

# Nitrogen Evaporator

Sample Evaporation & Concentration



## 50 Sample Concentrator / Evaporator

Nitrogen Evaporator Model: **AE-EV-50** is a Precision Sample Concentrator by Nitrogen Purging. It is a newly designed Sample Concentrator for multiple sample pre-concentration of organic media. A Table Top Model. The unit can be set to a constant Flow and constant Temperature to ensure good evaporation.

It is fully microprocessor controlled and water bath, Temperature, gas station, more advantage LCD display, over Temp. Heater ON/OFF LED, door open display, high temperature Thermal cutoff for safety for best quality and best performs.

AONE offer a range of Nitrogen Evaporator Concentration Workstations for sample evaporation. This guide is designed to help you select the most suitable Nitrogen Evaporator for your research requirements. All Nitrogen Evaporator use a vortex evaporation technology that increases the speed of evaporation by a factor of 10 compared to other techniques. The combination of gas flow and temperature is then used to optimize the sample drying. Nitrogen is recommended as the best choice for the gas because it is inert and minimizes the risk of oxidation.

As gas usage can be high if large numbers of samples are prepared a Nitrogen generator or bulk liquid nitrogen supply is recommended to minimize cylinder handling.

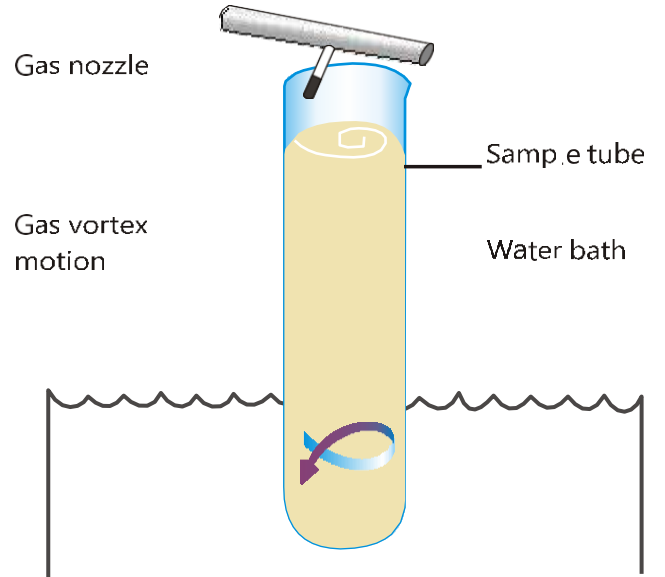


### Special Features of AE-EV-50 / 08 / 24 / 100

- Compact Size Table top Model.
- Precise manufacturing using latest technology -Laser Cutting & CNC fabrication
- High Quality Pressure Gauge from Bummer / Abp
- Side Handles for easy movement
- SS 316 tank & Nozzle Manifold for durability and maintenance free
- Best Quality powder coating with SS Electroplating Tank to avoid rusting
- Silicon Heater with SS316 Water bath Tank system
- Specially Designed for fast & uniform heating
- Tank & Body gap is well insulated with imported Glass wool Sheet to avoid heat loss.
- Digital LCD Display
- Auto Cut off with precision tem. sensor for Time, temperature & gas flow
- Best quality Pneumatic Fitting from SMC & CKD operation
- Efficient & adjustable ventilation with Built-in exhaust fan with blower
- 2mtr 1.5 ID Polyethylene Exhaust hose for easy ventilation
- 5 Nitrogen Control valves with ON/OFF Switches
- 50 nitrogen –dispensing nozzle in five horizontal rows
- Latching Type Power ON /OFF Switch
- Automated Solvent Drying, Solvent Evaporation and Sample Concentration
- Evaporation Medium : Nitrogen Gas
- Fast evaporation
- Microprocessor-controlled vortex motion increases surface area for faster evaporation.
- Maintenance-free, microprocessor-controlled motor provides smooth variable-speed power to drive the vortex motion.
- **Audible alarm with automatic shut down for timed end point**

