



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: 20086

Test Date: 29th December 2024.

Manufacturer: TEC Services INC

Model: PH4

Serial No: 2508

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 49D, ASTM D-1899; IES-RP-CC-013-86-T and British Standard BS5295 & 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 X420 (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: 20086-1

Test Date: 29th December 2024.

Manufacturer: TEC Services INC

Model: PH4

Serial No: 2508

Test Due: 29th December 2025.

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

Contact: Mr. Michael Crilly
Paul

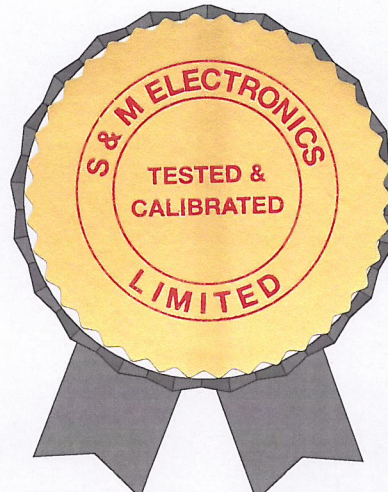
This instrument has been tested against our portable appliance tester Seaward Europa Plus S/N: 27B-0771

The results are as follows:

Test Number	:	20086		
Date	:	29 th December 2024.		
Test Mode	:	Automatic		
Visual Check	:	Pass		
Earth Test	:	0.12 Ohms	Pass	
Insulation Test	:	>99.9 Meg Ohms	Pass	
Load Test	:	<0.05 K.V.A.	Pass	
Leakage Test	:	1.60 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 Sciences Technologies Ltd (OND) Date: 29-Dec-2024

SHELL Ondina Oil (MK III)

Model No : PH 4 Serial No : 2508 Our Ref: 20086

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: +V
	12.18	12.06	5.14	24.21

Test:		Linear Reading:
1	22	100.00%
2	21	90.40%
3	20	73.80%
4	19	66.60%
5	18	0.4100%
6	15	0.2200%
7	10	0.0420%
8	8	0.0210%
9	5	0.0087%
10	2	0.0010%
11	1	0.0001%

Ver: 1.52 , 1.2

1= 0.0040

2= 0.0097

3= 0.0620

		Channel :
PMT Gain:	70	4
Stray Light:	0.610	

Memory Value: 100.00 ug/Litre.

Air Flow : 28.50 Litre /Min.

Tolerance: $\mu\text{g/l} \pm 10 \%$

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 SERVICES INC

Serial No : 2508

Model No : PH 4

Contract :

Site :

Service Report No :

Date Reported :

Warranty :

Company : Air Science Technologies Ltd

Address : 44a Liverpool Road,

Lydiate,

Meyseyside L31 2LZ

Contact : Mr. Michael Crilly/ Paul

Purchase Order

Found:

Frequency of service: Yearly service & calibration

Reported Issue:

Material Used.

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

SERVICE DETAILS

- 1) Inspect Unit for physical damage :
- 2) Disassemble and clean optical chamber :
 - a) Replaced P.M.T. Tube:
 - b) Replaced O'Ring :
- 3) Check Absolute Reference filter:
- 4) Check pump & rebuild: Replaced
 - a) Pump kit:
 - b) Wear Plate:
- 5) Check Sample select Valve : Replaced
 - a) O'Rings .
 - b) Valve :
- 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.
- 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 4 S/N: 2508 S/R: 20086

