



### medifa 8000 hybrid

Mobile hybrid OR solutions

Made in Germany

# Mobile hybrid OR solution



### = medifa 8000 hybrid + mobile medical imaging device

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

With a mobile hybrid OR solution, image-guided surgery can be performed simultaneously and location-independently. That means that nearly each operating room can be used as a mobile hybrid OR 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 needed than in 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

#### 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 departments
- 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**



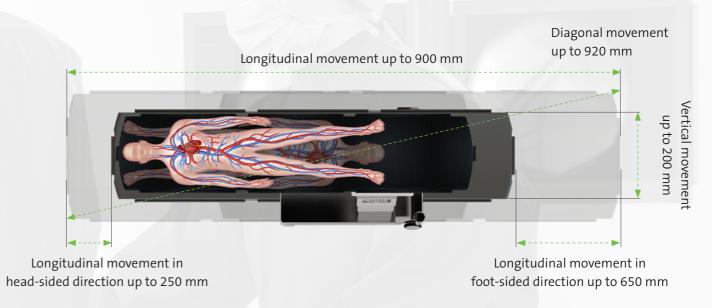
### Mobile imaging table with free-float control and carbon lying surface, art.-no. 800400





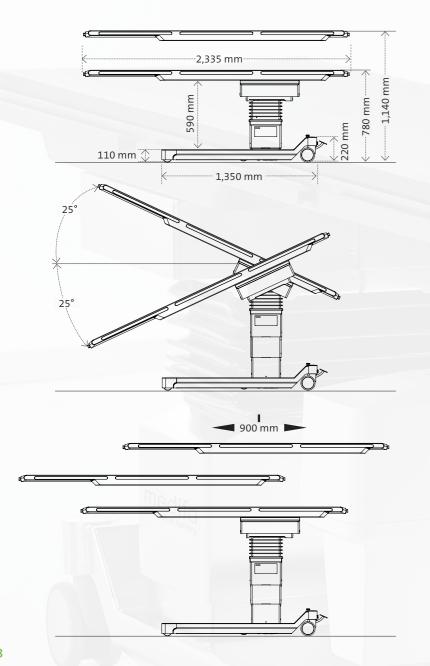
		Range	800400
1 - 4	Height adjustment	780 - 1,140 mm	•
1	Trendelenburg	± 25°	•
* • *	Lateral tilt	± 20°	•
	Free-floating of table top		•
<b>₩</b> • •	Longitudinal sliding of table top	900 mm	<b>#</b>
<b>* • •</b>	Vertical sliding of table top	200 mm	•
<b>+</b> - +	Mobility		•
	Central brake		•
M	Memory (3 Positions)		
Ö	Maximum permissible overall load		250 kg
		<ul> <li>electro-hydraulical</li> </ul>	ctrical 🔷 manual

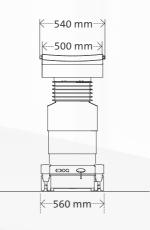
### Real free-floating in each direction

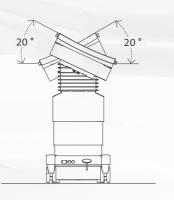


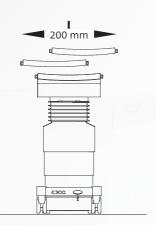
- Real free-floating positioning as well as electrical longitudinal and vertical sliding of table top
- Better control over the surgical procedure due to the independent operation of the surgeon (speed and direction)
- Unique carbon table top with integrated standard rails offer highest image quality combined 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 up to 1,590 mm, (up to 1,910 mm continous radiolucency (when attaching optional radiolucent headrest system (art.-no 811076 or 811078))
- Software class "B"
- Emergency stop with less than 150 ms by spring-loaded safety brake
- Open SDC interface for connection to external imaging systems

