



Erisma[®] - **LP EVO**

KOBE PERSUADERS



MANUFACTURER CLARIANCE

18, Rue Robespierre
62217 Beaurains - FRANCE
Tel +33 (0)3 21 16 12 15
Fax +33 (0)3 21 15 50 73

Erisma[®]-LP EVO

KOBE PERSUADERS



CONTENTS

Surgical Technique P04

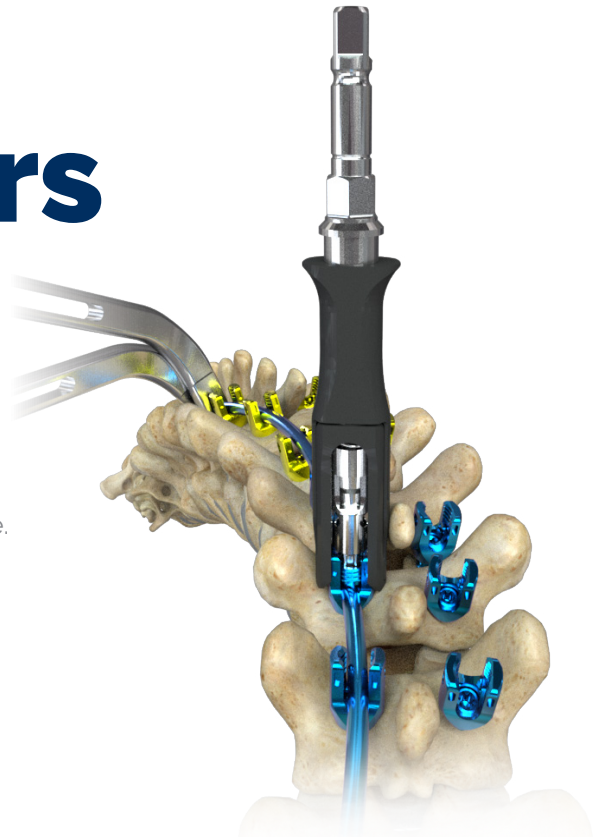
- 1 | Introduction
- 2 | Options for Screw Head Mobility
- 3 | Rod Options
- 4 | Kobe Persuaders
- 5 | Rod Preparation
- 6 | Rod Insertion
- 7 | Rod Reduction
- 8 | Set screw insertion
- 9 | Rod Rotation
- 10 | Set screw insertion with Kobe
- 11 | Compression & Distraction
- 12 | Removal of Kobe Persuaders
- 13 | Final Tightening
- 14 | Option - Translation with Reduction Screws

Instruments P21

Implants P23

Maneuvers

Prior to using any Clariance device, please review the instructions for use, the label and this surgical technique for a complete listing of indications, contraindications, warnings, precautions, potential adverse events, and directions for use.



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 | INTRODUCTION

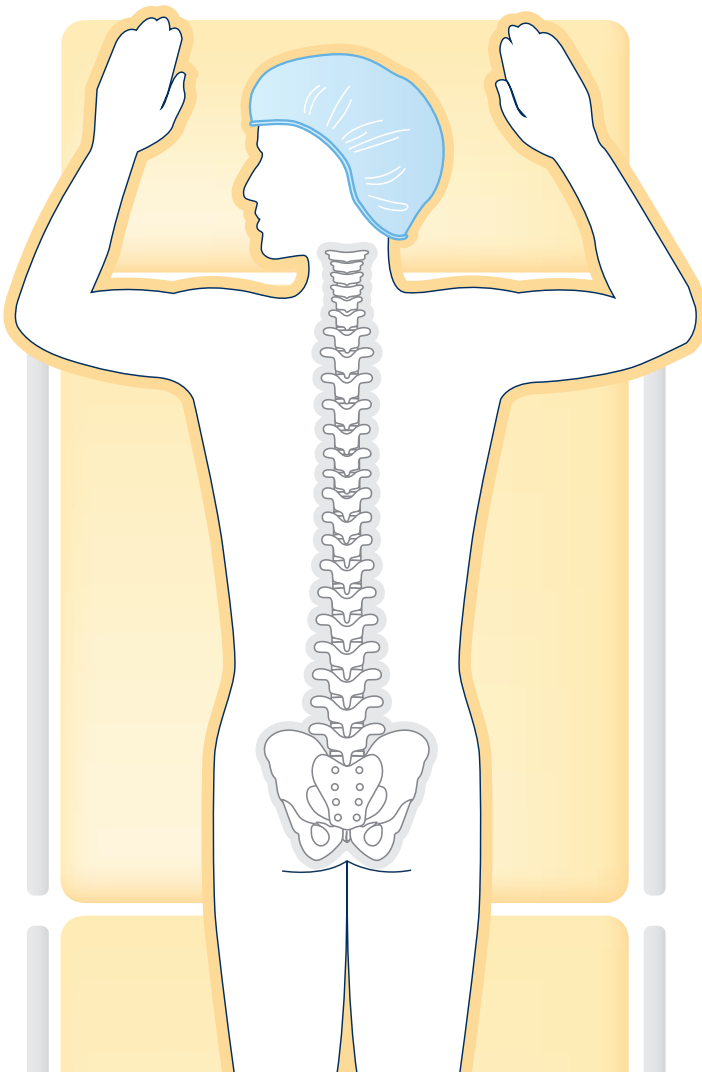
The Erisma®-LP Evolution offers instruments for performing a combination of different correction techniques. Each technique and the associated instruments are described independently. The specific combination of the different techniques is selected by the surgeon depending on multiple parameters such as pathology, bone quality, rigidity and experience.

CAUTION:

*The use of instruments related to implantation of **Pedicle Screws, Rods, Set Screws and Crosslinks** is described in the Erisma®-LP Evolution surgical technique.*

The Erisma®-LP Correction Maneuvers surgical technique serves as a complement to the Erisma®-LP Evolution technique. The Correction Maneuvers technique alone does not explain all the steps to complete a surgery.

Note: the instruments item numbers and images featured in this surgical technique may have alternative options. Instruments and implants availability may vary upon markets. Please contact your local Sales Representative for more information.

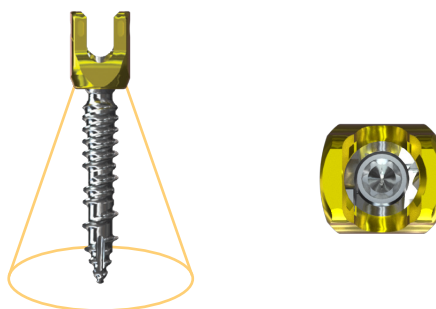


2 | OPTIONS FOR SCREW HEAD MOBILITY

The Erisma®-LP Evolution system offers different **Screw** types with different characteristics of screw to rod connection.

