OP 3800



modul technik
medical supply systems and equipment

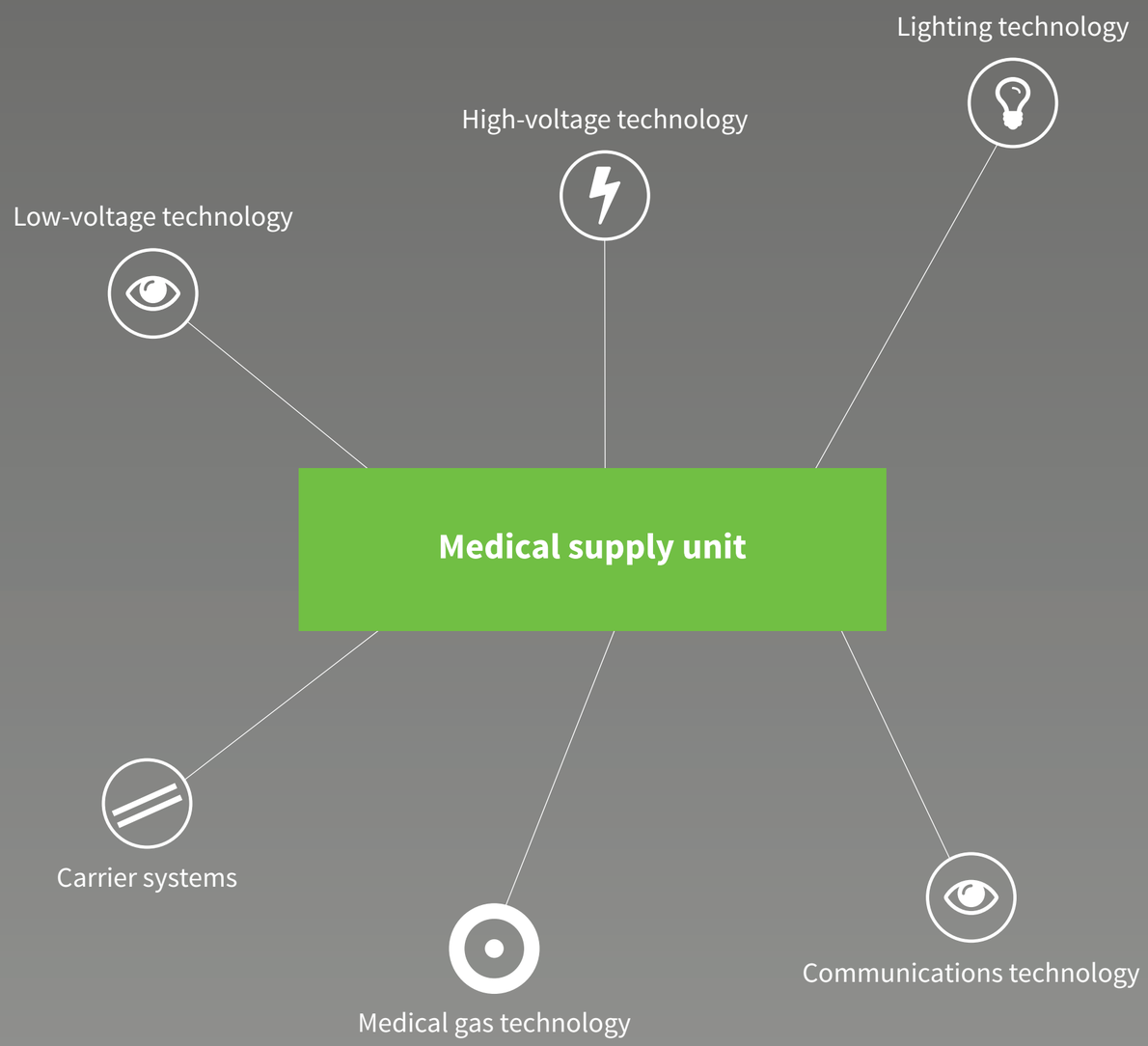


fig. 001 | Chart Medical Supply System

OUR MEDICAL SUPPLY UNITS

OUR MODULAR CONCEPT: FLEXIBLE COMBINATIONS AND TOTALLY CUSTOMISABLE!

What makes the medical supply units from **modul technik** so special? Actually everything! This is because our Class B medical products are modular in their design and can be easily and cost-effectively adjusted through combinations and customisations to the most diverse areas of application.

