

## Laboratory Instrument

### Nitrogen Evaporators

#### DC series Nitrogen Evaporators

The DC series Nitrogen Evaporators include 12 positions, 24 positions and ordinary 6 positions products. Design for sample preparing in the laboratory, especially for analysis of pesticide residues in animal and plant, fruit, tobacco etc. Environmental analysis just like water quality analysis, sewage water analysis etc. And also used in the food and beverage, quality control of pharmaceutical and drug, biochemical analysis etc. The products are simplicity of operator, can be processing multiple samples at one time. The gas flow rate and flux can be controlled, and customer can use multiple kind of sample container.

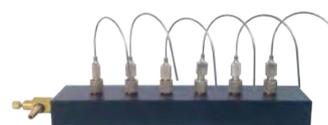
The DC series Nitrogen Evaporators design with compact and reasonable structure, Composed of circular gas distribution system, the sample holder with spring, center support device and stainless steel base; the sample contain with the ID number on each position; the gas through the rotor flowmeter arrived the gas distribution system, the flexible silicone tube guide the gas into needle valve which can be free lift, after that, the gas through the stainless steel needle or glass needle arrived the surface of samples. During this operator, customer can choice water bath or aluminum sand bath, also can adjust the altitude of the needle, to ensure the evaporation efficiency.

#### Product features:

- Circular design, Rotate freely, Operate simply, Reasonable structure;
- Sample holder with ID number, Free lift, with stainless steel spring ring clamp;
- Circular of the gas distribution system, Gas guide needle can be lift freely, with precision regulating valve;
- Suitable for sample contain: OD 10-29mm test tube, centrifuge tube, erlenmeyer flask etc. sample volume 1-50ml;
- Use 100mm stainless steel needle or glass needle;
- Circular water bath, heating gently, temperature control precisely, room temperature + 5°C - 90°C(advise 40°C - 70°C);
- the main part made from stainless steel, offer good corrosion preventive; all the key part made from inter material with specially processing (Stainless steel, PTFE, Nickel chrome brass, anodized aluminum, high purity silicon tube and borosilicate glass) to ensure will not cause secondary pollution of the samples;
- Precision needle valves can be easily control the gas rate on each position;

#### RT series Nitrogen Evaporators

To reduce the damage of corrosive vapours to the instrument in process of nitrogen blowing,we provide anti-corrosion type(RT series) Nitrogen Evaporators by improving current Nitrogen Evaporators; RT series Nitrogen Evaporators use high-tech PTFE coating on stainless steel surface for protection, making parts to improve chemical corrosion resistance, extending equipment service life; 90% of stainless steel surface are sprayed high-tech PTFE coating, use nylon parts in the places which are inconveniently sprayed coating, improving chemical corrosion resistance entirely.



| Cat. No.                     | EFAA-DC12   | EFAA-DC24   | EFAA-DC12-DA  | EFAA-DC-J6   | EFAA-DC12-RT  | EFAA-DC24-RT  |
|------------------------------|---|---|---|--|---|---|
| Description                  | 12 positions Nitrogen Evaporators with water bath | 24 positions Nitrogen Evaporators with water bath | 12 positions Nitrogen Evaporators with Aluminum Sand bath | Simply 6 positions Nitrogen Evaporators Instrument     | 12 positions RT series Nitrogen Evaporators with water bath | 24 positions RT series Nitrogen Evaporators with water bath |
| Instrument Dimensions        | Φ210mmx780mm                                      | Φ380mmx900mm                                      | Φ210mmx780mm  | 185mmx38mmx120mm                                       | Φ210mmx780mm  | Φ420X410X900mm  |
| Diameter of the container    | 10-30mm   | 10-30mm   | 10-30mm   | Directly used on the small capacity test tube or vials | 10-30mm   | 10-30mm   |
| Gas flow rate                | 2-16 L/min  | 2-16 L/min  | 2-16 L/min  |  | 2-16 L/min  | 2-16 L/min  |
| Heating device Cat. No.      | EFAA-DC12H  |   |   | N/A  | DC-12H-RT   | DC-24H-RT   |
| Heating device Dimensions    | Φ370MMX200MM                                      | Φ410MMX220MM                                      | Φ265MMX200MM  |  | Φ300MMX200MM  | Φ410MMX220MM  |
| Heating device Maximum power | 500W  | 1000W   | 650W  |  | 500W  | 1000W   |
| Temperature control range    | RT+5 ~ 90°C                                       | RT+5 ~ 90°C                                       | RT+5 ~ 80°C   |  | RT+5 ~ 90°C   | RT+5 ~ 90°C   |

