



**FDBS**  
Innovative Gas System Company

# Nitrogen generators

## Serie Maximus Lite



The nitrogen generators serie Maximus Lite offer to you a unique, innovative solution to nitrogen gas supply. A reliable, secure source of nitrogen can be produced from your existing compressed air supply, eliminating the need for liquid nitrogen or high pressure gas cylinders.

Conceived for a continuous operation, the MAXIMUS LITE nitrogen generator can produce flow rates from a few liters per minutes to over NL/min at purities in oxygen content residual from 10 ppm to 3%.

The generator is controlled using the latest in HMI touch screen technology to display the process, pressures, inlet air dewpoint and oxygen levels with continuous monitoring complete with alarms.

**Applications:** food packaging, laser cutting, wine making and brewing, oil and gas, pharmaceutical and laboratory, electronic assembly/soldering, injection moulding.

## Benefits

### Economy saving

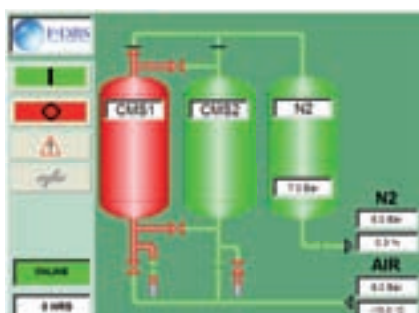
Quick return on investment < 1 year.  
After installation, the generator require minimal attention and maintenance.

### Reliability and safety of use

Nitrogen produced at low pressure and ambient temperature removes the hazards associated with high pressure cylinders and liquid Dewar's.  
Nitrogen available on request 24H per day ensuring the walk of the process in a regular and uninterrupted way.

### Compact design and flexible modular option

The system demands less floor space.



HMI Touch screen

## Specifications

*Varying flow rates and purities*

*High purity system with built in receiver*

*HMI touch screen*

*O2 display and alarm*

*Air inlet dewpoint display and alarm*

*Maintenance indication*

*Visual and audible alarm*

*Analogue connections*

*IP address for remote access via internet connection*

*Quick and easy maintenance:*

*Access from front, no rear access required*

*Automatic economy mode*

*Option: Hazardous area version*

*Ethernet output via RJ45 connection*



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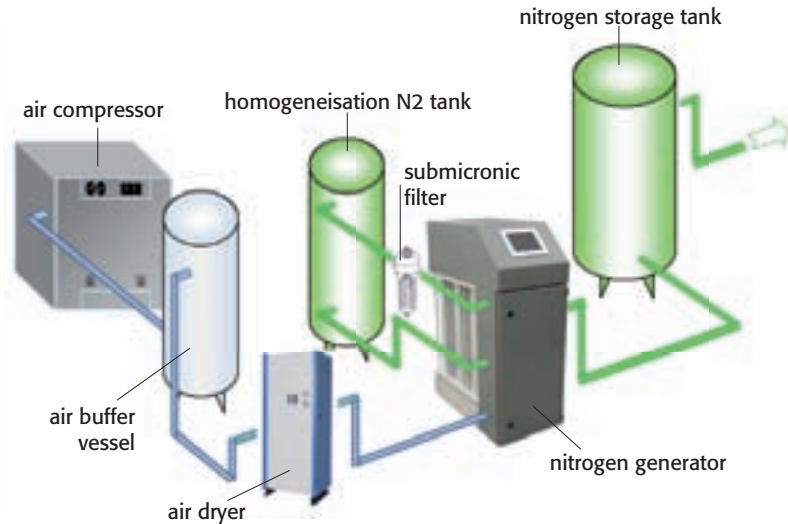
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### Operating mode

#### The nitrogen generator operate on the Pressure Swing Adsorption (PSA).

This technique uses pairs of extruded aluminium columns, filled with carbon molecular sieve (CMS). Pre-treated compressed air enters the bottom of the one line bed and flows up through the CMS. Oxygen and other trace gases are preferentially adsorbed by the CMS, allowing nitrogen to pass through.

After a pre-set time when the on-line bed is almost saturated with adsorbed gases, the system automatically switches the bed to regenerative mode, venting the contaminants from the CMS. The second CMS bed then comes on-line and takes over the separation process.



### Models and characteristics

**Nitrogen outlet flow rate NL/min vs Oxygen Concentration**

MODEL	10 ppm	100 ppm	0.1%	0.5%	1%	2%	3%	h x l x p (mm)	Weight (kg)
<b>MNG104L</b>	10	16.5	26.5	45	52	67	80	980 x 400 x 560	180
<b>MNG106L</b>	15	25	45	65	78	102	130	980 x 400 x 740	230
<b>AIR/N2 ratio</b>	12	8	4.7	3.5	3.1	2.7	2.3		

Spécification based on 7 barg air inlet pressure @ 20° - 25°C ambient air temperature.  
For inlet pressures and ambient air temperatures outside these conditions consult F-DBS for the new N2 flow rates.

### Technical data

<b>Ambient temperature</b>	5°C -50°C
<b>Air inlet pressure</b>	6 to 10 barg
<b>Nitrogen outlet pressure</b>	5 to 9 barg
<b>Air inlet quality required</b>	<ul style="list-style-type: none"> <li>• Dewpoint : -40°C</li> <li>• Particulates &lt; 0.1 micron</li> <li>• Oil &lt; 0.01 mg/M3</li> </ul>
<b>Electrical supply</b>	220 V / 1ph/ 50 Hz
<b>Inlet/outlet connections</b>	G ½ (BSP) F

Ethernet output via RJ45 connection in option as well with hazardous area version



### F-DBS

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