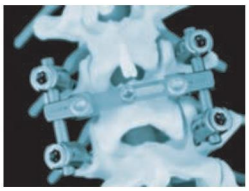
Contents

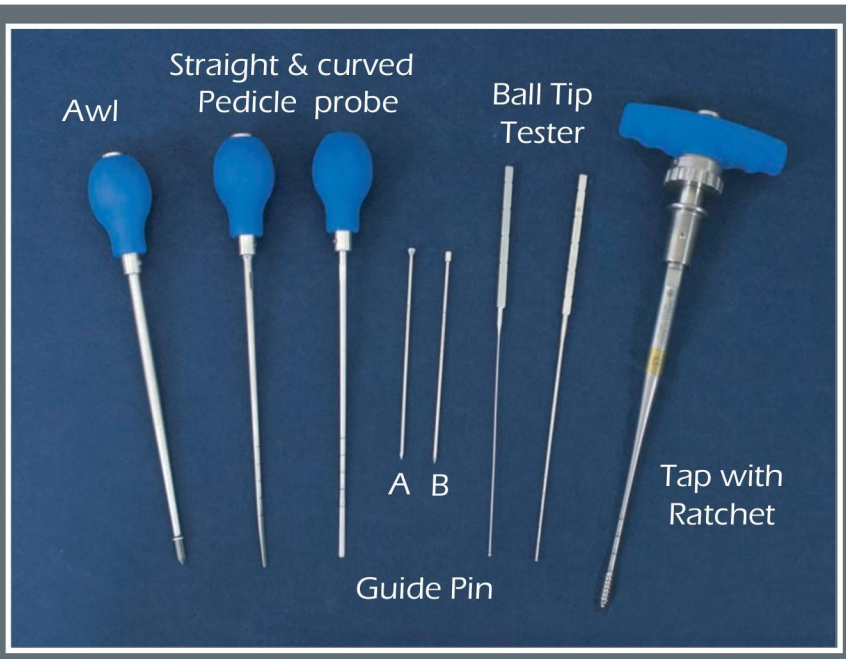
REXIOUS SPINAL SYSTEM

SURGICAL TECHNIQUE



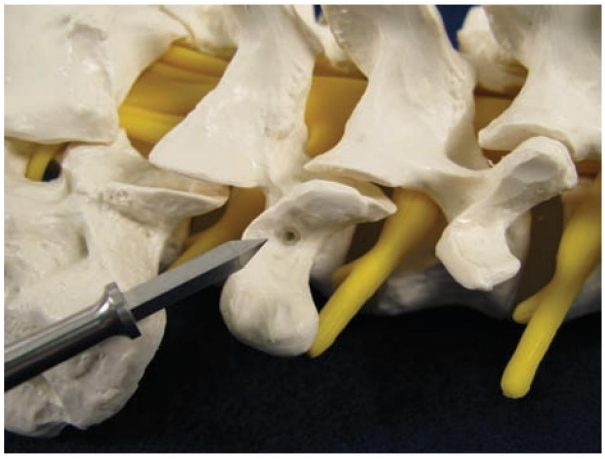
1. Site Preparation
2. Screw Insertion
3. Rod Preparation and Insertion
4. Rod Instruction
5. Set screw Insertion
6. Compression, Distraction & Rotation
7. Final Tightening
8. Reduction Cut & Transverslink
9. Revision or Removal

