



Erisma[®] - **LP MIS**

POSTERIOR FIXATION



Surgical Technique - ENG



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Erisma-LP MIS

POSTERIOR FIXATION



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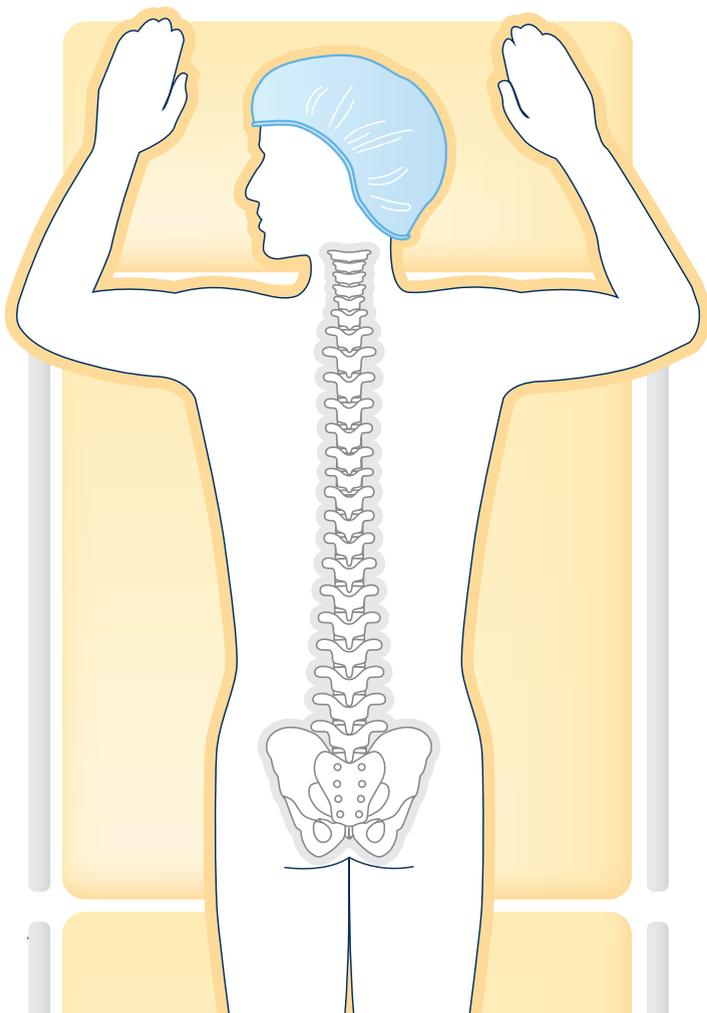
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Surgical Technique

To become the architects of spine, Clariance has developed its products in collaboration with expert surgeons in their practice from all backgrounds including from France and the US. Because of this diversity, Clariance offers solutions that meet all practices. This surgical technique guide is the result of the proximity between the surgeons and Clariance.



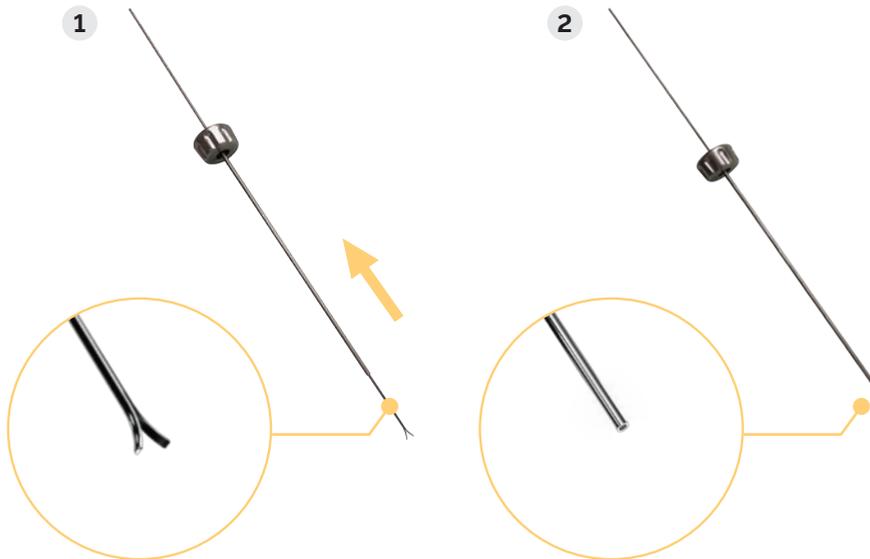
1 | PEDICLE TARGETING

- Insert a Pedicle Targeting Needle, compatible with a 1.5mm Ø guidewire, into the pedicle under fluoroscopy.
- Remove the stylet of the pedicle targeting needle and insert the **Guidewire Rounded Ø 1.5mm**.
- Carefully remove the pedicle targeting needle, leaving the Guidewire in the pedicle.

*In accordance with safety procedures in force, the patient is placed in the **ventral position** on the operating table. The surgical approach is based on the usual techniques used by the surgeon.*

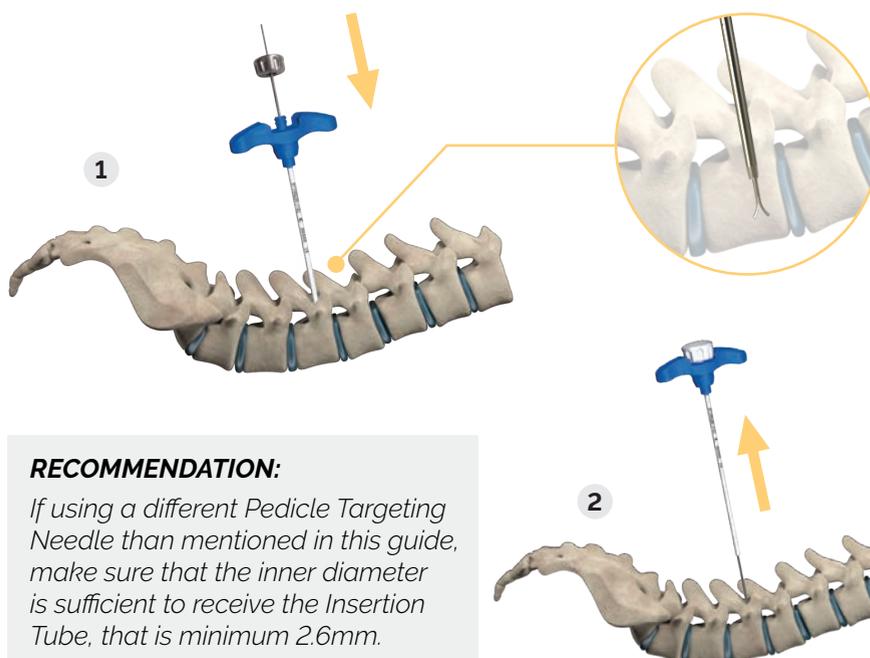
2 | SECURED GUIDEWIRE (OPTIONAL)

- Insert the **Secure Guidewire** through the **Insertion Tube** until complete retraction of the tulips occurs.



- Remove the inner needle of the pedicle targeting needle and introduce the Insertion Tube in the pedicle targeting needle.

Further direct the Secure Guidewire in the pedicle targeting needle until the tulips deploy in the vertebral body. Then remove the pedicle targeting needle and Insertion Tube.



RECOMMENDATION:

If using a different Pedicle Targeting Needle than mentioned in this guide, make sure that the inner diameter is sufficient to receive the Insertion Tube, that is minimum 2.6mm.

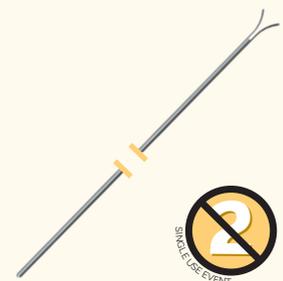
PEDICLE TARGETING NEEDLE

07709225
ACS11/15



SECURE GUIDEWIRE

13709050



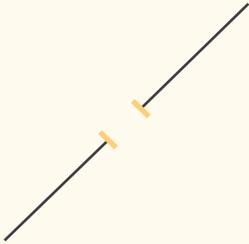
INSERTION TUBE

13720001 (reusable)



