

Nitrogen Generator Systems

SPN Series

Versatile, competitive and flexible

Description

The SPN series of low pressure Nitrogen generators is based on the Pressure Swing Adsorption 'PSA' method of extracting oxygen from a compressed air supply to leave nitrogen of the desired purity. Compressed air at 7 BarG is passed through molecular carbon sieves which 'adsorb' the oxygen. The air supply alternates between two molecular carbon sieves at a cycle time of 1.5 minutes. The sieve not in use is 're-generated' for subsequent use in the next cycle.

The alternating gas adsorption system extends the life of the carbon to many years providing it is not contaminated with either oil or water from the compressed air supply. Water contamination is prevented by the use of a high quality filtration system.

Gas Injection Worldwide SPN generators are capable of Nitrogen purities as high as 99.99%. However, for most gas assisted molding applications 98% is sufficient with consequent increased output flow rates.

Gas Injection Worldwide selected the PSA system as opposed to the 'membrane' system for its SPN series of Nitrogen generators due to its apparent increased robustness, higher purity levels and longer life.

Features and Benefits

- **Versatile** with a wide range of selectable purity levels and output capacities.
- **Flexibility** variable output flow rates & capacities and N₂ purities
- **Competitive investment** in relation to life expectancy and purity/output levels
- Space saving the SPN series is housed in tall space saving cabinets with minimal use of floor space

For details on our whole product range or to request a brochure, please visit our website: www.gasinjection-ww.com



-40°C PDP

<0.1micron

<0.01mg/m²

DATA SHELT

Nitrogen Generator SPN Series

General Information



This is a minimum recommended clearance surrounding an SPN generator.

Specifications - Nitrogen Flow Rates

Model	N	Nitrogen Purity Output Data (adsorption pressure≥ 0.7Mpa)				
	98%	99.5%	99.9%	99.99%		
SPN 2020	18Nm³/h	12.5Nm³/h	7.5Nm³/h	5.5Nm³/h		
SPN 2030	25Nm³/h	18.5Nm³/h	11.5Nm³/h	8Nm³/h		
SPN 2040	36Nm³/h	25Nm³/h	15Nm³/h	11Nm³/h		
SPN 2050	44Nm ³ /h	31Nm³/h	19Nm³/h	14Nm³/h		
SPN 2060	52Nm³/h	37Nm³/h	23Nm³/h	16.5Nm³/h		
SPN 2070	60Nm³/h	44Nm³/h	26.5Nm³/h	19.2Nm³/h		

 $\begin{array}{lll} \mbox{Performance data based on 7BarG air inlet pressure, 20^{\circ}-25^{\circ}C \mbox{ ambient} \\ \mbox{temperature. If the inlet pressure of compressed air is higher than 7BarG \\ \mbox{the output flow rate of N_2 gas will be more. e.g. at 9BarG the output flow \\ \mbox{rate of N_2 gas at 98\% purity will be 15\% more.} \end{array} \right| \begin{array}{ll} \mbox{Guaranteed Air Quality} \\ \mbox{Dew Point:} \\ \mbox{Particulate:} \\ \mbox{Oil:} \end{array}$

Specifications - Power requirements and dimensions

Model	Power Voltage	Power Consumption	Dimensions	Weight
		(KW)	(L x W x H) mm	(Kg)
SPN 2020	220 V/50Hz	0.5 KW	890 x 650 x 1950	370
SPN 2030	220 V/50Hz	0.5 KW	1050 x 650 x 1950	450
SPN 2040	220 V/50Hz	0.5 KW	1220 x 650 x 1950	580
SPN 2050	220 V/50Hz	0.5 KW	1390 x 650 x 1950	720
SPN 2060	220 V/50Hz	0.5 KW	1520 x 700 x 1950	850
SPN 2070	220 V/50Hz	0.5 KW	1650 x 700 x 1950	1000

Gas Connections Both inlet & outlet - ISO standard parallel female, size dependant on model

Gas Receivers Not included for low pressure feed air and output nitrogen



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