

# CLEAN AIR SOLUTIONS



**ANTECH | AIRTECH**



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## COMPANY PROFILE

Airtech Japan, Ltd. is a public stock listed company (Tokyo Stock Exchange No. 6291), engaging in the design, manufacture, and sale of clean air systems.

The company was founded on March 8, 1973 and is headquartered in Tokyo, Japan. Now Airtech has 15 domestic (in Japan) and 5 foreign firms (China, Singapore, Taiwan, Korea, India).

Its products include biological safety cabinets, laminar flow cabinets (clean benches), fan filter units, clean booths, clear partitions, pulse jet air showers, pressure dampers, and hand dryers.

For more than 40 years, Airtech has contributed to the development of electronics industry, bio industry, food industry, and pharmacy by inventive solutions for air containment, contamination control and controlled environments. We realize high-degree cleanliness space with our unique technologies. We provide a customer with adequate after-sales service.



Airtech Japan Factory in Kazo, Japan



AIRTECH R&D Center



## DIRECTORY



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## AIRTECH Biosafety Cabinet

AIRTECH has developed a wide variety of biological safety cabinets designed to meet diverse applications in the life science, clinical, pharmaceutical and industrial laboratory.

In varying degrees, a laminar flow biological safety cabinet is designed to provide three basic types of protection:

- Personnel protection from harmful agents inside the cabinet.
- Product protection to avoid contamination of the work, experiment, or process.
- Environmental protection from contaminants contained within the cabinet.

AIRTECH produce class II type A2/B2 & class III biological safety cabinets. The products meet most of main standards, including NSF49 (USA), EN12469 (Europe), JIS K3800 (Japan) and SFDA (China).



### EN 12469

- World-class DC motor with automatic air volume compensation system;
- Two independent sets of velocity sensors made in Japan & Austria
- LED lamp providing sufficient and uniform lighting;  
UV lamp running time can be set  
Interlocked LED lamp and UV lamp
- Dwyer pressure gage, made in USA
- Glass side wall for better illumination and more comfortable operation
- Access for water & gas tap, optional valves
- Removable spill retaining work zone made in SUS304, 3-piece table top available.
- Adjustable supporter to ensure cabinet is set firmly and horizontally



- HEPA Filter  
Efficiency  $\geq 99.995\%$  @ 0.3um  
Creates ISO Class 5 Cleanliness
- Key switch to prevent unauthorized access  
Angled controller for easy reach and viewing
- Waterproof Socket X 2 pcs
- Electric motorized front sash for convenient use and accurate sash height  
Or unique Japan manual lifting system
- Full-size angled arm support for comfortable working posture, flexible working area and non-blocked airflow
- Detachable frame stand
- Casters for convenient moving

### International Standards

	Biosafety Cabinets	Air Quality	Filtration	Electrical Safety
Standards Compliance	EN 12469, Europe JIS K 3800, Japan SFDA YY0569, China	ISO 14644.1, Class 5, Worldwide JIS B9920, Class 5, Japan JIS BS5295, Class 5, Japan US Fed Std 209E, Class 100 USA	ISO29463, Worldwide EN-1822, Europe EN13091, Europe IEST-RP-CC034.1, USA	EN-61010-1, Europe IEC61010-1, Worldwide

### DC ECM motor

Automatic air volume compensation system for stable airflow  
Low power consumption & reduced noise level

### Dwyer brand (US imported) pressure gage

indicates real-time negative pressure between two sides of downflow filter.



