

# HYDRO-GAZ-MED

Polish manufacturer of medical equipment

Established in 1971



## Product catalog 2016



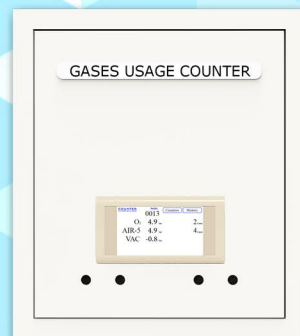


# OUR PRODUCTS IN HOSPITAL



Gas outlets  
p. 13

Gas outlet panel "SPG"  
p. 14



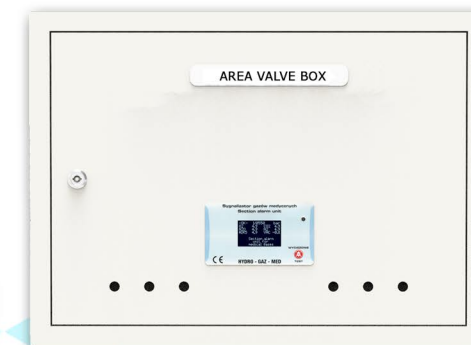
Gas usage counter  
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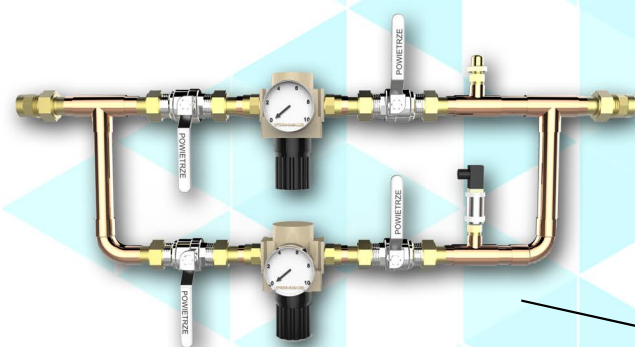
Bed head wall supply units  
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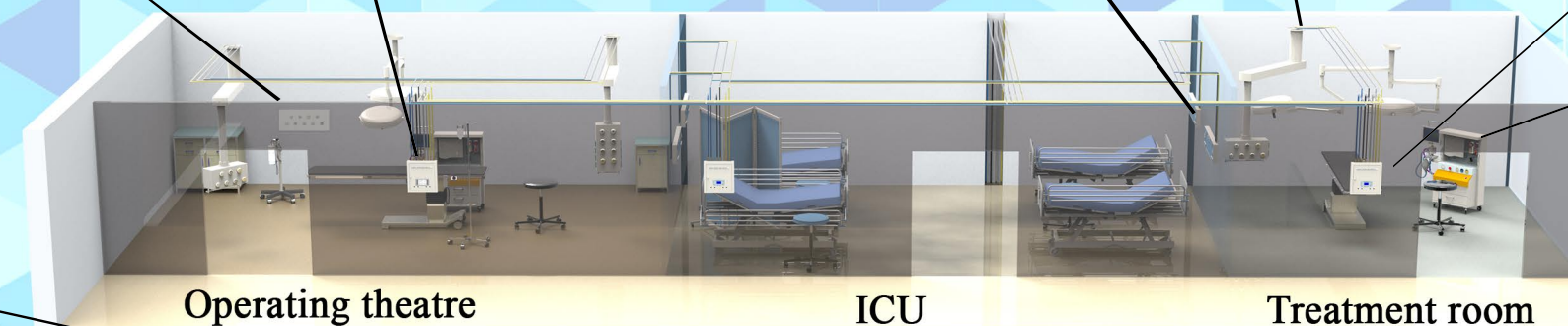
Area valve box "SZI"  
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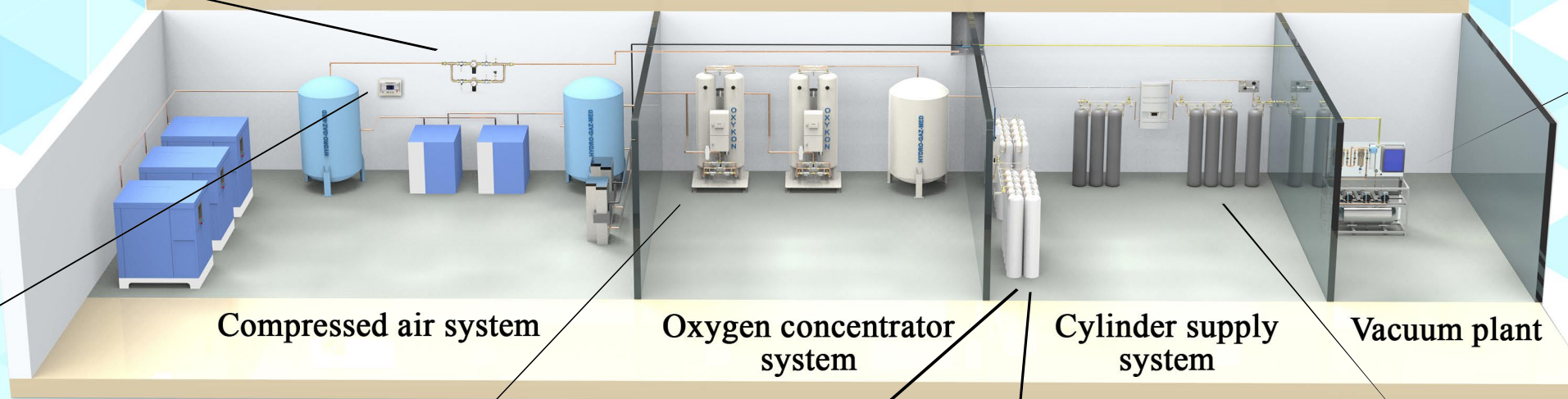
Ball valves  
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Operating theatre

ICU

Treatment room

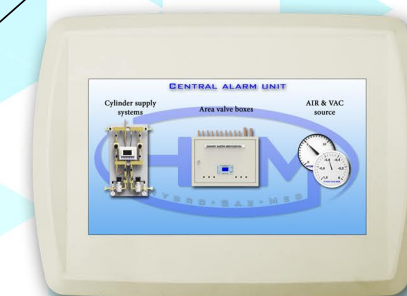


Compressed air system

Oxygen concentrator system

Cylinder supply system

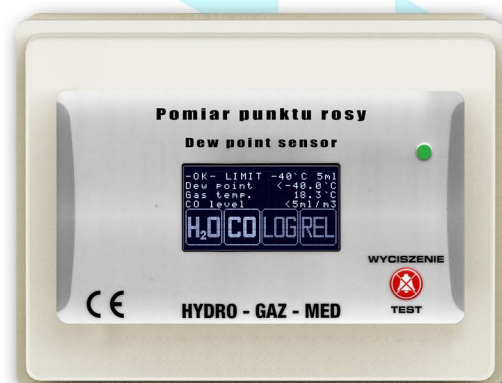
Vacuum plant



Central & local alarm unit  
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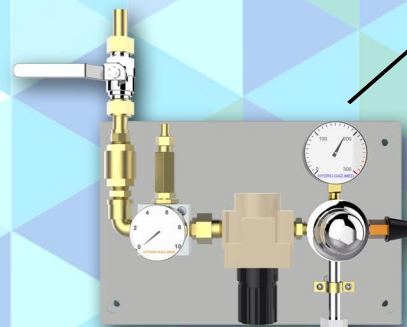


Dew point sensor  
p. 12

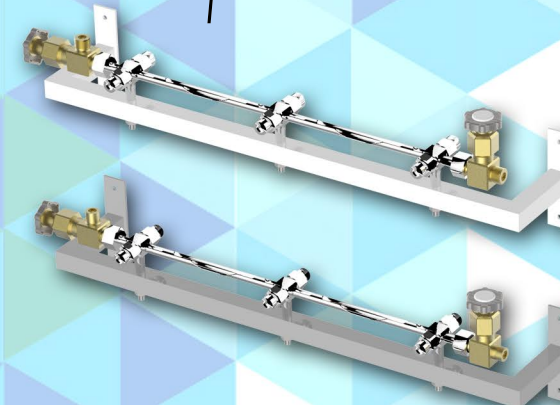


Oxygen concentrator  
OXYKON® DUO  
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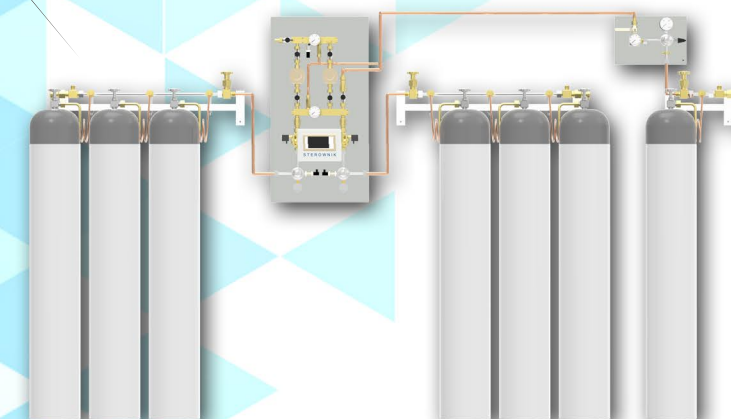
OXYKON® compact oxygen concentrator  
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2-stage reducer panel  
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High pressure manifold system  
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Switchover system for cylinder supply  
"PNEUMAT IV 30" (CO<sub>2</sub>)  
with reserve panel  
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# ABOUT US

Our company is dealing with medical gas pipeline systems for over 30 years, for over 13 years we are producer of medical gas pipeline systems components. For many years we have been consumer of products of other producers. This allowed us to gain lot of experiences either good and bad. At the moment as a producer we have done our best to improve and remove all the problems we have encountered. During all these years we wanted to offer you the best possible, so we ALWAYS use the highest quality materials, that is why we cooperate with well known producers like FRITZ STEPHAN Medizintechnik GmbH, GREGGERSEN Gasetechnik GmbH, OXYMAT A/S. In the field of medical gas pipeline systems we modernize existing systems or we can design, build, test and commission a new one.

