MonoGen 1000



The MonoGen 1000 generates monodisperse aerosols with a defined particle size for precise and reproducible applications. By combining aerosol generation, neutralization, and electrical classification, a narrow particle size fraction is selectively produced. Its compact design and flexible choice of precursor materials enable versatile use.

Benefits

- Defined particle size through precise classification
- Narrow size distribution (quasi-monodisperse aerosol)
- High reproducibility and stability
- Flexible choice of aerosol (e.g., DEHS, DEHS-isopropanol, salt)
- Compact and portable design
- Neutralization without a radioactive source (XRC)
- Precise adjustment of particle size via voltage

Applications

- Calibration of reference instruments
- Exposure of filters to particles of defined sizes
- Determination of the MPPS (Most Penetrating Particle Size)
- Development and quality assurance of filtration systems
- Aerosol and particle research under controlled conditions

Features

- UGF for generating a polydisperse aerosol
- XRC neutralizer for controlled charge conditioning
- DEMC column for classification based on electrical mobility
- Voltage control for precise adjustment of particle size
- Support for various aerosol media (e.g., DEHS, salt)

Measurement range (number C_N)	0–100,000 particles/cm³ (adjustable)
Measurement range (size)	0.0025 – 1 μm
Volume flow	0.2 – 3.5 l/min
Accuracy	±5% of the average size for singly charged particles
Particle material	Salts (e.g., NaCl, KCl), liquid aerosols (e.g., DEHS)
Maximum counter pressure	1 bar ± 200 mbar
Neutralizer	X-ray (XRC 049)