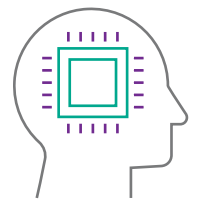




Cranial fixation



Dura substitution

# THE CRANIAL CLOSURE CONCEPT

CLOSE THE GAP

# AESCULAP® CRANIAL FIXATION

## Neuro Plating System

The universal and reliable plates and screws solution.

## CranioFix®2

Titanium clamp system for a fast and easy application.

## CranioFix® absorbable

Absorbable clamp system for an unhindered skull growth.

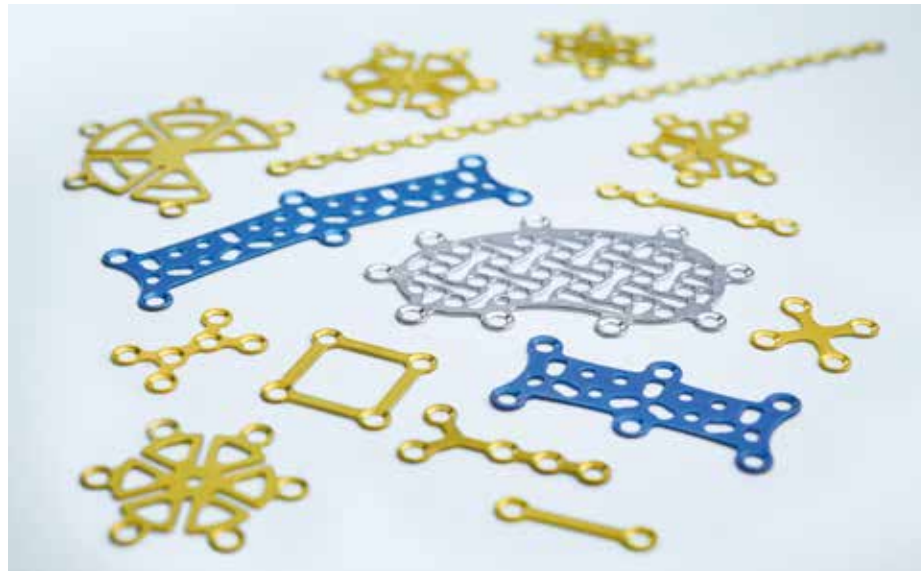


## CRANIAL FIXATION

There are various fixation options for replacing skull bones after surgery or injury due to trauma. Your goal is to create a stable and reliable closure with good cosmetic results. We offer a wide range of solutions to create a stable bone flap fixation for every patient situation.

# AESCULAP® Neuro Plating System

The universal and reliable plates and screws solution



## STABLE AND GOOD COSMETIC RESULTS

- 0.4 mm plates and screws made of titanium
- Highest pull-out force when compared to market leading systems
- Small palpability due to low profile plates

## UNIVERSAL

- System covers a wide range of indications in cranial fixation
- Bendable plates and meshes for complex cases



## RELIABLE AND EASY

- Very good connection between screwdriver blade and screw
- Easy and smooth screw insertion
- Battery-powered screwdriver for fast screw insertion
- Prefilled screw magazines



## INDIVIDUAL AND SPACE-SAVING


















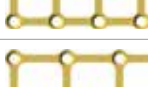

- Modular configuration according to your personal preferences
- Compact tray for storage and reprocessing of plates and screws











## MRI COMPATIBILITY

MRI examinations using magnetic fields of 1.5 and 3.0 Tesla do not present an additional risk to Neuro Plating System implant wearers.

