



Erisma[®]-LP MIS

POSTERIOR FIXATION



Surgical Technique - USA



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Erisma[®] -LP MIS

POSTERIOR FIXATION



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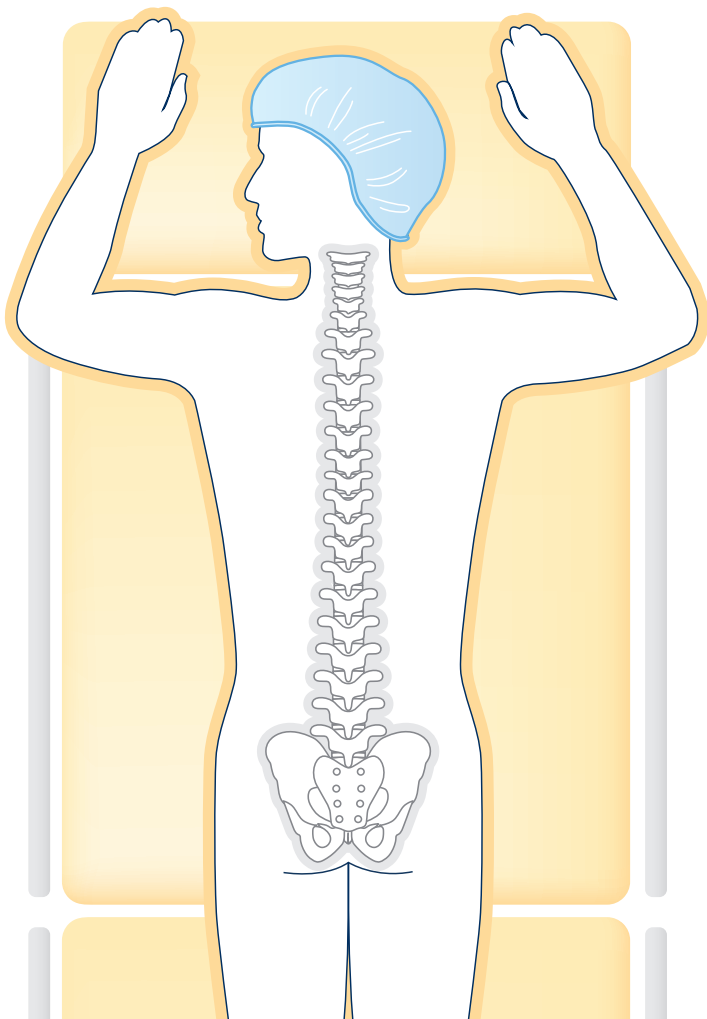
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Surgical Technique

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.



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.



1 | PEDICLE TARGETING

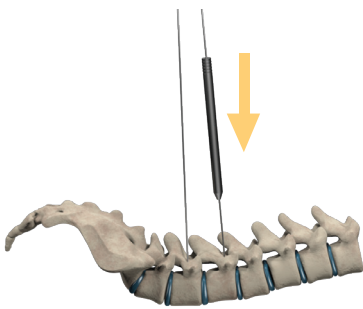
- Insert a Pedicle Targeting Needle, compatible with a 1.5mm Ø guidewire, into the pedicle under fluoroscopy.
- Remove the stylet of the pedicle targeting needle and insert the **Guidewire Ø 1.5mm.**
- Carefully remove the pedicle targeting needle, leaving the Guidewire in the pedicle.

2 | PEDICLE PREPARATION

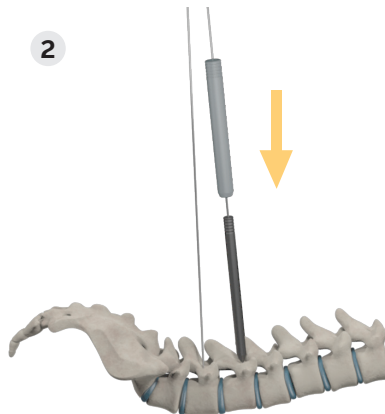
- Slide the smallest **Dilator** over the Guidewire, followed by the next largest Dilator and the **Tap Sleeve Dilator** to achieve gradual dilation.

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

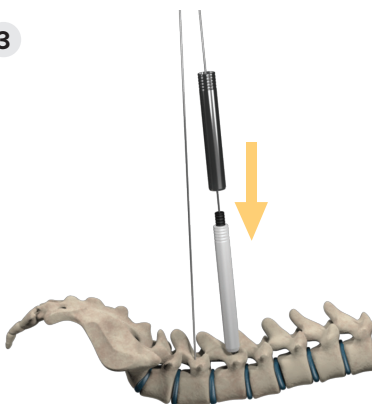
1



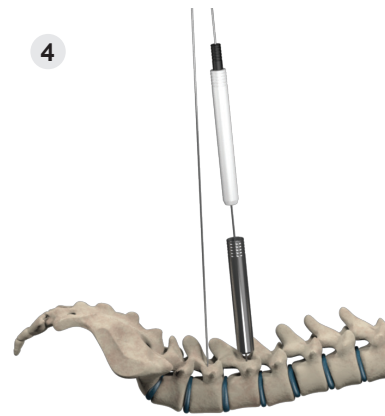
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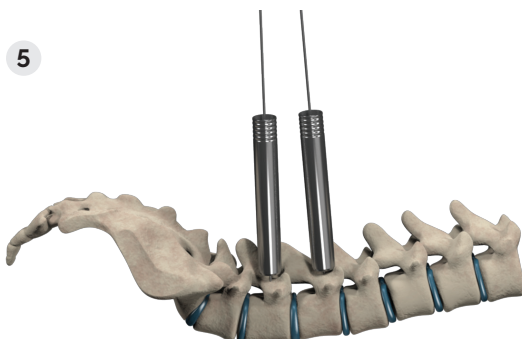
3



4

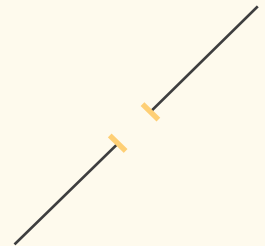


5



GUIDEWIRE Ø 1,5

15709500



DILATOR

13707001
13707002



TAP SLEEVE DILATOR

13719003



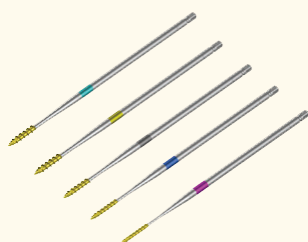
CANNULATED BONE AWL

99702004



TAP (OPTION)

997015xx*

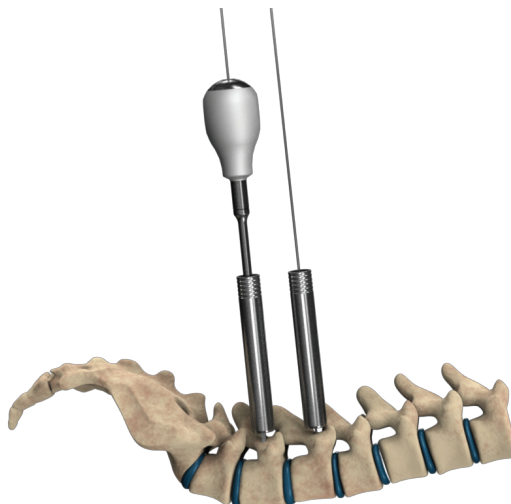


CANNULATED RATCHETING PALM HANDLE

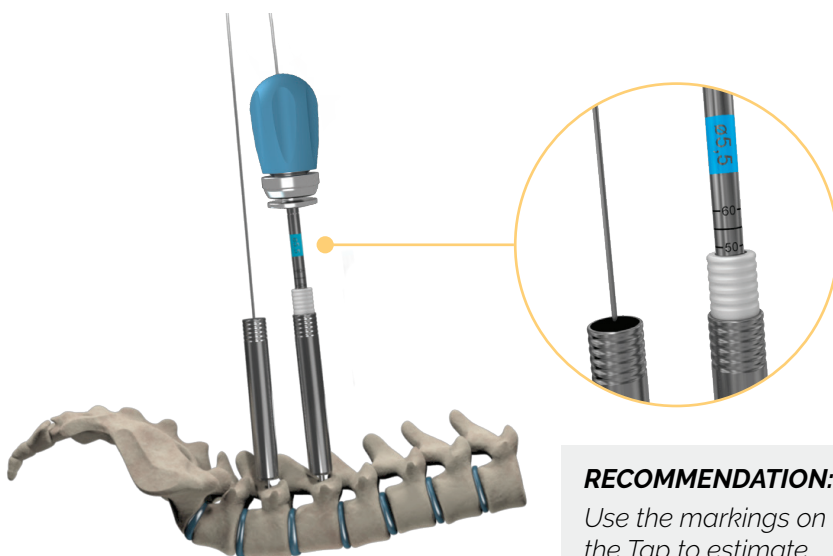
99780101



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.

