MFP 3000

MFP filter test rigs from Palas® have already proved themselves many times over all around the world in practical applications in development and quality control.
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, or
- burden and fraction separation efficiency during application of the burden
- and the gravimetric separation efficiency

within shortest times – reliably and therefore cost-effectively.

The MFP 3000 operates in suction mode. This ensures a particularly uniform formation of the dust cake even at high inflow speeds.

With the aid of the light scattering spectrometer Promo® 3000, clear and reliable determination of the aerosol concentration and the particle size and therefore a clear determination ...

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Benefits

- 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

Features

- Measurement of fractional efficiency and pressure loss vs. volume flow
- Use of the Promo® 3000 aerosol spectrometer
- Connection of the sensors in raw and clean gas
- Customized filter adapters and adaptations in the air duct possible
- On-site calibration and adjustment (particle size and volume flow)
- Checking the volume flow and pressure loss using a perforated plate

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)

Model Variations

MFP 3000 C

Version for testing filter media better than DIN 71460 and ISO 11155-1 road vehicle interior filters

https://www.palas.de/product/mfp3000c

MFP 3000 FTD

Version with additional test duct for 400 cm^2 filter test area

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

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
Dimensions	2.500 • 680 • 1.550 mm (H • B • T)		