



Nitrogen. HiQ[®] Nitrogen WHISPER LC/MS gas generator.



Background Nitrogen is commonly used in laboratories for different applications. Some demand higher purities, others are less purity-dependent. Such applications are typically nebulising gas for liquid chromatography coupled with mass spectrometry (LC/MS). Other areas of applications are specific solvent evaporations and low-purity purge gas requirements.

Description The HiQ[®] Nitrogen WHISPER LC/MS gas generators are designed to deliver larger capacity flow rates required for LC/MS instrument operation. Using the latest membrane technology, the HiQ[®] Nitrogen WHISPER LC/MS generators are able to provide nitrogen at up to 8 bar pressure and 98 – 99.5% purity depending on inlet pressure and flow rate (the higher flow the lower purity and vice versa).

The HiQ[®] Nitrogen WHISPER LC/MS 0 generator range is intended for use where compressed air is available from an external source. No electrical installation is required. The system is built around an integral membrane system and can deliver flow rates up to max 120 litres of nitrogen per minute depending on model.

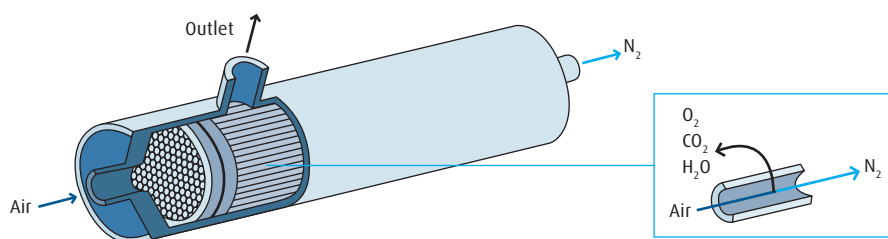
The HiQ[®] Nitrogen WHISPER LC/MS C generator include very silent integral compressors. The generator deliver up to 35 litres of nitrogen per minute.

Functioning nitrogen principle

The compressed air (supplied from external source or from the integral compressor depending of generator model) is initially passed through a coalescent filter to remove any condensed water. The HiQ[®] Nitrogen WHISPER LC/MS C generator also include a specific dryer column to further dry the air. The dry air is then passed through an active charcoal filter to remove the hydrocarbons and through a particle filter. The membranes separate the compressed air into nitrogen and an oxygen-enriched air stream. Finally, the produced nitrogen is pressurised and can be connected directly to the application or can be stored in a nitrogen storage vessel. Once the pressure is reached a pneumatic control valve will stop the compressor until new nitrogen is required.

Laboratory applications

The HiQ[®] Nitrogen WHISPER LC/MS generators have been developed to meet specific requirements in terms of flow, purity and pressure in LC/MS applications. These nitrogen generators can also be used for the evaporation of solvents in samples being analysed.



Specifications

HiQ® N ₂ -Mini WHISPER 0 – 8L*	Flow rate: 8 NL/min
HiQ® N ₂ -WHISPER 0 – 40L*	Flow rate: 40 NL/min
HiQ® N ₂ -WHISPER 0 – 80L *	Flow rate: 80 NL/min
HiQ® N ₂ -WHISPER 0 – 120L*	Flow rate: 120 NL/min
HiQ® N ₂ -WHISPER C – 35L	Flow rate: 35 NL/min

* Need external compressed air source

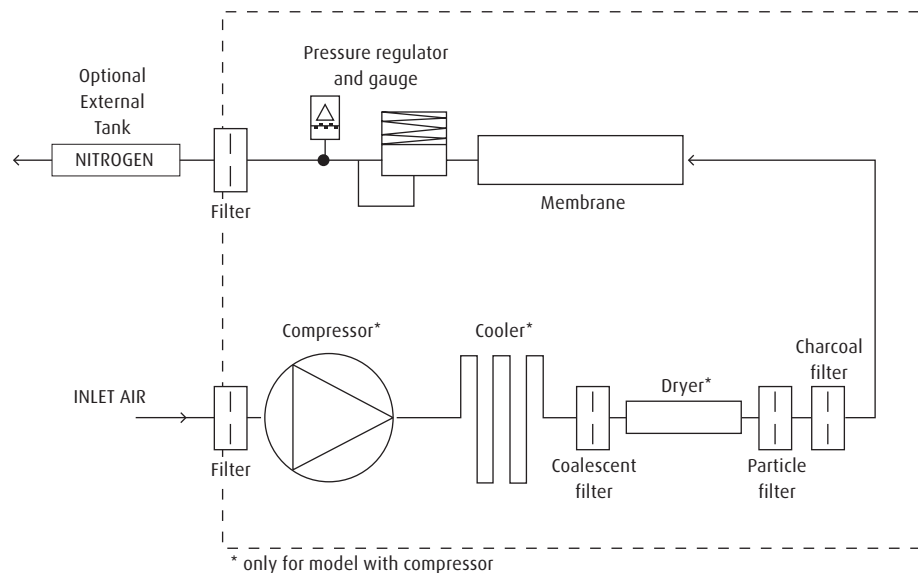
Delivery pressure	Up to 8 barg (116 Psig). Inlet pressure 8 to 10 bar (pressure drop 0.8 bar)
Nitrogen purity	>98 to 99.5% depending of pressure and flow rate
Particle filtration level	< 0.01 µm
Sound level	<60 dB(A) for the “C” model. <45 dB(A) for the “0” models
Fittings	G 1/4”
Power requirements	230V/50Hz – 230V/60Hz (only for the C-model)

Model	0 – 8L	0 – 40L	0 – 80L	0 – 120L	C – 35L
Nitrogen Flow rate (NL/min) (max)	8	40	80	120	35
Net weight (kg)	8	15	18	21	160
Shipping weight (kg)	13	20	23	26	190
Dimensions (cm) (WxDxH)	35x35x74	48x26x115	48x26x115	48x26x115	48x98x130
Shipping Dimensions (cm) (WxDxH)	50x40x120	50x40x120	50x40x120	50x40x120	50x100x140
Incl. compressor	no	no	no	no	2
Power consumption (kilowatt)	0	0	0	0	5

Spare parts and consumables for maintenance

- Filtering media of the coalescent filter
- Filtering media of the particle filter
- Active charcoal filter
- 4000H compressor kit (only for “C” models)
- 8000H compressor kit (only for “C” models)
- New membrane
- New dryer
- 10L tank (buffer vessel)

HiQ® Nitrogen WHISPER LC/MS generators in principle



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