# Brewery Air Compressor Nitrogen Generator For Food Packaging

Our Product Introduction

## 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
- 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: 20-1000Nm3/hr
- Purity: 99.99%-99.999%
- Dew Point: -80°C
- Pressure: 5-200 Bar
- Control Type: PLC Control
- Instrument: Included
- Mannometer: Included
- Oxygen Analyzer: Included
- Material: Stainless Steel
- Certificates: CE, ISO, ASME, GOST, KGS, NB Etc
- Medium: Clean N2
- Display: HMI
- Alarming System: Included
- Flow Meter: Included
- Customized: Yes

Our Product Introduction

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## Product Description

# Food industry CE/ASME/ISO stainless steel high purity with certificates N2 nitrogen generator

Our simple turnkey Pressure Swing Adsorption (PSA) type Nitrogen Generator provides a cost-effective means for on-site N2 gas generation. It is based on using the latest PSA technology and utilizes Carbon Molecular Sieve (CMS) to separate nitrogen from the other gases contained in air. The Nitrogen Generator uses two beds of CMS to separate compressed air into a high-pressure nitrogen product stream and low-pressure oxygen enriched waste stream. Typical feed air pressure is 110 psig/7.6 barg. Typical nitrogen product purity for our systems is 99%. Product flow rate for the same system will be higher with better nitrogen recovery if a higher oxygen content can be accepted in the nitrogen product. Systems are available with a product purity up to 99.999% nitrogen (10 ppmv oxygen).

Generators are supplied as complete systems, ready for hookup to a compressed air supply, including air filters and controls for automatic operation. Start up is at the flip of a switch and maintenance is limited to changing filters every three to twelve months. Each Nitrogen Generator comes pre-tested and fine tuned to meet the customer specified nitrogen flow rate and purity.
Our nitrogen generators have proven to be very popular and reliable for many applications. Having your own nitrogen generator is a hassle free, safer alternative to high-pressure nitrogen bottles or liquid nitrogen, and you will always have nitrogen available at a reduced cost.

## The Benefits of an Onsite Nitrogen Generating System

**Benefits compared to previous models**
Higher quality materials
Lower energy consumption
Shorter lead time
Longer N2 generator lifetime
**How did we do it**
Simplification – 80% less parts used in our production process
Automation – state-of-the-art welding and bending robots
Modular isolation – two standard size PSA pressure vessels for all capacities
**Service and maintenance**
A smaller power consumption requires a smaller compressor. As a result, you will not only save on energy but also on running/service costs of the compressor. Furthermore, the stainless-steel valves have a longer lifetime than brass.

## Model of OSP 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**

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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