Jazz™ Band

Posterior fixation system

implanet

Jazz™ Band

Jazz is a unique posterior fixation System meeting the highest requirements of surgeons for spinal treatments from T1 to L5 (indications page 4).

Jazz is intended to be used with titanium alloy or CpTi.

Jazz can be combined with any Implanet Spine System implant, providing surgeons with hybrid assembly options using either Hooks, Pedicle Screws and various Connectors.

Jazz is made of three elements :

- A Multi-purpose Ti alloy Connector which is clipped on rods (Ti alloy or CpTi).
- An highly resistant flat biocompatible polyester Braid allowing a very efficient interface around bony structure due to the optimal stress distribution.
- A locking screw that ensures a perfect two-in-one bond of the Braid and Connector.

MECHANICAL TESTS

Jazz has been tested according to ASTM F1717.

BIBLIOGRAPHY

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11 : Krallis P, Thoma S, Kosmidis I, Kyriakopoylos G, Hager I. "Hybrid instrumentation for correction of adolescent idiopathic scoliosis". Acta Orthop Belg. 2012 Feb;78(1):94-9.

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INDICATIONS

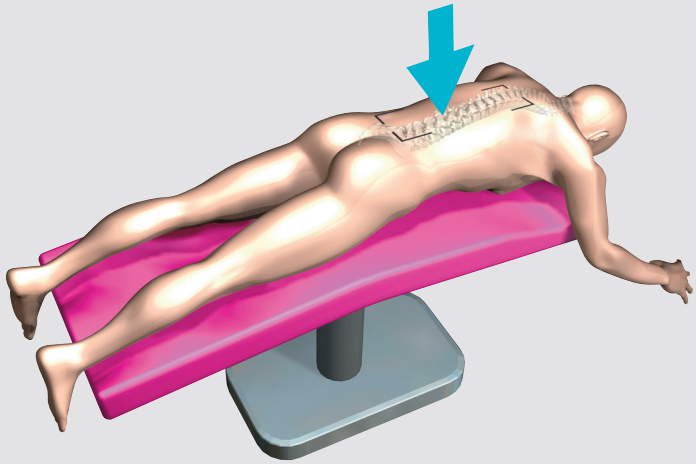
Jazz is a temporary implant to be used in orthopedic surgery. The Jazz System is a bony anchor designed to guarantee tempory stabilization for bony fusion or for consolidation of fracture. The Jazz System is designed primarily for posterior fixation.

The indications for use include the following applications:

- Traumatic spinal surgery, used in sub-laminar and interspinous cases and in facet connection techniques;
- Surgery for spinal deformations such as scoliosis, kyphosis, lordosis, etc.;
- Degenerative spinal surgery as a supplement to vertebral fusion, such as degenerative discopathy, stenosis, or spondylisthesis.

The Jazz multi-purpose spinal connector may also be used in conjunction with other medical implants made of a titanium alloy to help secure the fixation of the other implants.

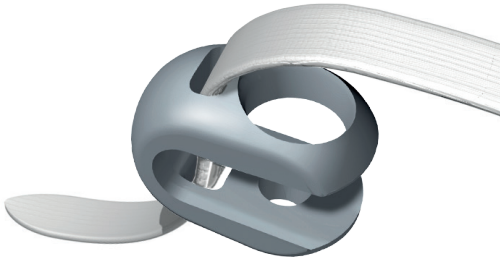
SURGICAL TECHNIQUE



OPEN BRAID

VERSION

Upon his own choice, the surgeon can use Implanet Spine System screws and hooks before setting up the Jazz Connectors. In this case, please refer to the specific surgical technique of the Implanet Spine System.



PREPARATION OF JAZZ MULTI-PURPOSE CONNECTOR

The Braid is passed at first through the superior slot of the Jazz Connector, taking care to first introduce the part that includes the malleable stainless steel strip.

Note !

The superior slot is located on the side of the largest diameter orifice that receives the locking Screw.

