



**Technology for safe
and reliable healthcare**



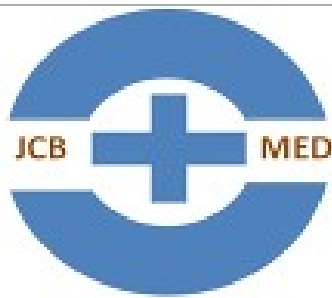
CATALOGUE

MEDICAL GASES

United Kingdom

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Technology for safe and reliable healthcare

- WE ARE DEVELOPING 55 YEARS' MANUFACTURE EXPERIENCE AND BRAND NAME TRADITION IN THE FIELD OF MEDICAL GAS TECHNOLOGY
- WE ARE FOCUSING OUR PRODUCTION SCOPE ON INSTALLATION OF FINAL ELEMENTS TO MEDICAL GAS DISTRIBUTION SYSTEMS, INCLUDING GAS SOURCES AND GAS PIPELINE NETWORK
- WE OFFER ALL-INCLUSIVE OPTIONS LIKE PROJECT STUDY, INTERIOR DESIGN, BUILD-UP, MANUFACTURE, FINAL ASSEMBLY ON-SITE AS WELL AS AFTER-SALE SERVICES
- WE ARE EUROPEAN MANUFACTURERS HAVING A HIGH QUALITY OF PRODUCTS, PROFESSIONAL STAFF AND TOP EXPERIENCED EXPERTS
- WE HAVE STRONG AND FLEXIBLE TEAM OF DESIGNERS-ENGINEERS WHO ARE ABLE TO PROVIDE A FULL CUSTOMIZED SOLUTION
- WE GUARANTEE RELIABLE SHIPMENTS TO ALL CUSTOMERS IN A SHORT TIME
- WE DESIGN OUR PRODUCTS UPON CUSTOMERS' WISHES AND THEIR REQUESTS ON GLOBAL APPEARANCE OF INTERIOR
- WE COMPLY INTERNATIONAL DIRECTIVES AND RULES RELATED TO MEDICAL DEVICES CONCERNED AND MEDICAL GAS DISTRIBUTION SYSTEM
- WE USE FIRST-CLASS MATERIALS AND APPLY LATEST TECHNOLOGY IN PRODUCTION PROCESSING, WHICH CONTRIBUTES TO A PROTECTION OF ENVIRONMENT
- WE PROVIDE ALL-IN-ONE ASSISTANCE TO OUR CUSTOMERS THROUGH AUTHORIZED DEALERS LOCATED ON-SITE
- WE ARE RELIABLE AND LONG-TERM PARTNERS FOR HEALTHCARE PROFESSIONALS WORLDWIDE



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Ceiling pendants arrange the supply of medical gases, electric power network and low voltage cabling from ceiling itself to a workplace of medical specialists. The source columns of different types (according to the specific requirements of healthcare facilities) are to be considered their integral part. The payload of ceiling pendant depends on a type of source head used and an arm length chosen. Colour and size are optional upon customer's wishes.



SWIVELLING AND TILTING CEILING PENDANTS



CEILING PENDANT TYPE →	OK07-57	OK07-55	OK07-28	OK07-16	OK07-05	PS07	VK07
horizontal setting	X	X	X	X			
single armed		X		X			
double armed	X		X				
vertical setting	X	X					X
source column A (head)	X	X	X	X	X	X	X
source column L (head)	X	X	X	X	X		
source column Z (head)			X	X	X		
rotary source column (head)	X	X	X	X	X		

OK07-57



PS07



OK07-28



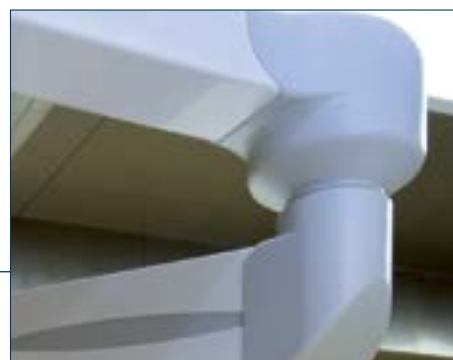
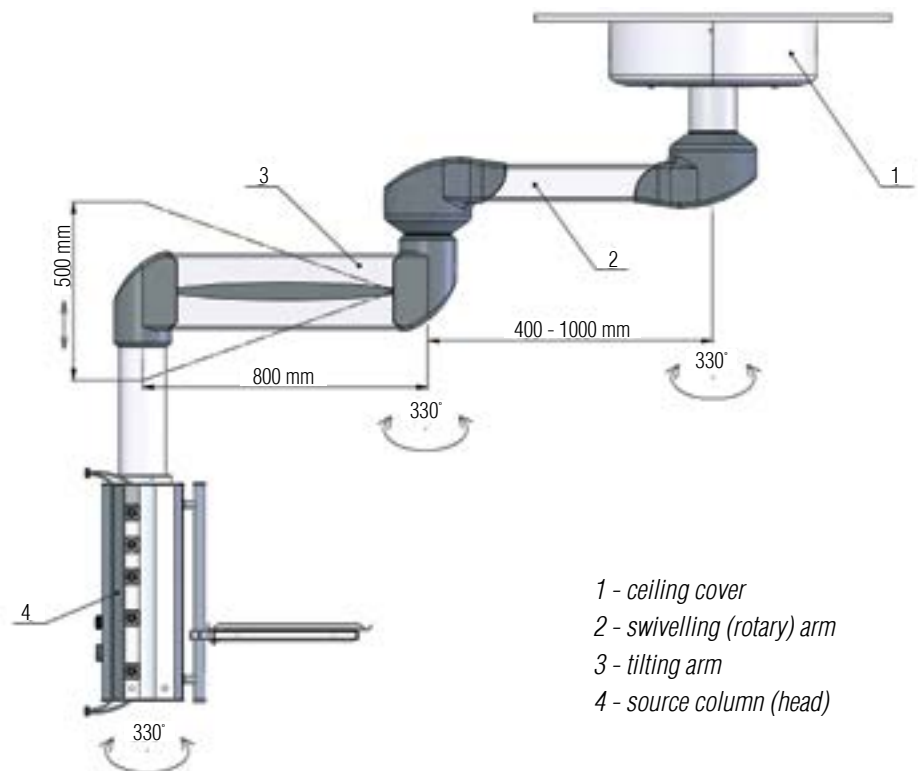
 mZ Liberec

OK07-57

This type of ceiling pendant allows a variable positioning of source column either in horizontal or/and in vertical direction, and also its setting wherever within its arms might reach.



SWIVELLING AND TILTING CEILING PENDANTS



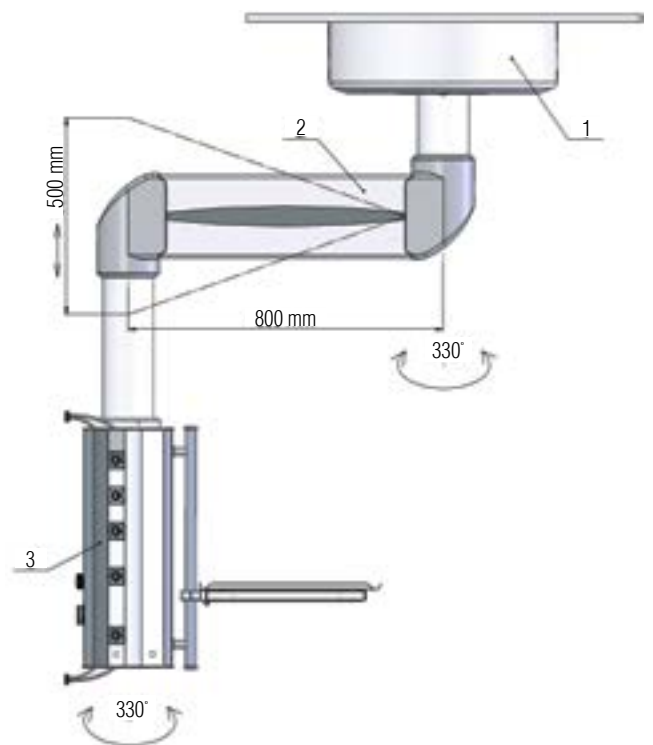


OK07-55

This type of ceiling pendant allows a variable positioning of source column either in horizontal or/and vertical direction as well as its circular motion in a certain radius determined by an arm length.



