

# Erisma<sup>®</sup> - LP MIS



Designed for the spine

**MANUFACTURER**

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# Table of Contents

Introduction	1
Features & Benefits	4
Surgical Technique	6
Product Catalog	26
Screwdriver Assembly	30

## Introduction

*Erisma®-LP MIS is a pedicle screw system designed for the stabilization of the posterior lumbar spine.*

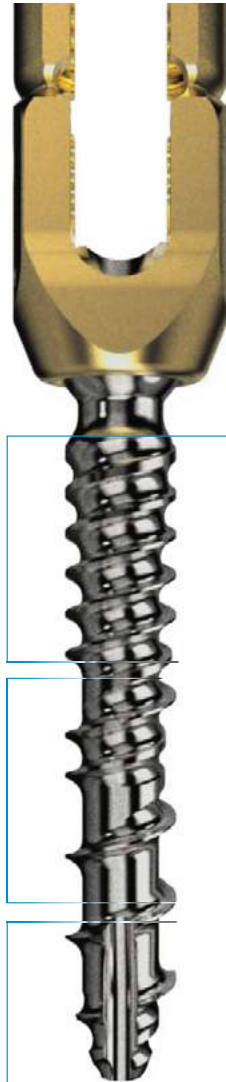
*The new Erisma®-LP MIS design is based on the same efficient techniques as the Erisma®-LP Evolution, satisfying surgeons' needs regarding reliability, security, and ease of use. With a coherent set of implants and instruments, the Erisma®-LP MIS can be used for treating multiple thoraco-lumbar pathologies.*

*The Secure Guidewire of the Erisma®-LP MIS system enhances the security of MIS surgery.*

### › Indications

Degenerative pathologies
Spinal deformities
Tumors
Trauma
Spondylolisthesis

# Features and Benefits



Cortical Zone

Cancellous Zone

Initiation Zone

## Extended Tab

› Integrated thread for rod reduction.

## Friction Fit Head

› Easier screw manipulation.

## Double Threaded 3-Zones

› Unique design facilitates screw engagement in the pedicle for easier insertion.



## Polyaxial Screw Head

› A screwhead angulation of 50° provides great flexibility in screw positioning and allows quick and easy insertion of the rod.

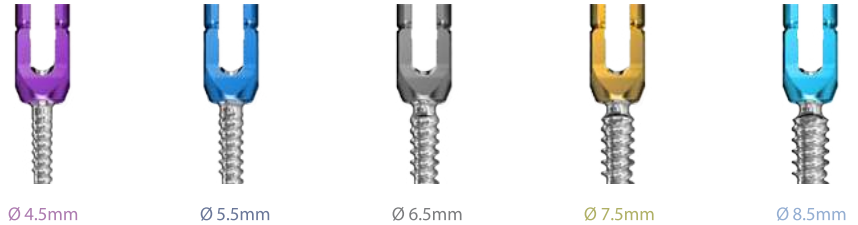


## Comprehensive Range

›Erisma® - LP MIS offers a comprehensive range of implants for treating multiple indications with just one system, simplifying the surgical technique.

### Polyaxial Screws

›Color coded by screw dimension



### Pre-Bent Rods

›Ø 5.5mm, Length 30mm through 100mm



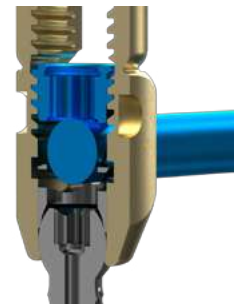
### Straight Rods

›Ø 5.5mm, Length 40mm through 490mm



### Strong Connection

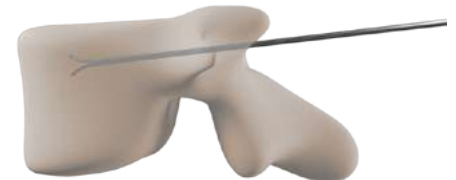
›Asymmetrical threading of the set screw prevents splaying of the screw head and maximizes rod grip strength.



## Instrumentation

### Secure Guidewire

›The Secure Guidewire enhances security during tapping and screw insertion, while preventing penetration of the anterior cortical wall of the vertebra and significantly reducing the risk of pre-mature, involuntary removal of the Secure Guidewire.



### Persuader

›Powerful and controlled rod reduction.



# Surgical Technique

1	Pedicle Screws
2	Pedicle Screw Preparation
3	Pedicle Screw Insertion
4	Removal of Protector Tube
5	Rod Preparation
6	Rod Insertion
7	Insertion of the Set Screw
8	Correction Maneuvers
9	Final Tightening
10	Removal of Extended Tabs
11	Technique for Premature Extended Tab Breakage
12	Ablation

The patient is positioned on the table in accordance with standard protocol. X-Ray guidance is used to identify the correct site. The surgical approach is carried out according to the standard techniques of the responsible surgeon.



## Pedicle Screws

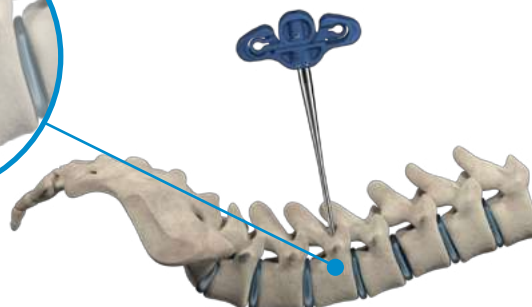
1

### A ■ Positioning of Jamshidi Needle

The **Jamshidi** needle is aligned with the pedicle of the selected level.



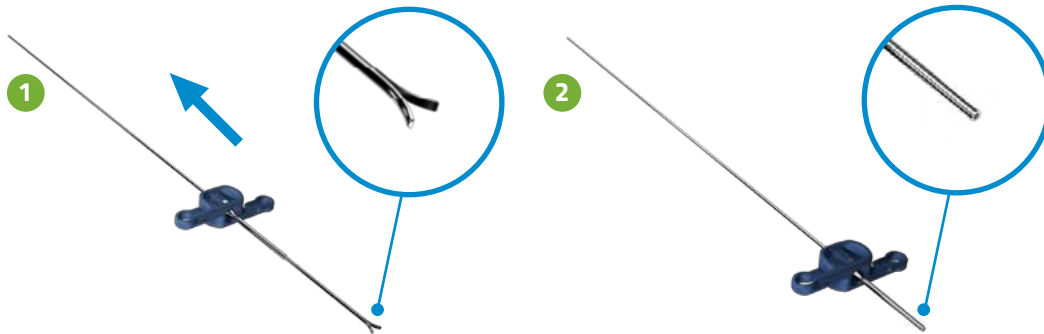
07709225 (reusable)  
99709000 (single-use)  
JAMSHIDI



