05

Hoods

Clean Benches
Ductless Fume Hoods
Movable Extraction Arm Hoods
Extraction Arm Hoods
Bench Top Fume Hoods
PCR Workstations
UV Sterilization Cabinets

» General Applications

Clean Benches

Non-toxic IV solution, Preparation, Plant tissue culture, Media plate preparation, Electronics inspection, Medical device assembly, Pharmacy drug preparation.

Fume Hoods

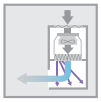
Chemical sampling, Chemical preparation, Cosmetic Production, Numerous, Vapor-generating laboratory processes, Slide preparation, Welding fumes.

PCR Workstations

Medical device assembly, PCR, Staining with volatile, Sterile media preparation, Tissue fixation / Staining preparation.

UV Sterilization Cabinets

General sterilization in daily use.

Product Name		Clean Benches (Advanced)	Clean Benches (Basic)	Ductless Fume Hoods
Model		BC-H	BC-B	DLH-G
Description		Vertical laminar flow, Digital control	Vertical laminar flow, Analog control	Swing vane type, Digital control
Work space (W×D×H, mm)		945×570×670, 1245×570×670, 1845×570×670	945×570×670, 1245×570×670, 1845×570×670	880×640×800, 1180×640×800
Air volume (min. / max., cmh)		0 to 1020, 0 to 2040	0 to 1020, 0 to 2040	-
Airflow velocity (m/s)		0.3, 0.45	0.3, 0.45	Initial set point: 0.4m/s, 80fpm (face velocity)
Air flow				
Air cleanliness within workspace		ISO 14644-1 class 4 (US federal standard 209E class 10)		-
Filters (standard / optional)		Standard HEPA filter, Pre filter	Standard HEPA filter, Pre-filter	Standard HEPA filter, Pre-filter / Optional chemical filters
Construction	Work surface	Stainless steel grade 304, Hairline treatment	Stainless steel grade 304, Hairline treatment	Optional 6 different work surfaces
	UV lamp	O	O	-
Control	Display & Control interface	Dual, Digital-touch VFD	Analog-Switch, Knob	Digital-LED, Buttons
	Filter capacity check	Digital-Differential pressure sensor	Analog-Differential pressure guage	Analog-Gas detector (optional)
	Front access for filter replacement	O	O	O
	Diffusing muffler	O	O	-
	Blower speed adjustment	Digital	Analog	Digital
Safety	Door open level alarm	O	-	-
	Smart door system	O	-	-
	UV lamp auto off	O	O	-

» Effective Filtering System

Reliable international standard

ISO class 4 air cleanliness as per ISO 14644-1.
- Equivalent to Class 10 as per US Federal Standard 209E
- 99.99% efficient HEPA filter.

Chemical filters are selectable according to the application

- Activated carbon filter
- Acid filter
- Halogen compounds filter
- Formaldehyde filter
- Ammonia / Amines filter
- Pre filter

» Tips for Selection

Protection target

Clean benches / PCR workstations for sample protection.

HEPA-filtered environment protects the sample from air contamination.
UV light enables effective sterilization of the sample.
* Do not offer personnel protection.

Fume hoods for personnel protection.

Efficiently designed to protect the user from harmful and toxic fumes generated from wide range of applications.
* Ducted type and ductless type are available.

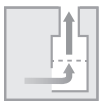
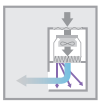
Usage environment

Ducted type for strong fume extraction.

In-lab exhaust system is essential to use the ducted fume hood. It guarantees strong and effective extraction of hazardous and toxic fumes.

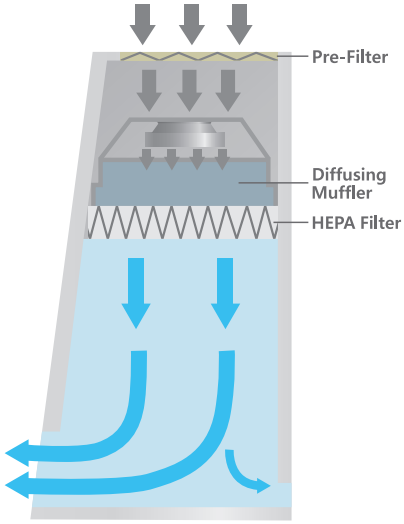
Ductless type for easy installation and maintenance.

Ventilation system in your lab is not required at all. Ductless fume hood with chemical filters enables effective fume extraction.

