

ROCCIA[®] TLIF CAGE FOR LUMBAR SPINAL FUSION

INSTRUMENTATION GUIDE



MADE IN GERMANY

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NOTE: This Guide describes the ROCCIA instrumentation – it does not replace briefing by a physician experienced in the surgical instrumentation of the spinal column.

We would be happy to assist you in finding a hospital that provides an opportunity to observe surgical procedures.

PREFACE

ROCCIA[®] TLIF – FOR LUMBAR SPINAL FUSION

The ROCCIA TLIF Cage is an implant for primary stabilization and restoration of physiological lordosis in the lumbar and thoracic spine. The cage is designed for posterior approach.

The aim is to eliminate discogenic back pain, correct deformities, remedy instabilities, restore intervertebral height, restore physiological lordosis, and provide biomechanical support for bone fusion in the intervertebral disc space.

The cage must be used with additional stabilization. For posterior lumbar stabilization, Silony Medical recommends the use of a posterior spinal fixation system like the VERTICALE screw-rod system.

The ROCCIA instrumentation system, like all Silony Medical products, can be used in a modular manner and is ergonomically designed. Thus, the ROCCIA Inserter enables the user to perform various instrumentation steps with just a single instrument. This may not only help to speed up the surgical procedure but may also help to reduce the need for inventory of instruments which have to be cleaned and stored in the clinic.





Indications

The ROCCIA TLIF Cage is indicated for intervertebral body fusion of the spine in skeletally mature patients. The system is designed for use with autogenous bone graft to facilitate fusion and supplemental internal spinal fixation systems cleared by the FDA for use in the thoracolumbar spine. The device is to be used in patients who have had at least six months of non-operative treatment.

The ROCCIA TLIF Cage implants are intended for use in interbody fusions at one or two contiguous levels in the thoracic spine from T1 to T12 and at the thoracolumbar junction (T12-L1), following discectomy for the treatment of a symptomatic disc degeneration (DDD), including thoracic disc herniation (myelopathy and/or radiculopathy with or without axial pain). The ROCCIA TLIF Cage implants are intended for use at one or two contiguous levels in the lumbar spine, from L1 to S1, for the treatment of degenerative disc disease (DDD) with up to Grade I spondylolisthesis. DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies. The ROCCIA TLIF Cage implants can be used as an adjunct to fusion in patients diagnosed with multilevel degenerative scoliosis.

NOTE: The ROCCIA TLIF Cage must be combined with additional stabilization. For posterior lumbar intersegmental fusion procedures, Silony Medical recommends the use of a posterior spinal fixator (e.g., with the VERTICALE System).

Contraindications

Contraindications include, but are not limited to:

- Anticipated or documented allergy or intolerance to the materials (e.g., titanium)
- Any case in which the chosen implants would be too large or too small to achieve a successful result
- Any patient for whom use of the implant would be in conflict with the anatomical structures
- Missing bone structures, which would render stable fixation of the implant impossible (e.g., associated with fractures, tumors, osteoporosis, or infections)

NOTE: Please note the advice about indications and contraindications in the instructions for use of ROCCIA TLIF. The instructions for use also contains other important information that might lead to exclusion of the patient.

APPROACH FOR THE ROCCIA[®] TLIF CAGE

The surgical approach for the TLIF Cage is described below.

Position and approach

RI-1410*
ROCCIA Chisel 10 mm, Width
reinforced



The patient is positioned in the prone position, as is common for the posterior approach. Exposing the abdomen helps to reduce the load on the abdominal vessels. Corresponding bearing frames or padding underneath the pelvis and thorax can be used for this. The main incision is usually performed medially above the spinous processes depending on the spinal segments being treated. The spinal erector muscles are then displaced strictly subperiosteally on both sides and prepared until the anatomical structures of the spinal column are clearly exposed.

The transforaminal approach to the disc space is usually achieved by means of unilateral resection of the facet joint on the approach side (Fig. 1). The 6, 8, or 10 mm ROCCIA Chisels can be used for this as well as standard instruments such as Luer forceps and rongeurs.

* Representative of other chisels see ROCCIA Instruments

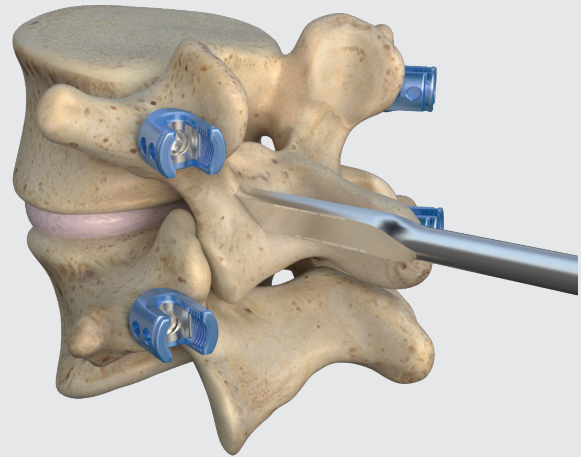


Fig 1 Resection of a facet joint with the chisel in the TLIF approach Access

ROCCIA® TLIF CAGE INSTRUMENTATION

The ROCCIA TLIF has been designed for transforaminal approaches, therefore the following instrumentation steps apply to both the preparation of the implant bed and the implantation of the intervertebral disc space of the aforementioned approach and surgical technique.

Discectomy

RI-1020*
ROCCIA Ring Endplate Scraper
Straight



RI-1040**
ROCCIA Curette Straight



RI-1107***
ROCCIA Shaver, 7 mm



GI-3101****
T-Handle



To begin with, the disc is incised with a standard scalpel. The disc material is loosened by means of shavers and is then removed using various rongeurs and available endplate scrapers and curettes (Figs. 2 and 3). The fibrous ring is opened up in the process, and the nucleus and the inner fibrous ring are then removed and the surfaces of the endplates are roughened in order to prepare the disc space as a bleeding bed for the cage and bone graft material.

Various angled and curved endplate scrapers are available to facilitate the removal of the intervertebral disc tissue in the far lateral disc space.

- * Representative of other ring endplate scrapers (angled and curved)
- ** Representative of other curettes (curved)
- *** Representative of other shaver sizes
see ROCCIA Instruments
- **** Representative of other T-handles
see General instruments

NOTE: ROCCIA Shavers are only suitable for mobilizing the disc and preparing the superior the endplates. They must not be used for distraction.

NOTE: If possible, thus helping to reduce changes on potential dislocation of the cage..