SWIVELLING AND TILTING CEILING PENDANTS



- 1 - ceiling cover
- 2 - tilting arm
- 3 - source column (head)



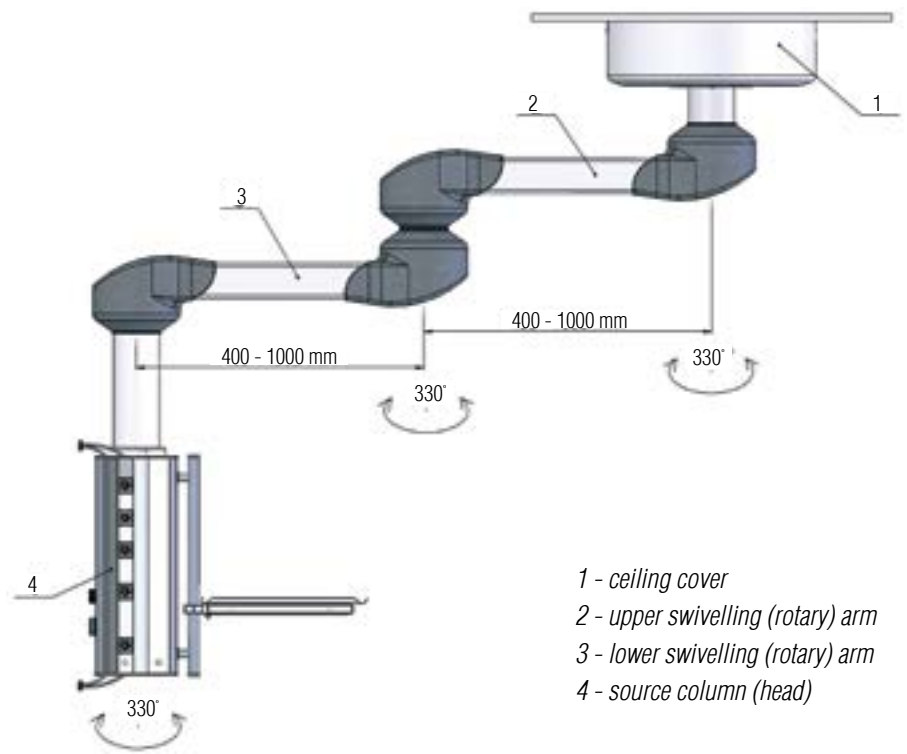


OK07-28

This type of ceiling pendant allows a variable positioning of source column either in horizontal or/and vertical direction as well as its setting wherever its arms might reach.



SWIVELLING CEILING PENDANTS



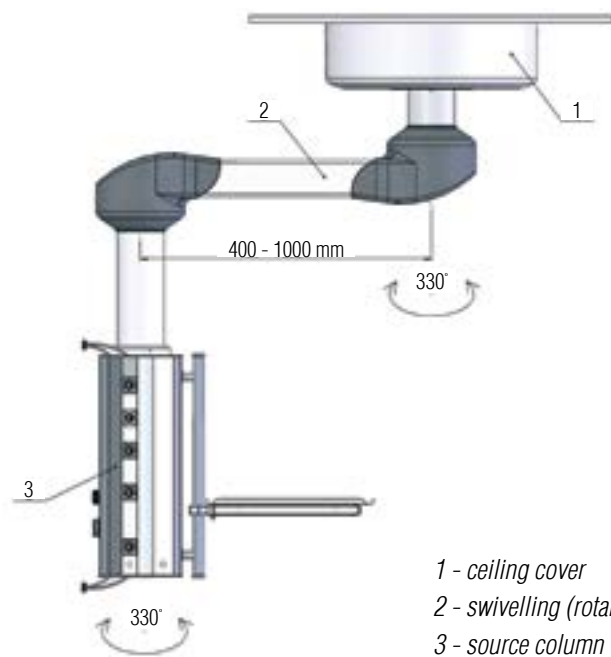
 mz Liberec

OK07-16

This type of ceiling pendant allows a variable positioning of source column either in horizontal or/and vertical direction as well as its circular motion in a certain radius determined by an arm length.



SWIVELLING CEILING PENDANTS





STATIONARY CEILING PENDANTS PS07



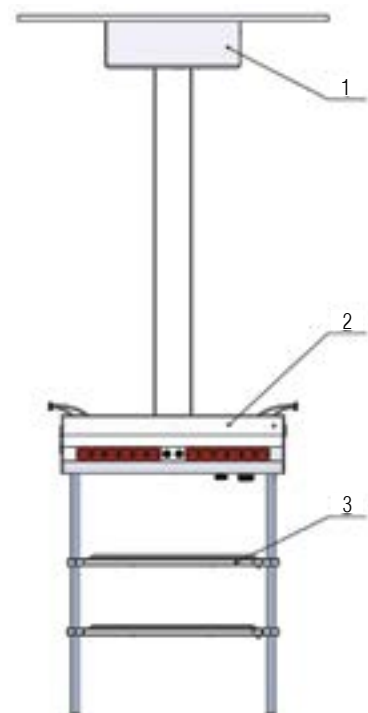
PS07



PS07 WITH SPRING BALANCED ARM SPR10

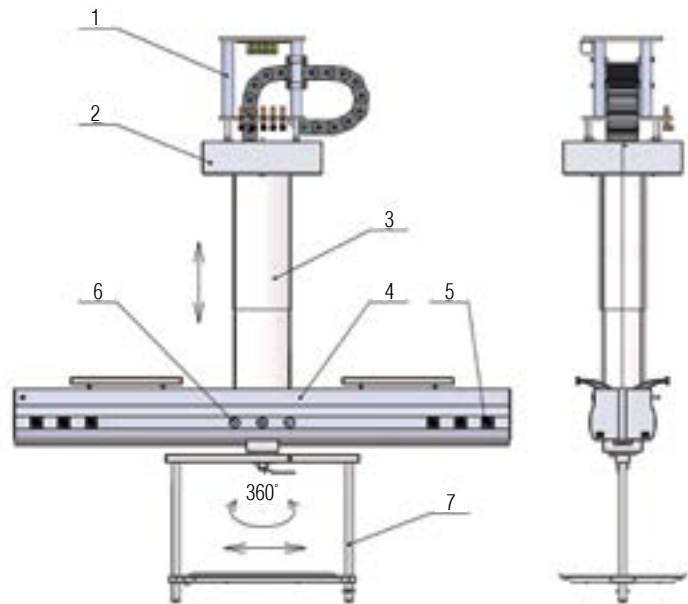
This type of ceiling pendant allows an installation of source column in a particularly specified place.

- 1 - ceiling cover
- 2 - source column (head)
- 3 - suspended shelf system





HEIGHT- ADJUSTABLE CEILING PENDANTS VK07



This type of ceiling pendant allows an installation of source column in a particularly specified place and its setting in a vertical position.

- 1 - fault ceiling part
- 2 - ceiling cover
- 3 - retractable stem
- 4 - source column (head)

- 5 - medical gas outlet
- 6 - inspection (control) gauges
- 7 - roller with shelves

VK07



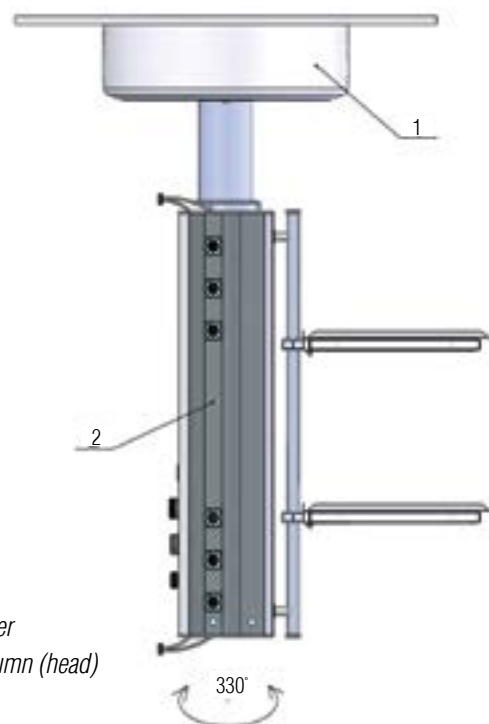


STATIONARY CEILING PENDANTS OK07-05



OK07-05 WITH ARMS TO ANCHOR ACCESSORIES

This type of ceiling pendant allows an installation of source column in a particularly specified place and its own axis rotation.



