

medartis®

PRECISION IN FIXATION

PRODUCT INFORMATION

Orbital
Plating System
OPS 1.5

MODUS®
Midface

At a glance

Orbital Plating System OPS 1.5

INTRODUCTION

Fractures of the orbit occur in about 50% of all skull-trauma and therefore are the most common fractures in the midface. [2] 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 cm². 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 cm²

M-4440, M-4442



Category II
Defect of the orbital floor and/or of the medial wall, > 2 cm² (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 cm² (Missing bony ledge medial to the infraorbital fissure)

M-4444, M-4446

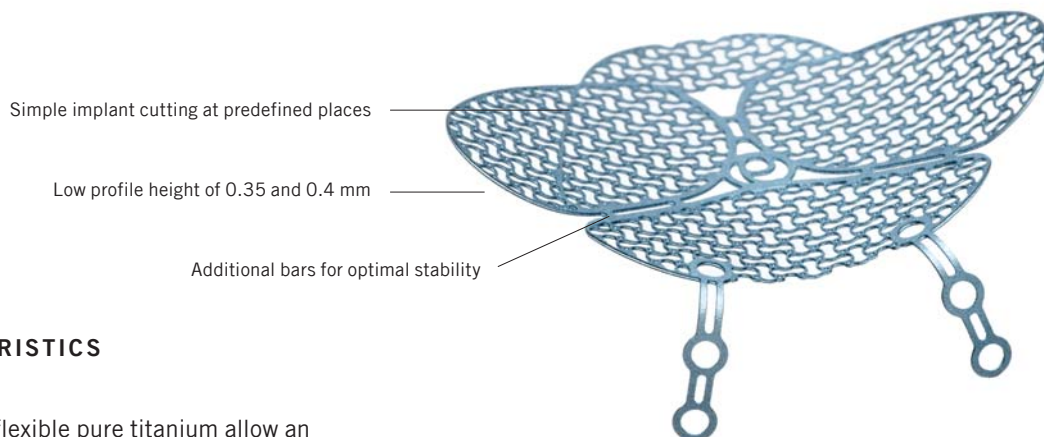


Category IV
Defect of the entire orbital floor and the medial wall, extending into the posterior third (Missing bony ledge medial to the infraorbital fissure)

M-4444, M-4446

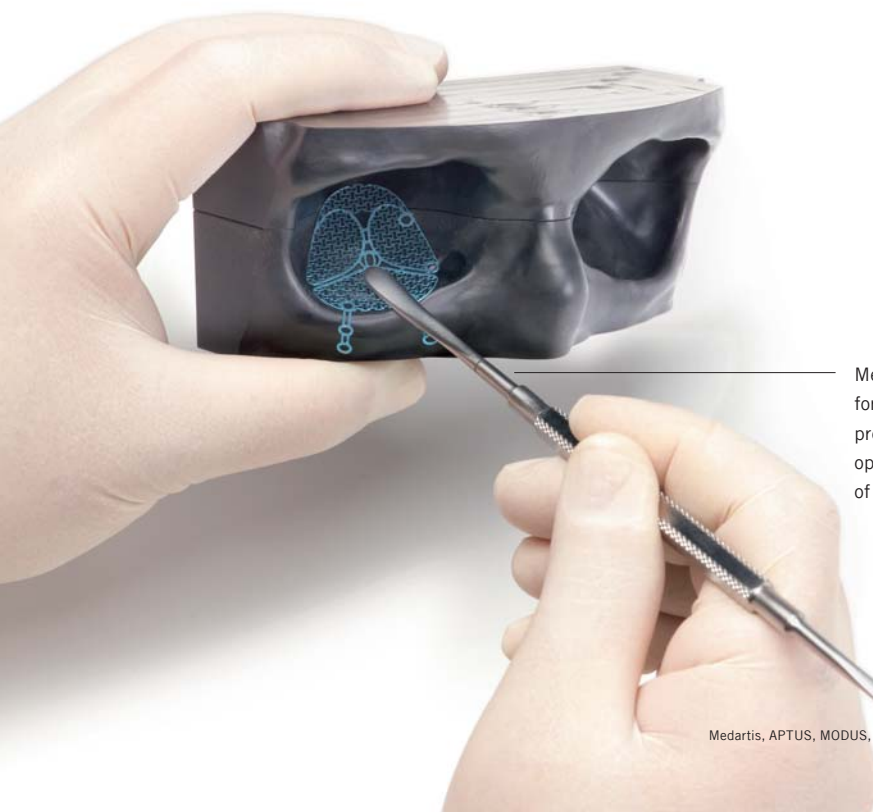
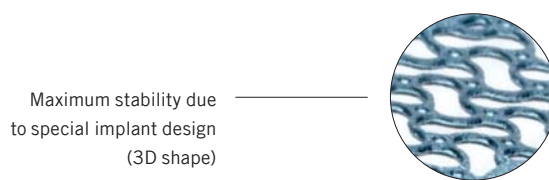
LITERATURE

