

CLEAN AIR SOLUTIONS



AIRTECH JAPAN LTD.

14-9, 1, IRIYA, TAITO-KU, TOKYO 110-8686 JAPAN
TEL +81-3-3872-6611 FAX +81-3-3872-6615

Antech Group Inc.

Tel/Fax: +86 532 68077374
Email: info@antechscientific.com
Web: www.antechscientific.com





COMPANY PROFILE

ANTECH Group is committed to offering high quality laboratory instruments and medical products while matching to the unique needs of customer. Our dedication is to provide quality instruments with lifetime care.

Antech Group sets its production facilities in 5 cities. The product lines include:

Cold storage – Cryogenic freezer, ULT freezer, deep freezer, pharmacy refrigerator, blood bank refrigerator, vaccine refrigerator, mortuary freezer , cold room

Cryogenic storage – liquid nitrogen freezer, liquid nitrogen container, Dewar vessel

Clean air product – biological safety cabinet, laminar flow cabinet (clean bench), air shower, sample booth, fan filter unit, clean room

Scientific instrument – fermenter, bio-reactor, freeze dryer, glassware washer, centrifuge, incubator, water purification system

Medical equipment & consumable - washer disinfectant, plasma sterilizer, dialyzer

In accordance to our unique business philosophy, we always remind ourselves to avoid any short-sighted activities and to focus on long-term success and growth.

Antech treat its customers as long-term partners & life-time friends. We are very clear that any of our success comes and will come from satisfaction of our dealers and customers. "Quality instruments, lifetime care" is commitment to our partners, as well as to ourselves.

AIRTECH is No.1 company specializing in clean air system in Japan with 40 years expert knowledge & experience in clean air field. ANTECH GROUP is strategic partner of AIRTECH in global market. We have 15 domestic and 5 foreign firms (China, Singapore, Taiwan, Korea, India). Airtech provides a wide variety of products designed in many different functions and business segments.

Clean air system is introduced in various industries. Airtech has a large capacity for technology and wealth of experience for satisfaction of request specification and adapting to various installation environment. Airtech provides optimal solutions for customer requirements.

For more than 40 years, Airtech has contributed to the development of pharmacy, bio-medical research, bio industry, electronics industry and food industry 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.

Quality Instruments , Lifetime Care



DIRECTORY



Company Profile	Antech Group	01
	Airtech Clean Air	02



Biological Safety Cabinet	Introduction	04
	Main Construction	05
	Ergonomics Design	07
	Controlling System & Key Parts	09
	Alarms & Safety	10
	Airflow Pattern	11
	Services Access & Validation	12
	Quality Control	13
	Engineering Drawing	15
	Specification	17



Laminar Flow Cabinet	Desktop Type, VD/HD Series	19
	Standard Type, SW-CJ Series	21
	Neoteric Type, VS/HS Series	23
	Detached Type, VT/HT Series	25



AIRTECH Class II, Type A2/B2 Biosafety Cabinet

Biological safety cabinet is designed to protect operator, laboratory environment and samples from being exposed to the infective aerosol produced when the sample is bacteria strains, diagnostic material, and other infective subjects.

It provides the operators with a more comfortable and safer working condition. It is used in hospitals, disease prevention center, biological pharmacy and environment monitoring sections.



EN 12469

World-class brushless DC motor with automatic air volume compensation system;
Two independent sets of velocity sensors

Over-load protection for safety

LED Lamp providing sufficient and uniform lighting;
UV light running time can be set