dorsal view

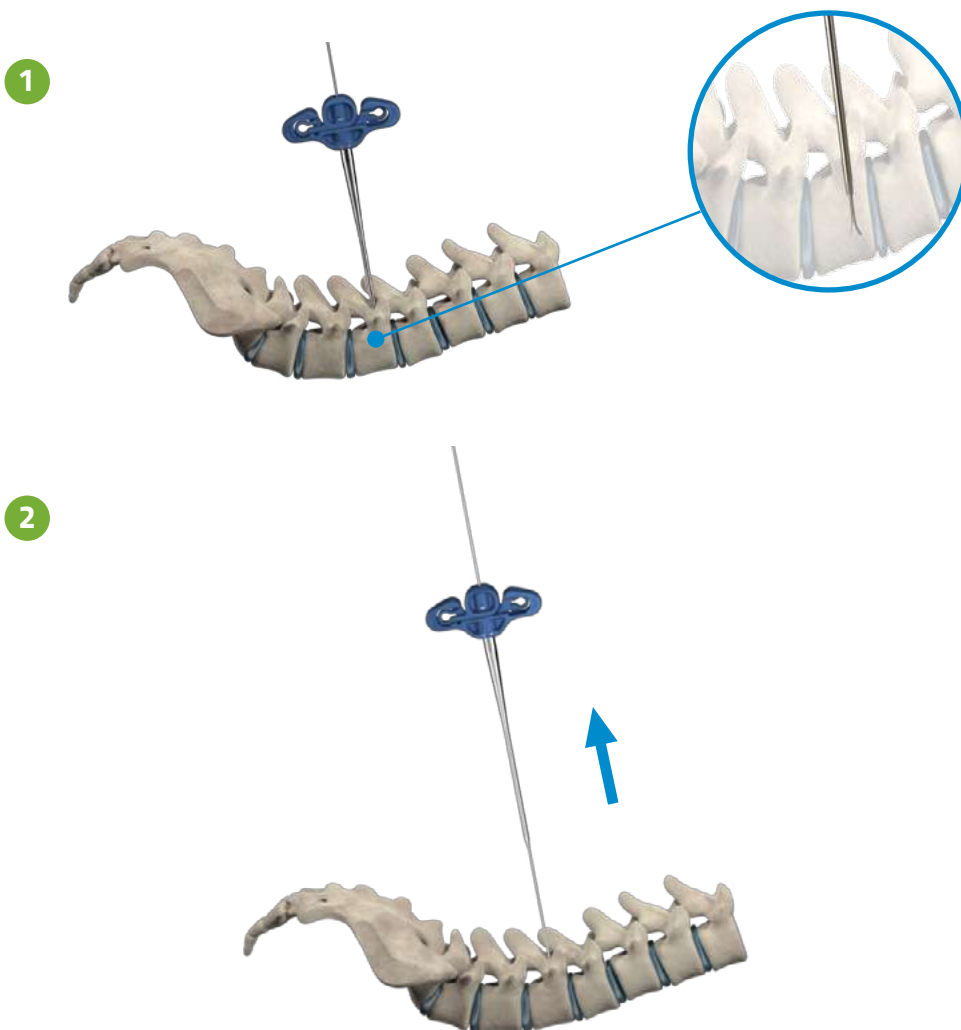
## B ■ Insertion of Secure Guidewire

The **Secure Guidewire** is inserted through the **insertion tube** until complete retraction of the tulips occurs.



After removal of the inner needle of the **Jamshidi**, the **insertion tube** is introduced in the **Jamshidi** needle and locked.

The **Secure Guidewire** is directed into the **Jamshidi** needle until the tulips deploy in the vertebral body. The **Jamshidi** needle and **insertion tube** are then removed.



13709050  
SECURE GUIDEWIRE



13720001 (reusable)  
13720003 (single-use)  
INSERTION TUBE



13707001 / 13707002  
DILATOR TUBES



13719003  
PROTECTOR TUBE



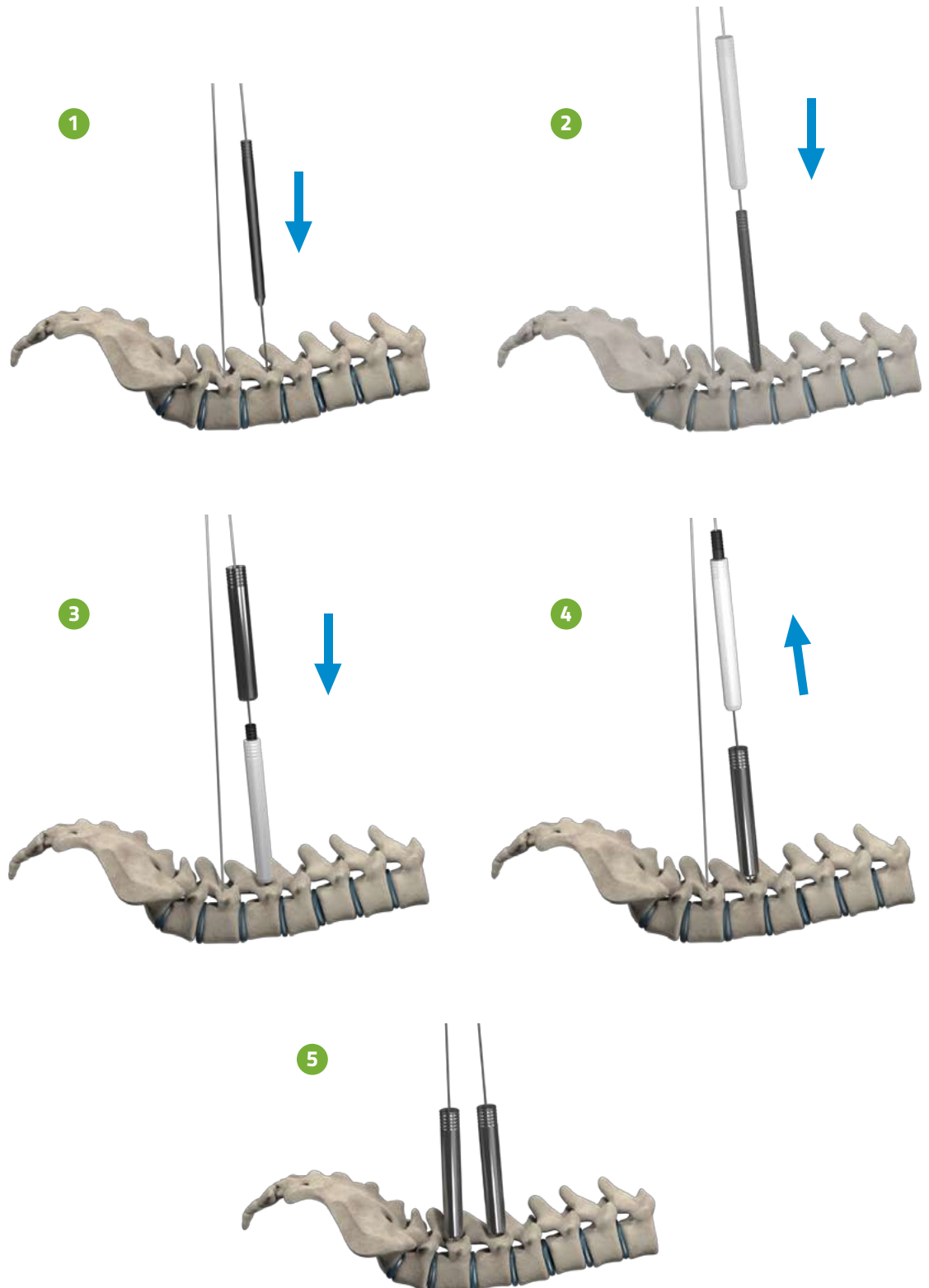
99702004  
SQUARE AWL

## Pedicle Screw Preparation

2

### A ■ Dilator Tube Placement

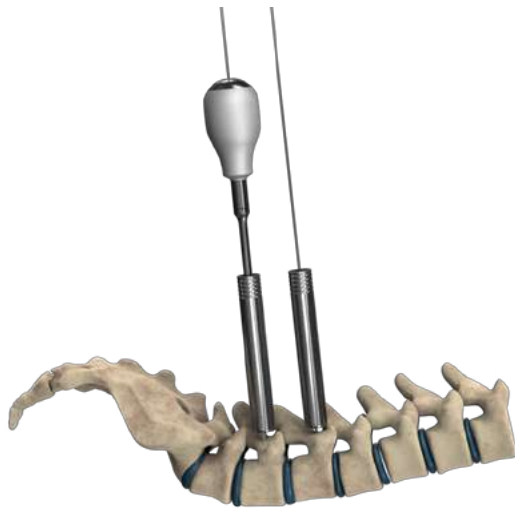
The initial incision is enlarged by sliding the dilators along the **Secure Guidewire**. The **protector tube** is then positioned on the dilators. After the **protector tube** has been inserted, the **dilators** can be removed.





