

Nitrogen generators with pressure swing adsorption technology

PPNG 100-800 HE



The PPNG 100-800 HE is Pneumatech's premium high-flow PSA nitrogen generator, delivering best-in-class performance, efficiency, and purity. It offers superior reliability and a long lifetime, even when installed outside. An innovative PSA cycle, highly efficient Carbon Molecular Sieves (CMS), and our unique Variable Flow Saver technology ensure maximum energy savings and sustainability.

PSA nitrogen generation

The PPNG HE uses Pressure Swing Adsorption (PSA) technology to separate nitrogen from compressed air. As the air passes through a vessel filled with Carbon Molecular Sieves (CMS), the oxygen and other trace gases in the air are adsorbed by the CMS, leaving only nitrogen with a purity of up to 99.999% to reach the outlet. PSA generators are ideal for high-purity, high-flow applications.

Features and benefits:

- Outstanding air factors with innovative PSA cycle design
- High-quality, high-efficiency Carbon Molecular Sieves
- Variable Flow Saver decreases air consumption at low nitrogen demand, reducing it to zero when no nitrogen is consumed
- Purity selection up to 99.999%
- Guaranteed purity thanks to automatic regulation and zirconia sensors
- Designed and tested for cyclic load
- Robust welded design and protective features ensure long CMS and generator lifetime
- Optional outdoor installation saves on floor space
- Optimal control, monitoring and connectivity thanks to Purelogic™ Controller

General Specifications

- Pressure Swing Adsorption (PSA) nitrogen generator
- Nitrogen purity achievable: 95%-99.9% (PCT) & 99.95%-99.999% (PPM)
- Inlet pressure range: 5-10 barg/72-150 psig
- Ambient temperature range: 5-50°C/41-122°F (-10-50°C/14-122°F with desiccant dryer)
- Required inlet air quality: 2-4-1 according to ISO 8573-1:2010 (2:3:1 required for lower than 5°C/41°F ambient)
- Power supply: 115V AC/230V AC & 50/60Hz

Best-in-class PSA performance



Guaranteed purity



- Zirconia sensors provide reliable purity measurement

Long lifetime



- A heavy-duty welded design and a host of protective features ensure a long lifetime of the machine.

Efficiency



- Our innovative PSA cycle and high-efficiency CMS deliver best-in-class efficiency to keep energy costs low.

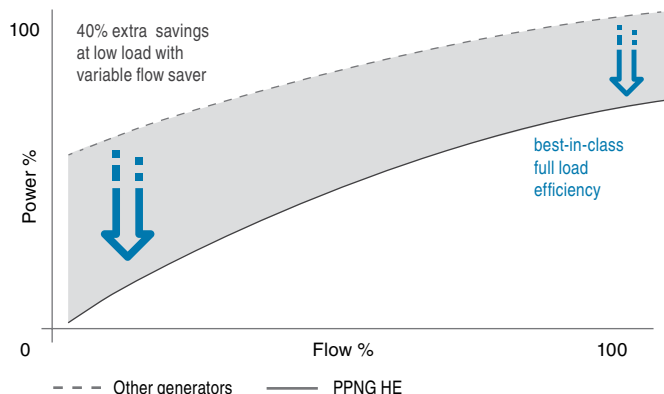
Advanced Purelogic™ Controller

- Self-protective monitoring of the feed air quality
- Nitrogen flow, purity and pressure measurement and control
- Optional 24/7 ICONS remote monitoring of flow, pressure, purity and all other key data in real time

Outdoor installation



- Save on valuable floor space! The PPNG HE's robust design allows for outdoor installation in temperatures down to -10°C/14°F.



VFS: 40% savings at low load



Traditional nitrogen generators maintain a constant PSA cycle, regardless of the nitrogen demand. Thanks to the Variable Flow Saver algorithm, the PPNG HE is able to match the lower demand by adapting the PSA cycle and the feed air intake. The result: you enjoy up to 40% additional energy savings.

Technical specifications for PPNG 100-800 HE

Specifications	Variant	Product → Purity ↓	Units	PPNG 100 HE	PPNG 125 HE	PPNG 150 HE	PPNG 200 HE	PPNG 250 HE	PPNG 300 HE	PPNG 350 HE	PPNG 400 HE	PPNG 500 HE	PPNG 650 HE	PPNG 800 HE
Nominal free nitrogen delivery (1)	PCT(%)	95%	m³/h	312.9	393.3	518.0	669.4	819.6	969.9	1187.4	1420.6	1779.7	2257.7	2870.9
		99.5%		157.3	197.8	251.6	325.2	398.2	471.1	576.8	690.1	864.6	1096.7	1394.6
	PPM	99.999%		45.9	57.7	67.6	87.4	107.0	126.6	155.1	185.5	232.3	294.7	374.7
Pressure dewpoint outlet			°C/°F	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
Length			mm	1700	1700	1846	1846	1846	2100	2100	2100	3121	3121	3121
			inch	66.9	66.9	72.7	72.7	72.7	82.7	82.7	82.7	122.9	122.9	122.9
Width			mm	1830	1830	2296	2380	2496	2703	2780	2880	3684	3773	3860
			inch	72.0	72.0	90.4	93.7	98.3	106.4	109.4	113.4	145.0	148.5	152.0
Height			mm	2055	2370	2620	2633	2620	3028	3022	3025	3987	4211	4423
			inch	80.9	93.3	103.1	103.7	103.1	119.2	119.0	119.1	157.0	165.8	174.1
Mass			kg	2400	2630	3319	3907	4865	5687	6403	7360	8755	10619	12368
			lbs	1088.4	1192.7	1505.2	1771.9	2206.3	2579.1	2903.9	3337.9	3970.5	4815.9	5609.1
Inlet connections			G/NPT	DN50	DN50	DN80	DN80	DN80	DN100	DN100	DN100	DN150	DN150	DN150
Outlet connections			G/NPT	DN25	DN25	DN50	DN50	DN50	DN50	DN50	DN50	DN50	DN50	DN50

(1) Flow is measured at reference conditions: 1 bara and 20°C at operating pressure of 7 barg, inlet temperature 20°C/68°F & air inlet quality of ISO 8573-1:2010 class 2-4-1

Options

Outlet dewpoint sensor

Monitors the outlet nitrogen pressure dewpoint for critical applications.

External room oxygen monitor

Measures the oxygen level in a room to ensure safety.

Low ambient temperature version

Allows the generator to run in temperatures down to -10°C/14°F.

Low pdp sensor option

If the inlet air pressure dewpoint is -50°C/-58°F or below, a sensor calibrated for these low dewpoints can be provided.

NEMA 4X / IP65 control box

Stainless steel enclosure shields the controller in outdoor installations, protecting it from corrosion and extreme conditions.