ozen
AIRTECHNOLOGY

OAMG+ N2 SERIES

NITROGEN GENERATORS

EXPERTS IN COMPRESSED AIR AND NITROGEN SOLUTIONS

OAMG+ N2
NITROGEN GENERATORS

Ozen Air Technology OAMG+ N2 Series Nitrogen Generators use Serial Pressure Swing Adsorption technology to isolate nitrogen molecules from other molecules in compressed air. The result is high purity nitrogen gas at the outlet of the generator. The OAMG+ N2 series is the most cost-efficient source of nitrogen used in various industries like laser cutting, production industry, and many others.

How Does a PSA Generator Work?

Air contains ~21% Oxygen, ~78% Nitrogen, ~0.9% Argon, and ~0.1% other trace gases. Ozen OAMG+ N2 Nitrogen Generation Systems separate this nitrogen from Compressed Air through a unique process called Pressure Swing Adsorption (PSA).

The Pressure Swing Adsorption process for the generation of enriched nitrogen gas from ambient air utilizes the ability of a synthetic Carbon Molecular Sieve to absorb mainly oxygen. While oxygen concentrates in the pore system of the Carbon Molecular Sieve, Nitrogen is produced as a product gas.

Ozen's unique OAMG+ N2 PSA technology

Ozen's OAMG+ N2 Technology represents a significant improvement in PSA technology and facilitates the lossless and efficient cleaning of compressed air. This feature sets our technology apart from other PSA nitrogen-generating technologies.

Compressed air often contains various impurities that can compromise the separation process. Therefore, it's imperative to purify and separate the pressurized air completely from contaminants before the separation process begins. Our S-PSA technology comprises two-stage PSA cycles. The first stage cycle involves purifying compressed air from all impurities and unwanted gases, while the second stage cycle separates nitrogen gas from other gases. The process ensures that all impurities and unwanted gases are removed from the nitrogen gas, which is then stored in its pure form. Ozen Air Technology has developed this process to produce high purity nitrogen separation with an extended lifespan.

NITROGEN APPLICATIONS

- Food & Beverage Industry
- Electronics Manufacturing
- Laser Cutting
- Pharmaceutical & Biotechnology
- Chemical Industry
- Metallurgy & Heat Treatment
- Oil & Gas / Petrochemical
- Aerospace & Automotive
- Research & Laboratory

STANDARDS COMPLIANCE

- 93/42 EEC
- ISO 9001:2015
- ISO 13485:2016
- ISO 10002:2018
- ISO 14001:2015
- ISO45001:2018
- ISO27001:2013
- CE
- ASME
- UL

Advantages of Ozen OAMG+ N2 Series

Plug & Play Single Skid Design

Ozen OAMG+ N2 Nitrogen Generators have their own Nitrogen Generation System, Integrated Air Dryer, Integrated Line/Medical Filters, Integrated PLC with Touch Screen Monitoring Panel.

Product Gas Quality

Ozen OAMG+ N2 Nitrogen Generators provide you with product quality certified by national and international organizations. Product quality can be continuously monitored and proven accurate.

Cost Reduction

Nitrogen production from compressed air with Ozen OAMG+ N2 Nitrogen Generators eliminates the ongoing costs associated with cylinder or liquid gas supply, including rental fees, refilling expenses, and complex procurement processes.

Safety

Ozen OAMG+ N2 Nitrogen Generators Eliminate the storing hazards, transporting, and handling heavy and high-pressure tubes.

Non-Stop Gas Supply

Ozen OAMG+ N2 Nitrogen Generators produce 24 hours of continuous nitrogen gas as long as it is needed wherever you want.

True & Reliable Purity

Ozen OAMG+ N2 Nitrogen Generators can produce nitrogen gas according to the purity required by your application. Don't pay more for high-purity.

