

Gas Generators

Pneumatech designs and manufactures both standard and engineered on-site gas generator products. Nitrogen and oxygen generators are available with Pressure Swing Adsorption (PSA) technology, resulting in nitrogen purities up to 99,999% and oxygen purities up to 95%. Membrane technology is also offered for nitrogen purity levels up to 99,5%.

Pre-defined high-pressure nitrogen skids have been developed as a plug-and-play solution for various applications like laser-cutting. Our engineering department hence becomes your best partner for all kinds of special requests.



PPNG 6 - 90 HE - Nitrogen generator with pressure swing adsorption technology

Features & Benefits

- ▶ Variable Flow Saver algorithm
 - PPNG 6-90 HE is able to match the lower demand by adapting the PSA cycle and the feed air intake
 - Upto 70% additional energy savings
- ▶ Advanced energy saving control
 - Reduced air consumption at low nitrogen demand
 - Also compensates for altering ambient conditions and purity settings
 - No compressed air use when no nitrogen is consumed
- ▶ Outstanding air factors: thanks to optimised proprietary PSA cycle
- ▶ High-quality, highest efficiency CMS on the market
- ▶ Guaranteed purity
 - Automatically regulates to the requested nitrogen pressure and purity
 - Minimum purity setting: blow off to protect the customers process if the purity isn't reached
 - Zirconia sensors for reliable purity measurement
- ▶ Designed & tested for cyclic load
- ▶ Optimal control and monitoring thanks to Purelogic™ Controller
 - Self-protective monitoring of the feed air quality
 - Feed-air blow-off in case of off-spec conditions
 - Nitrogen flow, purity and pressure measured and controlled
 - Automatic start-up
 - ICONS remote control and connectivity

General Specifications

- ▶ Pressure Swing Adsorption (PSA) nitrogen generators - extruded profile design
- ▶ Nitrogen purity achievable: 95% - 99.9% (PCT Variant) & 99.95%-99.999% (PPM variant)
- ▶ Inlet pressure range: 4-13 barg /60-189 psig
- ▶ Inlet temperature range: 5-60°C/41-140°F
- ▶ Required inlet air quality: 1-4-1 according to ISO 8573-1:2010
- ▶ Power supply: 115-230VAC/50-60Hz
- ▶ IEC, UL and CRN approvals



Options



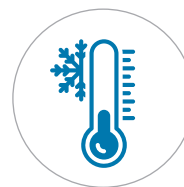
Wooden Packaging



Outlet (N₂) dewpoint sensor



Room oxygen monitor (wall mounted)



Low ambient option

The PPNG 6-90 HE series is Pneumatech's premium on-site nitrogen solution for low to medium flows, with best-in-class performance and the most complete scope of supply.

The generator has outstanding air factors at full load thanks to the use of highly efficient Carbon Molecular Sieves (CMS) and back-flow pressurization.

The air consumption is also optimized at reduced nitrogen flow or pressure demands, thanks to the advanced energy

saving algorithm, which automatically adjusts the cycle times of the generator.

The control and monitoring capabilities of the PPNG 6-90 HE are truly impressive. Purity is guaranteed at all times by opening the consumer valve only at the requested purity level and flushing nitrogen when purity is not reached. Feed air quality is controlled by monitoring temperature, pressure and PDP. The feed air is blown off in case of contamination. All risks of possible CMS damage are eliminated thanks to the automatic start-up feature.

Technical specifications for PPNG 6 - 90 HE																		
Specifications	Units	Variant	Product→ Purity ↓	PPNG 6 HE	PPNG 7 HE	PPNG 9 HE	PPNG 12 HE	PPNG 15 HE	PPNG 18 HE	PPNG 22 HE	PPNG 28 HE	PPNG 30 HE	PPNG 37 HE	PPNG 41 HE	PPNG 50 HE	PPNG 65 HE	PPNG 75 HE	PPNG 90 HE
Nominal free nitrogen delivery ⁽¹⁾	Nm³/hr	PCT (%)	95	18.2	23.4	28.7	36.4	46.9	57.3	70.3	86.0	93.8	114.7	128.9	157.7	184.8	211.4	264.3
			99.9	5.7	7.3	8.9	11.3	14.6	17.9	21.9	26.8	29.2	35.7	40.7	49.8	64.4	72.9	91.1
		PPM (%)	99.999	1.92	2.47	3.0	3.8	4.9	6.0	8.0	9.7	10.6	13.0	15.9	19.5	26.3	29.8	37.2
Pressure dewpoint outlet	°C /°F			-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
Maximum pressure drop		PCT (%)	95	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.9	0.9	0.4	0.5	0.8
	99.9		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.2	0.2	0.3
		PCT (%)	99.999	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
Length	mm			775	775	775	775	775	775	1400	1400	1400	1400	1400	1400	1400	1400	1400
	inch			31	31	31	31	31	31	55	55	55	55	55	55	55	55	55
Width	mm			840	840	840	840	840	840	840	840	840	840	840	840	970	970	970
	inch			33	33	33	33	33	33	33	33	33	33	33	33	38	38	38
Height	mm			2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2067	2067	2067
	inch			79	79	79	79	79	79	79	79	79	79	79	79	81	81	81
Mass	kg			310	325	340	380	403	425	545	590	645	705	830	910	1140	1140	1560
	lbs			683	716	749	838	888	937	1201	1301	1422	1554	1830	2006	2513	2513	3439
Inlet and outlet connections	G/NPT			1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"

1. Flow is measured at Reference Conditions: 1 bara and 20°C at operating pressure of 7 barg, inlet temperature 20°C & Air Inlet Quality of ISO 8573-1:2010 class 1-4-1

PPNG 6 - 68 S - Nitrogen generator with pressure swing adsorption technology

Features & Benefits

- ▶ Energy saving control
- ▶ Outstanding air factors thanks to back-flow pressurization
- ▶ High-quality, high-efficient Carbon Molecular Sieves selected for the right application
- ▶ Guaranteed purity
 - Zirconia sensors for reliable purity measurement
 - Dedicated high purity variants
 - Purity certificates
- ▶ Designed & tested for cyclic load
- ▶ Reliable, efficient and low-maintenance angle seat valves
- ▶ Carefully designed exhaust silencers resulting in quiet and safe operation of the generator
- ▶ Optimal control and monitoring thanks to Purelogic™ Controller

General Specifications

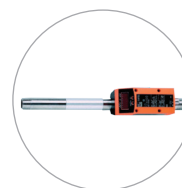
- ▶ Pressure Swing Adsorption (PSA) nitrogen generators - extruded profile design
- ▶ Nitrogen purity achievable:
95% - 99.9% (PCT Variant) & 99.95%-99.999% (PPM variant)
- ▶ Inlet pressure range: 4-13 barg /60-189 psig
- ▶ Inlet temperature range: 5-60°C/41-140°F
- ▶ Required inlet air quality:
1-4-1 according to ISO 8573-1:2010
- ▶ Power supply: 115-230VAC/50-60Hz



Options



Wooden packaging



Flow meter



PDP sensor kit

The PPNG 6-68s series provides an efficient source of nitrogen for use in various industries like food and beverage, pharma, electronics and plastics. PPNG nitrogen generators use Pressure Swing Adsorption technology to extract nitrogen molecules from the compressed air; and can reach purities from 95% up to 99,999%. Nitrogen pressures can go up to 12 barg without the need for an additional booster. The air factors of the PPNG6-68s range are outstanding, making the return on investment very attractive compared to traditional gas supply.

With its PPNG 6-68s series, Pneumatech follows the plug and play philosophy. Pressure vessels, valves, exhaust system,

sensors and controls are all integrated within a compact canopy, designed for easy transport, installation and service.

The Purelogic™ is the central brain of the nitrogen generator. It optimizes operating costs thanks to the availability of the energy saving control; ensures maximum reliability by keeping track of the most important parameters of the generator; and offers impressive control and monitoring capabilities.

The optional flow meter and inlet pressure dew point sensor can be added to the scope of supply to further exploit the monitoring capabilities of the Purelogic™ controller.

