

medartis®

PRECISION IN FIXATION

PRODUCT INFORMATION

# Orbital Plating System OPS 1.5

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MODUS®  
Midface

# At a glance

## Orbital Plating System OPS 1.5

### INTRODUCTION

Fractures of the orbit occur in about 50% of all skull-trauma [2] and therefore are the most common fractures in the midface. Depending on the severity of the accompanying complications (like sensibility dysfunctions, eye globe motility irritations and double vision) orbital fractures should be treated operatively as soon as possible but at latest 10 days after the incidence. [3]

The goal of the surgical intervention is to regain the former volume and form of the orbit. At the same time, trapped soft tissue must be removed out of the fracture fissure.

The incorrect reduction of the orbit can lead to severe complications such as enophthalmus, hypoglobus and diplopia.

The reduction of the orbit can be achieved with different means. The 3D titanium mesh presented in this brochure is particularly apt to treat fractures which exceed 1.5 cm<sup>2</sup>. It is also suitable to be used together with smaller approaches such as the transconjunctival approach.

The MODUS OPS 1.5 titanium meshes can be easily bent into the right form and can be cut according to the indication.

### INDICATIONS

Reduction and fixation of the orbital floor and the orbital wall. Classification according to Jaquiéry et al. [1]



**Category I**  
Isolated defect of the orbital floor or the medial wall, 1–2 cm<sup>2</sup>

M-4440, M-4442



**Category II**  
Defect of the orbital floor and/or of the medial wall, > 2 cm<sup>2</sup> (Bony ledge preserved at the medial margin of the infraorbital fissure)

M-4440, M-4442, M-4444, M-4446



**Category III**  
Defect of the orbital floor and/or of the medial wall, > 2 cm<sup>2</sup> (Missing bony ledge medial to the infraorbital fissure)

M-4444, M-4446

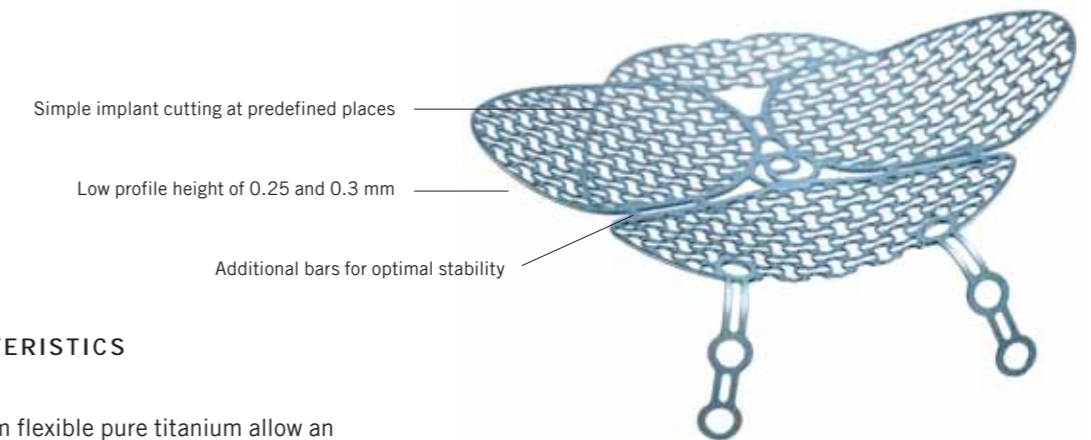


**Category IV**  
Defect of the entire orbital floor and the medial wall, extending into the posterior third (Missing bony ledge medial to the infraorbital fissure)

