Transvers Link Fixer (PS025)**



Multiaxial Transvers
Link Fixer



Figure 12a



Forceps Transvers
Link Holder



Final Screw Driver

Figure 12b

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Posterior Thoracolumbar Fixation System

IMPLANT TYPES

 **SILVER MONOAXIAL SCREW**



Catalogue No.	Diameter	Length	Catalogue No.	Diameter	Length
AB-NSMA4025	4,0 mm	25 mm	AB-NSMA6530	6,5 mm	30 mm
AB-NSMA4030	4,0 mm	30 mm	AB-NSMA6535	6,5 mm	35 mm
AB-NSMA4035	4,0 mm	35 mm	AB-NSMA6540	6,5 mm	40 mm
AB-NSMA4040	4,0 mm	40 mm	AB-NSMA6545	6,5 mm	45 mm
AB-NSMA4045	4,0 mm	45 mm	AB-NSMA6550	6,5 mm	50 mm
AB-NSMA4530	4,5 mm	30 mm	AB-NSMA6555	6,5 mm	55 mm
AB-NSMA4535	4,5 mm	35 mm	AB-NSMA6560	6,5 mm	60 mm
AB-NSMA4540	4,5 mm	40 mm	AB-NSMA7030	7,0 mm	30 mm
AB-NSMA4545	4,5 mm	45 mm	AB-NSMA7035	7,0 mm	35 mm
AB-NSMA5030	5,0 mm	30 mm	AB-NSMA7040	7,0 mm	40 mm
AB-NSMA5035	5,0 mm	35 mm	AB-NSMA7045	7,0 mm	45 mm
AB-NSMA5040	5,0 mm	40 mm	AB-NSMA7050	7,0 mm	50 mm
AB-NSMA5045	5,0 mm	45 mm	AB-NSMA7055	7,0 mm	55 mm
AB-NSMA5050	5,0 mm	50 mm	AB-NSMA7060	7,0 mm	60 mm
AB-NSMA5530	5,5 mm	30 mm	AB-NSMA7530	7,5 mm	30 mm
AB-NSMA5535	5,5 mm	35 mm	AB-NSMA7535	7,5 mm	35 mm
AB-NSMA5540	5,5 mm	40 mm	AB-NSMA7540	7,5 mm	40 mm
AB-NSMA5545	5,5 mm	45 mm	AB-NSMA7545	7,5 mm	45 mm
AB-NSMA5550	5,5 mm	50 mm	AB-NSMA7550	7,5 mm	50 mm
AB-NSMA5555	5,5 mm	55 mm	AB-NSMA7555	7,5 mm	55 mm
AB-NSMA6035	6,0 mm	35 mm	AB-NSMA7560	7,5 mm	60 mm
AB-NSMA6040	6,0 mm	40 mm	AB-NSMA8035	8,0 mm	35 mm
AB-NSMA6045	6,0 mm	45 mm	AB-NSMA8040	8,0 mm	40 mm
AB-NSMA6050	6,0 mm	50 mm	AB-NSMA8045	8,0 mm	45 mm
AB-NSMA6055	6,0 mm	55 mm	AB-NSMA8050	8,0 mm	50 mm
			AB-NSMA8055	8,0 mm	55 mm
			AB-NSMA8060	8,0 mm	60 mm

SILVERPosterior Thoracolumbar
Fixation System**IMPLANT TYPES****SILVER MONOAXIAL LYSTHESIS SCREW**

Catalogue No.	Diameter	Length	Catalogue No.	Diameter	Length
AB-NSMRS4025	4,0 mm	25 mm	AB-NSMRS6530	6,5 mm	30 mm
AB-NSMRS4030	4,0 mm	30 mm	AB-NSMRS6535	6,5 mm	35 mm
AB-NSMRS4035	4,0 mm	35 mm	AB-NSMRS6540	6,5 mm	40 mm
AB-NSMRS4040	4,0 mm	40 mm	AB-NSMRS6545	6,5 mm	45 mm
AB-NSMRS4045	4,0 mm	45 mm	AB-NSMRS6550	6,5 mm	50 mm
AB-NSMRS4525	4,5 mm	25 mm	AB-NSMRS6555	6,5 mm	55 mm
AB-NSMRS4530	4,5 mm	30 mm	AB-NSMRS6560	6,5 mm	60 mm
AB-NSMRS4535	4,5 mm	35 mm	AB-NSMRS7035	7,0 mm	35 mm
AB-NSMRS4540	4,5 mm	40 mm	AB-NSMRS7040	7,0 mm	40 mm
AB-NSMRS4545	4,5 mm	45 mm	AB-NSMRS7045	7,0 mm	45 mm
AB-NSMRS5030	5,0 mm	30 mm	AB-NSMRS7050	7,0 mm	50 mm
AB-NSMRS5035	5,0 mm	35 mm	AB-NSMRS7055	7,0 mm	55 mm
AB-NSMRS5040	5,0 mm	40 mm	AB-NSMRS7060	7,0 mm	60 mm
AB-NSMRS5045	5,0 mm	45 mm	AB-NSMRS7530	7,5 mm	30 mm
AB-NSMRS5050	5,0 mm	50 mm	AB-NSMRS7535	7,5 mm	35 mm
AB-NSMRS5055	5,0 mm	55 mm	AB-NSMRS7540	7,5 mm	40 mm
AB-NSMRS5530	5,5 mm	30 mm	AB-NSMRS7545	7,5 mm	45 mm
AB-NSMRS5535	5,5 mm	35 mm	AB-NSMRS7550	7,5 mm	50 mm
AB-NSMRS5540	5,5 mm	40 mm	AB-NSMRS7555	7,5 mm	55 mm
AB-NSMRS5545	5,5 mm	45 mm	AB-NSMRS7560	7,5 mm	60 mm
AB-NSMRS5550	5,5 mm	50 mm	AB-NSMRS8030	8,0 mm	30 mm
AB-NSMRS5555	5,5 mm	55 mm	AB-NSMRS8040	8,0 mm	40 mm
AB-NSMRS6035	6,0 mm	35 mm	AB-NSMRS8045	8,0 mm	45 mm
AB-NSMRS6040	6,0 mm	40 mm	AB-NSMRS8050	8,0 mm	50 mm
AB-NSMRS6045	6,0 mm	45 mm	AB-NSMRS8055	8,0 mm	55 mm
AB-NSMRS6050	6,0 mm	50 mm	AB-NSMRS8060	8,0 mm	60 mm
AB-NSMRS6055	6,0 mm	55 mm			