Movable Extraction Arm Hoods (with Filter Box)		Extraction Arm Hoods (without Filter Box)		Bench Top Fume Hoods	PCR Workstations	UV Sterilization Cabinets
MAH		AH		PMH	PW	UVC
2 Joints	3 Joints	2 Joints	3 Joints	Compact size, Portable	Vertical laminar flow	UV lamp with timer control
Arm(LxØ,mm) 1040x75	Arm(LxØ,mm) 1680x75	Arm(LxØ,mm) 1040x75	Arm(LxØ,mm) 1680x75	Entrance(WxD,mm) 560x300	700×585×602, 880×585×602, 1180×585×602	433×500×468, 583×500×468, 880×500×468
-				-	167 to 557, 209 to 697, 279 to 929	-
140 m^3/h		-		-	0.3 / 60	-
						
-		-		-	ISO 14644-1 class 4 (US federal standard 209E class 10)	-
Standard HEPA filter, Activated carbon filter, Pre-filter / Optional chemical filters		-		-	Standard HEPA filter, Pre-filter	-
-				Polyethylene	10mm thick acrylic resin (clear type)	Stainless steel grade 304
-				-	0	0
Analog-Button, Knob		-		-	Digital-LED, Buttons	Digital-VFD, Buttons
Analog-Gas detector (optional)		-		-	Analog-Gas detector (optional)	-
-				-	0	0
-				-	-	-
Analog		-		-	Digital	-
-				-	-	-
-				-	-	-
-				-	0	0

Vertical laminar flow clean benches with advanced digital control and various convenient features.

ISO class 4 air cleanliness as per ISO 14644-1.
Class 10 as per US Federal Standard 209E.
Nominal down flow velocity. (max. 0.45 m/sec)



BC-11H

with optional stand and gas cock

Standard accessories
see page 61

- HEPA filter, Pre filter
- UV lamp, Fluorescent lamp
- Electrical socket

Interlocking smart door system (patent pending)

Performance

- ISO class 4 (US class 10) HEPA filter for optimal protection against cross-contamination.
- 0.3 μm and larger particulates are removed with 99.99% efficiency, leak-tight HEPA filter which satisfying class 10.
  (US Federal Standard 209E)
  (average life span of HEPA filter: 3 years – it depends on the test room conditions)
- High-quality polyester fiber pre filter (with minimal pressure loss and 85% arrestant on the A.F.I. test) for trapping larger particles and increasing the life of the main HEPA filter.
- Digital airflow rate sensor (microprocessor) for automated airflow speed control.
  - Offers continual airflow speed of same velocity and extends the HEPA filter life span.
- Exclusive diffusing muffler structure forms high quality laminar flow.
- Quiet and comfortable working environment. (less than 65dB)

Convenience

- Interlocking smart door system
  - Simply open the door while UV-lamp is on. Interlocking smart door system will automatically turn off UV-lamp, turn on fluorescent lamp and blower instead of your manual control.
- Two digital displays for the best convenience.
  - Even if any test is ongoing inside of the chamber, unit conditions such as velocity, temperature and humidity can be easily checked by the inner and outside displays.
- Digital differential pressure sensor allows for easy verification of HEPA filter condition great for knowing when to change HEPA filter.
- When UV light intensity is lower than 80%, UV warning lamp is automatically on to let users know when to change UV-lamp.
- Comfortable front access to cartridge type of filters for easy replacement.
- Highly durable, rust-free, and easy-to-clean grade 304 stainless steel work surface.
- The inner left side magnetic board allows some memos and small tools.

Safety

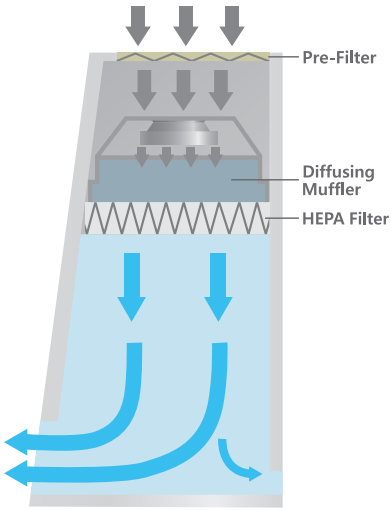
- UV-blocking and impact-resistant tempered glass door.
- If the sash is opened more than the recommended sash height level, during operation, warning alarm will activate and alarm users to lower the window to the recommended sash level to prevent contamination of samples.
- If the sash is opened during UV-lamp operation, UV lamp automatically turns off to protect users.
- Smoothly sliding front door stoppable at any height for user's safety and easy transport of equipment into the workspace.
- Protection against over-current.

