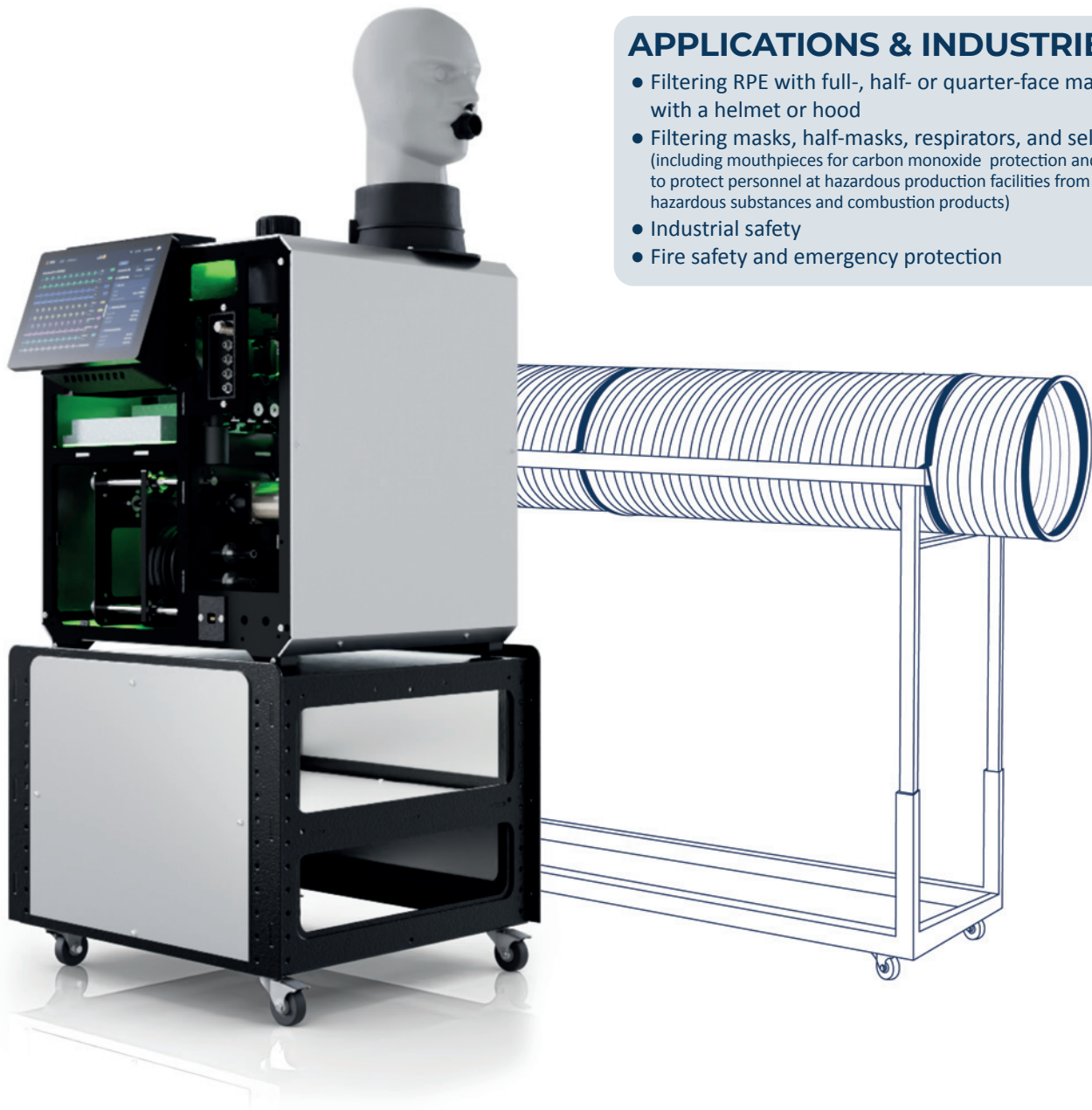


determining the content of CO₂ in the inhaled air

Test equipment DIOXIDE

developed on Metabolic breathing simulator
OXY ROBOT platform



APPLICATIONS & INDUSTRIES

- Filtering RPE with full-, half- or quarter-face masks, with a helmet or hood
- Filtering masks, half-masks, respirators, and self-rescuers (including mouthpieces for carbon monoxide protection and with hoods to protect personnel at hazardous production facilities from chemically hazardous substances and combustion products)
- Industrial safety
- Fire safety and emergency protection

For developers
and manufacturers
of respiratory protective
equipment (RPE)