Technical specifications for PPNG 6-68 S

Specifications	Units	Variant	Product → Purity ↓	PPNG 6S	PPNG 7S	PPNG 9S	PPNG 12S	PPNG 15S	PPNG 18S	PPNG 22S	PPNG 28S	PPNG 30S	PPNG 37S	PPNG 41S	PPNG 50S	PPNG 63S	PPNG 68S
Nominal free nitrogen delivery ⁽¹⁾	Nm³/hr	PCT (%)	95	22.3	28.8	35.2	44.7	57.5	70.3	86.3	105.5	115.0	140.7	159.7	NA	NA	NA
			99.9	5.9	7.6	9.3	11.8	15.2	18.6	22.8	27.9	30.4	37.2	45.6	55.8	59.1	64.7
		PPM (%)	99.999	1.7	2.2	2.7	3.4	4.4	5.3	7.1	8.7	9.5	11.6	14.3	17.4	20.5	23.3
Nominal air consumption ⁽¹⁾	Nm³/hr	PCT (%)	95	43.1	55.5	67.9	86.3	111.0	135.8	166.5	203.7	222.0	271.5	308.3	NA	NA	NA
			99.9	23.9	30.8	37.7	47.9	61.6	75.3	92.4	113.0	123.2	150.7	182.5	223.3	226.8	258.6
		PPM (%)	99.999	11.5	14.8	18.1	22.9	29.5	36.1	47.4	58.0	63.2	77.3	93.4	114.2	122.4	152.3
Air Factor	-	PCT (%)	95	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	NA	NA	NA
			99.9	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.05	4.00	4.00	3.84	4.00
		PPM (%)	99.999	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.7	6.7	6.7	6.6	6.6	6.0	6.6
Pressure dewpoint outlet	°C / °F			-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
Maximum pressure drop	barg	PCT (%)	95	0.8	0.8	0.8	1	1	1.1	1.2	1.2	1.2	1.2	1.4	NA	NA	NA
	barg		99.9	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.9	1
	barg	PCT (%)	99.999	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.7
Length	mm			798	798	798	798	798	798	1422	1422	1422	1422	1422	1422	1422	1422
	inch			31	31	31	31	31	31	56	56	56	56	56	56	56	56
Width	mm			840	840	840	840	840	840	840	840	840	840	970	970	970	970
	inch			33	33	33	33	33	33	33	33	33	33	38	38	38	38
Height	mm			2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022
	inch			80	80	80	80	80	80	80	80	80	80	80	80	80	80
Mass	kg			244	257	270	306	339	360	599	627	663	716	805	1018	1191	1191
	lbs			538	567	595	675	747	794	1321	1382	1462	1579	1775	2244	2626	2626
Inlet and outlet connections	G/NPT			1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"	1"

1. Flow is measured at Reference Conditions: 1 bara and 20°C at operating pressure of 7 barg, inlet temperature 20°C & Air Inlet Quality of ISO 8573-1:2010 class 1-4-1

PPNG 100 - 800 HE - Nitrogen generators with pressure swing adsorption technology

Features & 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

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.



Options



Wooden packaging



Outlet PDP sensor

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

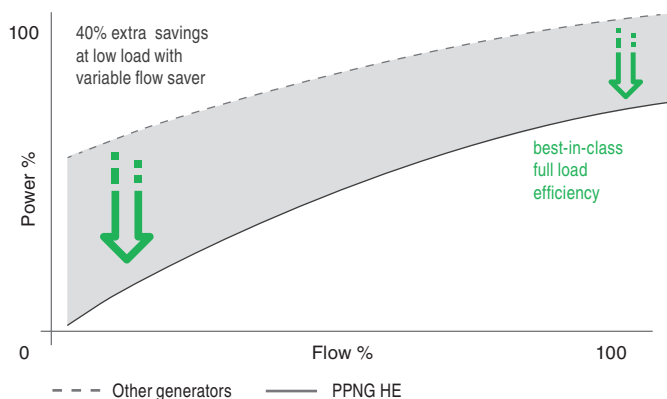


- Self-protective monitoring of the feed air quality
- Nitrogen flow, purity and pressure measurement and control
- Optional 24/7 ICONS remote monitoring of flow, pressure, purity and all other key data in real time

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.

PPNG 1-12 skid HE - High-pressure nitrogen skid

Features & Benefits

- ▶ All-in-one solution with all components built-in and piped together
- ▶ Single power supply for the complete skid
- ▶ 30% more efficient than other high-pressure N₂ packages
- ▶ All components are built and tested to work together optimally
- ▶ 40-bar and 300-bar version in different sizes and with a wide range of options
- ▶ VSD compressor delivers double-digit energy savings and emissions reductions
- ▶ 40 or 300-bar booster sized to minimize power use
- ▶ High-efficiency PSA generator with purity selection up to 99.999%
- ▶ Additional filtration is built in as standard to protect critical N₂ applications
- ▶ Optimal control, monitoring and connectivity thanks to Purelogic™ Controller
- ▶ Forklift slots for easy lifting and moving

General Specifications

- ▶ Purity range: 99.95% to 99.999%*
- ▶ Outlet pressures available: 40 barg and 300 barg**
- ▶ Ambient temperature range: 5-50°C/41-122°F***
- ▶ Power supply: 400/3/50 (460/3/60 available upon request)

* Lower purities available upon request

** Different pressures available upon request

*** Above 35°C applications an oversized refrigerant dryer should be selected

Meet Pneumatech's all-in-one high-pressure nitrogen solution. The PPNG skid HE is the complete on-site nitrogen generation system that frees you from dependency on external suppliers. The PPNG skid HE comes in two versions: 40-bar for peak and on-demand nitrogen and 300-bar with bottle storage. Each comes in different sizes to meet your specific needs. Supremely easy to install and operate, the PPNG skid HE ensures an always dependable nitrogen supply while significantly lowering your operational costs.

An all-in-one N₂ solution

The PPNG skid HE combines all components of a nitrogen generation system on one sturdy base frame: a VSD compressor, a high-pressure booster, a PSA nitrogen generator, and all necessary air and nitrogen storage and treatment. No need to specify, integrate, and commission all these separate components. Instead, you get a complete plug-and-play system with just one power supply and one nitrogen connection to manage.

Options

Pressure regulators

Regulate the stored nitrogen pressure to the required application pressure.

Gas mixers

Allow mixing of nitrogen and oxygen for mixed gas applications.

External room oxygen monitor

Measures the oxygen level in a room to ensure safety.

Additional storage

K6 – 6 x 50L cylinders up to 300 Barg, maximum 90 Nm3 volume

K12 – 12 x 50L cylinders up to 300 Barg, maximum 180 Nm3 volume

K16 – 16 x 50L cylinders up to 300 Barg, maximum 240 Nm3 volume

High ambient temperature version

The unit comes as standard with a connection for an optional oversized refrigerant dryer to be easily connected to allow for reliable operation in temperatures higher than 35°C/95°C.

A complete nitrogen system

PPNG HE nitrogen generator: Efficient performance and guaranteed nitrogen purity up to 99.999%.

Purelogic™ controller: Optimal control and easy local and remote monitoring.

4-stage inlet filtration: Guaranteed air quality safeguards the N₂ generator and user applications.

Variable speed drive compressor with integrated refrigerant dryer: Guaranteed stable supply of pressure with double-digit reductions in energy use and emissions.

40 barg receiver or 300 barg cylinder nitrogen storage: Bottle rack with up to 16 high-pressure cylinders or a 40 barg receiver help manage peak demands by providing stored N₂.

40 barg or 300 barg nitrogen booster: Sized to minimize power consumption and number of start/stops.

Additional filtration: Removes contaminants for sensitive applications.

Local control panel and distribution board: One panel to power and control the complete system.



