

OSI 125/250/500/1000 Oxygen Concentrator

OSI oxygen concentrators offer the lowest power consumption possible for a vacuum swing adsorption system (VSA). Their compact design allows them to be moved and installed with minimal handling. Totally self-contained, OSI oxygen concentrators can be online in a minimal amount of time. OSI oxygen concentrators require very little maintenance. They feature remote diagnostics and communications and automatic turn-down to suit demand and save energy.



All units are fitted with a programmable logic controller (PLC) and a variable frequency drive (VFD) for the main blower motor. This feature gives the highest possible efficiency and also gives a linear power demand on *turn down*. When using 50% of the capacity of the machine, only 50% of the energy is required.

All required maintenance information—oil changes and filter and seal replacements—is displayed on the HMI touch screen. Alarms and faults also appear on the touch screen and can be monitored remotely if an internet or cell connection is available. Alarms are sent by e-mail and/or cell text message to designated recipients. The touch screen displays all operating conditions, such as pressures and amperage draw, for easy monitoring of the VSA.

Applications

- Oxygen injection can improve the health of the aquaculture livestock and increase profitability for the aquaculture farmer
- Ozone generation for water treatment plants provides effective water purification
- Oxygen management on wastewater treatment speeds up biological breakdown and odour control

Features

- 75% turn down ratio modulation automatically reduces production as the load decreases
- Load control on multiple units takes units off-line for best efficiency
- Scalable configurations—113, 227, 454 or 908 kg/day oxygen production

Specifications

| | OSI 125 | OSI 250 | OSI 500 | OSI 1000 |
|--|--|--|--|--|
| Discharge flow rate | 60 Lpm 113 kg/day | 120 Lpm 227 kg/day | 240 Lpm 454 kg/day | 475 Lpm 908 kg/day |
| Oxygen purity | 92% ± 2% | 92% ± 2% | 92% ± 2% | 92% ± 2% |
| Discharge pressure (w/ booster compressors) | 0.30–0.45 bar 1.4–5.0 bar | 0.30–0.45 bar 1.4–5.0 bar | 0.30–0.45 bar 1.4–5.0 bar | 0.30–0.45 bar 1.4–5.0 bar |
| Temperature range | 4–32 °C | 4–32 °C | 4–32 °C | 4–32 °C |
| Power options | 460 VAC/60 Hz 3Ph 380 VAC/50 Hz 3Ph 200 VAC/50 Hz 3Ph | 460 VAC/60 Hz 3Ph 380 VAC/50 Hz 3Ph 200 VAC/50 Hz 3Ph | 460 VAC/60 Hz 3Ph 380 VAC/50 Hz 3Ph | 460 VAC/60 Hz 3Ph 380 VAC/50 Hz 3Ph |
| Average current draw | 6 A/460 VAC/60 Hz @ 5 bar 4 A/460 VAC/60 Hz @ 0.35 bar 8 A/380 VAC/50 Hz @ 5.0 bar 5 A/380 VAC/50 Hz @ 0.35 bar | 11 A/460 VAC/60 Hz @ 5 bar 7 A/460 VAC/60 Hz @ 0.35 bar 14 A/380 VAC/50 Hz @ 5.0 bar 9 A/380 VAC/50 Hz @ 0.35 bar | 17 A/460 VAC/60 Hz @ 5 bar 11 A/460 VAC/60 Hz @ 0.35 bar 21 A/380 VAC/50 Hz @ 5.0 bar 13 A/380 VAC/50 Hz @ 0.35 bar | 29 A/460 VAC/60 Hz @ 5.0 bar 19 A/460 VAC/60 Hz @ 0.35 bar 35 A/380 VAC/50 Hz @ 5.0 bar 22 A/380 VAC/50 Hz @ 0.35 bar |
| Maximum current draw | 9 A/460 VAC/60 Hz @ 5.0 bar 11 A/380 VAC/50 Hz @ 5.0 bar | 14 A/460 VAC/60 Hz @ 5.0 bar 17 A/380 VAC/50 Hz @ 5.0 bar | 22 A/460 VAC/60 Hz @ 5.0 bar 17 A/380 VAC/50 Hz @ 5.0 bar | 44 A/460 VAC/60 Hz @ 5.0 bar 53 A/380 VAC/50 Hz @ 5.0 bar |
| Recommended electrical service | 20 A/460 VAC/60 Hz 20 A/380 VAC/50 Hz | 20 A/460 VAC/60 Hz 20 A/380 VAC/50 Hz | 30 A/460 VAC/60 Hz 30 A/380 VAC/50 Hz | 60 A/460 VAC/60 Hz 60 A/380 VAC/50 Hz |
| Average power consumption | 5.5 kW @ 5.0 bar 3.5 kW @ 0.35 bar | 8 kW @ 5.0 bar 5 kW @ 0.35 bar | 12 kW @ 5.0 bar 7.5 kW @ 0.35 bar | 22 kW @ 5.0 bar 14 kW @ 0.35 bar |
| Cost of oxygen generation | .69 kWh/kg | .66 kWh/kg | .60 kWh/kg | .50 kWh/kg |
| Oxygen outlet | 3/8" NPT | 1/2" NPT | 1/2" NPT | 3/4" NPT |
| Concentrator dry weight | ~1,000 kg | ~1,200 kg | ~1,550 kg | ~2,050 kg |
| HMI touch screen PLC | 7" touch screen | 7" touch screen | 7" touch screen | 7" touch screen |

Contact

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