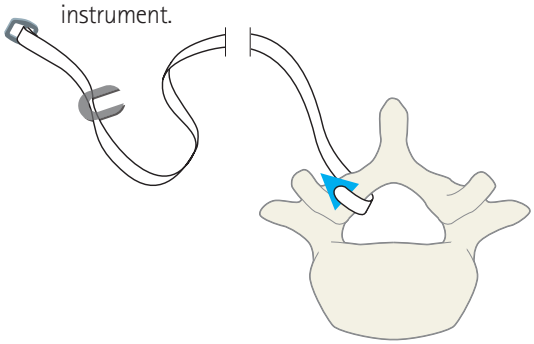
OPERATIVE TECHNIQUE

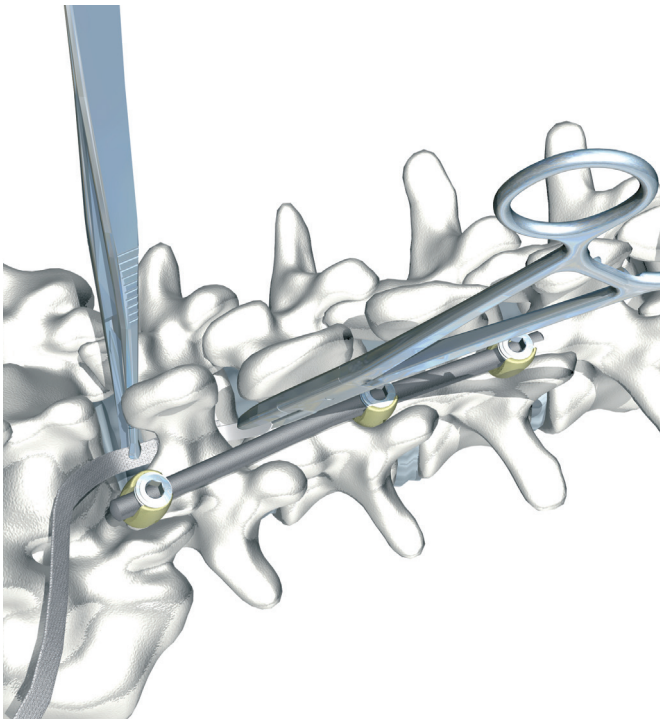
PASSAGE OF THE BRAID AROUND THE ANATOMICAL STRUCTURES

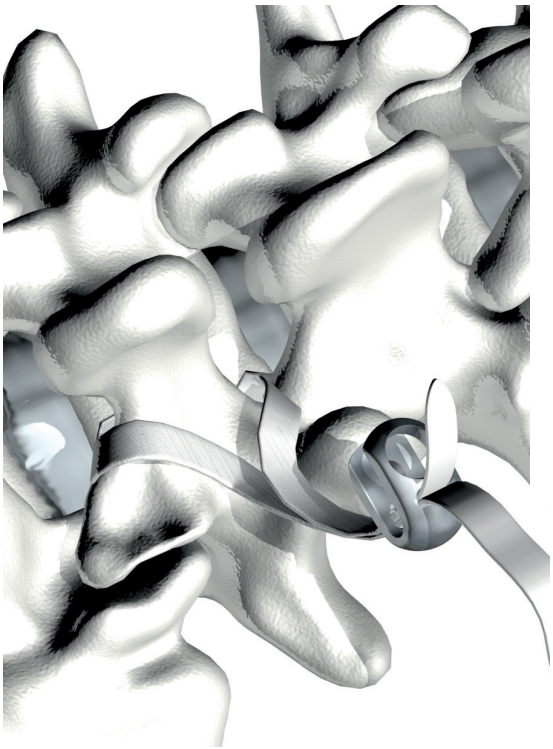
Upon surgeon choice, the Braids are passed around the vertebral structures (laminae, transverse or spinous processes) selected during the pre-operative planning or intra-operatively, at any desired level, from T1 to L5.

Use the malleable stainless steel strip to easily pass the Braid. A « C hook-shaped » bending, with a more or less long and acute curvature, can facilitate the passage of the Braid around the bony structures.

After passing the lamina, the braid puller forceps is used to pull the braid.
It is reminded that for any step of the surgical technique, it is mandatory to use the dedicated jazz instrument.

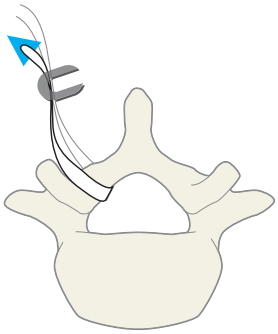






PASSING THE BRAID BACK THROUGH THE CONNECTOR

After passing around the anatomical structures, the distal end of the Braid is passed back again into the Jazz Connector, through the inferior slot located on the side of the threaded hole (the orifice of the smallest diameter receiving the Screw), resulting in forming a loop around the bone anchoring elements.
At the end, the opening of the largest diameter that receives the screw must be oriented toward the operator.



OPERATIVE TECHNIQUE

CLOSING OF THE BRAIDS

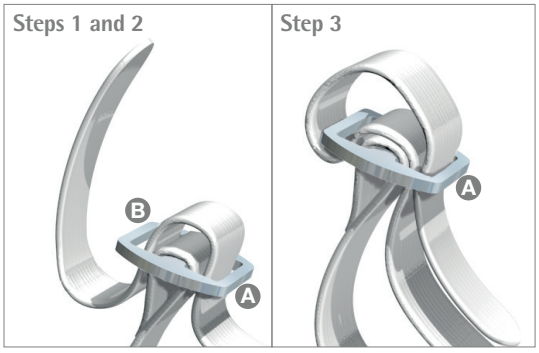
The Braid is closed using the pre-mounted buckle :

1. Passing at first through the buckle being on the same side than the tip of the Braid (A), from bottom to top,

2. Then passing the Braid through the buckle on the opposite side of the tip of the Braid (B), from top to bottom,

3. Finally passing again inside the first part of buckle (A), but this time from top to bottom.

Depending on the desired path to the Braid Tensioner, the length of the loop is to be adjusted.