GUIDEWIRE ROUNDED Ø 1,5

15709500



DILATOR

13707001
13707002



TAP SLEEVE DILATOR

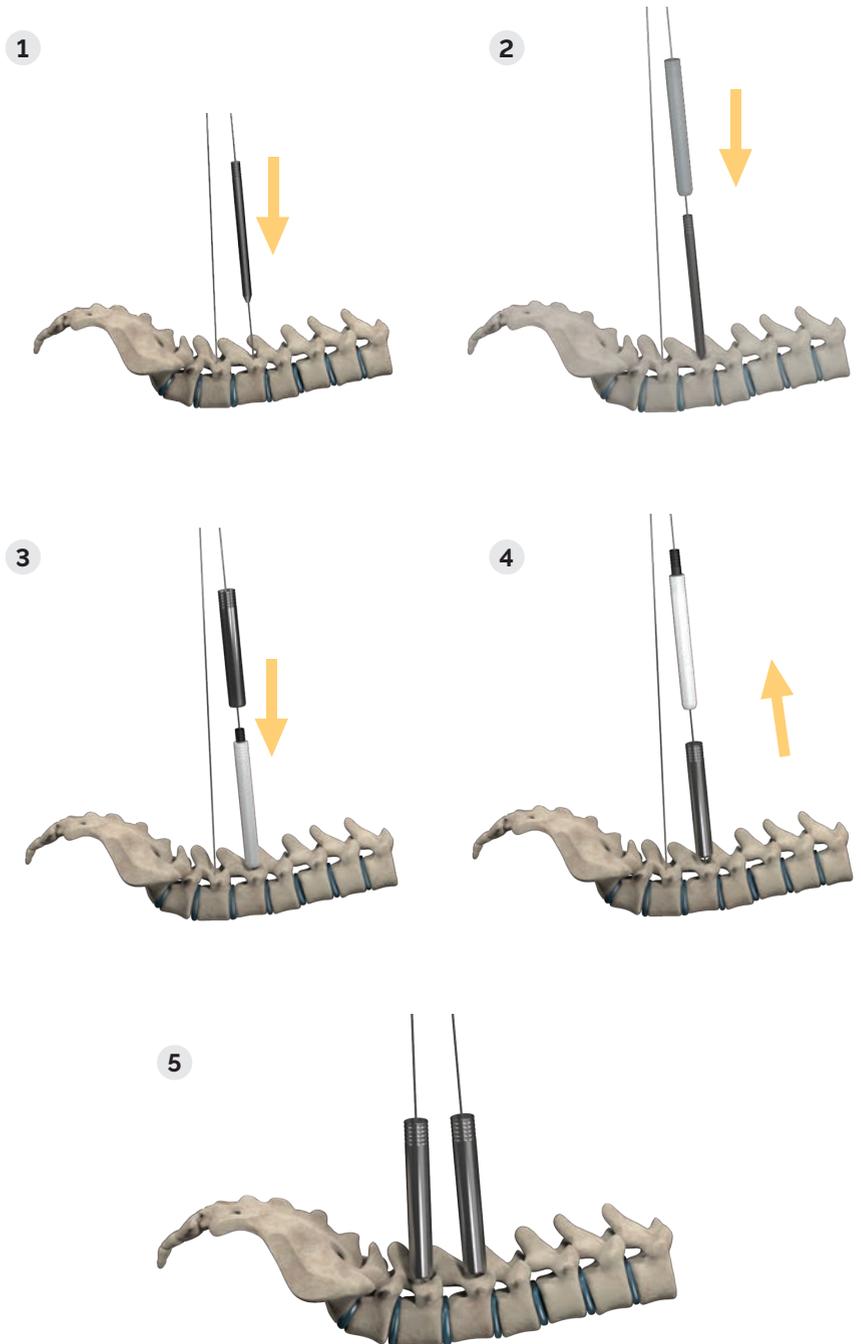
13719003



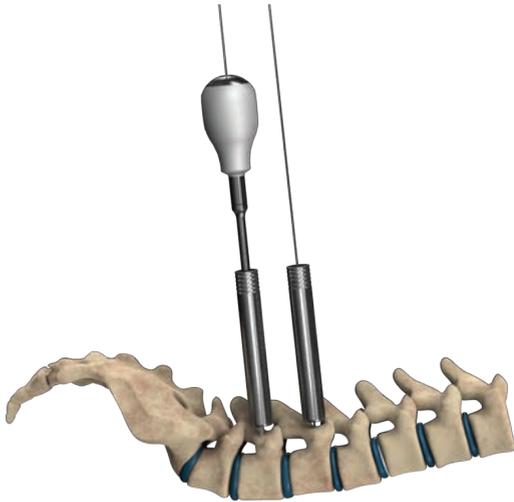
3 | PEDICLE PREPARATION

- Slide the smallest **Dilator** over the Guidewire, followed by the next largest Dilator and the **Tap Sleeve Dilator** to achieve gradual dilation.

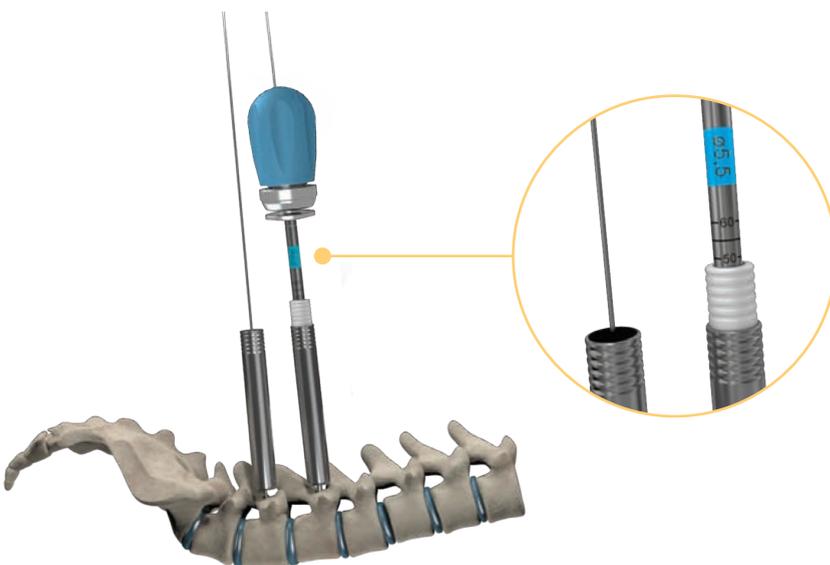
Once the Tap Sleeve Dilator is inserted, remove the other Dilators.



Insert the **Cannulated Bone Awl** through the Tap Sleeve Dilator and penetrate the cortical bone to prepare the pedicle.



- Select the **Tap** with the same diameter as the selected screw. Taps are color coded in accordance with the color coding of the Screws.
- Attach the **Cannulated Ratcheting Palm Handle** to the Tap.
- Keep the second Dilator in place during tapping.



RECOMMENDATION:

Use the markings on the Tap to estimate the Screw length.

CANNULATED BONE AWL

99702004



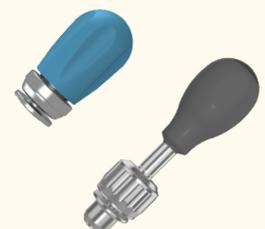
TAP

997015xx



CANNULATED RATCHETING PALM HANDLE

99780101
99780100



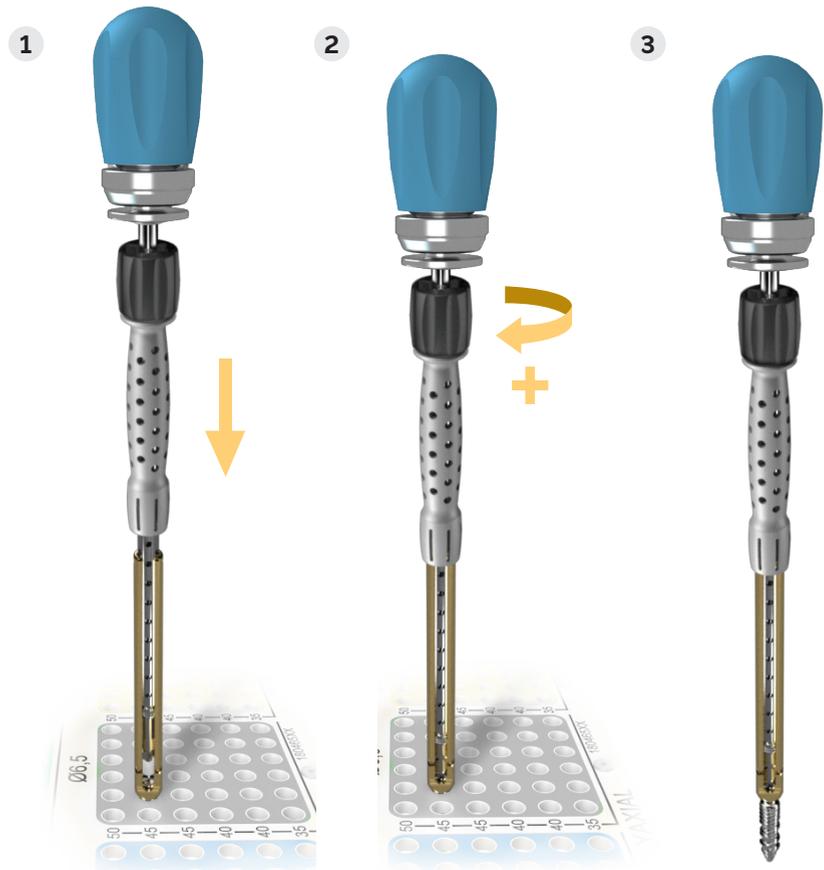
SCREWDRIVER

Assembly of
13911004
13914003
18912026
13911009

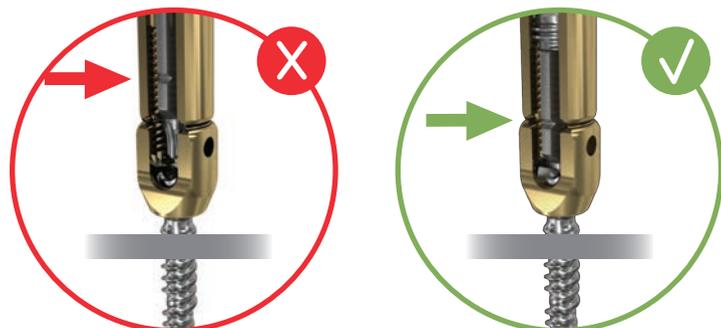


4 | PEDICLE SCREW INSERTION

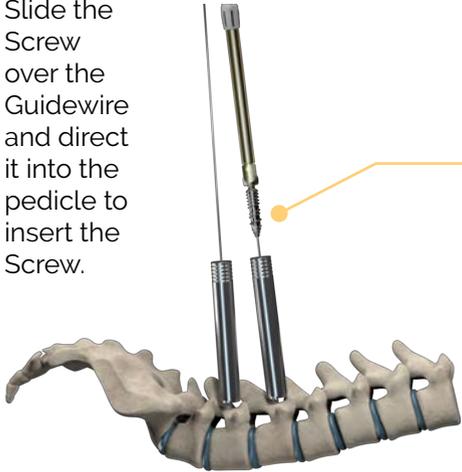
- See page **25-26** for Screwdriver Assembly
- Connect the Cannulated Ratcheting Palm Handle to the **Screwdriver**.
- To secure the Screw to the Screwdriver, make sure the tip of the Screwdriver is engaged in the Screw head. Then, rotate the black knob clockwise to tighten.



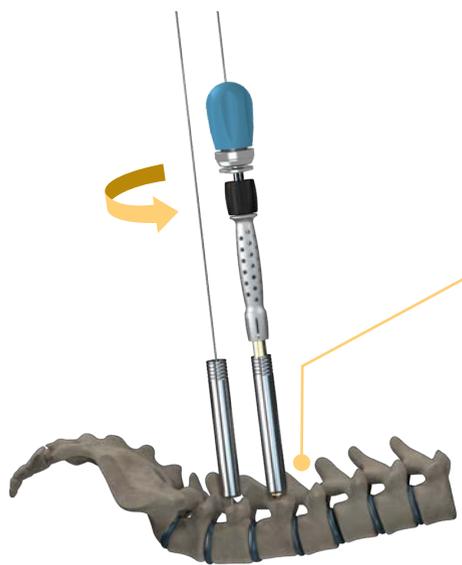
- Visual validation of Screw attachment is recommended.



- Slide the Screw over the Guidewire and direct it into the pedicle to insert the Screw.

