

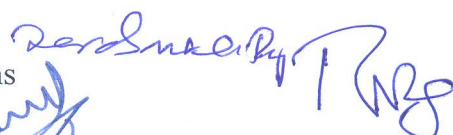
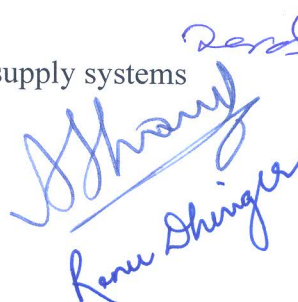
Item No. 14; Qty required - 01; Approximate Cost – Rs. 4 .00 lakhs

Specification for Thermo-mixture (Heating shaking Dry Bath Incubator)

1. **Should have** PID control system for consistent shaking results and precise temperature control to 0.1 degree
2. **Should have shaking** Speed at least 300 to 1500 rpm
3. Should have provision to store at least 2 programs with at least 3 steps per program
4. Should have capability for Interval shaking function which allows shaking and non-shaking condition in same program
5. Should have Two types of timing modes: (i) Start only after temperature reaches desired set point and (ii) Start immediately after the timer is set
6. Should have over temperature cut off safety protection
7. Should have Orbital diameter at least 2.0 mm
8. Should have at least temperature accuracy $\pm 0.5^{\circ}\text{C}$ at higher temperature
9. Should provide usable blocks having tube holding capacity with at least 96 for 0.2ml tubes, 50 for 0.5ml tubes, 24 for 1.5/2.0 ml tubes, one 96 well microplate, and 5 for 15ml and 2 for 50ml tubes.
10. Wide Temperature range, from Ambient +5 to + 100°C to cover a broad range of applications

Specification for multipurpose vortex assembly

1. Should have touchpad controls and LED displays for accurate speed (rpm) and time (minutes and seconds) results.
2. Should operate in continuous duty and handle all accessories over the entire speed range. Should have two modes of operation such as Touch mode for mixing tubes with cup head or Universal Holder.
3. Timer should display elapsed time or when programmed to user defined time limits, the unit must shut off when time reaches zero.
4. Should have cup head, and Holder with cover and micro-tube insert for 0.5ml micro-tubes (minimum 10 tubes), 1.5 to 2.0ml micro-tubes (minimum 10 tubes), 12-13mm test tubes (minimum 5 tubes), 15-18mm test tubes (minimum 5 tubes) 19-21mm diameter test tubes (minimum 4 tubes), and Microplate Holder (minimum 2 plates)
5. Speed range: 300 to 3000 rpm
6. Controls: 3-way power switch, LED display for time/speed and adjustable keys for set-point control
7. Should have compatible to Indian power supply systems

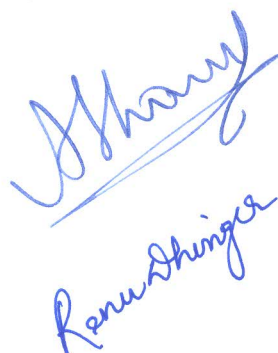


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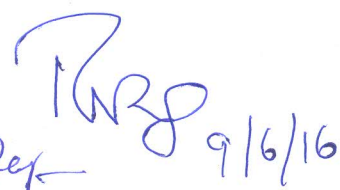


Terms and conditions

8. Should be completely complying the point no 18.1 and 18.6 at page no. 16 of the AIIMS tender documents.
9. All technical claims should be supported by product catalogue, public website of the manufacturer.
10. The system should be certified from European CE / UL / ISO 9001 for quality assurance.
11. Standard instrument comprehensive warranty for 2 years + 3 years comprehensive maintenance contract (CMC) after completion of 3 years warranty.
12. Firm should provide the list of spares and accessories, which are included in comprehensive warranty and CMC.
13. Firm should also provide the list of consumables, which are not included in the comprehensive warranty and CMC. Company should quote the prices (freeze for next five years) of each consumable separately, which are not included in CMC.
14. Provide point-wise compliance statement vis a vis technical specification offered. Please indicate page number/location of the compliance in the technical brochure.
15. Equipment and power supply connector should be compatible with Indian power supply system
16. Performance Certificate from at least 3 users from Government sector should be provided.


Ranushingra

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9/6/16