Model		BC-01H		BC-11H		BC-21H	
Air flow type		Vertical laminar flow					
Air volume (minimum / maximum)		0 to 1020 cmh / 0 to 600 cfm		0 to 2040 cmh / 0 to 1200 cfm			
Laminar airflow velocity (m / s / fpm)		0.3 / 59		0.45 / 89		0.3 / 59	
Air cleanliness within work space		ISO 14644-1 class 4, US Federal Standard 209E class 10					
Filters	HEPA filter	Typical efficiency of 99.99% on 0.3㎛ (US MIL-STD-282) ; Micro glass fiber Media, Particle board, AL separator, Neoprene gaskets					
	Pre filter	Polyester fibers with an filter efficiency of 85% (A·F·I TEST) ; Aluminum frame, Polyester fiber media					
Noise level		Typically < 65dB at blower speed					
Materials	Main body	Steel powder coating					
	Work surface	Stainless steel grade 304, Hairline treatment					
	Windows (front / side)	Colorless and transparent UV absorbing 5mm tempered glass					
Illumination	Intensity (lux)	> 650					
	Fluorescent lamp (W)	30 x 2ea				32 x 2ea	
		Electronically ballasted Fluorescent Lamp					
	UV lamp (W)	25 x 1ea		30 x 1ea		25 x 2ea	
		Electronically ballasted UV Lamp					
Electric socket outlets		230V socket					
Dimension (WxDxH)	Interior (mm / inch)	945×570×670 / 37.2×22.4×26.4		1245×570×670 / 49.0×22.4×26.4		1845×570×670 / 72.6×22.4×26.4	
	Exterior without stand (mm / inch)	1135×647×1150 / 44.7×25.5×45.3		1435×647×1150 / 56.5×25.5×45.3		2035×647×1150 / 80.1×25.5×45.3	
	Exterior with stand (mm / inch)	1135×647×1870 / 44.7×25.5×73.6		1435×647×1870 / 56.5×25.5×73.6		2035×647×1870 / 80.1×25.5×73.6	
	Net weight (body) (kg / lbs)	140 / 308.6		185 /407.9		225 / 496	
	Net weight (body + stand) (kg / lbs)	170 / 374.8		215 / 474		255 / 562.2	
Electrical requirements (230V, 1ph)		60Hz / 1.25 A	50Hz / 1.38 A	60Hz / 1.57 A	50Hz / 1.73 A	60Hz / 2.09 A	50Hz / 2.30 A
Cat. No.		**AAHA5011K**	**AAHA5012K**	**AAHA5021K**	**AAHA5022K**	**AAHA5031K**	**AAHA5032K**
Electrical requirements (120V, 1ph)		60Hz / 2.62 A		60Hz / 3.27 A		60Hz / 4.36 A	
Cat. No.		**AAHA5013U**		**AAHA5023U**		**AAHA5033U**	

※ FDA establishment registered company. FDA listed products.

Vertical laminar flow clean benches offer quick operation by simple-adjustable analog control.

ISO class 4 air cleanliness as per ISO 14644-1. Class 10 as per US Federal Standard 209E.
Nominal down flow velocity. (max. 0.45 m/sec)



BC-11B

with optional stand

Standard accessories
see page 61

- HEPA filter, Pre filter
- UV lamp, Fluorescent lamp
- Electrical socket
- Differential pressure gauge

Performance

- ISO class 4 (US class 10) HEPA filter for optimal protection against cross-contamination.
- 0.3 µm and larger particulates are removed with 99.99% efficiency, leak-tight HEPA filter which satisfying class 10.
  (US Federal Standard 209E)
  (average life span of HEPA filter: 3 years – it depends on the test room conditions)
- High-quality polyester fiber pre filter (with minimal pressure loss and 85% arrestant on the A.F.I. test) for trapping larger particles and increasing the life of the main HEPA filter.
- Exclusive diffusing muffler structure forms high quality laminar flow.
- Quiet and comfortable working environment. (less than 65dB)

Convenience

- Built-in differential pressure gauge for easy checking HEPA filter condition.
- Comfortable front access to cartridge type of filters for easy replacement.
- Easy blower speed adjustment by the control panel.
- Highly durable, rust-free, and easy-to-clean grade 304 stainless steel work surface.
- The inner left side magnetic board allows some memos and small tools.

Safety

- UV-blocking and impact-resistant tempered glass door.
- If the sash is opened during UV-lamp operation, UV lamp automatically turns off to protect users.
- Lighting mode selection by 3-position toggle switch (UV / off / fluorescent) preventing harmful UV exposure.
- Smoothly sliding front door stoppable at any height for user's safety and easy transport of equipment into the workspace.
- Protection against over-current.

Model		BC-01B		BC-11B		BC-21B	
Air flow type		Vertical laminar flow					
Air volume (minimum / maximum)		0 to 1020 cmh / 0 to 600 cfm		0 to 2040 cmh / 0 to 1200 cfm			
Laminar airflow velocity (m / s / fpm)		0.3 / 59		0.45 / 89		0.3 / 59	
Air cleanliness within work space		ISO 14644-1 class 4, US Federal Standard 209E class 10					
Filters	HEPA filter	Typical efficiency of 99.99% on 0.3㎛ (US MIL-STD-282) ; Micro glass fiber Media, Particle board, AL separator, Neoprene gaskets					
	Pre filter	Polyester fibers with an filter efficiency of 85% (A·F·I TEST) ; Aluminum frame, Polyester fiber media					
Noise level		Typically < 65dB at blower speed					
Materials	Main body	Steel powder coating					
	Work surface	Stainless steel grade 304, Hairline treatment					
	Windows (front / side)	Colorless and transparent UV absorbing 5mm tempered glass					
Illumination	Intensity (lux)	> 650					
	Fluorescent lamp (W)	30 x 2ea				32 x 2ea	
		Electronically ballasted Fluorescent Lamp					
	UV lamp (W)	25 x 1ea		30 x 1ea		25 x 2ea	
		Electronically ballasted UV Lamp					
Electric socket outlets		230V socket					
Dimension (WxDxH)	Interior (mm / inch)	945×570×670 / 37.2×22.4×26.4		1245×570×670 / 49.0×22.4×26.4		1845×570×670 / 72.6×22.4×26.4	
	Exterior without stand (mm / inch)	1135×647×1150 / 44.7×25.5×45.3		1435×647×1150 / 56.5×25.5×45.3		2035×647×1150 / 80.1×25.5×45.3	
	Exterior with stand (mm / inch)	1135×647×1870 / 44.7×25.5×73.6		1435×647×1870 / 56.5×25.5×73.6		2035×647×1870 / 80.1×25.5×73.6	
	Net weight (body) (kg / lbs)	140 / 308.6		185 /407.9		225 / 496	
	Net weight (body + stand) (kg / lbs)	170 / 374.8		215 / 474		255 / 562.2	
Electrical requirements (230V, 1ph)		60Hz / 1.25 A	50Hz / 1.38 A	60Hz / 1.57 A	50Hz / 1.73 A	60Hz / 2.09 A	50Hz / 2.30 A
Cat. No.		**AAHA6011K**	**AAHA6012K**	**AAHA6021K**	**AAHA6022K**	**AAHA6031K**	**AAHA6032K**
Electrical requirements (120V, 1ph)		60Hz / 2.62 A		60Hz / 3.27 A		60Hz / 4.36 A	
Cat. No.		**AAHA6013U**		**AAHA6023U**		**AAHA6033U**	