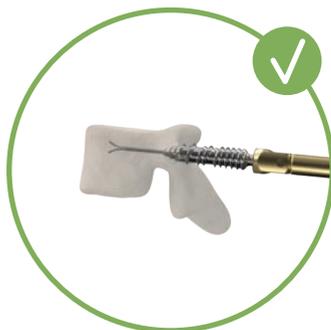


- Rotate the black knob counterclockwise to disengage the Screw from the Screwdriver after the Screw is fully inserted.



- Remove the Secure Guidewire as soon as the Screw is engaged in the pedicle.

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



GUIDEWIRE REMOVER

99762001



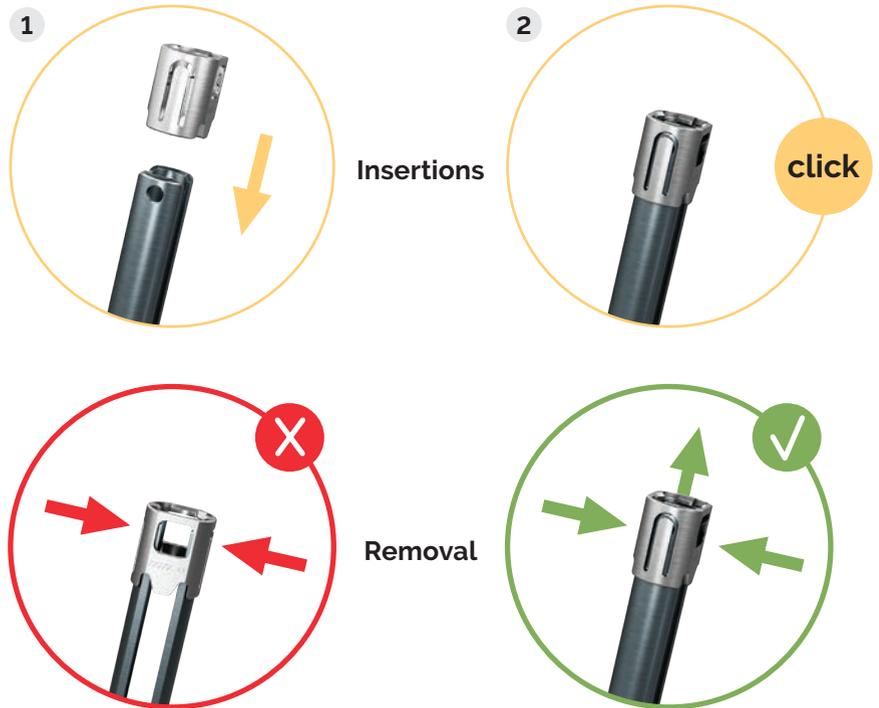
RING MIS SCREW

13722004



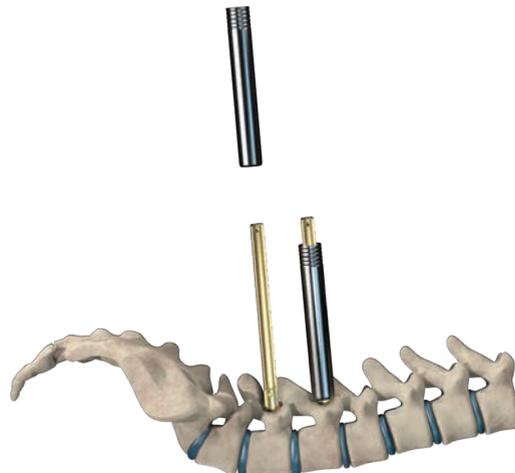
5 | RINGS FOR MIS SCREWS (OPTIONAL)

- Clip the **Ring for MIS Screws** onto the upper extremity of the Screw tabs to prevent splaying.



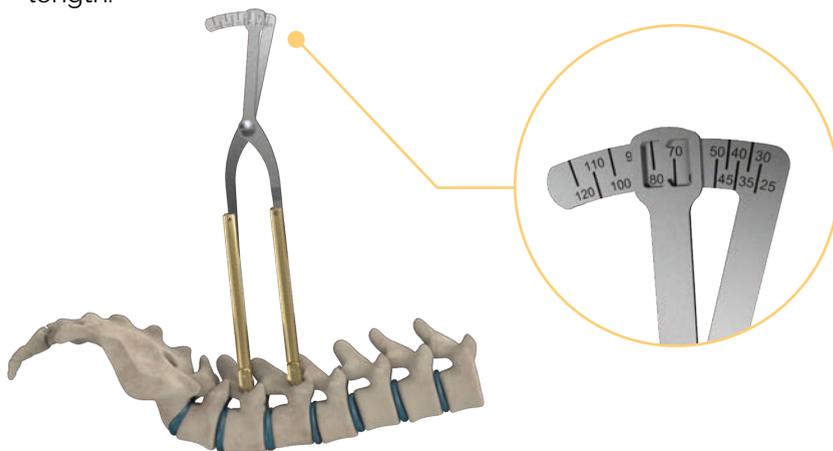
6 | TAP SLEEVE DILATOR REMOVAL

- After the Screws are inserted, remove the Tap Sleeve Dilators from the surgical site.

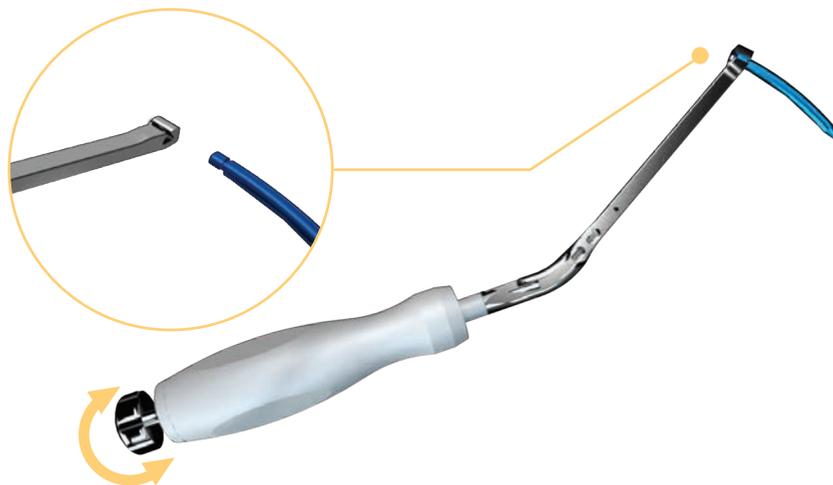


7 | ROD PREPARATION

- Use the **Rod Sizing Caliper** to determine appropriate rod length. If the measurement is between two increments, select the longer length.



- Lay the flat end of the **Rod** in the mouth of the **Rod Inserter**. Secure by rotating the knob of the Rod Inserter clockwise.



- Use the **French Bender** to adjust the curvature of the Rod if necessary.



RECOMMENDATION:

It is recommended to keep the Rod secured to the Rod Inserter while using the French Bender.

ROD SIZING CALIPER

13731000



ROD INSERTER CURVED

13711000



ROD INSERTER STRAIGHT

13711001



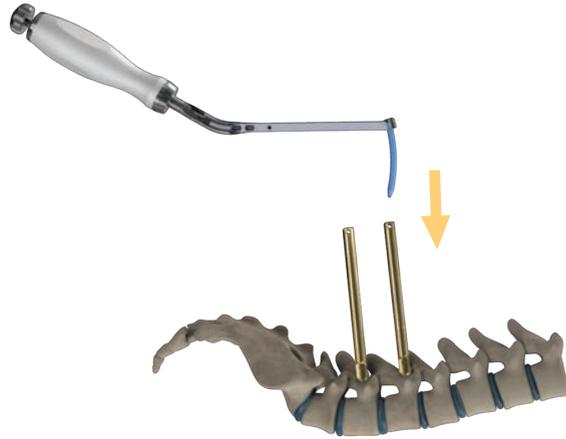
FRENCH BENDER

99750003



8 | ROD INSERTION

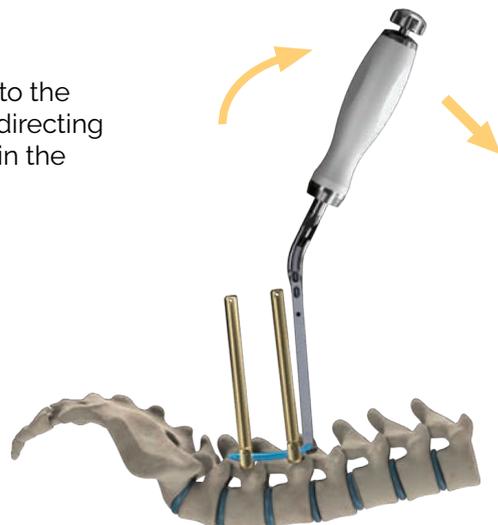
- Begin Rod insertion by directing the Rod vertically into the most cranial Screw.



- Align the tabs of the Screw heads on the shaft of the Rod Inserter.



- Guide the Rod into the Screw heads by directing the Rod Inserter in the cranial direction.

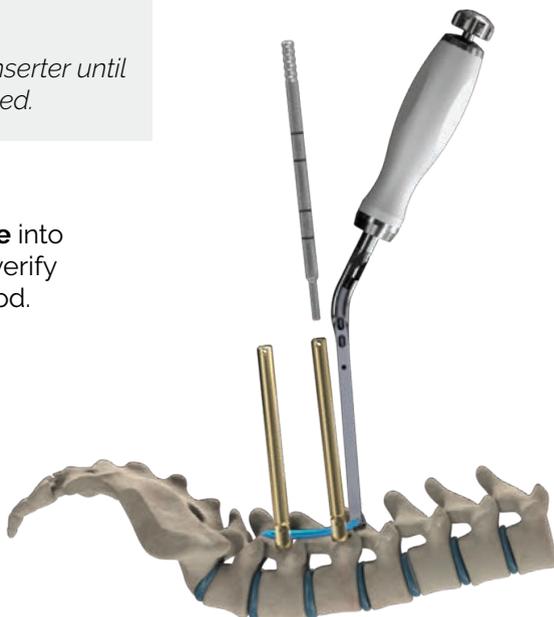


RECOMMENDATION:

Do not release the Rod Inserter until the Set Screws are inserted.

- Insert the **Rod Gauge** into the Screw heads to verify the position of the Rod.