SILVER

Posterior Thoracolumbar Fixation System

IMPLANT TYPES

**SILVER POLYAXIAL SCREW**

Catalogue No.	Diameter	Length	Catalogue No.	Diameter	Length
AB-NSPA4020	4,0 mm	20 mm	AB-NSPA6030	6,0 mm	30 mm
AB-NSPA4025	4,0 mm	25 mm	AB-NSPA6035	6,0 mm	35 mm
AB-NSPA4030	4,0 mm	30 mm	AB-NSPA6040	6,0 mm	40 mm
AB-NSPA4035	4,0 mm	35 mm	AB-NSPA6045	6,0 mm	45 mm
AB-NSPA4040	4,0 mm	40 mm	AB-NSPA6050	6,0 mm	50 mm
AB-NSPA4045	4,0 mm	45 mm	AB-NSPA6055	6,0 mm	55 mm
AB-NSPA4520	4,5 mm	20 mm	AB-NSPA6525	6,5 mm	25 mm
AB-NSPA4525	4,5 mm	25 mm	AB-NSPA6530	6,5 mm	30 mm
AB-NSPA4530	4,5 mm	30 mm	AB-NSPA6535	6,5 mm	35 mm
AB-NSPA4535	4,5 mm	35 mm	AB-NSPA6540	6,5 mm	40 mm
AB-NSPA4540	4,5 mm	40 mm	AB-NSPA6545	6,5 mm	45 mm
AB-NSPA4545	4,5 mm	45 mm	AB-NSPA6550	6,5 mm	50 mm
AB-NSPA4550	4,5 mm	50 mm	AB-NSPA6555	6,5 mm	55 mm
AB-NSPA4555	4,5 mm	55 mm	AB-NSPA6560	6,5 mm	60 mm
AB-NSPA5025	5,0 mm	25 mm	AB-NSPA7030	7,0 mm	30 mm
AB-NSPA5030	5,0 mm	30 mm	AB-NSPA7035	7,0 mm	35 mm
AB-NSPA5035	5,0 mm	35 mm	AB-NSPA7040	7,0 mm	40 mm
AB-NSPA5040	5,0 mm	40 mm	AB-NSPA7045	7,0 mm	45 mm
AB-NSPA5045	5,0 mm	45 mm	AB-NSPA7050	7,0 mm	50 mm
AB-NSPA5050	5,0 mm	50 mm	AB-NSPA7055	7,0 mm	55 mm
AB-NSPA5055	5,0 mm	55 mm	AB-NSPA7525	7,5 mm	25 mm
AB-NSPA5520	5,5 mm	20 mm	AB-NSPA7530	7,5 mm	30 mm
AB-NSPA5525	5,5 mm	25 mm	AB-NSPA7535	7,5 mm	35 mm
AB-NSPA5530	5,5 mm	30 mm	AB-NSPA7540	7,5 mm	40 mm
AB-NSPA5535	5,5 mm	35 mm	AB-NSPA7545	7,5 mm	45 mm
AB-NSPA5540	5,5 mm	40 mm	AB-NSPA7550	7,5 mm	50 mm
AB-NSPA5545	5,5 mm	45 mm	AB-NSPA7555	7,5 mm	55 mm
AB-NSPA5550	5,5 mm	50 mm	AB-NSPA7560	7,5 mm	60 mm
AB-NSPA5555	5,5 mm	55 mm			

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Posterior Thoracolumbar
Fixation System