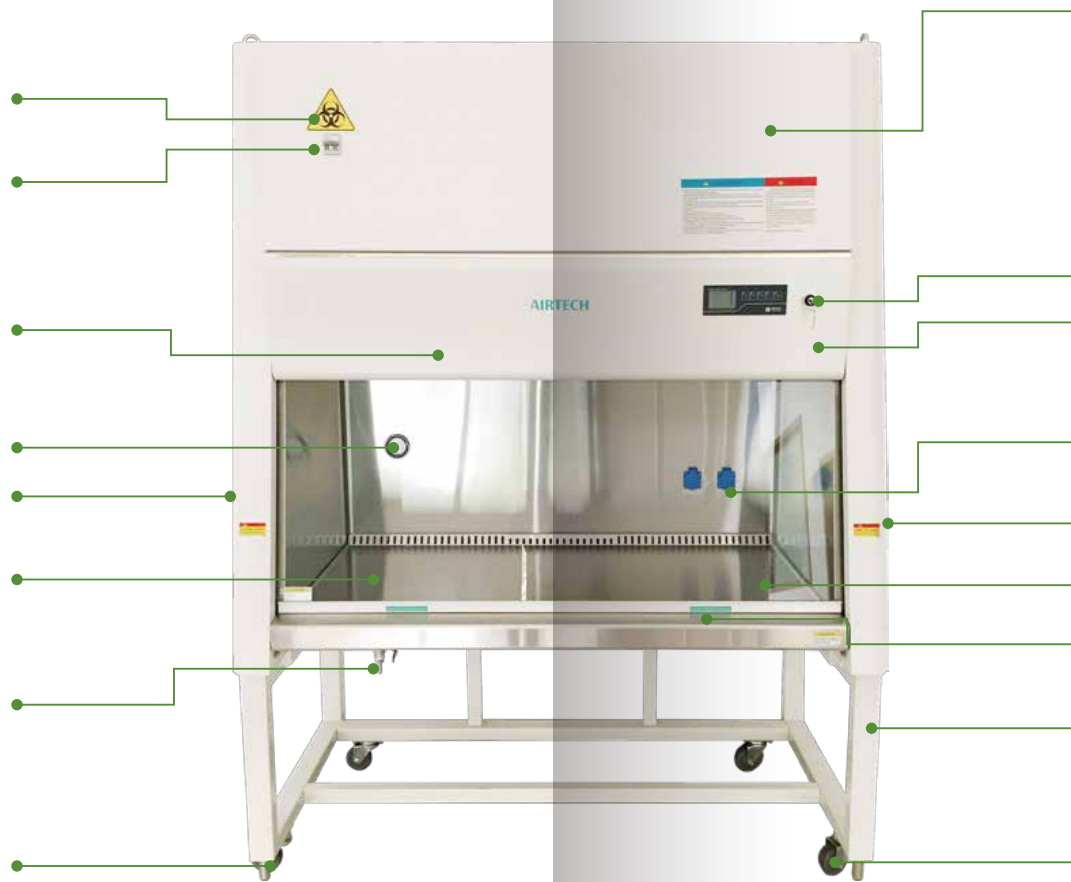
Dwyer (US brand) pressure gage

Access for water & gas tap

Removable one-piece work zone made in SUS304, easy to reach & clean

Drain valve for easy cleaning

Adjustable supporter to make sure cabinet is set firmly and horizontal



HEPA Filter
Efficiency $\geq 99.995\%$ @ $0.3\mu\text{m}$
Creates ISO Class 5 Cleanliness

Key switch to prevent unauthorized access
Centered and angled down controller for easy reach and viewing

Waterproof Socket x 2

Japan lifting system for convenient operation

Curved corners for easy cleaning

Raised arm rest for comfortable working posture

Detachable frame stand

Castors for convenient movement

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 3, Worldwide JIS B9920, Class 3, Japan JIS BS5295, Class 3, Japan US Fed Std 209E, Class 1 USA	ISO29463, Worldwide EN-1822, Europe EN13091, Europe IEST-RP-CC034.1, USA	EN-61010-1, Europe IEC61010-1, Worldwide

Variable frequency DC 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 down flow filter.



Single piece wall & work tray:

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



Detachable stand

convenient installation & saving shipping space

Single piece wall & work tray:

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



Unique key switch

prevents unauthorized access



UV lamp for sterilization



Receptacles :

- Waterproof
- Overload protection



Various valves for choice



Raised armrest:

- 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.

BLOWER : Control blower to work/stop. **LIGHT** : Control fluorescent lamp on/off.



Control ultraviolet lamp on/off.

Control power supply of sockets.

MUTE : Stop the sound alarm for a short period.