The marking on the Rod Gauge indicates the appropriate instrument to proceed with.



ROD GAUGE

13733002



- If the top of the Screw head is between the two markers, use the **Snap Fit Tightening Wrench** for Set Screw insertion.



- If the top of the Screw head is below the bottom marker, use the **Persuader** for Set Screw insertion.



- If the top of the Screw head is above the top marker, the Rod must be repositioned.

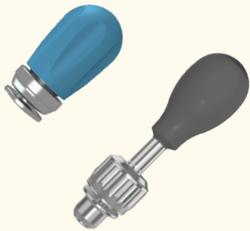
SELF-RETAINING SET SCREWDRIVER

01720006



CANNULATED RATCHETING PALM HANDLE

99780101
99780100



PERSUADER

13742000



9 | SET SCREW INSERTION

- To insert the **Set Screw** with the **Self-retaining Set Screwdriver**, connect the Cannulated Ratcheting Palm Handle to the Snap Fit Tightening Wrench as well as a Set Screw.



- To insert the Set Screw with the Persuader, press the Set Screw onto the tip of the Persuader until a "click" is heard.

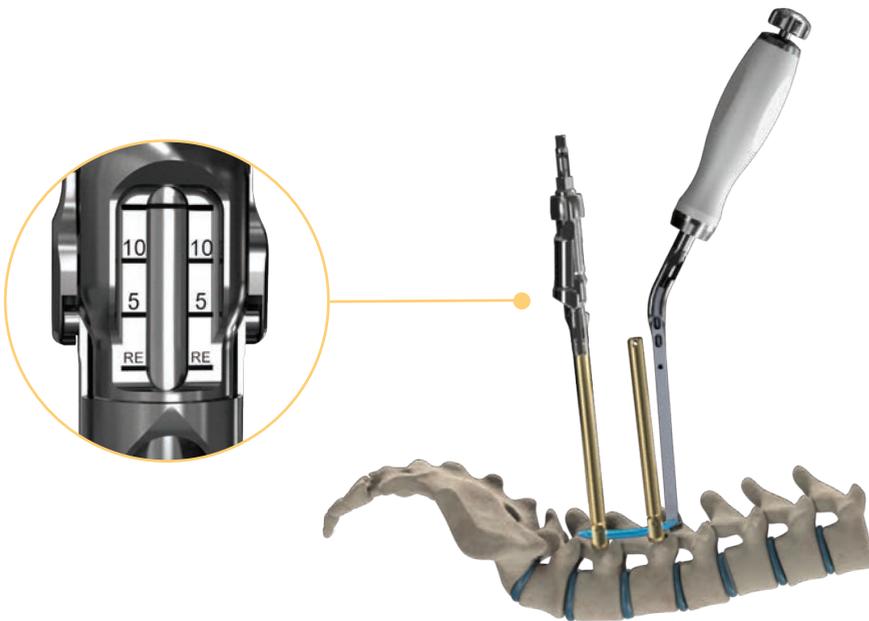
click



RECOMMENDATION:

Assemble the Set Screw according to the image above.

- Connect the Persuader to the Screw head, ensuring that the tabs of the Screw head click into the sides of the **Persuader**.



- Connect the Palm Handle for Persuader to the instrument.

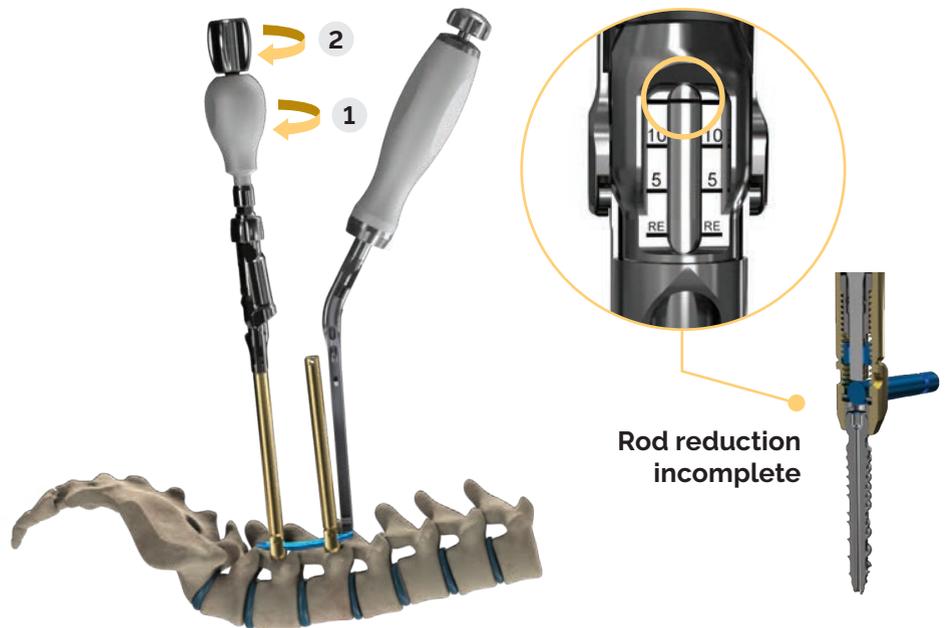


PALM HANDLE FOR PERSUADER

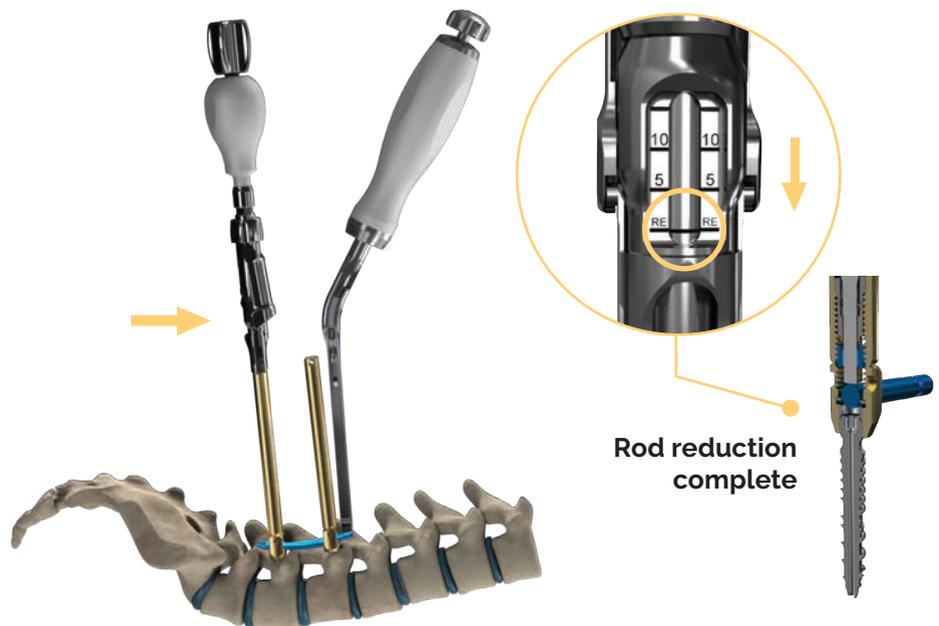
13780000



- Rotate the part of the Palm Handle for Persuader clockwise to reduce the Rod.
- Rotate the top silver knob of the Palm Handle for Persuader clockwise to insert the Set Screw.



- Push the trigger to disengage the Persuader from the Screw head.

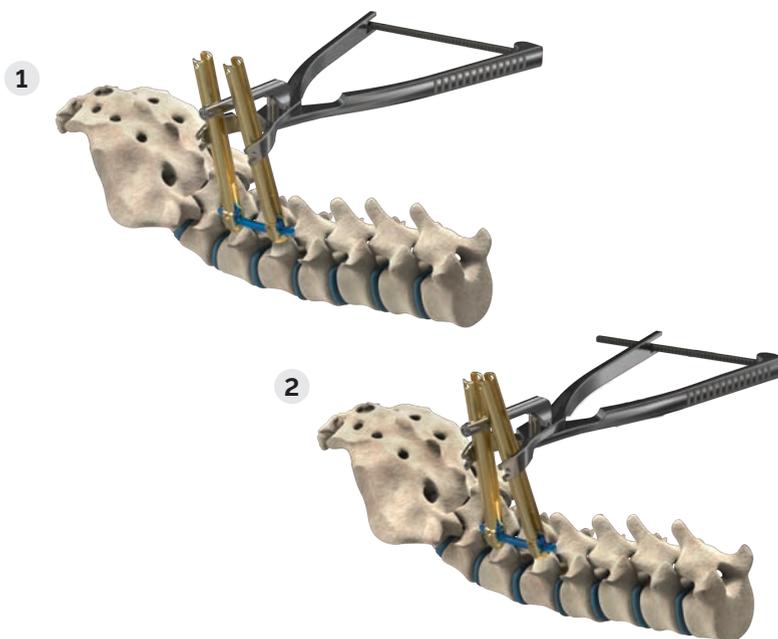


10 | CORRECTION MANEUVERS

- The **Compressor/Distractor** has two different positions for compression and distraction, indicated by engravings on the instrument.



- For compression, apply the Compressor/Distractor to the proximal area of the Screw heads, ensuring that the cylinder is positioned on top.



- If the tabs of the Screw heads are too far apart to perform compression or distraction, slide a **Sleeve** onto the cylinder of the Compressor/Distractor.

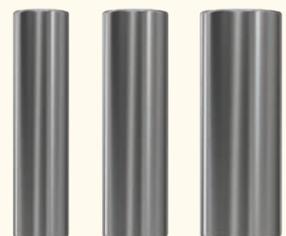
COMPRESSOR/ DISTRACTOR

13740000



SLEEVE

13747001	Ø12mm
13747002	Ø14mm
13747003	Ø16mm



COUNTER TORQUE

13721001

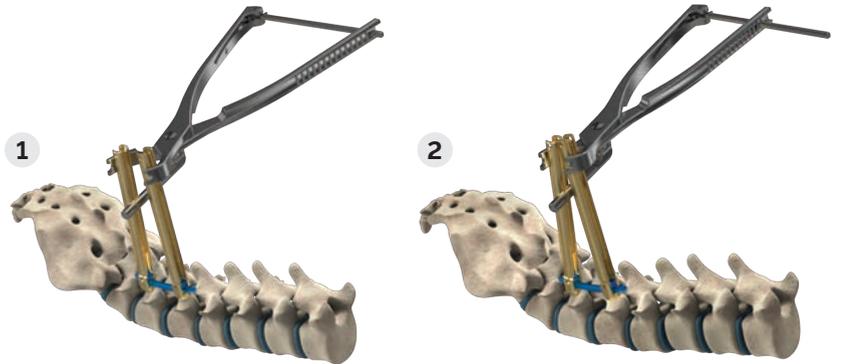


TORQUE LIMITED HANDLE (12NM)

99781312
99781212



- For distraction, apply the Compressor/Distractor to the distal area of the Screw heads, ensuring that the cylinder is positioned below.