IMPLANT TYPES

 **SILVER POLYAXIAL SCREW**



Catalogue No.	Diameter	Length
AB-NSPA7565	7,5 mm	65 mm
AB-NSPA7570	7,5 mm	70 mm
AB-NSPA7575	7,5 mm	75 mm
AB-NSPA7580	7,5 mm	80 mm
AB-NSPA7585	7,5 mm	85 mm
AB-NSPA7590	7,5 mm	90 mm
AB-NSPA7595	7,5 mm	95 mm
AB-NSPA75100	7,5 mm	100 mm
AB-NSPA8025	8,0 mm	25 mm
AB-NSPA8030	8,0 mm	30 mm
AB-NSPA8035	8,0 mm	35 mm
AB-NSPA8040	8,0 mm	40 mm
AB-NSPA8045	8,0 mm	45 mm
AB-NSPA8050	8,0 mm	50 mm
AB-NSPA8055	8,0 mm	55 mm
AB-NSPA8060	8,0 mm	60 mm
AB-NSPA8070	8,0 mm	70 mm
AB-NSPA8080	8,0 mm	80 mm
AB-NSPA8090	8,0 mm	90 mm
AB-NSPA80100	8,0 mm	100 mm

SILVER

Posterior Thoracolumbar
Fixation System

IMPLANT TYPES

 **SILVER POLYAXIAL FENESTRATED SCREW**



Catalogue No.	Diameter	Length	Catalogue No.	Diameter	Length
AB-NSPAH5530	5,5 mm	30 mm	AB-NSPAH7030	7,0 mm	30 mm
AB-NSPAH5535	5,5 mm	35 mm	AB-NSPAH7035	7,0 mm	35 mm
AB-NSPAH5540	5,5 mm	40 mm	AB-NSPAH7040	7,0 mm	40 mm
AB-NSPAH5545	5,5 mm	45 mm	AB-NSPAH7045	7,0 mm	45 mm
AB-NSPAH5550	5,5 mm	50 mm	AB-NSPAH7050	7,0 mm	50 mm
AB-NSPAH5555	5,5 mm	55 mm	AB-NSPAH7055	7,0 mm	55 mm
AB-NSPAH6030	6,0 mm	30 mm	AB-NSPAH7530	7,5 mm	30 mm
AB-NSPAH6035	6,0 mm	35 mm	AB-NSPAH7535	7,5 mm	35 mm
AB-NSPAH6040	6,0 mm	40 mm	AB-NSPAH7540	7,5 mm	40 mm
AB-NSPAH6045	6,0 mm	45 mm	AB-NSPAH7545	7,5 mm	45 mm
AB-NSPAH6050	6,0 mm	50 mm	AB-NSPAH7550	7,5 mm	50 mm
AB-NSPAH6055	6,0 mm	55 mm	AB-NSPAH7555	7,5 mm	55 mm
AB-NSPAH6530	6,5 mm	30 mm	AB-NSPAH8030	8,0 mm	30 mm
AB-NSPAH6535	6,5 mm	35 mm	AB-NSPAH8035	8,0 mm	35 mm
AB-NSPAH6540	6,5 mm	40 mm	AB-NSPAH8040	8,0 mm	40 mm
AB-NSPAH6545	6,5 mm	45 mm	AB-NSPAH8045	8,0 mm	45 mm
AB-NSPAH6550	6,5 mm	50 mm	AB-NSPAH8050	8,0 mm	50 mm
AB-NSPAH6555	6,5 mm	55 mm	AB-NSPAH8055	8,0 mm	55 mm

SILVER

Posterior Thoracolumbar Fixation System

IMPLANT TYPES

 **SILVER CANNULATED POLYAXIAL SCREW**



Catalogue No.	Diameter	Length	Catalogue No.	Diameter	Length
AB-NCPS4530	4,5 mm	30 mm	AB-NCPS7030	7,0 mm	30 mm
AB-NCPS4535	4,5 mm	35 mm	AB-NCPS7035	7,0 mm	35 mm
AB-NCPS4540	4,5 mm	40 mm	AB-NCPS7040	7,0 mm	40 mm
AB-NCPS4545	4,5 mm	45 mm	AB-NCPS7045	7,0 mm	45 mm
AB-NCPS4550	4,5 mm	50 mm	AB-NCPS7050	7,0 mm	50 mm
AB-NCPS5530	5,5 mm	30 mm	AB-NCPS7055	7,0 mm	55 mm
AB-NCPS5535	5,5 mm	35 mm	AB-NCPS7530	7,5 mm	30 mm
AB-NCPS5540	5,5 mm	40 mm	AB-NCPS7535	7,5 mm	35 mm
AB-NCPS5545	5,5 mm	45 mm	AB-NCPS7540	7,5 mm	40 mm
AB-NCPS5550	5,5 mm	50 mm	AB-NCPS7545	7,5 mm	45 mm
AB-NCPS5555	5,5 mm	55 mm	AB-NCPS7550	7,5 mm	50 mm
AB-NCPS6030	6,0 mm	30 mm	AB-NCPS7555	7,5 mm	55 mm
AB-NCPS6035	6,0 mm	35 mm	AB-NCPS8035	8,0 mm	35 mm
AB-NCPS6040	6,0 mm	40 mm	AB-NCPS8040	8,0 mm	40mm
AB-NCPS6045	6,0 mm	45 mm	AB-NCPS8045	8,0 mm	45 mm
AB-NCPS6050	6,0 mm	50 mm	AB-NCPS8050	8,0 mm	50 mm
AB-NCPS6055	6,0 mm	55 mm	AB-NCPS8055	8,0 mm	55 mm
AB-NCPS6530	6,5 mm	30 mm			
AB-NCPS6535	6,5 mm	35 mm			
AB-NCPS6540	6,5 mm	40 mm			
AB-NCPS6545	6,5 mm	45 mm			
AB-NCPS6550	6,5 mm	50 mm			
AB-NCPS6555	6,5 mm	55 mm			

