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JULIET<sup>®</sup><sub>TL</sub>

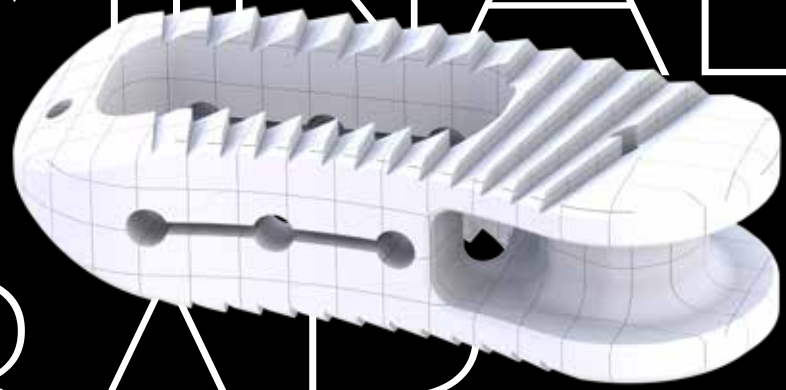
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BY SPINEART

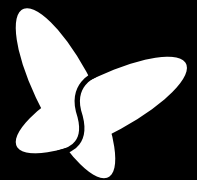
TRANSF

ORAMINIAL

LUMBAR



CAGE





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## CONCEPT AND DESIGN

In parallel to the ROMEO® posterior fusion system, in 2006 Spineart developed a range of interbody devices to achieve 360° fusion: the JULIET® interbody system.

Named after the William Shakespeare's characters Romeo and Juliet, the two systems complement each other perfectly.

The JULIET®<sub>PO</sub>, JULIET®<sub>OL</sub>, JULIET®<sub>AN</sub> and JULIET®<sub>TL</sub> are designed to be used with the ROMEO® system, for a reliable, efficient and easy-to-use platform to achieve fusion.

In each product development, Spineart is relentlessly driven by the same motto: Quality, Innovation, Simplicity

### AT A GLANCE

**EASY INSERTION**

**LOAD SHARING CONCEPT**

**MULTIAXIAL IMPLANT HOLDER**

**COMPACT SET**



### INDICATIONS

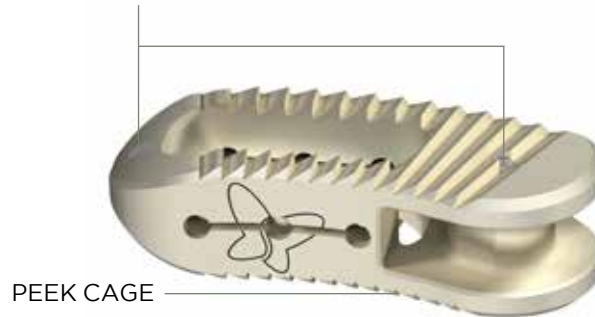
The JULIET® range is indicated in following pathologies between S1 to L2:

- Lumbar hernia
- Lumbarthrosis
- Degenerative disc disease
- Spondylolisthesis



# IMPLANTS

2 TANTALUM MARKERS



REFERENCES

<b>ANATOMICAL CAGE</b>	<b>LORDOSIS 4°</b>
<b>HEIGHTS</b>	<b>L28</b>
8mm	DYN-TL 04 08-S
10mm	DYN-TL 04 10-S
12mm	DYN-TL 04 12-S
14mm	DYN-TL 04 14-S

# PREFILLED IMPLANTS



REFERENCES

<b>ANATOMICAL CAGE</b>	<b>LORDOSIS 4°</b>
<b>HEIGHTS</b>	<b>L28</b>
8mm	DYS-TL 04 08-S
10mm	DYS-TL 04 10-S
12mm	DYS-TL 04 12-S
14mm	DYS-TL 04 14-S

# BONE SUBSTITUTE

REFERENCES

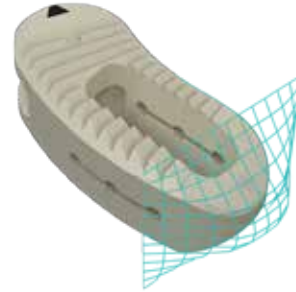
<b>HEIGHTS</b>	
8mm	DYN-BU 22 08-S
10mm	DYN-BU 22 10-S
12mm	DYN-BU 22 12-S
14mm	DYN-BU 22 14-S



# TECHNICAL FEATURES

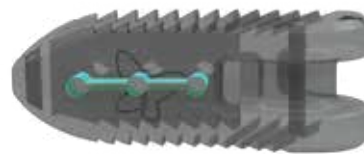
## EASY INSERTION

- The anatomical shape of the device is designed to facilitate its insertion.