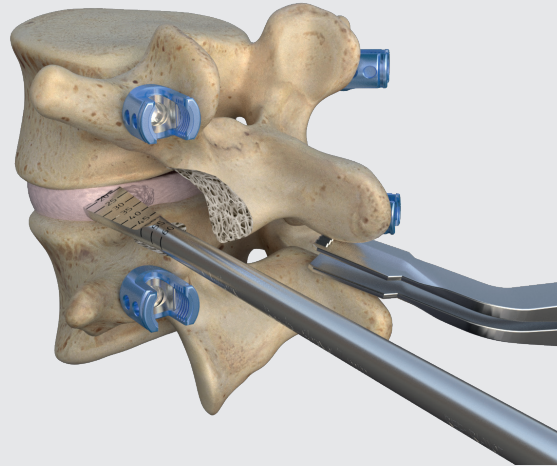


Fig. 2 Loosening of the disc material with a shaver

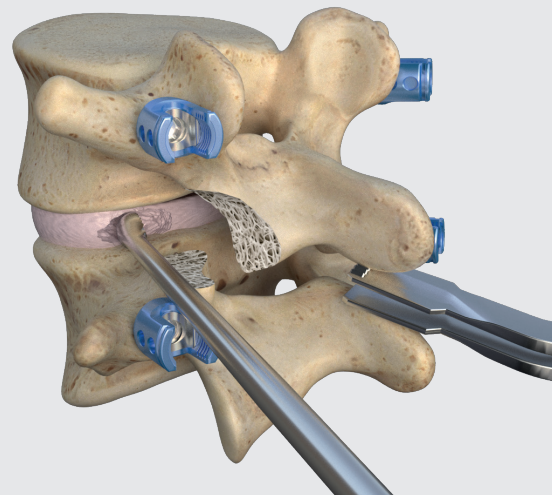


Fig. 3 Discectomy using a curette

Preparing the disc space

RI-1020*
ROCCIA Ring Endplate Scraper
Straight



RI-1030
ROCCIA Box Endplate Scraper
Straight



RI-1050
ROCCIA Rasp Curved 45°



RI-1107**
ROCCIA Shaver, 7 mm



GI-3101***
T-Handle



For more extensive curettage, the ROCCIA Box Endplate Scraper is also available (Fig. 4). The surface of the remaining cartilaginous layer of the inferior and superior endplates can be roughened with bone rasps, curettes, and shavers (Fig. 5). The curved endplate scrapers in particular also facilitate the preparation of the of the contralateral side when using the transforaminal approach.

* Representative of other ring endplate scrapers (angled and curved)

** Representative of other shaver sizes
see ROCCIA Instruments

*** Representative of other T-handles
see General instruments

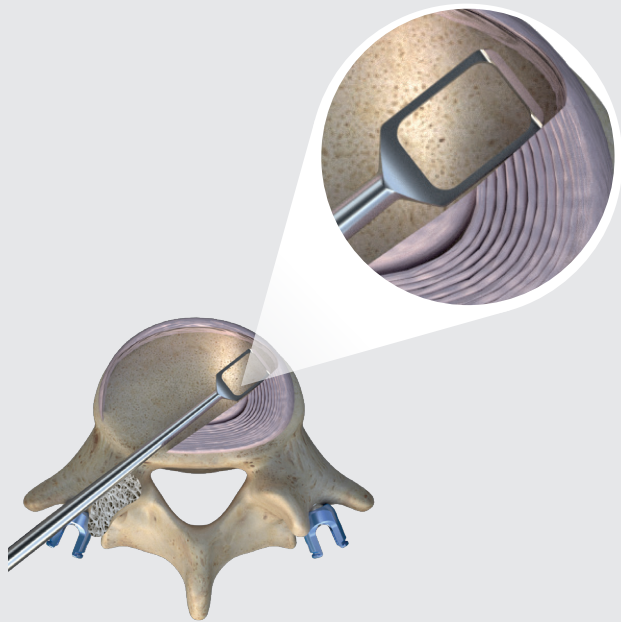


Fig. 4 Box endplate scraper for extensive removal of disc material

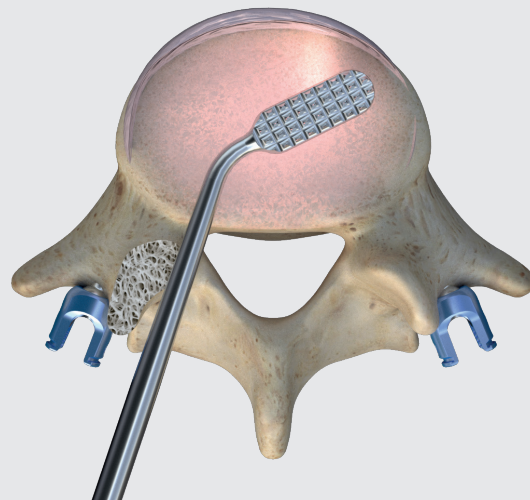


Fig. 5: Rasp for roughening the superior the endplate

NOTE: Careful preparation of the disc space, especially extensive roughening of the endplates causing a so-called bleeding bed, provides the basis for better vascularization of the bonegraft material, thus enhancing chances on a successful fusion. The removal of cartilage is essential, yet severe damage to the bony inferior and superior endplate can lead to sinking of the implant into the vertebral body.

Distracting the disc space

RI-1207*
ROCCIA Paddle Sizer 7 mm



GI-3101**
T-Handle



Blunt ROCCIA Paddle Sizers are available for distraction. They start at a height of 7 mm and increase in 1-mm increments up to a height of 13 mm; after that, the height increases in steps of 2 mm. At the distal end of the paddle sizers, there are depth markings between 20 and 60 mm in 5-mm increments (Fig. 7).

The distractors are connected to a T-handle via the quick-release system. For better orientation, the handle ends are aligned in the same way as the end of the paddle shavers. Two T-handles are available in the set to allow for fast exchange of successive paddle shavers during the procedure.

For distraction, a blunt paddle sizer according to the size of the disc space is first inserted into the disc space flat and then positioned by rotating by 90° (Fig. 7). The next paddle sizers are inserted in ascending order using the same movement until the desired height is achieved. The appropriate distraction height is achieved when the paddle sizer is under tension and conveys a stable feeling. Standard lamina spreader forceps can additionally be used for distraction.

* Representative of other distractor sizes
see ROCCIA Instruments

** Representative of other T-handles
see General instruments

NOTE: Overdistraction should be avoided. This increases the nervous structures and may lead to damage of the superior and inferior endplates, potentially resulting into subsequent subsidence of the implant, and/or jeopardizing the restoration of physiological lordosis.

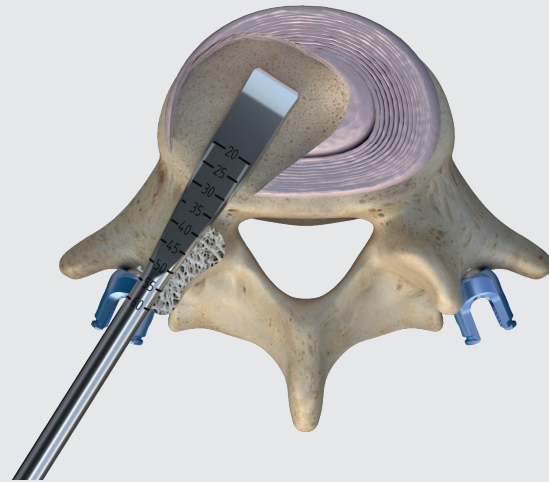


Fig. 6 Depth marking on the paddle sizer

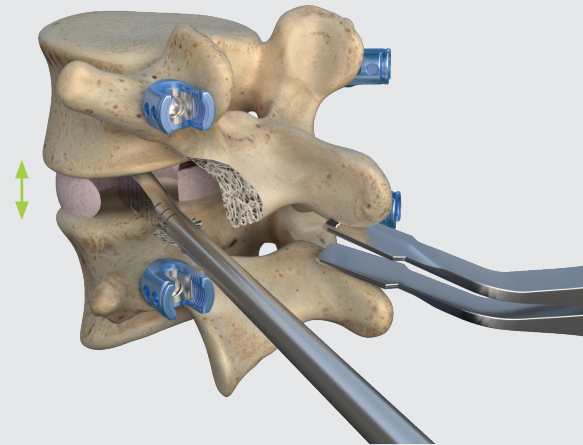


Fig. 7 Spreading the disc space with the paddle sizer

Selecting the trial implant

RI-1324
ROCCIA Inserter M4,
dismountable



RI-1207*
ROCCIA Paddle Sizer 7 mm



GI-3101**
T-Handle



Blunt paddle sizers with depth markings between 20 and 60 mm in 5-mm increments are available to determine the size of the disc space. With heights of 7–13 mm (1-mm increments) as well as 15 mm and 17 mm, they correspond to the size of the later implant. Trial implants can be selected on the basis of these measurements and checked under image converter control (Fig. 8).

