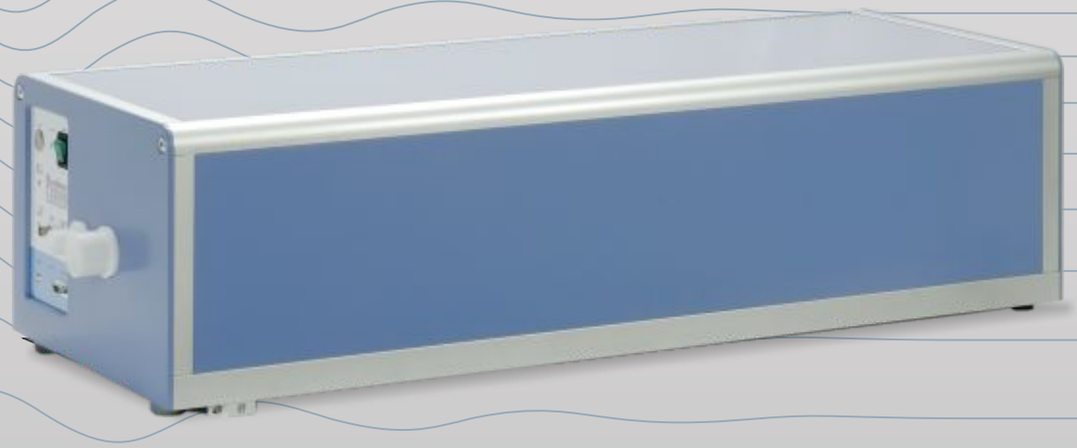
PISTON



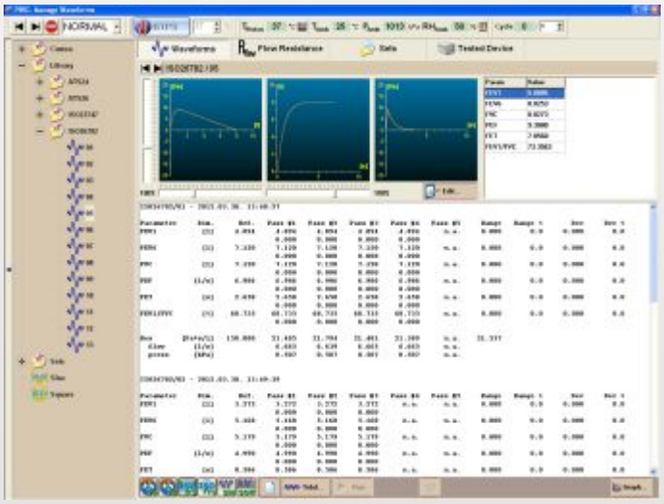
Pulmonary Waveform Generator
PWG-33

Pulmonary waveform generator is the most essential equipment for developing and testing spirometers and other flow/volume measuring devices.

PWG-33 is the ideal test equipment for R&D companies, for manufacturers and for authorized test laboratories as well.

PWG-33 has incomparable accuracy and fidelity in generating waveforms.

PWG-33 provides the highest peakflow with the fastest acceleration it is the real market leader in all aspects.



PWG-33BT provides full BTPS simulation for all types of exhaled curves

Generated waveforms	Standards
24 ATS Standard Volume(time) waveforms 26 ATS Standard Flow(time) waveforms	“Standardization of Spirometry” issued by American Thoracic Society, 1994
Peak flow profile: A Peak flow profile: B	EN ISO 23747:2009 Peak expiratory flow meters
Test profiles: C1 to C11 Test profiles: C12 and C13	EN ISO 26782:2009 Spirometers intended for the measurement of time forced expired volumes in humans

User defined waveforms

- Sinus waveforms
- Square waveforms
- Trapezoid waveforms
- Reproduction of any waveform defined by user

Main features

- All parameters of generated waveforms are fully traceable to National Standards
- All generated curves can be proportionally scaled to any directions
- Full automatic measurement of flow meter’s resistance
- Full support of human differential tests according to ATS
- Evaluation of test results and error analysis according to ATS
- Full automatic test sequence definable by the user

Maximal volume	10.00 liter
Maximal flow rate	20.00 liter/s
Minimal rise time to flow rate16.00 l/s @ back-pressure 3kPa	4.00 ms
Maximal slew rate to flow rate16.00 l/s @ back-pressure 3kPa	4000 l/s2
Maximal back-pressure of the flow sensor under test	4.00 kPa @ 12 l/s
Volume resolution	0.3829 ml
Volume accuracy	0.2 % or 10 ml which ever is larger
Flow accuracy	0.5 % or 25 ml/s which ever is larger
Time accuracy	0.2 % or 5 ms which ever is larger
BTPS simulation: Temperature of expired air	37 °C ± 2 °C (adjustable by the user)
BTPS simulation: Relative humidity of expired air	92 % ± 5 %
Pneumatic outlet Can be custom-tailored for special request	ISO-30 medical taper Male: OD 30,2 mm Basic taper 1:20
PC interface	USB 2.0
Mains voltage	100 ÷ 240 VAC @ 50 ÷ 60 Hz
Power consumption	max. 600 VA
Size	1100 * 370 * 265 mm
Weight	38 kg

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