### 3-piece Table Top

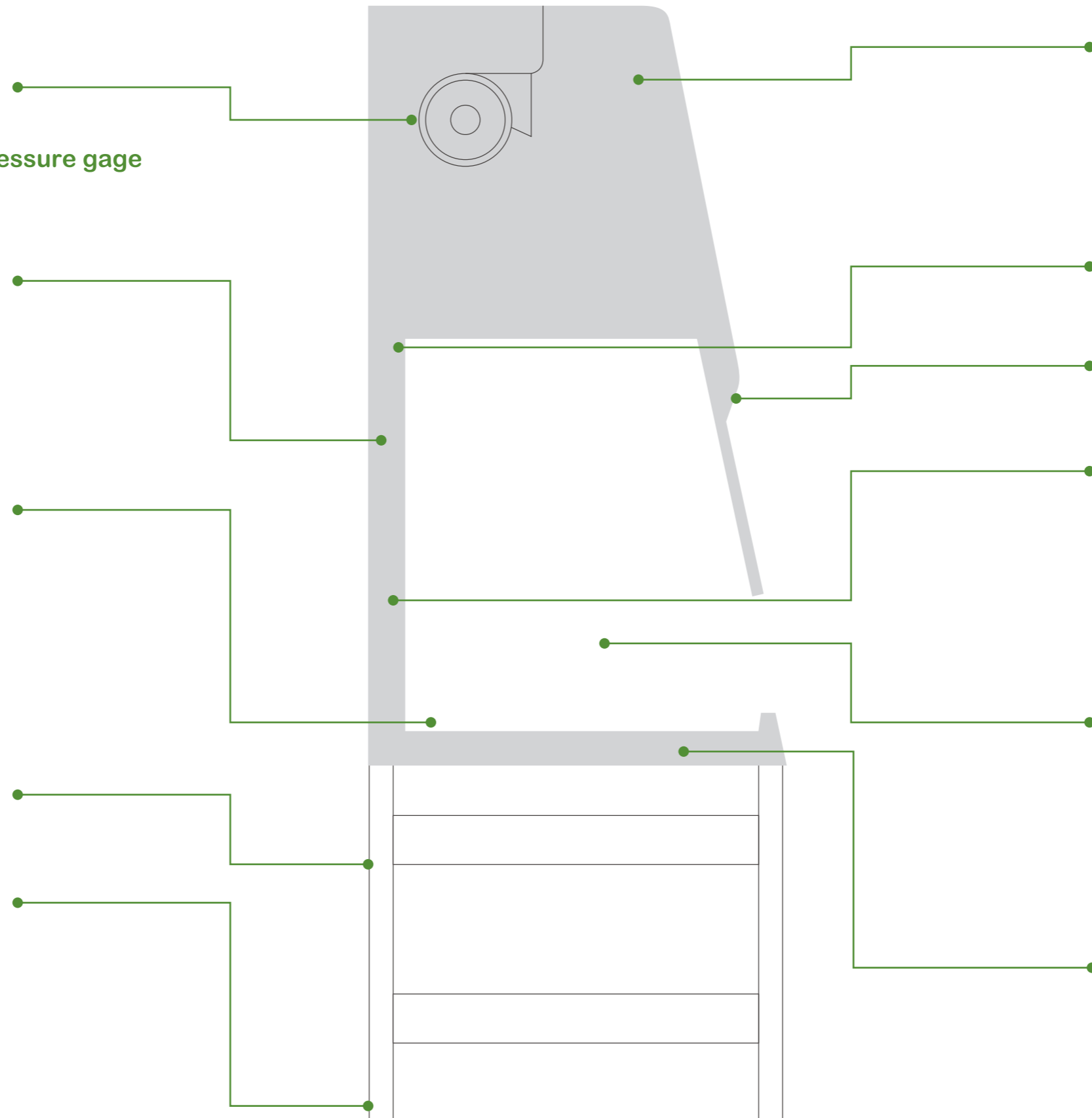
- Large radius for easy cleaning
- Made in SUS304, rust free



### Detachable stand

convenient installation & saving shipping space

- Adjustable feet to fit uneven floor
- Casters for easy movement



### Key switch

Prevents unauthorized access



### UV lamp for sterilization

### Viewscreen

gradient of 10 Degree make it comfortable to operate

### Receptacles :

- Waterproof
- Overload protection



### Various valves for choice



### Stainless steel armrest(Optional)

- Helps prevent grille blocking
- Comfortable working posture

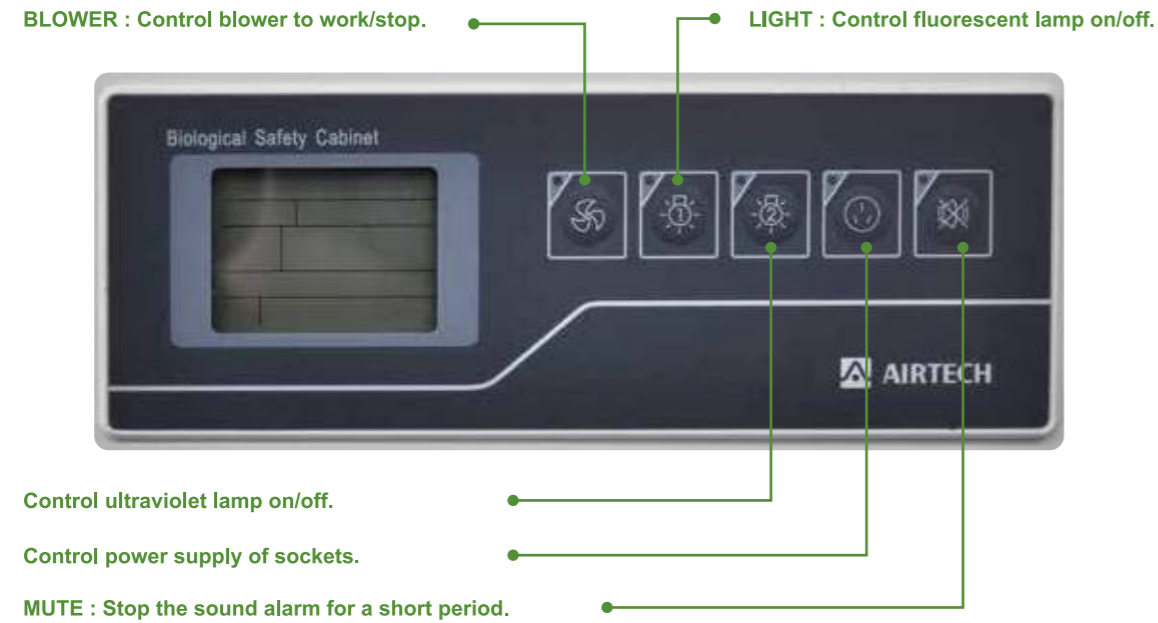


# AIRTECH Intelligence Controlling system

## Control Panel

The large control panel displays valuable safety and performance data, and is within easy view and reach from a seated position.

The intuitive interface delivers a constant read-out of downflow and inflow velocities and overall cabinet performance status.