## LOAD SHARING CONCEPT

- The cage slits are designed to enhance physiological compression load. This concept is intended to distribute axial load through the cage in order to compress the graft, creating a better environment for fusion.



## MULTIAXIAL IMPLANT HOLDER

- The implant holder locking mechanism enables to change the angle of the device during implantation.

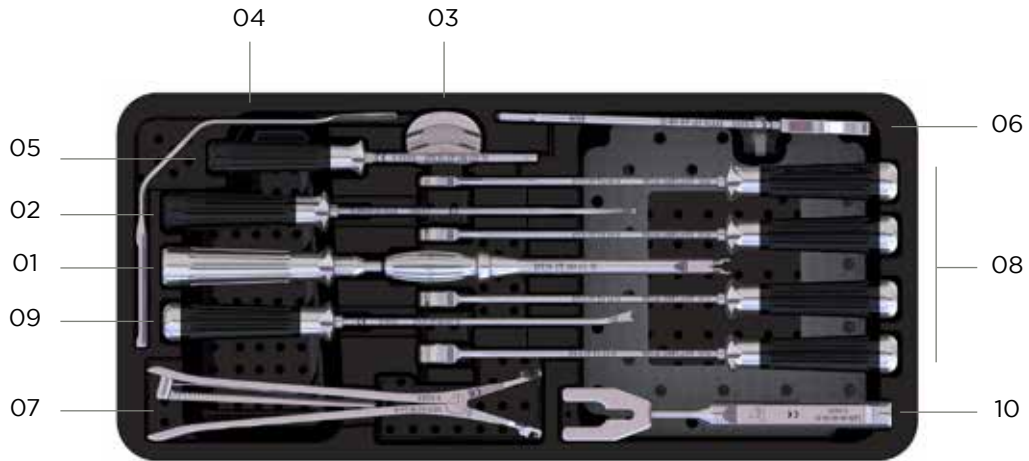


## COMPACT SET

- In addition to the TLIF cage compact set, a combo and modular set for PLIF, OLIF, and TLIF cages is also available.



# INSTRUMENT SET

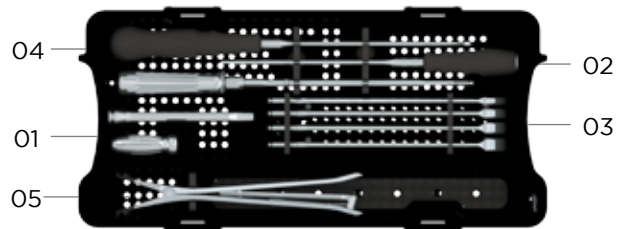
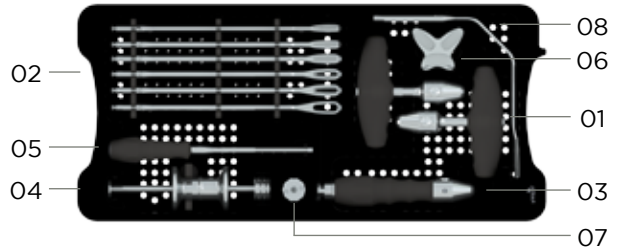