Technical specifications for PPNG 1-12 skid HE

Pneumatech variant	PPNG Skid 1 HE	PPNG Skid 2 HE	PPNG Skid 3 HE	PPNG Skid 4 HE	PPNG Skid 5 HE	PPNG Skid 6 HE	PPNG Skid 7 HE	PPNG Skid 8 HE	PPNG Skid 9 HE	PPNG Skid 10 HE	PPNG Skid 11 HE	PPNG Skid 12 HE
N ₂ pressure - Nominal	40	40	40	40	40	40	300	300	300	300	300	300
N ₂ capacity - 99.95%	8.9	14.0	21.6	31.5	36.9	73.8	9.9	14.9	24.0	36.0	38.0	80.4
N ₂ capacity - 99.99%	6.6	10.4	20.6	30.3	36.9	73.8	7.3	11.1	22.9	32.9	38.0	80.4
N ₂ capacity - 99.999%	4.1	6.3	13.6	20.4	27.2	49.7	4.5	6.9	15.1	22.4	29.0	55.2
Compressor model	8 kw	11 kw	15 kw	22 kw	31 kw	45 kw	8 kw	8 kw	15 kw	19 kw	22 kw	45 kw
Inlet filtration	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D	PMH G - C - VT - D
Air / N ₂ buffer vessels (Litres)	500	500	1000	1000	1500	2000	500	500	1000	1000	1500	2000
Nitrogen generator	PPNG12 HE	PPNG18 HE	PPNG37 HE	PPNG50 HE	PPNG68 HE	PPNG100 HE	PPNG12 HE	PPNG18 HE	PPNG37 HE	PPNG50 HE	PPNG68 HE	PPNG100 HE
Nitrogen LP storage	1000	1000	1000	1500	1000	2000	1000	1000	1000	1000	1000	1000
Nitrogen booster	7.5 kw	7.5 kw	7.5 kw	7.5 kw	7.5 kw	7.5 kw	5.5 kw	5.5 kw	5.5 kw	11 kw	11 kw	2x11 kw
HP filtration	50 Barg G - C - V - D	50 Barg G - C - V - D	50 Barg G - C - V - D	50 Barg G - C - V - D	50 Barg G - C - V - D	50 Barg G - C - V - D	HP V filter	HP V filter	HP V filter	HP V filter	HP V filter	HP V filter
HP storage	45 Barg 500L	45 Barg 500L	45 Barg 1000L	45 Barg 1000L	45 Barg 1000L	45 Barg 1000L	12 x 50L X 300 Barg	12 x 50L X 300 Barg	12 x 50L X 300 Barg	16 x 50L x 300 Barg	16 x 50L x 300 Barg	16 x 50L x 300 Barg

(1) Flow specified is at the outlet of the PPNG HE generator measured in Nm³/h at reference conditions: 1 bara and 20°C

(2) For the capacity at higher ambient temperatures please refer to our skid sizing calculator.

(3) 300 Barg skids will be set as standard to 290 Barg off-load pressure.

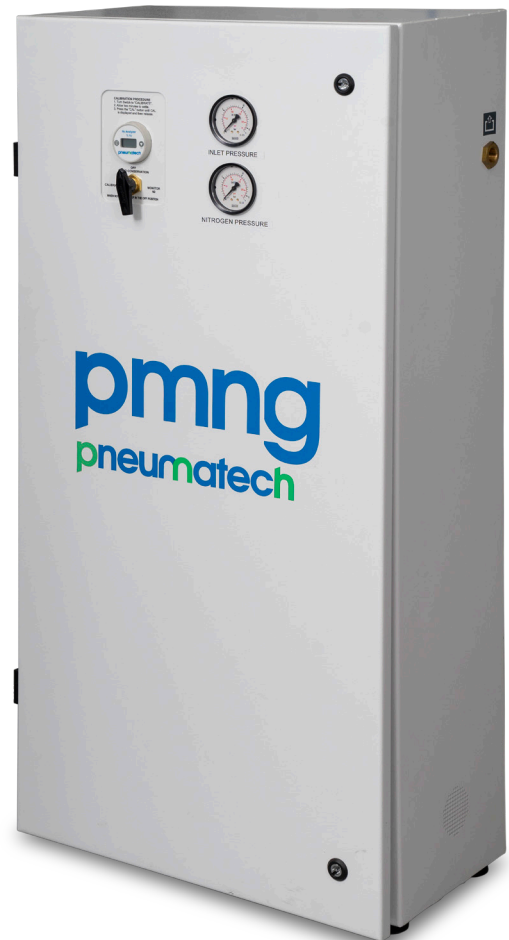
PMNG 1 - 3 - Nitrogen generator with membrane technology

Features & Benefits

- ▶ High Quality membrane separator
 - Superior membrane constructed from high quality Aluminum with technically advance fiber.
 - N₂ Generation is achieved without any moving part
 - Outstanding performance for 90-99,5% Nitrogen separation
- ▶ Simple, reliable and user friendly
 - All-in-one plug & play solution
 - All filters integrated in enclosed canopy design
 - Instant supply of nitrogen
 - No specialist installation or commissioning
- ▶ 3-stage pre-filtration integrated in the canopy
- ▶ No power supply required thanks to Pneumatic controlled valves & battery-powered nitrogen analyzer
- ▶ Guaranteed purity
 - Nitrogen analyzer (battery powered) with auto-calibration button (optional)
 - Purity controller to ensure constant N₂ purity at all times
- ▶ Compressed Air savings when desired purity is reached
 - Economizer (pneumatic) automatically stops air consumption when target pressure is reached

General Specifications

- ▶ Membrane Nitrogen Generators
- ▶ Nitrogen purity achievable: 90%-99.5%
- ▶ Inlet pressure range: 4-13 bar/60-189 PSI
- ▶ Inlet temperature range: 5-50°C/41-122°C
- ▶ Required inlet air quality: 1-4-1 according to ISO 8573-1:2010



Options



Economizer



Nitrogen analyser
(battery powered)



Mobile
version

Pneumatech's new smaller range of PMNG nitrogen generators utilizes proprietary membrane separation technology. Membrane generators are an excellent choice in low (90%) to medium (99,5%) purity applications such as tire inflation, fire prevention, tank blanketing and pipeline drying. Nitrogen pressures can go up to 12 bar (g) without the need for an additional booster.

Engineered for simplicity, durability and ease of use make the PMNG what we believe to be the most user friendly unit in the market. All pre-filters and controls are included inside the canopy. Only a supply of dry compressed air is needed to get nitrogen at the outlet of the generator. Also the start-up procedure of the PMNG is made so straightforward that it does not require any specialist.

Pneumatech offers a purity controller that delivers true consistent purity downstream in ANY flow situation. Our simple design allows adjustments to be made easily, with a single screw. The purity is reliably monitored thanks to the optional battery operated Nitrogen Analyser. The optional Economiser system is designed to save the utility costs of operating the compressor and reduces the wear and tear on Air and Nitrogen Systems.

This cost effective solution from Pneumatech significantly reduces Nitrogen costs over traditional sources of Nitrogen supply.

Technical specifications for PMNG 1-3					
Specifications	Units	Product → Purity ↓	PMNG 1	PMNG 2	PMNG 3
Nominal air consumption	Nm³/hr	90%	15.48	30.96	46.44
		95%	9.72	19.44	29.16
		96%	9	18	27
		97%	7.56	15.12	22.68
		98%	6.84	13.68	16.92
		99%	6.12	12.24	18.36
		99.5%	5.76	11.52	17.28
Nominal free nitrogen delivery	Nm³/hr	90%	10.08	20.16	30.24
		95%	4.68	9.36	14.04
		96%	3.96	7.92	11.88
		97%	3.24	6.48	9.72
		98%	2.52	5.04	7.56
		99%	1.8	3.6	5.4
		99.5%	1.44	2.88	4.32
Air factor	-	90%	1.5	1.5	1.5
		95%	2.1	2.1	2.1
		96%	2.3	2.3	2.3
		97%	2.3	2.3	2.3
		98%	2.7	2.7	2.7
		99%	3.4	3.4	3.4
		99.5%	4.0	4.0	4.0
Pressure dewpoint outlet	°C /°F		-40	-40	-40
Length	mm		560.0	560.0	560.0
	inch		22.0	22.0	22.0
Width	mm		285.0	285.0	285.0
	inch		11.0	11.0	11.0
Height	mm		1150.0	1150.0	1150.0
	inch		45.0	45.0	45.0
Mass	kg		60.0	62.0	65.0
	lbs		132.3	136.7	143.3
Inlet connections	G		G1/2"	G1/2"	G1/2"
Outlet connections	G		G1/2"	G1/2"	G1/2"

1. Flow is measured at reference conditions: 1 Bar(a) and 20°C at operating pressure of 8 bar (g), inlet temperature 20°C & Air Inlet Quality of ISO 8573-1:2010 class 1-4-1.