## HEPA Filter

- HV brand filter, US imported
- HEPA filter, efficiency  $\geq 99.995\%$  @  $0.3\mu\text{m}$  micron
- Removable uniform-flow film to protect filter from liquor



## Velocity Meter:

- SHIBAURA brand (Japan imported) velocity meter for down flow
- E+E brand (Austria imported) velocity meter for exhaust airflow



## Various Alarms:

- Inflow velocity alarm
- Exhausted airflow alarm
- The slide shutter height alarm
- Filter high-resistance alarm
- Fan failure alarm

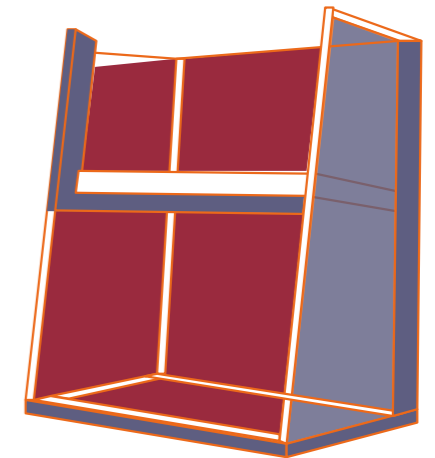


## Non-compromising Safety

### “Zero Leakage” Negative Pressure Protection

AIRTECH unique “Zero Leakage” patent technology, providing a dynamic negative pressure environment. Imported automatic airflow compensation system to guarantee stable negative pressure

- Negative pressure
- Positive pressure



External air can't enter working area from front sash, protecting sample

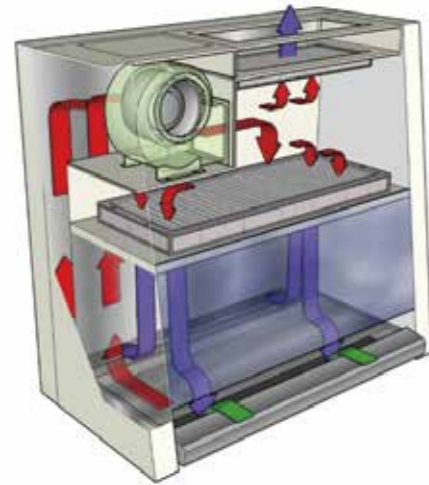


Inner air not escape outside of outside, protecting operator



## Airflow Pattern

### Class II, Type A2



- H14-filtered air
- Unfiltered / potentially contaminated air
- Room air / Inflow air

Ambient air is pulled through front grille to create inflow, without going into the work surface. Inflow is joined by half of the downflow, to create front air curtain that is fine-tuned to create a large performance envelope. The combined air stream travels through the back air column towards the blower.

Approximately 30% of the air in the common plenum is exhausted through the HEPA filter to the room. The remaining 70% of the air is passed through the downflow HEPA filter and into the work area as a vertical laminar flow air to create ISO Class 4 work surface and prevents cross contamination.

Near the work surface, the downflow splits. About half goes to the front grille, and half goes to the rear grille. A small portion enters the side capture zones to prevent dead air corners (small blue arrows).

The design was optimized to give large performance envelope, that provides operator and product protection at wide inflow and downflow variation from the Nominal point.



## Services Access & Validation



Taking advantage of front open design with cover supporter, all cabinet main components are easily accessible from the front to allow for rapid service and minimal work disruption:

- Change of HEPA filters, LED lamps, UV lamps
- Adjustment or change of circuit boards and sensors
- Adjustment of alarms, fan speed control panel

## Validation

Airtech offers professional services for all our equipment, including:

- factory acceptance testing,
- factory service training,
- customized product design,
- installation qualification
- operational qualification
- calibration

## Comprehensive Performance Testing At AIRTECH



### Downflow velocity testing

Working chamber velocity is key parameter to guarantee performance & safety. Velocity is tested strictly for each unit during QC procedure in AIRTECH factory. Downflow velocity of each point is recorded in factory testing report.



### Inflow velocity testing

Airtech adapt direct inflow measurement method to test inflow velocity. Air volume meter is put to the center of front opening of cabinet, seal open area on either side of capture hood portion of direct inflow measurement. Inflow velocity is calculated based on 5 readings of meter.

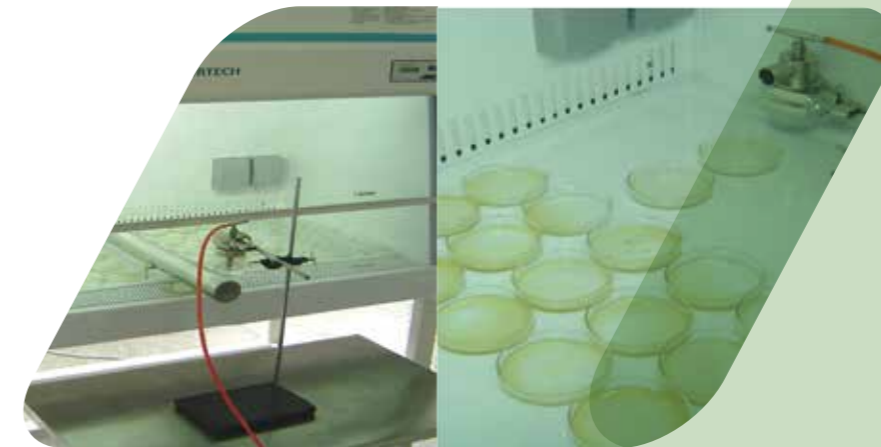


### Filter Leakage Detection

Using ATI brand (US imported) aerosol generator, able to scan passing rate of any point. Each AIRTECH cabinet is tested through the testing.

