MectaLIF OBLIQUE & POSTERIOR

INTERVERTEBRAL BODY FUSION DEVICE

Surgical Technique

Hip | Knee | Spine | Navigation

Medacta International

ACKNOWLEDGEMENTS

Medacta International would like to express its gratitude to

JOSHUA D. AUERBACH, MD
Bronx-Lebanon Hospital Center
affiliated with Albert Einstein College of Medicine
New York, USA

ZSOLT FEKETE, MD
Neuro und Wirbelsäulenzentrum Zentralschweiz,
Hirslanden Klinik St. Anna,
Luzern, Switzerland

CHRISTOPH-E. HEYDE, MD
Professor of University Medical Center
Leipzig, Germany

DEZSÖ JESZENSZKY, MD
Schulthess Klinik
Zürich, Switzerland

RICHARD E. MANOS, MD
Spine Institute of Idaho
Meridian, USA

HUGH McPHERSON, MD
PEAK Orthopedics & Spine
Lone Tree, USA

for their valuable contributions in the development of the MectaLIF implants, instruments and the surgical technique.

CONTENTS

1 INTRODUCTION

The anatomical design of our MectaLIF Intervertebral Body Fusion Device matches the given biological conditions in each patient and pathology and meets the requirements of the treating surgeon.

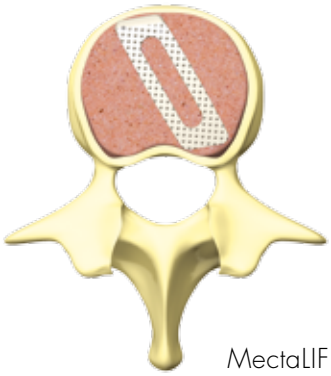
The PLIF procedure, popularized in the 1950's and 1960's by Cloward, who inserted iliac crest bone into the intervertebral disc space, lost popularity because of the complication rate and technical difficulties. In the 1980's spacers made of titanium or carbon fiber reinforced PEEK were designed to overcome these challenges. However, bone from the iliac crest can be adjusted to the patient's anatomy, compared to metal spacers which are available in a predetermined design.
These thoughts led us to the development of our MectaLIF Posterior and MectaLIF Oblique Intervertebral Body Fusion Device, whose anatomical design features offer distinctive benefits.

- Uniform, easy instrumentation for unilateral transforaminal/oblique approach (TLIF) or a bilateral posterior approach (PLIF)
- Biconvex superior/inferior surface that closely match the native anatomy

MectaLIF Posterior

MectaLIF Oblique

- Different footprints (three) and heights (nine) are offered to address individual patient anatomy
- The footprint as well as the outer counter is anatomically shaped to facilitate optimal load transfer and maximize the implant-endplate contact surface
- Large central as well as lateral window to receive filling material (bone graft or substitute) to accelerate the occurrence of fusion through the implant
- Pyramid shaped teeth to enhance both the implant stability and the resistance to implant migration
- Shapes ranging from parallel to lordotic to restore natural sagittal alignment
- Self-distracting bullet nose tip for simplicity of insertion
- Available in two versions: PEEK, TiPEEK
- PEEK is radiolucent and optimizes the load transfer between the cage and the adjacent vertebral bodies and reduces the effects of stress shielding on the graft material.
- TiPEEK, is a titanium coated PEEK cage that combines the features from PEEK with the osteo-conductive features of titanium.

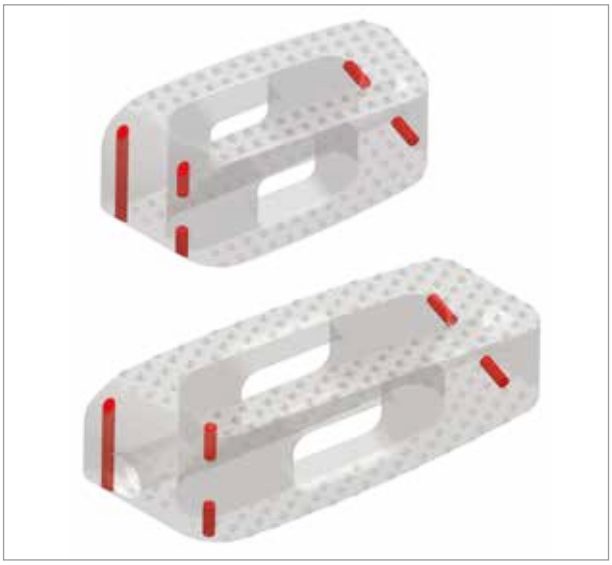


MectaLIF Oblique

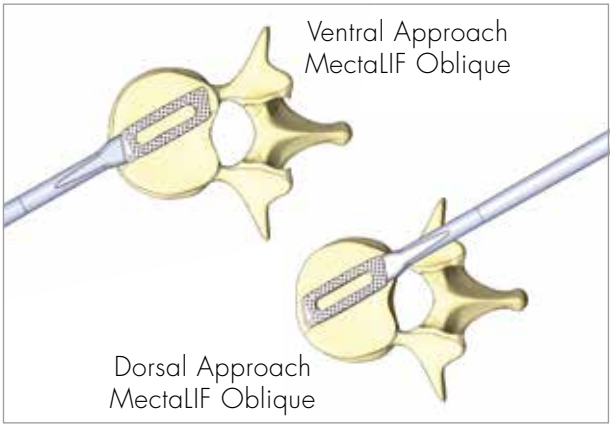
MectaLIF Posterior

1.1 Materials & Markers

- Biocompatible radiolucent PEEK with a favorable modulus of elasticity allows a clear assessment of bony fusion
- Posterior and anterior marker pins (Tantalum or Titanium) allow a easy and clear visualization.



Ventral/Dorsal Approach MectaLIF Oblique



2 INDICATIONS

The MectaLIF Posterior and the Oblique Intervertebral Fusion Device in combination with supplemental pedicle screw fixation are indicated for use with autogenous bone graft in patients with degenerative disc disease (DDD) at one or two contiguous spinal levels from L2 – S1 whose condition requires the use of interbody fusion. These patients may have had a previous non-fusion spinal surgery at the involved spinal level(s).

The MectaLIF Posterior Intervertebral Body Fusion Device is inserted bilaterally in pairs via posterior lumbar interbody fusion approach.
The MectaLIF Oblique Intervertebral Body Fusion Device is inserted unilaterally via transforaminal lumbar interbody fusion approach in either open or minimal invasive technique.