An appropriate trial implant with 5° or 15° lordosis is available for each definitive cage size. The trial implants are color-coded analogously to the implants to be implanted later on. The color coding additionally facilitates the identification of the matching inserter, which has correspondingly colored rings on the instrument stem.

* Representative of other distractor sizes,
see ROCCIA Instruments

** Representative of other T-handles
see General instruments

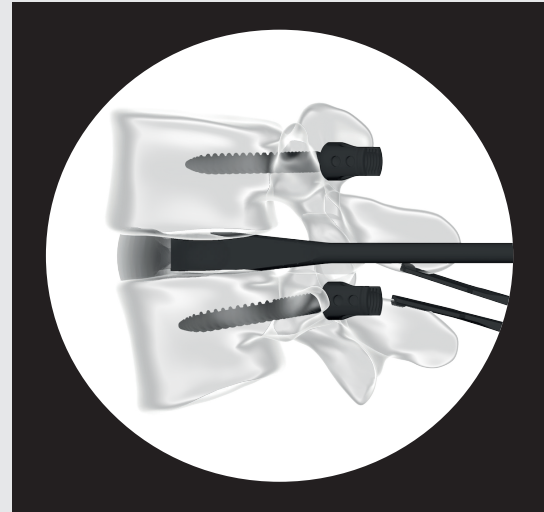


Fig. 8 Image converter control with paddle sizer for selection of the trial implant

Determining the cage sizes with the trial implants

RI-1324
ROCCIA Inserter M4,
dismountable



RI-T11341205*
ROCCIA TLIF Trial
11 x 34 x 12 mm 5°



ROCCIA Inserters are required to insert the trial implants. The ROCCIA Inserters fit onto both the trial implants and the final implants. The selected trial implant is screwed completely onto the respective ROCCIA Inserter and then, applying gentle pressure, carefully inserted through the transforaminal window into the intervertebral space (Fig. 9). At the surgeon's discretion a mallet can also be used and insert the trial through gently tapping. After that, the position and size of the trial implant is verified in the image converter.

To ensure that the height of the intervertebral disc is preserved after loosening the distraction, the implant must fit between the endplates after full distraction of the segment.

Using the largest possible implant for each individual patient helps to maximise the stability of the segment.

If the trial implant does not properly fits into the intervertebral disc space, the next size up of trial implant size must be used. If the trial implant cannot be inserted because the intervertebral disc space is too small, either a smaller size has to be used or the segment has to be distracted further using the aforementioned instruments. Once the correct size has been determined, the distraction can be temporarily loosened.

* Representative of other trial implant sizes
see ROCCIA Trial Implants

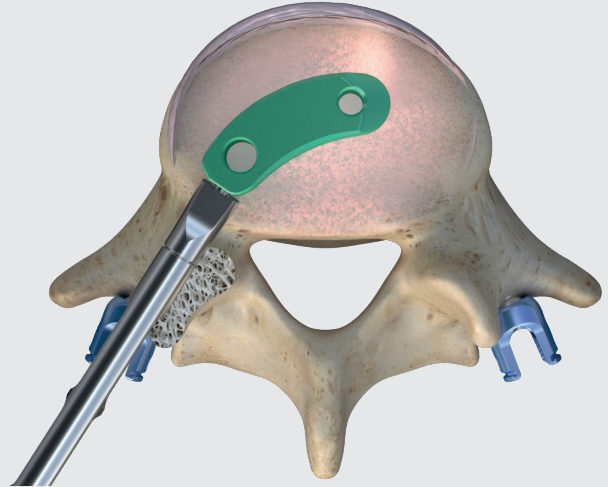


Fig. 9 Introducing the trial implant

NOTE: Correctly selecting the cage size is essential in order to maximise the chances on success of the instrumentation and fusion.

NOTE: The height of the trial implant matches the height of the final ROCCIA TLIF Implant including the interlocking teeth.

Multitude of cage sizes

To optimize the treatment of the patient in terms of anatomy and pathology, a wide range of ROCCIA TLIF sizes is available (Fig. 10). The portfolio comprises nine anterior heights (from 7 to 13 mm, in 1 mm increments, and heights of 15 mm and 17 mm) and two widths (28 and 34 mm). In addition to the regular lordotic angles of 0°, 5°, and 10°, hyperlordotic cages with an angle of 15° are also available.

The inserter with the particular color code corresponds to the respective cage.

