

On Site O₂ generation



Oxygen Generators

On-Site systems use either PSA (Pressure Swing Adsorption) or membrane technology to generate gas (Note that is AD-sorption, not AB-sorption. Adsorption is the physical process of separating molecules of gas from each other, while absorption is a chemical process)



The Process

Compressed air is used to pressurize a vessel, filled with either carbon or zeolite (CMS), which separates molecules by physical composition or structure.

By forcing air down the fibre, the smaller O₂ molecules are captured and the N₂ molecules escape at the other end. The air in the membrane is usually heated to excite the molecules and increase the chance that they will permeate through the holes.

Pressure is released to draw off the O₂ or N₂ molecules which are collected in a tank. A pressure release valve vents the captured molecules of the unwanted gases into the air, where they immediately combine back to ambient percentages. Upon saturation the first sieve bed releases the N₂ while the second sieve bed starts the process over again



Features and Benefits

- **Convenient** Easy to install and maintain with an unlimited supply of O2
- **Touch Screen control** Precision system control for purity level, troubleshooting diagnosis, maintenance schedules and operations diagrams
- **Cost Savings** Produce your own gaseous nitrogen for a fraction of purchasing cylinders
- **PFX** Up to 3 different purity levels from the same machine
- **Fast Payback** Systems average less than 12 months ROI. No delivery fees tank rental, long term contracts or price increase
- **Low Operation Cost** Low Air-to-oxygen ratio and limited maintenance
- **Expandable** Take advantage of our equipment expansion /return customer program
- **Fully Automated** Oxygen production begins when downstream demand is sensed
- **Reliable** System operating over 20 years on some of the most remote locations in the world
- **Lease/ Rental Option** Write off the cost of your generator as an operating expense, rather than using capital
- **Flexible** Replace or augment your current oxygen system

Applications

- Ambulance Service
- Ambulatory Oxygen
- Auto Repair / Muffler
- Brazing
- Disaster Management
- Emergency Medical Response
- Ethanol Production / Bio-fuels
- First Responders
- Fish Farms/ hatcheries
- Glass Blowers
- Gold Mining
- Hospitals, Shelters, Medical, Military Oxygen and Ozone Generation
- Neon Light Manufacturing
- Waste Water Treatment