

Ceiling Pendant – Ceiling Supply Unit MB

Optimal Media Supply for OT and ICUs



Application range

The unit supplies medical equipment with electricity, medical gases as well as lighting fixtures and communication systems. For application in OTs the pendant supports the realisation of the laminar-air-flow-concept for OT ceilings. Furthermore, it contains carrier systems for space-saving and user-friendly arrangement of medical equipment and devices in OTs and ICUs.

Advantages

- In contrary to in flexible ceiling pendants mounted hose connections, the MB copper tube connections are maintenance-free
- Clearly arranged sockets
- Napless smooth surface improves hygiene
- High stability due to a massive support frame
- Easy to maintain and to upgrade
- Precise carriage guidance (even with eccentrically loaded equipment rack) on the one-piece aluminium support frame
- No impeding carrier rails below the unit

Structure

The supply unit consists of vertical support columns and a horizontal supply boom:

The support columns are fixed directly to the ceiling or use a sub-structure for a suspended ceiling. All conduits for electricity and gas supply are separately mounted inside the columns.

The supply boom consists of a massive, extruded anodized aluminium support frame. Media sockets are placed along the front-side, and if required, supplementary at the rear-side. An additional carrier rail, attached to the front, allows a range of devices to be suspended (bed separator, infusion bottle holder, cable arm). Optional indirect room lighting can be installed in the ceiling deck.



This design facilitates handling, is easy to service, and offers upgrade potential for your constantly growing device cluster. A guide rail on the support frame allows the attachment of carriages from which equipment carriers are suspended and can be both rotated and pulled. The supply units are available in random lengths. For lengths over 3,000 mm, modular systems are available.

The supply unit's configuration and connections are available in a great range and are adaptable to the respective requirements of the hospital and/or work place. The units are supplied in the basic colour grey-white (RAL 9002). Other colours are possible and subject to surcharge.

Application in Operating Theatres

Particularly with installations of laminar-air-flow-ceiling systems, the ceiling pendant MB is the ideal system for media supply: The supply booms are installed at three or four sides of the operating area's ceiling and thus can carry the air guidance apron of safety glass.

Advantages of laminar-air-flow ceilings

- Reliable protection for the patient, surgical team and instrument table
- Stable laminar displacement current with even distribution of the supplied air temperature and velocity
- Low germ deposition
- Low air velocity in working area

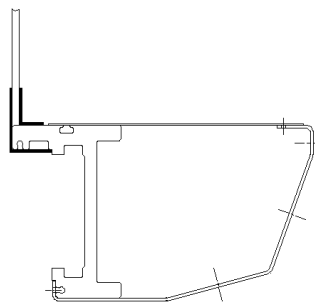
An optimal effect however, is possible only if the laminar flow is brought as close as possible to the operating area. Conventional ceiling fixtures disrupt the laminar flow and do not allow a mounting of air guidance aprons.

Advantages of the MB ceiling pendant

- Unlike conventional ceiling pendants which disrupt a laminar air flow, the MB ceiling supply enhances a laminar flow by an air guidance apron
- Clearly arranged sockets
- Smooth napless surface for hygiene
- High stability with the massive support frame
- Easy to service and to upgrade
- Precise carriage guidance (even with eccentrically loaded equipment rack) on the one-piece aluminium support frame
- No impeding carrier rails below the unit

Profiles

The **MTG** OP supply unit type MB has a particularly slim but nevertheless extremely stable profile. Glass surfaces are prominent overall, while the spacial impression is bright and transparent