SILVER

Posterior Thoracolumbar Fixation System

IMPLANT TYPES

SILVER REDUCTION-POLYAXIAL SCREW

Catalogue No.	Diameter	Length	Catalogue No.	Diameter	Length
AB-NSPRS4525	4,5 mm	25 mm	AB-NSPRS6545	6,5 mm	45 mm
AB-NSPRS4530	4,5 mm	30 mm	AB-NSPRS6550	6,5 mm	50 mm
AB-NSPRS4535	4,5 mm	35 mm	AB-NSPRS6555	6,5 mm	55 mm
AB-NSPRS4540	4,5 mm	40 mm	AB-NSPRS6560	6,5 mm	60 mm
AB-NSPRS4545	4,5 mm	45 mm	AB-NSPRS7030	7,0 mm	30 mm
AB-NSPRS4550	4,5 mm	50 mm	AB-NSPRS7035	7,0 mm	35 mm
AB-NSPRS4555	4,5 mm	55 mm	AB-NSPRS7040	7,0 mm	40 mm
AB-NSPRS5030	5,0 mm	30 mm	AB-NSPRS7045	7,0 mm	45 mm
AB-NSPRS5035	5,0 mm	35 mm	AB-NSPRS7050	7,0 mm	50 mm
AB-NSPRS5040	5,0 mm	40 mm	AB-NSPRS7055	7,0 mm	55 mm
AB-NSPRS5045	5,0 mm	45 mm	AB-NSPRS7530	7,5 mm	30 mm
AB-NSPRS5050	5,0 mm	50 mm	AB-NSPRS7535	7,5 mm	35 mm
AB-NSPRS5055	5,0 mm	55 mm	AB-NSPRS7540	7,5 mm	40 mm
AB-NSPRS5520	5,5 mm	20 mm	AB-NSPRS7545	7,5 mm	45 mm
AB-NSPRS5525	5,5 mm	25 mm	AB-NSPRS7550	7,5 mm	50 mm
AB-NSPRS5530	5,5 mm	30 mm	AB-NSPRS7555	7,5 mm	55 mm
AB-NSPRS5535	5,5 mm	35 mm	AB-NSPRS7560	7,5 mm	60 mm
AB-NSPRS5540	5,5 mm	40 mm	AB-NSPRS7565	7,5 mm	65 mm
AB-NSPRS5545	5,5 mm	45 mm	AB-NSPRS7570	7,5 mm	70 mm
AB-NSPRS5550	5,5 mm	50 mm	AB-NSPRS7575	7,5 mm	75 mm
AB-NSPRS5555	5,5 mm	55 mm	AB-NSPRS7580	7,5 mm	80 mm
AB-NSPRS6030	6,0 mm	30 mm	AB-NSPRS7585	7,5 mm	85 mm
AB-NSPRS6035	6,0 mm	35 mm	AB-NSPRS7590	7,5 mm	90 mm
AB-NSPRS6040	6,0 mm	40 mm	AB-NSPRS7595	7,5 mm	95 mm
AB-NSPRS6045	6,0 mm	45 mm	AB-NSPRS75100	7,5 mm	100 mm
AB-NSPRS6050	6,0 mm	50 mm	AB-NSPRS8035	8,0 mm	35 mm
AB-NSPRS6055	6,0 mm	55 mm	AB-NSPRS8040	8,0 mm	40 mm
AB-NSPRS6530	6,5 mm	30 mm	AB-NSPRS8045	8,0 mm	45 mm
AB-NSPRS6535	6,5 mm	35 mm	AB-NSPRS8050	8,0 mm	50 mm
AB-NSPRS6540	6,5 mm	40 mm	AB-NSPRS8055	8,0 mm	55 mm

SILVER

Posterior Thoracolumbar
Fixation System

IMPLANT TYPES



SILVER REDUCTION-POLYAXIAL SCREW



Catalogue No.	Diameter	Length
AB-NSPRS8060	8,0 mm	60 mm
AB-NSPRS8065	8,0 mm	65 mm
AB-NSPRS8070	8,0 mm	70 mm
AB-NSPRS8075	8,0 mm	75 mm
AB-NSPRS8080	8,0 mm	80 mm
AB-NSPRS8085	8,0 mm	85 mm
AB-NSPRS8090	8,0 mm	90 mm
AB-NSPRS8095	8,0 mm	95 mm
AB-NSPRS80100	8,0 mm	100 mm

