Hood & Clean Bench

General Application

Clean Bench: Non-toxic sap, DNA/RNA purification, plant tissue culture, solid medium division, electronic inspection, medical equipment assembly, pharmaceuticals, etc.

PCR workstation: Medical equipment assembly, PCR sample preparation, volatile staining, sterile medium division, tissue fixation/staining preparation.

UV-sterilization Cabinet: Sterilized to prevent DNA/RNA contamination.

Hood: Chemical sampling, cosmetics, production, steam generation experiments, slide coating, welding.

	Description		Filter	Working Table	Model	Page
Test sample protection **Clean experiment space**	**Clean bench**	• Fully validated • Superior user convenience	HEPA	Stainless Steel #304	BC-H BC-B	180 182
	PCR Workstation	• Convenient PCR working environment • Easy wind speed control	HEPA	Acryl	PW	183
	UV-Sterilization Cabinet	• Sterilized with UV light • Stainless steel work surface	N/A	Stainless Steel #304	UVC	184
Protection of users and the environment **Safe Removal of harmful gases**	**Ductless Fume hood**	• Structure without duct connection • Various filters and workbenches	(Option/Select up to 2ea) Complex Carbon Acid Formaldehyde Ammonia/Amine HEPA	(Option/Select 1ea) Stainless Steel (#304, #316), Ceramite, Polypropylene, Bakelite, PVC	DLH	186
	Fume hood (small)	• Convenient small tabletop hood • Polyethylene material	N/A	Polyethylene	PMH POH	188
	Mobile Harmful Gas Removal Device And Arm hood	• Wide range of choices provided • High-efficiency filter box included	(Option/Select up to 2ea) Complex Carbon Acid Formaldehyde Ammonia/Amine HEPA	N/A	EFS AH	189 191

※ The contents of the above and the contents of this catalog may differ depending on the specific model and conditions of use. For the information about the features and specifications that applying to each models, please check the information on the corresponding page of each models.

CE — Satisfaction with the requirements of European regulations and guidelines.

Patented — Registered patent based on JEIO TECH's proprietary technology.

Smart Door System — If sash door is opened, automatically UV light is off and fluorescent light and fan are operated.

Diffusing Muffler — Differentiated diffusing muffler produces good laminar flow.

UV Light — Equipped with UV Light.

Dual Controller — Equipped with the same controller inside and outside for convenience.

Duct — Exhaust via duct connection.

Filtering — Purifies and discharges harmful gas through internal filter.

2 year Warranty — 2 year warranty Free A/S.

Clean Bench
Advanced type

Easy to use with dual controller and smart system

◢◤ Structural Functional Features

- Dedicated controller and digital airflow sensor allow for operation at set wind speed even with fluctuations in sash height, minimizing power consumption and dramatically increasing HEPA filter life.
- Polyester fiber pre-filter extends the life of the HEPA filter.
- High-performance HEPA filter provides a clean environment. (99.99% removal of 0.3 μm particles) (ISO Class 5, US Federal Class 100)
- Formation of reliable and uniform laminar flow through application of specialized diffusing muffler system.
- Easy to replace the filter on the front panel.
- Easy to move and fix the device.

◢◤ Use Convenience Features

- Displays the temperature and humidity inside the workspace.
- Warning provided when the sash door is opened over the recommended height during operation.
- Easy and smooth sash door operation.
- Provides a quiet environment with minimal noise.
- Easy to operate with clear VFD and touch keys.
- UV lamp, fluorescent lamp, blower-dedicated button.
- Easy to check wind speed, temperature and humidity.

◢◤ Outstanding Safety

- Smart door system protects the experimenter from UV light exposure.
- Toughened glass sash door blocks UV light.
- Protected from overcurrent.

BC-11H
with optional stand, HEPA filter, gas cock

Completed internal cleanliness evaluation and microbiological testing compatibility test.

- Internal cleanliness rating (ISO 14644-1 standard)
  Equivalent to ISO Class 2
- Microbiological testing (ISO 14698 standard)
  ISO Class 5 rating, satisfies the microbiological testing standards

Product Configuration For Easy Use

Easy operation during use with dual controller

- Equipped with the same controller inside and outside, it is convenient to operate the equipment even during work.

Built-in gas and air connection valves and power outlet

- Valves for gas and air use inside.
- Built-in electrical outlet with cover provided.

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Smart Door System (patent registered)

- When the sash door is opened during UV sterilization, the UV lamp is automatically turned off to protect from UV exposure and the fluorescent lamp and blower are automatically operated. (registration 10-1451382)

Sash Door Open
UV auto off
Fluorescent lamp operation
Blower operation

Automatic operation
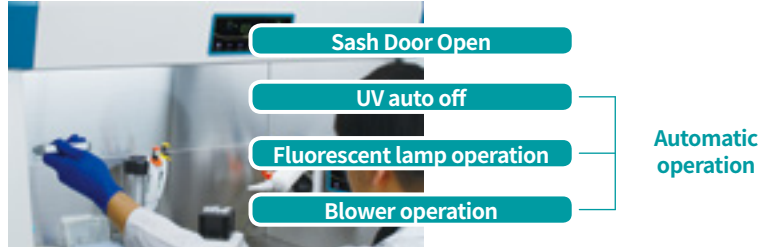
Smart Maintenance

- **HEPA filter replacement notification**
  Real time monitoring of HEPA filter status with digital differential pressure sensor and automatic replacement notification.
- **UV lamp replacement notification**
  UV irradiation intensity is monitored by a UV sensor, and an automatic replacement notification is provided when irradiation intensity drops below 80%.