# AESCULAP® Neuro Plating System

The universal and reliable plates and screws solution

Straight Plates	Art. No.	Description	Dimensions
	NST304L02A	2 Hole	12.4 x 3.4 mm
	NST304X02A	2 Hole	15.4 x 3.4 mm
	NST304L04A	4 Hole	21.4 x 3.4 mm
	NST304X04A	4 Hole	24.4 x 3.4 mm
	NST304M05A	5 Hole	21.4 x 3.4 mm
	NST304M06A	6 Hole	25.9 x 3.4 mm
	NST304M10A	10 Hole	43.9 x 3.4 mm
	NST304M20A	20 Hole	88.9 x 3.4 mm
Double-Y-Plates / Y-Plate / X-Plate			
	NDY304M06A	Double-Y-Plate, 6 Hole	14.3 x 9.8 mm
	NDY304L06A	Double-Y-Plate, 6 Hole	18.8 x 9.8 mm
	NYP304M05A	Y-Plate, 5 Hole	20.1 x 9.8 mm
	NXP304M04A	X-Plate, 4 Hole	11.0 x 11.0 mm
Square Plates / Rectangular Plate			
	NSQ304M04A	Square Plate, 4 Hole	12.0 x 12.0 mm
	NSQ304L04A	Square Plate, 4 Hole	14.0 x 14.0 mm
	NSQ304X04A	Square Plate, 4 Hole	16.0 x 16.0 mm
	NRE304M04A	Rectangular Plate, 4 Hole	16.0 x 10.0 mm
Double-Square Plate / Matrix Plates			
	NDS304M06A	Double Square Plate, 6 Hole	24.0 x 14.0 mm
	NQD304M08A	Matrix Plate, 8 Hole	28.0 x 12.0 mm
	NQD304L08A	Matrix Plate, 8 Hole	34.0 x 14.0 mm





Burrhole Plates	Art. No.	Description	Diameter
	NBP304S06A	6 Hole	18.4 mm
	NBP304M06A	6 Hole	21.4 mm
	NBP304L06A	6 Hole	23.4 mm
	NBP304X06A	6 Hole	30.4 mm
Burrhole Calvarium Plates			
	NBC304M06A	6 Hole	25.9 mm
	NBC304L06A	6 Hole	30.9 mm
Burrhole Plates Slot	Art. No.	Description	Dimension
	NBS304S05A	5 Hole	18.4 x 14.7 mm
	NBS304M05A	5 Hole	21.4 x 16.9 mm
	NBS304L05A	5 Hole	23.4 x 18.4 mm
	NBS304X05A	5 Hole	30.4 x 24.3 mm

Note: Plates are 0.4 mm thick. Sales unit: ST = 1 piece.

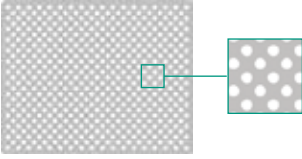
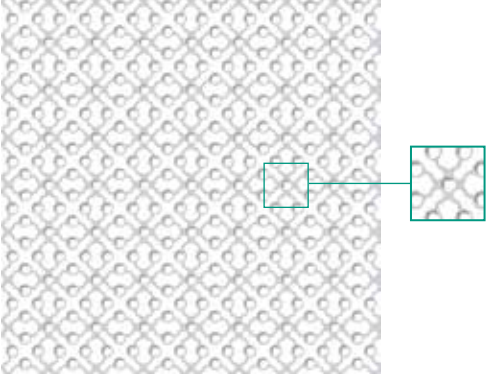


# AESCULAP® Neuro Plating System

The universal and reliable plates and screws solution

Gap Plates / Temporal Mesh Plate	Art. No.	Description	Thickness	Dimensions
	NGP204S06A	Gap Plate, short, 6 Hole	0.4 mm	28.8 x 14.5 mm
	NGP204M06A	Gap Plate, medium, 6 Hole	0.4 mm	38.8 x 15.3 mm
	NGP204L06A	Gap Plate, long, 6 Hole	0.4 mm	48.8 x 16.2 mm
	NTE204M00A	Temporal Mesh Plate, 9 Hole	0.4 mm	42.2 x 25.1 mm

Note: Plates are 0.4 mm thick. Sales unit: ST = 1 piece.