Here is a short history of our company:

- ▶ since 2003 we are installing oxygen concentrator systems in hospitals in Poland (we were first to do this)
- ▶ since 2006 we are producing our own valve boxes, to this day we sold over 600 pieces;
- ▶ since 2008 we are producing our own oxygen concentrator system, to this day almost 30 systems installed;
- ▶ since 2011 we are producing our own PNEUMAT switchover system for high pressure cylinder supply systems, to this day almost 100 systems sold;
- ▶ since 2013 we started to offer gas consumption measurement in our valve boxes;
- ▶ since 2014 we offer our own high-end central monitoring system for medical gas system;
- ▶ since 2015 we are producing small vacuum plant for small hospitals & clinics;
- ▶ along with above we are also producing under plaster and on wall panels with sets of gas outlets.

In this catalog we want to present you the best we have to offer. Our products have been checked and tested in many ways by our demanding clients and meet the strict requirements of TÜV Nord Notified Body.

We execute medical gas pipeline systems according to the newest european medical standards and MDD/93/42



## CERTIFICATE

Management system as per  
EN-ISO 13485:2012  
Medical devices - Quality management systems - Requirements for regulatory purposes

In accordance with TÜV NORD Polska Sp. z o.o. procedures, it is hereby certified that

Hydro-Gaz-Med Sp. j.  
Zbigniew Szymczak Marcin Susdorf  
ul. Willowa 40, PL / 05-205 Dobczyn

applies a management system in line with the above standard for the following scope

Design, manufacturing, distribution, installation,  
commissioning and service of medical gas and vacuum pipeline systems,  
incl. supply sources, control and monitoring equipment.

Regardless of the fact that TÜV NORD Polska Sp. z o.o. is a notified body No. 2274 in the area of medical devices, this Certificate is not  
a Certificate of Conformity within the meaning of Directive 93/42/EEC and is not a basis for CE marking

Certificate Registration No. AC090 MD1301421/2015 Valid from 14-10-2015  
Audit Report No. PL4211/2015 Valid until 13-10-2018

*Antoni*

Manager of Certification Body  
TÜV NORD Polska Sp. z o.o. Katowice, 14-10-2015

This certification was conducted in accordance with the TÜV NORD Polska Sp. z o.o. auditing and certification procedures and is  
subject to regular surveillance audits.

TÜV NORD Polska Sp. z o.o. ul. Mickiewicza 29 40-085 Katowice www.tuv-nord.pl



## ZALĄCZNIK nr 1, strona 1 z 1 / ANNEX No. 1, page 1 of 1

do certyfikatu numer rejestracyjny /  
to Certificate Registration No.:  
TNPMD00158421/2015  
Report nr / Report No.: PL4211/2015-09

Ważny od / Valid from 14-10-2015  
Ważny do / Valid until 13-10-2018

Typ / Type	Wyroby / Products	Klasa / Class	UMDNs
System rurociągowy gazów medycznych i próżni z wyposażeniem: Pipeline system for medical gases and vacuum with accessories: Redukcyjny ciśnienia Pressure regulators Zawory przebieżowe Shut-off valves Zawory zwrotne Non-return valves Monitoring stanu gazu Alarm units Sygnalizator szkodliwy Remote alarm units Sygnalizator centralny Central alarm units	System rurociągowy gazów medycznych i próżni z wyposażeniem: Pipeline system for medical gases and vacuum with accessories: Redukcyjny ciśnienia Pressure regulators Zawory przebieżowe Shut-off valves Zawory zwrotne Non-return valves Monitoring stanu gazu Alarm units Sygnalizator szkodliwy Remote alarm units Sygnalizator centralny Central alarm units	IIb	18046
Koncentrator tlenu do zasilania centralnej instalacji gazów medycznych / Oxygen concentrator for use with central pipeline system	OXYKON	IIb	12883
Panel centralnego zasilania / Central supply panel	PNEUMAT	IIb	18046
Szafka zaworowo-informacyjna do gazów medycznych i próżni / Medical valve box for medical gases and vacuum	SD-1 SD-2 SD-3 SD-4 SD-5 SD-6	IIb	18044
Agregat próżni centralnej / Central vacuum unit	Agregat próżni centralnej HGM-VAC Central vacuum unit HGM-VAC	IIb	15615

*Antoni*

Jednostka Certyfikująca Wyroby Medyczne /  
Certification body for medical devices Katowice, 24-02-2016

Jednostka notyfikowana Numer Identyfikacyjny 2274  
Notified Body ID. No. 2274

TÜV NORD Polska Sp. z o.o. ul. Mickiewicza 29 40-085 Katowice ☎ +48 32 786 46 46, Fax +48 32 786 46 01  
www.tuv-nord.pl, biuro@tuv-nord.pl

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## CERTYFIKAT WE / EC CERTIFICATE

zgodny z 93/42/EWG Załącznik II (b, c) / acc. 93/42/EEC Annex II (b, c)  
Niniejszym zaświadcza się, że firma / This certifies, that the company

Hydro-Gaz-Med Sp. j.  
Zbigniew Szymczak Marcin Susdorf  
ul. Willowa 40, PL / 05-205 Dobczyn

dla kategorii wyrobów klasy IIb / for the product category class IIb  
(Lista wyrobów patrz załącznik 1 / List of products see annex 1)

System rurociągowy gazów medycznych i próżni z wyposażeniem.  
Pipeline system for medical gases and vacuum with equipment.

stworzył system zapewnienia jakości w projektowaniu, produkcji i kontroli końcowej wyprodukowanych wyrobów zgodnie z wymaganiami Załącznika II  
(z wyłączeniem sekcji 4) dyrektywy 93/42/EWG. Dodatkowo, przy znaku CE musi zostać naniesiony numer identyfikacyjny jednostki notyfikowanej.  
Uwaga: tego certyfikatu jest częścią systemu zapewnienia jakości zgodnie z wymaganiami dyrektywy i jego nadzorowanie przez  
jednostkę notyfikowaną zgodnie z Załącznikiem II, rozdział 5. Certyfikat nie może być przenoszony pod żadnym warunkiem.

has established a quality system for design, production and final testing acc. to the requirements of Annex II (excluding section 4) of the directive  
93/42/EEC. Additional to the CE-marking the notification number of the Notified Body has to be affixed. The validity of this certificate is based on the  
maintenance of the quality system in accordance with the requirements of the directive and its surveillance by the Notified Body according Annex II  
section 5. The certificate may not be transferred under any circumstances.

Nr rej. / Reg.-No. TNPMD00158421/2015  
Report nr / Report No. PL4211/2015-09

Ważny od / Valid from 14-10-2015  
Ważny do / Valid until 13-10-2018

*Antoni*

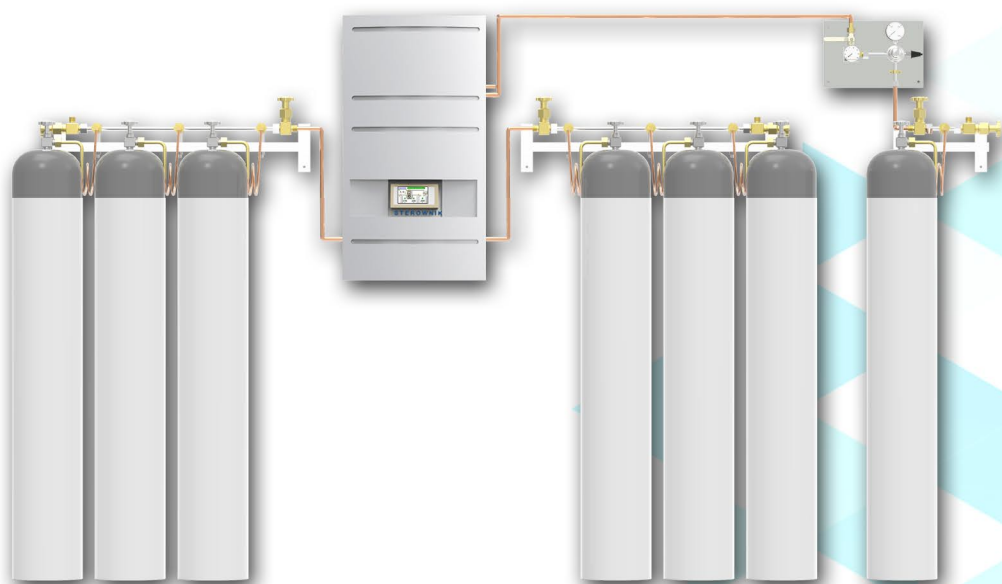
Jednostka Certyfikująca Wyroby Medyczne /  
Certification body for medical devices Katowice, 24-02-2016

Jednostka notyfikowana Numer Identyfikacyjny 2274  
Notified Body ID. No. 2274

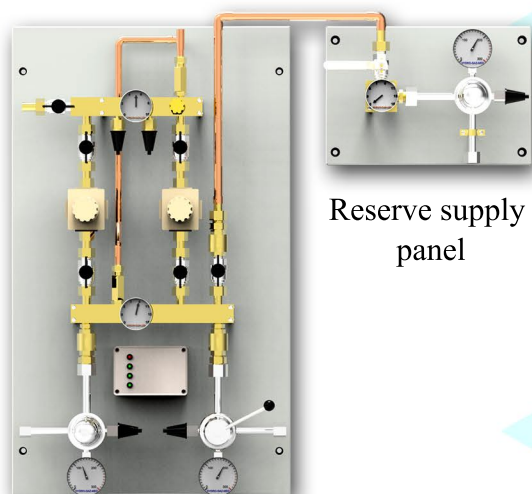
TÜV NORD Polska Sp. z o.o. ul. Mickiewicza 29 40-085 Katowice ☎ +48 32 786 46 46, Fax +48 32 786 46 01  
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# SWITCHOVER SYSTEM FOR CYLINDER SUPPLY "PNEUMAT"