Pre-Filter
Diffusing Muffler
HEPA Filter

Clear VFD for easy identification of information
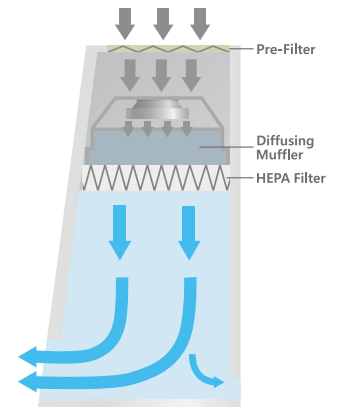
Specification

Model		BC-01H		BC-11H		BC-21H	
Air	Air flow type	Vertical Laminar Flow		Vertical Laminar Flow		Vertical Laminar Flow	
	Airflow velocity (m/sec/fpm)	0.3 / 59		0.45 / 89		0.3 / 59	
	Main filter	HEPA (99.99% at 0.3 μm)		HEPA (99.99% at 0.3 μm)		HEPA (99.99% at 0.3 μm)	
	Pre-filter	Polyester Fibers		Polyester Fibers		Polyester Fibers	
Illumination	U.V. lamp (254 nm, W)	25 x 1ea		30 x 1ea		25 x 2ea	
	Fluorescent lamp (W)	30 x 2ea		30 x 2ea		32 x 2ea	
	Fluorescent lamp intensity (Lux)	more than 650		more than 650		more than 650	
Dimensions	Exterior with stand (W x D x H, mm / inch)	1135 x 620 x 1860 / 44.7 x 24.4 x 73.2		1435 x 620 x 1860 / 56.5 x 24.4 x 73.2		2035 x 620 x 1860 / 80.1 x 24.4 x 73.2	
	Exterior without stand (W x D x H, mm / inch)	1135 x 620 x 1150 / 44.7 x 24.4 x 45.3		1435 x 620 x 1150 / 56.5 x 24.4 x 45.3		2035 x 620 x 1150 / 80.1 x 24.4 x 45.3	
	Interior (W x D x H, mm / inch)	945 x 585 x 670 / 37.2 x 23.0 x 26.4		1245 x 585 x 670 / 49.0 x 23.0 x 26.4		1845 x 585 x 670 / 72.6 x 230 x 26.4	
	Net weight (kg / lbs)	140 / 308.6		185 /407.9		225 / 496	
	Net weight (body + stand) (kg / lbs)	170 / 374.8		215 / 474		255 / 562.2	
Noise level (dB)		Less than 65		Less than 65		Less than 65	
Electrical requirements (230V, 1ph, A)		60Hz / 1.25	50Hz / 1.38	60Hz / 1.57	50Hz / 1.73	60Hz / 2.09	50Hz / 2.30
Cat. No.		**AAHA5011K**	**AAHA5012K**	**AAHA5021K**	**AAHA5022K**	**AAHA5031K**	**AAHA5032K**
Electrical requirements (120V, 1ph, A)		60Hz / 2.62		60Hz / 3.27		60Hz / 4.36	
Cat. No.		**AAHA5013U**		**AAHA5023U**		**AAHA5033U**	

Accessories   HEPA Filter, Pre-filter, Stand, Gas Cock, Differential Pressure Gauge

Clean Bench
Basic type

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

◢◤ Structural Functional Features

- High-performance HEPA filter provides a clean environment.
  (99.99% removal of 0.3 μm particles)
  (ISO Class 5, US Federal Class 100)
- Polyester fiber pre-filter extends the life of the HEPA filter.
- Formation of reliable and uniform laminar flow through application of specialized diffusing muffler system.
- Easy to replace the filter on the front panel.
- Easy to move and fix the device.

◢◤ Use Convenience Features

- Determines when to replace the filter with the built-in differential pressure gauge.
- Easy operation and wind speed control.
- Built-in gas and air connection valves and power outlet.
- Easy and smooth sash door operation.
- Provides a quiet environment with minimal noise.
- Height-adjustable caster for easy vertical installation.

◢◤ Outstanding Safety

- When the sash door is opened in when UV is ON, UV is automatically turned off for user protection.
- Toughened glass sash door blocks UV light.
- Protects against UV exposure through three modes of illumination. (UV/Fluorescent/Off)

BC-11B
with optional stand, HEPA filter

Controller

Differential pressure gauge

Specification

Model		BC-01B		BC-11B		BC-21B	
Air	Air flow type	Vertical Laminar Flow		Vertical Laminar Flow		Vertical Laminar Flow	
	Airflow velocity (m/sec/fpm)	0.3 / 59		0.45 / 89		0.3 / 59	
	Main filter	HEPA (99.99% at 0.3 μm)		HEPA (99.99% at 0.3 μm)		HEPA (99.99% at 0.3 μm)	
	Pre-filter	Polyester Fibers		Polyester Fibers		Polyester Fibers	
Illumination	U.V. lamp (254 nm, W)	25 x 1ea		30 x 1ea		25 x 2ea	
	Fluorescent lamp (W)	30 x 2ea		30 x 2ea		32 x 2ea	
	Fluorescent lamp intensity (Lux)	more than 650		more than 650		more than 650	
Dimensions	Exterior with stand (W x D x H, mm / inch)	1135 x 620 x 1860 / 44.7 x 24.4 x 73.2		1435 x 620 x 1860 / 56.5 x 24.4 x 73.2		2035 x 620 x 1860 / 80.1 x 24.4 x 73.2	
	Exterior without stand (W x D x H, mm / inch)	1135 x 620 x 1150 / 44.7 x 24.4 x 45.3		1435 x 620 x 1150 / 56.5 x 24.4 x 45.3		2035 x 620 x 1150 / 80.1 x 24.4 x 45.3	
	Interior (W x D x H, mm / inch)	945 x 585 x 670 / 37.2 x 23.0 x 26.4		1245 x 585 x 670 / 49.0 x 23.0 x 26.4		1845 x 585 x 670 / 72.6 x 230 x 26.4	
	Net weight (kg / lbs)	140 / 308.6		185 /407.9		225 / 496	
	Net weight (body + stand) (kg / lbs)	170 / 374.8		215 / 474		255 / 562.2	
Noise Level (dB)		Less than 65		Less than 65		Less than 65	
Electrical requirements (230V, 1ph, A)		60Hz / 1.25	50Hz / 1.38	60Hz / 1.57	50Hz / 1.73	60Hz / 2.09	50Hz / 2.30
Cat. No.		AAHA6011K	AAHA6012K	AAHA6021K	AAHA6022K	AAHA6031K	AAHA6032K
Electrical requirements (120V, 1ph, A)		60Hz / 2.62		60Hz / 3.27		60Hz / 4.36	
Cat. No.		AAHA6013U		AAHA6023U		AAHA6033U	

