

### **Applied Physics, Inc.**

400 N County Road 2 East Monte Vista, CO 81144 USA

#### Nano Particle Technology

Cel 720-635-3931

Email Sales@AppliedPhysicsUSA.com WEB www.AppliedPhysicsUSA.com

## Cleanroom Ultrapure Fogger, Apollo 32

The Apollo 32 Cleanroom Ultrapure Fogger produces a high volume of ultrapure fog needed in clean rooms, sterile rooms and ISO rooms at 5 cubic meters per minute (170 cubic feet / minute) for up to 90 minutes, which easily visualizes airflow for 20-30 feet distance; surpassing all other ultrapure foggers in use today...for less cost.

Patterns of air flow, turbulence and velocity can be viewed with a non-contaminating fog; thus no clean up is required. The AP32 ultrapure fog generator is used in Semiconductor and Pharmaceutical companies to visualize airflow patterns, turbulence, find dead zones, see direction and visualize velocity. The ultrapure fogger provides a very dense fog by generating vapor fog droplets at 2-3 micron diameter, permitting the fog to travel much further in the air stream. As the fog evaporates, it reverts back to the same elements we breathe. The exit temperature of the fog is about 78 F degrees with a very low exit pressure, ensuring a neutrally buoyant fog entering the airflow. The high purity fog floats into the airflow, rather than dropping as with ultrasonic foggers. A polycarbonate Fog Tube and long, flexible, 15 foot, (5M) Fog Hose is provided. The ultrapure fogger rolls easily across a floor with wheel casters underneath. A front storage drawer is provided.

#### **AP32 Advantages:**

Very High Fog Density
Providing from 20-30 feet visible airflow distance
Highest Fog Volume

5 Cubic Meters (170 CF) per minute for 90 minutes

**Low Fog Exit Pressure** No fog entry turbulence is created

Ultrapure Fog, SS Enclosure No cleanup required, no contamination to fog or clean room

**Neutrally Buoyant Fog** Fog floats into airflow without dropping

Video Capabilities

Fog Curtain Wand

Optional Fog Curtain Wand to spread out the fog visibility

Optional Blue LED Fog Illuminator to contrast airflow



**Cleanroom Ultrapure Fogger** 

Fog purity is achieved by bringing DI water to boil creating an ultrapure water vapor. The DI water vapor is then combined with LN2 (LNG) liquid nitrogen, which boils at room temperature. The two vapors combine to form a highly dense, ultrapure fog to visualize airflow, patterns and turbulence in clean rooms, ISO suites and sterile rooms. The fog generated is the highest volume.

highest density, highest purity to visualize airflow and turbulence. The fog is neutrally buoyant, thus when entering the airflow, the fog travels with the airflow, rather than dropping in the airflow, as with ultrasonic foggers that produce lower temperature fog outputs.

The high purity fog offers no exit turbulence to the airflow being visualized due to a low exit pressure. The AP32, Cleanroom Ultrapure Fogger fog leaves no contamination behind; requiring no cleanup after fog operations. The very high fog density increases the airflow visualization distance. The Stainless Steel enclosure contains the liquid nitrogen in a Dewar and holds the DI water in a separate boiler, ensuring a durable design. The AP32 is CE Mark, meets guidelines for ISO 14644-3 ANNEX B7 and USP 797 Insitu Airflow Analysis.

Visualize airflow patterns around equipment, tools, hallways, door entries and personnel. Balance airflow pressure on two sides of a closed clean room or ISO suite. Locate standing vortices that can transport particle contamination into critical work areas and sterile rooms. Visually track air flow direction and velocity to ensure air flow balance between clean rooms, ISO suites and sterile rooms. Detect unwanted air infiltration into a clean room to verify process environments are operating properly. The Apollo 32, AP32, Ultrapure Fog Generator produces a very dense, ultrapure fog, providing superb visual & video observations, making it the very best clean room fogger available today. A Blue LED Illuminator is available to contrast and highlight airflow turbulence.



Very Dense Fog



Wide Fog Curtain

# LED

Blue LED Illuminator

#### **Specifications:**

Part #: AP32 Cleanroom Ultrapure Fogger, Apollo 32

Fog Duration 90 minutes

Fog Volume 170 CF / minute, (5 Meters<sup>3</sup> / minute), 15,300 CF / 90 minutes

Fog Type UltraPure for Class 1 to Class 10,000 use

LN2 (LNG) Dewar Capacity 32L, 8.45 US Gallons DI Water Boiler Capacity 5L, 1.32 US Gallons

Dimensions 1.095M H x 540mm W x 766mm D, 42.7" H x 21" W x 29.9" D

Weight 77kg, 170lbs

Optional Accessories 15 foot Hose, Long Fog Curtain Wand, Duplex Hose Splitter, Blue LED Fog Illuminator