



# ELAN2

## LIQUID NITROGEN GENERATORS

## THE ELAN2 OFFICE LIQUID NITROGEN GENERATOR



The elan2 Office Liquid Nitrogen System is ideally suited for offices and laboratories that require less than 1 L of liquid nitrogen at a time.

You start out each day with a fresh supply of 0.75 to 0.85L of liquid nitrogen stored in the internal dewar of your elan2 Office Liquid Nitrogen Generator. To get what you need, simply place one of the RFID safety dewars on the dispensing shelf and press a button. As long as you press the button, liquid nitrogen is dispensed into your container.

The system is ergonomically designed so you do not have to bend over to dispense the liquid nitrogen - nor are you using a pressurization vessel. Your loss of liquid nitrogen is minimized. Two types of RFID tagged handheld dewars are available for your convenience - the standard thermos variety and a sprayer type device.

When you have obtained the liquid nitrogen you require, the elan2 system will meet your demands for later liquid nitrogen by immediately starting up production again until the internal storage dewar is full.

### SPECIFICATIONS<sup>1</sup>:

- ◇ Daily Production Capability: 5 L
- ◇ Maximum Storage Amount for Usage at a time: 0.85L
- ◇ Time to Refill Storage Dewar: 4 hours
- ◇ Liquid Nitrogen Characteristics:
  - ◇ Purity: 98% pure (< 2% O<sub>2</sub>) with negligible water content immediately after dispensing
  - ◇ Temperature: 77 K / -196.15 °C / -321.07 °F
- ◇ Dimensions (with the Office unit sitting on top of the air compressor)
  - ◇ 17.5 inches (33 cm) wide x 17.5 inches (33 cm) deep x 52 inches (132 cm) high
  - ◇ Weight of the air compressor - 55 pounds (25 kg)
  - ◇ Weight of the elan2 Office Generator - 75 pounds (34 kg)
- ◇ Operating Environment Requirements:
  - ◇ Temperature: 60 °F to 82 °F (16 °C to 28 °C)
  - ◇ < 40% Relative Humidity
  - ◇ Air flow exchange rate: 50 L per minute
- ◇ Electrical Requirements:
  - ◇ Two outlets required, standard wall electricity (115 VAC/60Hz or 220 VAC/50Hz) - Single Phase
  - ◇ 1400 Watts Maximum Cycle Capacity; 900 Watts Standard Operating Capacity
- ◇ Noise Output: < 55 dBA at 1 meter

<sup>1</sup> Specifications are subject to change without notice. For detailed facilities requirements information, contact MMR Technologies at [support@elan2.com](mailto:support@elan2.com).

## THE ELAN2 LIQUID NITROGEN GENERATOR AUTOTRANSFER STATION

The elan2 Liquid Nitrogen Generator Autotransfer Station is the perfect solution for offices that go through larger quantities of liquid nitrogen - generating and storing 5 L of liquid nitrogen every 24-hour period of time.

The elan2 Liquid Nitrogen Generator Autotransfer Station produces liquid nitrogen within an internal small production dewar, and transfers approximately 0.75L of liquid nitrogen at a single time to an external 20L storage dewar.

The Autotransfer Station will work at maximum capacity until the external 20L storage dewar is completely full. The internal production dewar is then filled, and the system goes into a standby mode until either there is liquid nitrogen evaporation or usage, and the sensors determine the Station is no longer full to capacity.



### SPECIFICATIONS<sup>1</sup>:

- ◇ Daily Production Capability: 5 L
- ◇ Maximum Storage Amount for Usage at a time: 20 L
  - ◇ Static Evaporation: 0.095 L / day
  - ◇ Normal Working Duration: 135 Days
- ◇ Time to Fill Storage Dewar: 4 days
- ◇ Liquid Nitrogen Characteristics:
  - ◇ Purity: 98% pure (< 2% O<sub>2</sub>) with negligible water content immediately after dispensing
  - ◇ Temperature: 77 K / -196.15 °C / -321.07 °F
- ◇ Dimensions
  - ◇ elan2 Autotransfer Station and 20L dewar: 35 inches (66 cm) wide x 17.5 inches (33 cm) deep x 37 inches (94 cm) high
  - ◇ Air Compressor (up to 15 feet away): 17.5 inches (33 cm) wide x 17.5 inches (33 cm) deep x 15 inches (38 cm) high
  - ◇ Weight of the elan2 Autotransfer Station Generator: 80 pounds (36 kg)
  - ◇ Weight of the air compressor - 55 pounds (25 kg)
  - ◇ Weight of the 20 L Storage Dewar (Full) - 55 pounds (25 kg)
- ◇ Operating Environment Requirements:
  - ◇ Temperature: 60 °F to 82 °F (16 °C to 28 °C)
  - ◇ < 40% Relative Humidity
  - ◇ Air flow exchange rate: 50 L per minute
- ◇ Electrical Requirements:
  - ◇ Three outlets required, standard wall electricity (115 VAC/60Hz or 220 VAC/50Hz) - Single Phase
  - ◇ 1400 Watts Maximum Cycle Capacity; 900 Watts Standard Operating Capacity
- ◇ Noise Output: < 55 dBA at 1 meter

<sup>1</sup> Specifications are subject to change without notice. For detailed facilities requirements information, contact MMR Technologies at support@elan2.com.

# Make Your Own Liquid Nitrogen!

The elan2 Liquid Nitrogen Generator family of systems provide you with clean, reliable, on-demand liquid nitrogen by extracting the LN2 direction from the air of your office, laboratory, or work space. All you need is a climate controlled space and standard wall electricity - and you can be independent of liquid nitrogen delivery services - instead making what you need, as you need it!

You can locate your elan2 Liquid Nitrogen Generator system conveniently in your office, laboratory, or work space. It is aesthetically pleasing and only slightly larger than a water cooler.

The elan2 Liquid Nitrogen Generators are:

◇ Reliable

The elan2 systems tap the most abundant source of nitrogen - the earth's atmosphere, directly. The elan2 systems then use a award-winning and proven technology to convert the nitrogen gas into liquid. Our patented technology has been in continuous use for more than a decade in demanding scientific applications where reliability is the most important concern.

The secret to the elan2's reliability is a self-cleaning cooling cycle developed at MMR Technologies.

◇ Convenient

The elan2 systems completely replace liquid nitrogen delivery and storage. The footprint is smaller than most storage dewars and eliminates the need for delivery access.

Liquid Nitrogen is available for dispensing with either a simple push of the button or from a convenient integrated storage dewar. You have the LN2 you need, when you need it.

◇ Intrinsically Safe

You only need to handle small quantities of liquid nitrogen at a time, and you do not have to use a pressurized storage container. This means less loss of liquid nitrogen, and significantly less possibilities of accidents from damaged pressure seals or pressurized LN2 transfers.

◇ Clean and Known Source of Liquid Nitrogen

The elan2 takes the nitrogen right out of the air and is not transferred from large delivery vehicles or producton facilities - there is no longer potential for contamination of your liquid nitrogen - what you get is pure, clean, and safe for your requirements.

◇ Environmentally Friendly

The elan2 liquid nitrogen generator systems are free of ozone depleting CFCs - and have automatic



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