1. Site Preparation



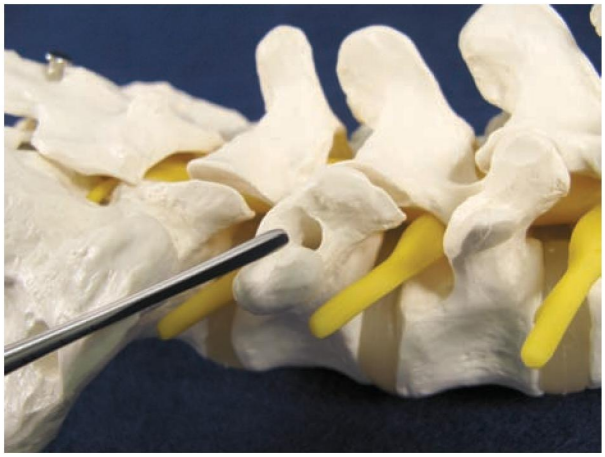
Instruments for Site Preparation

Instrument
1. Awl
2. Probe
3. Guide Pin
4. Ball Tip Tester
5. Tap with Ratchet



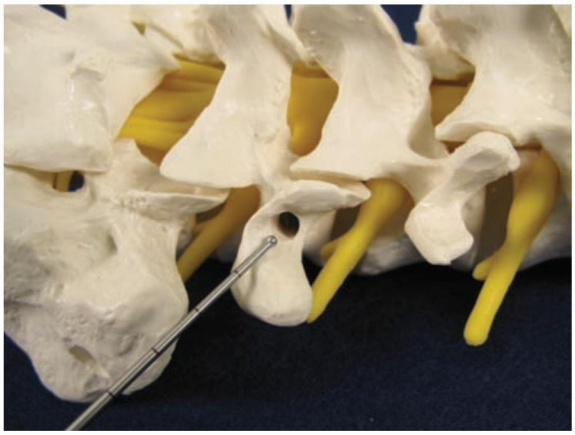
1

Pedicle hole preparation is started with a sharp Awl that penetrates the pedicle hole starting point.



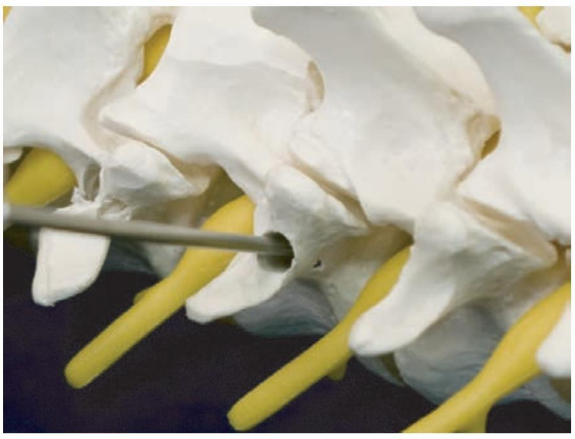
2

Determine the pedicle canal entry site. Insert the Probe or Curved Probe into the established entry site, gently pressing through the pedicle canal to determine hole depth.



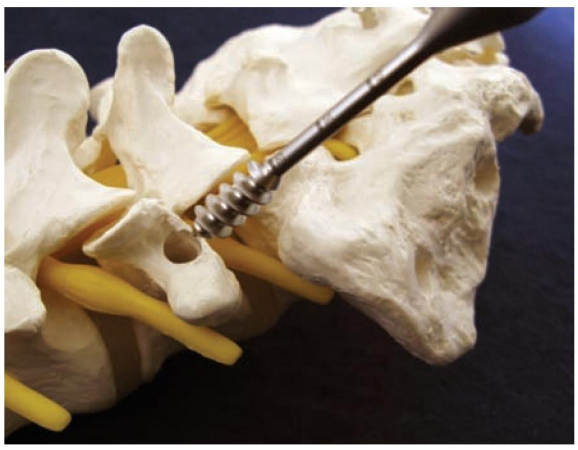
3

Conrmation of bony continuty on all sides and bottom of the prepared holes is achieved with a Tester. The Tester is used to palpate all four sides and the bottom of the pedicle hole, to ensure that it is within bone.



4

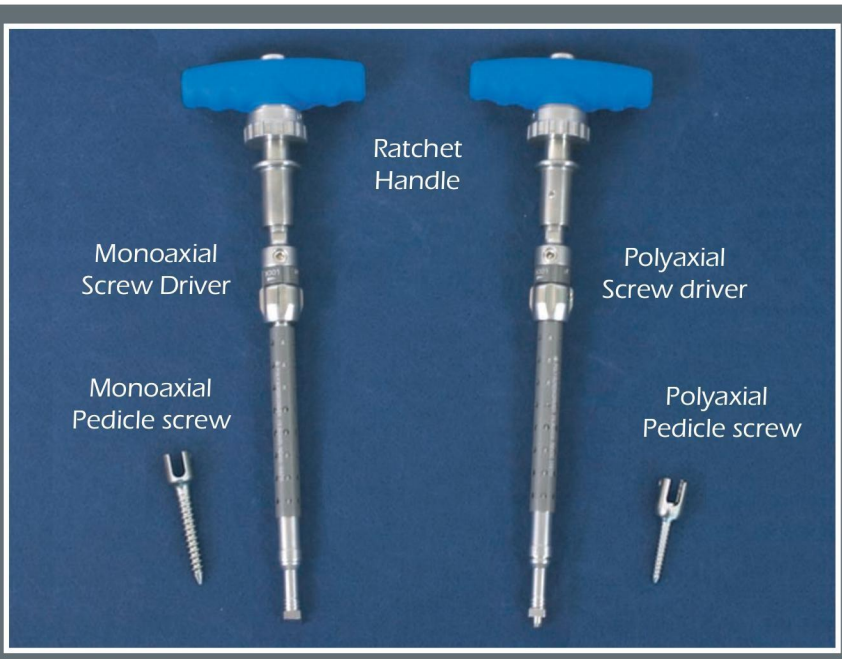
Insert the Guide Pin into the pedicle canal.
The Guide Pin may be placed to identify appropriate Screw trajectory via a lateral X-ray or uoroscopy view.