SILVER

Posterior Thoracolumbar Fixation System

IMPLANT TYPES

 SILVER ION COATED ROD



Catalogue No.	Diameter	Length	Catalogue No.	Diameter	Length
AB-NSR1604	6,0 mm	40 mm	AB-NSR1631	6,0 mm	310 mm
AB-NSR1605	6,0 mm	50 mm	AB-NSR1632	6,0 mm	320 mm
AB-NSR1606	6,0 mm	60 mm	AB-NSR1640	6,0 mm	400 mm
AB-NSR1607	6,0 mm	70 mm	AB-NSR1648	6,0 mm	480 mm
AB-NSR1608	6,0 mm	80 mm	AB-NSR1650	6,0 mm	500 mm
AB-NSR1609	6,0 mm	90 mm	AB-NSR1660	6,0 mm	600 mm
AB-NSR1610	6,0 mm	100 mm	AB-NSR15504	5,5 mm	40 mm
AB-NSR1611	6,0 mm	110 mm	AB-NSR15505	5,5 mm	50 mm
AB-NSR1612	6,0 mm	120 mm	AB-NSR15506	5,5 mm	60 mm
AB-NSR1613	6,0 mm	130 mm	AB-NSR15507	5,5 mm	70 mm
AB-NSR1614	6,0 mm	140 mm	AB-NSR15508	5,5 mm	80 mm
AB-NSR1615	6,0 mm	150 mm	AB-NSR15509	5,5 mm	90 mm
AB-NSR1616	6,0 mm	160 mm	AB-NSR15510	5,5 mm	100 mm
AB-NSR1617	6,0 mm	170 mm	AB-NSR15511	5,5 mm	110 mm
AB-NSR1618	6,0 mm	180 mm	AB-NSR15512	5,5 mm	120 mm
AB-NSR1619	6,0 mm	190 mm	AB-NSR15513	5,5 mm	130 mm
AB-NSR1620	6,0 mm	200 mm	AB-NSR15514	5,5 mm	140 mm
AB-NSR1621	6,0 mm	210 mm	AB-NSR15540	5,5 mm	400 mm
AB-NSR1622	6,0 mm	220 mm	AB-NSR15550	5,5 mm	500 mm
AB-NSR1623	6,0 mm	230 mm	AB-NSR15560	5,5 mm	600 mm
AB-NSR1624	6,0 mm	240 mm			
AB-NSR1625	6,0 mm	250 mm			
AB-NSR1626	6,0 mm	260 mm			
AB-NSR1627	6,0 mm	270 mm			
AB-NSR1628	6,0 mm	280 mm			
AB-NSR1629	6,0 mm	290 mm			
AB-NSR1630	6,0 mm	300 mm			

SILVER

Posterior Thoracolumbar Fixation System

IMPLANT TYPES

SILVER ION COATED DYNAMIC ROD



Catalogue No.	Diameter	Length
AB-NDNR6050	6,0 mm	50 mm
AB-NDNR6060	6,0 mm	60 mm
AB-NDNR6070	6,0 mm	70 mm
AB-NDNR6080	6,0 mm	80 mm
AB-NDNR6090	6,0 mm	90 mm
AB-NDNR6010	6,0 mm	100 mm
AB-NDNR60200	6,0 mm	200 mm
AB-NDNR60300	6,0 mm	300 mm

SILVER ION COATED SACRAL SCREW



Catalogue No.	Diameter	Length
AB-NSSS6035	6,0 mm	35 mm
AB-NSSS6040	6,0 mm	40 mm
AB-NSSS6045	6,0 mm	45 mm
AB-NSSS6050	6,0 mm	50 mm
AB-NSSS6055	6,0 mm	55 mm
AB-NSSS7040	7,0 mm	40 mm
AB-NSSS7045	7,0 mm	45 mm
AB-NSSS7050	7,0 mm	50 mm
AB-NSSS7055	7,0 mm	55 mm

SILVER ION COATED LAMINAR ANGLED 20° LEFT & RIGHT HOOK



Catalogue No.	Diameter	Length
AB-NPLHLA709	7 mm	9 mm
AB-NPLHLA711	7 mm	11 mm
AB-NPLHRA709	7 mm	9 mm
AB-NPLHRA711	7 mm	11 mm

SILVERPosterior Thoracolumbar
Fixation System**IMPLANT TYPES****SILVER ION COATED
LAMINAR HOOK**

Catalogue No.	Diameter	Length
AB-NSSS6035	6,0 mm	35 mm
AB-NSSS6040	6,0 mm	40 mm
AB-NSSS6045	6,0 mm	45 mm
AB-NSSS6050	6,0 mm	50 mm
AB-NSSS6055	6,0 mm	55 mm
AB-NSSS7040	7,0 mm	40 mm
AB-NSSS7045	7,0 mm	45 mm
AB-NSSS7050	7,0 mm	50 mm
AB-NSSS7055	7,0 mm	55 mm

**SILVER ION COATED LAMINAR
FLEXIBLE HOOK**

Catalogue No.	Diameter	Length
AB-NLHF0505	5 mm	5 mm
AB-NLHF0507	5 mm	7 mm

**SILVER ION COATED
PEDICULAR HOOK**

Catalogue No.	Diameter	Length
AB-NPPH0505	5 mm	5 mm
AB-NPPH0507	5 mm	7 mm
AB-NPPH0805	8 mm	5 mm
AB-NPPH0807	8 mm	7 mm
AB-NPPH0809	8 mm	9 mm

**SILVER ION COATED PEDICLE
FLEXIBLE HOOK**

Catalogue No.	Diameter	Length
AB-NLHF0505	5 mm	5 mm
AB-NLHF0507	5 mm	7 mm

**SILVER ION COATED
TRANSVERSE LINK HOOK**

Catalogue No.