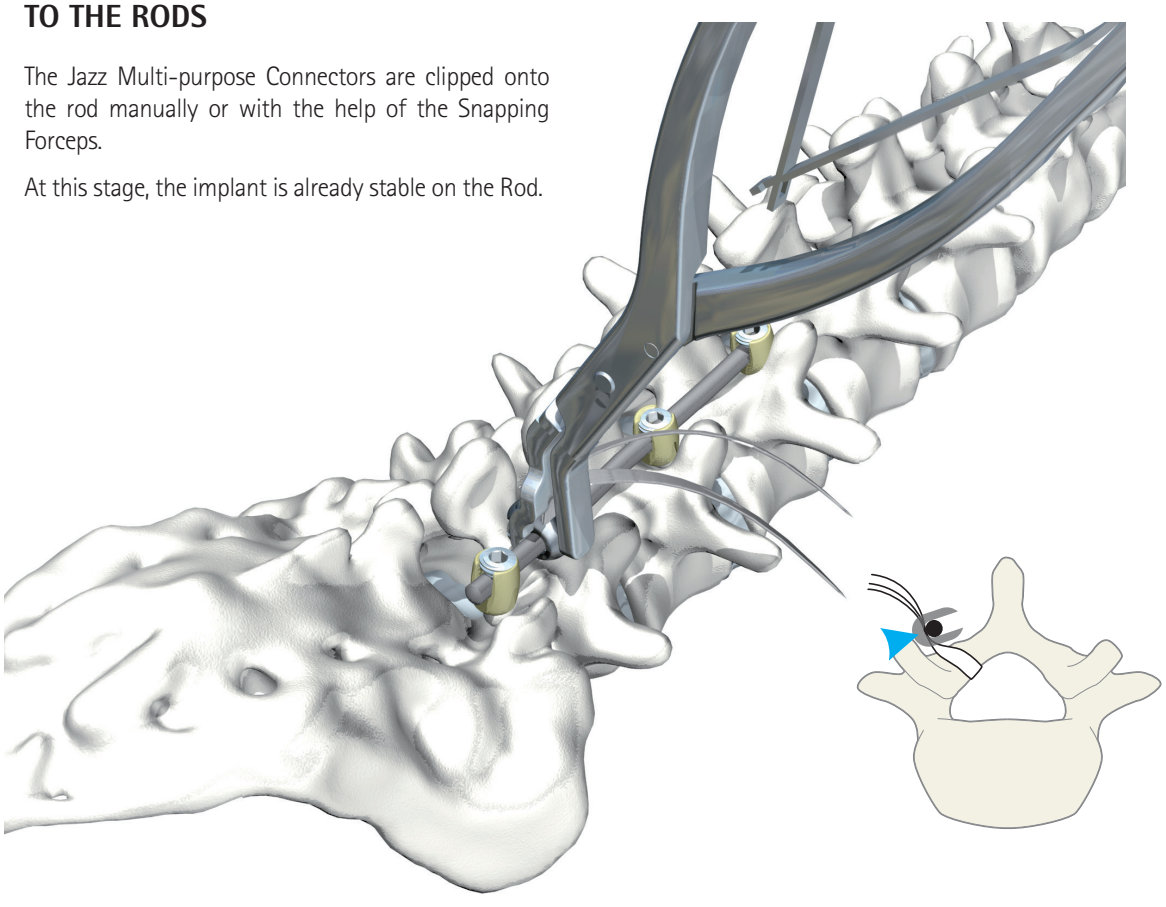
PREPARATION OF THE RODS

The Rods are available in length up to 400 mm. Length and conformation of the Rod are determined with the Rod Templates or Rod Caliper, both included in the Implanet Spine System.
The bending is performed using the Implanet Spine System French Bender.
Beyond 400 mm, the length of the construct is assessed during the surgical planning and rod bending is performed per-operatively by the surgeon.