This is how we meet all the essential requirements for the optimum supply of the patient place with low and high voltage current, data and communications technologies and medical gases, and thereby enable the adaptation of diverse medical apparatus. Our individual design options as regards the colour, material and image motifs applied make each unit that we deliver a unique, connection-ready device.

Our ideal scenario is when we can work closely with you early in the planning phase of your facility. Then we can give architects and planners valuable and project-specific advice and assistance, saving you both time and effort.

All our basic modules are made from high-quality aluminium with its inherent long durability and ease of use. The powder coatings of all extruded aluminium profiles take specific hospital hygiene requirements into account and can be supplied in any colour you want from the RAL or NCS colour scale.

For those areas where particular comfort is to be provided, we also use wood décor and decorative graphics to transform a technical assistance device into an elegant piece of furniture. You can choose from our standard range or choose whatever you want. Whether you want atmospheric photos, artistic graphics, paintings or image-text combinations, we create all graphics in high-resolution, brilliant quality digital printing.

It goes without saying that all our products meet the “Essential Requirements” of EU Directive 93/42/EEC and are manufactured according to DIN EN ISO 11197. Our products only leave our premises after rigorous final testing for functionality and workmanship quality. This is also guaranteed by our quality management system that is certified according to DIN EN ISO 9001 and DIN EN ISO 13485.

STANDARD DESIGN

You do not have any customisation requirements and simply want to install proven and well-tested systems. Then we recommend our standard units to you which are described in more detail in an information box on many product pages. We can offer you these standard products at special conditions.

GENERAL EQUIPMENT FEATURES

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GENERAL EQUIPMENT HIGH-VOLTAGE TECHNOLOGY

The medical supply unit can be equipped with both earthed sockets (230 V/16 A with control light) and with CEE sockets (230 V/16 A 3 pole or 400 V/16 A 5-pole). The brand, number and electric circuit types of the installation elements and the voltage type of the supply voltage are specified depending on the project. Potential equalisation sockets can also be specified in accordance with the number of sockets.

As a preference PEHA COMPACTA safety sockets are installed.

Custom installation of additional elements is also possible. The electrical connecting terminal block is factory-installed and wired to the electrical equipment.

GENERAL EQUIPMENT MEDICAL GAS TECHNOLOGY

The medical supply unit is connected to the on-site medical gas supply at the central feed-in point. Current is usually supplied to the media either laterally, at the back or from the top directly into the respective media-specific channels or ceiling columns. The copper pipes installed inside the supply unit meet the quality requirements for medical gases according to DIN EN ISO 7396-1.

If required, the system is delivered ready for use with integrated tapping points according to DIN EN ISO 9170-1 and DIN EN ISO 9170-2. Market-available brands such as DRÄGER, GREGGERSEN, HEYER, MEDAP or other country-specific brands can be installed. Based on the specific project, the specialist planners will decide whether single or dual-circuit systems are to be used.

GENERAL EQUIPMENT MONITORING AND COMMUNICATIONS TECHNOLOGY

The connection sockets for monitors and patient monitoring devices are usually provided by the operator. In other cases we can arrange for delivery in consultation with the planners. Whereas specialist companies connect the monitor systems, we of course install all connector systems, sockets and IT inputs in accordance with manufacturer specifications. This is the best possible preparation for a fast and smooth apparatus connection after the installation of the supply unit.

GENERAL EQUIPMENT APPARATUS CARRIER SYSTEM G 1000

The apparatus carrier system (25x10 mm) is used to attach medical accessories such as flowmeters, catheter baskets, examination lights and much more. Consult our comprehensive Accessories Catalogue for a wide range of equipment options.

GENERAL EQUIPMENT LIGHTING TECHNOLOGY

There are many different lighting technology options available for the optimum lighting of the workplace and for the patient environment.

These include lamps for indirect general lighting, reading and examination lighting and lamps to provide lighting orientation. All technical data and lighting options can be found in the table on the respective product page.

Lighting modules meet the standards listed in DIN 5035 “Interior room lighting by artificial light” - Part 3, lighting in hospitals and in DIN EN ISO 11197. The lighting modules used in 2E user group rooms are generally equipped with low-stray field ballasts and are subjected to an EMC test.

Furthermore, many units can also be equipped with the bio-dynamically effective Visual Timing Light. More information on this can be found in the next chapter.

ASSEMBLY, CLEANING, MAINTENANCE AND REPAIR

ASSEMBLY

The medical supply unit can be assembled and fixed to both solid and lightweight construction walls. For lightweight construction walls an additional supporting structure is required on-site. For ceiling-suspended supply units, supporting structures are used based on the specific project.