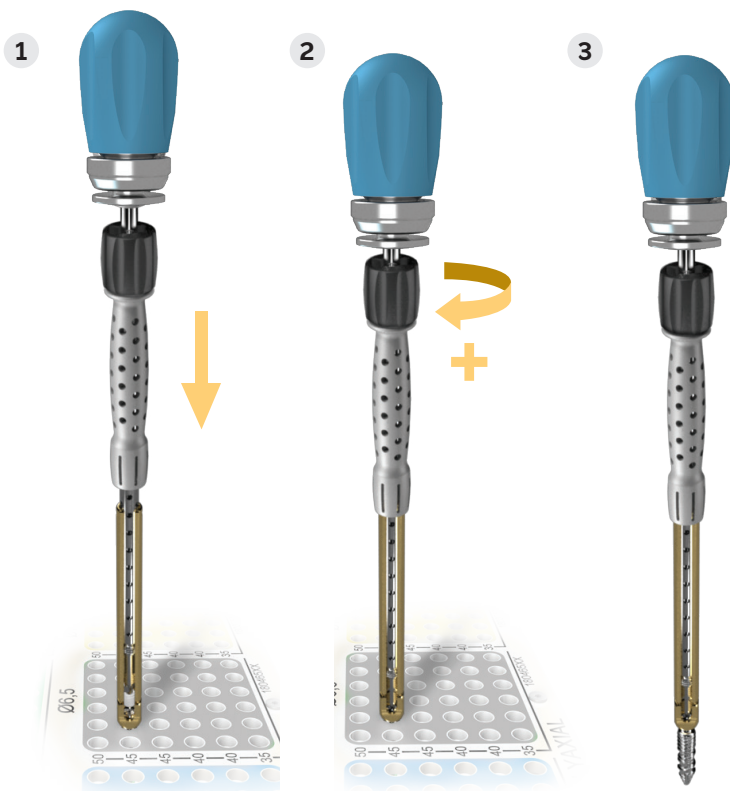


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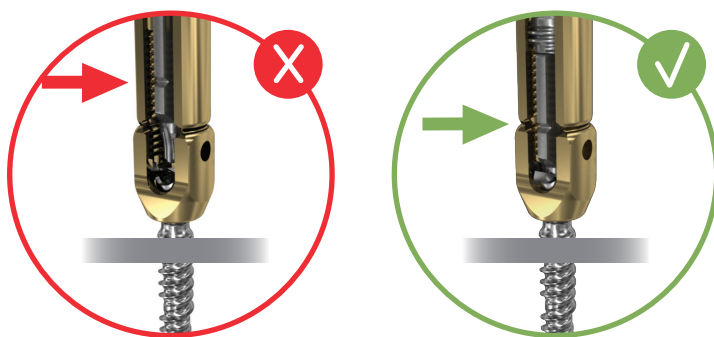
Use the markings on the Tap to estimate the Screw length.

3 | PEDICLE SCREW INSERTION

- See page **24-25** 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.



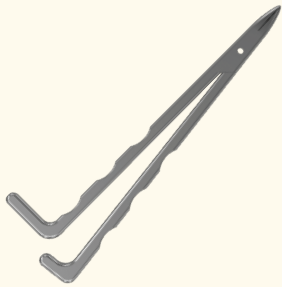
SCREWDRIVER

Assembly of
13911004
13914003
18912026
13911009

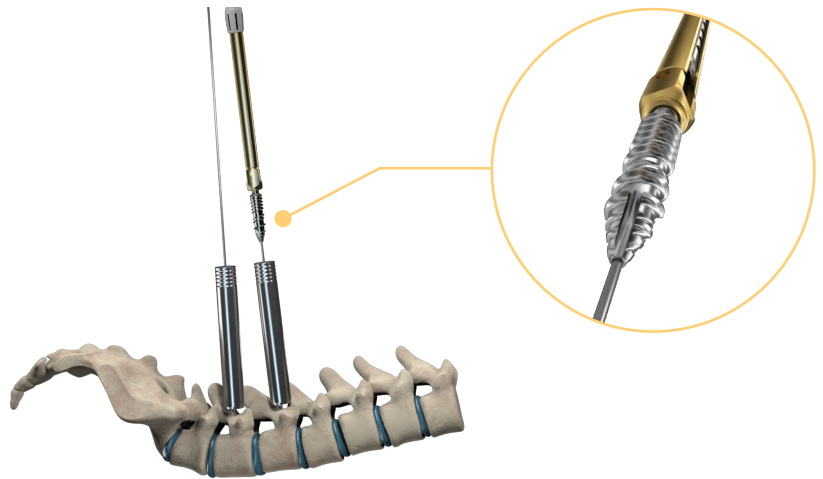


GUIDEWIRE REMOVER

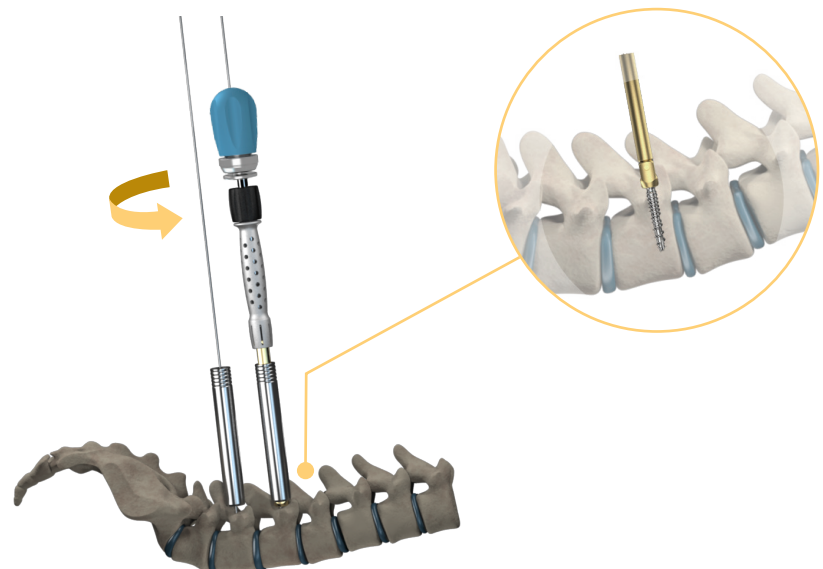
99762001



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



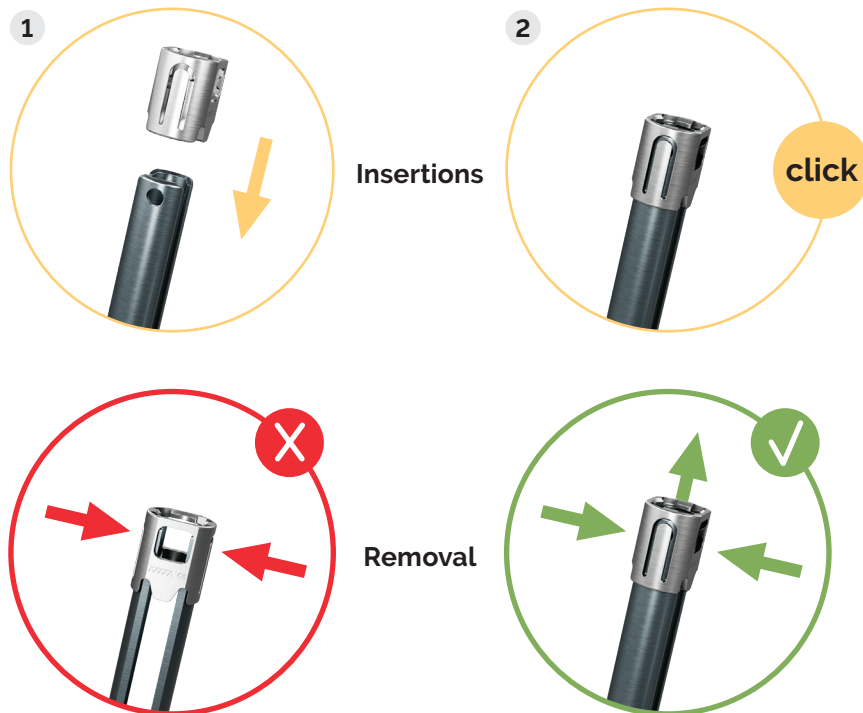
- Rotate the black knob counterclockwise to disengage the Screw from the Screwdriver after the Screw is fully inserted.



- Remove the Guidewire when the screw is engaged in the pedicle using the Guidewire Remover.