5

Taps are available for each of 5.5, 6.5 & 7.5mm diameters.

2. Screw Insertion



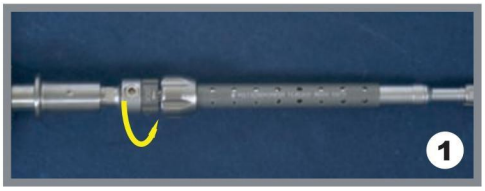
Instruments for Screw Insertion

Instrument

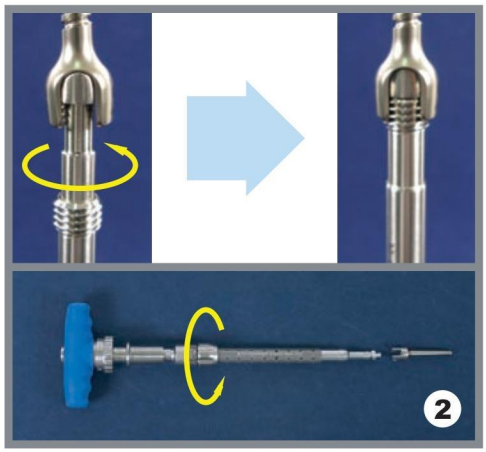
1. Ratchet Handle
2. Monoaxial Screw Driver
3. Monoaxial Pedicle Screw
4. Polyaxial Screw Driver
5. Polyaxial Pedicle Screw

1

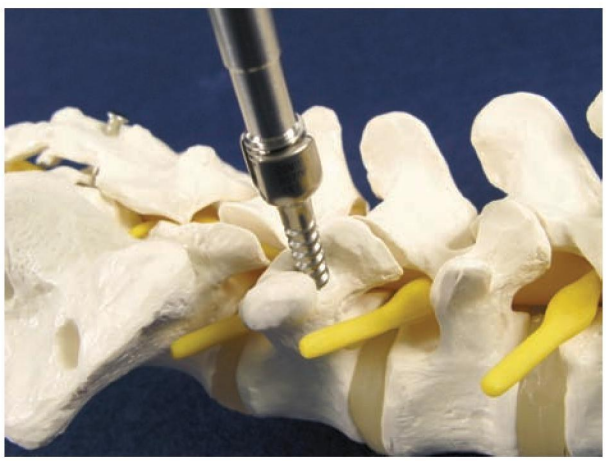
Screw Drivers have two parts for locking.
To loose or tighten the Screw, select the dial rst.
To lock the Screw, locate dial at 'Lock' and use a Screw locking handle below the Driver locking dial.



Driver Lock / Release Dial



Screw Locking Handle



2

Insert the Pedicle Screw into the vertebral body until it is the desired height.

3

To separate Screw Driver and Screw, locate dial at 'Release' and use a Screw Locking Handle below the Driver Locking Dial. If you didn't change the dial, the Screw can be loosened instead of seperated.

3. Rod preparation & Insertion

Instruments for Rod Preparation & Insertion

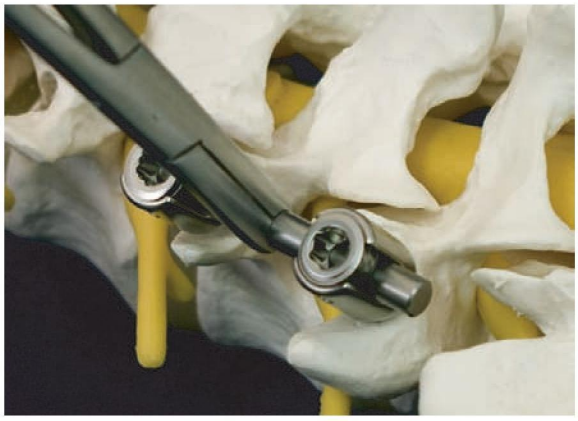
Instrument
1. Rod Bender
2. Rod Holder
3. In-Situ Rod Bender

1

The appropriate length Rod should be chosen according to the construct, allowing approximately 4-5mm of Rod overhang on either end of the construct.

2

The Rod is bent to t into the desired spinal contours as closely as possible, using the Rod Bender. The angle of bend can be varied by adjusting the central button on the Rod Bender.



