



Nano
Particle
Technology

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The **Model 2001 and Model 2010 UltraPure Cleanroom FOGGERS™** are high density, portable fog generating systems to visualize air flow and turbulence in Semiconductor and Pharmaceutical facilities. Traditional DI Water Foggers atomize DI Water along with any impurities into large, low density, water droplets at 5 to 10psi output pressure; while **UltraPure Foggers** provide the highest volume, highest density, highest purity and lowest pressure output of cleanroom foggers. Purity is created by bringing de-ionized water to a boil, creating a vapor; simultaneously using gravity and electrical ground to remove background DI Water residue and any bacterial agents from the vapor. The pure vapor is then passed over an LN2 bath, which naturally boils at room temperature. Vast quantities of water molecules and nitrogen molecules combine in a quenching process, creating



a high volume, highly visible, ultra pure fog. The exit temperature is about 80 degrees F, gently rising into the airflow and cooling to the surrounding airflow temperature. The UltraPure fog has an exit pressure of < 0.3 lbs, so as not to disturb the surrounding airflow. The ultrapure fog leaves minimal, if any, trace residue behind; thus can be used in any clean environment from Class 1 to 10,000 and requires no cleanup after use. It evaporates to its gaseous hydrogen, oxygen and nitrogen components, natural to the Cleanroom environment. The high density of the fog increases the duration and travel distance of the fog. Enclosure is a high impact, white powder coat.

UltraPure Fog is used in Semiconductor and Pharmaceutical environments to visualize the airflow patterns around equipment, tools, hallways, door entries and operators; and for locating standing vortices that may transport airborne contaminants into critical work areas. It is used to visually track air flow direction and velocity, to insure an even flow split from the clean room bays into the adjacent equipment chase and to detect unwanted air infiltration into a clean room. UltraPure Foggers are used in Pharmaceutical Processes to prove process environments are operating properly, as required by the FDA; and replace Smoke Stick usage, vastly reducing cleanup labor and contamination when using Smoke Sticks in a Pharmaceutical environment.



UltraPure Cleanroom Foggers for Semiconductor and Pharmaceutical Use

1. Provide highly dense fog, lasting longer in a typical environmental airflow of 30 to 50% humidity
2. Nearly zero level of residual contamination emitted in the airflow for Class 1 to 10,000 use
3. Provide high volume of pure fog at very low output pressure for minimal output turbulence
4. Replace Pharmaceutical Smoke Stick usage; reducing cleanup labor and contamination
5. No moving parts, thus providing very high reliability

SPECIFICATIONS

	Model 2001	Model 2010
Fog Duration	50 - 60 minutes	24 - 25 minutes
Fog Volume	15cfm	10cfm
Fog Type	UltraPure	UltraPure
LN2 Dewar Capacity	9L (8.5 Qts)	3L (2.8 Qts)
DI Water Boiler Capacity	3L (2.8 Qts)	2L (1.9 Qts)
Dimensions (W x D x H)	53.3 x 38.1 x 40.6cm, 21" x 15" x 16"	45.7 x 35.6 x 35.6cm, 18" x 14" x 14"
Weight (full)	25kg, 55lbs	20kg, 45lbs
Accessories INCLUDED	9 ft. Hose, Tube, Fog Stream, Fog Rake	9 ft. Hose, Tube, Fog Stream, Fog Rake