M-4444, M-4446

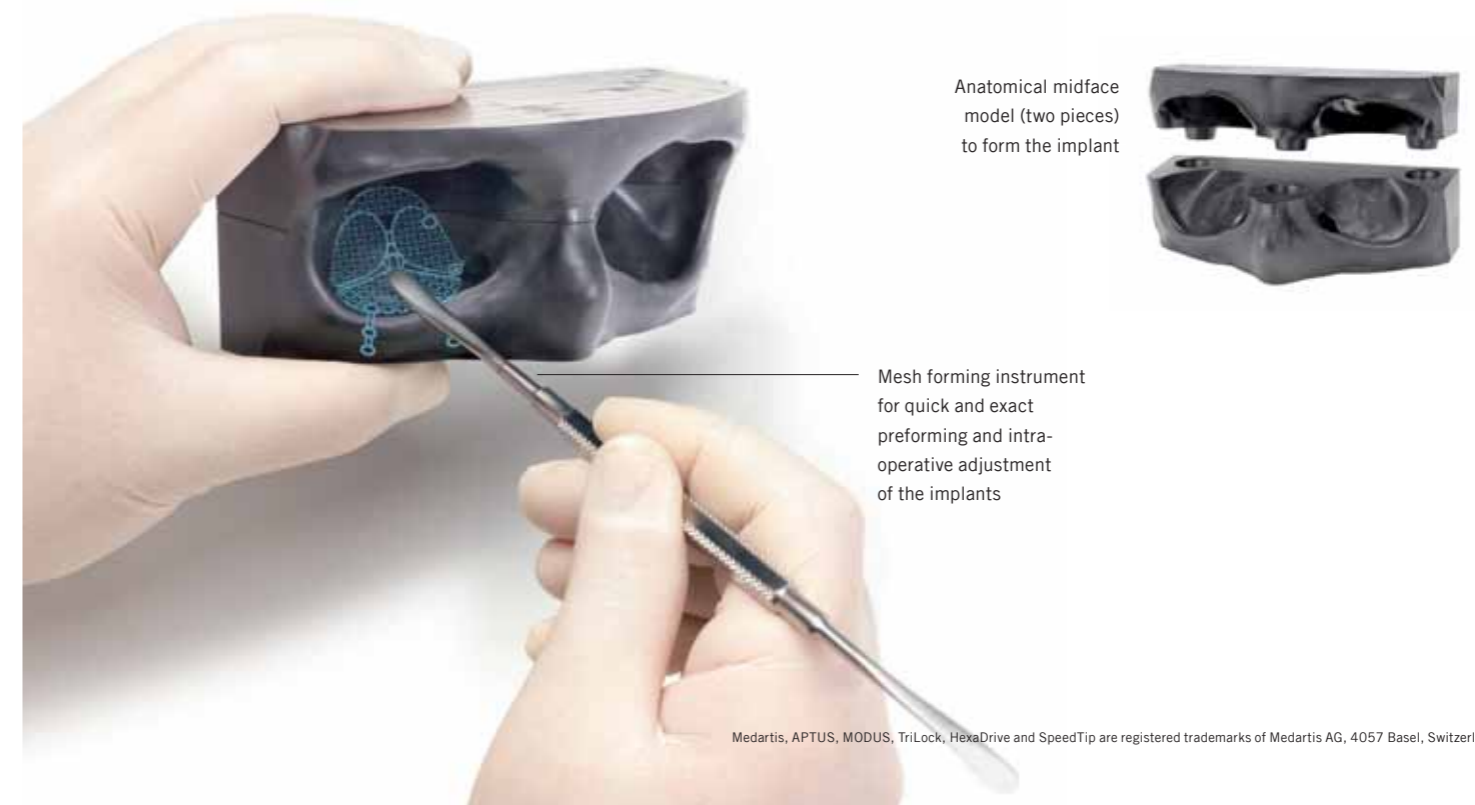
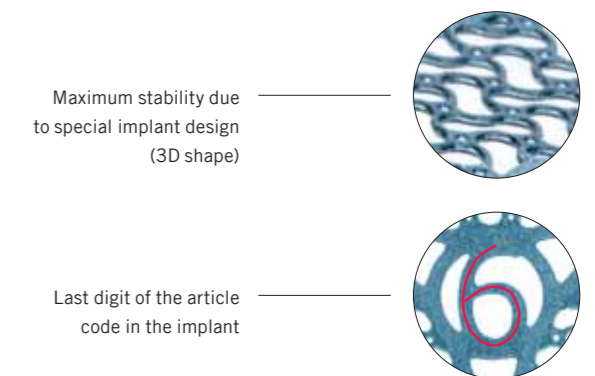
### LITERATURE