Accessories `Page 185` HEPA Filter, Pre-filter, Stand, Gas Cock, Differential Pressure Gauge

JEIO TECH

PCR Workstation

Specially designed to minimize the sample contamination during PCR

◢ Structural Functional Features

- High-performance HEPA filter provides a clean environment. (ISO Class 4, US Federal Class 10)
- Convenient for use by mounting on an existing bench.
- Fluorescent lamp is included to make it convenient for conducting experiments.
- Fluorescent lamps are installed on the inside of the front to reduce eye fatigue.
- Effective sterilization with 254nm UV lamp. (replacement cycle: approx. 8,000 hours)
- Polyester fiber pre-filter extends the life of the HEPA filter.

◢ Use Convenience Features

- Easy to replace the filter on the front panel.
- Front cover opening structure at the front for convenient inspection and maintenance.
- Easy control of wind speed using the controller.
- Three model sizes depending on the bench size UV timer function. (up to 30 minutes)
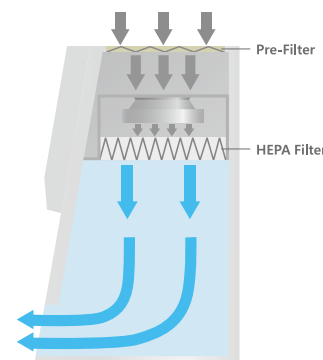
◢ Outstanding Safety

- Acrylic work surface blocks UV by 99.9%.
- When the door is opened with UV light is on, the UV light is turned off automatically to protect the user.
- Protection from overcurrent.

PW-21

Hood & Clean Bench

Completed internal cleanliness evaluation and microbiological testing compatibility test.

- Internal cleanliness rating (ISO 14644-1 standard)
  Equivalent to ISO Class 2
- Microbiological testing (ISO 14698 standard)
  ISO Class 5 rating, satisfies the microbiological testing standards

Pre-Filter

HEPA Filter

Specification

Model		PW-01		PW-11		PW-21	
Air	Air flow type	Vertical		Vertical		Vertical	
	Airflow velocity (m/sec/fpm)	0.4 / 78.7		0.4 / 78.7		0.4 / 78.7	
	Main filter	HEPA (99.99% at 0.3 μm)		HEPA (99.99% at 0.3 μm)		HEPA (99.99% at 0.3 μm)	
	Pre-filter	Polyester Fibers		Polyester Fibers		Polyester Fibers	
Illumination	U.V. lamp (254 nm, W)	15		20		30	
	Fluorescent lamp (W)	15		20		30	
	Fluorescent lamp intensity (Lux)	more than 1,000		more than 1,000		more than 1,000	
Material	Window (Front, Sides, Rear)	Acryl (Clear)		Acryl (Clear)		Acryl (Clear)	
	U.V. protection	99.90%		99.90%		99.90%	
	Working table	Acryl (Clear)		Acryl (Clear)		Acryl (Clear)	
Dimensions	Exterior (W x D x H, mm / inch)	720 x 605 x 964 / 28 x 24 x 38		900 x 605 x 964 / 35.4 x 24 x 38		1200 x 605 x 964 / 47.2 x 24 x 38	
	Interior (W x D x H, mm / inch)	700 x 585 x 602 / 27.5 x 23 x 23.7		880 x 585 x 602 / 34.6 x 23 x 23.7		1180 x 585 x 602 / 46.5 x 23 x 23.7	
	Net weight (kg / lbs)	56.2 / 123.9		64.2 / 141.5		77.8 / 171.5	
Noise level (dB)		Less than 60		Less than 60		Less than 60	
Electrical requirements (230V, 1ph, A)		60Hz, 1.3	50Hz, 1.3	60Hz, 1.4	50Hz, 1.4	60Hz, 1.5	50Hz, 1.5
Cat. No.		AAHB3001K	AAHB3002K	AAHB3011K	AAHB3012K	AAHB3021K	AAHB3022K
Electrical requirements (120V, 1ph, A)		60Hz, 2.2		60Hz, 2.7		60Hz, 2.9	
Cat. No.		AAHB3003U		AAHB3013U		AAHB3023U	

※ Basic composition : Main Body, HEPA Filter, Pre-Filter, UV Lamp, Fluorescent Lamp

Accessories　Page 185　Pre-filter, HEPA Filter

UV Sterilization Cabinet

Clean environment due to sterilization and removal of sources of contamination with UV light

Structural Functional Features

- Built-in fluorescent lamp makes it easy to see inside.
- Compact design makes installation and movement convenient.
- VFD display allows for easy checking of operation status.

Use Convenience Features

- Convenient handling of equipment due to convenient front opening.
- Three sizes of models according to the cabinet size.
- Digital-type UV timer function.
  (up to 59 minutes and 59 seconds)

Outstanding Safety

- Block UV 99.9% on the front/ left / right side with acrylic material.
- When the door is opened, the UV light is turned off automatically to protect the user and the fluorescent lamp is operated, making it convenient to use.
- Protection from overcurrent.

