



### ◆ Typical Applications

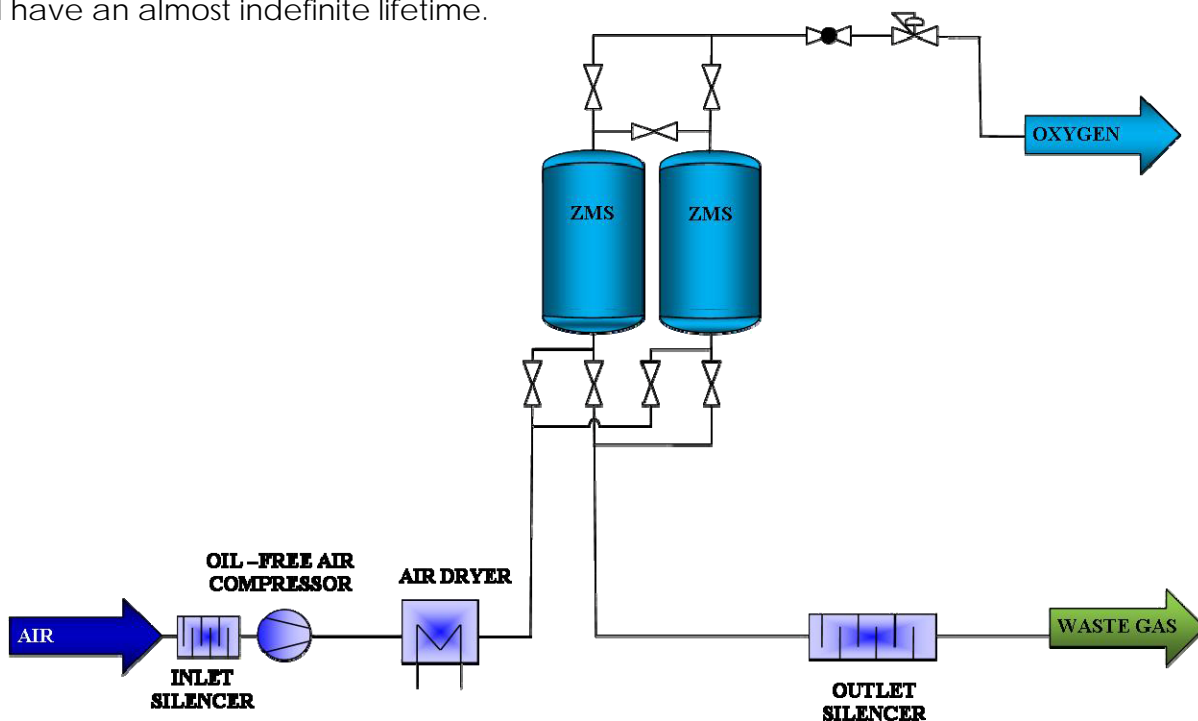
- Health care
- Fish farming
- Sewage treatment
- Glass industry
- Food industries
- Sewage treatment
- Pulp and paper industry
- Welding, melting, brazing
- Manufacturing batteries
- Chemical oxidation

### ◆ Advantages of GENERON® OXYSWING PSA

- Low operating pressures
- No hazardous storage or connections
- Low gas generating costs
- Low operating cost
- Fully automatic unattended operation
- Two million plus cycle valves
- Easy to install and maintain
- Low dBA levels

GENERON® Oxygen PSA Generators separates oxygen (O<sub>2</sub>) 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 N<sub>2</sub> and moisture over O<sub>2</sub> allowing the O<sub>2</sub> 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-20-78 Technical Data - US Standards

Oxygen Production Flow						
(Nm <sup>3</sup> /h) / (Scfh)			Length	Width	Height	Weight
90 vol.%	93 vol.%	95 vol.%	(mm) / (inch)	(mm) / (inch)	(mm) / (inch)	(kg) / (lbs)
19.4 / 738	17.7 / 675	15.4 / 586	1473 / 58	1321 / 52	2794 / 110	1747 / 3851

\*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 dBA

### ◆ 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, O<sub>2</sub> 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
- Tanks & generator on a common skid
- Custom engineered packages



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