- [1] Jaquiéry C, Aepli 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



Mesh forming instrument for quick and exact preforming and intra-operative adjustment of the implants

Ordering Information

1.5 Cortical Screws, HexaDrive 4

Material: Titanium (ASTM F136)



Length	Art. No.	Pcs/Pkg	Art. No.	Pcs/Pkg
3 mm	M-5220.03/1	1	M-5220.03	5
4 mm	M-5220.04/1	1	M-5220.04	5
5 mm	M-5220.05/1	1	M-5220.05	5
6 mm	M-5220.06/1	1	M-5220.06	5

1.5 Cortical Screws, Cross-Drive

Material: Titanium (ASTM F67)



Length	Art. No.	Pcs/Pkg	Art. No.	Pcs/Pkg
3 mm	M-5120.03/1	1	M-5120.03	5
4 mm	M-5120.04/1	1	M-5120.04	5
5 mm	M-5120.05/1	1	M-5120.05	5
6 mm	M-5120.06/1	1	M-5120.06	5

1.8 Cortical Screws, HexaDrive 4

Material: Titanium (ASTM F136)



Length	Art. No.	Pcs/Pkg	Art. No.	Pcs/Pkg
5 mm	M-5230.05/1	1	M-5230.05	5

1.8 Cortical Screws, Cross-Drive

Material: Titanium (ASTM F67)



Length	Art. No.	Pcs/Pkg	Art. No.	Pcs/Pkg
5 mm	M-5130.05/1	1	M-5130.05	5

1.5 SpeedTip Screws, self-drilling, HexaDrive 4

Material: Titanium (ASTM F136)



Length	Art. No.	Pcs/Pkg	Art. No.	Pcs/Pkg
4 mm	M-5223.04/1	1	M-5223.04	5
5 mm	M-5223.05/1	1	M-5223.05	5
6 mm	M-5223.06/1	1	M-5223.06	5
7 mm	M-5223.07/1	1	M-5223.07	5
9 mm	M-5223.09/1	1	M-5223.09	5

1.5 SpeedTip Screws, self-drilling, Cross-Drive

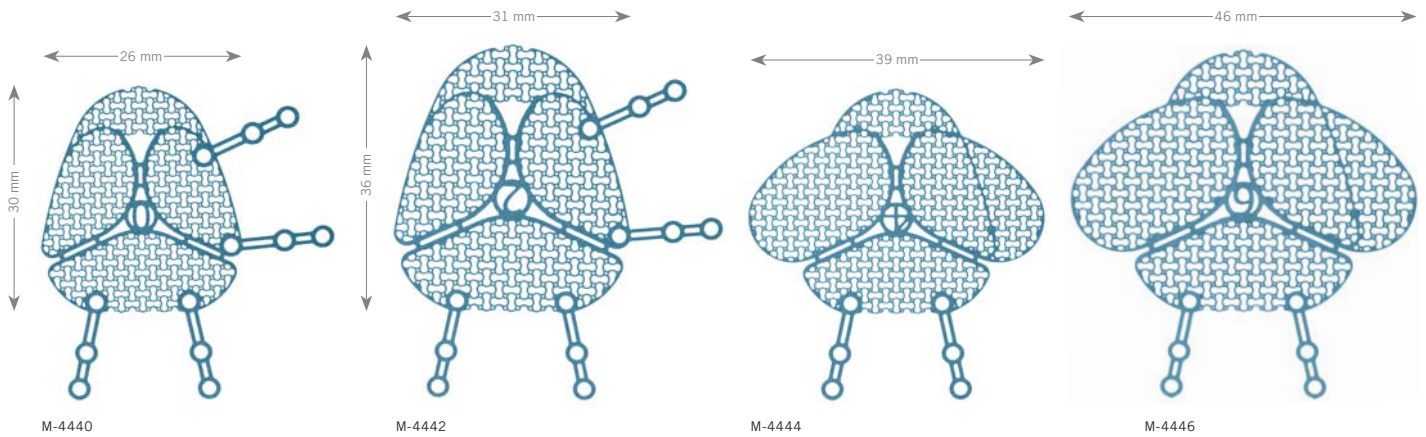
Material: Titanium (ASTM F136)