#	DESCRIPTION	REFERENCE
01	MULTIAXIAL IMPLANT HOLDER	DYN-IT 00 01-N
02	CURETTE	DYN-IT 00 02-N
03	COMPACTION BASE	DYN-IT 00 03-N
04	NERVE ROOT RETRACTOR	DYN-IP 00 05-N
05	COMPACTOR	DYN-IP 00 02-N
06	TRIAL IMPLANT / DISTRACTOR / RASP	DYN-IP 22 08-N
07	INTERLAMINA DISTRACTOR	DYN-IT 00 04-N
08	ANGLED TRIAL IMPLANT	DYN-IT T4 08-N DYN-IT T4 10-N DYN-IT T4 12-N DYN-IT T4 14-N
09	FINAL IMPACTOR	DYN-IT 00 05-N
10	EXTRACTION MALLET	LIN-00 00 05-N
	INSTRUMENT CONTAINER	DYN-BX TL 01-N



# INSTRUMENT SET

## COMBO SET



### UNIVERSAL TRAY

#	DESCRIPTION	REFERENCE
01	T HANDLE	HAN-SI MD TE-N
02	PADDLE DISTRACTOR (DEDICATED RACK)	JUL-IN 00 05-N JUL-IN 00 06-N JUL-IN 00 07-N
	DISC SHAVER (DEDICATED RACK)	JUL-IN 00 08-N JUL-IN 00 09-N JUL-IN 00 10-N JUL-IN 00 12-N JUL-IN 00 14-N
03	MODULAR STRAIGHT HANDLE	HAN-SI SH ST-N
04	SLAP HAMMER	HAN-SS SH 01-N
05	COMPACTOR	DYN-IP 00 02-N
06	"3 IN 1" COMPACTOR BASE	JUL-IN 01 00-N
07	IMPACTION CAP	HAN-SS SH 02-N
08	NERVE ROOT RETRACTOR	DYN-IP 00 05-N
	CONTAINER - BASE	JUL-BX 10 01-N
	CONTAINER - LID	LID-BX 01 00-N
	CONTAINER - UNIVERSAL TRAY	JUL-BX 10 02-N
	CONTAINER - UNIVERSAL RACK	JUL-BX 10 05-N
	CONTAINER - TL TRAY	JUL-BX 10 03-N
	CONTAINER - TL RACK	JUL-BX 10 06-N

### TLIF TRAY

#	DESCRIPTION	REFERENCE
01	IMPLANT HOLDER TLIF	DYN-IT 00 01-N
02	FINAL IMPACTOR	DYN-IT 00 05-N
03	TRIAL IMPLANTS	DYN-IT M4 08-N DYN-IT M4 10-N DYN-IT M4 12-N DYN-IT M4 14-N
04	CURETTE / CURVED	HAN-SS SH 01-N
05	INTERLAMINA DISTRACTOR	DYN-IP 00 02-N





# INSTRUMENTS

MULTIAXIAL IMPLANT HOLDER      DYN-IT 00 01-N



CURETTE      DYN-IT 00 02-N



COMPACTOR      DYN-IP 00 02-N



NERVE ROOT RETRACTOR      DYN-IP 00 05-N



TRIAL IMPLANT      DYN-IT M4 XX-N



MODULAR STRAIGHT HANDLE      HAN-SI SH ST-N



SLAP HAMMER      HAN-SS SH 01-N



INTERLAMINA DISTRACTOR      DYN-IT 00 04-N



# INSTRUMENTS

FINAL IMPACTOR DYN-IT 00 05-N



ANGLED TRIAL IMPLANT DYN-IT 04 08-N



T HANDLE HAN-SI MD TE-N



DISC SHAVERS JUL-IN 00 08-N



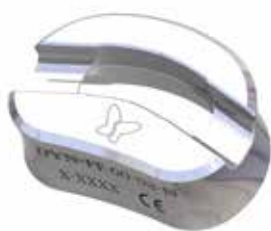
PADDLE DISTRACTOR JUL-IN 00 05-N



TRIAL IMPLANT/DISTRACTOR/RASP JUL-IN 00 05-N



COMPACTION BASE DYN-IT 00 03-N



3 IN 1 COMPACTION BASE JUL-IL 01 00-N



# SURGICAL TECHNIQUE

## STEP 1



### DISTRACTION

Once the facet joint is partially removed, the interlamina distractor can be placed.

INSTRUMENT	REFERENCE
INTERLAMINA DISTRACTOR	DYN-IT 00 04-N

## STEP 2



### DISCECTOMY AND PREPARATION OF THE ENDPLATES

Once distracted, start the discectomy while protecting the dura with the nerve root retractor. Complete discectomy and scrap the endplates with the curette.

