

TekBIO Bio-Safety Cabinet



Class II Bio safety Cabinet Type A1 & A2 are designed for protection of operator, product and environment from pathogenic agents and microorganisms transmitted in respiratory way and also for creation of a bacterial dust free air environment. It has a common plenum from which 30% of air is exhausted, and 70% re-circulated to the work area as the down flow. Type A cabinets exhaust air directly back to the laboratory, and they may contain positive pressure contaminated plenums. When toxic chemicals must be employed as an adjunct to microbiological processes, these cabinets should not be used. Exhaust HEPA filtration only removes airborne aerosols including biohazards, and not chemical fumes.

The Class II Type A1 has the positively-pressurized contaminated plenum bordering the ambient environment, and therefore is less safe than the Class II Type A2 that has a negative pressure surrounding the positively pressurized contaminated plenum. In case there is a leakage on the positive plenum, the leaking aerosol will be pulled by the negative pressure back to the positive plenum, and it will not leak out. Because of the safety issue, the Type A1 design is now considered obsolete. In the A2 cabinet, about 70% of air from the positive plenum is recirculated as down flow, and the remaining.

TekBIO Class II Type B1 Biological Safety Cabinets

The Class II Type B1 biological safety cabinet has a common plenum from which 70% of air is exhausted, and 30% re-circulated to the work area as the down flow. Type B1 cabinets also have a dedicated exhaust feature that eliminates re-circulation when work is performed towards the back within the interior of the cabinet. Toxic chemicals employed as an adjunct to microbiological processes should only be employed if they do not interfere with work when re-circulated in the down flow.

TekBIO Class II Type B2 Biological Safety Cabinets

TekBIO Class II Type B2 cabinet all inflow and down flow air is exhausted after HEPA filtration to the external environment without recirculation within the cabinet. Type B2 cabinets are suitable for work with toxic chemicals employed as an adjunct to microbiological processes under all circumstances since no re-circulation occurs. In theory, Type B2 cabinets may be considered to be the safest of all Class II biological safety cabinets since the total exhaust feature acts as a fail-safe in the event that the down flow and / or exhaust HEPA filtration systems cease to function normally. However, Class II Type B2 cabinets are, in practice, difficult to install, balance and maintain.

Product	Class II Type A1 & A2 Bio Safety Cabinet
Air balancing Protection	70% recirculation. 30% exhaust personnel & environmental protection
MOC Exhaust Filter	Galvanized Iron with PU coated / Stainless Steel – Matt Finish HEPA Filter having EU 13 rating with suitable size
Digital Display	Microprocessor LCD display for Blower, U.V. light, Hour Meter & FLT Timers
Door	Weight Lifting Sliding Door for easy handling
Hepa Filter	99.99% down to 0.3 Microns EU 4 rating with suitable size
Efficiency	10 Micron Washable
Inflow Velocity	Minimum 100% from the front opening
Illumination of Light	Optimum
Noise Level	Less than 70 db 'A'
Vibration Level	Minimum
Magnehelic Differential Pressure Gauge	01 No. (Make: Omicron USA) with each unit (To measure differential pressure across the supply HEPA filter)
White Lights	Lights through white acrylic cover to get maximum light intensity
3 Pins Switch & Socket	15 AMPS – 1 set in each unit
Other Switches	On/Off switches for motor blower & CFL lights