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

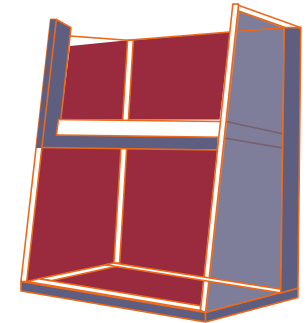


Non-compromising Safety

“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



Inner air not escape outside of outside, protecting operator

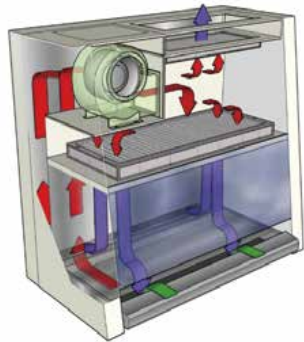


External air can't enter working area from front sash, protecting sample



Airflow Pattern

Class II, Type A2



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

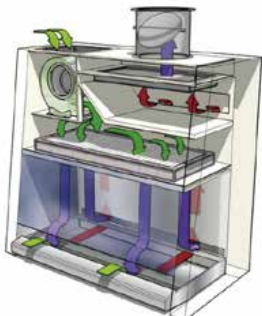
Ambient air is pulled through front grille to create inflow, without going into the work surface. Inflow is joined by half of the downflow, to create front air curtain that is fine-tuned to create a large performance envelope. The combined air stream travels through the back air column towards the blower.

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 3 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.

Class II, Type B2



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

Ambient air is pulled through the front grille to prevent contamination of the work surface and work product. The inflow does not mix with the clean air within the cabinet work zone.

Ambient air is taken in through a pre-filter at the top of the cabinet, and passes through the downflow ULPA filter, entering the work zone as laminar flow. The uniform, non-turbulent air stream protects against cross contamination within and throughout the work area.

Near the work surface, the downflow air stream splits with a portion moving toward the front air grille, and the remainder moving to the rear air grille.

A small portion of the ULPA filtered downflow enters the intake perforations at the side capture zones at a higher velocity (small blue arrows).

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:

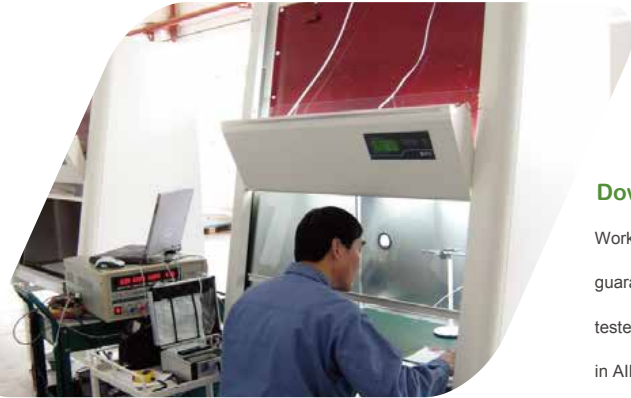
- Change of HEPA/ULPA filters, LED lamps, UV lamps
- Adjustment or change of circuit boards and sensors
- Adjustment of alarms, fan speed control panel

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.

