

# Nitrogen Generator Systems

## NGS Series

**Versatile, Competitive and Flexible**

### Description

The NGS 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.

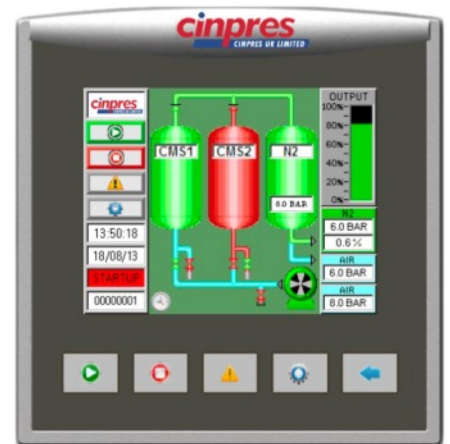
The alternating gas adsorption system extends the life of the carbon to many years providing it is not contaminated with either oil or water from the compressed air supply. Water contamination is prevented by the use of a high quality filtration system.

Cinpres UK Limited NGS 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 NGS 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 NGS series is housed in tall space saving cabinets with minimal use of floor space



The NGS nitrogen generator system is controlled using a colour graphic touch screen controller which shows running parameters from flow demand, pressure and nitrogen gas purity

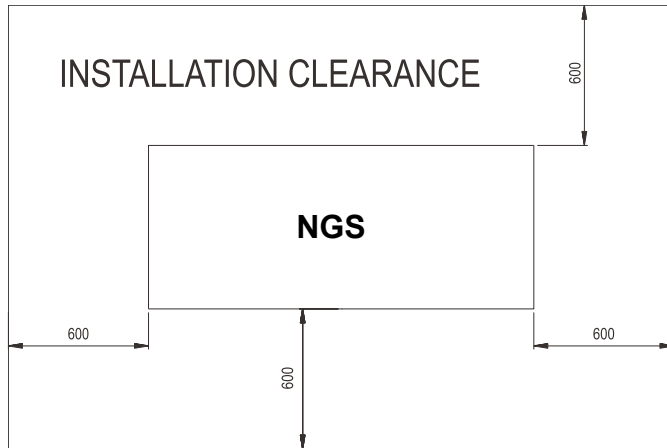
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# Nitrogen Generator

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### General Information

#### NGS



This is a minimum recommended clearance surrounding an NGS generator.

### Specifications - Nitrogen Flow Rates

Model	Nitrogen Purity Output Data (adsorption pressure <sup>3</sup> 0.7Mpa)			
	98%	99.5%	99.9%	99.99%
NGS 104	18Nm <sup>3</sup> /h	12.5Nm <sup>3</sup> /h	7.5Nm <sup>3</sup> /h	5.5Nm <sup>3</sup> /h
NGS 106	25Nm <sup>3</sup> /h	18.5Nm <sup>3</sup> /h	11.5Nm <sup>3</sup> /h	8Nm <sup>3</sup> /h
NGS 108	36Nm <sup>3</sup> /h	25Nm <sup>3</sup> /h	15Nm <sup>3</sup> /h	11Nm <sup>3</sup> /h
NGS 110	44Nm <sup>3</sup> /h	31Nm <sup>3</sup> /h	19Nm <sup>3</sup> /h	14Nm <sup>3</sup> /h
NGS 112	52Nm <sup>3</sup> /h	37Nm <sup>3</sup> /h	23Nm <sup>3</sup> /h	16.5Nm <sup>3</sup> /h
NGS 116	60Nm <sup>3</sup> /h	44Nm <sup>3</sup> /h	26.5Nm <sup>3</sup> /h	19.2Nm <sup>3</sup> /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 N2 gas will be more. e.g. at 9BarG the output flow rate of N2 gas at 98% purity will be 15% more.

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

### Specifications - Power requirements and dimensions

Model	Power Voltage	Power Consumption (KW)	Dimensions (L x W x H) mm	Weight (Kg)
NGS 104	220 V/50Hz	0.5 KW	890 x 650 x 1950	370
NGS 106	220 V/50Hz	0.5 KW	1050 x 650 x 1950	450
NGS 108	220 V/50Hz	0.5 KW	1220 x 650 x 1950	580
NGS 110	220 V/50Hz	0.5 KW	1390 x 650 x 1950	720
NGS 112	220 V/50Hz	0.5 KW	1520 x 700 x 1950	850
NGS 116	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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Cinpres UK Limited reserves the right to change product specifications without prior notice