**Product Specifications:**

- Vortex Shearing Concentration
- Time Range: 15 sec to 10 hours
- Time Set-up / down arrow keys (15 sec increments)
- Temperature range: Ambient to 99 °C
- Temperature set-up / down arrow keys (1 °C increment)
- Start/stop: Green LED indication when process is On
- Gas stations: 5 Nos. with LED indication
- Gas regulator range: 0 to 100 PSI (approx)
- Pressure gauge range: 0 to 100 PSI
- Controlled: Fully Microprocessor based
- Sample capacity: 50 Nos.
- Gas Line: 5 Nos.
- Dimensions: 30cm(H) x 40cm(W) x 55cm(L)
- Weight: 20 Kgs
- Power supply: 230 V AC / 3Amp 50 Hzs
- Error indication: LED indication with Buzzer
- Easy ON/OFF switches to turn Nitrogen Flow on or off to the nozzle above the sample vials



## 100 Sample Concentrator / Evaporator

Nitrogen Evaporator Model: AE-EV-100 is a Precision Sample Concentrator by Nitrogen Purging. It is a newly designed Sample Concentrator for multiple sample pre-concentration of in organic media. A Table Top Model. The unit can be set to a constant Flow and constant Temperature to ensure good evaporation.

It is fully microprocessor controlled and water bath, Temperature, gas station, more advantage LCD display, over Temp. Heater ON/OFF LED, door open display, high temperature Thermal cutoff for safety for best quality and best performs.

Nitrogen Evaporator is an automated high speed, small volume sample concentrator. It is specially designed for small sample volumes and large batches.

The designed for Nitrogen Evaporation of solvents in analysis in drug testing labs. It is ideal for sample volumes from 1 mL to 5 mL.

A micro-processor control maintains the water bath at the set temperature and the times for the operation. Gas can be turned ON in selected manifold depending on number of samples. Nitrogen gas is blown through nozzle manifolds into samples which turn off automatically. Audio alarms indicate when the process is complete. Nitrogen Evaporator sample concentrate is a fast & convenient way of concentrating multiple sample at once. This in combination with the heat from the Nitrogen Gas Purging below produced ideal condition for fast & efficient Evaporator. The standard 100 sample Nitrogen Evaporator is ideal for sample volumes of 1 mL to 5 mL that need to be evaporated in GC, HPLC, LCMS vials, micro-centrifuge tubes, conical bottom tubes or test tubes. This instrument offers a high throughput of 100 sample positions using the standard range of different sizes racks available. Evaporation is based on a water bath to give an even temperature and a gas flow delivered over a set time period. This gives the option to evaporate samples to dryness if required and reconstitute with an alternative solvent..

### Product Specifications:

- Vortex Shearing Concentration
- Time Range: 15 sec to 10 hours
- Time Set-up / down arrow keys (15 sec increments)
- Temperature range: Ambient to 99 °C (thermal cutout)
- Temperature set-up / down arrow keys (1°C increment)
- Start/stop: Green LED indication when process is ON
- Gas stations: 5 Nos. with LED indication
- Display: LCD Digital
- Capacity: 4 mL (12 x 75); 5 mL (12 x 100), 10 ml (16 x 100)
- Gas regulator range: 0 to 100 PSI (approx)
- Pressure gauge range: 0 to 100 PSI
- Controlled: Fully Microprocessor based
- Sample capacity: 100 Nos. (AT-EV-100)
- Gas Line: 5 Nos.
- Water tank capacity: 7 Ltr.
- Colour: Blue & White
- Exhaust: 1/2" Hose Pipe of 1 mtr. length
- CE & ISO 9001-2008 Certified
- Weight: 21 kgs
- Dimensions: 30cm(H) x 40cm(W) x 60cm(L)

## Accessories

### Rack size for AE-EV-50

Sr.no	Rack Size OD x Length	Working Volumes	Type of Test Tube
1	12mm x 75mm	04ml	Round Surface
2	12mm x 100mm	05ml	Round Surface
3	15mm x 125mm	11ml	Round Surface
4	15mm x 150mm	12ml	Round Surface
5	16mm x 100mm	10ml	Round Surface
6	17mm x 150mm	16ml	Round Surface
7	17mm x 125mm	15ml	Conical
8	18mm x 150mm	20ml	Round Surface
9	20mm x 150mm	30ml	Round Surface

### Rack size for AE-EV-20

Sr.no	Rack Size OD x Length	Working Volumes	Type of Test Tube
1	28 mm x 95 mm	40 ml	Round Surface
2	28 mm x 140 mm	60 ml	Round Surface

