



AIR TECHNIQUES INTERNATIONAL



tda-5b

TDA-5B Aerosol Generator The Right Model For Your Application

ATI manufactures portable aerosol generators which can produce polydispersed aerosol concentrations from 100 down to 10 micrograms per liter ($\mu\text{g}/\text{l}$) at airflows between 500 to 65,000 cfm. There is a model to handle virtually all HEPA filter test requirements from small glove boxes to large cleanroom plenums.

The TDA-5B Aerosol Generator is recommended for certification applications where either the required aerosol volume or concentration may vary widely from high to low, such as in large cleanroom plenums or individual filter units, where compressed air is not available, or where portability is necessary.

TDA-5B

applications

CleanRooms

Laminar Flow
Benches

Biosafety Cabinets

Glove Boxes

HEPA Vacuum
Cleaners

HVAC Systems

HEPA Filters

ULPA Filters

Negative Pressure
Filtration Units

Surgical Suites

Nuclear Filter Banks

Collective
Protection Filters

Research &
Development



industries

Pharmaceutical
 Food Processing
 Veterinary Medicine
 Laboratories
 Asbestos Abatement
 Heavy Metal Processors
 Nuclear Power & Fuel
 Hospitals
 Chemical Processing
 Certifiers
 NBC Defense Agencies
 Government Labs
 Filter Manufacturers
 Micro Electronic
 Electronic
 Biotechnology
 Micromechanics

The TDA-5B Aerosol Generator has been designed to provide operator convenience and improved performance. The TDA-5B is ideal for certifying or testing HEPA filters or installations with air flows from 500 to 65,000 cfm. It requires an inert gas source and 120/240 volts @ 750 watts electrical service.

The TDA-5B has all of the controls and displays grouped on the front panel away from the aerosol generator output nozzle. The unit has a larger aerosol liquid capacity for operation up to 4 hours at full output without refilling. In addition, its digital temperature control allows the operator to set the unit for optimum conditions for the specific aerosol agent being used.

The TDA-5B produces an aerosol of consistent particle size distribution which is created by discharging a regulated quantity of aerosolized liquid on to a large heated area. The liquid is vaporized and reconstituted into a polydispersed aerosol by a small amount of nitrogen delivered at only five pounds of pressure. The efficiency at which the aerosol is produced enables the TDA-5B Generator, when used in conjunction with the TDA-2G or TDA-2E Photometer, to provide enough aerosol to leak test filtration systems from 500 to 65,000 systems of more than 6,500 cfm may be tested for leaks at less than 100 micrograms per liter if the sensitivity of the photometer is increased.

Generator Specifications

DESCRIPTION	TDA-5B
Aerosol Output Range	500-65,000 cfm
Aerosol Concentration 100 µg/l @*	6,500 cfm
Aerosol Concentration 10 µg/l @*	65,000 cfm
Generator Type	Heated Chamber
Compressed Air	(Not Required)
Compressed Gas (inert)*	20 cfh @ 50 psi
Aerosol Type	Polydispersed (cold)*
Size	W x H x L
Liquid Capacity	2.1 qt. (2 liters)
Inches (in)	14 in x 10 in x 10 in
Centimeters (cm)	35 cm x 25 cm x 25 cm
Weight-Pounds (lbs)	20 lbs.
Kilograms (kg)	9.1 kg
Electrical	110/220 VAC, 50/60 Hz (switchable)

*For high volume output, more uniform particle size and safety, the liquid is aerosolized, superheated to vapor and then recondensed by ambient air into a cold polydispersed aerosol. The propellant must be an inert gas since the vapor temperature is above the liquid flashpoint.


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