※ FDA establishment registered company. FDA listed products.

Accessories & Options

HEPA filter

- 99.99% efficient HEPA filter, industry standard size for economical replacement.

Stand with casters

- Stand with casters : Mobile stand made of powder-coated steel ideal for easy relocation.

Pre filter

- Easy-to-replace pre-filter for trapping larger particles and extending the life of HEPA filters.

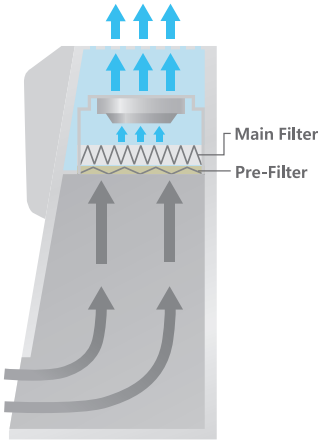
Filters

Cat. No.	Description	BC-01H/B	BC-11H/B	BC-21H/B
AAAB1601	HEPA filter	•	-	-
AAAB1602		-	•	-
AAAB1603		-	-	•
AAAB1611	Pre filter	•	-	-
AAAB1612		-	•	-
AAAB1613		-	-	•

Others

Cat. No.	Description	BC-01H/B	BC-11H/B	BC-21H/B
AAAB1621	Stand with casters	•	-	-
AAAB1622		-	•	-
AAAB1623		-	-	•
AAAB1631	UV lamp(230V)	•	-	-
AAAB1633		-	•	-
AAAB1635		-	-	•
AAAB1632	UV lamp(120V)	•	-	-
AAAB1634		-	•	-
AAAB1636		-		•
AAAB1561	Gas cock	•	•	•
AAAB1571	Differential pressure gauge (for BC-B)	•	•	•

Safe and energy-saving mobile workspace free from toxic vapors and fumes without the need of costly ductwork.



Digital controller

Anemometer


Front cover

DLH-01G

with optional work surface and stand

Standard accessories
see page 63

- Pre filter
- Fluorescent lamp

* DLH series do not come with any work surface. Please place an order one work surface among 6 optional different work surfaces for proper use.

Performance

- A variety of filters and work surfaces available to suit your specific experimental needs. (refer to accessory section)
- High-quality polyester fiber pre-filter for trapping larger particles and increasing the life of the main HEPA filter.
- Large-capacity blower maintaining sufficient intake flow rate and reducing noise. (less than 55 dB under normal operation)
- Fluorescent light installed outside the workspace in order to prevent the airflow hindrance as well as the contamination while maintaining illumination intensity.

Convenience

- Easy monitoring of the internal airflow speed thanks to built-in anemometer.
- Comfortable front access to cartridge type of filters for easy replacement.
- Built-in utility hole for easily routing the cords or wires of the equipment placed inside the hood.
- Fully or half openable front door for convenient transport of experimental apparatuses and equipment into or out of the workspace.

Standards compliance

- Efficiency and capacity of activated carbon filters: BS 7989:2001
- Structure, electrical outlet, lighting, and sound level: BS 7258-1:1994
- Local smoke, large volume visualization, face velocity, and tracer gas: ANSI/ASHRAE 110-1995 and NF EN 14175-1