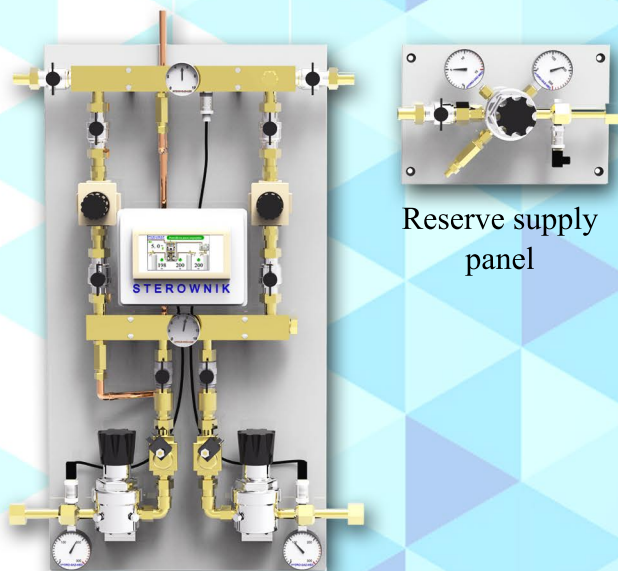
PNEUMAT IV 30 m<sup>3</sup>/h  
as 3 cylinder banks supply



PNEUMAT III 15m<sup>3</sup>/h  
semi-automatic  
with reserve supply panel

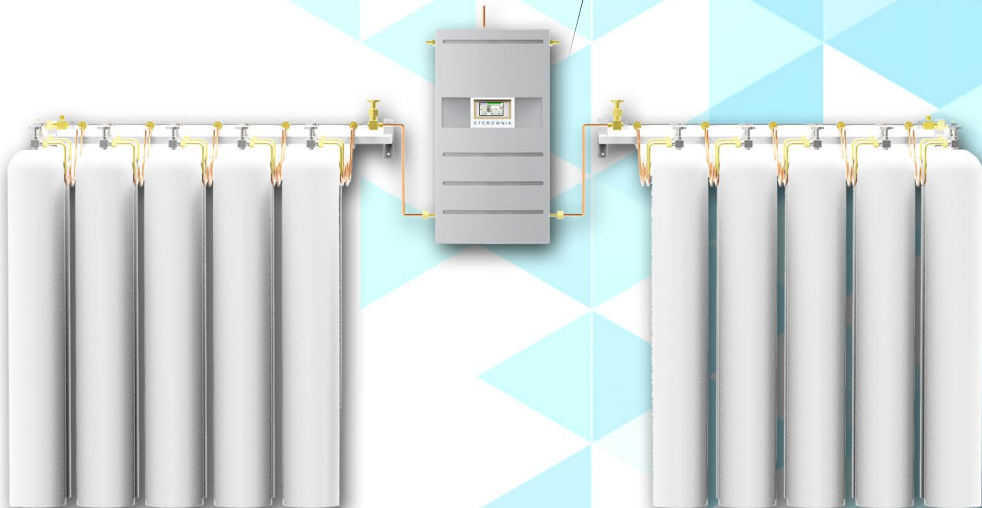


PNEUMAT IV 30 - 50m<sup>3</sup>/h  
automatic, electronically controlled



PNEUMAT IV 200m<sup>3</sup>/h automatic,  
electronically controlled  
with reserve supply panel

PNEUMAT IV 200 m<sup>3</sup>/h  
2 cylinder banks with liquid  
gas tank support





# SWITCHOVER SYSTEM FOR CYLINDER SUPPLY “PNEUMAT”

## Function

Equipment is designed to supply compressed medical gas at stable pressure to central pipeline system and to guarantee safe and continuous gas supply for hospitals.

## System consists of 2 modules:

- ▶ Pressure reducer panel PNEUMAT with automatic change-over system
- ▶ Pressure reducer panel for reserve supply

## Working modes:

- ▶ 2 cylinder banks
- ▶ 2 cylinder banks + 1 reserve bank
- ▶ Tank with liquid gas + 2 cylinder banks
- ▶ Air compressor + 2 cylinder banks

## Technical data

Construction: parallel double stage reduction system with electronic change-over, safety valves on the 1<sup>st</sup> and 2<sup>nd</sup> reduction stage, 2 independent parallel line pressure reducers, emergency supply point NIST.

## Connection to alarm unit

RJ-45

## Switch cabinet PNEUMAT

### Dimensions:

PNEUMAT IV 450x850x200 (WxHxD)

PNEUMAT III 450x850x150 (WxHxD)

### Weight:

~15 kg

## Reserve panel PNEUMAT

### Dimensions:

350x280x150 (WxHxD)

### Weight:

~2 kg

## Capacity:

15-30-50-200 Nm<sup>3</sup>/h

## Power supply:

12V DC

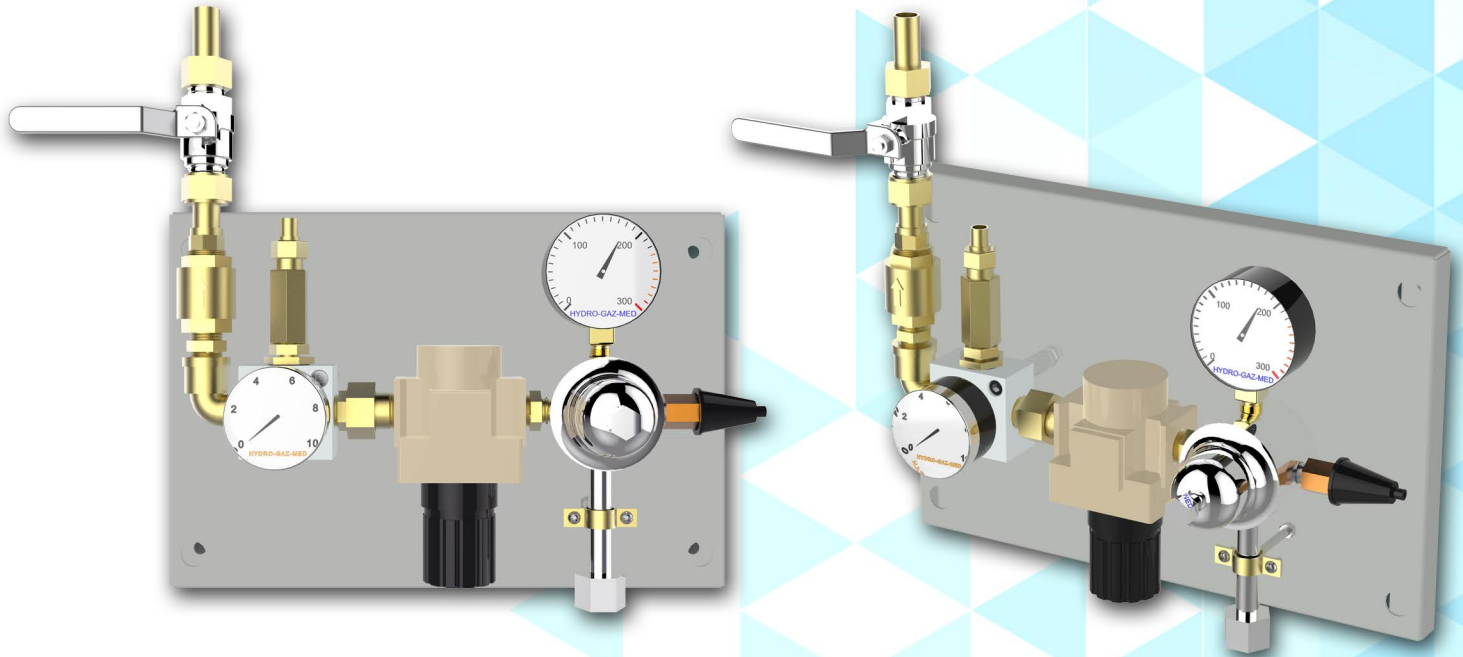
It is a class IIb medical device.

## Medium:

- ▶ Oxygen
- ▶ Nitrous oxide
- ▶ Carbon dioxide
- ▶ AIR
- ▶ Nitrogen
- ▶ Argon



# 2-STAGE REDUCER PANEL FOR HIGH PRESSURE CYLINDER SUPPLY



## Function

To reduce high pressure from cylinders to a level required by user in medical pipeline system. Main purpose is to work as a reserve source for medical gases.

## Technical data:

2-stage pressure reduction, high pressure sensor or contact switch, shut-off valve, safety valve.

## Efficiency:

Flow: ~50 m<sup>3</sup>/h  
Inlet pressure: max. 200 bar  
Outlet pressure: 5 bar

## Connections:

inlet: G ½"  
outlet: copper pipe 15 mm

## Medium:

oxygen, nitrous oxide, carbon dioxide, air, nitrogen, argon



# HIGH PRESSURE MANIFOLD SYSTEM

Up to 5 cylinders manifold  
(single row)

## Technical data:

- ▶ 1 to 5 cylinders in single manifold
- ▶ shut off valve
- ▶ exhaust valve
- ▶ non-return valves for each cylinder
- ▶ gas specific connections

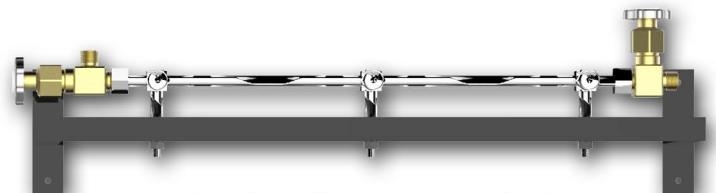
Up to 10 cylinders manifold  
(2 rows - 5 cylinders)

Manifolds delivered with headers.