UVC-11

Specification

Model		UVC-01		UVC-11		UVC-21	
Illumination	U.V. Density (µW/cm²)	300 ± 10%		350 ± 10%		300 ± 20%	
	U.V. lamp (254 nm, W)	8		15		20	
	Fluorescent lamp (W)	8		15		20	
	Fluorescent lamp intensity (Lux)	more than 800		more than 900		more than 1,000	
Material	Window (Front, Sides, Rear)	Acryl (Clear)		Acryl (Clear)		Acryl (Clear)	
	Window (Rear)	Powder coated steel		Powder coated steel		Powder coated steel	
	U.V. protection	99.9%		99.9%		99.9%	
	Working table	Stainless steel		Stainless steel		Stainless steel	
Dimensions	Exterior (W x D x H, mm / inch)	450 x 509 x 610 / 17.7 x 20 x 24		600 x 509 x 610 / 23.6 x 20 x 24		900 x 509 x 610 / 35.4 x 20 x 24	
	Interior (W x D x H, mm / inch)	433 x 500 x 468 / 17.0 x 19.7 x 18.4		583 x 500 x 468 / 23 x 19.7 x 18.4		880 x 500 x 468 / 34.6 x 19.7 x 18.4	
	Net weight (kg / lbs)	15 / 33.1		17.5 / 38.6		20 / 44.1	
Electrical requirements (230V, 1ph, A)		60Hz, 0.1	50Hz, 0.1	60Hz, 0.2	50Hz, 0.2	60Hz, 0.3	50Hz, 0.3
Cat. No.		**AAHB4001K**	**AAHB4002K**	**AAHB4011K**	**AAHB4012K**	**AAHB4021K**	**AAHB4022K**
Electrical requirements (120V, 1ph, A)		60Hz, 0.2		60Hz, 0.4		60Hz, 0.6	
Cat. No.		**AAHB4003U**		**AAHB4013U**		**AAHB4023U**	

※ Basic composition : Main Body, UV Lamp, Fluorescent Lamp
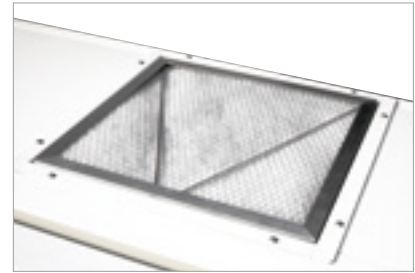
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Accessories

HEPA Filter (option)
· 99.99% efficient HEPA filter, industry standard size for economical replacement.

Electrical Socket
· For equipments used inside the workspace.

Pre Filter (1EA included)
· Easy-to-replace pre-filter for trapping larger particles and extending the life of HEPA filters.

Service Fixture (option)
· For convenient hooking up with a gas/air/vacuum source inside the workspace.

Stand with Casters (option)
· Stand with Casters : Mobile stand made of powder-coated steel ideal for easy relocation.

Differential Pressure Gauge (option-only for BC-B)
· Magnehelic differential pressure gauge measuring pressure drop across the HEPA filter to monitor its efficiency.

Filters

	Description	BC-01H/B	BC-11H/B	BC-21H/B	PW-01	PW-11	PW-21
Cat. No.	HEPA Filter	AAAB1601	AAAB1602	AAAB1603	00EDA0009219	00EDA0009220	00EDA0009221
	Pre Filter	AAAB1611	AAAB1612	AAAB1613	AAAB3511	AAAB3512	AAAB3513

Others

	Description	BC-01H/B	BC-11H/B	BC-21H/B
Cat. No.	Stand with Casters	AAAB1621	AAAB1622	AAAB1623
	Gas Cock	AAAB1561	AAAB1561	AAAB1561
	Differential Pressure Gauge (Only BC-B)	AAAB1571	AAAB1571	AAAB1571

Ductless Fume Hood

Built-in filter hood without duct connection

◢ Structural Functional Features

- Easy to move and install due to there being no duct connection.
- Filtered air circulates through the room, dramatically reducing the air conditioning costs for room air.
- Structure that allows for selection of the appropriate filter and table material according to the chemical used.
- Polyester fiber pre-filter is included as standard to maximize the life of the main filter.
- Fluorescent lamp is included to make it convenient for conducting experiments.
- Convenient utility hole for connection with external equipment is included in the back of the work surface.
- Transparent acrylic material for easy internal observation.
- Easy to move and fix the device.

◢ Use Convenience Features

- Convenient handling of equipment due to convenient front opening.
- Provides a quiet environment with minimal noise.
- Port for filter performance test provided on the front for convenient periodical validation.
- It can be used more safely by applying the fume hood monitoring system. (option)

◢ Reliability Verification Completed

Designed, manufactured and self-certified according to international standards to protect users and the environment from fumes generated during experiments.

- SPS-KACA002-132 (Korean Air Cleaning Association)
  - Applies verified composite carbon filter to remove harmful gases.
  - Completed deodorization efficiency test. (VOC, acid, base).
- ANSI / ASHRAE 110-1995, NF EN 14175-1 (U.S.A / EU)
  - Front suction wind speed measurement. (average 0.4m/s or more)
  - Maintains average surface wind speed ±20% at all measuring points.
  - Localization of air flow observation / observation of large-volume smoke flow. (no opening leakage)
  - Tracer-gas measurement, and user bodily inhalation pollution test. (less than 0.05 ppm)

DLH-01G
with Stainless Steel work surface &
Stand with Casters (option)

Main Filter
Pre-Filter
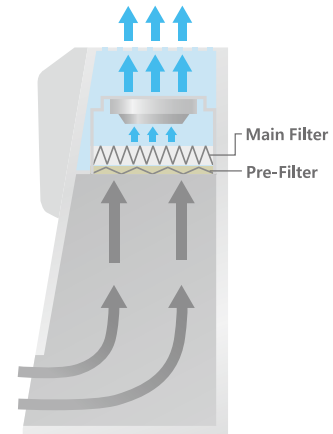
Specification

Model		DLH-01G		DLH-11G	
Air	Face velocity (m/s / fpm)	0.4 / 80 (Initial set point)		0.4 / 80 (Initial set point)	
	Main filter	Max. 2ea available		Max. 2ea available	
	Pre-Filter	Polyester fibers		Polyester fibers	
Fluorescent lamp intensity (Lux)		More than 600		More than 600	
Dimensions	Exterior with stand (mm / inch)	900 x 660 x 1985 / 35.4 x 26 x 78.1		1200 x 660 x 1985 / 47.2 x 26 x 78.1	
	Exterior without stand (mm / inch)	900 x 660 x 1250 / 35.4 x 26 x 49.2		1200 x 660 x 1250 / 47.2 x 26 x 49.2	
	Interior (mm / inch)	880 x 640 x 800 / 34.6 x 25.2 x 31.5		1180 x 640 x 800 / 46.5 x 25.2 x 31.5	
	Net weight (body) (kg / lbs)	100 / 220.5		118 / 260.1	
	Net weight (body + stand) (kg / lbs)	120 / 264.6		140 / 308.6	
Noise level (dB)		Less than 55		Less than 55	
Electrical requirements (230V, A)		50Hz, 0.6	60Hz, 0.7	50Hz, 0.6	60Hz, 0.7
Cat. No.		**AAHB2002K**	**AAHB2001K**	**AAHB2012K**	**AAHB2011K**
Electrical requirements (120V, A)		60Hz, 1.3		60Hz, 1.3	
Cat. No.		**AAHB2003U**		**AAHB2013U**	

