



OXYGEN GENERATOR OXPURE

On site oxygen production
up to 99,5% purity

Novair introduces a PSA oxygen generator capable to produce high purity oxygen on site, with an exceptional stability. Oxpure is an ideal alternative to traditional gas supply (cylinders or liquefied gas). Our large range of capacities and various output oxygen purities allow us to respond to the needs of all types of industries, with the most cost effective solutions.

Main features & benefits

- Turnkey solution
- Fully automatic process
- Various flow rates and purities available
- Highly competitive production cost
- Remote monitoring & alarm functions

Designed for

- Fish farming
- Glass manufacturing
- Flame / laser cutting
- Waste water treatment
- Winery
- etc...



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Optimised PSA technology

Oxypure oxygen generators by Novair Industries are based on the Pressure Swing Adsorption (PSA) process. This technology is a static separation of air gases through a specific molecular sieve capable to adsorb nitrogen under pressure. Novair R&D has optimized the process to obtain a high and stable oxygen purity – up to 99%, at a very competitive cost.

Designed for a simple and quick installation, they include:

- 2 PSA sieve beds
- 1 monitoring system CPU Controller with digital screen
- 1 separate oxygen receiver equipped for oxygen service

High efficiency

For a long lasting performance and an easy & limited maintenance, Oxypure generators feature :

- Ergonomic design
- High efficiency molecular sieve
- Low energy consumption
- Reliable, tested and controlled components

Quality of produced oxygen

Concentration	93% to 99,5%
Dew point	<-50 °C (< 67 ppm)
CO	< 2 ppm
CO2	< 150 ppm
SO2	0 ppm
NO2	< 2 ppm
Oil	< 0.1 mg / m ³

Additional features & available options

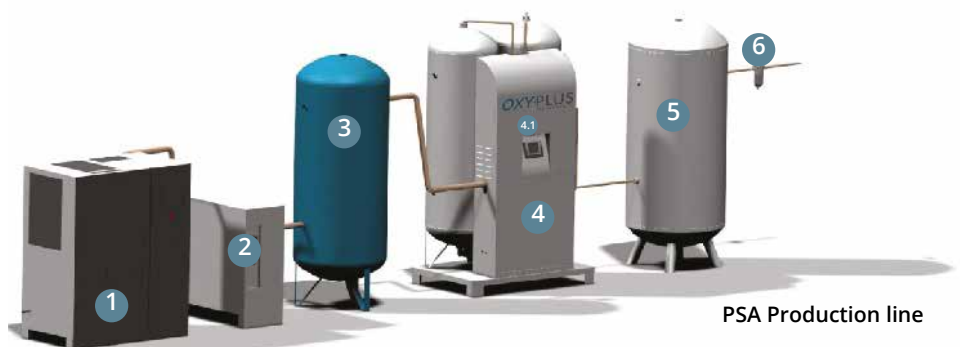
- Air compressor
- Air Dryer
- Air tank
- Containerized or skid mounted plant
- Cylinder filling system
- Gas booster
- Gas analyzers
- Flowmeter
- Remote monitoring



CPU Controller[®] control panel

Automatic monitoring

Oxypure oxygen generators are automatically managed by the CPU controller, a device based on a PLC system comprising a logic controller, a digital screen and an ergonomic control panel. Key informations such as oxygen concentration, hour meter or alarm reports are displayed on the CPU screen. This user-friendly system is available in several languages.



- 1 Lubricated screw air compressor
- 2 Air treatment line
- 3 Compressed air tank
- 4 PSA generator
- 4.1 CPU controller
- 5 Oxygen tank
- 6 Particle filter

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Inlet & environmental parameters

Compressed air	
Air pressure min / max	7,5 / 10 bar
Outlet pressure	Jusqu'à 7 bar*
Air quality	ISO 8573-1: class 1.4.1
Air inlet diameter (" G)	3/4" to 2"1/2
Oxygen outlet diameter (" G)	1/2 à 1
Dew point	+3°C

* Possibility to increase the outlet pressure upon request

Plant room requirements

1/ Dedicated room:

The plant room provided should be exclusively dedicated to the oxygen production unit. It shall contain no storage or warehousing of any product whatsoever. In particular, the presence of flammable materials is strictly prohibited.