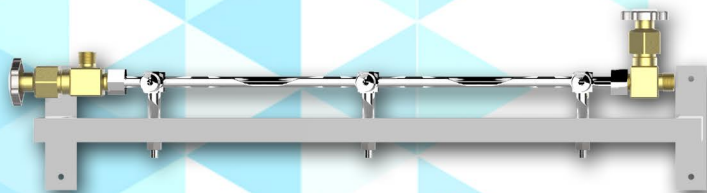
## Gas coding colours:



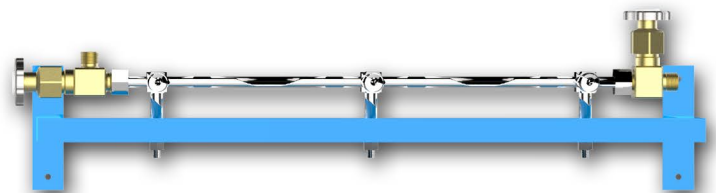
White - Oxygen



Black - Compressed air



Grey - Carbon Dioxide

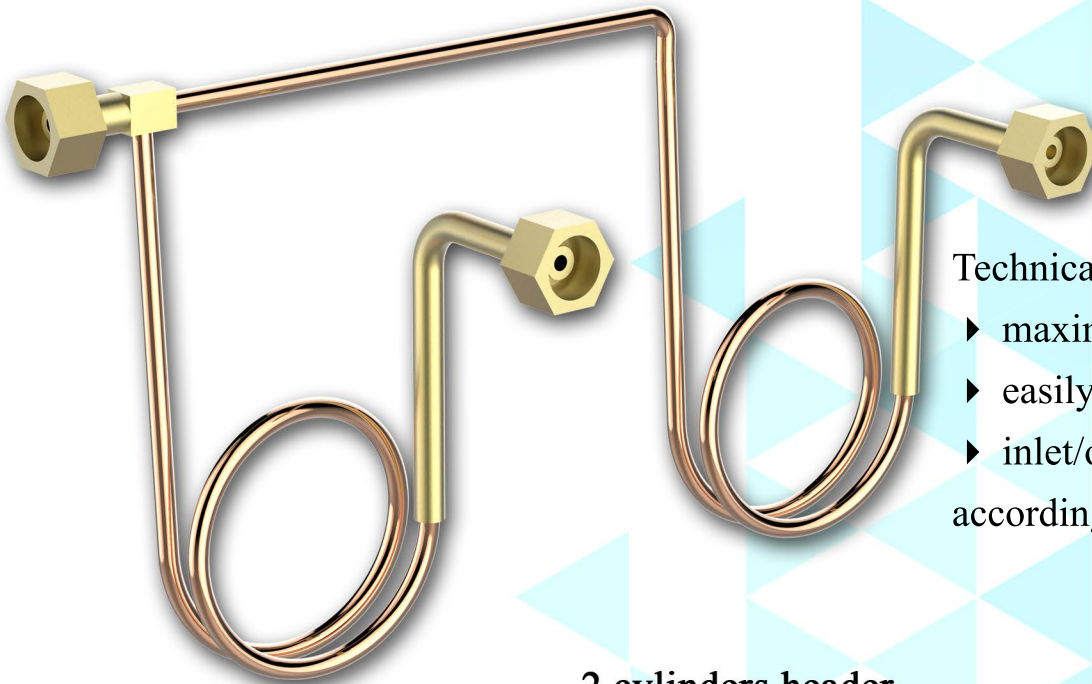


Blue - Nitrous Oxide



## HIGH PRESSURE DISTRIBUTION BAND

Equipment designed to connect cylinders with high pressure manifold system.  
Made of copper hose with welded brass joints.



2 cylinders header

Technical data:

- ▶ maximum inlet pressure 200 bar
- ▶ easily adjustable pigtail shape
- ▶ inlet/outlet connections according to gas coding standards



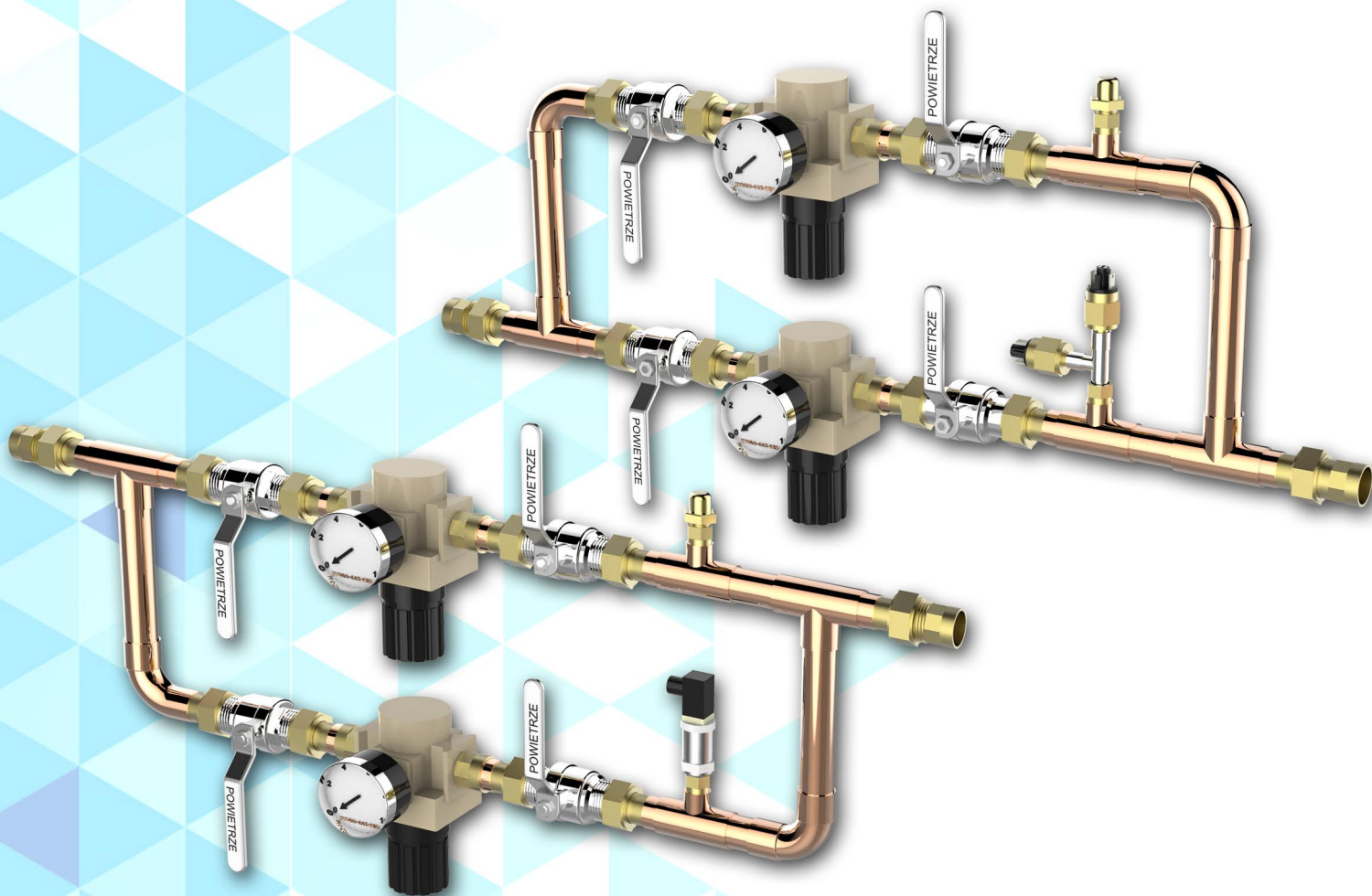
Single cylinder header

Technical data:

- ▶ maximum inlet pressure 200 bar
- ▶ length ~80cm
- ▶ inlet/outlet connections according to gas coding standards



# REDUCING SETS FOR COMPRESSED MEDICAL GASES



## Function

To reduce pressure of compressed medical gases to a level required by user.

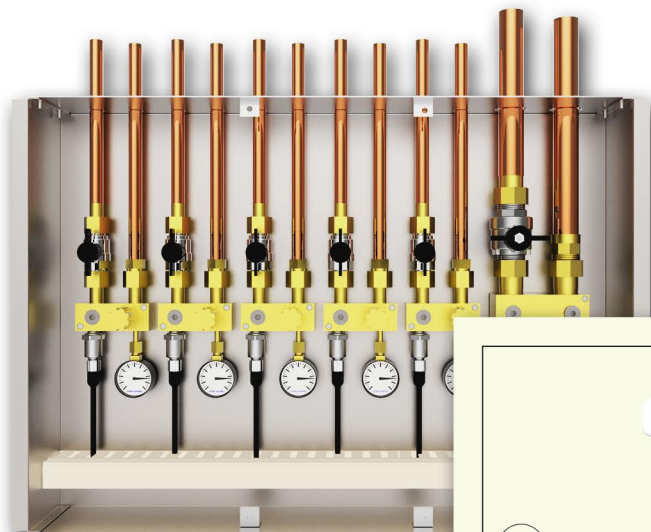
## Technical data:

- ▶ 2 parallel pressure reducers;
- ▶ brass ball valves with chrome body and stainless steel ball;
- ▶ pressure sensor or 2 contact switches;
- ▶ max inlet pressure 16 bar;
- ▶ outlet pressure 1-10 bar,
- ▶ max flow (15mm pipe) 50m<sup>3</sup>;
- ▶ max flow (22mm pipe) 300m<sup>3</sup>;
- ▶ ambient temperature -20°C do +40°C;
- ▶ safety valve to 7 bar or 11 bar
- ▶ standard outlet pressure 5 and 8 bar, others on demand.