※ Standard : Main Body, Pre-Filter, Fluorescent Lamp

JEIO TECH

Dedicated Controller

Anemometer

Front Cover

Accessories

Filters

Cat. No.	Description	Application	DLH-01G	DLH-11G
AAAB2543	Complex carbon filter	Filters a wide range of chemicals, including acid, ammonia, and aldehyde	•	-
AAAB2544			-	•
AAAB2545	Acid filter [1]	Filters acid gases such as HCI, HF, H_2S, and CH_3COOH	•	-
AAAB2546			-	•
AAAB2547	Formaldehyde filter	Filters formaldehyde, acete aldehyde, etc.	•	-
AAAB2548			-	•
AAAB2549	Ammonia / Amines filter	Filters basic gases such as NH_3, $(CH_3)_3N$, etc.	•	-
AAAB2550			-	•
00EDA0009193	HEPA filter	Filters 99.99% of toxic dust and other 0.3μm particles	•	-
00EDA0009194			-	•
00EDA0009196	Pre filter	Primarily filters particles to extend the life of other filters	•	-
00EDA0009198			-	•

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)	•	•
00EAA0001550	Gas detecting tube (benzene, GASTEC-121SP (0.5-10ppm))	•	•
00EAA0001551	Gas detecting tube (toluene, GASTEC-122L (1-100ppm))	•	•
00EAA0001552	Gas detecting tube (acetic acid, GASTEC-81L (0.125-25ppm))	•	•
00EAA0001553	Gas detecting tube (chloroform, GASTEC-137 (4-400ppm))	•	•
00EAA0001554	Gas detecting tube (formaldehyde, GASTEC-91LL (0.05-1ppm))	•	•
00EAA0001555	Gas detecting tube (ammonia, GASTEC-3L (0.5-60ppm))	•	•

Hood & Clean Bench

Fume Hood
Small type

Easy-to-use compact fume hood

PMH-720
with Fume Extraction Module (EM-33)+
Plinth-PMH (option)

◪ Structural Functional Features

- Lightweight, easy-to-move compact tabletop hood.
- Connected to the exhaust system of existing facilities or connected to a dedicated harmful gas eliminator.
- Easy to move and install if connected with exhaust system. (EM-33 or EFS-33)
- Sash door has 5 levels of height adjustment, transparent and made of solid polycarbonate material.
- Integral mold product that does not leak.

◪ Use Convenience Features

- The front and back side are made by wide transparent window (PC), useful for simulation and observing in school. (only POH models)
- The dedicated harmful gas eliminator (EM-33) or portable harmful gas eliminator (EFS-33) utilize Lab Companion's proven dedicated filter for safe removal of generated fumes, so there is no need for a separate exhaust system. (option)
- Polyethylene material ensures excellent chemical resistance and safe handling of strong acids and corrosive samples.

Front and back side Transparent window

POH-720
with Fume Extraction Module (EM-33)+
Plinth-POH (option)

Free of the harmful fume can be increased learning effects and focused observation.

Filter type | Duct type

Selecting the duct type or filter type depending on space.

Providing more flat bottom.
※ Include foot, the height will be 28mm / 1.1 inch.

Specification

Model		POH-720	PMH-720
Material	Body	Polyethylene	Polyethylene
	Door / Guide	Polycarbonate	Polycarbonate
	Observation window	O	X
Dimension	Exterior (W x D x H, mm / inch)	720 x 472 x 535 / 28.3 x 18.6 x 21.1	720 x 472 x 535 / 28.3 x 18.6 x 21.1
	Front opening (W x D, mm / inch)	560 x 320 / 22.0 x 12.6	560 x 320 / 22.0 x 12.6
	Duct hole (O.D., mm / inch)	150 / 6	150 / 6
	Net weight (kg / lbs)	12 / 26.5	12 / 26.5
Cat. No.		AAAB5021	AAAB5011

EM-33
Plinth

※ In case of using Extraction module (EM-33), one plinth is required to order.

Model	Cat.No.
Brackets for Molded Fume Hood	AAAB6411
EM-33, Extraction Module	AAAF1536
EM-33, Plinth-PMH	AAAF15363
Base Panel (1ea)	AAAM6051

Filter information for EM-33

JEIO TECH

Mobile Fume Extractor

Optimized configuration according to an usage environment

EFS-33-75D

EFS-33-75D
with Extraction Arm & Hood (option)

EFS-33-75S
with Extraction Arm & Hood (option)

EFS-33-75S
with with Extraction Arm & PMH-720

Structural Functional Features

- Excellent space utilization through compact design.
- The body has a low height (650 mm) allowing it to be placed on the bench and on the bottom part of the table.
- Easy to control wind and intuitive display of fan level. (maximum 240m³/h)
- Better safe use of chemicals with durability and spark-free BLDC motor.
- The appropriate filter is selected according to the experiment environment. (option)
- Single / Dual arm, arm diameter, and hood are selected according to the usage environment. (option)