- [1] Jaquiéry C, Aeppli C, Cornelius P, Palmowsky A, Kunz C, Hammer B  
Reconstruction of orbital wall defects: critical review of 72 patients, Int J Oral Maxillofac Surg. 2007 Mar;36(3):193-9.
- [2] Hardt N. / Kuttnerberger J. (2010): „Craniofacial Trauma“. Springer-Verlag, Berlin Heidelberg, 2010, S. 97
- [3] Horch, H. (Hrsg.) (2007): „Mund-Kiefer-Gesichtschirurgie“. Urban & Fischer, 4. Ausgabe, München, 2007, S.167



### IMPLANT CHARACTERISTICS

- Implants made from flexible pure titanium allow an exact anatomical reconstruction of the orbital structure
- Low profile height
- Burr-free edges
- 3D Mesh design based on orbital topology
- Additional stabilization bars
- Possible application for orbital floor and wall defects
- 4 different implant geometries covering all fractures of categories I–IV



Cortical Screws, self-tapping, HexaDrive 4, Ø 1.5 mm

Material: Titanium (ASTM F136)



Art. No.	Length	Pieces per Pack
M-5220.03	3 mm	5
M-5220.04	4 mm	5
M-5220.05	5 mm	5
M-5220.06	6 mm	5

For a package of 1, please add "/1" at the end of the art. no., for example M-5220.05/1

Cortical Screws, self-tapping, Cross-Drive, Ø 1.5 mm

Material: Titanium (ASTM F67)



Art. No.	Length	Pieces per Pack
M-5120.03	3 mm	5
M-5120.04	4 mm	5
M-5120.05	5 mm	5
M-5120.06	6 mm	5

For a package of 1, please add "/1" at the end of the art. no., for example M-5120.05/1

Cortical Screws, self-tapping, HexaDrive 4, Ø 1.8 mm

Material: Titanium (ASTM F136)



Art. No.	Length	Pieces per Pack
M-5230.05	5 mm	5

For a package of 1, please add "/1" at the end of the art. no., for example M-5230.05/1

Cortical Screws, self-tapping, Cross-Drive, Ø 1.8 mm

Material: Titanium (ASTM F67)



Art. No.	Length	Pieces per Pack
M-5130.05	5 mm	5

For a package of 1, please add "/1" at the end of the art. no., for example M-5130.05/1

Cortical Screws, self-drilling, HexaDrive 4, Ø 1.5 mm

Material: Titanium (ASTM F136)



Art. No.	Length	Pieces per Pack
M-5223.04	4 mm	5
M-5223.05	5 mm	5
M-5223.06	6 mm	5
M-5223.07	7 mm	5
M-5223.09	9 mm	5

For a package of 1, please add "/1" at the end of the art. no., for example M-5223.05/1

Cortical Screws, self-drilling, Kreuzschlitz, Ø 1.5 mm

Material: Titanium (ASTM F136)



Art. No.	Length	Pieces per Pack
M-5123.04	4 mm	5
M-5123.05	5 mm	5
M-5123.06	6 mm	5

For a package of 1, please add "/1" at the end of the art. no., for example M-5123.05/1

Twist Drills for Screws Ø 1.5 mm



M-3172



M-3212

Art. No.	Ø Twist Drill	Stop	Length	Drill shaft end	Pieces per Pack
M-3172	1.1	5 mm	50 mm	Stryker J-Latch	1
M-3212	1.2	9 mm	50 mm	Stryker J-Latch	1