NITROGEN FLOW CAPACITY TABLE																				
Model	95%		96%		97%		98%		99%		99.5%		99.9%		99.95%		99.99%		99.999%	
	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM	Nm³/hr	SCFM
OAMG+ 1 N2	17,0	10,0	15,8	9,3	14,4	8,5	12,6	7,4	10,2	6,0	8,5	5,0	6,3	3,7	4,8	2,8	3,7	2,2	2,4	1,4
OAMG+ 2 N2	30,9	18,2	28,6	16,9	26,1	15,4	22,9	13,5	18,4	10,9	15,5	9,1	11,5	6,7	8,7	5,1	6,7	3,9	4,4	2,6
OAMG+ 3 N2	46,8	27,6	43,3	25,5	39,5	23,3	34,7	20,4	27,9	16,4	23,5	13,8	17,3	10,2	13,2	7,8	10,1	6,0	6,6	3,9
OAMG+ 4 N2	56,8	33,4	52,6	31,0	48,0	28,2	42,1	24,8	33,9	19,9	28,5	16,8	21,0	12,4	16,0	9,4	12,3	7,2	8,0	4,7
OAMG+ 5 N2	67,4	39,7	62,4	36,7	56,9	33,5	49,9	29,4	40,2	23,6	33,8	19,9	25,0	14,7	19,0	11,2	14,6	8,6	9,5	5,6
OAMG+ 7 N2	85,1	50,1	78,8	46,4	71,9	42,3	63,0	37,1	50,8	29,9	42,7	25,1	31,5	18,6	24,0	14,1	18,4	10,9	12,0	7,1
OAMG+ 8 N2	101,1	59,5	93,6	55,1	85,4	50,2	74,9	44,1	60,3	35,5	50,7	29,9	37,4	22,0	28,5	16,7	21,9	12,9	14,2	8,4
OAMG+ 9 N2	116,7	68,7	108,0	63,6	98,5	58,0	86,4	50,9	69,6	40,9	58,6	34,5	43,2	25,4	32,8	19,3	25,3	14,9	16,4	9,7
OAMG+ 10 N2	134,6	79,2	124,7	73,4	113,7	66,9	99,7	58,7	80,3	47,3	67,6	39,8	49,9	29,4	37,9	22,3	29,2	17,2	19,0	11,2
OAMG+ 12 N2	159,9	94,1	148,1	87,1	135,0	79,5	118,4	69,7	95,3	56,1	80,2	47,2	59,2	34,9	45,0	26,5	34,6	20,4	22,5	13,2
OAMG+ 13 N2	180,5	106,2	167,1	98,4	152,4	89,7	133,7	78,7	107,6	63,4	90,6	53,3	66,9	39,3	50,8	29,9	39,1	23,0	25,4	15,0
OAMG+ 15 N2	209,0	123,0	193,5	113,9	176,5	103,9	154,8	91,1	124,6	73,4	104,9	61,7	77,4	45,6	58,8	34,6	45,3	26,7	29,4	17,3
OAMG+ 17 N2	238,4	140,3	220,7	129,9	201,3	118,5	176,6	103,9	142,2	83,7	119,6	70,4	88,3	52,0	67,1	39,5	51,7	30,4	33,6	19,7
OAMG+ 20 N2	273,9	161,2	253,6	149,3	231,3	136,1	202,9	119,4	163,3	96,1	137,4	80,9	101,4	59,7	77,1	45,4	59,3	34,9	38,5	22,7
OAMG+ 25 N2	334,2	196,7	309,4	182,1	282,2	166,1	247,5	145,7	199,3	117,3	167,7	98,7	123,8	72,8	94,1	55,4	72,4	42,6	47,0	27,7
OAMG+ 30 N2	403,6	237,6	373,7	220,0	340,8	200,6	299,0	176,0	240,7	141,7	202,6	119,2	149,5	88,0	113,6	66,9	87,5	51,5	56,8	33,4
OAMG+ 35 N2	477,1	280,8	441,8	260,0	402,9	237,1	353,4	208,0	284,5	167,4	239,4	140,9	176,7	104,0	134,3	79,0	103,4	60,8	67,1	39,5
OAMG+ 40 N2	538,3	316,8	498,4	293,4	454,6	267,6	398,8	234,7	321,0	188,9	270,2	159,0	199,4	117,3	151,5	89,2	116,6	68,6	75,8	44,6
OAMG+ 50 N2	677,9	399,0	627,7	369,4	572,4	336,9	502,1	295,5	404,2	237,9	340,2	200,2	251,1	147,8	190,8	112,3	146,9	86,4	95,4	56,2
OAMG+ 60 N2	799,4	470,5	740,2	435,6	675,0	397,3	592,1	348,5	476,7	280,5	401,2	236,1	296,1	174,3	225,0	132,4	173,2	101,9	112,5	66,2
OAMG+ 70 N2	929,0	546,8	860,2	506,3	784,5	461,7	688,2	405,0	554,0	326,1	466,2	274,4	344,1	202,5	261,5	153,9	201,3	118,5	130,8	77,0
OAMG+ 80 N2	1073,0	631,5	993,5	584,7	906,1	533,3	794,8	467,8	639,8	376,6	538,5	316,9	397,4	233,9	302,0	177,8	232,5	136,8	151,0	88,9
OAMG+ 90 N2	1205,8	709,7	1116,5	657,1	1018,2	599,3	893,2	525,7	719,0	423,2	605,1	356,2	446,6	262,9	339,4	199,8	261,3	153,8	169,7	99,9
OAMG+ 100 N2	1331,2	783,5	1232,6	725,5	1124,1	661,6	986,1	580,4	793,8	467,2	668,1	393,2	493,0	290,2	374,7	220,5	288,4	169,8	187,4	110,3
OXYGEN RATE	5.0%		4.0%		3.0%		2.0%		1.0%		0.5%		1000 ppm		100 ppm		10 ppm		1 ppm	
AIR/N2 RATIO	2.03		2.12		2.24		2.42		2.66		2.88		3.54		3.80		4.70		6.08	