PMNG 4 - 40 HE - Nitrogen generators with membrane technology

Features & Benefits

- ▶ Reduced air consumption by 35% on average (up to 51%) versus other membrane generators
- ▶ More flow in the same compact footprint
- ▶ All-in-one plug & play solution
- ▶ Very low sound levels
- ▶ Instant purity selection between 95% and 99.5%
- ▶ Proprietary membrane technology ensuring lasting performance
- ▶ No heater (which requires extra power) needed
- ▶ Guaranteed purity
- ▶ Reliable purity measurement
- ▶ All filters integrated in canopy
- ▶ No buffer vessels required
- ▶ Instant supply of nitrogen
- ▶ No specialist installation or commissioning
- ▶ Optimal control, monitoring and connectivity thanks to new Purelogic™ Controller

General Specifications

- ▶ Membrane Nitrogen Generators
- ▶ Nitrogen purity achievable: 95%-99.5%
- ▶ Inlet pressure range: 4-13 barg/60-189 psig
- ▶ Inlet temperature range: 5-50°C/41-122°F
- ▶ Required inlet air quality: -4:- according to ISO 8573-1:2010
- ▶ Power supply: 115-230VAC/50-60Hz



Options

Oil indicator

Monitors the oil level of the air going into the membranes.

Flow sensor

Ensures 24/7 nitrogen flow monitoring.

Inlet dewpoint sensor

Monitors the inlet dewpoint and triggers a shutdown warning if the dewpoint is too high.

Outlet dewpoint sensor

Visualises the outlet pressure dewpoint for critical applications.

High ambient temperature software

Protects the unit in high ambient conditions.

With the PMNG HE, on-site nitrogen production becomes exceptionally convenient and cost-efficient. A true all-in-one solution, the PMNG HE is ready to go the minute you connect it to your compressor. You don't even need additional process vessels or filtration. You save on floor space too, as the compact and quiet unit can be installed at the point of use. And its 35% on average lower energy use reduces your operational costs and environmental impact.

Membrane nitrogen generation

The PMNG HE uses membrane technology, a very simple, reliable and continuous nitrogen production method. Hollow polymer membranes separate nitrogen from compressed air, permeating enriched oxygen into the atmosphere and leaving quality nitrogen with a purity between 95% and 99.5% at outlet.

Best-in-class membrane technology

- Save 35% on average and up to 51% on running costs compared to other membrane nitrogen generators.
- Everything you need to generate nitrogen is built into the box. No external tanks or filters are needed.
- Top end models provide 43% more flow in the same small
- Thanks to its extremely low sound levels, the PMNG HE can be comfortably installed at the point of use without disturbing operators. canopy size.
- Everything you need to generate nitrogen is built into the box. No external tanks or filters are needed.

Technical specifications for PMNG 4-40 HE												
Specifications	Product → Purity ↓	Units	PMNG 4 HE	PMNG 8 HE	PMNG 12 HE	PMNG 16 HE	PMNG 20 HE	PMNG 24 HE	PMNG 28 HE	PMNG 32 HE	PMNG 36 HE	PMNG 40 HE
Nominal free nitrogen delivery	95%	Nm ³ /h	24.7	49.4	74.1	98.8	123.5	148.2	172.9	197.5	222.2	246.9
	96%		20.9	41.8	62.7	83.6	104.5	125.5	146.4	167.3	188.2	209.1
	97%		17.2	34.5	51.7	68.9	86.2	103.4	120.6	137.9	155.1	172.4
	98%		13.4	26.8	40.3	53.7	67.1	80.5	93.9	107.4	120.8	134.2
	99%		9.6	19.3	28.9	38.5	48.1	57.8	67.4	77.0	86.6	96.3
	99.5%		7.1	14.2	21.4	28.5	35.6	42.7	49.9	57.0	64.1	71.2
Length	inch		32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.3
	mm		820	820	820	820	820	820	820	820	820	820
Width	inch		30.4	30.4	57.9	57.9	57.9	57.9	57.9	57.9	57.9	57.9
	mm		772	772	1470	1470	1470	1470	1470	1470	1470	1470
Height	inch		82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3	82.3
	mm		2090	2090	2090	2090	2090	2090	2090	2090	2090	2090
Mass	lbs		502.7	553.5	1040.8	1100.3	1219.4	1270.1	1360.5	1415.6	1517.0	1572.2
	kg		228	251	472	499	553	576	617	642	688	713
Shipping length	inch		38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9	38.9
	mm		988	988	988	988	988	988	988	988	988	988
Shipping width	inch		32.4	32.4	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
	mm		822	822	1375	1375	1375	1375	1375	1375	1375	1375
Shipping height	inch		92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1	92.1
	mm		2340	2340	2340	2340	2340	2340	2340	2340	2340	2340
Shipping mass	lbs		638.1	688.8	1212.8	1272.3	1391.4	1442.1	1532.5	1587.6	1689.0	1744.2
	kg		289.4	312.4	550	577	631	654	695	720	766	791
Dimensions of inlet and outlet connections			1/2"	1/2"	1 1/2" - 1"	1 1/2" - 1"	1 1/2" - 1"	1 1/2" - 1"	1 1/2" - 1"	1 1/2" - 1"	1 1/2" - 1"	1 1/2" - 1"

(1) Flow is measured at reference conditions: 1 bara and 20°C at operating pressure of 8 barg, inlet temperature 20°C & air inlet quality of ISO 8573-1:2010 class -4:-

PPOG 2 - 18 HE - Oxygen generator with pressure swing adsorption technology

Features & Benefits

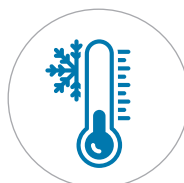
- ▶ 30% lower energy consumption than traditional generators
- ▶ 70% additional energy savings at low load
- ▶ Lowers your environmental impact
- ▶ Compact footprint
- ▶ Complete oxygen set-up: air and oxygen quality sensors, pressure regulator, and flow meters included
- ▶ Plug-and-play installation with automatic start-up
- ▶ Easy purity setting
- ▶ Guaranteed purity and cleanliness
- ▶ Optimal control and monitoring thanks to Purelogic™ Controller
- ▶ Connectivity to DCS, SCADA, and PLC systems available
- ▶ Available with IEC and CSA/UL approvals

General Specifications

- ▶ Pressure Swing Adsorption (PSA) Oxygen Generator
 - aluminum extrusions
- ▶ Oxygen purity achievable: 90%-95%
- ▶ Inlet pressure range: 4.5-10 barg /65-145 psig
- ▶ Inlet temperature range: 5-50°C/41-122°F (with the option for -10-50°C/14-122°F)
- ▶ Required inlet air quality: 1-4-1 according to ISO 8573-1:2010
- ▶ Power supply: 115-230VAC/50-60Hz



Options



Low ambient temperature option
(-10°C/14°F)



Oxygen pressure dewpoint sensor



Room oxygen monitor
(wall mounted)



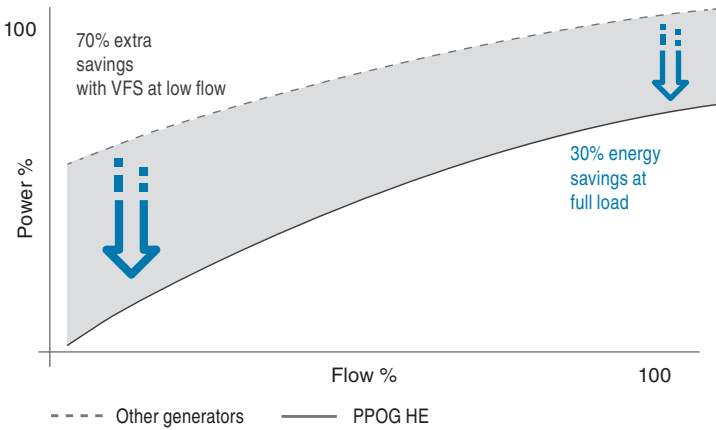
PDP sensor kit

The PPOG High-Efficiency is a true game changer in on-site oxygen generation. 30% more efficient than traditional oxygen generators, the PPOG HE gives you the oxygen volume, purity and reliability you need at a massively reduced cost and a smaller environmental footprint.

