

ULTRAMED 1 to 9

MEDICAL GAS SYSTEMS

Breathing Air Purifier

ULTRAMED INTENDED USE

The five stage breathing air purifier ULTRAMED was specifically developed for generating medical air quality in accordance with the European Pharmacopoeia.

The new system is suitable both for the outfit of new systems and for modification of existing plants. In particular the small models also allow a retrofit under cramped spatial circumstances.

The problem-free parallel operation of two units is guaranteed by the integrated flow limiters without additional switching components.

ULTRA CONTROLO plants for medical compressed air correspond to the requirements of EN ISO 7396-1.

- Air quality according to the European Pharmacopoeia
- Low operating cost
- Space-saving, packaged design
- Simple modification of existing plants without additional control panels
- Intelligent control for monitoring system functioning



FUNCTIONING

The ULTRAMED (001 to 009) breathing air systems are purification units based on adsorption dryers to supply breathing air in excess of all relevant international standards and medical prescriptions.

The purification consists of several stages:

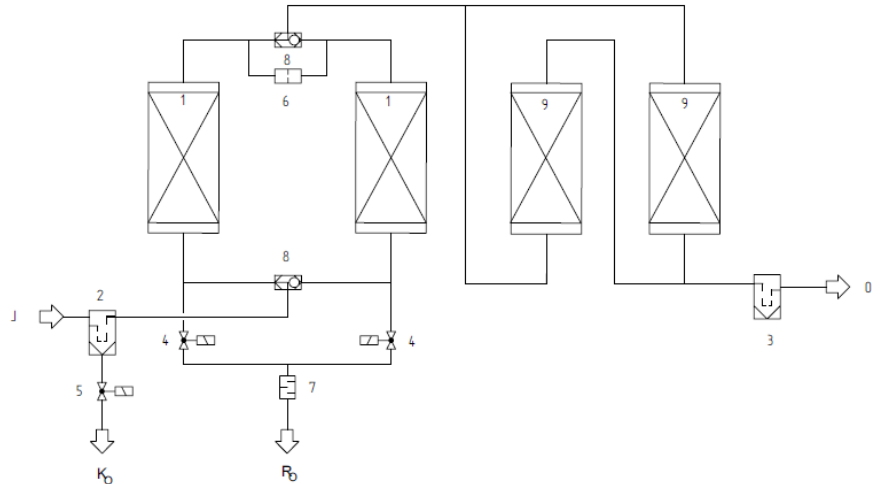
Compressed air is led through the inlet of the unit (J) and across the prefilter (2).

At this stage, the air is cleaned from particles and condensate.

The condensate is removed via a membrane condensate drain (5).

The following desiccant dryer reduces the water vapour content of the compressed air down to a pressure dew point of -40°C (equivalente to a remaining water content of $0.11\text{g}/\text{m}^3$).

In the following purification stages (SP, AK, OX) (9) the content of CO_2 is adsorbed to a level far below 500 ppm the content of SO_2 below 1 ppm and the content of NO_x below 2 ppm. In the AK stage oil vapours, hydrocarbons, taste and odours are adsorbed to a level far below $0.003\text{ mg}/\text{m}^3$. In the OX stage a catalyst converts CO to CO_2 and thereby reduces the carbon monoxide level down below 5 ppm. The final particle filter (3) removes all particles which might be carried over from the adsorption and /or catalyst stages.



DESIGN FEATURES

- Purification package including adsorption dryer, CO-, CO_2 -, NO_x - and SO_2 removal, pre-, afterfilter and automatic condensate drain
- Guaranteed and validated separation efficiency
- Adsorbent in cartridges
- Intermittent operation standard
- Compact, space saving design
- Component exchange display
- Unique Multifunction Block
- Load dependent control
- Self-Diagnosis-System
- Text Display
- Info-Channel
- Economizer-Function

Technical data	
Air quality related to standard inlet conditions:	
Particles	Class 2, ISO 8573-1:2001
Residual oil content	$<0.01\text{ mg}/\text{m}^3$
Oil vapour and hydrocarbons	$<0.003\text{ mg}/\text{m}^3$
Water vapour	DTP -40°C ($=0.11\text{ g}/\text{m}^3$)
CO_2	$< 500\text{ ppm}$
CO	$< 5\text{ ppm}$
NO_x	$< 2\text{ ppm}$
SO_2	$< 1\text{ ppm}$

Type	Order no	Capacity	Dimension	Weight
		$\text{m}^3/\text{h}^{1)}$	W x H x D in mm	Kg
ULTRAMED 1	053.08.00761	5	300 x 189 x 343	12
ULTRAMED 2	053.08.00762	10	301 x 189 x 591	19
ULTRAMED 3	053.08.00763	15	302 x 189 x 853	25
ULTRAMED 4	053.08.00764	25	303 x 189 x 1377	32
ULTRAMED 5	053.08.00765	35	532 x 322 x 665	44
ULTRAMED 6	053.08.00766	50	532 x 322 x 920	58
ULTRAMED 7	053.08.00767	65	533 x 322 x 1170	73
ULTRAMED 8	053.08.00768	80	534 x 322 x 1420	87
ULTRAMED 9	053.08.00769	100	535 x 322 x 1670	105

¹⁾ Related to 1 bar (abs) and 20°C at intake of compressor and 7 bar (g) and 35°C inlet temperature

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