AB-NSTLH

**SILVER ION COATED SACRAL
CONNECTOR**

Catalogue No.

AB-NSSC15
AB-NSSC20

Length

15 mm
20 mm

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Posterior Thoracolumbar Fixation System

IMPLANT TYPES

SILVER ION COATED **LATERAL-EXTENSION CONNECTOR**

Catalogue No. Length

AB-NSLCNT15	15 mm
AB-NSLCNT20	20 mm
AB-NSLCNT25	25 mm
AB-NSLCNT30	30 mm
AB-NSLCNT40	40 mm



SILVER ION COATED **TRANSVERSE LINK**

Catalogue No. Length

AB-NSTL140	40 mm
AB-NSTL150	50 mm
AB-NSTL160	60 mm
AB-NSTL170	70 mm
AB-NSTL180	80 mm



SILVER ION COATED **TRANSVERSE LINK MULTIAXIAL**

Catalogue No. Length

AB-NSATL2040	20-40 mm
AB-NSATL4060	40-60 mm
AB-NSATL6080	60-80 mm
AB-NSATL80100	80-100 mm



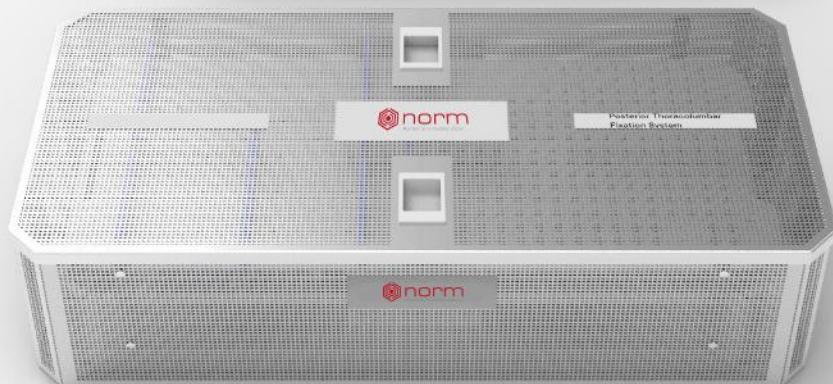
SILVER

Posterior Thoracolumbar
Fixation System

INSTRUMENT CONTAINER

First Container

Include the first and third trays.



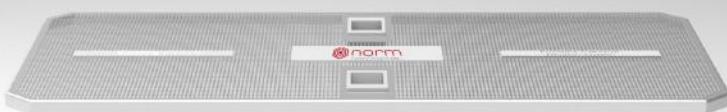
Second Container

Include the second tray.

SILVER

Posterior Thoracolumbar
Fixation System

INSTRUMENT CONTAINER



This container is made of wiremesh stainless steel. It has a hight stability, low weight and good sterilization feature.



Tray 1



Tray 3

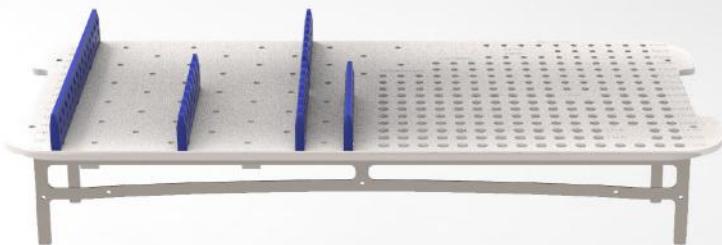


First Container
Include the first and third trays.

SILVER

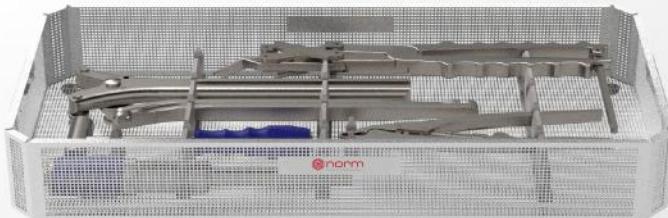
Posterior Thoracolumbar
Fixation System

INSTRUMENT CONTAINER



This container is made of wiremesh stainless steel. It has a hight stability, low weight and good sterilization feature.

