

20Nm³/H PSA Nitrogen Gas Generator 99.9% Purity, For Food, Metallurgy, Chemical

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Eco-Tech
- Certification: CE ISO13485 ISO9001
- Model Number: EN3020
- Minimum Order Quantity: 1
- Price: USD 12000-25000 pieces
- Packaging Details: Wooden Case
- Delivery Time: 20 days
- Payment Terms: L/C, D/A, D/P, T/T, Western Union, MoneyGram
- Supply Ability: 1000 pieces per year



Product Specification

- Capacity: 20Nm³/h
- Inlet Diameter: DN25
- Outlet Diameter: DN15
- Size: 1200*850*1900 500kg
- Demand For Clean Compressed Air: 1.23
- Recommend Air Compressor: 11Kw 1.4m³/min 10Bar) Or 11kw(1.6m³/min 8Bar)
- Control System: PLC
- Type: Nitrogen Generator
- Warranty: 1 Year
- Highlight: 20Nm³/H psa nitrogen gas generator,
DN25 psa nitrogen gas generator,
DN15 psa n2 generator

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Product Description

PSA Nitrogen Generator/Psa Unit: 20Nm³/H, 99.9% Purity, For Food, Metallurgy, Chemical
Description of 99.9% Purity 20Nm³/H PSA Nitrogen Generator Food, metallurgy, chemical industry applicable

For the past 15 years, we have been dedicated to the assembly of **PSA nitrogen generators** and oxygen generators at our factory. During this time, we have successfully delivered around 400 sets of **PSA nitrogen generators** and oxygen generators annually to both domestic and international clients. Our services encompass the entire process, from production to meticulous debugging, ensuring optimal performance and customer satisfaction.

In collaboration with Burkert Valves, we have customized our own double-acting pneumatic valve. Through the design of top and middle pressure equalization, and airflow orifice plates, we continuously optimize and reduce the air consumption ratio of the equipment, thus achieving energy savings. The energy consumption ratio of our equipment has reached the highest level in China. And through our patented silencer, our device noise is controlled to less than 55 db.

In terms of process flow, we have cutting, welding, assembly, filling of molecular sieves, automatic rust removal, spraying, and complete procedures and supporting equipment for commissioning.

In the supply chain aspect, we provide first-line brands such as Atlas Copco, Ingersoll Rand, GDK, Liutech, Boleite, Hanbell, and BK for air compressors, and provide Boly, Atlas Copco, and Liutech refrigerated dryers, as well as Anshan Jiapeng and Anqing Bailian boosters. We can provide supporting equipment and accessories.

Currently, our company's products are aimed at end-users and distributors worldwide. We provide customized remote systems, color customization, display interface customization, and many other OEM services. And we also provide ASME standard equipment and pressure tanks for USA and Australian market.

For specific selection, please contact our customer manager. We hope to become your trusted long-term partner.

PN3020 PSA Nitrogen Plant Technical Specification					
lot	Item			Description /Specification	
1	Model/Place of Manufacture			PN3020	
2	Nitrogen making principle			PSA Pressure swing adsorption PSA 吸附(放式)	
3	Application	Operation place		Indoor	
	Environment	Ambient temperature		Min -5 /Max 50 / design temperature37	
		Ambient humidity		Min 40%RH Max90%RH	
4	Capacity			20	Nm3/hr
5	Nitrogen Gas Purity			≥99.9 % Test at outlet of psa Nitrogen	
6	Nitrogen Purity Sensor			HT-TA261 1set	
7	Nitrogen Flowmeter			Japan SMC flowmeter 1 sets	
8	Inlet compress air pressure			0.75 -0.99Mpa	
9	Inlet Oil Content			≤0.001mg/m3	
10	Residual dust			≤0.01um	
11	Residual water			≤0.069mg/m3	
12	Air inlet atmospheric dew point			-15	
13	Demand for clean compressed air	1.23	Nm ³ /min	Recommend Air compressor	11Kw (1.4m3/min 10Bar) or 11kw(1.6m 3/min 8Bar)
14	Inlet Diameter			DN25	
15	Outlet Diameter			DN15	
16	Maximum inlet temperature			MAX 30	
17	Allowable working pressure range			Min7.5Kgf / cm2 Max9.9Kgf / cm2	
18	Carbon molecular sieve model/origin			CMS-240	
19	The tower body pipe			2 sets	
20	Air and nitrogen buffer tank			Piped storage tank	
21	Instrument Tank, silencer			PB Silencer ≤55dB(A) patent number:ZL 2015 2 0545860.3	
22	Solenoid valve brand/origin			AirTAC	7 sets