11 | FINAL TIGHTENING

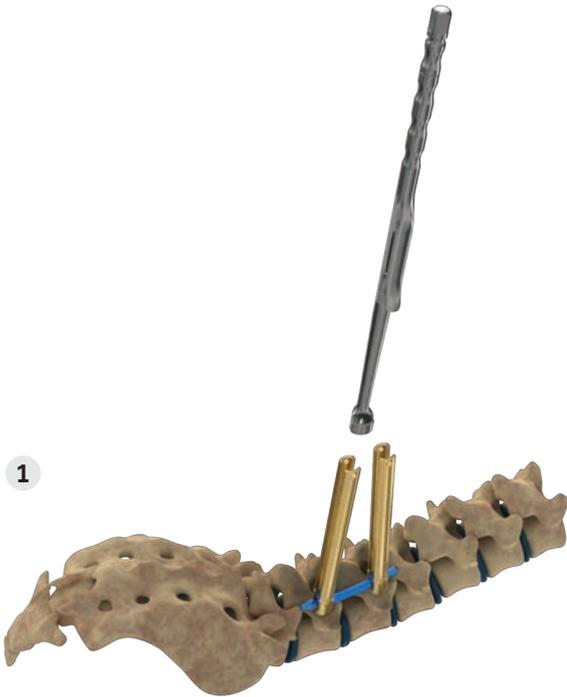
- Position the **Counter Torque** on the Screw head.
- Connect the **Ratcheting Torque Limiter** to the Snap Fit Tightening Wrench and insert the instrument through the Counter Torque, ensuring that the Snap Fit Tightening Wrench engages with the Set Screw.
- Rotate the Ratcheting Torque Limiter until the handle clicks to perform the final tightening.



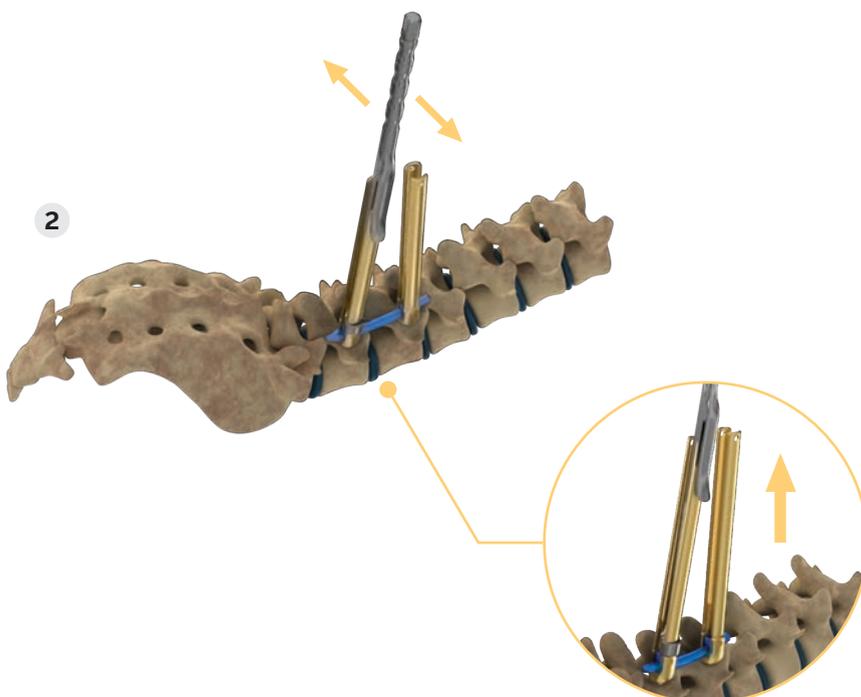
12 | EXTENDED TAB REMOVAL

- Slide the **Tab Breaker** over one of the tabs of the Screw head.
- Apply a lateral back and forth motion to separate the tab from the Screw head.

1



2



TAB BREAKER

13722001



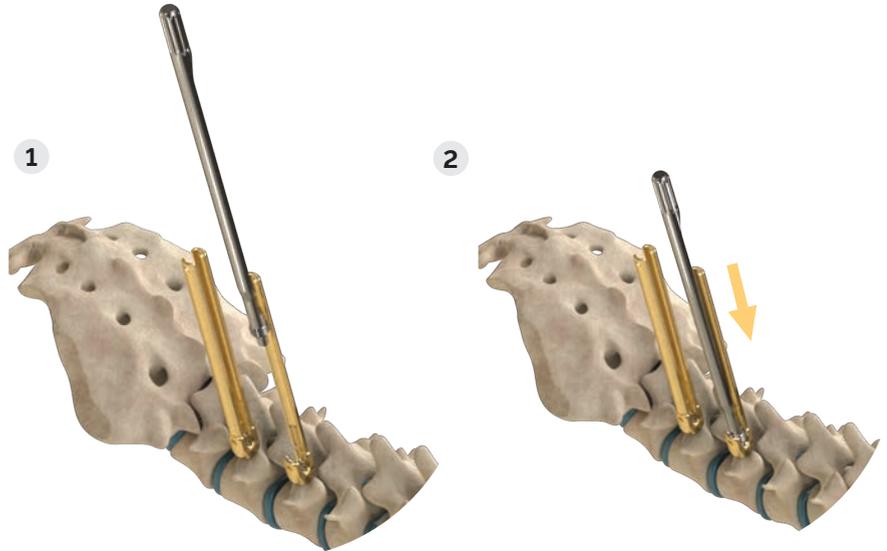
GUIDE FOR RESCUE TUBE

13719006

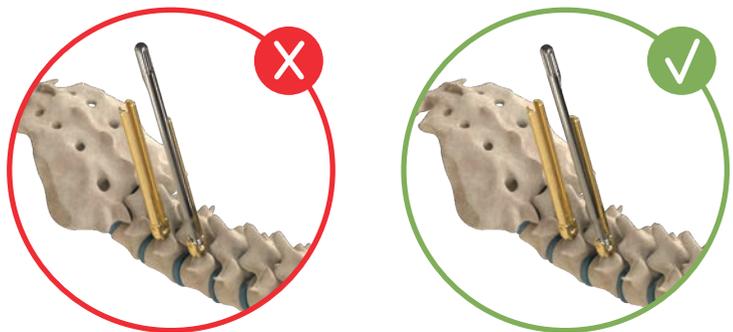


13 | TECHNIQUE FOR PREMATURE EXTENDED TAB BREAKAGE

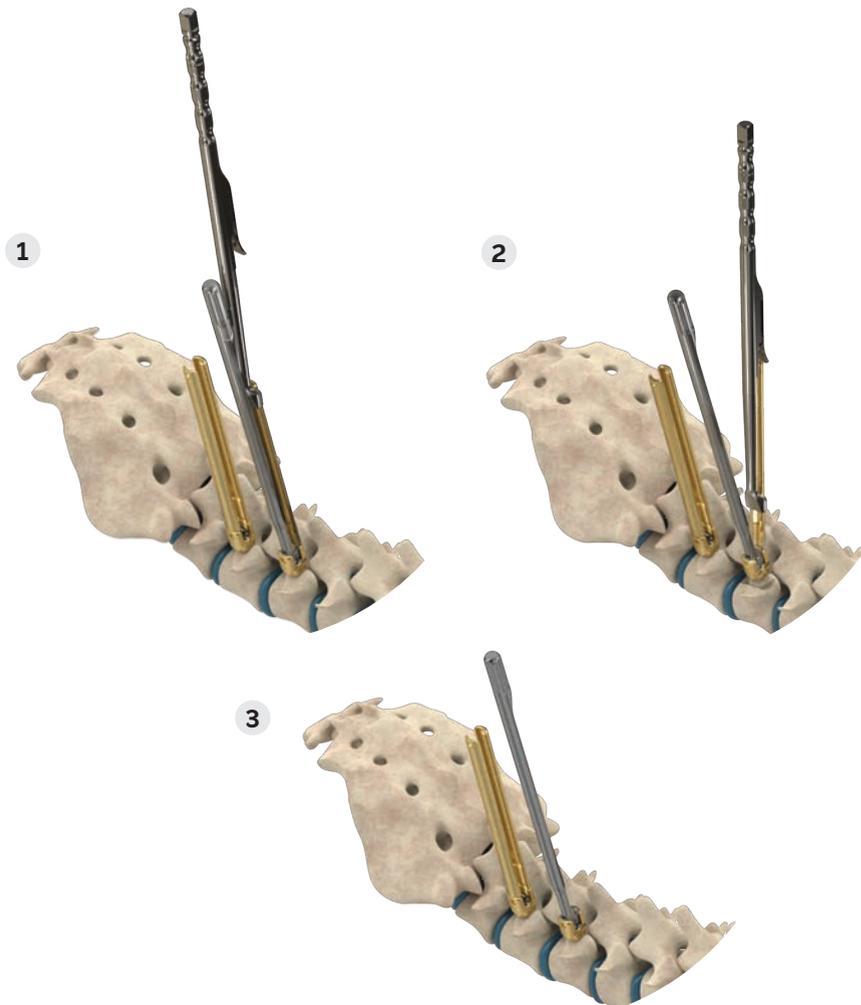
- In the event of premature tab breakage, start by screwing the **Guide For Rescue Tube** into the Screw head.