3 CONTRAINDICATIONS

The MectaLIF Posterior, MectaLIF Oblique Intervertebral Body Fusion Device System in combination with a pedicle screw system should not be implanted in patients with active systemic infection or infection localized to the site of implantation.

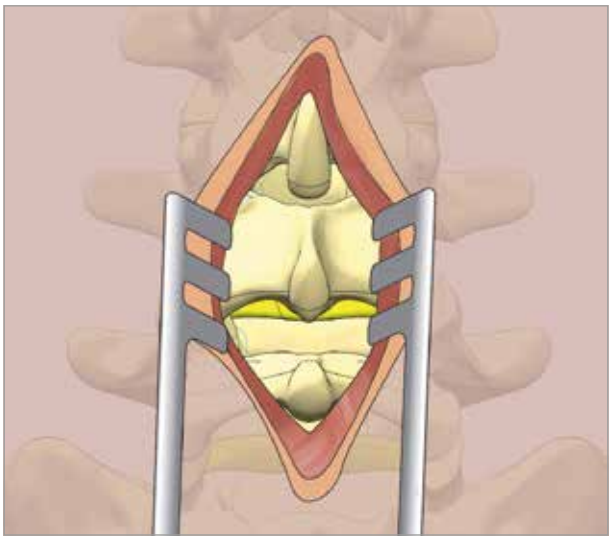
4 PRE-OPERATIVE PLANNING

Prior to any surgical implantation of the device, it is ciritical to evaluate the patient's pre-operative MRI and/or CT scan to template and determine the most appropriate size and type of implant to be used so as to match the patient's anatomy.

5 SURGICAL TECHNIQUE POSTERIOR - PLIF

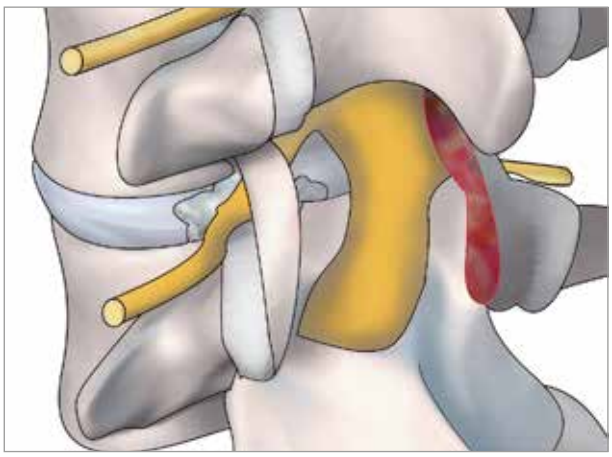
5.1 Exposure and Preparation - PLIF

Start the skin incision and dissection laterally from the midline. Locate the spinous process and the lamina of the corresponding level(s).



CAUTION

Perform a laminotomy sufficiently large enough for the PLIF preparation. Ensure that the neural structures are protected throughout the entire disc space exposure.



A conventional discectomy is performed by incising the annulus lateral to the dural sac.
Use the curette to remove the disc through the incision window leaving only the anterior and lateral annulus intact.

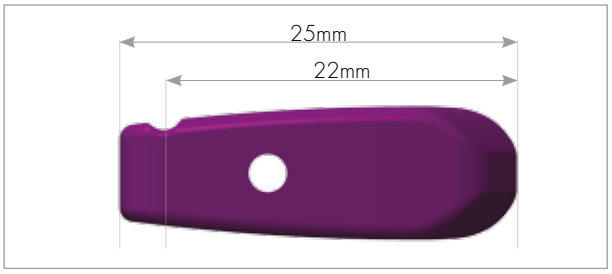
This is done bilaterally, cosecutively the disc fragments from the intradiscal space are removed with disc rongeurs in standard fashion. The importance of this is to remove extruded fragments, to adequately decompress the neural elements, and to provide entry to the disc space for distraction with minimal or no nerve root retraction. If there is significant disc space collapse, a complete discectomy may not be possible until disc space distraction is accomplished. It is also important to remove osteophytes and posterior lips of the adjacent vertebral body with an osteotome.

The disc space is sequentially distracted until original disc space height is obtained and normal foraminal heights are restored. It is critical to ensure that the segment is not overdistracted.

Depending on the pathology and the surgeon's preference there are two other methods to achieve disc space distraction: either via pedicle screws or using a lamina spreader.

Remaining soft tissue or cartilaginous endplate are removed with vigorous scraping or curettage, which is essential for good vascularization of the bone graft. Excessive endplate preparation, however, can weaken the endplates and predispose to fracture or device subsidence. It is therefore of paramount importance to remove only the cartilaginous portion of the endplates, and to maintain the integrity of the underlying bony endplate which provides compressive resistance.

5.2 Trial Insertion - PLIF



The length of the Trial Implants are 25 mm.
The notch on the top of the trial indicates 22 mm which is equivalent to the shorter version of the cage.

Select the size of the Trial Implant as determined during preoperative planning and confirmed by intraoperative fluroscopy and attach it to the Posterior Handle / Inner Rod assembly.

WARNING

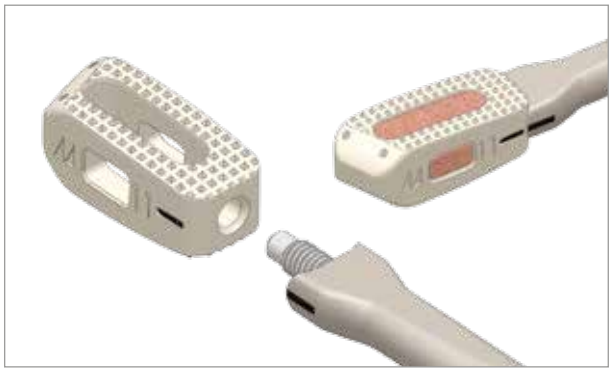
Markers on the Trial Implant, instrument, as well as the implant are aligned to confirm proper engagement of the trial/implant with the instrument.

The Inserter to be used is marked "MectaLIF Posterior" on the shaft. The mark "LATERAL" indicates the proper alignment of the instrument in respect to the patient. Insert the Trial Implant into the disc space by light impaction and confirm proper position, depth, and size with intraoperative fluoroscopy and tactile feel. If the Trial Implant is too loose or too tight, try the next larger/smaller size until a secure fit is achieved. Using the largest possible implant improves stability by creating tension on the ligaments and the annulus fibrosus.

Remove the Trial Implant assembly and select the matching implant. If necessary, the Slap Hammer / Slotted Hammer is available to assist in safe removal of the Trial Implant.

