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 - 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]	m³/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]	m³/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 6 - 68 HE - Nitrogen generator with Pressure Swing Adsorption technology

Features & Benefits

- 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 back-flow pressurization
- High-quality, high-efficient Carbon Molecular Sieves selected for the right application
- Guaranteed purity
  - Automatically regulates to the requested nitrogen pressure and purity
  - 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 contamination
  - Nitrogen flow, purity and pressure measured and controlled
  - Automatic start-up

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

The PPNG6-68HE 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 PPNG6-68 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 - PPNG 68 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 63 HE	PPNG 68 HE
Nominal free nitrogen delivery[1]	m^3/hr	PCT (%)	95	18.4	23.4	28.8	36.4	46.8	57.2	70.2	86.0	93.6	114.8	128.9	157.7	NA	NA
			99.9	5.8	7.2	9.0	11.5	14.8	18.0	22.0	26.6	29.2	35.6	40.7	49.7	61.9	66.6
		PPM (%)	99.999	1.9	2.5	2.9	4.0	5.0	6.1	7.9	9.7	10.4	13.0	15.8	19.4	22.7	25.9
Nominal air consumption	m^3/hr	PCT (%)	95	33.8	43.6	53.3	67.7	87.1	106.6	130.7	159.8	174.2	213.1	243.7	298.1	NA	NA
			99.9	18.0	23.4	28.4	36.4	46.8	56.9	69.8	85.7	93.2	114.1	135.7	166.0	196.9	221.0
		PPM (%)	99.999	12.2	15.5	19.1	24.1	31.3	38.2	44.3	54.0	59.0	72.4	88.6	108.4	124.2	144.4
Air Factor	-	PCT (%)	95	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.89	2	NA	NA
			99.9	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.33	3.33	3.18	3.33
		PPM (%)	99.999	6.3	6.3	6.3	6.3	6.3	6.3	5.6	5.6	5.6	5.6	5.6	5.6	5.5	5.6
Pressure dewpoint outlet	°C /°F			-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	0.6	0.9	0.9	NA
			99.9	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.6	0.6
		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	0.3	0.3	0.3
Length	mm			775	775	775	775	775	775	1400	1400	1400	1400	1400	1400	1400	1400
	Inch			31	31	31	31	31	31	55	55	55	55	55	55	55	55
Width	mm			840	840	840	840	840	840	840	840	840	840	840	840	840	970
	Inch			33	33	33	33	33	33	33	33	33	33	33	33	33	38
Height	mm			2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
	Inch			79	79	79	79	79	79	79	79	79	79	79	79	79	79
Mass	Kg			264	277	290	326	359	380	619	647	683	736	865	1038	1211	1211
	Lbs			582	611	639	719	791	838	1365	1426	1506	1623	1907	2288	2670	2670
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 SKID - High-pressure nitrogen skid

Are you looking for a true plug-and-play solution that delivers on-site nitrogen at the lowest cost?

Pneumatech has developed compact and pre-commissioned skids in two pressure versions.

The 40 barg version offers high-pressure nitrogen for direct use; with the 300 barg version you can fill the skid-mounted cylinders to create your own supply. These bottles can serve as your nitrogen back-up supply, but also allow you to downsize your system in case of fluctuating demand. With its supreme efficiency and reliability, ease of use and small footprint, the high-pressure skid is the ideal solution for laser cutting applications.

PPNGs nitrogen generator

- Guaranteed purity
- Outstanding air factors
- Energy saving control
- Optimal control and monitoring thanks to Purelogic™ controller

4-stage filter train for guaranteed purity and reliability

- General-purpose and high-efficient oil-coalescing filters, activated carbon tower and high-efficient particle filter
- Guaranteed air quality of class 1:4:1 (according to ISO8573-1:2010) at the inlet of the nitrogen generator

Variable speed compressor with integrated refrigerant dryer

- Closely follow the air demand by automatic adjustment of the motor speed
- Direct driven transmission for outstanding energy efficiency and reliability
- Very quiet operation due to improved noise insulation
- Compact design, also thanks to integrated refrigerant dryer