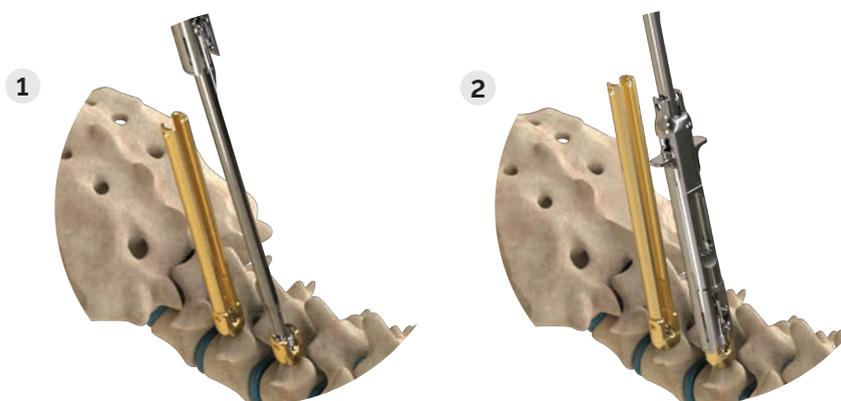
- Ensure that the concave side of the Guide For Rescue Tube is parallel to the Screw head tabs.



- Use the Tab Breaker to remove the remaining tab.



- Slide the **Rescue Tube** over the Guide For Rescue Tube and clip it onto the Screw head.

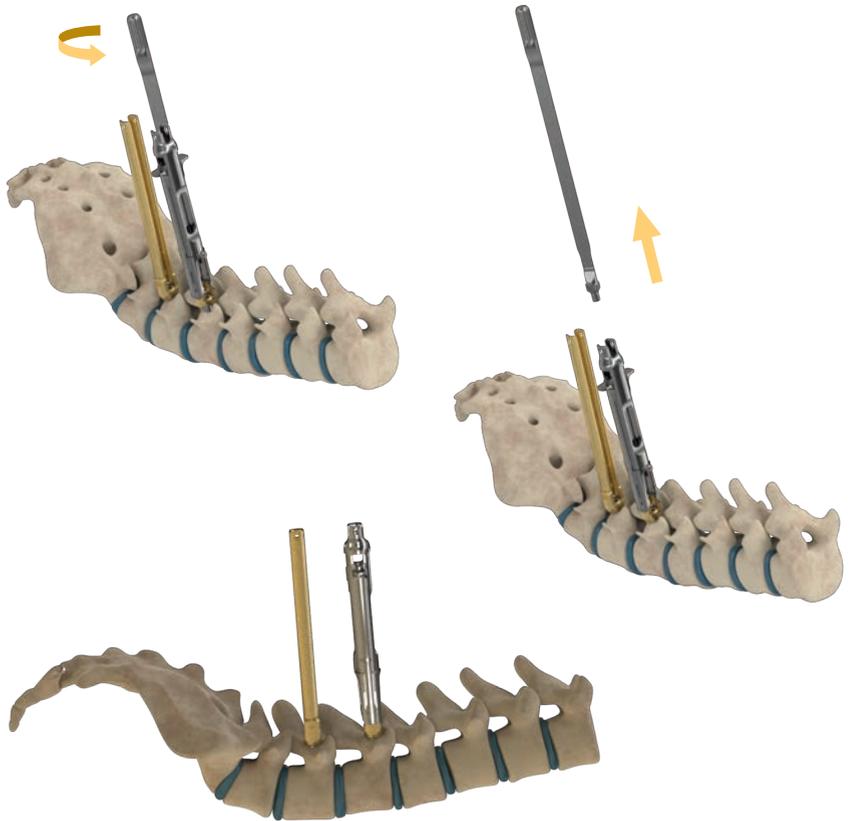


RESCUE TUBE

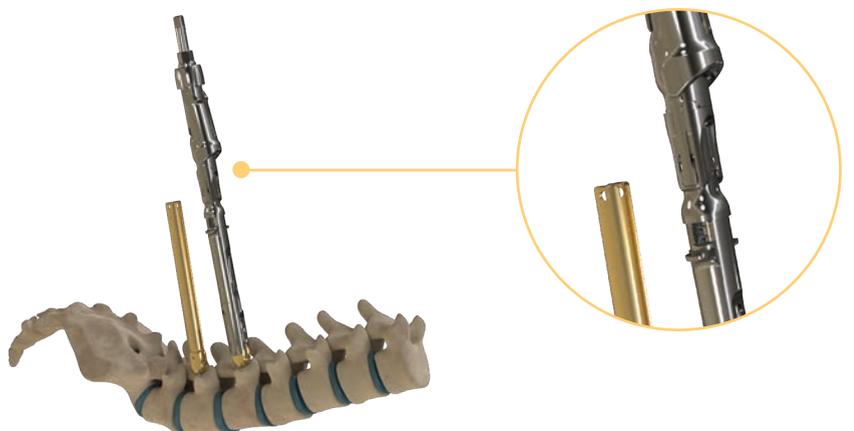
13719005



- Once the Rescue Tube is properly positioned on the pedicle screw head, remove the Guide For Rescue Tube.

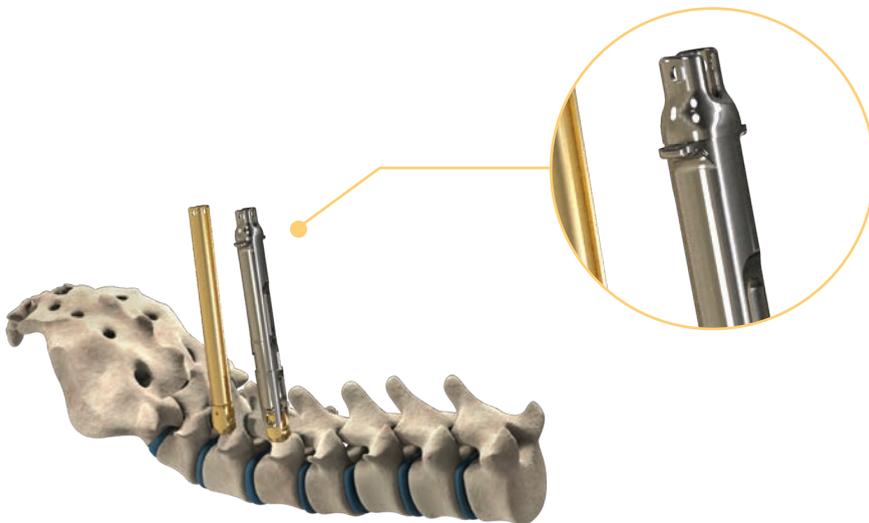
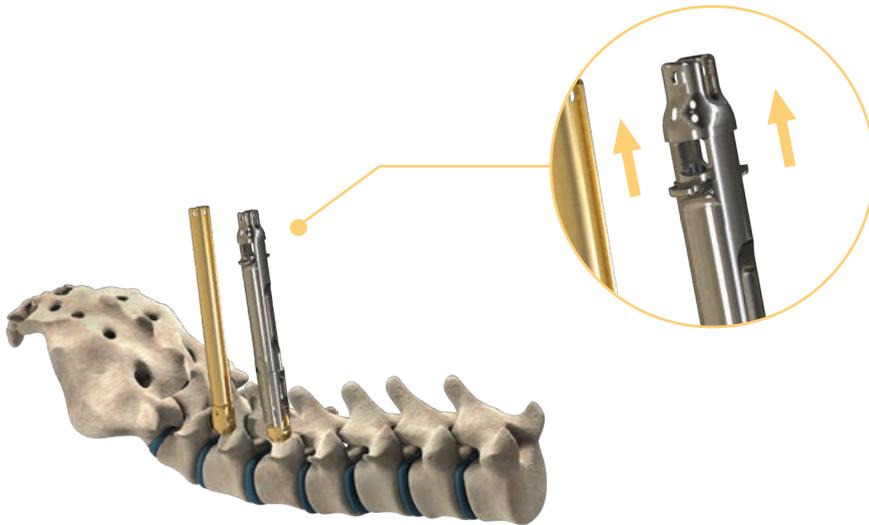


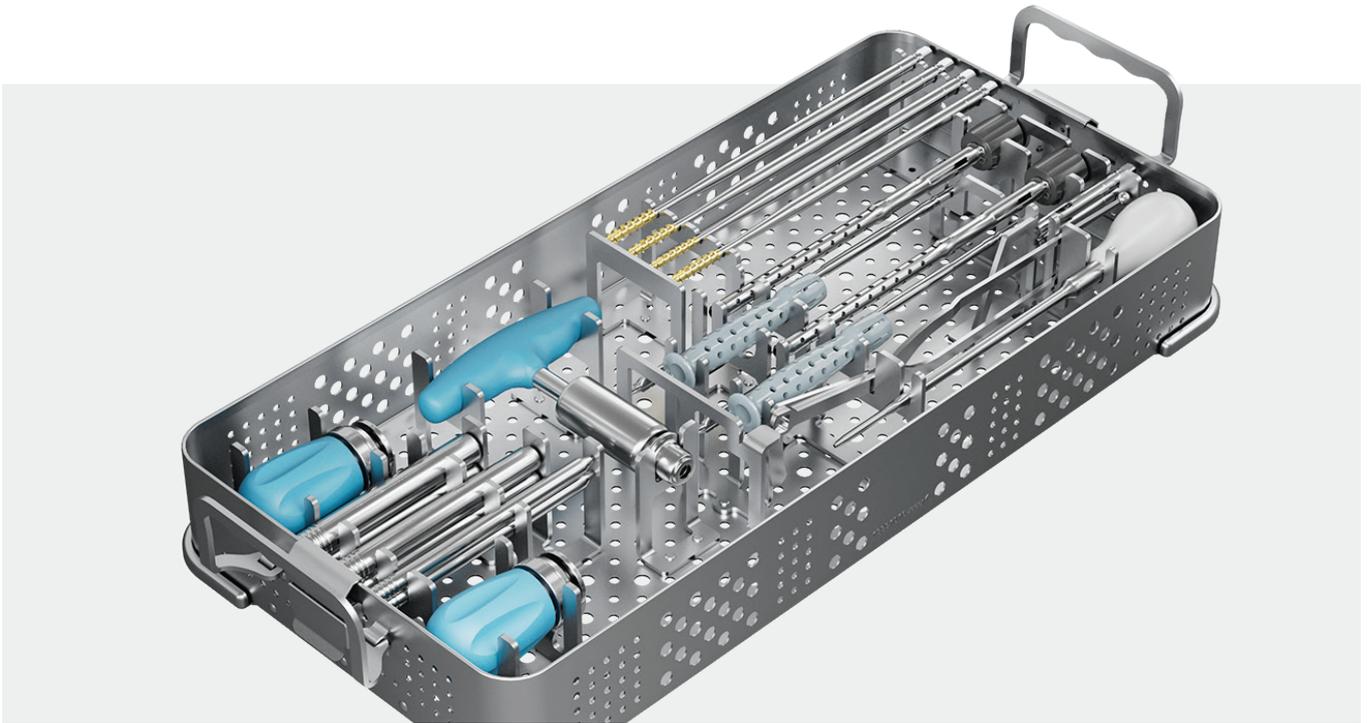
- If needed, attached the Persuader to the Rescue Tube and proceed as usual.



