



JazzTM Band

Posterior fixation system
of the Spine





Jazz™
Band

JAZZ™ Band is a unique posterior fixation system meeting surgeons' requirements in the field of deformity correction.

JAZZ™ Band can be used with titanium alloy or non-alloyed or cobalt-chrome alloy union Rods.

JAZZ™ Band can be combined with any Implanet Spine System implants. As such, it offers the option of long or short hybrid constructs, that may include either pedicle Screws, Hooks, Transverse Connectors or Ilio-sacral Connectors.

JAZZ™ Band is made up of three components:

- An ultra-resistant biocompatible polyester braid making it possible to create high-performance anatomical bone anchoring. Its flattened tubular shape enables load distribution on the vertebral bone structures on which it is fitted, while offering a minimal size.
- A range of multi-purpose Connectors enabling JAZZ™ Band to be fitted on union Rods of different diameters: Ø3.5, Ø4.0, Ø4.5, Ø4.75, Ø5.5 and Ø6.0 mm.
- A dedicated screw for each connector, ensuring firm and secure locking of the Braid / Connector / union Rod assembly.

MECHANICAL TESTS

JAZZ™ Band has been tested according to ASTM F1717.

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INDICATIONS

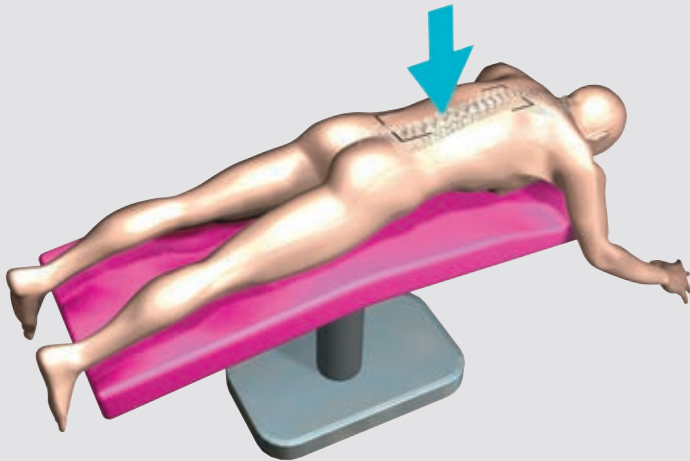
The JAZZ™ systems are temporary implants to be used in orthopedic surgery. The JAZZ™ systems are intended to provide temporary stabilization as a bone anchor during the development of solid bony fusion and aid in the repair of bone fractures.

The JAZZ™ systems are designed primarily for a posterior fixation. The indications for use include the following applications:

- Traumatic spinal surgery, use 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 spondylolisthesis.

The JAZZ™ Systems may also be used in conjunction with other medical implants made of titanium alloy, unalloyed titanium or Cobalt-Chromium-molybdenum alloy to help secure the fixation of other implants.

OPERATIVE TECHNIQUE



OPEN BRAID

VERSION

The surgeon can fit Implanet Spine System range of implants, pedicle Screws and Hooks prior to fitting JAZZ™ Band Connectors and thus create hybrid assemblies. In this case, refer to the specific operative technique of the Implanet Spine System range.



PREPARATION OF JAZZ™ BAND MULTI-PURPOSE CONNECTOR

The Braid is previously passed through the Connector at the rear slot therein. To do this, the distal part of the Braid including a stainless steel strip for manual modelling is inserted through the rear slot of the Connector on the side of the orifice with the largest diameter in which the connector Screw is to be inserted (same as the reading direction of the diameter on the opposite image - diameter 6.0 mm).

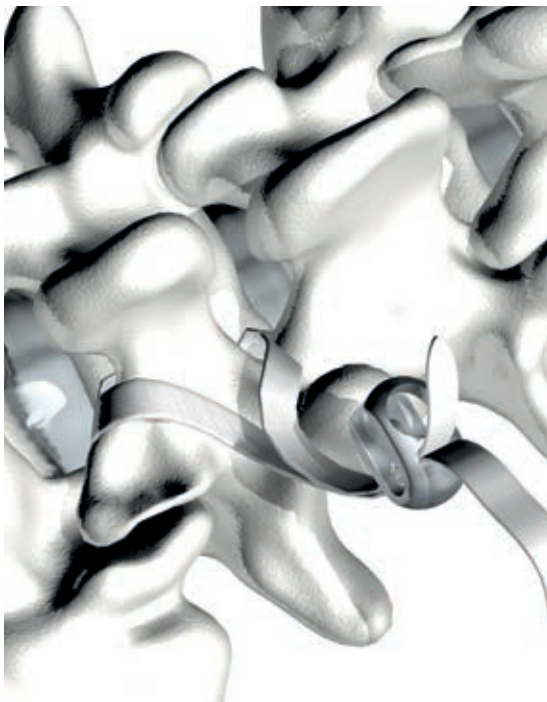
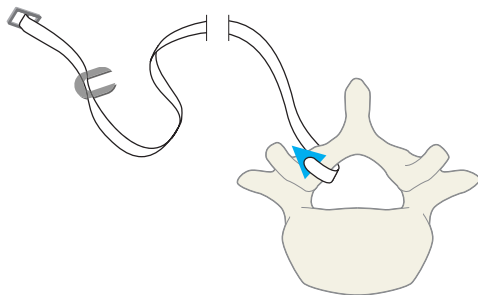
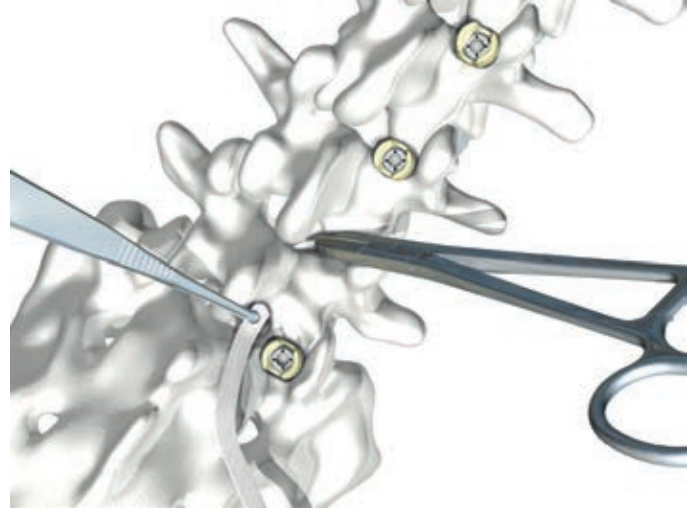
OPERATIVE TECHNIQUE

FITTING THE BRAID AROUND THE ANATOMICAL STRUCTURES

According to the surgeon's choice, the Braids are fitted around the various vertebral structures (laminae, transverse, spinous) as defined during the preoperative plan or perioperatively.

