

PSA NITROGEN GENERATORS



Oxywise nitrogen generators produce high quality nitrogen from compressed air by Pressure Swing Adsorption (PSA) method. Our generators represent reliable and cost effective alternative.

Nitrogen purity:	95% - 99.9995% (5.5)
Min. inlet pressure (air):	7.5barG
Outlet pressure (nitrogen):	5barG
Nitrogen dew point:	-50°C
Operating conditions:	5°C - 50°C

Make your choice from the extensive selection of standard solutions or ask us to design a custom-made nitrogen generator to match your needs. The prices are very feasible.



Standard Product Range

Model	Capacity at 99,5% [Nm ³ /h]	Capacity at 99,5% [Sm ³ /h]	Air requirement [Nm ³ /min]	Operating cost [kW/m ³]
N1	3.0	3.3	0.16	0.3
N2	6.0	6.5	0.32	0.3
N4	12.0	13.1	0.64	0.3
N6	18.0	19.6	0.97	0.3
N9	27.1	29.5	1.45	0.3
N12	36.1	39.3	1.9	0.3
N15	45.1	49.1	2.4	0.3
N20	60.1	65.4	3.2	0.3
N27	81.2	88.4	4.4	0.3
N35	105.2	114.6	5.6	0.3
N50	126.3	137.5	6.8	0.3
N65	195.4	212.8	10.5	0.3
N80	240.5	261.9	12.9	0.3
N100	300.6	327.4	16.1	0.3
N125	375.8	409.2	20.1	0.3
N150	450.9	491.0	24.2	0.3
N80T	481.0	523.8	25.8	0.3
N100T	601.2	654.7	32.2	0.3
N125T	751.0	817.8	40.3	0.3
N150T	901.8	982.1	48.3	0.3

- Benefits:**
- Flexibility
 - Cost-effectiveness
 - Safety
 - Easy operation
 - Reliability

Notes:

- Performance data is based on 7 barG inlet pressure and 20°C to 25°C ambient temperature
- Flow stated in Normal cubic meter (Nm³) is with reference conditions, Temperature: 0°C, Pressure: 1.013 barA
- Flow stated in Standard cubic meter (Sm³) with reference conditions, Temperature: 15°C, Pressure: 0.981 barA

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A full installation comprises a compressor, refrigeration dryer, filters, air tank, generator and nitrogen buffer tank.



Scope of supply:

1. Air compressor
2. Cyclone filter with automatic drain
3. Refrigeration dryer
4. Prefilter, particle filter
5. Air tank
6. Nitrogen generator
7. Nitrogen buffer tank
8. Dust filter

The process

Nitrogen Generator consist of two columns filled with carbon molecular sieve (CMS). Pre-treated compressed air enters the active column and follows up through the CMS. Oxygen and the other gases are being adsorbed while the nitrogen passes through. The active column is pressurized. When pressure is released, column becomes inactive and completely regenerate. In order to secure steady flow two columns are used, one is active while the other is inactive. At the end of cycle they switch roles.

Typical applications

Electronics

Food packaging

Inerting

Laser cutting

Pharmaceutics

Plastics

Storage of flammables

Tire filling

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Weights and Dimensions

Model	Min. space for installation with full air supply [cm] – L x W	Generator size [cm] – L x W x H	Generator weight [kg]
N1	100 x 200	58 x 68 x 180	90
N2	100 x 200	55 x 70 x 170	100
N4	100 x 200	65 x 75 x 195	150
N6	100 x 250	65 x 80 x 195	180
N9	100 x 300	80 x 85 x 195	230
N12	100 x 450	82 x 82 x 210	400
N15	120 x 500	90 x 85 x 215	500
N20	120 x 550	100 x 95 x 230	640
N27	150 x 650	105 x 100 x 235	850
N35	150 x 700	115 x 100 x 245	1000
N50	170 x 750	155 x 130 x 210	1250
N65	185 x 700	165 x 135 x 235	1550
N80	200 x 800	170 x 137 x 270	1850
N100	200 x 900	170 x 155 x 295	2150
N125	220 x 1000	185 x 165 x 315	2550
N150	220 x 1100	185 x 165 x 360	3000
N80T	250 x 1200	240 x 130 x 240	3700
N100T	250 x 1200	305 x 180 x 295	4300
N125T	250 x 1300	330 x 185 x 315	5100
N150T	250 x 1400	330 x 185 x 360	6000

Technical Data

Ambient temperature range:		5°C - 50°C
Nitrogen outlet pressure:		5barG
Nitrogen dew point:		-50°C
Air inlet pressure:		7.5 to 10barG
Inlet air quality:	Dew point:	3°C
	ISO:	8573.1:2010 class 1.4.1.
	Filtration grade:	0.01 micron
Power supply:	Generator:	240-110 V / 50-60 Hz
	Compressor:	400-440 V / 50-60 Hz

Pressures up to 45barG can be reached with a booster or up to 450barG with the high pressure compressor if required.