

GEN2 - Series

Nitrogen Generator

DESCRIPTION

Nitrogen is used in many commercial and industrial applications to improve the quality of a product or process or as a safety measure to prevent combustion. Liquid or bottled nitrogen delivery and storage can be expensive, unreliable and a safety concern. Nitrogen generators allow users to produce nitrogen in-house simply and inexpensively using an existing compressed air system.

We recognise the importance of having a safe, reliable and cost effective supply of high purity nitrogen. We have developed the GEN2 nitrogen generator to meet the increasing demand for high quality, complete packaged solutions which save energy and time while fulfilling the needs of their intended application. With traditional methods of gas supply, users are liable for hidden costs such as rental, refill and delivery, order processing charges as well as an environmental levy charge.

When you switch to a GEN2 gas generator you can expect payback typically between 6 to 24 months. It's unique design and energy saving function offers a number of significant advantages over delivered gas options, as well as traditional generator designs.

The compact system can be installed easily and with a minimum cost and disruption and requires only a pre-treated compressed air system to start production. An on-site generator enables users to produce their demand for nitrogen gas on their premises, under their complete control. As a result, companies can generate as much or as little nitrogen as needed at a fraction of the cost of having the gas delivered by an external supplier.



BENEFITS

Guaranteed performance

- reliable performance based on decades of experience with pressure swing adsorption technology
- 100% function and performance tested at our factory

Rapid return on investment

- significant cost savings over cylinder or liquid supply provides a typical return on investment of less than 24 months

Easy to install

- the compact design allows installation in spaces too small for twin tower generator systems

Safe & Reliable

- eliminates the safety hazards of transporting and storing pressurized gas cylinders or liquid nitrogen

Environmentally friendly

- lower air consumption and refined controls provide greater energy efficiency
- reduces carbon footprint by eliminating gas delivery to your facility

Easy to maintain

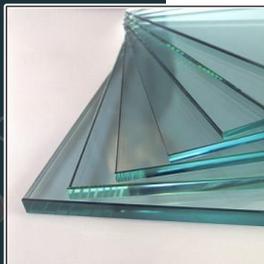
- advanced PLC with HMI touchscreen controls simplify operation and require minimal training
- innovative piston valves significantly reduce maintenance schedules and minimize downtime

Fits any application

- maximum design operating pressure of 10 barg (16 barg optional)
- available in a wide range of flow rates and purities from 95% - 99.999%
- can handle any power supply from 110 to 240 VAC in 50 or 60 Hz, 24VDC optional

Design quality

- Mass flow controller - ensuring correct set pressure and flow
- Integral oxygen analyser - constantly measuring gas purity
- Purity guarantee valve - automatically vents off out of specification gas
- Remote monitoring - enabling connection to proprietary remote management and generator control systems



TECHNICAL SPECIFICATIONS

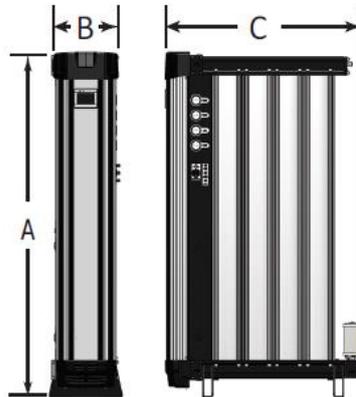
Maximum inlet particulate	0.1 µm
Maximum inlet oil content ⁽⁴⁾	0.01 ppm
Minimum operating pressure	6 barg
Maximum operating pressure ⁽²⁾	10 barg
Required inlet dew point ⁽³⁾	-40°C pdp
Recommended operating temperature range	10 to 40°C
Design operating temperature range	10 to 50°C
Power supply requirements	110 to 240 V AC / 50 to 60 Hz

OPTIONS AND ACCESSORIES

Needle Valve	-
Galvanic ppm sensor	>99.9%
Zirconia oxygen sensor	-
Additional mass flow controller	>60 Nm ³ /hr
Large mass flow controller	>120 Nm ³ /hr
24V DC control	-
High pressure option	Up to 16 barg
4-20 mA re-transmission	-

SIZES

Model	Rated outlet flow ⁽¹⁾	Nitrogen purity at the outlet (maximum oxygen content)												Approx Weight			
		99.9999% (10 ppm)	99.9995% (50 ppm)	99.999% (100 ppm)	99.975% (250 ppm)	99.95% (500 ppm)	99.9% (0.10%)	99.5% (0.50%)	99% (1%)	98% (2%)	97% (3%)	96% (4%)	95% (5%)	A	B	C	Kg
1110	Nm ³ /h	1.4	2.0	2.3	2.7	3.1	3.6	5.2	5.8	9.3	8.3	9.5	10.3	1214	399	584	170
2110	Nm ³ /h	2.8	4.0	4.6	5.5	6.3	7.3	10.4	11.6	14.5	16.7	19.0	20.6	1214	399	752	198
3110	Nm ³ /h	4.2	5.9	6.9	8.2	9.4	10.9	15.6	17.3	21.8	25.0	28.5	30.9	1214	399	919	254
2130	Nm ³ /h	5.1	7.2	8.9	10.0	11.4	13.2	18.9	21.0	26.4	30.3	34.5	37.5	1811	399	752	267
3130	Nm ³ /h	7.7	10.8	12.6	15.0	17.1	19.8	28.4	31.5	39.6	45.5	51.8	56.3	1811	399	919	354
4130	Nm ³ /h	10.2	14.4	16.8	20.0	22.8	26.4	37.8	42.0	2.8	60.6	69.0	75.0	1811	399	1087	441
6130	Nm ³ /h	15.3	21.6	25.2	30.0	34.2	39.6	56.7	63.0	79.2	90.9	103.5	112.5	1811	399	1420	615
8130	Nm ³ /h	20.4	28.8	33.6	40.0	45.6	52.8	75.6	84.0	105.6	121.2	138.0	150.0	1811	399	1760	789
10130	Nm ³ /h	23.5	33.1	38.6	46.0	52.4	60.7	86.9	96.6	121.4	139.4	158.7	172.5	1811	399	2096	963
12130	Nm ³ /h	27.2	38.4	44.9	53.3	60.9	70.5	100.9	112.1	141.0	161.8	184.2	200.3	1811	399	2428	1137



CORRECTION FACTORS

Pressure correction factors ⁽⁵⁾

Inlet air pressure (barg)	6	7	8	9	10-16
Correction factor	0.88	1.00	1.10	1.20	1.20

Temperature and dew point correction factors ⁽⁵⁾

Inlet air temperature (°C)	5	10	15	20	25	30	35	40	45	50
Correction factor	0.80	0.90	0.94	1.00	1.00	0.8	0.95	0.90	0.85	0.72

- (1) *at inlet conditions of 7 barg and 20°C to 25°C ambient temperature. For outlet flow at all other operating conditions contact us or refer to correction factors above*
- (2) *for pressures above 10 barg, contact us*
- (3) *requires an upstream dryer*
- (4) *including oil vapour*
- (5) *to be used as an approximate guide only. All applications should be confirmed by us. Contact us for sizing assistance*

