

Diy Psa Nitrogen Generator Purity High

Our Product Introduction

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Basic Information

- Place of Origin: SUZHOU, CHINA
- Brand Name: SUMAIRUI GAS
- Certification: ISO9001, CE, BV, SGS, TUV, ASME, GOST,NB,NR ETC
- Model Number: OSP50-A
- Minimum Order Quantity: 1 set
- Price: Negotiable
- Packaging Details: Exporting wooden case /Film packing
- Delivery Time: 30-45 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 100 sets/months



Product Specification

- Flow: 5-5000Nm3/hr
- Purity: 95%-99.9995%
- Material: Mild Steel /stainless Steel
- Dew Point: -70
- Pressure: 5-350 Bar
- Medium: Clean N2
- Control Type: PLC Control
- Display: HMI
- Instrument: Included
- Flow Meter: Included
- Oxygen Analyzer: Included
- Mannometer: Included
- Alarming System: Included
- Certificates: CE, ISO, ASME, GOST, KGS, NB Etc
- Application: Food, Heat Treatment, Electron, Pharmacy.

Product Description

OSP50-A High purity PSA nitrogen generator

What is PSA ?

1. PSA technology utilizes two towers which are filled with carbon molecular sieve (CMS). Compressed air enters the bottom of the "online" tower and flows up through the CMS. Oxygen and other trace gases are preferentially adsorbed by the CMS, allowing nitrogen to pass through. After a pre-set time the on-line tower automatically switches to the regenerative mode, venting contaminants from the CMS. Carbon molecular sieve differs from ordinary activated carbons as it has a much narrower range of pore openings. This allows small molecules such as oxygen to penetrate the pores and separate from nitrogen molecules which are too large to enter the CMS. The larger molecules by-pass the CMS and emerge as nitrogen gas. PSA nitrogen generators are typically used in applications where the purity requirement is higher than 99.5% (0.5% O₂ or below).

PSA Nitrogen Generators are supplied to our customers as complete systems, ready for hookup to a compressed air supply, and include air filters and controls for automatic operation. Getting started with your PSA Nitrogen Generator is simple too – just start up the PSA nitrogen generators by a switch and you're good to go. Maintenance is easy as well. You will only be required to change the filters on your PSA Nitrogen Generators every three to twelve months.

2. PSA nitrogen generators come pre-tested, fine tuned and inspected thoroughly to ensure that our generators are set up to meet the specific needs of our customers – as every application's nitrogen flow rate and purity differ. One of the best things about PSA Nitrogen Generators are their ability to assist various businesses with on-site nitrogen production and the various applications PSA nitrogen generators are good for.

PSA Nitrogen Generators also assist businesses with eliminating risks that are typically associated with liquid nitrogen or highly pressurized nitrogen and the best part is – it's extremely cost efficient.



The Benefits of an Onsite Nitrogen Generating System

Cost Savings

Factors like market cost and delivery location will impact what you spend if you have nitrogen delivered to your facility. When you shift to onsite nitrogen generation, you can significantly reduce these costs no matter where you are located. In fact, you can see a return on investment in a little as nine to 24 months.

Increase Safety for Employees

Since your primary concern is your employee safety, onsite nitrogen generation significantly reduces the risk of worker injury. Handling nitrogen cylinders, tank leaks and exposure to liquid nitrogen through delivery and unloading is 100% eliminated, thus creating a safe and reliable system.

Reduce Impact on Environment

By having your own nitrogen generating system you reduce your environmental impact as you no longer need to use heavy transport trucks to deliver and replenish your tanks. You also increase efficiency and improve your reputation in the industry as a company that is environmentally conscious.

Efficient Time Savings

Industrial users who set up onsite nitrogen generation save time on critical operations that use nitrogen. One of the biggest losses for industrial users each year is operational downtime caused by logistical issues with transporting nitrogen from vendor locations. With an onsite nitrogen generating system, you have a 24-hour supply of high-purity gas to run your processes.