CONNECTION OF THE IMPLANTS TO THE RODS

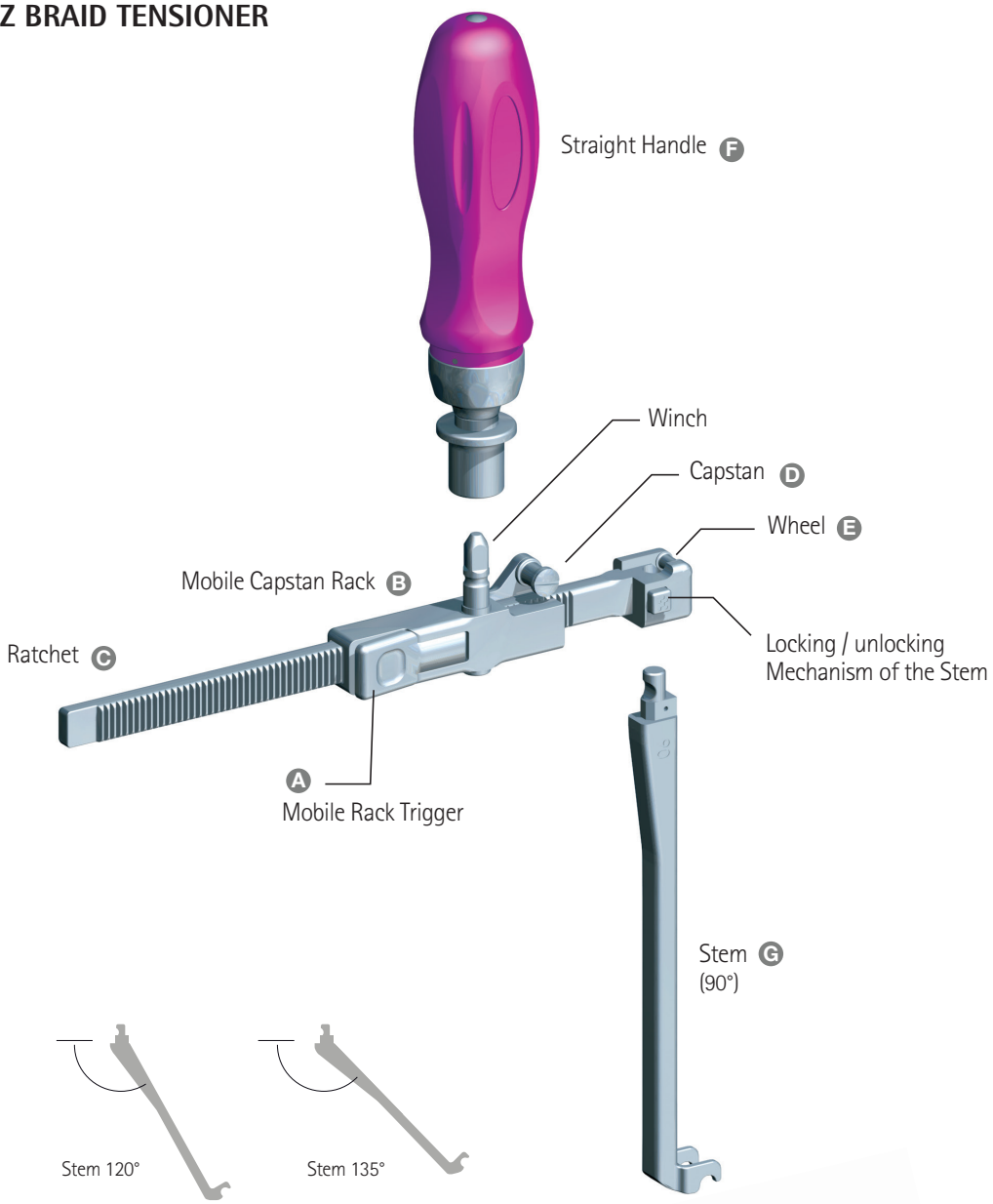
The Jazz Multi-purpose Connectors are clipped onto the rod manually or with the help of the Snapping Forceps.

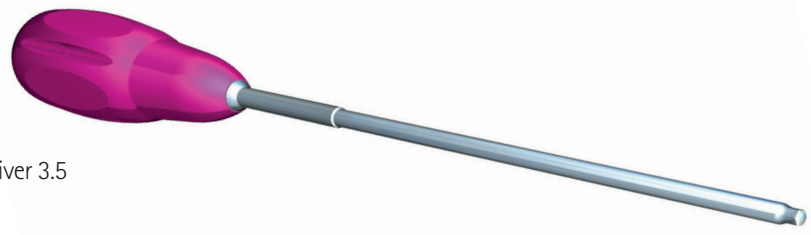
At this stage, the implant is already stable on the Rod.