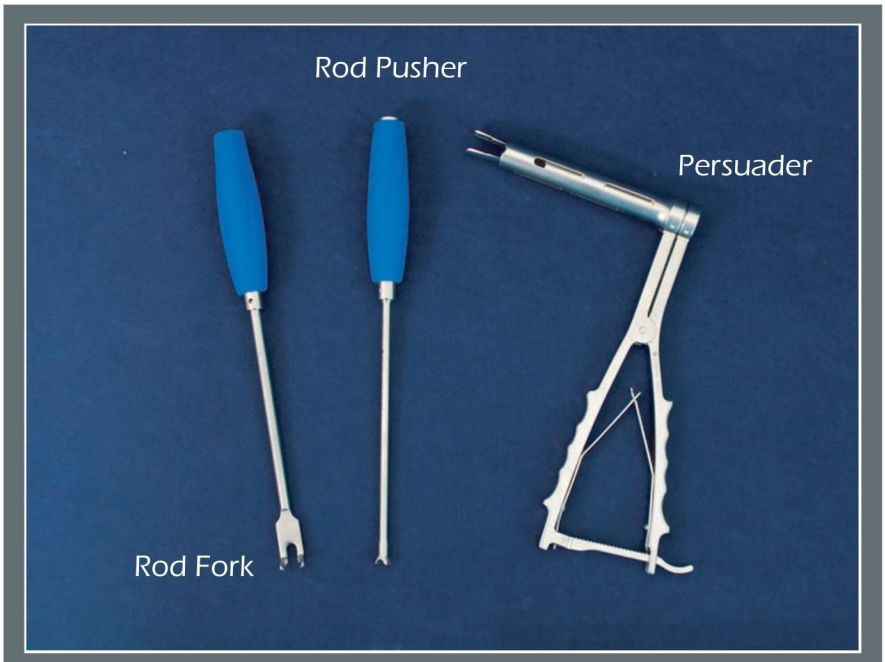
3

The Rod is placed into the rod channel using the Rod Holder.

4

Should further contouring be desired after the Rod is inserted, the In-Situ Rod Benders are available. These instruments address lordotic and kyphotic in-situ bending procedures.

4. Rod Instruction



Instruments for Rod Instruction

Instrument
1. Rod Fork
2. Rod Pusher
3. Persuader

1

The Rod Fork is designed to straddle the implant and Rod while introducing the Rod into the open implant.

Rod Fork

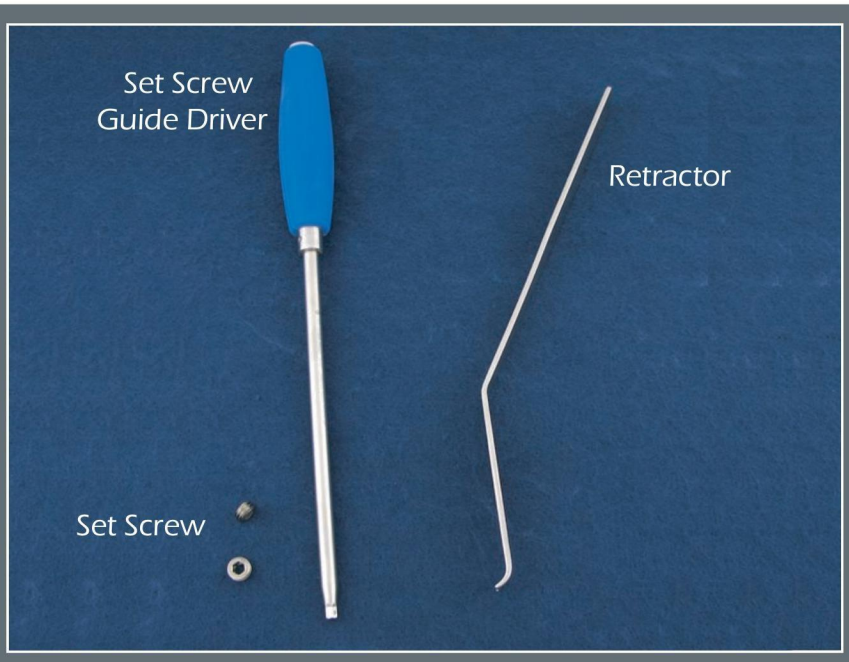
Rod Pusher

2

The Rod Pusher is used to apply gentle force to the Rod while engaging the Set Screw.

As with all Rod Pushers, control is essential. Excessive force should be avoided.

