

# PSA Nitrogen Generator For Chemical Free And Green Grain Storage Solutions

# **Basic Information**

- Place of Origin:
- Brand Name:
- Certification:
- Model Number:



## **Product Specification**

<ul> <li>Reliability:</li> </ul>	High
Outlet Diameter:	DN25
• Nitrogen Output Pressure:	0.1-0.8 MPa
• Feature:	High Purity
Core Components:	Pressure Vessel, Gear, Motor
Nitrogen Output:	200Nm3/hr
• Style:	Container Type
• Life Span:	At Least 15-20 Years
• Atmospheric Dew Point:	≤ 50
Operation:	Automatic
• Voltage:	Customized
<ul> <li>Production Capacity:</li> </ul>	5-1000 M3/hour
• Highlight:	Chemical-Free PSA Nitrogen Generator, 5-1000 m3/hour PSA Nitrogen Generator, PSA Nitrogen Generator 5-1000 m3/hour

CHINA

GASPU

ccs ce NG -100



Our Product Introduction

## **Product Description**

### Nitrogen generator used in grain storage industry

Traditional grain storage methods rely heavily on chemical pesticides for insecticide and pest control. However, this method not only pollutes the environment, but may also affect the health of custodians. Long term use can also cause pests to develop drug resistance, increasing the difficulty and cost of insecticide control. With the popularization of the concept of green grain storage, pressure swing adsorption nitrogen generation equipment (PSA nitrogen generator) has demonstrated its unique advantages in grain storage.

Working principle of pressure swing adsorption nitrogen production equipment

The pressure swing adsorption nitrogen production equipment uses air as raw material and carbon molecular sieves as adsorbents to achieve the separation of nitrogen and oxygen at room temperature through the principle of pressure swing adsorption. Specifically, due to the different diffusion rates of nitrogen and oxygen on the surface of carbon molecular sieves, oxygen diffuses faster due to its smaller molecular diameter and is more adsorbed by carbon molecular sieves. When the adsorption of oxygen by the molecular sieve reaches equilibrium, the adsorption of oxygen by the molecular sieve can be released by reducing the pressure, thereby achieving nitrogen enrichment and extraction.

Application of pressure swing adsorption nitrogen production equipment in grain storage

#### Implementation of Green Grain Storage

Nitrogen storage technology is an emerging storage method that combines advantages such as insecticide, mold suppression, preservation, storage, safety, and environmental friendliness. The nitrogen produced by pressure swing adsorption nitrogen production equipment is transported to a closed warehouse with a certain purity, pressure, temperature, and flow rate. The high nitrogen and low oxygen environment formed by nitrogen is used to destroy the living environment of pests and fungi, causing them to suffocate and die, thus achieving the goal of green grain storage.

Reduce the cost of grain storage

The traditional chemical insecticide method requires regular application, which not only incurs high costs but may also cause secondary pollution to food. And nitrogen storage technology only requires one-time investment in nitrogen production equipment, and subsequent