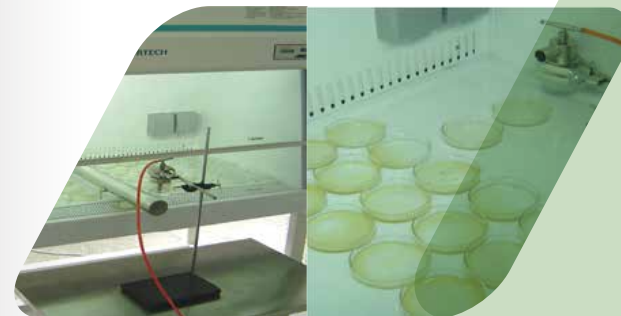


Filter Leakage Detection

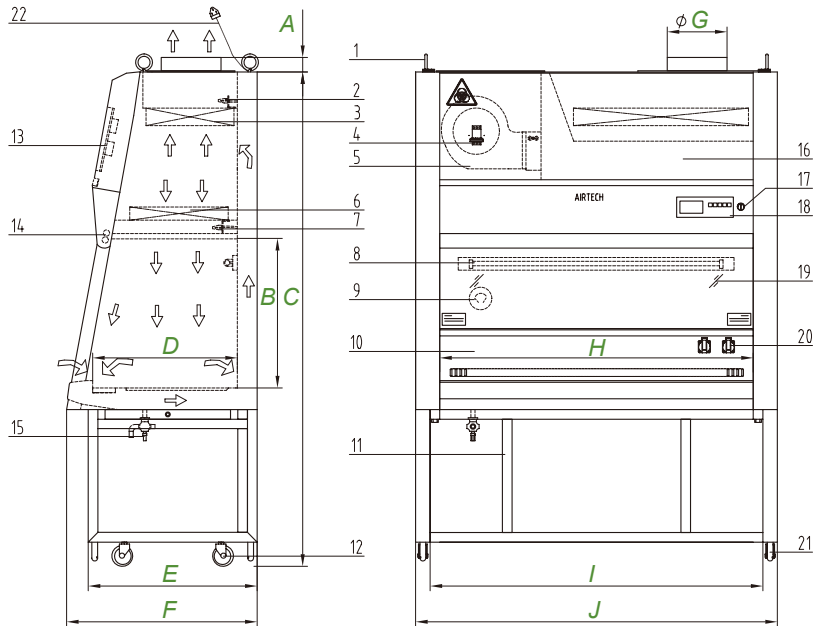
Using ATI brand (US imported) aerosol generator, able to scan passing rate of any point. Each AIRTECH cabinet is tested through the testing.



Biomedical verification (bacillus subtilis)



Class II Type A2 Biological Safety Cabinet Engineering Drawing



- | | | |
|---|----------------------|--|
| 1. Air supply HEPA | 2. Eyebolt | 3. Velocity sensor (Japan made, air exhaust) |
| 4. Air exhaust HEPA filter (US made paper) | 5. Main power switch | 6. DC motor fan |
| 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 CFDA. The model certified as per NSF49 is also available.



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



NSF/ANSI 49

AIRTECH BSC-1301IIA2 is independently tested and certified to NSF/ANSI 49, By NSF International, a leading testing agency in the USA.



YY0569,

AIRTECH, as a leading dafter for Chinese BSC standard, independently tested and certified to YY0569

TECHNICAL SPECIFICATIONS

Model	BSC-1003IIA2	BSC-1303IIA2	BSC-1603IIA2	
Dimensions	Nominal Size	3 feet	4 feet	6 feet
	Usable Work Area	0.582 m ²	0.762 m ²	0.942 m ²
	Stand Height (mm)	680mm	680mm	680mm
	Internal Dimensions (W x D x H)	970*600*620 mm	1270*600*620 mm	1570*600*620 mm
	External Dimensions (W x D x H)	1200*790*2050 mm	1500*790*2050 mm	1800*790*2050 mm
	Carton Packing Dimensions (W x D x H)	1240*840*2250	1540*840*2250	1840*840*2250
	Plywood Packing Dimensions (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
	Velocity Meter Accuracy	0.001m/s	0.001m/s	0.001m/s
	Pressure Gage	Dwyer Brand	Dwyer Brand	Dwyer Brand
Cabinet Construction	Work Zone		Stainless Steel SUS304	
	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 Maximum Working Opening	200mm	200mm	200mm
	Sash Window Maximum Opening	460mm	460mm	460mm
	Illumination (Lx)	≥1100	≥1100	≥1100
Cleanliness	Noise (dB)	≤60	≤62	≤64
	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	Total colony in culture dish (Cross Contamination)	≤2CFU./Time	≤2CFU./Time	≤2CFU./Time
	Display	LCD Screen	LCD Screen	LCD Screen
	UV Timer	Yes	Yes	Yes
	Main Power Switch	Yes	Yes	Yes
	Key Switch	Yes	Yes	Yes
Electrical Data	Power Consumption (KW.h/h)	0.5	0.6	0.6
	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
	Sash window height limit	Yes	Yes	Yes
	Filter Blocked	Yes	Yes	Yes
	Filter Shattered	Yes	Yes	Yes
	Filter Lifetime Remind	Yes	Yes	Yes
	Inflow Velocity	Yes	Yes	Yes
Filter	Downflow Velocity	Yes	Yes	Yes
	Downflow Exhaust		HEPA:≥99.995%,@0.3 μm HEPA:≥99.995%,@0.3 μm	
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
	Gas Valve	Optional	Optional	Optional
	Vacuum Valve	Optional	Optional	Optional
	Detachable Stand	Yes	Yes	Yes
	Adjustable Foot	Yes	Yes	Yes
Certificate	Wheels	Yes	Yes	Yes