Model		DLH-01G		DLH-11G	
Controller		Microprocessor control			
Face velocity		Initial set point: 0.4m/s, 80fpm			
Air flow meter		Swing vane type			
Main filter		Chemical Filter (optional 6 different filters)			
Pre filter		Washable high efficiency nylon filter			
Materials	Main body, window (front / side)	2.0mm steel (epoxy powder-coated), 8mm / 6mm thick acrylic resin			
	Work surface	Optional 6 different work surfaces			
Fluorescent light intensity		> 600lux			
Noise level		55dB under normal operation			
Dimension (W×D×H)	Interior (mm / inch)	880×640×800 / 34.6×25.2×31.5		1180×640×800 / 46.5×25.2×31.5	
	Exterior without stand (mm / inch)	900×660×1250 / 35.4×26×49.2		1200×660×1250 / 47.2×26×49.2	
	Exterior with stand (mm / inch)	900×660×1985 / 35.4×26×78.1		1200×660×1985 / 47.2×26×78.1	
	Net weight (body) (kg / lbs)	100 / 220.5		118 / 260.1	
	Net weight (body + stand) (kg / lbs)	120 / 264.6		140 / 308.6	
Electrical requirements (230V)		50Hz, 0.6A	60Hz, 0.7A	50Hz, 0.6A	60Hz, 0.7A
Cat. No.		**AAHB2002K**	**AAHB2001K**	**AAHB2012K**	**AAHB2011K**
Electrical requirements (100V, 120V)		100V, 50Hz, 1.5A	120V, 60Hz, 1.3A	100V, 50Hz, 1.5A	120V, 60Hz, 1.3A
Cat. No.		**AAHB2004U**	**AAHB2003U**	**AAHB2014U**	**AAHB2013U**

※ FDA establishment registered company. FDA listed products.

Accessories & Options

Filters

Cat. No.	Description	Application	DLH-01G	DLH-11G
EDA9191	Activated carbon filter	All common laboratory chemicals, especially VOC, Organic, Benzene, Toluene, etc	•	-
EDA9192			-	•
EDA9199	Acid filter [1]	An acidic solvent ; Acetic acid, etc	•	-
EDA9200			-	•
EDA9201	Halogen compounds filter	Halogen compounds like Chlorine, Fluorine, Iodine, Bromine, Astatine, etc	•	-
EDA9202			-	•
EDA9203	Formaldehyde filter	Formadehyde applications	•	-
EDA9204			-	•
EDA9205	Ammonia / Amines filter	Ammonia/Amines by chemisorptions	•	-
EDA9206			-	•
EDA9193	HEPA filter	Biohazardous aerosols and other visible and non-visible particles (filtration efficiency: 99.99% at 0.3 microns)	•	-
EDA9194			-	•
EDA9196	Pre filter	-	•	-
EDA9198			-	•

1) Please do not use high percentage of reactive acid such as perchloric acid.

Work surfaces / Stands

Cat. No.	Description	DLH-01G	DLH-11G
AAAB2501	Work surface (SUS #304)	•	-
AAAB2502		-	•
AAAB2503	Work surface (SUS #316)	•	-
AAAB2504		-	•
AAAB2505	Work surface (ceramite)	•	-
AAAB2506		-	•
AAAB2507	Work surface (polypropylene)	•	-
AAAB2508		-	•
AAAB2509	Work surface (bakelite)	•	-
AAAB2510		-	•
AAAB2511	Work surface (PVC)	•	-
AAAB2512		-	•
AAAB2521	Stand with casters	•	-
AAAB2522		-	•

Gas detector / Gas detecting tubes

Cat. No.	Description	DLH-01G	DLH-11G
AAAB2531	Gas detector (KITAGAWA AP-20)	•	•
EAA1550	Gas detecting tube (benzene, GASTEC-121SP (0.5-10ppm))	•	•
EAA1551	Gas detecting tube (yoluene, GASTEC-122L (1-100ppm))	•	•
EAA1552	Gas detecting tube (acetic acid, GASTEC-81L (0.125-25ppm))	•	•
EAA1553	Gas detecting tube (chloroform, GASTEC-137 (4-400ppm))	•	•
EAA1554	Gas detecting tube (formaldehyde, GASTEC-91LL (0.05-1ppm))	•	•
EAA1555	Gas detecting tube (ammonia, GASTEC-3L (0.5-60ppm))	•	•

Filtering

Extraction arm hood with filter box.

When the mobility is important, the simplest solution for fume extraction!

MAH-3100

with optional dome hood

Basic Components
see page 65

- Extraction arm, Basic hood
- Filter box
  (pre-filter/HEPA filter/activated carbon filter)

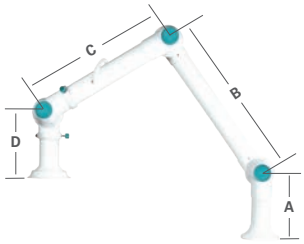
Features

- In-lab ventilation system is no longer necessary with this movable extraction arm hood. MAH series can serve as the best mobile or fixed mounted fume extraction system.
- Chemical-resistant and heavy duty polypropylene extraction arm.
- 360-degree rotatable joints in the arms provide exceptional flexibility for easy positioning.
- Arm joints are easily removable for simple adjustment of length of the arm. (removable parts : B, C)
- Air flow rate is adjustable by the damper of the extraction arm.
- Durable BLDC motor provides quiet and comfortable working environment.
- Convenient air flow control.
- Gas detecting port for checking filter condition.
- Automatic fan malfunction warning alarm.
- Pre filter, HEPA filter, activated carbon filter are provided as standard accessories.
- Optional different types of the hoods are available for effective fume extraction.