To facilitate this procedure, the metal strip included in the distal end of the Braid is modelled manually. This step enables optimal shaping and thus easier insertion and retrieval using suitable instruments, i.e. the Braid Forceps for insertion and the Braid Puller Forceps for retrieval.

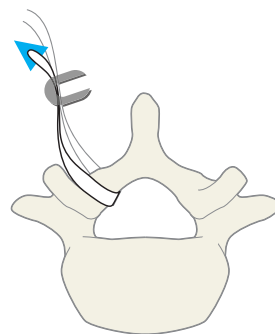
Please note that for each step of this surgical procedure, it is recommended to only use specifically designed instruments from the JAZZ™ Band ancillary range.



CLOSING THE BRAID AFTER RETURNING VIA THE STIRRUP

After passing around the anatomical structures, the distal end is again inserted through the JAZZ™ Band Connector slot, this time inserting it on the side of the orifice with the smallest diameter receiving the connector Screw.

Note that the orifice with the largest diameter is actually facing the surgeon as shown in the illustration. Important, during this step, take care to avoid any torsion or twisting of the Braid onto itself.



OPERATIVE TECHNIQUE

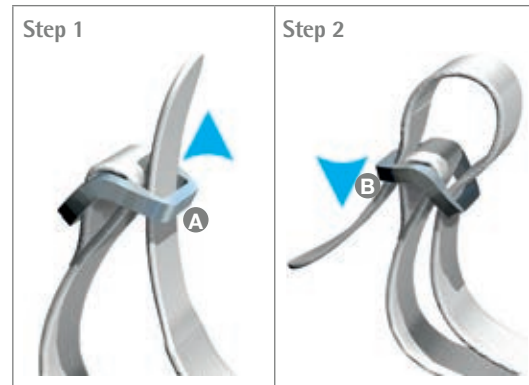
CLOSING OF THE BRAID

CURVED BUCKLE – 2 PASSAGES

The Braid is closed using the metal buckle situated on its proximal end in two steps:

- 1 Insert a first time into the buckle from the bottom up (A);
- 2 Then pass through the opposite side of the buckle, from the top down (B);

According to the play required in relation to securing to the Tensioner, the band formed by the Braid, once closed, should be adjusted accordingly.



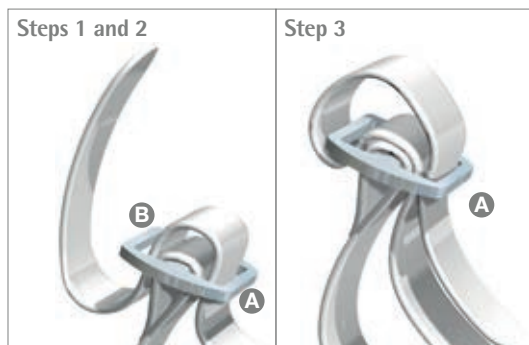
CLOSING OF THE BRAID

FLAT BUCKLE – 3 PASSAGES

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.



OPERATIVE TECHNIQUE

PREPARATION OF RODS

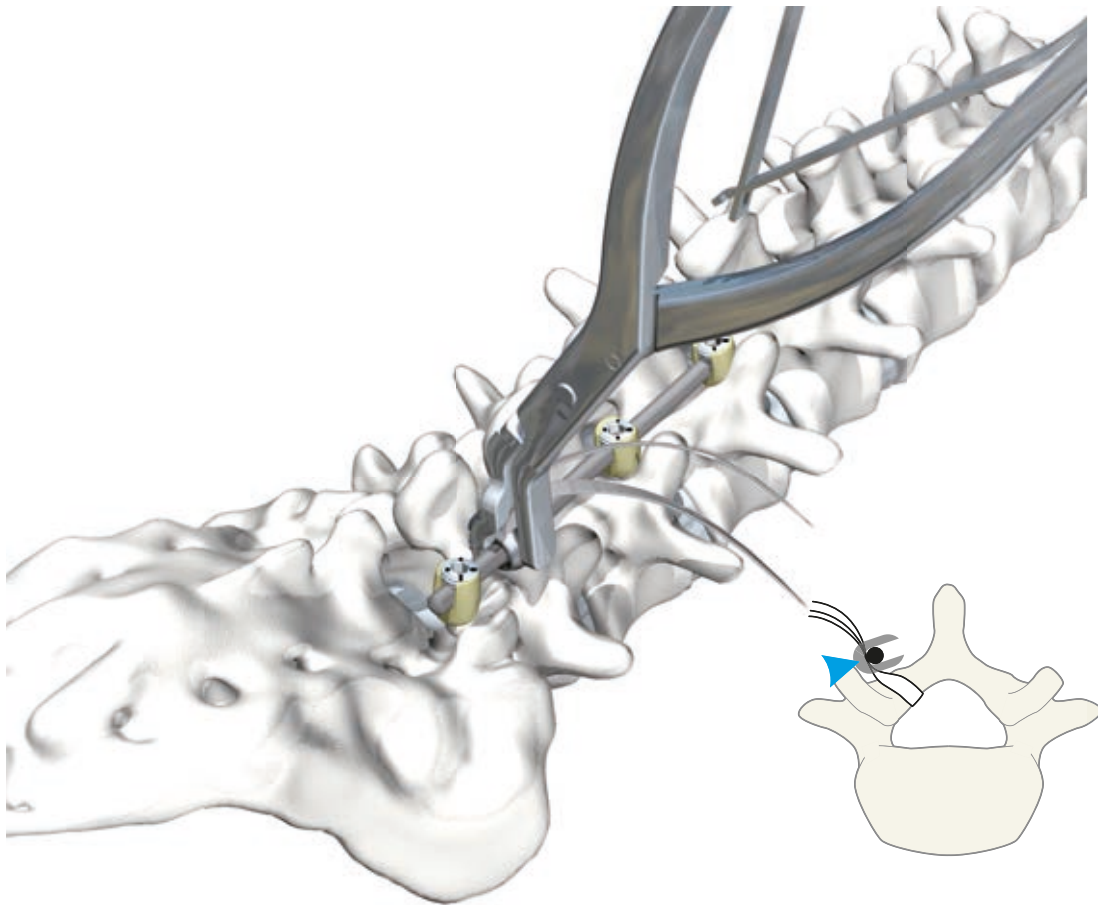
The bending and length of the union Rods should be determined on a case-by-case basis, particularly using the Rod Templates supplied with the Implanet Spine System instrumentation.