23	Pneumatic valve brand/origin		PB-Customized	11 Sets (two for auto drain unqualified Gas)
24	Control System	Control Power Supply	0.2kw/set 220V 50 HZ	
		PLC	Mitsubishi core integrated screen /or Siemens S7-200 Smart	
		electrical box	built-in 1 set	
		touch screen	Mitsubishi core integrated screen/ MCGS	
25	size LxWxH (mm) / Weight:(Kg)		About:1200*850*1900// 500kg	
26	Price		含税含 交期20天	

2. Working Principles for PSA Nitrogen Generator

The Pressure Swing Adsorption (PSA) nitrogen generator is a cutting-edge, fully automated system that harnesses air as its primary input. By utilizing carbon molecular sieve as the adsorbent, it employs the principle of pressure reduction desorption to selectively extract oxygen from the air, resulting in the efficient separation of nitrogen gas. With its advanced technology, our PSA nitrogen generator offers a reliable and precise solution for nitrogen production, catering to diverse industrial requirements.

3. Main Features for PSA Nitrogen Generator

- Raw material air is taken from nature. Nitrogen can be produced by supplying compressed air and power.
- Nitrogen purity can be adjusted conveniently and be produced by supplying compressed air
- The equipment is highly automated, produces gas quickly, and can be unattended. Nitrogen can be produced within 10-15 minutes of startup.
- The equipment process is simple, occupies a small area, consumes less energy and costs.
- Molecular sieves are filled by snowstorm method to avoid the pulverization of molecular sieves caused by avoid the pulverization of molecular sieves caused by high-pressure airflow impact and ensure the long-term use of molecular sieves.
- On-line inspection of imported analyzer with high access is simple, occupies a small area, consumes less energy, and costs.

4. Technical indicators

- Capacity Range : 2~2000Nm³/H
- Purity Range : 95%~99.9999%
- Outlet Pressure :0~6Bar or 0~ 8Bar
- Booster outlet pressure range : 10 to 200Bar
- Service Life 8-10 years as long as regular maintenance

Carbon Molecular Sieve

High quality, high density, compact spring loaded, top/bottom balance, protected by a dedicated pressure sensor.
We usually use CMS-240 for purity below 99.99%
And use CMS-260 for purity of 99.999% in one step .

5. Standard Features

- Siemens PLC
- Customized and improved domestic valves
- 7-inch LCD display
- Taiwan AirTAC solenoid valve
- Chengdu Jiuyin Nitrogen analyzer
- SMC flowmeter
- Professional brand molecular sieve

6. Optional Features

- Remote control system
 - Better valve of brand Gemu, Burkert
 - Dew point analyzer
 - Import Molecular Sieve
 - Italian ODE solenoid valve

Item No.	Capacity	Purity	Size mm	Inlet Diameter	Outlet Diameter	Weight Kg	Power
PN3010	10Nm ³ /H	≥99.9%	1000*800*1600	DN15	DN15	300	AC220V/0.2 KW
PN3015	15Nm ³ /H	≥99.9%	1200*850*1900	DN15	DN15	400	AC220V/0.2 Kw
PN3020	20Nm ³ /H	≥99.9%	1200*850*1900	DN25	DN15	500	AC220V/0.2 Kw
PN3025	25Nm ³ /H	≥99.9%	1450*900*1900	DN32	DN15	600	AC220V/0.2 Kw
PN3030	30Nm ³ /H	≥99.9%	1450*900*1900	DN32	DN15	700	AC220V/0.2 Kw
PN3040	40Nm ³ /H	≥99.9%	1450*900*1900	DN40	DN15	800	AC220V/0.2 Kw

PN3050	50Nm3/ H	≥99.9%	1450*900*1 900	DN40	DN25	900	AC220V/0.2 Kw
PN3060	60Nm3/ H	≥99.9%	1600*1100* 1950	DN40	DN25	1100	AC220V/0.2 Kw
PN3100	100Nm3/ hr	≥99.9%	1800*1000* 2300	DN40	DN25	1850	AC220V/0.2 Kw
PN3120	120Nm3/ hr	≥99.9%	1800*1300* 2450	DN40	DN25	2400	AC220V/0.2 Kw
PN3150	150Nm3/ H	≥99.9%	2000*1300* 2450	DN40	DN25	2600	AC220V/0.2 Kw
PN3200	200Nm3/ H	≥99.9%	2000*1400* 2550	DN40	DN25	2900	AC220V/0.2 KW
PN3250	250Nm3/ H	≥99.9%	2200*1500* 2650	DN50	DN40	3400	AC220V/0.2 KW
PN3300	300Nm3/ H	≥99.9%	2500*1600* 2680	DN50	DN40	3600	AC220V/0.2 Kw
PN3400	400Nm3/ H	≥99.9%	2500*1600* 2900	DN50	DN40	5000	AC220V/0.2 KW
PN3500	500Nm3/ H	≥99.9%	2500*1600* 3750	DN80	DN65	7200	AC220V/0.2 KW

-Applications-

- **Application of SMT industry**

- **Semiconductor silicon industry application**

Semiconductor and integrated circuit manufacturing process atmosphere protection, cleaning, chemical recovery, etc.

