

# 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.

## 优势

- Particle size adjustable from approx. 0.2 to 8  $\mu\text{m}$  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

## 应用领域

- 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

## 技术数据

|                                       |   |                                 |                                |
|---------------------------------------|---|---------------------------------|--------------------------------|
| 颗粒物最大数量浓度                             | 10 <sup>6</sup> particles/cm <sup>3</sup>   | 体积流量                            | 3.5 – 4.5 l/min                |
| Filling quantity                      | 300 ml (DEHS), 70 ml (salt solution)  | 电源                              | 115 – 230 V, 50/60 Hz          |
| Particle material                     | DEHS (others on request)  | Carrier/dispersion gas          | N <sub>2</sub>                 |
| Aerosol outlet connection             | Outlet 1: Ø <sub>inside</sub> = 8 mm, Ø <sub>outside</sub> = 10 mm; Outlet 2: Ø <sub>inside</sub> = 18 mm, Ø <sub>outside</sub> = 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) |
| 重量                                    | Approx. 22 kg   |                                 |                                |