5.3 Implant Placement - PLIF

Prepare autologous bone graft and / or synthetic bone graft substitute like MectaGel or MectaBone-G mixed with autologous bone graft and / or freshly aspirated bone marrow; place it at the anterior rim of the vertebral body and impact it gently before inserting the implant. Different Bone Graft Impactors as well as a Bone Tamp is included in the instrument set. Gently pack bone graft and /or synthetic bone graft substitute into the opening of the cage using the Filler Block and Bone Tamp.



Attach the implant perpendicular to the Inner Rod / Posterior Handle assembly by screwing the thread of the Inner Rod into the threaded hole and secure it firmly. The cylindrical tip of the Inner Rod simplifies the fixation of the implant.

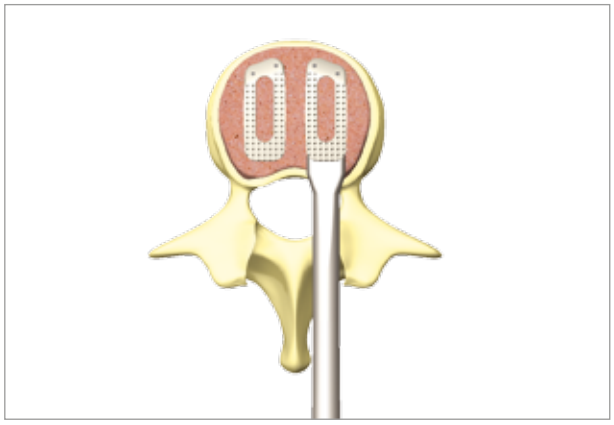
NOTICE: ensure that the orientation of the implant is correct (see marker line on the implant which should line up with the corresponding line on the instrument).

Insert the implant straight into the intervertebral disc space by gentle impaction.

CAUTION

Protect the nerve roots and thecal sac with a suitable instrument.

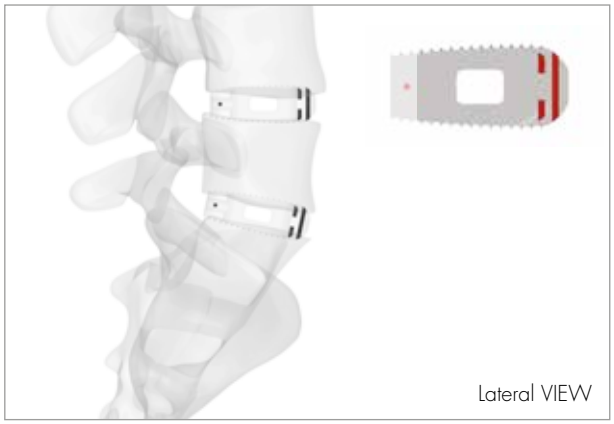
Check the position of the implant with the image intensifier. Remove the instrument if the implant position is to your satisfaction. Insert the second implant on the contralateral side as described before. If necessary tap lightly the implant into position with the Cage Impactor and the Slap Hammer / Slotted Hammer.



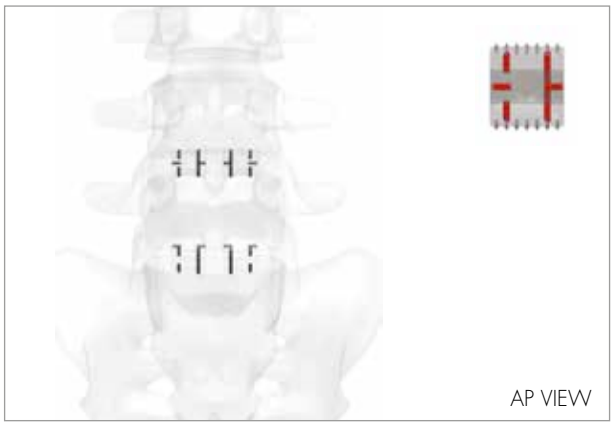
5.4 Radiographic Positioning - PLIF

Check the position of the implant with the image intensifier.

Correct Lateral View. The implant should appear as in figure below.



Correct AP View. The implant should appear as in figure below.

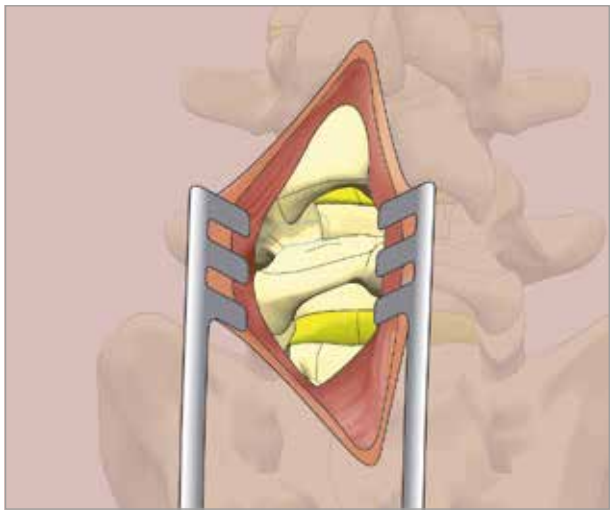


Remove the instrument if the implant is in satisfactory position. Be careful to ensure proper alignment of the implants.

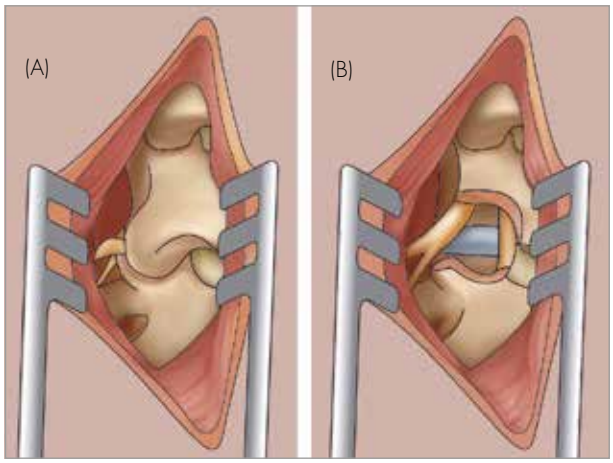
6 SURGICAL TECHNIQUE OBLIQUE - OLIF

6.1 Exposure and Preparation - OLIF

The OLIF technique can be performed either in open or mini-open approach.



