

DOP2200 MICRO AEROGENE

for HEPA and ULPA filter Testing



FEATURES OF THE *Micro Aerogene*

- ◆ **Stainless steel casing** provides easy cleaning, suitable for all cleanroom and containment environments.
- ◆ Output provides 20-80mg/m³ into systems with 240 m³/hr to 54,000 m³/hr airflow.
- ◆ Funnel-free oil reservoir filling and draining.
- ◆ Hand and shoulder straps for easy carrying.
- ◆ Operates with any inert gas supply, such as Nitrogen and CO₂. Low gas pressure and shut-off valve reduces consumption.
- ◆ **Integrated gas bottle clamping rings for easy use, 1kg CO₂ gas cylinder provided.** Quick-connect coupling also allows any size of gas bottle to be connected.
- ◆ **Integral control dial** allows accurate and repeatable setting of aerosol output.
- ◆ Energy efficient Heat Exchanger gives faster heat up from switching on, under 2minutes.
- ◆ Gas control minimises usage, and aerosol is started and stopped with no residual output.
- ◆ Mean Particle Size between 0.15µm and 0.25µm to cover all HEPA and ULPA Filter Most Penetrating Particle Size ranges.
- ◆ Meets all known specifications for Filter Testing and complies with ISO14644-3.
- ◆ 240V or 110V models available.
- ◆ 5 metre cable for remote control (optional).
- ◆ **2 year Warranty** on parts.
- ◆ Mass Output Calibration and/or Particle Size Distribution (optional).

OVERVIEW

A very compact and easy to carry Thermal Aerosol Generator for use in clean room and containment systems for testing HEPA and ULPA Filtration Systems. It is also used for airflow visualisation, recovery rate determinations and containment leak testing in the clean air and containment industry sectors. Oil is propelled through the heat exchanger using an inert gas (normally CO₂), and is vaporised. The vapour condenses in the ambient air to provide a dry dense aerosol smoke of specific particle size distribution suited to the above testing specifications.

The precision control dial allows for accurate and repeatable control the aerosol output.

The Micro Aerogene covers the main range of output concentrations required for testing small safety and clean air cabinets up to HVAC and multi-filter cleanroom installations.

The aerosol may be easily directed to the point of use using our Positive Injection Pump(PIP). The PIP also allows the aerosol to be injected into positive pressures. Using our Sparge Pipes, the aerosol may be distributed within an air duct or plenum using the PIP thus reducing the required mixing distance for upstream challenges.

PRODUCT

**Micro
Aerogene
Thermal
Aerosol
Generator**

MODEL NUMBERS

DOP2200

CERTIFICATE

Provided with a Certificate of Conformity, which includes electrical safety testing.

Optional mass output calibration.

Optional particle size distribution.

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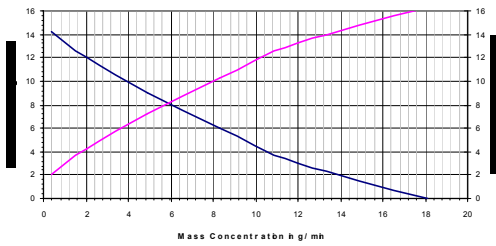
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Aerosol Control valve

Mass Concentration Graph for DOP2200

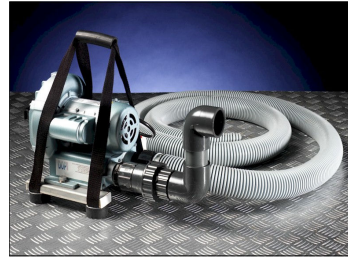


The vernier control is located on the top panel, and turning anti-clockwise allows more oil into the heat exchanger increasing the aerosol output. 15 full turns from closed to open provides accurate control of the aerosol concentration required for the test.



OTHER EQUIPMENT

Positive Injection Pump



The SPB-2-SC PIP provides safe introduction of aerosol to positive pressure environments. Ask for datasheet for full details.

Aerosol Photometer

The SP200DAS-P digital Aerosol Photometer is used to quantify the penetration through a filter and for gasket leak testing. The DOP2200 or DOP Laskin Nozzle Generator will provide the challenge aerosol to the filter under test. Ask for separate brochure for full details.



SPECIFICATIONS AND ORDERING INFORMATION

Specification		
Model Number 240 Volt 50/60 Hz	DOP2200	Specify voltage as: 240 Volt 50/60 Hz, or 110 volt 50/60 Hz
Transport / storage case	999-3-001-ASSY	Robust Plastic case with wheels and extending handle
Minimum test system mixing air flow rate	240 m ³ /hr (141 cfm)	
Maximum test system mixing air flow rate*	54,000 m ³ /hr (32,300 cfm)	
Gas type	CO ₂ or Nitrogen 3Bar operating pressure	1kg CO ₂ bottle can be clamped onto Generator
Oil Type	Ondina 919 or PAO (Emery 3004 / Durasyn 164)	No change in temperature settings required using different oils
Particle size range	0.1 to 1 micron typical range 0.15 - 0.25µm count mean diameter	Meets ISO 14644-3
Max. aerosol concentration	18 g/min	
Power requirements (heater)	1.05 kW	
Oil reservoir capacity	1.1 litres	
Warm-up time from ambient 20°C	<2 min	
Operating conditions	5 - 50°C and 30 - 80%RH	
Weight	8 kg	Without gas bottle and transport case
Size	430mm (L) x 125mm (W) x 360mm (H)	
Accessories	Regulator valves, remote control cable, Gas bottles, bottle carriers, oil	Ask for details