MFP 4000



The MFP filter test rig is a modular filter testing system for flat filter media and small mini-filters.

This enables you to determine the pressure loss curve on the medium without a dust coating,fraction separation efficiency, orburden and fraction separation efficiency during application of the burdenand the gravimetric separation efficiencywithin shortest times – reliably and therefore cost-effectively.

The MFP 4000 operates in suction mode. This ensures a particularly uniform formation of the dust cake even at high inflow speeds.

With the FTControl test rig software of the MFP 4000, the aerosol spectrometer Promo® 1000/2000 is used for clear and reliable determination of the aerosol concentration and particle size and therefore clear determination of the fraction separation efficiency.

Benefits

- Simultaneous particle measurement in the raw gas and clean gas
- Particle size measurements from 0.2 – 40 μm
- Measurement of $C_{n\,max}$= 10^6 particles/cm^3 without dilution
- Internationally comparable measurement results
- High reproducibility of the testing method
- Easy use of different test aerosols, e.g. SAE Fine and Coarse, NaCl/KCl, DEHS
- Highest raw gas concentrations of up to > 1000 mg/m^3 (ISO Fine) or > 5000 mg/m^3 (ISO Coarse) with measurement of the fraction separation efficiency for burden tests
- Sequence programs for pressure loss measurements, measurements of fraction separation efficiency and burden measurements
- Easy to operate
- Short set-up times
- Cleaning and calibration can be performed by the customer
- Easy use of the measurement technology components – even in other applications
- Mobile setup, easy to move on castors
- Validation of the clear function of individual components and the overall system during pre-delivery acceptance testing and upon delivery
- Low-maintenance

Applications

- For filter media and small filter elements
- Product development and during production monitoring
- Testing based on ISO 11155-1 / DIN 71460-1 (cabin air filters)
- Testing based on ISO 5011 (engine pre-air filters)
- Testing based on ISO 16890 (room air filters)
- Other standards in various versions

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)	0.2 – 40 μm
Measurement range (mass)	Up to 1,000 mg/m^3 (depending on the version)
Volume flow	1 – 35 m^3/h - suction mode
Differential pressure measurement	0 – 1,200 Pa selectable, 0 – 2,500 Pa selectable, 0 – 5,000 Pa selectable
Inflow velocity	5 cm/s – 1 m/s (others on request)
Compressed air supply	6 – 8 bar

NORMS AND CERTIFICATES

ISO 11155-1 / DIN 71460-1, ISO 5011, ISO 16890