Mesh Plates	Art. No.	Description	Thickness	Dimensions
	NME103S00	Mesh Plate	0.3 mm	40.2 x 25.2 mm
	NME103M00		0.3 mm	40.2 x 50.2 mm
	N3D206S00A	3D Mesh Plate	0.6 mm	50.0 x 50.0 mm
	N3D206M00A		0.6 mm	100.0 x 100.0 mm
	N3D206L00A		0.6 mm	150.0 x 150.0 mm
	N3D206X00A		0.6 mm	200.0 x 200.0 mm












Note: Sales unit: ST = 1 piece

silver plates:	malleable
blue plates:	rigid
golden plates:	extra rigid


Screws	Art. No.	Description	Diameter	Screw length
	TSN-012	Screw disk with 100 self-drilling screws	1.5 mm	4.0 mm
	TSN-013	Screw magazine with 6 self-drilling screws	1.5 mm	3.0 mm
	TSN-014	Screw magazine with 6 self-drilling screws	1.5 mm	5.0 mm
	TSN-015	Screw magazine with 6 self-tapping rescue screws	1.8 mm	4.0 mm
	TSN-016	Screw magazine with 6 self-tapping rescue screws	1.8 mm	6.0 mm

# AESCULAP® Neuro Plating System

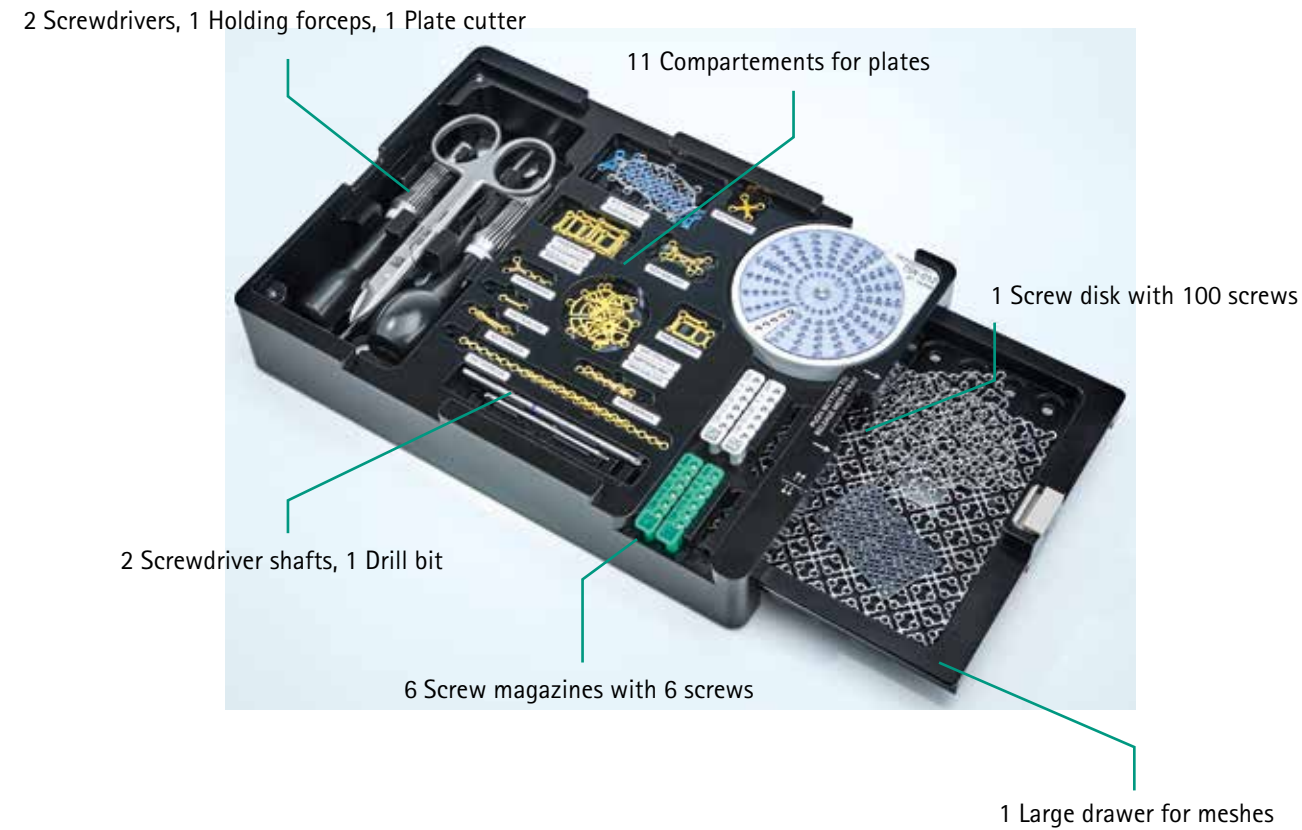
The universal and reliable plates and screws solution

