

Nitrogen Gas Generator for LC-MS

N₂ SUPPLIER

Vol.3



Nitrogen Gas Generator
for Science Instrument

N₂ BOY Model **02B**



Provides security and Safety

Enables 24 hours' Continuous Operation



LC-MS analysis requires constant supply of nitrogen.

However, exchange of cylinder and confirmation of remaining volume of nitrogen are troublesome. 24 hours' continuous operation is possible by using **N2 Supplier**, which provides security and safety for your laboratory.

Free from daily
troublesome work
of exchange of the
nitrogen cylinder



No need of
frequent
confirmation of
remaining volume
of nitrogen

Capacity of usually used 7 liters cylinder is only 7 hours at a flow
rate of 15 liters/minute

N2 Supplier is Designed for Low Noise Operation

■ Features

- Nitrogen gas is supplied several minutes after pressing the switch.
- Out of application of the high pressure gas control Law
- Oil-free scroll compressor improved for the equipment
- Low-noise compressor with noise level of below 51db
- Much less pressure fluctuation by compressor on&off

High pressure and high flow rate of nitrogen are required in accordance with high sensitivity of LC/MS in recent years. Our apparatus is sufficient for complying with improved performance of LC/MS.

N₂ SUPPLIER T30F_(Standard)

More Quite! More Security!

Standard Type Nitrogen Gas Generator for LC/MS

- The height is 61cm and it is able to place under laboratory table
- 30 liter/min nitrogen gas generation & applicable to APCI
- Automatic circulation of water drain to internal heater ; No water drain
- Operable by single phase 220V

■ Specifications



1. Electricity

AC 220V, 13.3A/60Hz

2. Nitrogen Pressure

0.7 MPa at -40 °C

3. Nitrogen Flow rate

30 liter/min

4. Nitrogen Purity

99%

5. Size

445mm(W)×756mm(D)×610mm(H)

6. Noise Level

45 dB

7. Weight

72 kg

8. Maintenance cycle time

16,000 hr

9. Compressor type

Oil-free scroll

■ Option exhaust duct adapter



Available exhaust to outside using by optional duct adapter.

07 E-SDA

Available to Supply Nitrogen Gas, Zero Air & Air!

■ Specification

1. Electricity

AC100V, 11A/50Hz, 10.8A/60Hz

2. Calorific Value

710 kcal/h (2.97MJ)

3. Output Gasses

N ₂ Gas	Flow rate : 6 liter/min,	Purity : More than 99.9%, Pressure: 0.38 ~ 0.42MPa (55 ~ 60psi)
Zero Air	Flow rate : 22 liter/min,	Pressure : 0.69 ~ 0.72 MPa (100 ~ 105psi), Dew point -40 °C
Air	Flow rate : 6.4 liter/min,	Pressure : 0.42 MPa (60psi)

4. Size

485 mm(W) × 740 mm(D) × 680 mm(H) (without Protrusion)

* **Note** : Install Ventilation system (10 m³/min) in case of use in a sealed room. And inform your power supply & frequency when placed an order.

5. Weight

79 kg

6. Noise

45 dB



Nitrogen Gas Generator for LC-MS

Ready to Meet Your Demands Depending on Your Applications!

★ *A Variety of lineups*

○ Separate Type



50EC

Compressor
SLP-551EBD-S
Etc.
3P 200V



30EC/20EC



12EC



Compressor
SLP-371EBD-S
3P 200V



Compressor
SLP-221EBD-S
3P 200V



24ESDA



12ESDA



10ESDA/10ESDA-S

For High Flow Rate

- Afford for high flow rate
- May keep the separate type compressor out of the laboratory

Safety and Security Service

- While the compressor is safely operable with a margin, service network of Anest Iwata Co. is ready to solve troubles, if any, throughout the country.

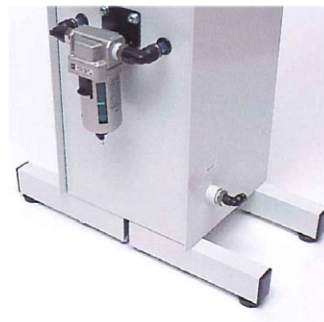
Ready for installation in narrow laboratory



Standard type (when a sufficient installation space is available)



Attachment of the base may be changed as shown in the photographs depending on the installation area.



