

Filter Tester



Filter holder



Face mask holder

Test Standard

Filter test machines can measure the efficiency and pressure drop of flat sheet media at first approximation which is similar to various standards.

BS EN 143
BS EN 779
US 42 CFR 84
ISO 16890

Face mask and flat sheet filter Filtration efficiency and air pressure drop

Filter test machines model FT150EA, FT200PO and FT200PS can determine the efficiency, pressure drop and air permeability of different flat sheet filter media using oil / salt aerosols or atmospheric dust. Our filter test machines can be employed for testing different flat sheet media which are used to produce respiratory face masks and air filters.

Filter test machine uses a particle counter that counts upstream and downstream particles.

Filter test machines are equipped with a high precision particle counter (four-channel particle sizes: 0.3, 0.5, 1.0 and 3.0 μm) for counting the particles generated by oil / salt particle generator or atmospheric dust in order to calculate filtration efficiency. The software calculates the aerosols penetration P (%) and media filtration efficiency E (%) In addition this machine can calculate air permeability and pressure drop of flat sheet media automatically. Data can be saved automatically and also test reports can be printed by an installed thermal printer on the machine.



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Specifications

		FT150EA	FT200PO	FT200PS
Test Modes	Pressure drop test	✓	✓	✓
	Air permeability test	✓	✓	✓
	Filtration efficiency test	Atmospheric	Atmospheric and oil aerosols	Atmospheric, oil and salt aerosols
	Bubble point	Optional	Optional	Optional
Control	PLC	✓	✓	✓
	HMI	7"	7"	7"
Air flow	Mass Flow	1 - 150 l/min	1 - 200 l/min	1 - 200 l/min
	Digital control	✓	✓	✓
Filter Holder	Test area	4.9, 20, 25, 38, 50 and 100 cm ²	4.9, 20, 25, 38, 50 and 100 cm ²	4.9, 20, 25, 38, 50 and 100 cm ²
Sensors (Transmitters)	Temperature	✓	✓	✓
	Relative humidity	✓	✓	✓
	Digital tank pressure control	✗	✓	✓
Air Compressor	Tank pressure	1 – 8 bar	1 – 8 bar	1 – 8 bar
Pressure Drop	Pressure drop	0 – 760 Pa	0 – 760 Pa	0 – 760 Pa
	Digital control	✓	✓	✓
Air Dryer	Air line trap	✓	✓	✓
	Dryer system	Optional	Optional	Optional
Particle Counter	Laser particle counter	1	1	1
	Channels	four-channels	four-channels	four-channels
	Channel sizes	0.3, 0.5, 1.0, 3.0 µm	0.3, 0.5, 1.0, 3.0 µm	0.3, 0.5, 1.0, 3.0 µm
	Flow rate	2.8 L/min	2.8 L/min	2.8 L/min
Aerosol Generator (Oil)	Generator	✗	✓	✓
Aerosol Dilutor	Particle dilution	✗	100:1	100:1
	Type of aerosol challenge	✗	Paraffin, PAO, DOP	Paraffin, PAO, DOP
Aerosol Generator (Salt)	Generator	✗	✗	✓
	Neutralizer	✗	✗	✓
Printer		Optional	Optional	✓
Respiratory Face Mask Holder (3D masks)		Optional	Optional	✓
Power Supply		Single phase, 220 V, AC	Single phase, 220 V, AC	Single phase, 220 V, AC
Weight		About 170 kg	About 180 kg	About 180 kg
Size (cm) (Length × Width × Height)		94×92×163	94×92×163	94×92×163