The Rods may be bent using the French Bender from the Implanet Spine System ancillary range.

CONNECTING TO THE RODS

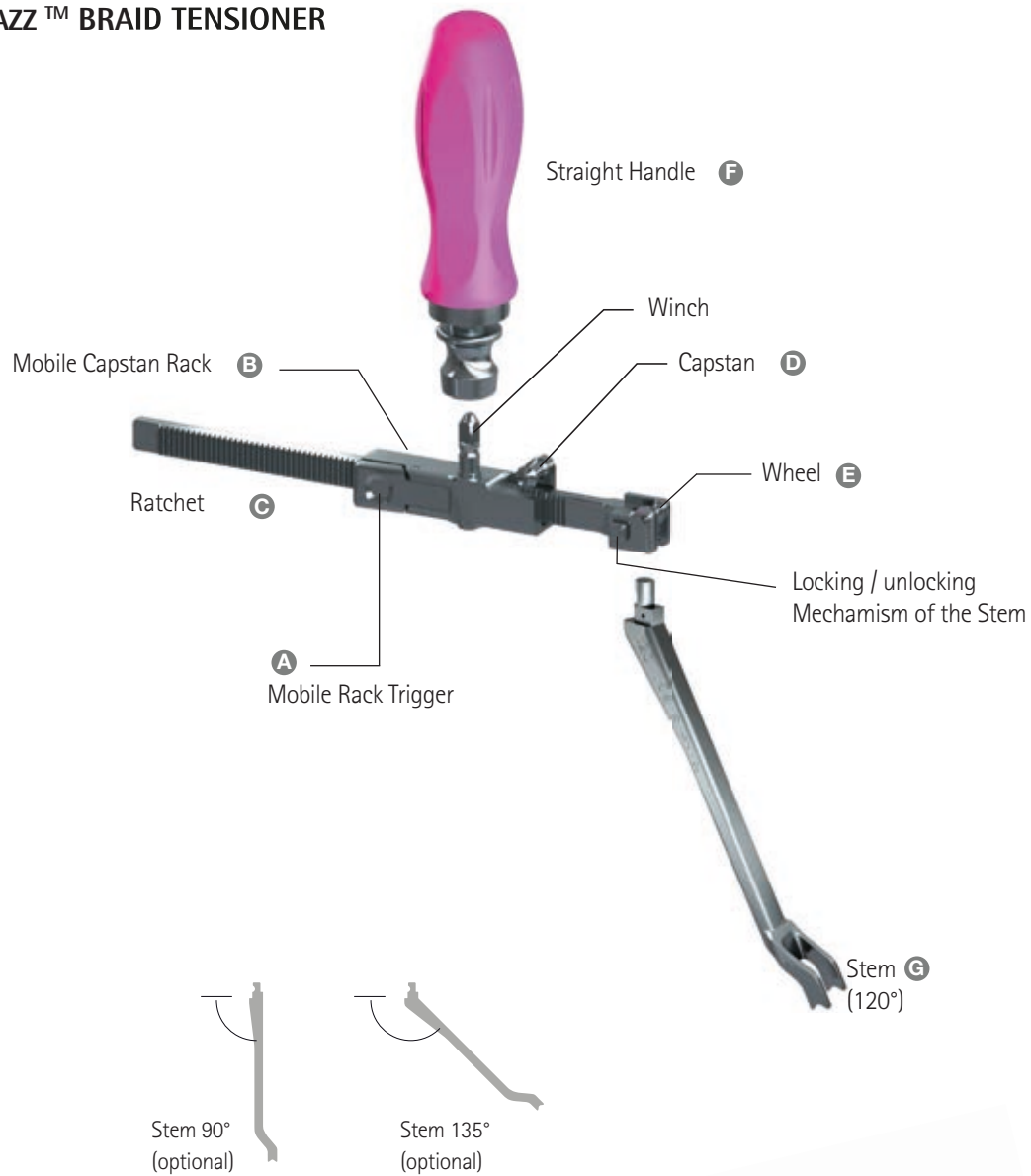
The JAZZ™ Band Connectors can be connected to the Rod by clipping manually, but it is however preferable to use the Snapping Forceps for this operation.

Using this instrument makes the following step consisting in inserting the locking Screw into the Connector using the Screw Holder considerably easier. It is essential to insert the Screw on a maximum of one or two turns, with no firm contact with the union Rod, so that the connector remains stable on the Rod while remaining mobile in both translation and rotation and the Braid is free to slide through.



OPERATIVE TECHNIQUE

JAZZ™ BRAID TENSIONER



Hexagonal Screwdriver 3.5



OPERATIVE TECHNIQUE

TENSIONER ASSEMBLY

The Braid Tensioner can be used to adapt various Stem angulations (G). The surgeon should determine the most suitable angle according to the indication and the patient's situation.

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

POSITIONING THE TENSIONER AND CONNECTING THE BRAID

Before positioning the Tensioner on the union Rod as shown in the illustration, the Mobile Capstan Rack (B) should be moved as far forward as possible on the Ratchet (C) using the Mobile Rack Trigger (A). The Braid is then fitted around the Capstan (D), guided by the Wheel (E).