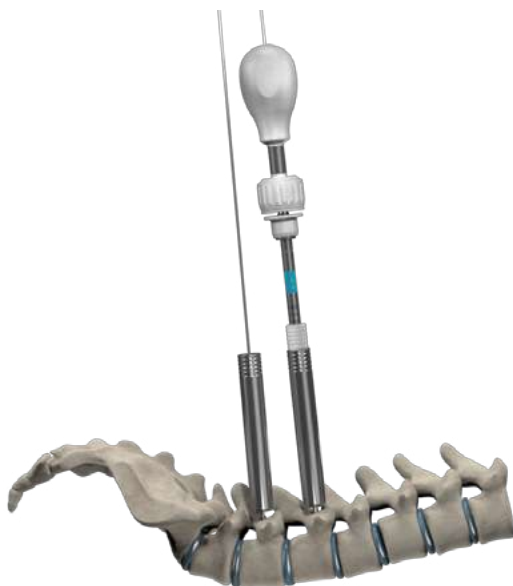
## B ■ The Square Awl

The pedicle is prepared by penetrating the cortical bone with the **square awl**.



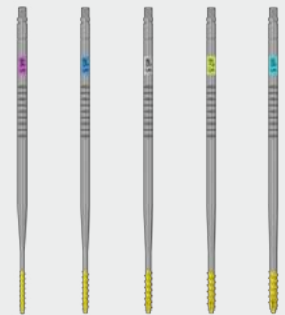
## C ■ Tapping

The **tap** corresponding with the diameter size of the selected screw should be chosen. **Taps** are color coded in accordance with the color coding guide of the screws.



## Recommendation

Markings on the **tap** can be used to estimate screw length. The second dilatator must remain in place during tapping.



997015\*\*  
TAP

## Pedicle Screw Insertion

3

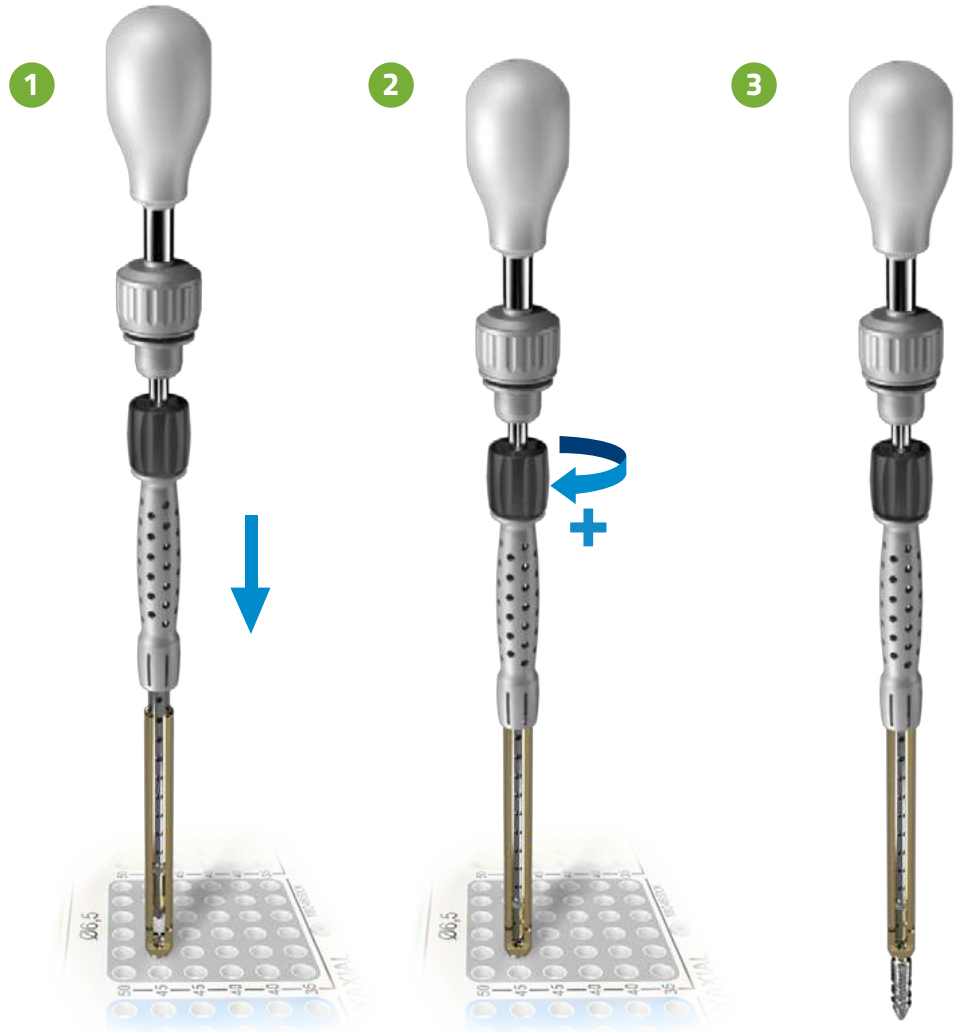
The selected screw is secured on the **screwdriver** by tightening the black knob clockwise.



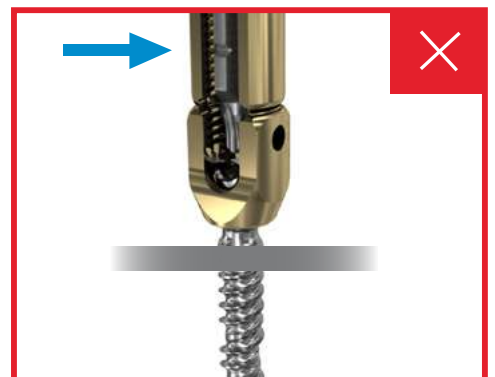
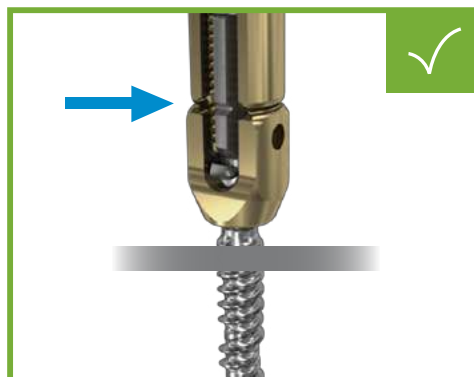
13710005  
SCREWDRIVER



