

## 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: 20-1000Nm<sup>3</sup>/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 N<sub>2</sub>
- Display: HMI
- Alarming System: Included
- Flow Meter: Included
- Customized: Yes

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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	
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 °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-CO<sub>2</sub> 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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