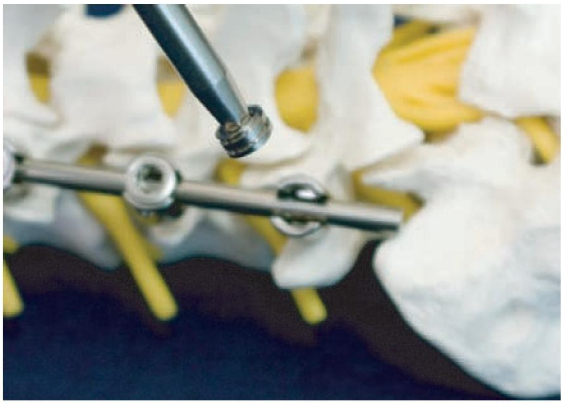
5. Set Screw Insertion



Instruments for Set Screw Insertion

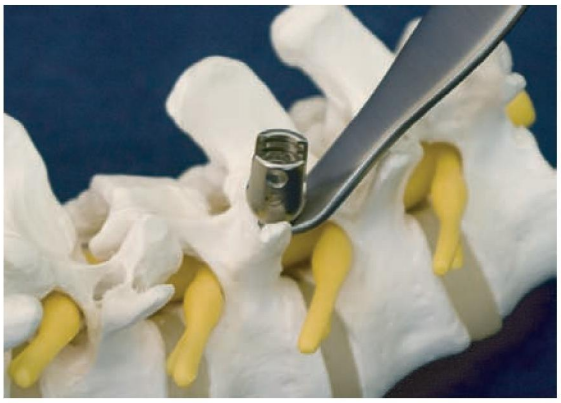
Instrument

1. Set Screw Guide Driver
2. Set Screw
3. Retractor



1

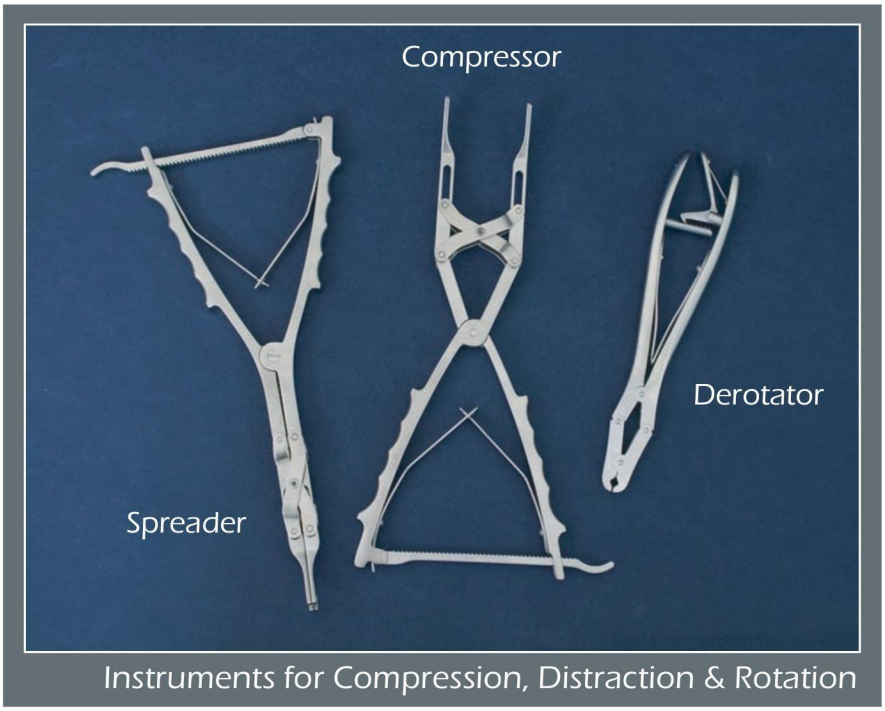
Set Screws are loaded onto the Set Screw Guide Driver and loosely inserted into each housing. Do not nal tighten the Set Screw with the Set Screw Guide Driver.



2

The Retractor is used to make a space for the Set Screw Guide Driver. The Fork of the Retractor is located under the housing.

