Biological Safety Cabinet

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Bio-Safety Cabinet Class II

Class II Bio-safety Cabinets are designed to provide protection to operator, environment and materials inside the workspace.
These Bio-safety Cabinets are utilized for containing low-to- moderate risk bio-hazardous materials.
These Bio-safety Cabinets have downward airflow and HEPA filters that re-circulate air providing required level of protection from micro-organisms and aerosols. As these Bio-safety Cabinets are extensively used in drug preparation, chemotherapy preparation, clinical research, medical and pharmaceutical sectors, life science and industrial laboratories etc. it must follow relevant application specific standards..

Different Names Same Purpose

A Bio-Safety Cabinet is called by several names in research industry; microbiological safety cabinet, Biological Safety Cabinet (Acronym: BSC) and Bio-Safety hood are such common names which are referred by microbiologists.

Types of Class 2 Bio-Safety Cabinet:

In order to meet varying research and clinical needs, Bio-Safety Cabinets are designed mostly in 3 types i.e. Type A2, Type B1, and Type B2. Regardless of type, each cabinet provides the same level of protection. According to international sanitation standards, there are exactly same pass and fail criteria for all of them.
Now how do we differentiate each Class 2 Bio-Safety Cabinet? Each Bio-Safety Cabinet is differentiated by a number of factors some of them are amount of air re-circulation, air ventilation and negative and positive pressure. Before buying a cabinet a user must know the basic differences between these 3 types of Bio-Safety cabinets which are explains below:

Bio-Safety Cabinet Class II Type A2:

In this type of Class II BSC, approximately 70% of the HEPA filtered air is circulated through the cabinet, while 30% passes through an exhaust HEPA filter and is discharged.

Bio-Safety Cabinet Class II Type B1:

This Class II BSC, exhausts 60% - 70% of the HEPA filtered air, while 30% - 40% air is re-circulated inside workspace through HEPA filter.

Bio-Safety Cabinet Class II Type B2:

It is total exhaust type BSC, no re-circulation inside workspace; blower exhausts 100% of the filtered air.

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Technical Parameters:

MODEL NO	ULSB2-BSC2 G/S	ULSB2-BSC3 G/S	ULSB2-BSC4 G/S	ULSB2-BSC5 G/S	ULSB2-BSC6 G/S
Airflow Direction	2' x 2' x 2'	3' x 2' x 2'	4' x 2' x 2'	5' x 2' x 2'	6' x 2' x 2'
Working Side	2' x 3' x 7'	3' x 3' x 7'	4' x 3' x 7'	5' x 3' x 7'	6' x 3' x 7'
Inflow Velocity	105 fpm (0.53 m/s)				
Down flow Velocity	60 fpm (0.30 m/s)				
Operate environment	Environment temp.10-30°C,Relative Humidity under 70% no obvious vibration and dust				
Noise Level	<65dBA				
Filter	HEPA filter 99.999% efficient (ULPA - Optional)				
Particle retention	≤ 0.3 microns				
Light	Fluorescent light				
Light Intensity (LX)	≥650 Lux				
Controller	Microprocessor controller w/ LCD digital display				
Body Construction	Powder Coated MS / SS304 / SS316				
Table Construction	Stainless Steel 304				
Front Door	Frameless auto sliding glass door				
Pressure Gauge	Magnehelic gauge				
Alarm	Audio / visual sash alarm				
Blower assembly	1/3 HP, Single Phase, 1440 RPM motor, Capacity 1000 CFM, Pressure 30 mm WG				
Exhaust assembly	300 CFM, ducting by PVC pipe with rain guard - Dia. 150mm				
Clean Rating	International standard ISO14644.1 CLASS 5(US209E,CLASS 100)				
Certifications	NSF/ANSI 49 (Optional)				
Pressure Difference Range (Pa)	Environment temp.10-30°C,Relative Humidity under 70% no obvious vibration and dust				
Power Supply	Single-phase voltage source AC220±10V, 50/60Hz				
Optional Accessories	ULPA Filter Caster wheels Temperature indicator Face Velocity Meter Airflow Indicator Audio / Visual alarm Thermal Anemometer Raised airflow grill Spare UV lamp Vacuum Tap Exhaust (LH / RH / Top)				

Stainless Steel Casters

Telescoping Base Stand

Magnehelic Gauge

Thermal Anemometer

UV Lamp

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