Start the skin incision and dissect laterally from the midline. Locate the spinous process and the lamina of the corresponding layer(s) (A).
Prepare a window for the oblique approach, using an osteotome or drill, to remove the inferior facet of the cranial vertebra and the superior facet of the caudal vertebra (B). Ensure that the neural structures are spared as much as possible. Additional bone removal may be carried out using a Kerrison rongeur or drill.



Divide the ligamentum flavum from the inferior portion of the lamina. Expose the nerve root and dural tube from soft tissue, probe with ball point instrument. Gently retract the nerve root and dural tube. Then create the annular window with an annulus knife.

To assist distraction during disc space preparation, pedicle screws and rod can be inserted on the contralateral side.

Use the curette to remove the disc through the incision window. The annulus must be preserved to provide additional support. A combination of shavers, pituitary rongeurs, and curettes designed for intervertebral discs can facilitate removal of the nucleus pulposus and the surface layers of the cartilaginous endplates.

The critical steps include adequate removal of extruded disc fragments, adequate decompression of the traversing and exiting nerve roots, and to provide entry to the disc space for distraction with minimal or no nerve root retraction. If there is significant disc space collapse, a complete discectomy may not be possible until disc space distraction is accomplished.

WARNING

Be sure to remove osteophytes and posterior lips of the adjacent vertebral body with an osteotome so as to avoid neural impingement or graft malalignment.

The disc space is sequentially distracted until adequate disc space height is obtained and normal foraminal heights are restored. Insert the shavers with the curved sides touching the endplates. Insert shavers sequentally until the desired height is obtained.

WARNING

It is critical to ensure that the segment is not overdistracted.

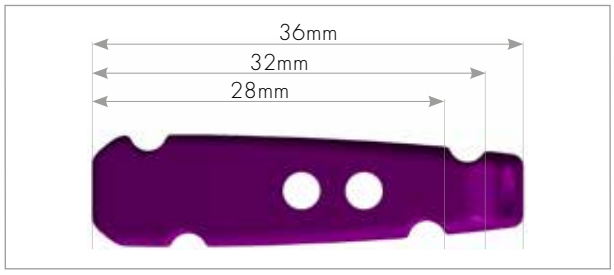
Depending on the pathology and the surgeon's preference there are two other methods to achieve disc space distraction: either via pedicle screws or using a lamina spreader.

Remaining soft tissue or cartilaginous endplate are removed with vigorous scraping or curettage, which is essential for good vascularization of the bone graft.

WARNING

Excessive endplate preparation, however, can weaken the endplates and predispose to fracture or device subsidence. It is therefore of paramount importance to remove only the cartilaginous portion of the endplates, and to maintain the integrity of the underlying bony endplate which provides compressive resistance.

6.2 Trial Insertion - OLIF



The Trials as well as the implants have A (Anterior) and P (Posterior)markings to facilitate proper orientation. The lenghts of the Trials are 36 mm and the two pair of notches on the Trial indicates 32mm and 28mm, respectively. Each pair of notches are on both side to allow ventral or dorsal access.

The mark "MEDIAL" indicates the proper alignment of the instrument in respect to the patient. Visualization of the two holes in the Trial indicate on a true lateral x-ray that the Trial is in the correct position, i.e. 30° in the sagittal plane. The medial mark on the instrument indicates correct alignment.

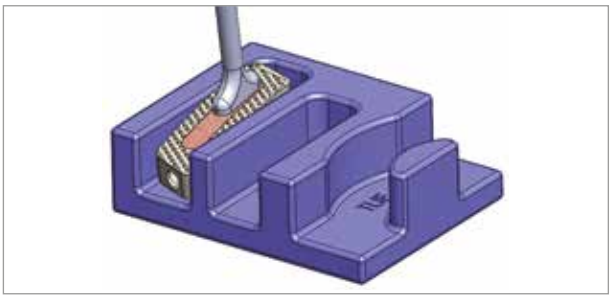
Select the size of the Trial Implant as determined during preoperative templating and confirmed intraoperatively by fluoroscopy and attach it to the inserter assembly. Insert the Trial Implant into the disc space by light impaction and confirm the proper position with the aid of anterior-posterior and lateral fluoroscopy.
If the Trial Implant is too loose or too tight, try the next larger/smaller size until a secure fit is achieved. Using the largest possible implant improves stability by creating tension on the ligaments and the annulus fibrosus.

Remove the Trial Implant and select the matching implant. If necessary the Slap Hammer/Slotted Hammer is available to assist in safe removal of the Trial Implant.

6.3 Implant Placement - OLIF

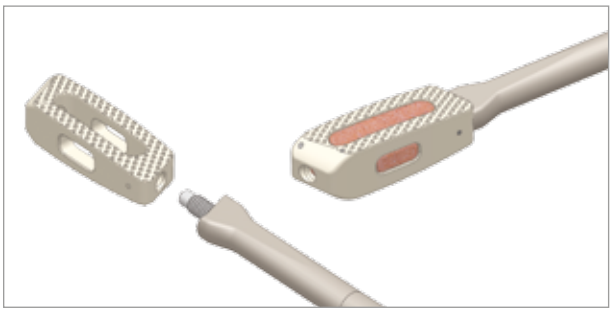
Prepare autologous bone graft and/or synthetic bone graft substitute like MectaGel or MectaBone-G mixed with autologous bone graft and/or freshly aspirated bone marrow; place it anteriorly and contralaterally before inserting the implant.

Gently pack bone graft and/or synthetic bone graft substitute into the opening of the selected cage using the filler block and bone tamp.



Different shapes of bone graft impactors are available in the set.

Attach the cage perpendicular to the Oblique Handle /Inner Rod assembly by screwing the thread of the Inner Rod into the threaded hole and secure it firmly. Ensure that the orientation of the implant is correct (see illustration). The cylindrical guiding tip on the Inserter simplifies the engaging of the instrument.



Insert the implant into the intervertebral disc space by gentle impaction.

NOTICE: check the orientation of the medial marking on the Oblique Handle to confirm the correct positioning of the cage.

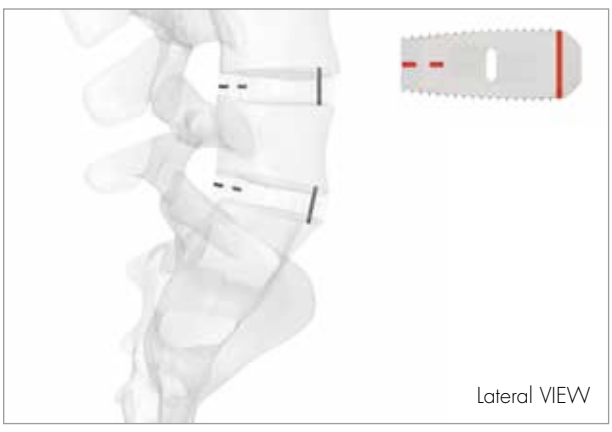
CAUTION

Protect the nerve root with a suitable instrument.

