

Specifications for Ultracentrifuge

1. Maximum speed: 100,000 rpm or above
2. Max G Force: 800,000 x g or above
3. Speed control accuracy: +/- 50 rpm of set speed or better
4. Temp control system: Preferably thermo module cooling system (HCF free)
5. Set temperature range: 0-37°C with 1°C increment or better
6. Temperature control: +/- 1°C of set temp.
7. User settable programmed: >10 stored program or better options
8. Screen display: Touch screen LCD display
9. Drive system: Frequency controlled, vacuum encased, direct induction drive
10. Timer: 1 min to 99 hrs or more, with an option of Hold function
11. Low noise: <50 dB
12. Option for Safer Self Locking rotors
13. Suitable on line UPS of minimum 10KVA for proper functioning of machine
14. Machine should have features like eye-balancing of samples, delayed start/stop, dual display of Run and Set parameters, data entry through key pad/ touch pad, RPM/RCF mode, Rotor Life Management etc.
15. Machine should comply with CE and other safety and regulatory standards
16. Rotors: suitable number of rotors with tube stands of the following specifications with suitable tubes should be provided:
 - Fixed Angle rotor(s) to spin following volume ranges:
 - 6-8 place rotor with adapters (as and if required) to accommodate multiple volumes of samples, if feasible, for example, ~30ml, ~6-8ml, ~4ml, ~1.0-2.0ml and at speed ~50,000 rpm and rcf ~200,000 x g or better. Multiple rotors serving the similar experimental requirement may also be quoted.
 - Swing Bucket Rotor to spin the following volume ranges:
 - 6-8 place rotor with adapters (as and if required) to accommodate multiple volumes of samples, if feasible, for example, ~30.0-40.0 ml, and ~13.0-17.0ml at speed ~30,000 rpm and rcf ~120,000 x g or better. Multiple rotors serving the similar experimental requirement may also be quoted
 - 6-8 place rotor with adapters (as and if required) to accommodate ~5.0-7.0ml at speed ~45,000 rpm and rcf ~200,000 x g or better. Multiple rotors serving the similar experimental requirement may also be quoted
17. Five years of warranty on the instrument and its parts and the rotors, and 10 years on the drive system should be provided. No charges of parts will be paid during warranty.
18. Should be quoted at least 100 tubes of each of the desired volumes
19. Open top tubes should be quoted if available. Tube sealer and Tube cutter device (as required) should also be quoted.
20. Validation of the instrument to be done after every 6 months.
21. The vendors should indicate a list of installation bases.
22. The vendors should allow for upto 3 installations after the first installation, in case the system needs to be moved to different locations.
23. All the specifications should be supported by documentation in the form of original brochure/catalog. Please highlight the listed specifications in the brochure. Photocopy will not be accepted. We reserve the right to disqualify parties who do not comply with the original documents. Compliance statement should be attached with markings in the original catalog.
24. The party should take an undertaking that they will supply the components of the instrument for the next 10 years after its installation at the site.
25. Technical Support should be available within 24 Hr. Hence; Local post-sale support will be preferred.
26. The installation of the equipment should be within 6-8 weeks of supply.
27. The quoted price should include installation, operator instructions and institutional on-site training.
28. Installation will be considered complete only after successful demonstration of all the applications for which this system is being set up for. On-site training for as long as is

required for all required users to be able to optimally use the system should be provided by personnel from the original company.