NITROGEN GENERATOR SYSTEM

Marine PSA Nitrogen Generator Purity 96%

ISO9001 Supplier

Class Certificate

Export Supply

Principle of pressure swing adsorption (PSA) for nitrogen production The carbon molecular sieves can simultaneously adsorb oxygen and nitrogen in the air, and the amount of adsorption increases with the increase...



Key Highlights

Category	Nitrogen Generator System
Standard	EN
Certificate	ABS, LR, BV, DNVGL, NK, KR, IRS, RMRS, CCS

We can supply according to your requirement, drawings, class certificate needs, and delivery schedule.

Technical Specifications

Category	Nitrogen Generator System	**Model / SKU**	Marine-PSA-Nitrogen-Generator-Purity-96
Standard	EN	**Certificate**	ABS, LR, BV, DNVGL, NK, KR, IRS, RMRS, CCS
Warranty	12 Months unless specified otherwise	**Origin**	China

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Principle of pressure swing adsorption (PSA) for nitrogen production

The carbon molecular sieves can simultaneously adsorb oxygen and nitrogen in the air, and the amount of adsorption increases with the increase of pressure, and there is no obvious difference in the equilibrium adsorption between oxygen and nitrogen under the same pressure.

Therefore, it is difficult to complete the effective separation of oxygen and nitrogen by the change of pressure. If the adsorption velocity is further considered, the adsorption characteristics of oxygen and nitrogen can be effectively separated.

The diameter ratio of nitrogen oxygen molecules is small, so that the diffusion speed hundreds of times faster than nitrogen, so the carbon molecular sieve adsorption oxygen adsorption rate is also very fast, about 1 minutes to reach more than 90%; and only 5% of the nitrogen adsorption capacity, so the general adsorption are oxygen, and the rest of the body. Is nitrogen.

So, if the adsorption time control in less than 1 minutes, it can be preliminarily separated oxygen and nitrogen, that is to say, the adsorption and desorption by differential pressure to achieve, adsorption pressure increased, desorption pressure drop.

However, the difference between oxygen and nitrogen is the difference between the adsorption rate and the adsorption time. The time control is very short, and the oxygen has been fully absorbed, and the adsorption process is stopped before the nitrogen has enough time to adsorb. Therefore, pressure swing adsorption to nitrogen pressure changes, but also to control the time within 1 minutes.



Marine PSA Nitrogen Generator Purity 96% Main Specification

Model	Output (m3/h)	Gas consumption(m3/h)	Air inlet(DN mm)	N2 inlet(DN mm)
JBN10-96	10	24	15	15
JBN20-96	20	48	15	15

JBN30-96	30	72	25	15
JBN40-96	40	96	25	20
JBN50-96	50	120	25	20
JBN60-96	60	144	25	20
JBN80-96	80	152	32	25
JBN100-96	100	240	32	25
JBN120-96	120	288	40	25
JBN150-96	150	360	40	32
JBN200-96	200	480	50	32
JBN250-96	250	600	50	40
JBN300-96	300	720	50	40
JBN400-96	400	960	65	40
JBN500-96	500	1200	65	50
JBN600-96	600	1440	100	50
JBN1000-96	1000	2400	100	80
JBN1500-96	1500	3600	125	80
JBN2000-96	2000	4800	150	100
JBN2500-96	2500	6000	150	100
JBN3000-96	3000	7200	200	125