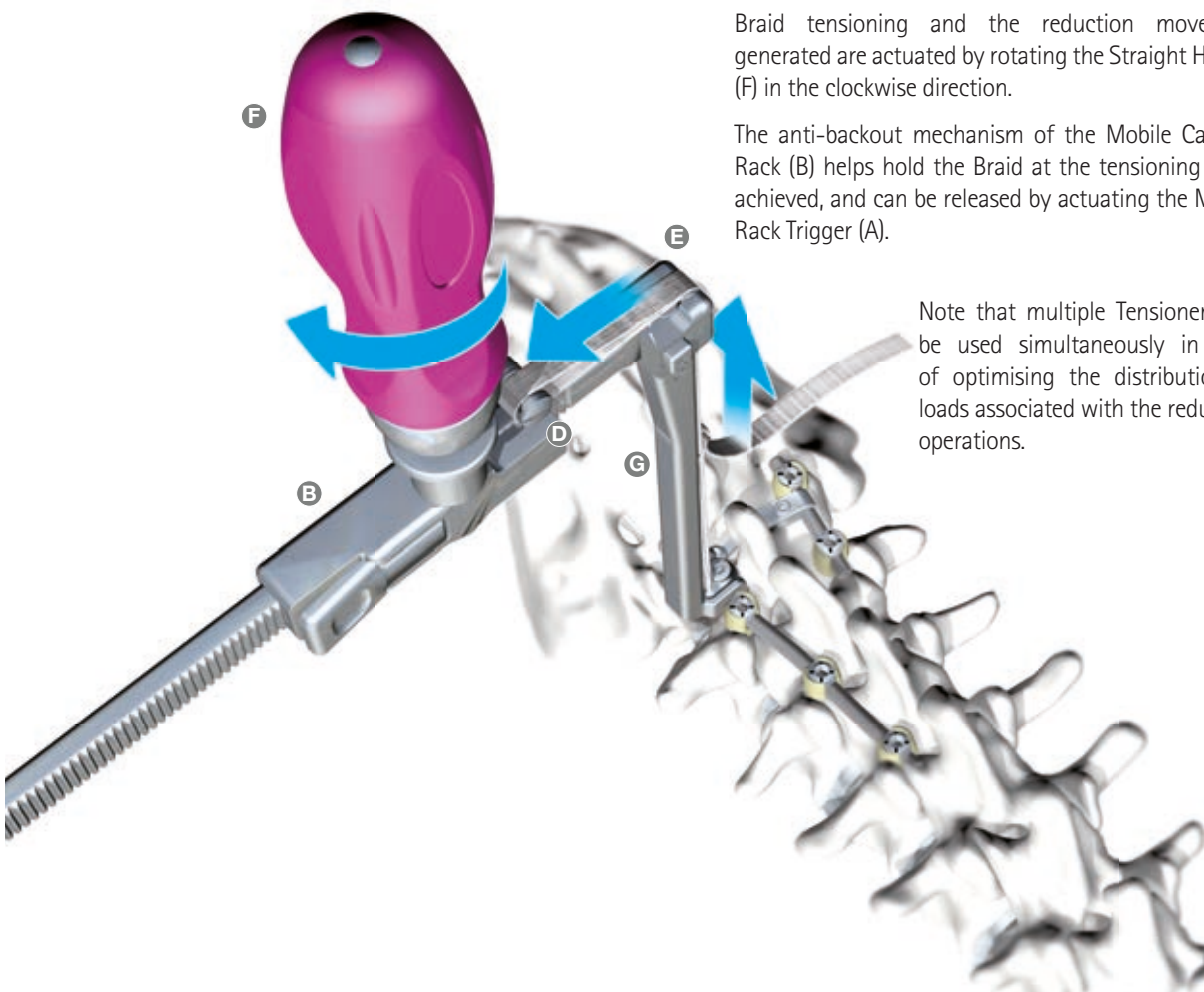
Insofar as is possible, care should be taken to position the metal buckle of the Braid such that it cannot interfere with the metal parts of the Tensioner during this operation.

TENSIONING THE BRAID / REDUCTION

Braid tensioning and the reduction movement generated are actuated by rotating the Straight Handle (F) in the clockwise direction.

The anti-backout mechanism of the Mobile Capstan Rack (B) helps hold the Braid at the tensioning point achieved, and can be released by actuating the Mobile Rack Trigger (A).

Note that multiple Tensioner may be used simultaneously in view of optimising the distribution of loads associated with the reduction operations.

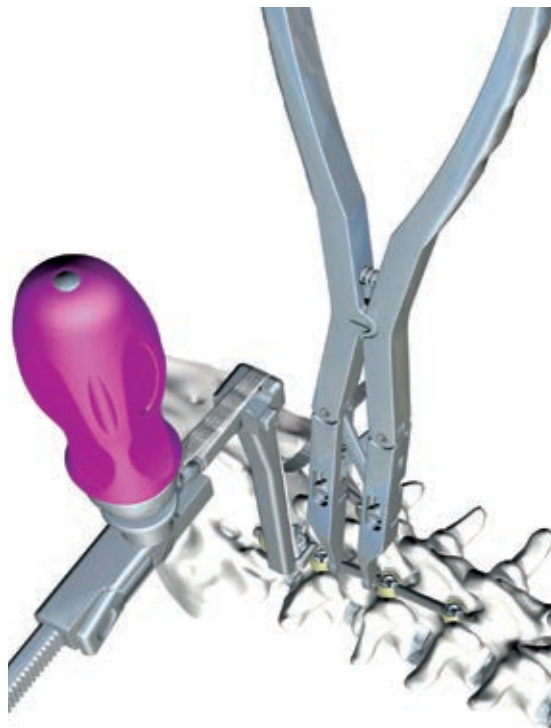
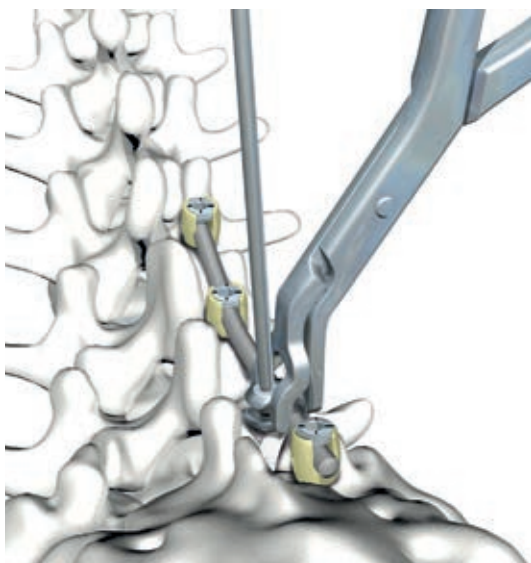


OPERATIVE TECHNIQUE

DISTRACTION / COMPRESSION MANEUVERS

Any distraction/compression operations are carried out using Distractor or Compressor as shown in the illustration opposite. During these steps, the Tensioner remains in position and tensioned on the implant to be mobilised.

Once the required correction has been made, with the Tensioner still in position and tensioned, the Screw is fastened temporarily using the Hexagonal Screwdriver 3,5. At this stage, it is still possible to unfasten the Screw so as to release the tension and be able to mobilise the JAZZ™ Band implant once again. Note that, for this operation, it is preferable to keep the Tensioner in position and tensioned.