## Connections:

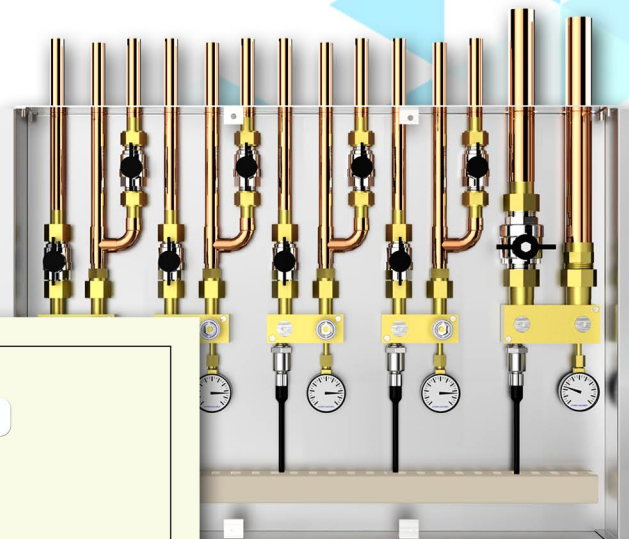
- ▶ copper pipe size 15 or 22 mm;

# AREA VALVE BOXES "SZI"



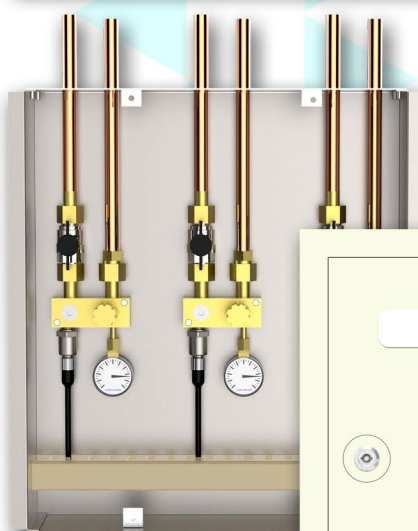
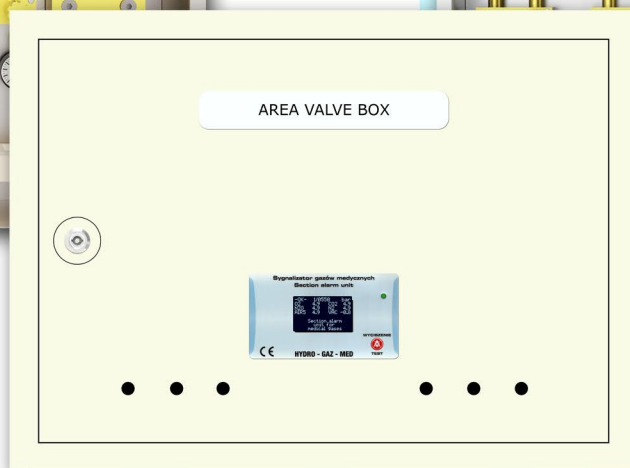
**SZI-6**

(O<sub>2</sub>, N<sub>2</sub>O, AIR, AIR-8, CO<sub>2</sub>, VAC)

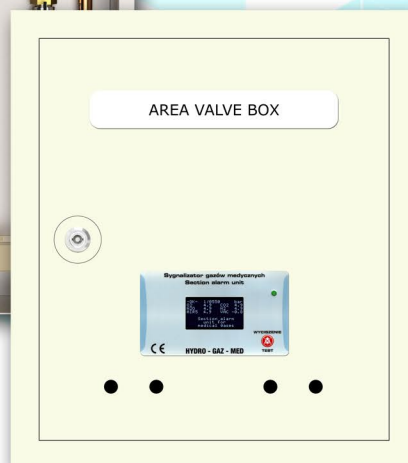


**SZI-5-OP**

(O<sub>2</sub>, N<sub>2</sub>O, AIR, AIR-8, VAC)



**SZI-3 (O<sub>2</sub>, AIR, VAC)**



Section alarm unit

LED indicator:  
● OK state  
● alarm

Test / mute button



# AREA VALVE BOXES “SZI”

Main function of valve box is to monitor pressure of medical gases and vacuum in wards, operating theatres, intensive care units. They are also equipped in BMS modules for centralized alarm system.

Basic parameters :

- ▶ from 1 up to 6 gases in one box
- ▶ shut-off valves for each gas and vacuum
- ▶ pressure transducers for each medium
- ▶ gauge for each gas
- ▶ physical separation
- ▶ drainage
- ▶ emergency supply point type NIST
- ▶ alarm unit with LCD display with pressure values displayed
- ▶ max pipe diameter for vacuum is 28 mm

## Technical data:

Housing made from zinc plated steel, standard color for cover is RAL 9010, equipped in emergency opening, emergency supply point, sensors, ball valves, inlet / outlet from top, from 1 up to 6 gases in single housing.

**Pressure:** compressed gases 0 - 10 bar  
vacuum 0 - -0,9 bar

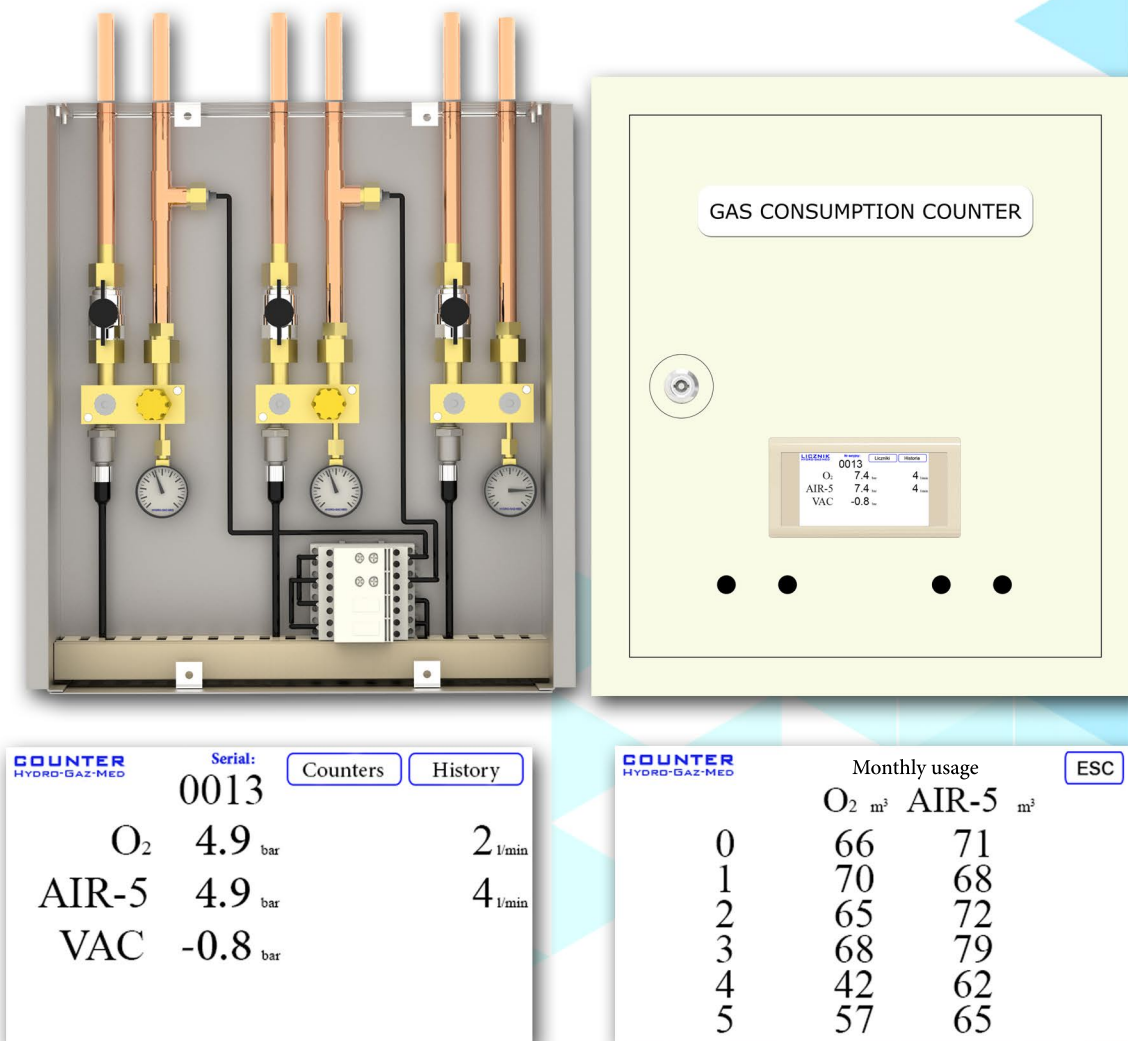
**Alarms:** *compressed gases 5 bar* ▶ low pressure 4 bar  
▶ high pressure 6 bar  
*compressed gases 8 bar* ▶ low pressure 6,5 bar  
▶ high pressure 9,5 bar  
*vacuum* ▶ pressure -0,4 bar

It is a class IIb medical device.

