

# MFP 3000 FTD



The MFP 3000 FTD filter test rig comprises the test rig MFP 3000 with a test surface of 100 cm<sup>2</sup> and the additional conduit FTD 3000 with a test surface of 400 cm<sup>2</sup>, 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 CM<sup>2</sup> FILTER TEST AREA

The MFP 3000 FTD is easily connected as an additional canal with a 400 cm<sup>2</sup> filter area to the volume flow control and pressure loss measurement of the MFP 3000 by a pneumatic connector.

The aerosol 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 cm<sup>2</sup> 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  $\mu\text{m}$
- Measurement of  $C_{n\text{ max}} = 10^6$  particles/ $\text{cm}^3$  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  $\text{mg}/\text{m}^3$  (ISO Fine) or > 5000  $\text{mg}/\text{m}^3$  (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 cm <sup>2</sup> , 400 cm <sup>2</sup> (FTD)
Measurement range (size)	0.2 – 40 µm
Measurement range (mass)	Up to 1,000 mg/m <sup>3</sup> (depending on the version)
Volume flow	1 – 36 m <sup>3</sup> /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 gravimetric efficiency
- International comparable results due to the high distribution of the system



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