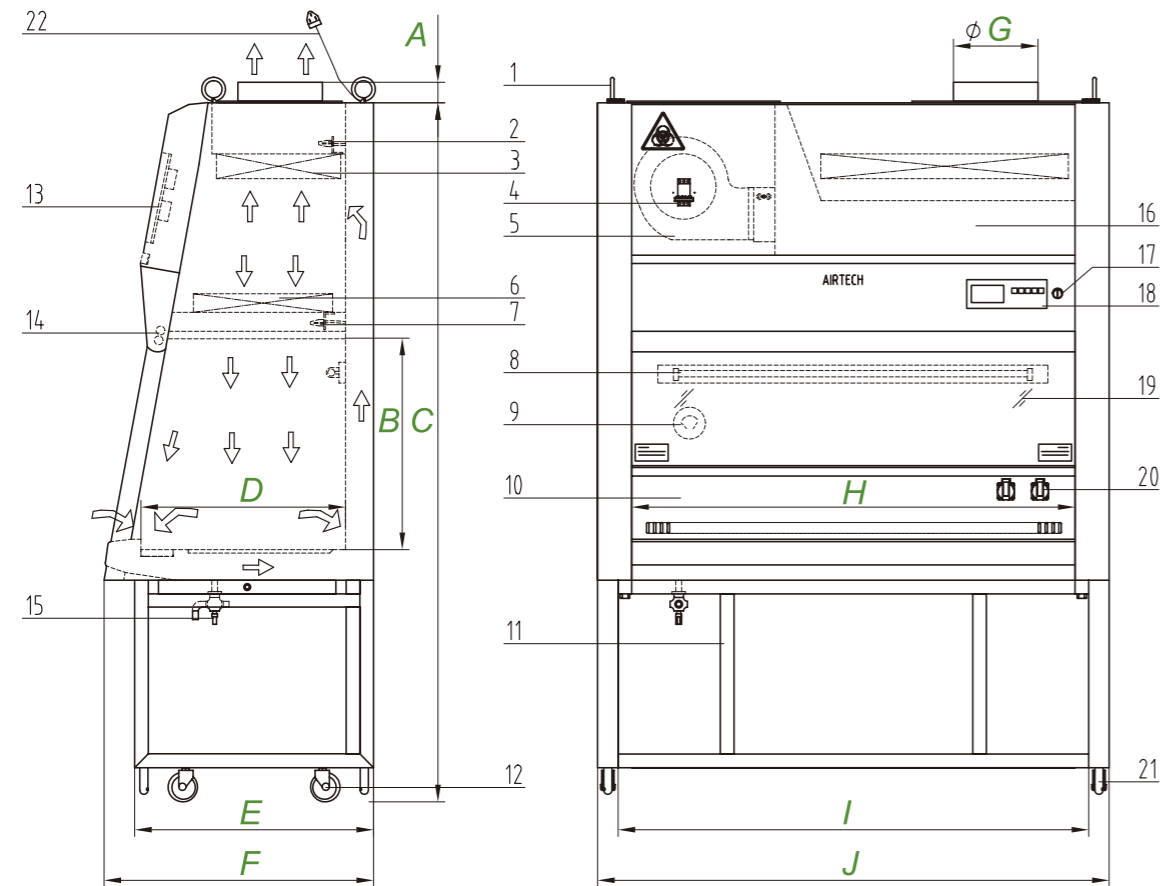


### Biomedical verification (bacillus subtilis)





# Class II Type A2 Biological Safety Cabinet Engineering Drawing



- 1. Eyebolt
- 2. Velocity sensor (Austria made, air exhaust)
- 3. HEPA filter, air exhaust
- 4. DC motor fan
- 5. Front cover
- 6. HEPA filter, air supply
- 7. Velocity sensor (Japan made, air supply)
- 8. UV lamp
- 9. Dwyer differential pressure gauge (US made)
- 10. Work area
- 11. Detachable stand
- 12. Universal casters
- 13. Main power board
- 14. LED lamp
- 15. Drain valve
- 16. Main body
- 17. Key switch
- 18. Control panel
- 19. Sliding door
- 20. Sockets
- 21. Adjustable feet
- 22. Power cord

Model	Dimensions in mm									
	A	B	C	D	E	F	G	H	I	J
BSC-1003IIA2	60	620	2050	600	700	790	250	970	1080	1200
BSC-1303IIA2	60	620	2050	600	700	790	250	1270	1380	1500
BSC-1603IIA2	60	620	2050	600	700	790	250	1570	1680	1800

## Certification

At AIRTECH, we know how important to design a product in compliance with current worldwide safety standards. The class II type A2 biological safety cabinet is certified as per CE, EN12469 and NSF49.



