





Discover the Future of On-site Nitrogen and Oxygen Generation

Dependable on-site gas generators



Company Profile

Founded in 2009, as an engineering company focused on the turnkey supplies, service and maintenance of PSA Oxygen and Nitrogen generators, Oxywise has quickly positioned itself in the industry as a reliable and dedicated partner, with generators in 70+ countries, 1000+ devices in all 6 inhabited continents in a variety of applications and environments.

With our Head office, Design, Service and Production teams located under one roof at our 6200 m^2 facility, our success stems from our attention to detail and quality control.

Our extensive experience in the development and production of PSA Oxygen and Nitrogen systems, together with a comprehensive engineering background and continual development of our Oxygen and Nitrogen generators, has verified our position in the industry. Oxywise's product range includes dosing systems, filling ramps, gas distribution systems, along with our turnkey solutions including installation of our PSA technology into an ISO-certified shipping container, all configured to exacting customer specifications. We deliver effective, reliable, and affordable solutions that meet and exceed our customers' expectations. WISE

0X

MZ

GENERAT



We continuously improve the quality of our products and components and provide high-quality services related to on-site installation and maintenance.



Pressure Swing Absorption Technology

At the forefront of the PSA industry, Oxywise pioneered the use of dynamic pressure-designed vessels in our PSA generators, now considered a baseline standard in the industry. Innovations such as our sieve compression system and Energy Saving Feature, along with industry-leading pressure outlets without secondary compression, position Oxywise as a leading innovator in oxygen and nitrogen production from PSA, distinguished by its exceptional lifespan and precision, that set us apart from competition.

Catering to any industry with a traditional approach to purchasing oxygen and nitrogen (healthcare, printing, aerospace, petrochemical, aquaculture, pharmaceutical, MAP for food, to name a few) Oxywise PSA systems are pivotal in providing immediate and on-demand generation of crucial gas supplies at a fraction of the cost. We provide compressed air OEMs and distributors with unparalleled support and pricing to them and their customers, in virtually every industry imaginable.

Oxywise products are renowned on the market for providing users with several key features and benefits:



Certified ISO-9001, ISO-13485, CE, MDD



Optimized Cost of Ownership Standard ROI is less than 2 years



User-friendly solutions



Space saving - compared to liquid source or cylinders



Application support



Energy-efficiency





Oxygen Generators Overview

Oxygen generators produce gaseous oxygen from compressed air on site and offer a costeffective, reliable and safe alternative to traditional oxygen gas supplies such as cylinders or cryogenic liquid. Oxywise design is made for round the clock 24/7 operation. Each generator is equipped with automatic start&stop function, enabling the generator to start and stop automatically according to the consumption.

Our unique PSA Oxygen generator consists of two columns filled with a molecular sieve. In order to secure a steady flow of each generator is built from two columns; one is active while the other is inactive. At the end of each columns cycle, they switch roles providing continuous trouble-free and efficient operation.

During operation, pre-treated compressed air enters the active column and flows up through the molecular sieve. Unwanted gases are adsorbed while the selected gas passes through. The active column then becomes fully pressurized. When this pressure is released, the column becomes inactive and completely regenerates during the depressurization.



Industries where the Oxygen generators can be used:



Health care



Fish farming



Glass industry



Ozone generation



Veterinary

Ô

Water treatment





Industrial Oxygen Generator

Oxywise Industrial Oxygen generators produce high quality oxygen from compressed air by Pressure Swing Adsorption (PSA). Our generators represent a reliable and cost-effective alternative to traditional Oxygen supplies. Their unique design allows to achieve footprint and cost optimization compared to traditional oxygen sources.