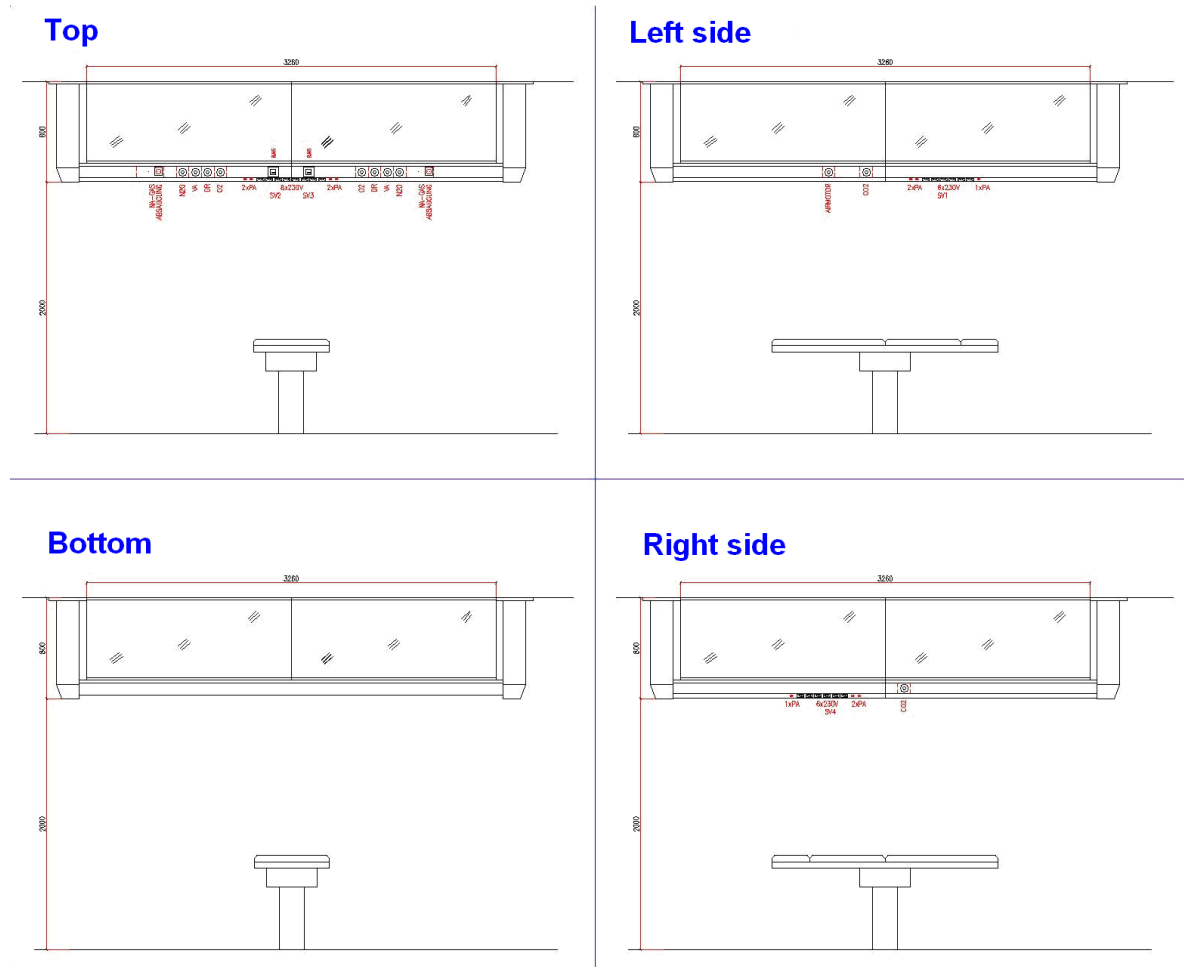


Standard Sizes

As standard sizes we produce ceiling supply systems of the following dimensions:

Size 1	2.60 m x 2.60 m
Size 2	2.90 m x 2.90 m
Size 3	3.20 m x 3.20 m

Sample configuration for an OT



20	pieces	230V power socket with function control light
10	pieces	Recessed socket for voltage equalisation
2	pieces	RJ 45 double socket
10	pieces	Gas exhaust valves
2	pieces	Anaesthetic gas exhaust
1	piece	Air motor