### EN12469

AIRTECH Class II type A2 biological safety cabinets are independently tested and certified to EN12469 standard by TÜV Nord, a leading testing agency in Europe

### Options for glass/sus304 side wall & electric/manual front sash

Model	BSC-1003IIA2 BSC-1303IIA2 BSC-1603IIA2	BSC-1003IIA2-E BSC-1303IIA2-E BSC-1603IIA2-E	BSC-1003IIA2-S BSC-1303IIA2-S BSC-1603IIA2-S	BSC-1003IIA2-SE BSC-1303IIA2-SE BSC-1603IIA2-SE
Side Wall	SUS304	SUS304	Glass	Glass
Front Sash	Manual	Electric Automatic	Manual	Electric Automatic

# TECHNICAL SPECIFICATIONS

Model		BSC-1003IIA2 (-E/-S/-SE)	BSC-1303IIA2 (-E/-S/-SE)	BSC-1603IIA2 (-E/-S/-SE)
Dimensions	Nominal Size	3 feet	4 feet	5 feet
	Usable Working Area	0.582 m <sup>2</sup>	0.762 m <sup>2</sup>	0.942 m <sup>2</sup>
	Stand Height (mm)	770mm	770mm	770mm
	Internal (W x D x H)	970*600*620 mm	1270*600*620 mm	1570*600*620 mm
	External (W x D x H)	1200*790*2050 mm	1500*790*2050 mm	1800*790*2050 mm
	Carton Packing (W x D x H)	1240*840*2250	1540*840*2250	1840*840*2250
	Plywood Packing (W x D x H)	1300*900*2250	1600*900*2250	1900*900*2250
Airflow	Type	Class II, Type A2	Class II, Type A2	Class II, Type A2
	Exhaust Direction	Top Exhaust	Top Exhaust	Top Exhaust
	Airflow Pattern (downflow / exhaust)	70% / 30%	70% / 30%	70% / 30%
	Average Inflow Velocity	0.55m/s	0.55m/s	0.55m/s
	Average Downflow Velocity	0.35m/s	0.35m/s	0.35m/s
	Inflow Airflow Volume	385 m <sup>3</sup> /h	505 m <sup>3</sup> /h	625 m <sup>3</sup> /h
	Downflow Airflow Volume	720 m <sup>3</sup> /h	940 m <sup>3</sup> /h	1160 m <sup>3</sup> /h
	Exhaust Airflow Volume	385 m <sup>3</sup> /h	505 m <sup>3</sup> /h	625 m <sup>3</sup> /h
	Velocity Meter Accuracy	0.001m/s	0.001m/s	0.001m/s
	Pressure Gage	Dwyer Brand, USA	Dwyer Brand, USA	Dwyer Brand, USA
Construction	Blower	ECM DC Motor		
	Work Zone	SUS304, Single-piece or 3-piece		
	Main Body	Electro-galvanized steel with white oven-baked powder-coated finish		
	Sash Glass Thickness	5mm	5mm	6mm
	Sash Glass Type	Tempered Glass, UV-proof		
	Sash Window Working Opening	200mm	200mm	200mm
	Sash Window Maximum Opening	460mm	460mm	460mm
	Illumination (Lx)	≥1100	≥1100	≥1100
	Noise (dB)	≤60	≤60	≤60
	Cleanliness	Cleanliness	HEPA: ISO Class 5	
Filtration Efficiency		HEPA: ≥99.995% @0.3 μm		
Total colony in impaction sampler (Operator Protection)		≤10CFU./Time	≤10CFU./Time	≤10CFU./Time
Total colony in slit type sampler (Operator Protection)		≤5CFU./Time	≤5CFU./Time	≤5CFU./Time
Total colony in culture dish (Product Protection)		≤5CFU./Time	≤5CFU./Time	≤5CFU./Time
Controller	Display	LCD Screen	LCD Screen	LCD Screen
	UV Timer	Yes	Yes	Yes
	Main Power Switch	Yes	Yes	Yes
	Key Switch	Yes	Yes	Yes
	Power Consumption (KW.h/h)	0.5	0.6	0.6
Electrical Data	Power (W)	500	650	650
	Electrical Current (A)	3	3.5	3.5
Power Supply	AC220V, 1Φ, 50HZ	Yes	Yes	Yes
	AC220V, 1Φ, 60HZ	Yes	Yes	Yes
Weight	Net Weight(kg)	260	300	350
	Gross Weight, Carton Packing (kg)	292	340	388
	Gross Weight, Plywood Packing (kg)	382	405	458
Alarm	Alarm Type	Sound+Flash	Sound+Flash	Sound+Flash
	Inflow Velocity	Yes	Yes	Yes
	Downflow Velocity	Yes	Yes	Yes
	Sash Height Limit	Yes	Yes	Yes
	Filter Blocked	Yes	Yes	Yes
	Filter Shattered	Yes	Yes	Yes
	Filter Lifetime Remind	Yes	Yes	Yes
Filter	Downflow	HEPA: ≥99.995% @0.3 μm		
	Exhaust	HEPA: ≥99.995% @0.3 μm		
	Material	HV Brand, USA		
Accessories	LED Lamp	24.5W, ≥1100Lx	31W, ≥1100Lx	36W, ≥1100Lx
	UV Lamp	20W*1	30W*1	40W*1
	Receptacle (pieces/Power/Current)	2 pcs/500W/3A	2 pcs/500W/3A	2 pcs/500W/3A
	Detachable Stand	Yes	Yes	Yes
	Adjustable Foot	Yes	Yes	Yes
	Wheels	Yes	Yes	Yes
	Gas Valve	Optional	Optional	Optional
	Vacuum Valve	Optional	Optional	Optional
	Arm Rest	Optional	Optional	Optional
I.V. Pole	Optional	Optional	Optional	

