

## N2 Psa Nitrogen Gas Plant Manufacturer 99.999% 10 Bar Container **System**

#### **Basic Information**

. Place of Origin: SUZHOU, CHINA Brand Name: **SUMAIRUI GAS** 

· Certification: ISO9001, CE, BV, SGS, TUV, ASME,

GOST,NB,NR ETC

Model Number: OSP Minimum Order Quantity: 1 set Negotiable

• Packaging Details: Exporting wooden case /Film packing

Delivery Time: 30-45 days

Payment Terms: L/C, T/T, Western Union, MoneyGram

100 sets/months Supply Ability:



#### **Product Specification**

• Purity: 99.999% Pressure: 10 Bar

100-5000Nm3/hr Flow:

-80°C Dew Point: PLC Control . Control Type: Included • Instrument: Included Mannometer: • Oxygen Analyzer: Included

• Material: Mild Steel /stainless Steel

· Certificates: CE, ISO, ASME, GOST, KGS, NB Etc

Clean N2 Medium:

HMI 7 Or 10 Inches Available Display:

 Alarming System: Included Included Flow Meter: Customized: Yes

# Sumairui gas PSA nitrogen plant manufacturer 99.999% 10 bar container system

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.

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

Features include:
Dualbed and Monobed design
Complete package with pre-filtration and buffer tank
Safe and reliable
Produce 95 - 99.999% pure nitrogen continuously
Dewpoints to -70°C

Final stage sterile air filter is USDA / FSIS accepted for use in federally inspected meat and poultry plants. In full compliance with FDA and GFSI requirements PSA towers require no maintenance

## Model of OSP120-A High purity PSA nitrogen generator

| Item | Nitroge | en purit | y (Nm3/ | 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      |       |
|---------|-------|------|-------|-------|------|-----|-----|--------------------|-------|
| OSP20   | 80    | 56   | 52    | 32    | 20   | 16  | 14  | 1600*1000*220<br>0 |       |
| OSP40   | 160   | 116  | 105.2 | 67.2  | 40   | 34  | 28  | 1800*1000*220<br>0 | l I   |
| OSP60   | 252   | 174  | 157.8 | 100.8 | 60   | 51  | 45  | 1900*1200*220<br>0 | l I   |
| OSP80   | 339.2 | 232  | 211   | 132   | 80   | 70  |     | 2000*1200*240<br>0 | l I   |
| OSP100  | 420   | 290  | 263   | 168   | 100  | 90  |     | 2100*1600*250<br>0 | l I   |
| OSP150  | 630   | 435  | 394.5 | 252   | 150  | 135 |     | 2500*1800*260<br>0 |       |
| OSP200  | 848   | 580  | 526   | 336   | 200  | 180 | 1   | 2800*1900*285<br>0 |       |
| OSP250  | 1060  | 725  | 657.5 | 420   | 250  | 225 |     | 3100*2000*320<br>0 | l I   |
| OSP300  | 1270  | 870  | 780   | 500   | 300  | 260 |     | 3900*2600*340<br>0 | l I   |
| OSP400  | 1696  | 1160 | 1052  | 672   | 400  | 360 | 1   | 4500*3250*360<br>0 |       |
| OSP500  | 2120  | 1450 | 1300  | 840   | 500  | 450 | 1   | 4900*3600*380<br>0 |       |
| OSP600  | 2540  | 1740 | 1578  | 1000  | 600  | 540 |     | 5300*3600*390<br>0 | l I   |
| OSP800  | 3390  | 2320 | 2100  | 1340  | 800  | 720 |     | 5600*3900*410<br>0 |       |
| OSP1000 | 4240  | 2900 | 2630  | 1680  | 1000 | 900 | 800 | 5800*4000*450<br>0 | 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 °C
Dew point at Nitrogen outlet - 40 °C

#### 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 °C 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**

The success of a laser cutter depends on a lean and efficient shop, which is why it is highly beneficial to generate your own nitrogen onsite. If you are currently purchasing high-pressure cylinder gas, you can achieve incredible cost savings by switching to a local system. Bulk liquid nitrogen systems for laser cutting typically have purge losses of up to 20% of the gas you are purchasing. An onsite nitrogen generator will eliminate these costly purge losses.

#### **Electronics Manufacturing and Soldering**

Many solder applications require high-purity nitrogen to reduce dross on solder spots and reduce surface tension. High-purity nitrogen allows solder to cleanly breakaway from the solder site. Having an onsite nitrogen generating system is the most cost-effective way to meet your nitrogen requirements.

#### **Fuel and Chemical Tank Inerting**

The ideal inert gas for blanketing or purging fuel and chemical tanks is nitrogen. Having an onsite nitrogen system will reduce your costs and allow you to have a 24/7 nitrogen supply to meet your requirements.

#### Nitrogen Generator Services from SUMAIRUI GAS

Onsite nitrogen generators are extremely efficient and cost-effective for various industrial applications. By installing an onsite system, all you need to focus on is maintenance, while your investment pays for itself over time. We offer the following nitrogen generator services:

#### **Maintenance Services**

For help with installation, our team offers around-the-clock service support. If you require maintenance for your existing

system, we will ensure that your nitrogen generator is running in great condition, so you can get back to your operations. For nearly three decades we have been helping our clients significantly reduce their industrial nitrogen and oxygen costs by utilizing leading-edge technologies such as onsite nitrogen and oxygen generating systems. We displace the requirement of having to purchase the gas. Instead, we sell our business clients the technology and equipment they need to make their own gas on site.



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