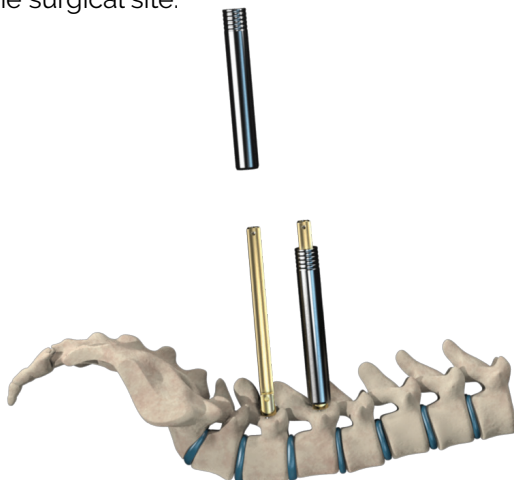
4 | RINGS FOR MIS SCREWS (OPTIONAL)

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



5 | TAP SLEEVE DILATOR REMOVAL

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



RING MIS SCREW

13722004



ROD SIZING CALIPER

13731000



ROD INSERTER CURVED

13711000



ROD INSERTER STRAIGHT

13711001



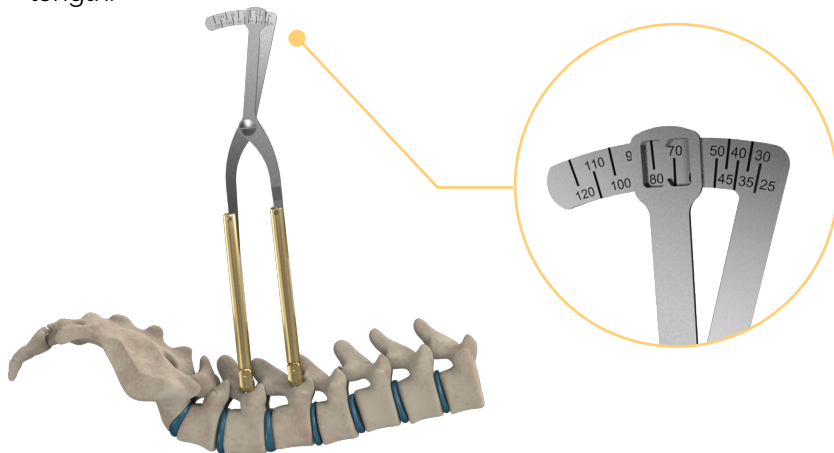
FRENCH BENDER

99750003

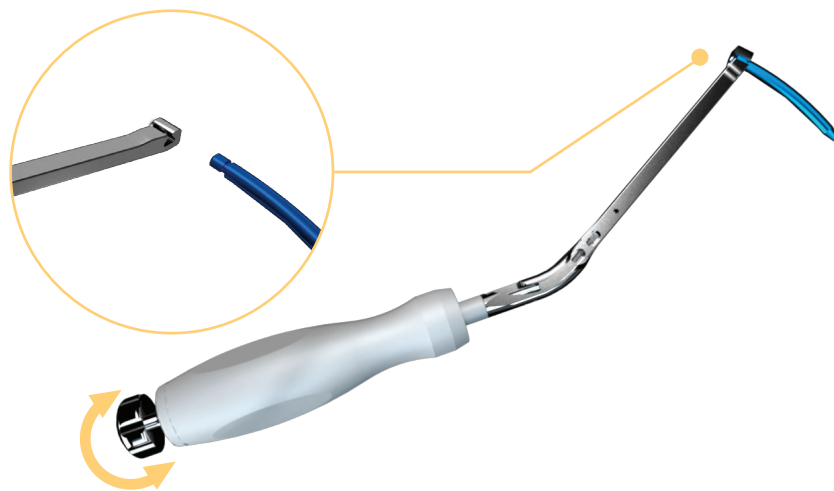


6 | ROD PREPARATION

- 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.

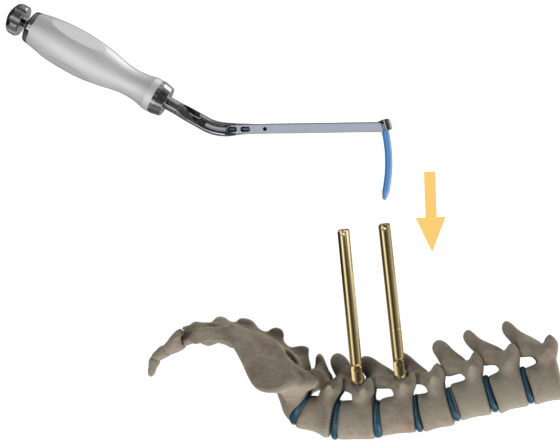


RECOMMENDATION:

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

7 | ROD INSERTION

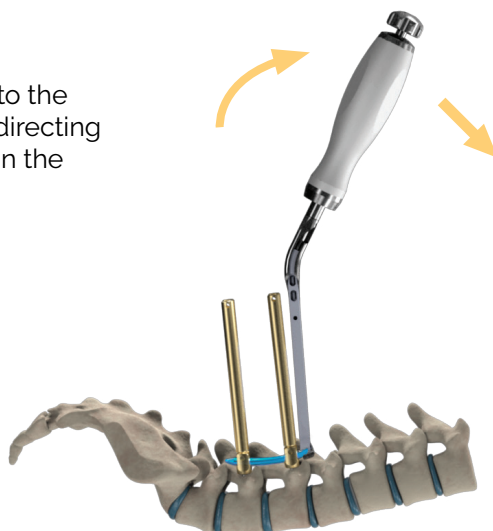
- Begin Rod insertion by directing the Rod vertically into the most cranial Screw.



- 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.



ROD GAUGE

13733002

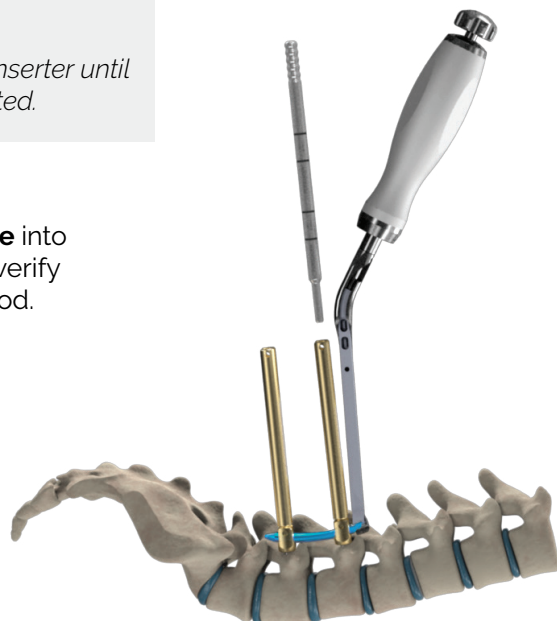


RECOMMENDATION:

*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.



- 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.

8 | SET SCREW INSERTION

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



(OPTIONAL)

- 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.

SNAP FIT TIGHTENING WRENCH

01720006



CANNULATED RATCHETING PALM HANDLE

99780101

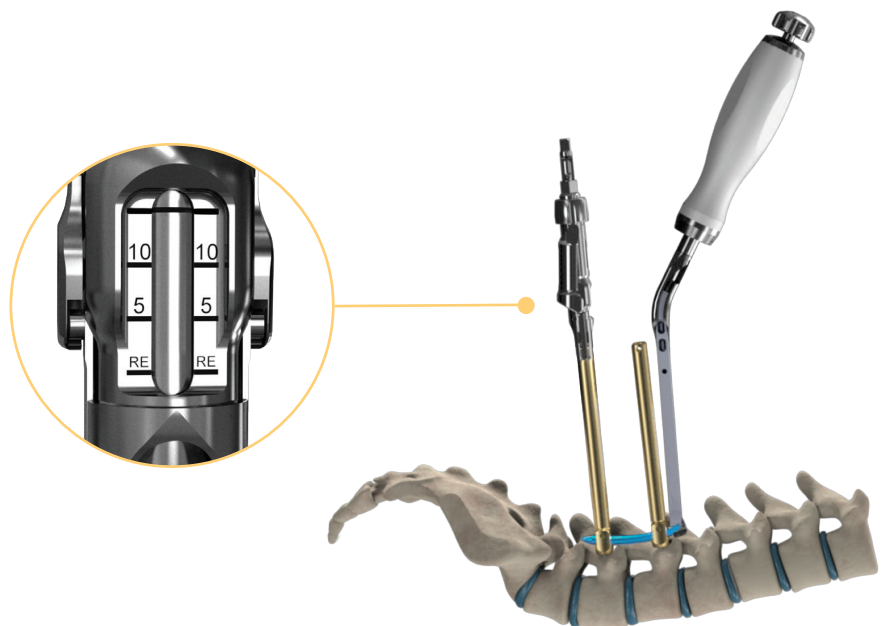


PERSUADER

13742000



- 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.

