

adjust the parameters of lung ventilation and create a pulsating air flow under conditions of ambient pressure difference

Pressure breathing machine OLYMPUS

Artificial lungs



APPLICATIONS & INDUSTRIES

- Tests life support systems
- Tests hose gas masks
- Tests in the pressure, climatic, penetration chambers
- Tests at normal atmospheric pressure







DESCRIPTION

Breathing machine OLYMPUS creates a pulsating air flow that imitates human breathing with the required value of ventilation.

It is used as part of other test benches where reproduction of a pulsating flow of gas-breathing mixture (GBM) is required, but persons are not involved, for example, in climatic chambers, penetration test chambers using test agents and others.

The pneumatic cylinders in the design of the test equipment are suitable for testing life support systems under conditions of excess or discharged pressure up to 17 kPa. Can be used in a pressure chamber.

PRINCIPLE OF OPERATION:



DATA SHEET

SPECIFICATIONS	VALUE	UNIT
Permissible breathing resistance	± 14	kPa
The maximum breathing resistance that the test bench must withstand for at least 2 seconds	no more ± 30	kPa
Breathing depth	0,5 to 3,0	dm³
Breathing frequency	10 to 40	min ⁻¹
Lung ventilation	5,0 to 120,0	dm³ / min
Overall dimensions (length×width×height)	370×380×570	mm
Power supply	50; 220	Hz, V
Power consumption	no more 1	kW
Weight	no more 40	kg
Time to enter the mode	no more 15	min
Average life time	at least 10	years



TERM OF USE	VALUE	UNIT
Ambient temperature	10 to 35	°C
Atmosphere pressure	630 to 800	mm. Hg
Relative humidity	10 to 80	%
The composition of gas mixture allowed for use: Air; Nitrogen-oxygen mixture with oxygen content up to 100%		

DELIVERY COMPONENTS with test equipment

Name	Q-ty, pcs.
Tablet PC with installed software	1
Documentation set	1

The complete set of delivery is given in the instruction manual

WHY BREATHING MACHINE OLYMPUS?

1. Universal platform for research & quality control of RPE

It is possible to use several «Olympus» installations for testing life support systems to reproduce the breathing of a group of people with different values of pulmonary ventilation. Tests are carried out at low noise and power consumption.

«Olympus» has no restrictions* in test modes, the parameters of the depth and frequency of breathing are simply and flexibly changed* in the software

*within technical possibilities

2. Modern way of control

Entering the parameters of the depth and frequency of breathing, the start and end of «breathing» is carried out through the application on a personal computer.

It is possible to quickly and easily master the control of the «Olympus» and involve even a laboratory intern in the work.

3. Increases the productivity of the testing process

Thanks to its own unique development of hardware and software, «Olympus » comes to the mode and you can do more tests per day.

4. Saves time for lab staff

Breathing machine OLYMPUS software automatically maintains test parameters, records and stores their results

5. Ergonomics and mobility





Development of the equipment according to your terms of reference

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