1 - ceiling cover
2 - source column (head)

WITH COMPACT SPRING BALANCED ARMS SPR10, SPR11



The ceiling pendants with compact spring balanced, tilting and swivelling (rotary) arms manufactured in types SPR10 or/and SPR11 and their combinations, are carriers of medical accessories - operating lights, cameras, monitors, X-ray protective barriers and others.

Spring balanced arm with vertical unequipped tail-piece	G - scope of permitted service load	
	5 - 28 (kg)	0 - 14 (kg)
	SPR10	SPR11
	1100 (mm)	950 (mm)
	V - lifting height	

SPR11





SOURCE COLUMNS TO CEILING PENDANTS

Such a column combines in itself medical gas outlets and electrical & media sockets in the workplace of medical staff with high demands on technical facility equipment. Its fitting is optional as per individual needs of the workplace concerned.



SOURCE COLUMNS TO CEILING PENDANTS



SOURCE COLUMNS →	L06	L10	L15	A	Z
length of rods to shelves and accessories (mm)	600	1000	1500	400 - 1000	0
recommended number of shelves	1	2	4	1	x
tread depth				x	
tread depth free	x	x	x		x
usually for anaestheologist workplace				x	x
usually for surgeon workplace	x	x	x		
usually for surgical intervention operating theatres	x			x	



L06, L10, L15

Its frontwall is equipped with two stainless steel brackets which vertically adjustable shelves, infusion pumpholders or other equipment can be attached to. The sidewalls are set with media outlets.

The source column can be combined with any arms of series OK07. Available in three lengths L06 (694 mm), L10 (1094 mm) and L15 (1594 mm) that determine the maximum equipment of the source column concerned.

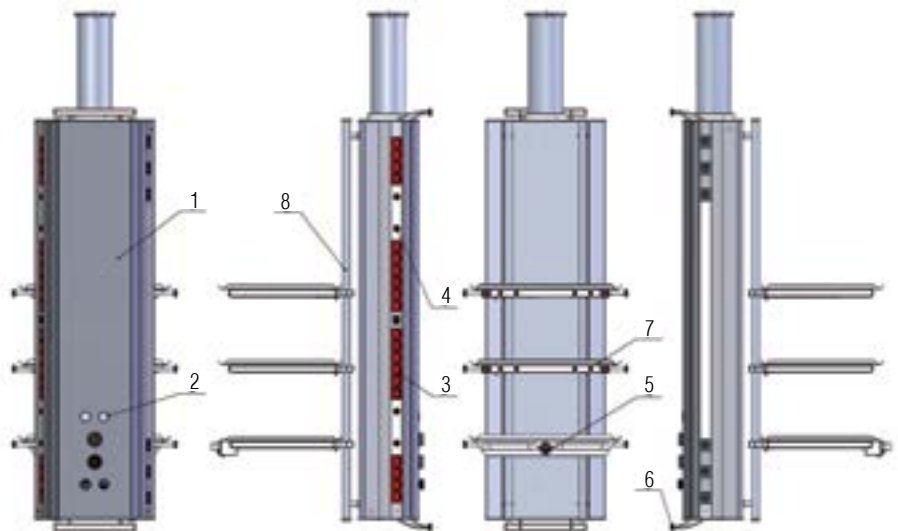




SOURCE COLUMNS TO CEILING PENDANTS



- 1 - back column cover
- 2 - air motor outlet and AGSS outlet
- 3 - high-voltage electrical outlet
- 4 - jack bushes (earthing)
- 5 - arm motion control
- 6 - medical rail
- 7 - shelf
- 8 - rod for shelves and other accessories



SOURCE COLUMN A (HEAD)

This source column is the most frequently used either in anaesthesiology section or wherever it is necessary to have enough space hereunder. Column setting is optional as per the individual needs of the workplace. In the bottom part this source column may be equipped with two stainless steel brackets which vertically adjustable shelves, infusion pump holders or other equipment can be fitted to. The front and rear walls are set with media outlets. The source column can be combined with any arms of series OK07.

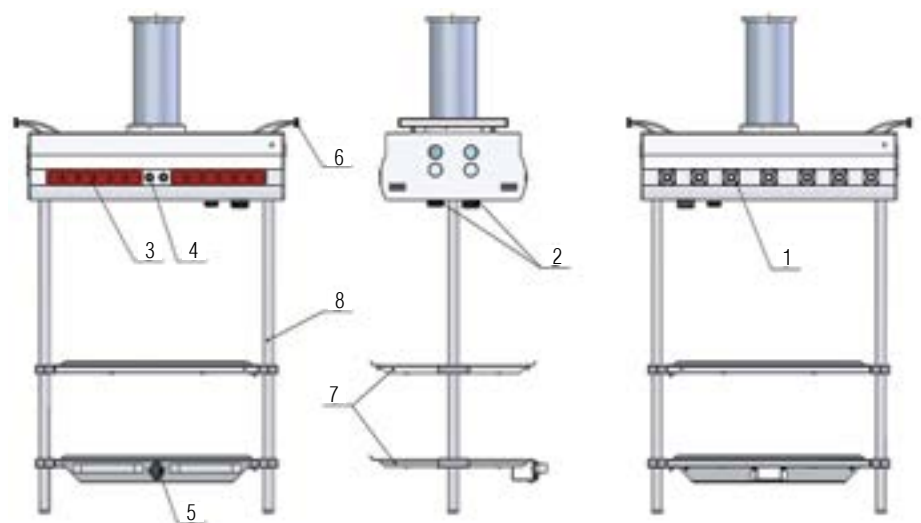




SOURCE COLUMNS TO CEILING PENDANTS



- 1 - medical gas quick outlets
- 2 - air motor outlet and AGSS outlet
- 3 - high-voltage electric sockets
- 4 - jack bushes (earthing)
- 5 - arm motion control
- 6 - medical rail
- 7 - shelf
- 8 - rod for shelves and other accessories



SOURCE COLUMN Z

This source column is the most frequently used in anaesthesiology section. Its advantage is possibility to suspend an anaesthesiologic machine on. This feature allows a permanent connection between that device and the source column when handled in the operation theatre and when this area is disinfected. Column fitting is optional as per individual needs of the workplace concerned. The source column can be fitted with different standard holders of anaesthesiologic device. Media outlets are set from the rearwall of the column. The source column can be combined with arms of series OK07-28, OK07-16, OK07-05.