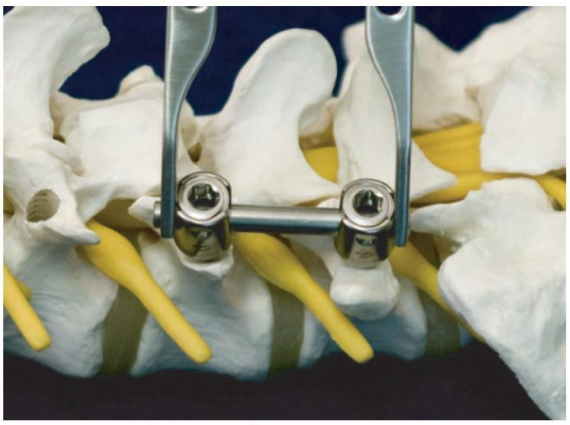
6. Compression, Distraction & Rotation

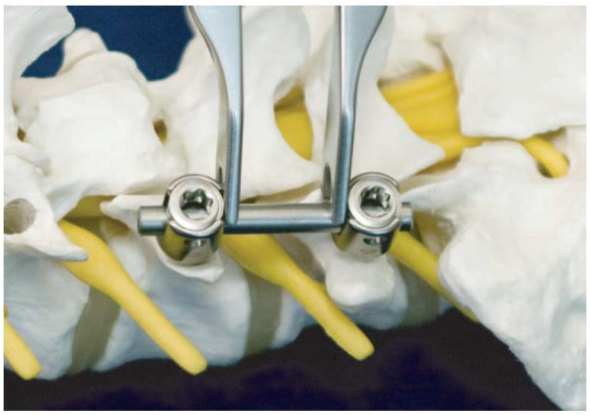


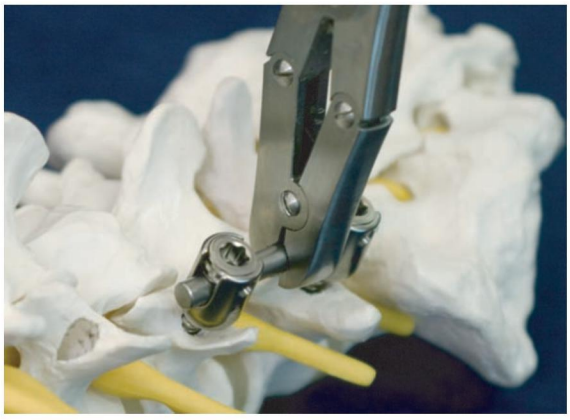
Instruments for Compression, Distraction & Rotation

Instrument
1. Compressor
2. Spreader
3. Derotator

Once the Rod has been captured in the rod channel, compression and distraction maneuvers can be easily accomplished utilizing the Compressor and Spreader.

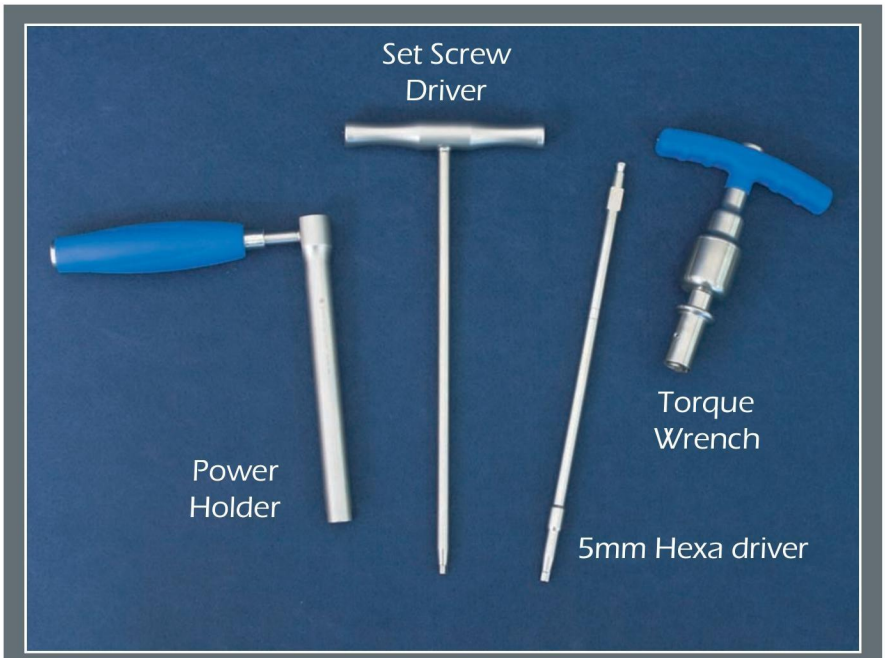

Screw Compression


Screw Distraction



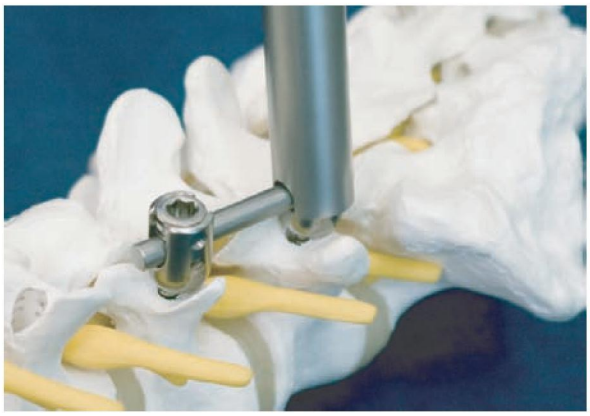
The Derotator is used to rmly grasp the Rod for rotation or to establish a purchase point for distraction or compression if necessary.

