

NESO

Nitrogen Gas Generator for GC/ICP/TOC

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



Description

With 4 models, 1 L/min to 10 L/min, the NESO Nitrogen range provide a High Purity Nitrogen solution for GC/ICP/TOC instrument.

The NESO 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 Oxygen to produce high quality Nitrogen gas on demand 24/7.



UNIQUE AND INTELLIGENT OPERATOR INTERFACE WITH REMOTE ACCESS

Applications



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 gas produced as standard.

IMPROVED SAFETY

Nitrogen 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 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

MODELS	NESO.1		NESO.3		NESO.5		NESO.10
Compressor	0 (Without)	1 (With)	0 (Without)	1 (With)	0 (Without)	1 (With)	1 (With)
GENERALS INFORMATIONS							
Max Nitrogen Flow rate	1 L/min		3 L/min		5 L/min		10 L/min
Max Nitrogen pressure	6 bar (87 psi)						
Nitrogen purity	99.9995% (< 5 ppm O2)						
Particles	0.01 μ						
Inlet Air flow required @ 8 bar (116 psi) max	12 L/min	N/A	36 L/min	N/A	60 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	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)	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)	54 / 119	58 / 127	71 / 156	94 / 207	91 / 200	118 / 260	180 / 396
Power consumption	150 VA	375 VA	150 VA	850 VA	150 VA	850 VA	1700 VA
Electrical supply	220 - 240 V ac / 1 ph / 50 - 60 Hz						
	110 - 120 V ac / 1 ph / 50 - 60 Hz						
Fuse	10A						
CONNECTIONS							
Nitrogen outlet	G 1/4" (BSP) Female						
Air Inlet	G 1/4" (BSP) Female	N/A	G 1/4" (BSP) Female	N/A	G 1/4" (BSP) Female	N/A	N/A
COMMUNICATION							
USB/PC Control	In series						

Why using Ultra High purity Nitrogen generator for ICP purge Applications?

Inductively coupled plasma - optical emission spectroscopy (ICP-OES) continues to grow in popularity as a powerful analytical technique for a wide variety of samples owing to its simultaneous multi-element determination capability, low detection limits for most elements, large linear dynamic range, high tolerance to matrix effects and, relative ease of operation. However, it has limitations for the determination of the non-metals including sulfur. The resonance lines of many of the non-metals lie in the vacuum ultraviolet (VUV) spectral region' less than 200 nm. Observation of these resonance lines with conventional instrumentation is complicated by absorption of radiation by oxygen in the atmosphere and by the mirrors and/or windows employed in the optical transfer system. The nitrogen is used to purge the optical system from the ICP source to the entrance slit of the monochromator and inside the monochromator installed with the photomultiplier tube (PMT) housing box. The flow of nitrogen purge gas flowing both in the region from the ICP source to the monochromator and in the PMT housing box is referred to as the light cell purge gas flow. This purge system permits extension of the operating range to the VUV spectral region between 170 and 190 nm. Generally Nitrogen purge gas flow rates for Light cell is 6L/min and for Monochromator 8L/min (depend on ICP manufacturer).

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