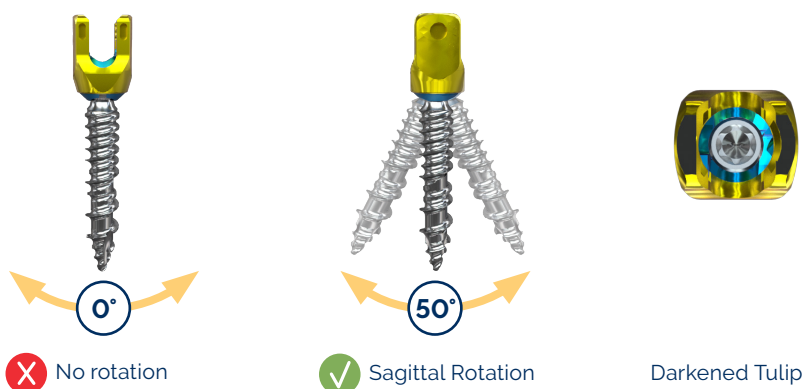
A | POLYAXIAL SCREWS

The **Polyaxial Screw** with a 50° range easily forgives imperfections in rod bending and allows the rod to slide through the screw tulips.



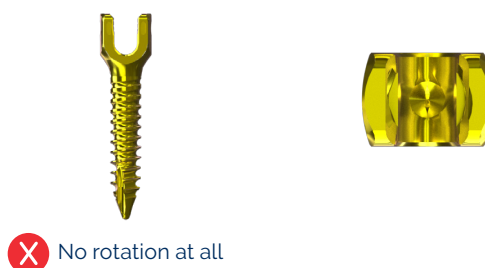
B | UNIPLANAR SCREWS

Uniplanar Screw features 50° polyaxiality in the sagittal plane, but complete stability in the lateral plane. To distinguish between the **Uniplanar Screw** and the **Polyaxial screws**, there is a black engraving on the tulip and a blue anodization on the saddle of the uniplanar screw.



C | MONOAXIAL SCREWS

The **Monoaxial Screw** is single threaded for better screw height adjustment. These screws are always perpendicular to the **Rods**.



Note: implants availability may vary upon markets. Please contact your local Sales Representative for more information.

REDUCTION SCREWS

1817xxxx



PERSUADER

18742009



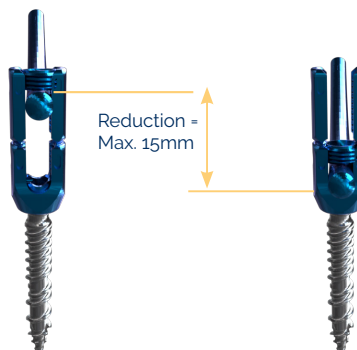
KOBÉ PERSUADER

15742005



D | PERSUADER OPTIONS

Set Screws and **Reduction Screws** (sizes up to 15mm).



NOTE:

*It is not recommended to perform rod rotation maneuvers with the **Reduction Screws**. The screwheads may splay.*

Standard Persuader and short screw heads (sizes up to 19mm).



Kobe Persuaders and short screw heads (sizes up to 30mm).



3 | ROD OPTIONS

The Erisma®-LP Evolution system offers different **Rod** types with different characteristics of stiffness and elasticity.

A | TITANIUM ALLOY

The standard **Titanium Rods** (TA6V-ELI) can be identified by their blue color. **The Titanium Rods** are less stiff than the **Cobalt Chrome Rods**.



B | STIFF COBALT CHROME

The stiffness of the **Cobalt Chrome Rods** corresponds to market standard. They are ideal for rod rotation techniques.



C | MALLEABLE COBALT CHROME

The **Malleable Cobalt Chrome Rods** are as stiff as the standard version. However, the spring effect of the **Rod** is reduced so that the overbending needed to obtain a lasting deformation is less than that of the other two **Rod** types.

This makes the **Malleable Cobalt Chrome Rods** an optimal choice for in-situ contouring techniques.