OPERATIVE TECHNIQUE

JAZZ BRAID TENSIONER





Hexagonal Screwdriver 3.5

OPERATIVE TECHNIQUE

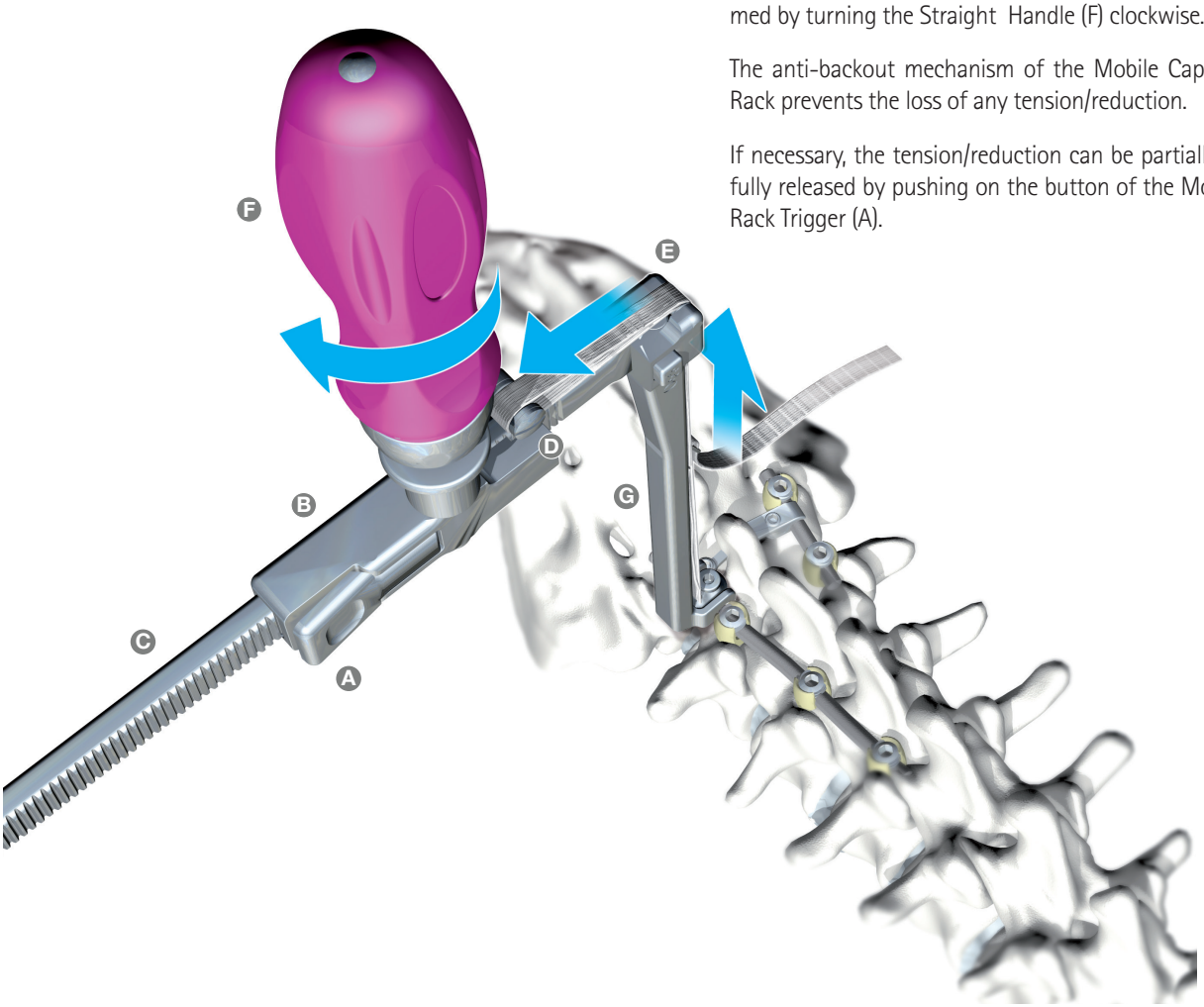
IMPLANTS CONNECTION TO THE RODS AND SCREW INSERTION

The Jazz Connectors can be connected to the Rod by hand but it is advised to use the Snapping Forceps and especially to keep it in place to help the Screw insertion.

At this stage, the Connector is already stable on the Rod.
It is necessary to insert the Screw but without any contact with the rod, before the connection to the Tensioner and consequently before any tensioning.

The Braid Tensioner allows choosing between various angulations of Stems (G).
It is up to the surgeon to determine the most appropriate angulation related to the patient indication and anatomy.

The selected Stem and the Straight Handle can be assembled to the Tensioner.



CONNECTION TO THE BRAID TENSIONER

The starting position of the Tensioner can be easily set, pushing on the button of the Mobile Rack Trigger (A) that allows to unlock the Mobile Capstans Rack (B) and to move it freely onto the Ratchet (C).

The Braid is passed around the Capstan (D) and engaged onto the Wheel (E) at the extremity of the Ratchet (C).

If possible, avoid any contact of the Braid metallic buckle with the metallic part of the Tensioner.

TENSION / REDUCTION OF THE BRAID

The tension and the reduction maneuvers are performed by turning the Straight Handle (F) clockwise.