Traditional oxygen generators maintain a constant PSA cycle, regardless of the oxygen demand. Thanks to the Variable Flow Saver algorithm, the PPOG HE is able to match the lower demand by adapting the PSA cycle and the feed air intake. The result: you enjoy up to 70% additional energy savings.

Technical specifications for PPOG 2-18 HE										
Specifications	Oxygen purity	Units	PPOG2HE	PPOG4HE	PPOG5HE	PPOG7HE	PPOG9HE	PPOG10HE	PPOG14HE	PPOG18HE
Nominal free oxygen flow*	90%	Nm³/h	3.3	6.6	10.0	13.3	16.6	19.7	26.3	32.9
	93%		3.0	6.0	9.4	12.5	15.7	18.1	24.1	30.2
	95%		2.5	5.1	8.3	11.1	13.9	15.2	20.3	25.3
Pressure dewpoint outlet		°C/°F	-40	-40	-40	-40	-40	-40	-40	-40
Oxygen outlet quality			ISO 8573-1:2010 Class 1-2-1							
Length		mm	840	840	840	840	840	970	970	970
		inch	33.1	33.1	33.1	33.1	33.1	38.2	38.2	38.2
Width		mm	796	796	1421	1421	1421	1421	1421	1421
		inch	31.3	31.3	55.9	55.9	55.9	55.9	55.9	55.9
Height		mm	2015	2015	2015	2015	2015	2015	2015	2015
		inch	79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
Mass		kg	318	400	624	706	788	970	1134	1298
		lbs	701	882	1376	1556	1737	2138	2500	2862
Inlet and outlet connections			1/2"	1/2"	1"	1"	1"	1 1/4"	1 1/4"	1 1/4"

* Flow is measured at reference conditions: 1 bara and 20°C at operating pressure of compressed air of 6 barg and oxygen pressure at the outlet 5 barg, inlet temperature 20°C & air inlet quality of ISO 8573-1:2010 class 1-4-1



- Cleaned for oxygen use
- Air quality sensor at inlet protects your ZMS
- Oxygen sensor monitors quality and purity at outlet
- Pressure regulator and flow meters included as standard
- Antibacterial filters available for critical applications



PPOG 1 - 120 - Oxygen generator with pressure swing adsorption technology

Features & Benefits

- ▶ Energy saving control
- ▶ High-quality, high-efficient zeolite, selected for the right application
- ▶ Guaranteed purity
 - Zirconia sensors for reliable purity measurement
- ▶ Designed & tested for cyclic load
- ▶ Optimal control and monitoring thanks to Purelogic™ Controller
- ▶ Available with IEC and CSA/UL approvals

General Specifications

- ▶ Pressure Swing Adsorption (PSA) Oxygen Generators - welded vessels
- ▶ Oxygen purity achievable: 90%-95%
- ▶ Inlet pressure range:
4-7.5 barg /58-109 psig
- ▶ Inlet temperature range:
5-45°C/41-113 psig
- ▶ Required inlet air quality:
1-4-1 according to ISO 8573-1:2010
- ▶ Power supply: 115-230VAC/50-60Hz



Options



Seaworthy packaging



PDP sensor kit



Oxygen buffer vessels

Pneumatech gives oxygen to your business. With the PPOG range, Pneumatech offers an attractive replacement for traditional oxygen supply with very interesting returns on investment. The PPOG1-120 series uses Pressure Swing Adsorption technology to extract oxygen from compressed air, resulting in oxygen purity levels up to 95%.

The PPOG1-120 range is a welded vessel design, designed and tested for cyclic load. The Purelogic™ is the central brain of the generator. It optimizes operating costs thanks to the availability of the energy saving control; ensures maximum reliability by

monitoring the most important parameters of the generator; and offers impressive control and monitoring capabilities.

The calibrated flow meters are part of the standard scope of supply, in order to facilitate the start-up process and to provide transparency of the actual oxygen consumption. The optional oxygen buffer vessel is equipped with a pressure regulator, manometer and dust filter. Each of these components is approved for high-purity oxygen use. The optional inlet pressure dew point sensor provides additional security in case the upstream dryer would fail.

Technical specifications for PPOG 1-120																						
Specifications	Units	Product → Purity ↓	PPOG 1	PPOG 1.5	PPOG 2	PPOG 3	PPOG 4	PPOG 5	PPOG 6	PPOG 8	PPOG 11	PPOG 12	PPOG 14	PPOG 17	PPOG 20	PPOG 26	PPOG 33	PPOG 39	PPOG 50	PPOG 63	PPOG 93	PPOG 120
Nominal free oxygen delivery ⁽¹⁾	Nm ³ /hr	90%	2.0	3.1	3.8	4.6	6.6	7.9	9.7	14.2	18.5	20.3	23.4	29.3	35.1	45.3	56.0	66.1	85.5	106.8	157.7	203.5
		93%	1.6	2.5	3.5	4.3	5.6	7.3	9.0	13.4	18.3	19.3	21.4	27.6	33.0	42.7	51.9	64.1	79.4	101.7	154.6	188.2
		95%	1.5	2.3	3.4	4.0	5.4	6.9	8.3	12.2	15.4	18.3	20.3	26.3	31.6	39.2	48.8	57.0	74.3	93.6	143.4	175.0
Nominal air consumption	Nm ³ /hr	90%	22.6	30.5	36.6	54.9	73.3	103.8	103.8	157.5	192.3	219.8	256.4	329.6	366.3	518.9	634.8	799.6	982.8	1245.3	1867.9	2246.3
		93%	22.0	29.9	36.0	53.7	67.1	100.7	102.6	146.5	189.2	213.6	244.2	319.9	355.3	512.8	604.3	781.3	964.5	1220.8	1953.3	2228.0
		95%	21.4	28.7	35.4	51.9	65.9	97.7	102.6	140.4	170.9	207.5	238.1	313.1	347.9	500.5	586.0	763.0	915.6	1159.8	1892.3	2197.5
Average air/oxygen ratio		90%	11.1	10.0	9.7	12.0	11.1	13.1	10.7	11.1	10.4	10.8	11.0	11.3	10.4	11.5	11.3	12.1	11.5	11.7	11.8	11.0
		93%	13.5	11.8	10.4	12.6	12.0	13.8	11.5	10.9	10.3	11.1	11.4	11.6	10.8	12.0	11.6	12.2	12.2	12.0	12.6	11.8
		95%	14.0	12.3	10.5	13.1	12.2	14.1	12.3	11.5	11.1	11.3	11.7	11.9	11.0	12.8	12.0	13.4	12.3	12.4	13.2	12.6
Pressure dewpoint outlet (°C)	°C/°F		-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
Oxygen outlet quality			ISO8573-1:2010 Class 1-2-1																			
Length	mm		600.0	600.0	750.0	750.0	850.0	850.0	1120.0	1120.0	1190.0	1230.0	1230.0	1640.0	1765.0	1960.0	1960.0	1960.0	2470.0	2920.0	2470.0	2920.0
	inch		23.6	23.6	29.5	29.5	33.5	33.5	44.1	44.1	46.9	48.4	48.4	64.6	69.5	77.2	77.2	77.2	97.2	115.0	97.2	115.0
Width	mm		757.0	757.0	770.0	770.0	848.0	848.0	875.0	875.0	924.0	943.0	947.0	1108.0	1135.0	1175.0	1175.0	1175.0	1305.0	1440.0	2610.0	2880.0
	inch		29.8	29.8	30.3	30.3	33.4	33.4	34.4	34.4	36.4	37.1	37.3	43.6	44.7	46.3	46.3	46.3	51.4	56.7	102.8	113.4
Height	mm		1467.0	1489.0	1801.0	1801.0	1630.0	1630.0	1962.0	1962.0	2252.0	2278.0	2678.0	2450.0	2492.0	3094.0	3094.0	3592.0	3097.0	3280.0	3097.0	3280.0
	inch		57.8	58.6	70.9	70.9	64.2	64.2	77.2	77.2	88.7	89.7	105.4	96.5	98.1	121.8	121.8	141.4	121.9	129.1	121.9	129.1
Mass	kg		193.8	226.8	324.8	330.6	412.6	412.6	723.0	735.0	1009.3	1192.3	1321.2	2359.3	2632.7	3150.0	3150.0	3681.0	4908.0	6489.0	9746.0	12470.0
	lbs		427.3	500.0	716.1	728.9	909.6	909.6	1593.9	1620.3	2225.1	2628.5	2912.7	5201.4	5804.1	6944.6	6944.6	8115.2	10820.3	14305.8	21486.2	27491.6
Inlet connections	G/ NPT		G1/2"	G1/2"	G1/2"	G1/2"	G1/2"	G1/2"	G 3/4"	G 3/4"	G1"	G1"	G1"	G1 1/2"	G1 1/2"	DN50	DN50	DN50	DN50	DN50	2xDN50	2xDN50
Outlet connections	G/ NPT		G3/8"	G3/8"	G3/8"	G3/8"	G3/8"	G3/8"	G1/2"	G1/2"	G1/2"	G1/2"	G1/2"	G 3/4"	G 3/4"	G 3/4"	G 3/4"	G 3/4"	G 3/4"	G 3/4"	2xG3/4"	2xG3/4"