Use Convenience Features

- Pre-filter built in to extend other filter life.
- Up to 2 filters can be installed depending on the material used. (option)
  ※ Example of filter configuration
    HEPA Filter for removing dust and carbon filter for removing/neutralizing harmful gas.
- Soft wheels for easy movement and fixing.
- Low fan speed notification when fan speed is low.
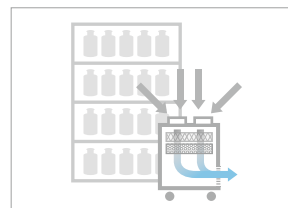
Examples Of Diverse Applications
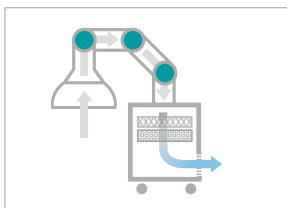
Single Arm
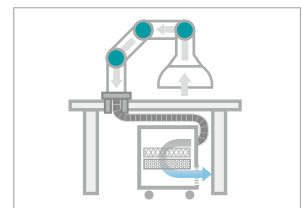General configuration for 100% suction performance.
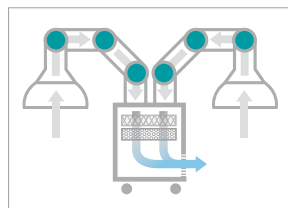
Dual Arm
Space-efficient configuration with two hoods used.

Harmful gas purifier
Purification of harmful gases and fine dust in the experiment space.

Laboratory table integral structure
Maximal space utilization with placement of the lower part of the testing bench.

Specification

Model	EFS-33-50S	EFS-33-50D	EFS-33-75S	EFS-33-75D
Adaptable Arm	Φ50 mm / 2.0 inch 1ea	Φ50 mm / 2.0 inch 2ea	Φ75 mm / 3.0 inch 1ea	Φ75 / 3.0 inch 2ea
Airflow Rate	240 m³/h			
Noise Level	60 dB			
Electric Requirement	230V, 50/60 Hz, 1.5A			
Dimension (W x D x H, mm / inch)	460 x 460 x 650 / 18.1 x 18.1 x 25.6			
Net Weight (kg / lbs)	65 /143.3			
Cat. No.	AAHB6312	AAHB6313	AAHB6314	AAHB6315

Hood & Clean Bench

Accessories

Extraction Arm

- Materials are selected according to the physical properties of the fumes and gases used.
- Diameter selected according to work type.
- Joint selected according to the working radius.

	Type	Description
Material	Polypropylene	Excellent chemical resistance
	Anodized Aluminum	Lightweight, general use
Diameter	50 mm / 2.0 inch	For fine work
	75 mm / 3.0 inch	For general work
Joint	2 Joint	Within 1 m working radius
	3 Joint	More than 1.5 m working radius

※ Check out the selection guide at **Page 192** for details.

Hood

- Φ50 hood mounted on extraction arm as standard. (selection of white or clear)
- Shape selected according to the nature of the fumes and gases used.
- Material selected according to the job type.
- Strong and chemical resistant using PP and SBC materials.

	Type	Description
Shape	Square	Square Suction of substances heavier than air on the floor
	Dome	Suction of material lighter than air from the top
Material	Polypropylene, Opaque	Simple suction
	Styrene butadiene copolymer, Transparent	Suction as work progresses

※ Check out the selection guide at **Page 193** for details.

Lab Companion's Filter Series

- The Lab Companion's carbon filter is an excellent amorphous adsorbent with a high surface area, has fine pores and is manufactured through a multi-level impregnation process.
- Made of 100% impregnated filter, it is more than twice as efficient as general filters.
- Has the efficiency of an excellent composite filter as it simultaneously performs physical adsorption and chemical adsorption.

Filter	Description	Cat. No.
Complex Carbon	Filters a wide range of chemicals, including acid, ammonia, and aldehyde.	AAAB6354
Acid	Filters acid gases such as HCl, HF, H_2S and CH_3COOH	AAAB6356
Formaldehyde	Filters formaldehyde, acete aldehyde, etc.	AAAB6358
Ammonia / Amines	Filters Basic Gases Such As NH_3, $(CH_3)_3N$, ETC.	AAAB6359
HEPA	Filters 99.99% of toxic dust and other 0.3 μm particles	AAAB6353
Pre-Filter	Primarily filters particles to extend the life of other filters.	AAAB6360

※ Select a suitable filter according to the Chemistry used.
※ For the built-in pre-filter, the Particle is filtered first to extend the life of the other filter.

Electron microscope image of Lab Companion's carbon filter

Table Bracket Set

- Bracket for fixing extraction arm to table and flexible duct hose for connecting to the main body.

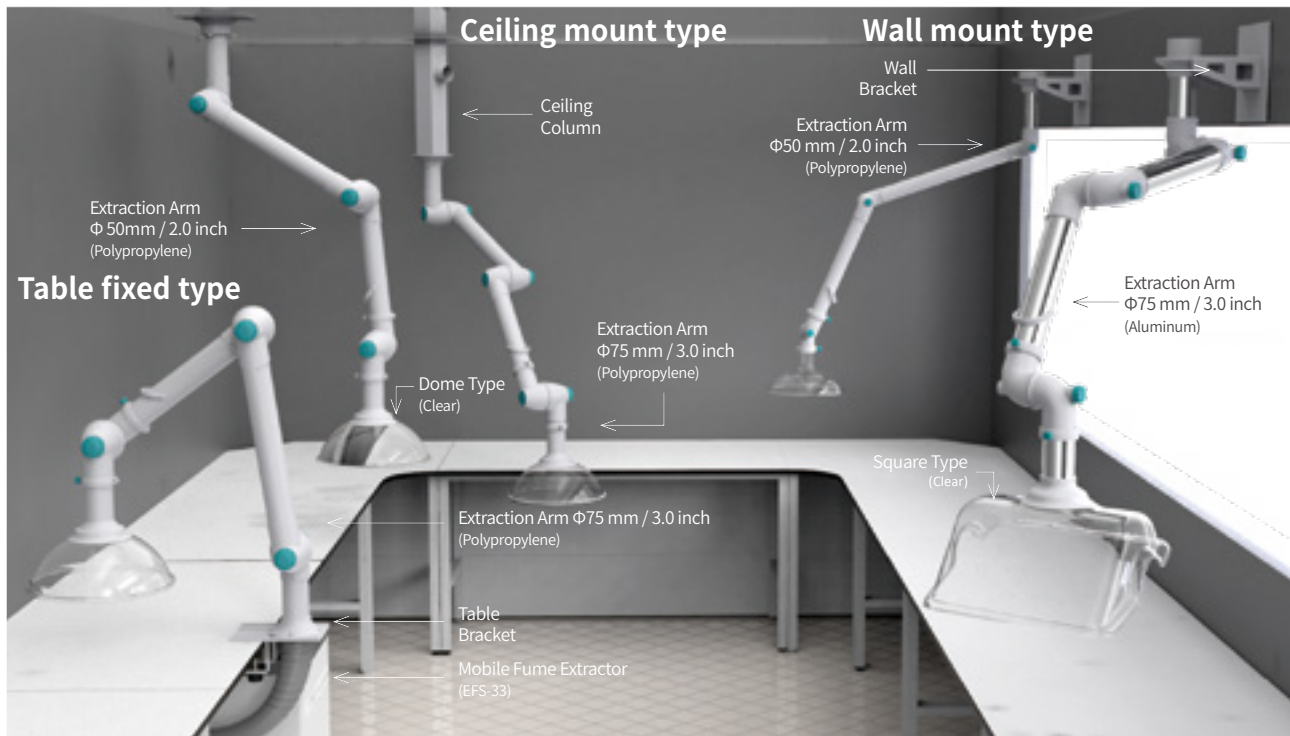| Model	Dimension (W x D x H, mm / inch)	Cat. No.
Table Bracket Set (Φ50 mm / 2.0 inch)	165 x 254 x 110 / 6.5 x 10 x 4.3	AAAB6351
Table Bracket Set (Φ75 mm / 3.0 inch)	165 x 254 x 110 / 6.5 x 10 x 4.3	AAAB6352