## Desk-top Laminar Flow Cabinet Vertical Type, VD Series



### Features:

- Space-saving desk-top type with compact design
- SUS304 working area
- Adjustable fan unit & one-button velocity selection
- High efficiency & low power consumption



Model	VD-650	VD-650-U	VD-1320	VD-1320-U
<b>Constructions</b>	Airflow Type	Vertical Airflow	Vertical Airflow	Vertical Airflow
	Side Wall Material	Float Glass	Float Glass	Float Glass
	Working Zone Material	SUS304	SUS304	SUS304
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Single-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)
	Velocity (m/s)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)
	Illumination (Lx)	≥300	≥300	≥300
<b>Controller</b>	Display	LED	LED	LED
	Power Switch	Yes	Yes	Yes
<b>Electrical Date</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ
	Power Consumption KW.h/h	0.3	0.3	0.6
	Power (W)	250	250	500
	Current (A)	3	3	6
<b>Weight</b>	Net Weight (kg)	60	60	90
<b>Dimensions</b>	Working Dimension(W*D*H)(mm)	615*495*500	615*495*500	1240*480*550
	External Dimension(W*D*H)(mm)	650*535*835	650*535*835	1320*585*950
<b>Accessories</b>	Lamp	LED, 7W*1	LED, 7W*1	LED, 7W*2
	UV Lamp	N/A	As standard, 8W*1	N/A
	Socket	N/A	N/A	N/A

## Desk-top Laminar Flow Cabinet Horizontal Type, HD Series



### Features:

- Space-saving desk-top type with compact design
- Open type large air exhaust area for airflow uniformity
- SUS304 working area
- Adjustable fan unit & one-button velocity selection
- High efficiency & low power consumption



Model	HD-650	HD-650-U	HD-1220	HD-1220-U
<b>Constructions</b>	Airflow Type	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow
	Side Wall Material	Float Glass	Float Glass	Float Glass
	Working Zone Material	SUS304	SUS304	SUS304
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Single-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)
	Velocity (m/s)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)
	Illumination (Lx)	≥300	≥300	≥300
<b>Controller</b>	Display	LED	LED	LED
	Power Switch	Yes	Yes	Yes
<b>Electrical Date</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ
	Power Consumption KW.h/h	0.3	0.3	0.6
	Power (W)	250	250	500
	Current (A)	3	3	6
<b>Weight</b>	Net Weight (kg)	55	55	85
<b>Dimensions</b>	Working Dimension(W*D*H)(mm)	615*400*535	615*400*535	1120*490*575
	External Dimension(W*D*H)(mm)	650*680*625	650*680*625	1220*650*920
<b>Accessories</b>	Lamp	LED, 7W*1	LED, 7W*1	LED, 7W*2
	UV Lamp	N/A	As standard, 1 pc, 8W	N/A
	Socket	N/A	N/A	N/A

## Standard Laminar Flow Cabinet Vertical Type, SW-CJ Series



### Features:

- Main HEPA filter efficiency  $\geq 99.99\%$  (@0.3 $\mu\text{m}$ )
- Per-filter to prolong lifetime of main filter
- Tempered glass window with Japan lifting system
- SUS304 working area for easy cleaning
- Adjustable fan unit & one-button velocity selection
- Inter-locking system for illuminating light & UV lamp
- Universal wheel & foot



Model	SW-CJ-1F	SW-CJ-1FD	SW-CJ-2F	SW-CJ-2FD
<b>Constructions</b>	Airflow Type	Vertical Airflow	Vertical Airflow	Vertical Airflow
	Side Wall Material	Coated Steel+Float Glass	Coated Steel+Float Glass	Coated Steel
	Working Zone Material	SUS304	SUS304	SUS304
	Max. Working Height (mm)	200	200	200
	Max. Opening Height (mm)	460	460	460
	Working Zone Height (mm)	780	780	780
	Operation side/Operator Number	Double-side/Single-operator	Single-side/Single-operator	Double-side/Double-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (lx)	$\geq 300$	$\geq 300$	$\geq 300$
<b>Controller</b>	Display	LED	LED	LED
	Power Switch	Yes	Yes	Yes
<b>Electrical Data</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$
	Power Consumption KW.h/h	0.3	0.3	0.6
	Power (W)	250	250	500
	Current (A)	5	5	6
<b>Weight</b>	Net Weight (kg)	130	130	170
<b>Dimensions</b>	Working Dimension(W*D*H)(mm)	870*690*520	870*690*520	1360*690*520
	External Dimension(W*D*H)(mm)	1010*750*1600	1010*730*1600	1500*750*1600
<b>Accessories</b>	Caster	4,2 lockable	4,2 lockable	4,2 lockable
	Foot Supporter	N/A	N/A	N/A
	Lamp	LED, 7W*1	LED, 7W*1	LED, 7W*2
	UV Lamp	N/A	As standard, 8W*1	N/A
	Socket	1/500W/3A	1/500W/3A	1/500W/3A
<b>Certificate</b>	CE	Yes	Yes	Yes