Available valve boxes:

TYPE	SZI-1	SZI-2	SZI-3	SZI-4	SZI-5	SZI-6
Weight	5,5 kg	6,1 kg	7,3 kg	10,5 kg	14,2 kg	15,4 kg
Dimensions (WxHxD)	350x469x90				560x480x90	

# GASES CONSUMPTION COUNTER "SZI-P"



## Technical data:

Type:	SZI-P
Working pressure:	compressed gases 0 - 7 bar
Dimensions:	(WxHxD) 350x460x90
Power supply:	12V DC, 0.5A
Connection to BMS	

## Standard measuring ranges:

1. 0-100 l/min
2. 0-200 l/min
3. 0-500 l/min
4. Other upon request

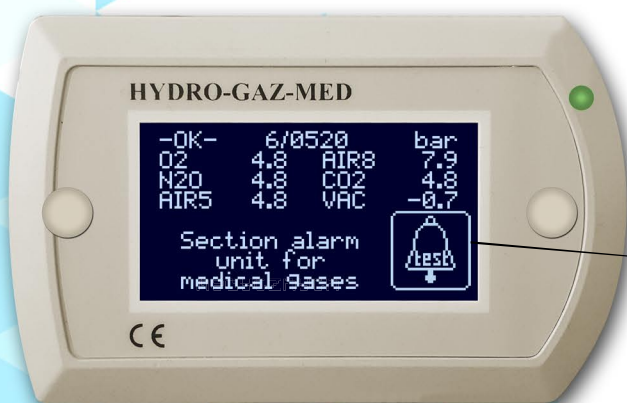
It is a class IIb medical device.

## Function

Gas passes through sensor and its speed is measured, then calculated and displayed as flow value. Gas is measured proportionally and displayed in liters per minute and at the same time flowing gas is counted and displayed in cubic meters. Product is equipped in pressure monitoring function and alarm unit working the same as area valve box. It can also count total usage of gas during last 6 months and every month is displayed separately.



# ALARM UNITS FOR MEDICAL GASES



Alarm unit (on-plaster)

LED indicator

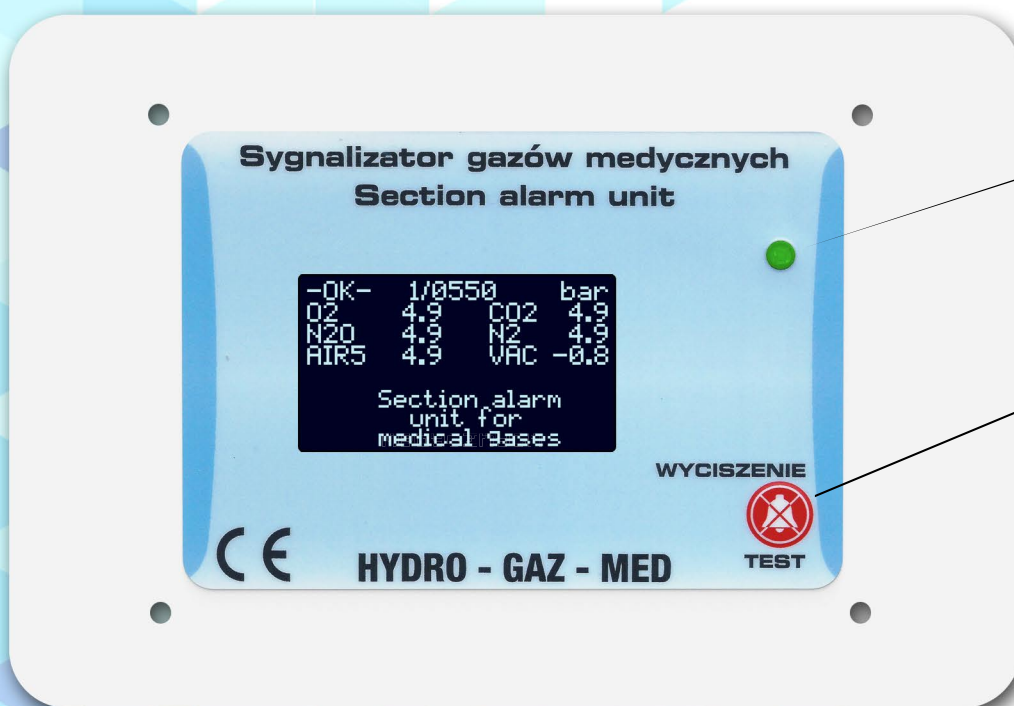
● OK state

● alarm

LCD touchscreen

**Dimensions (WxHxD)**

**108x68x30 (mm)**



Alarm unit (under-plaster)

LED indicator

● OK state

● alarm

Mute / test button

**Dimensions (WxHxD)**

**174x137x5 (mm)**

System consists of master alarm unit (control unit) to which it is possible to connect analog pressure sensors or pressure switches with ON/OFF signal. Instead of pressure switches it is possible to use any source of ON/OFF signals. Maximum amount of input signals is: 6 analog pressure sensors with output signal 0-5V or 12 contact switches with ON/OFF feature.

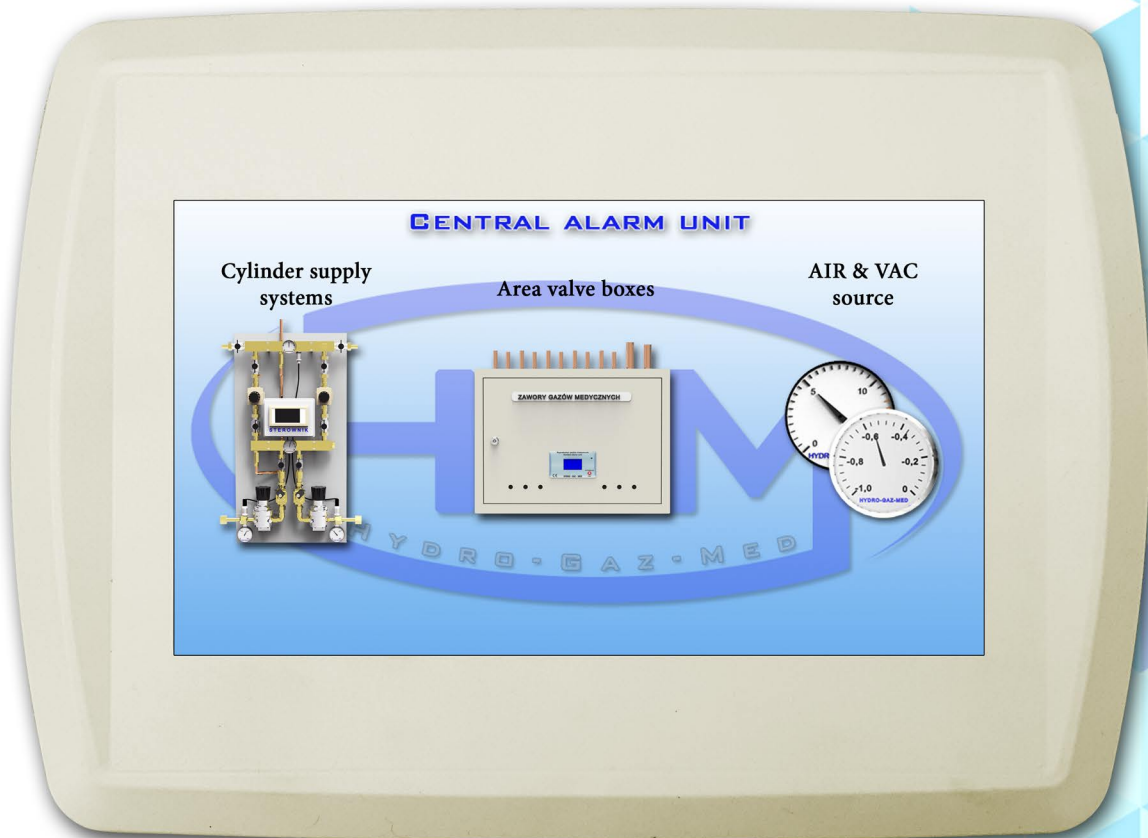
To master control unit it is possible to connect directly two remote alarm units, but if there is need for more alarm units our system can be easily expanded, with use of special splitters, by any number of alarm units.

ALL devices are connected with the use of standard FTP cables and RJ-45 plugs.

## SYSTEM ADVANTAGES:

- limitless possibilities of expansion
- safe electrical supply - 12V DC
- power supply can be delivered to only one device and the whole network will be supplied
- single transmission line can have length up to 1 kilometer
- one commonly available plug system RJ-45
- means to connect whole monitoring system to multiple central alarm units and/or PC and/or laptop.

# CENTRAL ALARM UNIT "S9"



Central alarm unit allows to remote monitoring multiple devices at the same time. It shows alarm states from every device in the "HGM network".

Each central alarm unit is programmed individually for our clients, depending on their needs and the network configuration.

UI is very user-friendly and intuitive to use on 7" LCD touch display.

ALL devices are connected with the use of standard FTP cables and RJ-45 plugs.

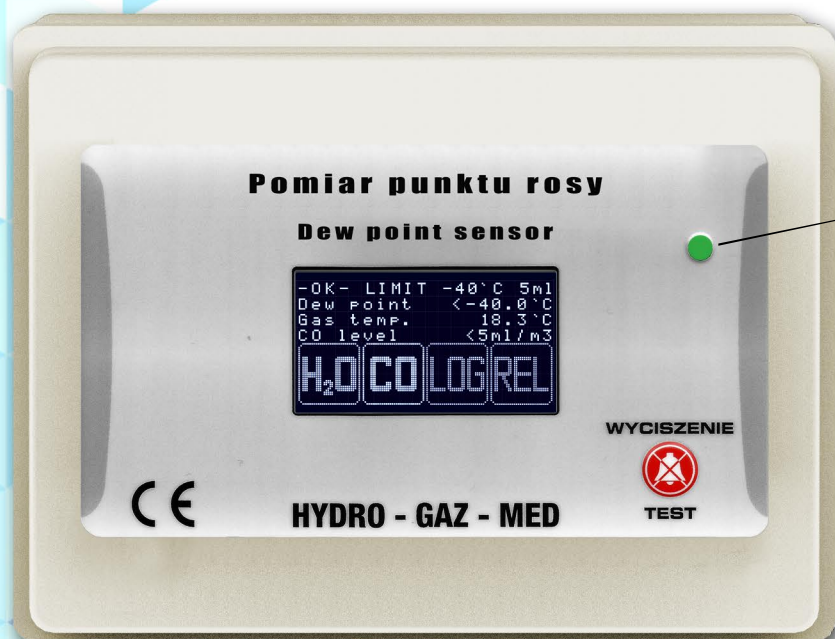
Each alarm system can be equipped with SMS module, which allows to receive text message with alerts directly on mobile phone right after alarm appears.