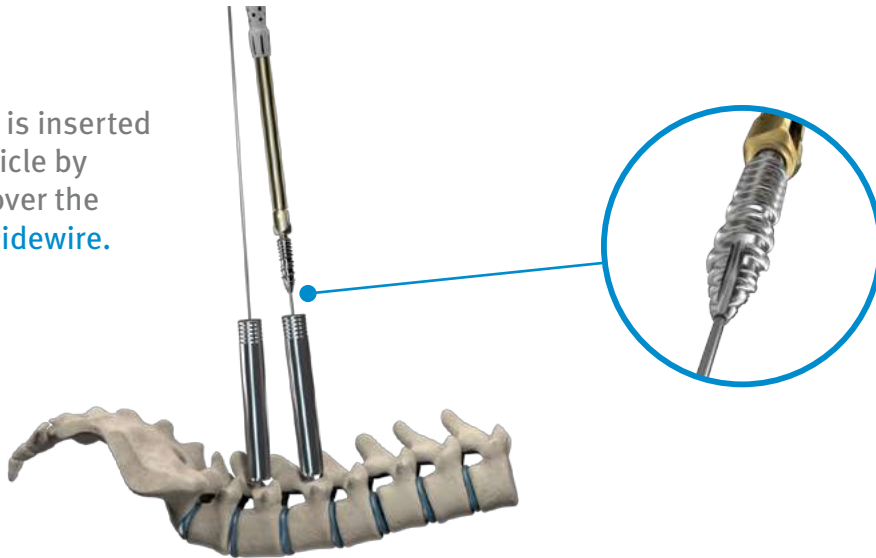
99780100  
SQUARE AWL HANDLE



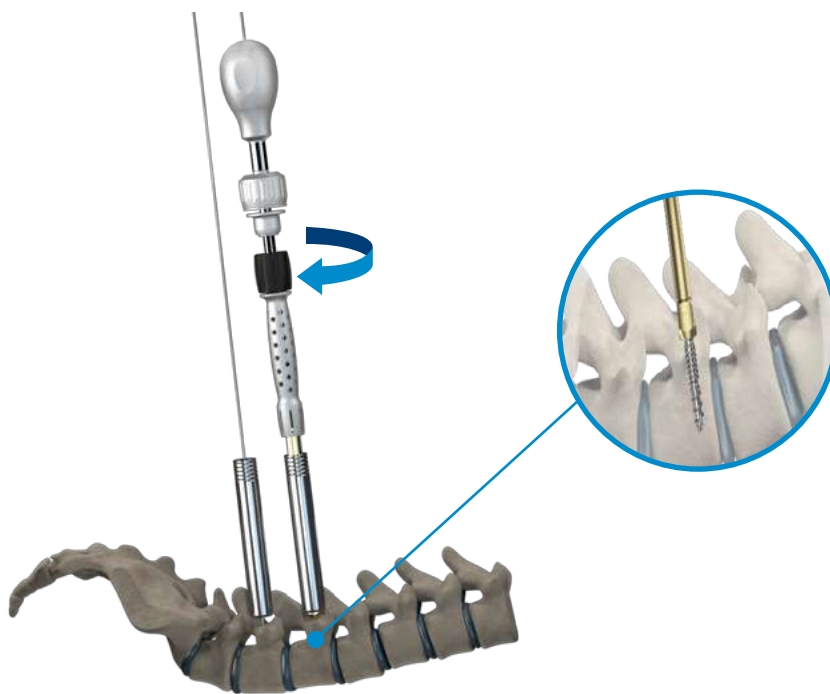
Visual control of the screw attachment is recommended.



The screw is inserted in the pedicle by sliding it over the **Secure Guidewire**.



The **screwdriver** is released by turning the black knob counterclockwise.



### Recommendation

The **Secure Guidewire** should be removed as soon as the pedicle screw is engaged in the bone.

Failure to do so may result in obstruction of the **Secure Guidewire**.

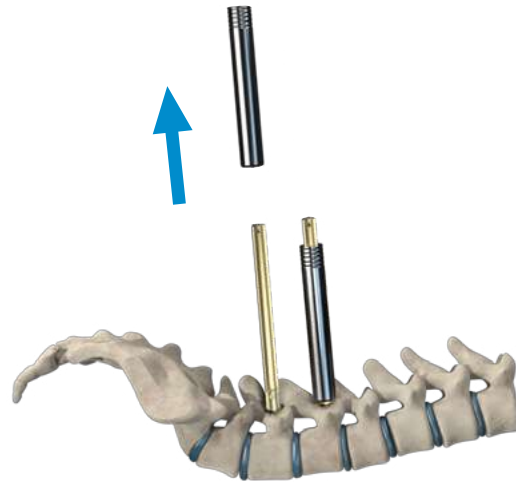


99762001  
PLIERS

## Removal of Protector Tubes

4

Once the screws are inserted, the **tubes** are removed.



## Rod Preparation

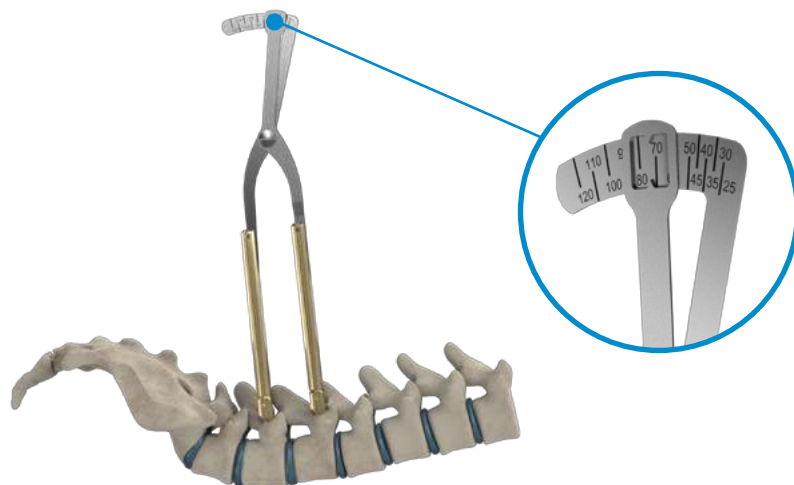
5

### A ■ Rod Length Selection

The appropriate rod length is determined through the use of the **rod selector**. If the measurement is between two increments, the longer rod should be chosen.

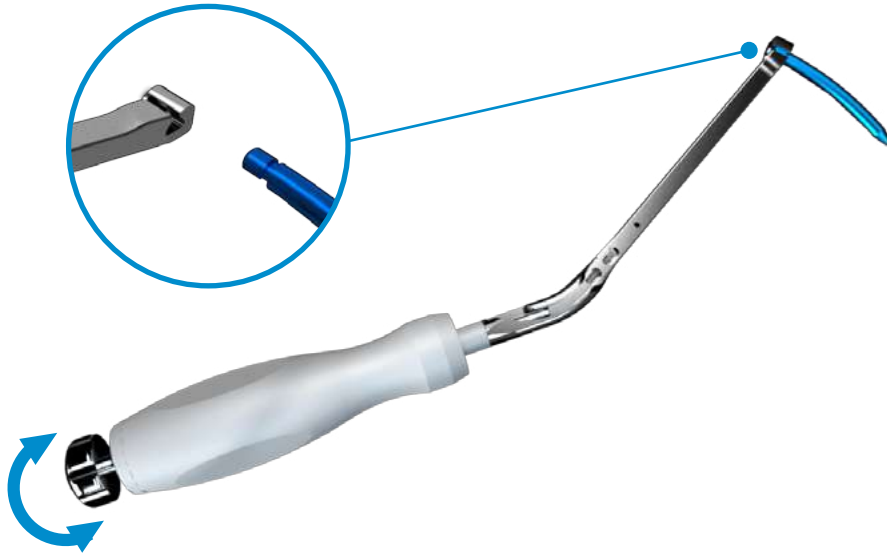


13731000  
ROD SELECTOR



## B ■ Rod-Rod holder Connection

The **rod holder** is connected to the flat end of the rod. The connection between the rod and the instrument is secured by turning the knob clockwise.



## C ■ Rod Bending

If necessary, the curvature of the rod can be adjusted using the French bender.

## Recommendation

It is recommended to secure the rod to the rod holder before using the French bender.