## Standard Laminar Flow Cabinet Horizontal Type, SW-CJ Series



### Features:

- Main HEPA filter efficiency  $\geq 99.99\%$  (@0.3 $\mu\text{m}$ )
- Per-filter to prolong lifetime of main filter
- SUS304 working area for easy cleaning
- Adjustable fan unit & one-button velocity selection
- Inter-locking system for illuminating light & UV lamp
- Universal wheel & foot



Model	SW-CJ-1B	SW-CJ-1BU	SW-CJ-1C	SW-CJ-1CU
<b>Constructions</b>	Airflow Type	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow
	Side Wall Material	Float Glass	Float Glass	Float Glass
	Working Zone Material	SUS304	SUS304	SUS304
	Max. Working Height (mm)	N/A	N/A	N/A
	Max. Opening Height (mm)	N/A	N/A	N/A
	Working Zone Height (mm)	750	750	750
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Double-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (lx)	$\geq 300$	$\geq 300$	$\geq 300$
<b>Controller</b>	Display	LED	LED	LED
	Power Switch	Yes	Yes	Yes
<b>Electrical Data</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$
	Power Consumption KW.h/h	0.3	0.3	0.6
	Power (W)	250	250	500
	Current (A)	5	5	6
<b>Weight</b>	Net Weight (kg)	100	100	160
<b>Dimensions</b>	Working Dimension(W*D*H)(mm)	820*480*600	820*480*600	1680*480*600
	External Dimension(W*D*H)(mm)	900*700*1450	900*700*1450	1760*700*1450
<b>Accessories</b>	Caster	4,2 lockable	4,2 lockable	4,2 lockable
	Foot Supporter	N/A	N/A	N/A
	Lamp	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 36W*1
	UV Lamp	N/A	As standard, 1 pc, 20W	N/A
	Socket	1/500W/3A	1/500W/3A	1/500W/3A
<b>Certificate</b>	CE	Yes	Yes	Yes

## Neoteric Laminar Flow Cabinet Vertical Type, VS Series



### Features:

- Per-filter to prolong lifetime of main HEPA filter
- Tempered glass window with Japan lifting system
- SUS304 working area with curving front
- Adjustable fan unit & one-button velocity selection
- Inter-locking system for illuminating light & UV lamp
- Universal wheel & foot



Model	VS-840K	VS-840K-U	VS-1300L	VS-1300L-U	
<b>Constructions</b>	Airflow Type	Vertical Airflow	Vertical Airflow	Vertical Airflow	Vertical Airflow
	Side Wall Material	Tempered Glass	Tempered Glass	Tempered Glass	Tempered Glass
	Working Zone Material	SUS304	SUS304	SUS304	SUS304
	Max. Working Height (mm)	200	200	200	200
	Max. Opening Height (mm)	480	480	630	630
	Working Zone Height (mm)	770	770	770	770
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Double-operator	Single-side/Double-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)
	Velocity (m/s)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)
	Illumination (Lx)	≥300	≥300	≥300	≥300
<b>Controller</b>	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
<b>Electrical Data</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ
	Power Consumption KW.h/h	0.3	0.3	0.6	0.6
	Power (W)	250	250	500	500
	Current (A)	5	5	6	6
<b>Weight</b>	Net Weight (kg)	145	145	200	200
<b>Dimensions</b>	Working Dimension(W*D*H)(mm)	680*650*570	680*650*570	1140*650*720	1140*650*720
	External Dimension(W*D*H)(mm)	840*825*1625	840*825*1625	1300*825*1175	1300*825*1175
<b>Accessories</b>	Caster	4, not lockable	4, not lockable	4, not lockable	4, not lockable
	Foot Supporter	Yes	Yes	Yes	Yes
	Lamp	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 30W*1	Fluorescent Lamp, 30W*1
	UV Lamp	N/A	As standard, 20W*1	N/A	As standard, 30W*1
	Socket	1/500W/3A	1/500W/3A	1/500W/3A	1/500W/3A
<b>Certificate</b>	CE	Yes	Yes	Yes	Yes

## Neoteric Laminar Flow Cabinet Horizontal Type, HS Series



### Features:

- Main HEPA filter efficiency ≥99.99%(@0.3μm)
- Per-filter to prolong lifetime of main filter
- SUS304 working area for easy cleaning
- Adjustable fan unit & one-button velocity selection
- Inter-locking system for illuminating light & UV lamp
- Universal wheel & foot