CE/EN12469/CFDA

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
Constructions	Airflow Type	Vertical Airflow	Vertical Airflow	Vertical Airflow	Vertical Airflow
	Side Wall Material	Float Glass	Float Glass	Float Glass	Float Glass
	Working Zone Material	SUS304	SUS304	SUS304	SUS304
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Single-operator	Single-side/Single-operator
Performance	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)
	Valocity (m/s)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)
	Illumination (Lx)	≥300	≥300	≥300	≥300
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Date	Voltage/Frenquency (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)	3	3	6	6
Weight	Net Weight (kg)	60	60		
Dimensions	Working Dimension(W*D*H)(mm)	615*495*500	615*495*500	1240*480*550	1240*480*550
	External Dimension(W*D*H)(mm)	650*535*835	650*535*835	1320*585*950	1320*585*950
Accessories	Lamp	LED, 7W*1	LED, 7W*1	LED, 7W*2	LED, 7W*2
	UV Lamp	N/A	As standard, 8W*1	N/A	As standard, 8W*2
	Socket	N/A	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-650	HD-650-U
Constructions	Airflow Type	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow
	Side Wall Material	Float Glass	Float Glass	Float Glass	Float Glass
	Working Zone Material	SUS304	SUS304	SUS304	SUS304
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Single-operator	Single-side/Single-operator
Performance	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)
	Valocity (m/s)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)	≥0.3m/s(Adjustable)
	Illumination (Lx)	≥300	≥300	≥300	≥300
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Date	Voltage/Frenquency (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)	3	3	6	6
Weight	Net Weight (kg)	55	55		
Dimensions	Working Dimension(W*D*H)(mm)	615*400*535	615*400*535	1120*490*575	1120*490*575
	External Dimension(W*D*H)(mm)	650*680*625	650*680*625	1220*650*920	1220*650*920
Accessories	Lamp	LED, 7W*1	LED, 7W*1	LED, 7W*2	LED, 7W*2
	UV Lamp	N/A	As standard, 1 pc, 8W	N/A	As standard, 8W*2
	Socket	N/A	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 μm)
- Pre-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
Constructions	Airflow Type	Vertical Airflow	Vertical Airflow	Vertical Airflow	Vertical Airflow
	Side Wall Material	Coated Steel+Float Glass	Coated Steel+Float Glass	Coated Steel	Coated Steel
	Working Zone Material	SUS304	SUS304	SUS304	SUS304
	Max. Working Height (mm)	200	200	200	200
	Max. Opening Height (mm)	460	460	460	460
	Working Zone Height (mm)	780	780	780	780
	Operation side/Operator Number	Double-side/Single-operator	Single-side/Single-operator	Double-side/Double-operator	Single-side/Double-operator
Performance	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	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (Lx)	≥ 300	≥ 300	≥ 300	≥ 300
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Date	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ
	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
Weight	Net Weight (kg)	130	130	170	170
Dimensions	Working Dimension(W*D*H)(mm)	870*690*520	870*690*520	1360*690*520	1360*690*520
	External Dimension(W*D*H)(mm)	1010*750*1600	1010*730*1600	1500*750*1600	1500*730*1600
Accessories	Caster	4,2 lockable	4,2 lockable	4,2 lockable	4,2 lockable
	Foot Supporter	N/A	N/A	N/A	N/A
	Lamp	LED, 7W*1	LED, 7W*1	LED, 7W*2	LED, 7W*2
	UV Lamp	As standard, 8W*1	As standard, 8W*1	As standard, 8W*2	As standard, 8W*2
	Socket	1/500W/3A	1/500W/3A	1/500W/3A	1/500W/3A
Certificate	CE	Yes	Yes	Yes	Yes