- **Electronic components industry application**

Selective welding, purging and encapsulation with nitrogen. Scientific nitrogen inert protection has proven to be an essential step in the successful production of high quality electronic components.

- **Semiconductor packing industry application**

Packaging, reduction, storage with nitrogen.

- **Powder metallurgy, metal processing industry**

Heat treatment industry application, Steel, iron, copper, aluminum products annealing, carbonization, high temperature furnace protection, Low temperature assembly and plasma cutting of metal parts.

- **Chemical industry, advanced material industry application**

Nitrogen is used to create oxygen - free atmosphere in chemical process, improve the safety of production process, fluid transmission power source, etc: It can be used for nitrogen purging of pipes and vessels in the system, filling nitrogen Storage tank, gas displacement, leak detection, combustible gas protection, chemical reaction agitation, chemical fiber production protection, also used in diesel hydrogenation and catalytic reforming.

- **In the oil and gas industry**

- nitrogen plays a crucial role in various applications:

Oil Refining: Nitrogen is utilized in oil refining processes to create an inert atmosphere, preventing the oxidation and degradation of petroleum products. It helps maintain the stability and quality of refined oil and prevents unwanted reactions.

Container Machine Pipeline Nitrogen-Filled Purge: Nitrogen is used for purging containers, machine pipelines, and other equipment to remove oxygen and moisture. This process helps prevent corrosion, maintain product integrity, and ensure a safe working environment.

Box Leak Detection: Nitrogen is employed for leak detection in purge boxes and other sealed systems. By pressurizing with nitrogen, any leaks can be easily detected, ensuring the integrity and safety of the system.

Nitrogen Injection for Oil Recovery: In oil recovery processes, nitrogen is injected into oil wells to enhance production. Nitrogen aids in maintaining reservoir pressure, displacing oil, and improving the flow characteristics, thereby maximizing oil recovery.

In summary, nitrogen plays a vital role in the oil and gas industry by ensuring the quality and stability of refined oil, purging equipment and pipelines, facilitating leak detection, and enhancing oil recovery processes.

- **Food and medicine industry Application**

Mainly used in food packaging, food preservation, food storage, (Configurable sterilization filter), food drying and sterilization, medicine packing, medical replacement gas, medicine delivery atmosphere, etc.



OUR SERVICE

1. Setting trace file for every sold product, quarterly survey for every sold product.
2. Providing remote instruction and training for free.
3. Providing on-site services and repairs for free during warranty period
4. Spare parts and on-site service would be charged with best price after warranty period.
5. 7*24 hours online service for free, solution within 48 hours.
6. If customer required, assigning experienced after-sales engineer for on-site service with 7 days. (Visa apply should be considered)

Our Certifications



COMPANY INTRODUCTION—BUSINESS LINE

- 1) Fabrication line and Automation system
- 2) Calibration/Testing system, ICT/FCT
- 3) PSA Oxygen and Nitrogen Generator
- 4) ABB Instrumentation Agent(Pressure, flow, Level, Temp, Drive, Motor)
- 5) ODM include Software & Hardware development and structure/fluid simulation
- 6) Onsite engineering Services / Technology Services: Installation, Commissioning and Maintenance

OUR CLIENTS:



OUR PARTNERS:



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Warranty

The Guarantee/Warranty Period shall be a period of twelve months after on-site startup & commissioning or eighteen months after shipment, whichever occurs first. If any trouble or defect, originating with the design, material, and workmanship or operating characteristics of any Goods, arises at any time during GUARANTEE/WARRANTY period, PB shall, at his own expense and as promptly as possible, make such alterations, repairs and replacements.

On-Site Support

PB can do paid services of on-site startup, commissioning, installation supervision, training, by providing purchaser with the services of qualified English-speaking engineer at step shall obtain all permits and licenses required to perform the services under this Agreement.

After Sales Support

Eco-Tech  **Eco-Tech Suzhou Limited**

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