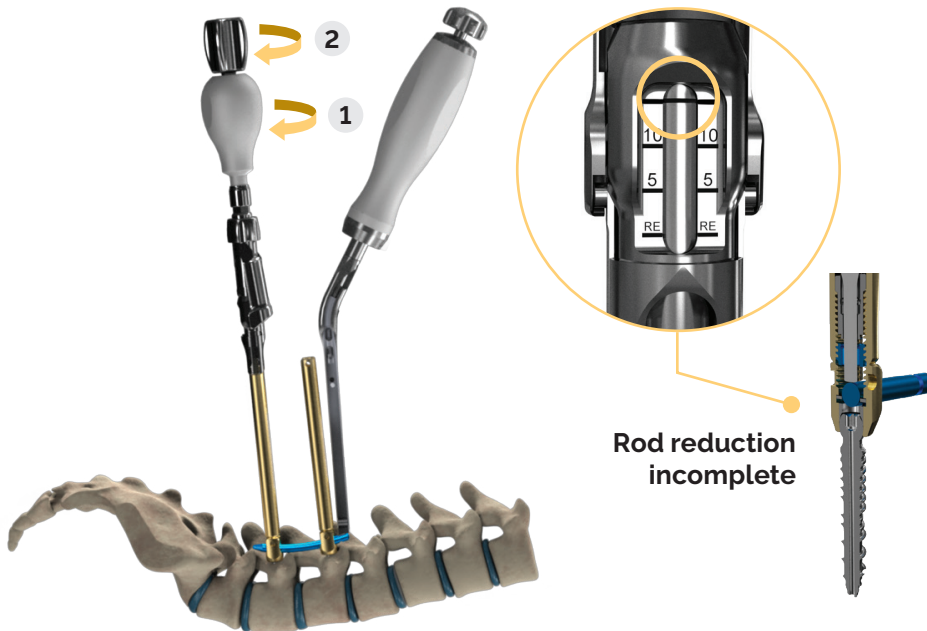


PALM HANDLE FOR PERSUADER (OPTION)

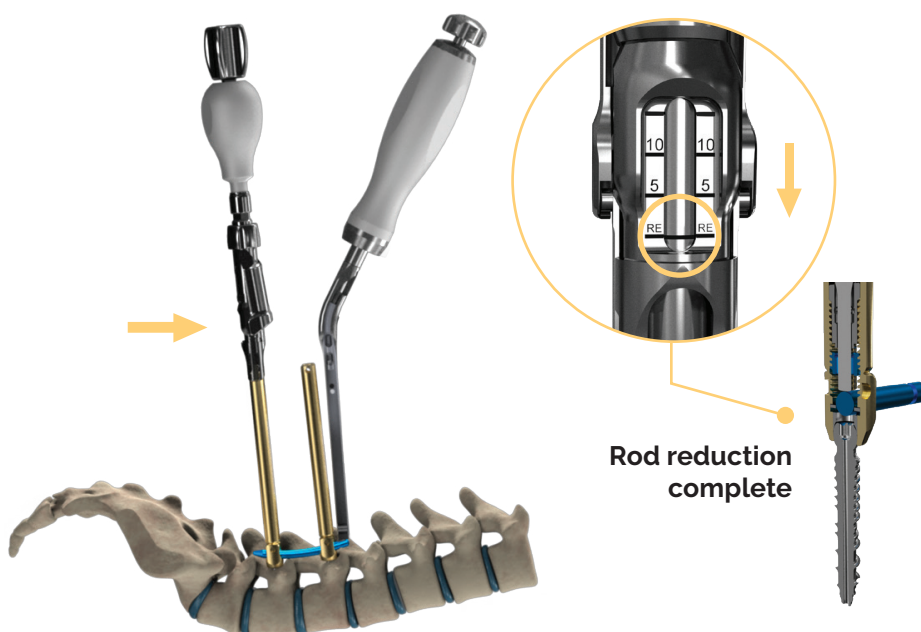
13780000*



- 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.



COMPRESSOR/ DISTRACTOR

13740000

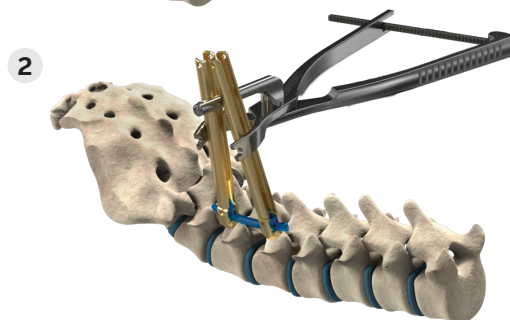
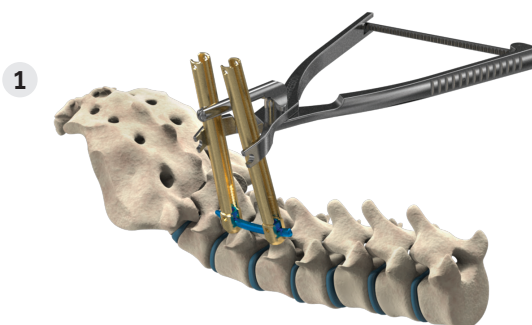


9 | CORRECTION MANEUVERS

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

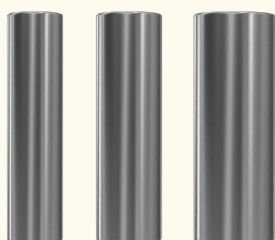


- For compression, apply the Compressor/Distractor to the proximal area of the Screw heads, ensuring that the cylinder is positioned on top.



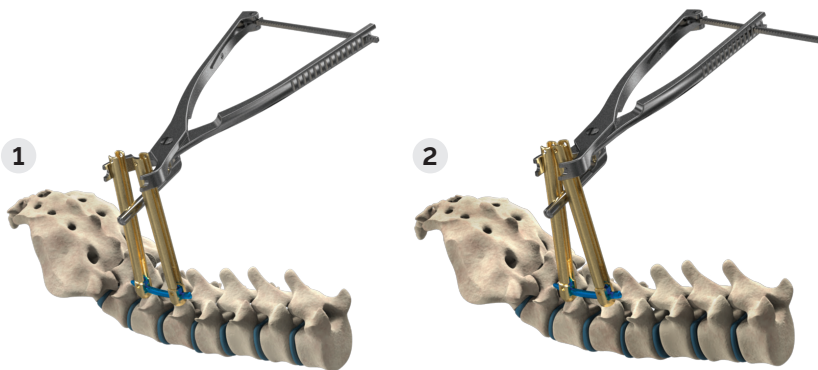
SLEEVE

13747001	Ø12mm
13747002	Ø14mm
13747003	Ø16mm



- 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.

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



10 | 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.