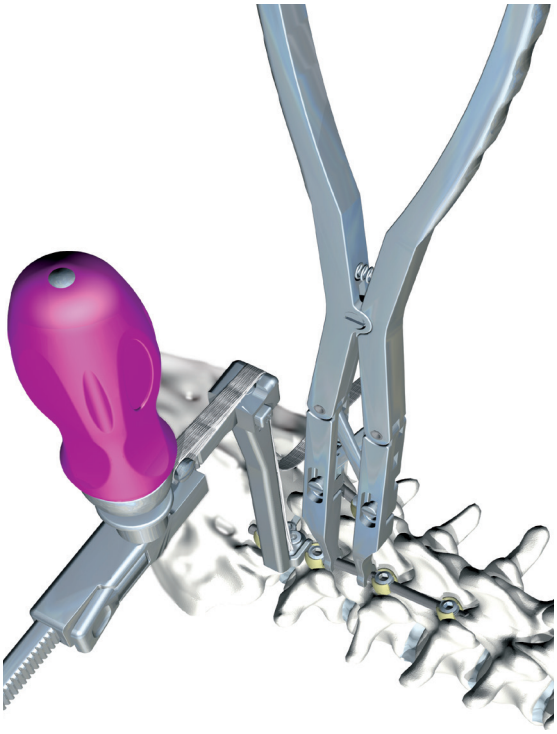
The anti-backout mechanism of the Mobile Capstan Rack prevents the loss of any tension/reduction.

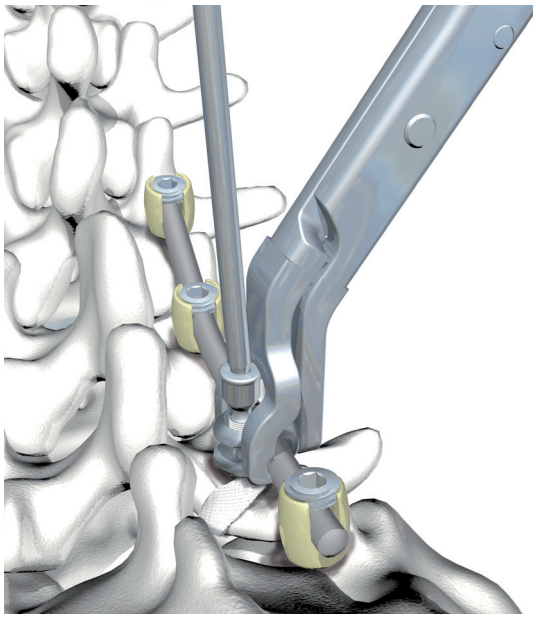
If necessary, the tension/reduction can be partially or fully released by pushing on the button of the Mobile Rack Trigger (A).

OPERATIVE TECHNIQUE

DISTRACTION / COMPRESSION AND DEROTATION MANEUVERS

Distraction, compression and derotation maneuvers can be easily performed using the Distractor and Compressor as well as the Rotation Forceps provided in the Implanet Spine System instrument set.
For distraction / compression, it is necessary to keep the Braid Tensioner in place on the Jazz Connector to be moved, in order to maintain the tension. If not, the Braid being not locked, it will slip on a length corresponding to the Connector displacement.





CUT OF THE BRAID

Once the final positioning of the Jazz Connector is achieved, the excess of braid is cut at about 1 cm from the Connector.

Important !
The buckle and the malleable stainless steel strip must IMPERATIVELY be removed. These components are considered as temporary instruments that must NOT be implanted.

TWO-IN-ONE FINAL LOCKING

The locking screw is firmly tightened with the 3.5 Hexagonal Screwdriver. The Jazz Connector and the Braid are then locked and cannot be manipulated anymore.
The anti-back-out mechanism is then released by pushing on the Mobile Rack Trigger in order to disengage the Braid from all Capstans.
If necessary, it is always possible to loosen the locking Screw in order to release the Connector and the Braid.

Note :
The final locking can be optimized using the Snapping Forceps in conjunction with the 3.5 Screwdriver. The aim will be to compress the Braid to allow the Screw to reach its optimal position with less friction on the longitudinal Rod. It will also act as an anti-rotation device, opposing the possible angular sweeping of the Connector (torque induced by the tightening force applied on the locking Screw).

OPERATIVE TECHNIQUE

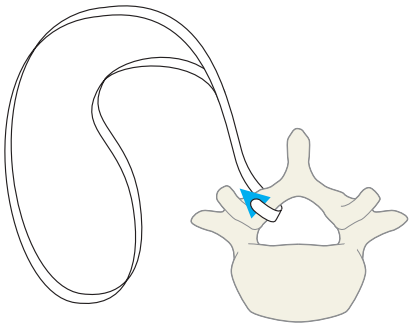
LOOP BRAID

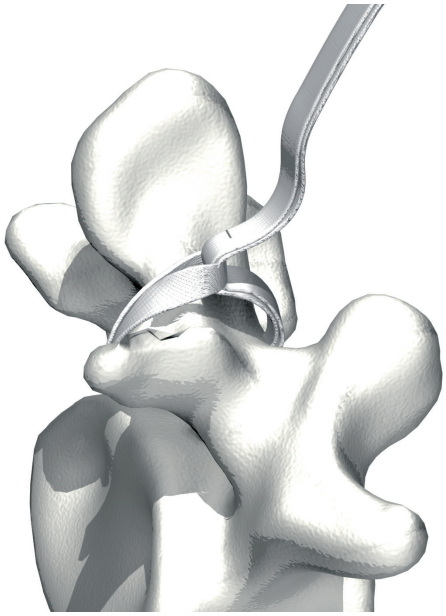
VERSION

At this stage, the surgeon can also combine the Jazz with Hooks or Screws. In this case, please refer to the specific surgical technique of the Implanet Spine System.

