



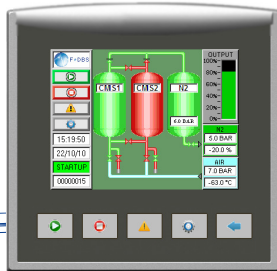
# Nitrogen generators Serie Maximus



The nitrogen generators serie Maximus 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 nitrogen generator can produce flow rates from a few liters per minutes to over NM<sup>3</sup>/H at purities in oxygen content residual from 10 ppm to 5%.

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

## Benfits and Savings

### **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
  - The modular concept means the generators can be multi banked if required (Master/Slave configuration)
- Evolutionary System adapting as your business grows and gas requirements change

## Standard Features

***Varying flow rates and purities***

***HMI touch screen***

***O2 display and alarm***

***Air inlet dewpoint display and alarm***

***Maintenance indication***

***Visual and audible alarm***

***Analogue connections***

***Ethernet output via RJ45 connection***

***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***

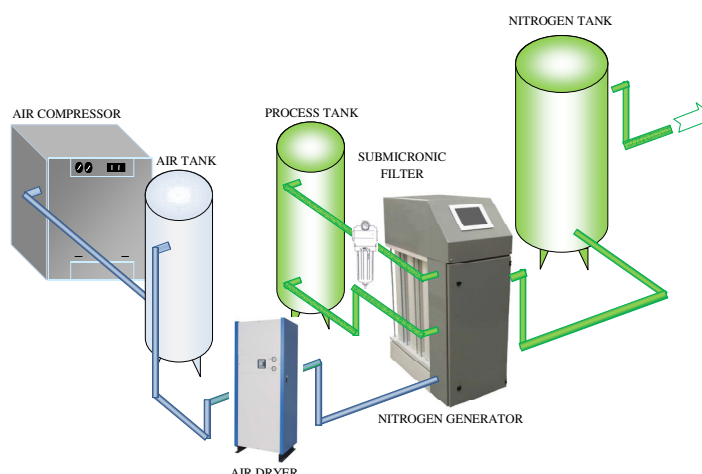
# Nitrogen generators

## Serie Maximus

### 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. The pair of beds switches between separation and regeneration modes to ensure continuous nitrogen production.



### Technical Specifications

Nitrogen outlet flow rate NM3/H vs Oxygen Concentration											
MODEL	10 ppm	100 ppm	0.1%	0.5%	1%	2%	3%	4%	5%	h x l x p (mm)	Weight (kg)
<b>MNG104</b>	1.98	3.20	9	14.2	179	22	25.9	29.1	32.3	1870 x 595 x 650	230
<b>MNG106</b>	2.96	4.80	13.5	21.3	26.7	32.9	38.8	43.6	48.4	1870 x 595 X 780	350
<b>MNG108</b>	3.94	6.39	18	28.4	35.6	43.9	51.7	58.1	64.5	1870 x 595 X 910	445
<b>MNG110</b>	4.93	7.99	22.5	35.4	44.5	54.8	64.6	72.6	80.5	1870 x 595 X 1040	538
<b>MNG112</b>	5.91	9.59	26.9	42.5	53.4	65.8	77.5	87.2	96.6	1870 x 595 X 1170	632
<b>MNG116</b>	7.98	12.78	34.1	53.8	67.6	83.3	98.2	110.4	122.4	1870 x 595 X 1480	820
<b>MNG120</b>	9.84	15.97	41.3	65.1	81.8	100.8	118.8	133.6	148.1	1870 x 595 X 1740	955
<b>AIR/N2 ratio</b>	12	8	4.7	3.5	3.1	2.7	2.3	2.1	1.9		

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 Temp range</b>	5-50 °C (41-95 °F)
<b>Air Inlet Pressure</b>	6 to 18 Bar
<b>Air Inlet Quality Requirement</b>	Dewpoint: -40 °C (-40 °F)
	Particulate: <0.1 micron
	Oil: <0.01 mg/m <sup>3</sup>
<b>Inlet/outlet connections</b>	G ½ (BSP) F

**F-DGS SAS, FRANCE**

8-10 rue du Bois Sauvage, BAT. Q18, 91000 EVRY, FRANCE

Tél: +33 1 64 98 21 00 - Fax: +33 1 64 98 00 43 -

email: info@f-dgs.com - site web: www.f-dgs.com