### Rack size for AE-EV-30

Sr.no	Rack Size OD x Length	Working Volumes	Type of Test Tube
1	50 mm x 70 mm 100 ml	80 ml	Round Surface
2	60 mm x 80 mm 150 ml	120 ml	Round Surface
3	70 mm x 95 mm 200 ml	200 ml	Round Surface

### Rack size for AE-EV-100 & AE-EV-144

Sr.no	Rack Size OD x Length	Working Volumes	Type of Test Tube
1	12 mm x 75 mm	04ml	Round Surface
2	12 mm x 100 mm	05ml	Round Surface
3	10 mm x 40 mm	01ml	Round Surface

## Physical Properties of Solvent

Sr.No.	Solvent	Boiling Point
1	N-Hexane	68.7
2	Methylene Chloride	39.8
3	Ethyl acetate	77.1
4	Acetone	56.3
5	Acetonitrile	81.6
6	Methanol	64.7
7	Water	100
8	Isopropyl Ether	68.3
9	Toluene	101.6
10	Ethylene Chloride	83.5

## Beaker Size

Sr.no	Rack Size	Working Volumes	Type of Beaker
1	50mm x 70mm 100ml	80ml	Griffin Low Form withSpout
2	60mm x 80mm 150ml	120ml	Griffin Low Form withSpout
3	70mm x 95 mm 200ml	200ml	Griffin Low Form withSpout

## Parts List

Sr.no	Description	Nos.
1	Nitrogen Evaporator	1
2	Rack (as per test table size)	1
3	8mm PU tubing	1
4	Exhaust hose (2mtr)	1
5	Nozzle Caps	50nos
6	Male Connector	1
7	Water Remover	1
8	P <sup>o</sup> wer Cord	1

## Accessories

- One rack will be supplied with Nitrogen Evaporator
- Standard Fittings, Exhaust Hose Pipe, PU Fittings & Tubing, Clamps & Power Cord
- Nozzle Cap 50 Nos. supplied
- Operational Manual, IQ/OQ/PQ & CE Certificate will be provided

**Certification:**

**1) CE Pressure Equipment Directive (PED)2014/68/EU**

**REGAL REGISTER (UK) LIMITED**



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REGAL REGISTER (UK) LIMITED

# CERTIFICATE

*Certificate of Compliance*



We confirm that the technical documentation for the below mentioned products:

Product(s):

**Lab Equipment, Filtration Product and Cleaning Equipment**

Product Model(s):

**Not Applicable**

Company Name:

**A-One Engg. Works**

Address:

**2073, Bhandup Industrial Estate Pannalal Compound, Bhandup(W),  
Mumbai – 400078, Maharashtra, India**

Comply to the requirements of The Pressure Equipment Directive (PED) 2014/68/EU

The Regal Register (UK) Ltd. has reviewed manufacturer's technical documentation & factory production control and found it in compliance with above mentioned Standard / Directive

This certificate is issued under the following conditions:

1. It applies only to the above referenced set of products. The manufacturer is obligated to assure that all products of the respective model confirm to the type assessed for this certificate.
2. The Certificate remains valid until the quality systems, technical file or relevant requirements are changed subjected to maximum validity of 3 years.
3. The validity of this certificate is subjected to successful performance during surveillance audits.

Certificate No. : **CE- 2864**

Date of this certificate : **17<sup>th</sup> October 2021**

Certificate Expiry Date : **16<sup>th</sup> October 2022**

  
Authorized Signatory

Statement:  
This certificate of compliance is based on the evaluation of technical file & when the technical file is in compliance with related product standards it does not imply an assessment of the mass production of the product. The certificate body should be informed for any modification or alterations made to the technical file of dimensional products. The manufacturer is responsible for the product and ensuring that all manufactured products are in compliance with the specifications detailed in the technical construction file. Regal Register (UK) Ltd is an independent technical / scientific assessment organization & this certificate of compliance is a voluntary certificate. Regal Register (UK) Ltd is not a notified body & this certificate does not substitute or fulfill any legislative or regulatory requirements. Regal Register (UK) Ltd does not take responsibility of product performance or adherence to any specific law / legislation. Regal Register (UK) Ltd does not take responsibility for acceptability of this certificate by any specific authority / client. This certificate remains property of RRUL, to whom it must be returned upon request.