Length	Art. No.	Pcs/Pkg	Art. No.	Pcs/Pkg
4 mm	M-5121.04/1	1	M-5121.04	5
5 mm	M-5121.05/1	1	M-5121.05	5
6 mm	M-5121.06/1	1	M-5121.06	5
7 mm	M-5121.07/1	1	M-5121.07	5
9 mm	M-5121.09/1	1	M-5121.09	5

Orbital Floor Plates

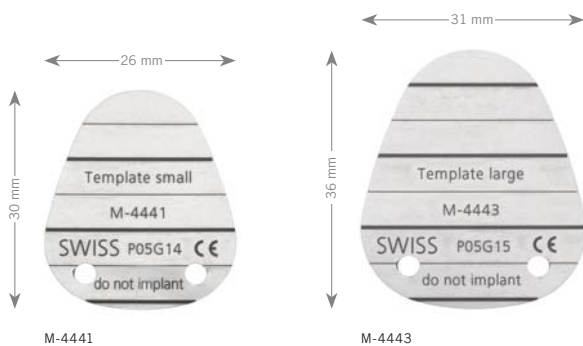
Material: Titanium (ASTM F67)
Plate thickness: 0.35/0.4 mm



Art. No.	Size	Plate thickness	Holes	Pieces/Pack
M-4440	1-2 / small	0.35 mm	12	1
M-4442	1-2 / large	0.35 mm	12	1
M-4444	2-4 / small	0.4 mm	6	1
M-4446	2-4 / large	0.4 mm	6	1

Templates for Orbital Floor Plates

Template thickness: 0.2 mm



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

Twist Drills for Screws Ø 1.5 mm



M-3172



M-3212

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

1.5 Screwdriver (complete)



Art. No.	Interface	Description	Components	Piece/Pkg
M-2112	HD4	Self-Holding	M-2502 / M-2662	1
M-2142		Self-Holding	M-2502 / M-2522	1
M-2102		with Holding Device	M-2502 / M-2512 / M-2552	1

1.5 Screwdriver (Single Components)



Art. No.	Interface	Description	Length	Piece/Pkg
M-2552		1.5 Tension Sleeve for M-2102		1
M-2502		1.5 Screwdriver Handle		1
M-2512		1.5 Screwdriver Blade for M-2552	69 mm	1
M-2522		1.5 Screwdriver Blade, Self-Holding	69 mm	1
M-2662	HD4	1.5 Screwdriver Blade, Self-Holding	69 mm	1

Mesh-Cutting Pliers



Art. No.	Description	Length	Piece/Pkg
M-2870	curved left	127 mm	1

Elevator and Mesh Forming Instrument



Art. No.	Length	Piece/Pkg
M-2872	190 mm	1

Midface Model



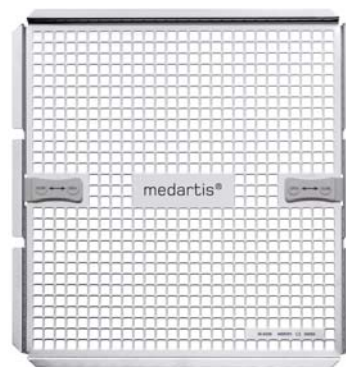
Art. No.	Description	Piece/Pkg
M-2874	two pieces	1

Instrument Case



M-6320

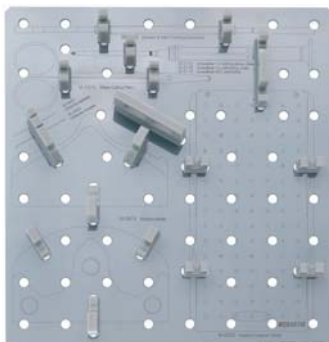
Lid



M-6330

Art. No.	Description	Piece/Pkg
M-6320	steel 231 x 244 x 54 mm	1
M-6330	for Instrument Case M-6320 , steel 228 x 243 x 10 mm	1

