



EcoGenX™ Oxygen VPSA Onsite Generator

CONTROL YOUR OWN DESTINY

Onsite production using your own Adsorptech EcoGenX™ VPSA achieves the lowest cost, highest reliability, and most flexible oxygen supply, thereby maximizing your production output and return on investment.

An Adsorptech EcoGenX™ VPSA is designed precisely to meet your unique requirements, meaning every dollar spent is put to your use.

Because the oxygen is produced at your site, all the cost & reliability concerns with over the road or pipeline transport interruption risk are eliminated; transport equipment, handling and shipping costs are eliminated; long-term escalation compounding inflation is reduced because operating costs are minimized; and most importantly, your product disruption cost and risk is eliminated when the inevitable oxygen market supply/demand imbalance impacts offsite produced oxygen availability.

THE ECOGEN™ MODEL

EcoGenX™ VPSA systems are available in sizes from 40 to 80 STPD (nominal 1000 to 2100 Nm³/hr.) of oxygen product at pressures up to 15, 43, or 150 psig (1/3/10 barg) as standard designed models. The higher the purity and/or pressure, the higher the unit oxygen cost. Of course, a system can be designed to suit other oxygen specifications when additional custom design cost proves affordable.

ECO-EFFICIENT & RELIABLE

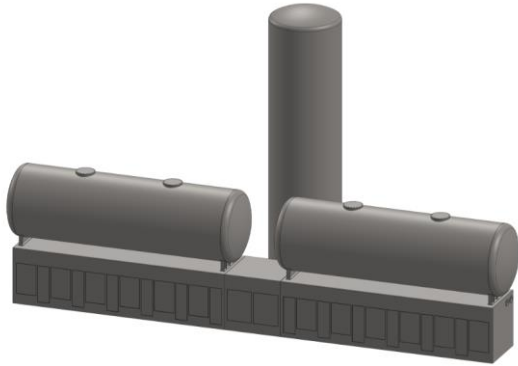
In its oxygen capacity range, only Adsorptech's proprietary EcoGenX™ technology can offer the unparalleled combination of world's highest power efficiency and reliability in a single package. The EcoGenX™ oxygen VPSA system is the most power efficient oxygen source in the world today. EcoGenX™ offers a process design that, when any primary air/vacuum component requires a shutdown for maintenance or repair, the VPSA only loses a portion of its rated capacity. This unique operating benefit reduces reliance on excessive cost alternative oxygen sources. The EcoGenX™ does not require cooling water, seal water, oil removal or air refrigeration, avoiding all the cost and reliability issues related to the supply of these utilities demanded by competitor systems.

WHO CAN USE ECOGEN™?

EcoGenX™ provides a low-cost high-reliability source for any application requiring the rated oxygen quantity and pressure specified. There are many applications that fit EcoGenX™ specifications including:

- Aquaculture oxygenation
- Combustion air enrichment
- Ferrous & non-ferrous metals
- CCU, CHP, gasification, WTE
- Oxy-fuel combustion
- Ozone production
- Pulp & paper
- Refining
- Smelting
- Wastewater & water purification

EcoGenX™ Oxygen VPSA Standard Models		Capacity at 90% purity, 70 F (21 C), 50% RH, sea level			
	Model	X700	X900	X1100	X1300
Product Capacity	STPD/Nm ³ /hr.	40/1060	53/1410	67/1760	80/2120
Power 15/43/150 psig*	Kw/hr.	351/388/472	466/514/627	586/647/788	701/772/942
Foundation Size, skid & buffer	Ft.	12 x 76	12 x 86	12 x 101	12 x 116
	M	3.7 x 23.2	3.7 x 26.2	3.7 x 30.8	3.7 x 35.4
Instrument Air, 80 psig	SCFM/Nm ³ /hr.	10/16	10/16	10/16	10/16
Power Supply	50 or 60 Hz.	380 to 480 V, 3 Phase			
* Expected power +/-5% at 90% +/- 3% purity product. Able to operate between 85% to 95% purity.					
For smaller oxygen requirements, refer to the EcoGen™ brochure					



EASY INSTALLATION & OPERATION

EcoGenX™ VPSA systems have been designed with easy installation and operation in mind – simple foundation and utility connections including one power voltage and a small instrument air source.

ISP availability is required for remote monitoring and diagnostics. No planned molecular sieve changes are required.

STANDARD SCOPE OF SUPPLY

Standard scope includes:

- All machinery, electrical, controls and moving parts on a single frame
- Outdoor weather/sound enclosure
- A separate product gas buffer vessel including its interconnecting pipe
- PLC controlled & fully automated, single button startup and shutdown
- Dial a purity functionality with product oxygen analyzer
- Dial a flow functionality to achieve maximum turndown power savings
- Ethernet port for remote access
- Shop check out



STANDARD OPTIONS

Standard options include:

- Extreme cold site protections
- National code compliance such as CE Marking

COMPLETE SERVICE PROVIDER

Adsorptech engineers have been designing, building, and operating VPSA systems for over three decades with a combined experience in excess of 100 years. In addition to the supply of the EcoGenX™, Adsorptech can provide:

- Remote operations and maintenance service plans
- Turnkey installation or relocation services
- Custom engineering such as storage & compression systems, back-up tanks & vaporizers
- Any gas separation process and design engineering services such as CO₂, CHP, and WTE
- Industrial gas equipment procurement and contract consulting

<https://www.adsorptech.com>