# Technical information











# Control concept



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



Activation of control panel

Activation of up to three user-defined operating positions

Saving of up to three user-defined operating positions

Button for changing direction of joystic

Joystick for horizontal and vertical sliding of table top

Reverse-Mode

Positioning keys

Leveling

Colour display with 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 of 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:

- Control of table movement via external device: table height, tilting, Trendelenburg, memory positions as well as longitudinal, transversal and diagonal displacement of table top 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, 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



### Hand switch support Art.-no. 61575

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



### Clamp for medifa 8000 & 8000 hybrid Art.-no. 81511

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



### Anaesthesia screen for medifa 8000 & 8000 hybrid Art.-no. 81750

- Incl. clamp, without arm restraint cuff
- Extendible to both sides

### Arm restraint cuff Art.-no. 61755

- For attachment at anaesthesia screen
- Suitable for: 61750, 81750



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

- Incl. clamp
- Bendable, individually adjustable
- Length: 2,000 mm





### Infusion holder for medifa 8000 & 8000 hybrid Art.-no. 81815

- 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 (pair) Art.-no. 81406

- Incl. clamp
- For fixation of hands or arms



### Joint arm with horseshoe headrest for medifa 8000 & 8000 hybrid Art.-no. 81110

- Flexible positioning of headrest by means of three joints
- Fast positioning and fixation of horseshoe shaped headrest by means of central screw
- For positioning of head in prone or supine position
- Oval form with cut-out
- Upholstery: PUR, electrically conductive (on request)



### Horseshoe headrest for adults (DORO) Art.-no. 811076

- 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, 561077 -Horseshoe headrest (adults)



### Horseshoe headrest for children (DORO)

#### 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 (DORO) Art.-no. 811069

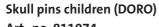
- Incl. fixation
- For fixation of head during neurosurgical procedures
- Radiolucent
- Composed of: 561060 Adaptor for accessories, 561061 Connecting piece short, 561062 - Connecting piece long, 561067 - Swivel adaptor, 561068 - Skull clamp
- Skull pins 811073 or 811074 have to be ordered separately



### Skull pins adults (DORO)

#### Art.-no. 811073

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



#### Art.-no. 811074

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



#### **Bow frame**

#### Art.-no. 81900

- Incl. hand crank
- Radiolucent
- Unlimited access to C-arms
- Patient supports are adjustable to fit different patient sizes
- Maximum patient weight: 227 kg



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

- Swivelling
- Radiolucent
- L x W: 650 x 140 mm
- Upholstery: Artificial leather covered foam, H = 20 mm, electrically conductive
- Also available with upholstery H = 40 mm (Art.-no. 81220\_2) and H = 60 mm (Art.-no. 81220\_3)



### Arm rest with joint arm for medifa 8000 & 8000 hybrid Art.-no. 81218

- Incl. clamp and fixture straps
- 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: 500 x 115 x 80 mm, electrically conductive, detachable



### Arm shield for medifa 8000 & 8000 hybrid Art.-no. 81345

- Incl. upholstery
- L x H: 410 x 180 mm





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

- Incl. clamp, upholstery and supporting leg
- Table top made of carbon
- Radiolucent
- Adjustable in height
- L x W: 815 x 430 mm
- Upholstery: Soft Foam Core, H: 30 mm, electrically conductive



### Side support / arm rest Art.-no. 81092

- 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)



### Adaptor for side rails for medifa 8000 & 8000 hybrid Art.-no. 81560

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



### Holder of body supports for medifa 8000 & 8000 hybrid Art.-no. 81367

- For attachment of body supports
- 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, 61367 and 81367
- Material: Stainless steel



## Körperstütze für Schulter- und Seitenposition Art.-Nr. 61361\_2

- Polster: PUR, elektrisch ableitfähig, L x B: 220 x 110 mm
- Kompatibel mit Art.-Nr. 61361, 61365 und 81361
- Material: Edelstahl