FINAL 2-IN-1 LOCKING OF THE SCREW

The Tensioner is removed beforehand after releasing the tension by actuating the Mobile Rack Trigger (A). The Braid can then be disconnected from the Mobile Capstan Rack (B). For the final locking of the Connector, the Snapping Forceps is used simultaneously with the Hexagonal Screwdriver 3,5, as shown in the illustration. The Connector is kept under pressure by the surgeon so as to maximise the compression of the Braid and prevent angular sweep of the Connector during clamping. At the same time, definitive tightening is carried out using the Hexagonal Screwdriver 3,5.

CUTTING THE BRAID

Once the position of the Connector has been finalized, and the final tightening has been carried out, any surplus Braid, with the loop and the stainless steel insert, is cut to approximately 1 cm above the Connector.

Important!

Under no circumstances should the malleable stainless steel strip and the buckle components be implanted.



JAZZ™ Band – Claw Solution

The JAZZ™ Claw is aimed to secure the top of long constructs especially seen in deformity cases.

JAZZ™ Claw components:

- A connector designed to receive two Rod diameters: 5.5 mm or 6.0 mm.
- A double diameter Rod of 70 mm length, Straight or Pre-bent:
 - ▶ 4.0 mm diameter on the 25 mm inferior portion of the Rod, fitting into the JAZZ™ Claw Connector
 - ▶ 5.5 mm diameter on the 40 mm superior portion of the Rod, inserted into the selected Hook head

The operator will take this characteristic into account in view of the desired compression between the Hook and the Braid to shape the Claw.

Note! It is mandatory to remove the spinous process if the operator wants to use two JAZZ™ Claws at the same level.

OPERATIVE TECHNIQUE

JAZZ™ CLAW CONNECTOR PREPARATION: LOOPING AND CLOSING OF THE BRAID

Refer to the JAZZ™ Band operative technique above, from page 5 to page 7, for the following surgical steps:

- Preparation
- Passage of the Braid
- Closing of the Braid



PREPARATION OF THE TENSIONER

Refer to the instructions on page 10.

CONNECTION OF THE DOUBLE DIAMETER ROD TO THE CONNECTOR

Refer to the 'Connecting to the Rods' section, page 8. Insert the JAZZ™ Claw Connector Screw using the Snapping Forceps, in order to provisionally connect to the 4.0 mm portion of the Rod.



OPERATIVE TECHNIQUE

POSITIONING OF THE JAZZ™ CLAW HOOK

Select the appropriate Hook using the Hook Trials.

The Hook is directed downwards (caudal) its blade is engaged in the epidural space.

After excision of the yellow ligament, a limited osteotomy of the lamina is performed to create a window corresponding to the Hook blade size.

Once the site is prepared, the Hook is loaded on the Implant Holder Hook. Depending on the choice of the surgeon, there are two possibilities for the Hook insertion:

A - The blade of the Hook is inserted perpendicularly to the spine then rotated 90° downwards (caudal) so that the Hook is seated on the lamina. This technique helps to stabilize the Hook, facilitating the introduction of the Rod.

B - The Hook is directly inserted, the blade facing down (caudal) but with a rocking motion so that the Hook blade tip follows the anterior surface of the lamina.



DISENGAGE THE IMPLANT HOLDER HOOK



OPERATIVE TECHNIQUE

Two options for connection to the main 5.5/6.0 mm Rod:

Option 1

Construct Reduction with the Tensioner – Connection of the 5.5/6.0 mm Rod first and connection to the Hook second



TENSIONING OF THE BRAID

Position the Tensioner on the 5.5/6.0 mm Rod, connect it to the Braid and apply the tension in order to guide the JAZZ™ Claw Connector and 5.5/6.0 mm Rod into the JAZZ™ Claw Hook head.



5.5/6.0 MM ASSEMBLY

Connect and lock the JAZZ™ Claw Connector to the 5.5/6.0 mm Rod using the dedicated Implant Holder Blocker, and achieve final locking with the Blocker Screwdriver and T-Handle, combined with the Anti-torque Wrench and Straight Handle.



COMPRESSION OF THE JAZZ™ CLAW

Once the construct is fully reduced, introduce the Blocker of the JAZZ™ Claw Hook with the Implant Holder Blocker to lock or secure the Rod into the Hook head in order to apply a slight compression:

- ▶ If the operator locks the Hook first, the compression will slide the Rod down (caudal) in the Connector
- ▶ If the operator locks the Connector first, the compression will slide the Hook down (caudal) along the Rod

OPERATIVE TECHNIQUE

TIGHTENING

Tighten the JAZZ™ Claw Connector Screw and Hook Blocker.



TENSIONER RELEASE

Before releasing the Tensioner, it is mandatory to tighten the JAZZ™ Claw Connector Screw of the Connector in order to lock the Braid to the Rod, thus maintaining the reduction.

FINAL LOCKING

- Final locking of the Hook is achieved using the Blocker Screwdriver / T-Handle combined with the Anti-torque Wrench / Straight Handle
- Final locking of the JAZZ™ Claw Connector Screw is achieved using the Hexagonal Screwdriver 3,5 combined with the Snapping Forceps
- Final locking of the 5.5/6.0 mm Rod is achieved using the Blocker Screwdriver / T-Handle combined with the Anti-torque Wrench / Straight Handle



CUTTING OF THE BRAID

Cut the remaining piece of band – containing the buckle and the stainless steel strip, 1 cm above the Connector.

Important!

Under no circumstances should the malleable stainless steel strip and buckle components be implanted.

OPERATIVE TECHNIQUE

Option 2

Initial Reduction of the JAZZ™ Claw Assembly first and Connection of the 5.5/6.0 mm Rod second



POSITIONING OF THE JAZZ™ CLAW

Bring the assembled JAZZ™ Claw Connector and the dual diameter Rod to the spine.



TENSIONING

Position the Tensioner on the 4.0 mm side of the dual diameter Rod, connect it to the Braid and apply tension to set the pre-assembled Connector / 4.0 mm Rod onto the spine and into the JAZZ™ Claw Hook head.



COMPRESSION OF THE JAZZ™ CLAW

Once the construct is fully reduced, introduce the Blocker of the JAZZ™ Claw Hook with the Implant Holder / Blocker to lock or secure the Rod into the Hook head in order to apply a slight compression:

- ▶ If the operator locks the Hook first, the compression will slide the Rod down (caudal) in the Connector
- ▶ If the operator locks the Connector first, the compression will slide the Hook down (caudal) along the Rod

OPERATIVE TECHNIQUE

TIGHTENING

Tighten the JAZZ™ Claw Connector Screw and Hook Blocker.