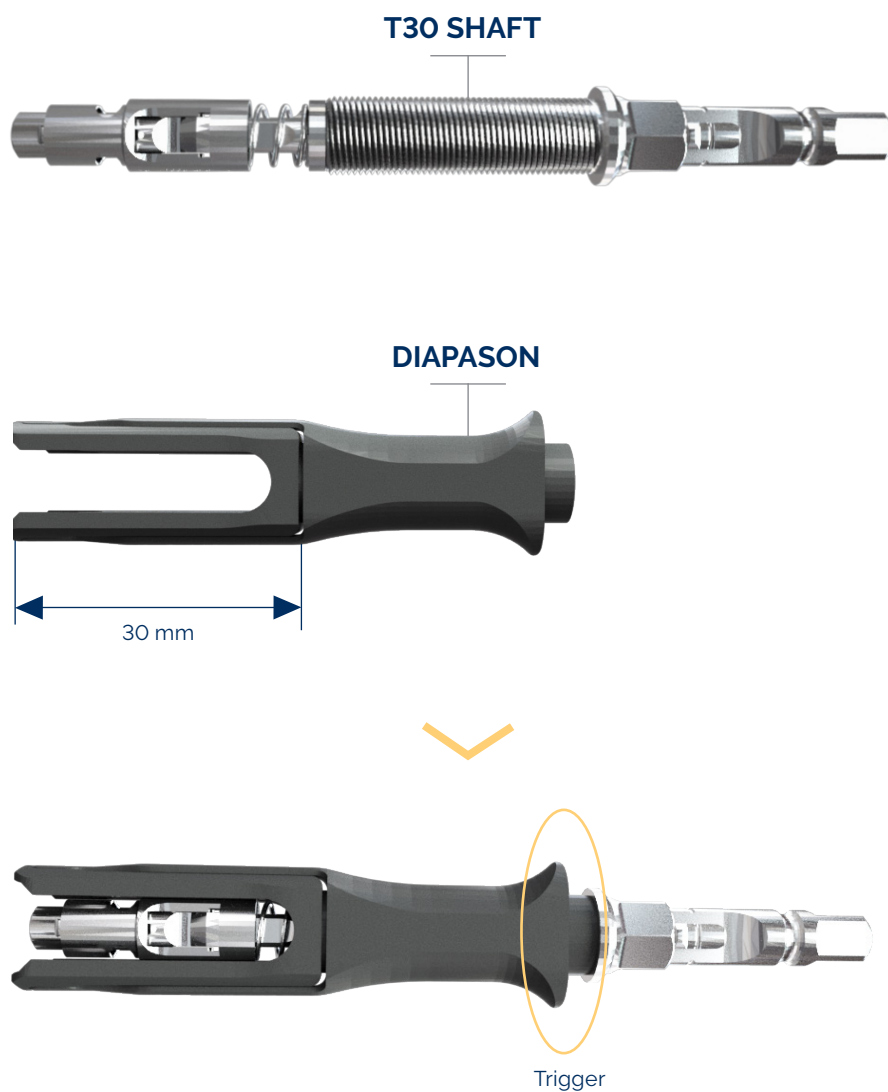
KOBE PERSUADER

15742005

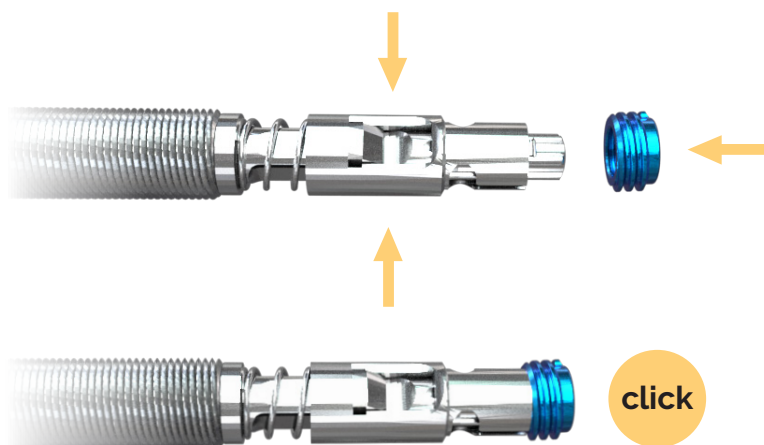


4 | KOBE PERSUADER

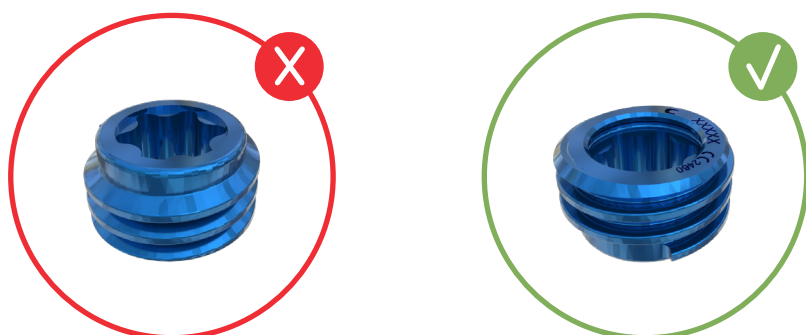
- Pre-loaded **Set Screws**.
- Independent reduction of **Rod** and insertion of **Set Screws**.
- Gradual rod reduction.
- Allow for tightening and un-tightening of **Set Screw** without instrument removal.
- 30mm of vertical translation
- Slim and light-weight instrument.



The **T30 Shaft** of the instrument is removed to snap the **Set Screw** easily onto the T30 print.

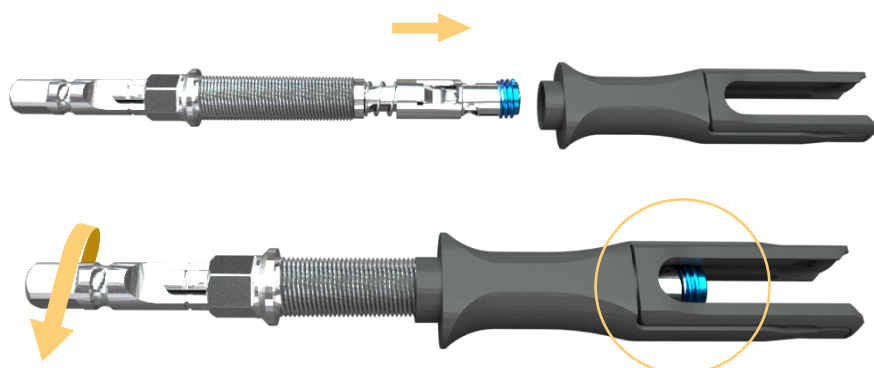


- Push on the snap of the **T30 Shaft** while attaching **Set Screws**.



CAUTION:

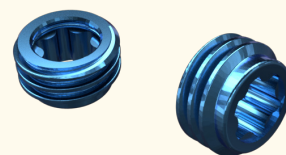
*There is only one way to snap the **Set Screw** onto the **T30 Driver**.*



- Turn to insert. Stop when the **Set Screw** appears in the **Diapason**.

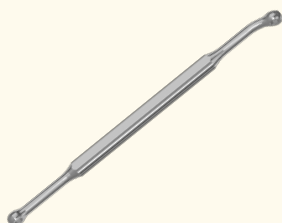
SET SCREWS

13620009



HEXAGONAL WRENCH

99719001



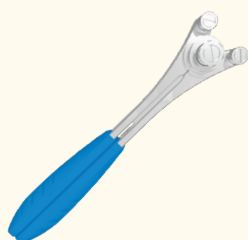
ROD GRIPPER

99736013



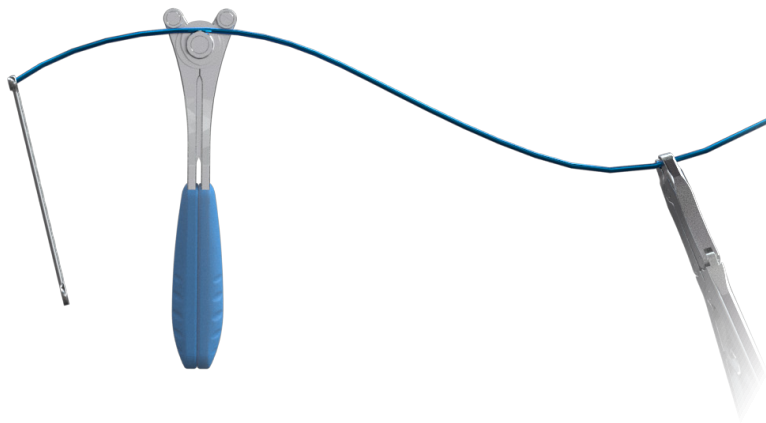
FRENCH BENDER (OPTION)

50750000



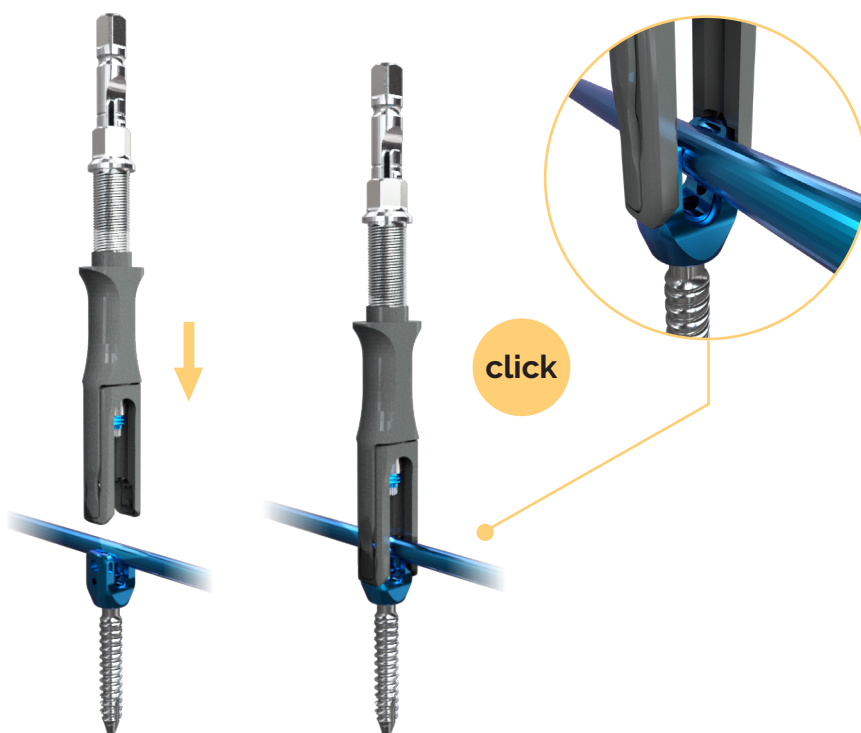
5 | ROD PREPARATION

After selecting the appropriate **Rod** type, measure the length of the Rod and cut the Rod if necessary. Use the **French Bender** to shape the **Rod** as desired. The **Rod Gripper** or **Hexagonal Wrench** can be used to control the planes of the bending during this maneuver.



