

## DEPARTMENT OF BIOTECHNOLOGY Indian Institute of Technology, Madras, Chennai, 600 036.

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Dt. 07.06.18

Date: 07.06.2018 **Due Dt. 29.06.18** 

- 1. Quotations are invited in duplicate for the various items shown below/overleaf/ enclosed list.
- 2. The quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.
- **3.** The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.
- **4.** If the item is under DGS & D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the rate contract price. If so, please send copy of the R.C. (Please note that we are not Direct Demanding Officers).
- **5.** Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges and collected back at the supplier's expenses.
- **6. Local Firms:** Quotations should be for free delivery to this Institute. If quotations are for Ex-Godown, delivery charges should be indicated separately.
- **7. Firms outside Chennai:** Quotations should be for F.O.R Chennai. If F.O.R. Consigner stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, Packing, forwarding and freight charges must be indicated.
- 8. The rates of Sales/General Taxes and the percentage of such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales/General Taxes will be admitted at any stage and on any ground whatsoever. The taxes leviable should take into consideration that we are entitled to have concessional sales tax applicable to non-government educational institutions run with no profit motive for which a Concession. Sales tax certificates will be issued at the time of final settlement of the bill.
- **9.** Goods should be supplied carriage paid and insured.
- **10.** Goods shall not be supplied without an official supply order.
- **11. Payment:** Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

## **SPECIFICATIONS**

## MICROPROCESSOR CONTROLLED LN2 SAMPLE STORAGE SYSTEM

➤ LN2 Capacity : 200 liters

➤ Static Evaporation rate : 5 liters/day

➤ Vial Capacity: 10,000 to 11,000 2ml vials

➤ Inner tank Diameter : 24 inch, 61cm

Exterior Dimensions: 41 x 28.5 x 34 inches

Regulatory Listing: CFDA, cULus and CE

- > Should be Top-mounted control panel to allow easy access to the microprocessor controller for programming
- ➤ Lid with foamed-in-place, high density urethane insulation with dedicated vent. Two independent, flexible gaskets to reduce the migration of moisture into the chamber and reduce icing.
- > LED continuously display with actual liquid nitrogen level and high-level/low-level set points
- ➤ Heavy-duty casters should be provided standard
- ➤ Should have a temperature sleeve as a standard feature, which provides colder temperatures at the top and more efficient operation in vapour phase
- > Storage tanks should vacuum insulated with stainless steel interior
- Exterior cabinet should be constructed of 18-gauge, cold roll steel with powder-coat paint for durability and a high quality uniform finish.
- > Should come standard with LN2 transfer hose
- > Should have a convenient front-mounted cabinet key lock for sample security
- ➤ Should have a keyed lock on the microprocessor for temperature and alarm set-point security
- > Should have a rear-mounted recessed power switch to prevent accidental power shut off
- ➤ Should be supplied along with self pressurised LN2 Supply Tank at 22psi (1.5 bar) of at least 200 to 220 liters. The supply tank should have Cylinder hand truck with pneumatic wheels for easy transportation
- ➤ Should be supplied with 2 pairs of Cryogloves ,medium and large.

## **CRYOGENIC SHIPPING & STORAGE CONTAINER**

- ➤ Should be made of Innovative material to absorbs liquid nitrogen to prevent spillage during Shipment
- > 5-8 days liquid nitrogen holding time to allow specimens to be shipped safely
- Durable construction and sturdy base to allow dry shipper to withstand rough handling
- ➤ Lockable lid to prevent unauthorized entry
- Easily transported via most common carriers
- Lightweight aluminum design and convenient pail-style handle
- LN2 Capacity : 1.5 Liters
- No. of Canister per Unit : 1
  No. of Canes per canister : 3
  No. of 2ml Vials per cane : 3
  No. of 2ml Vials capacity : 9
- ➤ Neck diameter : 1.4in (3.5cm)
- Exterior dimensions(D x H): 7.3 x 13.5in (18.5 x 34.3 cm)
- ➤ Shipping Weight : 10.9kg