13711000  
ROD HOLDER

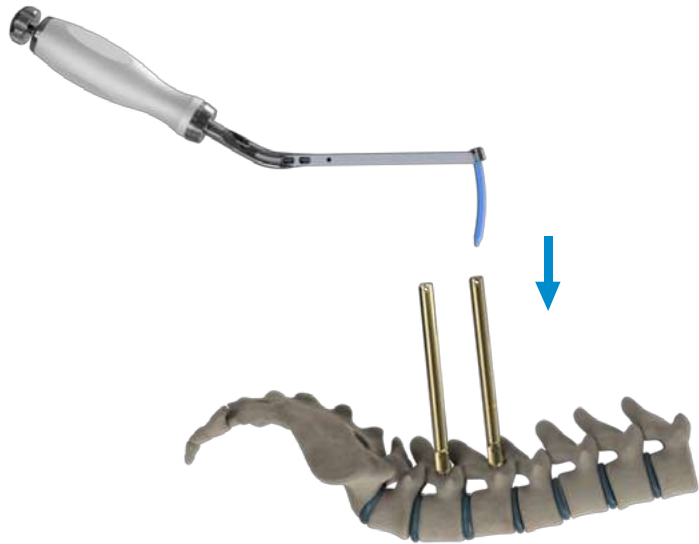


13711001  
ROD HOLDER



99750003  
FRENCH BENDER

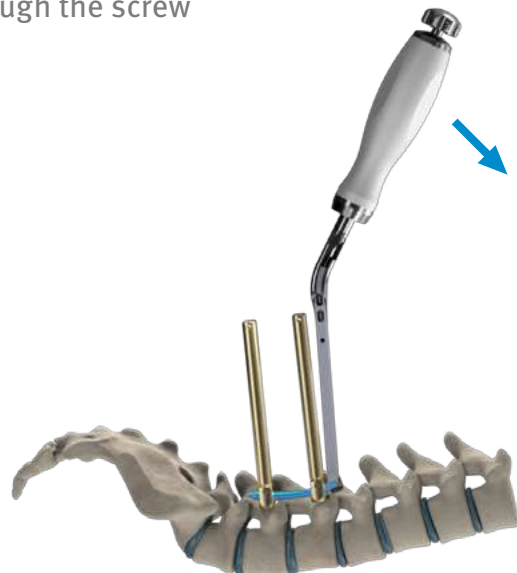
1. The rod is inserted vertically in the cranial screw.



2. The screw heads are aligned on the instrument shaft.



3. The rod is inserted through the screw heads.



## Recommendation

Do not release the rod holder until the set screws are inserted.



The gauge is inserted in the screw heads to verify the rod position.

The marking on the gauge indicates the appropriate instrument for set screw insertion.



If the tip of the screw extension is between the two markers, then use the **T30 Screwdriver** for set screw insertion.



If the tip of the screw extension is located below the bottom marker, then use the **Persuader** for set screw insertion.



If the tip screw extension is located above the top marker, then the rod must be repositioned.



13733002  
GAUGE

## Insertion of the Set Screw

7

### A ■ Insertion with the T30 screwdriver

### Recommendation

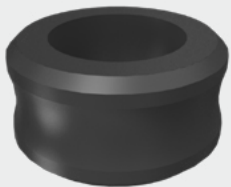
Peek rings are available to avoid splaying of the screw-tabs during set screw insertion.



01720006  
T30 SCREWDRIVER



99781212  
12N m LIMITING  
TORQUE HANDLE



13722002  
PEEK RING



13742000  
PERSUADER



### B ■ Insertion with Persuader

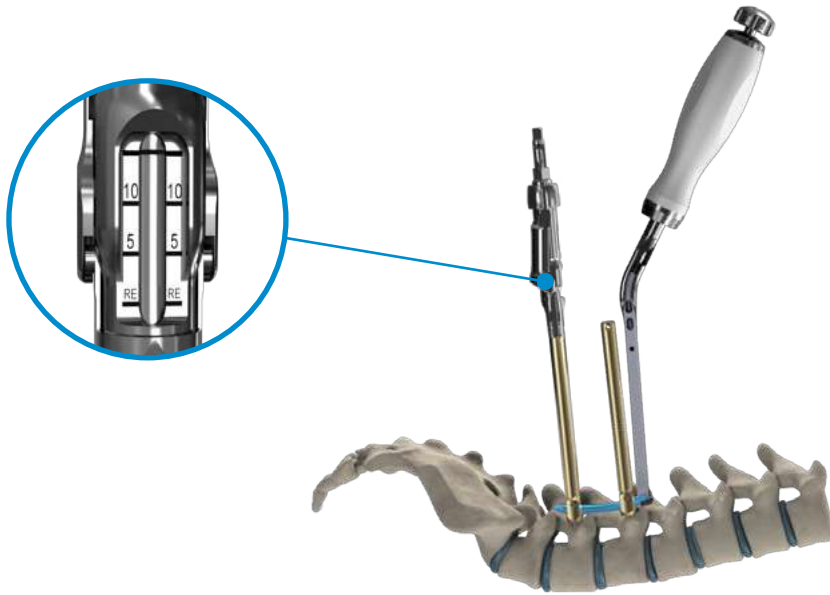
1. The set screw is attached to the persuader by pressing the set screw onto the instrument until a “click” is heard.

clic





2. The instrument is connected to the screw head.

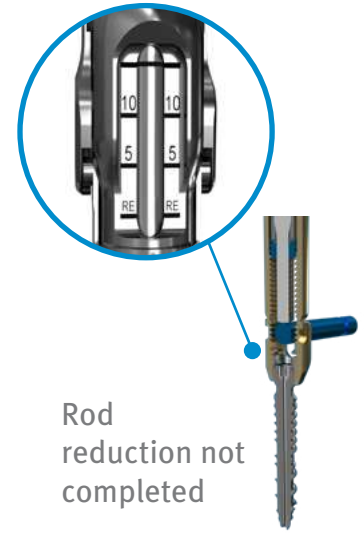
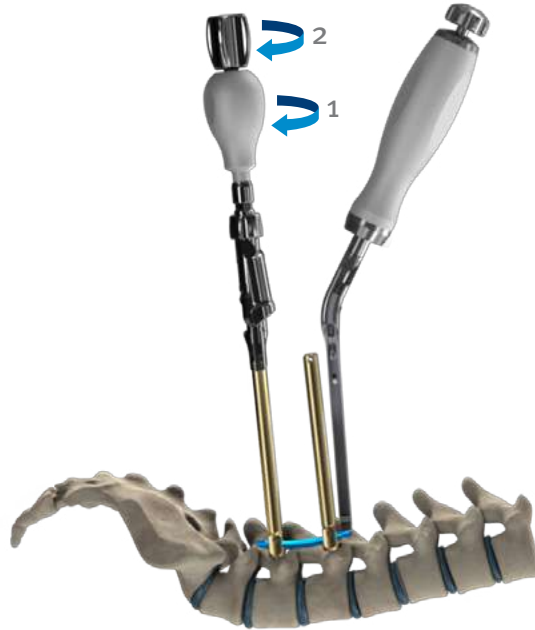


3. The handle is inserted onto the instrument.

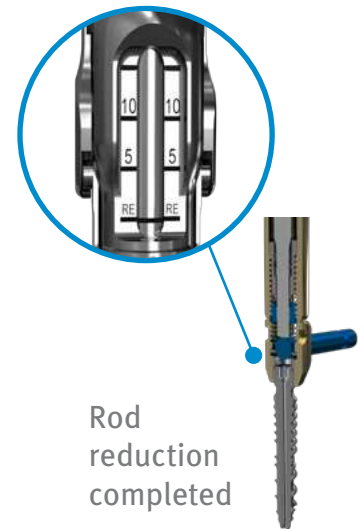
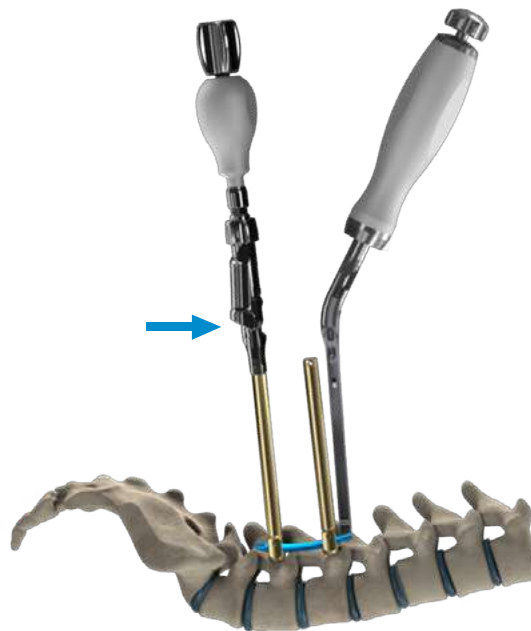


1378000  
PERSUADER HANDLE

4. The handle is turned clockwise, which pushes the rod into place. The knob is then turned clockwise for set screw insertion.