Twist Drills for Screws Ø 1.5 mm



M-3192

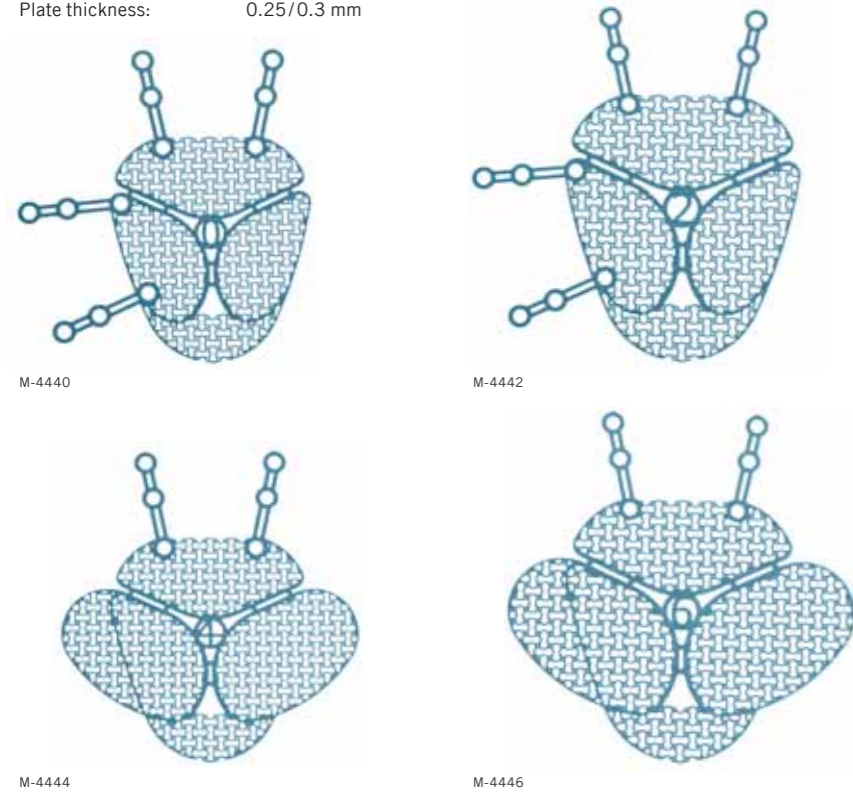


M-3222

Art. No.	Ø Twist Drill	Stop	Length	Drill shaft end	Pieces per Pack
M-3192	1.1	5 mm	37 mm	Dental	1
M-3222	1.2	9 mm	37 mm	Dental	1

Orbital Floor Plates

Material: Titanium (ASTM F67)  
Plate thickness: 0.25/0.3 mm



Art. No.	Size	Plate thickness	Holes	Pieces per Pack
M-4440	1-2 / small	0.25 mm	12	1
M-4442	1-2 / large	0.25 mm	12	1
M-4444	2-4 / small	0.3 mm	6	1
M-4446	2-4 / large	0.3 mm	6	1