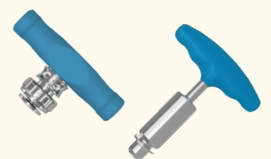
COUNTER TORQUE

13721001



RATCHETING TORQUE LIMITER

99781312
99781212



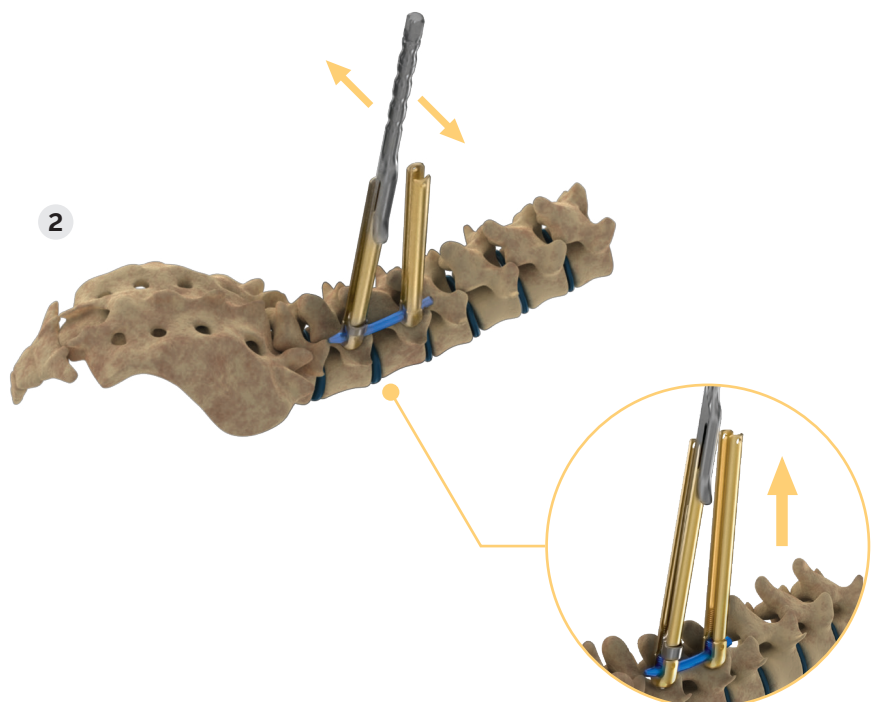
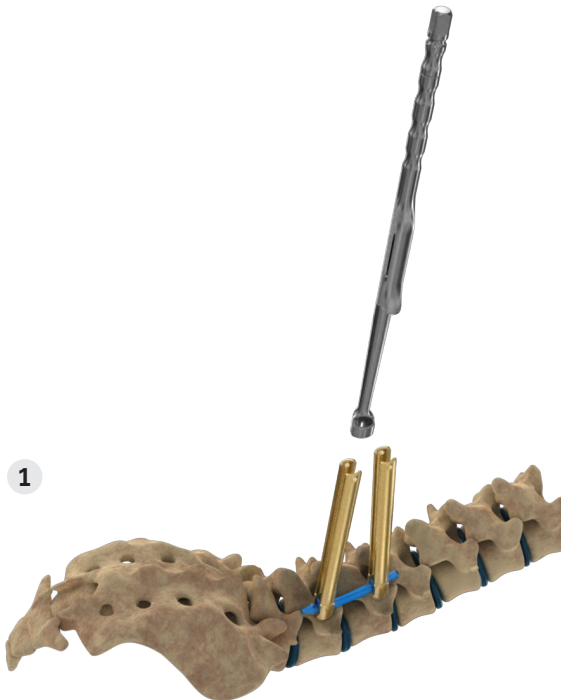
TAB BREAKER

13722001



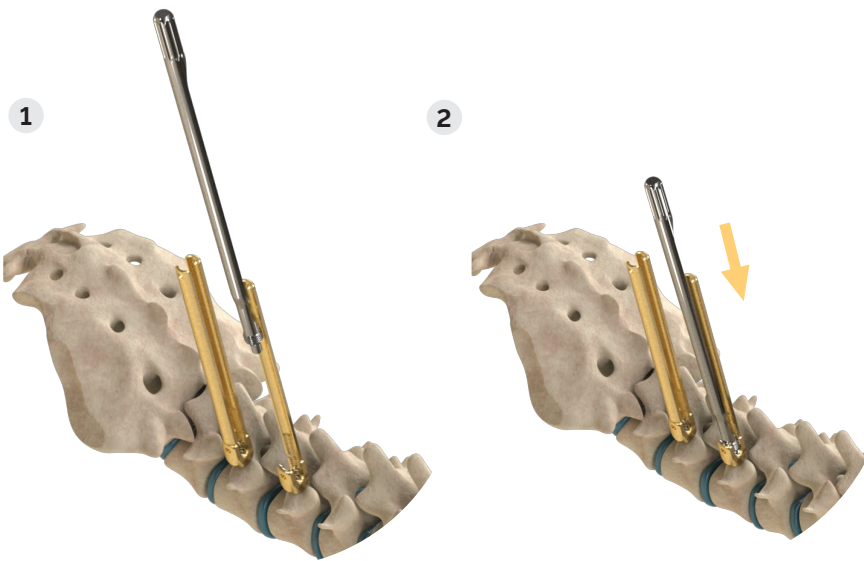
11 | EXTENDED TAB REMOVAL

- 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.

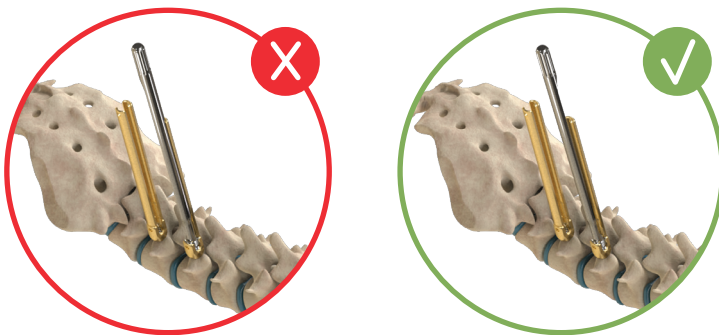


12 | TECHNIQUE FOR PREMATURE EXTENDED TAB BREAKAGE

- 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.

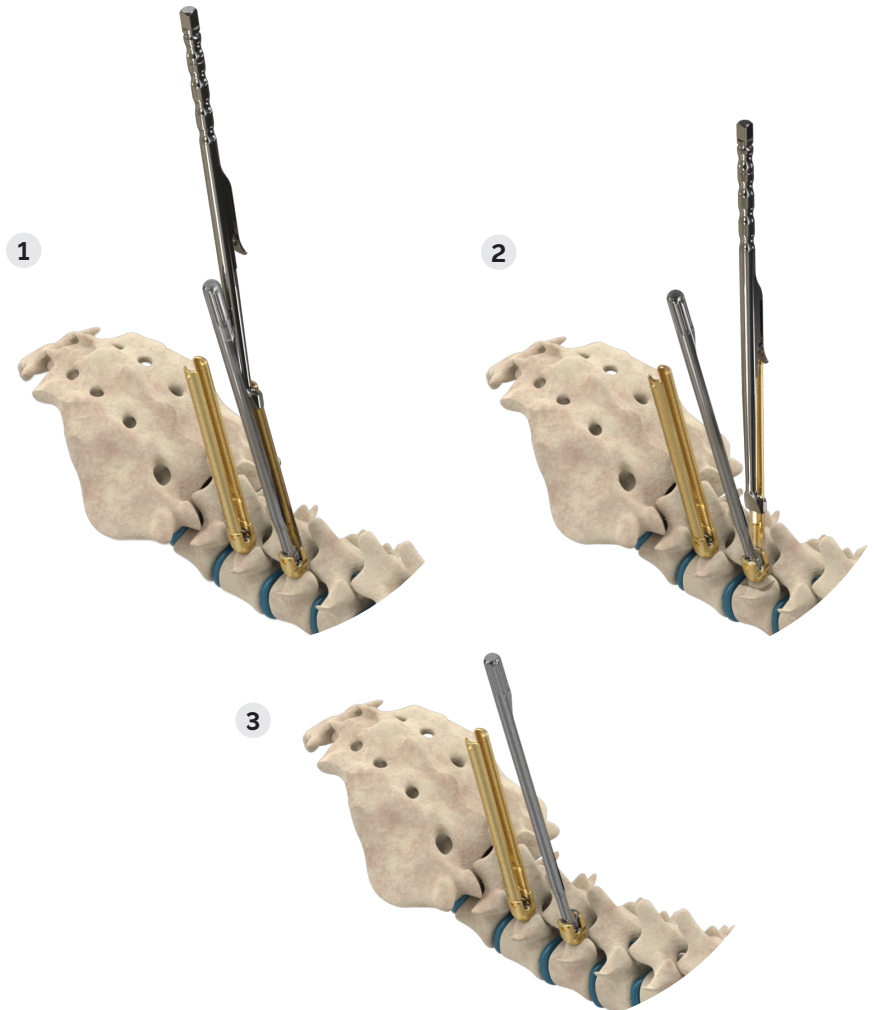


GUIDE FOR RESCUE TUBE

13719006



- Use the Tab Breaker to remove the remaining tab.

