

# DFP 3000



The compressed air filter test rig DFP 3000 delivers fully-automated measurements of fraction separation efficiency for compressed air filters under overpressure up to 7 bar, offering better results than ISO 12500. On request, we can also supply an additional filter holder for flat filter media. The fraction separation efficiency is measured with the new aerosol spectrometer Promo® 3000 P , which is equipped with pressure-resistant welas® aerosol sensors for raw gas and clean gas measurements.

The system offers the following advantages (among others):

- Clear determination of the particle size and concentration directly under overpressure up to 10 bar
- Automatic adjustment of the sampling volume flow in the event of pressure changes
- No diffuser, no dilution required

The largely automated setup of the test sequence, the clearly defined individual components, and the individually adjustable sequence programs of the filter test software FTControl deliver the high reliability of our measurement results.

All air volume flows, and the overpressure in the system are automatically monitored and adjusted. The results are presented in detailed form in tables and diagrams and analyzed. With over 120 complete filter test systems manufactured and delivered in over 16 different versions, Palas® is the world-leading manufacturer of filter test systems.

## BENEFITS

- Particle measurements at a glance
- Internationally comparable measurement results
- High reproducibility of the testing method
- Easy use of different test aerosols, e.g., DEHS, SAE Fine and Coarse
- Flexible filter test software FTControl
- Flexibly programmable sequence programs for pressure loss measurements, measurements of fraction separation efficiency, and burden measurements
- Fully-automatic and reproducible test sequence, including pressure and volume flow control
- 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 precise function of individual components and the overall system during pre-delivery acceptance testing and upon delivery
- Low-maintenance

## APPLICATIONS

- Testing of complete filters better than ISO 12500
- Testing of filter media
- Determination of the drainage amount during burdening

## DATASHEET

Aerosols	Liquid aerosols (e. g. DEHS)	Measurement (number $C_N$ )	range	Up to $10^6$ particles/cm <sup>3</sup>
Measurement (size)	0.2 – 40 $\mu\text{m}$ , 0.3 – 40 $\mu\text{m}$ (at 7 bar <sub>g</sub> )	Volume flow		1 – 60 Nm <sup>3</sup> /h or 10 – 200 Nm <sup>3</sup> /h- pressurized operation
Power supply	115 – 230 V, 50/60 Hz	Differential pressure measurement	pressure	0 – 3,000 Pa
Compressed air supply	10 bar	Pressure		1 – 7 bar <sub>g</sub> relative
Dimensions	3000 • 1300 • 600 mm (H • W • D)			