

MFP 3000 Filter Test System



- Internationally comparable measuring results
- High distribution of the measuring system
- High reproducibility of the test procedure
- Simple use of different test aerosols, e. g. SAE Fine and Coarse, aCl/KCl, DEHS
- Highest raw gas concentrations up to > 1000 mg/m³ ISO Fine or > 5000 mg/m³ ISO Coarse with fractional separation efficiency measurement for loading test
- Flexible filter test software PMAS
- Sequence programs for pressure drop measurement, fractional separation efficiency measurement and loading measurement
- Easy to handle; fast training even of untrained staff
- Short set-up times
- Cleaning and calibration can be accomplished by the customer himself
- Simple use of the measuring technological components also in other applications
- Mobile set-up, easy to slide on reels
- Reliable function
- Proof of the clear function of the single components and the complete system during pre-acceptance and delivery.

The MFP filter test rigs of Palas® have already proven themselves worldwide in practical use of many applications in the development and quality control.

The MFP test rig is a modularly built filter test system for flat filter media and small filter elements. With it, the pressure drop development at the unloaded medium the fractional separation efficiency or the loading and fractional separation efficiency during the loading and the gravimetric separation efficiency can be determined reliably and thereby economically within briefest time.

The MFP 3000 works in the suction modus. This ensures an especially even formation of the dust cake also at high inflow velocities.

With the new light-scattering spectrometer **welas® digital 3000**, an unambiguous and reliable determination of the aerosol concentration and the particle size is ensured and therewith an unambiguous determination of the fractional separation efficiency.

Additionally, the use of the **welas® digital 3000** with two sensors for a quasi simultaneous particle measurement offers the following advantages:

- Fully automated fractional separation efficiency measurement
- Using the test system for very high and very low aerosol concentrations.

Application examples

- Testing of filter media and small filter elements in the product development and during the production control.
- Testing possibility according to ISO 11155-1 (Cabin air filters), ISO 5011 (Engine air filters), EN779/ASHRAE 52.2 (Room air filters), EN 1822-3 (HEPA filters), CEN EN 143 and other standards in different versions

Specifications

Volume flow: 1-35 m³/h in suction mode

Inflow velocity: 5-100 cm/s (others on request)

Differential pressure measurement: 0-2500 Pa

Test surface of the medium: 100 cm²

Test aerosols:

- dusts, e. g. SAE dusts;

- salts, e. g. NaCl, KCl;

- liquid aerosols, e. g. DEHS

Particle measuring ranges: **welas® digital 3000**:

0.2-9 µm, 0.25-17 µm, 0.6-40 µm

Aerosol concentrations: for SAE Fine without additional dilution up to 1000 mg/m³ (ISO A2 Fine)

Dimensions (WxHxD): ca. 600 x 2500 x 900 mm

Compressed air supply: 5-8 bar;
= 36 m³/h

Power supply: 115/230 V, 50/60 Hz