

generate nitrogen

from thin air

Eliminate Your Nitrogen Bill Today!



PSA N2-Series Pressure Swing Adsorption Nitrogen Generator

NITROGEN (N₂) GAS FACTS

▶ At temperatures above -320°F, stored liquid Nitrogen starts to boil, reverting to a gaseous state and venting off, so a significant amount of the gas you pay for evaporates and is lost into the air.

- ▶ Currently customers pay the gas company .35 cents to over \$1.00 per CCF or Gallon, even for the product lost to evaporation
- ▶ Additional costs from the gas company may include: tank rental, gas surcharges, hazmat charge, low volume surcharges, labor and delivery charge
- ▶ Typical gas contracts lock customers in for 5 to 7 years with almost guaranteed price increase at the end of the contract

Benefits of PSA Nitrogen Generation

- ▶ PSA Nitrogen Generators allow you to produce N₂ for 3 to 8 cents per CCF or Gallon, up to a 90% saving over liquid
- ▶ No missed deliveries, escalating cost or contracts to sign
- ▶ Fast ROI: systems average 6 to 20 months
- ▶ Systems life expectancy of over 20 years
- ▶ Fully automatic: production begins when demand downstream is sensed



South Tek Systems' PSA Technology

- ▶ The air contains 79% nitrogen; our systems simply remove the other gases, concentrating the N₂ into a storage tank for your process usage
- ▶ Clean, dry compressed air enters one of the two adsorption vessels, containing a carbon molecular sieve or CMS
- ▶ Smaller Oxygen molecules attach themselves to the carbon, allowing the larger nitrogen molecules to pass through and into a storage tank
- ▶ Upon saturation, the first adsorption vessel releases the oxygen while the second adsorption vessel starts the process again
- ▶ Systems can be designed for purity ranges from 95% to 99.999%

Applications

- ▶ Aircraft
- ▶ Atmosphere Blanketing
- ▶ Beverage
- ▶ Bio-Fuel Manufacturing
- ▶ Brazing
- ▶ Burst Testing
- ▶ Cell Incubators
- ▶ Chemical
- ▶ Dry Boxes
- ▶ Electronics
- ▶ Fertility Labs
- ▶ Food Processing
- ▶ Food Storage
- ▶ Heat Treating
- ▶ IVF Applications
- ▶ Laboratory
- ▶ Laser Cutting
- ▶ Mass Spectrometers
- ▶ Medical
- ▶ Military
- ▶ Oil Industries and Platforms
- ▶ Optics
- ▶ Packaging
- ▶ Pharmaceutical
- ▶ Plastic Extrusion
- ▶ Power Plants
- ▶ Semiconductors
- ▶ Silo Purging
- ▶ Snack Food
- ▶ Valve Testing
- ▶ Water Treatment
- ▶ Wave Soldering
- ▶ Wine Bottling

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