

# KIC

Excellence in Cryogenics

## Kryo Bot Model KBN2 Automatic LN<sub>2</sub> Storage and Transfer



**SAFE and RELIABLE**  
**FULLY AUTOMATIC**  
**REPLACES TRANSFER LINES**  
**ELIMINATES HANDLING DEWARs**  
**FAST DELIVERY**  
**WORLD-WIDE SUPPORT**

### FEATURES:

- PLC and Touch Screen Controls
- Semi-Tool Ready
- Plug and Plays with Liquefiers
- Built-In Diagnostics and Safety
- VJ Transfer Line Option

### APPLICATIONS:

- Solid State Detectors (SSD)
- SEM and CCD Instruments
- X-Ray Crystallography
- Controlled Rate Freezers
- Biological Storage Devices

### What is a Kryo Bot ?

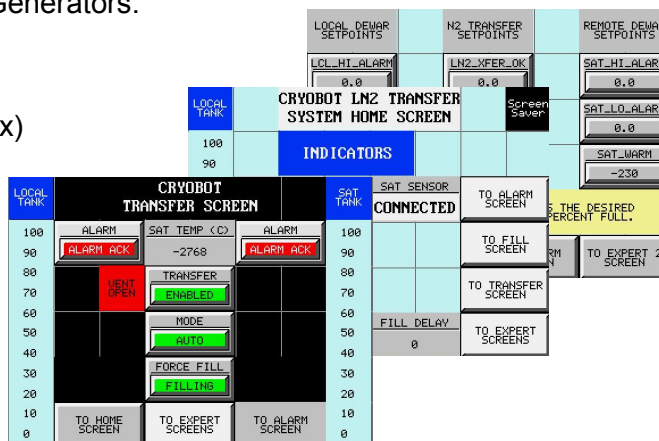
A portable LN<sub>2</sub> storage and management product that can extend the range of transfer lines or expand the inventory of a liquefier in the laboratory. The Kryo Bot, once filled with 120 liters of LN<sub>2</sub>, can provide automatic filling to any target dewar, most instruments, and tools. Kryo Bots are the ultimate accessory for the KIC Liquid Nitrogen Generators.

### DETAILS:

120 Liter 740<sup>W</sup> 740<sup>D</sup> 1210<sup>H</sup> mm and 78 kg (Max)  
See Data Sheet for Additional Information  
Power: 85-240 VAC 50 / 60 Hz, 100 Watts

### OPTIONS:

Seismic Anchors, Clean-room Casters, Transfer Lines, External Level Sensors, Low Pressure Regulated Gas delivery for Hoods and Instruments.



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[Kryo Bot Brochure English v2]

## Kryo Bot ORDERING INFORMATION

**How to Specify a Kryo Bot?** For the most part, these are in stock or can be assembled and tested within a few days. The customer selects from the options menu the exact configuration that is required. The KIC engineers are always available for a consultation. It is as simple as 1 – 2 – 3.

### STEP-1 LN<sub>2</sub> Source

Option	LN <sub>2</sub> Source	Action
1.1	Any KIC Liquefier	Plug and play ready Just order the connection cable
1.2	Commercial Cylinders, other tanks, and transfer lines. Must be regulated to less than 14 psig.	Order inlet transfer line and specify connections

### STEP-2 LN<sub>2</sub> Delivery and Storage

Option	Configuration	Action
2.1	Manual Delivery to Target Dewar	Operator selected with push button ON-OFF operation.
2.2	Automatic Delivery to Target Dewar	2.2.1 Signal is required from target dewar as 0-5 VDC or 2.2.2 Order a CLS-5A level sensor and cable. Provide dewar details to KIC engineers
2.3	Transfer Line from Kryo Bot to Target Dewar	Provide length, end connection, and type (foam or VJ) of transfer line required.
2.4	Select the size of Kryo Bot storage dewar based on storage time and size of target dewar	2.4.1 60 Liter storage tank 2.4.2 120 Liter storage tank
2.5	Method of placement in the Laboratory	Stationary placement Order optional cart

### STEP-3 Target Dewar and Options

Option	Special Operations	Action
3.1	Self pressurizing heater when GN <sub>2</sub> is not available or when fast flows are required and GN <sub>2</sub> is not available	Order this option
3.2	A TC can be used as an additional safety	3.2.1 Order CLS-5A with TC 3.2.1 Order separate TC line and sensor.
3.3	Quiet mode and remote operation	Specify channel assignments and cable. Consult with KIC
3.4	Additional and other customized operational requirements such as secondary displays and tool interfaces	Consult the KIC application engineers
3.5	Special Consideration Options	Seismic supports, levelers, and clean-room casters kits DC Power, special power cable, etc.

### MODEL SELECTION SUMMARY:

Model Suffix	Capacity	Operation Filling / Delivery	Delivery
60-M	60	MANUAL / AUTO	MANUAL
120-M	120	MANUAL / AUTO	MANUAL
60-A	60	MANUAL / AUTO	MANUAL and AUTO
120-A	120	MANUAL / AUTO	MANUAL and AUTO
60-SSD	60	MANUAL / AUTO	MANUAL and AUTO with Temperature Monitor of the Delivery Tank. Includes Pressure building Heater controls
120-SSD	120	MANUAL / AUTO	MANUAL and AUTO with Temperature Monitor of the Delivery Tank. Includes Pressure building Heater controls