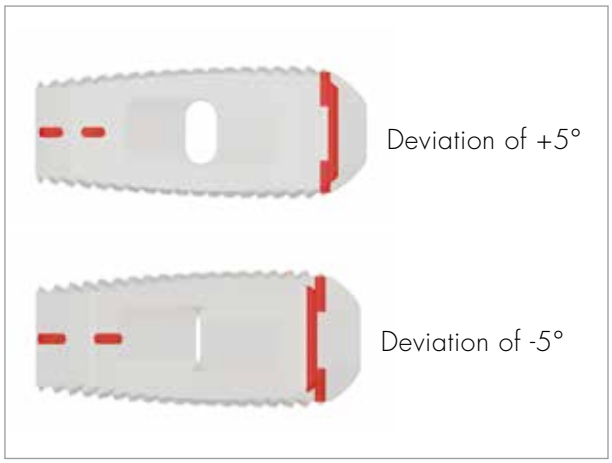
If necessary tap lightly the implant into position with the Oblique Implant Impactor into position with the Cage Impactor and the Slotted Hammer / Slap Hammer.

6.4 Radiographic Positioning - OLIF

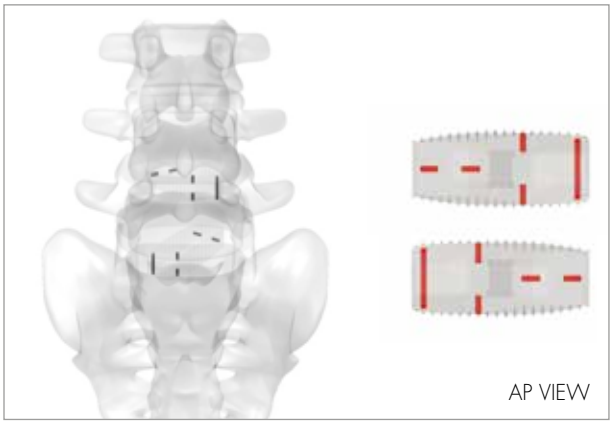
Check the position of the implant with the image intensifier.
Correct Lateral view. The implant should appear as in the image below.



The broken line marker indicates the deviation of the implant position (see below).



Correct AP view. The implant should appear as in the image below.



Remove the instrument if the implant is in satisfactory position.

To achieve satisfactory immobilization of the grafted interbody space compression on the additional posterior fixation with a pedicle screw system is recommended.

7 REMOVAL OF AN INCORRECTLY PLACED IMPLANT

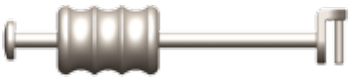
Attach the Implant Remover or the Oblique Handle/Inner rod assembly perpendicular to the implant and remove the implant from its site. If necessary, the Slap Hammer / Slotted Hammer are available to assist in safe removal of the implant.

For any further information related to the MectaLIF Intervertebral Body Fusion Devices please refer to the package insert.

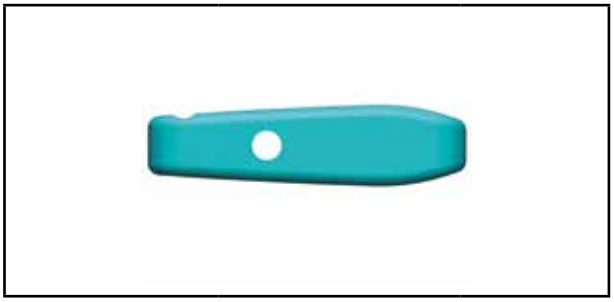
The MectaLIF Posterior and the MectaLIF Oblique implants are supplied sterile in single-use packages; they should never be re-used.

8 INSTRUMENTATION NOMENCLATURE

General Instrumentation Set

Ref.	Description	
03.22.10.0013	Bone Filler Block	
03.22.10.0014 03.22.10.0271	Slotted Hammer	
03.22.10.0017 03.22.10.0263	Posterior Implant Impactor	
03.22.10.0018 03.22.10.0264	Oblique Implant Impactor	
03.22.10.0019 03.22.10.0266	Bone Graft Impactor - Straight	
03.22.10.0020 03.22.10.0267	Bone Graft Impactor - Curved	
03.22.10.0021 03.22.10.0268	Bone Graft Impactor - Angled	
03.22.10.0022 03.22.10.0269	Bone Graft Impactor - Flat	
03.22.10.0050	Implant Remover	
03.22.10.0055	Posterior/Oblique Inner Rod	
03.22.10.0056 03.22.10.0261	Posterior Handle	
03.22.10.0057 03.22.10.0262	Oblique Handle	
03.22.10.0054	Trial Caddy Primary - Addendum	
03.22.10.0029	Implant Tray - 5 Levels	
03.22.10.0300	Posterior Cage System Instrument Tray	
03.22.10.0051	Trial Caddy - Addendum	
03.22.10.0100	Slap Hammer	

MectaLIF Posterior Trial



Ref.	Size(mm) - Lordosis(°)	Color
03.22.10.0175*	25x7 - 0°	Light Blue
03.22.10.0176*	25x8 - 0°	Dark Brown
03.22.10.0177*	25x9 - 0°	Violet
03.22.10.0178*	25x10 - 0°	Silver
03.22.10.0179*	25x11 - 0°	Gold
03.22.10.0180*	25x12 - 0°	Orange
03.22.10.0181*	25x13 - 0°	Dark Blue
03.22.10.0182*	25x14 - 0°	Pink
03.22.10.0183*	25x15 - 0°	Dark Green
03.22.10.0184	25x7 - 5°	Light Blue
03.22.10.0185	25x8 - 5°	Dark Brown
03.22.10.0186	25x9 - 5°	Violet
03.22.10.0187	25x10 - 5°	Silver
03.22.10.0188	25x11 - 5°	Gold
03.22.10.0189	25x12 - 5°	Orange
03.22.10.0190	25x13 - 5°	Dark Blue
03.22.10.0191	25x14 - 5°	Pink
03.22.10.0192	25x15 - 5°	Dark Green
03.22.10.0193	25x9 - 10°	Violet
03.22.10.0194	25x10 - 10°	Silver
03.22.10.0195	25x11 - 10°	Gold
03.22.10.0196	25x12 - 10°	Orange
03.22.10.0197	25x13 - 10°	Dark Blue
03.22.10.0198	25x14 - 10°	Pink
03.22.10.0199	25x15 - 10°	Dark Green

