

AirSep Corporation is the world's largest manufacturer of PSA & VPSA* oxygen technology-based products for medical and commercial oxygen applications.

* The air separation process our oxygen concentrators and generators use to produce oxygen

Technology Experience

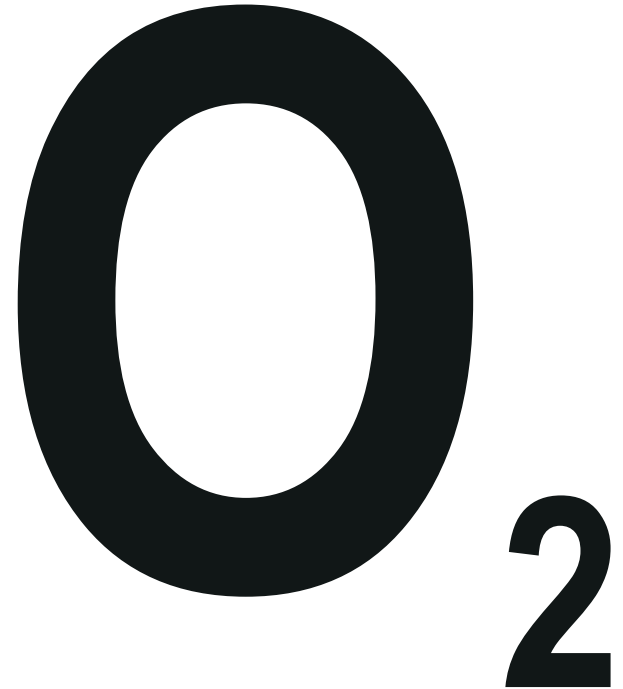
- Our personnel includes pioneers and patent holders that were instrumental in the initial development of Pressure Swing Adsorption (PSA) oxygen generation equipment
- Some of our engineers individually have over 33 years experience with PSA technology
- We have developed and marketed the widest range of standard PSA oxygen technology-based products
- The majority of our Alpha Series Product Line as well as the majority of our other products are both CSA (Canadian Standards Association) and CE (Conformité Européenne or European Conformity) Approved

AirSep Keys to Success

- Sound engineering design delivers products that are easy to use and maintain
- Continuous product improvement and cutting edge innovations i.e. low noise mufflers and integrated on-line oxygen monitors
- Widest range of standard systems to supply a variety of applications
- AirSep oxygen generators work on the same general principle – the difference is the selection and size of the components
- Once you understand the operation of a given series generator, you can work with the entire product line

Oxygen Factoids:

- ◆ It makes up 20.94% by volume of the air we breathe
- ◆ It is colorless, odorless, & tasteless
- ◆ It is the most widely occurring element on earth
- ◆ It is the second largest volume industrial gas produced
- ◆ It is highly valued for its reactivity by itself & in its even more reactive form, ozone (O₃)



Potential Oxygen Sources include:



Cylinder oxygen

Liquid oxygen dewar

On-site liquid oxygen tank

Direct pipeline

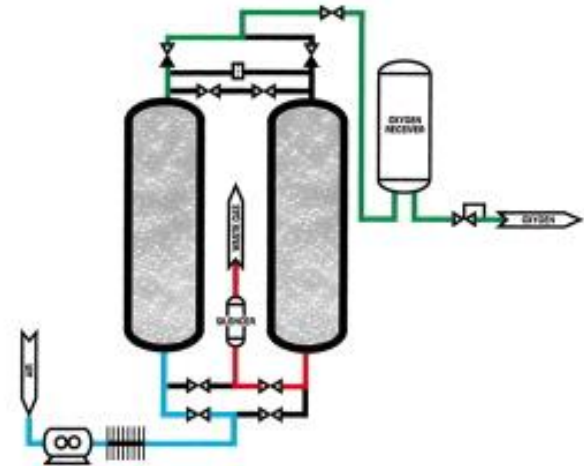
On-site cryogenic plant

▸ AirSep Oxygen Generator

What is an AirSep PSA or VPSA Oxygen System?

It is a non-cryogenic, regenerative device that concentrates the oxygen from an air stream & delivers generally 90 to 95 percent oxygen at a positive pressure

- It is an alternative to cryogenically produced cylinder or liquid oxygen
- Most often, the system is located in close proximity to the use point & supplies oxygen directly to the application
- It is a rugged, durable device that is simple to operate & maintain



How We Produce Oxygen:

- All of our systems utilize molecular sieve to perform the separation process
- The size of the sieve varies depending on the volume & pressure of air being separated
- The formula of the sieve varies depending on the function of the sieve
- The maximum purity that can be achieved with PSA & VPSA technology is 95.6%



The Basic, Major Components include:



- A compressed air system
- An oxygen generator
- An oxygen receiver
- In some cases, all of these components are designed into a single enclosure

A System may also include:



- An oxygen purifier
- An oxygen compressor
- An oxygen analyzer

An AirSep Oxygen System is especially well-suited for...

- remote locations
- undeveloped areas with little or no infrastructure
- users who require oxygen at a constant flow & pressure, 24-hours a day, 7 days a week
- areas where an on-site cryogenic plant would be too large & costly
- applications where site security is a concern
- almost anywhere cylinder or liquid oxygen is used

AirSep CPD Production

- Standard products that deliver 12 to 5,500 SCFH of 90-95% oxygen (some up to 65 psig without supplemental boosting)
- Packaging (or skidding) of standard products
- Turnkey cylinder filling plants that fill 8 to 100s of cylinders per day (up to 2,200 psig)
- Custom PSA & VPSA (vacuum pressure swing adsorption) tonnage plants that deliver 6,000-85,000 SCFH of 90-95% oxygen
- High purity systems (99%, +/- .5%)

Engineering Design

- AirSep's Product Line is built for ease-of-use and maintenance.
- All AirSep Oxygen Generators work on the exact same principle – the only difference is size.
- Once you understand the principle of operation of one generator, you can generally work with the entire product line.



Information needed to select the proper

AirSep Oxygen Generator

Determine the application oxygen requirements

- **How much oxygen does the application require?**
 - We typically measure oxygen in SCFH (Standard Cubic Feet Per Hour)
 - Other acceptable units are Nm³/hr, kg/hr, and even lpm
 - Keep in mind how many hours per day the application will be running
- **What is the minimum oxygen pressure needed in order for the application to operate properly?**
 - Typically, there is a target pressure for all downstream equipment
 - Try to take into account any pressure losses that exist between the oxygen generator and the application (i.e. – filters, elbows, etc.)
- **Is there a minimum oxygen purity requirement?**
 - Most applications can handle oxygen between 90% and 95%
- **What is the elevation, maximum temperature, & maximum humidity of the site?**

Oxygen Generation

- Oxygen generation is a proven, cost-effective, low maintenance form of delivering oxygen to your site.
- All AirSep Standard PSA Oxygen Generators are CSA approved.
- AirSep serves the Aquaculture Industry; the Medical Industry for both humans and animals; the Mining Industry; the Environmental Industry; just to mention a few

Thank-you for your Time

Lise Marsh

Canadian Manufacturer's Representative

AirSep Corporation, CPD

902-393-3359 – Cell

902-675-3999 – Home Office

www.airsepcpd.com

Call Lise Today to discuss your oxygen needs,
You will be pleased you did!