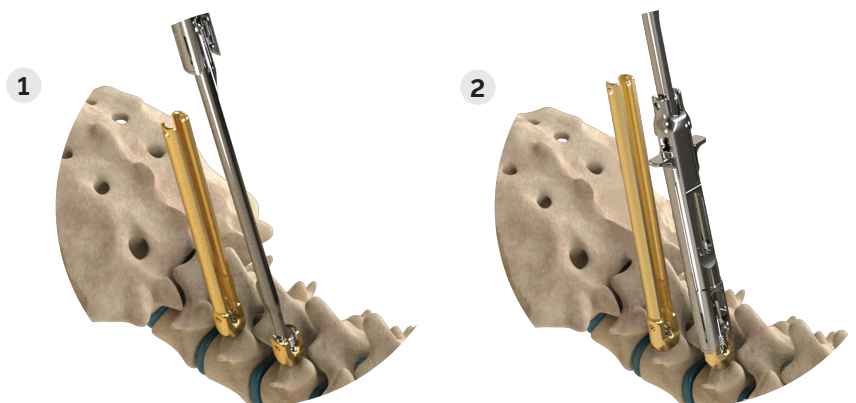


RESCUE TUBE

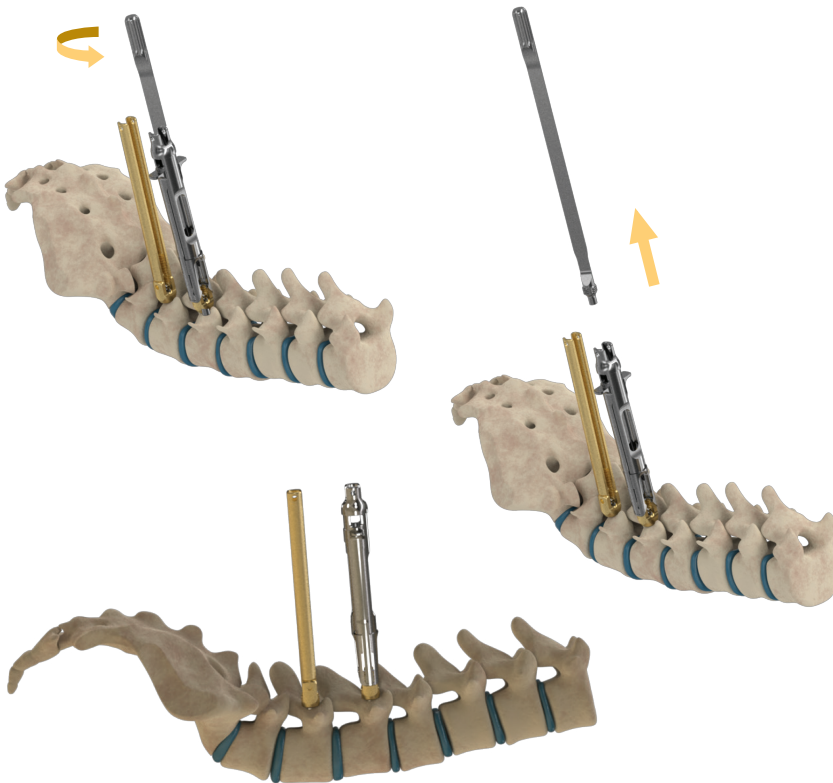
13719005



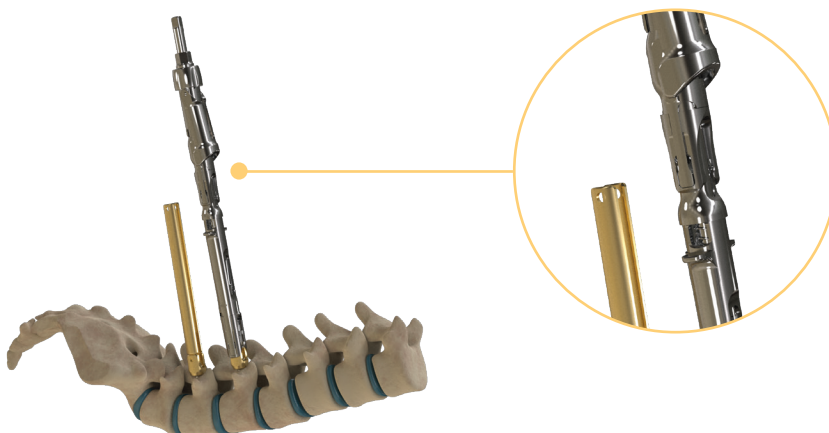
- Slide the **Rescue Tube** over the Guide For Rescue Tube and clip it onto the Screw head.



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

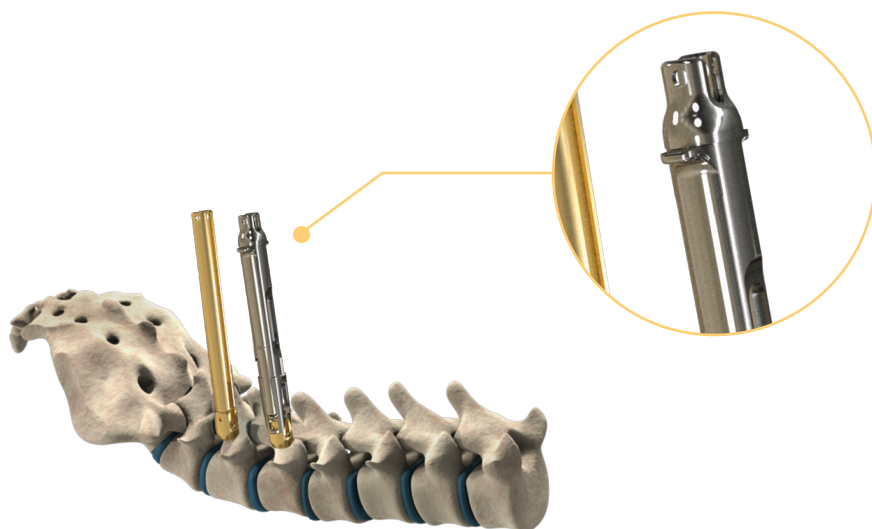
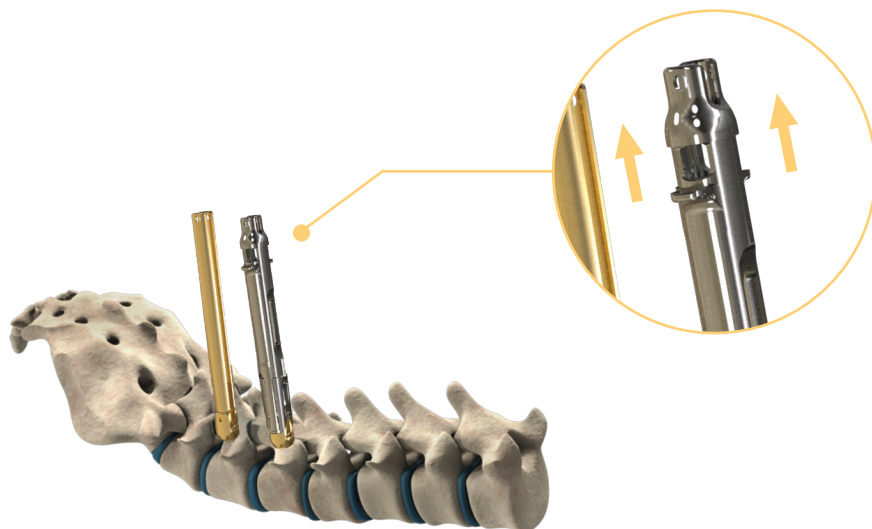


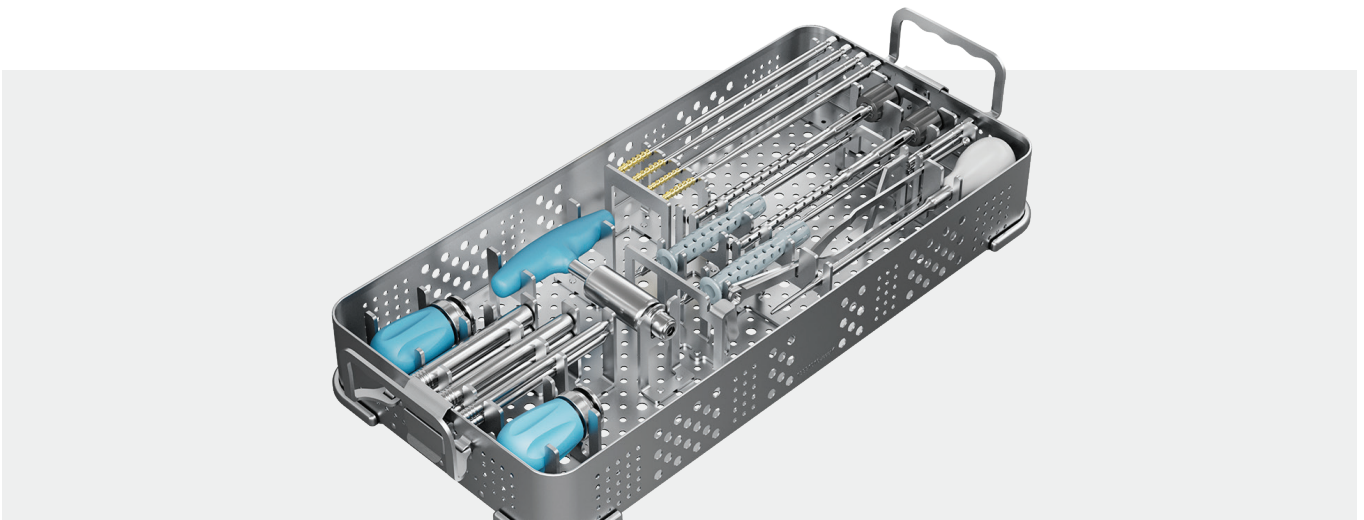
- If needed, attached the Persuader* to the Rescue Tube and proceed as usual.