5. Push the trigger to remove the instrument.



## Correction Maneuvers

8

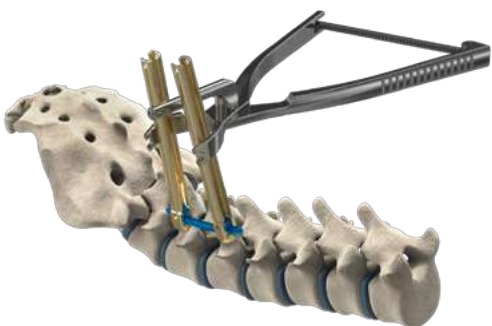
The **pliers** have two different positions for **compression** and **distraction**, indicated by engravings on the instrument.



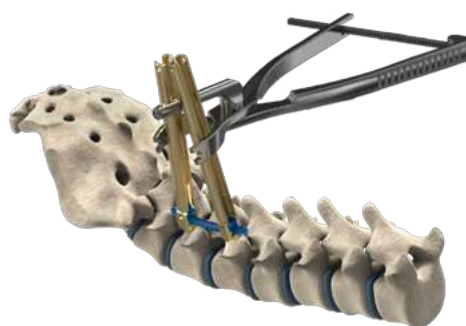
### A ■ Compression

For compression, the **pliers** are applied to the proximal part of the screw tabs. The cylinder must be positioned above the **pliers**.

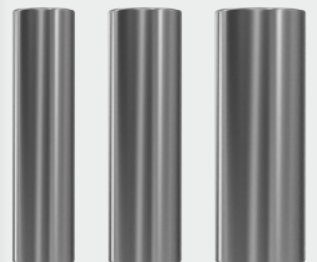
1



2



13740000  
COMPRESSION/  
DISTRACTION PLIERS



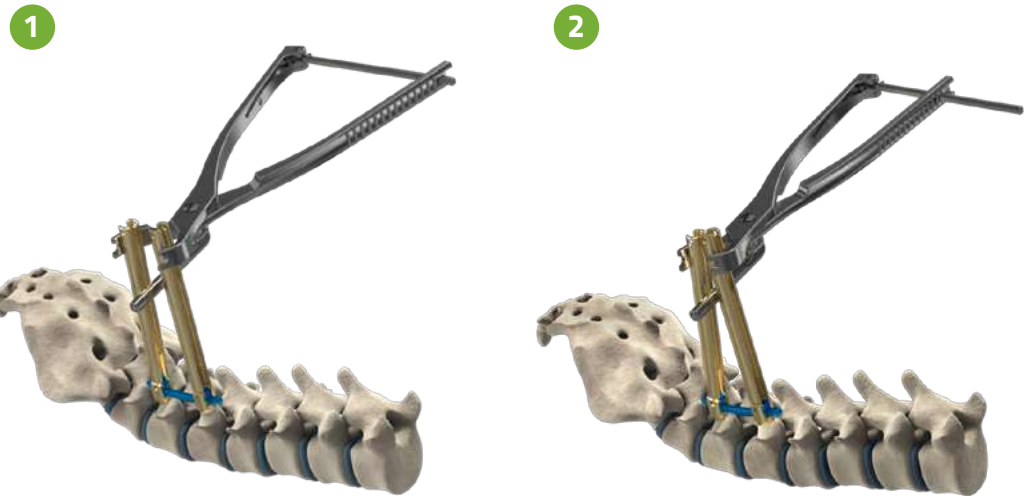
13747001 Ø12mm  
13747002 Ø14mm  
13747003 Ø16mm

GUIDE TUBE

If the screw heads are too far apart, then use the appropriate **guide tubes**.

## B ■ Distraction

For distraction, the **pliers** are applied to the distal part of the screw tabs. The cylinder of the **pliers** should be positioned below the **pliers**.



13721001  
COUNTER TORQUE

## Final Tightening

9

The **counter torque** is positioned on the screw head. The **T<sub>30</sub> screwdriver** is connected to the **12N m torque limiting T-handle** and inserted into the **set screw** through the torque limiting handle. The final tightening is done until the torque limiting handle clicks.



99781212  
12N m TORQUE  
LIMITING HANDLE



## Removal of extended tabs

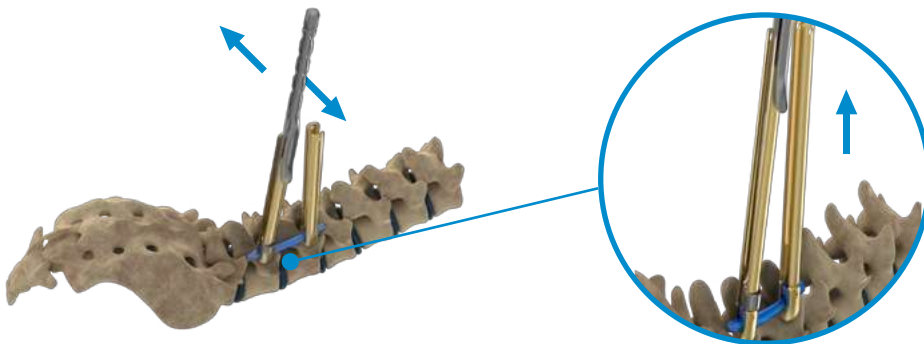
10

The **pliers** are applied to the removable part of the screw tabs. A lateral back and forth movement separates the tabs.

1



2



13722001  
TAB BREAKER

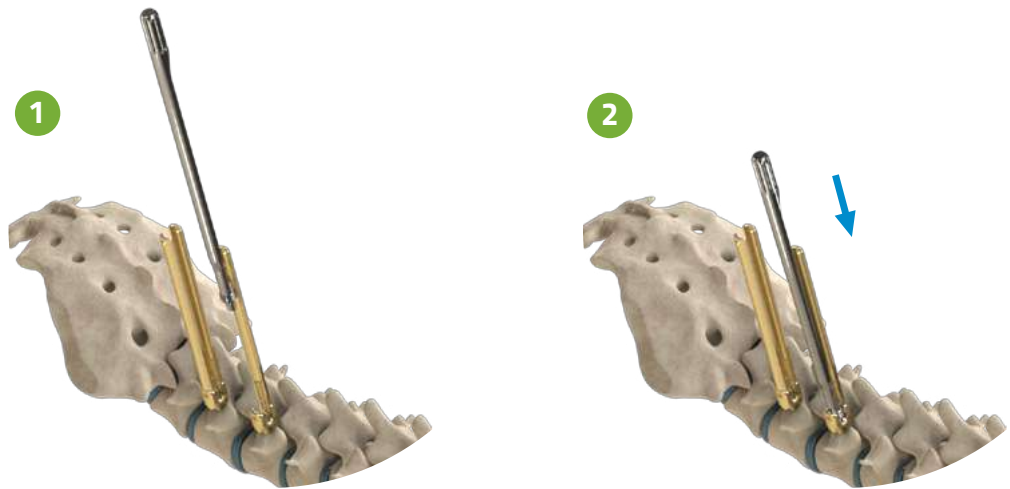
## Technique for Premature Extended Tab Breakage 11

### A ■ First Operation

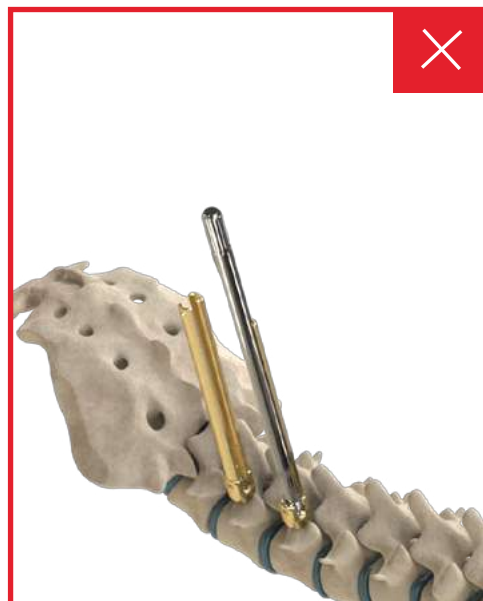
The Guide for **rescue tube** is screwed in the pedicle screw head.