7. Final Tightening



Instruments for Final Tightening

Instrument
1. Power Holder
2. Set Screw Driver
3. Torque Wrench
   (for 5mm Hexa Driver)
4. 5mm Hexa Driver



1

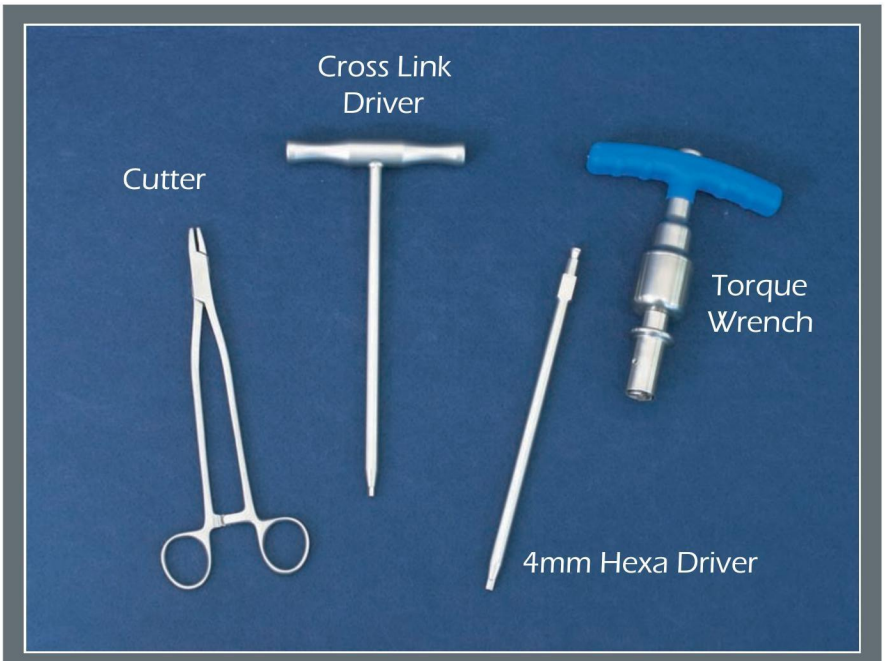
Place the Set Screw Driver through the appropriate arm of the Power Holder. Place the tip of the Set Screw Driver (or 5mm Hexa Driver with Torque Wrench) into the Set Screw and Power Holder over the Set Screw and Rod.

2

Place the tip of the Set Screw Driver into the Set Screw, and the Power Holder over the Set Screw and Rod. Begin turning the Set Screw Driver (or 5mm Hexa Driver with Torque Wrench by 12N) to tighten the Set Screw.


Assemble Torque Wrench & 5mm Hexa Driver

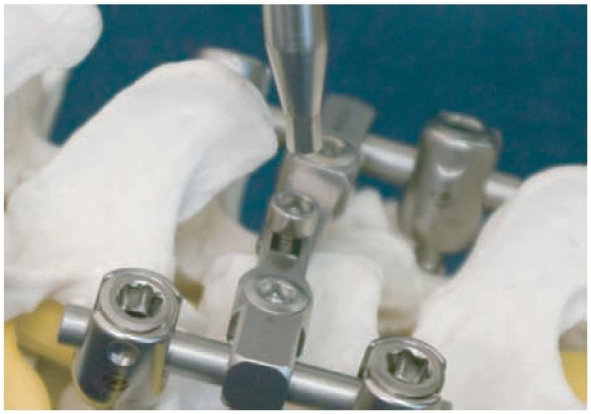
8. Reduction Cut & Transverse Link



Instruments for Reduction Cut & Transverse Link

Instrument
1. Cutter
2. Cross Link Driver
3. Torque Wrench
   (for 4mm Hexa Driver)
4. 4mm Hexa Driver

The Reduction Cutter is used to break o the Extended Arms.