6 | ROD INSERTION WITH KOBÉ PERSUADER

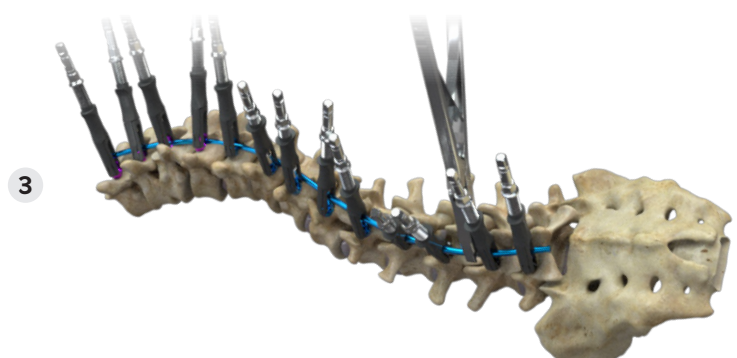
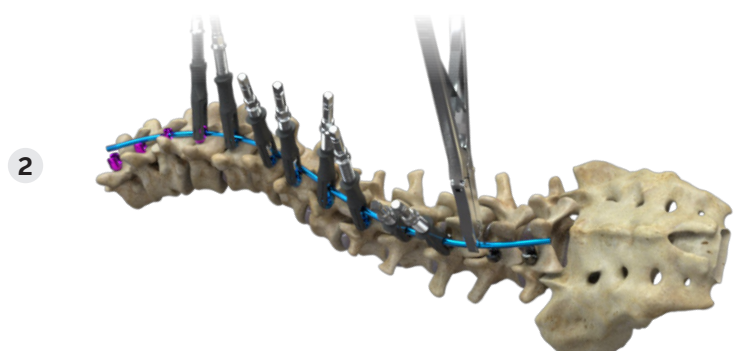
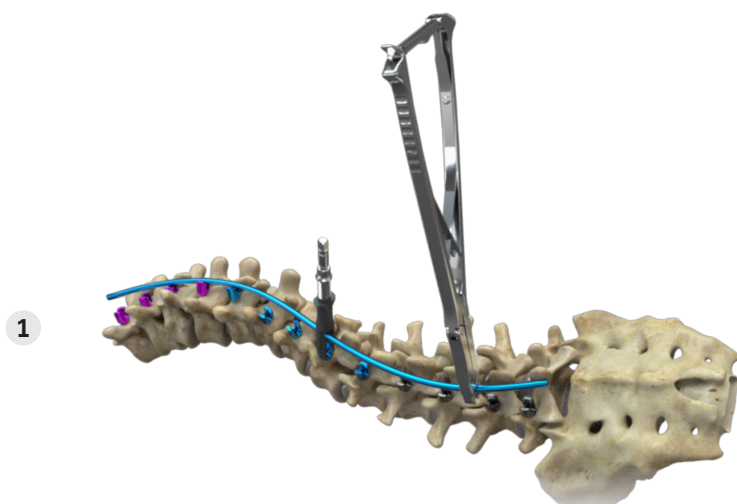
Snap the **Kobé Persuader** onto the **Screw** heads by pushing it down



Note: the instruments item numbers and images featured in this surgical technique may have alternative options. Instruments and implants availability may vary upon markets. Please contact your local Sales Representative for more information.

ROD CAPTURE

Hold the **Rod** above the screw heads while attaching the **Kobe Persuader**. The **Kobe Persuader** should be inserted sequentially to avoid surrounding a non-instrumented screw head with two instrumented screw heads.



KOBE PERSUADER

15742005



HANDLE FOR KOBÉ PERSUADER

15780001



LONG HANDLE FOR KOBÉ PERSUADER

15782002



7 | ROD REDUCTION

Use the grey handles with the **Kobe Persuaders** to reduce the **Rod** by screwing down the **T30 Shafts**. To avoid instrument conflict on adjacent levels, the **Handles** are available in two lengths.



SET SCREW POSITION DURING REDUCTION MANEUVER:

During the reduction maneuvers, the **Set Screw** does not apply any pressure on the **Rod**. The **T30 Shaft** of the instrument is persuading the **Rod** into the implant gutter through the **Set Screw**.

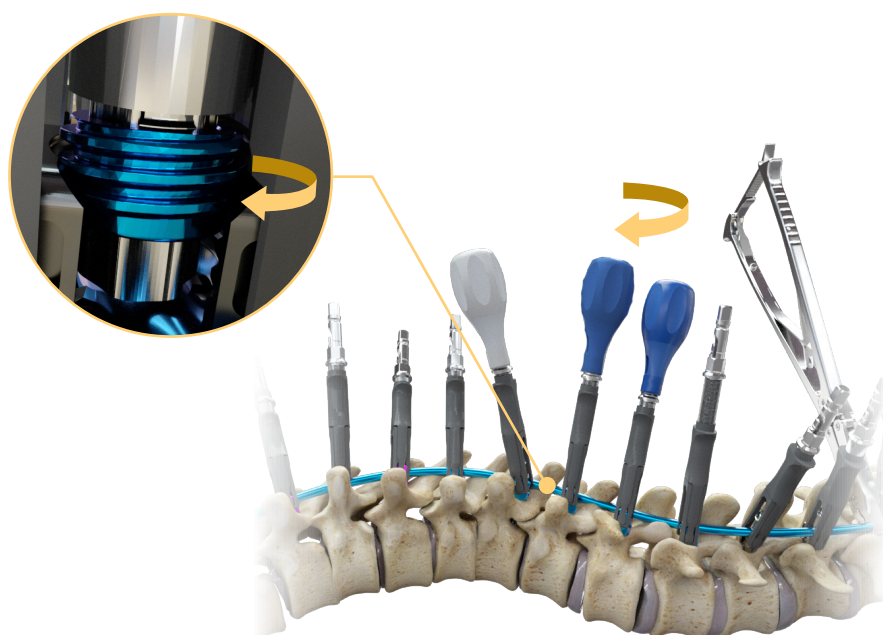


8 | SET SCREW INSERTION

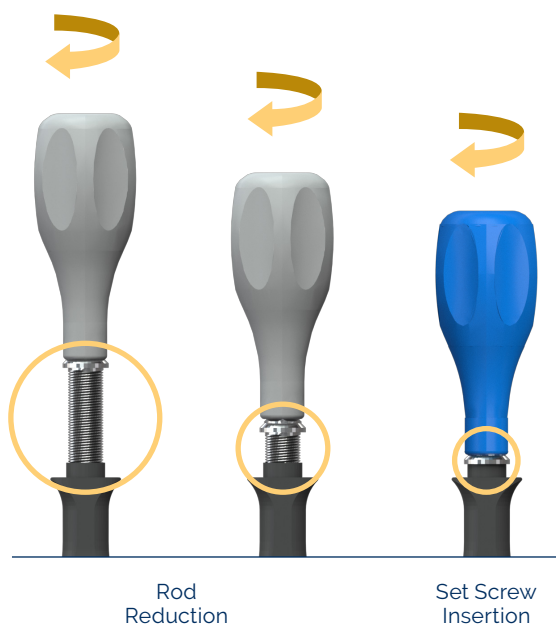
Perform the reduction sequentially and gradually with the persuaders to allow the screw heads to slide along the **Rod**, decreasing any possible friction between the implants.