1. Flow is measured at Reference Conditions: 1 bara and 20°C at operating pressure of compressed air of 6 barg and oxygen pressure at the outlet 4.5 barg, inlet temperature 20°C & Air Inlet Quality of ISO 8573-1:2010 class 1-4-1

Oxygen filters - PMH D Ox 10 - 2425

Features & Benefits

- ▶ Market-leading performance: Custom-engineered filtration media deliver premium performance that meets quality standard ISO 8573-1:2010 with a significantly reduced pressure drop
- ▶ Corrosion protection: Internal and external electrophoretic paint finish and a tough exterior polyester powder coating
- ▶ Easy service: Externally accessible drain, profiled bowl design, and unique push fit elements ensure quick and reliable maintenance
- ▶ Flow-optimized design: Advanced filter head design for optimized flow performance
- ▶ Suitable for oxygen service: Oxygen filters are specifically designed, cleaned, and packaged to ensure all combustible components are removed from the filter to prevent risk of ignition in oxygen-enriched applications
- ▶ Product safety in mind: Guaranteed safe housing closure with rotational safety stop
- ▶ Dedicated manufacturing line to ensure cleanliness

General Specifications

- ▶ Oxygen dust particle removal down to 0.01 micron
- ▶ 10 to 2425 Nm³/h oxygen flow
- ▶ Maximum working pressure 20.7 Barg
- ▶ Pressure drop <125 mbar
- ▶ Cleaned for oxygen in accordance with ASTM G93



Complete O₂ systems for a wide range of applications



Applications



Biogas



Fish farming



Oxygen therapy

When it comes to O₂, you can't afford to compromise on quality. With a Pneumatech oxygen generation system, you don't have to. That includes our premium PPOG HE PSA oxygen generator, but also all the filters that go with it. Our PMH D Ox filter range was designed, built and cleaned especially for oxygen service to meet the most stringent cleanliness and safety standards. Easy to service and highly efficient, Pneumatech oxygen filters give you industry-leading performance and peace of mind.

PPOG 2-18 HE oxygen generator

30% more efficient than traditional oxygen generators, Pneumatech's PPOG HE gives you the oxygen volume, purity and reliability you need at a massively reduced cost and a smaller environmental footprint.

LV270-3000 oxygen vessels

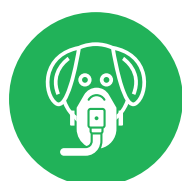
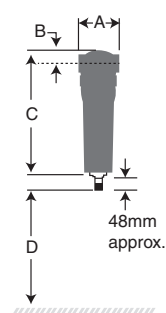
Our full range of oxygen vessels (270 to 3000L) are built and cleaned for safe oxygen use and are compliant with international standards and regulations.

PMH D Ox 10-2425 oxygen filters

Pneumatech oxygen filters remove particles down to 0.01 micron. Thanks to their premium filtration media and filter design, you enjoy optimized performance, safety and easy service.

Technical Specifications for PMH D Ox 10-2425

Filter name	PMH D Ox 10	PMH D Ox 25	PMH D Ox 40	PMH D Ox 50	PMH D Ox 80	PMH D Ox 110	PMH D Ox 140	PMH D Ox 170	PMH D Ox 200	PMH D Ox 280	PMH D Ox 450	PMH D Ox 515	PMH D Ox 645	PMH D Ox 725	PMH D Ox 1130	PMH D Ox 1370	PMH D Ox 1450	PMH D Ox 2020	PMH D Ox 2425
Grade	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
Rated flow (m ³ /h)	10	25	40	50	80	110	140	170	200	280	450	515	645	725	1130	1370	1450	2020	2425
Conn. In G/NPT "	1/8	1/4	1/4	3/8	1/2	1/2	3/4	1	3/4	1	1 1/4	1 1/2	1 1/2	2	2	2 1/2	3	3	3
Drain conn. "	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Drain	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
A (mm)	50	50	70	70	70	127	127	127	127	127	140	140	170	170	170	220	220	220	220
B (mm)	17	17	23	23	23	32	32	32	32	32	41	41	53	53	53	70	70	70	70
C (mm)	157	157	231	231	231	285	285	285	370	370	476	476	508	508	708	736	736	857	1005
D (mm)	60	60	70	70	70	80	80	80	80	80	85	85	100	100	100	100	100	100	100
Weight (kg)	0.3	0.3	0.6	0.6	0.6	1.7	1.7	1.7	2	2	3	3	4.9	4.9	5.5	10.5	10.5	11.5	12.5



Vet clinics



Ozone



Metal and glass treatment

Oxygen vessels - LV270 - 3000

Features & Benefits

- ▶ Cleaned and built according to the major international guidelines and classifications for maximum security
- ▶ Materials are chosen to ensure component compatibility and protection from risks, reactions and corrosion
- ▶ Vessels are externally painted and have an inner vitroflex coating
- ▶ All components have been selected to ensure product and operator safety

General Specifications

- ▶ Suitable for oxygen service
- ▶ 270 to 3000L oxygen vessels up to 11 Barg
- ▶ Cleaned and built according to ISO15001 (Anesthetic and respiratory equipment — Compatibility with oxygen), EIGA IGC Doc 33/06 (Guideline to cleaning of oxygen equipment for oxygen service) and ASTM G93/G93M – 19



Complete O2 systems for a wide range of applications



Applications



Biogas



Fish farming



Oxygen therapy

Count on Pneumatech to offer a best-in-class solution for all your O₂ production needs. That includes a complete range of buffer vessels. Built and cleaned especially for oxygen service, our oxygen vessel range meets the cleanliness requirements and safety standards defined by international legislation and guidelines, including ISO150001 and ASTM G93/G93M. And with a choice of 6 models (from 270 to 3000 liters), you will be sure to find the right vessel for your oxygen system.

PPOG 2-18 HE oxygen generator

30% more efficient than traditional oxygen generators, Pneumatech's PPOG HE gives you the oxygen volume, purity and reliability you need at a massively reduced cost and a smaller environmental footprint.

LV270-3000 oxygen vessels

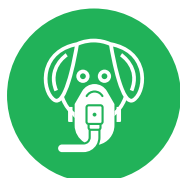
Our full range of oxygen vessels (270 to 3000L) are built and cleaned for safe oxygen use and are compliant with international standards and regulations.

PMH D Ox 10-2425 oxygen filters

Pneumatech oxygen filters remove particles down to 0.01 micron. Thanks to their premium filtration media and filter design, you enjoy optimized performance, safety and easy service.