PASSAGE OF THE BRAID AROUND THE ANATOMICAL STRUCTURES

Upon surgeon choice, the Braid is passed around the vertebral structures (laminas, transverse or spinous processes) selected during the pre-operative planning or intra-operatively, at any desired level, from T1 to L5. Use the malleable stainless steel strip to easily pass the Braid. A « C hook-shaped » bending, with a more or less long and acute curvature, can facilitate the passage of the Braid around the bony structures.

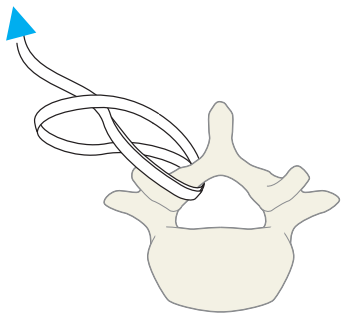




« LARK'S HEAD KNOT »

The Braid end fitted with the malleable stainless steel strip is passed inside the loop formed by the Braid to form a so-called « lark's head knot ».

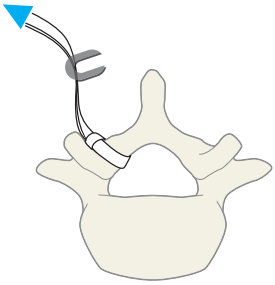
To fully close the knot around the anatomical structures, it is necessary to perform a lever movement, back and forth, while pulling on the Braid.

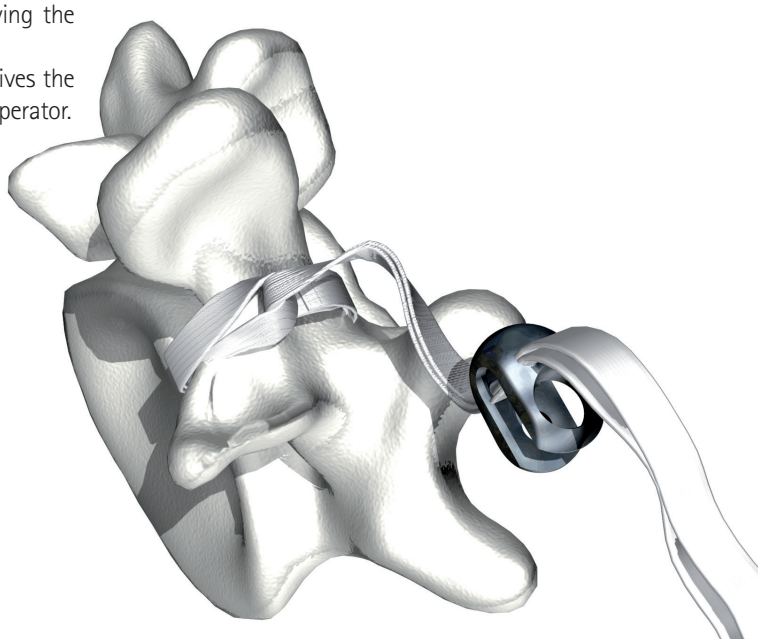


OPERATIVE TECHNIQUE

PASSAGE INTO THE CONNECTOR

The Braid can be engaged in the Connector in a single pass from the bottom up, through the slot on the side of the orifice of the smallest diameter receiving the locking Screw.
The opening of the largest diameter that receives the locking Screw should be oriented toward the operator.





After this step is complete, one can decide to cut the Braid at about 1 cm below the metal strip (under no circumstances is the Braid to be cut in the closed-loop portion).
Pursue the surgical technique from the step « Preparation of the Rods » of the « open Braid technique ».