### 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, 61367 and 81367
- Material: Stainless steel



#### Supporting roll

#### Art.-no. 61361 4

- For lateral positioning of patient
- Upholstery: PUR, L x Ø: 190 x 100 mm, electrically conductive
- Suitable for: 61361, 61367 and 81367
- Material: Stainless steel



### Width extensions for medifa 8000 & 8000 hybrid (pair) Art.-no. 81355\_1

- Radiolucent
- Integrated side rails
- L x W: 600 x 50 mm
- Upholstery: Artificial leather covered foam, H: 20 mm
- Also available with upholstery height 40 mm (Art.-no. 81355 2) and 60 mm (Art.-no. 81355 3)



### **Radiation protection**

#### Art.-no. 81040 Incl. fixation

- Protects lower body from scattered radiation
- Three segments (each L x W: 750 x 290 mm)
- X-ray tube voltage range: 50 120 kV



### 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



### Head ring made of silicone gel for adults Art.-no. 61115

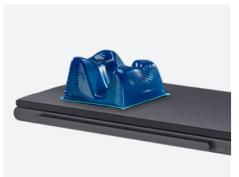
• Height 45 mm, Ø (outer): 200 mm

## Head ring made of silicone gel for children Art.-no. 61115\_2

• Height 35 mm, Ø (outer): 140 mm

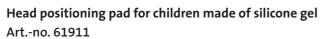
## Head ring made of silicone gel for infants Art.-no. 61115\_3

• Height 20 mm, Ø (outer): 90 mm



## Head positioning pad for adults made of silicone gel Art.-no. 61910

- For positioning of patient in prone position
- L x W x H: 280 x 240 x 150 mm



- For positioning of patient in prone position
- L x W x H: 260 x 230 x 140 mm



### Small flat bottom chest roll made of silicone gel Art.-no. 61920

• L x W x H: 305 x 100 x 75 mm

## Medium flat bottom chest roll made of silicone gel Art.-no. 61921

• L x W x H: 405 x 100 x 75 mm

#### Large flat bottom chest roll made of silicone gel Art.-no. 61922

• L x W x H: 510 x 100 x 75 mm



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

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



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

- Artificial leather covered foam, L x W x H:
   2,340 x 540 mm x 20 mm, electrically conductive
- Also available with upholstery height 40 mm (Art.-no. 800040)
   and 60 mm (Art.-no. 800060)

## Additional accessories

A wide range of optional accessories complements the application spectrum of our operating tables.

For central storage of accessories we offer a trolley (art.-no. 341045) made of polished stainless steel.

Further accessories can be found in our brochure "Accessories for operating tables".





## medifa



#### Competence around operating rooms

As a leading international manufacturer of medical products, medifa GmbH offers innovative products and solutions for operating rooms, mobile hybrid operating systems and other areas in hospitals or outpatient surgical centers. The big product portfolio includes mobile operating tables and operating accessories, mobile carbon operating tables, operating lights, as well as examination and treatment chairs.

The medifa GmbH is a company of the Reinsberg Group, a leading and globally active European manufacturer of medical products and solutions for hospitals.

The development, construction and production of medifa products take place in Germany. With a large share of added value in the company group, medifa guarantees its customers fast response times and high quality "Made in Germany" in accordance with certified national and international quality standards.

medifa consistently focuses on the current and future requirements of its customers. In line with the slogan "we care", customers from all over the world can rely on top-class consultation, processing and quality from a single source.

#### **Products**

- Operating lights (medifa H!Light)
- · Mobile operating tables
- Mobile carbon operating tables for minimal invasive applications
- Accessories for operating tables and lights
- Examination and treatment chairs (gynecology, urology and proctology)
- Medical functional furniture

#### medifa worldwide







#### medifa GmbH

Industriestraße 5 57413 Finnentrop Germany fon +49 2721 71 77 -0 fax +49 2721 71 77 -255 www.medifa.com info@medifa.com

#### Version 01-24-EN

Subject to modifications due to technical development.

This document is intended to provide information to an international audience outside of the US.





