



## Oxygen N2 Generation Plant Generator High Purity Hydrogenation Purifier 99.9995%

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-H
- 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: 100-10000Nm3/hr
- Purity: 99.999-99.9999%
- Ppm: <3
- Consume: Hydrogen And Water
- Raw Nitrogen: >99%
- Hydrogen Required: >99.5%
- Cooling Type: Water
- Application: Steel, Cooper, Galvanization Line,Stainless Steel Production Line, Electron Filed
- Working Duration: 24 Hrs Non-stop
- Operation Mode: Fully Automatic
- Control Type: Remote Start And Stop
- Data Upload: Modbus 485, Ethernet,Profibus, DP, Hart,TCP Etc
- Temperature Control: Schneider
- Heating Rod: Included

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## Product Description

High purity 99.9995% nitrogen by hydrogenation purifier remove oxygen nitrogen plant with CE certificates

### Process principle:

Process 1: A certain flow of nitrogen and excess hydrogen into the purification unit at the same time, first through the nitrogen and hydrogen automatic mixing device and static mixer uniform mixing, then into the catalytic deoxidizer, under the catalyst, the residual oxygen in nitrogen and hydrogen reaction to form water, chemical reaction formula:  $2H_2 + O_2 = 2H_2O$ , nitrogen after filter dehydration and then into Excess hydrogen is removed from the dehydrogenation unit. If the process permits nitrogen to contain a certain amount of hydrogen, it will not dehydrogenate. Nitrogen is then removed by cooling and drying machine to obtain high purity nitrogen.

Process 2: A certain flow rate of nitrogen and hydrogen into the purification unit at the same time, first through the nitrogen and hydrogen automatic mixing device and static mixer uniform mixing, then into the catalytic deoxidizer, under the catalyst, nitrogen in the residual oxygen and hydrogen reaction to produce water, Nitrogen is then dehydrated through a filter, and the remaining oxygen is absorbed and deoxidized by an oxygen absorption tower (using highly efficient deoxidizing adsorbent). Nitrogen is finally removed by a cold dryer and a suction dryer to obtain dry, high-purity nitrogen.



## TECHNICAL SPECIFICATIONS OF OSP-H

NO	Model	Capacity (Nm <sup>3</sup> /hr)	Install Power (KW)	Inlet (mm)	Outlet (mm)	Weight (KG)	Dimensions (L*W*H mm)
1	OSP-H-100	100	27	DN25	DN25	500	Customized
2	OSP-H-120	120	28	DN32	DN32	650	
3	OSP-H-150	150	29	DN32	DN32	950	
4	OSP-H-180	180	41	DN40	DN40	1200	
5	OSP-H-200	200	42	DN40	DN40	1350	
6	OSP-H-250	250	61	DN40	DN40	1650	
7	OSP-H-300	300	62	DN40	DN40	1950	
8	OSP-H-350	350	63	DN50	DN50	2200	
9	OSP-H-400	400	81	DN50	DN50	2350	
10	OSP-H-450	450	84	DN50	DN50	2650	
11	OSP-H-500	500	84	DN65	DN65	2800	
12	OSP-H-600	600	109	DN65	DN65	3000	
13	OSP-H-800	800	111	DN80	DN80	3200	
14	OSP-H-1000	1000	114	DN80	DN80	3600	

### Design reference:

- Crude Nitrogen : purity @ 99% pressure @ 7 bar (g)
- Nitrogen quality 1.2.1 according to ISO 8573-1:2010.
- Designed working temperature max 150 °C
- Dew point at Nitrogen outlet - 65 °C
- O<sub>2</sub> ppm : < 5 ppm
- CO<sub>2</sub>, CO free

### Notes:

- ※ OSP-H models suitable for strict requirements for oxygen content field
- ※ Dimensions will be customized
- ※ Other special requirements as per site conditions



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