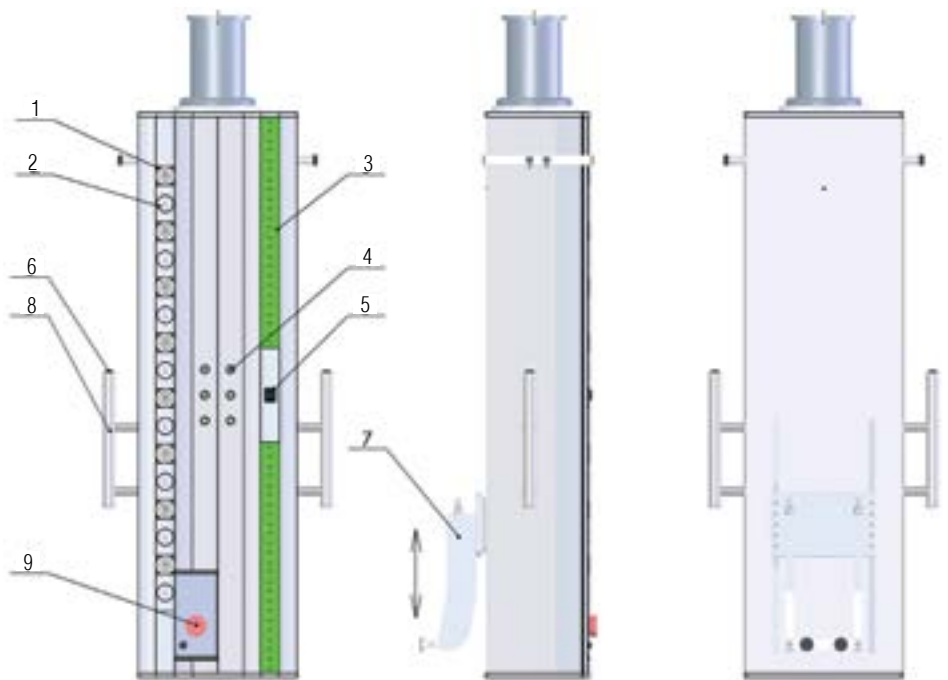




SOURCE COLUMNS TO CEILING PENDANTS



- 1 - medical gas quick outlets
- 2 - gauges
- 3 - high-voltage electric sockets
- 4 - jack bushes (earthing)
- 5 - lift control of machine holder
- 6 - arm motion control
- 7 - holder of anesthesiology machine
- 8 - handle with control button
- 9 - air motor outlet and AGSS outlet

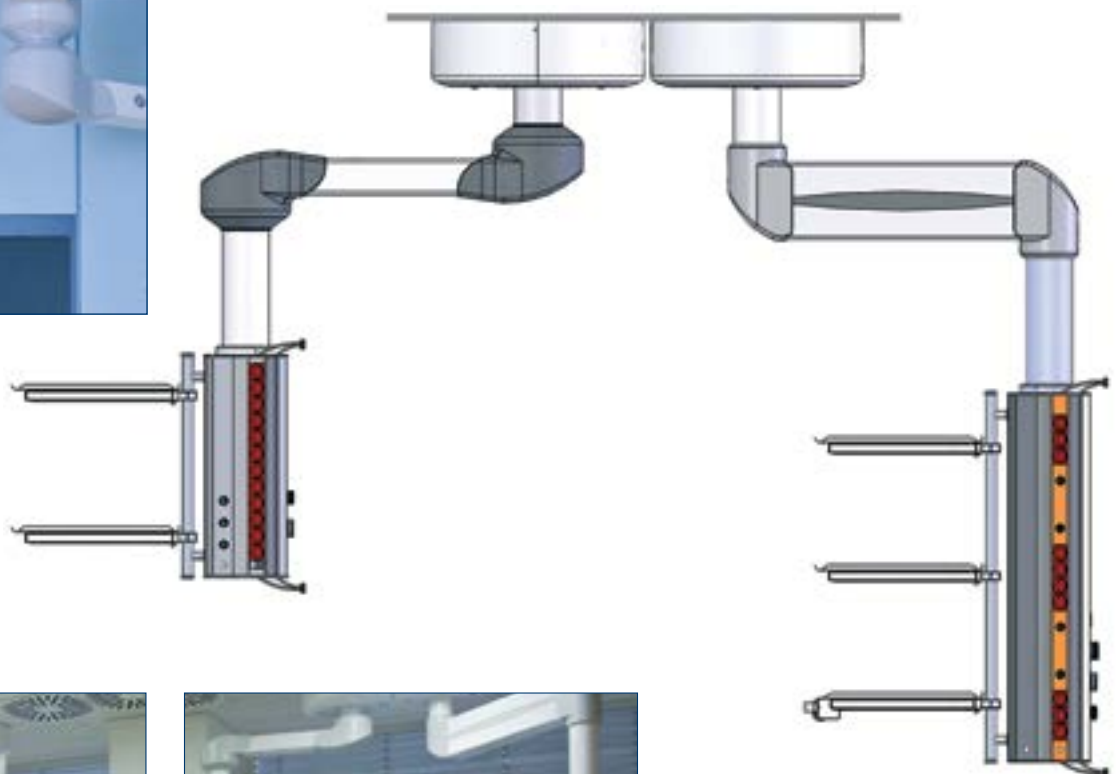


Any type of ceiling pendant and source columns can be combined each other, altogether. This option is suitable for healthcare facilities with the most intensive patient care. Its main advantage is the high capacity of media outlets and possibility to mount a large number of different accessories and equipments. Of course, it is comfortable for physicians and nurses as well.





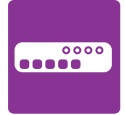
TANDEM OPTION OF CEILING PENDANTS



Bed head units are especially designed for patients' wards and medical facilities, where medical gas outlets, high-voltage and low-voltage sockets are required. Direct, indirect or night lights (either fluorescent or LED types) may become a part of bed head units, too. Their design is often matching the total appearance of ward interior.



BED HEAD UNITS



BED HEAD UNIT TYPE →	DN0	DN1	DN2	DN3	DN3-Z	ZS07
horizontal installation	X	X	X	X	X	
vertical installation						X
direct and night lighting	X	X	X			
indirect lighting	X	X	X			X
fitting to medical gases		X	X	X	X	X
for in-patient wards	X	X	X		X	
for ICU			X	X	X	X
wall built-in					X	
multiple-bed options	X	X	X	X		



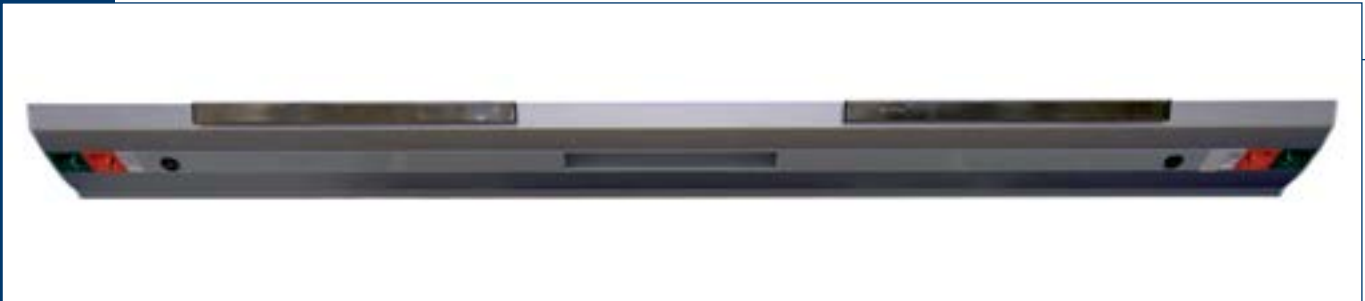
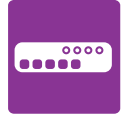


RN07-DN0

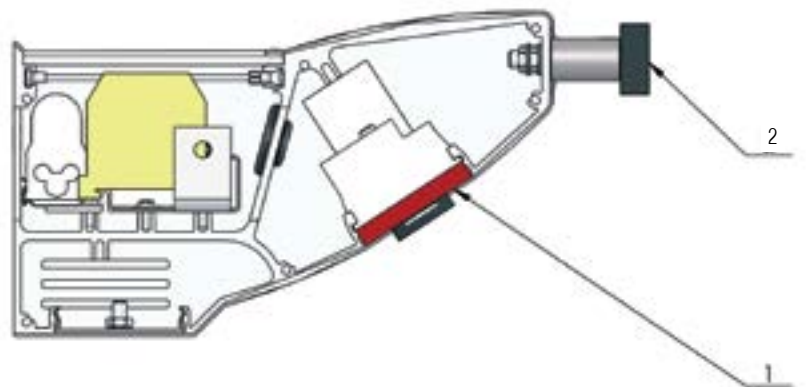
Bed head unit RN07-DN0 is designed for standard patient wards where no medical gas outlets are needed. It contains high-voltage and low-voltage power installations. It can be fitted direct, indirect and night lighting. Of course, medical rail and other optional accessories can be mounted on.