CLEANING

The supply unit can be cleaned with standard cleaning agents and disinfected with alcohol-free disinfectants.
A high-quality electrostatic powder coating has been applied to the surface. Blank parts are made of anodised aluminium or stainless steel. The plastic components are cleaning and disinfectant-resistant.

MAINTENANCE AND REPAIR

The system must be maintained for the first time after 5 years and then after every 2 years. A contractual service agreement can be concluded for the maintenance work if required. More information can be found in the respective operating instructions.

ACCESSORIES

Our comprehensive range of accessories means you can set up your work area exactly as you want it. Consult our Accessories Catalogue to find out about the wide range of options available to you.

OP 3800



fig. 101 | OP 3800

THE BRIDGE TO THE OR OF TOMORROW

With **OP 3800 modul technik** provides you with a fully-integrated OR medical care system, since as well as the integrated connections for high voltage and low voltage current, medical gases and data and communications technologies, with the circulating air flow between the media bridge and ceiling, a disruption and turbulence-free laminar air supply is integrated into the system.

The media bridge is equipped according to your individual specifications and requirements. We deliver the **OP 3800** connection-ready and assembled. Maintenance costs are also minimised through the rigid tubing up to the tapping points for medical gases.

You can even choose the shape of the **OP 3800**. In addition to the standard rectangular design, it can also be supplied as a U–shaped or L-shaped design.

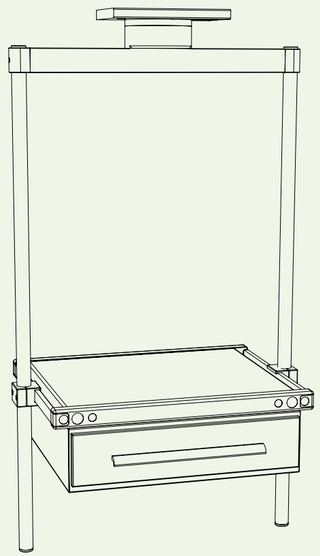
Your additional advantage is that with the **OP 3800** you retain your flexibility regarding any later expansion to the Hybrid-OR. Retrofitting of cables and connections for imaging procedures does not pose any problem at all.

OP 3800

THE BRIDGE OF THE OR OF TOMORROW

GW 2500

The GW 2500 apparatus trolley is used as a carrier system for moduflex 2500 and the OP 3800 media bridge. Medical apparatus can be freely positioned along the height-adjustable consoles. The trolley is continuously braked by a manual friction brake.



GW 3600

In addition to GW 2500, the inner running GW 3600 can be used on the OR 3800 in order to incorporate more material into the work place.