This Certificate is valid as long as the organization meets RRUL's requirements. The status of the certificate may be checked at [www.regalregistrars.co.uk](http://www.regalregistrars.co.uk)

**REGAL REGISTER (UK) LIMITED**

Head Office : Kemp House, 160 City Road, London, EC1V 2NX, United Kingdom  
[www.regalregistrars.co.uk](http://www.regalregistrars.co.uk)

## 2) CE Directive (93/42/EEC) Medical Device Directive



# Certificate of Compliance

This is to certify that, on the basis of the technical details provided by the client, as per File no TC-R-48-110. Samples drawn from the products complies with the requirements of EC Directive as under:

**Manufacturer**

Name : **A-One Engg. Works**

Address: 2073- Bhandup Industrial Estate, Pannalal Compound, Bhandup (W),  
Mumbai - 400078 (India)

**Product details:**

Manufacturers of Lab Equipment, Filtration Products, Cleaning Equipments, Gas Generator, Nitrogen Evaporator, and Solid Phase Extraction System.

Applicable Directive: **Directive (93/42/EEC) Medical Devices Directive.**

The CE Mark as shown below can be used under the responsibility of the manufacturer or the importer, after completion of the EC Declaration of Conformity and Compliance with all relevant EC Directives.



Certificate No : XIQ-CE-1230122821  
Date of Current Certificate :28/12/2021  
Date of Expiry of Certificate : 27/12/2024  
1st Surveillance : Due on or Before 27/12/2022  
2nd Surveillance : Due on or Before : 27/12/2023

Date of Original Certificate : 28/12/2021



MSCB.UK.M.0218  
**Technical Director**

This Certificate remains the Property of International Quality Management Certifications Limited (UK) and must be returned if Certificate is Withdrawn  
Address: College House, 2nd Floor,17 King Edwards Road,Ruislip, London, United Kingdom HA47AE  
The Verification mail is : [eng@iqmc.co.uk](mailto:eng@iqmc.co.uk) Or you can verify it from on website : [www.iqmc.co.uk](http://www.iqmc.co.uk)

International Quality Management Certifications Ltd. (UK) is Accredited by International Conformity Accreditation Bureau(ICAB) Switzerland  
[www.icab-ch.com](http://www.icab-ch.com)

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### 3) ISO 9001 : 2015 Quality Management System



## **WARRENTY TERMS & CONDITION**

### **ORIGINAL PURCHASES ONLY**

Aone warranties extend to authorize dealers only. No warranty offered by Seller is transferable. Seller specifically disclaims any warranty to any party who did not directly purchase from Seller.

### **WARRANTY COVERS NORMAL USE ONLY**

Each of Aone Warranties covers defects arising under normal use only and do not include malfunctions or failures resulting from misuse, abuse, neglect, alteration, problems with electrical power, usage not in accordance with product instructions, acts of nature or improper installation or repairs.

### **WARRANTY REQUIREMENTS**

- Warranty coverage requires proof of purchase documentation (invoice or packing slip).
- All returns must be clearly marked with the RMA number on the outside of the package for identification.
- Returns will not be accepted unless so marked.
- Goods must be returned properly packaged in their original shipping container or in an equivalent, ESD safe container.
- Goods must be returned with adequate packaging to ensure that they are not damaged in transit.
- Legacy disclaims any responsibility for goods packaged in such a way that they are likely to be damaged in transit.
- Modification to or tampering with any Legacy product including any labels, stickers or markings of any kind shall immediately void the applicable warranty.

### **UNDER 2 YEAR WARRANTY COVER PARTS (HANDLING DEFECT NOT COVERED IN WARRENTEE)**

- Electronics –
  - a) Display
  - b) Keypad
  - c) Solenoid Valves
  - d) Air Blower
  - e) Relay Card
- Mechanical –
  - a) Pressure Gauge
  - b) Nozzle
  - c) Air Flow Regulator

### **UNDER 1 YEAR WARRANTY COVER PARTS**

- Electric Heater (Without Water do not Used)

### **Corporate Office :**

A-one Engg. Works  
2073, Bhandup Industrial Estate , LBS Marg Bhandup (W), Mumbai - 400 078. Tel.: 022 2594 2921 / 9324368308 Email: [info@aoneengg.in](mailto:info@aoneengg.in)

### **Factory :**

A-one Engg. Works  
C-9-32 , Bharat Industrial Estate, L.B.S. MARG, Bhandup (W), Mumbai – 400 078.