Gas Detector & Tubes

- Determine the exchange period by checking the status of the currently installed filter.

	Item	Cat. No.
Gas Detector	KITAGAWA AP-20	AAAB2531
Gas Detecting Tube	Benzene, GASTEC-121SP (0.5~10 ppm)	00EAA0001550
	Toluene, GASTEC-122L (1-100 ppm)	00EAA0001551
	Acetic acid, GASTEC-81L (0.125-25 ppm)	00EAA0001552
	Chloroform, GASTEC-137 (4-400 ppm)	00EAA0001553
	Formaldehyde, GASTEC-91LL (0.05-1 ppm)	00EAA0001554
	Ammonia, GASTEC-3L (0.5-60 ppm)	00EAA0001555

JEIO TECH

Extraction Arm Hood

## Direct connection to external exhaust system to remove dust and harmful gases

Ceiling mount type

Wall mount type

Wall Bracket

Extraction Arm Φ50 mm / 2.0 inch (Polypropylene)

Ceiling Column

Extraction Arm Φ 50mm / 2.0 inch (Polypropylene)

Table fixed type

Extraction Arm Φ75 mm / 3.0 inch (Aluminum)

Extraction Arm Φ75 mm / 3.0 inch (Polypropylene)

Dome Type (Clear)

Square Type (Clear)

Extraction Arm Φ75 mm / 3.0 inch (Polypropylene)

Table Bracket

Mobile Fume Extractor (EFS-33)

Structural Functional Features

- Powerful exhaust possible with central exhaust system.
- The place to install, extraction arm, hood, column, and bracket are selected according to user's working environment and usage.
- Knobs used for freely adjusting the angle of each joint.
- Easy 360-degree rotation for convenient placement to the desired point.
- Equipped with a damper that can open and close the passage of the arm and adjust the wind speed.
- A dome hood is fitted as standard on the Φ50 arm.

Product Configuration Guide

- Place and surrounding environment desired for installation.
  - Column and bracket selected to decide whether to fix arm to wall/ceiling/table in the workspace.
- Working radius.
  - 2 Joint / 3 Joint selected and the length is determined considering the access radius of the arm.
- Work type.
  - 75mm for general use and 50mm for fine work selected according to the volume to be subjected to suction.
  - In case of suction only, opaque hood / In case of inhalation during operation, transparent hood.
- Properties of used fumes and gases.
  - Polypropylene with excellent chemical resistance and anodized aluminum suitable for general use.
  - Dome hood and square hood selected considering the weight compared to air.
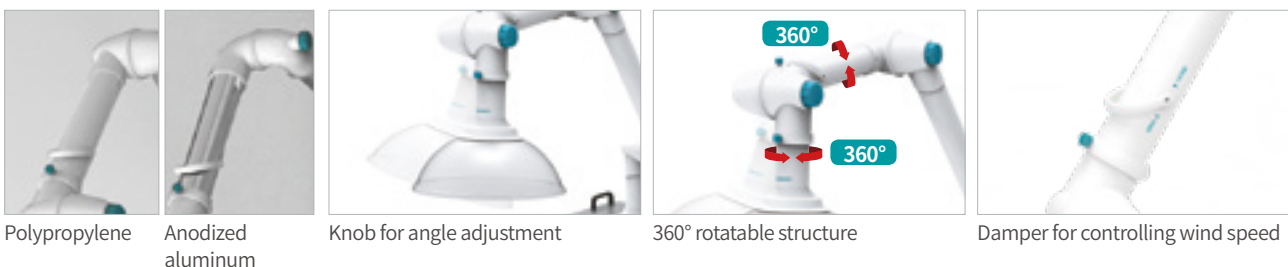
Polypropylene   Anodized aluminum

Knob for angle adjustment
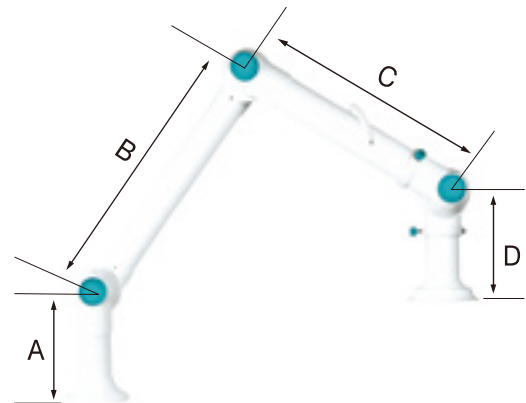
360° rotatable structure

Damper for controlling wind speed

Extraction Arm Hood

◪ Extraction Arm

	Type	Description
Material	Polypropylene	Excellent chemical resistance
	Anodized Aluminum [1]	Lightweight, General use
Diameter	50 mm	For fine work
	75 mm [2]	For general work
Joint	2 Joint	Radius 840 ~ 1140 mm / 33.1 ~ 44.9 inch
	3 Joint	Radius 1480 ~ 1780 mm / 58.3 ~ 70.1 inch

1) Weak against scratching due to the nature of the material.
2) 75mm radius used in the case of mist.