Chemical Filters

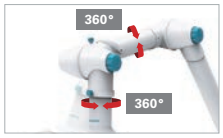
Cat. No.	Description
AAAB6507	Pre filter
AAAB6506	HEPA filter
AAAB6502	Activated carbon filter
AAAB6501	Acid filter [1]
AAAB6505	Halogen compounds filter
AAAB6504	Formaldehyde filter
AAAB6503	Ammonia/Amines filter

1) Please do not use high percentage of reactive acid such as perchloric acid.
※ For chemical filters' application list and Gas Detector &Tubes ordering information, please refer to page 63.



Simple control panel


Quick tilt-adjustable knob



360° rotatable joint


Damper for airflow rate adjustment

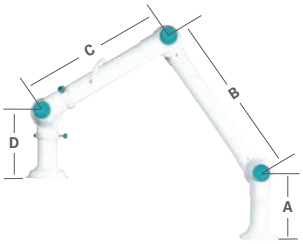
Model	Joint	Length (mm / inch) A	B	C	D	Total	Ø (mm / inch)	Net weight (kg / lbs)	Cat. No. Electrical requirements 230V/60Hz, 1.5A	230V/50Hz, 1.5A	120V/60Hz, 3A
Polypropylene Extraction Arm Hood + Filter Box*											
Airflow rate Max.140m³/h											
MAH-2100	2 joints	250/9.8	-	530/20.9	260/10.2	1040/40.9	75/2.9	1.8/3.9	**AAHB6111K**	**AAHB6112K**	**AAHB6113U**
MAH-3100	3 joints		640/25.2			1680/66.1		2.4/5.3	**AAHB6301K**	**AAHB6302K**	**AAHB6303U**

* Filter box dimensions (WxDxH, 500x500x850mm) (kg / lbs, 37.2 / 82.0)
Filter box comes with pre filter/HEPA filter/activated carbon filter.
※ FDA establishment registered company. FDA listed products.

Features

- Mountable on any surface such as ceiling, wall only when you have a ventilation system in your lab.
- Chemical-resistant and heavy duty polypropylene extraction arm.
- 360-dgree rotatable joints in the arms provide exceptional flexibility for easy positioning.
- Arm joints are easily removable for simple adjustment of length of the arm. (removable parts : B, C)
- Air flow rate is adjustable by the damper of the extraction arm.
- Optional different types of the hoods are available for effective fume extraction.
- One of the various brackets is essentially required for installing the extraction arm hood in your laboratory.

The best solutions for eliminating dust and fume hazards at source.



AH-75 (3 joints)

with optional bracket

Basic Components • Extraction arm, Basic hood

see page 65

Model	Joint	Length (mm / inch) A	B	C	D	Total	Ø (mm / inch)	Net weight (kg / lbs)	Cat. No.
Polypropylene Extraction Arm Hood									
AH-75	2 joints	250/9.8	-	530/20.9	260/10.2	1040/40.9	75/2.9	1.8/3.9	**AAAB6511**
	3 joints		640/25.2			1680/66.1		2.4/5.3	**AAAB6541**

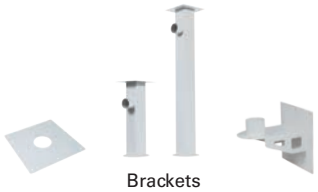
※ Please make sure to place an order at least one bracket with AH series. ※ FDA establishment registered company. FDA listed products.

Accessories & Options

Dome hood
(transparent / white)

Square hood
(transparent / white)

Bench top fume hood & bracket



Brackets
(ceiling / ceiling column / wall)

Cat. No.	Description	Dimension (WxDxH, mm / inch)
AAAB6221	Dome hood (polypropylene, white)	400x140 / 15.7x5.5 (ØxH, mm/inch)
AAAB6211	Dome hood (styrene butadiene copolymer, transparent)	
AAAB6241	Square hood (polypropylene, white)	494x390x245 / 19.4x15.4x9.6
AAAB6231	Square hood (styrene butadiene copolymer, transparent)	
AAAB5011	Bench top fume hood (PMH-720) [1]	720x450x560 / 28.3x17.7x22
AAAB6411	Bracket for bench top fume hood	178x178x2 / 7x7x0.1

1) **see page 66** for detailed information of bench top fume hood.

Cat. No.	Description Type	Dimension (WxDxH, mm / inch)
AAAB6508	Ceiling braket	260x260x2 / 10.2x10.2x0.1
AAAB6512	Ceiling column (extra side connection hole for Ø 75mm ventilation duct)	100x100x250 / 3.9x3.9x9.8
AAAB6513		100x100x500 / 3.9x3.9x19.7
AAAB6514		100x100x750 / 3.9x3.9x29.5
AAAB6515		100x100x1000 / 3.9x3.9x39.4
AAAB6516		100x100x1250 / 3.9x3.9x49.2
AAAB6517		100x100x1500 / 3.9x3.9x59.1
AAAB6510	Wall	158x259x81.7 / 6.2x10.2x3.2

※ All the brackets listed above are suitable for Ø 75mm arms.
Exceptively ceiling column brackets are suitable for Ø 50/75/100mm arms.

Ideal for use in limited laboratory spaces.

Cost-effective, fully portable alternative to metal hoods.