Use the **Rod Gripper** to control the position of the **Rod** during reduction maneuvers.

- Use the **Blue Handle** to insert the **Set Screw**.



The **Rod** is fully reduced when the threaded part of the **T30 Shaft** has been completely screwed down. The **Set Screw** can then be inserted.



HANDLE FOR KOBE PERSUADER FOR SET SCREW

15782003



ROD GRIPPER

99736013



HANDLE FOR KOBÉ PERSUADER FOR SET SCREW

15782003



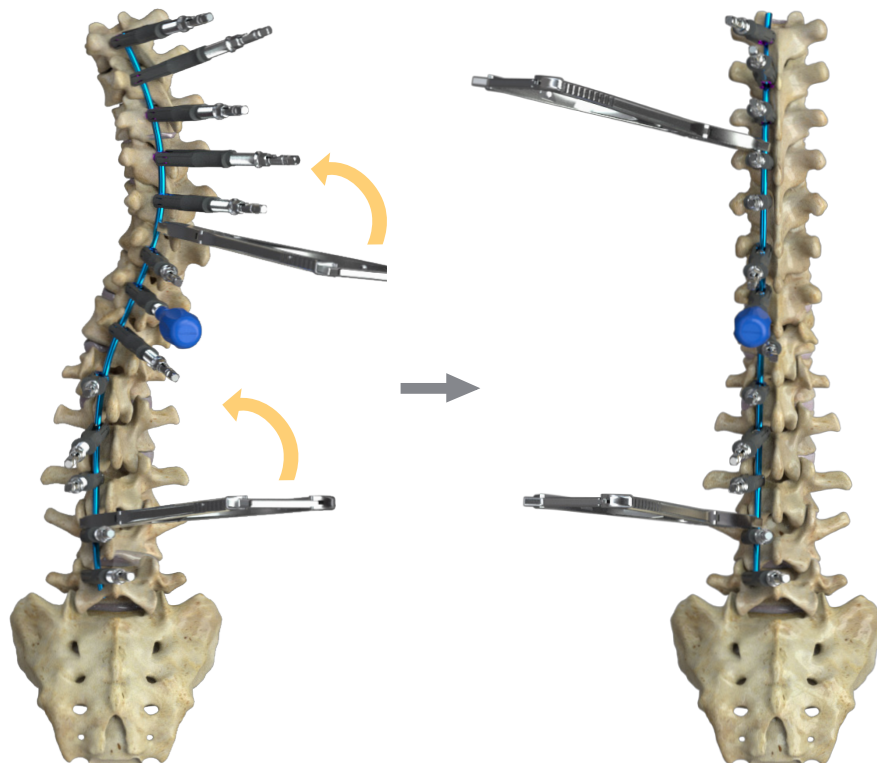
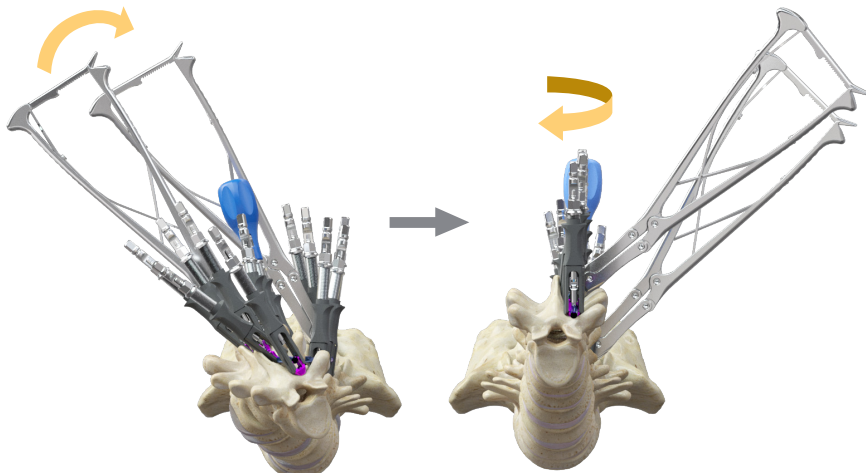
ROD GRIPPER

99736013



9 | ROD ROTATION WITH KOBÉ PERSUADER

Place one or two **Blue Handles** on the **Kobe Persuaders** in order to tighten the **Set Screws** in a timely fashion to maintain rod correction.



Note: the instruments item numbers and images featured in this surgical technique may have alternative options. Instruments and implants availability may vary upon markets. Please contact your local Sales Representative for more information.

10 | SET SCREW INSERTION WITH KOBE PERSUADER

Tighten several **Set Screws** to maintain the position of **the Rod**. Some implants may require additional persuasion of **the Rod** with the **Grey Handle** before the insertion of the **Set Screws**.



CHANGING FROM BLUE TO GREY HANDLES ON SINGLE INSTRUMENT:

Do not replace the blue handle with the **Grey Handle** if the **Set Screw** is partially inserted, as the **Set Screw** may detach from the instrument.



If there is high constraint in one instrument, it may be difficult to insert the **set screw**. In this case, remove the **Kobe Persuader** and insert the **Set Screw** directly in the screw head; or replace the **Kobe Persuader** with the **Lumbar Persuader** or the **Thoracic Persuader**. Use the **Knob** to reduce the rod.

Note: the instruments item numbers and images featured in this surgical technique may have alternative options. Instruments and implants availability may vary upon markets. Please contact your local Sales Representative for more information.

THORACIC ROD PUSHER

15742003



KNOB

15780000



PERSUADER

50742004



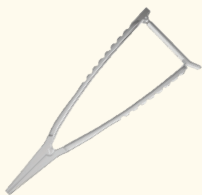
COMPRESSOR (OPTION)

99740005 Inclined



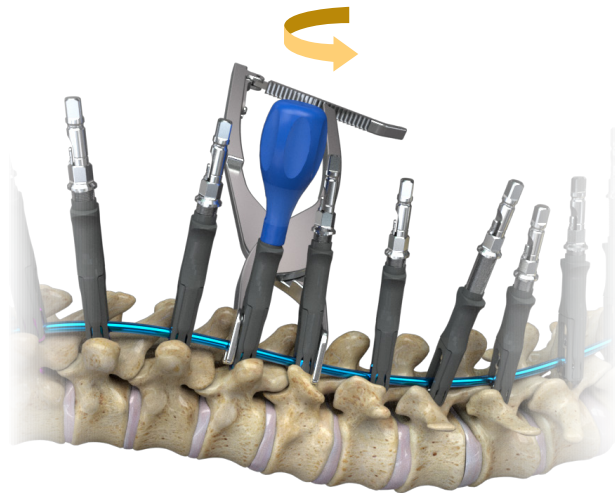
DISTRACTOR (OPTION)