28 / 34 mm

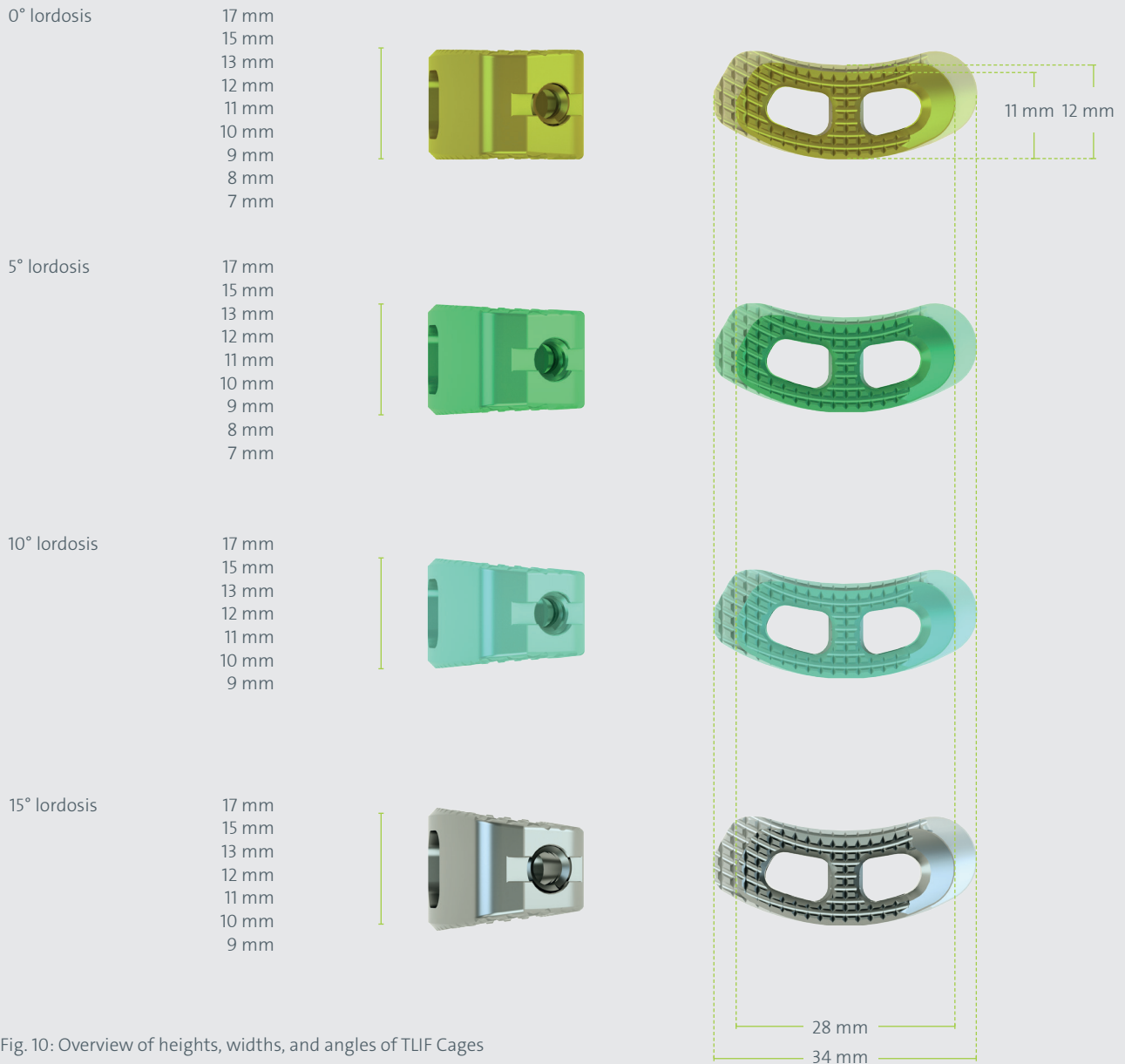


Fig. 10: Overview of heights, widths, and angles of TLIF Cages

Filling of the cage

RI-1324
ROCCIA Inserter M4,
dismountable



RI-2090
ROCCIA TLIF Loading Block



RI-2051
ROCCIA Bone Graft Pusher



The ROCCIA TLIF Cage is designed with large spaces in order to receive a large volume of bone graft material. The bone graft material needs to be compressed into the cage. A loading block is available for this purpose, as well as a pusher. Remaining areas of the intervertebral disc space are typically filled with autologous bone (e.g. from the iliac crest), either before or after insertion of the cage, in order to maximise the potential bony fusion area. Filling of disc space and implant are essential elements that contribute to bony fusion (Fig. 11).

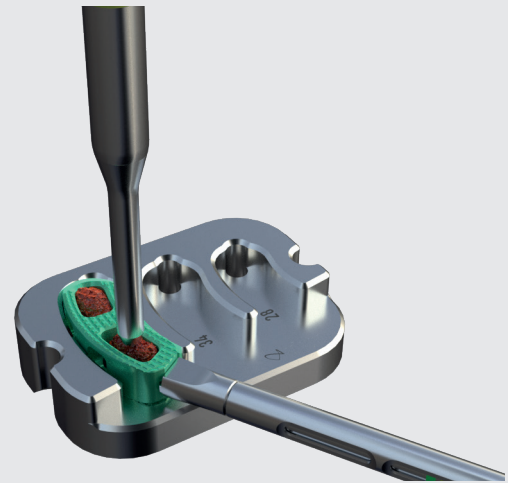


Fig. 11 Filling the cage with bone material in the loading block with pusher

Inserting the cage

RI-1324
ROCCIA Inserter M4,
dismountable



RI-1355
ROCCIA Slotted Mallet, solid



The ROCCIA Inserter, which is used in the same way as previously for the trial implants, is screwed completely into the threaded holes of the cage, enabling the cage to be inserted without requiring any further instrument change (Fig. 12).

The implant should be inserted promptly after removal of the trial to help prevent partial loss of the temporary distraction achieved during the procedure. The filled implant is carefully inserted into the disc space and the correct alignment of the implant is verified (see Fig. 13). Slight pressure or careful tapping with the ROCCIA Slotted Mallet on the inserter may be required.

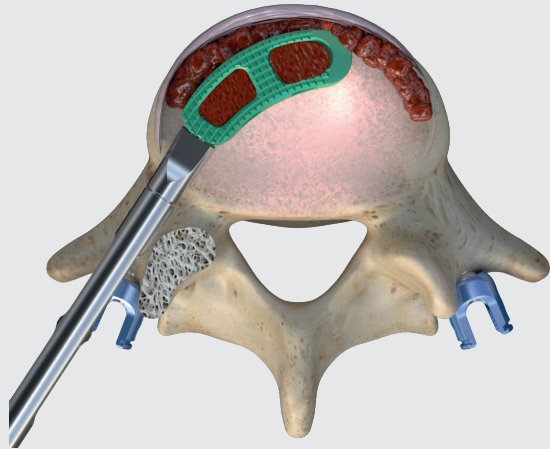


Fig. 12 Inserting the filled cage into the disc space

Correct position of the ROCCIA® TLIF Cage

If possible, when using the TLIF approach, the ROCCIA Inserter is left inside the cage until an AP image and a lateral image with the image converter confirm the correct position of the cage.

For biomechanical reasons, the optimal position of the implanted ROCCIA TLIF Cage should be in the anterior to central third of the disc space, centered in the frontal projection (one could use the projections of pedicles and/or spinous processes in order to determine this, Figs. 13 and 14).

An anteriorly positioned cage may help achieve lordosis in the respective section of the spine.

Once the implant has been inserted, the remaining disc space is filled with bone graft material, thus maximising the volume of bone graft for potential fusion.

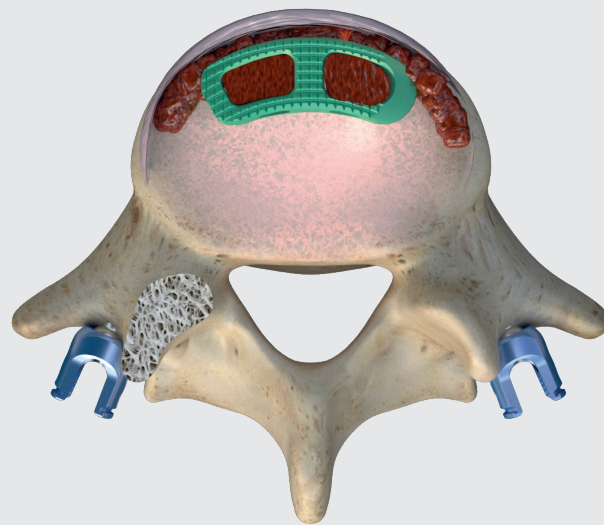


Fig. 13 Optimal position of the filled TLIF Cage

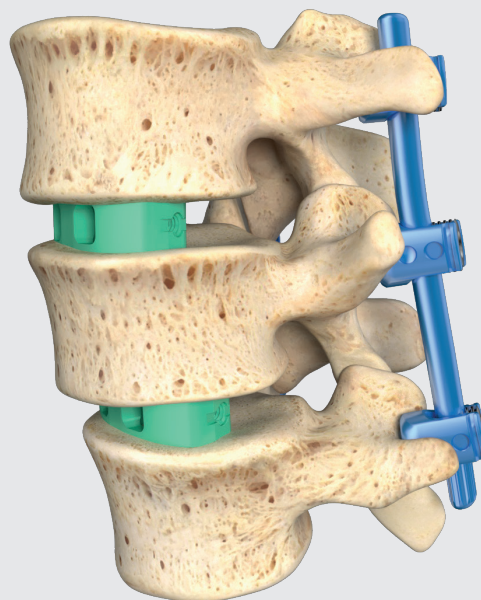


Fig. 14 Optimal position of the filled TLIF Cage including posterior fixation

NOTE: Applying the tension band principle using a posterior screw-rod system like the VERTICALE system is recommended. The tension band application helps to support the biomechanical stability of the motion segment and the stability of the TLIF Cage. The final steps of posterior fixation (e.g., insertion of the rod, compression, and final tightening of the set screws) are completed after implantation of the cage.

