

GENERON

Oxygen Generating Systems

Oxygen PSA - OS-10-48



◆ Typical Applications

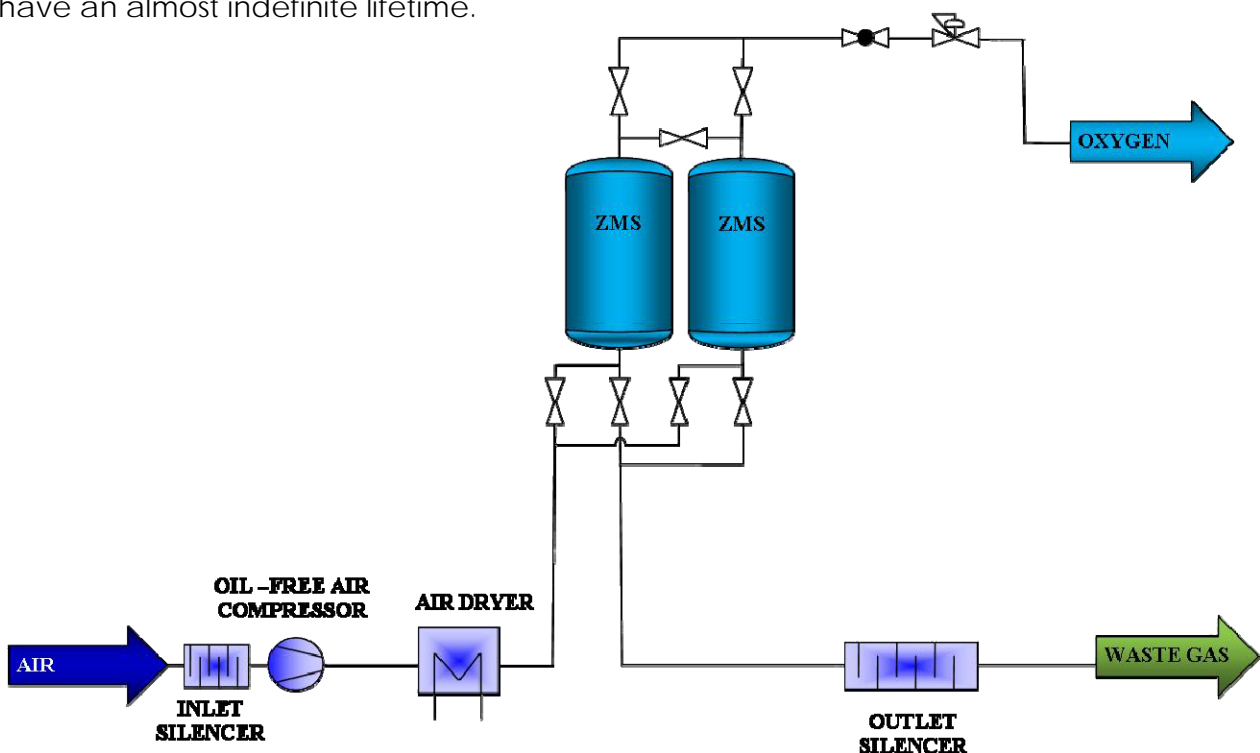
- Health care
- Fish Farming
- Sewage Treatment
- Glass Industry
- Food industries
- Sewage Treatment
- Pulp and Paper Industry
- Welding, Melting, Brazing
- Manufacturing Batteries
- Chemical Oxidation

◆ Advantages of GENERON® OXYSWING PSA

- Low Operating Pressures
- No Hazardous Storage or Connections
- Low Gas Generating costs
- Low Operating Cost
- Fully Automatic Unattended Operation
- 2 Million plus cycle valves
- Easy to Install and Maintain
- Low dBa levels

IGS Oxygen PSA Generators separate Oxygen (O₂) from compressed air utilizing pressure swing adsorption technology. Compressed air, which consists of approximately 21% oxygen and 78% nitrogen, is passed through a bed of Zeolite molecular sieve (ZMS). The sieve preferentially adsorbs N₂ and moisture over O₂ allowing the O₂ to pass through as a product gas at pressure. While one of the towers is in the adsorption phase the other tower is regenerated by de-pressurizing at which time the sieve releases the adsorbed gases to the atmosphere and the cycle is then repeated.

A solid state programmable controller operates the process valves on an alternating cycle with built-in logic for automatic stop/start. Oxygen flow and purity remain constant regardless of the peak usage demands. Under normal operating conditions and with correct maintenance the Zeolite molecular sieve will have an almost indefinite lifetime.



Oxygen Generating Systems -

OS-10-48 Technical Data—US Standards

Oxygen Production Flow			Length	Width	Height	Weight
(Nm ³ /h) / (Scfh)						
90 vol.%	93 vol.%	95 vol.%	(mm) / (inch)	(mm) / (inch)	(mm) / (inch)	(kg) / (lbs.)
3.4 / 130	3.1 / 119	2.7 / 103	939.8 / 37	914.4 / 36	1879.6 / 74	360 / 794

*All performance flows are +/- 4%. All flows are shown at 68° F / 20°c.

◆ Standard Components

- ASME Adsorber Vessels
- Pneumatic / Electric Valves (Two million cycle life)
- Piping, Gauges, and Instrumentation
- Safety Valve
- Oxygen Pressure and Flow Regulators
- PLC Control System (Allen Bradley)
- Steel wrap around skid mounted
- Exhaust Silencing Muffler
- Sound Level < 90 dB(A)

◆ Options

- Oxygen Analyzer (with Calibration kit)
- Product Flow Meter
- Inlet Filtration Package
- Post Filtration Package
- Auto Shut Down/Startup mode (with manual bypass valve capability)
- Auto Standby mode
- Off Specification Circuit
- HMI Display Screen: Displays Inlet pressure, outlet pressure, system run status, O2 concentration
- CFV Activated Carbon Filter Vessel

◆ Special Options

- Master Controller: PLC (Allen Bradley) Driven for multiple unit operation
- Enhanced PLC with Telemetry
- Enhanced HMI: Monitor Package (Displays Feed Air, Nitrogen Product Pressures, Oxygen Concentration, and Product Flow)
- Compressed Air Buffer Tank
- Oxygen Buffer Tank
- Product Booster Compressor
- Dew Point Analyzer



GENERON

16250 Tomball Parkway
Houston, Texas 77086
O +1 713 937 5200
F +1 713 932 5250
www.generon.com

GENERON



D-OS-1048-1217