Instruments	Art. No.	Description	Length
	LDS-01	Screwdriver Shaft	75 mm
	IOC-017	Screwdriver (large)	100 mm
	IOC-018	Screwdriver (small)	100 mm
	LDS-02	Screwdriver Shaft for Power Screwdriver	57 mm
	IOC-141	Power Screwdriver Note: Single-use, sterile delivery	175 mm
	NDB-01	Drill Bit (J-Notch-coupling) Diameter: 1.1 mm, drill depth: 4 mm	52 mm
	GP345R	Twist drill for ELAN4-2-Ring handpieces Diameter: 1.1 mm, Incision depth: 4 mm	56 mm
	IOC-033	Holding Forceps angled	130 mm
	IOC-040	Plate Cutter	110 mm
	IOC-041	Mesh Cutter	190 mm
	IOC-070	Plate Bending Pliers	150 mm

Note: Sales unit: ST = 1 piece

Storage	Art. No.	Description	Dimensions
	TPN-007	Tray for storage and reprocessing of Neuro Plating System implants	217 x 157 x 37 mm

### Maximal loading of the tray:



The mesh cutter and the plate bending pliers do not fit into the tray and need to be stored separately.

# AESCULAP® Neuro Plating System Sterile Kits

The simple plates and screws solution



## SPACE-SAVING

- Plates and implants are stored in one kit

## COST-SAVING

- Reduces costs associated with handling, inventorying and reprocessing

## TIME-SAVING

- Delivery in sterile condition

## EASY HANDLING

- Various configurations for a wide range of bone flaps
- Fully traceable



See-trough package for easy identification of plates and screws.


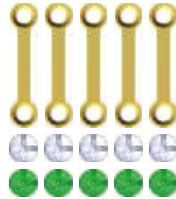






# AESCULAP® Neuro Plating System Sterile Kits

The simple plates and screws solution

Sterile Kits	Art. No.	Content	Quantity	Description
	TCN-011		3	<b>Standard long</b> Straight Plate, 2 Hole, 15.4 mm
			6	Self-drilling screw, 1.5 x 4 mm
	TCN-021		3	<b>Standard short</b> Straight Plate, 2 Hole, 12.4 mm
			6	Self-drilling screw, 1.5 x 4 mm
	TCN-031		1	<b>Standard long Burrhole Plate</b> Burrhole Plate, 6 Hole, 23.4 mm
			2	Straight Plate, 2 Hole, 15.4 mm
			10	Self-drilling screw, 1.5 x 4 mm
	TCN-041		1	<b>Burrhole Plate</b> Burrhole Plate, 6 Hole, 23.4 mm
			6	Self-drilling Screw, 1.5 x 4 mm
	TCN-051		1	<b>Burrhole Plate Slot</b> Burrhole Plate Slot, 5 Hole, 23.4 x 18.4 mm
			5	Self-drilling screw 1.5 x 4 mm

Sterile Kits	Art. No.	Content	Quantity	Description
	TCN-012		5	<b>Anatomics Acrylic</b> Straight Plate, 2 Hole, 15.4 mm
			5	Self-drilling screw 1.5 x 4 mm
			5	Self-tapping screw 1.5 x 4 mm
For the fixation of acrylic patient specific implants from Anatomics®				
	TCN-022		5	<b>Anatomics PoreStar</b> Straight Plate Special, 2 Hole, 15.9 mm
			5	Self-drilling screw, 1.5 x 4 mm
			5	Self-drilling screw, 1.95 x 4 mm
For the fixation of PoreStar patient specific implants from Anatomics®				



# AESCULAP® CranioFix®2

Titanium clamp system for a fast and easy fixation



Introduced in 1997, CranioFix® was the pioneer for clamp-based bone flap fixation. Today CranioFix®2, the second generation, has been established worldwide. Over 3.5 million successfully implanted clamps helped patients in more than 60 countries.