13719006  
GUIDE FOR RESCUE TUBE

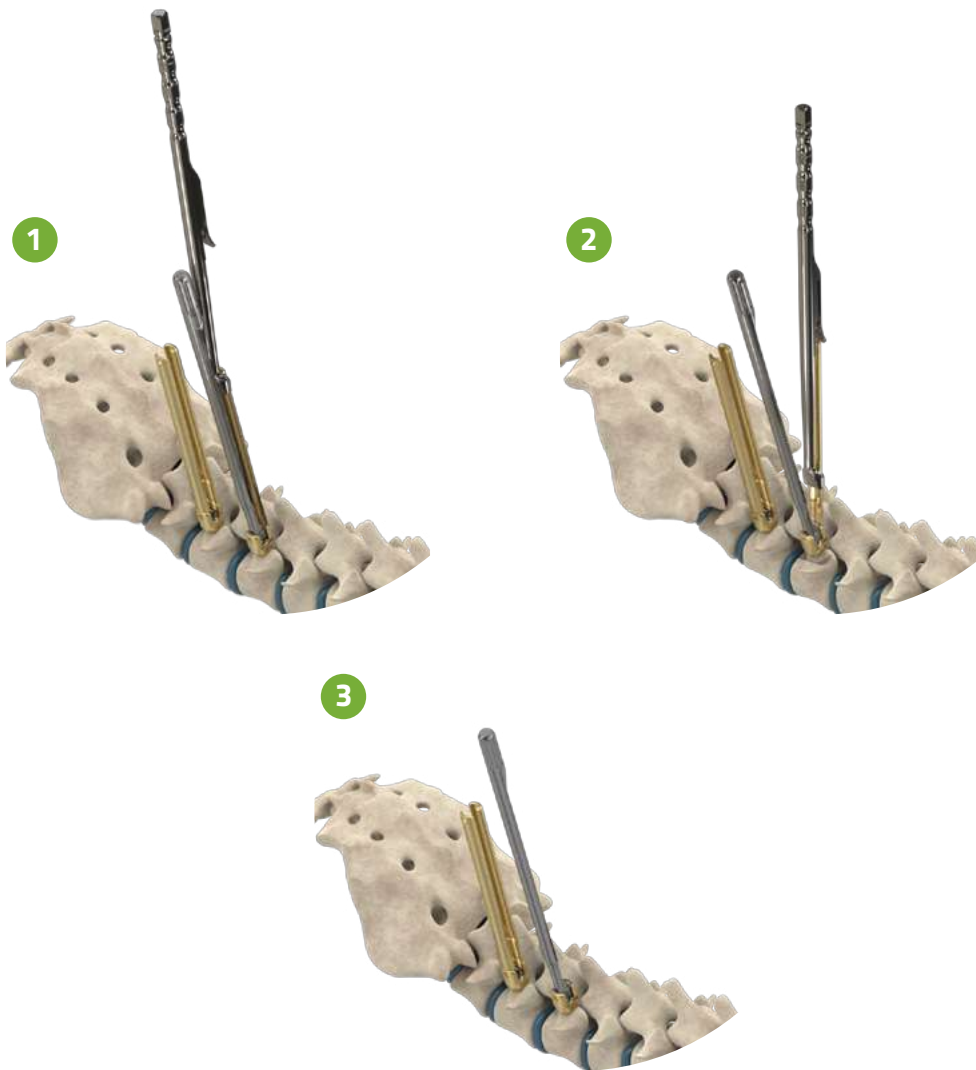


The concave shape of the **rescue tube** must be parallel to the pedical screw tabs.



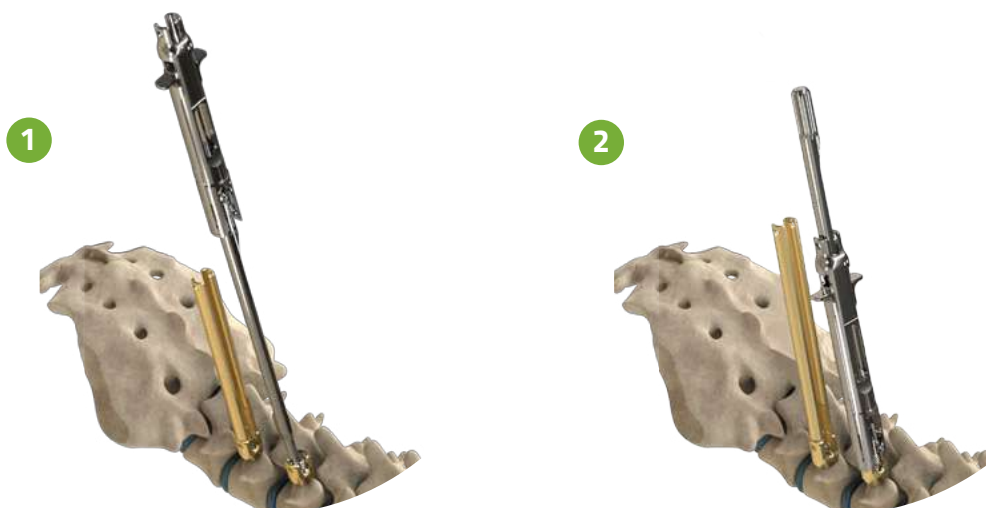
## B ■ Second Operation

The Remaining tab is broken off.



## C ■ Third Operation

The **rescue tube** slides down the **guide for rescue tube** and clips onto the pedicle screw head.



13719005  
RESCUE TUBE

## D ■ Fourth Operation

Once the **rescue tube** is properly positioned on the pedicle screw head, the **guide for the rescue tube** can be removed.