NOTE: When implanting a TLIF Cage with 15° lordosis, it is imperative to stabilize the segment using a fixation system or anterior plating.

POSITION CORRECTION OF THE ROCCIA TLIF CAGE

A straight implant driver and a hooked implant driver are provided for definitive positioning of the ROCCIA TLIF Cage. The use of these instruments is outlined below.

Hooked implant driver

RI-1343
ROCCIA Hooked Implant Driver,
reinforced



RI-1355
ROCCIA Slotted Mallet, solid



The ROCCIA Hooked Implant Driver is inserted into the drill-hole of the cage (Fig. 15). The shape of this hooked implant driver provides good stability while the desired correction is achieved, potentially by gently tapping the Hooked Implant Driver using a slotted mallet.

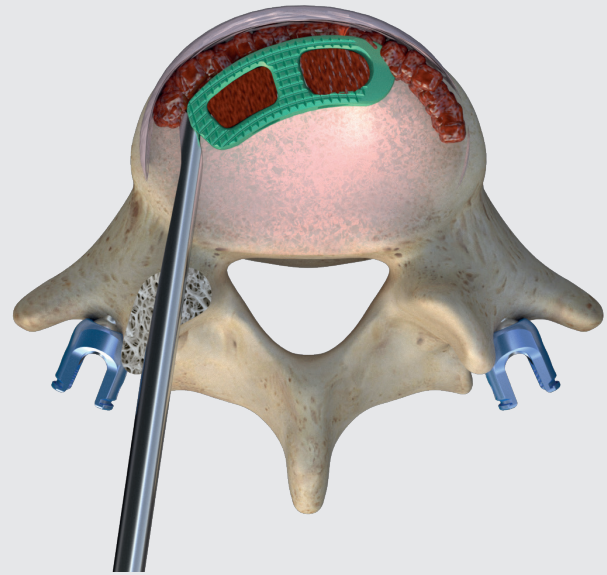


Fig. 15 Hooked implant driver for correcting the position of the cage

Implant Driver Straight

RI-1340
ROCCIA Implant Driver Straight



RI-1355
ROCCIA Slotted Mallet, solid



For final positioning of the cage the ROCCIA Implant Driver is positioned straight onto the lateral posterior front of the cage (Fig. 16). The cage can then be carefully moved into the desired position, potentially by gently tapping the Implant Driver Straight with a slotted mallet.

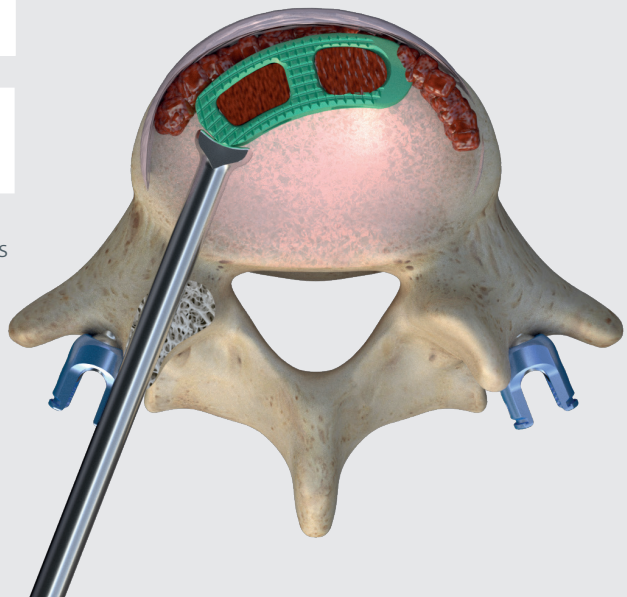


Fig. 16 Straight implant driver to finalize the position of the cage

Inserters as a driver

RI-1324
ROCCIA Inserter M4,
dismountable



RI-1355
ROCCIA Slotted Mallet,
solid



The inserter has been designed to fulfil multiple functions. Using the rotating handle, the two instrument components can be disassembled so that both individual components are available for use. The body can be attached to the cage again after removal of the core and used as a driver by striking the instrument directly with the hammer. This allows the cage to be positioned more anteriorly by tapping the instrument with the mallet. The driving should be carried out under monitoring with the image converter.



Fig. 17 Inserter functioning as a driver

Inserters as a revision instrument

RI-1324
ROCCIA Inserter M4,
dismountable



RI-1355
ROCCIA Slotted Mallet, solid



To be able to remove the ROCCIA TLIF implant, the inner core can be used. The core contains the thread for the cage connection and is now attached to the cage and firmly tightened. A revision of a cage requires that the instrument is screwed into the cage until it stops. Using gentle tapping with the slotted mallet below the handle attachment, the cage can be retrieved (Fig 18).



Fig. 18 Inserter functioning as a revision instrument

NOTE: the neurologic structures should be well protected during procedure.

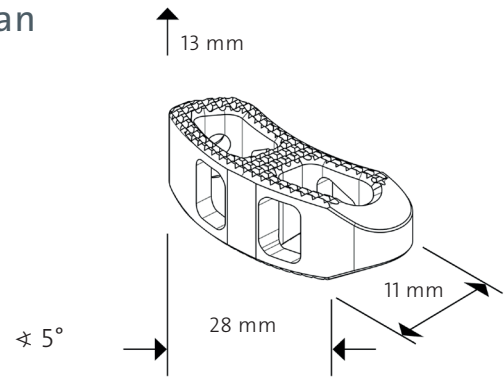
ROCCIA® TLIF PRODUCT INFORMATION

| | |
|--|-------|
| ROCCIA TLIF Implants by article number | PI 02 |
| ROCCIA TLIF Trial Implants by article number | PI 05 |
| ROCCIA Instruments by article number | PI 06 |
| General Instruments by article number | PI 09 |
| ROCCIA Alphabetical Index | PI 10 |

ROCCIA® TLIF Implants

Article number explanation for the cage, as an example

ROCCIA TLIF Cage, 13 x 28 x 11 mm, 5° lor.



