



PSA NITROGEN GAS GENERATOR SERIES MAESTRO-LCMS

LC-MS analysers do not all share the same requirements in terms of type, flow rate, pressure and purity of the gases needed for their operation. That's why the MAESTRO LCMS series was created to meet the needs of all LC/MS analyses on the market.

Available in 5 models with the option with/ or without / built in air compressor :



- **MAESTRO 35 series** : max. output of 35 L/min of N2 gas

Option Chip Cube for Agilent: it is switchable between standard LCMS grade N2 and the 10% O2 rich N2 required for LCMS Chip Cube.

- **MAESTRO HF series** : max. output of 64 L/min of N2 gas

- **MAESTRO D/1 DF series** : The dual flow, specifically designed for the Agilent 6400 & 6500: to meet the drying, sheath, nebulisation and collision gas requirements.

The generator provides two continuous streams of nitrogen from a single 'plug & play' unit.

- **MAESTRO 15/25 series** : max. output of 15 or 25 L/min of N2 gas

- **MAESTRO TF** : the triple flow, for ABI SCIEX LCMS specifically designed to supply Curtain, Source & Exhaust gases with dry air and nitrogen for ABI SCIEX LCMS instruments.

Benefits and Savings

■ Increased laboratory efficiency

A constant, uninterrupted gas supply of guaranteed purity eliminates interruptions of analyses to change cylinders and reduces the amount of instrument re-calibrations required.

■ Improved economy

Pure nitrogen gas produced as standard

■ Improved safety

Nitrogen produced at low pressure and ambient temperature removes the need for high pressure cylinders

■ Security of supply

Integral oil free air compressor as an option guarantees continuous gas supply, independent of in house compressed air supply

■ Simple installation

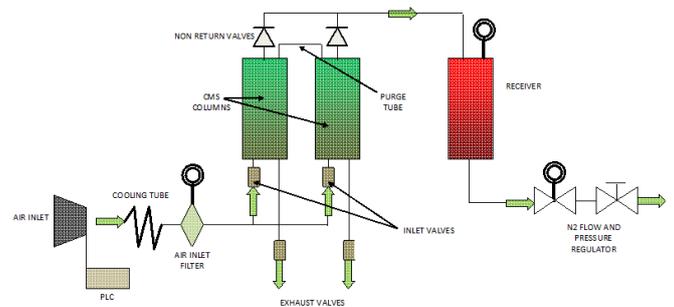
Gas generators can be installed in the laboratory, on or under a bench, eliminating the need for long gas lines from cylinders secured elsewhere

Standard Features

- * Fully regenerative PSA technology ; reduced risk of gas contamination and phthalate free
- * HMI touch screen technology to display the process in real time, including process variables
- * Integral oil free compressor in option : fully secure supply
- * Quiet thanks to the Soundproofed compressor box and anti-vibration features
- * Auto start
- * Audible and Alarm display with help menu
- * Visual maintenance indication
- * Outlet flow indicator
- * Trend graph for QA reporting
- * Energy saving Mode: Enables the compressor to switch off when nitrogen supply is not required
- * Remote access to screen using internet or GSM
- * Fit with wheels

The Nitrogen generator use pressure swing adsorption technology (PSA) to produce pure nitrogen gas.

This technique uses a bed of carbon molecular sieve (CMS) to selectively remove oxygen and other contaminants from atmospheric air. The bed alternates between purification and regeneration modes to ensure continuous nitrogen production. The gas generator is designed to take compressed air at 10 barg from an integral oil free air compressor which is firstly pre filtered. This filtered compressed air stream is then passed to the CMS bed currently in purification mode. Whilst passing through the bed, the oxygen, carbon dioxide, moisture and some hydrocarbons are removed from the compressed air, resulting in a product stream of clean, dry, high purity nitrogen gas.



Technical Specifications

Model		Outlet Flow rate	Outlet Pressure Bar g	Inlet Air pressure required Bar g	Inlet Air Flow rate required	Size
MAESTRO-35	0	35 l/min N2	7	8	109 l/min	Size 3
	1	35 l/min N2	7	-	-	Size 3
MAESTRO HF	0	64 l/min N2	7	8	115 l/min	Size 4
	1	64 l/min N2	7	-	-	Size 5
MAESTRO DF	1	- 35 l/min N2 @ 99% for Drying, sheath/nebulisation gas - 200 ml/min N2 @ 99.999% for collision gas	7	-	-	Size 4
MAESTRO TF	1	- 12 l/min N2 for curtain gas - 24 l/min Dry Air for source gas - 8 l/min Dry Air for exhaust gas	@ 5.5 @ 7.6 @ 4.2	-	-	Size 5
MAESTRO-15	0	15 l/min	7	8	53 l/min	Size 3
	1	15 l/min	7	-	-	Size 3
MAESTRO-25	0	25 l/min	7	8	68 l/min	Size 3
	1	25 l/min	7	-	-	Size 3

0	Without compressor
1	With compressor

Dimensions and Weights

Enclosure size	Height mm	Width mm	Depth mm	Weight Kg
Size 3	780	430	770	80
Size 4	780	430	880	130
Size 5	1000	430	880	160

Technical Data

Ambient Temp range	5-35°C (41-95°F)
Maximum air Inlet Pressure	10 barg
Nitrogen Outlet Pressure	See above table
Air Inlet Requirement (units without compressor)	Dewpoint: -40°C (-40°F)
	Particulate: <1 micron
	Oil: <0.01 mg/m ³
Electrical Supply	220v a.c. / 1ph / 50Hz or
	110v a.c. / 1ph / 50-60Hz
Inlet / Outlet connections	G 1/4" (BSP) Female
Sound level	< 55 dB