PMH-720

Features

- Compact design for easy moving and space saving.
- Transparent polycarbonate front door for observation.
- The door opens to five positions for comfort and convenience.
- One-piece molded design for leak-tight and exceptional durability.
- Chemical resistance and spark-less polyethylene.
- An exhaust motor is required. The unit can be connected to an in-house laboratory exhaust system. Either 150mm (6") dia flexible duct can be used.
- Rounded inner corners for continuous air flow and easy cleaning.

※ Bracket and extraction arm hood are optional purchase.

※ **see page 64-65** for detailed information of extraction arm hood (MAH or AH).

Information of accessories

In case of using bench top fume hood with extraction arm hood (MAH or AH), at least one bracket is required to order.

Cat.No.	Description	Dimension (WxDxH, mm / inch)
AAAB6411	Bracket for bench top fume hood	178x178x2 / 7x7x0.1

Model		PMH-720
Permissible air velocity (m/s, fpm)		0.3 to 1 / 59.1 to 196.9
Permissible Environmental Condition		Temperature 2℃ to 60℃ Maximum relative humidity 80% Maximum altitude up to 2,000m
Material	Main body	Polyethylene
	Window	Polycarbonate
Dimension	Exterior (WxDxH, mm/inch)	720x450x560 / 28.3x17.7x22
	Entrance (WxD, mm/inch)	560x300 / 22x11.8
	Duct hole (O.D., mm/inch)	150 / 6
	Net weight (kg / lbs)	7 / 15.4
Cat. No.		**AAAB5011**

※ FDA establishment registered company. FDA listed products.

Performance

- ISO class 4 (US class 10) HEPA filter for optimal protection against cross-contamination.
  (average life span of HEPA filter: 3 years – it depends on the test room conditions)
- High-quality polyester fiber pre-filter (with minimal pressure loss and 85% arrestant on the A.F.I. test) for trapping larger particles and increasing the life of the main HEPA filter.
- Effective sterilization using a long-life 254 nm UV lamp.
  (average life span of UV lamp: 8,000 hours)
- Built in anti-glare fluorescent lamp minimizes shadows and relieves eye strain.

Convenience

- User-friendly microprocessor-based control panel.
- Large capacity blower and easy blower speed adjustment by the control panel.
- Easy-settable digital timer for UV light exposure to deactivate DNA and RNA contaminants. (wait off, max. 30min.)
- Comfortable front access to cartridge type of filters for easy replacement.

Safety

- Interlocking safety door system shuts off UV light automatically when opening the door.
- UV-blocking door and side panels made of transparent acrylic resin provides clear inside view.
- UV over-exposure alarm and over-current protection.

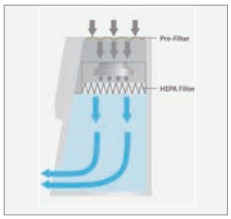
Specially designed to minimize the sample contamination during PCR

applications by combining ISO class 4 (US class 10) clean air environment.

PW-11

Standard accessories
see page 69

- HEPA filter
- Pre filter
- UV lamp
- Fluorescent lamp



Model			PW-01		PW-11		PW-21	
Air flow type			Vertical					
Max. air volume (cmh / cfm)			557 / 327		697 / 408		929 / 546	
Min. air volume (cmh / cfm)			167 / 97		209 / 121		279 / 162	
Laminar airflow velocity (m / s / fpm)			0.3 / 60					
Filter	Air cleanliness		ISO 14644-1 class 4					
	HEPA filter		Typical efficiency of 99.99% at 0.3 ㎛ US MIL-STD-282 ; Micro glass fiber media, Particle board, Aluminum separator, Neoprene gaskets					
	Pre filter		Polyester fibers with an efficiency of 85% (A.F.I TEST); AL frame, Polyester fiber media					
Noise level (dBA)			Typically < 60 dBA at blower speed					
Material	Work surface		10mm thick acrylic resin (clear type)					
	Window (front, side / back)		8mm / 10mm thick acrylic resin (clear type)					
Illumination	Intensity	Fluorescent lamp (lux)	>1000					
		UV density (㎼ / ㎠)	165		185		330	
	Capacity	Fluorescent lamp (w)	15 × 1ea		20 × 1ea		30 × 1ea	
		UV lamp (w)	15 × 1ea		20 × 1ea		30 × 1ea	
Dimension (WxDxH)	Interior (mm / inch)		700×585×602 / 27.5×23×23.7		880×585×602 / 34.6×23×23.7		1180×585×602 / 46.5×23×23.7	
	Exterior (mm / inch)		720×605×964 / 28×24×38		900×605×964 / 35.4×24×38		1200×605×964 / 47.2×24×38	
	Net weight (Body) (kg / lbs)		56.2 / 123.9		64.2 / 141.5		77.8 / 171.5	
Electrical requirements (230V)			60Hz, 1.3A	50Hz, 1.3A	60Hz, 1.4A	50Hz, 1.4A	60Hz, 1.5A	50Hz, 1.5A
Cat. No.			**AAHB3001K**	**AAHB3002K**	**AAHB3011K**	**AAHB3012K**	**AAHB3021K**	**AAHB3022K**
Electrical requirements (120V)			60Hz, 2.2A		60Hz, 2.7A		60Hz, 2.9A	
Cat. No.			**AAHB3003U**		**AAHB3013U**		**AAHB3023U**	

※ FDA establishment registered company. FDA listed products.