- **Minimum dimensions:** according to the layout plan approved by NOVAIR (see below).
- **Ground:** concrete slab to level.
- **Overload:** the slab bear the weight of the equipment installed. Please refer to product datasheet.
- **Coating:** smooth screed with floor paint or hard coating quartz type.

2/ Evacuation of condensate:

A connection point for the evacuation of condensed water has to be provided in the room.

3/ Ventilation :

Provide a fresh air grid – minimum 0.10 m² per Kw and a hot air extraction ventilator at the top of the room.

Warm air compressor should be vented outside through ducts.

Avoid installing the evacuation of hot air at the same side as the entry of cold air.

The room temperature must be above +5 °C and below the maximum temperature in the defined specification (30 °C standards). If necessary, appropriate means (heating, air conditioning) should be installed to achieve these temperature. In case of room temperature exceeding 30°C, compressed air production should be designed in consequence.

Operating conditions		
Version	Standard	With Upgrade
Ambient temperature	Up to 25°C	Up to 50°C
Altitude	< / =1000m	> 2000m
Humidity	50% @ 40°C (80% MAX ≤31°C)*	
Power supply	230-110 V / 50-60 Hz	

* Specific humidity conditions handled upon request

Do not expose to outdoor impurities (rain, sand, heavy dust)

4/ Electrical cabinet :

Power supply cabinet must be installed on premises. Details of requested power features will be provided by NOVAIR for each facility.

It must include a ground line in accordance with the regulations in force.

5/ Lighting:

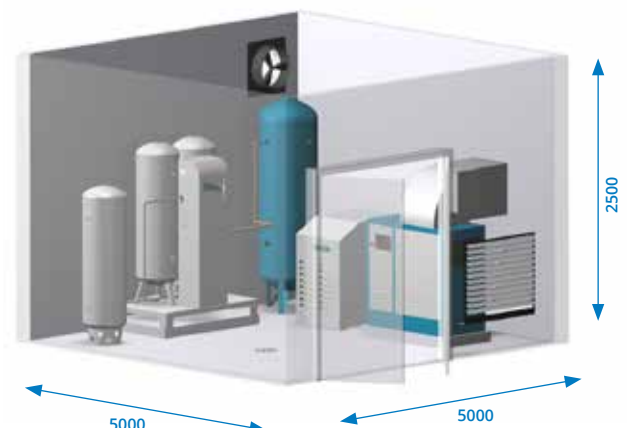
The room should be well lit, especially around compressor(s) and generator(s).

6/ Fire safety :

Security measures must be taken and displayed at the entrance of the premises:

- Smoking ban
- Open fire ban
- Sprinklers installation

Example of layout plan



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OxyPure range of generators

Flow in Nm³/h*

Oxygen purity	O ₂ Flow Nm ³ / h		
	93% +/-3%	95% +/-1%	99% Min
OxyPure 5	2.6	2.0	N/A
OxyPure 10	4.9	4.2	2.3
OxyPure 15	8.3	7.2	3.9
OxyPure 20	9.9	8.4	4.5
OxyPure 27	11.7	10.0	5.4
OxyPure 30	13.6	12.5	6.8
OxyPure 40	19.8	18.0	9.7
OxyPure 50	22.9	20.0	10.8
OxyPure 60	26.3	24.0	13.0
OxyPure 72	34.5	29.0	15.7
OxyPure 90	37.0	34.5	18.6
OxyPure 100	42.0	39.0	21.1
OxyPure 120	48.5	46.5	25.1
OxyPure 150	73.0	63.0	34.0
OxyPure 200	90.0	80.0	43.2

*Flow performance : +/-5%

Flexible design available for indoor and outdoor locations



Skid- mounting with power cabinet



In container equipped with power cabinet, ventilation and lighting