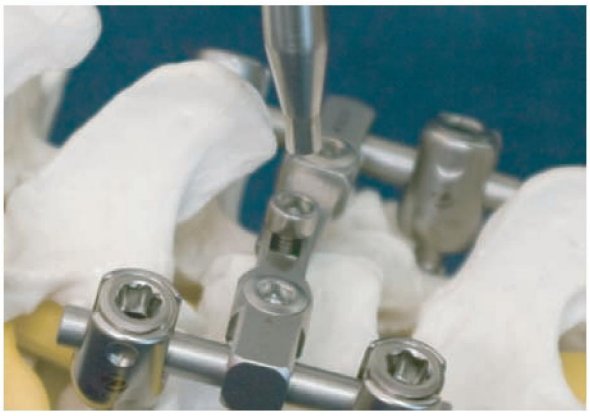


Both hooks of the Transverse Link are hooked on the Rod. Tighten Screw to half torque position, and then tighten every Screw to nal torque position with the Cross Link Driver. [or 4mm Hexa Driver with Torque Wrench by 7N]

9. Revision or Removal

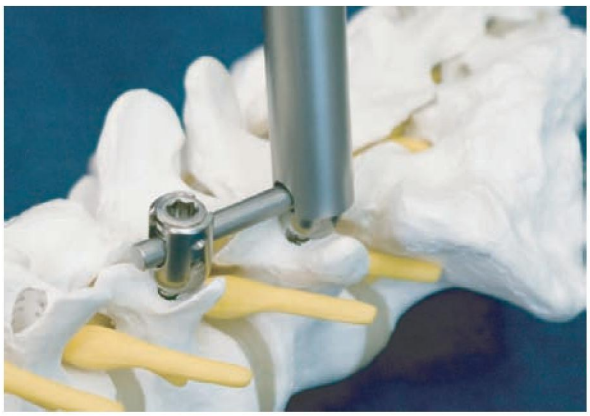
Steps for Screw removal or revision.

Step 1 Remove Transverse Link



1. Release the Set Screw using the Torque Wrench for T/L. Remove the Set Screw from the T/L hook. Then remove the Transverse Link using the Rod Holder.

Step 2 Remove Set Screw



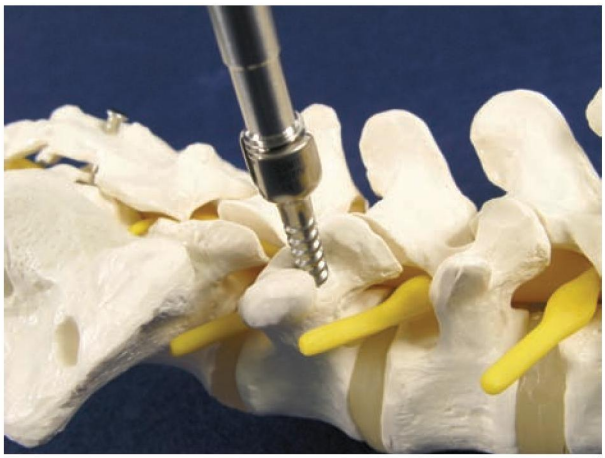
1. Release the Set Screw by creating Anti-Torque with the Torque Wrench. Rotate the Set Screw around just once to release.

2. Remove the Set Screw using the Set Screw Driver Guide.

3. Remove the Rod using the Rod Holder

4. In case of revision, remove the Set Screw after doing the #3 procedure above.

Step 3 Remove Screw



1. Combine the Screw to be removed with the Mono Screw Driver or the Poly Screw Driver. Use full force of hand to combine the Screw and the Screw Driver.

2. Rotate the Mono Screw Driver or Poly Screw Driver counterclockwise slowly. Rotate as slow as possible when the screw is not rotating.

3. All Screws should be removed using step 2 above.
In revision use a bigger size Screw than previously used. (recommend +0.5mm)

Specialist Selections

Products List with Part number

Awl OSM0010

Probe Straight OSM0031

Probe Curved OSM0030

Tester Thin OSM0040

Tester Thick OSM0041

Guide Pin A-Type OSM0021

Guide Pin B-Type OSM0022

Tap 5.5mm FX.IN.0110

Tap 6.5mm FX.IN.0120

Tap 7.5mm FX.IN.0130

Poly Screw Driver FX.IN.0020

Mono Screw Driver FX.IN.0010

Ratchet Handle OSM0053

Rod Holder OSM0010

Rod Bender FX.IN.0050

Rod Pusher OSM00E0

Rod Fork OSM00M0

Set screw Driver Guide OSM00C0

Retractor OSM00L0

Derotator OSM00H0

Compressor OSM0063

Spreader OSM000064

Torque Wrench for Set Screw OSM0051

Torque Wrench for Transverse Link OSM0052

Set Screw Driver OSM00D0

Power Holder OSM00B0

Persuader FX.IN.0060

Cross Link Driver OSM00A0

Cutter OSM0069

In-Situ Rod Bender Right OSM0055

In-Situ Rod Bender Left OSM0054

4mm Hexa Driver OSM0060

5mm Hexa Driver OSM0061

Instrument Set