

TORNADO

Nitrogen Gas generator

Reference : TORNADO.[Flow rate]



Description

The nitrogen generators serie TORNADO 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 nitrogen generator can produce flow rates from a few liters per minutes to over NM³/H at purities in oxygen content residual from 10 ppm to 5%.

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

RMN

ICP

Food Packaging

Laser cutting

Oil and gas

Electronic assembly/soldering

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 RAT NM3/H VIA O2 PURITY											
TORNADO-102	1.0	2.75	4.5	7.1	8.95	11	12.95	14.55	16.15	40 x 175 x 69 cm (16" x 69" x 27")	210 / 463
TORNADO-104	1.98	5.5	9	14.2	17.9	22	25.9	29.1	32		250 / 551
TORNADO-106	2.96	8.5	13.5	21.3	26.7	32.9	38.8	43.6	48.4	40 x 175 x 80 cm (16" x 69" x 31")	370 / 815.7
TORNADO-108	3.94	11	18	28.4	35.6	43.9	51.7	58.1	64.5	40 x 175 x 95 cm (16" x 69" x 37")	465 / 1025
TORNADO-110	4.93	14	22.5	35.4	44.5	54.8	64.6	72.6	80.5	40 x 175 x 109 cm (16" x 69" x 43")	558 / 1230
TORNADO-112	5.91	16.5	26.9	42.5	53.4	65.8	77.5	87.2	96.6	40 x 175 x 121 cm (16" x 69" x 48")	662 / 1459
TORNADO-116	7.98	21	34.1	53.8	67.6	83.3	98.2	110.4	122.4	40 x 175 x 152 cm (16" x 69" x 60")	870 / 1918
TORNADO-120	9.84	25.3	41.3	65.1	81.8	100.8	188.8	133.6	148	40 x 175 x 235 cm (16" x 69" x 92")	1100 / 2425
Air/N2 ratio	12	6.4	3.4	2.8	2.6	2.4	2.2	2.1	2		

TECHNICAL DATA											
Temperature range	5 - 45°C (41 - 113°F)										
Air Inlet Pressure	6 to 18 bar (87 to 261 psi)										
Air Inlet quality requirement	Dewpoint : -40°C (-40°F)										
	Particulate : < 0.1 micron										
	Oil : < 0.01 mg/m ³										
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		

GoldService
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

GS: TECNOLOGIA APLICADA

Certified Product