Standard Laminar Flow Cabinet Horizontal Type, SW-CJ Series



Features:

- Main HEPA filter efficiency $\geq 99.99\%$ (@0.3 μm)
- Pre-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-1B	SW-CJ-1BU	SW-CJ-1C	SW-CJ-1CU
Constructions	Airflow Type	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow	Horizontal Airflow
	Side Wall Material	Float Glass	Float Glass	Float Glass	Float 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)	750	750	750	750
	Operation side/Operator Number	Single-side/Single-operator	Single-side/Single-operator	Single-side/Double-operator	Single-side/Double-operator
Performance	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	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (Lx)	≥ 300	≥ 300	≥ 300	≥ 300
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Date	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ
	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
Weight	Net Weight (kg)	100	100	160	160
Dimensions	Working Dimension(W*D*H)(mm)	820*480*600	820*480*600	1680*480*600	1680*480*600
	External Dimension(W*D*H)(mm)	900*700*1450	900*700*1450	1760*700*1450	1760*700*1450
Accessories	Caster	4,2 lockable	4,2 lockable	4,2 lockable	4,2 lockable
	Foot Supporter	N/A	N/A	N/A	N/A
	Lamp	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 18W*1	Fluorescent Lamp, 36W*1	Fluorescent Lamp, 36W*1
	UV Lamp	N/A	As standard, 1 pc, 20W	N/A	As standard, 1 pc, 40W
	Socket	1/500W/3A	1/500W/3A	1/500W/3A	1/500W/3A
Certificate	CE	Yes	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	
Constructions	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
Performance	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
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Date	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
Weight	Net Weight (kg)	145	145	200	200
Dimensions	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
Accessories	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
Certificate	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
- 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	HS-840	HS-840-U	HS-1300	HS-1300-U	
Constructions	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
Performance	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
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Date	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
Weight	Net Weight (kg)	125	125	170	170
Dimensions	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
Accessories	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
Certificate	CE	Yes	Yes	Yes	Yes

Detached Laminar Flow Cabinet Vertical Type, VT Series



Features:

- Detached working area for low vibration
- HEPA filter efficiency $\geq 99.99\%$ (@0.3 μm)
- 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	
Constructions	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
Performance	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	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (lx)	≥ 300	≥ 300	≥ 300	≥ 300
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Data	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ
	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
Weight	Net Weight (kg)	165	165	240	240
	Dimensions	Working Dimension(W*D*H)(mm)	680*650*570	680*650*570	1140*650*720
External Dimension(W*D*H)(mm)		840*825*1625	840*825*1625	1300*825*1775	1300*825*1775
Accessories	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

Detached Laminar Flow Cabinet Horizontal Type, HD Series



Features:

- Detached working area for low vibration
- HEPA filter efficiency $\geq 99.99\%$ (@0.3 μm)
- 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	HT-840	HT-840-U	HT-1300	HT-1300-U	
Constructions	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
Performance	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	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)	$\geq 99.99\%$ (@0.3 μm)
	Velocity (m/s)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)	$\geq 0.3\text{m/s}$ (Adjustable)
	Illumination (lx)	≥ 300	≥ 300	≥ 300	≥ 300
Controller	Display	LED	LED	LED	LED
	Power Switch	Yes	Yes	Yes	Yes
Electrical Data	Voltage/Frequency (V/Hz)	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ	AC220V, 50HZ, 1 Φ
	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
Weight	Net Weight (kg)	150	150	190	190
	Dimensions	Working Dimension(W*D*H)(mm)	680*650*570	680*650*570	1140*650*570
External Dimension(W*D*H)(mm)		840*825*1430	840*825*1430	1300*825*1430	1300*825*1430
Accessories	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