# ANPEL series Gas Generator

|                              |                 |                 |                 |  |                                  |                                  |
|------------------------------|-----------------|-----------------|-----------------|--|----------------------------------|----------------------------------|
| Temperature control accuracy | +/- 2°C         | +/- 2°C         | +/- 2°C         |  | +/- 2°C                          | +/- 2°C                          |
| Heating device material      | stainless steel | stainless steel | stainless steel |  | stainless steel coated with PTFE | stainless steel coated with PTFE |

## ANPEL series Gas Generator

This is economic gas generator for laboratory use, compared with the traditional gas cylinders, Security has been greatly improved. So, use it to instead of the gas cylinders is a very good choice. The products with lower requirement of the working environment, easy for install and use, one standard current source enough for instrument working, provide 1/8 inch pipeline ensure easily connect with other instruments,

Hydrogen gas generator using potassium hydroxide aqueous solution as the electrolyte, during the instrument running potassium hydrate not consumed, only electrolyze water, so after the instrument running, customer only need replenishment of distilled water regularly into the electrolytic cell. Because of the high pH alkali liquor will Inhibition of microorganism growth, so customer do not need worry about the growth of microorganism pollution.

### Hydrogen gas generator

This instrument consists of Electrolysis system, Pressure control system, Purification system and Display system.

Our new LGH-T series hydrogen gas generator, increased Acousto-optic alarm system, When the liquid level is too lower, the instrument will alarm sound, the liquid level windows will flashing red. Warn the customer to replenish distilled water. When the liquid level below the limit value, instrument will auto-stop, this moment customer need power off the instrument and replenish distilled water, then re-open the instrument. This will help customer avoid damaging the expensive Electrolytic tank.

Our instrument use two-stage pressure control and protect system, increased visible alkali liquor return protection system, timely remind customer handle the return alkali liquor, to guarantee the safety of instrument.

The pipe in the instrument through special processing, ensure the lower background.

#### Characteristics of the instrument:

1. Small size, Light weight, instead of gas cylinders, without transporting;
2. Operate easily, high degree of automation. Only need pulse-on the switch, routine attention only need supplement distilled water;
3. The gas flow path system equipped with pressure overload protection function and alkali liquor return protection system;
4. Output flow stability, with LED digital display, automatic flow control, intuitive and convenient;
5. service long life, allowed to continue working, gas purity does not reduce;
6. whole unit offer one year warranty, Electrolytic tank warranty for two years;

| Description                     | Output pressure | Gas purity | Power | Gas flow rate | Instrument Dimensions | Instrument Weight | Cat. No.      |
|---------------------------------|-----------------|------------|-------|---------------|-----------------------|-------------------|---------------|
| Hydrogen gas generator LGH-300T | 0.3MPa          | >99.995%   | 150W  | 0-300ml/min   | 400X230X370 (LxWxH)mm | 15kg              | ECAA-LGH-300T |
| Hydrogen gas generator LGH-500T | 0.3MPa          | >99.995%   | 250W  | 0-300ml/min   | 400X230X370 (LxWxH)mm | 15kg              | ECAA-LGH-500T |

### Air generator(oil free)

Our oil free air generator consists of air pump, Pressure stabilizing system, Pressure control system, Purification system and Display system.

LGA series air generator, suitable for all types gas chromatograph and other instrument need air source in the laboratory. Our air generator use oil free air pump as air source, it is the ideal air source for laboratory.

#### Characteristics of the instrument:

1. Small size, Light weight, instead of gas cylinders, without transporting;
2. Operate easily, high degree of automation. Only need pulse-on the switch, customer can get constant pressure and constant flow air;
3. The gas flow path system equipped with two-stage pressure overload protection system, two-stage pressure stabilize system, automatic drainage system, dust filtration system, three times purification system;
4. Small vibrate, low noise, output pressure stability, output flow stability;
5. service long life, allowed to continue working, stable performance;
6. whole unit offer one year warranty,

| Description             | Output pressure | Pressure stability | Power | Gas flow rate | Instrument Dimensions | Instrument Weight | Cat. No.       |
|-------------------------|-----------------|--------------------|-------|---------------|-----------------------|-------------------|----------------|
| Air generator LGA-5000W | 0.4MPa          | <0.003MPa          | 180W  | 5000ml/min    | 335×335×680 (L×W×H)   | 26kg              | ECAA-LGA-5000W |

## Hydrogen and air generator

LGB series hydrogen and air generator is a product in order to satisfied market demand, on the basis of LGH series hydrogen gas generator and LGA series air generator, advantage of LGH series and LGA series feature, can get hydrogen or air separate or get two gas coinstantaneous, It is the ideal air source for laboratory.