99741003* Inclined



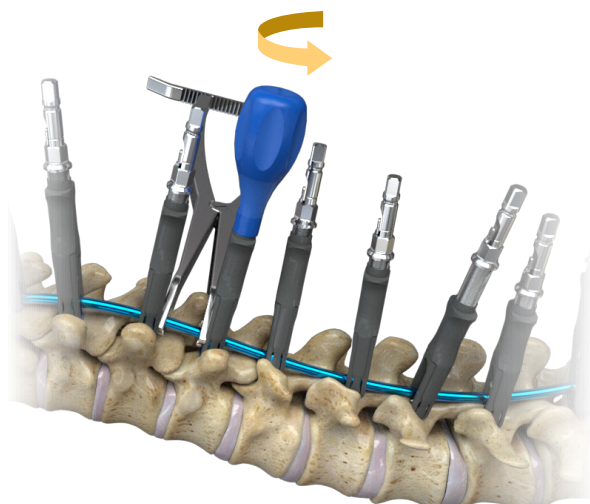
11 | COMPRESSION WITH KOBÉ PERSUADERS

- Use the **Blue Handle** to release the provisional tightening on the level where the compression maneuver is to be performed.
- Perform the compression and then tighten the **Set Screw** with the **Blue Handle** to maintain the correction.



DISTRACTION WITH KOBÉ PERSUADERS

- Use the **Blue Handle** to release the provisional tightening on the level where the distraction maneuver is to be performed.
- Perform the distraction and then tighten the **Set Screw** with the **Blue Handle** to maintain the correction.

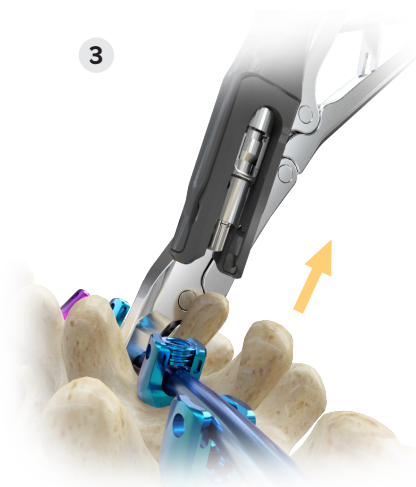


Note: the instruments item numbers and images featured in this surgical technique may have alternative options. Instruments and implants availability may vary upon markets. Please contact your local Sales Representative for more information.

12 | REMOVAL OF KOBE PERSUADERS

Before removing the **Kobe Persuaders**, make sure the provisional tightening is performed on all **Set Screws**.

- Use the **Grey Handles** to release the pressure on the **Kobe Persuaders** — at least 3 full turns of the **Grey Handle** is necessary.
- Use the palm of the hand to push down on the posterior part of the instrument while pulling the trigger of the **Kobe Persuader** with the index finger and the thumb.



COUNTER TORQUE

18721008 Perpendicular



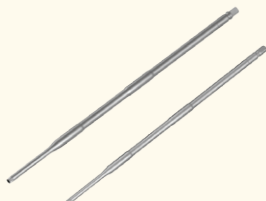
RATCHETING TORQUE LIMITING HANDLE

99781212



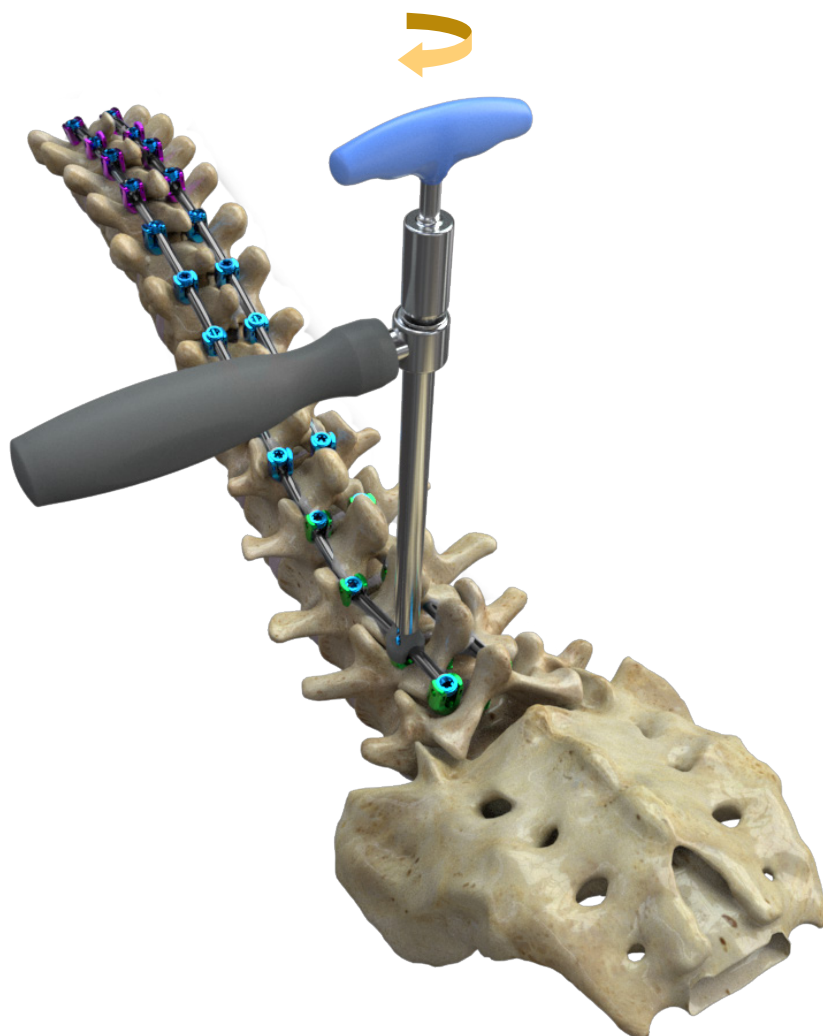
SELF-RETAINING SET SCREWDRIVER

18720011 Short
01720006 Long



13 | FINAL TIGHTENING

After completing the correction maneuver, insert the second **Rod** and all on the **Set Screws**, and perform final tightening.

