

COMMERCIAL/INDUSTRIAL

OIL/GAS/MINES

MILITARY/EMERGENCY/PORTABLE OXYGEN



Air is 78% nitrogen and 21% oxygen.



Separating the air we breathe for a fraction of the cost.

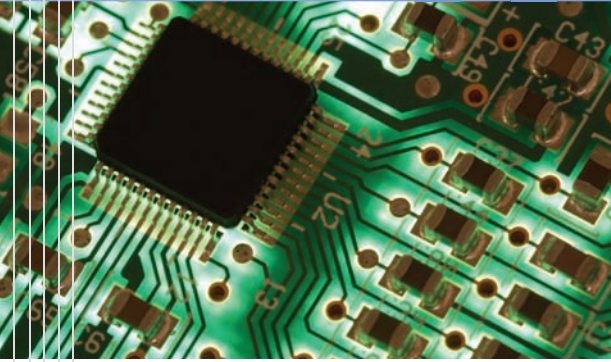


O₂N₂ Site: Pure Convenience®.

ON₂ SITE
Gas Systems

Manufacturers of Oxygen and Nitrogen Generators

A system for you.



A world leader in O₂ and N₂ generating systems.

What's in a name? For O₂N₂ Site Gas Systems, everything. We design and build oxygen and nitrogen gas generating systems that function on-site at your physical plant, remote location — virtually anywhere you need them. Our systems are used in mission-critical applications, across dozens of industries, in over 70 countries. We often create highly customized designs and all our systems are built in the USA. In over 20 years of business, we have exhibited an unprecedented level of growth and excellence — in fact, we've now made the Deloitte "Fast 50" for several years in a row.

Why generate your own gas?

For years, businesses, hospitals, and industries had no alternative to bulk-delivered cryogenic gas to meet their oxygen and nitrogen needs. O₂N₂ Site self-generating systems offer a multitude of advantages over cryo gas. Here are just a few:

- **Simplicity.** There's no contract to sign with an O₂N₂ Site system. You buy, rent or lease. And with proper, low-cost maintenance, it will last for decades.
- **Cost-effectiveness.** The average cost per CCF of self-generated gas is one-third to one-half the cost of cryo.
- **Versatility.** Many O₂N₂ Site systems are portable, and function anywhere there is electrical power and air including the world's harshest climates and conditions.
- **Reliability.** Because O₂N₂ Site systems generate gas through the intake and processing of air, you'll never run out of gas.

Alternative Energy

Aquaculture

Blanketing

Brazing

Chemicals

Cleaning

Curing

Cutting/Welding

Cylinder Filling

Drying

Electronics

Fire Prevention/Suppression

First Responders

Food and Beverage

Glass Blowing

O₂N₂ SITE
Gas Systems

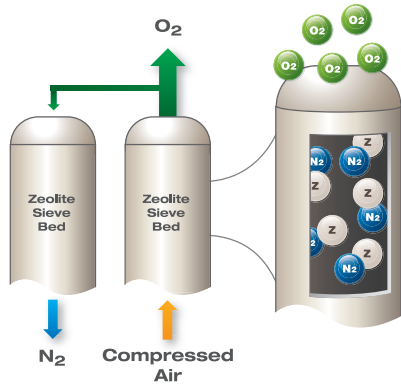
Manufacturers of Oxygen
and Nitrogen Generators



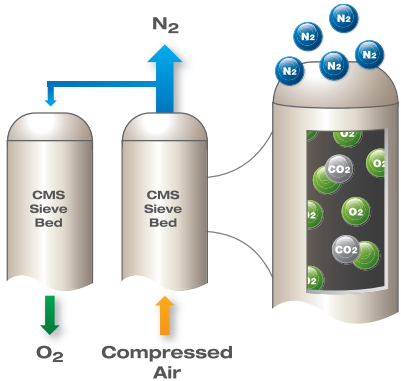


How it all works: PSA and membrane technologies made easy.

How Does a Oxygen PSA Work?



How Does a Nitrogen PSA Work?

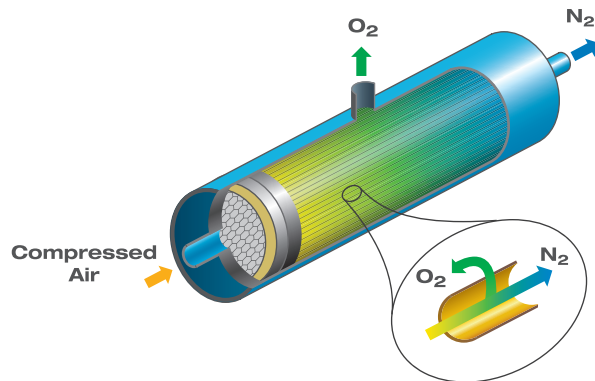


Membrane. Membranes are a series of hollow fibers with holes in their walls small enough that O₂ molecules will exit through them under pressure. These same holes, however, are too small to accept N₂ molecules. By forcing air down the fiber, the smaller O₂ molecules escape and the N₂ molecules are captured at the other end. The air in the membrane is usually heated to excite the molecules and increase the chance that they will permeate through the holes.

