



# medifa 8000 hybrid

Mobile hybrid OR solutions



# Mobile hybrid OR solution

# = medifa 8000 hybrid

#### mobile medical imaging device +

## (C-arm, cath lab, CT scanner etc.)

medifa 8000 mobile hybrid OR solution can be used with C-Arm, CT scan or Cathlab for diagnostics in OR, so that imageguided surgery can be performed in all existing operating rooms. This means all operating rooms can be used for diagnostics in real time and for immediate fluoroscopic procedures, surgical intervention, treatment and therapy.



# Advantages of a mobile hybrid OR solution:

#### Flexibility and efficiency

- Any operating room can be used as a multidisciplinary hybrid OR
- Low acquisition and maintenance costs, increases return on investment
- No special requirements for foundations and room size as compared to fixed hybrid ORs
- Lower radiation dose required than fixed hybrid ORs
- · Demand-based utilization of existing technology and operating rooms
- Mobile solution enables cost-effective and future-proof replacement of imaging devices
- Quick response time in emergency care thanks to diagnostics in the OR



#### Safety and ergonomics

- Excellent imaging quality and less artefacts during fluoroscopy, thanks to the X-ray translucent carbon fiber table top with integrated carbon standard rails
- Higher safety for patient and user due to low required radiation dose
- Avoidance of unnecessary infection by means of transports to radiology department
- Immediate control based on intraoperative imaging
- User-friendly positioning of the imaging equipment thanks to special operating table design
- Improving workflow, avoiding delays and increasing productivity

# **Applications**

# **Better care in many surgical fields**



# **Endovascular applications**

Precise tracking of contrast agents simultaneously with imaging. Control and speed of free-floating table top displacement can be adjusted to the flow of contrast agent (electric up to 150 mm/s ideal for bolus-chase applications).

- Repair of aneurysms in the aortic arch
- EVAR: Endovascular aneurysm repair
- Stent implantation in peripheral vessels





# **Cardiovascular applications**

In cardiovascular procedures and treatment of coronary arteries, less invasive procedures can reduce complications and enhance speedy healing with mobile hybrid solutions.

- TEVAR: Thoracic endovascular aortic/aneurysm repair
- TAVI / TAVR: Transcatheter aortic valve implantation / reaplacment
- Defibrillator (ICD) and pacemaker





# **Orthopaedics / Traumatology**

The treatment results of orthopaedic and traumatological interventions can be significantly improved by direct imaging during the operation. With a mobile hybrid solution, you can avoid a transfer to radiology during surgery, gain important treatment time and reduce the risk of infection.

• Treatment of patients with polytrauma

Pelvic reconstruction

# **Neurosurgery / Oncology**

Intraoperative imaging increases precision in neurosurgical procedures and can improve resection and minimise damage to healthy tissue in tumour treatments.

- Coiling of aneurysms
- Tumour resection
- Minimally invasive oncological procedures for the treatment of liver, kidney and gynaecological cancers with fluoroscopy
- RF ablation procedures for kidney & liver tumour
- Spinal surgery

# **Functions**

Mobile imaging operating table with Free-Float Control and carbon lying surface, art.-no. 800400



Range

800400

		hange	000100
	Height adjustment	780 - 1.140 mm	•
	Trendelenburg	± 25°	•
*	Lateral tilt	± 20°	•
	Free-floating of table top		•
<b>↓</b> • •	Longitudinal sliding of table top	900 mm	=+
*	Vertical sliding of table top	200 mm	
<b>+  +</b>	Mobility		•
$\bigcirc$	Central brake		•
Μ	Memory (3 Positions)		
	Maximum permissible overall load		250 kg
		• electro-hydraulical	electrical 🔶 manual

Real Free-Floating: Free-Floating in each direction.



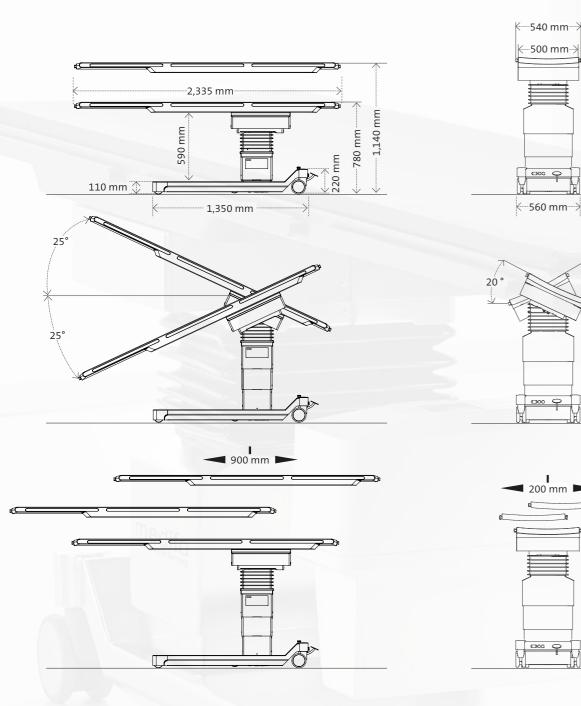
Longitudinal movement in head-sided direction up to 250 mm

