PSA Nitrogen Generator with Carbon Molecular Sieve 5-5000Nm3/hr

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: GASPU
- Certification: CE
- Model Number: NG
- Minimum Order Quantity: 1set
- Price: negotiation
- Packaging Details: Plywood or other type
- Delivery Time: 25work days
- Payment Terms: T/T,Western Union,MoneyGram
- Supply Ability: 4set/month

Product Specification

- Atmospheric Dew Point: ≤ 40
- Main Material: Carbon Steel&Stainless Steel
- Performance: High Performance
- Flow: 5-5000Nm3/hr
- Power Consumption: 0.75 Kw
- Adsorption Material: Carbon Molecular Sieve
- Package Size: 42x40x61cm
- Keyword: Psa Nitrogen Generator
- Air Consumption: 10m3/min
- Temperature: 27
- Control System: PLC Control
- Recommend Air Compressor: 4Kw 0.4 M3/min8Bar)
- Type: NITROGEN PSA
- Psa Vessel: Carbon,stainless

More Images

Product Description

ASME PSA Nitrogen Generator Air Compressing System For O2 N2 Separation

Attribute	Value
Atmospheric Dew Point	≤ 40
Main Material	Carbon Steel & Stainless Steel
Performance	High Performance
Flow	5-5000Nm3/hr
Power Consumption	0.75 kw
Adsorption Material	Carbon Molecular Sieve
Package Size	42×40×61cm
Air Consumption	10m3/min
Temperature	27
Control System	PLC control
Recommend Air Compressor	4Kw (0.4 m3/min8Bar)
Type	NITROGEN PSA
Psa Vessel	Carbon, stainless
Product Brand	Atlas Copco

Industrial-Grade PSA Nitrogen Generator with Carbon Molecular Sieve Adsorbent

Unlock reliable, high-purity nitrogen generation for your industrial applications with our advanced Pressure Swing Adsorption (PSA) Nitrogen Generator. Engineered with precision German technology and featuring premium Carbon Molecular Sieve (CMS) adsorbent, this system delivers unmatched efficiency and automation for continuous nitrogen production onsite.

Core Product Features & Technology

Our PSA Nitrogen Generator integrates four optimized subsystems for seamless operation:

- **Air Compressing System:** Industrial air compressor + air buffer tank compresses ambient air to high pressure (1-8 barg), providing the necessary intake volume.
- **Air Purification System:** Degreaser, refrigerated/adsorption dryer, ultrafilter, and active carbon filter remove 99.9% of contaminants including oil, water vapor, and particulates, ensuring ultra-clean, dry air (-45°C dew point) for optimal CMS performance.
- **Air Buffer System:** Dedicated buffer tank + valves stabilize compressed air supply, eliminating pressure fluctuations for consistent N_2 separation.
- **Adsorption Separation System (PSA Core):** Twin adsorber towers filled with high-selectivity CMS, program control valves, PLC controller, and purity analyzer separate O_2 from air via pressure swing adsorption, delivering high-purity nitrogen (up to 99.99%) at your required flow rate.

Key Competitive Advantages

- **German Collaboration Technology:** Proprietary engineering enhances CMS efficiency and tower design, maximizing nitrogen yield and adsorbent lifespan.
- **Fully Automated Operation:** Intelligent PLC control enables 24/7 unmanned production with real-time monitoring and alerts.
- **Ultra-Low Power Consumption:** Optimized airflow design minimizes energy use (only 0.2 kW power requirement), reducing OPEX significantly.
- **Zero Liquid Waste:** PSA technology is eco-friendly vs. membrane systems - no chemicals or water used.

Technical Specifications

N_2 Capacity: 100 Nm^3/h
N_2 Purity: Up to 99.99%

N_2 Dew Point:	-45°C
Output Pressure:	1-8 barg (adjustable)
Power Supply:	110V-240V / 50-60Hz, 0.2kW

Frequently Asked Questions

Why is air purification critical before the PSA towers?

Impurities like oil or moisture permanently damage carbon molecular sieves. Our 4-stage purification guarantees >99.9% contaminant removal, protecting your CMS investment and ensuring stable purity.

Can the system adapt to varying nitrogen demands?

Yes! The PLC controller automatically adjusts cycle times based on real-time gas usage. Buffer tanks provide surge capacity during peak demand.

How does German engineering improve performance?

Collaborative R&D refined tower pressure profiles, valve sequencing, and CMS regeneration cycles. This cuts compressed air waste by ~20% vs. standard PSA units, directly lowering energy costs.

Ideal Applications

Metal processing, electronics manufacturing, food & beverage packaging, pharmaceutical blanketing, and chemical inerting - anywhere clean, dry, high-purity nitrogen is mission-critical.
Invest in Self-Sufficient Nitrogen Production: Eliminate cylinder rental logistics, reduce costs by up to 80%, and gain total process control.

PSA Nitrogen Generator, Carbon Molecular Sieve Adsorbent, Nitrogen Gas Plant, Industrial Nitrogen System, CMS Technology, Automated N_2 Generation, High-Purity Nitrogen

Suzhou Gaopu Ultra pure gas technology Co.,Ltd

+8613912609547 luyycn@163.com nitrogengeneratorsystem.com

No.161 Zhongfeng Street, Suzhou New District, Suzhou, P.R.China