MAG 3000



The MAG 3000 operates based on the Sinclair-LaMer principle (1943). It comprises a core source to generate condensation cores with a particle diameter of approx. 85 nm, a vaporizer to vaporize the particle-forming material, a reheating unit, and a condensation flue, in which the particle-forming material condenses on the condensation core. The condensation process here is heterogeneous.

Benefits

- Particle size adjustable from approx. 0.2 to 8 μm for DEHS (other particle materials upon request)
- Reproducible particle size adjustment (uncharged aerosols)
- Minimal use of the saline solution, approx. 20 mL in 10 h
- No drying system, no silica gel
- Reliable bypass adjustments for the evaporator and core source
- Rapid particle size modification up to factor 2.5 within approx. 10 seconds using the bypass adjustments
- Robust design
- Reliable function, high reproducibility
- Low maintenance
- Reduces your operating expenses

Applications

- Calibrating particle measurement devices
- Comparison of device parameters about particle size:
  - Resolution capacity
  - Classification accuracy
  - Lower counting efficiency rate
  - Upper counting efficiency rate
  - Border zone error
- Inhalation tests
- Tracer particles/flow visualization
- Filter inspection

Maximum particle number concentration	10^6 particles/cm^3
Volume flow	3.5 – 4.5 l/min
Filling quantity	300 ml (DEHS), 70 ml (salt solution)
Power supply	115 – 230 V, 50/60 Hz
Particle material	DEHS (others on request)
Carrier/dispersion gas	N_2
Aerosol outlet connection	Outlet 1: $Ø_{inside}$ = 8 mm, $Ø_{outside}$ = 10 mm; Outlet 2: $Ø_{inside}$ = 18 mm, $Ø_{outside}$ = 20 mm
Mean particle diameter (number)	0.2 – 8 μm (DEHS)
Geometric standard deviation (number)	< 1,15
Dimensions	610 • 300 • 300 mm (H • W • D)
Weight	Approx. 22 kg