MectaLIF Oblique Trial

Ref.	Size(mm) - Lordosis(°)	Color
03.22.10.0241	36x7 - 0°	Light Blue
03.22.10.0242	36x8 - 0°	Dark Brown
03.22.10.0243*	36x9 - 0°	Violet
03.22.10.0244*	36x10 - 0°	Silver
03.22.10.0245*	36x11 - 0°	Gold
03.22.10.0246*	36x12 - 0°	Orange
03.22.10.0247*	36x13 - 0°	Dark Blue
03.22.10.0248*	36x14 - 0°	Pink
03.22.10.0249*	36x15 - 0°	Dark Green
03.22.10.0250	36x9 - 5°	Violet
03.22.10.0251	36x10 - 5°	Silver
03.22.10.0252	36x11 - 5°	Gold
03.22.10.0253	36x12 - 5°	Orange
03.22.10.0254	36x13 - 5°	Dark Blue
03.22.10.0255	36x14 - 5°	Pink
03.22.10.0256	36x15 - 5°	Dark Green
03.22.10.0257	36x12 - 10°	Orange
03.22.10.0258	36x13 - 10°	Dark Blue
03.22.10.0259	36x14 - 10°	Pink
03.22.10.0260	36x15 - 10°	Dark Green
03.22.10.0216*	28x11 - 10°	Gold

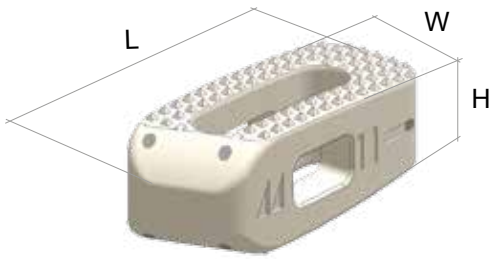
* Special order / request / special forecast

Instrument Set

Ref.	Description	
03.22S.001	Instrument set	MectaLIF Posterior & Oblique
03.22S.002	Instrument set	MectaLIF Posterior
03.22S.003	Instrument set	MectaLIF Oblique
03.22S.005	Instrument set	MectaLIF Transforaminal & Oblique
03.22S.007	Instrument set	MectaLIF Transforaminal, Posterior & Oblique

9 IMPLANTS NOMENCLATURE

MectaLIF Posterior PEEK

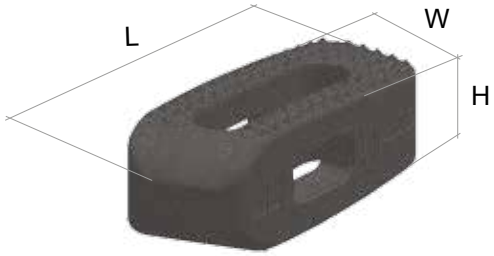


Ref.	Size(mm) - [WxLxH]	Lordosis
03.21.001*	11x22x7	0°
03.21.029*	11x22x8	0°
03.21.002*	11x22x9	0°
03.21.030*	11x22x10	0°
03.21.003*	11x22x11	0°
03.21.031*	11x22x12	0°
03.21.004*	11x22x13	0°
03.21.032*	11x22x14	0°
03.21.005*	11x22x15	0°
03.21.006	11x22x7	5°
03.21.033	11x22x8	5°
03.21.007	11x22x9	5°
03.21.034	11x22x10	5°
03.21.008	11x22x11	5°
03.21.035	11x22x12	5°
03.21.009	11x22x13	5°
03.21.036	11x22x14	5°
03.21.010	11x22x15	5°
03.21.011	11x22x9	10°
03.21.037	11x22x10	10°
03.21.012	11x22x11	10°
03.21.038	11x22x12	10°
03.21.013	11x22x13	10°
03.21.039	11x22x14	10°
03.21.014	11x22x15	10°

Ref.	Size(mm) - [WxLxH]	Lordosis
03.21.015*	11x25x7	0°
03.21.040*	11x25x8	0°
03.21.016*	11x25x9	0°
03.21.041*	11x25x10	0°
03.21.042*	11x25x12	0°
03.21.017*	11x25x11	0°
03.21.018*	11x25x13	0°
03.21.043*	11x25x14	0°
03.21.019*	11x25x15	0°
03.21.020	11x25x7	5°
03.21.044	11x25x8	5°
03.21.021	11x25x9	5°
03.21.045	11x25x10	5°
03.21.022	11x25x11	5°
03.21.046	11x25x12	5°
03.21.023	11x25x13	5°
03.21.047	11x25x14	5°
03.21.024	11x25x15	5°
03.21.025	11x25x9	10°
03.21.048	11x25x10	10°
03.21.026	11x25x11	10°
03.21.049	11x25x12	10°
03.21.027	11x25x13	10°
03.21.050	11x25x14	10°
03.21.028	11x25x15	10°

* Special order / request / special forecast

MectaLIF Posterior TiPEEK

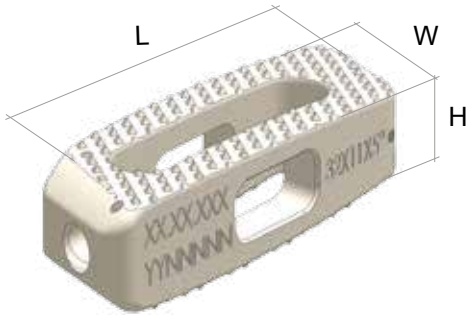


Ref.	Size(mm) - [WxLxH]	Lordosis
03.27.001*	11x22x7	0°
03.27.029*	11x22x8	0°
03.27.002*	11x22x9	0°
03.27.030*	11x22x10	0°
03.27.003*	11x22x11	0°
03.27.031*	11x22x12	0°
03.27.004*	11x22x13	0°
03.27.032*	11x22x14	0°
03.27.005*	11x22x15	0°
03.27.006	11x22x7	5°
03.27.033	11x22x8	5°
03.27.007	11x22x9	5°
03.27.034	11x22x10	5°
03.27.008	11x22x11	5°
03.27.035	11x22x12	5°
03.27.009	11x22x13	5°
03.27.036	11x22x14	5°
03.27.010	11x22x15	5°
03.27.011	11x22x9	10°
03.27.037	11x22x10	10°
03.27.012	11x22x11	10°
03.27.038	11x22x12	10°
03.27.013	11x22x13	10°
03.27.039	11x22x14	10°
03.27.014	11x22x15	10°