- For larger capacities, please contact us. We are also able to provide high-capacity solutions tailored to your request.
- N2 pressure will typically be 21 psi lower than compressor outlet pressure (with reasonable pressure drop for filters included). In some cases, lower pressure drop may be possible. Please consult factory for details where critical.

INLET PRESSURE	70-145 psig
OUTLET PRESSURE	58-130 psig
PERFORMANCE	The listed performance and air factor are valid for 68 °F ambient temperature and 116 psig inlet pressure.
AIR QUALITY	Required clean, dry, compressed air specifications: ISO 8573 Class 1.4.1 or better
RECOMMENDATION	A refrigerant dryer must be selected to precondition the inlet air.
AMBIENT	Ambient temperature between 41 - 113 °F
POWER	100 - 230V - 1ph - 50/60 Hz - max. 120W

- OAMG+ N2 Series Pressure Swing Adsorption (PSA) nitrogen generators are designed to be the most efficient, reliable and durable nitrogen generator available.

Compressed air inlet temperature in °F

AMBIENT TEMPERATURE	41 °F	50 °F	59 °F	68 °F	77 °F	86 °F	95 °F	104 °F	113 °F
CORRECTION FACTORS	0,85	0,94	1,00	1,00	0,96	0,91	0,82	0,74	0,64

Generator inlet pressure (psi)

INLET PRESSURE PSIG	95	102	109	116	123	131	138
CORRECTION FACTOR	0,74	0,82	0,90	1,00	1,06	1,12	1,18

- With a tolerance 10%.
- To determine the nitrogen generator model under reference conditions, divide the nitrogen flow rate by the correction factors given in the table.
- Please contact Ozen customer centers and/or representative for advice.

Why On-Site Nitrogen?

N_2 A Reliable Source of Nitrogen

For industries such as chemical processing, electronics, laser cutting, and food & beverage, maintaining a consistent and secure supply of industrial gases is essential. Unlike traditional gas cylinder or bulk deliveries, generating gas on-site provides significant benefits including reduced operational costs and uninterrupted availability. Advanced nitrogen and oxygen generation systems enable flexible, on-demand production, ensuring maximum efficiency with minimal cost.