Specification

Model			Extraction Arm, Length (mm / inch)					Weight (kg / lbs)	Cat. No.
			A	B	C	D	Total		
75mm / 3.0 inch diameter, Polypropylene	2 Joints	AH-2100	250 / 9.8	N/A	530 / 20.9	260 / 10.2	1040 / 40.9	1.75 / 3.9	**AAAB6511**
	3 Joints	AH-3160	250 / 9.8	640 / 25.2	530 / 20.9	260 / 10.2	1680 / 66.1	2.4 / 5.3	**AAAB6541**
75mm / 3.0 inch diameter, Polypropylene, Ceiling mount type	2 Joints	AH-2100C	250 / 9.8	N/A	530 / 20.9	260 / 10.2	1040 / 40.9	1.75 / 3.9	**AAAB6524**
	3 Joints	AH-3160C	250 / 9.8	640 / 25.2	530 / 20.9	260 / 10.2	1680 / 66.1	2.4 / 5.3	**AAAB6542**
75mm / 3.0 inch diameter, Anodized Aluminum	2 Joints	AH-2100A	250 / 9.8	N/A	530 / 20.9	260 / 10.2	1040 / 40.9	1.9 / 4.2	**AAAB6523**
	3 Joints	AH-3160A	250 / 9.8	641 / 25.2	530 / 20.9	260 / 10.2	1680 / 66.1	2.6 / 5.7	**AAAB6533**
75mm / 3.0 inch diameter, Anodized Aluminum Ceiling mount type	2 Joints	AH75-2100AC	250 / 9.8	N/A	530 / 20.9	260 / 10.2	1040 / 40.9	1.9 / 4.2	**AAAB6526**
	3 Joints	AH75-3160AC	250 / 9.8	641 / 25.2	530 / 20.9	260 / 10.2	1680 / 66.1	2.6 / 5.7	**AAAB6537**
50mm / 2.0 inch diameter, Polypropylene	2 Joints	AH5-2110	250 / 9.8	N/A	640 / 25.2	250 / 9.8	1140 / 40.9	1.0 / 2.2	**AAAB6554**
	3 Joints	AH5-3160	250 / 9.8	642 / 25.2	540 / 21.3	250 / 9.8	1680 / 66.1	1.4 / 3.1	**AAAB6563**
50mm / 2.0 inch diameter, Polypropylene, Ceiling mount type	3 Joints	AH5-3160C	250 / 9.8	640 / 25.2	540 / 21.3	250 / 9.8	1680 / 66.1	1.4 / 3.1	**AAAB6566**

◪ Bracket & Column

- Column of suitable height is selected based on the ceiling height.
- Excellent durability due to powder coating.

Ceiling Bracket

Ceiling Column

Wall Bracket

Specification

Model	Dimension (W x D x H, mm / inch)	Suitable for (mm/inch)	Cat. No.
Ceiling Bracket	260 x 260 x 2 / 10.2 x 10.2 x 0.08	75 / 3.0	**AAAB6508**
Ceiling Column	100 x 100 x 250 / 3.9 x 3.9 x 9.8	75 / 3.0, 50 / 2.0	**AAAB6512**
	100 x 100 x 500 / 3.9 x 3.9 x 19.7		**AAAB6513**
	100 x 100 x 750 / 3.9 x 3.9 x 29.5		**AAAB6514**
	100 x 100 x 1000 / 3.9 x 3.9 x 39.4		**AAAB6515**
	100 x 100 x 1250 / 3.9 x 3.9 x 49.2		**AAAB6516**
	100 x 100 x 1500 / 3.9 x 3.9 x 59.1		**AAAB6517**
Wall Bracket	158 x 259 x 82 / 6.2 x 10.2 x 3.2	75 / 3.0	**AAAB6510**

JEIO TECH

Hood

Type		Material	Description
	Basic type	Polypropylene	• When the emission range of the source is narrow. • When the source can be collected at close range.
	Dome type (Clear)	Styrene butadiene copolymer	• When the emission range of the source is wide. • Used for capturing light gas.
	Dome type (White)	Polypropylene	
	Square type (Clear)	Styrene butadiene copolymer	• When heavy gas is collected, one side is supported on the table and used like a shield.
	Square type (White)	Polypropylene	
	Hood type (White)	Polyethylene	• Compact total hood form, securely blocking the user's gas hose.

Dome type   Square type   Hood type

Specification

Diameter	Type	Dimension	Color	Material	Cat. No.
Φ75 mm / 3.0 inch	Basic (Ø, mm / inch)	171 / 6.7	White	Polypropylene	Standard
	Dome (Ø x H, mm / inch)	400 x 140 / 15.7 x 5.5	White	Polypropylene	AAAB6221
			Clear	Styrene butadiene copolymer	AAAB6211
	Square (W x D x H, mm / inch)	494 x 390 x 245 / 19.4 x 15.4 x 9.6	White	Polypropylene	AAAB6241
			Clear	Styrene butadiene copolymer	AAAB6231
Φ50 mm / 2.0 inch	Dome (Ø x H, mm / inch)	294 x 180 / 11.6 x 7.1	White	Polypropylene	Clear Dome (Standard) (Optional White Dome)
			Clear	Styrene butadiene copolymer	

※ Ø75 Basic hood is provided as an integral part of the extraction arm and is used for suction of small volumes of material in confined spaces.
※ Ø50 Dome hood is provided as standard on the extraction arm.