Medical Psa Oxygen Generator Plant O2 Gas Equipment 40 Nm3 Hr 5 Bar

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: OSO
- 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

- Material: Mild Steel/Stainless Steel
- Purity: 93%-95%
- Pressure: 3-5 Bar
- Capacity: 10-2000Nm3/hr
- Type: Plug And Play
- Twin Adsorbers: Yes
- Customized: Available
- PLC: S7-1200
- HMI: 7 Inches
- Voltage: 220-575V 50Hz/60Hz
- Filling Cylinders: Option
- Color: Customized
- Highlight: **psa medical oxygen generator**, **psa generator oxygen**, **oxygen generator psa**

Our Product Introduction

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Product Description

High quality PSA oxygen generator for O2 gas equipment for 40 nm3/hr purity 5 bar with ISO9001 certificates

Oxygen generators separate oxygen from air so that the gas can be fed into industrial processes in real-time or stored in pressure tanks. Oxygen generators are used in dozens of industrial applications ranging from gold mining to aquaculture to life support.

Normal ambient air is made up of 78% nitrogen, 21% oxygen and other trace gases like argon and CO2. In order to remove the nitrogen and trace gases, an oxygen generator is used.

The smallest oxygen generators are no larger than a soda can, while industrial oxygen generators can fill a room. However, all oxygen generators have the same purpose: to provide a safe supply of concentrated oxygen gas.

Businesses who need bulk oxygen gas often start by purchasing tanks of the gas from other companies who fill those tanks using an industrial oxygen generator. If their need for pure oxygen is large and ongoing, it may be cost-effective to purchase their own oxygen generator system and produce oxygen on site. While the up-front cost of the machinery is significant, the cost per cubic foot of oxygen generated is 1/3 to 1/2 that of purchasing bulk oxygen, so over time, the oxygen generator can pay for itself.

One example of this is hospitals that pipe oxygen into patient rooms. Instead of using bottled oxygen, most hospitals have one or more industrial oxygen generators in the building. A system of pressurized pipes are used to flow oxygen to each room.

Types of Oxygen Generators

Pressure Swing Adsorption Oxygen Generator

Pressure Swing Adsorption (PSA) is the most common method of producing oxygen at an industrial scale. PSA generators separate nitrogen from ambient air inside a pressurized tank filled with Zeolite. Zeolite is a natural or man-made mineral that acts as a “molecular sieve.” It is this ability to “sort” molecules by size that makes zeolite so useful. The larger nitrogen molecules are adsorbed by the sieve material while the smaller oxygen molecules drift past and are collected. Pressure is then released, the nitrogen molecules are vented to the atmosphere, and the tank is pressurized again.

Using PSA will result in 90-95% oxygenated gas. Further refinement can be achieved by repeating the process until over 99% “pure” oxygen is generated.

As a side note, the PSA process can also be used to generate nitrogen by collecting the nitrogen molecules and venting the oxygen. PSA is also used in the large-scale commercial synthesis of hydrogen used in oil refineries and in the production of ammonia for fertilizer.
One special kind of oxygen generator is more commonly known as an oxygen concentrator which is used as an alternative to oxygen bottles for home health care. While the up-front cost of the machine is more expensive than oxygen cylinders, they are safer than bottled oxygen and over time less expensive than having oxygen tanks delivered to the home.

Oxygen concentrators are normally sold through medical supply houses and can be purchased with a prescription from a physician.

Oxygen Generator Applications

Oxygen generators are currently in use in a broad range of commercial and industrial manufacturing applications. These devices play a crucial role in providing useful quantities of oxygen gas required to drive various processes.
Typical applications for PSA oxygen generators include:
Sewage and wastewater treatment plants
Glass manufacturing
Food/Beverage industries
Papermaking
Metallurgy
Chemical oxidation processes
Commercial fish farming
Mining
Gasification processes

Model	Capacity (Nm3/hr)	Purity	Outlet pressure (Mpa)	Inlet(mm)	Outlet(mm)	Dimensions L*W*H (mm)	Weight (KG)
OSO5	5	93±3%	0.2-0.4 Mpa	DN20	DN10	1350*1200*1800	800
OSO10	10			DN25	DN15	1800*1250*2200	1200
OSO15	15			DN25	DN15	2100*1450*2200	1500
OSO20	20			DN40	DN25	2300*1550*2450	1800
OSO30	30			DN40	DN25	2450*1650*2550	1950
OSO35	35			DN50	DN25	2650*1900*2550	2150
OSO40	40			DN50	DN25	2800*2200*2600	2200
OSO50	50			DN50	DN25	3100*2450*2700	2350
OSO60	60			DN65	DN40	3300*2600*2900	2550
OSO80	80			DN80	DN50	3500*2950*3100	3300
OSO100	100			DN80	DN50	3850*3100*3300	4000
OSO150	150			DN100	DN65	4100*3300*3450	5100
OSO200	200			DN125	DN80	4600*3550*3500	6200

OSO250	250			DN125	DN80	5500*3900*3900	8500
OSO300	300			DN150	DN100	5800*4200*3980	10500

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