O₂/N₂ Site systems use either PSA (Pressure Swing Adsorption) or membrane technology to generate gas. (Note that is AD-sorption, not AB-sorption. Adsorption is the physical process of separating molecules of gas from each other, while absorption is a chemical process). We design PSA systems to generate both O₂ and N₂ and N₂ membrane systems.

PSA. We use compressed air to pressurize a vessel, filled with either carbon or zeolite, which separates molecules by physical composition or structure. By forcing air into the vessel, either N₂ or O₂ molecules get trapped, while the other gas floats free. Pressure is released to draw off the O₂ or N₂ molecules which are collected in a tank. A pressure release valve vents the captured molecules of the unwanted gases into the air, where they immediately combine back to ambient percentages. With our systems, we use two sieve beds that work at opposing ends of the cycle to provide a consistent flow of the desired gas.

How Does a N₂ Membrane Work?



Safe
Reliable
Flexible
Rapid ROI
Buy, Rent, or Lease
Made in the USA

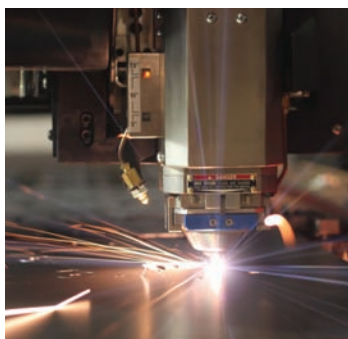
Q₂N₂ SITE
Gas Systems

Manufacturers of Oxygen
and Nitrogen Generators



From a thousand fathoms below to a hundred miles high – and anywhere in between.

For most of our customers, the question isn't "Where can I use an O₂N₂ Site Gas System?" It's more like, "Why haven't we been using one all along?" You will find our systems across virtually every conceivable use of oxygen or nitrogen. Our systems are designed and built under the supposition that they must operate for decades in the most remote locations in the world, under the harshest extremes of climate, at various combinations of voltage and hertz.



Heat Treating

Inerting

Laboratory

Laser Cutting

Manufacturing

Medical Oxygen

Mining

Military Oxygen

Oil Drilling and Extraction

Packaging

Pharmaceuticals

Pipelines

Propelling

Soldering

Sintering

Sparging

Veterinary

O₂N₂ Site Gas Systems, Inc.
35 Budney Rd. | Budney Industrial Park | Newington, CT 06111

888.748.3429 | www.onsitegas.com

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MILITARY/EMERGENCY/PORTABLE OXYGEN

It all began with a trip to the moon.

It was the 1960s. The Apollo Program was in full swing as the U.S. and the Soviet Union raced to the moon. One of the scientists and engineers working on Project Apollo was Francis X. Hursey. Frank was pioneering PSA oxygen technology on the spacecraft's breathing air team. After Apollo, Frank helped develop one of the first oxygen concentrators for home use. It was this core of knowledge that led him to found O₂N₂ Site Gas Systems in 1987 and was later recognized by Scientific American as a Research Leader.

O₂N₂ Site Gas has always been a leader in gas generating technology. Continuous innovation ensures we're not only staying ahead of the curve, but also defining it. We bring an extraordinary depth of experience to bear; in fact, many of those involved in R&D at O₂N₂ Site have been with the company for decades. We offer up to 3 different purity levels from the same machine and can integrate our PSA systems with current liquid systems. We specialize in systems designed, sized and built for the correct purity, pressure and flow for each application. We are the only company able to produce 99% oxygen systems using PSA technology and our nitrogen systems have purity levels up to 99.9995%. Our philosophy is to keep the simple processes simple, and make complex processes less complex. This way of thinking has formed the basis for our product reputation – safe, continuous, flexible systems that provide cost-saving, reliable gas generation.

O₂N₂ Site has three divisions, Portable Oxygen, Commercial, and Field Services that cover hundreds of applications. From emergency room oxygen on the battlefield and after natural disasters – to nitrogen systems that prevent mine fires, keep tires filled to optimize gas mileage, enhance lead-free soldering, or preserve food, beverages, and pharmaceuticals – O₂N₂ Site has the product that is perfectly designed to solve our customers' needs.

That's the thing about air.
It's free.

O₂N₂ Site. The gas generating system specialists.

O₂N₂ SITE
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