Robust design with stainless steel piping



Built in purity analyzer for constant monitoring



Vessels designed for dynamic pressure loading



Intuitive touch screen control



Remote start/stop relay

Industrial Oxygen Generator - Specifications



Model		Flow @90%		Flow	@93%	Flow @95%	
11	lodel	kg/h	m³/h	kg/h	m³/h	kg/h	m³/h
	02	1,6	1,2	1,5	1,1	1,4	1,1
	04	3,4	2,6	3,2	2,4	2,9	2,2
Chan dand	06	4,2	3,2	3,9	2,9	3,5	2,6
Standard	09	5,8	4,4	5,4	4,1	4,9	3,7
	O12	8,2	6,2	7,7	5,8	6,9	5,2
	O15	11,2	8,4	10,5	7,9	9,5	7,1
	020	13,5	10,2	12,6	9,5	11,4	8,6
	O20+	15,2	11,4	14,2	10,7	12,8	9,6
	O27	19,4	14,6	18,1	13,6	16,3	12,3
	O27+	20,6	15,5	19,3	14,5	17,4	13,1
	O35	24,8	18,6	23,2	17,4	20,9	15,7
	O35+	27	20,3	25,2	19	22,7	17,1
	050	31	23,3	29	21,8	26,1	19,6
	050+	38,5	28,9	36	27,1	32,4	24,4
SEP	O65	42,7	32,1	39,9	30	35,9	27
SEP	O65+	49,6	37,3	46,4	34,9	41,8	31,4
	080	54,3	40,8	50,8	38,2	45,7	34,4
	080+	61,3	46,1	57,3	43,1	51,5	38,7
	0100	69,8	52,5	65,3	49,1	58,7	44,1
	0100+	76	57,1	71	53,4	63,9	48
	O125	85,3	64,1	79,8	60	71,8	54
	O125+	93,1	70	87	65,4	78,3	58,9
	O150	105,5	79,3	98,6	74,1	88,7	66,7
	O150+	114	85,7	106,5	80,1	95,9	72,1
	080T	122,6	92,2	114,6	86,2	103,1	77,5
	O100T	152	114,3	142,1	106,8	127,9	96,2
	O125T	187,3	140,8	175,0	131,6	157,5	118,4
	O150T	231,2	173,8	216,1	162,5	194,5	146,2
	03080	183,9	137,3	171,9	129,2	154,7	116,3
	03100	228,1	171,5	213,2	160,3	191,8	144,2
	O3125	280,9	211,2	262,5	197,4	236,3	177,6
MultiSEP	O3150	346,8	260,8	324,2	243,7	291,7	219,3
PRICIPE	04080	245,2	184,4	229,2	172,3	206,3	155,1
	04100	304,1	228,6	284,2	213,7	253,8	192,3
	O4125	374,5	281,6	350,0	263,2	315	236,8
	O4150	462,5	347,7	432,2	325,0	389	292,5
	O5080	306,6	230,5	286,5	215,4	257,9	193,9
	05100	380,1	285,8	355,3	267,1	319,7	240,4
	O5125	468,1	352	437,5	328,9	393,8	296,1
	O5150	578,1	434,7	540,3	406,2	486,2	365,6

Reference standard: 20 C, 1 bar

Performance based on 7 bar inlet pressure.

Unit inlet air quality 1.4.1. according to ISO 8573-1:2010



Medical Oxygen Generator

The unique design provides consistently high flow rates of oxygen with a minimum footprint. Partnered with our molecular sieve protection from excess moisture we substantially lower service costs, and increase the lifetime of the molecular sieve.





Robust design with stainless steel piping



Built in purity analyzer for constant monitoring



UPS - uninterrupted power supply unit



Audio-visual alarm



Remote start/stop relay



Purity control - off-spec purge



Medical Oxygen Generator - Specifications

Model		Flow	@90%	Flow	@93%	Flow	@95%
		kg/h	m³/h	kg/h	m³/h	kg/h	m³/h
	02	1,6	1,2	1,5	1,1	1,4	1,1
	04	3,4	2,6	3,2	2,4	2,9	2,2
Standard	06	4,2	3,2	3,9	2,9	3,5	2,6
Standard	09	5,8	4,4	5,4	4,1	4,9	3,7
	012	8,2	6,2	7,7	5,8	6,9	5,2
	O15	11,2	8,4	10,5	7,9	9,5	7,1
	020	13,5	10,2	12,6	9,5	11,4	8,6
	O20+	15,2	11,4	14,2	10,7	12,8	9,6
	027	19,4	14,6	18,1	13,6	16,3	12,3
	O27+	20,6	15,5	19,3	14,5	17,4	13,1
	O35	24,8	18,6	23,2	17,4	20,9	15,7
	O35+	27	20,3	25,2	19	22,7	17,1
	050	31	23,3	29	21,8	26,1	19,6
	O50+	38,5	28,9	36	27,1	32,4	24,4
	O65	42,7	32,1	39,9	30	35,9	27
SEP	O65+	49,6	37,3	46,4	34,9	41,8	31,4
	080	54,3	40,8	50,8	38,2	45,7	34,4
	080+	61,3	46,1	57,3	43,1	51,5	38,7
	O100	69,8	52,5	65,3	49,1	58,7	44,1
	O100+	76	57,1	71	53,4	63,9	48
	0125	85,3	64,1	79,8	60	71,8	54
	0125+	93,1	70	87	65,4	78,3	58,9
	0150	105,5	79,3	98,6	74,1	88,7	66,7
	O150+	114	85,7	106,5	80,1	95,9	72,1