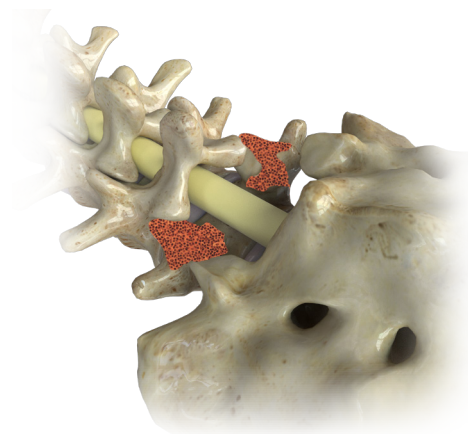


14 | OPTION - TRANSLATION WITH REDUCTION SCREWS

A | TRANSLATION WITH REDUCTION SCREWS FOR SPONDYLOLISTHESIS

Preparation of Pedicle Screw Entry Points

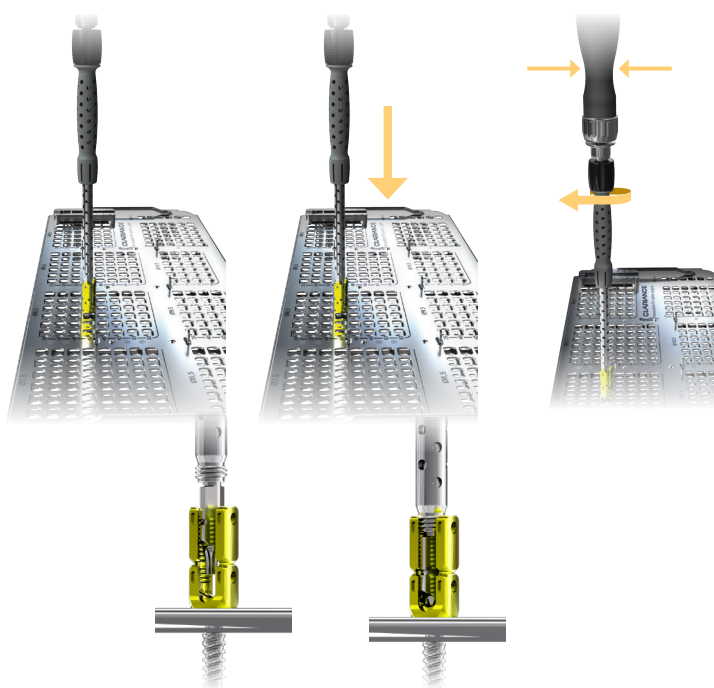
Decompression of the concerned level is performed and the pedicles are prepared as described in the standard surgical technique.



Preparation of Pedicle Screw

The **Screwdriver** is an assembly of four parts and a **Ratcheting Cylindrical Handle**. The instruction for how to assemble the **Screwdriver** can be found page 32 at the end of this brochure.

The **Reduction Screw** is attached to the **Screwdriver** by holding the **Ratcheting Cylindrical Handle** and tightening the **Screwdriver** by turning the black **Knob**.



Note: the instruments item numbers and images featured in this surgical technique may have alternative options. Instruments and implants availability may vary upon markets. Please contact your local Sales Representative for more information.

RATCHETING CYLINDRICAL HANDLE

99782006



ASSEMBLY OF SCREWDRIVER TUBE

18912026



SCREWDRIVER SHAFT

18710017



SLEEVE

13914003



QUICK CONNECT ROD

13911004



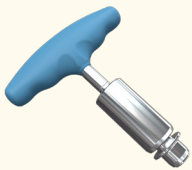
COUNTER TORQUE

18721008



TORQUE LIMITING HANDLE

99781212



SELF RETAINING SET SCREW DRIVER

01720006



BREAKING LEVER

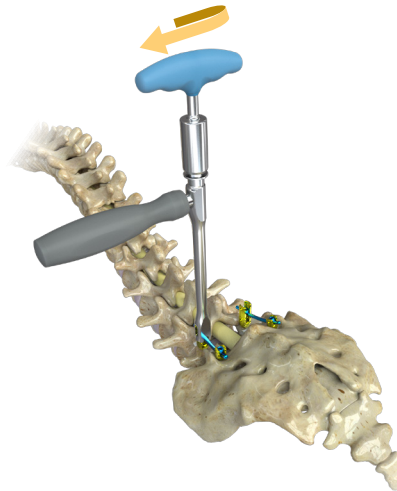
18722001



Final Tightening

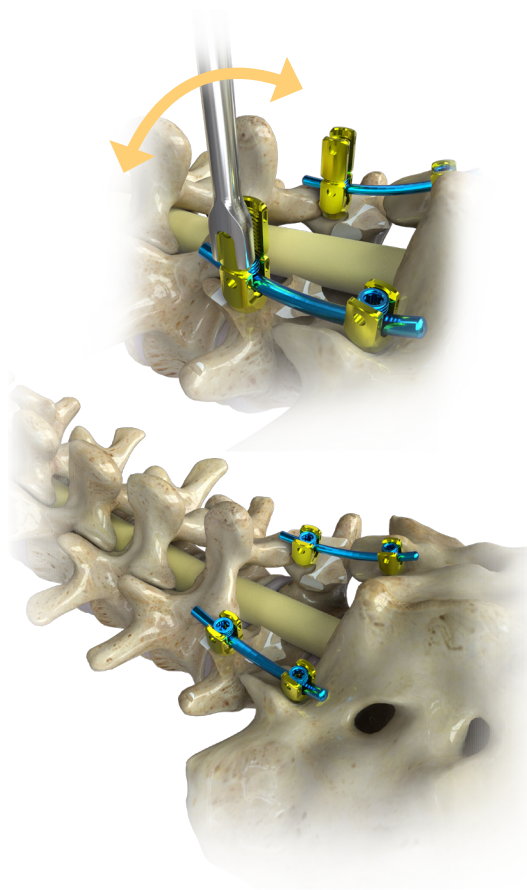
Perform final tightening on each **Set Screw** using the **Counter Torque** together with the **Self Retaining Set Screwdriver** attached to the **Torque Limiting Handle**.

Turn the handle until the handle releases.

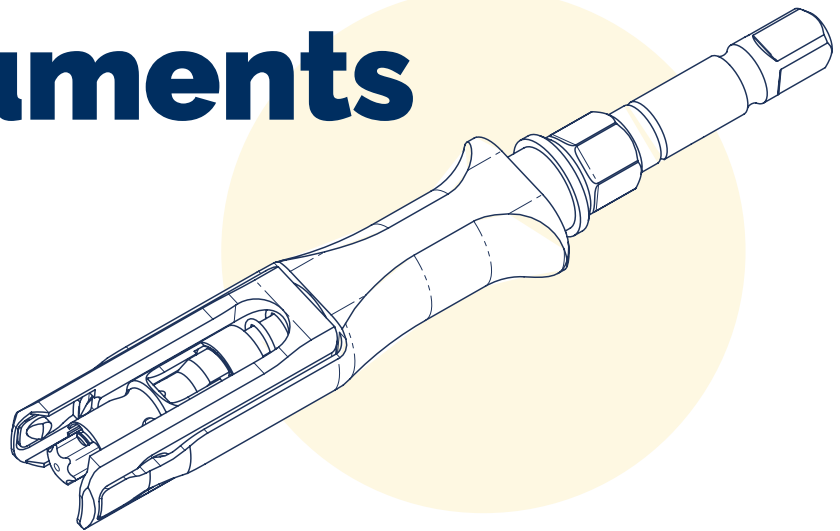


Tap Breakage

Break the taps by fitting the **Breaking Lever** on a tap and pivot the instrument back and forward.



Instruments



INSTRUMENTS TRAY

15991004
15990016

Tray
Lid



KOBE PERSUADER

15742005



**HANDLE FOR KOBE
PERSUADER**

15780001



**LONG HANDLE FOR
KOBE PERSUADER**

15780002



**HANDLE FOR KOBE
PERSUADER FOR SET
SCREW**

15780003



KNOB

15780000



THORACIC PERSUADER

15742003



PERSUADER

50742004

Note: the instruments item numbers and images featured in this surgical technique may have alternative options. Instruments and implants availability may vary upon markets. Please contact your local Sales Representative for more information.



