

FDBS
Innovative Gas System Company

Nitrogen Generator ZEFIRO - LCMS



The nitrogen generator has been specifically designed to meet the gas flow, purity and pressure requirements of LCMS instruments. It can be used also for solvent evaporation.

The Nitrogen generator use pressure swing adsorption technology (PSA) combined with a pressure management in two steps to produce pure nitrogen gas with a high flow, pressure and purity.

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 LCMS 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 year.

No gas cylinder rental bottles, no price inflation.

The 2-stage pressure design allows the two compressors to work at their optimum pressure range which is reducing the stress on the compressors and as result extending the life time of the compressors - which is a considerable saving.

Improve safety

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

Standard Features

Three Flow Available

- ZEFIRO 20 LC-MS : 20 L/min
- ZEFIRO 35 LC-MS : 35 L/min
- ZEFIRO 40 LC-MS : 40L/min

Integrated air compressor

Indicator lights: Power ON, System OK, System error

Compact: can be installed under the bench

Quiet operation: Noise level < 55 dB, allowing installation directly into the laboratory

Low maintenance

- What can be simpler than changing filters once a year?
- Unique engineered air treatment and compressor management: guarantees better lifetime for all vital components such as compressors



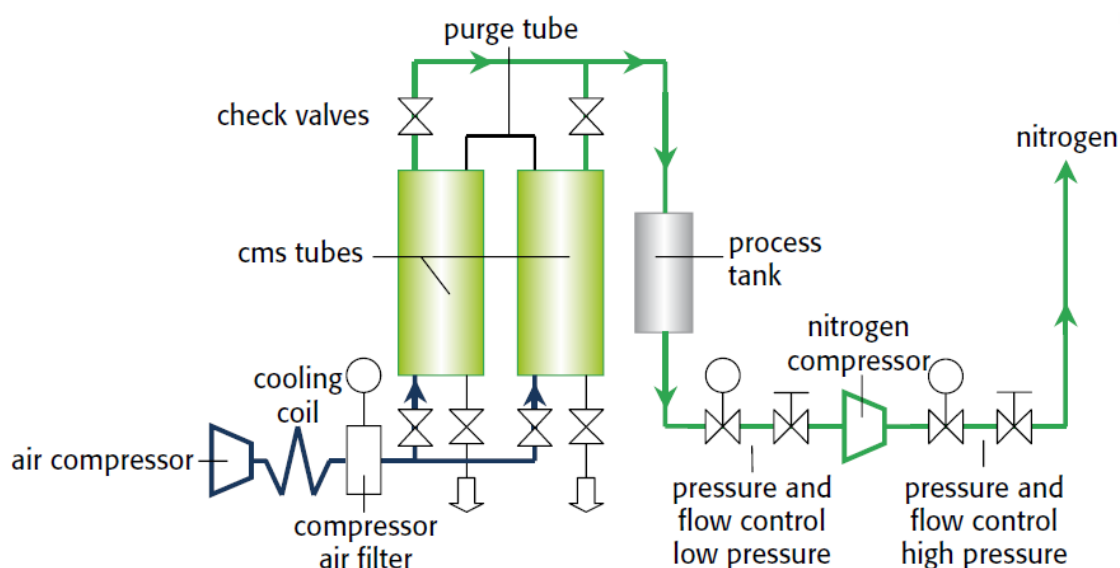
Nitrogen Generator ZEFIRO - LCMS

The Nitrogen generator use pressure swing adsorption technology (PSA) combined with a pressure management in two steps 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 pure N₂ collected is then boosted by a second compressor (stage 2) from 3 barg to 8.0 barg, which is the outlet pressure specification.

This unique engineered air treatment- and compressor management guarantees a long lifetime for all vital components such as the air compressors.



Technical Specifications

ZEFIRO 20 LC-MS	Max. 20 L/min at 8 bar
ZEFIRO 35 LC-MS	Max. 35 L/min at 8 bar
ZEFIRO 40 LC-MS	Max. 40 L/min at 8 bar
Purity	> 99 %
Indicator lights	Power ON, System OK, System error
Hours run meter	yes
Max. ambient operating temperature	10 – 30°C
Integrated air compressor:	Yes
Noise level:	< 55 dB
Electrical requirements:	230V / 820 W
Connexion	¼ NPT
Weight (Kg)	110 Kg
Dimensions (H x L x P) cm	64 x 48 x 83