- Real free-floating positioning as well as electrical longitudinal and vertical sliding of table top
- Better control over the surgical procedure due to the independent free-floating operation of the surgeon (speed and direction)
- Radiolucent table top and standard rails made of carbon according to the state-of-the-art technology
- Highest image quality with minimal radiation dose
- Slim and narrow design of the table top allows best possible patient access
- Bolus chase possible from thorax to lower leg in one step and with only one injection (longitudinal displacement up to 900 mm)
- Continuous radiolucency with a length up to 1.580 mm
- Software class "B"
- Emergency stop with less than 150 ms by spring-loaded safety brake
- Open interface for connection to external imaging systems



Longitudinal movement in foot-sided direction up to 650 mm

# Technical information





# Control concept

1. Standard: Backlit control panel with joystick, colour display and battery indicator



- 2. Standard: Free-Float Control for precise manual movement of table top (only available for model 800400)
- 3. Standard: Additional backlit control unit at column
- 4. Optional: Backlit wireless infrared hand switch with colour display and battery indicator (art-no. 804070, not retrofittable)
- 5. Optional: Foot switch for height, lateral and Trendelenburg adjustment (optional, art.-no. 804060)

Priority of control options:

1. Ethernet (SDC Interface)

2. Control panel

3. Foot switch









# Interface

#### External connection options to the operating table:

- Connection to external device via Ethernet cable / network cable RJ45
- Power line
- Potential equalisation

Open SDC interface: Service-oriented device connectivity (www.ornet.org):

- IEEE 11073 SDC Communication Protocol
- IP-based service-oriented protocol that enables interoperability between devices according to IEEE
  - (11073-10207) •
  - (11073 20702)
  - (11073 20701)



The interface allows other medical devices to take over the position of the table and the movement information in real time and to control the table movement.

## Integration possibilities for SDC interface through external devices:

ROAD BORDS

- Control of table movement via external device: table height, tilting, Trendelenburg, as well as longitudinal, transverse and diagonal displacement, memory positions enable optimum operating comfort
- Synchronised movements of table and external device enable image fusion •
- Automatic movement sequences controlled by the imaging device •
- Control and programming of predefined travel profiles (incl. feed speed and feed path of the table top) with infinitely variable speed adjustment up to 150 mm/s
- Continuous movement of the table top (lengthwise and crosswise), e.g. for computer tomographic spiral scans
- Collision protection for more patient and device safety •
- OR integration connection
- Recording of table position / patient positioning for documentation purposes





# Foot switch for medifa 8000 & 8000 hybrid

## Art.-no. 804060

- Additional control unit for the main functions height, lateral and Trendelenburg movement
- Tethered



### Infrared remote control for medifa 8000 & 8000 hybrid Art.-no. 804070

- Incl. charging station
- Wireless data transfer
- Control panel for all electric functions



# Clamp Art.-no. 81511 Rotatable

# Art.-no. 81750

- Extendible to both sides



# Hand switch support

## Art.-no. 61575

- To place hand switch at lateral or head-end side rail
- Tiltable
- Material: Stainless steel



# Arm restraint cuff Art.-no. 61755 • For attachment at anaesthesia screen • Suitable for: 61750, 81750



• For fixation of accessories with round rod ( $\emptyset$  = 16-18 mm)

## Anaesthesia screen for medifa 8000 & 8000 hybrid

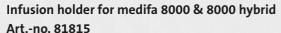
• Incl. clamp, without arm restraint cuff



## Flexible anaesthesia screen for medifa 8000 & 8000 hybrid Art.-no. 81751

- Incl. clamp
- Bendable, individually adjustable
- Length: 2000 mm





- Incl. clamp
- Extendible
- Four hooks



# Body or leg strap for medifa 8000 & 8000 hybrid Art.-no. 81405

- Steplessly adjustable
- With velcro strap







# Hand cuffs for medifa 8000 & 8000 hybrid Art.-no. 81406

- Incl. clamp
- For fixation of hands or arms
- Pair

# Art.-no. 81110

- means of central screw
- Oval form with cut-out
- Upholstery: PUR, electrically conductive