Rod And Screw
Tray



Tray 2



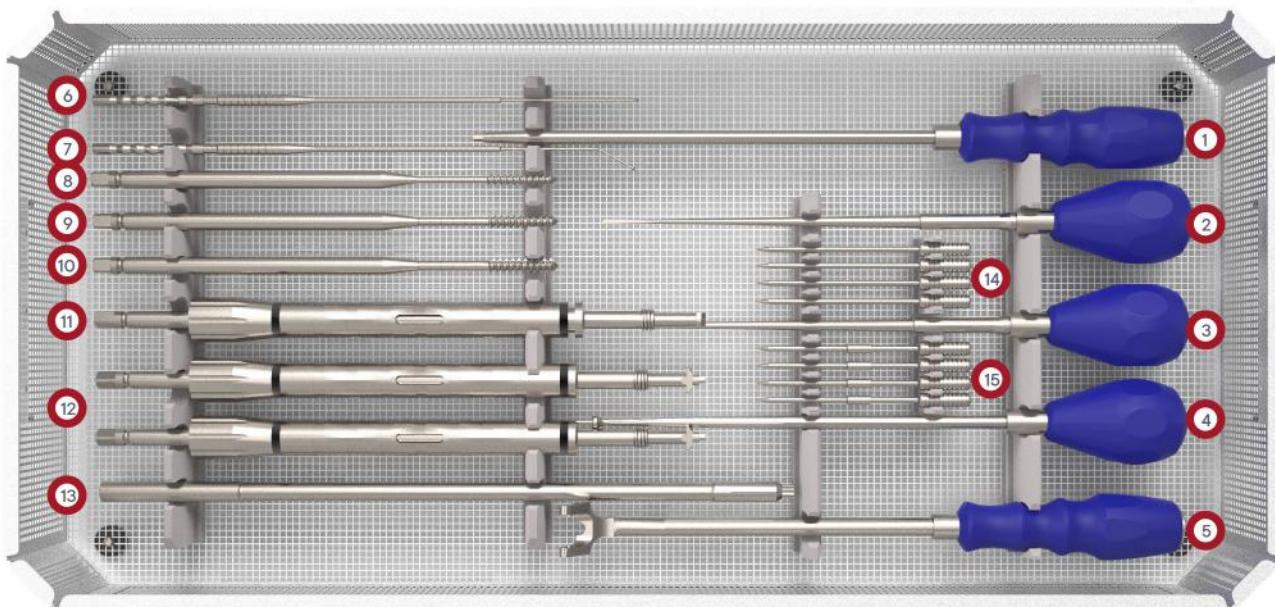
Second Container
Include the second tray.

SILVER

Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

Tray 1



Set No.	Catalogue No.	Description	Piece
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01	PS018	Final Screw Driver	1
02	PS021	Straight Pedicle Probe	1
03	PS022	Curved Pedicle Probe	1

SILVER

Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

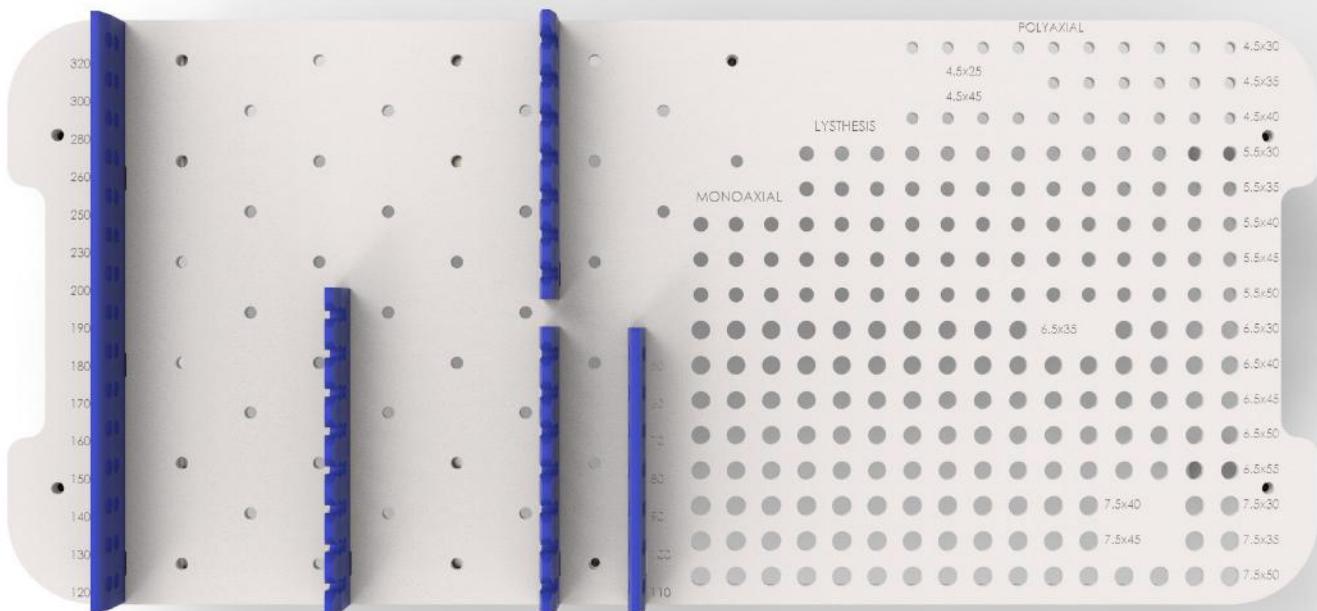
Set No.	Catalogue No.	Description	Piece
04	PSO20	Awl	1
05	PSO14	Rocker	1
06	PSO23	Straight Feeler Probe	1
07	PSO24	Curved Feeler Probe	1
08	PSO30	Tap 4.5mm	1
09	PSO31	Tap 5.5mm	1
10	PSO32	Tap 6.5mm	1
11	PSO28	Monoaxial Screw Driver	1
12	PSO27	Polyaxial Screw Driver	2
13	PSO26	Set Screw Holder	1
14	PSO33	Pedicle Marker	4
15	PSO34	Pedicle Marker With Stopper	4

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Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

Tray 2



Catalogue No.