Ideal for effective decontamination of apparatus before carrying out PCR experiments using a high-quality UV lamp with timer control.

UVC-11

Standard accessories
see page 69

- UV lamp
- Fluorescent lamp

Performance

- Effective sterilization using a long-life 254 nm UV lamp. (average life span of UV lamp: 8,000 hours)
- Built in anti-glare fluorescent lamp minimizes shadows and relieves eye strain.

Convenience

- User-friendly microprocessor-based control panel.
- Digital UV light timer for convenient use.
- Easy-settable digital timer for UV light exposure to deactivate DNA and RNA contaminants. (wait off, max. 30min.)
- Easy-to-clean grade 304 stainless steel work surface with high chemical resistance against various organic solvents.

Safety

- Interlocking safety door system shuts off UV light automatically when opening the door.
- UV-blocking door and side panels made of transparent acrylic resin provides clear inside view.
- UV over-exposure alarm and over-current protection.

Model			UVC-01		UVC-11		UVC-21	
Illumination	Intensity	Fluorescent lamp (Lux)	>800		>900		>1000	
		UV density (μW / cm²)	300 ± 10%		350 ± 10%		300 ± 20%	
	Capacity	Fluorescent lamp (W)	8×1ea		15×1ea		20×1ea	
		UV lamp (254nm, W)	8×1ea		15×1ea		20×1ea	
Material	Work surface		Stainless steel grade 304					
	Window (front, back / side)		5 mm thick acrylic resin					
Dimension (W×D×H)	Interior (mm / inch)		433×500×468 / 17.0×19.7×18.4		583×500×468 / 23×19.7×18.4		880×500×468 / 34.6×19.7×18.4	
	Exterior (mm / inch)		450×509×610 / 17.7×20×24		600×509×610 / 23.6×20×24		900×509×610 / 35.4×20×24	
	Net weight (kg / lbs)		15 / 33.1		17.5 / 38.6		20 / 44.1	
Electrical requirements (230V)			60Hz, 0.1A	50Hz, 0.1A	60Hz, 0.2A	50Hz, 0.2A	60Hz, 0.3A	50Hz, 0.3A
Cat. No.			**AAHB4001K**	**AAHB4002K**	**AAHB4011K**	**AAHB4012K**	**AAHB4021K**	**AAHB4022K**
Electrical requirements (120V)			60Hz, 0.2A		60Hz, 0.4A		60Hz, 0.6A	
Cat. No.			**AAHB4003U**		**AAHB4013U**		**AAHB4023U**	

※ FDA establishment registered company. FDA listed products.

for PCR workstaions / UV sterilization cabinets

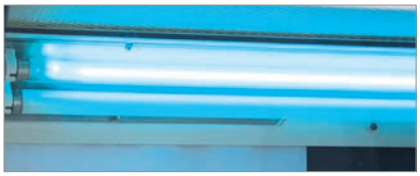
General UV dose and time required

Pathogen	Average UV dose required (μW . s/㎠)	Average UV time required (μW/㎠/sec.)					
		PW-01	UVC-01	PW-11	UVC-11	PW-21	UVC-21
		165	150	185	385	330	450
S. enteritidis	4,000	25	27	22	10	13	9
B. megatherium sp. (spores)	2,730	17	18	15	7	9	6
B. subtilis	7,100	43	47	39	18	22	16
Eberthella typhosa	2,140	13	14	12	6	7	5
Escherichia coli (E. coli)	3,000	19	20	17	8	10	7
Micrococcus candidus	6,050	37	40	33	16	19	13
Proteus vulgaris	2,640	16	18	15	7	8	6
Pseudomonas aeruginosa	5,500	34	37	30	14	17	12
Pseudomonas aeruginosa	3,500	22	23	19	9	11	8
S. typhimurium	8,000	49	53	44	21	25	18
Shigella paradysenteriae	1,680	101	11	10	4	6	4
Spirillum rubrum	4,400	27	29	24	11	14	10
Staphylococcus albus	1,840	12	12	10	5	6	4

※ Above listed applications are for general purpose use.

HEPA filter (for PW)

Fluorescent lamp



UV lamp

for PCR workstations

Cat. No.	Description	PW-01	PW-11	PW-21
EDA9219	HEPA filter	•	-	-
EDA9220		-	•	-
EDA9221		-	-	•
CHE4436	Fluorescent lamp	•	-	-
CHE4410		-	•	-
CHE4409		-	-	•
CHE4431	UV lamp	•	-	-
CHE4427		-	•	-
CHE4423		-	-	•

for UV sterilization cabinets

Cat. No.	Description	UVC-01	UVC-11	UVC-21
CHE4435	Fluorescent lamp	•	-	-
CHE4436		-	•	-
CHE4410		-	-	•
CHE4434	UV lamp	•	-	-
CHE4431		-	•	-
CHE4427		-	-	•