MFP 1000 HEPA

The MFP filter test rig is a modular filter testing system for flat filter media and small mini-filters. Pressure loss curves, fraction separation efficiency or burden can be determined within a very short period of time – both reliably and cost-effectively. With the aid of the light scattering spectrometer Promo® 1000, clear and reliable determination of the aerosol concentration and the particle size can be ensured, and therefore a clear determination of the fraction separation efficiency and the MPPS range for HEPA filters.
Thanks to the movable dilution cascades, the test rig can be changed over from salt aerosols to DEHS aerosols within a very short space of time, with no need for cleaning.The largely automated setup of the test sequence together with the clearly defined individual components and the individually adjustable sequence programs of the filter test software ...

Benefits

- Particle size measurement from 120 nm (90 nm)
- Internationally comparable measurement results
- Simple use of different test aerosols, such as NaCl / KCl or DEHS; other test aerosols on request
- Easily shiftable dilution cascades with factors of 10, 100, 1,000 and 10,000 for measurements with salt or DEHS
- Simple measurement of the fraction separation efficiency and determination of the MPPS range
- Burden measurements up to 2500 Pa with fraction separation efficiency determination possible
- High reproducibility of the test method
- Cleaning can be performed by the customer
- Short set-up times, fast throughput times
- Mobile set-up, easy to move on castors
- Clear verification of the function of the individual components and the system as a whole in the scope of pre-delivery acceptance testing and at delivery
- Little maintenance required

Applications

- MPPS (**M**ost **P**enetrating **P**article **S**ize) fractional efficiency measurements according to ISO 29463 and EN 1822
- Testing of filter media and small mini filters in product development and production monitoring
- Testing of initial efficiency according to ISO 11155-1 (cabin air filters), ISO 5011 (engine air intake filters), EN779/ASHRAE 52.2 (cabin air filters) and other standards in different versions

Features

- Measurement of fractional efficiency and pressure loss vs. volume flow
- Use of the Promo® 1000 aerosol spectrometer
- Customized filter adapters and adaptations in the air duct possible
- On-site calibration and adjustment (particle size and volume flow)

DATASHEET

Aerosols	Dusts (e.g., SAE dusts), salts (e.g., NaCl, KCl), liquid aerosols (e.g., DEHS)
Test area of the medium	100 cm^2
Measurement range (size)	0.09 – 40 μm
Measurement range (mass)	Up to 1,000 mg/m^3 (depending on the version)
Volume flow	0.54 – 16 m^3/h - pressurized operation
Power supply	115 – 230 V, 50/60 Hz
Differential pressure measurement	0 – 1,200 Pa selectable, 0 – 2,500 Pa selectable, 0 – 5,000 Pa selectable
Inflow velocity	1.5 – 40 cm/s (others on request)
Compressed air supply	6 – 8 bar
Dimensions	1,800 • 600 • 900 mm (H • W • D)

NORMS AND CERTIFICATES

ISO 11155-1, ASHRAE 52.2, ISO 5011, ISO 16890, ISO 29463-3, EN 1822-3 (HEPA), ISO 29463-3 (HEPA), EN 779, EN 1822