High Pressure n2 Membrane Nitrogen Generator Manufacturers Oil Gas Field Industry

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: OSM200
- 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

- Application: Oil And Gas
- Flow: 50-10000 Nm3/h
- Purity: 95%-99.9%
- Pressure: 5-500 Bar
- DP: -70 ℃
- Material: Mild Steel/Stainless Steel
- Pipeline: Seamless Steel
- Certificates: ISO,CE, ASME, GOST,SGS
- Container: Customized
- Booster: Option
- Air Compressor: Oil Free Screwing Or Diesel Option
- Drive Type: Electricity/Diesel Drive
- Movable: Customized
- Working Duration: 24hrs Non-stop
- Type: Fully Automatic

Our Product Introduction

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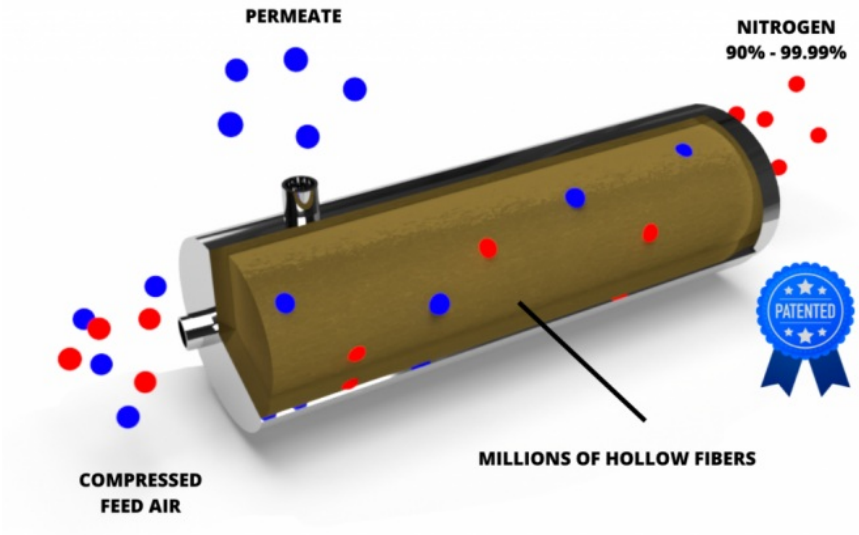
Product Description

OSM high pressure Membrane nitrogen generator for Oil and Gas field
Membrane nitrogen generator Technology
Each application design has a unique chemical formulation and production process for the individual module fibers. At the heart of the technology are polymeric membrane materials that allow for rapid passage of a single gas, while minimizing the passage of others, when applying a pressure gradient across the membrane.
Membrane materials are formed into hollow fibers to provide maximum surface area for the high gas volume processing rate often required. Sumairui Gas holds over 100 patents on the design, packaging, and formulation of these hollow fiber membranes. The fibers are bundled into modules of various lengths and diameters to meet very specific flow rates and separation requirements. Typical modules have anywhere from a half a million, to over a million fibers in one bundle.

Two types of Module configurations are currently offered:
Bore-Side Feed – The vast majority of membrane applications use a Bore-Side feed configuration. In this process, the incoming gas/air is directed down the center of the module fiber. The product gas exits the opposite end of the fiber, where it can be collected or diverted into a process application. The waste or unwanted gas passes through the wall of the fiber and exits the module through a side port, where it can be collected, diverted, or allowed to exhaust back into the atmosphere. This type of membrane module is utilized in applications where the feed pressure is less than 500 psig (34 bar).



Shell-Side Feed – Shell-side feed modules operate by a similar principle as bore-side feed modules, except the incoming gas or air enters the module through a side port on the outer shell, allowing it to flow onto the outside of the fibers. The gas then preferentially permeates the fiber wall and flows down the center of fiber, where it exits the fiber bundle at the end of the module. The gas that does not permeate the wall of the fiber flows along the outside of the fibers, where it is exits through a collection plate at the opposite end of the module. This type of module is used for high pressure applications, 1200 psig (83 bar), and almost exclusively for hydrocarbon separations such as CO2 , CH4 , H2 , etc.

Item	Nitrogen purity (Nm3/hr)					Dimensions	Weight
	90%	95%	99%	99.5%	99.9%	(L*W*H) mm	KG
OSM15	135	61	23	15	6.5	450*300*1300	100
OSM30	270	122	46	30	13	550*500*1300	140

OSM60	540	244	92	60	26	900*850*1300	200
OSM120	1080	488	184	120	52	1200*1000*1500	280
OSM180	1620	732	276	180	78	1500*1200*1500	400
OSM240	1890	854	322	240	104	1800*1200*1600	520
OSM300	2700	1220	460	300	130	2300*1350*1800	600
OSM450	4050	1830	690	450	195	3850*1500*2000	800
OSM525	4725	2135	805	525	227.5	4200*1550*2100	950
OSM600	5400	2440	920	600	260	5000*1800*2250	1050
OSM675	6075	2745	1035	675	292.5	5500*1800*2350	1250
OSM750	6750	3050	1150	750	325	5850*1850*2400	1500
OSM900	8100	3660	1380	900	390	6500*1950*2400	1700
OSM1050	9450	4270	1610	1050	455	7800*2100*2450	1950
OSM1500	13500	6100	2300	1500	650	10500*2300*2600	2100
OSM1800	16200	7320	2760	1800	780	13000*2350*2600	2600

Design reference :

Compressed air inlet pressure 9 bar(g)/130 psi(g)
Air quality 1.4.1 according to ISO 8573-1:2010
Nitrogen outlet pressure 7 bar(g)/101psi(g)
Nitrogen quality 1.2.1 according to ISO 8573-1:2010.
Designed working temperature max 50 ℃
Dew point at Nitrogen outlet - 50 ℃

Notes:

Compressed air inlet pressure decide membrane performance
Following request of membrane nitrogen generator will be customized :
Compressed air pressure ＞14 bar(g)/203 psi(g) max up to 24 bar(g)/350 psi(g)
Working pressure ＞24 bar(g)/350 psi(g)
Dew point ＜ - 50 ℃
Movable/containerized , plug and play
Diesel drive
Other special requirements as per site conditions

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