| Article number | Description | Illustration |
|------------------|--|--------------|
| S-RTT-07281100-S | ROCCIA TLIF Cage 7 x 28 x 11 mm, 0° lor. | |
| S-RTT-08281100-S | ROCCIA TLIF Cage 8 x 28 x 11 mm, 0° lor. | |
| S-RTT-09281100-S | ROCCIA TLIF Cage 9 x 28 x 11 mm, 0° lor. | |
| S-RTT-10281100-S | ROCCIA TLIF Cage 10 x 28 x 11 mm, 0° lor. | |
| S-RTT-11281100-S | ROCCIA TLIF Cage 11 x 28 x 11 mm, 0° lor. | |
| S-RTT-12281100-S | ROCCIA TLIF Cage 12 x 28 x 11 mm, 0° lor. | |
| S-RTT-13281100-S | ROCCIA TLIF Cage 13 x 28 x 11 mm, 0° lor. | |
| S-RTT-15281100-S | ROCCIA TLIF Cage 15 x 28 x 11 mm, 0° lor. | |
| S-RTT-17281100-S | ROCCIA TLIF Cage 17 x 28 x 11 mm, 0° lor. | |
| S-RTT-07281105-S | ROCCIA TLIF Cage 7 x 28 x 11 mm, 5° lor. | |
| S-RTT-08281105-S | ROCCIA TLIF Cage 8 x 28 x 11 mm, 5° lor. | |
| S-RTT-09281105-S | ROCCIA TLIF Cage 9 x 28 x 11 mm, 5° lor. | |
| S-RTT-10281105-S | ROCCIA TLIF Cage 10 x 28 x 11 mm, 5° lor. | |
| S-RTT-11281105-S | ROCCIA TLIF Cage 11 x 28 x 11 mm, 5° lor. | |
| S-RTT-12281105-S | ROCCIA TLIF Cage 12 x 28 x 11 mm, 5° lor. | |
| S-RTT-13281105-S | ROCCIA TLIF Cage 13 x 28 x 11 mm, 5° lor. | |
| S-RTT-15281105-S | ROCCIA TLIF Cage 15 x 28 x 11 mm, 5° lor. | |
| S-RTT-17281105-S | ROCCIA TLIF Cage 17 x 28 x 11 mm, 5° lor. | |
| S-RTT-09281110-S | ROCCIA TLIF Cage 9 x 28 x 11 mm, 10° lor. | |
| S-RTT-10281110-S | ROCCIA TLIF Cage 10 x 28 x 11 mm, 10° lor. | |
| S-RTT-11281110-S | ROCCIA TLIF Cage 11 x 28 x 11 mm, 10° lor. | |
| S-RTT-12281110-S | ROCCIA TLIF Cage 12 x 28 x 11 mm, 10° lor. | |
| S-RTT-13281110-S | ROCCIA TLIF Cage 13 x 28 x 11 mm, 10° lor. | |
| S-RTT-15281110-S | ROCCIA TLIF Cage 15 x 28 x 11 mm, 10° lor. | |
| S-RTT-17281110-S | ROCCIA TLIF Cage 17 x 28 x 11 mm, 10° lor. | |

System:
ROCCIA

Implant type:
TLIF

Configuration:
28 mm

Material:
Ti6Al4V ELI

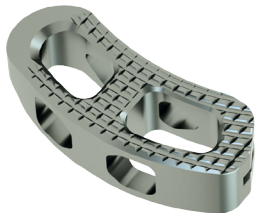
ROCCIA® TLIF Implants

System:
ROCCIA

Implant type:
TLIF

Configuration:
28 mm

Material:
Ti6Al4V ELI

| Article number | Description | Illustration |
|-----------------|--|---|
| S-RTT09281115-S | ROCCIA TLIF Cage 9 x 28 x 11 mm, 15° lor. |  |
| S-RTT10281115-S | ROCCIA TLIF Cage 10 x 28 x 11 mm, 15° lor. | |
| S-RTT11281115-S | ROCCIA TLIF Cage 11 x 28 x 11 mm, 15° lor. | |
| S-RTT12281115-S | ROCCIA TLIF Cage 12 x 28 x 11 mm, 15° lor. | |
| S-RTT13281115-S | ROCCIA TLIF Cage 13 x 28 x 11 mm, 15° lor. | |
| S-RTT15281115-S | ROCCIA TLIF Cage 15 x 28 x 11 mm, 15° lor. | |
| S-RTT17281115-S | ROCCIA TLIF Cage 17 x 28 x 11 mm, 15° lor. | |

System:
ROCCIA

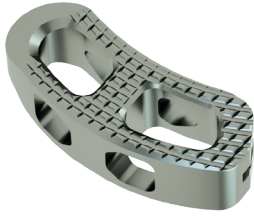
Implant type:
TLIF

Configuration:
34 mm

Material:
Ti6Al4V ELI

| Article number | Description | Illustration |
|------------------|--|---|
| S-RTT-08341200-S | ROCCIA TLIF Cage 8 x 34 x 12 mm, 0° lor. |  |
| S-RTT-09341200-S | ROCCIA TLIF Cage 9 x 34 x 12 mm, 0° lor. | |
| S-RTT-10341200-S | ROCCIA TLIF Cage 10 x 34 x 12 mm, 0° lor. | |
| S-RTT-11341200-S | ROCCIA TLIF Cage 11 x 34 x 12 mm, 0° lor. | |
| S-RTT-12341200-S | ROCCIA TLIF Cage 12 x 34 x 12 mm, 0° lor. | |
| S-RTT-13341200-S | ROCCIA TLIF Cage 13 x 34 x 12 mm, 0° lor. | |
| S-RTT-15341200-S | ROCCIA TLIF Cage 15 x 34 x 12 mm, 0° lor. | |
| S-RTT-17341200-S | ROCCIA TLIF Cage 17 x 34 x 12 mm, 0° lor. | |
| S-RTT-07341205-S | ROCCIA TLIF Cage 7 x 34 x 12 mm, 5° lor. |  |
| S-RTT-08341205-S | ROCCIA TLIF Cage 8 x 34 x 12 mm, 5° lor. | |
| S-RTT-09341205-S | ROCCIA TLIF Cage 9 x 34 x 12 mm, 5° lor. | |
| S-RTT-10341205-S | ROCCIA TLIF Cage 10 x 34 x 12 mm, 5° lor. | |
| S-RTT-11341205-S | ROCCIA TLIF Cage 11 x 34 x 12 mm, 5° lor. | |
| S-RTT-12341205-S | ROCCIA TLIF Cage 12 x 34 x 12 mm, 5° lor. | |
| S-RTT-13341205-S | ROCCIA TLIF Cage 13 x 34 x 12 mm, 5° lor. | |
| S-RTT-15341205-S | ROCCIA TLIF Cage 15 x 34 x 12 mm, 5° lor. | |
| S-RTT-17341205-S | ROCCIA TLIF Cage 17 x 34 x 12 mm, 5° lor. | |
| S-RTT-09341210-S | ROCCIA TLIF Cage 9 x 34 x 12 mm, 10° lor. |  |
| S-RTT-10341210-S | ROCCIA TLIF Cage 10 x 34 x 12 mm, 10° lor. | |
| S-RTT-11341210-S | ROCCIA TLIF Cage 11 x 34 x 12 mm, 10° lor. | |
| S-RTT-12341210-S | ROCCIA TLIF Cage 12 x 34 x 12 mm, 10° lor. | |
| S-RTT-13341210-S | ROCCIA TLIF Cage 13 x 34 x 12 mm, 10° lor. | |
| S-RTT-15341210-S | ROCCIA TLIF Cage 15 x 34 x 12 mm, 10° lor. | |
| S-RTT-17341210-S | ROCCIA TLIF Cage 17 x 34 x 12 mm, 10° lor. | |

ROCCIA® TLIF Implants

| Article number | Description | Illustration |
|-----------------|--|--|
| S-RTT09341215-S | ROCCIA TLIF Cage 9 x 34 x 12 mm, 15° lor. |  |
| S-RTT10341215-S | ROCCIA TLIF Cage 10 x 34 x 12 mm, 15° lor. | |
| S-RTT11341215-S | ROCCIA TLIF Cage 11 x 34 x 12 mm, 15° lor. | |
| S-RTT12341215-S | ROCCIA TLIF Cage 12 x 34 x 12 mm, 15° lor. | |
| S-RTT13341215-S | ROCCIA TLIF Cage 13 x 34 x 12 mm, 15° lor. | |
| S-RTT15341215-S | ROCCIA TLIF Cage 15 x 34 x 12 mm, 15° lor. | |
| S-RTT17341215-S | ROCCIA TLIF Cage 17 x 34 x 12 mm, 15° lor. | |

