MFP 3000 M

Version MFP 3000 M is especially tailored to the requirements of the ISO 5011 and ISO TS 19713-2 measurement procedures.

工作原理

TESTING FILTER MEDIA BETTER THAN ISO 5011 / ISO/TS 19713 ENGINE AIR FILTERS

Aerosol generation with RBG 1000 G:

The dosing air for the RBG 1000 G solid particle aerosol generator is regulated with a mass flow controller. This ensures the same operating conditions are always maintained.
Additional solid material reservoirs and dispersing covers offer an optimal dosing time at different air volume flows.

DLB 2000 compressed air humidifier for the dispersion air:

Dry compressed air is generally used for the aerosol generation, whereby, at the very low volume flows in filter media testing, the rel. humidity of the test volume flow can drop considerably. The DLB 2000 compressed air humidifier can condition the rel. humidity and temperature of the RBG 1000 dispersion air precisely to the required values, thus minimizing the influence of rel. humidity on the dust holding capacity to be measured.

Aerosol inlet on MFP 3000 M:

The aerosol inlet on the MFP 3000 M is specially tailored to the high mass concentration of 1000 mg/m³. It ensures a homogeneous distribution of the test aerosol in the raw gas channel. The simple construction allows the raw gas channel to be easily cleaned.

welas® 2070 aerosol sensors:

The welas® 2070 high-concentration sensors ensure unambiguous and coincidence-free fractional separation efficiency measurement at a 1000 mg/m3 concentration[3]. These sensors are also fitted with a unique aerosol guide that minimizes contamination of the internal optics.

Software:

Various differential pressure levels can be set in the filter media test sequence program for loading in accordance with ISO 5011. The precise definition of the test parameters in the pre-programmable sequence programs ensures a very high level of comparability of the results.

优势

- 原气与净气准同步颗粒测量
- 粒径测量范围0.2 – 40 μm
- 最高测量浓度达10颗粒/立方厘米（无需稀释）
- 测量结果具备国际可比性
- 测试方法重现性高
- 支持多种测试气溶胶（包括SAE 细/粗颗粒、NaCl/KCl、DEHS 等）
- 承载测试中可实现极高原气浓度测量>1000 mg/m³ （ISO 细颗粒）或> 5000 mg/m³（ISO粗颗粒）下的分级分离效率
- 配备序列程序用于压力损失测量、分级分离效率测量及负载测量
- 操作简便
- 准备时间短
- 用户可自行完成清洁与校准
- 测量组件便于使用（可适配其他应用场景）
- 移动式设计（带脚轮便于移位）
- 交付前验收及交付时验证各组件及整机系统功能清晰可靠
- 维护需求低

标准和证书

ISO 5011, ISO/TS 19713, DIN 71460, ISO 11155-1, EN 779, ASHARE 52.2, ISO 16890

技术数据

气溶胶	Dusts (e.g., SAE dusts), salts (e.g., NaCl, KCl), liquid aerosols (e.g., DEHS)
滤材测试面积	100 cm^2
测量范围(粒径)	0.2 – 40 μm
测量范围(质量)	Up to 1,000 mg/m^3 (depending on the version)
体积流量	1 – 36 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)

应用领域

- Testing of filter media and small filter elements in product development and during production monitoring.
- Testing based on ISO 5011 (engine air intake filters)

Mehr Informationen:
https://www.palas.de/zh/product/mfp3000m