## **Technical Specification for Refrigerated Table Top Microcentrifuge**

- 1. System should have a Maximum Speed of 15,060 rpm/21,300 x g with a brushless motor and user defined RPM or RCF setting.
- 2. Temperature range should be from -10°C to +40°C and should be able to maintain 4°C at maximum speed.
- 3. System should have timer settings from 10 sec to 9:59 h, with continuous run function.
- 4. Rotor must be metallic and withstand autoclaving at 121°C for 20 mins.
- 5. System should also have the provision to use swing bucket rotor (96 x PCR tubes with 0.2 mL or  $4 \times \frac{1}{4}$  divisible PCR plate 96 (un-skirted) at 6000rpm or 3200xg.
- 6. Adapters to support tube formats like 0.2 mL, 0.5 mL should be available.
- 7. Rotor with Aerosol-tight lid, Rotor lids should have a Quarter turn lock-system for fast secure lid closing and opening.
- 8. Aerosol tightness of the rotor should be certified by a third-party agency.
- 9. System should have fast temperature function for rapid cooling of centrifuge.
- 10. System should have an in-built condensate drain to prevent water accumulation inside the stainless rotor chamber to avoid corrosion.
- 11. System should have automatic shut off function of the compressor to reduce energy consumption and to extend compressor life when not in use for long hours.
- 12. System should be able to start the timer count only when the set centrifugation RPM is reached, to support the short spin protocols.
- 13. System should possess a separate short spin key with defined maximum speed for brief spin.
- 14. System should possess dedicated soft function to perform gentle acceleration and deceleration to enhance sedimentation.
- 15. System must have finished time function to indicate time since centrifugation complete.
- 16. System should support quite operation in workplace with noise levels <54 dB(A).
- 17. System must have an emergency lid opening in the front side.
- 18. System should have bright digital display with LCD only.
- 19. Centrifuge to be supplied along with following rotors:
  - a.fixed angle rotor for 24 x 1.5 /2.0 mL tubes with aerosol tight lid with maximum of 15,060 rpm and 21,300 x g
- 20. Rotor and rotor lid must be made of metal.
- 21. Instrument should be CE Certified.
- 22. System must have an USB-port for service maintenance.
- 23. Warranty period: The equipment (including rotors) should have 24 months comprehensive on-site warranty from the date of handling over the fully functional unit to the institute against manufacturing defects of material and workmanship.

Credibility: Similar installations of this kind should have been made by company in recognised research institutes/universities in India and provide the user list of research institutes in India.