RECOMMENDATION:

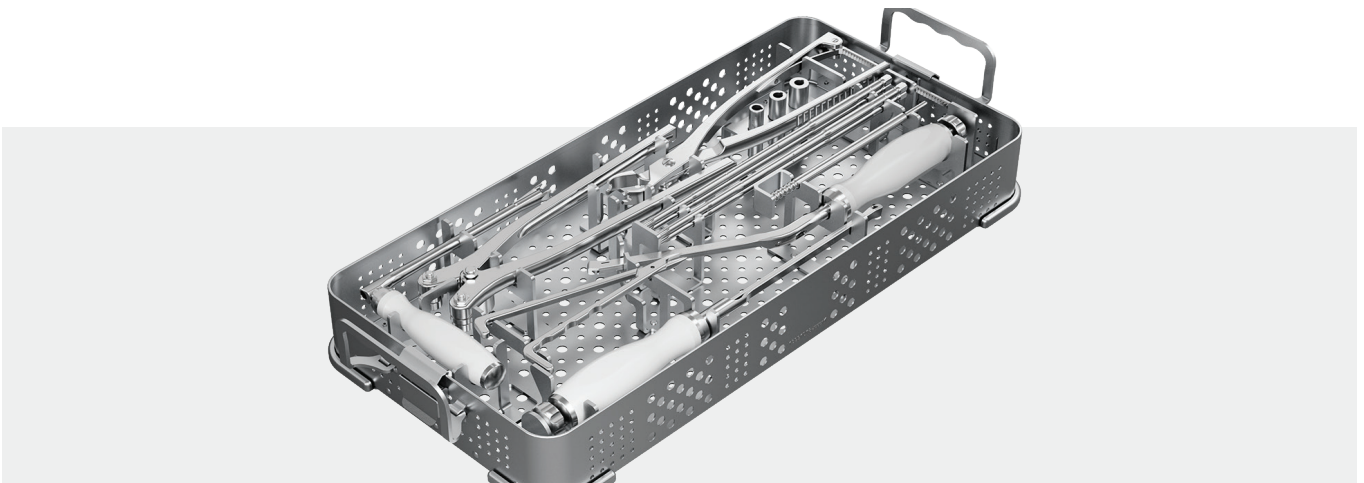
Removal of the Rescue Tube





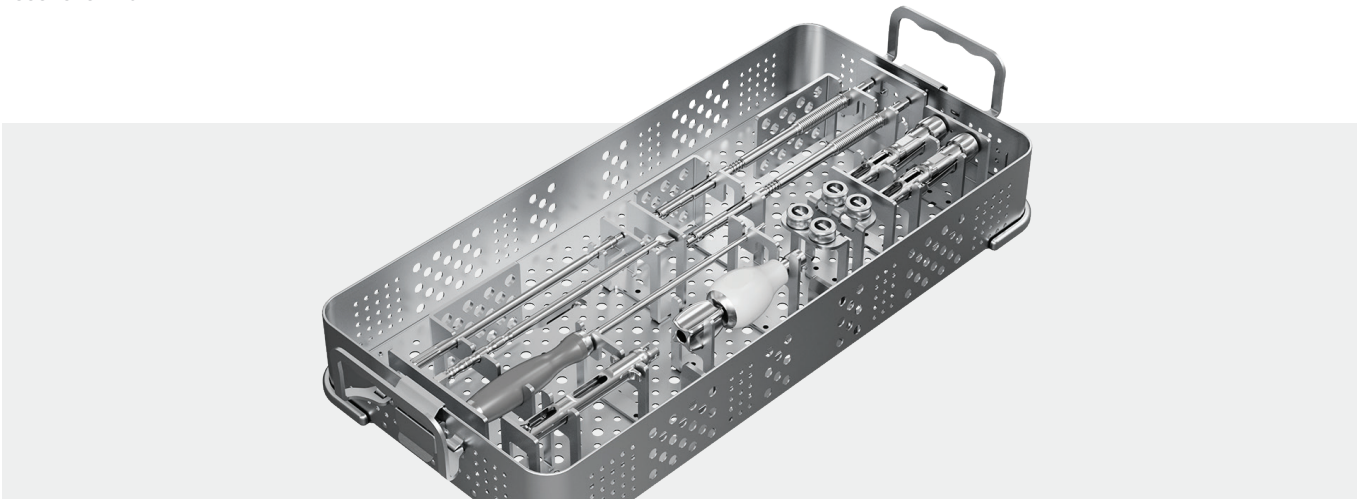
INSTRUMENTS TRAY #1

13991016 Tray
13991017 Lid



INSTRUMENTS TRAY #2

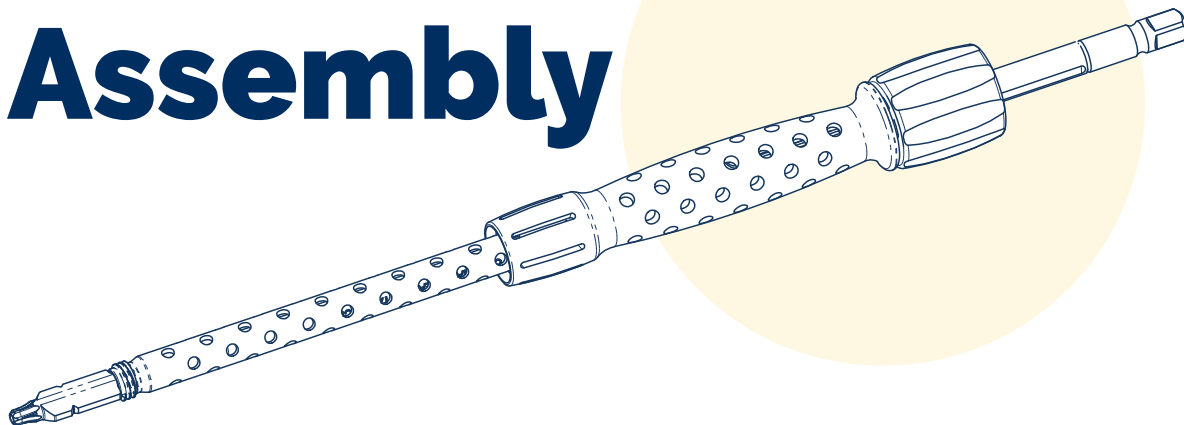
13991018 Tray
13991019 Lid



INSTRUMENTS TRAY #3

13991020 Tray
13991021 Lid

Screwdriver Assembly



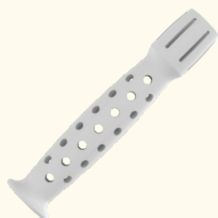
TUBE

18912026

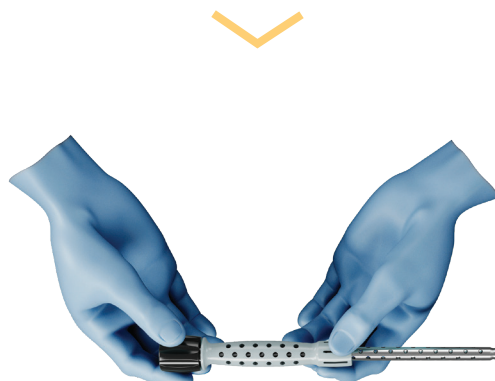
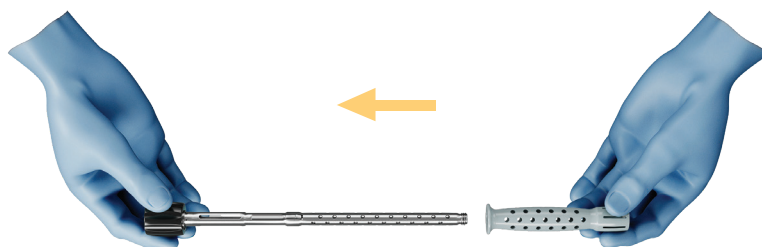


SLEEVE

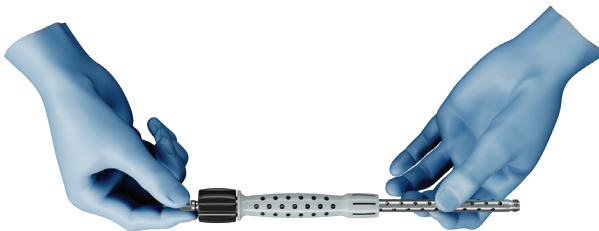
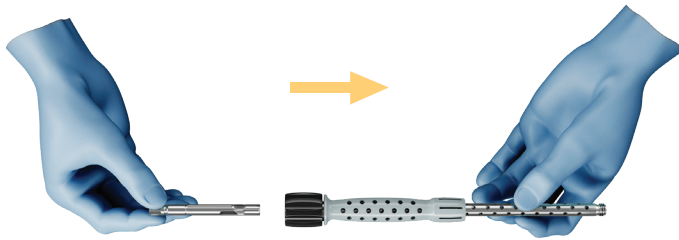
13914003



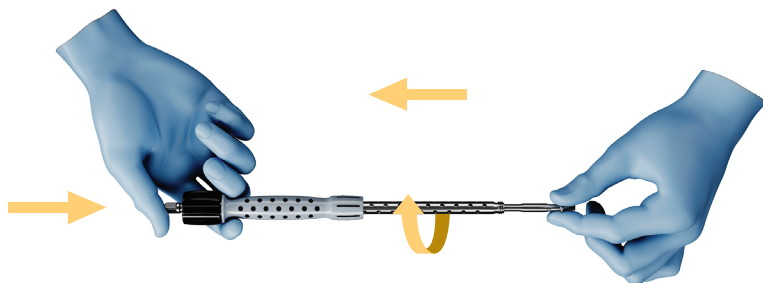
- Slide the Sleeve on the **Tube** until the **Sleeve** is flush against the black knob.