Instrument Tray



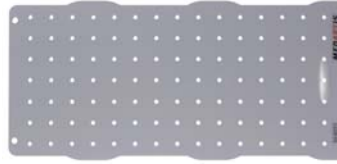
Art. No.	Description	Piece/Pkg
M-6402	for OPS 1.5	1

Implant Container



M-6400

Lid



M-6371

Art. No.	Description	Piece/Pkg
M-6400	for Orbital Floor Plates	1
M-6371	for Implant Container M-6400	1

Coding Label



Art. No.	Description	Piece/Pkg
M-6536	MODUS® OPS 1.5 20 x 60 mm	1

Stickers

M-5123.XX

M-5223.XX

Art. No.	Description	Piece/Pkg
M-6572.20	M-5123.xx	1
M-6572.17	M-5223.xx	1

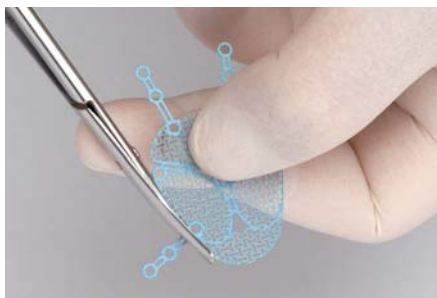
Handling Tips

Defect bridging with anatomically malleable 3D mesh plate



STEP 1

Define the size of fracture in situ by means of the template (M-4441/M-4443).



STEP 2

If necessary, cut the plate (fixation bars or plate with cutting bars, refer to page 11 for information regarding the cutting process).



STEP 3

Before insertion, preform the plate approximately on the midface model (M-2874).



STEP 4

Position the plate in situ and shape it precisely by means of the forming instrument (M-2872).

Note: 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.



STEP 5

Pre-drill the required screw holes.



STEP 6

Insert the screws and close the wound.

Note: Check correct post-operative position with X-ray.

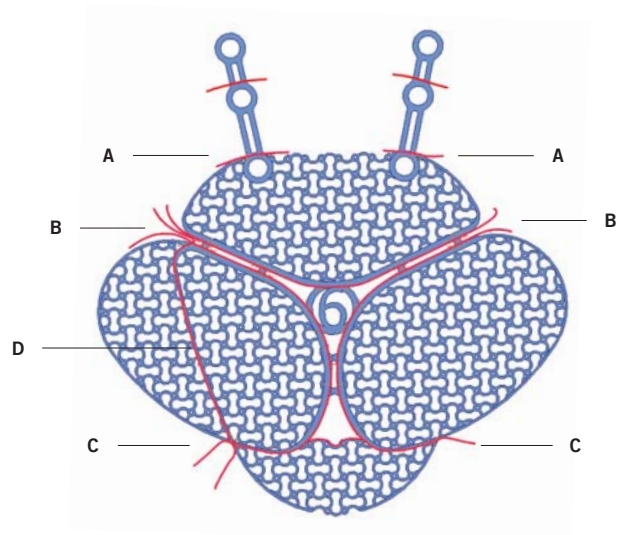
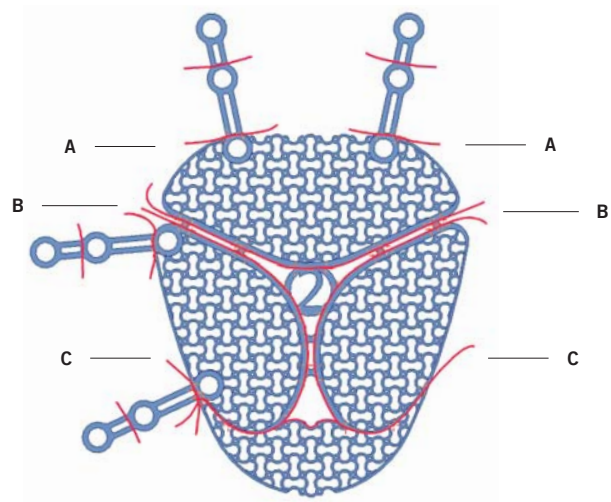
Information for Plate Cutting

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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