On-Site Nitrogen (N_2)	Liquid / Cylinder Nitrogen (N_2)
Capital investment	Tank leasing / capital costs
Energy consumption	Nitrogen supply cost
Maintenance	Transportation and logistics

On-Site Gas Production Compared to Liquid and Cylinder Supply

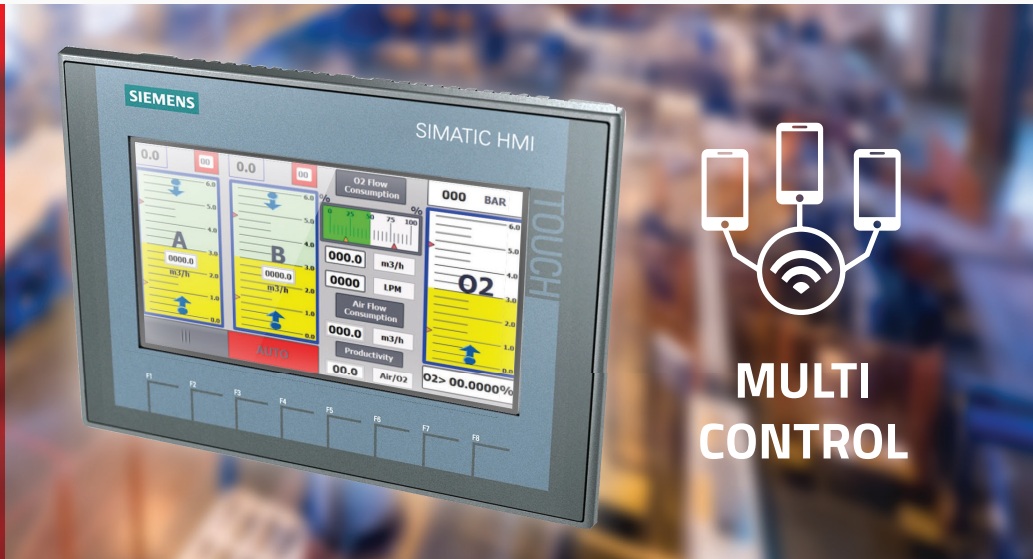
- Continuous operation with 24/7 availability.
- Enhanced safety by avoiding the handling of high-pressure cylinders.
- Ensure a fully independent source of industrial gas supply.
- Reduced operating costs through elimination of rental fees, transportation expenses, and evaporation losses associated with bulk gas usage.
- Seamless integration with existing compressed air systems.

ISO 9001 CERTIFIED

ISO 14001 CERTIFIED

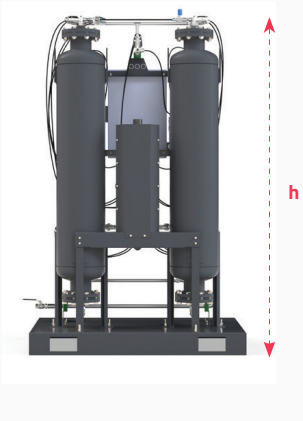
ISO 50001 CERTIFIED

ISO 27001 CERTIFIED



DIMENSIONS

Model	Max Inlet Pressure	Connection		Dimensions (inch)		
	psig	Inlet	Outlet	Length	Width	Height
OAMG+ 1 N2	150	3/4"	1/2"	55	35.5	61
OAMG+ 2 N2	150	3/4"	1/2"	55	35.5	66.2
OAMG+ 3 N2	150	1"	3/4"	55	35.5	68.5
OAMG+ 4 N2	150	1"	3/4"	55	35.5	76.8
OAMG+ 5 N2	150	1"	3/4"	55	35.5	76.8
OAMG+ 7 N2	150	1 1/2"	1"	55	35.5	89.8
OAMG+ 8 N2	150	1 1/2"	1"	55	35.5	85
OAMG+ 9 N2	150	1 1/2"	1"	55	35.5	92.9
OAMG+ 10 N2	150	1 1/2"	1"	55	35.5	88.2
OAMG+ 12 N2	150	1 1/2"	1 1/2"	55	39.5	91
OAMG+ 13 N2	150	1 1/2"	1 1/2"	55	39.5	94.5
OAMG+ 15 N2	150	2"	1 1/2"	55	39.5	93.3
OAMG+ 17 N2	150	2"	1 1/2"	55	39.5	101.5
OAMG+ 20 N2	150	2"	1 1/2"	69	47.5	98.5
OAMG+ 25 N2	150	2"	1 1/2"	69	47.5	108
OAMG+ 30 N2	150	2"	1 1/2"	69	47.5	109.5
OAMG+ 35 N2	150	3"	2"	69	47.5	121.3
OAMG+ 40 N2	150	3"	2"	69	47.5	133.5
OAMG+ 50 N2	150	3"	2"	69	47.5	145.3
OAMG+ 60 N2	150	3"	3"	78	71.3	148
OAMG+ 70 N2	150	4"	3"	78	71.3	153.5
OAMG+ 80 N2	150	4"	3"	78	71.3	173.5
OAMG+ 90 N2	150	4"	3"	88,6	75.2	175.5
OAMG+ 100 N2	150	4"	3"	88,6	75.2	173.5