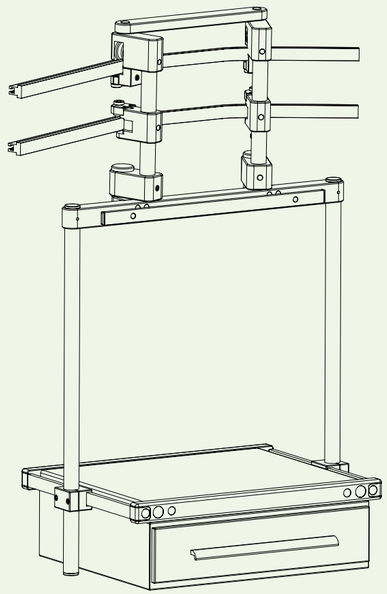


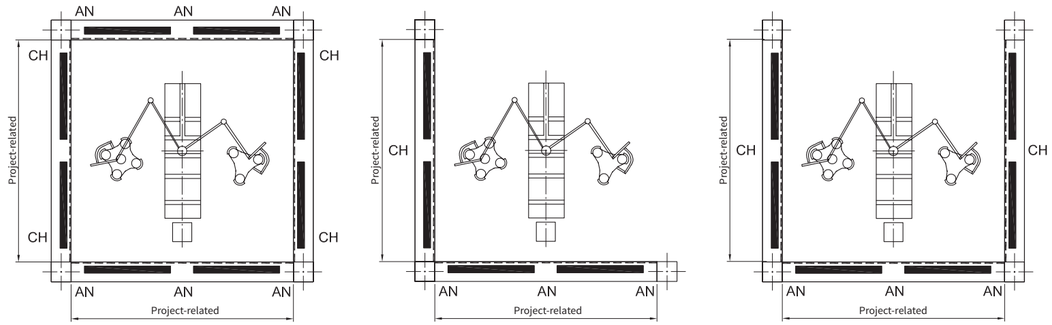
fig. 102



fig. 103 | OP 3800, example of equipping St.-Johannes-Hospital Dortmund, Germany

OP 3800

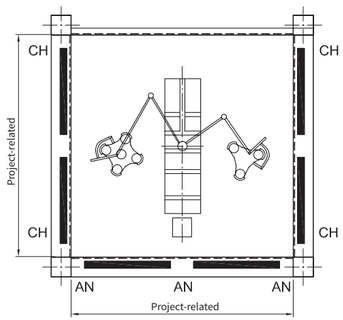
THE BRIDGE OF THE OR OF TOMORROW



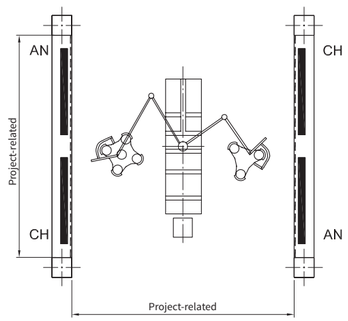
Typ 1
(4-sided)

Typ 2
(L-shape)

Typ 3
(U-shape)



Typ 4
(4-sided foot side: IV 1054)



Typ 5
(2-sided)

LEGENDE

AN	=	Anaesthesia
CH	=	Surgery
--	=	Glass shield
▬	=	Indirect lighting

fig. 104



fig. 105 | Media bridge OP 3800 with green lighting for use in endoscopy

OP 3800

THE BRIDGE OF THE OR OF TOMORROW

TECHNICAL DATA

(country-specific differences possible)
Further technical data and design options on request

Electric specifications
Nominal voltage: 230 V - 240 V / 50 Hz - continuous operation
Protection class: I
Protection type: IP 20

Lighting technology
Nominal voltage: 230 V - 240 V / 50 Hz
Protection class: I
Connection type: Plug connection
Connection cross-section: 1.5mm² max.
Protection type: IP 20

Work place lighting (LED): Output ≙ 23 W
Work place lighting (LS-tubes T5): Output ≙ 24 W
Indirect lighting (LED): Output ≙ 80 W
Indirect lighting (T5 fluorescent tubes): Output ≙ 2 x 54 W

Operating pressure of medical gas technology
Oxygen: 5 bar
Compressed air: 5 bar
Compressed air: 8 bar
Vacuum: - 0,8 bar
Laughing gas 5 bar
CO_2: 5 bar
AGSS: 5 bar
Air-Motor: 8 bar

General information
Media current feed: From the top in the support columns
Additional load per apparatus trolley: Max. 120 kg
Optional light control: DALI DIM
Optional indirect RGB lighting: Output ≙ 3 x 39 W

tab. 040



fig. 106 | OP 3800, inner and all-round infusion trolley GW 3600



fig. 107 | OP 3800, rotary switch for GW 3600



fig. 108 | OP 3800

Hybrid OP



fig. 109 | OP 3800, Hybrid-Solution *Krankenhaus der Barmherzigen Brüder Trier, Germany*

THE NEXT GENERATION OF OPERATING ROOMS

More and more hospitals are taking the decision to expand individual operating rooms to the Hybrid-OR. In addition to economic benefits, the combination of traditional OR techniques and imaging procedures enable a more diverse usage and far-reaching interdisciplinary collaboration in the operating room.

With the Hybrid-OR system variant of the **OP 3800** system, **modul technik** is presenting both a proven and at the same time innovative solution that is already in widespread use.

Based on the ceiling system which includes all the supply connections, we develop a Hybrid-OR system totally customised to your requirements from a single source.

This also means that we place great emphasis on the ergonomic requirements and create optimum working conditions for the entire OR team.

Plan your Hybrid-OR with **modul technik**. We will be pleased to present our reference sites to you.

modul technik

Medizinische Versorgungssysteme und Geräte
medical supply systems and equipment

CE 0044

modul technik GmbH | Rudolf-Diesel-Straße 5 | D-56410 Montabaur
Phone: +49(0)26 02 / 94 49-0 | Fax: +49(0)2602 / 94 49-11
E-Mail: info@modul-technik.de | Internet: www.modul-technik.de

The technical data in the catalouges as well as the weight, load and dimensions have been issued to the best of our knowledge.
Errors reserved. We reserve the right to make technical alterations for the purpose of progress.

TÜV NORD CERT GmbH ISO 9001/ISO 13485

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