



## EcoGen™ Oxygen VPSA Onsite Generator

### CONTROL YOUR OWN DESTINY

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

An Adsorptech EcoGen™ 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 are eliminated with over the road or pipeline transport interruption risk; transport equipment, handling and shipping costs are eliminated; long-term escalation compounding impact reduced because operating costs are minimized; and most importantly, the disruption cost and risk is eliminated when the inevitable oxygen market supply/demand imbalance impacts offsite produced product availability.

### THE ECOGEN™ MODEL

EcoGen™ VPSA systems are available in sizes from 20 to 200 SCFM (nominal 25 to 335 Nm<sup>3</sup>/hr), at an oxygen purity of 90% +/-3% and product pressures up to 15 psig and 43 psig (1 & 3 barg) as standard designed models. The higher the purity and/or pressure, the higher the unit cost to produce. Of course a system can be designed to suit other oxygen specifications when an additional custom development cost proves appropriate.

### ECO-EFFICIENT & RELIABLE

In this oxygen capacity range, only Adsorptech's proprietary EcoGen™ technology can offer the unparalleled combination of low power consumption and high reliability in a single package. The EcoGen™ oxygen VPSA system is nearly twice as power efficient as alternative oxygen PSA systems on the market today. The EcoGen™ offers a process design that when any primary air/vacuum component fails or is in need of shutdown for maintenance or repair, the system is capable of operating at about half its design capacity. This unique operating benefit reduces reliance on high cost alternative oxygen sources. The EcoGen™ requires neither cooling water nor seal water avoiding all the cost and reliability issues related to the supply of these utilities necessary for competitor systems.

### WHO CAN USE ECOGEN™

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

- Aquaculture oxygenation
- Combustion air enrichment
- Gasification
- Oxy-fuel combustion
- Ozone production
- Refining
- Smelting
- Water purification
- Wastewater treatment

EcoGen™ Oxygen VPSA Product Range							
(Ratings at 70 F (21 C), 50% RH & sea level)							
Model	E20	E40	E60	E80	E120	E160	E210
Nominal Capacity (SCFM/Nm <sup>3</sup> /hr)	17/26	40/63	60/95	78/123	116/183	155/245	213/336
Expected Power (Kw/hr) 15 /43 psig*	10/12	22/25	32/36	43/48	63/70	84/94	119/132
Foundation size (M)	2 x 5	2 x 6	3 x 7	3 x 7	3 x 8	3 x 11	3 x 11
Foundation size (ft)	5 x 14	6 x 17	8 x 21	8 x 21	9 x 25	9 x 35	9 x 36
Instrument Air (SCFM 80 psig/ Nm <sup>3</sup> /hr)	2/3	2/3	5/8	5/8	5/8	5/8	5/8
Power Supply (50/60Hz)	380-575V, 3PH						

\* +/- 5% at 90% +/- 3% purity product. Can be set to operate anywhere in between 85% to 95% purity.

## EASY INSTALLATION

EcoGen™ VPSA systems have been designed with easy installation in mind – simple foundation and utility connections which include power and a small instrument air source.



An ISP connection is required for remote monitoring and diagnostics.

## STANDARD SCOPE OF SUPPLY

Standard scope includes:

- All machinery, electrical, controls and moving parts on a single frame
- Frame 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 turndown power savings
- Remote access capable

## STANDARD OPTIONS

Standard options include:

- Network remote control functionality
- CE Marking



## COMPLETE SERVICE PROVIDER

Adsorptech engineers have been designing, building and operating VPSA systems over three decades with a combined experience in excess of 100 years. In addition to the supply of the EcoGen™, 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
- Process & controls engineering services such as HMI

For a complete list of products & services go to [www.adsorptech.com](http://www.adsorptech.com).

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