

NITROGEN GENERATOR NG8/1DF-MP/AES and NG8/1-MP/AES

The NG8/1 DF-MP/AES dual flow generator has been specifically designed to meet the nitrogen and dry air needs to supply a Microwave Plasma Atomic Emission Spectrometer (MP-AES) of the Agilent range.



Nitrogen is produced by pressure swing adsorption (PSA) to remove oxygen, carbon dioxide and water from compressed air and purified air is produced by using an activated alumina column.

The generators provide two continuous streams of Nitrogen and Dry Air from a single 'plug & play' unit. The model is available with an integral oil free compressor, and is extremely quiet in operation. The Generator is controlled using the latest in HMI touch screen technology to display the process in real time, inlet/outlet pressures.

BENEFITS AND SAVINGS

Improve analytical instruments performance : production of a constant flow of gas improves the consistency of the analysis results and hence reproducibility.

Improve laboratory efficiency :

The relatively high gas volumes required by MP-AES instruments make cylinder supply inappropriate for such applications. A constant, uninterrupted gas supply eliminates interruptions of analyses to change cylinders.

Improve economy :

- Quick return on investment < 1 years
- No gas cylinder rental bottles, no price inflation

Improve safety :

Nitrogen and Air produced at low pressure and ambient temperature removes the hazards associated with high pressure cylinders and liquid Dewar's

STANDARD FEATURES

- * Complete 'Plug and Play' system specifically designed for the Agilent MP-AES
- * **CONFIGURATION FOR ORGANICS ANALYSIS**
N2 : 25 L/min at 65 psi, @ 99.5%
Dry Air : 36.5 L/min at 87 psi separate in 3 way for POP, EGCM and monochromator gas
- * **CONFIGURATION FOR DETERMINATION OF SULFUR**
N2 : 25 L/min at 65 psi, **purity > 99.5%**
Dry Air : 36.5 L/min at 87 psi separate in 2 way for POP and EGCM optic purge
N2 : 10L/min at 65 psi @ 99.95% to supply monochromator gas
- * **Integral oil free air compressor with noise reduction technology**
- * **Auto start**
- * **Alarm display with help menu**
- * **Audible alarm sounder**
- * **Outlet flow indicator**
- * **Trend graphs for QA reporting**
- * **Energy saving Mode**
- * **Compressor over temperature alarm**

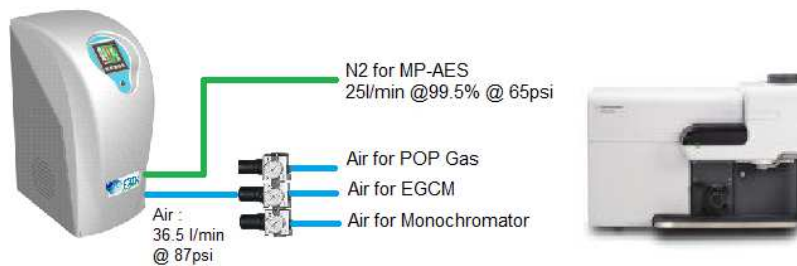
The MP/AES generator uses pressure swing adsorption technology (PSA) to produce pure gas.

This technique uses a bed of carbon molecular sieve (CMS) for N₂ part to selectively remove oxygen and other contaminants from atmospheric air and an alumina bed to remove particles, moisture and some hydrocarbons, resulting in a product stream of clean, dry, high purity pure air gas.

The bed alternates between purification and regeneration modes to ensure continuous N₂ and Air production.

The gas generator is designed to take compressed air at 8.5 barg from 2 integral oil free air compressors which is firstly pre filtered. This filtered compressed air stream is then passed to the beds currently in purification mode. Whilst passing through the bed, the oxygen, carbon dioxide, moisture and some hydrocarbons are removed from the compressed air.

Configuration for organics analysis



Configuration to purge the monochromator with N₂ to allow determination of sulfur :



Model	Flow rate				Purity and outlet pressure		Integral air compressor
	MP-AES Gas N ₂	POP gas AIR	EGCM Gas AIR	Monochromator Purge gas	N ₂	AIR	
NG8/1 DF MP/AES	25 L/min	25 l/min	1.5 l/min	Air 10 l/min	> 99.5% 65 psi	Clean and dry, 87 psi	Yes
NG8/1 MP/AES	N/A	N/A	N/A	N ₂ 10 l/min	> 99.95% 65 psi	N/A	Yes

Dimensions and Weights

Enclosure	Height cm	Width cm	Depth cm	Weight Kg
NG8/1 DF MP/AES	70	40	88	150
NG8/1 MP/AES	70	40	68	80

Technical Data

Ambient Temp range	5-35°C (41-95°F)
Maximum air Inlet Pressure	8.5 barg
Electrical Supply	220v a.c. / 1ph / 50-60Hz
	110v a.c. / 1ph / 50-60Hz
Outlet connections	G 1/4" (BSP) Female



F-DGS SAS,

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