Ref.	Size(mm) - [WxLxH]	Lordosis
03.27.015*	11x25x7	0°
03.27.040*	11x25x8	0°
03.27.016*	11x25x9	0°
03.27.041*	11x25x10	0°
03.27.042*	11x25x12	0°
03.27.017*	11x25x11	0°
03.27.018*	11x25x13	0°
03.27.043*	11x25x14	0°
03.27.019*	11x25x15	0°
03.27.020	11x25x7	5°
03.27.044	11x25x8	5°
03.27.021	11x25x9	5°
03.27.045	11x25x10	5°
03.27.022	11x25x11	5°
03.27.046	11x25x12	5°
03.27.023	11x25x13	5°
03.27.047	11x25x14	5°
03.27.024	11x25x15	5°
03.27.025	11x25x9	10°
03.27.048	11x25x10	10°
03.27.026	11x25x11	10°
03.27.049	11x25x12	10°
03.27.027	11x25x13	10°
03.27.050	11x25x14	10°
03.27.028	11x25x15	10°

* Special order / request / special forecast

MectaLIF Oblique PEEK

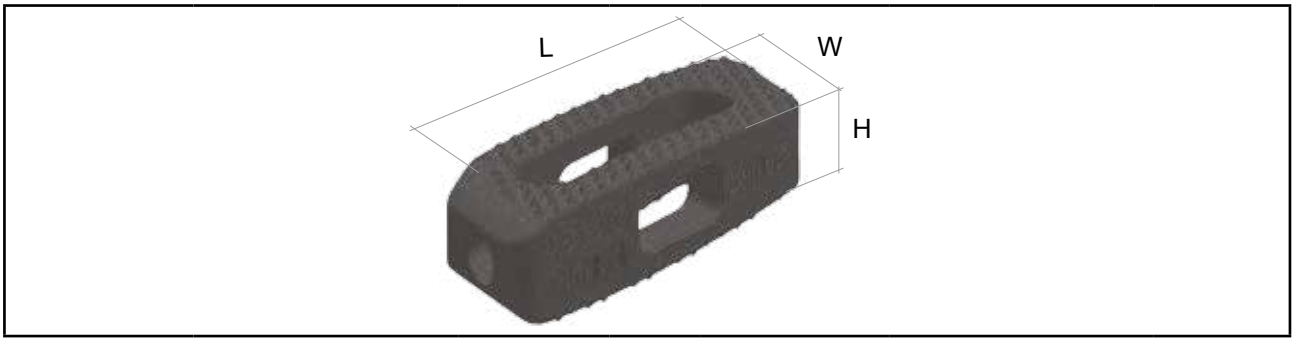


Ref.	Size(mm) - [WxLxH]	Lordosis
03.20.034	12x28x7	0°
03.20.035	12x28x8	0°
03.20.036*	12x28x9	0°
03.20.037*	12x28x10	0°
03.20.038*	12x28x11	0°
03.20.039*	12x28x12	0°
03.20.040*	12x28x13	0°
03.20.041*	12x28x14	0°
03.20.042*	12x28x15	0°
03.20.044	12x28x9	5°
03.20.045	12x28x10	5°
03.20.046	12x28x11	5°
03.20.047	12x28x12	5°
03.20.048	12x28x13	5°
03.20.049	12x28x14	5°
03.20.050	12x28x15	5°
03.20.051	12x28x11	10°
03.20.052	12x28x12	10°
03.20.053	12x28x13	10°
03.20.054	12x28x14	10°
03.20.055	12x28x15	10°
03.20.001	12x32x7	0°
03.20.078	12x32x8	0°
03.20.002*	12x32x9	0°
03.20.079*	12x32x10	0°
03.20.003*	12x32x11	0°
03.20.080*	12x32x12	0°
03.20.004*	12x32x13	0°
03.20.081*	12x32x14	0°
03.20.005*	12x32x15	0°

Ref.	Size(mm) - [WxLxH]	Lordosis
03.20.006	12x32x9	5°
03.20.082	12x32x10	5°
03.20.007	12x32x11	5°
03.20.083	12x32x12	5°
03.20.008	12x32x13	5°
03.20.084	12x32x14	5°
03.20.009	12x32x15	5°
03.20.085	12x32x12	10°
03.20.010	12x32x13	10°
03.20.086	12x32x14	10°
03.20.011	12x32x15	10°
03.20.012	12x36x7	0°
03.20.107	12x36x8	0°
03.20.013*	12x36x9	0°
03.20.108*	12x36x10	0°
03.20.014*	12x36x11	0°
03.20.109*	12x36x12	0°
03.20.015*	12x36x13	0°
03.20.110*	12x36x14	0°
03.20.016*	12x36x15	0°
03.20.017	12x36x9	5°
03.20.111	12x36x10	5°
03.20.018	12x36x11	5°
03.20.112	12x36x12	5°
03.20.019	12x36x13	5°
03.20.113	12x36x14	5°
03.20.020	12x36x15	5°
03.20.114	12x36x12	10°
03.20.021	12x36x13	10°
03.20.115	12x36x14	10°
03.20.022	12x36x15	10°

* Special order / request / special forecast

MectaLIF Oblique TiPEEK



Ref.	Size(mm) - [WxLxH]	Lordosis
03.26.034	12x28x7	0°
03.26.035	12x28x8	0°
03.26.036*	12x28x9	0°
03.26.037*	12x28x10	0°
03.26.038*	12x28x11	0°
03.26.039*	12x28x12	0°
03.26.040*	12x28x13	0°
03.26.041*	12x28x14	0°
03.26.042*	12x28x15	0°
03.26.044	12x28x9	5°
03.26.045	12x28x10	5°
03.26.046	12x28x11	5°
03.26.047	12x28x12	5°
03.26.048	12x28x13	5°
03.26.049	12x28x14	5°
03.26.050	12x28x15	5°
03.26.051	12x28x11	10°
03.26.052	12x28x12	10°
03.26.053	12x28x13	10°
03.26.054	12x28x14	10°
03.26.055	12x28x15	10°
03.26.001	12x32x7	0°
03.26.078	12x32x8	0°
03.26.002*	12x32x9	0°
03.26.079*	12x32x10	0°
03.26.003*	12x32x11	0°
03.26.080*	12x32x12	0°
03.26.004*	12x32x13	0°
03.26.081*	12x32x14	0°
03.26.005*	12x32x15	0°

