

Specification for CO2 Incubator

1. Temperature range Ambient +5°C to 45°C.
2. Temperature Uniformity $\pm 0.3^\circ\text{C}$ at 37°C.
3. Interior Volume: 150 litres and above.
4. CO2 control range: 0-20%. Control: Better than $\pm 0.1\%$, measures with T/C sensor
5. Readability and Stability at least 0.1%.
6. Humidity: around 95% at 37°C
7. Stainless steel shelves and supports should be readily removable without tools for easy cleaning, autoclaving or adjustment.
8. Heat sterilization cycle of at least 140°C for 12 hours to safely kill all organisms within the chamber.
9. Built in system audible alarm should be activated if the outer door is opened during the Heat Sterilization
10. cycle and the temperature are 60°C or greater to ensure safety in the lab.
11. The Microprocessor Control System should give clear cut written message for the errors, should guide
12. through the cycle with start-up and cycle status messages during decontamination phase.
13. Post decontamination process, the system should return to normal operating status without the need for annual cleaning.
14. HEPA filtered chamber airflow.
 - 100% filtration of chamber air every 60 seconds to clean room particulate and air borne contamination to provide constant protection against contaminations.
15. Built-in system with adjustable timeframe to notify the user when it's time to replace the filter and should be easily removable without tools.
16. Fan assisted uniform distribution of direct heat at every part of the inner chamber.
17. There should be microbiological filters on all gas inlets and outlets and sample ports to reduce the potential contamination sources.
18. Programmable tracking alarms for temperature and CO2. Alarms should be custom configurable.
19. All probes and sensors located inside the chamber should be easily located.
20. System should have option of humidity monitoring, automatic gas tank switchers, data output ports.
21. System should be compatible to 230V/50-60 Hz.
22. Must be US-FDA Certified. A copy certificate must be attached.
23. Warranty: 3 years
24. Must be supplied with 1 CO2 cylinder, 1 regulator & 1 3KVA Servo stabilizer.