Application in Intensive Care Units

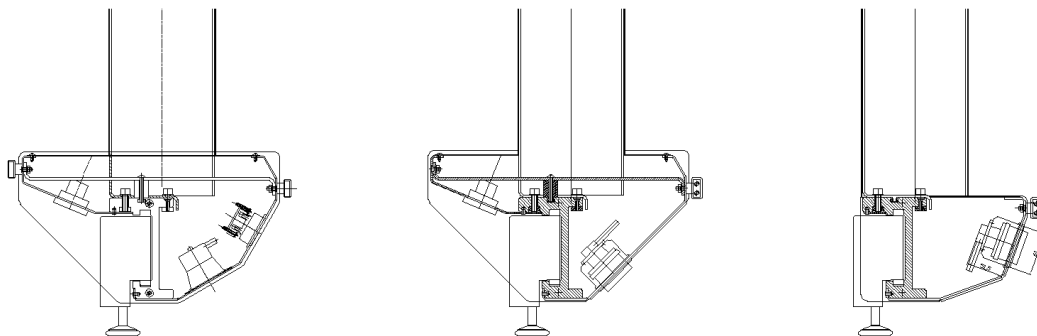
The ceiling pendant MB is fixed to the ceiling by support columns in the area near the head of the patient at an average height of 1.9 – 2.0 m, enhancing a convenient treatment of the patient from the head-side.



Profile configurations for an ICU

Possible profile configurations include a front-only housing or a front and rear housing for power and gas sockets. Connections needing a frequent monitoring or servicing are installed at the front. The rear housing contains connections which are either rarely used or connected permanently.

A slant console ensures particularly convenient handling of the gas plugs as well as convenient placement of hoses. The extremely low positioning of the gas sockets at the front boom allows a comfortable handling.



Media Supply

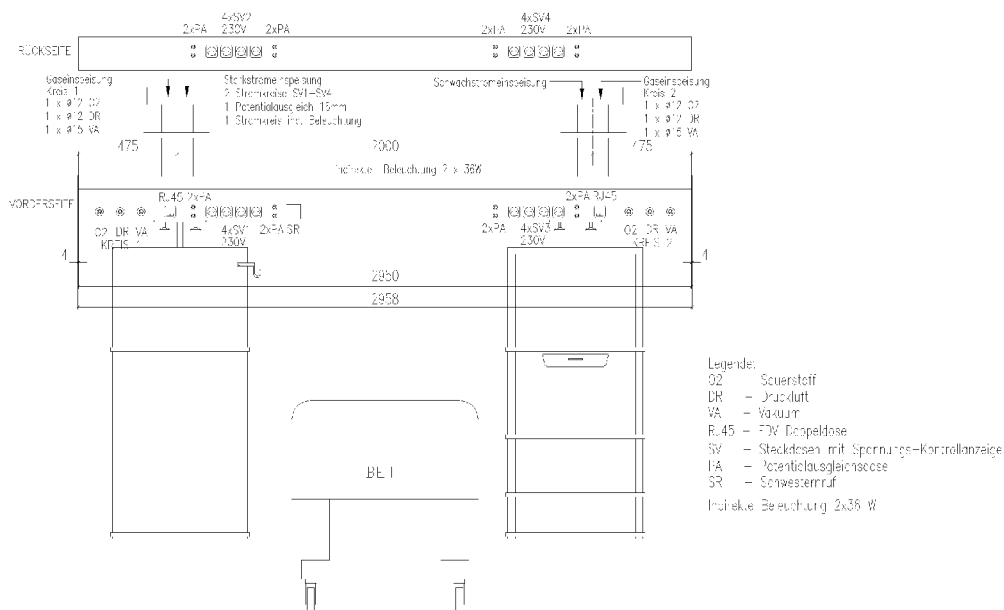
Arrangement and number of connections are individually designed to customer's specifications. The supply points for oxygen, compressed air, anaesthetic gas and vacuum lines are located on both, the front and rear sides and to the right and left side of the patient's bed. The sockets for anaesthetic gas exhaust and air motor are standard installations at the front side. All sockets for medical gases are gas-sealed internally and accessible externally without disassembly, facilitating an easy servicing.



The 230 V protective contact sockets are located on the front and rear sides as well as on the right and left side of the patient's bed. According to customer's specifications, we can supply a great range of power sockets: Normal sockets, flush sockets, flap cover sockets. With or without control light and inscription field and in a colour selection of white, green or orange (for general power supply, security power supply or supplementary security power supply). Power sockets for France, UK, Switzerland, USA, Belgium and other country-specific types can also be provided.

Sockets are connected to several electric circuits according to applicable guidelines. Furthermore, connections for voltage equalization are supplied in sufficient number and with easy accessibility. Installation of special sockets, e.g. for dialysis or x-ray units is feasible, and if necessary, also with a 230 V fixed connection. Further possible installations are data sockets, telephone sockets, nurse-call combinations, orientation/reading lights, switches, tracers, dimmers, relay, clocks and loudspeakers.