Ref.	Size(mm) - [WxLxH]	Lordosis
03.26.006	12x32x9	5°
03.26.082	12x32x10	5°
03.26.007	12x32x11	5°
03.26.083	12x32x12	5°
03.26.008	12x32x13	5°
03.26.084	12x32x14	5°
03.26.009	12x32x15	5°
03.26.085	12x32x12	10°
03.26.010	12x32x13	10°
03.26.086	12x32x14	10°
03.26.011	12x32x15	10°
03.26.012	12x36x7	0°
03.26.107	12x36x8	0°
03.26.013*	12x36x9	0°
03.26.108*	12x36x10	0°
03.26.014*	12x36x11	0°
03.26.109*	12x36x12	0°
03.26.015*	12x36x13	0°
03.26.110*	12x36x14	0°
03.26.016*	12x36x15	0°
03.26.017	12x36x9	5°
03.26.111	12x36x10	5°
03.26.018	12x36x11	5°
03.26.112	12x36x12	5°
03.26.019	12x36x13	5°
03.26.113	12x36x14	5°
03.26.020	12x36x15	5°
03.26.114	12x36x12	10°
03.26.021	12x36x13	10°
03.26.115	12x36x14	10°
03.26.022	12x36x15	10°

* Special order / request / special forecast

10 RECOMMENDED FIXATION OPTIONS

Supplemental internal fixation e.g. pedicle screw fixation must be applied.

11 SYNTHETIC BONE GRAFT EXTENDERS

MectaGel is a fully synthetic resorbable bone graft substitute consisting of nanocrystalline Hydroxyapatite. It is delivered as a gel ready to be used in a syringe; MectaGel can be applied either through a cannula in minimally-invasive approaches or can be placed directly into the surgical site where fusion is desired. It is preferably mixed with autograft or bone marrow.

MectaBone-G is a fully synthetic resorbable bone graft substitute consisting of biphasic ß-tricalcium phosphate. It is delivered as granules which are preferably mixed with either autograft or freshly aspirated bone marrow and can be placed directly into an Intervertebral Body Fusion Device or onto the surgical site where fusion is desired.

The use of synthetic bone substitutes in spinal fusion surgery represents a valuable alternative and/or addition to autograft, especially when large amounts of bone graft are required and when autologous bone graft supply is limited.

Ref.	Product	Size
03.01.001	MectaGel	1ml in Syringe
03.01.002	MectaGel	2,5ml in Syringe
03.01.003	MectaGel	5ml in Syringe
03.02.001	MectaBone-G	5cc
03.02.002	MectaBone-G	10cc

NOTES

Part numbers subject to change.

NOTE FOR STERILISATION

Note for sterilisation: the instrumentation is not sterile upon delivery. It must be cleaned before use and sterilised in an autoclave respecting the regulations of the country, EU directives where applicable and following the instructions for use of the autoclave manufacturer.
For detailed instructions please refer to the document "Recommendations for cleaning decontamination and sterilisation of Medacta International orthopedic devices" available at www.medacta.com.

All trademarks and registered trademarks are the property of their respective owners.

Medacta International

HEADQUARTERS

Medacta International SA
Strada Regina - 6874 Castel San Pietro
Switzerland
Phone +41 91 696 60 60
Fax +41 91 696 60 66
info@medacta.ch

REPRESENTATIVE

Switzerland - Frauenfeld
Gewerbestrasse 3 - 8500 Frauenfeld
Phone +41 (0) 848 423 423
Fax +41 (0) 848 423 424
info@medacta-swiss.ch

SUBSIDIARIES

Australia **Medacta Australia PTY.LTD** - Unit F37, 16 Mars Road - Lane Cove Business Park - NSW
Phone +61 (2) 94202944 - Fax +61 (2) 94202578 - info@medacta.com.au

Belgium **Medacta Belgium B.V.B.A./S.P.R.L.** - 5a Rue de la Maîtrise - 1400 Nivelles
Phone +32 (0) 67 555 482 - Fax +32 (0) 67 555 483 - info@medacta.be

Canada **Medacta Canada Inc.** - 31 McBrine Drive, Unit 11- N2R 1J1 - Kitchener, Ontario
Phone +1 519 279 1934 - Fax +1 519 279 1938 - info@medacta.ca

China **Medacta China** - Room B, 32/F, New SH Intl Tower - No. 360 Pudong South Road - Shanghai 200120, China
Phone +86 21 5835 1149 - info@medacta.cn

France **Medacta France SAS** - 6 Rue du Commandant d'Estienne d'Orves - Parc des Chanteraines - 92390 Villeneuve - La Garenne
Phone +33 147 39 07 22 - Fax +33 147 39 73 17 - info@medacta.fr

Germany **Medacta Ortho GmbH** - Jahnstrasse 86 - D - 73037 Göppingen
Phone +49 (0) 7161 50 44 312 - Fax +49 (0) 7161 50 44 320 - info@medacta.com

Italy **Medacta Italia Srl** - Via G. Stephenson, 94 - 20157 Milano
Phone +39 02 390 181 - Fax +39 02 390 00 704 - mail@medacta.it

Japan **Medacta Japan CO. LTD** - 100-0014 Chiyoda House 201 - 2 - 17-8, Nagatacho, Chiyoda-ku, Tokyo
Phone +81 (0) 3 5510 8883 - Fax +81 (0) 3 5510 8884 - info@medacta.co.jp

Spain **Medacta España SLU** - Avda de las Jacarandas - 2 - Edificio CREA Oficina 631- 46100 - Burjassot
Phone +34 (0) 963 484 688 - Fax +34 (0) 963 484 688 - info@medacta.es

UK **Medacta UK Limited** - 16 Greenfields Business Park - Wheatfield Way - Hinckley - Leicestershire - LE10 1BB
Phone +44 (0) 1455 613026 - Fax +44 (0) 1455 611446 - info@medacta.co.uk

USA **Medacta USA, Inc.** - 1556 West Carroll Avenue - Chicago - IL 60607
Phone +1 312 878 2381 - Fax +1 312 546 6881 - info@medacta.us.com

DISTRIBUTORS

Argentina, Austria, Belarus, Brazil, Bulgaria, Colombia, Greece
Indonesia, Kuwait, Malaysia, Mexico, New Zealand, South Africa, Vietnam

MectaLIF Oblique & Posterior
Surgical Technique

ref: 99.44.12
rev. 08

Last update: December 2014
CE 0476