CRYOGEN.130

SMART & CLEVER Liquid Nitrogen Generator

Reference : CRYOGEN.130

F-DGSi
Innovative Gas System Company

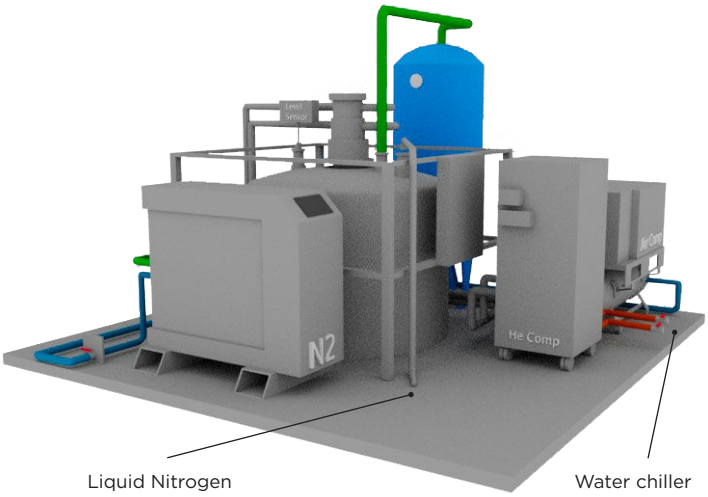
WITH ENERGY SAVING, BOOST TECHNOLOGY AND ZERO LOSS EVAPORATION MODE

Description

The CRYOGEN.130 is the **"Water cooled"** liquid N2 generator from F-DGSi.
Utilising a reliable 'Cryo-refrigerator' design of cold head technology and helium compressor, the nitrogen gas is then produced using the PSA technology which is cooled to 77K (-196°C) to produce liquid nitrogen.

The Generators are controlled using the latest in HMI touch screen technology to display the process in real-time, showing the liquid level of the dewar, PSA nitrogen production giving a fully automated system at the touch of a button with remote access for diagnostic control.

The liquid nitrogen can be dispensed using a 1.5 meter vacuum insulated hose. With water chiller supplied, the system can operate up to +52°C ambient temperature, making it suitable to operate everywhere in the world.



Applications

IVF (storage of samples) | Cryotherapy | Dermatology | Lab applications | Metal treatment | Animal Husbandry

Benefits & Savings

CryoGen Generation Plants is your reliable and efficient alternative to conventional Liquid Nitrogen supplies. Taking away the on-going costs, safety considerations of deliveries, transportation of traditional liquid gas supplies.

Your on-site Liquid Nitrogen systems will be some of the most advanced and intelligent available.

The control system gives the user all the information necessary to ensure an efficient and consistant supply of Liquid Nitrogen and nitrogen gas are always available. From the process to flow and alarms, including automatic operation, Trend graphs, service alarm and service records page, there is simply no other Liquid Nitrogen System.

Standard Features

- Intelligent color touch screen to provide simple and user friendly management of all functions of the unit
- Fully regenerative PSA technology with air compressor (in option)
- Helium Compressor Water cooled, using a water chiller
- Liquid Nitrogen @99% purity
- LN2 Dewar Liquid Level sensor
- With Nitrogen gas cooling system by pelletier effect to increase liquefaction efficiency
- Pressure Boost technologies increasing liquid N2 production
- Zero loss evaporation mode
- Vacum prevention system on liquid dewar
- Built in O2 analyser with alarm
- Audible alarm display and Visual maintenance indication with history log
- Automatic operation
- Remote PC monitoring and diagnostic analysis via USB to interface the unit with customer's PC software (allow to carry out checks and maintenance effectively, only via a remote connection)
- Energy Saving Technology (EST):
  - Switch off the air compressor when gas supply is not required
  - Allowing low energy consumption and increasing durability of the air compressor
- Quiet thanks to the Soundproofed compressor box and anti-vibration features
- Wheels for easy installation

LIQUID N2

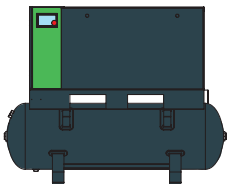
MODEL	CRYOGEN.130
GENERALS INFORMATIONS	
Max L/Day	130
Max L/Hour	5.42*
Liquid N2 Purity	> 99% (< 1% O2)
Liquid N2 Dewar Capacity (L)	300
Liquid N2 Pressure (bar)	Up to 4.0*
Temperature range	7 - 25°C (45 - 77°F)
Skid dimension (W x H x D)	200 x 170 x 200 cm (78.7" x 67" x 78.7")
Skid weight (kg/lbs)	1250 / 2755.7
Electrical supply	380 - 415 V ac - 50 Hz or 200 V ac - 60 Hz or 460 - 480 V ac - 60 Hz 3 ph + neutral and earth
Power consumption excluding air compressor/chiller	11.8 Kw - 13.7 Kw @ 50 Hz 14.5 Kw - 16.3 Kw @ 60 Hz
Noise level	< 65 dBA
Compressed Air requirement @7 bar min.	15 Nm^3/h (4.0 kW)
Compressed Air Quality	ISO 8573 Class 1.2.1
Cooling Water requirement	13.8 Kw
CONNECTIONS	
Inlet/outlet for Cryogen	G 3/8
COMMUNICATION	
USB/PC Control	In series

Cryogen production rate at + 25°C and < 2000 meters altitude at 50Hz.
*boost mode is activated (Increase liquid N2 production).

Options

1 | Cryogenic Safety Equipment

2 | Additionnal dewars



3 | Air Compressor

- **Power consumption:** 4.0 kW
- **Air tank volume:** 250 L
- **Compressed Air flowrate @8 bar:** 40 Nm^3/h
- **Air treatment:** Fridge dryer and dessicant dryer

4 | Internet Connectivity

5 | SMS Text

6 | Chiller

[F-DGSi Care]

The products are guaranteed 24 months*. Beyond, your investment continues to be supported by our maintenance program **[Gold Service]**. Our wold 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.

***Year 2 of warranty subject to generator being serviced at end of the first year by a F-DGSi-approved agent in accordance with fixed annual maintenance schedule. For full terms and conditions, visit www.f-dgs.com**

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Certified Product

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