MISTRAL EVOLUTION NITROGEN GENERATOR

DESCRIPTION

The VICI DBS® Mistral Evolution is a self contained generator that produces up to 40 L/min of pure LC/MS grade nitrogen at up to 8 barg (116 psig). Nitrogen is produced by utilizing a combination of compressor and Carbon Molecular Sieve (CMS) technology. High and low pressure compressors are carefully matched to the CMS demand to ensure quite and reliable operation. This unique combination of dual compressor technology has several unique advantages over all other nitrogen generators commercially available.

Nitrogen is produced at low pressure, which ensures a longer compressor life and then compressed to 8 barg (116 psig) using a second stage compressor. This combination guarantees a long compressor life reducing maintenance costs and down time.

INCREASE EFFICIENCY
The relatively high gas volumes required by LCMS instruments make cylinder supply inappropriate and liquid nitrogen expensive. A constant, uninterrupted gas supply eliminates interruptions of analyses to change cylinders.

RETURN ON INVESTMENT
Payback period can be as short as 6 to 12 months.
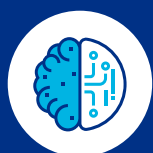
IMPROVE SAFETY
Nitrogen produced at low pressure and ambient temperature removes the hazards associated with high pressure cylinders and liquid dewars.

ENHANCE PERFORMANCE
Production of a constant flow and pressure of nitrogen improves the consistency of the LC/MS analysis, results and reproducibility.

SUPERIOR TECHNOLOGY
The 2-stage pressure design allows the compressors to work at their optimum pressure range reducing the stress and results in extending the life time of the compressors. This reduces maintenance costs and associated downtime.

FEATURES

Produces a continuous supply of high purity nitrogen | On-demand supply 24/7 | Flow rate at 8 barg (116 psig): 8 to 40 L/min | Purity: LC/MS grade | Integrated low noise oil free compressors | Proprietary carbon molecular sieve technology | 2-year complete product warranty | Complete "plug and play" LC/MS solution

BENEFITS

Eliminates dangerous high pressure cylinders helping to keep your employees safer | Removes the logistics, inconvenience, downtime and costs of a cylinder system | Flow capacity to match your specific instrument demands | Ideal for all LC/MS applications | Simple installation and operation | Superior gas purification | Peace of mind | Install directly in the laboratory

APPLICATIONS

LC/MS INSTRUMENTS

- Nebulizing gas
- Curtain gas
- Shield gas
- Sheath gas
- Electrospray gas
- APCI gas
- Jet stream gradient

SPECTROSCOPY

- Nuclear magnetic resonance spectrometers (NMR)

ANALYZERS

- Thermal analyzers (TGA/DSC)

OTHER APPLICATIONS

- Sample concentrators
- Evaporative light scattering detector (ELSD)

- Corona detectors
- Charged aerosol (CAD)
- Sample evaporators
- Cell incubators
- IVF Stem cell incubators
- Mask aligner
- Fume hood/cabinet purge
- 3D printer inerting
- Glove box purge

OPERATING DIAGRAM

The Mistral Evolution (PSA technology) includes two dynamically balanced, long-life compressors and delivers a continuous or on demand stream of pure nitrogen gas of 99.5% with a flow rate to 40 L/min.

It uses pressure swing adsorption (PSA) system which removes oxygen, carbon dioxide and water from compressed air. The resulting stream of pure nitrogen is ideal for LCMS instruments and other laboratory applications where inert gases are required.
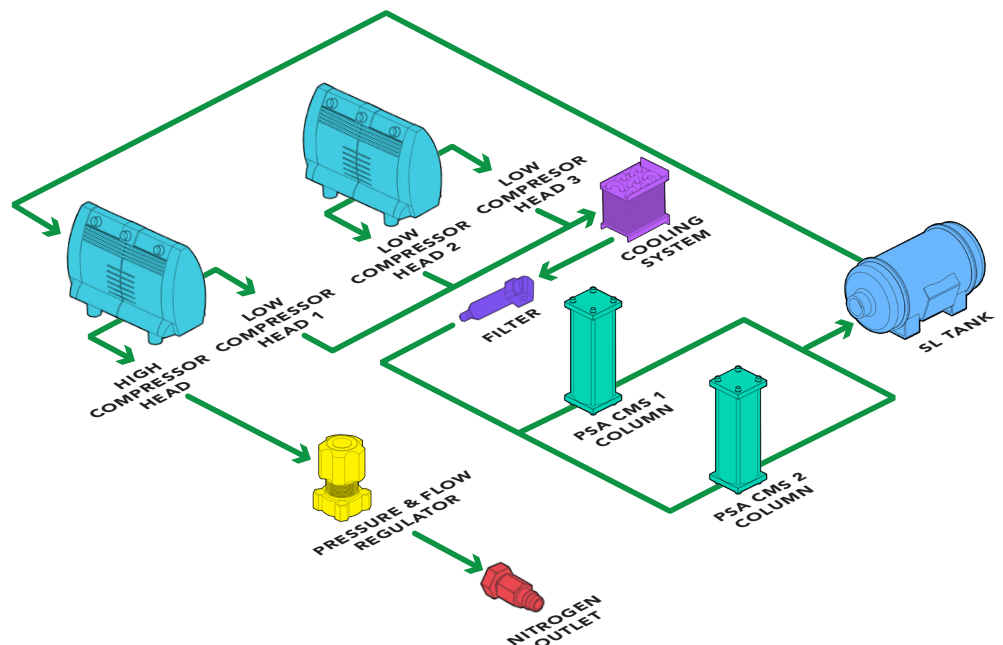
MODELS & SPECS

	MISTRAL EVOLUTION 10	MISTRAL EVOLUTION 25	MISTRAL EVOLUTION 35	MISTRAL EVOLUTION 40
Nitrogen flow rate L/min	10	25	35	40
Nitrogen purity	+99.5%	99%	98%	97%
Dewpoint °C (°F)	-50 (-58)			
Outlet pressure barg (psig)	3 (45)	8 (116)		
Technology	Carbon molecular sieve			
Warm up time (minutes)	20			
LED indicators	Power on/off, system ready, errors			
Electricity supply	110-120V 60Hz / 220-240V 50Hz			
Power consumption (watts)	1800			
Dimensions mm (in)	482W x 641H x 835D (18.9W x 25H x 33D)			
Weight kg (lbs)	90 (198)			
Shipping dimensions mm (in)	550W x 800H x 940D (21.6W x 31.4H x 37D)			
Shipping weight kg (lbs)	115 (254)			
Operating temp °C (°F)	15 to 35 (59 to 95)			
Outlet connection	6 mm OD compression or 1/4"			
Certification	CE, FCC, MET (UL and CSA compliant)			
OPTIONS	10 liter tank			

ORDERING INFORMATION (for best service, please call to discuss your application before placing your order).

MISTRAL EVOLUTION 10

DB-EVO-10-EU	220V/50Hz
DB-EVO-10-US	115V/60Hz

MISTRAL EVOLUTION 25

DB-EVO-25-EU	220V/50Hz
DB-EVO-25-US	115V/60Hz

MISTRAL EVOLUTION 35

DB-EVO-35-EU	220V/50Hz
DB-EVO-35-US	115V/60Hz

MISTRAL EVOLUTION 40

DB-EVO-40-EU	220V/50Hz
DB-EVO-40-US	115V/60Hz