Technical specifications for PPNG skid									
Pneumatech variant		**PPNG SKID 1**	**PPNG SKID 2**	**PPNG SKID 3**	**PPNG SKID 4**	**PPNG SKID 5**	**PPNG SKID 6**	**PPNG SKID 7**	**PPNG SKID 8**
N_2 Pressure		40 barg	40 barg	40 barg	40 barg	300 barg	300 barg	300 barg	300 barg
N_2 Capacity[1] (m^3/hr)	99.90%	10.5	21	42	73.1	13.4	21	42	73.1
	99.99%	5.3	10.5	22.1	41.1	6.7	10.5	22.1	41.1
Compressor with Integrated Dryer		8kW	11kW	22kW	36kW	8kW	11kW	22kW	36kW
Filter train		G-C-VT-D	G-C-VT-D	G-C-VT-D	G-C-VT-D	G-C-VT-D	G-C-VT-D	G-C-VT-D	G-C-VT-D
Air receiver		500L 11Bar CE Vessel	500L 11Bar CE Vessel	1000L 11Bar CE Vessel	1500L 11Bar CE Vessel	500L 11Bar CE Vessel	500L 11Bar CE Vessel	1000L11Bar CE Vessel	1500L 11Bar CE Vessel
N_2 Generator		PPNG9S PPM IEC	PPNG18S PPM IEC	PPNG37S PPM IEC	PPNG68S PPM IEC	PPNG12S PPM IEC	PPNG18S PPM IEC	PPNG37S PPM IEC	PPNG68S PPM IEC
N_2 Receiver		500L 11Bar CE Vessel	500L 11Bar CE Vessel	1000L 11Bar CE Vessel	1500L 11Bar CE Vessel	500L 11Bar CE Vessel	500L 11Bar CE Vessel	1000L 11Bar CE Vessel	1500L 11Bar CE Vessel
Particulate Filter		D	D	D	D	D	D	D	D
N_2 Booster		15 hp 40 barg	15 hp 40 barg	15 hp 40 barg	15 hp 40 barg	10 hp 300 barg	10 hp 300 barg	15 hp 300 barg	2 x 15 hp 300 barg
HP Storage		500L/45 barg	500L/45 barg	1000L/45 barg	1000L/45 barg	2 cylinder 300 barg	12 cylinder rack 300 barg	12 cylinder rack 300 barg	16 cylinder rack 300 barg

1. Flow specified is at the outlet of the PPNGs Generator 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

Nitrogen storage: 40 barg receiver or 300 barg cylinders

- Bottle rack consisting of up to 16 high-pressure bottles
- Allows to shave peak demands

Nitrogen booster: 40 barg or 300 barg

- IE3-standard energy efficient motor
- Automatic condensate drain, reducing pressure losses by 80%
- Compressor block made of light alloys with high thermal efficiency, resulting in outstanding reliability
- Low noise levels thanks to sound insulated panels

PPNG 150 - 800 HE - Nitrogen generators with Pressure Swing Adsorption technology

Features & Benefits

- 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 back-flow pressurization
- High-quality, high-efficient Carbon Molecular Sieves selected for the right application
- Guaranteed purity
  - Automatically regulates to the requested nitrogen pressure and purity
  - 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 contamination
  - Nitrogen flow, purity and pressure measured and controlled
  - Automatic start-up

General Specifications

- Nitrogen purity achievable: 95%-99.9% (PCT Variant) & 99.95%-99.999% (PPM variant)
- Inlet pressure range: 5-10 barg/72-150 psig
- Ambient temperature range: 5-45°C /41-113°F
- Inlet temperature range: 5-55°C / 41-131°F
- Required inlet air quality: 1-4-1 according to ISO 8573-1:2010
- Power supply: 230VAC / 50-60Hz

Options

Wooden packaging

Outlet PDP sensor

The PPNG150-800 HE series is Pneumatech's premium on-site nitrogen solution for high 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 PPNG150-800 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 PPNG150 - 800 HE