TENSIONER RELEASE

Before releasing the Tensioner, it is mandatory to tighten the JAZZ™ Claw Connector Screw of the Connector in order to lock the Braid to the Rod, thus maintaining the reduction.

CONNECTION OF THE 5.5/6.0 MM ROD

Connect the 5.5/6.0 mm Rod to the JAZZ™ Claw Head and immediately introduce the Blocker with the Implant Holder Blocker.



OPERATIVE TECHNIQUE



FINAL LOCKING

- Final locking of the Hook is achieved using the Blocker Screwdriver / T-Handle combined with the Anti-torque Wrench / Straight Handle
- Final locking of the JAZZ™ Claw Connector Screw is achieved using the Hexagonal Screwdriver 3,5 combined with the Snapping Forceps
- Final locking of the 5.5 / 6.0 mm Rod is achieved using the Blocker Screwdriver / T-Handle combined with the Anti-torque Wrench / Straight Handle

CUTTING OF THE BRAID

Cut the remaining piece of band – containing the buckle and the stainless steel strip, 1 cm above the Connector.



Important!

Under no circumstances should the malleable stainless steel strip and buckle components be implanted.



OPERATIVE TECHNIQUE

The Frame technique option

A JAZZ™ Frame technique can be performed using Union Rods and fixed closed JAZZ™ Frame T-Bar connectors.

The JAZZ™ Frame technique allows a simultaneous correction of the concavity and of the convexity applying a cantilever effect on the spine when the Braids positioned in the concavity are tensioned.

The JAZZ™ Frame stiffness provides a stronger reduction.

In general, two JAZZ™ Frame T-Bar Connectors are positioned at the top and at the centre of the construct.

Upon the surgeon choice an additional Transverse Connector can be placed at the bottom of the frame.

PREPARATION OF RODS

The union Rods are selected and bent according to the length and the correction to be achieved.

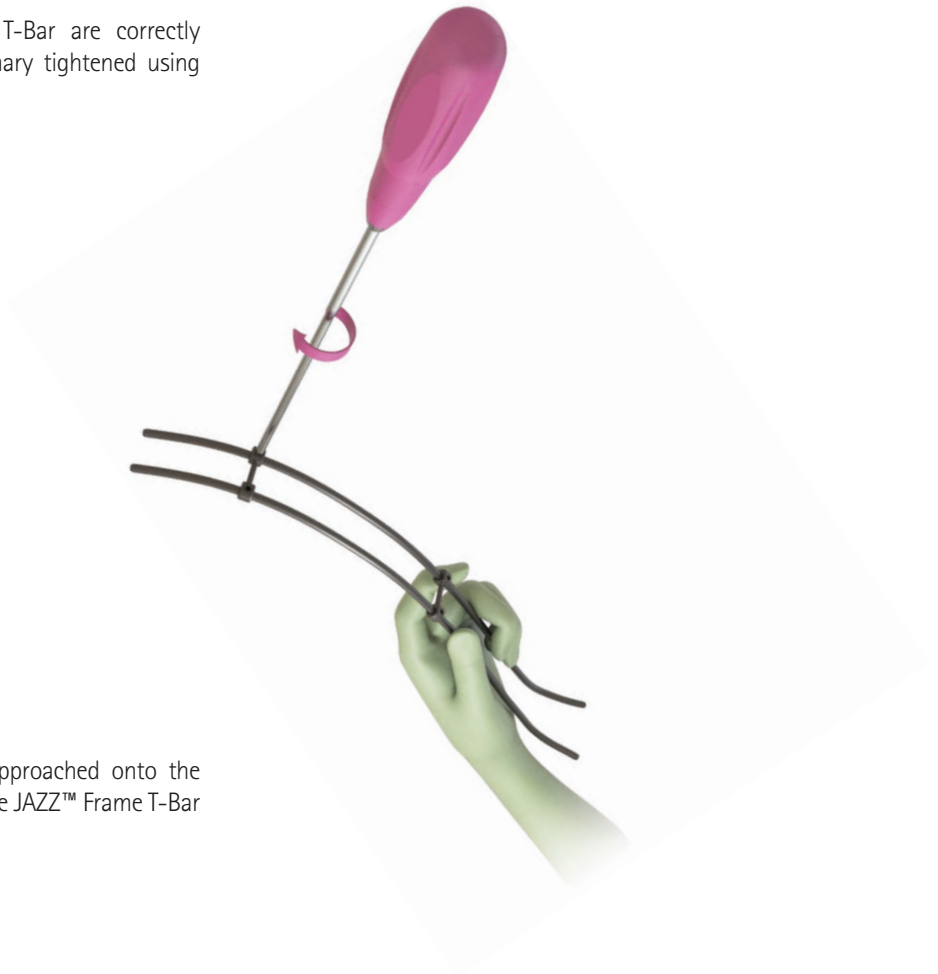
JAZZ™ FRAME ASSEMBLY

To build the frame two JAZZ™ Frame T-Bar are positioned one after the other at the middle and at the top of the union Rods.



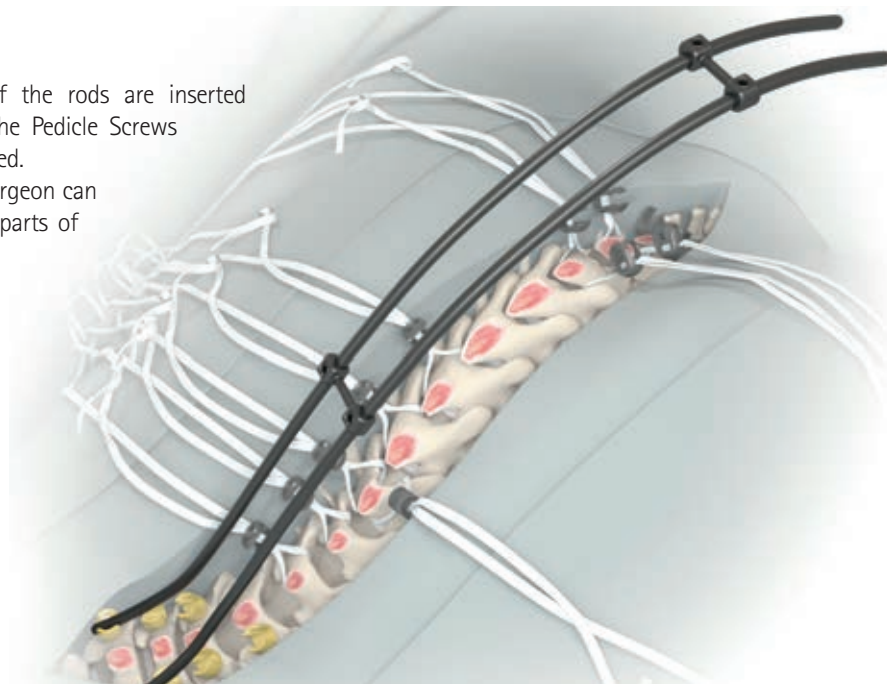
OPERATIVE TECHNIQUE

When the two JAZZ™ Frame T-Bar are correctly positioned their screws are primary tightened using the Hexagonal Screwdriver 3,5.