BED HEAD UNITS



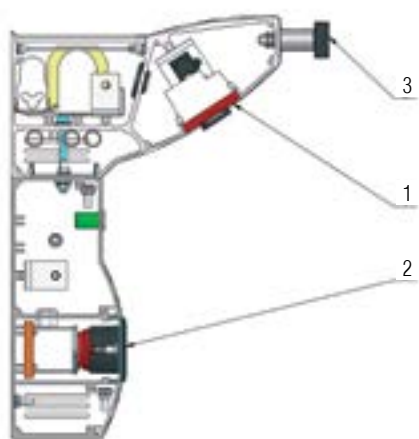
1 - high-voltage electric sockets
2 - medical rail



RN07-DN1

Bed head unit RN07-DN1 is designed for standard patient wards where medical gas outlets, high-voltage & low-voltage installations are needed. It can be equipped with direct, indirect and night lights. Of course, medical rail and other optional accessories can be mounted on.

BED HEAD UNITS



- 1 - high-voltage electric sockets
- 2 - medical gas quick outlets
- 3 - medical rail

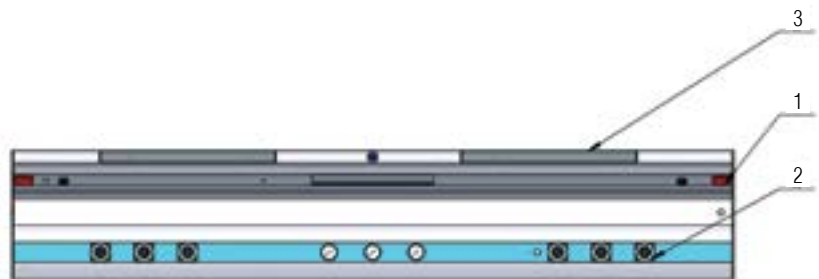
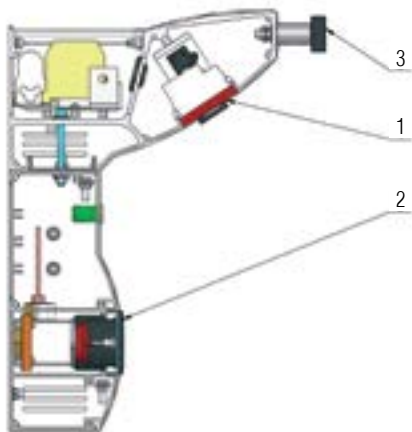
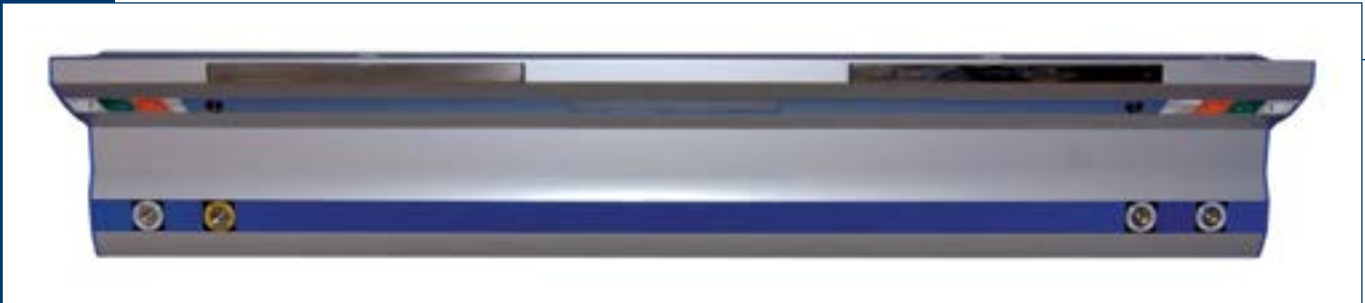
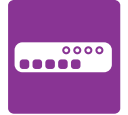


RN07-DN2

Bed head unit RN07-DN2 allows a multi-spectral placement of medical gas outlets and low-voltage installations on the left/right side or just in the middle of itself. It is distinguished by an easy plugging-in of multibedded options to the medical gas distribution system and low-voltage power circuit.



BED HEAD UNITS



- 1 - high-voltage electric sockets
- 2 - medical gas quick outlets
- 3 - medical rail

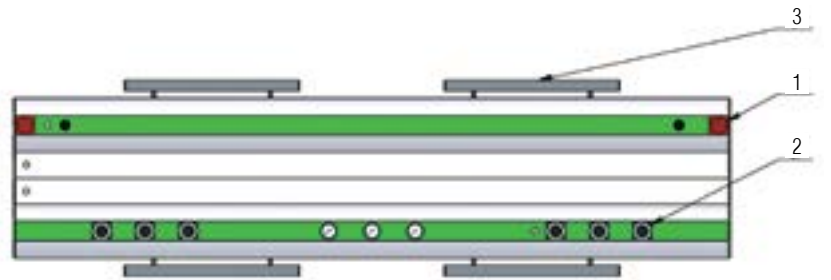
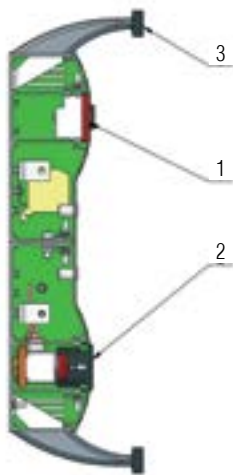
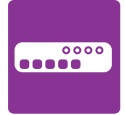




RN07-DN3

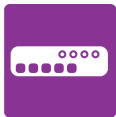
Bed head unit RN07-DN3 allows a multi-spectral placement of medical gas outlets and low-voltage installations on the left/right side or just in the middle of itself. It is distinguished by an easy plugging-in of multibedded options to the medical gas distribution system and low-voltage power circuit. Its essential advantage is a low depth. So it does not touch the manipulation space in front of itself.

BED HEAD UNITS



- 1 - high-voltage electric sockets
- 2 - medical gas quick outlets
- 3 - medical rail



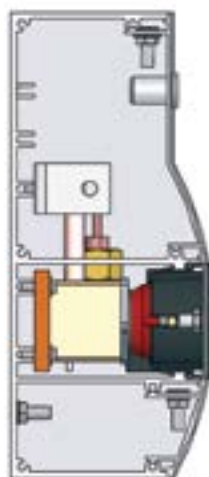


SINGLE-CHANNELLED RN07-DN3



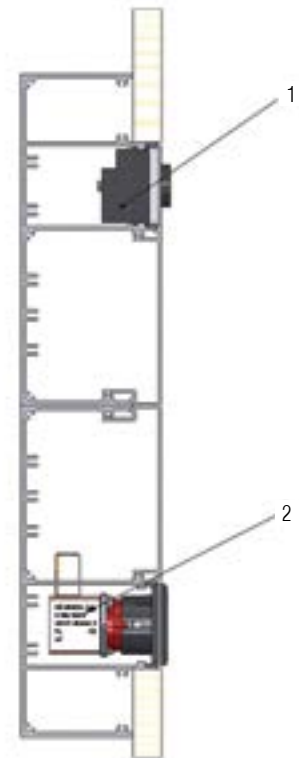
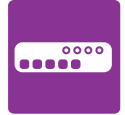
RN07-DN3

Bed head unit RN07-DN3 is designed for standard patient wards with a need of medical gas outlets. It contains high-voltage and low-voltage installations. Medical rail and other optional accessories can be mounted on. Its essential advantage is a low depth. So it does not touch the manipulation space in front of itself.



1 - high-voltage electric sockets
2 - medical gas quick outlets

IN-BUILT RN07-DN3Z

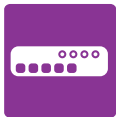


This bed head unit is designed for standard in-patient wards with the need for outlets of medical gases, high-voltage electricity and low-voltage installations. Optional accessories can be mounted on bed head unit, too. Its main feature is the design intended for installation in the interior (part of a furniture set, behind a painting, etc.)