- Outline :** Nitrogen gas is generated by separating nitrogen in air by taking advantage of differences of film permeation rate of gases.
- Construction :** The apparatus is composed of a permeation membrane, a pressure reducing valve, a filter and a compressor.
- Specification :** N₂ Flow rate and pressure : Refer next page. Room Temp. at 25°C
- Requirement :**
1. For indoor installation (room temperature 15 to 40°C), non-explosion proof area
 2. May cause current leakage and rust at high humidity
 3. Place on a flat floor
 4. Avoid direct sunlight
 5. Avoid to place at a dusty area and an area containing toxic gases
 6. Secure a space for maintenance

Note : A ventilation fan (capacity: 25 m³/min for 221EBD-S, 40 m³/min for 371EBD-S) is necessary when used in a sealed room

Power source and Pipeline:

Compressor

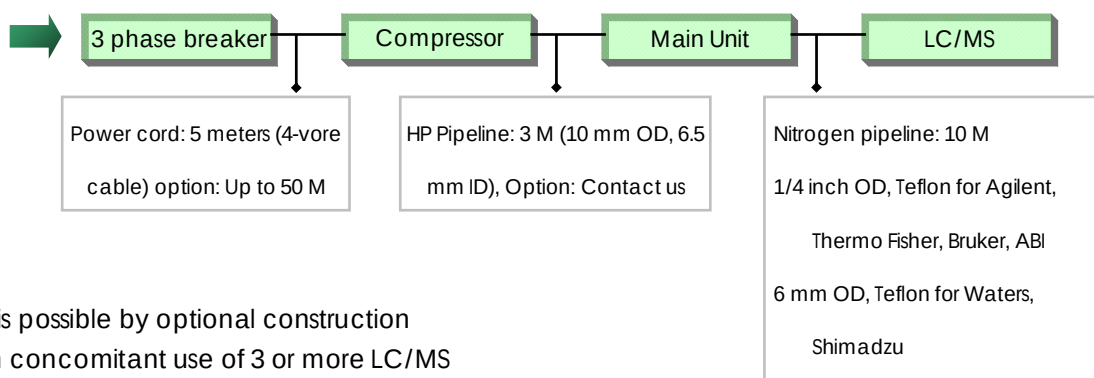
221EBD-S : 3phase, 200V,
11.3A(50Hz) / 10.4(60Hz)

371EBD-S : 3 phase, 200V,
17.6A(50Hz) / 16.4A(60Hz)

Breaker Capacity

SLP-221EBD-S: 30A

SLP-371EBD-S: 50A



Contact us

- Elongation of air pipeline is possible by optional construction
- Ready for complying with concomitant use of 3 or more LC/MS
- Prepared for power failure

We are ready to supply the N₂ Gas for LC/MS.

Separate type N₂ Suppliers

Purity (%)	Model			
	50EC	30EC	20EC	12EC
99.9	20 L/min	11L/min	9 L/min	4 L/min
99.5	40 L/min	27L/min	20 L/min	9.5 L/min
99.0	55 L /min	36L/min	26 L/min	13 L/min
98.0	80 L/min	58L/min	40 L/min	20 L/min
97.0	100L/min	85L/min	51 L/min	25 L/min
96.0		94L/min	63 L/min	30 L/min
Size (mm)	250(W) × 280(D) × 1350(H)	200(W) × 270(D) × 1300(H)	200(W) × 150(D) × 1300(H)	200(W) × 200(D) × 780(H)
Weight	35 kg	28 kg	22 kg	18 kg
Base	440(W) × 480(D) × 50(H)	405(W) × 475(D) × 50(H)	400(W) × 400(D) × 50(H)	350(W) × 350(D) × 50(H)
Compressor	SLP-551EBD-S etc	SLP-371EBD-S	SLP-371EBD-S / SLP-221EBD-S	SLP-221EBD-S

* Model 20EC-L is applied in case of set up 20EC and Compressor SLP-371EBD-S

SDA type (for ABI-MS)