Performance based on 7 bar inlet pressure

Unit inlet air quality 1.4.1. according to ISO 8573-1:2010



Oxygen Filling Station



Our Oxygen filling Station uses advanced Pressure Swing Adsorption (PSA) technology to produce Oxygen and includes a high-pressure compressor for filling Oxygen cylinders. The design is made for 24/7 operation.

The stand-alone system consists of the essential components (compressor, dryer, generator etc.) and provides an innovative format when you are not restricted in terms of height, width or capacity etc. It is a cost-effective and maintenance friendly solution, suitable for indoor installation. Waste heat from the compressor can also be recovered and used to reduce heating costs.



Automatic cylinder filling



All concepts available - stand-alone, skid mounted, containerized



Various standard of outlet connections



Filling ramp with various cylinder size



Outlet pressure: 150 - 207 bar



Oxygen Filling Station - Specifications



Model	Purity %	Capacity (m³/h)	Max. outlet pressure (bar)	Cylinders filled (in 24h)	Dimensions (LxWxH) m	App. weight (kg)
O4FS	95	3.4	152	13.6	1.0 x 5.0 x 1.9	600
08FS	95	6.8	152	27.2	1.5 x7.5 x 2.1	2200
018FS	93/95	19	172	76	1.5 x 7.5 x 2.4	2600
021FS	93/95	21	207	84	1.7 x 8.7 x 2.5	4000
O38FS	93/95	38	172	152	2.0 x 10.5 x 2.5	6000
O42FS	93/95	42	207	168	2.2 x 10.5 x 2.6	6300

6m³ volume cylinder considered.

Stated models are delivered in a stand-alone configuration. For skid-mounted and/or containerized units, please, contact us. Larger capacities also available.

Unit inlet air quality 1.4.1. according to ISO 8573-1:2010



Containerized Oxygen Plant

This is a modified ISO container which includes all system components with the advantage of being easily maneuverable and it can be specified to withstand environmental conditions such as, tropical, sub-tropical, arctic, desert, and extreme saltwater exposure.





Designed for outdoor installation



Available oxygen outlet at pressure 4 bar or cylinder filling at 150 bar



Interconnection made of Stainless Steel



Plug-and-play solution



Transportable



Containerized oxygen plant - specifications



Model	Filling capacity (m ³ /h)	Cylinders filled (in 24h)	End pressure (bar)	Power (kW)	Container size (ft)	Dimensions (LxWxH) m	Weight (kg)
MOFS4	3.4	13.6	152	7	9	2.9 x 2.2 x 2.3	2100
MOFS8	6.8	27.2	152	12	20	6.1 x 2.5 x 2.6	4300
MOFS18	19	76	172	25	20	6.1 x 2.5 x 2.6	5300
MOFS21	21	84	207	38	20 (HC)	6.1 x 2.5 x 2.9	6000
MOFS38	38	152	172	50	40 (HC)	12 x 2.5 x 2.9	9200

6m³ volume cylinder considered. Other options available on request. Unit inlet air quality 1.4.1. according to ISO 8573-1:2010



Skid Mounted Unit

The skid mounted unit is a robust and compact pre-assembled, pre- commissioned turn-key system built on a steel frame including components including piping, hoses and a single electrical connection. Skids are available for standard and some SEP systems, allowing for easy transportation with no installation needed. A plug and produce solution.