Our SMS module can send messages up to 3 different numbers at the same time.



# DEW POINT SENSOR

## WITH INTEGRATED ALARM FOR COMPRESSED AIR SYSTEMS



LED indicator

● OK state

● alarm

Mute / test button

### Function

This device is designed to continuously monitor compressed air. If the dew point is lower than a set point, the screen displays OK. If the dew point will rise above set level, device will display current measured value and there will be audio and visual signal. The alarm signal can be transferred to anywhere and with any means ordered, for example with built-in relay (potential free ) or with RJ-45 to BMS system.

### TECHNICAL DATA:

Standard	HGM	
Input	Measurement of dew point temperature in compressed air and content of CO	SHT75, IT8, IQ5
Output	Digital (optional)	Relay(HF49F) max 30V 3A DC / 48V 3A AC
	MODBUS (optional)	9600 BAUD, 8 bits, 2 stop bits without parity control
Measuring range	LOG module (optional)	Last 250 entries, recording every 1 hour all alarms and confirmations
	Ambient temperature	5°C - 50°C
	Dew point temperature	<-40°C - info. OK
	Content of CO	< 5 ml/m <sup>3</sup> - info. OK
AIR inlet pressure	Max 16 bar	
AIR inlet	6 mm (selflocking)	
Connections	Transmission	RJ-45 or STL-1550/4-3.5
Power supply	I/O	STL-1550/4-3.5 / MC-1.5/2-5.08
Current	~25 mA	max 200mA
Housing	PET	
Working temperature	5-50°C	
Storing temperature	-20-60°C	
Dimensions	Width	200 mm
	Height	150 mm
	Depth	80 mm
Weight	~1.2 kg	

# MEDICAL GASES OUTLETS



System  
AGA  
SS 875 24 30



System  
DIN 13260-2



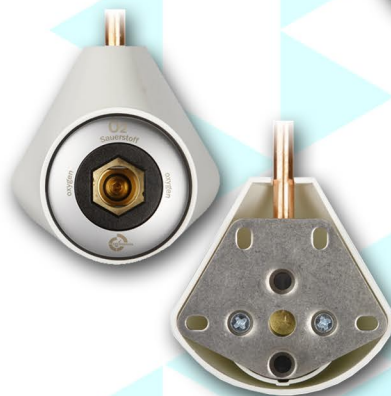
System  
NF S 90-116



System  
BS 5682



Gas outlet (under-plaster)



Gas outlet (on-plaster)



Gas outlet for bed-head units



Gas outlet for ceiling pendants  
with hose connection



Gas outlet for compressed air driven surgical tools  
AIRMOTOR



Gas outlet for anesthetic gas  
scavenging system, Type 1

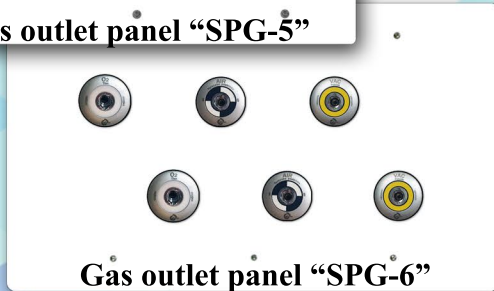




# GAS OUTLET PANEL “SPG”



Gas outlet panel “SPG-5”



Gas outlet panel “SPG-6”



Gas outlet panel “SPG-7”



Gas outlet panel “SPG-9”

Gas outlet panels  
(under plaster version)



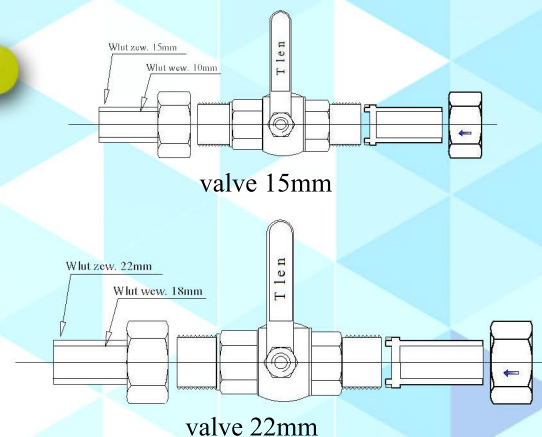
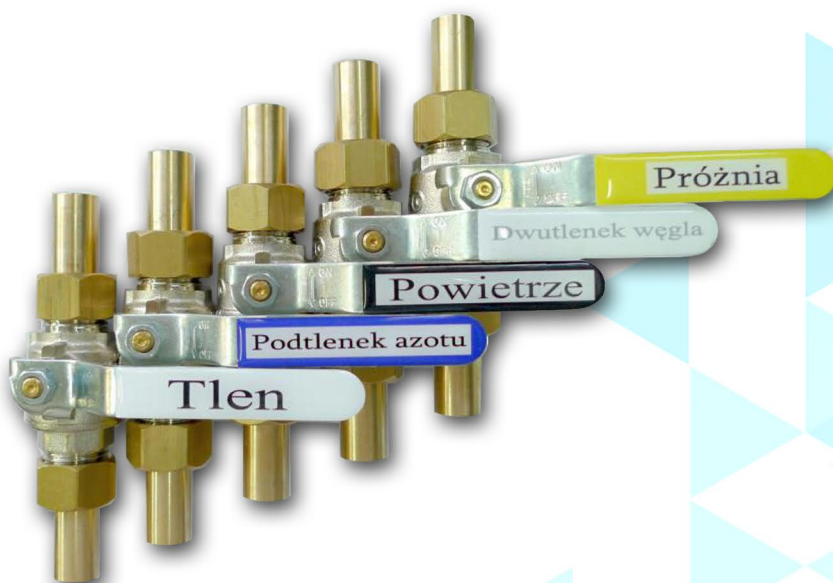
Gas outlet panel (on-plaster version)

Medical gas outlets mounted in panel for under plaster installation are used to acquire medical gases and vacuum. Panel can be equipped with any number of gas outlets either with or without anesthetic gas scavenging system or AIRMOTOR.

Gas outlets can be in AGA SS 875 24 30, DIN 13260-2, NF S 90-116 and BS 5682 connection standard.

In our products we use gas outlets produced by renowned company GREGGERSEN GASETECHNIK.

# BALL VALVES FOR MEDICAL COMPRESSED GASES



## Function

Ball valves are used to shut-off parts of medical pipeline gas system. They allow to divide it to smaller parts, which simplifies, e.g.: maintenance works, repairs, extensions and periodic tests.

Ball valves types:

- ▶ Source shut-off valve;
- ▶ Raiser valve;
- ▶ Section shut-off valve;
- ▶ Maintenance valve;
- ▶ Service valve;
- ▶ Drainage valve.

## Construction

Valve is made of brass housing, inside is a stainless steel ball which opens and closes by rotating the valve handle by 90-degrees. Valves have 2 external threads, equipped in soldering union connection with teflon seals.

Ball valves are **maintenance free**.

Each valve is labeled with gas name.

Max working pressure is 20 bar.

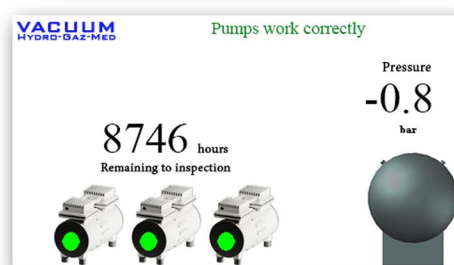
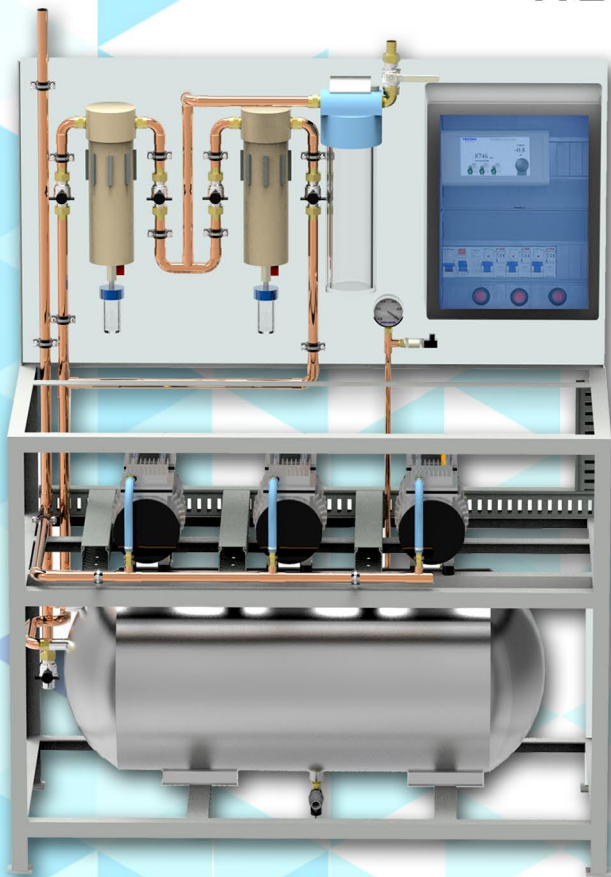
**Available sizes for pipes:**

15 mm, 18 mm, 22 mm, 28 mm, 35 mm, 42 mm, 54 mm.