PPSU 525X233X45

Description

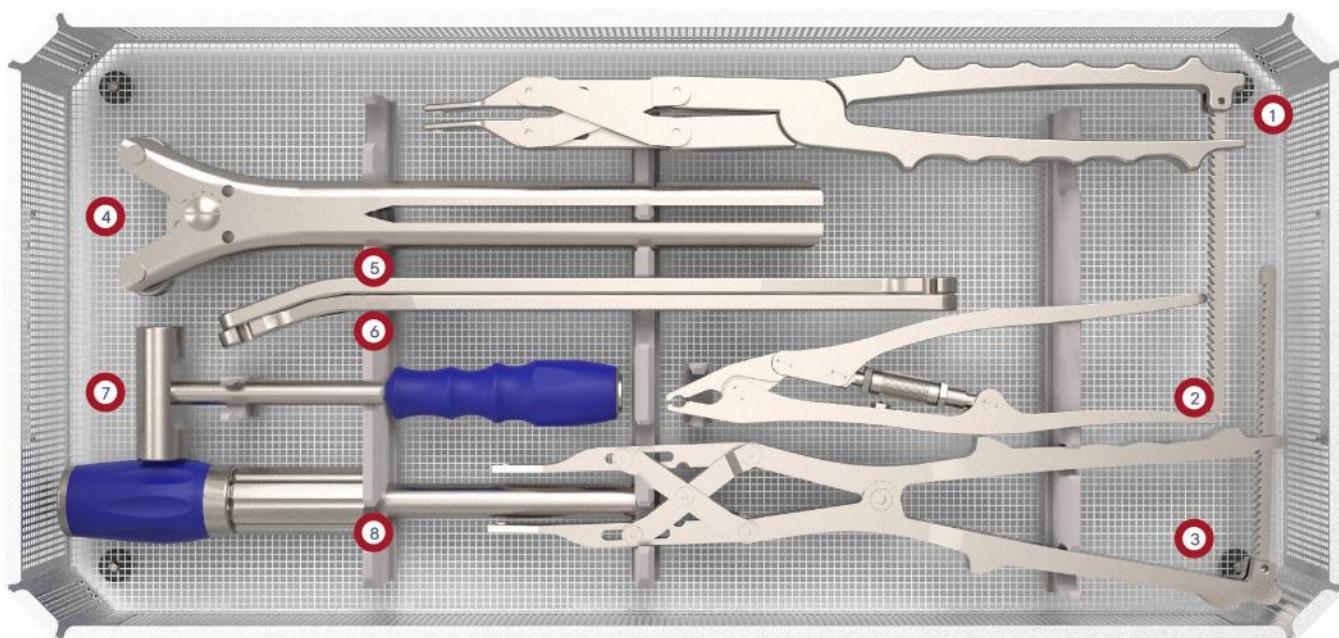
Rod And Screw Tray

SILVER

Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

Tray 2



Set No.	Catalogue No.	Description	Piece
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01	PS001	Distractor	1
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Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

Set No.	Catalogue No.	Description	Piece
02	PS004	Rod Gripper	1
03	PS002	Compressor	1
04	PS007	Rod Bender	1
05	PS005	In-Situ Rod Bender Right	1
06	PS006	In-Situ Rod Bender Left	1
07	PS008	Hammer	1
08	PS010	Persuader	1

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Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

Tray 3



Set No.	Catalogue No.	Description	Piece
01	PS019	Rod Pusher	1
02	PS011	Forceps Rocker	1
03	PS017	Lysisis Screw Head Cutter	1

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Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

Set No.	Catalogue No.	Description	Piece
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04	PS016	Set Screw Driver	1
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05	PS015	Set Screw Driver For 10 Nm Torque	1
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06	PS012	Forceps Rod Holder	1
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11	PS013	Forceps Transvers Link Holder	1
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07	PS025	Multiaxial Transvers Link Fixer	1
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08	PS008	Anti Torque	1
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09	PS010	T-Handle	1
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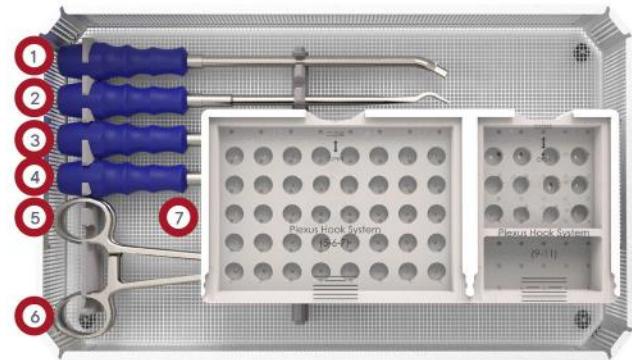
10	PS009	10 Nm Torque Limiting Handle	1
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Posterior Thoracolumbar
Fixation System

INSTRUMENT TYPES

Optional: Hook Container



Set No.	Catalogue No.	Description	Piece
01	PHS004	Hook Impactor	1
02	PHS001	Pedicle Preparer	1
03	PHS002	Laminar Preparer	1
04	PHS003	Small Preparer	1
05	PHS008	Hook Holder Forceps Angular	1
06	PHS005	Hook Holder Forceps	1
07	PHS006	Hook PPSU	1

SILVER

Posterior Thoracolumbar
Fixation System

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