### FAST

- Fast application to save valuable OR time

### EASY

- Self-explaining application

### RELIABLE




- Reproducible fixation with a defined force

### APPROVED FOR THE FIXATION OF SKULL FRACTURES



### MRI COMPATIBILITY

MRI examinations using magnetic fields of 1.5 and 3.0 Tesla do not present an additional risk to CranioFix®2 implant wearers.

CranioFix®2 Implants	Art. No.	Diameter	Unit
	FF490T	11 mm	PAK = 12 pieces
	FF491T	16 mm	PAK = 6 pieces
	FF492T	20 mm	PAK = 6 pieces

CranioFix® 2 Instruments	Art. No.	Description	Length
	FF494R	Applier, with automatic stop	205 mm
	FF105R	Holding forceps	115 mm
	FF103R	Pin cutter	145 mm
	FF104R	Removal forceps	130 mm
	FF094P	Tray (without instruments)	250 x 250 x 32 mm

# AESCULAP® CranioFix® absorbable

Absorbable clamp system for an unhindered skull growth

## UNHINDERED SKULL GROWTH

- Particularly suitable for pediatric cases

## GOOD COSMETIC RESULTS

- No palpable, visible implants, especially in frontal area

## FAST AND EASY APPLICATION

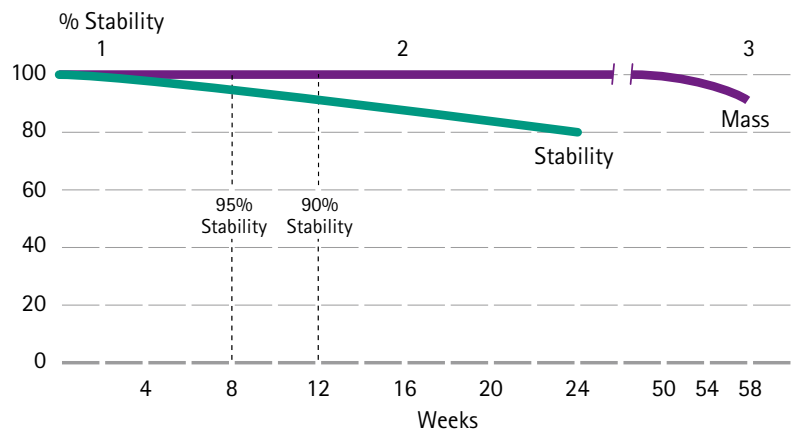
- No instruments needed

## ABSORBABLE AND STABLE

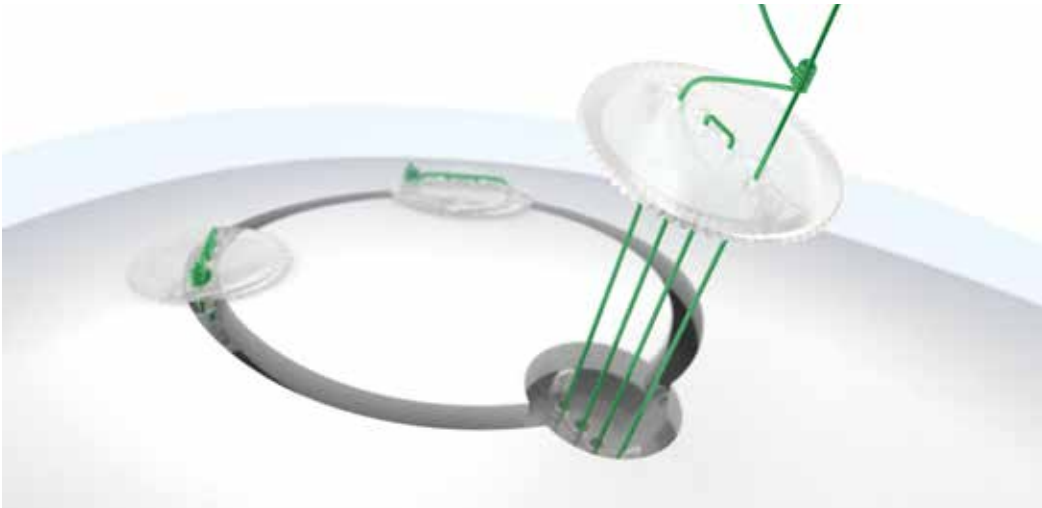
- Made from the clinically proven absorbable polyester material [Poly (L-lactide-co-D, L-Lactide) 70:30]
- An in-vitro study has shown that CranioFix® absorbable retains approximately 90% of its initial strength after 12 weeks. The absorbable material completely disappears within 2-3 years.



