



LIQUID NITROGEN GENERATOR

Application areas are used in university laboratories, scientific research institutes, biological sample storage, medical institutions, biopharmaceuticals, special electronic materials, chips, spectrometer equipment, sensor side refrigeration, metal processing, electronic chemical industry and other fields.

Liquid Nitrogen System Abstract

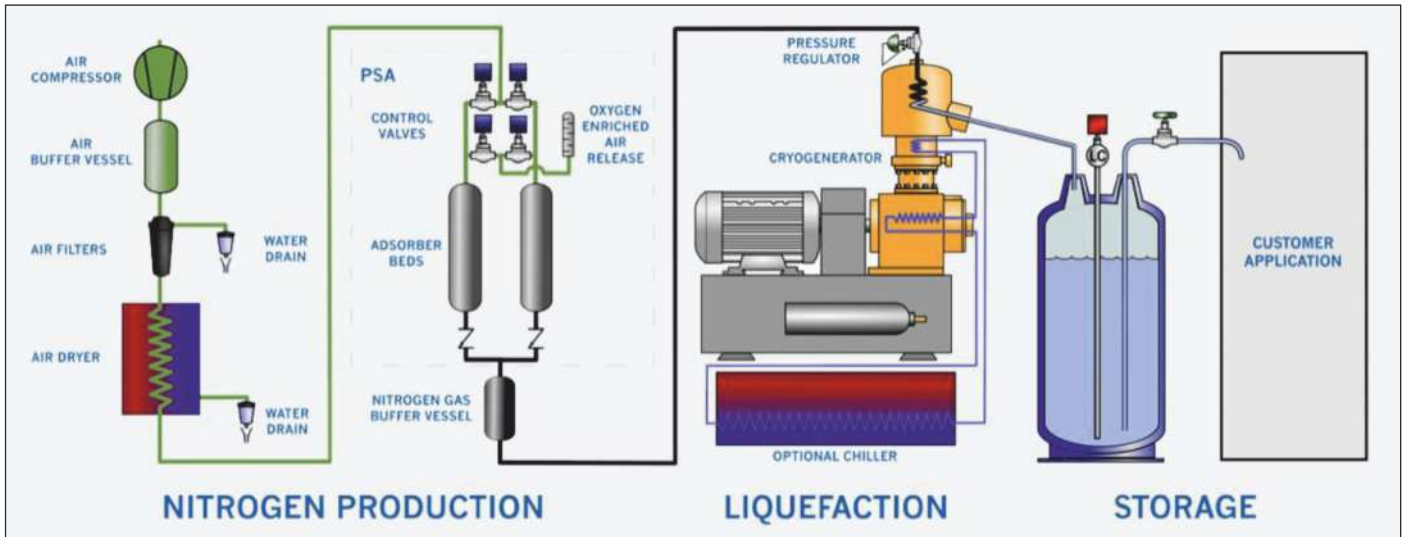
Technical Parameters

Model	ATLN-24
Style	Integrated
Nitrogen liquefaction	24L/day
Size	950 × 1150 × 1900 mm
Weight	550KG
Refrigerators	GM
Cooling forms	Cold head refrigerator
Power Requirements Power	~5.5 kw Single-phase AC380V 50Hz
Environmental Requirements	Ambient temperature: ≤30 Ventilation: Good Altitude requirements: customized ≤1000 m (altitude) Pressure : ≥3bar
Nitrogen Generator	Built-in; ≥99%
Air Compressor	Built-in Or external; Turbine Variable Frequency
Dewar	External; 50L; 304 Stainless Steel
Liquid Nitrogen Pump	From Storage Tank to Portable Tank
Cooling Time	120 min
Touch Screen	One-button Automatic Control System
Liquid Level Sensor	Capacitance
Noise	70DBA
Re-hydration Way	Automatically; With Liquid Level Sensor, Connected to The PLC Controller

Technical Solutions

The liquid nitrogen generator equipment consists of three parts: nitrogen generator, refrigeration equipment, and Dewar tank. Its function is to automatically replenish liquid with one-key start-up. When the liquid nitrogen in the liquid nitrogen tank is lower than the set liquid level, the equipment automatically starts. The principle of automatic cascade refrigeration of mixed working fluids, the nitrogen is gradually cooled from the ambient temperature to the saturated condensation temperature of nitrogen liquefaction, the refrigerator can cool down to -196°, and the liquid nitrogen liquefied in the refrigeration evaporator is transported to the liquid nitrogen tank. Save and obtain liquid nitrogen, the equipment automatically detects the liquid nitrogen level in the Dewar tank, and automatically controls the operation of the equipment

- Provide a liquid nitrogen turnover tank (35liters)
- A set of protective gloves and goggles
- One set of instruction manual and maintenance manual
- 1 years warranty
- Lifetime maintenance and software upgrade support



Equipment Advantages

- The company's product technology is mature and reliable, and the design is reasonable.
- The product has low power consumption, energy saving and environmental protection.
- The cooling speed of this product is fast, and the lowest temperature can reach minus 185 degrees within 30 minutes of booting.
- Our nitrogen liquefaction machine adopts advanced mixed refrigerant (MR) refrigerant.
- Compared with the traditional GM machine and Stirling cold head, the mixed refrigerant compression refrigeration system has the characteristics of no need for regular maintenance, high reliability, and a service cycle of more than 10 years.
- All cryogenic pipe fittings are all vacuum insulated pipes to reduce the loss of cooling capacity.
- Touch-type color operation interface in Chinese and English.
- Refrigeration accessories are all world-renowned brands: Japan Saginata solenoid valve, Danfoss throttle valve, Danfoss filter, etc.
- PT100 platinum resistance and T-type thermocouple are used for temperature detection.

Maintain & Consumables

- **Technical support:** truthfully and detailed introduction of the company's products to users or other departments, patiently answer various inquiries, and provide the most complete relevant technical information
- **On-site inspection:** inspect the customer's gas field to understand the customer's needs if necessary.
- **Scheme comparison and selection:** specific analysis, comparison, and formulation of gas usage plans that meet the actual needs of customers
- **Technical cooperation:** Assist the relevant design units in technical exchanges, listen to the suggestions of users and relevant departments.
- **Product planning:** According to the specific gas requirements of customers, professional design of "tailoring" is performed to enable customers to obtain the most economical investment costs.
- Sign the contract accordance with the relevant national laws and regulations and strictly abide by the rights and obligations of the contract
- The engineering personnel strictly follow the national safety and quality inspection requirements and conduct quality supervision on all aspects of equipment manufacturing and assembly to ensure the quality of the equipment;
- The whole machine is equipped with import and export flanges and anchor bolts, and all the certificates are complete when the equipment leaves the factory.
- The service engineer will complete the installation and commissioning of the equipment after delivery with the highest speed and quality under the proper support of the customer.
- Warranty period of equipment: one year (excluding wearing parts): The supplier establishes a user profile to assist the acquirer in equipment management.
- Emergency troubleshooting When the equipment fails, the supplier company's logistics staff will contact the buyer to keep abreast of the situation on the site and resolve the equipment failure with the on-site personnel in time. When the equipment fails and the buyer cannot resolve it by itself, regardless of the holiday, the supplier promptly dispatches a person to the scene to solve the equipment failure after receiving a call or fax. 12. System Lifetime Service

Application Field

Suitable for scientific research laboratories, storage of biological samples and sperm embryos etc.



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A divisions of Athena Technology



- 1.5ml HPLC Vials
- 9mm Bonded Cap & Septa
- 20mm Al Crimp Cap
- 250 µl Vial Insert
- HPLC Solvent Inlet Filter
- Crimper / Decrimper