

Combined N₂/Air generator for MP-AES

« Serie THYSTER »

The THYSTER-DF 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 absorption (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

The 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

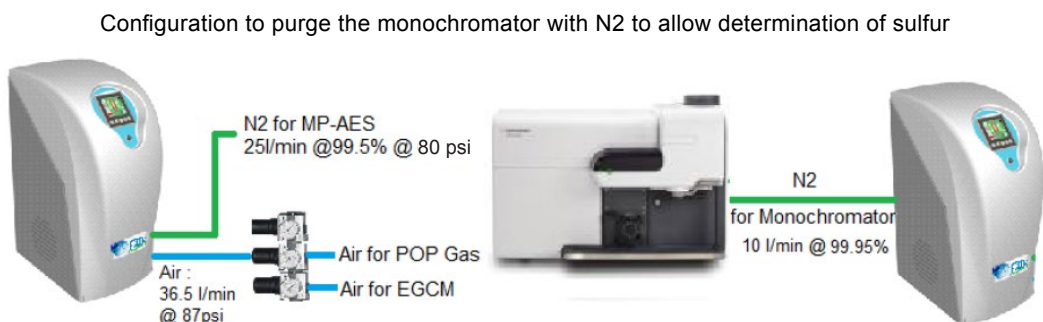
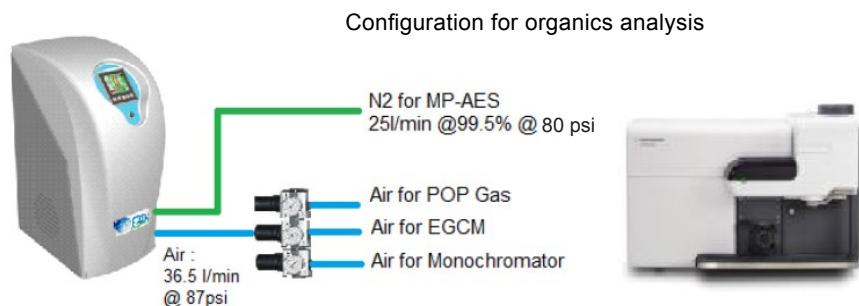
STANDARD FEATURES

- Fully regenerative PSA technology: reduced risk of gas contamination and phthalate free
- Complete 'Plug and Play' system specifically designed for the Agilent MP-AES
- Configuration for organics analysis
 - N₂ : 25 L/min at 5.5 bar (80 psi), purity > 99.7%
 - Dry Air : 36.5 L/min at 6 bar (87 psi) separate in 3 way for POP, EGCM and monochromator gas
- Configuration for determination of sulfur
 - N₂ : 25 L/min at 5.5 bar (80 psi), purity > 99.7%
 - Dry Air : 36.5 L/min at 6 bar (87 psi) separate in 2 way for POP and EGCM optic purge
 - N₂ : 10 L/min at 5.5 bar (80 psi), purity > 99.95% to supply monochromator gas
- With or without integral oil free air compressor with noise reduction technology
- Quiet thanks to the Soundproofed compressor box and anti-vibration features
- Auto start
- Audible and alarm display with help menu and history log
- Visual maintenance indication with history log
- Outlet flow indicator
- Energy saving Mode : Enables the compressor to switch off when nitrogen supply is not required
- Remote PC monitoring via USB port
- Fit with wheels

The MP/AES generator uses pressure swing absorption 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 bar (123 psi) from integral oil free air compressor 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.



Models		Flow rate				Purity and outlet pressure		Integral air compressor	
		MP-AES Gas N2	POP Gas AIR	EGCM Gas AIR	Monochromator Purge gas	N2	AIR		
Thyster-DF	0	25 L/min		1.5 L/min	Air 10 L/min	> 99.7% 5.5 bar (80 psi)	Clean and dry, 6 bar (87 psi)	No	
	1							Yes	
Thyster	0	N/A			N2 10 L/min	> 99.95% 5.5 bar (80 psi)	N/A	No	
	1							Yes	

0	Without compressor
1	With compressor

Dimensions	Height (cm)	Width (cm)	Depth (cm)	Weight (kg/lbs)	Air Inlet Requirement (units without compressor)	Dewpoint : -40°C (-40°F)
						Particulate : < 1 micron
Thyster/1	83 (33")	43 (17")	80 (31")	120 / 264.5		Electrical Supply
Thyster/0				88 / 194	220 V ac / 1 ph / 50 Hz	
Thyster-DF/1	113 (44")	43 (17")	100 (40")	160 / 352.8		110 V ac / 1 ph / 50 - 60 Hz
Thyster-DF/0	83 (33")	43 (17")	100 (40")	120 / 264.5	Inlet / Outlet connections	G 1/4" (BSP) Female

Gold Service
Satisfaction Guaranteed

The products are guaranteed 12 months. Beyond, your investment continues to be supported by our maintenance program "Gold Service". Our world class technical assistance offers Programmed preventive maintenance to ensure optimal performance of your Gas generator F-DGSI and a priority intervention in case of failure.

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