



Ref: NCB/F-200604/2020-221 (N)

Specifications for Mammalian cell CO₂ incubator

The system should be Air jacketed CO₂ incubator

The system should be microprocessor controlled CO₂ incubator It should have touch screen LCD controller with easy icons and user-friendly control system.

The system should have the Capacity of 170 Lt (\pm 5%)

The system should be equipped with large, easy to read touch screen display

The system should have Touch screen interface to log and display all user interactions with the incubator like door openings, parameter changes to identification of important changes in the culture environment.

The system should be supplied with 3 no of adjustable SS shelves

The system should have two doors and inner door should be glass door to seal the chamber with Silicon gasket.

The fluctuation/variation at 37°C should not be more than 0.1°C

The system should have the Infrared CO₂ sensor

Sensor must be able to withstand high temperatures during direct heat sterilization

The system should have the CO₂ range 1-20% with accuracy 0.1%

The system should have Built in on-demand high temperature decontamination cycle (180°C and above)

The system should have the option to mute the audible alarms

The system should have the tracking alarm \pm 1° C

The system should have the seamless SS inner chamber.

The system should have water level sensor and alarm to alert user when humidification water refilling is required.

The system should have the door recovery time less than 5 minutes which is very critical technical specification.

The Humidity reservoir should be filled without the removal of shelves or cultures and easily drained through built-in drain.

The system should have hepa filter with efficiency 99.99%

The system should have the Operating temperature range from ambient to 50°C. The temperature accuracy and uniformity should be less than 0.1 °C

The system should have independent over-temperature protection function with independent back-up temperature sensor to protect valuable cultures from potential damage in the event of an unexpected failure in the primary temperature control system.

The system should have high quality microbiological filters on all gas inlets, outlets and sample ports, to eliminate the potential of contamination entering the chamber.

The incubator should maintain uniform temperatures in the inner chamber

The system should have a standard USB port with software for data downloading.

The system should have 4-20mA signal output for interfacing with external data collection systems or monitoring system.

The system should be offered with power rating of single phase 230 V 50 Hz

The system should have onboard Diagnostic interface to show system parameters and functions.

The system should be equipped with buzzer and visual alarm for power failure, CO₂, and temperature deviation against the setup temperature

The incubator shaker should be quoted with stackable kit with the main offer.

The system should operate at 230V, 50 Hz AC power

The system should be power efficient and low power consumption.

The system should be supplied with all the accessories required to function.

Compliance to each of the above points should be separately indicated and evidence presence for each of them (Product brochures should be highlighted wherever required).

The system should be supplied with 3-year warranty.

The system should be CE/ISO Certified

The service provider should have the base in Bangalore. Office address and service Engineer contact details should be enclosed with the quotation

The past performance/service support in NCBS/instem/ccamp should be satisfactory and the technical evaluation will be done accordingly.