**Note:** To maximize the chance of fusion, it is recommended to remove completely the superficial layers of cartilage plate until bleeding.

INSTRUMENT	REFERENCE
DISC SHAVERS	JUL-IN 00 08-N
PADDLE DISTRACTOR	JUL-IN 00 05-N
NERVE ROOT RETRACTOR	DYN-IP 00 05-N
CURETTE	DYN-IT 00 02-N
MODULAR STRAIGHT HANDLE	HAN SI SH ST-N



# SURGICAL TECHNIQUE

## STEP 3



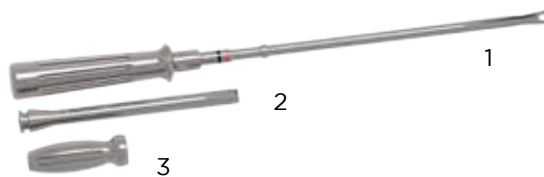
### SELECTION OF THE CAGE SIZE

Insert the trial implant to determine the appropriate cage size and complete the preparation of the endplates.

The 8mm trial implant / distractor / rasp instrument can be used to open the disc space.

INSTRUMENT	REFERENCE
ANGLED TRIAL IMPLANT	DYN-IT 04 08-N DYN-IT 04 10-N DYN-IT 04 12-N DYN-IT 04 14-N
TRIAL IMPLANT / DISTRACTOR / RASP	DYN-IP 22 08-N
TLIF TRIAL IMPLANT	DYN-IT M4 08-N DYN-IT M4 10-N DYN-IT M4 12-N DYN-IT M4 14-N
MODULAR STRAIGHT HANDLE	HAN-SI SH ST-N
NERVE ROOT RETRACTOR	DYN-IP 00 05-N
SLAP HAMMER	HAN-SH SS 01-N

## STEP 4



### ASSEMBLY OF THE IMPLANT HOLDER

The multi-axial implant holder consists of three parts : the axis, the locking ring and the tube.

To assemble the implant holder, put the locking ring (2) and the tube (3) together.

Insert then the axis in the construct previously assembled, consisting of the locking ring and the tube.

INSTRUMENT	REFERENCE
MULTIAXIAL IMPLANT HOLDER	DYN-IT 00 01-N



# SURGICAL TECHNIQUE

## STEP 5

### CAGE PREPARATION

Place the cage in the compaction base and fill it with tailor made bone graft.

The cage is then attached to the multiaxial implant holder. To lock the cage, twist the locking sleeve clockwise until the red line is visible and the cage is firmly attached.

Do not overtighten.



LOCKED CAGE POSITION

INSTRUMENT	REFERENCE
COMPACTION BASE	DYN-IT 00 03-N
"3 IN 1" COMPACTOR BASE	JUL-IN 01 00-N
MULTIAXIAL IMPLANT HOLDER	DYN-IT 00 01-N
COMPACTOR	DYN-IP 00 02-N



# SURGICAL TECHNIQUE

## STEP 6

### INSERTION

Once the cage is inserted, unscrew the locking sleeve up to but not beyond the black line.

The cage can then be angulated.

Verify the cage positioning under AP and lateral view.

Release the implant by loosening the locking sleeve past the black line and take out the multiaxial implant holder.

Add enough bone graft around the implant. Take out the interlamina distractor.

Note: Pass the midline of the vertebral body during implantation of the cage.

Withdraw all the instruments. Perform a fluoroscopic control to make sure the implant is correctly positioned.



ANGULATION POSITION



INSTRUMENT	REFERENCE
MULTIAXIAL IMPLANT HOLDER	DYN-IT 00 01-N
NERVE ROOT RETRACTOR	DYN-IP 00 05-N



# SURGICAL TECHNIQUE

## FINAL CONSTRUCT



The JULIET<sup>®</sup><sub>TL</sub> can be used with a supplemental posterior fixation system, as described in the ROMEO<sup>®</sup><sub>2</sub> surgical technique, or an anterior fixation system.

Use the compression forceps to compress the construct if needed.













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S W I S S M A D E