## Horseshoe headrest for adults Art.-no. 811076

- Incl. detachable gel pads and fixation
- Radiolucent
- Horseshoe headrest (adults)



### Joint arm with horseshoe headrest for medifa 8000 & 8000 hybrid

- Flexible positioning of headrest by means of three joints
- Fast positioning and fixation of horseshoe shaped headrest by
- For positioning of head in prone or supine position

- For positioning head in prone or supine position

• Composed of: 561060 - Adaptor for accessories, 561061 - Connecting piece short, 561062 - Connecting piece long, 561067 - Swivel adaptor, 561077 -



## Horseshoe headrest for children Art.-no. 811078

- Incl. detachable gel pads and fixation
- For positioning head in prone or supine position
- Radiolucent
- Composed of: 561060 Adaptor for accessories, 561061 Connecting piece short, 561062 - Connecting piece long, 561067 - Swivel adaptor, 561079 -Horseshoe headrest (children)



#### Skull clamp Art.-no. 811069

- Incl. fixation
- For fixation of head during neurosurgical procedures
- Radiolucent
- Composed of: 561060 Adaptor for accessories, 561061 Connecting piece short, 561062 - Connecting piece long, 561067 - Swivel adaptor, 561068 - Skull clamp
- Skull pins 811073 or 811074 have to be ordered separately

# Skull pins adults

# Art.-no. 811073

- Reusable, three pieces, made of titan
- Attachment at 811069

# Skull pins children Art.-no. 811074

- Reusable, three pieces, made of titan
- Attachment at 811069



# Radiolucent arm rest Art.-no. 81220\_1

- Swivelling
- Radiolucent

Bow frame

- L x W: 650 x 140 mm

- H = 60 mm (Art.-no. 81220 3)

# Art.-no. 81217

- Incl. clamp and fixture straps

- electrically conductive, detachable





• Unlimited access to C-arms • Patient supports are adjustable to fit different patient sizes • Maximum patient weight: 227 kg

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• Upholstery: Artificial leather covered foam, H = 20 mm, electrically conductive
• Also available with upholstery H = 40 mm (Art.-no. 81220 2) and
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### Arm rest with joint arm for medifa 8000 & 8000 hybrid

• Three joints enable flexible positioning of patient's arm • Fast positioning and fixation by means of central screw • Upholstery: Viscoelastic foam, L x W x H: 400 x 115 x 80 mm,



# Arm rest with ball joint for medifa 8000 & 8000 hybrid Art.-no. 81211

- Incl. clamp and fixture straps
- Rotatable and tiltable by means of ball joint

Arm shield for medifa 8000 & 8000 hybrid

- Adjustable in height and horizontally slidable
- Upholstery: Viscoelastic foam, L x W x H: 400 x 115 x 80 mm, electrically conductive, detachable



# Adaptor for side rails Art.-no. 81560

- Incl. clamps
- For attachment of external accessories
- L: 200 mm

# Holder of body supports for medifa 8000 & 8000 hybrid Art.-no. 81361

- For attachment of body supports





# Arm and hand surgical table Art.-no. 81230

- Incl. clamp, upholstery and supporting leg
- Table top made of carbon
- Radiolucent

Art.-no. 81345 Incl. upholstery

• L x H: 410 x 180 mm

- Adjustable in height
- L x W: 815 x 430 mm
- Upholstery: Soft Foam Core, H: 30 mm, electrically conductive





• For stabilisation of patient or positioning of arm • Hinged in three steps (upwards, horizontally, downwards) • L x H: 600 x 140 / 235 mm • Upholstery made of artificial leathered covered foam, H= 20 mm has to be ordered separately (art.-no. 56031)

• Adjustable in height, extendible and swivelling (360°) • Positioning of body supports by means of ball joint



# Body support for pubis, sacrum and sternum Art.-no. 61361\_1

- Upholstery: PUR, Ø: 100 mm, electrically conductive
- Suitable for: 61361, 61365 and 81361
- Material: Stainless steel



# Supporting roll Art.-no. 61361 4

- For lateral positioning of patient
- Suitable for: 61361, 61365 and 81361
- Material: Stainless steel