# COMPACT VACUUM PLANT

## "HGM VAC"



### WORKING CONDITIONS

- ▶ ambient temperature: 5-35 °C
- ▶ atmospheric pressure : 900-1050 hPa
- ▶ relative humidity : 20-90 %

### PURPOSE

- ▶ Supports up to 10 vacuum outlets
- ▶ Operating room
- ▶ Postoperative room
- ▶ 2 beds ICU

### EQUIPMENT

- ▶ Vacuum pump 3 pcs
- ▶ Bacteria filter 2 pcs
- ▶ Secretion collecting unit 1 piece
- ▶ Electronic control 1 piece
- ▶ Vacuum tank 110 L
- ▶ Connection to BMS

### TECHNICAL DATA:

Parameter	Value
Capacity at atmospheric pressure 1024 hPa (m³/h)	18 m³/h
Capacity at -0,5 bar (m³/h)	6 m³/h
Tank volume (L)	110
Pump type	3x HMGV-1
Motor power (kW)	0,75
Noise level (dB)	62
Inlet port, copper pipe (mm)	22
Exhaust, copper pipe (mm)	22
Weight (kg)	~130
Max vacuum (relative pressure)	-0,7 bar
Power supply	3x2,5 mm², 230V, 12A
Dimension (mm)	1500x1300x500

# COMPACT OXYGEN DELIVERY SYSTEM OXYKON®



System allows to **produce your own medical oxygen** from ambient air.

Achieved oxygen concentration is between **94-96%** of oxygen in produced gas.



## ***Compressed air module***

Equipped in dry oil free scroll compressors, filtration system and air drying system for purposes of oxygen production and after small upgrade it can also deliver medical grade air.



## ***Oxygen module***

Oxygen concentrator **OXYKON®** is in closed, soundproof housing.



# COMPACT OXYGEN DELIVERY SYSTEM OXYKON®

## Main advantages of the System:

- ▶ closed soundproof housing
- ▶ relatively small dimensions
- ▶ minimum installation costs
- ▶ plug'n'play system
- ▶ 4.3" or 7" colour touch screen
- ▶ continuously 24h/7 monitoring of produced gas
- ▶ maintenance free
- ▶ low maintenance costs (scroll element requires service every 5000 working hours)
- ▶ low oxygen production cost

## Available models:

- ▶ **OXYKON®-60K** - capacity 60 l/min of oxygen
- ▶ **OXYKON®-90K** - capacity 90 l/min of oxygen

## EXAMPLARY HOSPITAL CONFIGURATION FOR EACH OXYKON® MODEL

	OXYKON®-60K	OXYKON®-90K
<b>OP rooms</b>	2	3
<b>Intensive care beds</b>	2-3	4-5
<b>Amount of beds in total</b>	100	140

## Technical data:

COMPRESSED AIR MODULE		
Parameter	Unit	Value
Capacity	m³/h	72
Delivery pressure max	bar	8
Ambient conditions	°C	5÷40
Power consumption	kW	11
Supply voltage	V	400
Dimensions (WxHxD)	mm	1700x1100x1300
Weight	kg	960

OXYGEN MODULE		
Parameter	Unit	Value
Capacity	m³/h	3,6-5,4
Delivery pressure max	bar	6,5
Ambient conditions	°C	5÷40
Power consumption	kW	1,1
Supply voltage	V	230
Dimensions (WxHxD)	mm	1000x850x1100
Weight	kg	330

# OXYGEN CONCENTRATORS FOR MEDICAL GASES PIPELINE SYSTEM

**OXYKON®** oxygen concentrator delivers “medical oxygen 93” by filtering compressed air and separating oxygen from other air components (including chemical weapons) to achieve up to 96% oxygen concentration. Because oxygen concentrator needs compressed air to deliver oxygen it allows to use the surplus compressed air as a medical air. This allows to eliminate extra costs of installing separate compressed air system. To minimize installation costs even more it can use compressed air from an existing compressed air system in hospital to deliver oxygen. Taking such solution at the planning stage of investment it allows to save extra costs. At the end it can save up to 80% of oxygen therapy costs.

We are the first in Poland who have developed and implemented this system in Health Care Facilities. This economic system guarantees self-sufficiency and optimally uses available area.



**OXYKON®** DUO concentrator



**OXYKON®** modular concentrator

## Concentrators produce “medical oxygen 93”

Concentrator type	Efficiency m <sup>3</sup> /h	Efficiency during the day in 40L cylinder
<b>OXYKON®</b> 30	1,8	7
<b>OXYKON®</b> 60	3,6	14
<b>OXYKON®</b> 120	7,2	27
<b>OXYKON®</b> 180	10,8	41
<b>OXYKON®</b> 240	14,4	54
<b>OXYKON®</b> 360	21,6	81
<b>OXYKON®</b> 420	25,2	95
<b>OXYKON®</b> 600	36	135

Oxygen concentrator modules work selectively – producing oxygen to meet actual demand, thereby power consumption is reduced to minimum. Also usage of compressed air is optimized according to oxygen demand. Thanks to modular construction it is not possible that there will be no oxygen in hospital. In case of failure the amount of delivered oxygen will decrease but concentration level will remain unchanged.



# CEILING PENDANTS



Ceiling pendants and columns are freely configurable and can be easily suited to any kind of room, like operating theatre, ICU and preparing or recovering room.

## BED-HEAD WALL SUPPLY UNITS



ICU unit



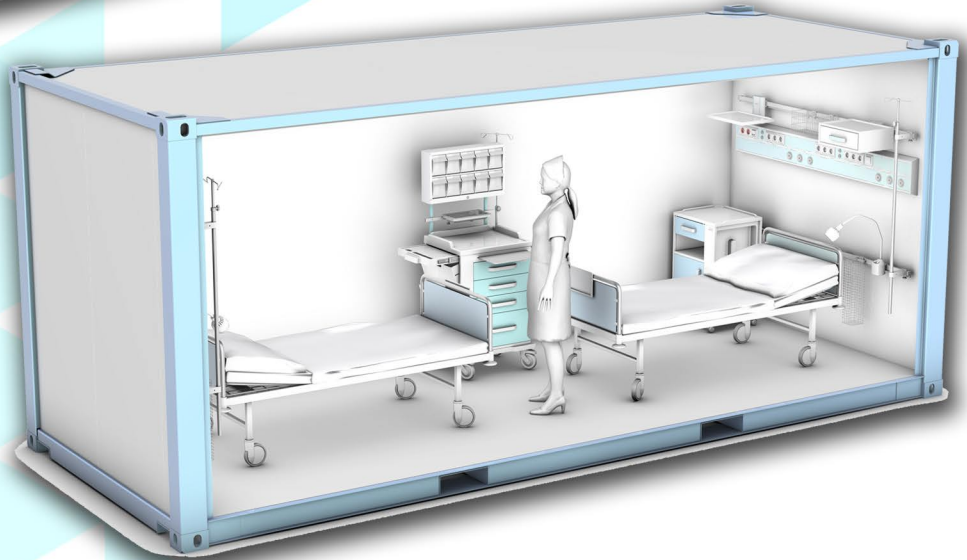
Bed-head units are freely configurable with one or two main channels according to the customer requests. Basic equipment: medical gases, electrical sockets, DATA socket, equipotential socket, RJ-45 socket, indirect lighting, direct lighting, night lighting, nurse call system slots.



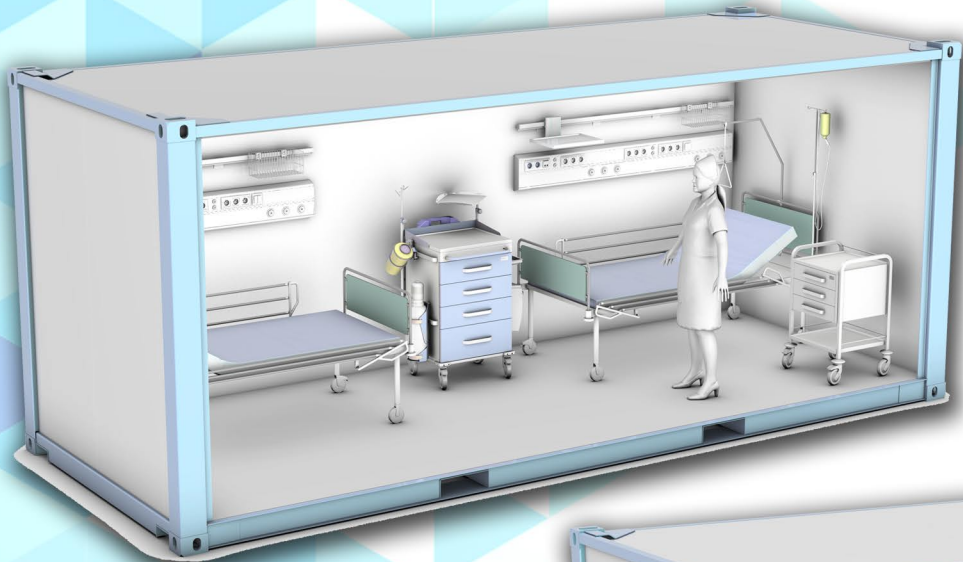
# MOBILE MEDICAL CONTAINERS



Consulting room



Recovering room 1



Recovering room 2

Mobile dentistry



# MOBILE SURGICAL DRESSING ROOMS



Front



Back



Inside





Quality Management System EN ISO 13485:2012

All our products comply with EN-ISO 7396-1

CE  
2274



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