The unit includes:

Air compressor, air dryer, filtration set, air tank, oxygen generator, buffer tank

Optionally:

High pressure oxygen compressor and fill ramp with accessories.

Contact us to discuss your bespoke configuration and specifications.





Plug-and-play solution

Common junction box



Interconnection made of Stainless Steel





Oxyport

The Oxyport PSA generator, produces high quality oxygen from Pressure Swing Adsorption. The Oxyport is a complete turnkey solution for smaller flows with a minimal footprint. The OXYPORT generator is the most compact, convenient and reliable source of oxygen.

Oxygen purity: 10 LPM at 94% purity at 4bar outlet pressure



Integrated oil free air compressor, dryer, filters and 10 L buffer tank



Intuitive touch screen control



Built in purity analyzer for constant monitoring



Acrylic flow regulator





Nitrogen Generators Overview

Oxywise nitrogen generators produce high quality nitrogen from compressed air on site by Pressure Swing Adsorption (PSA). Our generators represent a costeffective, reliable and safe alternative to traditional nitrogen gas supplies such as cylinders or cryogenic liquid.

Nitrogen generators are available in 3 variations, Standard, SEP and MultiSEP, with capacity in a range from 1 up to 1150 Nm3/hour from 95% to 99.9995% purity. Oxywise PSA generators are designed for 24/7 operation. The touchscreen control has user friendly interface with automatic start/stop function based on gas consumption. Our SEP and MultiSEP series have spring loaded columns which prevent the molecular sieve against a crushing effect.

Industries where the nitrogen generators can be used:



Electronics



Food packing



Pharmaceutics



Laser cutting



Storage of flammables



- Sec

Tire inflation





Petrochemical





Nitrogen Generators

The unique design provides consistent high flow rates of nitrogen with a minimum footprint. Together with molecular sieve protection from moisture to substantially lower the cost and extend the generators.



Robust design with stainless steel piping



Built in purity analyzer for constant monitoring



Vessels designed for dynamic pressure loading



Intuitive touch screen control



Remote start/stop relay



Nitrogen Generators - Specifications



							Purity					
Мо	del	5,00% 95,00%	3,00% 97,00%	2,00% 98,00%	1,00% 99,00%	0,50% 99,50%	0,10% 99,90%	500 ppm 99,95%	100 ppm 99,99%	50 ppm 99,995%	10 ppm 99,999%	5 ppm 99,9995%
	N2	13,2	11,3	9,3	7,3	6,5	4,8	4,2	3,2	2,3	1,7	1,3
	N4	26,4	22,5	18,6	14,7	13,0	9,6	8,5	6,4	4,7	3,3	2,5
Standard	N6	39,6	33,8	27,9	22,0	19,4	14,4	12,7	9,5	7,0	5,0	3,8
Standard	N9	59,4	50,6	41,9	33,0	29,2	21,6	19,0	14,3	10,5	7,5	5,6
	N12	79,1	67,5	55,9	44,0	38,9	28,9	25,4	19,1	14,0	10,0	7,5
	N15	98,9	84,4	69,8	55,0	48,6	36,1	31,7	23,9	17,5	12,5	9,4
	N20	131,9	112,5	93,1	73,3	64,8	48,1	42,3	31,8	23,3	16,7	12,5
	N27	178,1	151,9	125,7	99,0	87,5	64,9	57,1	42,9	31,4	22,5	16,9
	N35	230,8	196,9	162,9	128,3	113,4	84,2	74,0	55,7	40,7	29,2	21,9
	N50	329,7	281,3	232,8	183,3	162,0	120,3	105,7	79,5	58,2	41,7	31,3
SEP	N65	428,7	365,6	302,6	238,3	210,5	156,3	137,4	103,4	75,6	54,2	40,7
	N80	527,6	450,0	372,4	293,3	259,1	192,4	169,1	127,2	93,1	66,7	50,0
	N100	659,5	562,5	465,5	366,6	323,9	240,5	211,4	159,1	116,4	83,4	62,6
	N125	824,4	703,1	581,9	458,2	404,9	300,6	264,3	198,8	145,5	104,3	78,2
	N150	989,2	843,8	698,3	549,9	485,9	360,8	317,1	238,6	174,6	125,1	93,8
	N80T	1055	900	745	587	518	385	338	254	186	133	100
	N100T	1319	1125	931	733	648	481	423	318	233	167	125
	N125T	1649	1406	1164	916	810	601	529	398	291	209	156
	N150T	1978	1688	1397	1100	972	722	634	477	349	250	188
	N3080	1583	1350	1117	880	777	577	507	382	279	200	150
	N3100	1978	1688	1397	1100	972	722	634	477	349	250	188
	N3125	2473	2109	1746	1375	1215	902	793	596	436	313	235
MultiCED	N3150	2968	2531	2095	1650	1458	1082	951	716	524	375	281
MultiSEP	N4080	2110	1800	1490	1173	1037	770	677	509	372	267	200
	N4100	2638	2250	1862	1466	1296	962	846	636	466	334	250
	N4125	3279	2813	2328	1833	1620	1203	1057	795	582	417	313
	N4150	3957	3375	2793	2200	1944	1443	1269	954	698	500	375
	N5080	2638	2250	1862	1466	1296	962	846	636	466	334	250
	N5100	3297	2813	2328	1833	1620	1203	1057	795	582	417	313
	N5125	4122	3516	2909	2291	2025	1503	1321	994	727	521	391
	N5150	4946	4219	3491	2749	2429	1804	1586	1193	873	626	469