- 1 - high-voltage electric sockets
- 2 - medical gas quick outlets

RN07-DN3Z



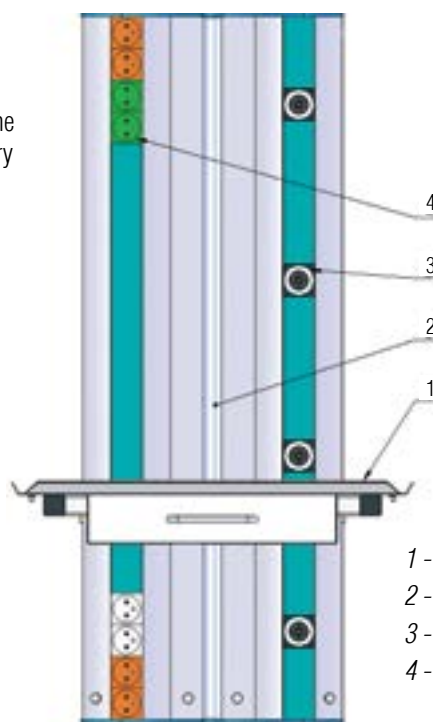


SUPPLY COLUMNS ZS07

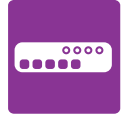


ZS07

Supply columns are mainly used in places where it is impossible to install bed head unit, i.e. between windows, glazed walls, support columns, etc. The rod mounted on the column foreside is intended for fixation of adjustable rotary shelves with medical rails and accessories.



- 1 - shelf
- 2 - rod for shelves and other accessories
- 3 - medical gas quick outlets
- 4 - high-voltage electric sockets



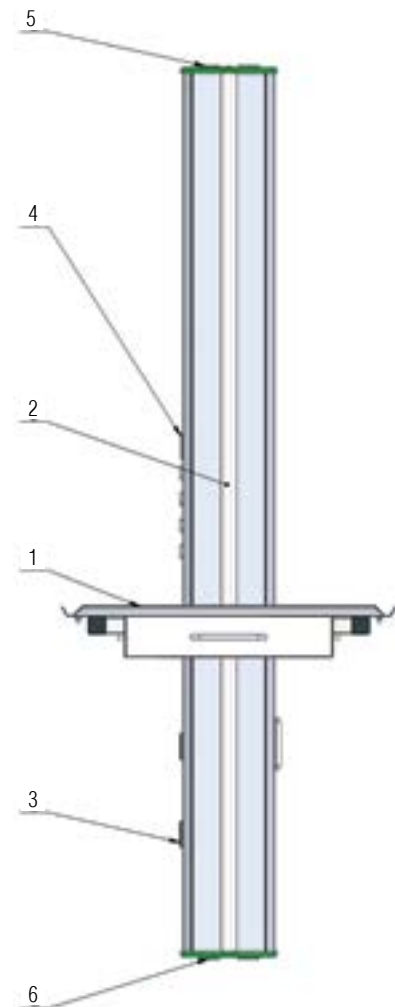
SUPPLY COLUMNS ZS07L



These vertical supply columns are primarily fitted in such a space where bed head units cannot be wall-mounted, i.e. between windows, on glass-walled areas, on supporting pillars etc.. In the front side of supply column there is a rod used for fixation of height-adjustable and adaptive shelves equipped with medical rails and accessories.

- 1 - shelf
- 2 - rod for shelves and other accessories
- 3 - medical gas quick outlets
- 4 - high-voltage electric sockets
- 5,6 - indirect lighting

ZS07L

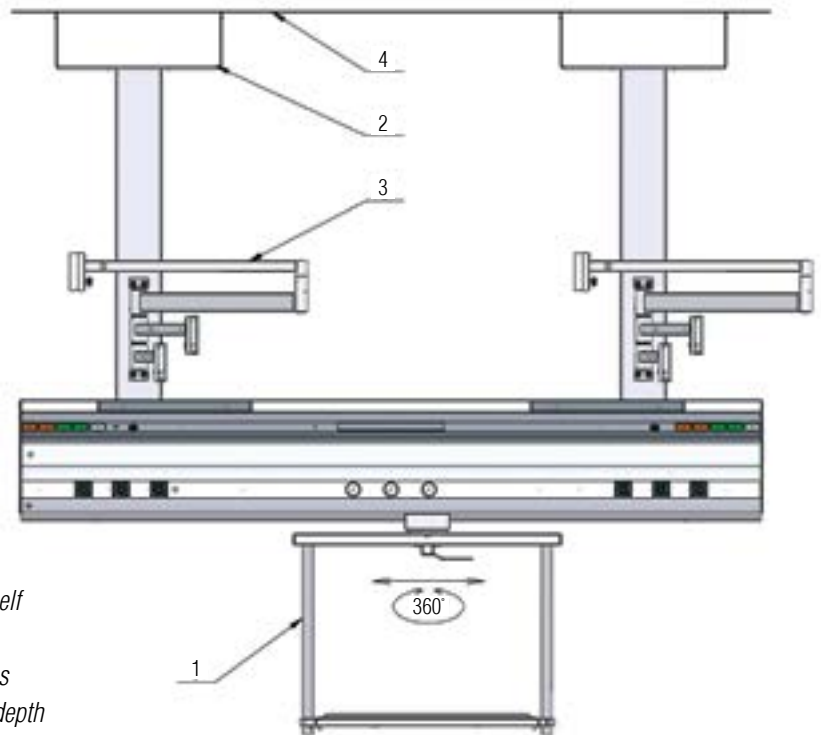


ZMP07

Medical beams are designed to provide medical gas, electric power and data distribution as close as possible to the bedside area. It is mainly used for specialized medical facilities (ICU, ARD). The medical beam can be fitted with halogen or LED spot lamp, bracket arms, telescopic rod with curtain, medical rail, positional (night) light or other accessories upon needs & requirements of the workplace concerned. Thanks to its design it ensures an optimal use of space with regard to safety of patient as well as medical staff.



MEDICAL BEAM



- 1 - rotary roller with shelf
- 2 - ceiling cover
- 3 - arms for accessories
- 4 - suspended ceiling depth



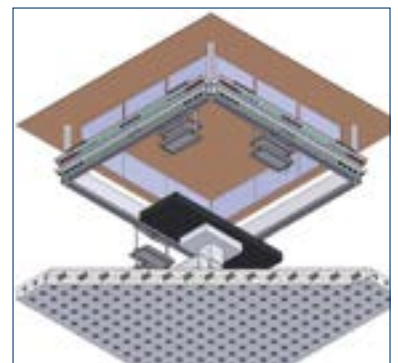


LAMINAR ZMP07



ZMP07

Laminar medical beam ZMP07 is used wherever a laminar air-flow coming from ceiling to be streamlined, namely in supra-aseptic environment. It is available in U- or L-shaped options, too.



