

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 adsorprtion 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.

Cinpres UK Limited 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.

Cinpres UK Limited 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



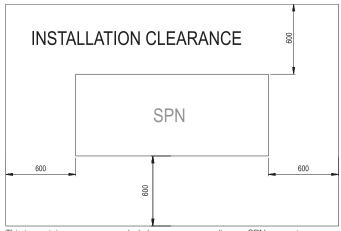
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Nitrogen Generator

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General Information

SPN



This is a minimum recommended clearance surrounding an SPN generator.

Specifications - Nitrogen Flow Rates

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

Performance data based on 7BarG air inlet pressure, 20°-25°C ambient temperature. If the inlet pressure of compressed air is higher than 7BarG the output flow rate of $\ensuremath{\text{N2}}$ gas will be more. e.g. at 9BarG the output flow rate of $\ensuremath{\text{N2}}$ gas at 98% purity will be 15% more.

Guaranteed Air Quality -40°C PDP Dew Point: Particulate: < 0.1 micron Oil: $< 0.01 mg/m^2$

Specifications - Power requirements and dimensions

Model	Power Voltage	Power Consumption (KW)	Dimensions (L x W x H) mm	Weight (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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