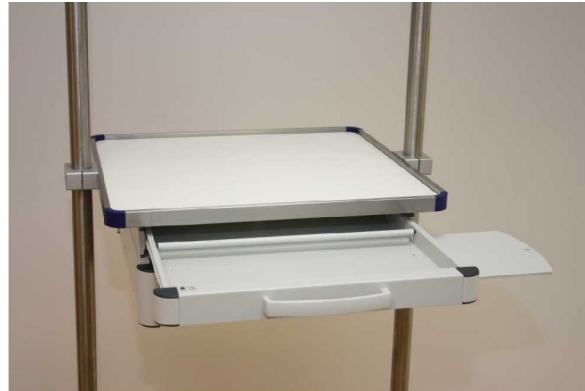
Sample configuration for an ICU



Equipment Racks

Carriages

Carriages run along the aluminium support frame of the ceiling pendant MB and serve as carriers of equipment racks. Ball bearings provide for low-friction, wear-free and accurate operation, even in case of equipment racks eccentrically loaded with protruding trays or support arms. The equipment racks can be rotated 360 degrees and fixed in any position. One anti-rotational and one driving brake fix the carriage and equipment rack. The carriage provides tapped holes for the additional stable attachment of a six-unit infusion bottle holder. For upgrades or repairs the carriage can be removed or inserted at any position on the guide rails (only by the service technician).



Equipment racks

Equipment racks are usually arranged on the right and left side of the patient's bed. The equipment racks are fixed rotatable on the carriage. The standard equipment rack consists of a frame made of extremely damage-resistant and easy to clean stainless steel.

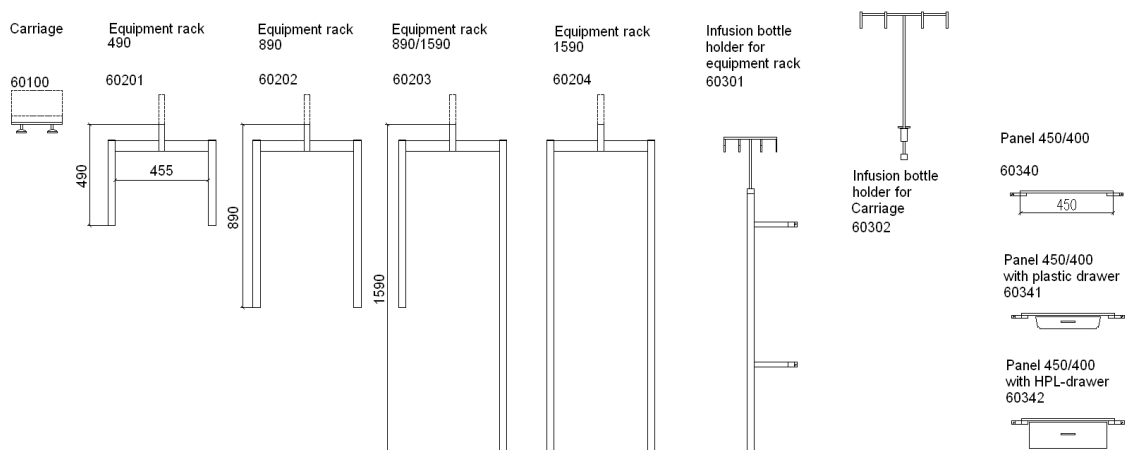
The vertical support tubes are designed for the attachment of panels and can be used to fasten infusion and syringe pumps directly. The panels are also available with suspended drawers in different sizes. The optional device rails (25 x 10 mm) surrounding the panels are similar to the meanwhile commonly used rail profiles in ICUs. Therefore any existing armature or fixture of the device railing system can variably be fixed to the equipment rack.

The standard carriages can carry a maximum load of 160 kg, are available in different widths and with different panel assemblies.

Accessories for equipment racks

Screw-on double rails for the attachment of suction devices as well as screw-on tubular pipes for the attachment of infusion pumps and panels with drawers are available in standard sizes as accessories.

Standard components of equipment racks



Special Orders

We can also manufacture equipment support systems according to specific needs and applications.