RECOMMENDATION:

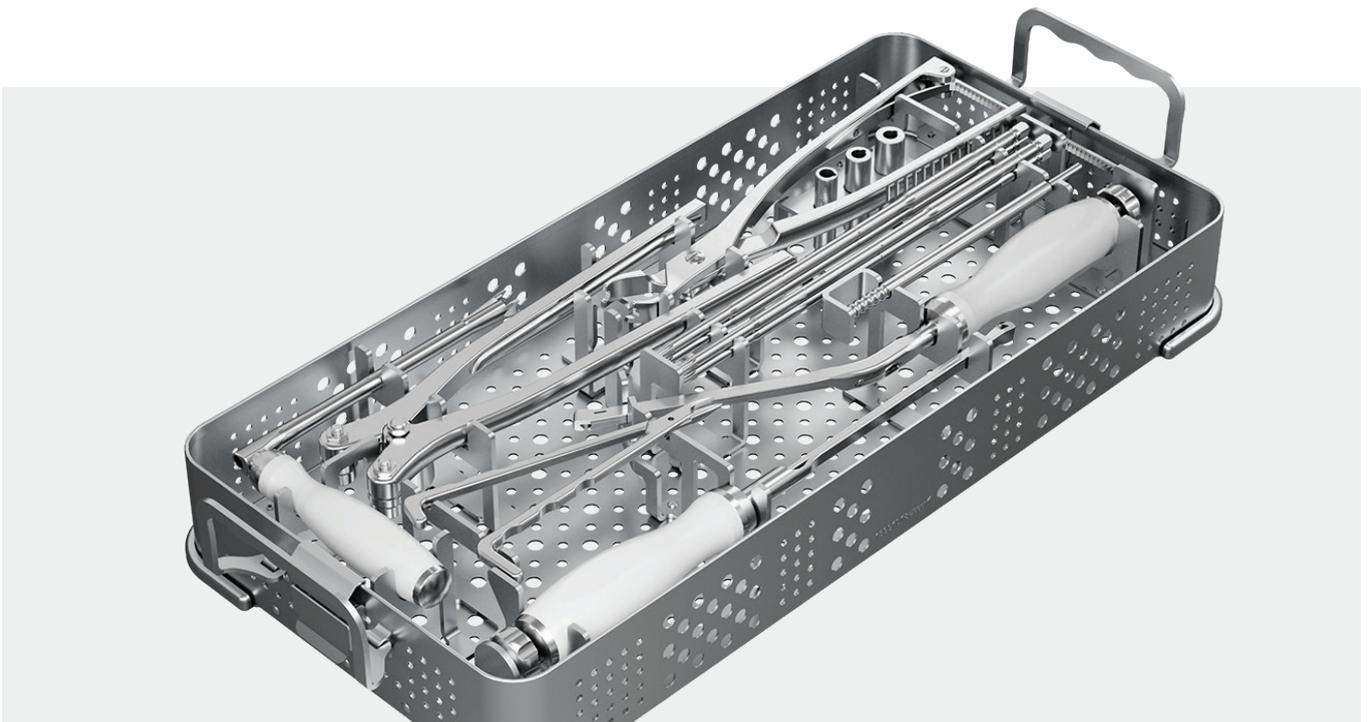
Removal of the Rescue Tube





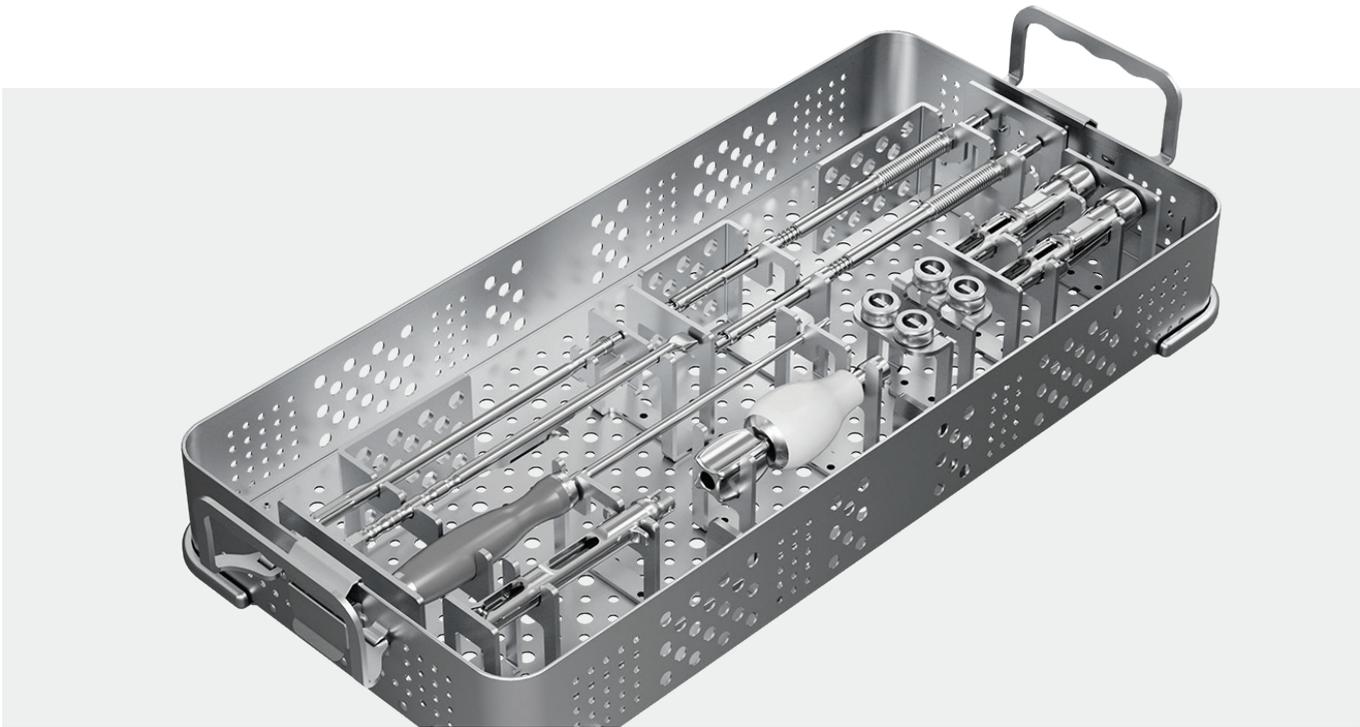
INSTRUMENTS TRAY #1

13991016 Instrument
13991017 Lid



INSTRUMENTS TRAY #2

13991018 Instrument
13991019 Lid

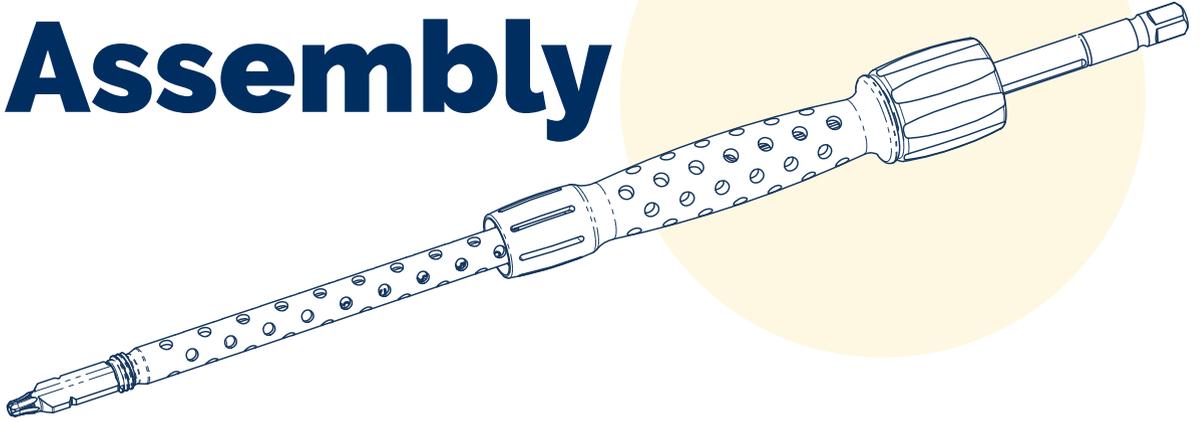


INSTRUMENTS TRAY #3

13991020 Instrument

13991021 Lid

Screwdriver Assembly



TUBE

18912026

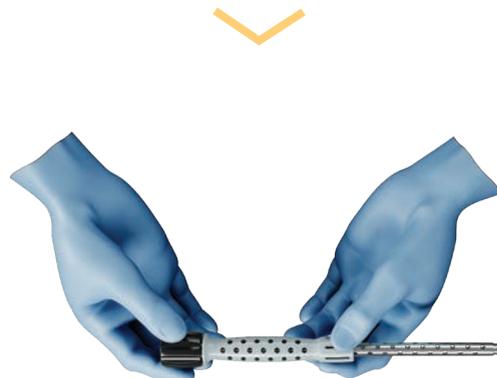
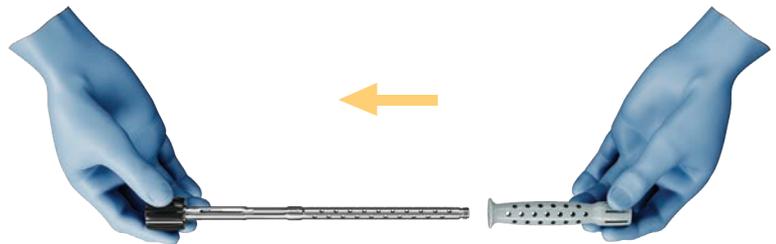


