

HPN PSA SERIES NITROGEN GENERATOR

HPN PSA nitrogen generators use patented technology to produce an uninterrupted supply of gaseous nitrogen, on site. This compact system is ideally suited for high flow applications that presently employ liquid nitrogen bulk delivery systems. With the HPN, the inconvenience of daily, weekly or monthly deliveries is eliminated. Nitrogen is generated at your location, continuously and reliably, requiring only a supply of compressed air.

HOW IT WORKS

The HPN operates on the Pressure Swing Adsorption (PSA) principle to produce a continuous stream of nitrogen gas from compressed air. Two towers are filled with carbon molecular sieve (CMS). Pretreated compressed air enters the bottom of the 'on-line' tower and follows up through the CMS. Oxygen and other trace gasses are preferentially adsorbed by the CMS, allowing nitrogen to pass through. After a pre-set time, the on-line tower automatically switches to regenerative mode, venting contaminants from the CMS. Carbon molecular sieve differs from ordinary activated carbons in that it has a much narrower range of pore openings. This allows small molecules such as oxygen to penetrate the pores and be separated from nitrogen molecules which are too large to enter the CMS. The larger molecules of nitrogen by-pass the CMS and emerge as the product gas.



Features:

- Nitrogen flows from 300 scfh to 100, 000 scfh
- Nitrogen purity adjustable from 95% to 99.999%
- High flow design
- Oxygen analyzer with alarm capabilities

- Energy saving mode -Auto-shutdown during periods of low demand
- High efficiency CMS
- High efficiency compressed air and extractment
- Custom designed systems to meet your exact requirments

www.nitrogen-generators.com

Technical Specifications

Delivery Types	 Skid mounted PSA nitrogen generator. Skid mounted PSA nitrogen generator plant - complete with feed air compressor; air dryer; nitrogen buffer tank.
Purity	• Matching your specific requirements from 95% - 99.999%
Capacity	 Flow capacities to meet any requirement
Pressure	• Low pressure: 0-100 psig.
Electrical	• 115/1/60 - nitrogen generator only.
Temperature	 Working environment: From 32°F to 95°F
Separation Technology	 Pressure Swing Adsorption (PSA) using Carbon Molecular Sieves (CMS)
Codes	 ASME CRN UL & CUL
Options	 Containerized units. High pressure option. Cylinder filling stations. Low and high ambient conditions.



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