

# TORNADO LITE

## Nitrogen Gas generator

Reference : TORNADO.[Flow rate]L



## Description

The nitrogen generators serie Tornado Lite offer to you a unique, innovative solution to nitrogen gas supply.

A reliable, secure source of nitrogen can be produced from your existing compressed air supply, eliminating the need for liquid nitrogen or high pressure gas cylinders.

Conceived for a continuous operation, the Tornado Lite nitrogen generator can produce flow rates from a few liters per minutes to over NL/min at purities in oxygen content residual from 10 ppm to 3%.

The generator is controlled using the latest in HMI touch screen technology to display the process, pressures, inlet air dewpoint and oxygen levels with continuous monitoring complete with alarms.



## Applications

LCMS

Sample evaporation

NMR

ICP

Glove box

Circular Dichroism

Food Packaging

Laser cutting

Oil and gas

Pharmaceutical and laboratory

Wine making and brewing

## Benefits & Savings

### ECONOMY SAVING

- Quick return on investment < 1 year
- After installation, the generator require minimal attention and Maintenance

### RELIABILITY AND SAFETY OF USE

- Nitrogen produced at low pressure and ambient temperature removes the hazards associated with high pressure cylinders and liquid Dewar's.
- Nitrogen available on request 24H per day ensuring the walk of the process in a regular and uninterrupted way

### COMPACT DESIGN AND FLEXIBLE MODULAR OPTION

- The system demands less floor space
- The modular concept means the generators can be multi banked if required (Master/Slave configuration) Evolutionary System adapting as your business grows and gas requirements change

## Standard Features

- Fully regenerative PSA technology: reduced risk of gas contamination and phthalate free
- Varying flow rates and purities
- HMI touch screen technology to display the process in real time, including process variables
- Oxygen sensor display with alarm
- Air inlet dewpoint display with alarm
- Audible alarm display and Visual maintenance indication with history log
- Analogue connections
- IP address for remote access via internet connection
- Quick and easy maintenance : access from front, no rear access required
- Automatic economy mode : enable to go in standby mode when no N2 is required

N2

MODELS	10 ppm	100 ppm	0.10%	0.5%	1.0%	2.0%	3.0%	4.0%	5.0%	Dimensions (W x H x D)	Weight (kg/lbs)
N2 FLOW RATE NL3/min VIA O2 PURITY											
TORNADO-102L	10	20	30	45	50	70	85	-	-	40 x 115 x 58 cm (16" x 69" x 23")	150 / 330
TORNADO-104L	20	40	60	90	100	140	170	-	-		180 / 396
TORNADO-106L	30	60	90	135	150	210	255	-	-	40 x 115 x 76 cm (16" x 69" x 30")	230 / 507
Air/N2 ratio	10.8	5.9	3.6	3.4	2.8	2.6	2.4	2.2	2.1		

TECHNICAL DATA											
Temperature range	5 - 45°C (41 - 113°F)										
Air Inlet Pressure	6 - 16 bar (87 - 232 psi)										
Nitrogen Outlet Pressure	5 - 14 bar (72 - 203 psi)										
Air Inlet quality requirement	Dew Point : -40°C (-40°F)										
	Particulate : < 0.1 micron										
	Oil : < 0.01 mg/m <sup>3</sup>										
Electrical Supply	90 - 260 V ac / 1 ph / 50 - 60 Hz										
	Power 0.2KW										
Signal / monitoring	no volt alarm & RS232										
Inlet / outlet connections	G 1/2 (BSP) F										

FACTOR OF CORRECTION					
Pressure (bar)	7.5	8	8.5	9	9.5
Pressure (psi)	109	116	123	130	138
Factor of correction	1.14	1.21	1.29	1.36	1.43

**Gold Service**  
Satisfaction Guaranteed

The products are guaranteed 24 months\*. Beyond, your investment continues to be supported by our maintenance program [Gold Service]. 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)

GS: **TECNOLOGIA APLICADA**

Certified Product

