

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

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

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Certified Product