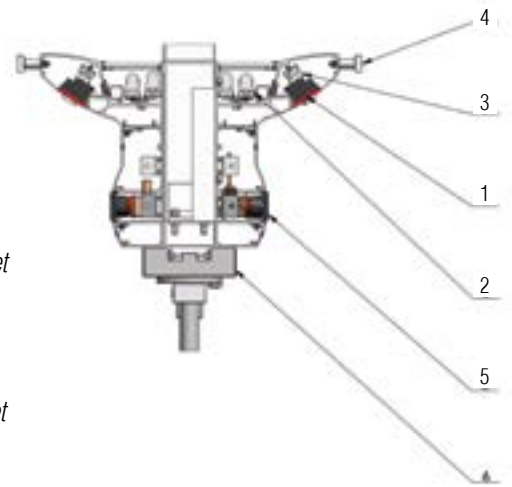


DOUBLE-SIDED ZMP07

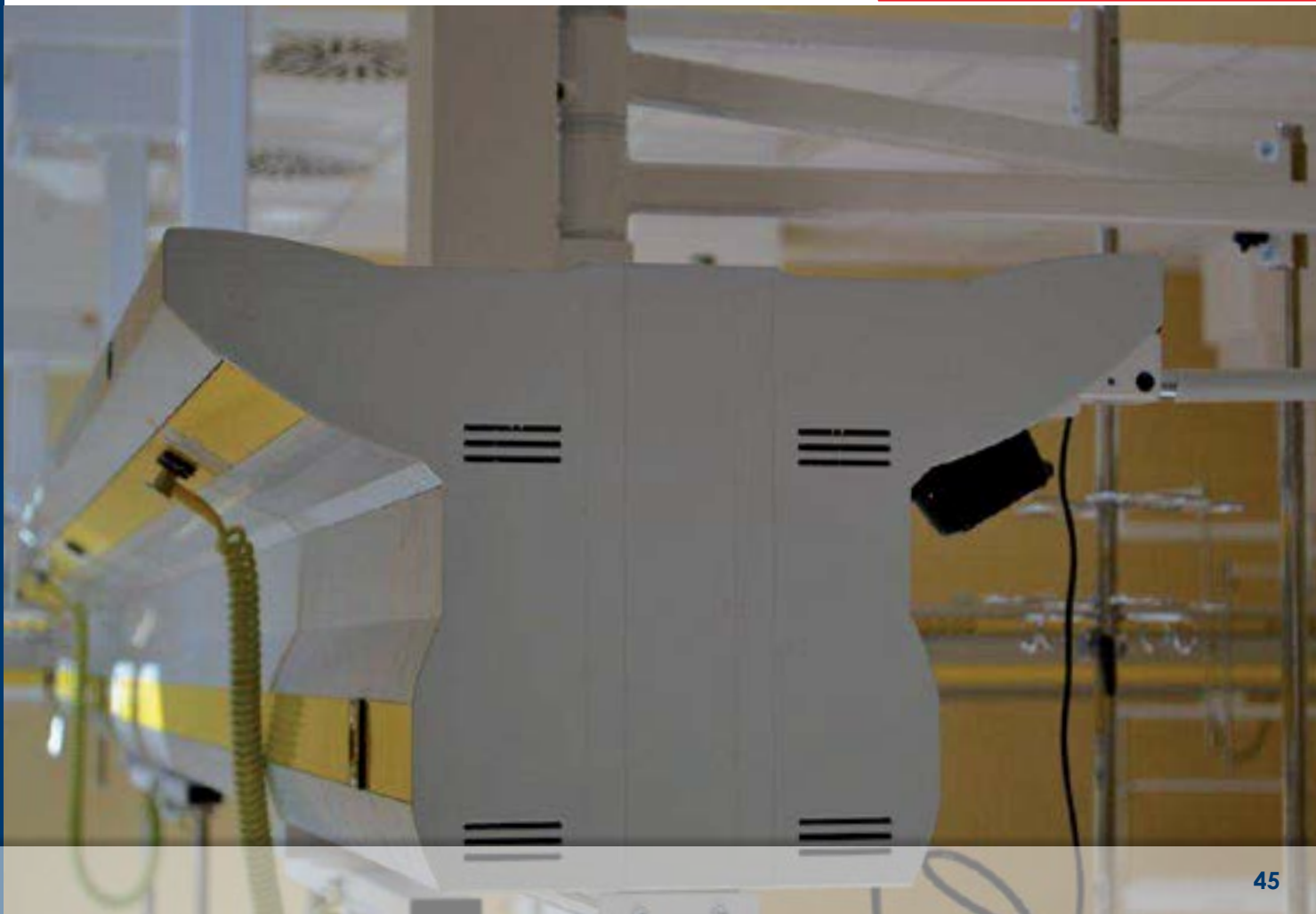


This type of medical beam is used wherever medical gas outlets and high/low-voltage installations to be fitted both module sides.

- 1 - electrical socket
- 2 - indirect light
- 3 - direct light
- 4 - medical rail
- 5 - gas quick outlet
- 6 - beam stem



ZMP07





COMPRESSOR STATIONS



Compressor station provides (in automatic mode) the required pressure and the planned flow of medical compressed air, in a quality complied with European Directives as well as other standards valid worldwide. They are stationary units available in several options, e.g. oilfree - oil, spiral - piston, differing each other by cooling substance, type of drive, etc. Standard compressor stations are supplied with an output of 2.2 to 608 Nm³/hour.





VACUUM STATIONS



It provides (in automatic mode) the required suction and the planned flow of medical vacuum for needs of vacuum suction. A very important part is treatment and cleaning of contaminated exhaust air. Therefore, it is necessary to equip each vacuum station in automatic mode with perfect antibacterial filter and dirt arrester.

Standard range of vacuum stations with capacities from 6.4 to 632 Nm³/hour is supplied.





CYLINDER STATIONS



Cylinder solution is the oldest, the most proven and also the cheapest investment method how to arrange the medical gas supply. However its great disadvantage consists in a difficult handling with heavy cylinders and in a costly maintenance. We supply cylinder sources with automatic, semi-automatic and manual switches. The designed flow is 15 m³/hr to 300 m³/hr.



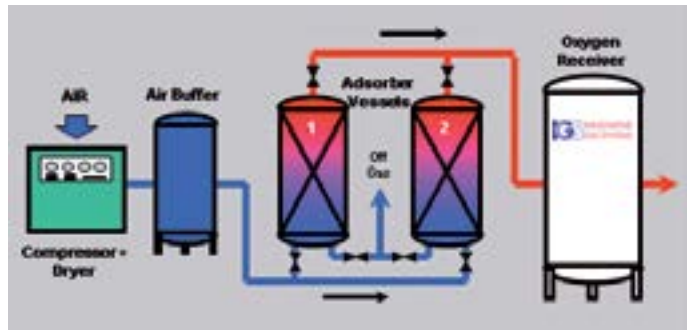


OXYGEN CONCENTRATORS



Complete OXYSWING® System.

Air Compressor
Refrigerated Dryer
Air Buffer Tank
PSA Concentrator
Oxygen Receiver
Sterile Filters



Oxygen concentrator is based on the use of molecular sieves being able to separate nitrogen from oxygen because of different size of molecules. This equipment is able to produce oxygen-enriched air with 93-95% oxygen. This gas may replace medical oxygen in case all required features are observed. Oxygen concentrator is available in six different volumes with a production capacity from 3 to 48 Nm³/hr O₂.



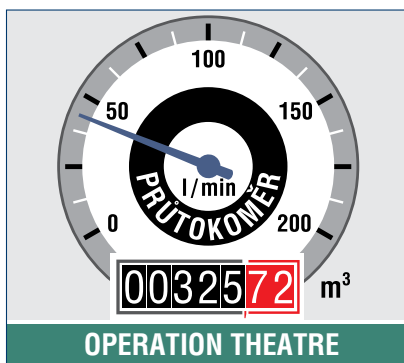


GAS PRESSURE WARNING MZU 010 / II



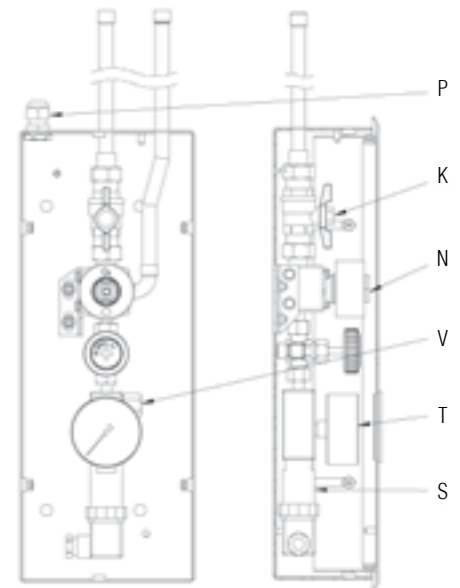
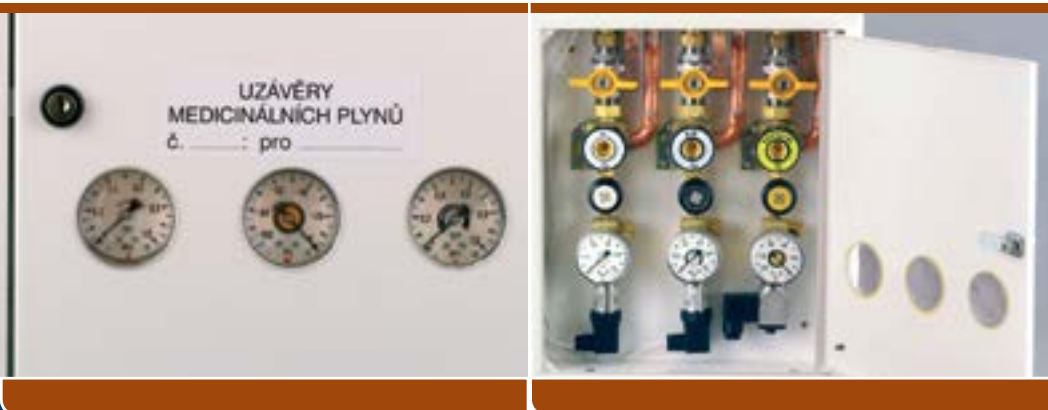
MZU 010 / II

Monitoring device MZU with touchscreen is designed for clinical and operational status warning in medical gas pipeline and distribution resources. Its purpose is either to warn the staff by means of light or/and sound alarm that something unusual with gas pressure, flow or supply happened, or to send a status information to external devices. MZU can be built-in or wall-mounted, its setting is always done in menu using a touchscreen. The pre-setting of the monitored parameters is done in device menu through touchscreen directly at the place of installation.





