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Advanced Ozone Products

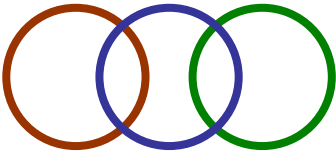
ONYX

floor mount oxygen generator



Features

- **Advanced engineering**
- **Low operating cost**
- **Transportable with rollerbase design**
- **Easy to operate and maintain**
- **Time-proven reliability**
- **Thousands in use around the world**
- **CE certified**



Applications

- Ozone Generator Feed Gas
- Waste/Water Treatment
- Thermal/Chemical Oxidation
- Glass Work/Manufacturing/Blowing
- Fish Farming
- Cutting/Brazing/Soldering
- Environmental Remediation
- Hospital Systems

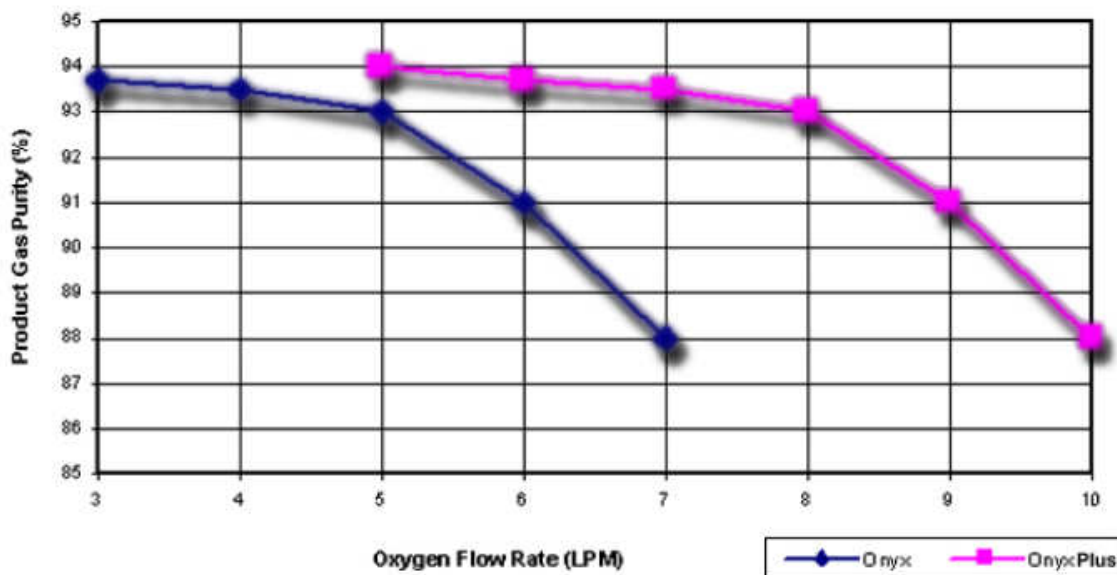
Principle of Operation

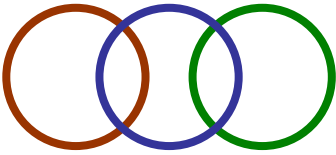
Air contains 21% oxygen, 78% nitrogen, 0.9% argon, and 0.1% other gases. Oxygen generator systems separate oxygen from compressed air through a Pressure Swing Adsorption (PSA) process. The PSA process uses molecular sieve (a synthetic zeolite), which attracts (adsorbs) nitrogen from air at high pressure and releases (desorbs) it at a low pressure.

The oxygen generator uses two vessels filled with molecular sieve as adsorbers. As compressed feed air flows through one of the vessels, the molecular sieve adsorbs nitrogen. The remaining oxygen passes through the vessel and exits as the product gas. Before the adsorber becomes saturated with nitrogen, the feed air is diverted to the second vessel. At that point, the sieve in the first vessel regenerates by desorbing the nitrogen through depressurization and purging it with oxygen from the second vessel.

This process is then repeated in the second vessel to complete a cycle that allows the oxygen generator to deliver a constant flow of product oxygen at 90% minimum purity. Under normal operating conditions, the molecular sieve is completely regenerative and will last indefinitely.

Onyx/Onyx Plus Product Gas Purity





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Specification

ONYX oxygen generator

Dimensions	400 x 370 x 730 mm
Shipping Dimensions	440 x 400 x 850 mm
Weight	25 kg Net, 30kg Gross
Typical power consumption	350W
Mounting	Floor mount rollerbase
Product flow	6 ltr/min (Onyx); 8ltr/min (Onyx Plus)
Standard Product Pressure	0.62 Bar g (Onyx); 1.38 Bar g (Onyx Plus)
Outlet Non Return Valve	Incorporated
Product Purity	93% ±3%
Product Dew Point	-73°C
Sound Level	49 dB
Operating conditions	+4°C to +44°C in well ventilated area protected from weather
Product gas outlet	¼ in NPT/B size oxygen adaptor
Power supply	AC 220 V ±10%, 50 Hz, single phase
Certification	CE and CSA
Warranty	1 year parts and factory labour

The manufacturer (and therefore Advanced Ozone Products Ltd.) reserves the right to change specifications and/or design without notice.