



Particle Filter Test Rig PAF 111

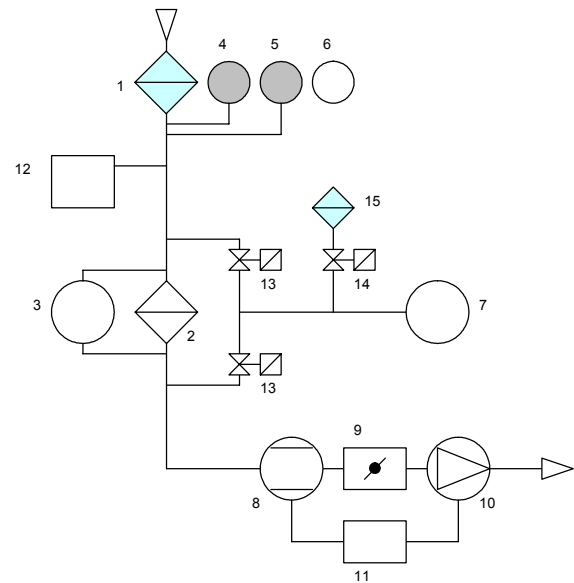
For several years Topas has been developing and installing filter test rigs for assessing the performance of cabin air filters in industrial and research applications. Fractional filtration efficiency is measured while the filter is continuously loaded with dust at constant air flowrate and the increase in pressure drop across the filter is monitored to establish the loading capacity. Both the necessary test rig and the test procedure are completely described in the DIN 71460-1 standard.

Main Components

- Test channel and rig
- Dust disperser
- Aerosol generators
- Optical particle counter
- Flowrate unit
- Sensors
- Test stand control

Features

- Differential pressure test
- Dust loading test according to DIN 71460-1 (ISO 11155-1)
- User defined dust loading tests
- Fractional efficiency measurement



- | | |
|--------------------------------|------------------------|
| 1 HEPA Filter EU13 | 11 Frequency converter |
| 2 Test filter | 12 Dust disperser |
| 3 Differential pressure sensor | 13 Pitch valve |
| 4 Temperature sensor | 14 Solenoid valve |
| 5 Relative humidity sensor | 15 HEPA inline filter |
| 6 Atmospheric pressure sensor | |
| 7 Optical particle counter | |
| 8 Flowrate sensor | |
| 9 Throttle valve | |
| 10 Blower | |

Schematic of the Particle Filter Test Rig Series PAF

Specifications

Control and Data Acquisition Software PAFWin

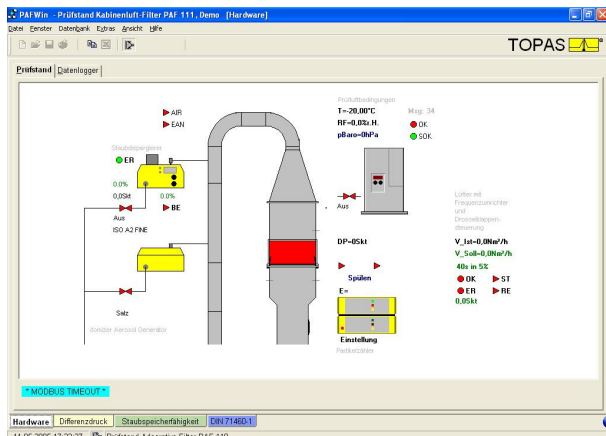
New software has been developed for test stand control and data acquisition. This user friendly software runs under all Windows platforms and displays the actual status of the test rig in graphical format.

Further main features are:

- Automatic test procedures in accordance with issued standards
- Manual control for service, calibration procedures and research
- Data monitor for long term investigations
- Sample and tests database
- Test dusts database
- Data presentation and statistical calculations
- Data copy & paste, dynamic data exchange DDE

Specifications Series PAF

Air flow	70...700 m ³ /h ±1%
Diff. pressure	0...1000 Pa ±2%
Filter adapter	300 × 600 mm
Sensors	Temperature, relative humidity, atmospheric pressure
Dust disperser	SAG 410 (0.5...2000 g/h) SAG 420 Other on request
Aerosol generators	ATM 220 ATM 230
Optical particle counter	Laser Aerosol Spectrometer LAP 321, Topas Other commercial available particle counter / sizer on request
Power supply	3 x 230 V AC, 16 A
Test rig dimensions	180 cm x 110 cm x 250 cm



PAF111Win Main Window - Test Rig Visualization

QMS certified to
DIN EN ISO 9001.



12 100 11908 TMS

For more information please
visit our website at
www.topas-gmbh.de

Specifications are subject to
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