System:
ROCCIA

Implant type:
TLIF

Configuration:
34 mm

Material:
Ti6Al4V ELI

ROCCIA® TLIF Trial Implants

System:
ROCCIA

Instrument type:
Trial implant

Configuration:
28 mm

Material:
Ti6Al4V ELI

| Article number | Description | Illustration |
|----------------|---|--------------|
| RI-T07281105 | ROCCIA TLIF Trial 7 x 28 x 11 mm, 5° lor. | |
| RI-T08281105 | ROCCIA TLIF Trial 8 x 28 x 11 mm, 5° lor. | |
| RI-T09281105 | ROCCIA TLIF Trial 9 x 28 x 11 mm, 5° lor. | |
| RI-T10281105 | ROCCIA TLIF Trial 10 x 28 x 11 mm, 5° lor. | |
| RI-T11281105 | ROCCIA TLIF Trial 11 x 28 x 11 mm, 5° lor. | |
| RI-T12281105 | ROCCIA TLIF Trial 12 x 28 x 11 mm, 5° lor. | |
| RI-T13281105 | ROCCIA TLIF Trial 13 x 28 x 11 mm, 5° lor. | |
| RI-T15281105 | ROCCIA TLIF Trial 15 x 28 x 11 mm, 5° lor. | |
| RI-T17281105 | ROCCIA TLIF Trial 17 x 28 x 11 mm, 5° lor. | |
| RI-T09281115 | ROCCIA TLIF Trial 9 x 28 x 11 mm, 15° lor. | |
| RI-T10281115 | ROCCIA TLIF Trial 10 x 28 x 11 mm, 15° lor. | |
| RI-T11281115 | ROCCIA TLIF Trial 11 x 28 x 11 mm, 15° lor. | |
| RI-T12281115 | ROCCIA TLIF Trial 12 x 28 x 11 mm, 15° lor. | |
| RI-T13281115 | ROCCIA TLIF Trial 13 x 28 x 11 mm, 15° lor. | |
| RI-T15281115 | ROCCIA TLIF Trial 15 x 28 x 11 mm, 15° lor. | |
| RI-T17281115 | ROCCIA TLIF Trial 17 x 28 x 11 mm, 15° lor. | |

System:
ROCCIA

Instrument type:
Trial implant


Configuration:
34 mm

Material:
Ti6Al4V ELI

| Article number | Description | Illustration |
|----------------|---|--------------|
| RI-T07341205 | ROCCIA TLIF Trial 7 x 34 x 12 mm, 5° lor. | |
| RI-T08341205 | ROCCIA TLIF Trial 8 x 34 x 12 mm, 5° lor. | |
| RI-T09341205 | ROCCIA TLIF Trial 9 x 34 x 12 mm, 5° lor. | |
| RI-T10341205 | ROCCIA TLIF Trial 10 x 34 x 12 mm, 5° lor. | |
| RI-T11341205 | ROCCIA TLIF Trial 11 x 34 x 12 mm, 5° lor. | |
| RI-T12341205 | ROCCIA TLIF Trial 12 x 34 x 12 mm, 5° lor. | |
| RI-T13341205 | ROCCIA TLIF Trial 13 x 34 x 12 mm, 5° lor. | |
| RI-T15341205 | ROCCIA TLIF Trial 15 x 34 x 12 mm, 5° lor. | |
| RI-T17341205 | ROCCIA TLIF Trial 17 x 34 x 12 mm, 5° lor. | |
| RI-T09341215 | ROCCIA TLIF Trial 9 x 34 x 12 mm, 15° lor. | |
| RI-T10341215 | ROCCIA TLIF Trial 10 x 34 x 12 mm, 15° lor. | |
| RI-T11341215 | ROCCIA TLIF Trial 11 x 34 x 12 mm, 15° lor. | |
| RI-T12341215 | ROCCIA TLIF Trial 12 x 34 x 12 mm, 15° lor. | |
| RI-T13341215 | ROCCIA TLIF Trial 13 x 34 x 12 mm, 15° lor. | |
| RI-T15341215 | ROCCIA TLIF Trial 15 x 34 x 12 mm, 15° lor. | |
| RI-T17341215 | ROCCIA TLIF Trial 17 x 34 x 12 mm, 15° lor. | |





| Article number | Description | Illustration | Page |
|----------------|---|---|------|
| RI-1006 | ROCCIA Chisel 6 mm Width |  | 6 |
| RI-1008 | ROCCIA Chisel 8 mm Width | | |
| RI-1010 | ROCCIA Chisel 10 mm Width | | |
| RI-1020 | ROCCIA Ring Endplate Scraper Straight |  | 8, 9 |
| RI-1021 | ROCCIA Ring Endplate Scraper Angled 25° |  | 8, 9 |
| RI-1022 | ROCCIA Ring Endplate Scraper Curved 45° |  | 8, 9 |
| RI-1030 | ROCCIA Box Endplate Scraper Straight |  | 9 |
| RI-1040 | ROCCIA Curette Straight |  | 8 |
| RI-1041 | ROCCIA Curette Curved Right 45° |  | 8 |
| RI-1042 | ROCCIA Curette Curved Left 45° |  | 8 |
| RI-1050 | ROCCIA Rasp Curved 45° |  | 9 |

ROCCIA® Instruments


| Article number | Description | Illustration | Page |
|----------------|---------------------|---|------|
| RI-1107 | ROCCIA Shaver 7 mm |  | 8, 9 |
| RI-1108 | ROCCIA Shaver 8 mm | | |
| RI-1109 | ROCCIA Shaver 9 mm | | |
| RI-1110 | ROCCIA Shaver 10 mm | | |
| RI-1111 | ROCCIA Shaver 11 mm | | |
| RI-1112 | ROCCIA Shaver 12 mm | | |
| RI-1113 | ROCCIA Shaver 13 mm | | |
| RI-1115 | ROCCIA Shaver 15 mm | | |
| RI-1117 | ROCCIA Shaver 17 mm | | |

| Article number | Description | Illustration | Page |
|----------------|--|---|----------------|
| RI-1207 | ROCCIA Paddle Sizer 7 mm |  | 10, 11 |
| RI-1208 | ROCCIA Paddle Sizer 8 mm | | |
| RI-1209 | ROCCIA Paddle Sizer 9 mm | | |
| RI-1210 | ROCCIA Paddle Sizer 10 mm | | |
| RI-1211 | ROCCIA Paddle Sizer 11 mm | | |
| RI-1212 | ROCCIA Paddle Sizer 12 mm | | |
| RI-1213 | ROCCIA Paddle Sizer 13 mm | | |
| RI-1215 | ROCCIA Paddle Sizer 15 mm | | |
| RI-1217 | ROCCIA Paddle Sizer 17 mm | | |
| RI-1324 | ROCCIA Inserter M4, dismantable |  | 11, 12, 14, 15 |
| RI-1330 | ROCCIA Removal Adapter |  | No image |
| RI-1340 | ROCCIA Implant Driver Straight |  | 18 |
| RI-1343 | ROCCIA Hooked Implant Driver, reinforced |  | 18 |
| RI-1355 | ROCCIA Slotted Mallet, solid |  | 15, 18, 19 |