For certification
bodies and testing
laboratories



For research
centers and
universities



DESCRIPTION

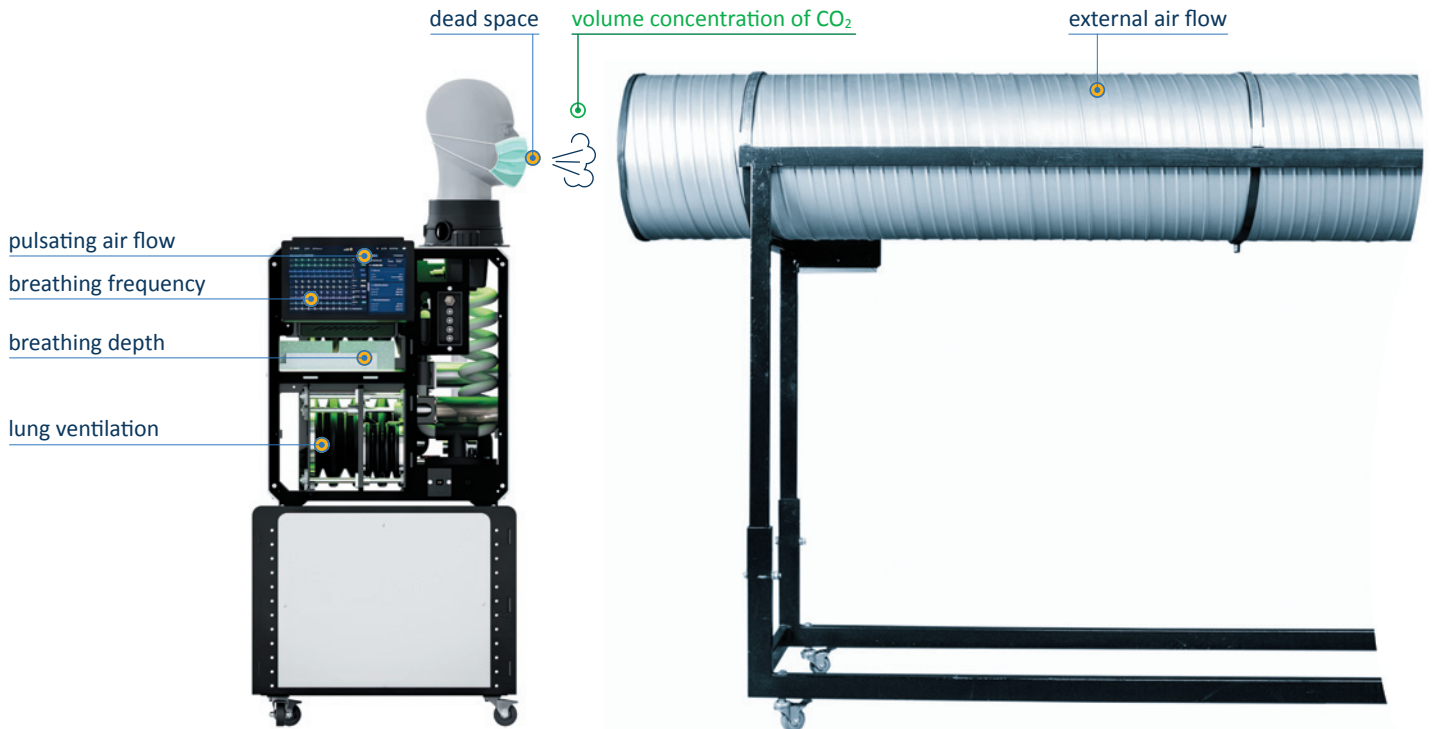
Test equipment «Dioxide» determines the content of carbon dioxide in the inhaled air from the «dead space» of the front parts of RPE.

Dioxide creates a pulsating air flow that imitates human breathing, with the necessary parameters for the frequency, depth of breathing, and volume concentration of CO₂ on «exhalation».

Tests are conducted until the volume concentration of carbon dioxide (CO₂) at inspiration stabilizes and does not vary by more than 10% within 2 minutes. The obtained results can then be compared to the regulatory requirements for the respiratory protective equipment (RPE) being tested.

The test equipment is controlled by an app on a tablet PC.

PRINCIPLE OF OPERATION:



DATA SHEET

SPECIFICATIONS	VALUE	UNIT
Breathing depth	0,5 to 3,0	dm ³
Breathing frequency	10 to 40	min ⁻¹
Lung ventilation	5 to 120	dm ³ / min
Volumetric carbon dioxide flow	5 to 10	dm ³
Volume concentration of carbon dioxide in the exhaled gas mixture	4 to 5	%
Speed of the air flow for blowing of RPE	0,5	m/s
Overall dimensions* (length × width × height)	580×510×750	mm
Power supply	50; 230	Hz, V AC
Power consumption	no more 1	kW
Weight*	no more 40	kg
Time to enter the mode	no more 10	min
Average life time	at least 10	years

*not including the trolley and the external air flow device

TERM OF USE	VALUE	UNIT
Ambient temperature	18 to 25	°C
Atmosphere pressure	630 to 800	mm Hg
Relative humidity	10 to 80	%
Conditions for correct testing: the volume concentration of carbon dioxide in the room is not more than 0.1%.		



SOFTWARE PLATFORM POSSIBILITIES

Feedback of test results in real-time

To export test results to your devices in pdf & excel-file and print their

Automatic control of test parameters, fixation and formation of a test database with results

To create a database of relevant standards, test modes, types and models of RPE, manufactures of RPE

Self-diagnosis

Calibration

Interface languages: English

Hosting: app on a tablet PC

DELIVERY COMPONENTS with test equipment

Name	Q-ty, pcs.
Dummy human head	1
External air flow device (pipe)	1
Trolley	1
Tablet PC with installed software	1
Documentation set	1

The complete set of delivery is given in the instruction manual

RELEVANT STANDARDS*:

EN 1827, EN 12941,
EN 136, EN 149, EN 403,
EN 404, EN 405

*meets one or more standards. If you require testing to a standard not listed, please contact us.



WHY TEST EQUIPMENT DIOXIDE?

1. Universal platform for research & quality control of RPE

It's suitable for most tests according to international standards and your research scenarios — the settings are simply and flexibly changed* in the software.

*within technical possibilities

2. Modern way of control

It is possible to quickly and easily master the control of the test equipment and involve even a laboratory intern in the work.

3. Saves time for lab staff

The tests do not require the constant operator presence. The software automatically maintains test parameters, records and stores their results.

4. Increases the productivity of the testing process

It quickly comes to the test mode (up to 10 minutes) and changes the test mode (up to 5 minutes), and you can do more tests per day.

5. Ergonomic and mobile



SERVICE



Warranty
from 12 months



Training
of the Customer's staff



Service support
for the entire
period of use



**Development
of the equipment**
according to your terms
of reference

WATCH PRESENTATION VIDEO:

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