



**INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**  
**MATERIALS MANAGEMENT DIVISION**  
Powai, Mumbai 400076

**Reference No. 144 PR No. 100021173 (Rfx No. 6100000796)**

**Detailed Technical Specifications for High Speed Floor Model Refrigerated Centrifuge with rotors:**

**1. CENTRIFUGE :**

1. Speed: 25,000 rpm or more
2. g Force : 75,000 x g or more
3. Capacity : 6 litres or more
4. Display : Large touch screen display
5. Temperature Range : -10° to 40° C or better
6. Temperature Control : +/- 2° C of set temperature
7. Drive System ; Induction Drive System or High Torque Brushless motor
8. Drive cooling : Air Cooled
9. Refrigeration System: Non-CFC refrigerant technology
10. Run Time: 1 min to 99 Hours / Hold
11. Noise level :< 62 dBa
12. Power: 230 Volts, 50Hz, (Single Phase)
13. Set Speed: 500 to 25,000 rpm in 10 rpm increments or better
14. User- Defined Programs: 100 programs or better
15. System should come with Rotor inertia technologies for rotor sensing to calculate rotor inertia energy and stops the system to prevent rotor failures if rotor run above its energy- safety feature.
16. An imbalance detector shall monitor the rotor during the run, causing automatic shutdown if rotor loads are severely out of balance

**2. ROTORS: Fixed Angle Rotors (preferred-aluminum)**

1. Capacity : 8 x 50ml 1 No.  
Speed : 25,000 rpm or more  
RCF : 75,000 g or more  
Autoclavable Polypropylene Bottles with caps and o-ring to be offered – 20 Nos  
Preferable: with adapters for 15 ml centrifuge tubes and 20 Nos. of compatible tubes
2. Capacity: 6 x 250ml 1 No.  
Speed: 14,000 RPM or more  
RCF: 30,000 g or more  
Autoclavable Wide Mouth Polypropylene Bottles with caps and o-rings to be offered – 18 Nos.
3. Capacity: 6 x 1000ml 1 No.  
Speed: 8,000 RPM or more

RCF: 15,500 g or more

Autoclavable Wide Mouth Polypropylene Bottles with caps and o-rings to be offered – 18 Nos

### **3. Additional terms and conditions**

- 1. Warranty: Cost should include Three years comprehensive warranty on complete system including drive, five years on rotors.**
2. Delivery and shipping charges up to IIT Bombay must be included
3. Availability of local Service Support and response time for a Service Call during and after warranty to be mentioned.
4. Original Literature containing detailed specifications and features of both the centrifuge and rotors should accompany the offer.
5. Demo of the centrifuge and adequate training to at least 5 users should be given for safe operation
6. Tender should be quoted directly by the manufacturer and should have application support directly.