ROCCIA® Instruments

| Article number | Description | Illustration | Page |
|----------------|---|---|------|
| RI-1406 | ROCCIA Chisel 6 mm width, reinforced |  | 6 |
| RI-1408 | ROCCIA Chisel 8 mm width, reinforced | | |
| RI-1410 | ROCCIA Chisel 10 mm width, reinforced | | |
| RI-1506 | ROCCIA Chisel 6 mm, angled 25° |  | 6 |
| RI-1508 | ROCCIA Chisel 8 mm, angled 25° | | |
| RI-1510 | ROCCIA Chisel 10 mm, angled 25° | | |
| RI-1706 | ROCCIA Chisel 6 mm, angled 25°, reinforced |  | 6 |
| RI-1708 | ROCCIA Chisel 8 mm, angled 25°, reinforced | | |
| RI-1710 | ROCCIA Chisel 10 mm, angled 25°, reinforced | | |
| RI-2090 | ROCCIA TLIF Loading Block |  | 14 |
| RI-2051 | ROCCIA Bone Graft Pusher |  | 14 |

General Instruments

| Article number | Description | Illustration | Page |
|----------------|-----------------|---|--------------|
| GI-2101 | T-Handle, short |  | 8, 9, 10, 11 |
| GI-3101 | T-Handle | | |

ROCCIA® Alphabetical Index

| A-Z | Description | Article number | Page | |
|-----|--------------------------------------|----------------|----------------|---|
| B | Bone Graft Pusher | RI-2051 | 14 | |
| | Box Endplate Scraper Straight | RI-1030 | 9 | |
| C | Chisel 6 mm width | RI-1006 | 6 | |
| | Chisel 8 mm width | RI-1008 | | |
| | Chisel 10 mm width | RI-1010 | | |
| | Chisel 6 mm width, reinforced | RI-1406 | | |
| | Chisel 8 mm width, reinforced | RI-1408 | | |
| | Chisel 10 mm width, reinforced | RI-1410 | | |
| | Chisel 6 mm width, angled 25° | RI-1506 | | |
| | Chisel 8 mm width, angled 25° | RI-1508 | | |
| | Chisel 10 mm width, angled 25° | RI-1510 | | |
| | Chisel 6 mm, angled 25°, reinforced | RI-1706 | | |
| | Chisel 8 mm, angled 25°, reinforced | RI-1708 | | |
| | Chisel 10 mm, angled 25°, reinforced | RI-1710 | | |
| | Curette, curved Left 45° | RI-1042 | | 8 |
| | Curette, curved Right 45° | RI-1041 | | |
| | Curette, straight | RI-1040 | | |
| H | Hooked Implant Driver, reinforced | RI-1343 | 18 | |
| I | Implant Driver Straight | RI-1340 | 18 | |
| | Insertor, M4, dismountable | RI-1324 | 11, 12, 14, 15 | |
| P | Paddle Sizer 7 mm | RI-1207 | 10, 11 | |
| | Paddle Sizer 8 mm | RI-1208 | | |
| | Paddle Sizer 9 mm | RI-1209 | | |
| | Paddle Sizer 10 mm | RI-1210 | | |
| | Paddle Sizer 11 mm | RI-1211 | | |
| | Paddle Sizer 12 mm | RI-1212 | | |
| | Paddle Sizer 13 mm | RI-1213 | | |
| | Paddle Sizer 15 mm | RI-1215 | | |
| | Paddle Sizer 17 mm | RI-1217 | | |
| R | Rasp, curved 45° | RI-1050 | 9 | |
| | Removal Adapter | RI-1330 | No image | |
| | Ring Endplate Scraper, curved 45° | RI-1022 | 8, 9 | |
| | Ring Endplate Scraper Straight | RI-1020 | | |
| | Ring Endplate Scraper, angled 25° | RI-1021 | | |
| S | Slotted Mallet, solid | RI-1355 | 15, 18, 19 | |
| | Shaver 7 mm | RI-1107 | 8, 9 | |
| | Shaver 8 mm | RI-1108 | | |
| | Shaver 9 mm | RI-1109 | | |
| | Shaver 10 mm | RI-1110 | | |

ROCCIA® Alphabetical Index

| A-Z | Description | Article number | Page |
|---------------------------------|---------------------------------|----------------|--------------|
| S | Shaver 11 mm | RI-1111 | 8, 9 |
| | Shaver 12 mm | RI-1112 | |
| | Shaver 13 mm | RI-1113 | |
| | Shaver 15 mm | RI-1115 | |
| | Shaver 17 mm | RI-1117 | |
| T | T-Handle, short | GI-2101 | 8, 9, 10, 11 |
| | T-Handle | GI-3101 | |
| | TLIF Loading Block | RI-2090 | 14 |
| | Trial 7 x 28 x 11 mm, 5° lor. | RI-T07281105 | 12 |
| | Trial 8 x 28 x 11 mm, 5° lor. | RI-T08281105 | |
| | Trial 9 x 28 x 11 mm, 5° lor. | RI-T09281105 | |
| | Trial 10 x 28 x 11 mm, 5° lor. | RI-T10281105 | |
| | Trial 11 x 28 x 11 mm, 5° lor. | RI-T11281105 | |
| | Trial 12 x 28 x 11 mm, 5° lor. | RI-T12281105 | |
| | Trial 13 x 28 x 11 mm, 5° lor. | RI-T13281105 | |
| | Trial 15 x 28 x 11 mm, 5° lor. | RI-T15281105 | |
| | Trial 17 x 28 x 11 mm, 5° lor. | RI-T17281105 | |
| | Trial 09 x 28 x 11 mm, 15° lor. | RI-T09281115 | |
| | Trial 10 x 28 x 11 mm, 15° lor. | RI-T10281115 | |
| | Trial 11 x 28 x 11 mm, 15° lor. | RI-T11281115 | |
| | Trial 12 x 28 x 11 mm, 15° lor. | RI-T12281115 | |
| | Trial 13 x 28 x 11 mm, 15° lor. | RI-T13281115 | |
| | Trial 15 x 28 x 11 mm, 15° lor. | RI-T15281115 | |
| | Trial 17 x 28 x 11 mm, 15° lor. | RI-T17281115 | |
| | Trial 7 x 34 x 12 mm, 5° lor. | RI-T07341205 | |
| | Trial 8 x 34 x 12 mm, 5° lor. | RI-T08341205 | |
| | Trial 9 x 34 x 12 mm, 5° lor. | RI-T09341205 | |
| | Trial 10 x 34 x 12 mm, 5° lor. | RI-T10341205 | |
| | Trial 11 x 34 x 12 mm, 5° lor. | RI-T11341205 | |
| | Trial 12 x 34 x 12 mm, 5° lor. | RI-T12341205 | |
| | Trial 13 x 34 x 12 mm, 5° lor. | RI-T13341205 | |
| | Trial 15 x 34 x 12 mm, 5° lor. | RI-T15341205 | |
| | Trial 17 x 34 x 12 mm, 5° lor. | RI-T17341205 | |
| | Trial 09 x 34 x 12 mm, 15° lor. | RI-T09341215 | |
| | Trial 10 x 34 x 12 mm, 15° lor. | RI-T10341215 | |
| | Trial 11 x 34 x 12 mm, 15° lor. | RI-T11341215 | |
| | Trial 12 x 34 x 12 mm, 15° lor. | RI-T12341215 | |
| | Trial 13 x 34 x 12 mm, 15° lor. | RI-T13341215 | |
| | Trial 15 x 34 x 12 mm, 15° lor. | RI-T15341215 | |
| Trial 17 x 34 x 12 mm, 15° lor. | RI-T17341215 | | |



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