### Characteristics of the instrument:

1. Small size, Light weight, instead of gas cylinders, without transporting;
2. Operate easily, high degree of automation. Only need pulse-on the switch, customer can get constant pressure and constant flow air;
3. The gas flow path system equipped with two-stage pressure overload protection system, two-stage pressure stabilizing system, automatic drainage system, dust filtration system, three times purification system;
4. Small vibrate, low noise, output pressure stability, output flow stability;
5. service long life, allowed to continue working, stable performance;
6. whole unit offer one year warranty,



| Description                          | Output pressure                  | Gas flow rate                            | Instrument Dimensions (L×W×H) | Instrument Weight | Cat. No.       |
|--------------------------------------|----------------------------------|--|-------------------------------|-------------------|----------------|
| Hydrogen and air generator LGB-0300W | Hydrogen: 0.3 MPa<br>Air:0.4 MPa | Hydrogen: 0-300ml/min<br>Air: 5000ml/min | 400×400×700 (L×W×H)           | 40kg              | ECAA-LGB-0300W |
| Hydrogen and air generator LGB-0500W | Hydrogen: 0.3 MPa<br>Air:0.4 MPa | Hydrogen: 0-500ml/min<br>Air: 5000ml/min | 400×400×700 (L×W×H)           | 40kg              | ECAA-LGB-0500W |

## CYY-II portable dual-channel gas sampler

The gas sampler is based on portable tank sampling theory, can be used with a variety of thermal desorption tubes, solvent desorption tubes and related equipments, common indoor and outdoor air samples are collected such as TVOC, benzene, aldehydes and ketones.

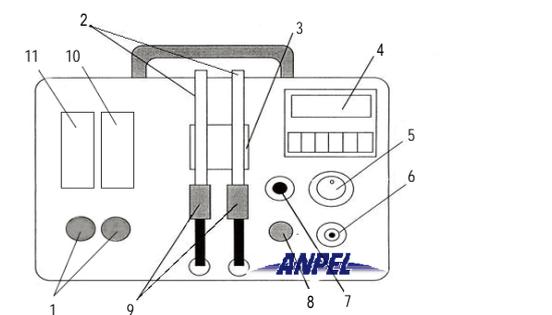
The device is small, light weight, easy to carry, built-in high capacity rechargeable battery and there are seven modes of custom timer design to meet various needs of customers. Customers can set different modes and time according to sampling.

**CYY-II selective tripod**

**Cat. No. SIAA-CYY-2**

### Characteristics of the instrument

- Adjustable dual-channel flow sampling system can be imultaneously sampling of two same or different organics;
- Built-in high capacity rechargeable battery, If fully charged, generally can keep supplying for more than 10 hours;
- Detachable tube bracket is easy to change tubes, supporting 1/4 inch or 6mm diameter tube;
- Outside cover increase anti-misoperation lock;
- Seven modes of timer to meet various needs of customers;
- Low battery indicator to remind recharging, prevent the sampling interrupt to avoid causing sampling failure.



- |                          |                                  |
|--------------------------|----------------------------------|
| 1. flow regulating valve | 7. sampling switch               |
| 2. sampling tube         | 8. low battery indicator light   |
| 3. sampling tube rack    | 9. sampling tube quick connector |
| 4. digital timer         | 10. 1#flow indication            |
| 5. power switch          | 11. 2#flow indication            |
| 6. charging holes        |                                  |

### Setting method

- Press MODE button, display up/down, press 1~4 any keys can choose the sampling time, counting (u)/counting down (d), choice: d, (factory setting: d mode);
- Press MODE button, display OUTMODE, press 1~4 any keys to cycle indicate a, A1, A2, b, e, these five working modes, select: E working modes (factory setting is E mode);
- Press DISPLAY key to exit setting;
- According to the displaying time 1~4 key, set sampling time, continuously press key 3 is 8, other three keys is 0, until indicate 8h00m;
- Press Start Sampling key to begin sampling by countdown;
- If need to stop sampling, can directly press RESET key of digital display timer panel, also can turn off on/off key to stop sampling;
- Open the on/off key again, press Start Sampling key, sampler will work according to the last setting.
- Flow control: adjust the Channel 1/Channel 2, can change sampling tube's vacuum degree, clockwise is aimed to reduce the sampling flow until close, when using only 1 sampling channel, please close other channel;
- Above are frequently used settings, if need other special settings, please refer to manual.