Performance based on 7 bar (g) inlet pressure.

Unit inlet air quality 1.4.1. according to ISO 8573-1:2010



LaserGas Generator

Make laser cutting more effective with ground breaking innovation and future proof PSA Nitrogen gas technology. We proudly introduce our LaserGas product line as a result of our extensive experience in the laser cutting industry.

Nitrogen produced by our generators meets and exceeds cutting gas quality requirements, as listed below:

- O2 ≤ 100 ppm
- H2O ≤ 5 ppm
- CnHm ≤ 1 ppm
- Particles \leq 0,3 $\mu m,$ \leq 100 ppm



Purity control - off spec purge



Modbus TCP



Ethernet connection





LaserGas Generator - Specifications



Model	Сар	acity	Daily capacity (kg/24h)	Power consuption	Specific power	Storage pressure	Gas Purity
	kg/h	m³/h	(Kg/2+11)	(kW)	(kWh/kg)	(bar)	
LaserGas N15-300	19,7	17	473	15,3	0,78	300	
LaserGas N27-300	34,8	30	835	25,7	0,74	300	
LaserGas N50-300	52,2	45	1253	37,7	0,72	300	Up to
LaserGas N35-30	40,6	35	974,4	26,03	0,64	30	99,999%
LaserGas N50-30	59,2	51	1420,8	34,8	0,59	30	
LaserGas N65-30	76,6	66	1838,4	42,8	0,56	30	

Other options available on request.

Unit inlet air quality 1.4.1. according to ISO 8573-1:2010



Containerized Nitrogen Plant



Our containerized systems are designed for **extreme environments** and will cope with ambient temperatures of -20°C to +50°C. Our premium nitrogen generating system precisely matched to the installation altitude, temperature range and humidity levels. Every containerized unit is a bespoke build, with inlet and exhaust vents, product gas outlet points, service doors and even air conditioning installed according to the individual components and customer specification.

For every continent and every environment. To provide a neat space saving solution that can be installed in any environment with no regard to the ambient conditions. These units provide up to 9 barG outlet pressure without secondary compression and 99.9995% gas purity

Contact us to discuss your bespoke configuration and specifications.

Every container includes:





Insulation



Ventilation



Ducting



Nitroport

The Nitroport PSA generator, produces high quality nitrogen from Pressure Swing Adsorption. The Nitroport is a complete turnkey solution for smaller flows with a minimal footprint. Our generators represent a reliable and cost effective alternative to traditional Nitrogen supplies.