- 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 fully engaged.



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

SNAP-ON SHAFT

13911004



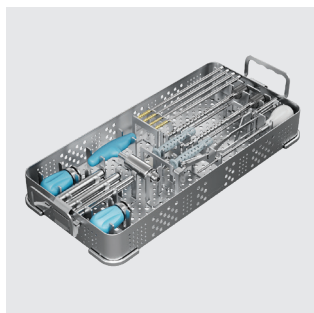
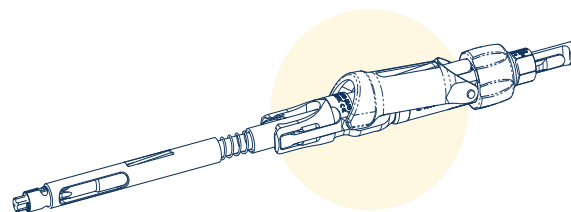
MIS SCREWDRIVER SHAFT

13911009



Instruments

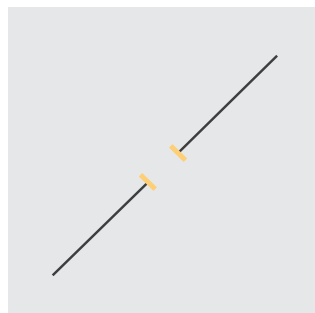
Instrument Tray #1



INSTRUMENTS TRAY #1

13991016
13991017

Tray
Lid



GUIDEWIRE Ø 1,5 & SECURED GUIDEWIRE

15709500



DILATOR

13707001
13707002

Internal Dilator
External Dilator



TAP SLEEVE DILATOR

13719003



CANNULATED BONE AWL

99702004



TAP

99701545
99701555
99701565
99701575

4.5mm
5.5mm
6.5mm
7.5mm



CANNULATED RATCHETING PALM HANDLE

99780101



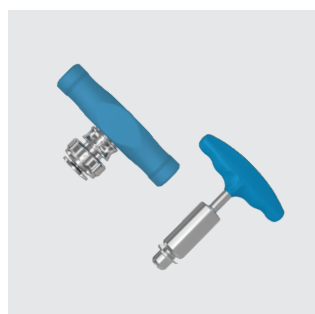
SCREWDRIVER

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



ROD SELECTOR

13731000



RATCHETING TORQUE LIMITER

99781312
99781212

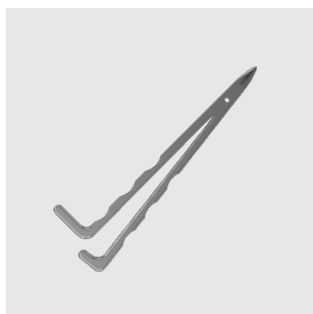
Instrument Tray #2



INSTRUMENTS TRAY #2

13991018
13991019

Tray
Lid



GUIDEWIRE REMOVER

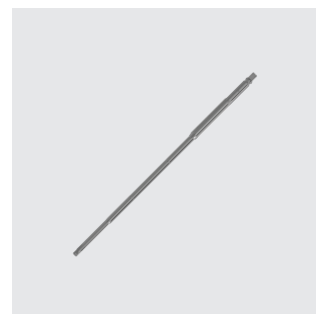
99762001



ROD INSERTER

13711000
13711001

Curved
Straight



SNAP FIT TIGHTENING WRENCH

01720006



ROD GAUGE

13733002



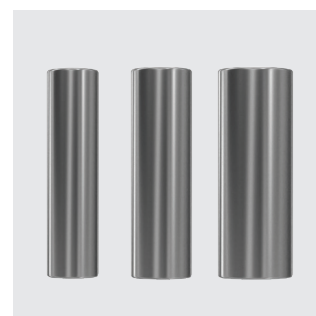
COMPRESSOR/ DISTRACTOR

13740000



COUNTER TORQUE

13721001



SLEEVE

13747001
13747002
13747003

ø12MM
ø14MM
ø16MM



FRENCH BENDER

99750003

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

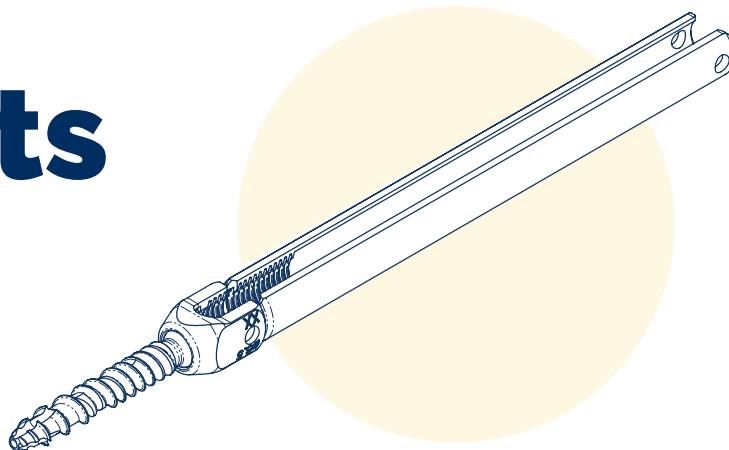
18720000



TAP

99701585

Implants



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



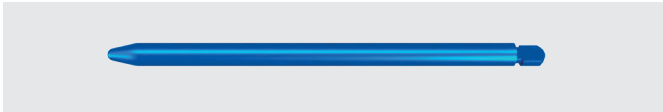
ERISMA-LP MIS LATERAL UNIPLANAR SCREWS

	Ø4.5MM	Ø5.5MM	Ø6.5MM	Ø7.5MM	Ø8.5MM	Ø9.5MM	Ø10.5MM
L20MM	13054520	13055520	13056520	-	-	-	-
L25MM	13054525	13055525	13056525	13057525	13058525	13059525	13051025
L30MM	13054530	13055530	13056530	13057530	13058530	13059530	13051030
L35MM	13054535	13055535	13056535	13057535	13058535	13059535	13051035
L40MM	13054540	13055540	13056540	13057540	13058540	13059540	13051040
L45MM	13054545	13055545	13056545	13057545	13058545	13059545	13051045
L50MM	-	13055550	13056550	13057550	13058550	13059550	13051050
L55MM	-	13055555	13056555	13057555	13058555	13059555	13051055
L60MM	-	-	13056560	13057560	13058560	13059560	13051060
L65MM	-	-	-	13057565	13058565	13059565	13051065
L70MM	-	-	-	13057570	13058570	13059570	13051070
L75MM	-	-	-	13057575	13058575	13059575	13051075
L80MM	-	-	-	13057580	13058580	13059580	13051080
L85MM	-	-	-	13057585	13058585	13059585	13051085
L90MM	-	-	-	13057590	13058590	13059590	13051090
L95MM	-	-	-	13057595	13058595	13059595	13051095
L100MM	-	-	-	13057510	13058510	13059510	13051010



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

L30MM	13435030	L60MM	13435060
L35MM	13435035	L70MM	13435070
L40MM	13435040	L80MM	13435080
L45MM	13435045	L90MM	13435090
L50MM	13435050	L100MM	13435100



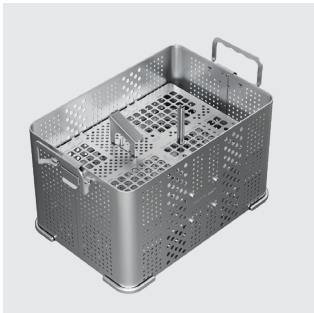
ERISMA-LP MIS EVO STRAIGHT RODS Ø5.5MM

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