Templates for Orbital Floor Plates

Template thickness: 0.2 mm



Art. No.	Size	Pieces per Pack
M-4441	small	1
M-4443	large	1

Screwdriver 1.5, self-holding, HexaDrive 4

Art. No. M-2112



1:2

Screwdriver Handle 1.5

Art. No. M-2502



Screwdriver Blade 1.5, self-holding, HexaDrive 4, 69 mm

Art. No. M-2662



Screwdriver 1.5, with Holding Device, Cross-Drive

Art. No. M-2102



1:2

Screwdriver Handle 1.5

Art. No. M-2502



Tension Sleeve 1.5 for M-2102

Art. No. M-2552



Screwdriver Blade 1.5, Cross-Drive, 69 mm

Art. No. M-2512



Screwdriver 1.5, self-holding, Cross-Drive

Art. No. M-2142



1:2

Screwdriver Handle 1.5

Art. No. M-2502



Screwdriver Blade 1.5, self-holding, Cross-Drive, 69 mm

Art. No. M-2522



Mesh Cutting Pliers, curved left, 127 mm

Art. No. M-2870



Elevator and Mesh Forming Instrument, 190 mm

Art. No. M-2872



Midface Model, two-pieces

Art. No. M-2874



Implant Container Orbital Floor Plates

Art. No. M-6400



Lid for Implant Container M-6400

Art. No. M-6371



Instrument Case, steel

Art. No. M-6320



Lid for Instrument Case M-6320, steel

Art. No. M-6330



Instrument Tray OPS 1.5

Art. No. M-6402



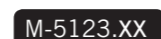
Coding Label MODUS OPS 1.5

Art. No. M-6536



Stickers

Art. No. M-6572.20



Art. No. M-6572.17



# Handling Tips

## Defect bridging with anatomically malleable 3D mesh plate

<p><b>STEP 1</b></p> <p>Define the size of fracture in situ by means of the template (M-4441 / M-4443).</p>	<p><b>STEP 2</b></p> <p>If necessary, cut the plate (fixation bars or plate with cutting bars, refer to page 10 for information regarding the cutting process).</p>	<p><b>STEP 3</b></p> <p>Before insertion, preform the plate approximately on the midface model (M-2874).</p>
<p><b>STEP 4</b></p> <p>Position the plate in situ and shape it precisely by means of the forming instrument (M-2872).</p> <p><b>Note:</b> While inserting the plate, ensure that the plate is positioned carefully in order to preserve its adapted shape and prevent changes in its conformations. Optionally use bending templates as insertion aid. After correct positioning remove bending template.</p>	<p><b>STEP 5</b></p> <p>Pre-drill the required screw holes.</p>	<p><b>STEP 6</b></p> <p>Insert the screws and close the wound.</p> <p><b>Note:</b> Check correct post-operative position with X-ray.</p>

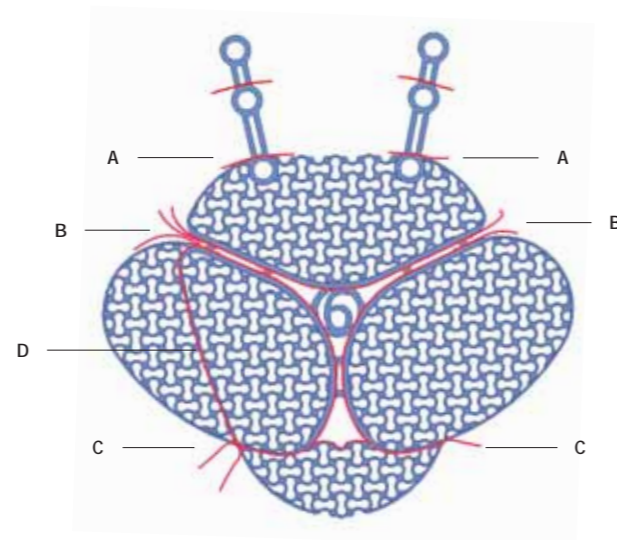
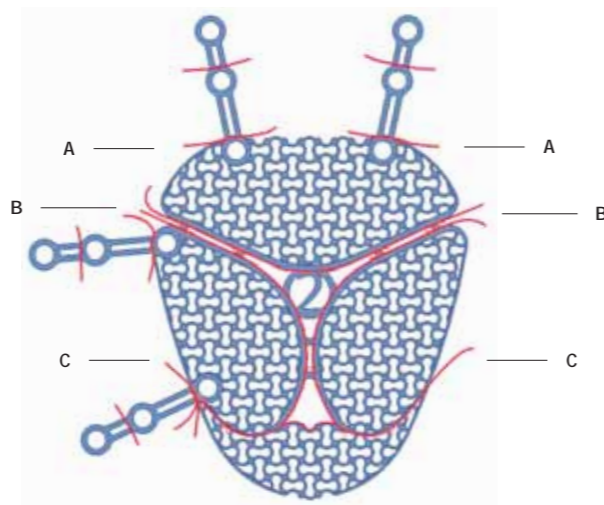
# Information for Plate Cutting

According to the fracture type, the plates can be cut in different ways along the bars. Possible cutting patterns are illustrated below:

- A:** Depending on the specific approach, fixation bars can be removed (cut either one hole off or the complete bar).
- B:** For a small anterior orbital floor fracture, in many cases the first mesh segment is sufficient (cutting lines from B to B).
- C:** To reduce the risk of the infraorbital nerve being damaged, the front part of the orbital plate can be cut (cutting lines from C to C).
- D:** If only one orbital wall is fractured, one wing of the mesh can be cut off along the bar.

### Combination of B and C:

For smaller defects, the anterior mesh segment and a lateral segment can be used (cutting lines from the starting point B diagonally to the endpoint C). In addition to this and depending on the approach, the length of the fixation bar of the plate can be trimmed. For the transconjunctival approach, cutting of the first holes within the fixation bars is recommended.



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