Technical specifications for Oxygen vessels

Vessel name	LV270 oxygen	LV500 oxygen	LV1000 oxygen	LV1500 oxygen	LV2000 oxygen	LV3000 oxygen
Volume (L)	270	500	100	1500	2000	3000
Design pressure (Barg)	11	11	11.5	11.5	11.5	11.5
Design temperature (deg C)	-10 to 120	-10 to 120	-10 to 120	-10 to 120	-10 to 120	-10 to 120
Weight (shipping weight) kg	117	169	255	278	422	618
Height (mm)	1284	2034	2310	2270	2770	2929
Nominal diameter (mm)	600	600	790	1000	1000	1200
Inlet /outlet connection size	1"	1 ½"	2"	2"	2"	3"
Approval	CE	CE	CE	CE	CE	CE



Vet clinics



Ozone



Metal and glass treatment

Oxygen solutions

Pneumatech offers packaged solutions for on-site oxygen generation, which guarantee peace-of-mind and quick returns compared to traditional oxygen supply.

A typical lineup consists of a compressor, a refrigerant dryer, filters, buffer vessels and a PPOG oxygen generator; and can be completed with a high-pressure oxygen booster and a bottle filling station. These can be containerized or skid-mounted, depending on the application and the needs.



**DO YOU
KNOW THAT?**

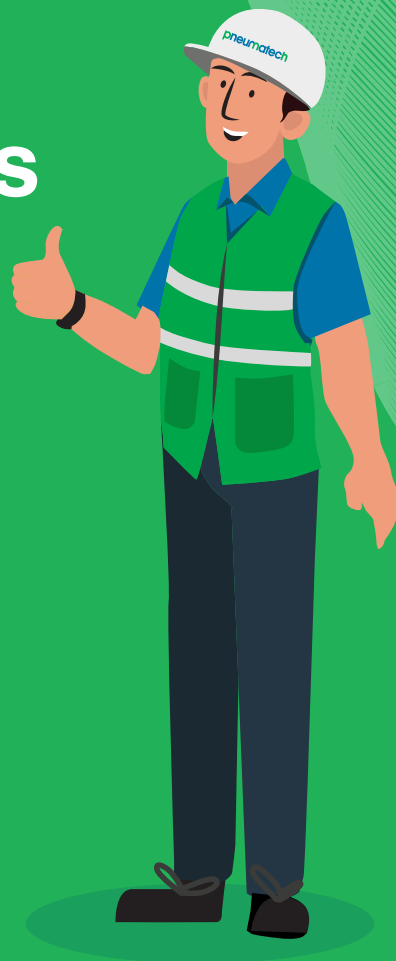
Our boosters are available in 3 kW to 15 kW models and can safely and reliably boost oxygen, nitrogen, helium or argon up to 200 barg / 2900 psig. By boosting a gas to these high pressures, you can bottle the gas you generate. This is particularly interesting to cover peak demand or as emergency back-up.



Pneumatech's on-site oxygen systems generate oxygen from 90% up to 95% purity, and are thus compliant with European pharmacopeia and United States Pharmacopeia (USP). Our production locations are moreover certified according to ISO 13485, the international quality management system for medical devices.

PNEUMACHECK Advanced Services

A PNEUMACHECK audit will help you determine how you can maximize your air or gas equipment to improve its performance, energy savings, and sustainability.



PNEUMACHECK

Are you using your compressed air or industrial gas system optimally? If your answer is “I don’t know” or “definitely not”, you are losing a lot of money. Because the costs of an inefficient or unreliable installation quickly add up. A PNEUMACHECK audit will help you determine how you can maximize your air or gas equipment to improve its performance, energy savings, and sustainability.

Optimize your air, nitrogen and oxygen system

- ▶ Find out your compressed air or N₂ flow profiles.
- ▶ Test your compressed air system’s moisture, oil vapor and particle content to determine whether your air quality meets your requirements.
- ▶ Test the purity of the N₂ and O₂ you generate.
- ▶ Measure the pressure (drops) in your air and N₂ network to identify potential energy waste.
- ▶ Find leaks in your air or N₂ system.
- ▶ Measure the energy consumption of your compressed air equipment, including your compressor and dryer.

The all-in-one PNEUMACHECK box

- ▶ Flow Check Universal (max. version, probe length 220 mm, with display)
- ▶ Check Box M3 with 2 digital and 2 analog inputs
- ▶ 1/2" ball valve stainless steel
- ▶ 3x welding nipples
- ▶ Connection cable 5m (ODU/M12)
- ▶ Drilling device
- ▶ PMH basic software
- ▶ Protection frame (up to 50 bar)

A complete auditing solution

With PNEUMACHECK, you get a comprehensive auditing solution, from accurate measurement to expert advice.

1. Measurement:

Our specialist comes to you to install the PNEUMACHECK Box, a plug-and-play measurement, monitoring and logging device. It comes with all the tools needed to connect to your installation. The equipment does not interfere with your production during the data gathering process.

2. Analysis and expertise:

Our experts analyze and summarize your data in one report filled with actionable insights.

3. Result:

Optimizing your air and gas system allows you to cut your energy costs, reduce your environmental footprint, and meet your quality and safety standards.



A wide range of PNEUMACHECK solutions

Pneumatech is the industry leader in air treatment and gas generation. Our range of PNEUMACHECK solutions helps you save money and improve your operational sustainability.

PNEUMACHECK audit	What we measure & optimize	How you benefit
Nitrogen and compressed air flow	<ul style="list-style-type: none"> Determination of your optimal gas generator size based on your current N₂ flow. Pre-check for compressed air leakages. 	<ul style="list-style-type: none"> Make the switch to producing your own N₂ based on a data-driven assessment of the benefits you will enjoy. Experience the energy efficiency and cost savings of generating N₂ with a system optimized to your needs and requirements. Get an overview of all leakages in your network.
Air and gas PDP	<ul style="list-style-type: none"> Measurement of moisture content in compressed air and gases. Analysis of dryer performance and efficiency. Prevention of condensate in pipework and at the application. 	<ul style="list-style-type: none"> Prevent damage to your air system, your pneumatic equipment and your products caused by condensate. Ensure the required PDP for your sensitive applications.
Air and gas pressure	<ul style="list-style-type: none"> Measurement of the pressure in your compressed air and gas installation. Measurement of the pressure drop in your air and gas piping, filters and dryers. 	<ul style="list-style-type: none"> Enjoy the cost and emissions savings of an optimized air and gas pressure and the elimination of pressure drops.
Air, gas and vacuum leakages	<ul style="list-style-type: none"> Detection and analysis of leaks in your air, gas and vacuum network. Sealing of leaks in your air, gas and vacuum system. 	<ul style="list-style-type: none"> Significantly reduce costs and improve your environmental footprint by eliminating energy waste because of leaks.
Air system power consumption	<ul style="list-style-type: none"> Measurement of your air system's actual performance, including your compressor and dryer's power consumption. Recommendations on how to adjust and optimize your air installation's performance and energy use. 	<ul style="list-style-type: none"> Enjoy the energy cost savings of optimizing your air system's power consumption. This will also reduce your environmental footprint.
Air oil vapor content	<ul style="list-style-type: none"> Testing for the presence of oil vapors. Checking if your compressed air meets your quality class requirements for the presence/absence of oil vapors. Checking if your installation meets breathing air standards. 	<ul style="list-style-type: none"> Prevention of compressed air quality issues, especially for sensitive applications.
Air particle content	<ul style="list-style-type: none"> Checking if your compressed air meets your quality class requirements for particle content. 	<ul style="list-style-type: none"> Prevention of compressed air quality issues that can affect your system, tools and final products.
Gas purity	<ul style="list-style-type: none"> Measurement of the purity of the N₂ or O₂ you generate. 	<ul style="list-style-type: none"> Ensure the quality of your N₂ or O₂ supply to prevent compromising your final product. Comply with Pharmacopeia and EU food grade standards. Meet breathing air safety requirements.

PNEUMACHECK - Nitrogen flow audit

Are you overpaying for nitrogen deliveries? Why? Producing your own nitrogen is the cost efficient, flexible and sustainable alternative. But don't just take our word for it. You can calculate your own N₂ cost savings. And it all starts with finding your true nitrogen requirements with PNEUMACHECK.

