

MFP 3000 HF



With the MFP 3000 HF, it is possible to set the relative humidity from 10 to 80 % or the temperature from -10 to 50 °C. The inflow velocity has been extended compared to standard models to a range of 4 cm/s – 2 m/s.

The MFP 3000 HF serves to determine filter parameters under realistic air conditions, such as

- the differential pressure of the filter medium at different inflow velocities
- the fractional efficiency and the differential pressure at a defined air volume flow
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- the dust holding capacity and the associated gravimetric efficiency at a prescribed air volume flow and increase in differential pressure.

BENEFITS

- Settable relative humidity: 10 – 80 %
- Temperature regulation of the air volume flow: 20 to 35 °C (-10 to 50 °C on request)
- Expansion of the inflow velocity to 4 cm/s – 2 m/s
- Integration of an U-SMPS into the MFP 3000 HF expands the size range for the measurement of filter efficiency at the MFP 3000 to 10 nm – 40 µm
- Quasi-simultaneous particle measurement in raw gas and pure gas
- Measurement of $C_{n\ max} = 10^6$ particles/cm³ without dilution
- Internationally comparable measuring results, high distribution of the test system
- Top reproducibility of the test procedure
- Easy use of various test aerosols, such as SAE Fine and Coarse, NaCl/KCl, DEHS
- Top raw gas concentrations up to > 1000 mg/m³ ISO Fine or > 5000 mg/m³ ISO Coarse with fraction separation efficiency measurement for load testing
- Flexible filter test software FTControl
- Sequential programs for pressure loss measurement, fraction separation efficiency measurement and load measurement
- Easy to operate
- Short set-up times
- Cleaning and calibration can be carried out by customers themselves

APPLICATIONS

- Testing of filter media and of small filter elements in product development and during production monitoring with variable rel. humidity and temperature.
- Simulation for testing
 - car interior air intake filters or engine air filters at high temperatures, under dusty and dry or extremely humid conditions
 - turbine air filters from power plants
 - performance of room air filters in summer (warm and humid / dry) and winter (cold / humid / dry)
 - performance of ice formation in the filter medium

DATASHEET

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|-----------------------------------|--|------------------------|---|
| 气溶胶 | Dusts (e.g., SAE dusts), salts (e.g., NaCl, KCl), liquid aerosols (e.g., DEHS) | 滤材测试面积 | 100 cm ² |
| 测量范围(粒径) | 0.2 – 40 µm (Promo [®] system), 5 nm – 1 µm (U-SMPS system) | 测量范围(质量) | For SAE-Fine without additional dilution to 1,000 mg/m ³ (ISO A2 Fine) |
| 体积流量 | 1.2 – 72 m ³ /h - suction mode | Power supply | 400 V, 50 Hz |
| Differential pressure measurement | 0 – 20,000 Pa | Inflow velocity | 4 – 200 cm/s |
| Compressed air supply | 6 – 8 bar | Temperature regulation | +20 – +35 °C (-10 – 50 °C on request) |
| Luftfeuchteregelung | 10 – 80 % | Dimensions | 2,300 • 800 • 2,000 mm (H • W • D) |

标准和证书

ISO 5011, ISO/TS 19713, DIN 71460, ISO 11155-1, EN 779, ASHARE 52.2, ISO 16890