

## Incubating Orbital shaker Specifications:

1. Heavy duty stackable floor model with universal platform/sticky platform to accommodate assorted clamps of various capacities
2. Should have universal platform that can hold at least 20 nos of 500 ml conical flasks/ 30 nos of 250 ml/ 10 nos of 2 Lt Erlenmeyer flasks. However compact model with better capacity will be preferred.
3. Sturdy shaking platform with dynamic counter balance to work vibration less even at high speed (atleast upto 250 RPM) and heavy load.
4. Shaker must have excellent temperature controlling system which can support shaking at least 20°C below ambient (minimum set point should be at least 4°C) to 60°C. Refrigeration system must be CFC free.
5. Integrated with suitable heater. Temperature should be sensed by platinum resistance temperature detector.
6. Integrated LED display must show speed, temperature, running time etc., Speed range: at least 40 to 400 RPM in 2 to 3 cm orbit, smooth operation to open the lid.
7. Shaker timer can be set from the period of 0.1 to 99.9 hours, settable in 0.1 increments.
8. Must have microprocessor controlled system with self-correcting feedback mechanism for the precise regulation of speed, running time, as well as refrigeration.
9. Should have built in drain for easy clean-up of the chamber.
10. The instrument must be equipped with audible and visible warning to indicate deviations of  $\pm 5$  RPM or 1°C from the set point. Should also indicate power failure and open lid.
11. Instrument should be provided with a compatible voltage stabilizer.
12. In an event of power failure, the shaker incubator should resume its original operating condition when power is restored.
13. Light Source - LED illumination with uniform light distribution for culturing photosynthetic microorganisms, algae etc. It should have a maximum light intensity of atleast 200  $\mu\text{molm}^{-2}\text{s}^{-1}$ . It should be low heat dissipating and energy saving as well.
14. Optional: The system support multi-function reservoir or equivalent mechanism to humidify (20-85% R<sub>H</sub>) the chamber (for reducing sample evaporation).
15. [Warranty minimum 1 year](#)