With a PNEUMACHECK nitrogen flow audit, you can...

- ▶ Find out your factory's N₂ flow profile
- ▶ Understand the nitrogen usage of the different applications and processes in your plant
- ▶ Identify if and where N₂ is being wasted
- ▶ Confidently select and size an on-site Pneumatech gas generation system to replace your liquid or bottle supply

On-site gas generation – the preferred solution

Many companies still purchase their nitrogen – even though producing N₂ on-site offers more advantages.

Here are just four:

- Greater cost-efficiency saves you money
- Eliminating bottle or liquid deliveries reduces your environmental footprint
- Take charge of your own N₂ supply
- Less hassle by removing supply logistics

PNEUMACHECK helps you save

Pneumatech is the industry leader in air treatment and gas generation. Our range of PNEUMACHECK solutions help you save money and improve your operational sustainability. Contact your Pneumatech expert to find out which PNEUMACHECK will benefit you most:

- Compressed air usage
- Air system leakage detection
- Moisture detection
- Compressed air quality audit
- Air and gas pressure measurement
- Nitrogen flow audit
- Oxygen flow audit

Did you know?

- Liquid nitrogen tanks can have more than 20% boil-off losses.
- Up to 10% of nitrogen in delivered cylinders cannot be used.
- The ROI of an on-site nitrogen generator can be less than 1- 2 years.

An A-Z nitrogen flow solution

With PNEUMACHECK, you get a complete nitrogen flow solution, from accurate measurement to expert advice:

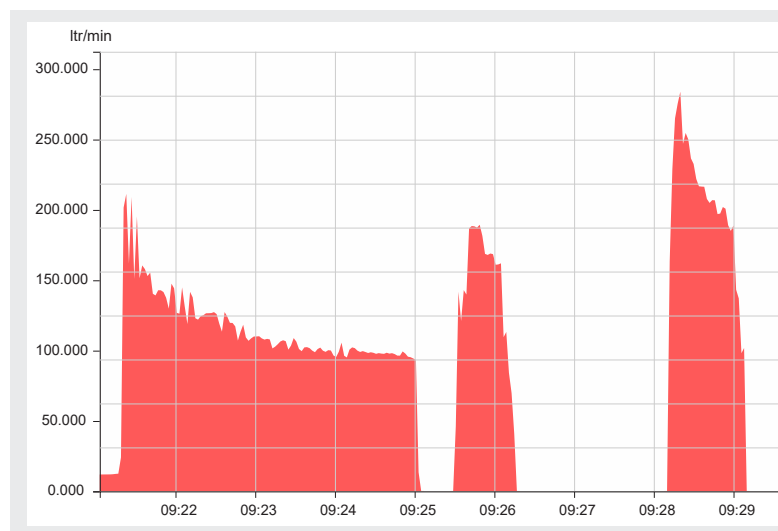
1. Measurement:

- High-accuracy flow meter: Measures your N₂ flow and usage
- Data logger: Records your N₂ flow data and makes it available for analysis
- Installation equipment: All the tools to make a convenient connection with your installation

2. Analysis and expertise:

- Report: Our experts analyze and summarize your flow data in one report filled with actionable insights.
- Advice: Based on this data, we can simulate the on-site generation system that meets your specific requirements.

Measurement result example



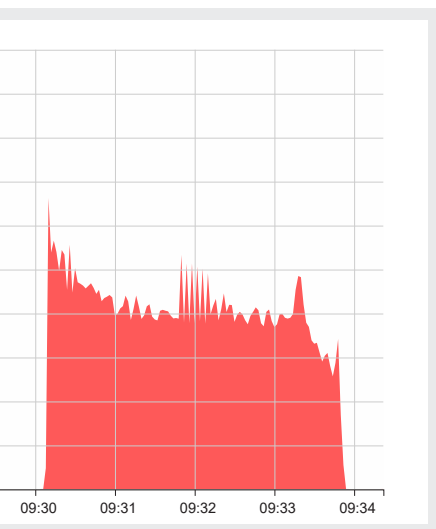
Technical specifications

Pressure	standard up to 16 bar, up to 50 bar with use of frame (included)
Flow	up to 10,000 cubic meter per hour
Pipe diameter	½ - 6 in/DN 15 - 150 (up to DN 300 as an option)
Electrical supply*	100-240 VAC; 50/60 Hz

* the mobile Check Box provides up to 8 hours of continuous operation without electrical supply.

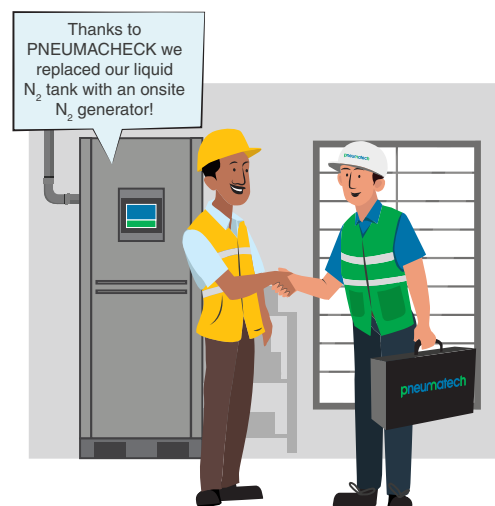
The process:

Our specialist comes to you to install the Pneumatech Flow Check Box, a plug-and-play flow metering, monitoring and logging solution. After installation, this measuring equipment will not impact your production processes.



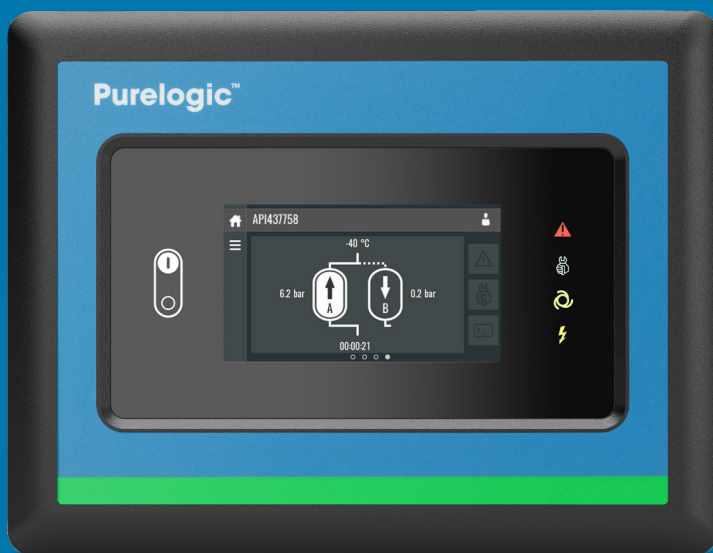
The result:

You get a deep dive into your current gas usage and the options for optimizing your nitrogen systems and processes.



ICONS

Advanced connectivity for optimal performance
and remote monitoring



ICONS - Intelligent Connectivity System

The ICONS software is available for all our compressed air dryers and gas generators equipped with the Purelogic controller, allowing for remote monitoring. Please contact your local Pneumatech representative for more information.

Improve your Efficiency

- ▶ Avoid downtime
- ▶ Get noticed in case of warnings
- ▶ Get recommendations to improve the health of your installation
- ▶ Optimize your energy consumptions

Be in control

Monitor your compressed air installation from your computer, tablet or mobile device. Anywhere, any time.

Which ICONS user are you?



RightTime license

- Keep an eye on compressed air dryers & gas generators status and service requirements
- Get basic recommendations
- Easy access to service and advice



UpTime license

- Get a phone message in case of warnings or shutdowns
- Get recommendations to increase uptime
- Review the Health Score of your installation



Energy license

- Analyze and optimize the energy efficiency of your compressor room.
- Get access to performance indicators, benchmarks and trends.
- Optimize you installation with reports and recommendations.





Pneumatech reserves the right to change or revise specifications and product design in connection with any features of our products. Such changes do not entitle the buyer to corresponding changes, improvements, additions or replacements for equipment previously sold or shipped.

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