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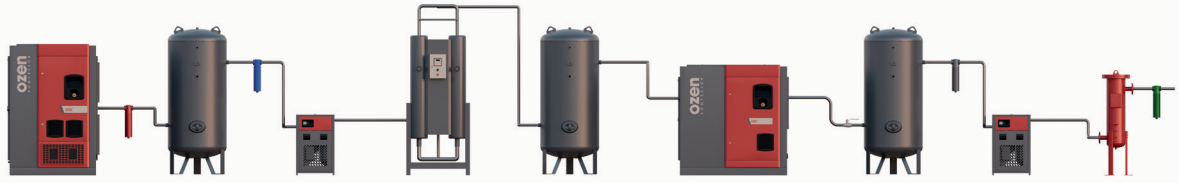
STANDARD INSTALLATION OF NITROGEN GENERATING PLANTS



GENERATORS

Ozen's Unique S-PSA Software for Nitrogen Generators

- With the unique software developed by Ozen, you can view nitrogen gas pressure, nitrogen gas purity, instant nitrogen consumption flow rate and nitrogen outlet gas dew point on the Monitoring screen.
- In this way, you will be able to store and analyze whether the system is working properly, your consumption, past consumption, pressure, purity data.
- The system provides three operating modes. High Purity, High Flow, and Default to accommodate various performance requirements.
- In addition, this smart system will alert you for scheduled maintenance and prevent unforeseen maintenance and service costs.
- The software also offers the user a language interface in English, Turkish, Russian, Arabic and Spanish.

Easy to Use

- Plug-and-play design
- No specialist installation or commissioning
- Fully automated and monitored including zirconia oxygen/nitrogen sensor as standard

Desired Purity

- Nitrogen supply according to your need: from 95% to 99.999% purity and up to 2000 CFM
- Easy to set up for other purity levels

High Flow Capacity

- The wide product range and nitrogen flows up to 2000 CFM make the new OAMG+ N2 series ideal for industrial applications

Unmatched Industrial Performance

The wide product range and nitrogen flows up to 2000 CFM make the new OAMG+ N2 series ideal for industrial applications. The ability to reach flow levels up to 2000 CFM not only guarantees efficiency but also provides flexibility to meet the needs of a wide variety of industries such as food packaging, electronics, automotive, and metal processing and more.

STANDARD FEATURES
Plug and play design
Fully automatic operation
Purity from 95-99.999%
High quality Carbon Molecular Sieve from Kuraray (JAPAN)
Three operational modes: High Purity – High Flow – Default
On Display: Flow rate, Pressure and nitrogen purity
Multiple languages: English, Spanish, Turkish, Russian, Arabic
Low footprint
Siemens PLC with 7" touch screen colored HMI
-40 °C Dew Point Nitrogen Output
Easy installation and low maintenance costs
Nitrogen costs reduction up to 90%
24/7 pressure, purity and consumption chart records
Zirconium type oxygen/nitrogen sensor for exact nitrogen purity
Integrated own desiccant Air Dryer System (Unique Patented)
Integrated inlet filtration 0.5 µm and 0.05 µm
Integrated outlet filtration 5 µm
High quality components for long service life
Stainless steel valves and fittings (SS-304)
LAN / Ethernet connections
Automatic smart maintenance and service alarms

OPTIONAL FEATURES
-73°C Dew Point Nitrogen output
Remote monitoring and control via Ethernet connection
Dew point sensor
Inline flow meter sensor
Inlet carbon tower
Outlet Sterile Bacterium Filter
650W UPS Uninterruptible power supply
Skid package with buffer tank included

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