# Art.-no. 81355\_1

- Radiolucent
- Integrated side rails
- L x W: 600 x 50 mm

- 60 mm (Art.-no. 81355 3)
- Pair

## **Radiation protection** Art.-no. 81040

- Incl. fixation

- X-ray tube voltage range: 50 120 kV

# Body support for side and shoulder Art.-no. 61361 2

- To support side and shoulder
- Upholstery: PUR, L x W: each 220 x 110 mm, electrically conductive
- Suitable for: 61361, 61365 and 81361
- Material: Stainless steel



# Body support for back and buttocks Art.-no. 61361\_3

- Upholstery: PUR, L x W: each 220 x 110 mm, electrically conductive
- Suitable for: 61361, 61365 and 81361
- Material: Stainless steel







• Upholstery: PUR, L x Ø: 190 x 100 mm, electrically conductive

Width extensions for medifa 8000 & 8000 hybrid

• Upholstery: Artificial leather covered foam, H: 20 mm • Also available with upholstery height 40 mm (Art.-no. 81355 2) and

• Protects lower body from scattered radiation • Three segments (each L x W: 750 x 290 mm)



#### Radiation protection with upper shield Art.-no. 81045

- Incl. fixation
- Protects body from scattered radiation
- Lower shield consisting of three segments (each L x W: 750 x 290 mm)
- Upper shield consisting of four segments (each L x W: 270 x 180 mm)
- X-ray tube voltage range: 50 120 kV



#### Head support Art.-no. 61147

- For positioning of patient in supine position
- Radiolucent
- L x W: 250 x 250 mm
- Material: PUR, electrically conductive



## Spinal disc pad Art.-no. 61900

- For positioning during surgeries at spinal disc
- Radiolucent
- L x W x H: 820 x 450 x 90 mm
- Material: Viscoelastic foam, electrically conductive







Art.-no. 61115

• Height 45 mm, Ø (outer): 200 mm

Art.-no. 61115 2 • Height 35 mm, Ø (outer): 140 mm

Art.-no. 61115 3 • Height 20 mm, Ø (outer): 90 mm

Art.-no. 61910

# • L x W x H: 280 x 240 x 150 mm Head positioning pad for children made of silicone gel Art.-no. 61911

• L x W x H: 260 x 230 x 140 mm

Art.-no. 61920 • L x W x H: 305 x 100 x 75 mm

Art.-no. 61921 • L x W x H: 405 x 100 x 75 mm Art.-no. 61922

• L x W x H: 510 x 100 x 75 mm



## Head ring made of silicone gel for adults

- Head ring made of silicone gel for children
- Head ring made of silicone gel for infants

# Head positioning pad for adults made of silicone gel

- For positioning of patient in prone position
- For positioning of patient in prone position

## Small flat bottom chest roll made of silicone gel

- Medium flat bottom chest roll made of silicone gel
- Large flat bottom chest roll made of silicone gel



# Heel pads made of silicone gel Art.-no. 61940

- For positioning patient in supine position
- L x W x H: 190 x 100 x 70 mm
- Pair

## Upholstery for lying surface for medifa 8000 & 8000 hybrid Art.-no. 800020

- Artificial leather covered foam, L x W x H: 2340 x 540 mm x 20 mm, electrically conductive
- Also available with upholstery height 40 mm (Art.-no. 800040) and 60 mm (Art.-no. 800060)

# medifa

## The medifa healthcare group unites competence concerning operating rooms under one roof.

medifa is an owner-run and internationally active complete solution provider in the medical technology.

The product and service portfolio covers all operating room requirements from modular wall, door, ceiling and cabinet systems (RooSy® Room Systems) for the turnkey operating room, as well as operating tables with accessories, operating lights right up to special construction solutions and medical furniture. In addition, one of the largest German OEM suppliers in the medical technology sector also belongs to medifa.

medifa GmbH & Co. KG (Finnentrop), medifa hygienic rooms GmbH (Ötigheim) and medifa metall und medizintechnik GmbH in Rastatt are all part of this group of companies. The medifa healthcare group employs approximately 350 employees at three locations within Germany. The planning, engineering and production take place exclusively in Germany,

#### Products

- Modular operating room systems (RooSy)
- Operating lights (H!Light)
- Mobile carbon tables for minimally invasive applications
- Operating tables and accessories
- Examination and treatment chairs
- Medical furniture and trolleys
- Customized medical solutions

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medifa weltweit



and with over 80% added value in the group of companies, the group guarantees fast reaction times.

The slogan "we care" means for us that we consistently orientate ourselves according to the requirements of our customers. Customers all over the world can rely on top-class consultation, processing and quality from a single source, made in Germany according to certified national and international quality standards.





# Made in Germany







Version 01-21-EN Subject to modifications due to technical development. This document is intended to provide information to an international audience outside of the US.

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