Specifications	Units	Variant	Product → Purity ↓	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]	m^3/hr	PCT(%)	95%	469	604	734	865	1063	1244	1607	2038	2592
			99.9%	169	218	265	312	384	449	580	735	935
		PPM	99.999%	75	96	117	138	169	198	253	321	408
Nominal air consumption[1]	m^3/hr	PCT(%)	95%	886	1142	1387	1635	2010	2351	3036	3852	4898
			99.9%	549	708	859	1013	1245	1456	1881	2386	3034
		PPM	99.999%	377	486	590	695	854	999	1303	1653	2102
Air factor		PCT(%)	95%	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
			99.9%	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
		PPM	99.999%	5.1	5.1	5.1	5.1	5.1	5.1	5.2	5.2	5.2
Pressure dewpoint outlet (°C)		°C/°F		-40	-40	-40	-40	-40	-40	-40	-40	-40
Maximum pressure drop (barg)		PCT(%)	95-99.9%	1,5 - 1	1,5 - 1	1,5 - 1	1,5 - 1	1,5 - 1	1,5 - 1	1,5 - 1	1,5 - 1	1,5 - 1
		PPM	99.95% - 99.999%	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Length	mm			1800	1800	1800	2300	2300	2300	3120	3120	3120
	Inch			70.9	70.9	70.9	90.6	90.6	90.6	122.8	122.8	122.8
Width	mm			2230	2570	2650	2720	2850	2900	3660	3760	3860
	Inch			87.8	101.2	104.3	107.1	112.2	114.2	144.1	148.0	152.0
Height	mm			2610	2640	2625	3020	3050	3040	3970	4175	4405
	Inch			102.8	103.9	103.3	118.9	120.1	119.7	156.3	164.4	173.4
Mass	Kg			3200	3800	4800	6400	7000	7700	10300	12000	14200
	lbs			7054.8	8377.6	10582.2	14109.6	15432.3	16975.6	22707.6	26455.4	31305.6
N2 & Air Receiver size	liters			3000	4000	5000	6000	8000	8000	12000	16000	20000
Nitrogen to buffer connection	DN			80	80	80	80	80	80	100	100	100
Nitrogen from buffer connection	DN	PCT(%)	95-99.9%	50	50	50	80	80	80	100	100	100
	DN	PPM	99.95% - 99.999%	40	40	40	40	40	40	50	50	50
Nitrogen outlet connection	DN	PCT(%)	95-99.9%	50	50	50	80	80	80	100	100	100
	DN	PPM	99.95% - 99.999%	50	50	50	50	50	50	50	50	50
Waste gas blow-off	mm			315	315	315	400	400	400	600	600	600

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

PMNG 5 - 75 S - Nitrogen generator with membrane technology

Features & Benefits

- Energy-saving control
- Proprietary membrane technology ensuring lasting performance
  - No aging
  - No heater
- Guaranteed purity
  - Reliable purity measurement
  - Easy to set up the device for purity levels between 95% and 99.5%
- All-in-one plug & play solution
  - All filters integrated in enclosed canopy design
  - No buffer vessels required
  - Instant supply of nitrogen
  - No specialist installation or commissioning
- Optimal control and monitoring thanks to Purelogic™ Controller

General Specifications

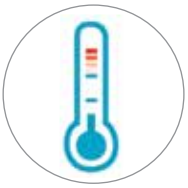
- Membrane Nitrogen Generators
- Nitrogen purity achievable: 95%-99.5%
- Inlet pressure range:
  4-13 barg / 60-189 psig
- Inlet temperature range:
  5-50°C / 41-122°F
- Required inlet air quality:
  1-4-1 according to ISO 8573-1:2010
- Power supply: 115-230VAC / 50-60Hz

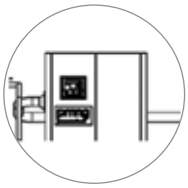
Options


Oil indicator


Flow sensor


PDP sensor kit


High ambient temperature software


Permeate vent kit

Pneumatech's PMNG nitrogen generators utilize proprietary membrane separation technology. Membrane generators are an excellent choice in low (95%) to medium (99,5%) purity applications such as tire inflation, fire prevention, tank blanketing and pipeline drying. Nitrogen pressures can go up to 12 barg without the need for an additional booster.