Once assembled the frame is approached onto the patient spine in order to adjust the JAZZ™ Frame T-Bar position if necessary.

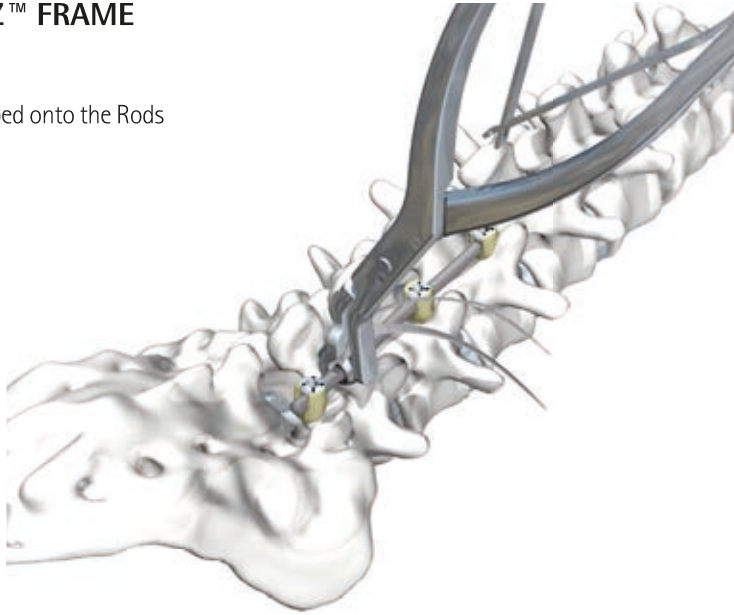
The caudal parts of the rods are inserted into the heads of the Pedicle Screws preliminarily implanted. In some cases the surgeon can connect the cranial parts of the Rods first.



OPERATIVE TECHNIQUE

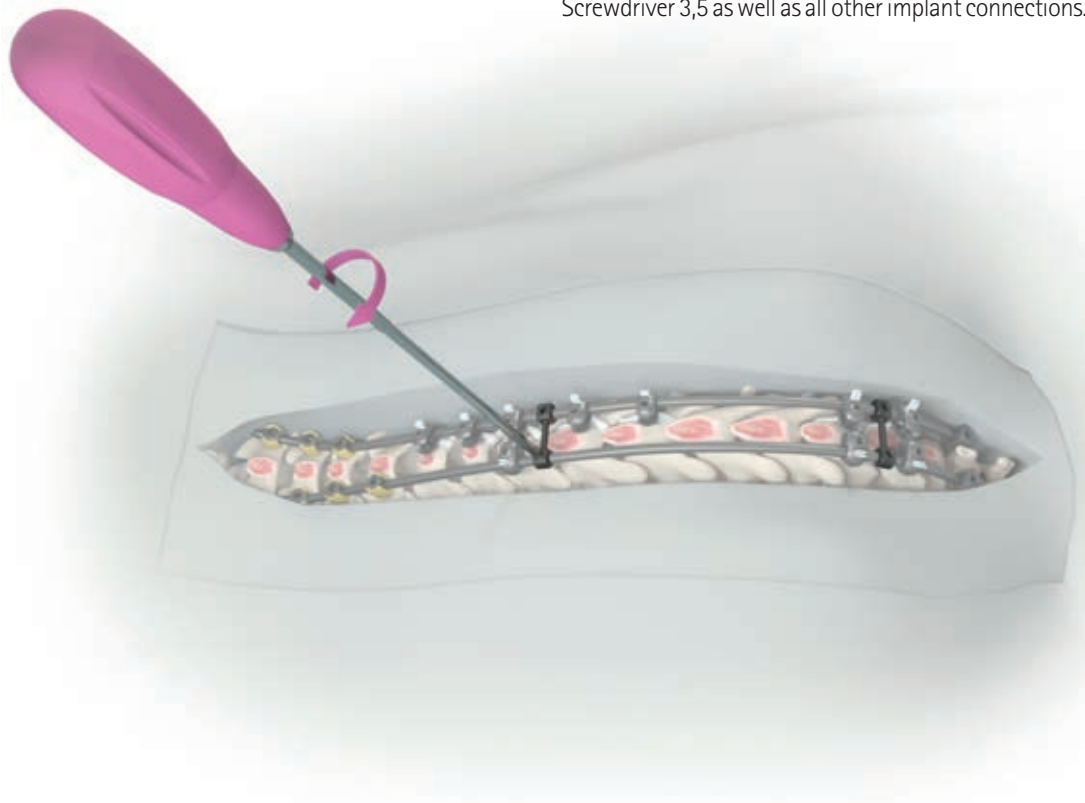
CONNECTION OF THE JAZZ™ FRAME IMPLANTS TO THE RODS

The JAZZ™ Band Connectors are clipped onto the Rods as described in pages 8 – 11.



FINAL TIGHTENING

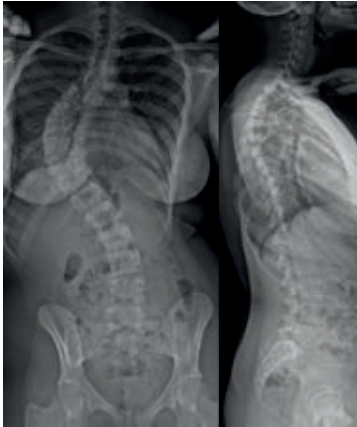
After reduction the final tightening of the JAZZ™ Frame T-Bar screws is achieved using the Hexagonal Screwdriver 3,5 as well as all other implant connections.



