REDEFINING BETTER
IN ORTHOPAEDICS
AND SPINE SURGERY

MEDACTA.COM

Medacta
International

Medacta International SA
Strada Regina, 34 - 6874 Castel San Pietro - Switzerland
Phone +41 91 696 60 60 - Fax +41 91 696 60 66
info@medacta.ch

Find your local dealer at: medacta.com/locations

MectaLIF® 3DM Oblique & Posterior Brochure

ref: 99.443D.11US
rev. 00

Last update: September 2025

References: ***[1]*** *Kovács, Ágnes Éva, et al. "Comparative analysis of bone ingrowth in 3D-printed titanium lattice structures with different patterns."Materials16.10 (2023): 3861. 2021 Jan.* ***[2]*** *Van Hede, Dorien, et al. "3D-printed synthetic hydroxyapatite scaffold with in silico optimized macrostructure enhances bone formation in vivo."Advanced Functional Materials 32.6 (2022): 2105002.* ***[3]*** *Barba, D., E. Alabort, and R. C. Reed. "Synthetic bone: Design by additive manufacturing."Acta biomaterialia97 (2019): 637-656.* ***[4]*** *Timercan, Anatolie, Vadim Sheremetyev, and Vladimir Brailovski. "Mechanical properties and fluid permeability of gyroid and diamond lattice structures for intervertebral devices: Functional requirements and comparative analysis."Science and technology of advanced materials22.1 (2021): 285-300.*

MectaLIF® 3DM OBLIQUE & POSTERIOR

3D METAL LUMBAR INTERBODY FUSION DEVICE

INTERVERTEBRAL BODY FUSION DEVICE

Brochure

Joint | **Spine** | Sports Med

Medacta
International

MectaLIF 3DM OBLIQUE & POSTERIOR

INTERVERTEBRAL BODY FUSION DEVICE

Medacta expands its posterior cage portfolio for treating degenerative disc disease with the addition of 3D-printed metal cages, characterized by a gyroid structure designed to resemble trabecular bone.[1,2]

MectaLIF 3DM Oblique & Posterior cages are indicated for skeletally mature patients suffering from degenerative disc disease at one or two adjacent levels from L2 to S01.

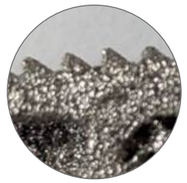
KEY FEATURES

LARGE BONE GRAFT WINDOW

- Allows the placement of significant amount of bone graft to promote bone growth through the interior lumen of the cages.

ENHANCED PRIMARY STABILITY

- The presence of sawblade teeth on the implant surface improves grip with vertebral endplates.
- The preferential direction of the sawblade teeth eases insertion and prevents migration, leading to a lower risk of implant mobilization.



STABLE INSTRUMENT INTERFACE

- Fast and effective connection with the inserter allows for reliable implantation.

OPTIMAL X-RAY VISUALIZATION

- MectaLIF 3D Metal cages allow for easy and clear visualization under fluoroscopy.

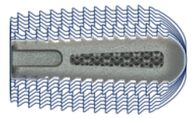
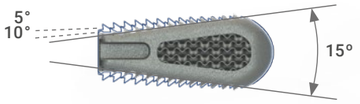
3D-PRINTED GYROID STRUCTURE

- The gyroid lattice structure, featuring a 300µm pore size and 80% porosity, enhances osteoblast colonization, vascularization, and permeability.[3,4]
- The smooth, edge-free design of the gyroid lattice structure facilitates cell attachment.[1,2,3]

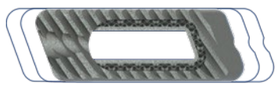
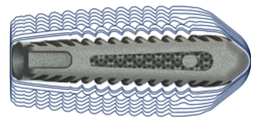
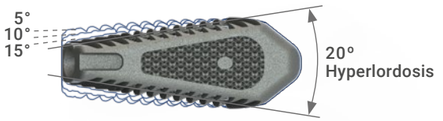
COMPREHENSIVE SYSTEM

The MectaLIF 3DM Oblique & Posterior devices offer a variety of solutions to cover unique patient anatomy and surgical needs.

MECTALIF 3DM POSTERIOR

FOOTPRINT (WxD)	HEIGHT	LORDOSIS
		
22x9 mm 25x9 mm	7-15 mm (+1 mm increase) Including 1.5 mm sawblade teeth	5°-15° 5° increase

MECTALIF 3DM OBLIQUE

FOOTPRINT (WxD)	HEIGHT	LORDOSIS
		
24x10 mm 28x10 mm 32x10 mm	7-15 mm (+1 mm increase) Including 1.5 mm sawblade teeth	5°-20° 5° increase

SYNERGY

MySpine Optimizer software is designed to enhance the preoperative planning phase with a comprehensive suite of tools that **assist surgeons in selecting and positioning cages and screws** based on the patient's unique anatomy and needs. This can help surgeons enhance accuracy and save time in the operating room.

Cage and Screw planning features include:

- Endplate geometry analysis
- Implant footprint view
- Pre- and post-correction evaluations in the sagittal plane
- 2D-3D matching
- Bone mineral density (BMD) color map