1



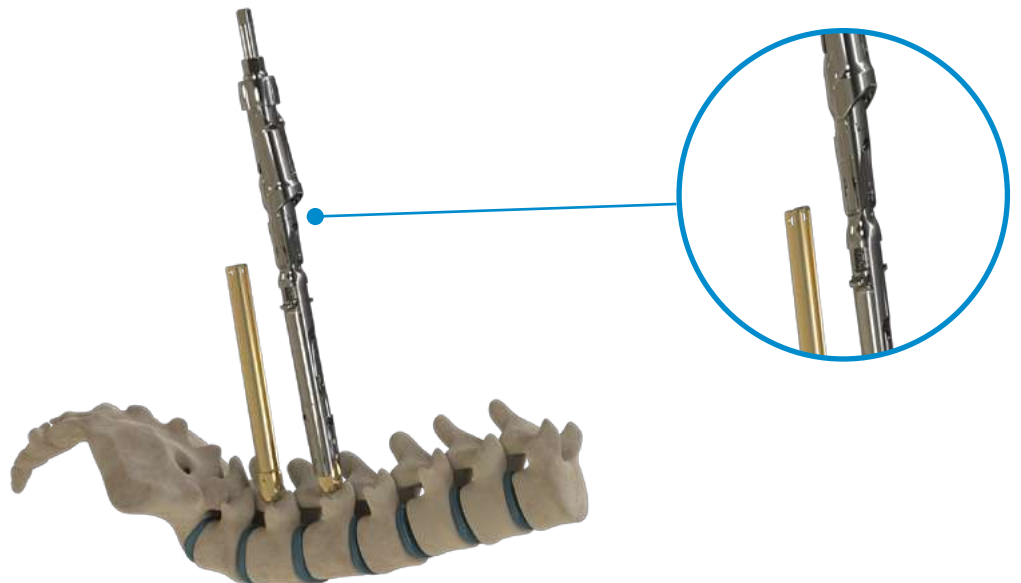
2



3



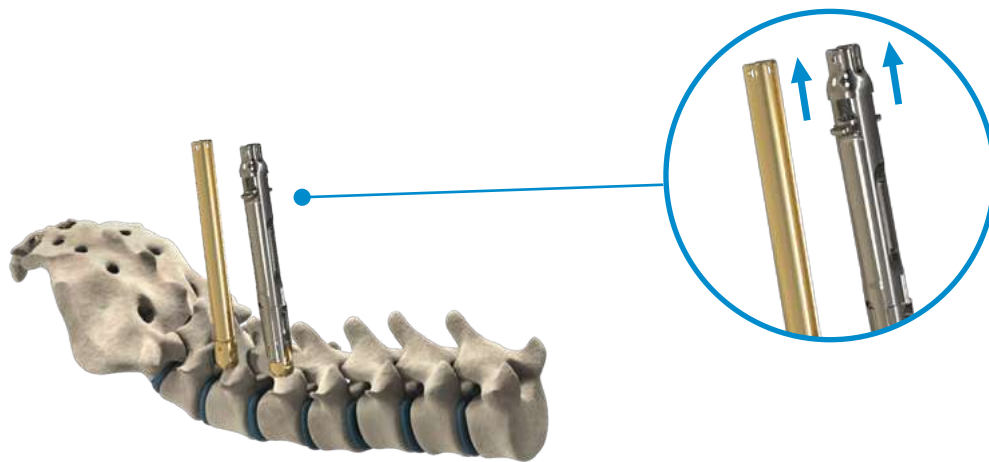
The **persuader** can be attached on the rescue tube.



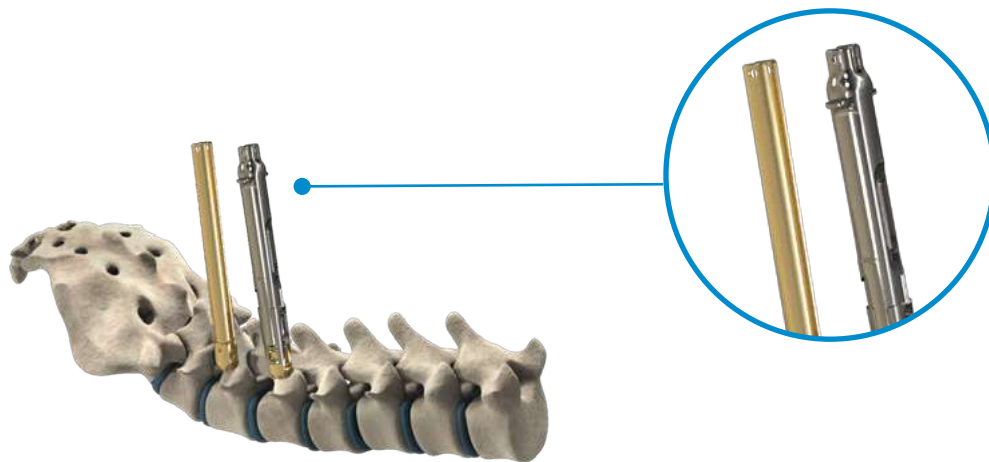


Removing of the **rescue tube**.

1



2



## Ablation

12

If the need for an ablation occurs, please contact the customer service department of **CLARIANCE**. The required material will be shipped at your convenience.

# Product Catalog



**JAMSHIDI (resuable)**  
(single-use) 07709225  
99709000



**SECURE GUIDEWIRE** 13709050



**INSERTION TUBE (resuable)**  
(single-use) 13720001  
13720003



**DILATOR TUBES** 13707001 / 13707002



**PROTECTOR TUBE** 13719003



**SQUARE AWL** 99702004



**TAP**

Ø 4,5 mm	99701545
Ø 5,5 mm	99701555
Ø 6,5 mm	99701565
Ø 7,5 mm	99701575
Ø 8,5 mm	99701586



**SQUARE AWL HANDLE** 99780100



**SCREWDRIVER** 13710005



**PLIERS** 99762001



**ROD SELECTOR** 13731000



**ROD HOLDER** 13711000  
13711001



**GAUGE**

13733002



**T30 SCREWDRIVER**

01720006



**PERSUADER**

13742000



**PERSUADER HANDLE**

13780000



**COMPRESSION /  
DISTRACTION PLIERS**

13740000



**COUNTER TORQUE**

13721001



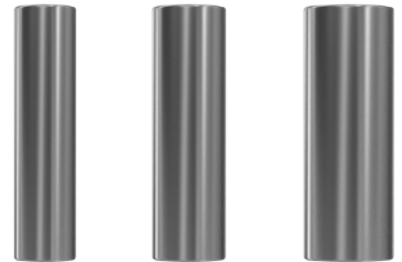
**12N m LIMITING TORQUE HANDLE**

99781212



**TAB BREAKER**

13722001



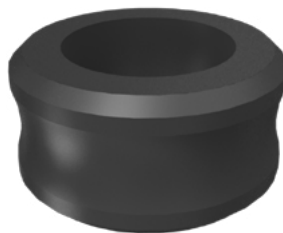
**GUIDE TUBE**

Ø 12 mm	13747001
Ø 14 mm	13747002
Ø 16 mm	13747003



**FRENCH BENDER**

99750003



**PEEK RING**

13722002



**POLYAXIAL SCREW**

L. (mm)	Ø 4,5	Ø 5,5	Ø 6,5	Ø 7,5	Ø 8,5
25	13014525	13015525	-	-	-
30	13014530	13015530	13016530	13017530	-
35	13014535	13015535	13016535	13017535	-
40	13014540	13015540	13016540	13017540	13018540
45	13014545	13015545	13016545	13017545	13018545
50	-	13015550	13016550	13017550	-
55	-	13015555	13016555	13017555	-



**PRE-BENT RODS**

Length (mm)	Reference
30	13435030
35	13435035
40	13435040
45	13435045
50	13435050
55	13435055
60	13435060
65	13435065
70	13435070
75	13435075
80	13435080
95	13435095
100	13435100



**STRAIGHT RODS**

Length (mm)	Reference
40	13495040
50	13495050
60	13495060
70	13495070
80	13495080
90	13495090
100	13495100
110	13495110
120	13495120
140	13495140
160	13495160
180	13495180
200	13495200
440	13495440
490	13495490



**LOCKING SCREW**

13620009

# Trays

Instrument Tray #1	13991000
Lid for Instrument Tray #1	13991001
Instrument Tray #2	13991002
Lid for Instrument Tray #2	13991003
Instrument Tray #3	13991004
Lid for Instrument Tray #3	13991005
Lid for Implant Tray #1	13991006
Implant Tray #1	13991007
Lid for Implant Tray #2	13991008
Implant Tray #2	13991009
Set Screw Rack	13991010

# Assembly Instructions

1. Slide the sleeve on the screwdriver body until the black knob.



2. Fully insert the quick-connect shaft in the screwdriver body through the black knob.



3. Insert the shaft in the screwdriver body while exercising a pressure on the quick-connect shaft.



13911004  
QUICK-CONNECT SHAFT

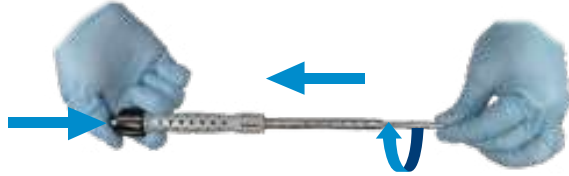


13914003  
SLEEVE



18912026  
SCREWDRIVER BODY

4. Once the shaft is fully engaged, slightly turn it while pushing until the shaft perfectly fit with the quick-connect shaft and clips.



5. Slightly pull the quick-connect shaft to facilitate the settle of the screwdriver handle.



13911009  
SHAFT

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