Model	HS-840	HS-840-U	HS-1300	HS-1300-U	
<b>Constructions</b>	Airflow Type	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow
	Side Wall Material	Tempered Glass	Tempered Glass	Tempered Glass	Tempered Glass
	Working Zone Material	SUS304	SUS304	SUS304	SUS304
	Max. Working Height (mm)	N/A	N/A	N/A	N/A
	Max. Opening Height (mm)	N/A	N/A	N/A	N/A
	Working Zone Height (mm)	770	770	770	770
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Double-operator	Single-side/Double-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)	≥99.99%(@0.3μm)
	Velocity (m/s)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)
	Illumination (Lx)	≥300	≥300	≥300	≥300
<b>Controller</b>	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
<b>Electrical Data</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ	AC220V, 50HZ, 1Φ
	Power Consumption KW.h/h	0.3	0.3	0.6	0.6
	Power (W)	250	250	500	500
	Current (A)	5	5	6	6
<b>Weight</b>	Net Weight (kg)	125	125	170	170
<b>Dimensions</b>	Working Dimension(W*D*H)(mm)	720*650*570	720*650*570	1180*650*570	1180*650*570
	External Dimension(W*D*H)(mm)	840*825*1430	840*825*1430	1300*825*1430	1300*825*1430
<b>Accessories</b>	Caster	4, not lockable	4, not lockable	4, not lockable	4, not lockable
	Foot Supporter	4	4	4	4
	Lamp	Fluorescent Lamp, 18W*2	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 30W*2	Fluorescent Lamp, 30W*1
	UV Lamp	N/A	As standard, 1 pc, 20W	N/A	As standard, 1 pc, 30W
	Socket	1/500W/3A	1/500W/3A	1/500W/3A	1/500W/3A
<b>Certificate</b>	CE	Yes	Yes	Yes	Yes

## Detached Laminar Flow Cabinet Vertical Type, VT Series



### Features:

- Detachable working table for easily moving samples
- HEPA filter efficiency  $\geq 99.99\%$  (@0.3 $\mu\text{m}$ )
- Per-filter to prolong lifetime of main filter
- Tempered glass window with Japan lifting system
- SUS304 working area for easy cleaning
- Adjustable fan unit & one-button velocity selection
- Inter-locking system for illuminating light & UV lamp



Model	VT-840K	VT-840K-U	VT-1300L	VT-1300L-U
<b>Constructions</b>	Airflow Type	Vertical Airflow	Vertical Airflow	Vertical Airflow
	Side Wall Material	Tempered Glass	Tempered Glass	Tempered Glass
	Working Zone Material	SUS304	SUS304	SUS304
	Max. Working Height (mm)	200	200	200
	Max. Opening Height (mm)	480	480	630
	Working Zone Height (mm)	770	770	770
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Double-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (Lx)	$\geq 300$	$\geq 300$	$\geq 300$
<b>Controller</b>	Display	LED	LED	LED
	Power Switch	Yes	Yes	Yes
<b>Electrical Date</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$
	Power Consumption KW/h/h	0.3	0.3	0.6
	Power (W)	250	250	500
	Current (A)	5	5	6
<b>Weight</b>	Net Weight (kg)	165	165	240
	Working Dimension(W*D*H)(mm)	680*650*570	680*650*570	1140*650*720
<b>Dimensions</b>	External Dimension(W*D*H)(mm)	840*825*1625	840*825*1625	1300*825*1775
	Caster	4, not lockable	4, not lockable	4, not lockable
<b>Accessories</b>	Foot Supporter	Yes	Yes	Yes
	Lamp	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 30W*1
	UV Lamp	N/A	As standard, 20W*1	N/A
	Socket	1/500W/3A	1/500W/3A	1/500W/3A
	Socket	1/500W/3A	1/500W/3A	1/500W/3A

## Detached Laminar Flow Cabinet Horizontal Type, HD Series



### Features:

- Detachable working table for easily moving samples
- HEPA filter efficiency  $\geq 99.99\%$  (@0.3 $\mu\text{m}$ )
- Per-filter to prolong lifetime of main filter
- SUS304 working area for easy cleaning
- Adjustable fan unit & one-button velocity selection
- Inter-locking system for illuminating light & UV lamp



Model	HT-840	HT-840-U	HT-1300	HT-1300-U
<b>Constructions</b>	Airflow Type	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow
	Side Wall Material	Tempered Glass	Tempered Glass	Tempered Glass
	Working Zone Material	SUS304	SUS304	SUS304
	Max. Working Height (mm)	N/A	N/A	N/A
	Max. Opening Height (mm)	N/A	N/A	N/A
	Working Zone Height (mm)	770	770	770
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Double-operator
<b>Performance</b>	Cleanliness Class	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100	ISO Class 5, FED 209 E Class 100
	Filter Efficiency	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )	$\geq 99.99\%$ (@0.3 $\mu\text{m}$ )
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (Lx)	$\geq 300$	$\geq 300$	$\geq 300$
<b>Controller</b>	Display	LED	LED	LED
	Power Switch	Yes	Yes	Yes
<b>Electrical Date</b>	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$	AC220V, 50HZ, 1 $\Phi$
	Power Consumption KW/h/h	0.3	0.3	0.6
	Power (W)	250	250	500
	Current (A)	5	5	6
<b>Weight</b>	Net Weight (kg)	150	150	190
	Working Dimension(W*D*H)(mm)	680*650*570	680*650*570	1140*650*570
<b>Dimensions</b>	External Dimension(W*D*H)(mm)	840*825*1430	840*825*1430	1300*825*1430
	Caster	4, not lockable	4, not lockable	4, not lockable
<b>Accessories</b>	Foot Supporter	4	4	4
	Lamp	Fluorescent Lamp, 18W*2	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 30W*2
	UV Lamp	N/A	As standard, 1 pc, 20W	N/A
	Socket	1/500W/3A	1/500W/3A	1/500W/3A
	Socket	1/500W/3A	1/500W/3A	1/500W/3A