Model of OSP50-A High purity PSA nitrogen generator

| Item | Nitrogen purity (Nm3/hr) | | | | | | | Dimensions | Weight |
|---------|--------------------------|------|-------|-------|--------|---------|---------|----------------|--------|
| | 95% | 99% | 99.5% | 99.9% | 99.99% | 99.995% | 99.999% | (L*W*H) mm | KG |
| OSP5 | 21 | 13 | 11 | 8 | 5 | 4.2 | 3 | 1100*600*1700 | 300 |
| OSP10 | 38 | 29 | 25 | 15 | 10 | 7.5 | 6.1 | 1200*650*1800 | 350 |
| OSP20 | 80 | 56 | 52 | 32 | 20 | 16 | 14 | 1600*1000*2200 | 450 |
| OSP40 | 160 | 116 | 105.2 | 67.2 | 40 | 34 | 28 | 1800*1000*2200 | 600 |
| OSP60 | 252 | 174 | 157.8 | 100.8 | 60 | 51 | 45 | 1900*1200*2200 | 750 |
| OSP80 | 339.2 | 232 | 211 | 132 | 80 | 70 | 62 | 2000*1200*2400 | 980 |
| OSP100 | 420 | 290 | 263 | 168 | 100 | 90 | 78 | 2100*1600*2500 | 1300 |
| OSP150 | 630 | 435 | 394.5 | 252 | 150 | 135 | 120 | 2500*1800*2600 | 1600 |
| OSP200 | 848 | 580 | 526 | 336 | 200 | 180 | 160 | 2800*1900*2850 | 2200 |
| OSP250 | 1060 | 725 | 657.5 | 420 | 250 | 225 | 200 | 3100*2000*3200 | 2600 |
| OSP300 | 1270 | 870 | 780 | 500 | 300 | 260 | 240 | 3900*2600*3400 | 3850 |
| OSP400 | 1696 | 1160 | 1052 | 672 | 400 | 360 | 320 | 4500*3250*3600 | 5000 |
| OSP500 | 2120 | 1450 | 1300 | 840 | 500 | 450 | 400 | 4900*3600*3800 | 6500 |
| OSP600 | 2540 | 1740 | 1578 | 1000 | 600 | 540 | 480 | 5300*3600*3900 | 7800 |
| OSP800 | 3390 | 2320 | 2100 | 1340 | 800 | 720 | 640 | 5600*3900*4100 | 10200 |
| OSP1000 | 4240 | 2900 | 2630 | 1680 | 1000 | 900 | 800 | 5800*4000*4500 | 11800 |

Design reference :

Compressed air inlet pressure 7.5 bar(g)/108 psi(g)
 Air quality 1.4.1 according to ISO 8573-1:2010
 Nitrogen outlet pressure 6 bar(g)/87psi(g)
 Nitrogen quality 1.2.1 according to ISO 8573-1:2010.
 Designed working temperature max 50
 Dew point at Nitrogen outlet - 40

Notes:

OSP nitrogen generator max working pressure 10 bar(g)/145psi(g)
 Following request of PSA on-site nitrogen generator will be customized :
 Working pressure 10 bar(g)/145 psi(g)
 Dew point - 50
 Plug and play
 Movable/containerized
 Other special requirements as per site conditions

Nitrogen Generator Applications

Here are the five most popular nitrogen generator applications in the industrial industry.

Food Packaging

Modified Atmosphere Packaging (MAP) with nitrogen and nitrogen-CO₂ gas mixes are often used in the food packaging industry to preserve perishable items by preventing spoilage, ensuring freshness, maintaining flavour, and extending the product shelf life. Onsite nitrogen generation is highly beneficial in the food packaging industry to maintain a quality product. Food packagers can save hundreds of thousands of dollars by having an onsite system installed.

Beverage Storage, Transport, and Dispensing

Like the food industry, the beverage industry can also improve from having onsite nitrogen generating systems. These systems make it more efficient to transport beverages to end users such as juice packagers, vintners, breweries, and other manufacturers of beverage dispensing systems.

Laser Cutting



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