



The Authority in HEPA support

S & M Electronics Ltd.

105 Eastcote Road, Pinner,
Middlesex HA5 1ET, UK.

Tel : (020) 8429 1222

Fax: (020) 8248 4313

info@sandmelectronics.com

AEROSOL PHOTOMETER CERTIFICATE OF CALIBRATION

Certificate No: 20087

Test Date: 29th December 2024.

Manufacturer: TEC Services INC

Model: PH5

Serial No: 2799

Test Due: 29th December 2025.

Customer: Air Science Technologies Ltd
44a Liverpool Road,
Lydiate,
Merseyside L31 2LZ

Contact: Mr. Michael Crilly
Paul

This instrument has been tested & calibrated in accordance with the manufacturer's specification against our Aerosol Test Rig & Certified to meet all current U.S.A. & U.K. requirements for filter testing. This includes the following: CS-1T,2T,6T; ANSI 101 & 150; NSF 49, ASTM D-1899; IEST-RP-CC-013-86-T, IEST-RP-CC-002.2, IEST-RP-CC-034.1, EN 12469:2000, ISO 14644-3 and British Standard BS5295 and BS EN 1822.

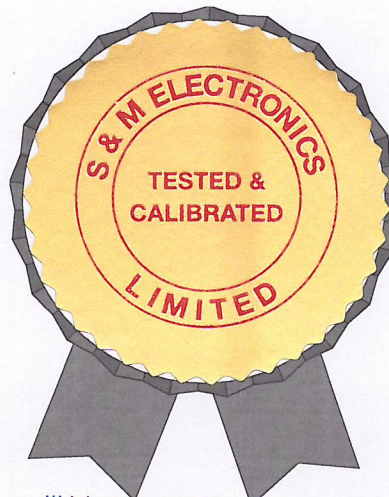
The Aerosol Test Rig is calibrated annually when the actual mass concentration is measured by collecting and weighing the particulate, using Sartorius Scale Model 1712 s/n 3308 087 which has been certified by Sartorius Limited, UKAS Certificate No: 509NHA106, to meet British Standard using weights traceable to NPL standard. **Shell Ondina Oil (OND)** is used for calibration of Aerosol Photometer.

Expanded Uncertainty of Measurement: $\pm 3.3\%$

Stated uncertainty based on a temperature, humidity and pressure within 18-25 °C, 35 to 70% RH and 960 to 1045 mbar.

Reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Calibration Completed by: Atul Patel Mr. A. Patel (Engineer)



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CERTIFICATE OF ELECTRICAL SAFETY TEST

Certificate No: 20087-1

Test Date: 29th December 2024.

Manufacturer: TEC Services INC

Model: PH5

Serial No: 2799

Test Due: 29th December 2025.

Customer: Air Science Technologies Ltd
44a Liverpool Road,
Lydiate,
Merseyside L31 2LZ

Contact: Mr. Michael Crilly
Paul

This instrument has been tested against our portable appliance tester Seaward Europa Plus S/N: 27B-0771

The results are as follows:

Test Number	:	20087		
Date	:	29 th December 2024.		
Test Mode	:	Automatic		
Visual Check	:	Pass		
Earth Test	:	0.10 Ohms	Pass	
Insulation Test	:	>99.9 Meg Ohms	Pass	
Load Test	:	<0.05 K.V.A.	Pass	
Leakage Test	:	1.69 Ma	Pass	

Test Completed by: Atul Patel Mr. A. Patel (Engineer)

Certified Test Equipment: Seaward Europa Plus S/N: 27B-0771



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AEROSOL PHOTOMETER CALIBRATION REPORT

Customer Name: Air Science Technologies Ltd (OND) Date: 29-Dec-2024
SHELL Ondina Oil (MK III)

Model No : PH 5 Serial No : 2799 Our Ref: 20087

Internal Reference set point Check.	Set Memory	Tolerance
Previous Service:	100.00	Ug/Litre.
Before Calibration:	100.00	10.00% +/-

D.C. Power supplies Volts :	12.00 Volt +	12.00 Volt -	5.00. +V	Pump:
	12.23	12.08	5.15	24.03

Test:		Linear Reading:
1	22	100.00%
2	21	90.50%
3	20	73.90%
4	19	66.80%
5	18	0.4000%
6	15	0.2300%
7	10	0.0400%
8	8	0.0220%
9	5	0.0085%
10	2	0.0010%
11	1	0.0001%

Ver: 1.52 , 1.2

1= 0.0025

2= 0.0240

3= 0.0220

PMT Gain:	77	Channel : 4
Stray Light:	0.210	

Memory Value: 100.00 ug/Litre.

Air Flow : 29.00 Litre /Min.

Tolerance: µg/l ± 10 %

Expanded Uncertainty of Measurement 3.3%

Reported expanded uncertainty is based on standard uncertainty multiplied by coverage factor of k=2,
Providing a level of confidence of approximately 95%.

This Photometer is Calibrated by: *Atul Patel* Date: 29-Dec-2024

THIS DOCUMENT IS VALID FOR 12 MONTHS FROM DATE OF CALIBRATION.



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SERVICE REPORT

Manufacture: TEC SERV INC

Serial No : 2799

Model No : PH 5

Contract :
Site :

Service Report No :

Date Reported :

Warranty :

Company : Air Science Technologies Ltd

Address : 44a Liverpool Road,
Lydiate,
Merseyside L31 2LZ

Contact : Mr. Michael Crilly/ Paul

Purchase Order

Frequency of service: Yearly service & calibration.

Reported Issue:

Material Used.

Qty :	Part No :	Description	Price:
1	776691	Solvent Cleaner	£0.00
1		Electrical Safety Test	£0.00
1		Test Results + Certificate	£0.00
1		Overhaul Sample Valve + Chamber + Pump	£0.00

SERVICE DETAILS

- 1) Inspect Unit for physical damage :
- 2) Disassemble and clean optical chamber :
 - a) Replaced P.M.T. Tube:
 - b) Replaced Lamp :
- 3) Check Absolute Reference filter:
- 4) Check pump & rebuild: Replaced
 - a) Replaced filter:
 - b) Wear Plate:
 - a) O'Rings :
 - b) Valve :
- 5) Check Sample select Valve : Replaced
- 6) Check
 - a) For Leaks in the system:
 - b) Internal power supplies:
- 7) Replaced internal silicon rubber tubings :
- 8) Check Hand probe : Replaced
 - b) Tube :
 - c) L.E.D. :
 - a) Meter :
 - d) S.S. Screen :
- 9) Inspect all electrical contact:
- 10) Calibrate Instrument:
- 11) Check Linearity :
- 12) Final Test :

Service Time: hrs.
Date / hrs :

Traveling Time: hrs
Date/hrs:

Cost : P & P

Labour: **spares:**

Engineer: Atul Patel Date.

Total : + VAT

Customer: Date.



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Air Science Technologies Ltd PH 5 S/N: 2799 S/R: 20087