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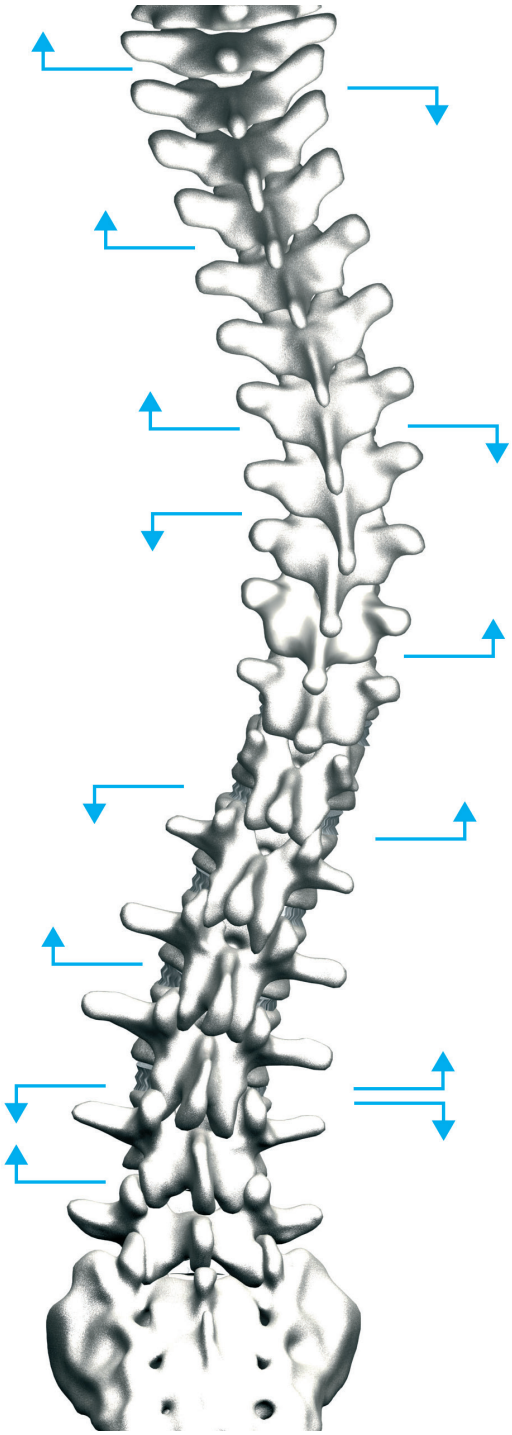
OPERATIVE TECHNIQUE

EXAMPLE OF A HOOK CONSTRUCT



EXAMPLE OF JAZZ CONSTRUCT

REFERENCES *IMPLANTS*

Jazz™ – Connector + Screw Ø 3.5 mm

150200 *Ø 3.5 mm Connector Kit*

Jazz™ – Connector + Screw Ø 4.0 mm

150202 *Ø 4.0 mm Connector Kit*

Jazz™ – Connector + Screw Ø 4.5 mm

150204 *Ø 4.5 mm Connector Kit*

Jazz™ – Connector + Screw Ø 4.75 mm

150206 *Ø 4.75 mm Connector Kit*

Jazz™ – Connector + Screw Ø 5.5 mm

150208 *Ø 5.5 mm Connector Kit*

Jazz™ – Connector + Screw Ø 6.0 mm

150210 *Ø 6.0 mm Connector Kit*

Jazz™ – Open Braid only

150154 *Jazz Open Braid*

Jazz™ – Open Braid + Connector + Screw Ø 5.5 mm

150150 *Multi-purpose 5.5 mm Titanium Spine Connector Open Braid*

Jazz™ – Loop Braid + Connector + Screw Ø 5.5 mm

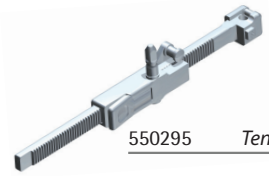
150152 *Multi-purpose 5.5 mm Titanium Spine Connector Loop Braid*

Screw Connector Ø 5.5 mm only

150151 *Screw Connector*

REFERENCES *INSTRUMENTS*

Tensioner Generation 2
(assembly)



550295 *Tensioner Gen. II*

Components

551295 *Tensioner Gen. II - Ratchet*

551296 *Tensioner Gen. II - Mobile Capstan Rack*

551297 *Tensioner Gen. II - Winch*

Straight Handle

550026 *Straight Handle*

Stem

550298 *Tensioner Gen. II - Stem 90°*

550299 *Tensioner Gen. II - Stem 120°*

550300 *Tensioner Gen. II - Stem 135° (optional)*

Braid Forceps

550057 *Braid Forceps*

Braid Puller Forceps

550058 *Braid Puller Forceps*

Snapping Forceps

550059 *Snapping Forceps*

Screw Holder

550060 *Screw Holder*

Hexagonal screwdriver 3.5

550012 *Hexagonal Screwdriver 3.5*

This project is cofinanced by the European Union.
Europe is committed in Aquitaine with the European fund of regional development.

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WARNINGS AND PRECAUTIONS

- Refer to the instruction leaflet about indications and contra-indications and technical specifications of the product.
- Refer to "Patient Booklet" for the patient recommandations.
- A patient card for holders of spine implants is contained in the Patient Booklet. It is important to complete the last page of the booklet before inserting the card in its appropriate slot.

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