MFP 3000 FTD

The MFP 3000 FTD filter test rig comprises the test rig MFP 3000 with a test surface of 100 cm2 and the additional conduit FTD 3000 with a test surface of 400 cm2, which can be operated in turn.

The MFP 3000 FTD operates in suction mode. This ensures an exceptionally uniform dust cake formation even at high inflow speeds.

Operation principle

Additional test duct for 400 cm² filter test area

The MFP 3000 FTD is easily connected as an additional canal with a 400 cm² filter area to the volume flow control and pressure loss measurement of the MFP 3000 by a pneumatic connector.
The aersol sensors for fractional efficiency measurement are connected to the sampling probes at the FTD channel.
Thus, the user simply has a new test channel at his disposal.
With the same extraction capacity, larger media up to 400 cm² filter area can thus be tested about fractional collection efficiency and service life.

Benefits

- Additional test channel in FTD 3000
- Enhanced comparability of inhomogeneous filter media
- Optional: The FTD 3000 can also be used as stand-alone device (special model) without MFP 3000
  - Can be directly connected to the suctioning and compressed air connections of the MFP 3000 2 channels: 1 suctioning channel, 1 compressed air channel
- Virtually 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
- Widespread distribution of the measurement system
- 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
- Flexible filter test software FTControl
- Sequence programs for pressure loss measurements, measurements of fraction separation efficiency and burden measurements
- Easy to operate, even untrained personnel can be instructed quickly in the use of the equipment
- Short set-up times
- Cleaning and calibration can be performed autonomously by the customer
- Easy use of the measurement technology components – even in other applications
- Mobile setup, easy to move on castors
- Reliable operation
- Validation of the clear function of individual components and the overall system during pre-delivery acceptance testing and upon delivery
- Low-maintenance
- The unit will reduce your operating costs

DATASHEET

Aerosols	Dusts (e.g., SAE dusts), salts (e.g., NaCl, KCl), liquid aerosols (e.g., DEHS)
Test area of the medium	100 cm², 400 cm² (FTD)
Measurement range (size)	0.2 – 40 μm
Measurement range (mass)	Up to 1,000 mg/m³ (depending on the version)
Volume flow	1 – 36 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	20 cm/s (others on request)
Compressed air supply	6 – 8 bar
Dimensions	MFP 3000: approx. 600 • 2,500 • 900 mm (H • W • D), FTD: approx. 440 • 2,200 • 440 mm (H • W• D)

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
- Fully automatic measurement of the fractional efficiency, the pressure drop curve, the dust holding capacity and the gravimetrical efficiency
- International comparable results due to the high distribution of the system

Mehr Informationen:
https://www.palas.de/product/mfp3000ftd