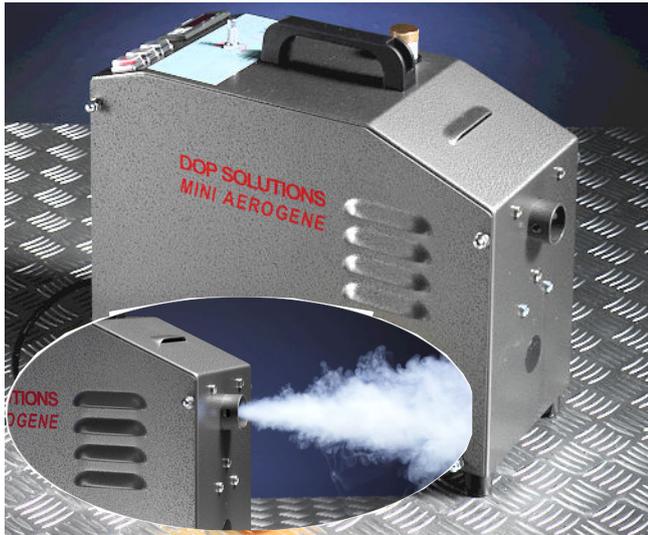


# DOP1100 PRECISION AEROSOL GENERATOR



## FEATURES OF THE DOP1100

- ◆ Precision vernier dial allows accurate and repeatable setting of aerosol output concentration.
- ◆ Option for mass output calibration – traceable to UKAS weights and measures standards.
- ◆ Rugged construction provides component safety to maintain reliable constant output.
- ◆ Quick-connect coupling to any size of gas bottle. One 1 Kg CO<sub>2</sub> gas cylinder supplied with the generator.
- ◆ Dual gauge gas regulator as standard.
- ◆ 240V or 110V at 50/60 Hz versions available.
- ◆ Oil sight level gauge with large usable oil volume of 1.2 litre.
- ◆ Output from 240 m<sup>3</sup>/hr to 54,000 m<sup>3</sup>/hr.
- ◆ Digital Temperature Controller with solid state switching.
- ◆ Automatic self purge of Heat Exchanger.
- ◆ 5 metre cable remote control
- ◆ Operates with any inert gas.
- ◆ Count Mean Particle Size of between 0.15µm and 0.25µm to meet all HEPA Filter Testing requirements in accordance with British, American and European Standards.
- ◆ Option for integral gas bottle.
- ◆ 2 year Parts Warranty as standard.

**Two Year  
Warranty  
Built for  
reliability in the  
field**

## AN OVERVIEW

A medium sized and compact Thermal Aerosol Generator for use in validating high efficiency Air Filtration Systems, air flow visualisation work and fire training. Internal gas bottle or external gas bottle (version determines option). Oil is propelled through the heat exchanger using an inert gas (normally CO<sub>2</sub>). The vapour condenses in the ambient air to provide a dry dense aerosol smoke.

The precision vernier dial allows the user to accurately and repeatably control the aerosol output.

The DOP1100 covers the main requirements for the systems filter tester where both high and low aerosol concentrations are required.

The aerosol may be easily directed to the point of use using one of our complimenting Positive Injection Pumps (PIP). The PIP also allows the aerosol to be injected into positive pressures. Additionally, using 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.

**DOP**  
SOLUTIONS

## PRODUCT

**Precision  
Thermal  
Aerosol  
Generator**

## MODEL NUMBERS

**DOP1100**

**DOP1100-HGB**

## CERTIFICATE

All instruments are provided with a certificate of conformity which includes an electrical safety test.

Optional mass output calibration.

Optional particle size distribution.

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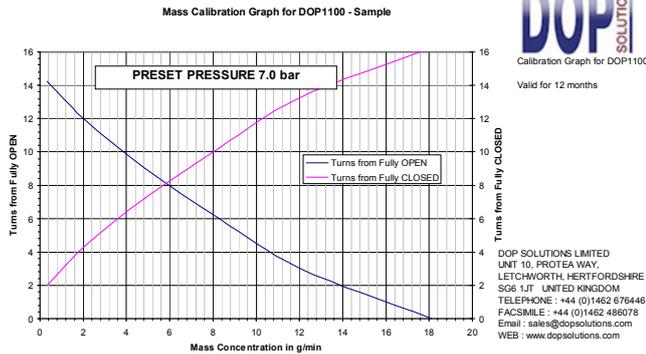
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## Vernier Control Valve



Sample mass calibration graph for DOP1100 Precision Thermal Generator offered as an option.

### VERNIER CONTROL



The vernier control is located immediately in front of the carry handle. Turning the vernier anti-clockwise allows more oil into the heat exchanger and thus increasing aerosol output. The vernier is

nominally 15 turns open to closed allowing extremely fine control of the aerosol output.

## OTHER EQUIPMENT

### Positive Injection Pump SPB-2-SC



Allows the safe introduction of aerosol to positive pressure environments. Ask for separate brochure for full details.

### Aerosol Photometer SP200DAS

The SP200DAS digital aerosol photometer is used to quantify the penetration through a filter and for gasket leak testing. The DOP1100 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 FOR DOP1100

Specification	Standard 1.1 kW (external gas bottle)	1.1kW with integral gas bottle
Model Number 240 Volt 50/60 Hz	DOP1100	DOP1100-HGB
Model Number 110 volt 50/60 Hz	DOP1100	DOP1100-HGB
Minimum test system mixing air flow rate	141 cfm / 240 m <sup>3</sup> /hr	141 cfm / 240 m <sup>3</sup> /hr
Maximum test system mixing air flow rate*	32,300 cfm / 54,000 m <sup>3</sup> /hr	32,300 cfm / 54,000 m <sup>3</sup> /hr
Maximum gas pressure	100 PSI / 7 bar	100 PSI / 7 bar
Particle size range	0.1 to 1.25 micron typical range 0.15 - 0.25µm count mean diameter	0.1 to 1.25 micron typical range 0.12 - 0.25µm count mean diameter
Max. aerosol concentration	18 g/min	18 g/min
Power requirements	1.1 kW	1.1 kW
Oil reservoir capacity	1.3 litre	1.3 litre
Max. oil run time at full output	52 minutes	52 minutes
Warm-up time from ambient 20°C	4 min	4 min
Operating conditions	5 - 50°C and 30 - 80%RH	5 - 50°C and 30 - 80%RH
Weight	12 kg	15.5kg without gas bottle
Size	43.5 (L) x 19.5 (W) x 34.6 (H) cm	43.5 (L) x 19.5 (W) x 53.6 (H) cm
Use aerosol blower model	SPB-2-240V-SC or SPB-2-110V-SC SPB-2-240V or SPB-2-110V	SPB-2-240V-SC or SPB-2-110V-SC SPB-2-240V or SPB-2-110V
Oil Type (Temperature setting changes for Emery 3004)	Ondina EL or Emery 3004 / Durasyn 164	Ondina EL or Emery 3004 / Durasyn 164