

# PROSPERO

## Nitrogen/Air Gas Generator for GC

Reference : PROSPERO.[Flow rate]/0 (Without compressor)  
PROSPERO.[Flow rate]/1 (With compressor)



### Description

The combined Nitrogen/Air delivers a continuous stream of High Purity Nitrogen gas (> 99.9995%) and grade purify Air with Hydrocarbon content (< 0.1 ppm), ideal for application such as GC-Carrier gas, GC-Make up and GC-FID.

The PROSPERO is available without or with integrated oil free air compressor using the **Energy Saving Technology mode (EST)**. It is extremely compact and quiet in operation.

The generator is controlled using the latest in color touch screen technology to display the process in real time, inlet / outlet pressure, N2 Flow and status of the system with remote access for diagnostic control.

Utilizing **Advanced technology PSA** of separating Nitrogen and O2 to produce high quality Nitrogen gas and activated alumina column to produced purify Air on demand 24/7.



UNIQUE AND INTELLIGENT OPERATOR INTERFACE WITH REMOTE ACCESS

### Applications

GC-Carrier gas

GC-FID

GC-FPD

GC-Make up

GC-NPD

GC-TCD

### Benefits & Savings

#### INCREASED LABORATORY EFFICIENCY

A constant, uninterrupted gas supply of guaranteed purity eliminates interruptions of analyses to change cylinders and reduces the amount of instrument re-calibrations required.

#### IMPROVED ECONOMY

Pure Nitrogen and Pure Air gas produced as standard.

#### IMPROVED SAFETY

Pure Nitrogen and Pure Air produced at low pressure and ambient temperature removes the need for high pressure cylinders.

#### SECURITY OF SUPPLY

Integral oil free air compressor as an option guarantees continuous gas supply, independent of in house compressed air supply.

#### SIMPLE INSTALLATION

Gas generators can be installed in the laboratory, on or under a bench, eliminating the need for long gas lines from cylinders secured elsewhere.

### Standard Features

- Intelligent color touch screen to provide simple and user friendly management of all functions of the unit
- Fully regenerative PSA technology
- Without or with integral oil free air compressor
- Quiet thanks to the Soundproofed compressor box and anti-vibration features
- Option:  
Oxygen sensor: Online N2 Purity monitoring capability
- Auto start
- Fast start-up purity < 60 min
- Audible alarm display and Visual maintenance indication with history log
- Outlet Nitrogen/Air flow indicator
- Energy Saving Technology (EST):
  - Switch off the compressor when gas supply is not required
  - Allowing low energy consumption and increasing durability of the compressor
- Remote PC monitoring and diagnostic analysis via USB to interface the unit with customer's PC software (allow to carry out checks and maintenance effectively, only via a remote connection)
- Compact design
- Fit with wheels

N2  
AIR

MODELS	PROSPERO.1		PROSPERO.3		PROSPERO.5
Compressor	0 (Without)	1 (With)	0 (Without)	1 (With)	1 (With)
<b>GENERALS INFORMATIONS</b>					
Max Nitrogen Flow rate	1 L/min		3 L/min		1 L/min
Max Pure Air Flow rate	1.5 L/min		3 L/min		5 L/min
Max N2/Air pressure	6 bar (87 psi)				
Nitrogen purity	> 99.9995% (< 5 ppm O2)				
Pure Air purity	HCs < 0.1 ppm; Air Dew Point < -60°C (-76°F)				
Particles	0.01 μ				
Inlet Air flow required @ 8 bar (116 psi) max	16 L/min	N/A	42 L/min	N/A	N/A
Min Inlet Air quality	ISO8573 - 1:2010 1.4.1	N/A	ISO8573 - 1:2010 1.4.1	N/A	N/A
Touch screen	Touch screen (operating parameters, system status, alarms and maintenance)				
Max Relative Humidity	80% RH @ 25°C (77°F)				
Temperature range	From 5 - 25°C (41 - 77°F)				
Max Altitude	3000 Meters				
Noise level @ 1M	25 dB (A)	50 dB (A)	25 dB (A)	52 dB (A)	52 dB (A)
Dimensions (W x H x D)	47.5 x 66.2 x 65 cm (18.7" x 26" x 25.6")		47.5 x 66.2 x 79 cm (18.7" x 26" x 31")		
Weight (kg/lbs)	57 / 125	64 / 141	95 / 209	107 / 236	107 / 236
Power consumption	150 VA	350 VA	150 VA	850 VA	850 VA
Electrical supply	220 - 240 V ac / 1 ph / 50 - 60 Hz				
	110 - 120 V ac / 1 ph / 50 - 60 Hz				
Fuse	10A				
<b>CONNECTIONS</b>					
Nitrogen/Air outlet	G 1/4" (BSP) Female				
Air Inlet	G 1/4" (BSP) Female	N/A	G 1/4" (BSP) Female	N/A	N/A
<b>COMMUNICATION</b>					
USB/PC Control	In series				

## [F-DGSi Care]

The products are guaranteed 24 months\*. Beyond, your investment continues to be supported by our maintenance program [F-DGSi Care]. Our world class technical assistance offers Programmed preventive maintenance to ensure optimal performance of your Gas generator F-DGSi and a priority intervention in case of failure.

\*Year 2 of warranty subject to generator being serviced at end of the first year by a F-DGSi-approved agent in accordance with fixed annual maintenance schedule. For full terms and conditions, visit [www.f-dgs.com](http://www.f-dgs.com)

**F-DGSi France**  
365 Avenue de Rio - 77127 Lieusaint, France  
Tel. : +33(0)1 64 98 21 00  
Fax. : +33(0)1 64 98 00 43

Email : [info@f-dgs.com](mailto:info@f-dgs.com)  
Web : [www.f-dgs.com](http://www.f-dgs.com)

Certified Product