OPERATIVE TECHNIQUE

Adolescent Idiopathic Scoliosis (AIS)

PRE-OP



POST-OP (AT 3 MONTHS)



- Hypokyphotic Lenke I AIS
- Rib hump correction
- Restoration of normal kyphosis
- Average overall frontal correction of 70%

Adult Deformity

PRE-OP



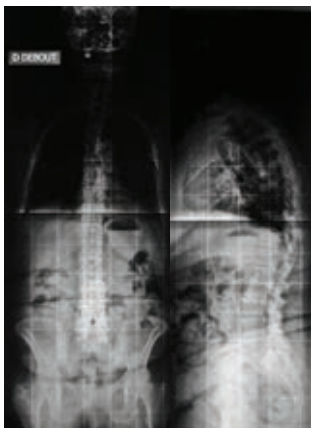
POST-OP (AT 8 MONTHS)



- 72 years old female
- Osteoporosis
- Very stiff spine with serious progressive scoliosis in frontal and sagittal plus limiting osteotomy and reduction capabilities
- ODI 32%
- T5 - S1 Arthrodesis
- 85% Cobb angle improvement

Adult Degenerative

PRE-OP




POST-OP (AT 12 MONTHS)





- 78 years old male
- Obese
- Severe canal narrowing with back pain
- Progressing kyphosis
- ODI 62%
- L3-L4 Laminectomy
- Kyphosis correction


REFERENCES *IMPLANTS*


REFERENCE DESIGNATION


 **JAZZ™ Dia. 3.5 mm – Connector + Screw**
150200 3.5 mm Connector Kit

 **JAZZ™ Dia. 4.0 mm – Connector + Screw**
150202 4.0 mm Connector Kit


 **JAZZ™ Dia. 4.5 mm – Connector + Screw**
150204 4.5 mm Connector Kit


 **JAZZ™ Dia. 4.75 mm – Connector + Screw**
150206 4.75 mm Connector Kit

 **JAZZ™ Dia. 5.5 mm – Connector + Screw**
150208 5.5 mm Connector Kit

 **JAZZ™ Dia. 6.0 mm – Connector + Screw**
150210 6.0 mm Connector Kit

 **JAZZ™ – Open Braid only**
150154 Jazz Open Braid

 **JAZZ™ – Open Braid only**
150156 Jazz Band

 **JAZZ™ – Open Braid only**
150158 Jazz Open Braid V2

REFERENCES *IMPLANTS*

JAZZ™ Claw

REFERENCE DESIGNATION

Connector



150710 Jazz Claw - Connector

Hook Right



150711 Jazz Claw - Hook Right

Hook Left



150712 Jazz Claw - Hook Left

Hook Right Large



150713 Jazz Claw - Hook Right Large

Hook Left Large



150714 Jazz Claw - Hook Left Large

Straight Rod



150715 Jazz Claw - Straight Rod Dia. 4/5.5 L70

Straight Rod CoCr



150716 Jazz Claw - Straight Rod Dia. 4/5.5 L70 - CoCr

Pre-bent Rod



150717 Jazz Claw - Pre-bent Rod Dia. 4/5.5 L70

Pre-bent Rod CoCr



150718 Jazz Claw - Pre-bent Rod Dia. 4/5.5 L70 - CoCr

JAZZ™ Frame

REFERENCE DESIGNATION

JAZZ™ Frame - T-Bar



150721 Jazz Frame - T-Bar Dia. 5.5/6.0 - L25

150722 Jazz Frame - T-Bar Dia. 5.5/6.0 - L30

150723 Jazz Frame - T-Bar Dia. 5.5/6.0 - L35

150724 Jazz Frame - T-Bar Dia. 6.35 - L25

150725 Jazz Frame - T-Bar Dia. 6.35 - L30

150726 Jazz Frame - T-Bar Dia. 6.35 - L35

Straight Rod



150750 Jazz Frame - Straight Rod L500

150754 Jazz Frame - Straight Rod Dia. 6.0 L500

150751 Jazz Frame - Straight Rod L600

150755 Jazz Frame - Straight Rod Dia. 6.0 L600

Straight Rod CoCr



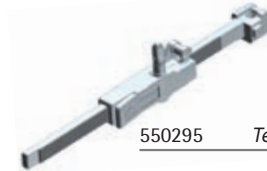
150752 Jazz Frame - Straight Rod L500 CoCr

150753 Jazz Frame - Straight Rod L600 CoCr

REFERENCES *INSTRUMENTS*

Tensioner Generation 2 (assembly)

REFERENCE DESIGNATION



550295 *Tensioner Gen. II*

Braid Forceps

REFERENCE DESIGNATION



550057 *Braid Forceps*

Components



551295 *Tensioner Gen. II - Ratchet*



551296 *Tensioner Gen. II - Mobile Capstan Rack*



551297 *Tensioner Gen. II - Winch*

Braid Puller Forceps

550058 *Braid Puller Forceps*

Snapping Forceps

550061 *Universal Snapping Forceps*

Straight Handle



550026 *Straight Handle*

Screw Holder

550060 *Screw Holder*

Stem



550298 *Tensioner Gen. II - Stem 90° (optional)*

550299 *Tensioner Gen. II - Stem 120° (optional)*

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

550316 *Tensioner Gen. II - Universal 90° Stem (optional)*

550317 *Tensioner Gen. II - Universal 120° Stem*

550318 *Tensioner Gen. II - Universal 135° Stem (optional)*

Hexagonal Screwdriver 3,5

550012 *Hexagonal Screwdriver 3,5*

REFERENCES *INSTRUMENTS*

JAZZ™ Claw

Blocker Screwdriver

REFERENCE DESIGNATION



550018 Blocker Screwdriver

Implant Holder / Blocker

REFERENCE DESIGNATION



550335 Jazz Claw - Implant Holder Hook / Blocker



T-handle

550025 T-Handle (optional)



Anti-torque Wrench

550336 Jazz Claw - Anti-torque Wrench



T-handle with Torque Limiter

550315 T-handle with Torque Limiter 12 N.m

Hook Trial Right



550337 Jazz Claw - Hook Trial Right

Hook Trial Left



550338 Jazz Claw - Hook Trial Left

Hook Trial Right Large



550339 Jazz Claw - Hook Trial Right Large

Hook Trial Left large



550340 Jazz Claw - Hook Trial Left Large



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WARNINGS AND PRECAUTIONS

- Refer to the instruction leaflet about indications and contra-indications and technical specifications of the product.