SLEEVE

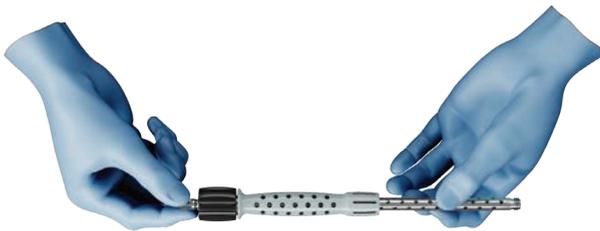
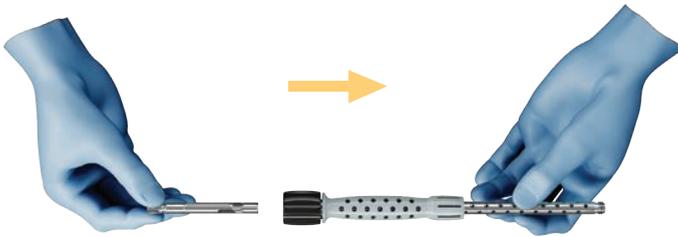
13914003



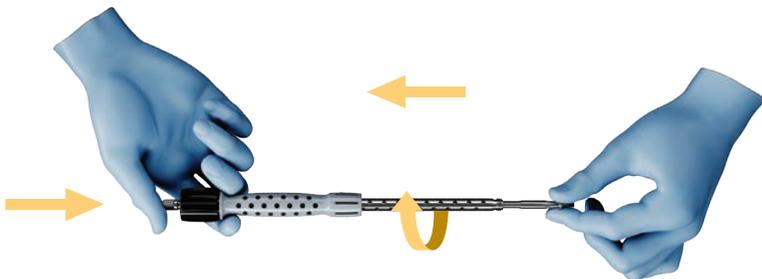
- Slide the Sleeve on the Tube until the Sleeve is flush against the black knob.



- Insert the Snap-On-Shaft through the black knob.



- Insert the MIS Screwdriver Shaft in the Tube and turn it slightly while pushing in until the Shaft is full engaged.



- Gently pull the Snap-On Shaft to settle the Screwdriver assembly.

SNAP-ON SHAFT

13911004

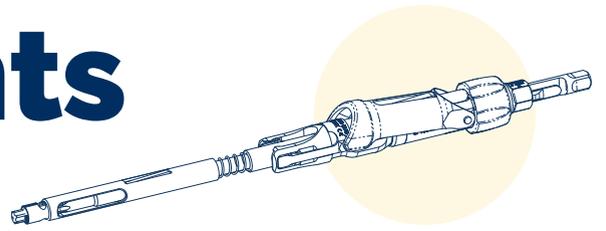


MIS SCREWDRIVER SHAFT

13911009



Instruments

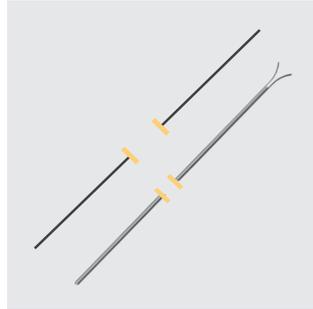


Erisma-LP Instrument Tray #1



INSTRUMENTS TRAY #1

13991016 Tray
13991017 Lid



GUIDEWIRE ROUNDED Ø 1,5 & SECURE GUIDEWIRE

15709500
13709050



DILATOR & TAP SLEEVE DILATOR

13707001 Internal Dilator
13707002 External Dilator
13719003



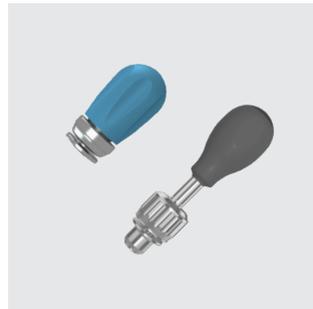
CANNULATED BONE AWL

99702004



TAP

99701545 4.5mm
99701555 5.5mm
99701565 6.5mm
99701575 7.5mm



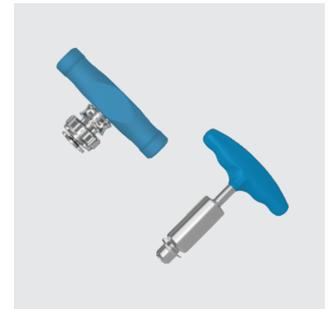
CANNULATED RATCHETING PALM HANDLE

99780101
99780100



SCREWDRIVER

13911009 MIS Screwdriver Shaft
13911004 Snap on Shaft
18912026 Tube
13914003 Sleeve



TORQUE LIMITED HANDLE (12NM)

99781312
99781212



ROD SIZING CALIPER

13731000

Erisma-LP Instrument Tray #2



INSTRUMENTS TRAY #2

13991018 Tray
13991019 Lid



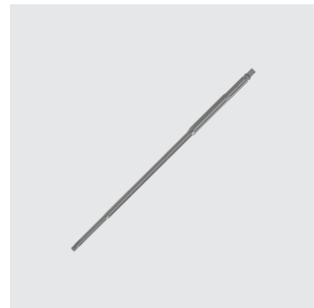
GUIDEWIRE REMOVER

99762001



ROD INSERTER

13711000 Curved
13711001 Straight



SNAP FIT TIGHTENING WRENCH

01720006



ROD GAUGE

13733002



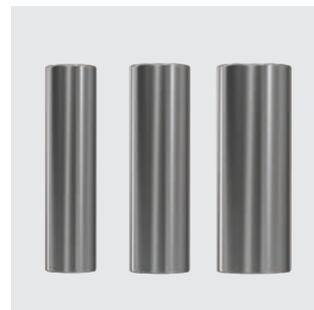
COMPRESSOR/ DISTRACTOR

13740000



COUNTER TORQUE

13721001



SLEEVE

13747001 ø12MM
13747002 ø14MM
13747003 ø16MM



FRENCH BENDER

99750003

Erisma-LP Instrument Tray #3



INSTRUMENTS TRAY #3

13991020 Tray
13991021 Lid



RESCUE TUBE

13719005



GUIDE FOR RESCUE TUBE

13719006



PERSUADER

13742000



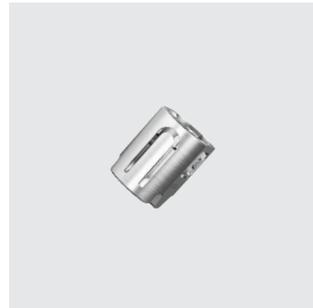
HANDLE FOR PERSUADER

13742000



TAB BREAKER

13722001



RING MIS SCREW

13722004

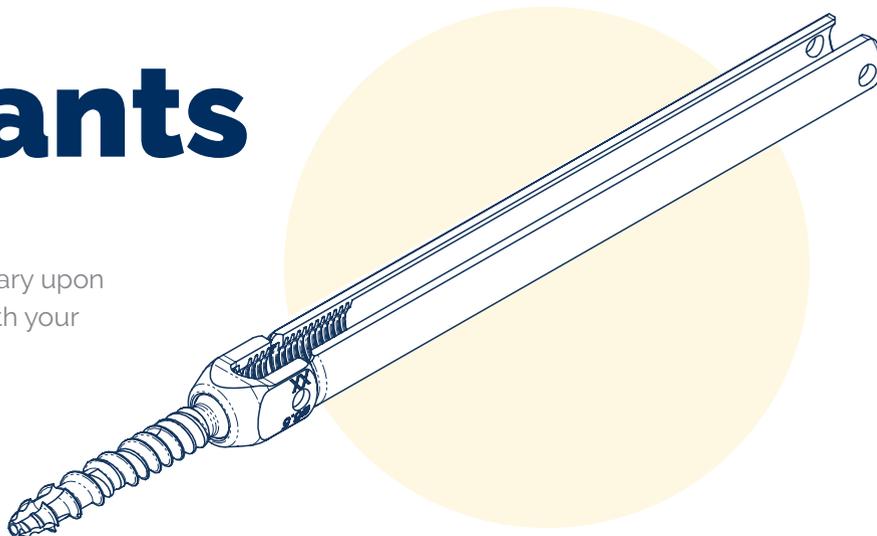


T20 TIGHTENING WRENCH

18720000

Implants

Product availability may vary upon markets. Please check with your Clariance representative.



ERISMA-LP MIS POLYAXIAL SCREWS

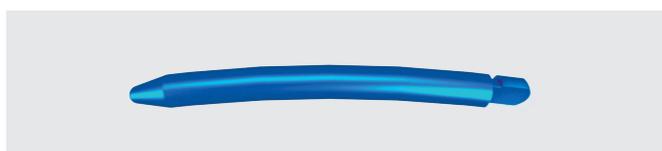
	Ø4.5MM	Ø5.5MM	Ø6.5MM	Ø7.5MM	Ø8.5MM
L25MM	13014525*	13015525*	13016525*	-	-
L30MM	13014530*	13015530*	13016530*	13017530*	13018530*
L35MM	13014535	13015535	13016535	13017535	13018535*
L40MM	13014540	13015540	13016540	13017540	13018540*
L45MM	13014545*	13015545	13016545	13017545	13018545*
L50MM	-	13015550	13016550	13017550	13018550*
L55MM	-	-	13016555*	13017555*	13018555*



ERISMA-LP EVO SET SCREW

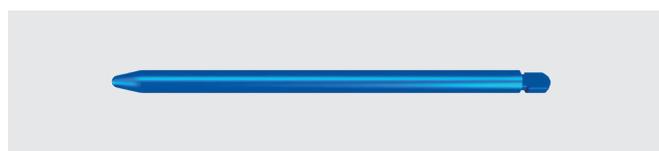
13620009

** This screw size may not be part of the standard set contact your local sales rep for more information*



ERISMA-LP MIS EVO PRE-BENT RODS Ø5.5MM

L30MM	13435030	L60MM	13435060
L35MM	13435035	L70MM	13435070
L40MM	13435040	L80MM	13405080
L45MM	13405045	L90MM	13435090
L50MM	13435050	L100MM	13435100



ERISMA-LP MIS EVO STRAIGHT RODS Ø5.5MM

L40MM	13495040	L100MM	13495100
L50MM	13495050	L120MM	13495120
L60MM	13495060	L140MM	13495140
L70MM	13495070	L160MM	13495160
L80MM	13495080	L180MM	13495180
L90MM	13495090	L200MM	13495200



IMPLANTS TRAY #1

13991011 Tray
13991012 Lid



IMPLANTS TRAY #2

13991013 Tray
13991014 Lid



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Notified Body N°2460 - As some references are not covered by the  marking, refer to the product label which bears the  marking