HEXAGONAL WRENCH

99719001



**ADDITIONAL KOBÉ
PERSUADER TRAY**

15991006
15990016

Tray
Lid



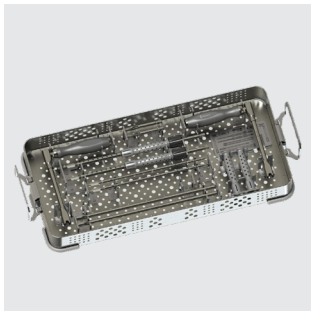
BREAKING LEVER

18722001



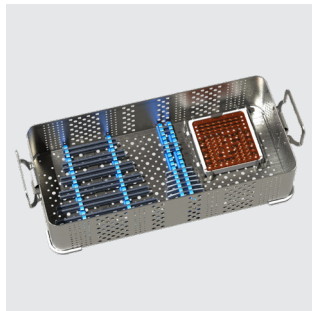
COUNTER TORQUE

18721008



**REDUCTION SCREW
INSTRUMENT SET**

18991038



**REDUCTION SCREW
IMPLANT SET**

18991039



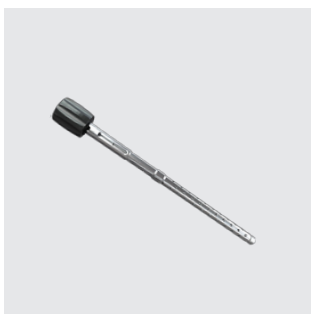
**REDUCTION
SCREWRACK**

18991040



**SCREWDRIVER
SHAFT**

18911040



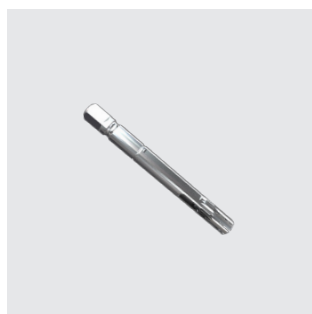
TUBE

18912026



SLEEVE

13914003

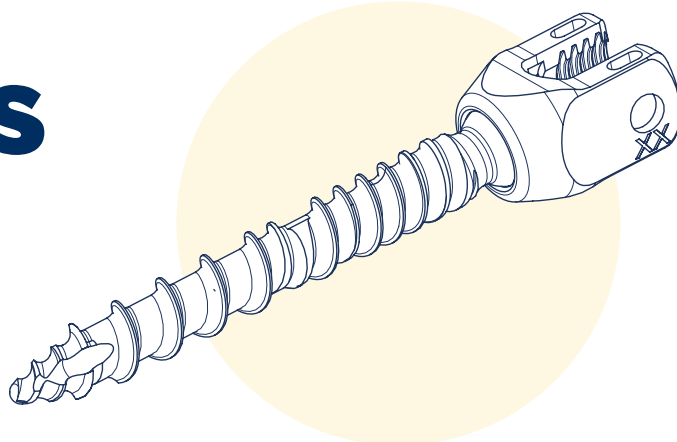


SNAP ON SHAFT

13911004

Implants

Product availability may vary upon markets. Please check with your local Sales Representative.



MONOAXIAL SCREWS

	Ø4.5MM	Ø5.5MM	Ø6.5MM	Ø7.5MM	Ø8.5MM
L20MM	-	-	-	-	-
L25MM	18014525	18015525	-	-	-
L30MM	18014530	18015530	18016530	-	-
L35MM	18014535	18015535	18016535	18017535	18018535
L40MM	18014540	18015540	18016540	18017540	18018540
L45MM	-	18015545	18016545	18017545	18018545
L50MM	-	-	18016550	18017550	18018550
L55MM	-	-	18016555	18017555	18018555



UNIPLANAR SCREWS

	Ø4.5MM	Ø5.5MM	Ø6.5MM	Ø7.5MM	Ø8.5MM
L20MM	15044520	-	-	-	-
L25MM	15044525	15045525	-	-	-
L30MM	15044530	15045530	15046530	15047530	-
L35MM	15044535	15045535	15046535	15047535	-
L40MM	15044540	15045540	15046540	15047540	15048540
L45MM	-	15045545	15046545	15047545	15048545
L50MM	-	-	15046550	15047550	15048550
L55MM	-	-	15046555	15047555	15048555



POLYAXIAL SCREWS

	Ø4.5MM	Ø5.5MM	Ø6.5MM	Ø7.5MM	Ø8.5MM
L20MM	18154520	-	-	-	-
L25MM	18154525	18155525	-	-	-
L30MM	18154530	18155530	18156530	18157530	18158530
L35MM	18154535	18155535	18156535	18157535	18158535
L40MM	18154540	18155540	18156540	18157540	18158540
L45MM	-	18155545	18156545	18157545	18158545
L50MM	-	-	18156550	18157550	18158550
L55MM	-	-	18156555	18157555	18158555



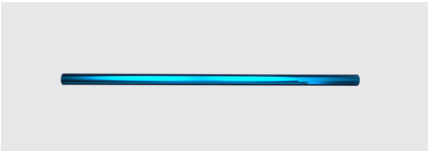
CANNULATED POLYAXIAL SCREWS

	Ø4.5MM	Ø5.5MM	Ø6.5MM	Ø7.5MM	Ø8.5MM
L20MM	13024520	-	-	-	-
L25MM	13024525	13025525	-	-	-
L30MM	13024530	13025530	13026530	13027530	13028530
L35MM	13024535	13025535	13026535	13027535	13028535
L40MM	13024540	13025540	13026540	13027540	13028540
L45MM	-	13025545	13026545	13027545	13028545
L50MM	-	-	13026550	13027550	13028550
L55MM	-	-	13026555	13027555	13028555



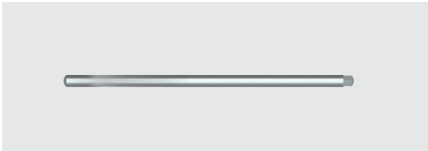
REDUCTION POLYAXIAL SCREW

	Ø5.5MM	Ø6.5MM	Ø7.5MM
L30MM	-	18176530	-
L35MM	18175535	18176535	18177535
L40MM	18175540	18176540	18177540
L45MM	18175545	18176545	18177545
L50MM	-	18176550	18177550



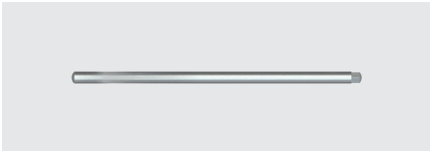
RODS WITH HEXAGONAL
ENDS TITANIUM

5.5mm x 500mm



RODS WITH HEXAGONAL
ENDS STIFF COBALT CHROME

5.5mm x 500mm



RODS WITH HEXAGONAL
ENDS MALLEABLE COBALT
CHROME

5.5mm x 500mm



Clariance SAS

18 Rue Robespierre
62217 Beaurains France
T: +33 3 21 16 12 15
F: +33 3 21 15 50 73

contact@clariance-spine.com

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