DTR 1000



The Palas diffusion dryer specifically reduces the moisture content of aqueous aerosols derived from aqueous solutions or suspensions.

It ensures defined and stable conditions in the aerosol system, thereby supporting reproducible measurements, calibrations, and downstream process steps.

Thanks to gentle conditioning, the particle characteristics are largely preserved.

Benefits

- Stable and controlled humidity conditions in the aerosol system
- Gentle drying without thermal stress
- Minimized particle loss thanks to a low-contact drying principle
- Regenerable desiccant for long-term use
- Seamless integration into existing Palas aerosol systems

Features

- Diffusion-based drying: Water vapor diffuses along the concentration gradient from the aerosol into a separate desiccant zone.
- Low-contact flow design: No direct flow through the desiccant, resulting in minimal particle loss
- Passive conditioning: Drying without heat input or moving parts to preserve particle properties
- Stable system integration: Suitable for installation directly after the aerosol generator to condition moist aerosols.

Applications

- Conditioning of humid aerosols prior to particle analysis measurements
- Generation of stable calibration aerosols from aqueous reference particle suspensions (e.g., PSL)
- Use in systems for the generation and analysis of condensation aerosols
- Use in research, development, and testing and calibration environments at ambient pressure

Aerosol outlet connection	8 mm Festo push-in fitting
Aerosol inlet connection	8 mm Festo push-in fitting
Dimensions	Long pillar: 55 cm
Weight	Curb weight: Long pillar: 1,284 kg