Key features:



Compact solution including oil-free compressor

Acrylic flow

regulator



Built in purity analyzer for continuous monitoring



Plug-and-play solution



Control system based on SIEMENS with 4" colour touch screen



Low operating costs





Nitroport - Specifications

Model	Purity (%)	Flow (I/min)
	95	60.0
	98	40.0
	99.5	33.0
Nitroport	99.95	25.0
	99.99	15.0
	99.995	10.0
	99.999	7.0

Performance based on 7 bar (g) inlet pressure Unit inlet air quality 1.4.1. according to ISO 8573-1:2010





Carbon Tower

Some specialized applications within pharmaceutical, food and beverage, electronic or medical industry require to remove residual oil vapors and odors from the compressed air supply.

Carbon Towers help protect the molecular sieve from oil vapors contamination, making the whole system even more reliable.

Oxywise activated carbon towers represent an effective solution to protect generators molecular sieve from oil vapor contamination.





Cabinets and Cylinder Filling Ramps

Cabinets

The Oxygen distribution panel controls pneumatic valves that regulate the amount of oxygen based on information sent from the control system. Solenoid valves are avoided for maximum safety.

The design of the panel is adapted for individual requirements. In case of power failure the oxygen flow can be set manually. The pneumatic valves are opened by compressed air, so a connection to the air source is required.

Cylinder filling ramp

High pressure cylinder filling ramp or filling manifold is used for filling cylinders with gases at pressures up to 450 bar.

We produce standardized ramps or there are also custom made filling ramps available.

An example of custom made ramps represents a ramp which includes control system, two pressure gauges, two temperature gauges and two safety valves. Filling manifold has 20 flexible hoses for filling oxygen cylinders of various connections. In this case 10 connections CGA540 and 10 connections CGA870. The filling pump is controlled by the control panel, which is equipped by oxygen safety valve, thermometer, pressure gauge and pressure switch. Alarms on pressure and temperature switches block the operation of the oxygen pump, while it can be started again after all conditions are in safe zone.



Service support

Maintain Peak Performance with OXYWISE Aftermarket Solutions

Proper maintenance of your nitrogen and oxygen generators is essential to unlocking maximum performance and efficiency. With regular upkeep, you can prevent costly downtime and unexpected breakdowns, ensuring your operations run smoothly and reliably. Routine maintenance not only extends the lifespan of your equipment but also boosts its overall performance, saving you money and enhancing productivity. Invest in maintenance today to safeguard your investment and keep your systems operating at peak efficiency. Oxywise offers and array of services to keep your gas generator running smoothly at all times:

- **Scheduled Inspections:** Conducting scheduled inspections to check all components of the generator for wear and tear.
- **Annual maintenance:** Regularly service of the equipment with original genuine annual service kits, to ensure clean and efficient gas production.
- Genuine Spare Parts: We provide genuine OXYWISE annual maintenance service kits and spare parts. Our kits are designed for 1 to 10-year maintenance cycles.
- **Calibration:** Periodically calibrating sensors and other related devices to maintain the purity levels and accuracy.
- **Component Testing:** Testing major components such as compressors, dryers, and sieves to ensure they are functioning correctly.

Service Kits and Components

- 1 to 10-year service kits
- Purity sensor components
- Main controller components

Service Centres:

- OXYWISE has a robust distribution and service network across the EMEIA region.
- Our state-of-the-art Service and Repair Centre, located in Slovakia, with highly educated engineers and technicians.

By adhering to a comprehensive maintenance schedule, you can significantly enhance the efficiency, reliability, and longevity of your nitrogen and oxygen generators.

For further details, information, and support, please visit our website www.oxywise.com, or contact your local OXYWISE distributor.

Oxywise s.r.o. Hurbanova 21/7069 921 01 Piešťany, Slovakia



www.oxywise.com

Oxywise specializes in developing and producing PSA Oxygen and Nitrogen systems, leveraging extensive engineering experience.

Our product range includes dosing systems, filling ramps, and gas distribution systems, with installations available in ISO certified shipping containers tailored to customer specifications. We are committed to delivering effective, reliable, and affordable solutions that meet our customers' needs. Our goal is to continuously improve the quality of our products and services, focusing on installation and maintenance. Oxywise strives to be a dependable partner in the industrial gases sector, driven by qualified staff, responsible management, and a customer-oriented approach. Contact us today to discuss how we can help you improve your operations and grow your business.



