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CRF6 Cleanroom Fogger™

High-Output Dual-Port Ultrasonic Fog Generator for Cleanroom Airflow Studies

Overview

The **CRF6 Cleanroom Fogger™** is a high-capacity ultrasonic DI-water fog generator engineered for advanced airflow visualization in controlled environments.

Designed for smoke studies and airflow verification, the CRF6 produces a dense, highly visible fog using pure water — eliminating contamination risks associated with glycol or heated smoke generators.

With **dual 80 mm outputs**, a **large interactive touchscreen**, and high-density ultrasonic atomization, the CRF6 allows precise visualization of turbulence, dead zones, laminar flow, and pressure migration in pharmaceutical and semiconductor cleanrooms.

The system provides strong airflow visibility while remaining safe for sterile environments and compliant airflow qualification testing.

Key Features

- **48 Ultrasonic Piezo Atomizers**
- **2.4 m³/min fog volume output**
- **Dual 80 mm fog outlets for multi-point injection**
- **Large interactive touchscreen display**
- Adjustable fog volume & velocity
- Instant on/off fog control
- Low-water protection system
- Quiet ultrasonic operation (no heating)
- DI / Distilled / WFI compatible
- Designed for smoke studies and airflow validation

Dual outputs allow the unit to inject fog into multiple airflow paths simultaneously — ideal for RABS, isolators, and large cleanroom airflow mapping.

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Performance Specifications

Parameter	Specification
Fog Volume	**2.4 m³/min**
Water Consumption	**256.3 mL/min**
Water Capacity	**11–15 Liters**
Atomization System	**48 Ultrasonic Piezos**
Outputs	**Dual 80 mm Ports**
Control Interface	**Large Interactive Touchscreen**
Fog Type	Pure DI-Water Fog
Visible Airflow Distance	~12–15 ft typical
Startup Time	< 30 seconds
Operation Duration	~60–90 minutes (adjustable output)
Power	100 / 110 / 220 VAC

High fog density and volume are the primary factors enabling long visible airflow distance .

Applications

- Cleanroom certification smoke studies
- Laminar flow verification
- HEPA filter airflow testing
- ISO 14644 airflow visualization
- USP <797> / <800> sterile compounding compliance
- RABS & barrier isolator airflow validation
- Bio-Safety Cabinet testing
- Semiconductor contamination control
- Airflow balancing and dead-zone detection

The fog allows visualization of:

- Airflow velocity
- Turbulence patterns
- Pressure differentials
- Migration between rooms
- Stagnant zones

The CRF6 supports FDA and ISO airflow qualification guidelines .

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Water Requirements

Use only:

- De-Ionized Water (DI)
- Distilled Water
- Water For Injection (WFI)

The fog evaporates back into air without leaving residue or contamination .

Advantages Over LN_2 & Glycol Foggers

- No cryogenic handling
- No residue cleanup
- No heat convection artifacts
- Safe in sterile environments
- Repeatable airflow visualization
- Adjustable fog velocity and density
- The CRF6 produces comparable visualization to LN_2 foggers while using only pure water .

Typical Environments

- Pharmaceutical cleanrooms
- Sterile compounding suites
- Semiconductor fabs
- Medical device manufacturing
- Bio-safety cabinets
- RABS & barrier isolators
- ISO 1–9 controlled environments

Included Components

- CRF6 Fogger Unit
- Dual 80 mm Output Ports
- Power Cable
- Touchscreen Control System
- Fog Hose Connection Kit

Optional Accessories

- Wireless remote control
- Fog curtain wand
- Y & T adaptors
- High contrast LED fog light
- 5-meter fog hoses
- Transport case
- Drain & dry kit
- Stainless Steel Cart and Cabinet

Positioning in the CRF Series

Model	Purpose
CRF2	Small enclosures / hoods
CRF3	Small-to-medium rooms
CRF6	Medium rooms & isolators
CRF-Large / LN_2	Large room qualification

The CRF6 is designed for higher fog volume and dual-point injection when more visualization power is needed than compact ultrasonic foggers.