## CRANIOFIX® ABSORBABLE IN-VITRO STUDY: STABILITY AND MASS

The in-vitro study measures the stability and mass of CranioFix® absorbable implants (only for FF016) with 2 mm depression depth of the bone flap under hydrolysis conditions [Internal study, Aesculap AG, idealized curves, 2003-2005].



- 1| Hydration: Adsorption of water on polymer chains
- 2| Loss of stability: Polymer chains start to break. Degradation of molecular weight
- 3| Loss of mass: Further breakage of polymer chains. Formation of small granular particles.



	Art. No.	Diameter	Description	Unit
	FF016	11 mm	for craniotomy gaps	PAK = 6 pieces
	FF017	16 mm	for burrhole	PAK = 6 pieces



## STERILE PACKED

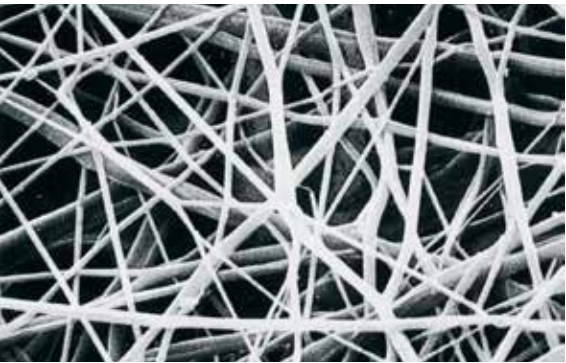
CranioFix® absorbable is sterile packed for immediate use.

## MRI COMPATIBILITY

MRI examinations do not present an additional risk to CranioFix® absorbable implant wearers.

# AESCULAP® Neuro-Patch®

Synthetic, suturable dura substitution



**C87802**  
**Product sample card**  
including a product sample.

## ELASTIC. WELL-TOLERATED. NON-ABSORBABLE.

Neuro-Patch® is a type of fine fibred microporous fleece manufactured from a highly purified polyesterurethane. An electronically controlled procedure has been developed for producing Neuro-Patch®, in which a dissolved polyesterurethane polymer is sprayed from specialised jets. This produces fibres which are captured at defined angles, producing a fleece-like structure. The fine fibred microstructure supports the rapid infiltration of connective tissue cells.



Content	Art. No.
1 piece	106 4002
1 piece	106 4010
1 piece	106 4020
1 piece	106 4029
1 piece	106 4040
1 piece	106 4037
2 pieces	106 4045
2 pieces	106 4053
2 pieces	106 4061

## MODE OF APPLICATION

To achieve tension-free embedding and Neuro-Patch® should be cut as closely as possible to the defect size. Neuro-Patch® should be fixed with non-absorbable suture material (polyester, polypropylene). Additionally, it may be secured with fibrin glue. Atraumatic round-bodied needles allow suturing without significant damage to the implant.

## SUITABLE SUTURES



Optilene® polypropylene/polyethylene sutures (monofilament)



Premicron® polyester sutures (braided)



# DURA SUBSTITUTES

Biological and synthetic dura substitutes are used to prevent cerebrospinal fluid (CSF) leakage and infections. AESCULAP® dura substitutes stimulate the growth of dura-like tissue to close the opening. And are available as suturable implants and onlay variant.



# Notes

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# AESCULAP® – a B. Braun brand

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Manufacturer acc. to MDD 93/42/EEC of the Neuro Plating System is: Osteonic Co., Ltd., Suite 1206, Ace Techno 3 Cha, 38, Digital-ro 29-gil, Guro-gu, Seoul, Korea. The main product trademark "Aesculap" and the product trademark "CranioFix" are registered trademarks of Aesculap AG.



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