With the PMNG, on-site nitrogen supply becomes exceptionally convenient. All pre-filters and controls are included inside the canopy. Only a supply of dry compressed air and electricity is needed to get nitrogen at the outlet of the generator. An outlet buffer vessel is not required, which results in significant space savings and easy installation. Also the start-up procedure of the PMNG is made so straightforward that it does not require any specialist.

Thanks to the Purelogic™ controller, the PMNG offers impressive control and monitoring capabilities. Various pressure and temperature sensors ensure that the membranes are used in the right working conditions. The nitrogen purity can easily be set with the purity regulator and is reliably monitored. The optional pressure dew point (PDP) sensor and oil indicator sensor safeguard air purity of class 1:4:1 according to ISO8573-1:2010 at the inlet of the membranes.

Technical specifications for PMNG 5-75 S

Specification	Unit	Product→ Purity ↓	PMNG5s	PMNG10s	PMNG15s	PMNG30s	PMNG45s	PMNG60s	PMNG75s
Nominal free nitrogen delivery[1]	m³/hr	95%	11.9	24.1	42.1	83.9	126.0	168.1	209.9
		96%	9.7	19.4	34.6	69.5	104.0	138.6	173.2
		97%	7.6	15.1	27.4	54.7	82.1	109.1	136.4
		98%	5.4	10.8	19.8	40.0	59.8	79.9	99.7
		99%	3.6	6.8	11.5	23.0	34.6	46.1	57.6
		99.5%	2.5	5.0	7.2	14.8	22.0	29.5	36.7
Nominal air consumption[1]	m³/hr	95%	31.0	62.3	109.1	218.5	327.6	436.7	546.1
		96%	29.2	58.0	104.0	208.1	311.8	415.8	519.8
		97%	26.6	52.9	95.4	191.2	286.6	382.3	477.7
		98%	23.4	47.2	85.7	171.7	257.4	343.1	428.8
		99%	22.0	43.6	72.7	145.4	218.2	291.2	364.0
		99.5%	21.6	42.8	62.6	124.9	187.6	249.8	312.5
Air factor		95%	2.6	2.6	2.6	2.6	2.6	2.6	2.6
		96%	3	3	3	3	3	3	3
		97%	3.5	3.5	3.5	3.5	3.5	3.5	3.5
		98%	4.3	4.3	4.3	4.3	4.3	4.3	4.3
		99%	6.3	6.3	6.3	6.3	6.3	6.3	6.3
		99.5%	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Pressure dewpoint outlet	°C /°F		-40	-40	-40	-40	-40	-40	-40
Length	mm		820	820	820	820	820	820	820
	inch		32.3	32.3	32.3	32.3	32.3	32.3	32.3
Width	mm		772	772	772	1470	1470	1470	1470
	inch		30.4	30.4	30.4	57.9	57.9	57.9	57.9
Height	mm		2090	2090	2090	2090	2090	2090	2090
	inch		82.3	82.3	82.3	82.3	82.3	82.3	82.3
Mass	Kg		259	268	285	445	497	535	571
	Lbs		571	590	628	981	1096	1179	1259
Inlet connections	G/NPT		1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2" - 1"	1 1/2" - 1"
Outlet Connections	G/NPT		1/2"	1/2"	1/2"	1"	1"	1"	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 1-4-1

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]	m³/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	m³/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 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.

The versatility of air receivers

One or more air receivers are included in each compressor installation. The size is adapted, e.g. according to the compressor capacity, regulation system and the consumer's air requirement.

The air receiver forms a storage area for the compressed air, balances pulsation from the compressor and cools the air and collects condensation. Accordingly, the air receiver must be fitted with a drainage device.