Specification	Model			
	24E-SDA (for 2 sets)	12E-SDA	10E-SDA	10E-SDA-S
When N ₂ 99.5%	10 ~ 20 L/min	5 ~ 10 L/min	2 ~ 4 L/min	5 L/min
-Ditto- Pres.	0.38 ~ 0.42 MPa	0.38 ~ 0.42 MPa	0.42 ~ 0.62 MPa	0.38 ~ 0.42 MPa
Zero Air	34 ~ 45 L/min	17 ~ 22.5 L/min	8 ~ 12 L/min	22 L/min
-Ditto- Pres.	0.69 ~ 0.72 MPa	0.69 ~ 0.72 MPa	0.62 ~ 0.72 MPa	0.69 ~ 0.72 MPa
Dew point	- 40 °C	- 40 °C	- 40 °C	- 40 °C
Air	12 ~ 12.8 L/min	6 ~ 6.4 L/min	4 ~ 8 L/min	6.4 L/min
Air Pres.	0.35 ~ 0.42 MPa	0.35 ~ 0.42 MPa	0.28 ~ 0.38 MPa	0.42 MPa
Size (mm)	255(W) × 295(D) × 965(H)	200(W) × 200(D) × 1100(H)	200(W) × 200(D) × 780(H)	200(W) × 200(D) × 780(H)
Weight	37 kg	21 kg	16 kg	16 kg
Base	440(W) × 480(D) × 50(H)	440(W) × 440(D) × 50(H)	390(W) × 390(D) × 50(H)	390(W) × 390(D) × 50(H)
Compressor	SLP-371EBD-S	SLP-221EBD-S	SLP-221EBD-S	SLP-221EBD-S

Compressor (Oil-free scroll type)

	SLP-371EBD-S	SLP-221EBD-S
Air Flow Rate	345 L/min	215 L/min
Volume of Integrated Tank	35 liter	20 liter
Noise Level	50 db	50 db
Voltage	3 phase, 200 V	3 phase, 200 V
Current	17.6A / 50Hz (16.4A / 60Hz)	11.3A / 50Hz (10.4A / 60Hz)
Calorific Value	4009 kcal/h(16.78MJ)	2384 kcal/h(9.98MJ)
Size (mm)	545(W) × 622(D) × 1158(H) (Without Protrusion)	453(W) × 682(D) × 975(H) (Without Protrusion)
Weight	151 kg	118 kg
Maintenance Interval	5000 Hour or 3 Years (which reaches earlier)	

★ Option : Air Tank



- Air tank for prolonging maintenance time (Compressor SLP-371EBD-S, 221EBD-S)

Which makes less ON/OFF switch of the compressor or more prolong of maintenance time.

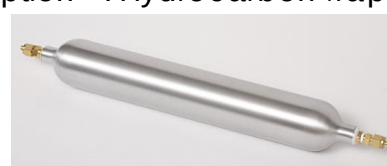
Volume: 60 liter, 310 φ × 1200 (H) mm, 30 kg (without protrusion)

- Air tank for power failure

Volume: 400 liter, 612 φ × 1715 (H) mm, 175 kg

Volume: 600 liter, 762 φ × 1710 (H) mm, 217 kg (without protrusion)

★ Option : Hydrocarbon Trap



- Collected Hydrocarbon in Nitrogen Gas
- Available for SIC N₂ Generators upon request

Size : Overall length : 440mm x 60 φ with 1/4" Joint

Unique N₂ SUPPLIER

Model

02B



N₂ Gas Pressure: 0.15 ~ 0.3 MPa

Flow rate and Purity (at N₂ Pres. 0.15 MPa):

0.6 L / min	: 99.9%
2 L / min	: 99%
3 L / min	: 97%
4 L / min	: 96%

Size and Weight (mm): 280(W) x 390(D) x 430(H) mm, 23 kgs

Power AC 100V, 6.5A

Temperature 25 °C

Dew Point -40 °C Noise < 45 dB

Model For ELSD

05B / 05BE / 05BL



Size and Weight (mm): 300(W) x 526(D) x 481(H) mm

Temperature: 25 °C

Dew Point: - 40 °C

	【05B】	【05BE】	【05BL】
N ₂ Gas Pres. :	0.5MPa	0.45MPa	0.7MPa(Max)
Flow Rate:	1 L / min: 99.9% 5 L / min: 99.9%	5 L / min: 99.9%	1 L / min: 99.9% 5 L / min: 99% 10 L / min: 98.2% 15 L / min: 96.5% 30 L / min: --(at pres. 0.5MPa)
Power:	AC 100V 7.5A	AC 100V 7.5A	AC 100V 9A
Noise :	45 dB	45 dB	45 dB

sic

Manufacturer

SIC SYSTEM INSTRUMENTS CO., LTD.

776-2, Komiya - cho, Hachioji, Tokyo, Japan.

Tel : 81-426-46-3555, Fax : 81-426-46-8228

Sole Distributor



EVERSEIKO CORPORATION

ES Bldg., 4-39-5, Senzoku, Taitoku, Tokyo, Japan.

E-mail : info@everseiko.co.jp, Fax : 813-3874-8873