GROUP ISOLATORS



Group isolator is intended for stopping the gas flow to the next distribution area. It serves solely for emergency purposes and for maintenance, not for routine use. Its pressure sensors are designed for warning because of non-standard pressure in the distribution area concerned. They are configured for upto 5 gases, including any combination of your own choice.

*K - branch closing (*ball cocks with selected parameters)*

V - drains

N - emergency inputs: DN 4, PN 10 medical gas quick outlets

*T - output pressure gauges **

S - pressure sensors (for signalling systems)*

P - signalling wire passage

SU 03





WALL-MOUNTED PANELS



UR.17 B

Wall-mounted panels is connecting point to the medical gas distribution network. It can be equipped either with a medical gas quick outlet specified for gas concerned or with a pressure gauge. They are manufactured in two options - either with surgical instruments drive - air engine or with exhaust system adapted to exhale mixtures of anaesthetic gases - AGSS. It can be built-in or wall-mounted.





GAS QUICK OUTLETS



Gas quick outlet is intended for easy connection and disconnection of two distribution sections. When connected with the counter-piece in question, the tough and tight circuit is created. In case of disconnection it works like a self-acting stopper with separation valve. The gas quick outlet is available in several options that differ each other with a kind of mounting on mother board and way of connection to the central distribution network. It is immutable for certain gases and manufactured in colour-distinguishable media options. The adaptors are placed into the gas quick outlets and such a connection becomes a functional unit.

Type denomination	Gas	Colour
UR 107	O ₂	white
UR 507	N ₂ O	blue
UR 607	air	black & white
UR 807	negative pressure	yellow & black
UR 707	CO ₂	grey





FLOWMETERS DISPENSERS-HUMIDIFIERS



FLOWMETER ME.03



DISPENSER - HUMIDIFIERS MZ 103 F, MZ 104 F

They are intended for oxygen dosage from central distribution network and simultaneously for its efficacious humidification. The relative oxygen humidity is 80 pct at least. They can be easily linked up to other oxygen distribution sealings with gas quick outlets. Their flow can be adjusted in two levels - 1 to 5 l/min and/or 2 to 20l/min.





VACUUM REDUCTION VALVE



RV.02 is a special low-pressure reduction valve intended for manual pressure adjustment of passing-through fluid media. Its connectable to all (formerly or temporarily) manufactured gas quick outlets. Input pressure is 300 - 1000 kPa, output pressure is 20 - 700 kPa.

Vacuum reduction valve type VR01 is intended for a reduction of underpressure coming from central distribution underpressure circuit. It is connectable to all underpressure distribution sealings with gas quick outlets. The underpressure adjustment is achieved by turning the regulation knob located in the valve body axis. It is equipped with a vacuum meter that may check the output underpressure in a range from 0 upto 100 kPa.

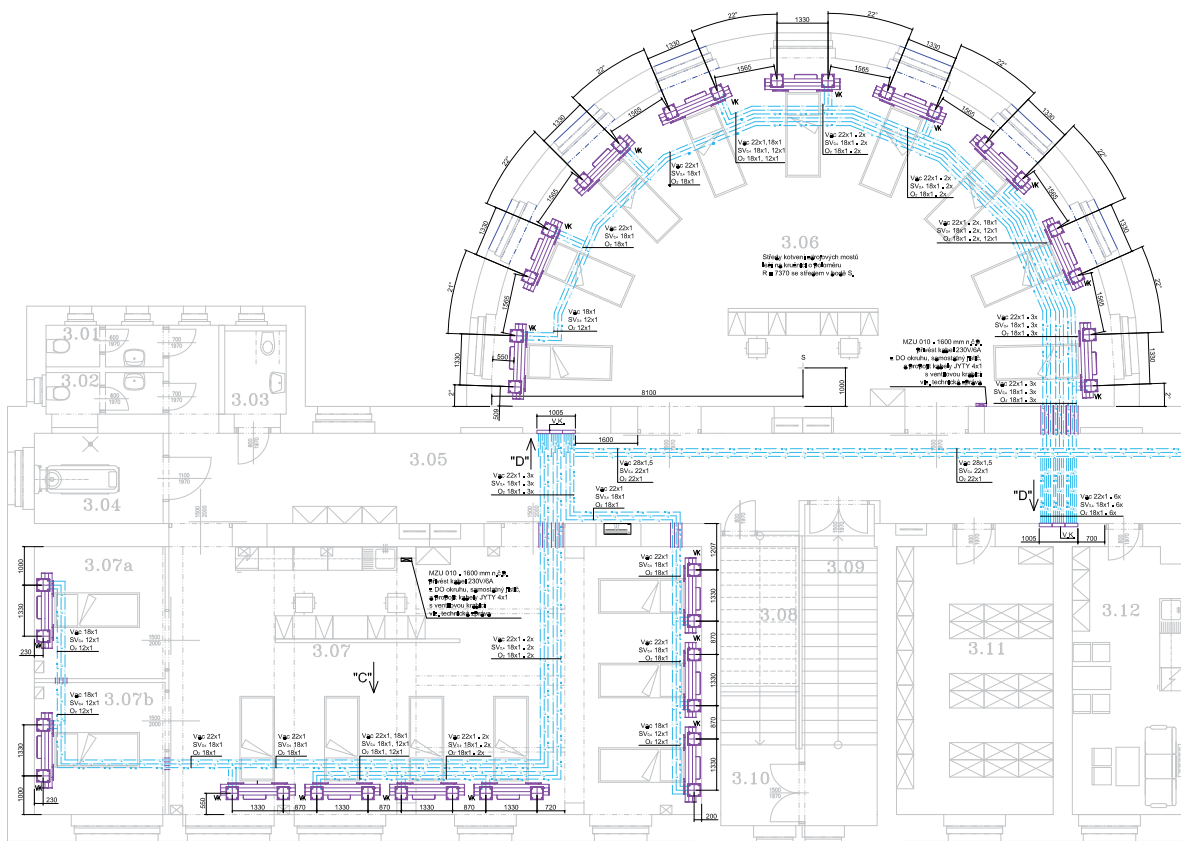
RV.02

VR.01



PROJECT ENGINEERING

The company is fully certified for all its project engineering activities. The team of designers is ready to give a turn-key project solution, i.e. gas sources, pipeline distribution network and source column supply units of medical as well as technical gases included. Any project engineering services are provided in a full compliance with EN 7396 or local norms (if requested). We are able to satisfy any customers, starting from small projects through huge hospital deals. The top-class project study is always tailor-made and trying to meet all client's possible and/or impossible dreams.



ASSEMBLY

Our experienced and permanently well-trained staff provides an high-quality assembly of the supplied medical gas devices on-site, both in the Czech republic and in abroad. These assembly services are done in a conformity to EN 7396. The assembly period is tailored to the customers´ requests and notions.



SERVICE AND MAINTENANCE

We offer a wide range of services that may seriously reduce the standard user´s risks. Such services are provided within a guarantee period or/and thereafter, general overhauls included. Furthermore the safety and functionality testing (like regular safety technical controls), check-ups, inspections, drawing-ups of operational documents, status reports (including rectification proposals) are realized as well.

On the territory of the Czech republic we are entitled to provide and to offer quality check-ups of medical gases as per European Pharmacopoeia. Our laboratory has been appointed for that business by the State Institute of Drug Control in Prague.







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